

**NOTICE OF INTENT
FOR
8 STEVENS CIRCLE
WESTWOOD, MA**

**LANDSCAPE
PROJECT**

SUMMARY OF PROPOSED WORK

Rain garden

1. Total impervious surface area draining to rain garden = ~3600 ft
2. Volume of water rain garden needs to hold = ~3600 sq. ft. x .1 = 360 (1.2" of rain / 12" = .1)
3. Surface area needed for rain garden = 360/1.1 = 327 sq. ft.
4. The rain garden in Anderson's plan is 347 sq. ft.

Major Hardscape changes

- Remove front stamped concrete walkway (~415 sq. ft.)
- Remove rear stamped concrete walkway (~320 sq. ft.)
- Remove rear patio stamped concrete walkway (~210 sq. ft.)

Sub-total = ~1860 sq. ft.

- Add new circular drive (~980 sq. ft. asphalt) with tumbled gray granite cobblestone (9"x5"x5", ~1700 pieces)/polymeric sand joints

Total = ~880 sq. ft. less impervious hardscape

Other major pervious surface changes

- Remove dog run (~915 sq. ft.)
- Remove rear decking (~790 sq. ft.)
- Remove basement walkout decking (~215 sq. ft.)
- Add driveway extension (57 Bluestone Gravel, ~450 sq. ft.)
- Add 50'x30' sport court (sportcourtma.com with SportBase: A heavy-duty modular sub-base flooring system designed for the outdoors, environmentally friendly, promotes water drainage.)
- Add front natural cleft blue stone walkway with stone dust joints (~216 sq. ft.)
- Add natural cleft bluestone stepping stone path, 24"x36" (~43 pieces)
- Add retaining wall (4'h x18"w @ ~65 lf.)
- Add rain garden (~347 sq. ft.)
- Add natural cleft bluestone with stone dust joints
 - SportCourt walkway (~67 sq. ft.)
 - Pool decking walkway (~20 sq. ft.)
 - Firepit (~217 sq. ft.)
 - Rear patio (~865 sq. ft.)
 - Walk-out basement (~213 sq. ft.)



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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



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

A. General Information

1. Project Location (Note: electronic filers will click on button to locate project site):

8 Stevens Circle Westwood 02090
a. Street Address b. City/Town c. Zip Code

Latitude and Longitude:

05 089
f. Assessors Map/Plat Number g. Parcel /Lot Number

2. Applicant:

Michael O'Brien
a. First Name b. Last Name

O'Brien Construction
c. Organization

144 Winter St.
d. Street Address

Wrentham MA 02093
e. City/Town f. State g. Zip Code

508 400-5216 Mobrien@obbuilders.com
h. Phone Number i. Fax Number j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

Bryan Anderson
a. First Name b. Last Name

c. Organization

21 Stonecrest Dr
d. Street Address

Norfolk MA
e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email address

4. Representative (if any):

a. First Name b. Last Name

c. Company

d. Street Address

e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email address

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

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



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A. General Information (continued)

6. General Project Description:

New Landscaping, patios, sport court & Drive Extension

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other

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

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Norfolk
 a. County
35758
 c. Book

b. Certificate # (if registered land)
181
 d. Page Number

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

- 1. Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- 2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1 linear feet	2 linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1 square feet	2 square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1 square feet 3 cubic yards dredged	2 square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1 square feet 3 cubic feet of flood storage lost	2 square feet 4 cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1 square feet 2 cubic feet of flood storage lost	3 cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1 Name of Waterway (if available) - specify coastal or inland	

2 Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

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

4 Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

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

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

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

Note: for coastal riverfront areas, please complete Section B.2.f. above.



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 Bureau of Resource Protection - Wetlands

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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet _____	
	2. cubic yards dredged _____	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet _____	2. cubic yards beach nourishment _____
e. <input type="checkbox"/> Coastal Dunes	1. square feet _____	2. cubic yards dune nourishment _____

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. <input type="checkbox"/> Coastal Banks	1. linear feet _____	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet _____	
h. <input type="checkbox"/> Salt Marshes	1. square feet _____	2. sq ft restoration, rehab. creation _____
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet _____	
	2. cubic yards dredged _____	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet _____	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged _____	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet _____	

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

_____ a. square feet of BVW

_____ b. square feet of Salt Marsh

5. Project Involves Stream Crossings

_____ a. number of new stream crossings

_____ b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Notice of Intent – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

a Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

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

8/1/17
b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); OR complete Section C.1.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

c. Submit Supplemental Information for Endangered Species Review*

- 1 Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____ percentage/acreage

(b) outside Resource Area _____ percentage/acreage

- 2 Assessor's Map or right-of-way plan of site

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **

(a) Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) Photographs representative of the site

* Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands & Waterways
BRP WPA Form 3 - Notice of Intent
Instructions and Supporting Materials

TOWNS WITH ACECs WITHIN THEIR BOUNDARIES

Town	ACEC NAME	Town	ACEC NAME
Ashby	Squannassit	Lunenburg	Squannassit
Ayer	Petapawag and Squannassit	Lynn	Rumney Marshes
Barnstable	Sandy Neck/Barnstable Harbor	Mansfield	Canoe River Aquifer
Bolton	Central Nashua River Valley	Mashpee	Waquoit Bay
Boston	Rumney Marshes	Melrose	Golden Hills
	Fowl Meadow and Ponkapoag Bog	Milton	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary		Neponset River Estuary
Bourne	Pocasset River	Mt Washington	Karner Brook Watershed, Schenob Brook
	Herring River Watershed		Parker River/Essex Bay
	Bourne Back River	Newbury	Hockomock Swamp
Braintree	Cranberry Brook Watershed	Norton	Canoe River Aquifer
Brewster	Pleasant Bay, Inner Cape Cod Bay		Fowl Meadow and Ponkapoag Bog
Bridgewater	Hockomock Swamp	Norwood	Inner Cape Cod Bay, Pleasant Bay
Canton	Fowl Meadow and Ponkapoag Bog	Orleans	Petapawag and Squannassit
Chatham	Pleasant Bay	Pepperell	Hinsdale Flats Watershed
Cohasset	Weir River	Peru	Herring River Watershed, Ellisville Harbor
Dalton	Hinsdale Flats Watershed	Plymouth	Neponset River Estuary
Dedham	Fowl Meadow and Ponkapoag Bog	Quincy	Fowl Meadow and Ponkapoag Bog
Dunstable	Petapawag	Randolph	Hockomock Swamp
Eastham	Inner Cape Cod Bay	Raynham	Rumney Marshes
	Wellfleet Harbor	Revere	Parker River/Essex Bay
Easton	Canoe River Aquifer	Rowley	Sandy Neck/Barnstable Harbor
	Hockomock Swamp	Saugus	Rumney Marshes, Golden Hills
Egremont	Karner Brook Watershed	Sharon	Canoe River Aquifer
Essex	Parker River/Essex Bay		Fowl Meadow and Ponkapoag Bog
Falmouth	Waquoit Bay	Sheffield	Schenob Brook
Foxborough	Canoe River Aquifer	Shirley	Squannassit
Gloucester	Parker River/Essex Bay	Stockbridge	Kampoosa Bog Drainage Basin
Groton	Petapawag and Squannassit	Taunton	Hockomock Swamp, Canoe River Aquifer
Grafton	Miscoe-Warren-Whitehall Watersheds	Townsend	Squannassit
Harvard	Central Nashua River Valley	Truro	Wellfleet Harbor
	Squannassit	Tyngsborough	Petapawag
Harwich	Pleasant Bay	Upton	Miscoe-Warren-Whitehall Watersheds
Hingham	Weir River, Weymouth Back River	Wakefield	Golden Hills
Hinsdale	Hinsdale Flats Watershed	Washington	Hinsdale Flats Watershed
Holbrook	Cranberry Brook Watershed	Wellfleet	Wellfleet Harbor
Hopkinton	Westborough Cedar Swamp	W Bridgewater	Hockomock Swamp
	Miscoe-Warren-Whitehall Watersheds	Westborough	Westborough Cedar Swamp
Hull	Weir River	Westwood	Fowl Meadow and Ponkapoag Bog
Ipswich	Parker River/Essex Bay	Weymouth	Weymouth Back River
Lancaster	Central Nashua River Valley	Winthrop	Rumney Marshes
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
Leominster	Central Nashua River Valley		



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands & Waterways
BRP WPA Form 3 - Notice of Intent
Instructions and Supporting Materials

Instructions to Section F: Signatures and Submittal Requirements

Signatures and Submittal Requirements. Follow the filing instructions in Section F of the Notice of Intent. For additional filing requirements, see Section D of these instructions, above. The original Notice of Intent and a copy must be sent, by certified mail or hand delivery, to the Conservation Commission. At the same time the original Notice of Intent is submitted to the commission, one copy of the Notice of Intent must be sent to the appropriate MassDEP Regional Office (see <http://www.mass.gov/eea/agencies/massdep/about/contacts/>) by certified mail or hand delivery. Failure by the applicant to send the copies in a timely manner may result in dismissal of the Notice of Intent application.

Mail transmittal forms and MassDEP payments, payable to:

Commonwealth of Massachusetts
Department of Environmental Protection
Box 4062
Boston, MA 02211



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C. Other Applicable Standards and Requirements (cont'd)

(c) MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/ mesa/ mesa_fee_schedule.htm). Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

(d) Vegetation cover type map of site

(e) Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. Project is exempt from MESA review. Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. Separate MESA review ongoing. a. NHESP Tracking # _____ b. Date submitted to NHESP _____

3. Separate MESA review completed. Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

a. Not applicable – project is in inland resource area only b. Yes No

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

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694
Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.



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C. Other Applicable Standards and Requirements (cont'd)

Online Users:
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
 a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
 b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
 a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
 a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
 a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
 1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
 b. No. Check why the project is exempt:
 1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

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

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

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



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D. Additional Information (cont'd)

3 Identify the method for BWV and other resource area boundary delineations (MassDEP BWV Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4 List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title

b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5 If there is more than one property owner, please attach a list of these property owners not listed on this form.

6 Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7 Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8 Attach NOI Wetland Fee Transmittal Form

9 Attach Stormwater Report, if needed.

E. Fees

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

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

2. Municipal Check Number
11833

3. Check date
6-26-18

4. State Check Number
11832

5. Check date
6-26-18

6. Payor name on check: First Name

7. Payor name on check: Last Name



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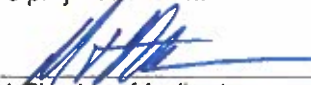

Document Transaction Number

City/Town

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant	2. Date
	6-26-18
3. Signature of Property Owner (if different)	4. Date
	6-26-18
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

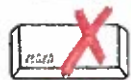
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

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



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NOI 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:

8 Stevens Circle

a. Street Address

Westwood MA

b. City/Town

110 - / \$42.50 to State

d. Fee amount

c. Check number

2. Applicant Mailing Address:

Michael

a. First Name

O'Brien

b. Last Name

O'Brien Construction

c. Organization

111 Winter St.

d. Mailing Address

Wrentham

e. City/Town

MA

f. State

02093

g. Zip Code

508-400-5216

h. Phone Number

i. Fax Number

mobrien@obebuilders.com

j. Email Address

3. Property Owner (if different):

Bryan

a. First Name

Anderson

b. Last Name

c. Organization

21 Stonecrest Drive

d. Mailing Address

Needham

e. City/Town

MA

f. State

02492

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).



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B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
1A	1		\$ 110-

Step 5/Total Project Fee: \$ 110-

Step 6/Fee Payments:

Total Project Fee: \$ 110-

State share of filing Fee: 42.50

City/Town share of filling Fee: 67.50

a. Total Fee from Step 5

b. 1/2 Total Fee less \$12.50

c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a copy of this form; and a copy of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

BOARD OF ASSESSORS
580 High St.
Westwood, Ma. 02090
Fax: 781-251-2588

ABUTTERS LIST REQUEST
Please allow 10 business days for final list

PARCEL REQUESTED: 8 Stevens Circle
RECORD OWNER: Bryan Anderson
FOR WHICH BOARD: Conservation Commission
REASON FOR REQUEST: Proposing work within 100 feet of wetland
PROJECT TYPE: Landscaping
CONTACT PERSON: Michael O'Brien
TELEPHONE NUMBER: 508-400-5216
SIGNATURE: [Signature] DATE: 6-25-18

* Forward this completed request to the Assessor's Office ASAP
Upon receipt of the certified abutter's list - send abutter's notification (next sheet) to
all abutters.

* Abutters within 300 feet

Worksheet for Fees
Westwood Wetlands Bylaw – Article 18
(in Addition to DEP filing Fees)

Applicant: Michael O'Brien
 Address: 144 Winter St., Wrentham, MA
 Location of Project: 8 Stearns Cir.

Notice of Intent

- | | | |
|---|----------|--|
| 1. Minor project | <u>1</u> | \$100.00 |
| 2. Major project | _____ | \$250.00 plus \$1.00 additional sq ft |
| 3. New single family home | _____ | \$500.00 plus \$1.00 per 10 sq ft of disturbance |
| 4. Subdivision road and utility | _____ | \$750.00 plus \$5.00 per road sideline in resource or buffer zone |
| 5. Drainage detention/retention | _____ | \$750.00 plus \$1.00 per 10cf of basin in resource or buffer zone |
| 6. Multiple Dwelling | _____ | \$500.00 plus \$100.00/unit and \$1.00 per 10 sq ft of disturbance |
| 7. Commercial institutional, industrial | _____ | \$750.00 plus \$1.00 per 10 sq ft of disturbance |
| 8. Request for Det. of Applicability | _____ | <u>a \$100</u> |
| 9. ANORAD | _____ | \$750.00 plus \$1.00 per 10 sq ft of disturbance |
| 10. Application filed after enforcement | _____ | Double application fees |
| 11. Amendments | _____ | \$100.00 |
| 12. Certificate of Compliance | | |
| Residence | _____ | \$100.00 |
| Non Residence | _____ | \$100.00 |
| Commercial or subdivision | _____ | \$200.00 |
| 13. Emergency Certificate | _____ | \$100.00 |
| 14. Agent Site Visit | | |
| Resident | _____ | \$25.00 per hour |
| Non Resident | _____ | \$45.00 per hour |

Total \$ 100⁰⁰

See Westwood Wetlands Protection Bylaw Regulations for more detail.



TOWN OF WESTWOOD
BOARD OF ASSESSORS

580 High St.
Westwood, MA 02090

Maureen H. Bleday
Philip N. Shapiro
Mark F. Murphy

phone: 781-326-1904
fax: 781-251-2588

June 26, 2018

Karon Catrone, Conservation Agent
50 Carby St.
Westwood, MA 02090

Dear Karon,
Attached are the list of abutters and abutters to abutters within 300' of the locus,

- *8 Stevens Circle also known as Map 05 Lot 089*

This list reflects owners of record as of January 1, 2018 or current owners, according to our records.

Sincerely,

Mark Murphy
Assessor

MM/jb

NOTICE TO ABUTTERS
Under the Massachusetts Wetlands Protection Act and
Article 18, Westwood Wetland By-law

Notice of Intent

The Westwood Conservation Commission will hold a public hearing, under M.G.L.,
Chapter 131, Section 40 and Article 18 of the Town of Westwood General Bylaws on

Date: 7-25-18

Time: 7:00 pm.

Place: 50 Carby Street, Westwood, MA
Champagne Meeting Room

A permit is requested by Michael O'Brien
(name of applicant)

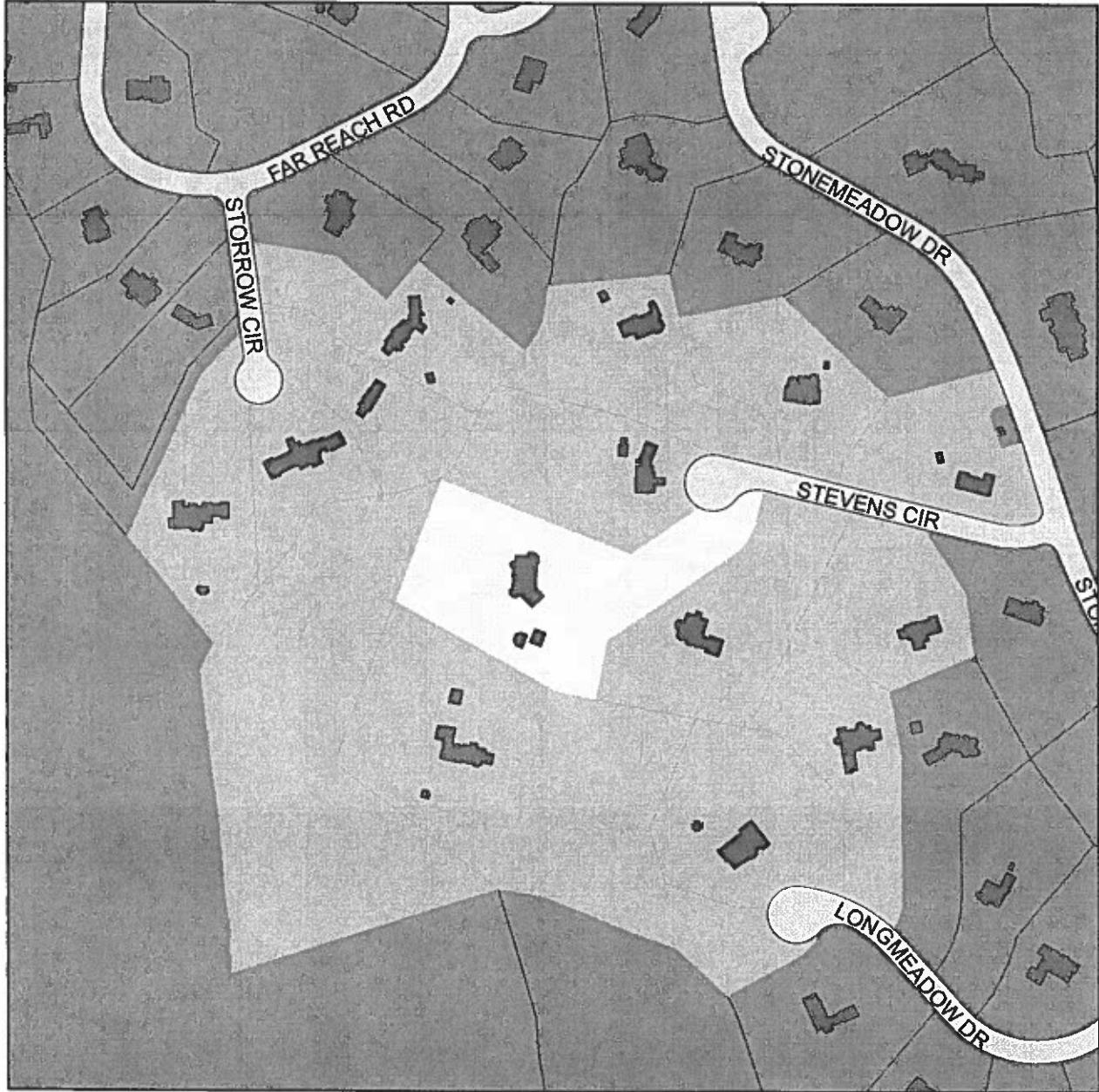
144 Winter St. Wrentham MA
(address of applicant)

The project is located at 8 Stevens Circle Westwood MA
(Location of project)

A complete copy of this filing is available to the public at the Office of the Town Clerk.
Notice of the Conservation Commission meeting is posted in the Town Hall not less than
48 hours in advance as required by Open Meeting Law.

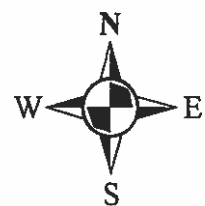
Westwood Conservation Commission

ABUTTERS WITHIN 300 ' OF 8 STEVENS CIRCLE



MAP 05 LOT 089

VISION APPRAISAL TECHNOLOGY



ABUTTERS LIST FOR STEVENS CIRCLE
WESTWOOD, MA

MAP & LOT	OWNER	CO-OWNER	Mailing Address	City	St Zip	Location
04008	ELIZONDO MARGARET D		37 STORROW CIR	WESTWOOD	MA 02090	37 STORROW CIR
04009	SHAO XIAOLONG	LIAN XUE	38 STORROW CIR	WESTWOOD	MA 02090	38 STORROW CIR
04010	BISHOP PAUL C	THERESA B	28 STORROW CIR	WESTWOOD	MA 02090	28 STORROW CIR
04011	BERLUTI JAMES A	CAROLYN S T/E	18 STORROW CIRCLE	WESTWOOD	MA 02090	18 STORROW CIR
05079	LAYTON JOHN R	PAMELA LAYTON	26 LONGMEADOW DR	WESTWOOD	MA 02090	26 LONGMEADOW DR
05080	VISHWANATH VIJAY	GITA IYER	23 LONGMEADOW DR	WESTWOOD	MA 02090	23 LONGMEADOW DR
05081	YANOFF ANDREA L		21 LONGMEADOW DR	WESTWOOD	MA 02090	21 LONGMEADOW DR
05087	LAZOR JOHN B	MARISSA A LAZOR	4 STEVENS CIR	WESTWOOD	MA 02090	4 STEVENS CIR
05088	CUNNINGHAM PAUL G	JANIS G CUNNINGHAM	6 STEVENS CIR	WESTWOOD	MA 02090	6 STEVENS CIR
05089	ANDERSON BRYAN W	APRIL S ANDERSON	8 STEVENS CIR	WESTWOOD	MA 02090	8 STEVENS CIR
05090	HALE RESERVATION, INC.		80 CAREY ST	WESTWOOD	MA 02090	REAR STEVENS CIR
05091	10 STEVENS CIRCLE NOMINEE	TIMOTHY M & CHRISTINE M A	10 STEVENS CIR	WESTWOOD	MA 02090	10 STEVENS CIR
05092	STANKARD JOHN A	MARCIA C STANKARD	7 STEVENS CIR	WESTWOOD	MA 02090	7 STEVENS CIR
05093	ANTONELLI DAVID A	LISA M ANTONELLI	5 STEVENS CIR	WESTWOOD	MA 02090	5 STEVENS CIR
05094	GOODE EMILY A		3 STEVENS CIR	WESTWOOD	MA 02090	3 STEVENS CIR



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender
 Michael O'Brien
 144 Winter St.
 Wrentham MA 02093

U.S. POSTAGE
 WESTWOOD, MA
 JUN 27, 18
 AMOUNT
\$5.60
 R2305E125701-10

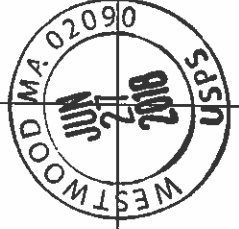


0000

TOTAL NO. of Pieces Listed by Sender
 of Pieces Received at Post Office™

Postmaster, per (name of receiving employee)

USPS® Tracking Number	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
05/ 091/ / /	10 STEVENS CIRCLE NOMINEE TRUST TIMOTHY M & CHRISTINE M ADAMS TRU 10 STEVENS CIR WESTWOOD, MA 02090				
04/ 008/ / /	ELIZONDO MARGARET D 37 STORROW CIR WESTWOOD, MA 02090				
05/ 087/ / /	LAZOR JOHN B MARISSA A LAZOR 4 STEVENS CIR WESTWOOD, MA 02090				
05/ 094/ / /	GOODE EMILY A 3 STEVENS CIR WESTWOOD, MA 02090				
05/ 093/ / /	ANTONELLI DAVID A LISA M ANTONELLI 5 STEVENS CIR WESTWOOD, MA 02090				





Certificate of Mailing — Firm (Domestic)

Name and Address of Sender

Michael O'Brien
144 Winter St.
Wenham MA 02093

TOTAL NO. of Pieces Listed by Sender

TOTAL NO. of Pieces Received at Post Office™

Affix Stamp Here
Postmark with Date of Receipt.

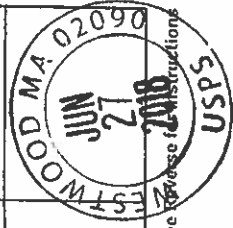
Postmaster, per (name of receiving employee)

USPS® Tracking Number
Firm-specific Identifier

Address
(Name, Street, City, State, and ZIP Code™)

Postage Fee Special Handling Parcel Airlift

05/ 088/ / /	CUNNINGHAM PAUL G				
	JANIS G CUNNINGHAM				
	6 STEVENS CIR				
	WESTWOOD, MA 02090				
05/ 080/ / /	VISHWANATH VIJAY				
	GITA IYER				
	23 LONGMEADOW DR				
	WESTWOOD, MA 02090				
04/ 011/ / /	BERLUTI JAMES A				
	CAROLYN S T/E				
	18 STORROW CIRCLE				
	WESTWOOD, MA 02090				
04/ 010/ / /	BISHOP PAUL C				
	THERESA B				
	28 STORROW CIR				
	WESTWOOD, MA 02090				
05/ 090/ / /	HALE RESERVATION, INC.				
	80 CARBY ST				
	WESTWOOD, MA 02090				



See Reverse for Instructions



Certificate of Mailing — Firm (Domestic)

Name and Address of Sender

*Michael O'Brien
144 Winter St.
Wentham MA 02093*

TOTAL NO.
of Pieces Listed by Sender

TOTAL NO.
of Pieces Received at Post Office™

Affix Stamp Here
Postmark with Date of Receipt.

Postmaster, per (name of receiving employee)

USPS® Tracking Number
Firm-specific Identifier

Address
(Name, Street, City, State, and ZIP Code™)

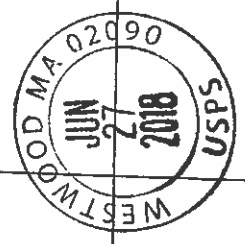
Parcel Airlift

Special Handling

Fee

Postage

05/ 079/ / /	LAYTON JOHN R					
	PAMELA LAYTON					
	26 LONGMEADOW DR					
	WESTWOOD, MA 02090					
05/ 081/ / /	YANOFF ANDREA L					
	21 LONGMEADOW DR					
	WESTWOOD, MA 02090					
05/ 092/ / /	STANKARD JOHN A					
	MARCIA C STANKARD					
	7 STEVENS CIR					
	WESTWOOD, MA 02090					
04/ 009/ / /	SHAO XIAOLONG					
	LIAN XUE					
	38 STORROW CIR					
	WESTWOOD, MA 02090					



See Reverse for Instructions

**LEGAL NOTICE OF PUBLIC HEARING
Massachusetts Wetlands Protection Act
And**

Westwood Wetlands Protection By-law, Chapter 392

The Westwood Conservation Commission will hold a public hearing, under M.G.L., Chapter 131, Section 40 and Chapter 392 of Westwood General Bylaws on:

Date: July 25, 2018

Time: 7:00 pm

Place: 50 Carby Street

A permit is requested by Michael O'Brien

Address – 144 Winter Street, Wrentham, MA 02093

The project is located at 8 Steven Circle, Westwood, MA 02090. The applicant is proposing the landscaping, driveway extension, patio and sport court within the 100 foot buffer zone to a resource area.

A complete copy of this filing is available to the public at the Office of the Town Clerk. Notice of the Conservation Commission meeting is posted in Town Hall not less than 48 hours in advance as required by Open Meeting Law.

Westwood Conservation Commission

Please bill – Michael O'Brien

Address – 144 Winter Street, Wrentham, MA 02093

Phone –508-400-5216

TOWN OF WESTWOOD

Commonwealth of Massachusetts

Joseph E. Previtera, Chairman
Leo J. Crowe
Eugene E. Eimes
Barry D. Hoffman
John C. Masterson



Christopher Poreta
Richard P. Thompson
Suzanne R. Wall, Associate
Anne T. Cacigar, Associate

CONSERVATION COMMISSION

TIME WAIVER REQUIREMENT


Westwood Conservation Commission
Westwood Town Hall
High Street
Westwood, MA 02090

Dear Commissioners:

I hereby waive the benefit of the time requirements set forth in Chapter 131 §40, (Wetlands Protection Act) of the Massachusetts General Laws, 310 CMR 10.00 Regulations, and the Town of Westwood Wetlands Protection By-Law, which require the Conservation Commission to convene a hearing and issue a Determination or Order within the time periods specified therein.

The public hearing shall be scheduled for the next available time slot on the meeting agenda upon receipt of the filing of a complete *Notice of Intent* or *Request for Determination of Applicability*.

The *Order of Conditions* or *Determination of Applicability* shall be issued within 45 days of the close of the public hearing.



Applicant's or Representative's
Signature

6-26-18
Date

Applicant's Name: Michael O'Brien
Project Location: 8 Stevens Circle Westwood
Project Type: Landscaping, Driveway, & sportcourt

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **EcoTec, Inc.** Prepared by: **Westwood, Stevens Circle** Project location: **Westwood, 8 Stevens Circle** DEP File #:

- Check all that apply:
- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
 - Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
 - Method other than dominance test used (attach additional information)

Section I. Vegetation		Observation Plot Number: B-3	Transect Number: Up	Date of Delineation: 06/22/2018
A. Sample Layer and Plant Species # (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #

Tree	Red Maple Northern Red Oak White Oak	50 25 20	53 26 21	Yes Yes Yes	FAC* FACU- FACU-
Climbing Woody Vine	Common Greenbrier	20	100	Yes	FAC*
Sapling	Red Maple Sassafras	10 10	50 50	Yes Yes	FAC* FACU-
Shrub	Sweet Pepper-bush American Witch-hazel	50 20	71 29	Yes Yes	FAC+* FAC-
Ground Cover	Sweet Pepper-bush	20	100	Yes	FAC+*

* Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).
 * Use an asterisk to mark wetland indicator plants; plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:
 Number of dominant wetland indicator plants: **5** Number of dominant non-wetland indicator plants: **4**
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? **Yes**

TRANSECT B43 UP (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
 map number: -
 soil type mapped: -
 hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-4	10 YR 3/1 Loam	-
B	4-16	10 YR 5/6 Sandy Loam	-

Remarks: Terminated at 16 inches; groundwater not encountered.

3. Other: -

Conclusion: Is soil Hydric? No

Other Indications of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BWV: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	yes	no
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present:		
hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BWV	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: **EcoTec, Inc.** Prepared by: **Westwood, 8 Stevens Circle** Project location: **Westwood, 8 Stevens Circle** DEP File #:

- Check all that apply:
- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
 - Vegetation and other indications of hydrology used to delineate BVW boundary: fill out Sections I and II
 - Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: **B-43** Transect Number: **Wet** Date of Delineation: **06/22/2018**

A. Sample Layer and Plant Species #
(by common/scientific name)

	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category * #
Tree	85	85	Yes	FAC*
Red Maple	15	15	No	FACU-
Northern Red Oak				
Climbing Woody Vine	40	100	Yes	FAC*
Common Greenbrier				
Shrub	60	100	Yes	FAC+*
Sweet Pepper-bush				
Ground Cover	20	100	Yes	FAC+*
Sweet Pepper-bush				

* Plant Taxonomy and Wetland Indicator Category from "National List of Plant Species that Occur in Wetlands: Massachusetts" (Fish & Wildlife Service, U.S. Department of the Interior, 1988) as required by 310 CMR 10.55(2)(c).
 * Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW, FACW+, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusions:

Number of dominant wetland indicator plants: **4** Number of dominant non-wetland indicator plants: **0**
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? **Yes**

TRANSECT B43 WET (CONT.)

Section II. Indicators of Hydrology

1. Soil Survey

Is there a published soil survey for this site? -

title/date: -
 map number: -
 soil type mapped: -
 hydric soil inclusions: -

Are field observations consistent with soil survey? -

Remarks: -

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottle Color
A	0-8	10 YR 2/1 Mucky Loam	-
B	8-16	10 YR 5/2 Sandy Loam	7/5 YR 5/6

Remarks: Terminated at 16 inches.

3. Other: -

Conclusion: Is soil Hydric? Yes

Other Indications of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: 12 inches
- Depth to soil saturation in observation hole: 6 inches
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion

	yes	no
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present:		
hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.

National Flood Hazard Layer FIRMette



42°14'45.85"N



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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
- Regulatory Floodway Zone AE, AO, AH, AV, AR

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 Levees. See Notes. Zone X
- Area with Flood Risk due to Levees Zone D

OTHER AREAS

- Area of Minimal Flood Hazard Zone X
- Effective LOMIRs
- Area of Undetermined Flood Hazard Zone I

GENERAL STRUCTURES

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

OTHER FEATURES

- 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

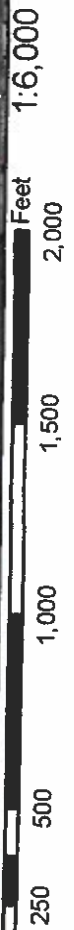
MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/22/2018 at 10:45:16 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.

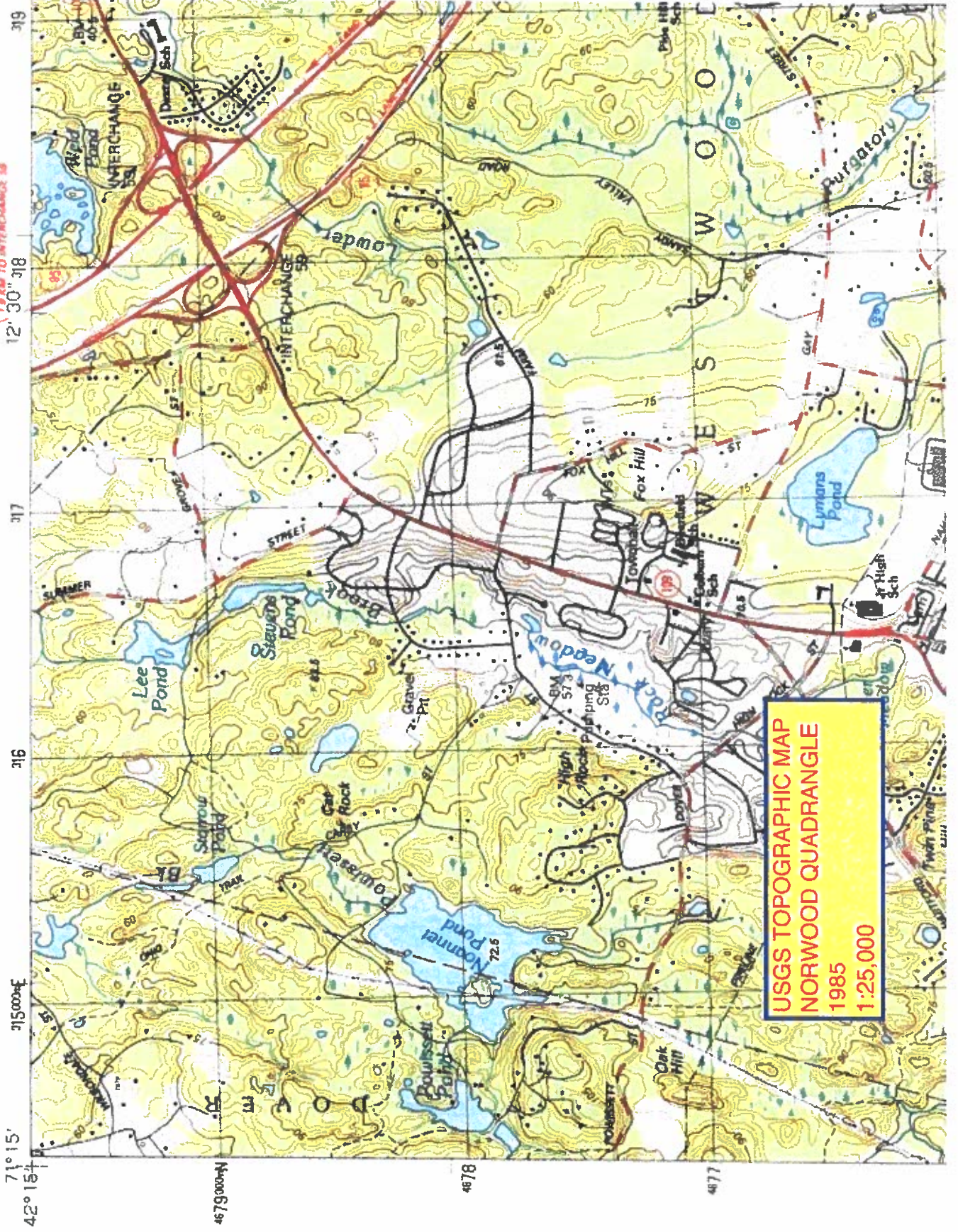
This map image is void if the one or more of the following map elements do not appear: base map imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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



42°14'19.22"N

71°13'23.00"W

NORWOOD, MASSACHUSETTS



StreamStats Report

Region ID:

Workspace ID:

Clicked Point (Latitude, Longitude):

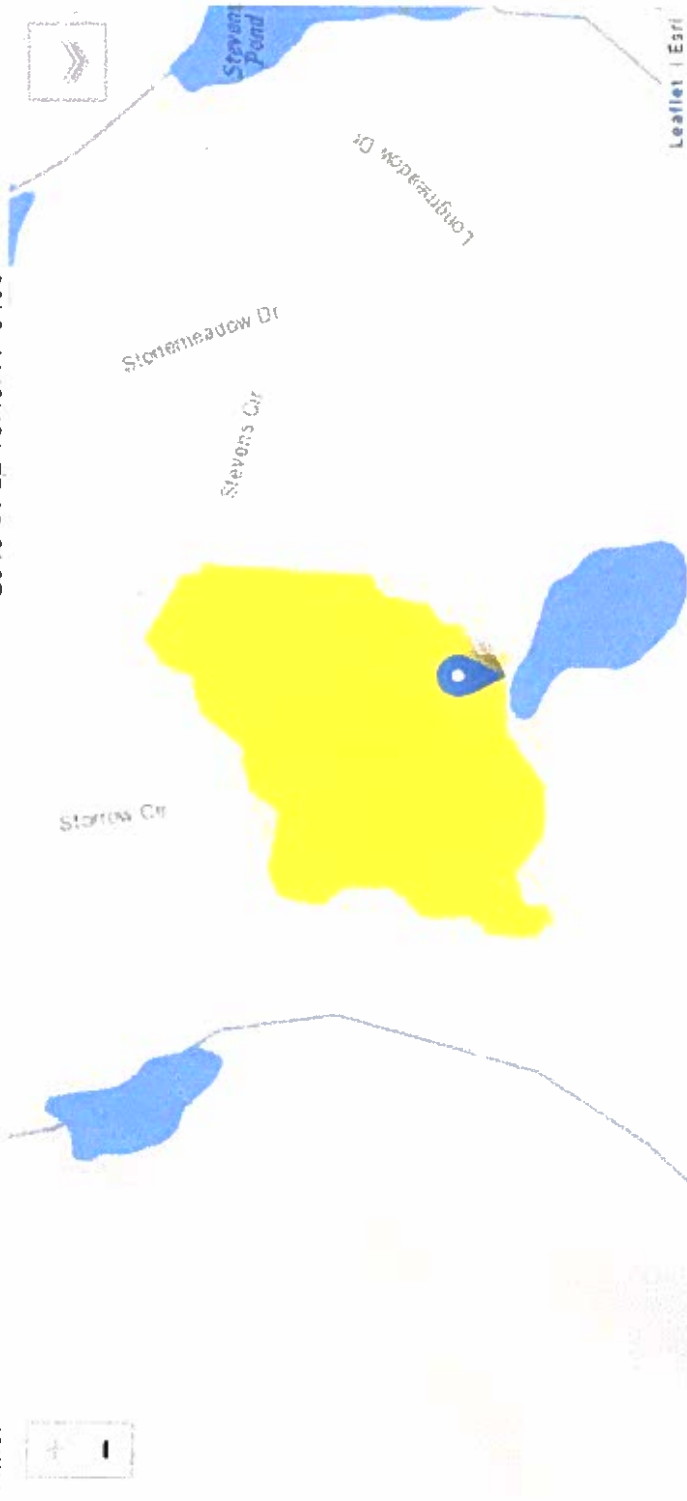
Time:

MA

MA2018062222452877000C

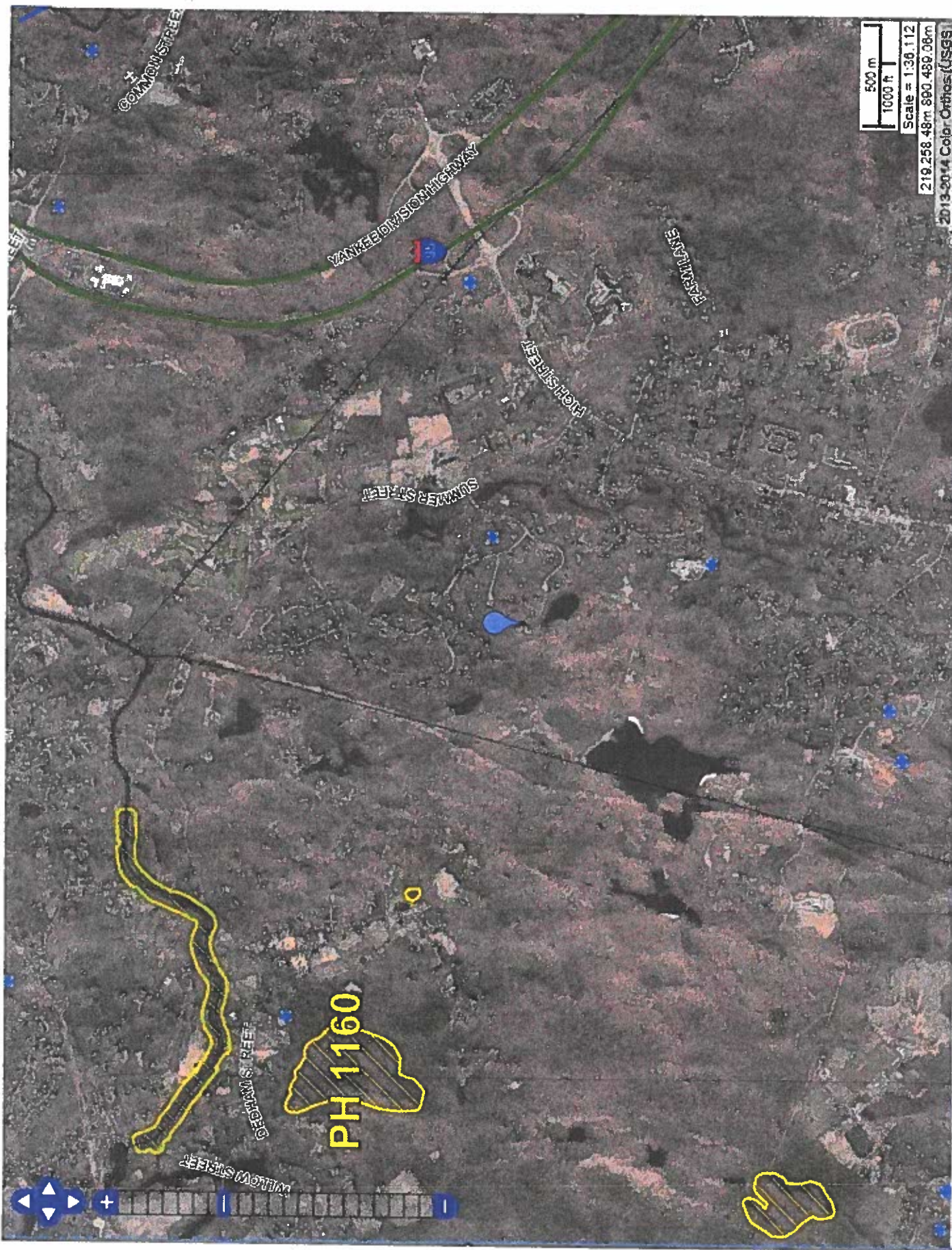
42.23993, -71.22989

2018-06-22 18:45:44 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.0405	square miles



COMMON STREET

YANKEE DIVISION HIGHWAY

STATE ST

WINDY HILL

SUMMIT STREET

WINDY HILL

PH 1160

500 m
1000 ft

Scale = 1:30,112

219,258.48m 890,499.08m

2019-2014 Color Ortho (USGS)



EcoTec, Inc.
ENVIRONMENTAL CONSULTING SERVICES
102 Grove Street
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

June 25, 2018

Mr. Michael O'Brien
8 Saddle Ridge Way
Norfolk, MA 02056

RE: Wetland Resource Evaluation, 8 Stevens Circle, Westwood, Massachusetts

Dear Mr. O'Brien:

On June 22, 2018, EcoTec, Inc. inspected the above-referenced property for the presence of wetland resources as defined by: (1) the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the "Act") and its implementing regulations (310 CMR 10.00 *et seq.*; the "Regulations"); (2) the Town of Westwood Wetlands Protection Bylaw (the "Bylaw") and associated regulations (the "Bylaw Regulations"); and (3) the U.S. Clean Water Act. John P. Rockwood, Ph.D., PWS conducted the inspection.

The subject site consists of a 4.1±-acre parcel located to the southwest of the terminus of Stevens Circle in northwestern Westwood, Massachusetts. The central portion of the site is developed with an existing single-family house, a long paved driveway, pool with pool house and patio, walkways, outbuilding, fenced dog-run, and associated lawn and landscaping. The upland portions of the periphery of the site consist of upland forest. Plant species observed include northern red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), black birch (*Betula lenta*), and sassafras (*Sassafras albidum*) trees, saplings, and/or shrubs; oriental bitter-sweet (*Celastrus orbiculata*), Virginia creeper (*Parthenocissus quinquefolia*), and common greenbrier (*Smilax rotundifolia*) climbing woody vines; American witch-hazel (*Hamamelis virginiana*), highbush blueberry (*Vaccinium corymbosum*), deerberry (*Vaccinium stamineum*), eastern red cedar (*Juniperus virginiana*), American hazel-nut (*Corylus americana*), sweet pepper-bush (*Clethra alnifolia*), and maple-leaf viburnum (*Viburnum acerifolium*) shrubs; and lowbush blueberry (*Vaccinium angustifolium*), wild sarsaparilla (*Aralia nudicaulis*), tree clubmoss (*Lycopodium obscurum*), hayscented fern (*Dennstaedtia punctilobula*), teaberry (*Gaultheria procumbens*), feather false-Solomon's-seal (*Smilacina racemosa*), wild-lily-of-the-valley (*Maianthemum canadense*), upland sedge (*Carex pensylvanica*), and Indian pipe (*Monotropa uniflora*) ground cover. The wetland resources observed on the site are described below.

Methodology

The site was inspected, and areas suspected to qualify as wetland resources were identified. The boundary of Bordering Vegetated Wetlands was delineated in the field in accordance with

the definition set forth in the regulations at 310 CMR 10.55(2)(c). Section 10.55(2)(c) states that "The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist." The methodology used to delineate Bordering Vegetated Wetlands is further described in: (1) the BVW Policy "BVW: Bordering Vegetated Wetlands Delineation Criteria and Methodology," issued March 1, 1995; and (2) "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act: A Handbook," produced by the Massachusetts Department of Environmental Protection, dated March 1995. Isolated Vegetated Wetlands were delineated based upon Bylaw criteria: predominance of wetland plant species and presence of active hydric soils. The plant taxonomy used in this report is based on the *National List of Plant Species that Occur in Wetlands: Massachusetts* (Fish and Wildlife Service, U.S. Department of the Interior, 1988). Bylaw and federal wetlands were presumed to have boundaries conterminous with the delineated Bordering Vegetated Wetlands; federal wetlands were presumed to have boundaries conterminous with the delineated Isolated Vegetated Wetland under the Bylaw. One set of DEP Bordering Vegetated Wetland Delineation Field Data Forms completed for observation plots located in the wetlands and uplands near flag B43 is attached. The table below provides the Flag Numbers, Flag Type, and Wetland Types and Locations for the delineated wetland resources.

Flag Numbers	Flag Type	Wetland Types and Locations
Start B1 to B45 Stop	Pink Flags	Boundary of Bordering Vegetated Wetlands located in the northwestern and western portions of the site that is associated with an intermittent stream.
Start A1 to A17 Stop	Pink Flags	Boundary of Isolated Vegetated Wetland under the Bylaw located in the southeastern portion of the site. This wetland contains an area that would also qualify as an Isolated Land Subject to Flooding under the Regulations. This wetland contains a ponding area which would qualify as a Vernal Pond under the Bylaw.

Findings

Wetland B (i.e., B-series flags) consists of a forested swamp located in the northwestern and western portions of the site that is associated with an intermittent stream. Plant species observed include red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), swamp tupelo (*Nyssa sylvatica*), and American elm (*Ulmus americana*) trees, saplings, and/or shrubs; poison ivy (*Toxicodendron radicans*) and common greenbrier (*Smilax rotundifolia*) climbing woody vines; highbush blueberry (*Vaccinium corymbosum*), common winterberry (*Ilex verticillata*), arrow-wood (*Viburnum dentatum*), silky dogwood (*Cornus amomum*), glossy buckthorn (*Rhamnus frangula*), sweet pepper-bush (*Clethra alnifolia*), and swamp azalea (*Rhododendron viscosum*) shrubs; and cinnamon fern (*Osmunda cinnamomea*), royal fern (*Osmunda regalis*), sensitive fern (*Onoclea sensibilis*), New York fern (*Thelypteris noveboracensis*), spinulose woodfern (*Dryopteris spinulosa*), spotted touch-me-not (*Impatiens capensis*), and sphagnum moss (*Sphagnum sp.*) ground cover. Evidence of wetland hydrology, including hydric soils, high groundwater, saturated soils, pore linings, evidence of flooding, and drainage patterns, was

Mr. Michael O'Brien

June 25, 2018

Page 3.

observed within the delineated wetland. This vegetated wetland borders an intermittent stream; accordingly, the vegetated wetland would be regulated as Bordering Vegetated Wetlands and the intermittent stream would be regulated as Bank and Land Under Water Bodies and Waterways under the Regulations and Bylaw/Bylaw Regulations. A 100-foot Buffer Zone extends horizontally outward from the edge of Bordering Vegetated Wetlands under the Regulations and Bylaw/Bylaw Regulations.

Wetland A (i.e., A-series flags) consists of an Isolated Vegetated Wetland located in the southeastern corner of the site. Plant species observed in this forested swamp include red maple (*Acer rubrum*) trees, saplings, and/or shrubs; common greenbrier (*Smilax rotundifolia*) climbing woody vines; highbush blueberry (*Vaccinium corymbosum*), arrow-wood (*Viburnum dentatum*), silky dogwood (*Cornus amomum*), sweet pepper-bush (*Clethra alnifolia*), common buttonbush (*Cephalanthus occidentalis*), and swamp azalea (*Rhododendron viscosum*) shrubs; and cinnamon fern and sphagnum moss (*Sphagnum sp.*) ground cover. Hydric soils and other evidence of wetland hydrology, including high groundwater, saturated soils, pore linings, and evidence of flooding, were observed within the delineated wetland. The ponding area observed within this wetland has a maximum surface area of less than 10,000 square feet and is too small to qualify as a pond under the Regulations. As such, this wetland does not border a creek, stream, river, pond, or lake; accordingly, it would not be regulated as Bordering Vegetated Wetlands under the Regulations or Bylaw/Bylaw Regulations. Section 10.57(2)(b)1. states that "Isolated Land Subject to Flooding is an isolated depression or closed basin without an inlet or an outlet. It is an area that at least once per year confines standing water to a volume of at least ¼ acre-feet and to an average depth of at least six inches." Based upon observations made in the field, this area clearly contains the requisite volume and depth of water to qualify, and this area should be regulated, as Isolated Land Subject to Flooding under the Regulations. Isolated Land Subject to Flooding does not have a 100-foot Buffer Zone under the Act. This area would qualify as an Isolated Vegetated Wetland and Vernal Pond under the Bylaw/Bylaw Regulations. These resources have a 100-foot Buffer Zone under the Bylaw/Bylaw Regulations. Lastly, this area would qualify as a federal wetland; federal wetlands do not have a Buffer Zone.

Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that "The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm." Based upon a review of the Flood Insurance Rate Map, Norfolk County, Massachusetts, Map Number 25021C0176E, Effective Date July 17, 2012 (attached), the site and surrounding area are mapped as Other Area: Zone X, which is defined as areas located outside of the 0.2% annual chance flood (i.e., outside of 500-year floodplain). The project engineer should confirm the absence of Bordering Land Subject to Flooding on the site. When present, Bordering Land Subject to Flooding would occur in areas where the 100-year floodplain is located outside of or upgradient of the

Mr. Michael O'Brien

June 25, 2018

Page 4.

delineated Bordering Vegetated Wetlands boundary. Bordering Land Subject to Flooding does not have a 100-foot Buffer Zone under the Regulations or the Bylaw/Bylaw Regulations.

The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Norwood Quadrangle, dated 1985, attached) and observations made during the site inspection, there is an unmapped stream within the B-series wetland on the site. Based upon Massachusetts StreamStats (attached), the stream has a watershed area of 0.0405 square miles. As such, the stream would be designated as intermittent under the Regulations and Bylaw/Bylaw Regulations. Furthermore, based upon a review of the current USGS Map and observations made during the site inspection, there are no other mapped or significant unmapped streams located on or within 200 feet of the site. Given the above, Riverfront Area under the Act/Regulations and Bylaw/Bylaw Regulations would not occur on the site. Riverfront Area does not have 100-foot Buffer Zone under the Act/Regulations or the Bylaw/Bylaw Regulations.

The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 14th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2017, and Certified Vernal Pools from MassGIS (attached), there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the site.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities. A brief description of my experience and qualifications is attached. If you have any questions, please feel free to contact me at any time.

Cordially,
ECOTEC, INC.



John P. Rockwood, Ph.D., PWS
Chief Environmental Scientist

Attachments (6, 9 pages)

18/wr/WESTWOOD8STEVENSWARE

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

John P. Rockwood, Ph.D., PWS Chief Environmental Scientist

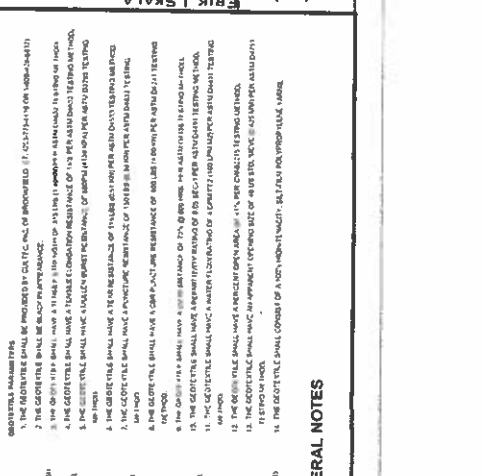
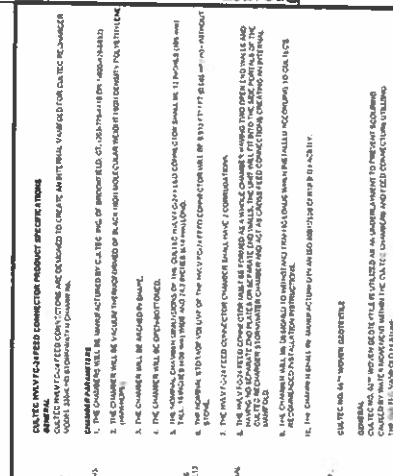
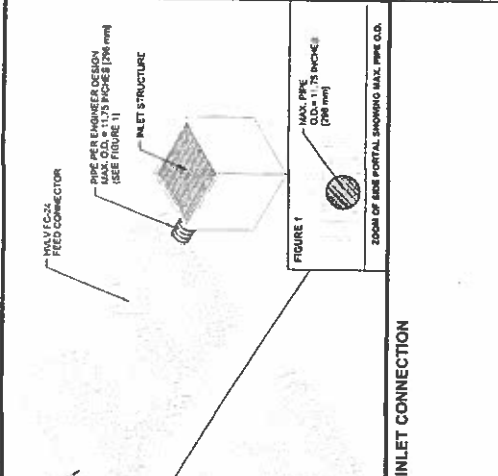
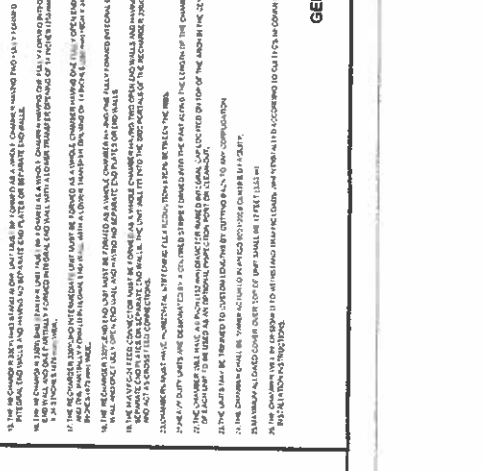
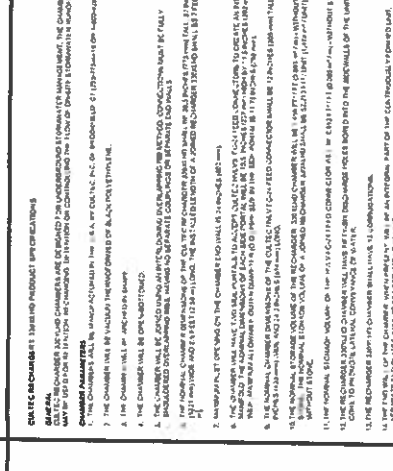
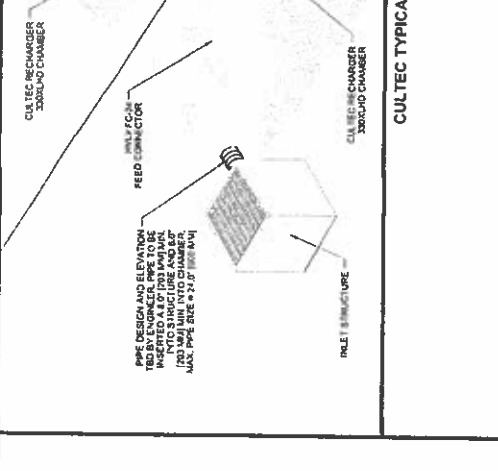
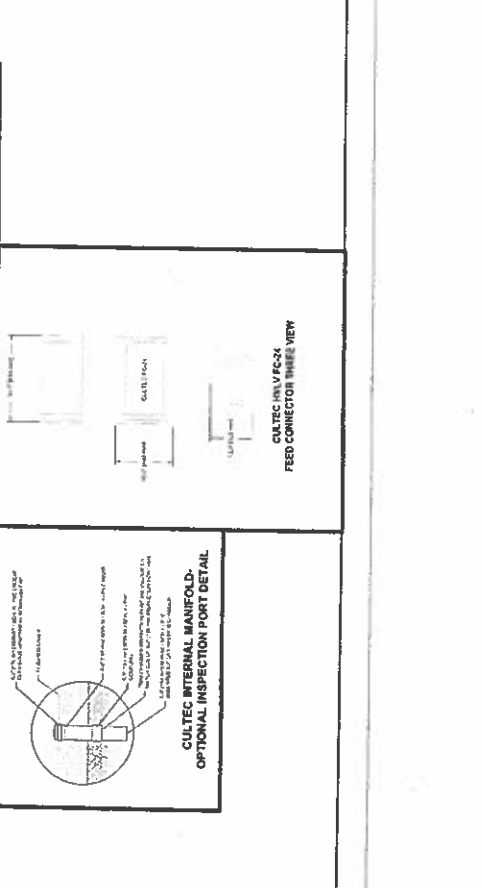
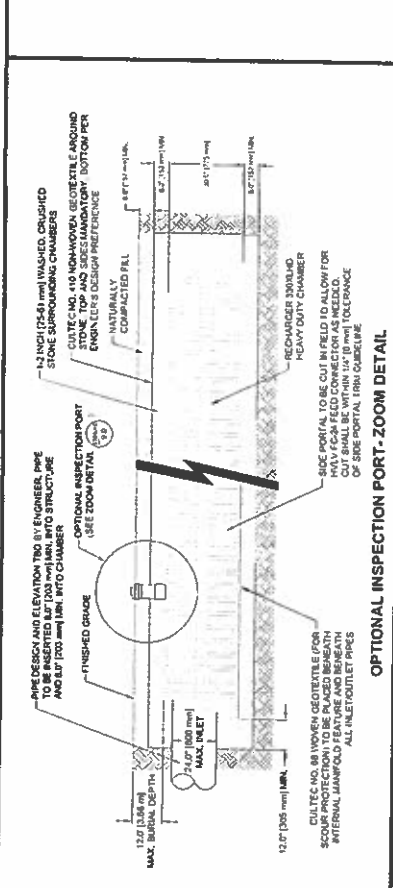
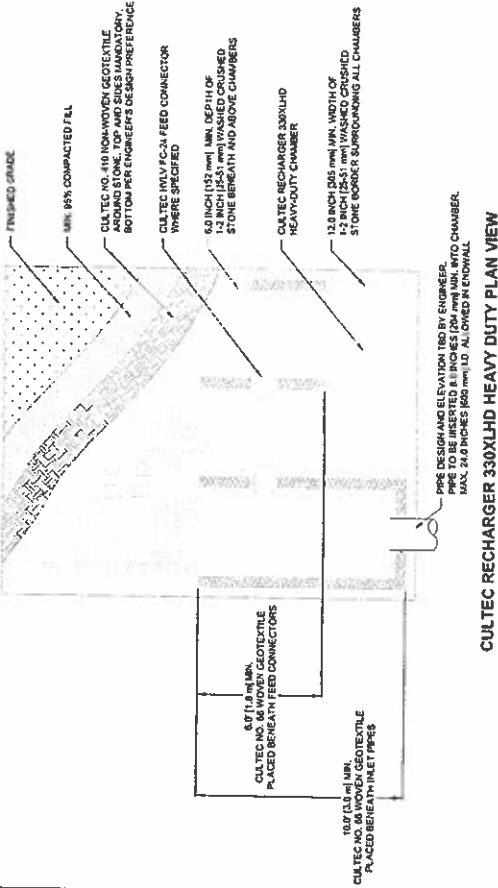
Dr. John P. Rockwood has been with EcoTec, Inc. since October 1999. Dr. Rockwood was previously a Chief Environmental Scientist at Sanford Ecological Services, Inc. of Southborough, Massachusetts from September 1990 to October 1999. Dr. Rockwood was certified in August 2002 and recertified in March 2008 and January 2013 as a Professional Wetland Scientist (PWS) by the Society of Wetland Scientists, the leading professional organization in the field. His project experience includes wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, certification, construction/replication, and monitoring; rare species habitat and impact assessment; wetland replacement, replication, and restoration area design, construction, and monitoring; and expert testimony preparation. He has served as a consultant to municipalities, conservation commissions, the development community, engineering and survey firms, industry, and citizen's groups. He has managed and participated in a wide variety of wetlands-related projects ranging in scope from single-family house lots to subdivisions, commercial developments, golf courses, a water park, and a regional mall. He has assessed the potential impacts of stormwater runoff, landfill leachate, and/or hazardous waste disposal sites on rare vertebrate and/or invertebrate species, and has conducted and/or directed surveys, delineated actual habitat, conducted habitat evaluations, and/or developed mitigation strategies necessary to protect rare vertebrate, invertebrate, and plant species and their habitats from proposed development-related impacts. He has conducted a drift fence study for the marbled salamander. He has conducted and led preconstruction sweeps for the spotted turtle, wood turtle, and eastern box turtle. He has filed MESA Project Review Checklists and has prepared applications for Conservation and Management Permits under MESA. He has conducted environmental impact assessments, and has prepared MEPA documentation related to an office park, an MBTA commuter train station, a water park, residential subdivisions, a landfill, and a regional mall. Dr. Rockwood also has extensive experience in environmental site assessment related to possible oil and/or hazardous material contamination. He has conducted numerous environmental assessments, several including subsurface investigations, for sites located in Massachusetts, and has conducted preliminary environmental assessments for properties located in New York, New Hampshire, and Rhode Island. He has conducted ecological risk assessments (i.e., Stage I Environmental Screenings and Stage II Environmental Risk Characterizations) for a number of disposal sites in Massachusetts, including several disposal sites that had the potential to affect state-listed vertebrate and invertebrate species, and has utilized the EPA Rapid Bioassessment Protocol for macroinvertebrates to assess potential impacts of disposal sites and hazardous material releases on streams and rivers in Massachusetts and New York. He has served as the environmental contractor to the Franklin Consolidated Office of the Federal Deposit Insurance Corporation (FDIC-FCO) for 16 months, where he reviewed environmental reports, prepared scopes-of-work for site assessments, and provided technical advice to FDIC employees related to environmentally compromised assets. Dr. Rockwood has designed, conducted, and evaluated numerous surface water and groundwater monitoring programs. His prior research includes a laboratory study of the effects of low pH and aluminum on dragonfly nymphs and a field survey of the impact of chlorinated sewerage effluent of algal periphyton community dynamics. Dr. Rockwood is the co-author of a text book on aquatic biology, and is the principal author of three peer-reviewed research publications in the field of aquatic toxicology that address the effect of low pH and aluminum on nymphs of the dragonfly *Libellula julia*. Dr. Rockwood has served as the as the Editor of the AMWS Newsletter from November 2004 to October 2010 and as Assistant Editor from May 2003 to November 2004 and October 2010 to January 2012. He has served as President of the Association of Massachusetts Wetland Scientists from November 2013 to December 2015 and as Immediate Past President from December 2015 to December 2017.

Education: Doctor of Philosophy (Ph.D.): Aquatic Pollution Biology – Plant and Soil Sciences
University of Massachusetts at Amherst, 1989
Bachelor of Science (B.S.): Environmental Sciences, *Summa Cum Laude*
University of Massachusetts at Amherst, 1984

Professional Affiliations: Society for Freshwater Science
Sigma Xi, Full Member
Association of Massachusetts Wetland Scientists, Voting Member
Society of Wetland Scientists
Massachusetts Association of Conservation Commissions

Certifications: Society of Wetlands Scientists Professional Wetland Scientist, Certification Number 1349
OSHA Health and Safety Training, 40-Hour Training, 29 CFR 1910.120
OSHA Health and Safety Training, 8-Hour Supervisor Training
OSHA Health and Safety Training, 8-Hour Refresher Training

DRAINAGE SYSTEM DETAILS



DATE: 06.05.18
SCALE: N/A
SHEET DETAILS
PREPARED FOR: BRAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

PROJECT: RESIDENCE
B STEVENS CIRCLE
WESTWOOD, MA 02090

LANDSCAPE DESIGNER
ERIK J SKALA
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

D-3

GENERAL NOTES

CULTEC RECHARGER 330XLHD PRODUCT SPECIFICATIONS

CULTEC RECHARGER 330XLHD PRODUCT SPECIFICATIONS

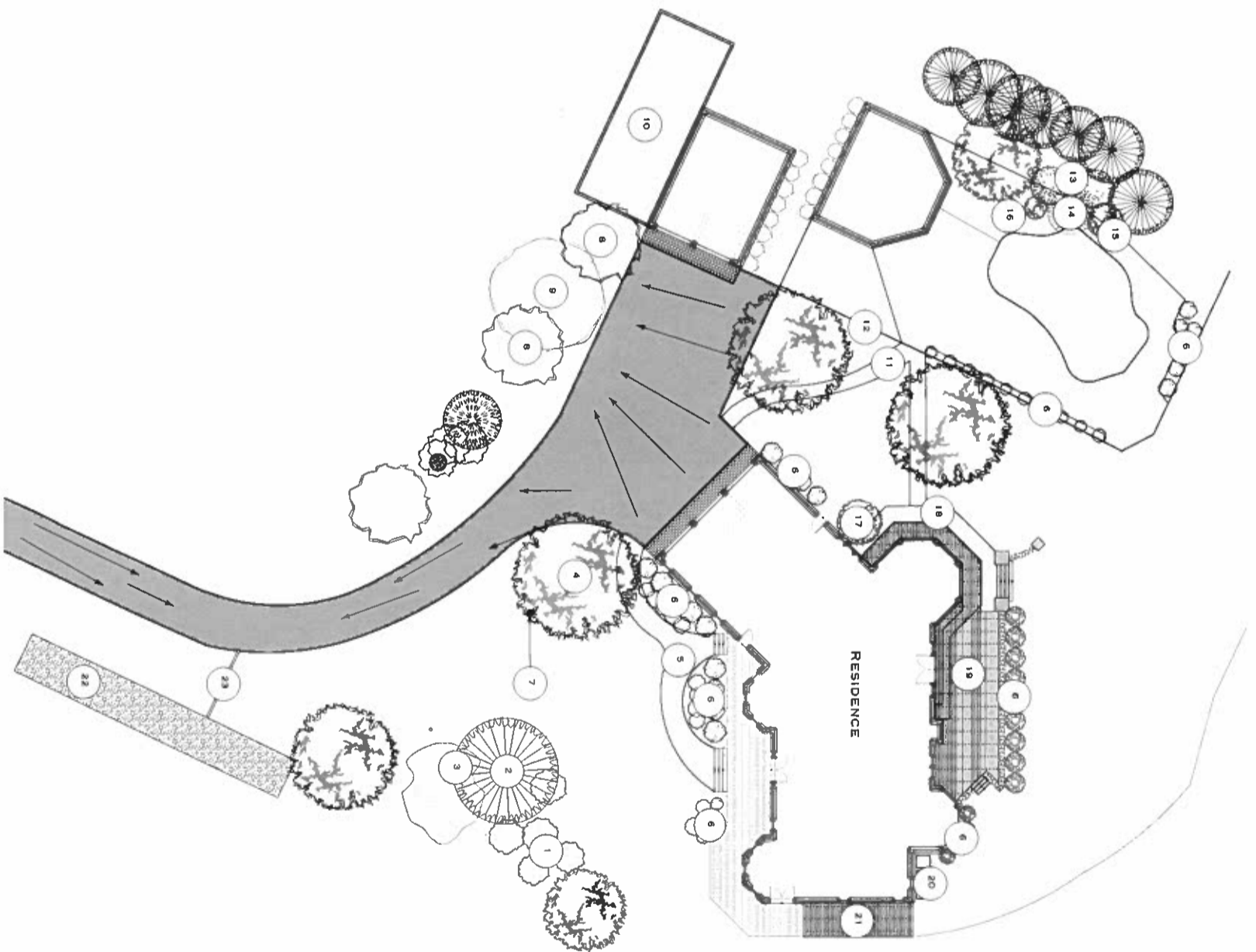
GENERAL NOTES

CULTEC RECHARGER 330XLHD PRODUCT SPECIFICATIONS

CULTEC RECHARGER 330XLHD PRODUCT SPECIFICATIONS

EXISTING SITE DEMOLITION

- DEMOLITION RECOMMENDATIONS**
1. REMOVE 5 LILACS
 2. REMOVE 1 SPRUCE TREE
 3. REMOVE LEDGE (~40%)
 4. REMOVE 1 DOGWOOD TREE
 5. REMOVE STAMPED CONCRETE WALKWAY (~415 SQ. FT.)
 6. REMOVE EXISTING SHRUBS
 7. REMOVE 1 LAMP POST
 8. REMOVE 2 OAK TREES
 9. REMOVE 1 MAPLE TREE
 10. REMOVE DOG RUN (~915 SQ. FT.)
 11. REMOVE STAMPED CONCRETE WALKWAY (~320 SQ. FT.)
 12. REMOVE INTERNAL POOL FENCING
 13. REMOVE 2 RHODODENDRONS
 14. REMOVE 1 WEeping LARCH
 15. RELOCATE 1 JAPANESE MAPLE
 16. REMOVE CHAMAECYPARIS OBTUSA
 17. RELOCATE 1 JAPANESE MAPLE
 18. REMOVE STAMPED CONCRETE WALKWAY (~210 SQ. FT.)
 19. REMOVE DECKING (~790 SQ. FT.)
 20. REMOVE CONCRETE HVAC FOOTINGS
 21. REMOVE BASEMENT WALKOUT DECKING (~215 SQ. FT.)
 22. REINFORCE CURRENT RIP RAP
 23. REMOVE DRIVEWAY DRAINAGE PIPE



NOTE: PLAN FOR ILLUSTRATION PURPOSES.
MAY NOT BE EXACT.

SHEET TITLE:
SITE
DEMOLITION
SCALE:
1/16"=1'0"
DATE: 06.25.18

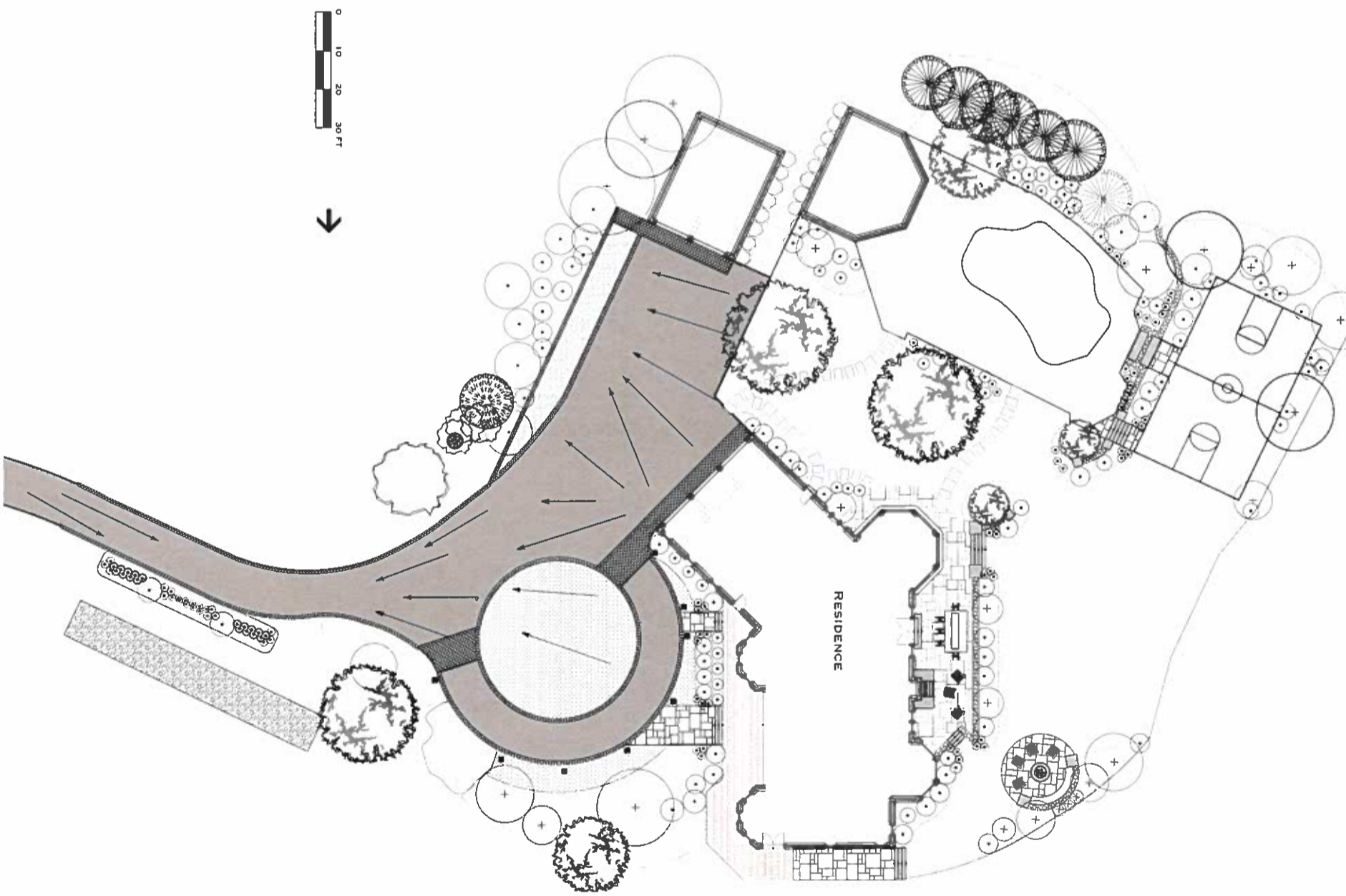
PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

PROJECT:
RESIDENCE
8 STEVENS CIRCLE
WESTWOOD, MA 02090

ERIK J SKALA
LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

L-2

PROPOSED SITE LAYOUT



NOTE: PLAN FOR ILLUSTRATION PURPOSES.
MAY NOT BE EXACT

SHEET TITLE:
SITE LAYOUT
SCALE:
1/16"=1'0"
DATE: 06.25.18

PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
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LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

L-3

SITE DIMENSIONS & MATERIALS (FRONT ENTRANCE)

MATERIAL RECOMMENDATIONS

1. ASPHALT DRIVEWAY (~980 SQ. FT.)



2. TUMBLED GRAY GRANITE COBBLESTONE (9"X5"X5", ~1700 PIECES) WITH POLYMERIC SAND JOINTS



3. NATURAL CLEFT BLUESTONE WITH STONE DUST JOINTS (~216 SQ. FT.)



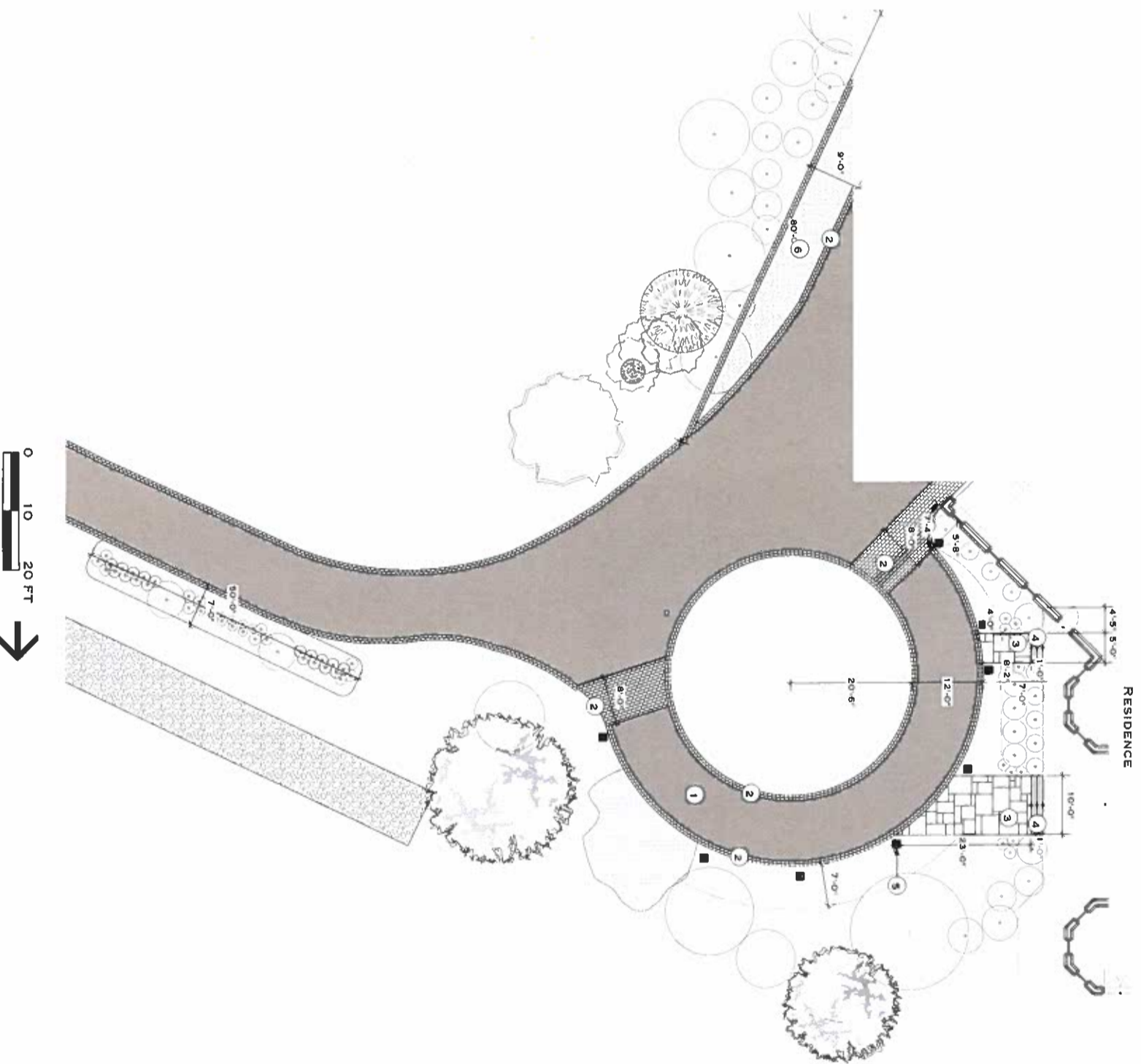
4. WOODBURY GRAY GRANITE ROCKFACE RISERS



5. LOW PROFILE GRANITE LAMP POST (2 SIDES ROCK FACE, 7"X7"X2'-6"") WITH GRANITE LAMP POST CAP (4 SIDES ROCK FACE, 10"X10"X2")



6. GRAVEL DRIVEWAY EXTENSION (57 BLUESTONE GRAVEL, ~450 SQ. FT.)



NOTE: PLAN FOR ILLUSTRATION PURPOSES.
MAY NOT BE EXACT

L-4.1	ERIK J SKALA LANDSCAPE DESIGNER BROAD MEADOW FARMS 56 BROAD MEADOW ROAD NEEDHAM, MA 02492	PROJECT: RESIDENCE 8 STEVENS CIRCLE WESTWOOD, MA 02090	PREPARED FOR: BRYAN & APRIL ANDERSON 21 STONECREST DRIVE NEEDHAM, MA 02492	SHEET TITLE: SITE DIMENSIONS SCALE: 3/32"=1' 0" DATE: 06.25.18

SITE DIMENSIONS & MATERIALS (REAR)

MATERIAL RECOMMENDATIONS

1. SPORT COURT 30X50' (SPORTCOURTMA.COM)
SPORTBASE: A HEAVY-DUTY MODULAR SUB-BASE FLOORING SYSTEM DESIGNED FOR THE OUTDOORS, ENVIRONMENTALLY FRIENDLY, PROMOTES WATER DRAINAGE.
2. NATURAL CLEFT BLUESTONE WITH STONE DUST JOINTS (SEE SHEET L-4.1 FOR MATERIAL PICTURE)
- SPORTCOURT WALKWAY (67 SQ. FT.)
- POOL DECKING WALKWAY (20 SQ. FT.)
- FIREPIT (217 SQ. FT.)
- REAR PATIO (965 SQ. FT.)
- WALK-OUT BASEMENT (213 SQ. FT.)
3. WOODBURY GRAY GRANITE ROCKFACE RISERS (SEE SHEET L-4.1 FOR MATERIAL PICTURE).
4. BENCH: 18"H X 28"D INCLUDING 4" THICK GRANITE SEAT WITH ROCK FACE EDGE AND 1.5" OVERHANG.
5. RETAINING WALL: 4'H X 18"W @ -65LF., STONE MATERIAL TBD BUT WILL CLOSELY MATCH PATIO RETAINING WALL. GRANITE PILLAR CAPS (4 SIDES ROCK FACE, 30"X30"X2")
6. NATURAL CLEFT BLUESTONE STEPPING STONE PATH, 24"X36" (43 PIECES, SEE SHEET L-4.1 FOR MATERIAL PICTURE).
7. OUTDOOR KITCHEN/GRILL COUNTER: 36"H COUNTER INCLUDING 2" NATURAL BLUESTONE COUNTER SLAB (ROCK FACE EDGE) WITH 48"W X 30"D BUILT-IN GRILL AND CABINET BELOW. STONE BASE MATERIAL TBD BUT WILL CLOSELY MATCH PATIO RETAINING WALL.
8. FIREPIT SEATING: 48" RETAINING WALL/SEAT BACKING, 18"H X 24"W SEATING BENCH, INCLUDING 2" NATURAL BLUESTONE SEATING SLAB (ROCK FACE EDGE) AND 1" OVERHANG. GRANITE PILLAR CAPS (4 SIDES ROCK FACE, 36"X36"X2"), STONE BASE MATERIAL TBD BUT WILL CLOSELY MATCH PATIO RETAINING WALL.
9. FIREPIT: 16"H FIREPIT. STONE BASE MATERIAL TBD BUT WILL CLOSELY MATCH PATIO RETAINING WALL. 2" NATURAL CLEFT BLUESTONE CAP (ROCK FACE EDGE) WITH 1" OVERHANG



NOTE: PLAN FOR ILLUSTRATION PURPOSES.
MAY NOT BE EXACT

SHEET TITLE:
SITE
DIMENSIONS
SCALE:
1"=10'0"
DATE: 06.25.18

PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

PROJECT:
RESIDENCE
8 STEVENS CIRCLE
WESTWOOD, MA 02090

ERIK J SKALA
LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

L-4.2

PLANTING PLAN - SHRUBS (CIRCULAR DRIVE)

ID	QTY	LATIN NAME	COMMON NAME	SIZE
1	1	QUERCUS PUMILA	WHITE OAK	24"
2	1	QUERCUS ALBA	WHITE OAK	24"
3	1	QUERCUS PRINCEPIS	PRINCIPAL OAK	24"
4	1	QUERCUS FLETCHERII	FLETCHER OAK	24"
5	1	QUERCUS LAEVIS	LAEVIS OAK	24"
6	1	QUERCUS BICOLOR	BICOLOR OAK	24"
7	1	QUERCUS ROBUR	ROBUR OAK	24"
8	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
9	1	QUERCUS LAEVIS	LAEVIS OAK	24"
10	1	QUERCUS BICOLOR	BICOLOR OAK	24"
11	1	QUERCUS ROBUR	ROBUR OAK	24"
12	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
13	1	QUERCUS LAEVIS	LAEVIS OAK	24"
14	1	QUERCUS BICOLOR	BICOLOR OAK	24"
15	1	QUERCUS ROBUR	ROBUR OAK	24"
16	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
17	1	QUERCUS LAEVIS	LAEVIS OAK	24"
18	1	QUERCUS BICOLOR	BICOLOR OAK	24"
19	1	QUERCUS ROBUR	ROBUR OAK	24"
20	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
21	1	QUERCUS LAEVIS	LAEVIS OAK	24"
22	1	QUERCUS BICOLOR	BICOLOR OAK	24"
23	1	QUERCUS ROBUR	ROBUR OAK	24"
24	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
25	1	QUERCUS LAEVIS	LAEVIS OAK	24"
26	1	QUERCUS BICOLOR	BICOLOR OAK	24"
27	1	QUERCUS ROBUR	ROBUR OAK	24"
28	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
29	1	QUERCUS LAEVIS	LAEVIS OAK	24"
30	1	QUERCUS BICOLOR	BICOLOR OAK	24"
31	1	QUERCUS ROBUR	ROBUR OAK	24"
32	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
33	1	QUERCUS LAEVIS	LAEVIS OAK	24"
34	1	QUERCUS BICOLOR	BICOLOR OAK	24"
35	1	QUERCUS ROBUR	ROBUR OAK	24"
36	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
37	1	QUERCUS LAEVIS	LAEVIS OAK	24"
38	1	QUERCUS BICOLOR	BICOLOR OAK	24"
39	1	QUERCUS ROBUR	ROBUR OAK	24"
40	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
41	1	QUERCUS LAEVIS	LAEVIS OAK	24"
42	1	QUERCUS BICOLOR	BICOLOR OAK	24"
43	1	QUERCUS ROBUR	ROBUR OAK	24"
44	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
45	1	QUERCUS LAEVIS	LAEVIS OAK	24"
46	1	QUERCUS BICOLOR	BICOLOR OAK	24"
47	1	QUERCUS ROBUR	ROBUR OAK	24"
48	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
49	1	QUERCUS LAEVIS	LAEVIS OAK	24"
50	1	QUERCUS BICOLOR	BICOLOR OAK	24"
51	1	QUERCUS ROBUR	ROBUR OAK	24"
52	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
53	1	QUERCUS LAEVIS	LAEVIS OAK	24"
54	1	QUERCUS BICOLOR	BICOLOR OAK	24"
55	1	QUERCUS ROBUR	ROBUR OAK	24"
56	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
57	1	QUERCUS LAEVIS	LAEVIS OAK	24"
58	1	QUERCUS BICOLOR	BICOLOR OAK	24"
59	1	QUERCUS ROBUR	ROBUR OAK	24"
60	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
61	1	QUERCUS LAEVIS	LAEVIS OAK	24"
62	1	QUERCUS BICOLOR	BICOLOR OAK	24"
63	1	QUERCUS ROBUR	ROBUR OAK	24"
64	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
65	1	QUERCUS LAEVIS	LAEVIS OAK	24"
66	1	QUERCUS BICOLOR	BICOLOR OAK	24"
67	1	QUERCUS ROBUR	ROBUR OAK	24"
68	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
69	1	QUERCUS LAEVIS	LAEVIS OAK	24"
70	1	QUERCUS BICOLOR	BICOLOR OAK	24"
71	1	QUERCUS ROBUR	ROBUR OAK	24"
72	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
73	1	QUERCUS LAEVIS	LAEVIS OAK	24"
74	1	QUERCUS BICOLOR	BICOLOR OAK	24"
75	1	QUERCUS ROBUR	ROBUR OAK	24"
76	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
77	1	QUERCUS LAEVIS	LAEVIS OAK	24"
78	1	QUERCUS BICOLOR	BICOLOR OAK	24"
79	1	QUERCUS ROBUR	ROBUR OAK	24"
80	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
81	1	QUERCUS LAEVIS	LAEVIS OAK	24"
82	1	QUERCUS BICOLOR	BICOLOR OAK	24"
83	1	QUERCUS ROBUR	ROBUR OAK	24"
84	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
85	1	QUERCUS LAEVIS	LAEVIS OAK	24"
86	1	QUERCUS BICOLOR	BICOLOR OAK	24"
87	1	QUERCUS ROBUR	ROBUR OAK	24"
88	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
89	1	QUERCUS LAEVIS	LAEVIS OAK	24"
90	1	QUERCUS BICOLOR	BICOLOR OAK	24"
91	1	QUERCUS ROBUR	ROBUR OAK	24"
92	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
93	1	QUERCUS LAEVIS	LAEVIS OAK	24"
94	1	QUERCUS BICOLOR	BICOLOR OAK	24"
95	1	QUERCUS ROBUR	ROBUR OAK	24"
96	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"
97	1	QUERCUS LAEVIS	LAEVIS OAK	24"
98	1	QUERCUS BICOLOR	BICOLOR OAK	24"
99	1	QUERCUS ROBUR	ROBUR OAK	24"
100	1	QUERCUS CUMERICANA	CUMERICANA OAK	24"

GREEN GEM BOXWOOD
Buxus sempervirens
GREEN GEM

FORSTER'S FEATHER REED GRASS
CALAMAGROSTIS ACUTIFLORA
TOTAL FORSTER

TWIST-N-SHOUT BIG LEAF HYDRANGEA
HYDRANGEA MACROPHYLLA
TWIST-N-SHOUT



JAPANESE HOLLY
ILEX CORNUTA
JAPANESE P. HOLLIE



COMPACT INKERBERRY HOLLY
ILEX AQUIFOLIUM
N. K. SKALA'S 'COMPACTA'



NORTHERN BAYBERRY
MYRICA PENNSYLVANICA
MYRICA PENNSYLVANICA



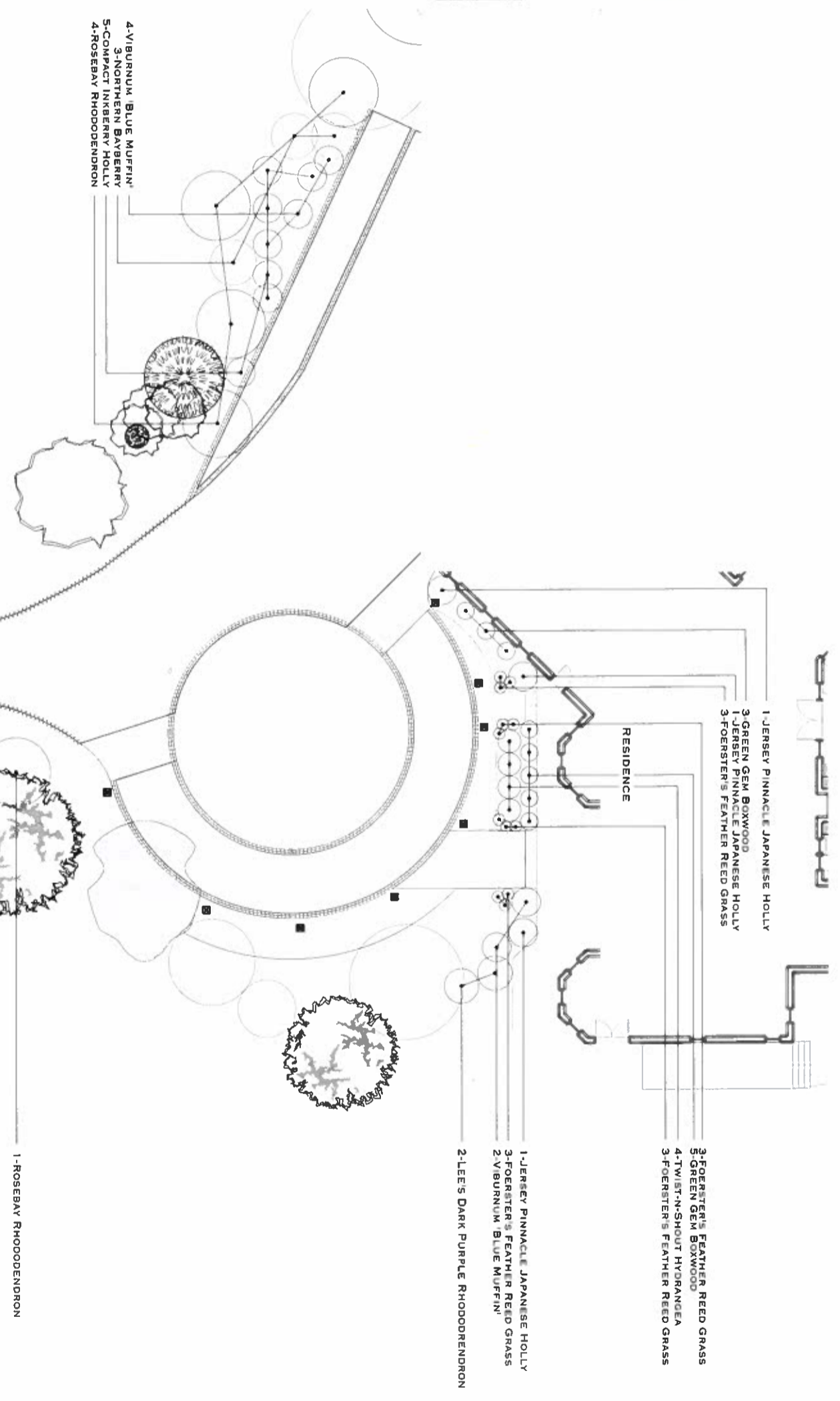
LEE'S DARK PURPLE RHODODENDRON
RHODODENDRON
LEE'S DARK PURPLE



ROSEBAY RHODODENDRON
RHODODENDRON
ROSEBAY



ARROWWOOD VIBURNUM BLUE MUFFIN
VIBURNUM ACERIFOLIUM
'BLUE MUFFIN'



SHEET TITLE:
PLANTING PLAN
SCALE:
1"=10'0"
DATE: 06.25.18

PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

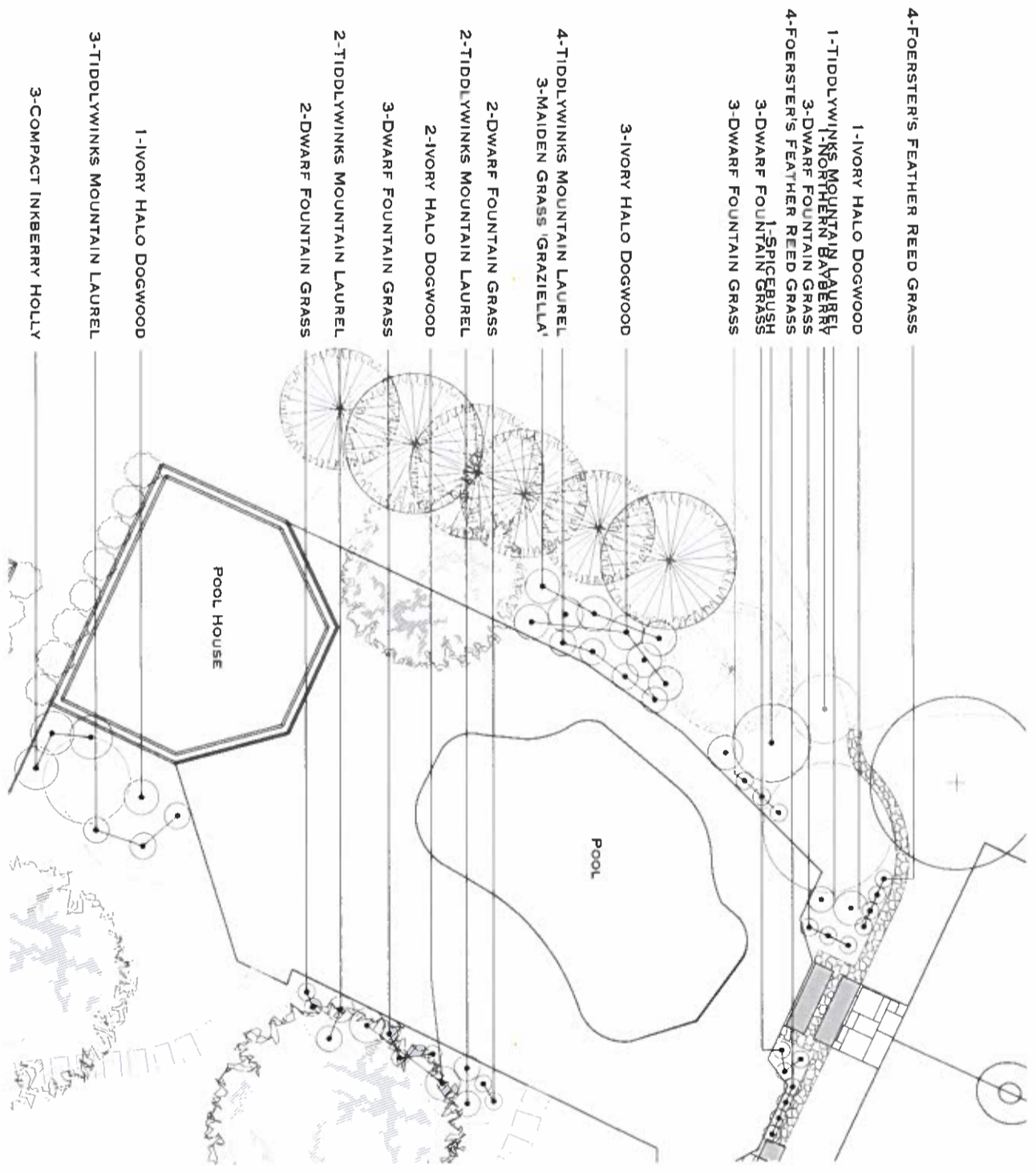
PROJECT:
RESIDENCE
8 STEVENS CIRCLE
WESTWOOD, MA 02090

ERIK J SKALA,
LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

L-5.2

PLANTING PLAN - SHRUBS (POOL)

ID	QTY	LATIN NAME	COMMON NAME	SIZE
1	1	FOERSTERIA FEAVER GRASS	FOERSTERIA FEAVER GRASS	24"
2	3	IVORY HALO DOGWOOD	IVORY HALO DOGWOOD	24"
3	3	TIDDLYWINKS MOUNTAIN LAUREL	TIDDLYWINKS MOUNTAIN LAUREL	24"
4	1	COMPACT INKBERRY HOLLY	COMPACT INKBERRY HOLLY	24"
5	1	NORTHERN BAYBERRY	NORTHERN BAYBERRY	24"
6	1	DWARF FOUNTAIN GRASS	DWARF FOUNTAIN GRASS	24"
7	1	MOUNTAIN LAUREL	MOUNTAIN LAUREL	24"
8	1	SPICEBUSH	SPICEBUSH	24"
9	1	MAIDEN GRASS 'GRAZIELLA'	MAIDEN GRASS 'GRAZIELLA'	24"
10	1	IVORY HALO DOGWOOD	IVORY HALO DOGWOOD	24"
11	1	TIDDLYWINKS MOUNTAIN LAUREL	TIDDLYWINKS MOUNTAIN LAUREL	24"
12	1	COMPACT INKBERRY HOLLY	COMPACT INKBERRY HOLLY	24"



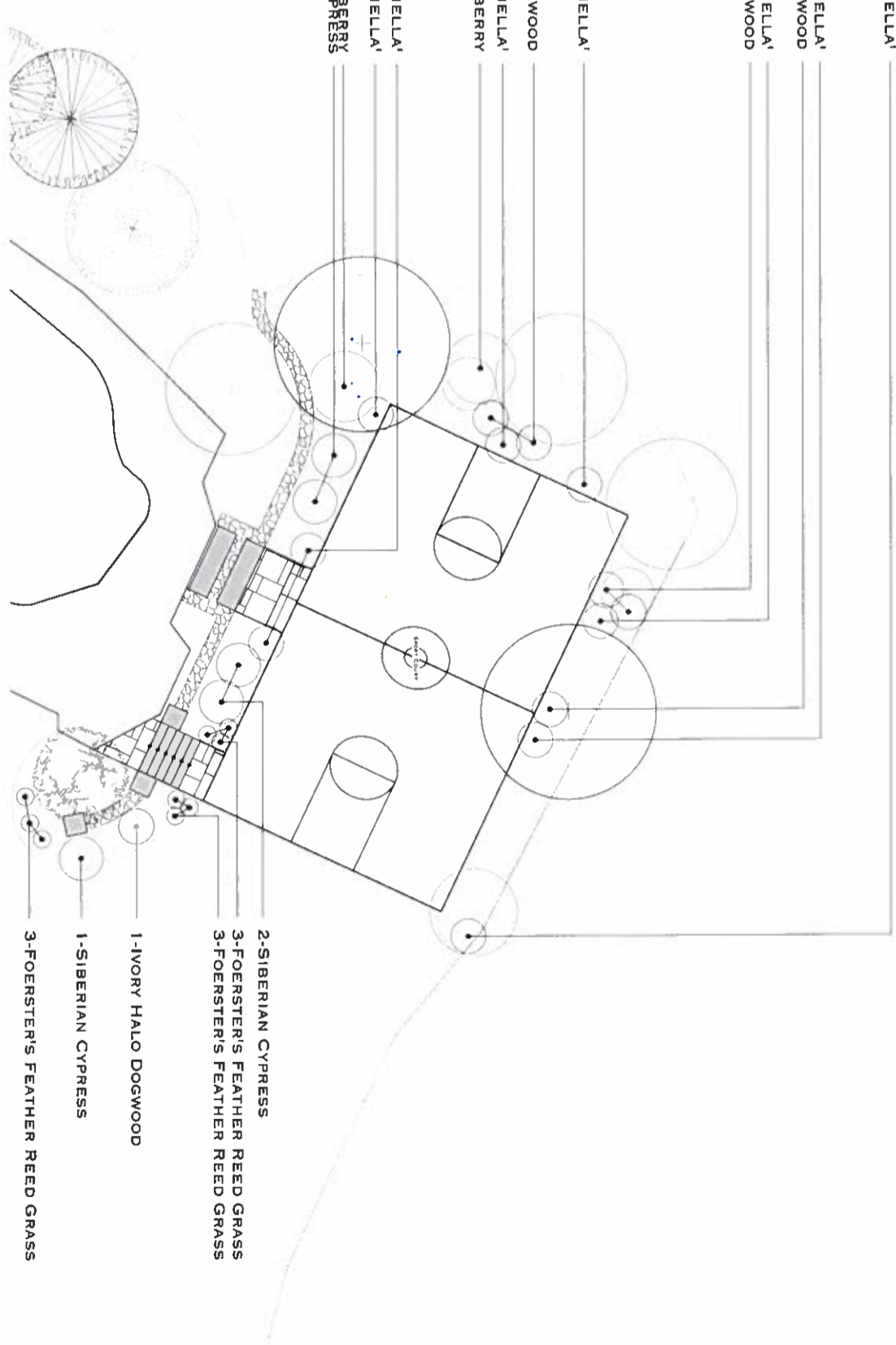
- 4-FOERSTER'S FEATHER REED GRASS
- 1-IVORY HALO DOGWOOD
- 1-TIDDLYWINKS MOUNTAIN LAUREL
- 3-DWARF FOUNTAIN GRASS
- 4-FOERSTER'S FEATHER REED GRASS
- 3-DWARF FOUNTAIN GRASS
- 1-SPICEBUSH
- 3-DWARF FOUNTAIN GRASS
- 3-IVORY HALO DOGWOOD
- 3-IVORY HALO DOGWOOD
- 4-TIDDLYWINKS MOUNTAIN LAUREL
- 3-MAIDEN GRASS 'GRAZIELLA'
- 2-DWARF FOUNTAIN GRASS
- 2-TIDDLYWINKS MOUNTAIN LAUREL
- 2-IVORY HALO DOGWOOD
- 3-DWARF FOUNTAIN GRASS
- 2-TIDDLYWINKS MOUNTAIN LAUREL
- 2-DWARF FOUNTAIN GRASS
- 1-IVORY HALO DOGWOOD
- 3-TIDDLYWINKS MOUNTAIN LAUREL
- 3-COMPACT INKBERRY HOLLY

PLANTING PLAN - SHRUBS (SPORT COURT)

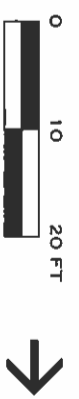
SHRUB & PERENNIAL SPECIES		COMMON NAME		SIZE	
ID	Latin Name	Plant Height	Spread	Plant Height	Spread
1	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
2	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
3	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
4	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
5	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
6	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
7	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
8	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
9	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'
10	CLADONIA ACUTICOMA	1-2'	1-2'	1-2'	1-2'



- 1-MAIDEN GRASS 'GRAZIELLA'
- 1-MAIDEN GRASS 'GRAZIELLA'
- 1-MAIDEN GRASS 'GRAZIELLA'
- 2-IVORY HALO DOGWOOD
- 1-MAIDEN GRASS 'GRAZIELLA'
- 1-NORTHERN BAYBERRY
- 2-MAIDEN GRASS 'GRAZIELLA'
- 1-MAIDEN GRASS 'GRAZIELLA'
- 1-NORTHERN BAYBERRY



- 3-FOERSTER'S FEATHER REED GRASS
- 1-IVORY HALO DOGWOOD
- 1-SIBERIAN CYPRESS
- 3-FOERSTER'S FEATHER REED GRASS
- 2-SIBERIAN CYPRESS
- 3-FOERSTER'S FEATHER REED GRASS
- 1-IVORY HALO DOGWOOD
- 1-SIBERIAN CYPRESS
- 3-FOERSTER'S FEATHER REED GRASS



L-5.4

ERIK J SKALA,
LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

PROJECT:
RESIDENCE
8 STEVENS CIRCLE
WESTWOOD, MA 02090

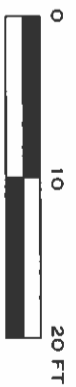
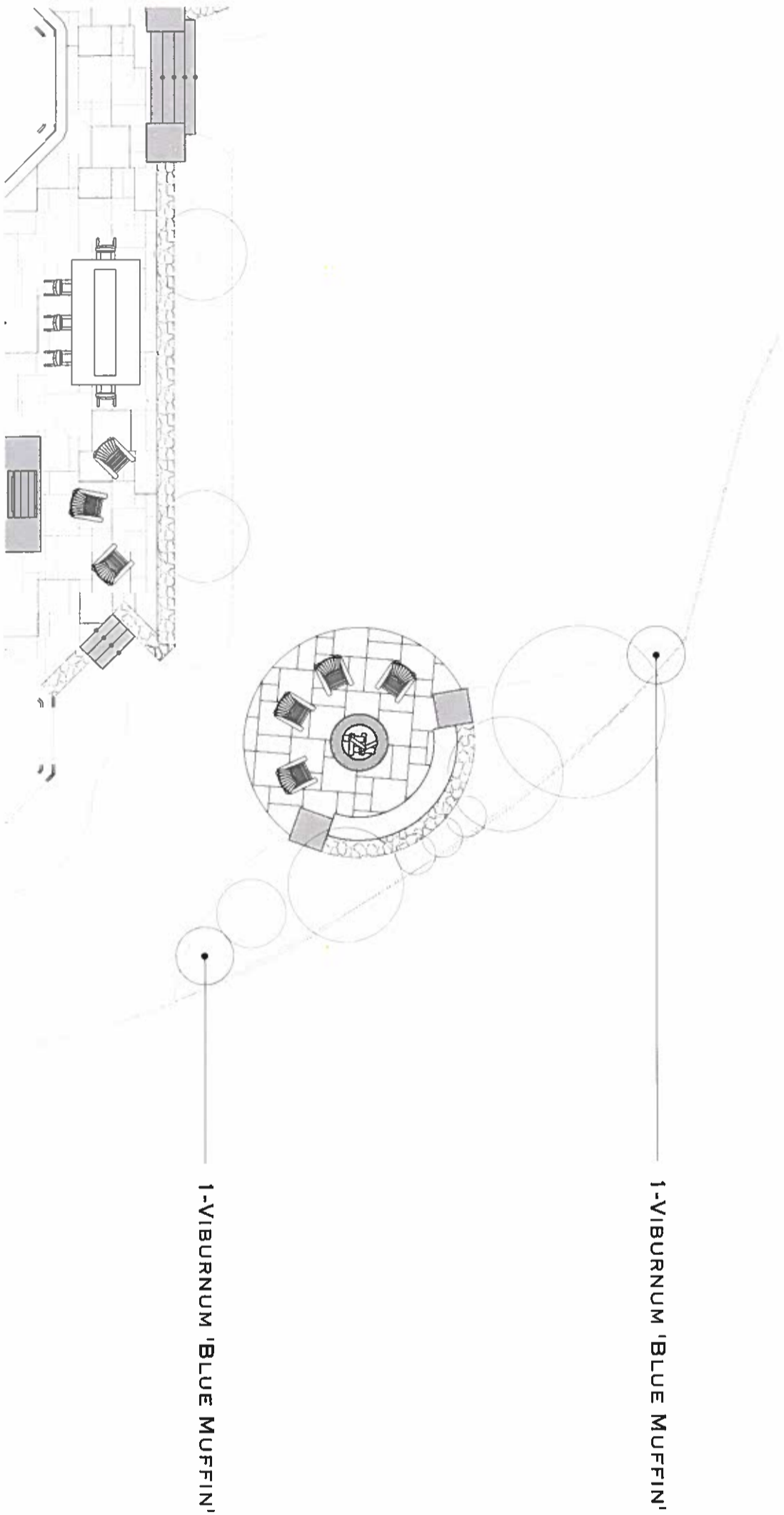
PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

SHEET TITLE:
PLANTING PLAN
SCALE:
1/8"=1'0"
DATE: 06.25.18

PLANTING PLAN - SHRUBS (FIRE PIT)

APRIL 2, 2018 PERENNIAL SCHEDULE		
ID	QTY	LATIN NAME
05C	2	VIBURNUM SPICATUM 'SARATOGA'
		COMMON NAME
		WINTERBURN BLUE MUFFIN
		SYMBOL
		SCALE
		DATE

ARROWOOD VIBURNUM
BLUE MUFFIN
VIBURNUM SPICATUM
'SARATOGA'



SHEET TITLE:
PLANTING PLAN
SCALE:
3/16"=1'0"
DATE: 06.25.18

PREPARED FOR:
BRYAN & APRIL ANDERSON
21 STONECREST DRIVE
NEEDHAM, MA 02492

PROJECT:
RESIDENCE
8 STEVENS CIRCLE
WESTWOOD, MA 02090

ERIK J SKALA,
LANDSCAPE DESIGNER
BROAD MEADOW FARMS
56 BROAD MEADOW ROAD
NEEDHAM, MA 02492

L-5.5

PLANTING PLAN - SHRUBS (REAR PATIO)

ID	SYM	PLANT NAME	COMMON NAME	SIZE
1	1	IVORY HALO DOGWOOD	DOGWOOD	24"
2	2	COMPACT INKBERRY HOLLY	INKBERRY HOLLY	24"
3	3	FOERSTER'S FEATHER REED GRASS	FEATHER REED GRASS	24"
4	4	MAIDEN GRASS 'GRAZIELLA'	MAIDEN GRASS	24"
5	5	TIDDLYWINKS MOUNTAIN LAUREL	MOUNTAIN LAUREL	24"

FOERSTER'S FEATHER REED GRASS
 CLERMONT'S KEY PLANT
 -MAIDEN GRASS



IVORY HALO DOGWOOD
 COMMON ALBA
 -BILHALDO



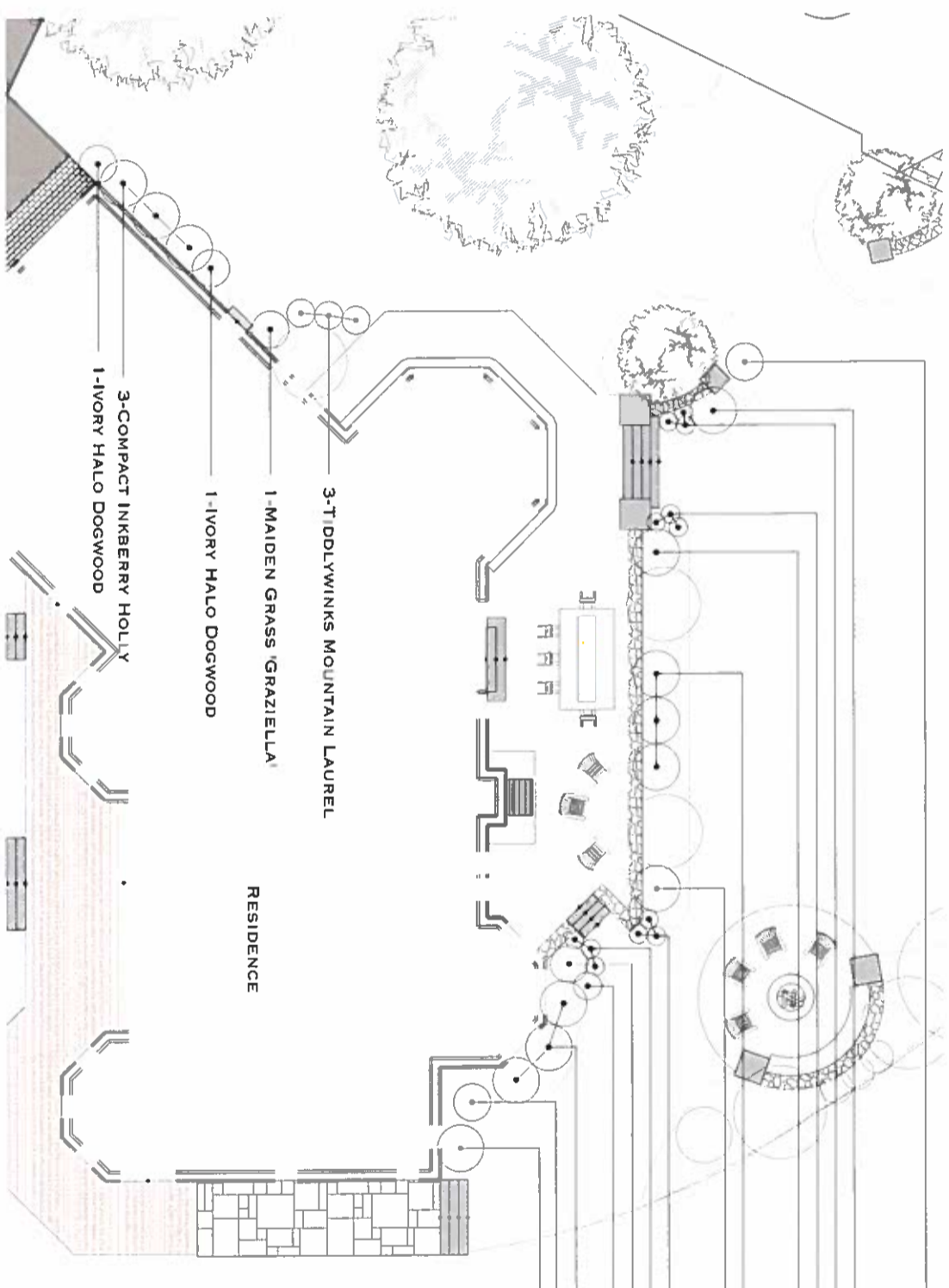
COMPACT INKBERRY HOLLY
 883 SLABER'S COMPACT
 -MAIDEN GRASS



MOUNTAIN LAUREL - TIDLYWINKS
 KALKIN CALIFORNIA
 -TIDLYWINKS



MAIDEN GRASS 'GRAZIELLA'
 MAIDEN GRASS
 -GRAZIELLA



SHEET TITLE:
 PLANTING PLAN
 SCALE:
 1/8"=1'0"
 DATE: 06.25.18

PREPARED FOR:
 BRYAN & APRIL ANDERSON
 21 STONECREST DRIVE
 NEEDHAM, MA 02492

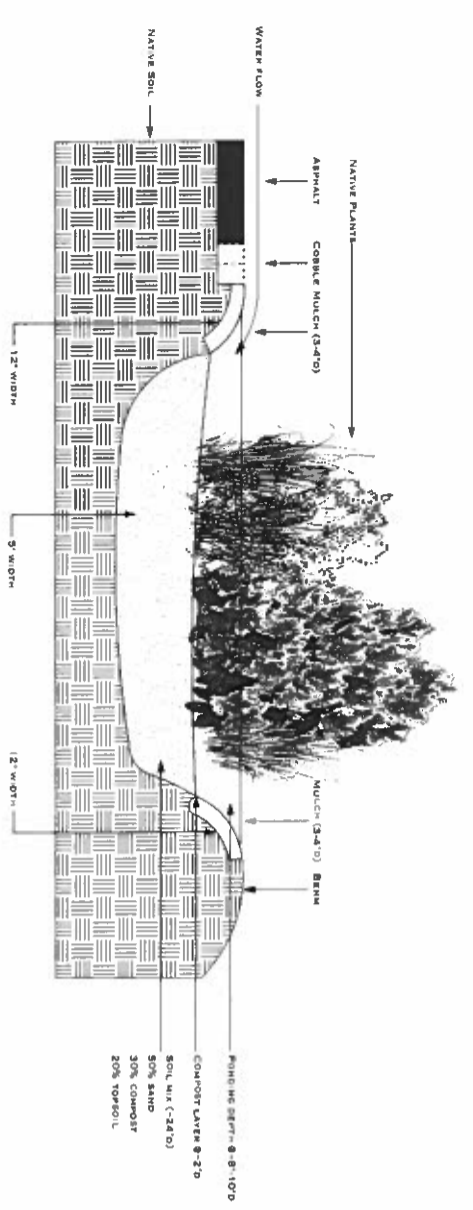
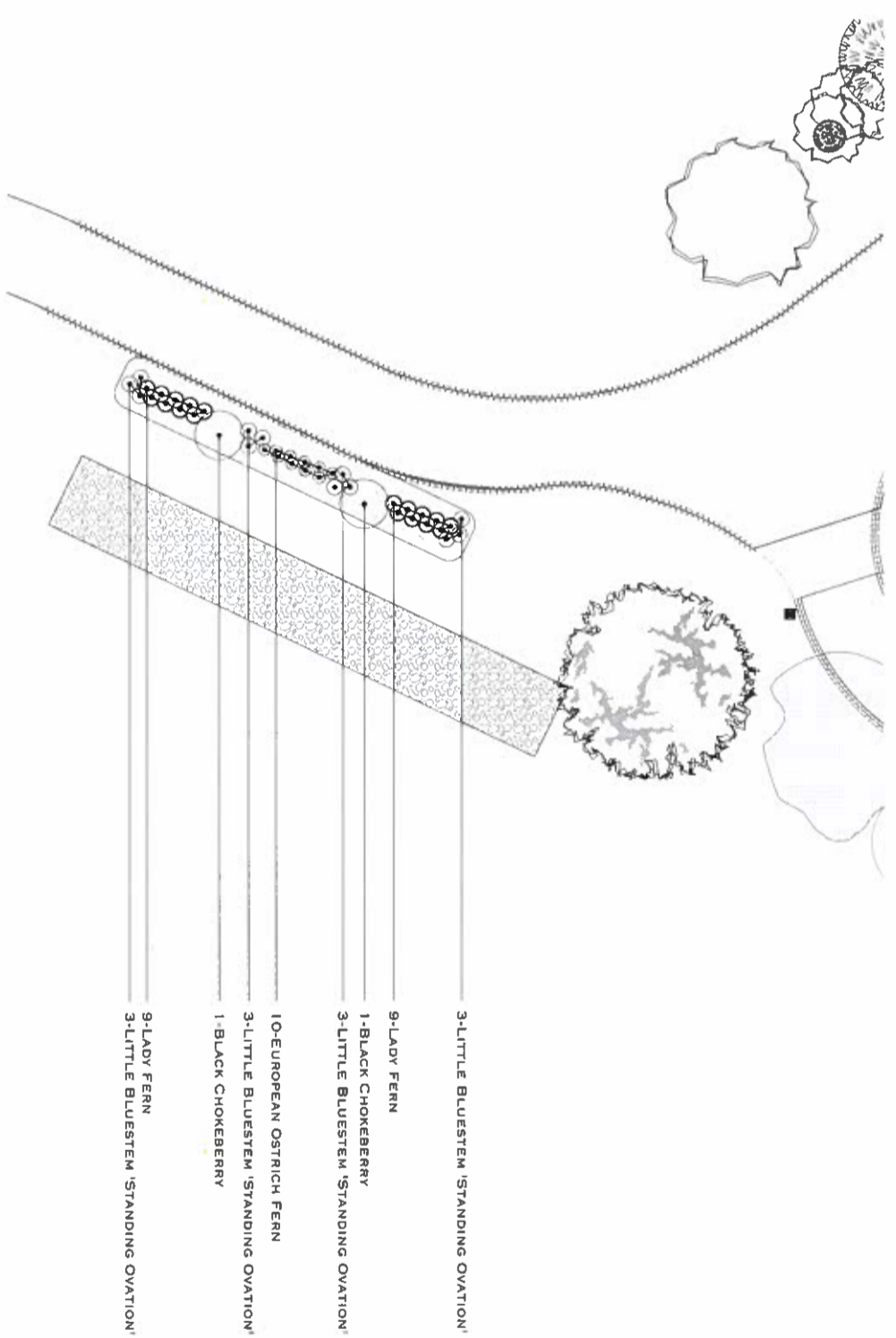
PROJECT:
 RESIDENCE
 8 STEVENS CIRCLE
 WESTWOOD, MA 02090

ERIK J SKALA,
 LANDSCAPE DESIGNER
 BROAD MEADOW FARMS
 56 BROAD MEADOW ROAD
 NEEDHAM, MA 02492

L-5.6

PLANTING PLAN - SHRUBS (RAIN GARDEN)

SHRUB & PERENNIAL SCHEDULE			
ID	QTY	LATIN NAME	COMMON NAME
1	1	ASTRICH FERN	ASTRICH FERN
2	1	BLACK CHOKEBERRY	BLACK CHOKEBERRY
3	3	LITTLE BLUESTEM	LITTLE BLUESTEM
4	3	STANDING OVATION	STANDING OVATION
5	1	EUROPEAN OSTRICH FERN	EUROPEAN OSTRICH FERN
6	1	LADY FERN	LADY FERN
7	1	BLACK CHOKEBERRY	BLACK CHOKEBERRY
8	1	LITTLE BLUESTEM	LITTLE BLUESTEM
9	1	STANDING OVATION	STANDING OVATION



FINISH DEPTH: 8'-10"
 CONCRETE LAYER 8'-2"
 SOIL MIX (3-4")
 50% SAND
 50% COMPOST
 20% TOPSOIL