

NEW ENGLAND WETLAND PLANTS, INC.
 820 WEST STREET, AMHERST, MA 01002
 PHONE: 413-548-8000 FAX: 413-548-4000
 EMAIL: INFO@NEWWP.COM WEB ADDRESS: WWW.NEWWP.COM
New England Wetmix (Wetland Seed Mix)

Botanical Name	Common Name	Indicator
<i>Carex vulpinoidea</i>	Fox Sedge	OBL
<i>Carex acutata</i>	Blunt Broom Sedge	FACW
<i>Carex larida</i>	Lurid Sedge	OBL
<i>Carex lupulina</i>	Hop Sedge	OBL
<i>Poa palustris</i>	Fowl Bluegrass	FACW
<i>Bidens frondosa</i>	Beggar Ticks	FACW
<i>Scirpus atrovirens</i>	Green Bulrush	OBL
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Kernia novboracensis</i>	New York Ironweed	FACW+
<i>Juncus effusus</i>	Soft Rush	FACW+
<i>Aster lateriflorus (Symphyotrichum lateriflorum)</i>	Starved/Calico Aster	FACW
<i>Iris versicolor</i>	Blue Flag	OBL
<i>Chlyvertia grandis</i>	American Mannagrass	OBL
<i>Najas ramosa</i>	Square Stemmed Monkey Flower	OBL
<i>Equisetum maculatum (Equisetum maculatum)</i>	Spotted Joe Pye Weed	OBL

PRICE PER LB. \$135.00 MIN. QUANTITY 1 LBS. TOTAL: \$135.00 APPLY: 18 LBS./ACRE 2500 sq ft/lb
 The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin basins and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months the seed mix will germinate the following spring. During the first season of growth several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

The wetland seeds in this mix can be sown by hand, with a hand-held spreader, or hydro-seeded on large or hard to reach sites. Lightly rake to insure good seed-to-soil contact. Seeding can take place on frozen soil, as the freezing and thawing weather of late fall and late winter will work the seed into the soil. If spring conditions are drier than usual watering may be required. If sowing during the summer months supplemental watering will likely be required until germination. A light mulch of clean, weed free straw is recommended. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is 5/bush pound, FOB warehouse, Plus 5% and applicable taxes.

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New England Logging Road Mix

Botanical Name	Common Name	Indicator
<i>Festuca rubra</i>	Rue Fescue	FACU
<i>Schizachyrium scoparium</i>	White Bluestem	FACU
<i>Faniscum virgatum</i>	Switch Grass	FAC
<i>Elymus virginicus</i>	Virginian Wild Rye	FACW-
<i>Andropogon gerardi</i>	Big Bluestem	FAC
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Ageratis perennans</i>	Upland Bentgrass	FACU
<i>Juncus tenuis</i>	Path Rush	FAC
<i>Juncus effusus</i>	Soft Rush	FACW+

PRICE PER LB. \$26.00 MIN. QUANTITY 3 LBS. TOTAL: \$78.00 APPLY: 20 LBS./ACRE 2200 sq ft/lb
 The New England Logging Road Seed Mix was originally designed for restoring machine logging roads, but has application on other types of restoration sites. Provides native plant cover in low fertility and compacted soils. Shows a strong on claim base soil. The mix may be applied by hydro-seeding, by mechanical spreader, or on small sites it can be spread by hand. Lightly rake, or roll to ensure proper seed to soil contact. Best results are obtained with a Spring or late Summer seeding. Late Spring and early Summer seeding will benefit from a light mulching of weed-free straw to conserve moisture. If conditions are drier than usual, watering may be required. Late Fall and Winter dormant seeding require an increase in the seeding rate. Fertilization is not required unless the soils are particularly infertile. Preparation of a clean weed free soil surface is necessary for optimal results. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is 5/bush pound, FOB warehouse, Plus 5% and applicable taxes.

DISCRETIONARY CUTTING AREA CALCULATIONS:

EXISTING OVERSTAY WITHIN DISCRETIONARY CUTTING AREA = 19,706 S.F.
 PROPOSED ALTERATIONS WITHIN DISCRETIONARY CUTTING AREA = 2,948± S.F.
 (INCLUDES ALTERED AREAS NOTED IN THE ENFORCEMENT ORDER DATED JUNE 24, 2019.)
 ALTERED DISCRETIONARY CUTTING AREA = 15.0%

PROPOSED BUFFER ZONE ENHANCEMENT AREA DETAIL

WETLAND RESTORATION AREA SPECIES LIST:

- A. (8) - 3'- 4' HIGHBUSH BLUEBERRY *VACCINIUM CORYMBOSUM*
- B. (6) - 3'- 4' SILKY DOGWOOD *CORNUS AMOMUM*
- C. (4) - 3'- 4' SWEET PEPPERBUSH *CLETHRA ALNIFOLIA*
- D. (9) - 3'- 4' SERVICEBERRY *AMLANCHIER CANADENSIS/ARBOREA*

SEED MIX:

NEW ENGLAND WETLAND SEED MIX
 APPLICATION RATE: 1 LB / 2,500 SQ. FT.
 NEW ENGLAND LOGGING ROAD MIX
 APPLICATION RATE: 1 LB / 2,200 SQ. FT.

ZONING DISTRICT: RESIDENCE - AGRICULTURAL DISTRICT (R-A)

MINIMUM LOT AREA = 2 ACRES
 MINIMUM LOT FRONTAGE = 250 FEET
 FRONT YARD SETBACK = 50 FEET
 SIDE YARD SETBACK = 25 FEET
 REAR YARD SETBACK = 25 FEET
 MAXIMUM LOT COVERAGE = 25%
 MAXIMUM BUILDING HEIGHT = 35 FEET
 MAXIMUM BUILDING HEIGHT = 3 STORIES

PROPERTY ADDRESS:

#85 PINEHURST ROAD
 BOXFORD, MA 01921

DEED REFERENCE:

BOOK 34797 PAGE 86 RECORDED WITH
 ESSEX SOUTH REGISTRY OF DEEDS (ESRD)

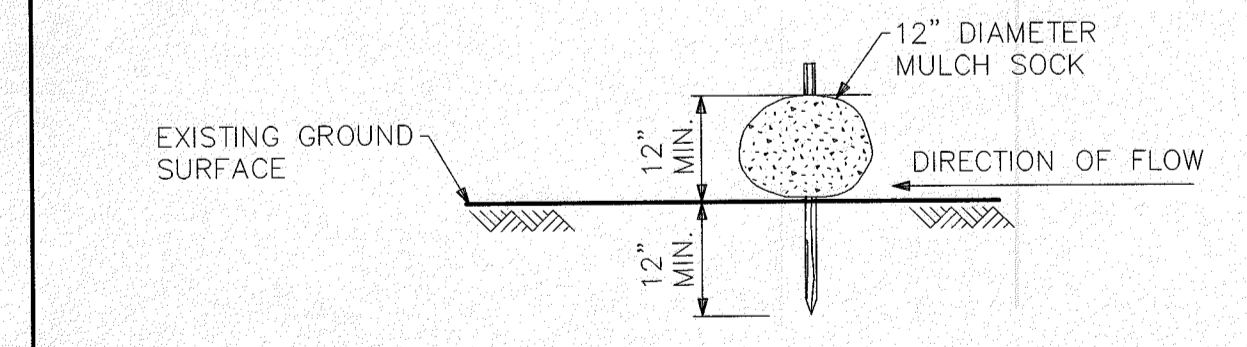
PLAN REFERENCES:

PLAN BOOK 95 PLAN 37
 RECORDED WITH ESSEX SOUTH
 REGISTRY OF DEEDS (ESRD)

ASSESSORS MAP REFERENCE:

MAP 33 BLOCK 3 PARCEL 13

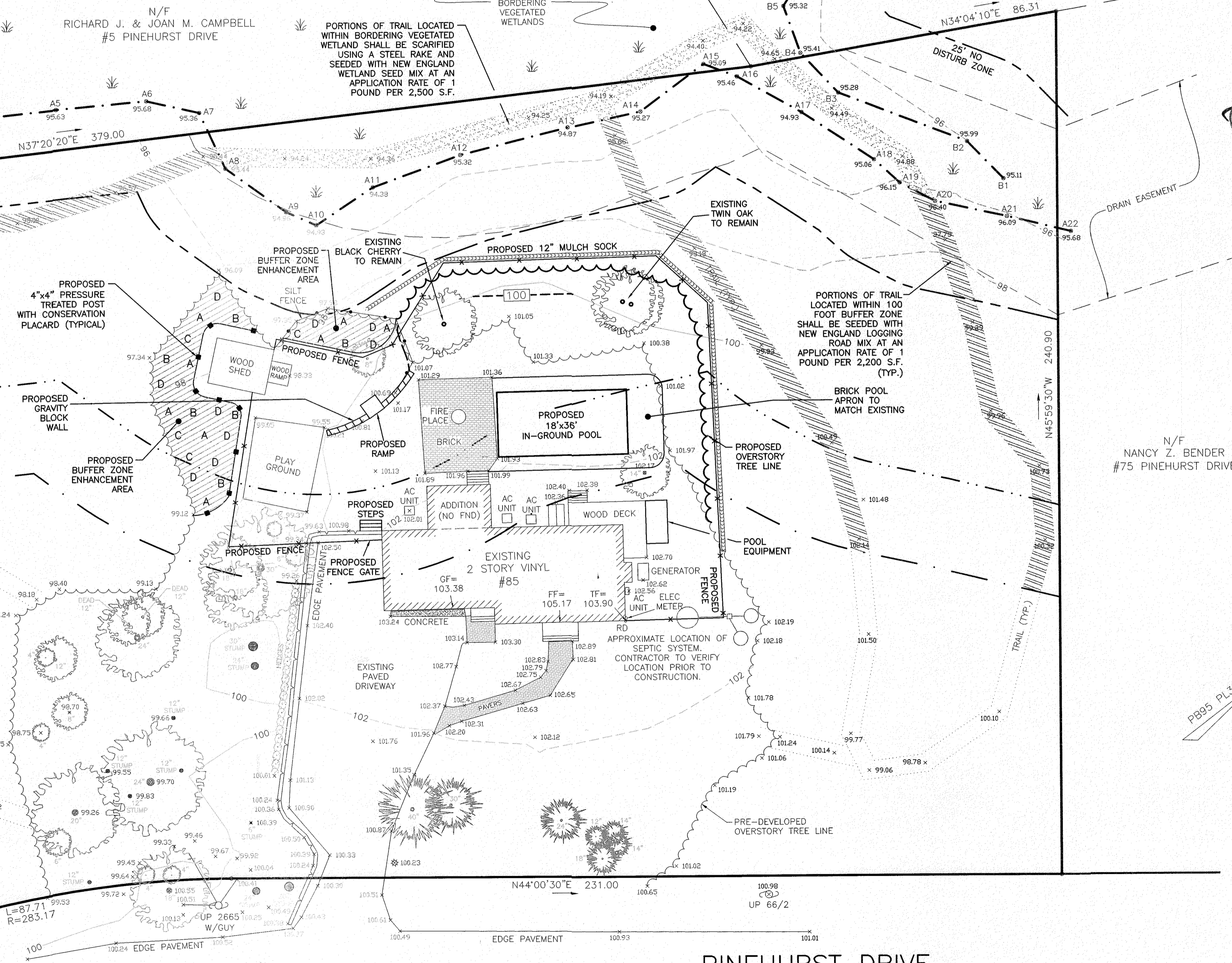
TOPSFIELD ROAD



MULCH SOCK DETAIL
 (NOT TO SCALE)

NOTES:

1. ALL ELEVATIONS SHOWN ARE REFERENCED TO AN ASSUMED DATUM.
2. EXISTING TOPOGRAPHY SHOWN IS THE RESULT OF AN ACTUAL INSTRUMENT SURVEY CONDUCTED BY WILLIAMS & SPARAGES LLC ON JULY 10, 2019.
3. WETLAND RESOURCE AREA DELINEATED BY WILLIAMS & SPARAGES LLC ON JULY 5, 2019.



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PROFESSIONAL SEAL
 RICHARD L. WILLIAMS
 CIVIL
 No. 40190
 9-27-19

PINEHURST DRIVE