

2017 MAY 11 P 3:49
TOWN CLERK
TOWN OF WESTWOOD

EARTH MATERIAL MOVEMENT
SPECIAL PERMIT APPLICATION

FOR

LOT 3A
PHILLIPS WAY
WESTWOOD, MA

TOWN CLERK
TOWN OF WESTWOOD

2017 MAY 11 P 3:49

CONSTRUCTION OF A SINGLE-FAMILY HOME

May 9, 2017

PREPARED BY:
MERRIKIN ENGINEERING, LLP
CONSULTING ENGINEERS
730 MAIN STREET, SUITE 2C
MILLIS, MA 02054

PREPARED FOR:
KEITH FENGLER
19 HIGH ROCK STREET
WESTWOOD, MA 02090

Merrikin Engineering, LLP

Consulting Engineers

730 MAIN STREET
SUITE 2C

MILLIS, MA 02054

TELEPHONE (508) 376-8883
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May 9, 2017

Westwood Planning Board
50 Carby Street
Westwood, MA 02090

Ref: Earth Material Movement
Special Permit Application
Lot 3A Phillips Way

Dear Members of the Planning Board:

In accordance with Section 7.1 of the Westwood Zoning Bylaw and on behalf of the applicant, Keith Fengler, we are pleased to submit the enclosed application for a Special Permit to allow the movement of earth material in excess of 200 cubic yards associated with the construction a new single family home located at Lot 3A Phillips Way. Please find the following enclosed in support of the application:

- Eleven copies of the submittal package which includes a fully executed Application Form and a variety of supporting information and attachments;
- Eleven Site Plans (11- 11 x17 and 4 full-size copies of the plan); and
- A check in the amount of \$750.00 payable to the Town of Westwood for the application fee.

Please do not hesitate to contact me if you have any questions or comments.

Sincerely,

MERRIKIN ENGINEERING, LLP

Daniel J. Merrikin P.E.
Partner

cc: File
Keith Fengler (by email)

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Prepared by Merrikin Engineering, LLP 5

WESTWOOD PLANNING BOARD APPLICATION FOR HEARING

WESTWOOD PLANNING BOARD APPLICATION FOR HEARING

1. Requested Approval(s): Sections 7.1. Earth Material Movement

2. Brief Narrative of Proposal:
See attached Appendix A

3. Address/Location of Property Subject to Hearing: Lot 3A Phillips Way

4. Assessor's Map and Parcel Number(s): Map 40, Lot 189

5. Size of Parcel: 1.0+/- acre

6. Name of Applicant: Keith Fengler

7. Applicant's Mailing Address:
19 High Rock Street
Westwood, MA

8. Applicant's Telephone: (H) n/a (W) _____

9. Applicant's E-Mail Address: _____

10. Applicant is: Owner Tenant Licensee Prospective Purchaser Other

11. Name of Property Owner(s):
Ariel & Keith Fengler

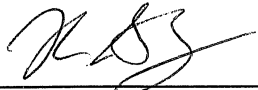
12. Property Owner's Mailing Address:
19 High Rock Street
Westwood, MA

13. Deed Recorded in:
a. County Registry of Deeds, Book 34614 Page 81
b. Registry District of the Land Court, Certificate Number _____
Page _____ Book _____

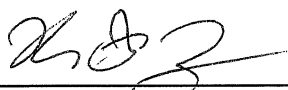
14. Has any Application ever been filed with the Planning Board regarding this Property?
X Yes, When? July 2008 (Definitive Subdivision)
 No

15. Has the Lot been surveyed by a Registered Land Surveyor?
X Yes, When? 2015
 No

The Applicant hereby requests a public hearing before the Westwood Planning Board and consents to pay for the cost of all legal advertisements required by the Zoning Bylaw and/or Planning Board Rules and Regulations, which will be billed directly to the Applicant by the newspaper at a later date. The Applicant also consents to pay for all costs required pursuant to applicable sections of the Westwood Zoning Bylaw and/or Planning Board Rules and Regulations, unless expressly waived by the Planning Board, including all project review fees, inspection fees, and costs associated transcription, in addition to all other fees, expenses and costs in connection with the Planning Board's review and evaluation of this Application.

Signed: 
Applicant (or Agent) Signature

Keith Fengler
Printed Name of Applicant

Signed: 
Property Owner(s) of Record Signature(s)

Keith Fengler
Printed Name(s) of Property Owner(s) of Record

Date: 5/1/2017

Payments Received: Application Fee:	\$ <u>\$750.00</u>
Project Review Fees: (if applicable)	\$ <u>n/a</u>
Inspection Fees: (if applicable)	\$ <u>n/a</u>
Other Fees: (if applicable)	\$ <u>n/a</u>

APPENDIX A: EARTHWORK REPORT

This earthwork summary presents analysis of the single-family house lot known as Lot 3A Phillips Way as depicted on a plan entitled "Lot 3A Phillips Way Site Plan of Land in Westwood, MA" prepared by Merrikin Engineering, LLP dated May 8, 2017.

EXISTING CONDITIONS

The site consists of a 1.0 acre single-family residential house lot created in 2008. It is currently wooded.

EARTHWORK MATERIAL AND QUANTITIES

The house location is raised above the existing street grade. As a result, the excavation of the foundation, driveway and appurtenant yard areas will result in the removal of excess soils from the site. The cut-fill analysis concludes the following:

- Disturbed Area: ~35,000 s.f.
- Total Volume of Earth to be Removed from the Site: 2,800 c.y in-place volume (3,220 c.y. including 15% expansion factor).
- Total Volume of Earth to be Imported into the Site: ~100 c.y. in-place volume (115 c.y. including 15% expansion factor). This soil is comprised of gravel, crushed stone, sand bedding and other incidental structural soil components associated with the house, driveway and utility systems.

CONSTRUCTION METHODOLOGIES

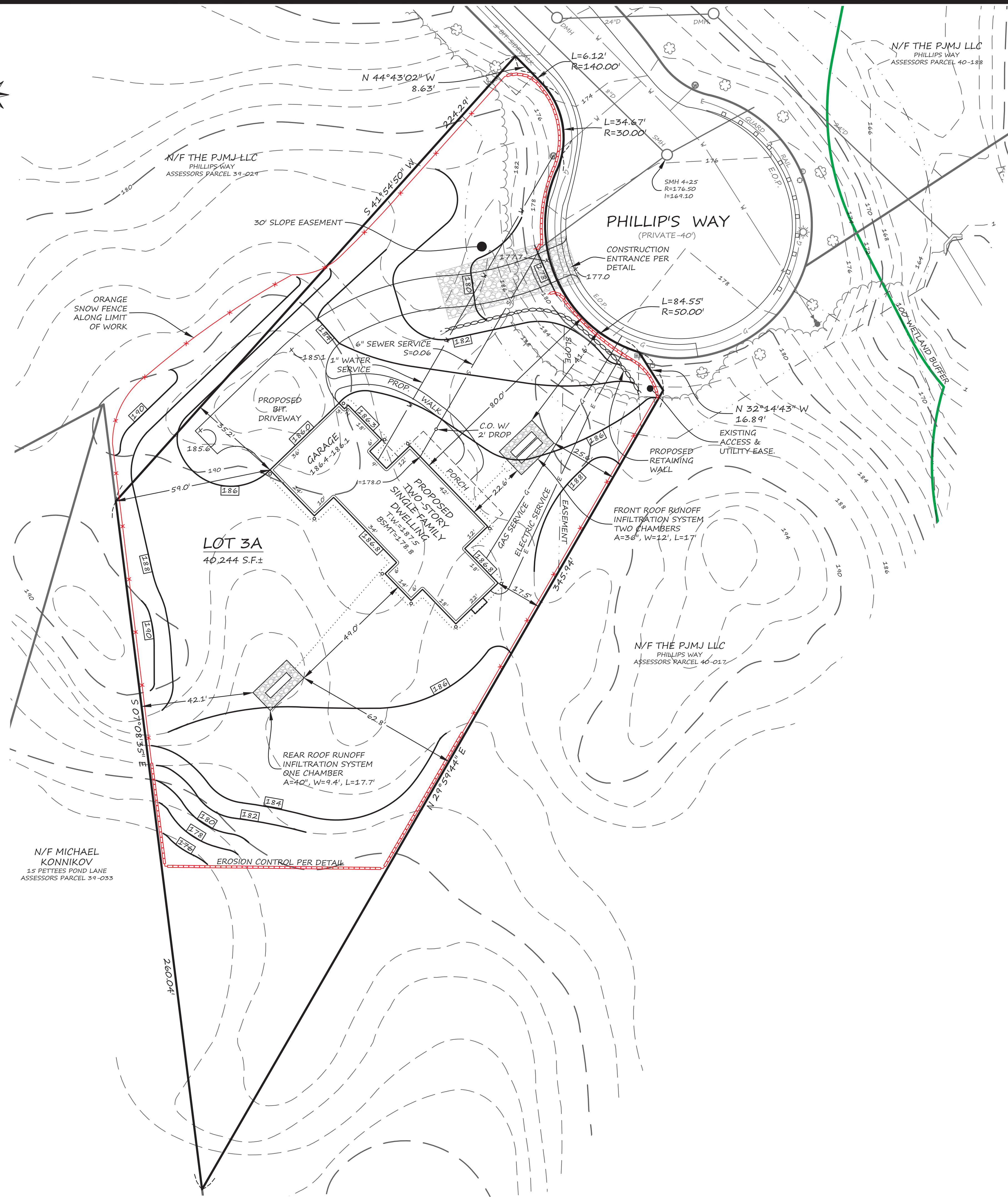
Topsoil, subsoil, and glacial soil to be removed from the site will be excavated with appropriate equipment, temporarily stockpiled on-site as needed, loaded into dump trucks and removed from the site via Margery Lane, Trailside Drive, Bubbling Brook Road (Walpole) and North Street (Walpole). Erosion controls and limit of work demarcations will be installed around the perimeter of the disturbance and will remain until the site is fully stabilized.

Once the site work is nearly complete, the site will be finish-graded and paved or loamed and seeded (as appropriate). Once newly established lawn areas are fully vegetated, erosion controls will be removed.

STORMWATER MANAGEMENT

Although not required by the DEP Stormwater Management Standards, the proposed lot development includes the construction of underground stormwater infiltration systems for roof runoff. This lot lies within a recently constructed subdivision which includes stormwater management BMPs that will capture and treat runoff from the proposed driveway. These systems will serve to mitigate runoff from the post-construction condition of the site.

APPENDIX B: LOT 3A PHILLIPS WAY
SITE PLAN OF LAND IN WESTWOOD,
MA” DATED MAY 8, 2017, PREPARED
BY MERRIKIN ENGINEERING, LLP



OWNER/APPLICANT:
ARIEL & KEITH FENGLER
19 HIGH ROCK STREET
WESTWOOD, MA 02090

ASSESSORS PARCEL REFERENCE:
MAP 40 PARCEL 189

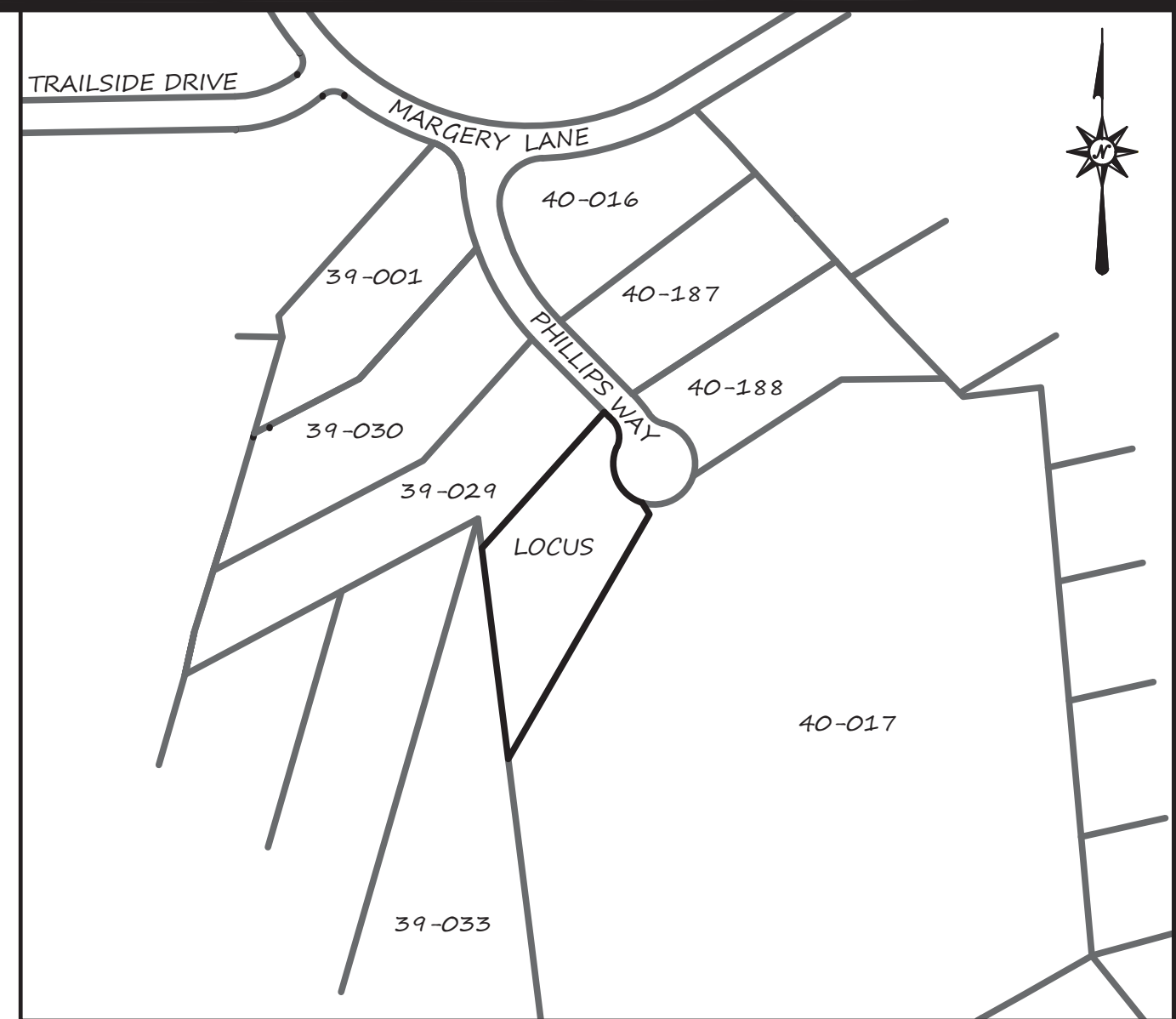
ZONING DISTRICTS:
SINGLE RESIDENCE C

PLAN & DEED REFERENCES:

- DEED: 34614-81
- PLAN: 586-5

ZONING REQUIREMENTS:

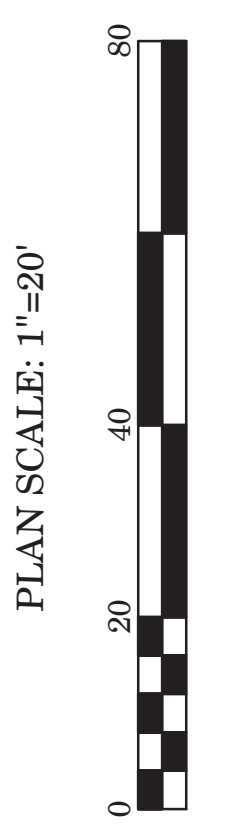
- MIN. LOT AREA: 40,000 S.F.
PROVIDED: 40,244 S.F.
MIN. LOT FRONTAGE: 125'
PROVIDED: 134.0'
MIN. LOT WIDTH: 125'
PROVIDED: 125'
MIN. NON-WETLAND AREA: 30,000 S.F.
PROVIDED: 40,242 S.F.
MIN. FRONT SETBACK: 40'
PROVIDED: 80.0'
MIN. SIDE SETBACK: 20', OR 15' FOR ANY PORTION OF BUILDING NOT EXCEEDING 15' IN HEIGHT (LATTER APPLIES).
PROVIDED: 17.5'
MIN. REAR SETBACK: 30'
PROVIDED: 59.0'
MAX. BUILDING HEIGHT: 25'+1' PER ADDITIONAL FOOT OF SETBACK.
25'+2.5'=27.5'
PROVIDED: 27.4'
MAX. BUILDING COVERAGE: 25%
PROVIDED: 8.2%
MAX. IMPERVIOUS COVERAGE: 50%
PROVIDED: 15.4%



WESTWOOD ASSESSORS LOCUS
SCALE: 1" = 200'



Digitally signed by Daniel J. Merrikin, P.E.
Date: 2017.05.09 12:29:55 -04'00'



PLAN SCALE: 1" = 20'

EXISTING CONDITION NOTES:

- THE LOCATION OF EXISTING UTILITIES IS BASED ON AVAILABLE INFORMATION SUCH AS SURFACE FEATURES AND RECORD PLANS. THE SHOWN UTILITY LOCATIONS ARE APPROXIMATE, ARE NOT WARRANTED TO BE CORRECT, AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL CONTACT DIGSAFE PRIOR TO CONDUCTING ANY EXCAVATION ON THE SITE.
- OFFSITE FEATURES SUCH AS BUILDING, PAVING LIMITS, UTILITIES, ETC., ARE APPROXIMATE ONLY AND BASED ON MASSGIS AERIAL PHOTOGRAPHS.
- OFFSITE UTILITY INVERTS, SIZES, AND MATERIALS FROM AVAILABLE RECORD PLANS.
- ELEVATIONS ARE ON THE NAVD 29 DATUM.
- THERE ARE NO WETLANDS AREAS WITHIN 100 FEET OF THE LOT.
- THIS LOT DOES NOT LIE WITHIN THE 100-YEAR FEMA FLOOD PLAIN AS DEPICTED ON THE LATEST F.I.R.M. MAP.

CONSERVATION NOTES:

- EROSION CONTROLS AND THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR CLEARING AND SHALL BE MAINTAINED IN GOOD CONDITION UNTIL THE SITE IS FULLY STABILIZED.
- ROADWAY SHALL BE MONITORED BY THE CONTRACTOR FOR SEDIMENTATION AND DAMAGE FROM TRUCK OPERATIONS. PROVIDE CORRECTIVE MEASURES AS NEEDED.

SITE DEVELOPMENT NOTES:

- THE USE OF FILL CONTAINING HAZARDOUS MATERIALS OR WASTE IS FORBIDDEN.
- THE MARKING OF THE LIMITS OF WORK IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING IS REQUIRED.
- SIGNIFICANT TREES, INCLUDING THEIR BRANCHES AND THEIR ROOT SYSTEMS, SHALL BE PROTECTED WITH SHIELDS, FENCES, OR BARRIERS.
- THE CLEANING OF CATCH BASIN SUMPS AND STORMWATER BASINS IS REQUIRED FOLLOWING CONSTRUCTION AND ACCORDING TO ANY OPERATIONS AND MAINTENANCE PLAN THEREAFTER.
- THE USE OF CONSTRUCTION MACHINERY IS RESTRICTED TO THE HOURS BETWEEN 7:00 AM AND 7:00 PM, MONDAY THROUGH SATURDAY, AND TO THE HOURS BETWEEN 12:00 NOON AND 7:00 PM ON SUNDAY, AS REQUIRED IN THE TOWN OF WESTWOOD GENERAL BYLAWS, ARTICLE 10, SECTION 24.

GRADING & UTILITY NOTES:

- MERRIKIN ENGINEERING RECOMMENDS THE USE OF FOUNDATION DRAINS.
- ROOF RUNOFF SYSTEM SHALL BE INSPECTED BY THE WESTWOOD DPW AND DESIGN ENGINEER AT ROUGH EXCAVATION AND PRIOR TO BACKFILL. CONTRACTOR TO COORDINATE INSPECTIONS.
- SEWER SERVICE TO BE SDR35.
- WATER SERVICE TO BE TYPE K COPPER.
- IF REQUIRED BY THE PLANNING BOARD PERMIT, PROVIDE CERTIFICATION SHOWING IMPORTED MATERIAL MEETS HAZARDOUS WASTE REQUIREMENTS IN § 7.1.5 OF THE ZONING BYLAW.

LEGEND & ABBREVIATIONS

- CB: CATCH BASIN
- STC: STORMCEPTOR TREATMENT UNIT
- DMH: DRAIN MANHOLE
- TR: TRENCH DRAIN
- INFIL: INFILTRATION TRENCH
- X" D: DRAIN PIPELINE
- RCF: REINFORCED CONCRETE PIPE
- PVC: POLYVINYL CHLORIDE PIPE
- SMH: SEWER MANHOLE
- X" S: SEWER PIPELINE
- OC.D: SEWER SERVICE CLEANOUT
- X" W: WATER MAIN
- HYD: HYDRANT
- WGV: WATER GATE VALVE
- CS: WATER SERVICE CURB STOP
- G: GAS PIPELINE
- L.P.: LIGHT POLE
- U.P.: UTILITY POLE
- S.F.: TRAFFIC SIGNAL POLE
- 252: EXISTING CONTOUR
- 252: PROPOSED CONTOUR
- E.O.P.: EDGE OF PAVEMENT
- C.C.B.: CAPE COD BITUMINOUS BERM
- V.B.B.: VERTICAL BITUMINOUS BERM
- S.G.C.: SLOPED GRANITE CURB
- V.G.C.: VERTICAL GRANITE CURB
- V.C.C.: VERTICAL CONCRETE CURB
- E.C.S.: EDGE CONCRETE SLAB
- G.V.: GATE VALVE
- C.L.F.: CHAIN LINK FENCE

REVISION	DATE	BY

PLAN DATE: MAY 8, 2017

LOT 3A
PHILLIPS WAY
PLAN OF LAND
IN
WESTWOOD, MA

MERRIKIN ENGINEERING, LLP
730 MAIN STREET, SUITE 2C
MILLIS, MA 02054
Phone: 508-376-8883

OWNER/APPLICANT:
ARIEL & KEITH FENGLER
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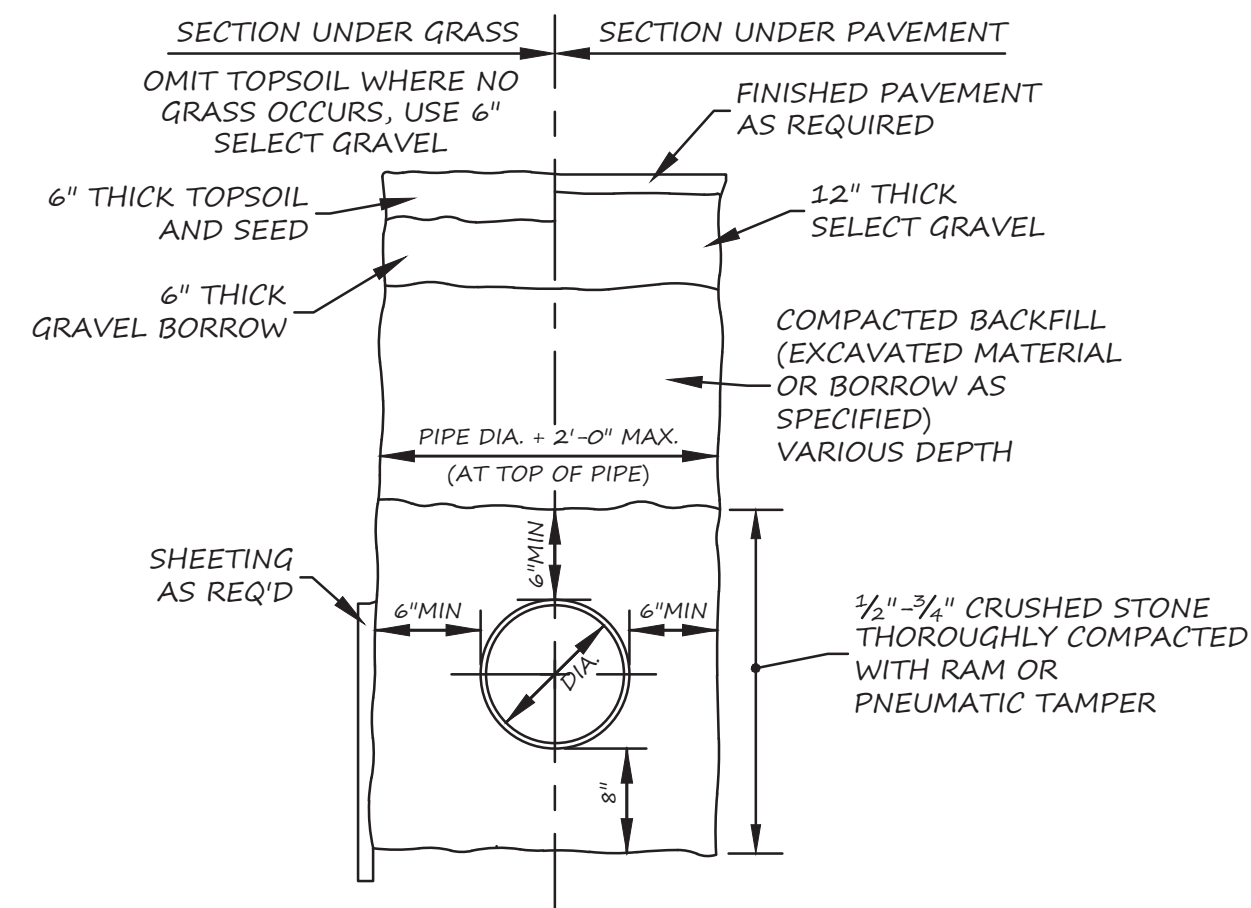
ZONING DISTRICTS:
SINGLE RESIDENCE C

PLAN & DEED REFERENCES:

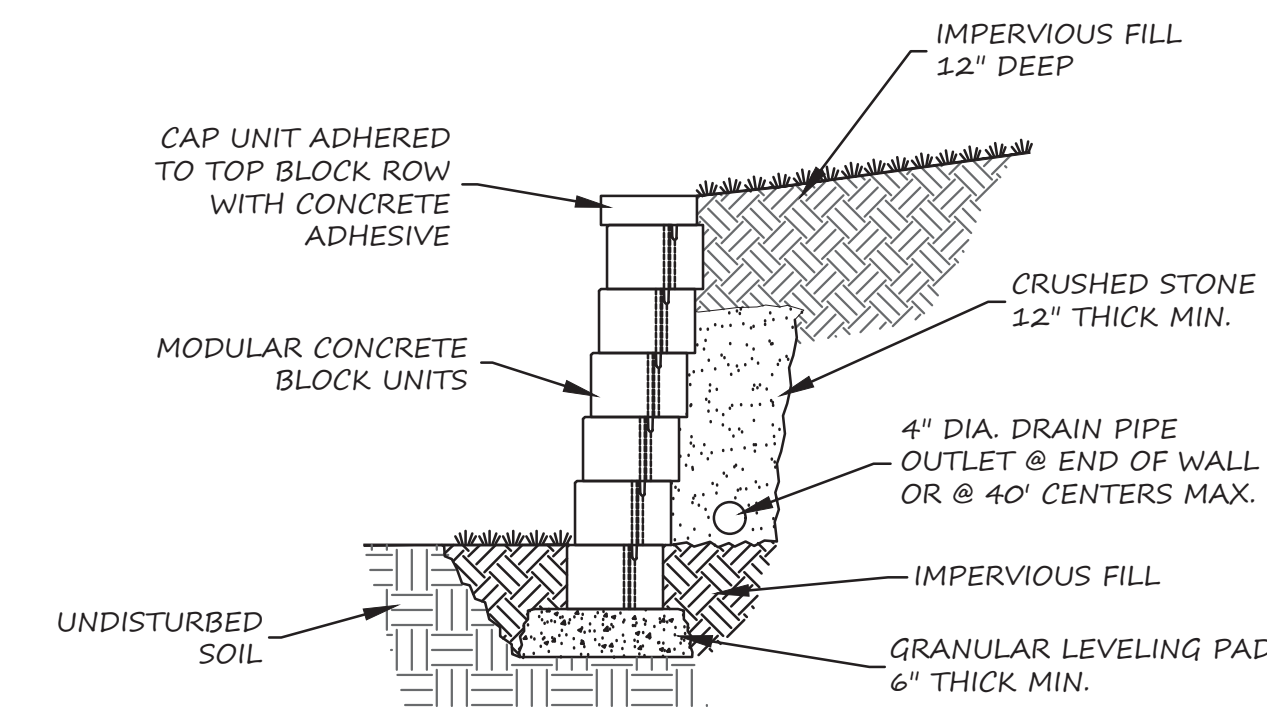
- DEED: 34614-81
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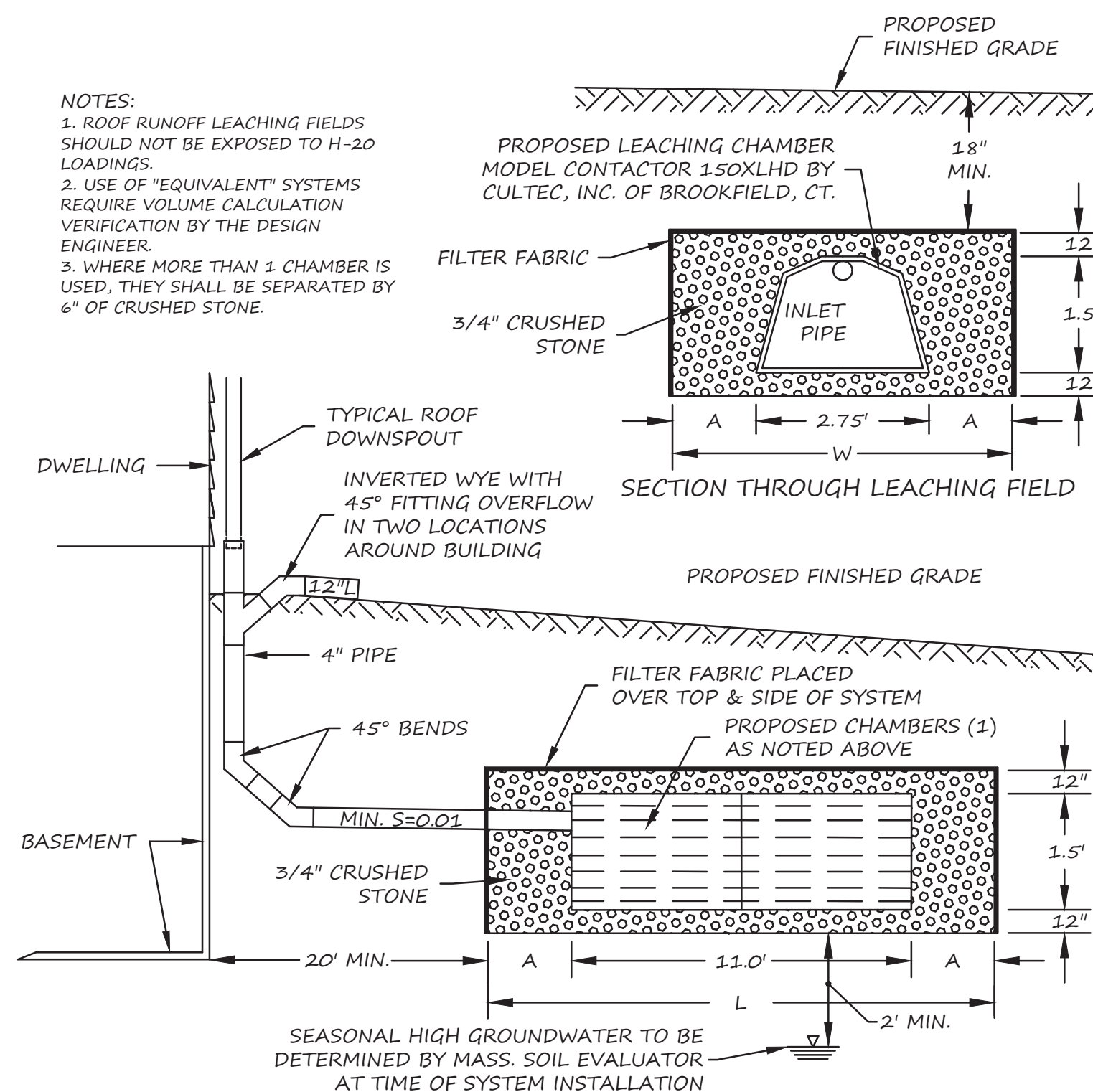


TYPICAL SEWER TRENCH
NOT TO SCALE



- NOTES:
- SMALL BLOCK UNITS SHALL BE THE SQUARE FOOT PRODUCT BY VERSA-LOK OR APPROVED EQUAL. WALL HEIGHT WITHOUT REINFORCEMENT SHALL BE LIMITED TO 3.5' EXPOSED FACE.
 - INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.

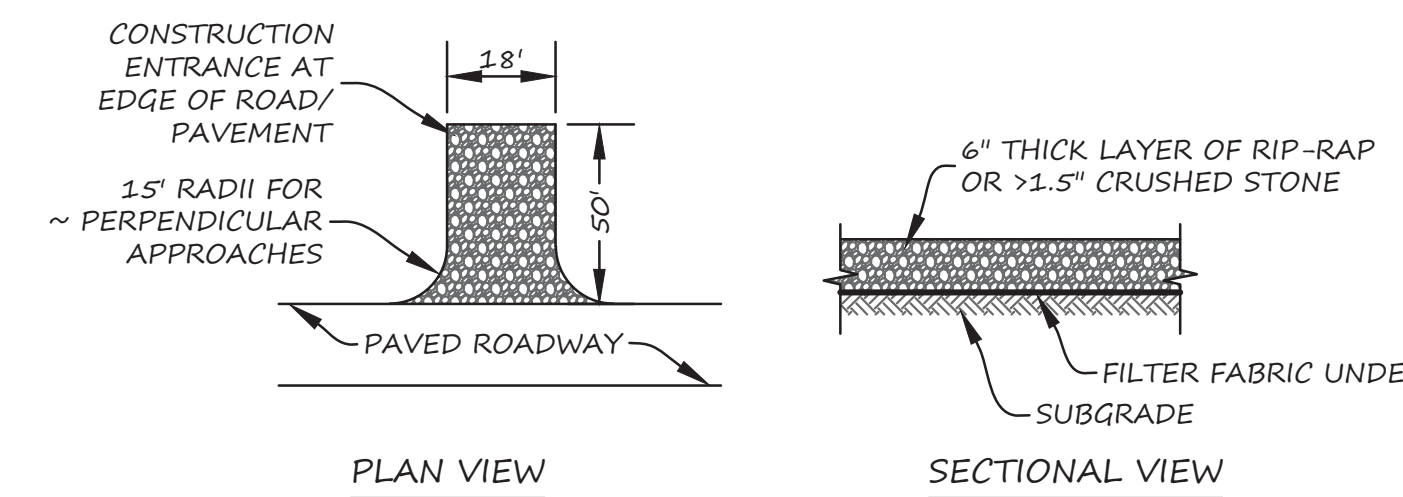
TYPICAL "SMALL BLOCK" RETAINING WALL
NOT TO SCALE



- NOTES:
- ROOF RUNOFF LEACHING FIELDS SHOULD NOT BE EXPOSED TO H-20 LOADINGS.
 - USE OF "EQUIVALENT" SYSTEMS REQUIRE VOLUME CALCULATION VERIFICATION BY THE DESIGN ENGINEER.
 - WHERE MORE THAN 1 CHAMBER IS USED, THEY SHALL BE SEPARATED BY 6" OF CRUSHED STONE.

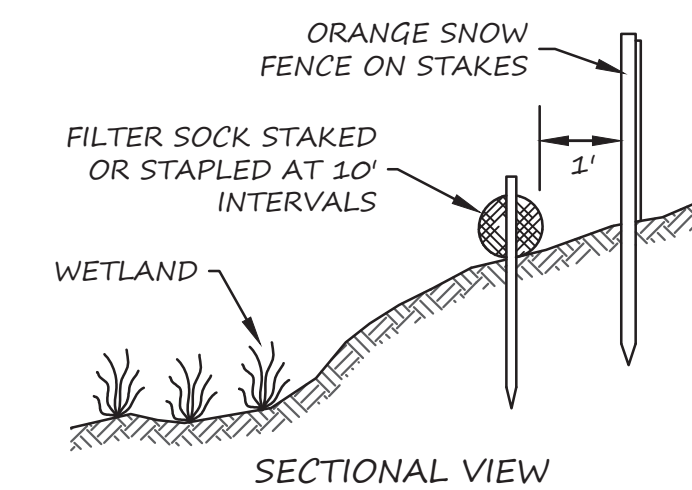
- DESIGN NOTES:
- EACH ROOF RUNOFF LEACHING SYSTEM WAS DESIGNED TO CAPTURE 2-INCHES OF RUNOFF FROM THE ROOF AREA OF THE PROPOSED HOUSE SHOWN ON THIS PLAN (APPROX. 1,826 S.F. FRONT, 1,475 S.F. BACK).
 - THE COMPLETED ROOF RUNOFF COLLECTION SYSTEM MUST COLLECT RUNOFF FROM THE ENTIRE ROOF AREA OF THE PROPOSED HOUSE.
 - PIPING FOR THE ROOF DOWNSPOUT COLLECTION SYSTEM MAY BE SCHEDULE 40 PVC OR HDPE.

ROOF RUNOFF LEACHING FIELD
NOT TO SCALE



- NOTES:
- ENTRANCE SHALL BE INSTALLED BEFORE ANY EXCAVATION WORK OCCURS ON-SITE.
 - ENTRANCE SHALL BE MAINTAINED IN GOOD CONDITION UNTIL A PAVED DRIVEWAY IS INSTALLED. REPLACE ENTRANCE IF FILLED WITH SOILS OR IF SOILS ARE BEING TRACKED ONTO ADJACENT ROADWAYS.

CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



EROSION CONTROL DETAIL (FILTER SOCK)
NOT TO SCALE

PLAN DATE: MAY 8, 2017

LOT 3A PHILLIPS WAY
DETAILS
SHEET
IN
WESTWOOD, MA

MERRIKIN ENGINEERING, LLP
730 MAIN STREET, SUITE 2C
MILLIS, MA 02054
Phone: 508-376-8883