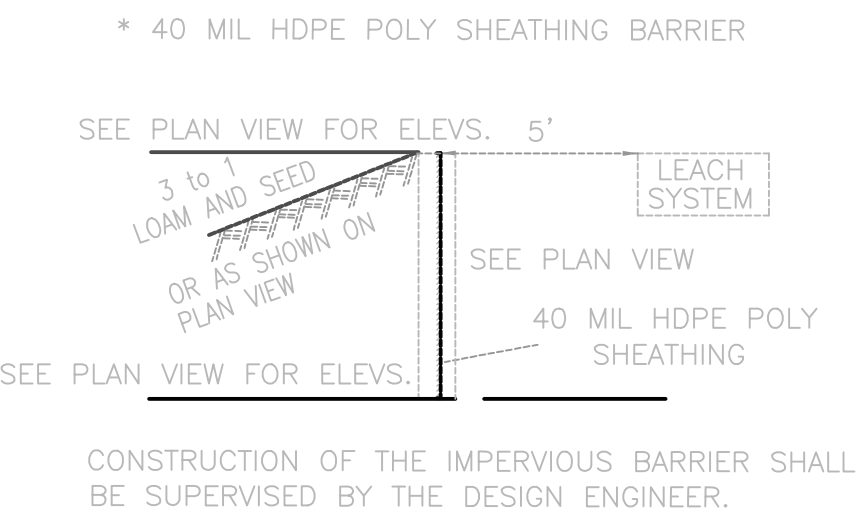


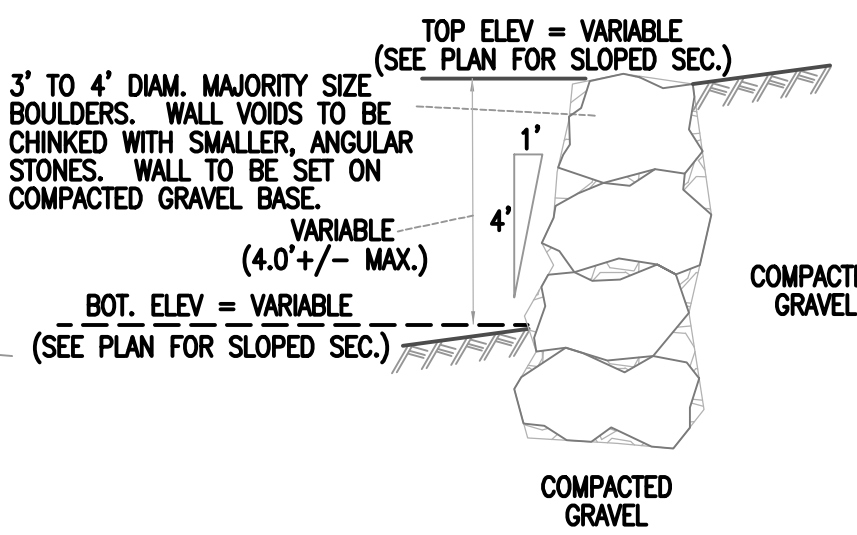
EROSION CONTROL BARRIER (ECB)  
100% BIODEGRADABLE MATERIALS - NO SYNTHETIC MATERIALS

### IMPERVIOUS BARRIER DETAIL



CONSTRUCTION OF THE IMPERVIOUS BARRIER SHALL BE SUPERVISED BY THE DESIGN ENGINEER.

### STACKED BOULDER RETAINING WALL DETAIL



CONSTRUCTION OF THE STACKED BOULDER RETAINING WALL SHALL BE SUPERVISED BY THE DESIGN ENGINEER.

### BUOYANCY CALCULATIONS

BOTTOM SEPTIC TANK ABOVE HIGH GROUND WATER  
BUOYANCY = 1500 GAL. SEPTIC TANK  
1.0' x 10' x 5.2' = 52 C.F.  
52 C.F. x 62.4 P.C.F. = 3,245 LBS.  
1500 GAL. H-20 SEPTIC TANK = 11,400 LBS.  
+ SOIL WEIGHT (COVER)  
+ SOIL FRICTION

\* COVER OVER SYSTEM COMPONENTS ARE NOT TO EXCEED 36 INCHES.



I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM, ARE ACCURATE AND IN ACCORDANCE WITH 310 CMR 15.100 THROUGH 15.107.

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

- SYSTEMS IN FILL -
- 1- EXCAVATION TO BE DRY AND SCARIFIED.
  - 2- FILL TO BE STOCKPILED AT THE EDGE OF FOUNDATION AND PUSHED OR CAST INWARD OVER EXCAVATED AREA.
  - 3- FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS.
  - 4- DEWATERING REQUIRED IF FILL IS TO BE PLACED BELOW GROUND WATER.

- FILL SPECIFICATIONS -
- THE FILL SHALL BE COMPRISED OF CLEAN GRANULAR SAND, FREE OF ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN TWO INCHES. A SIEVE ANALYSIS, USING A #4 SIEVE, SHALL BE PERFORMED ON REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. SIEVE ANALYSIS ALSO SHALL BE PERFORMED ON THE FRACTION OF THE FILL SAMPLE PASSING THE #4 SIEVE, SUCH ANALYSIS MUST DEMONSTRATE THAT THE MATERIAL MEETS EACH OF THE FOLLOWING SPECIFICATIONS.

SIEVE SIZE	EFFECTIVE PARTICLE SIZE	% THAT MUST PASS SIEVE
# 4	4.75 mm	100%
#50	0.30 mm	10% - 100%
#100	0.15 mm	0% - 20%
#200	0.075 mm	0% - 5%

### CULTEC CONTACTOR 100 NOTES

THE CONTRACTOR/INSTALLER SHALL TAKE APPROPRIATE MEASURES TO ENSURE THAT EQUIPMENT AND/OR VEHICLES DO NOT DRIVE OVER THE LEACH CHAMBERS ONCE INSTALLED.

INSTALLATION & MATERIALS TO BE IN COMPLIANCE WITH CULTREC INSTALLATION INSTRUCTIONS & SPECIFICATIONS AND D.E.P. CULTREC APPROVAL LETTER #9 DATED FEBRUARY 3, 2016.

IN ACCORDANCE WITH 310 CMR 15.211. GENERAL CONSTRUCTION REQUIREMENTS

SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED. MAGNETIC MARKING TAPE SHALL BE PLACED ABOVE THE OUTSIDE PERIMETER OF THE SEPTIC TANK, DISTRIBUTION BOX AND ABOVE ALL PIPING BEGINNING AT THE FOUNDATION THROUGH TO THE END OF EACH DISTRIBUTION LINE.

NOTES:

ANY UNDERGROUND UTILITIES TO BE ACCURATELY LOCATED PRIOR TO CONSTRUCTION BY CONTRACTOR

THERE ARE NO OTHER KNOWN WELLS WITHIN 200' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.

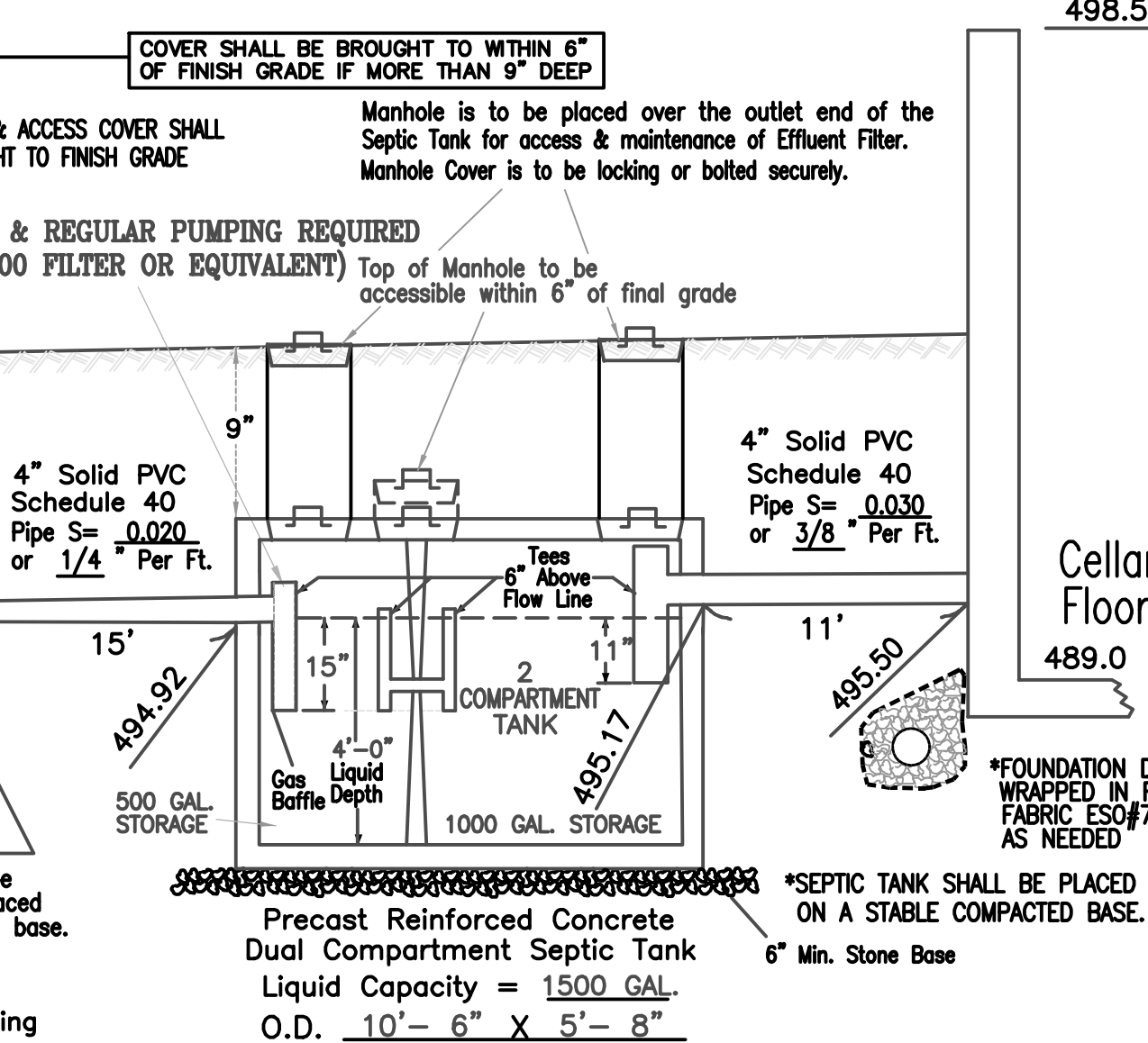
THERE ARE NO KNOWN SEWAGE DISPOSAL SYSTEMS WITHIN 100' OF THE PROPOSED WELL.

AN AS-BUILT PLAN WILL BE REQUIRED

THERE WERE NO WETLANDS OBSERVED WITHIN 100' OF ANY PROPOSED CONSTRUCTION OTHER THAN THOSE SHOWN.

\* IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT DIG SAFE AND LOCATE ALL UTILITIES BEFORE EXCAVATION. 1 800 DIG-SAFE

Top of Concrete



Cellar Floor

\*FOUNDATION DRAIN WRAPPED IN FILTER FABRIC ESO#70 AS NEEDED

\*SEPTIC TANK SHALL BE PLACED ON A STABLE COMPACTED BASE.

### CONSERVATION COMMISSION LEGEND

- EDGE OF BORDERING VEGETATED WETLAND
- EDGE OF 100' BUFFER ZONE
- STAKED SILTATION FENCE & HAYBALES

TEST HOLE	273	TEST HOLE	274
0"	491.2	0"	489.0
8"	A 10YR 2/2 FINE SANDY LOAM 490.5	8"	A 10YR 3/2 FINE SANDY LOAM 488.3
28"	MOTTLES 488.9	B 10YR 6/6 SANDY LOAM	
42"	Bw 10YR 6/6 SANDY LOAM 487.7	30"	MOTTLES (10YR 5/8) 486.5
	C 5Y 6/1 LOAMY SAND	C 5Y 6/2 LOAMY SAND	
132"	480.2	128"	478.5
PERC - 8 M.P.I.		PERC - 4 M.P.I.	

Soil Evaluator - LENNY IZZO  
Witness - STEVEN DONATELLI  
Date of Test - SEPTEMBER 21, 2016  
Perc Application# - 16-00  
Perc Rate - 8 M.P.I.  
Design G.W. - @ 28"  
Mottling - @28"  
Refusal - NONE

### CONSTRUCTION NOTES

- ALL TOPSOIL AND SUBSOIL OR ANY OTHER IMPERVIOUS MATERIAL BELOW THE TOP OF THE PEASTONE AND FOR A DISTANCE OF 5' IN ALL DIRECTIONS FROM THE LEACHING FACILITY TO BE REMOVED AND REPLACED WITH CLEAN GRANULAR SAND & GRAVEL.
- THE FOLLOWING INSPECTIONS IF CHECKED ARE REQUIRED BY THE BOARD OF HEALTH.
1. After Excavation
  2. After Pipe And Stone Placement
  3. After Final Grading 24 hr. Notice Required

### DESIGN CRITERIA

Total Daily Flow

4 Bdrms x 110 Gal/Bdrm/Day = 440 Gal/Day

No. of Leach Trenches 4 Length 30.2' Width 3'

Depth Below Inlet 6.1'

Effective Leaching Area is equal to 6.7 S.F. times Total Linear Feet.  
121 L.F. x 6.7 S.F. = 809 S.F. Effective Leaching Area

809 S.F. x 0.80 = 486 Gal/Day  
Total Leaching Area gpd/Sq.Ft. Total Leaching Capacity

\* GARBAGE GRINDERS NOT ALLOWED

### APPLICANT

SYLVAN SPRINGS REALTY TRUST  
148 PARK ST  
NORTH READING, MA.

### SITE

LOT 65 / HSE.#15  
LOCUST HILL DRIVE  
MENDON, MA.

BENCH MARKS : USGS DATUM  
TOP OF DRILL HOLE VERT. SPIKE IN  
IN ROCK 12" OAK  
ELEV.=485.13 ELEV.=450.20

### IA SYSTEM ~ SEWAGE DISPOSAL PLAN

IN MENDON, MA

SCALE 1" = 20' DECEMBER 23, 2020

I CERTIFY THAT THE SEWAGE DISPOSAL FACILITY IS DESIGNED IN ACCORDANCE WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE AND THE REGULATIONS OF THE MENDON BOARD OF HEALTH.

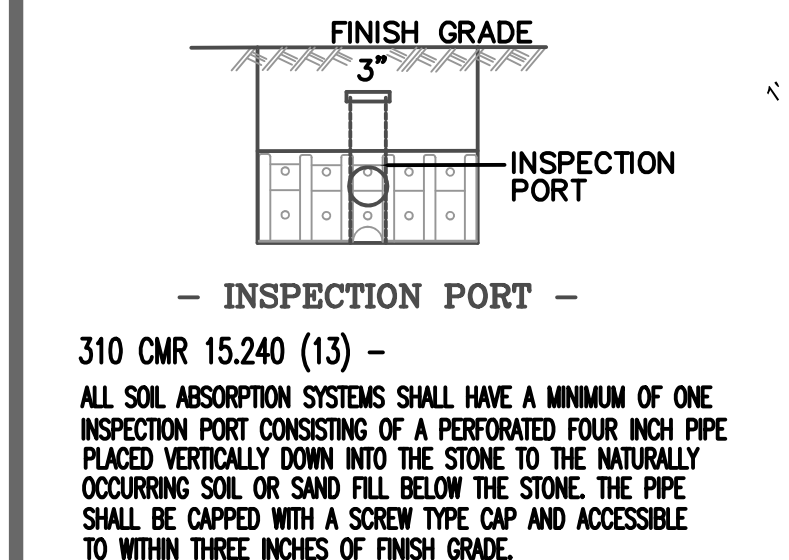
NOTE: THIS PLAN WAS MADE FROM A TAPED SURVEY AND NOT FROM AN INSTRUMENT PROPERTY LINE SURVEY AND IS DRAWN FOR SEWAGE DISPOSAL PURPOSES ONLY AND NOT FOR PROPERTY LINE DETERMINATION.

APPROVED  
DISAPPROVED  
DATE  
SIGNED

Shea ENGINEERING & SURVEYING INC.  
76 UXBRIDGE ROAD - MENDON, MA. 01756  
TEL (508) 473-1163

ZONING-RESIDENTIAL  
PER ZONING SETBACKS IN EFFECT AT TIME OF DEFINITIVE PLAN APPROVAL.  
MIN. SETBACKS  
FRONT - 85' FROM CENTERLINE ROAD  
SIDE - 20'  
REAR - 20'

### INSPECTION PORT DETAIL



310 CMR 15.240 (13) -

ALL SOIL ABSORPTION SYSTEMS SHALL HAVE A MINIMUM OF ONE INSPECTION PORT CONSISTING OF A PERFORATED FOUR INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND TILL BELOW THE STONE. THE PIPE SHALL BE CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE TO WITHIN THREE INCHES OF FINISH GRADE.

GENERAL NOTES

CONTACTOR 100SD BY CULTREC, INC. OF BROOKFIELD, CT. STORAGE PROVIDED = 3.90 CFF PER DESIGN UNIT. REFER TO CULTREC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.

ALL CONTACTOR 100 CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

END VIEW

FINISHED GRADE

12" MIN. COVER

4 OZ. NON-WOVEN FILTER FABRIC OVER CULTREC CHAMBER

1" MIN.

CONTACTOR 100SD STANDARD-DUTY CHAMBER

SURROUNDING SAND/GRAVEL (AS PER CMR 15.255(3))

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