

DATE	REVISION	CK.

CONSTRUCTION SEQUENCE
(SANITARY SYSTEM)

- NOTIFY TOWN HEALTH DEPARTMENT AND THE ENGINEER 48 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION. NO PORTION OF THE SYSTEM WILL BE COVERED WITHOUT INSPECTION AND APPROVAL BY THE ENGINEER OR THE SANITARIAN.
- PLACE SILT FENCE AS SHOWN ON THE DRAWING AND IN THE DETAIL.
- REMOVE ALL TREES, STUMPS AND DELETERIOUS MATERIAL FROM SYSTEM AREA.
- STOCKPILE TOPSOIL FOR REUSE.
 - DO NOT STOCKPILE TOPSOIL IN SANITARY SYSTEM AREA.
 - DO NOT REMOVE SUBSOIL.
- ENGINEER/LAND SURVEYOR SHALL FIELD STAKE THE PROPOSED SYSTEM PRIOR TO INSTALLATION. ADDITIONAL A BENCH MARK SHOULD BE SET AT THE TIME OF STAKEOUT.
 - IF SOIL CONDITIONS OTHER THAN THOSE SHOWN IN THE SOIL LOGS ARE ENCOUNTERED DURING THE INSTALLATION OF THE SANITARY SYSTEM, THE DESIGN ENGINEER OR THE SANITARIAN SHALL BE NOTIFIED AND THE WORK WILL BE HALTED PENDING REVIEW OF THOSE CONDITIONS. IF NECESSARY THE SANITARY SYSTEM SHALL BE REVISED.
 - A MINIMUM OF 4 FEET MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND LEDGE. A MINIMUM OF 1.5 FEET MUST BE MAINTAINED BETWEEN THE BOTTOM OF THE SYSTEM AND SEASONAL HIGH GROUNDWATER.
- DO NOT BACKFILL ANY PORTION OF THE SANITARY SYSTEM UNTIL INSPECTED BY THE SANITARIAN AND UNTIL A "RECORD" SURVEY HAS BEEN COMPLETED.
- REPLACE TOPSOIL, GRADE, SEED AND MULCH ALL DISTURBED AREAS.
- MAINTAIN SYNTHETIC FILTER BARRIER UNTIL ALL DISTURBED AREAS ARE STABILIZED.

SANITARY SYSTEM NOTES:

- NO LARGE CAPACITY TUBS (> 100 GALLON CAPACITY) ARE PLANNED AND WILL NOT BE PERMITTED IN THE PROPOSED RESIDENCE.
- NO WATER TREATMENT SYSTEM WASTE WATER SHOULD BE DISCHARGED TO THE SEPTIC SYSTEM.
- A GARBAGE GRINDER (DISPOSAL) IS PROPOSED. THEREFOR, INCREASE SEPTIC TANK SIZE TO 1,500 GALLONS.
- WATER SUPPLY SHALL BE BY INDIVIDUAL WELL.
- ALL SOLID PIPING AFTER THE SEPTIC TANK TO BE 4" PVC ASTM D 3034, SDR 35.
- FILTER FABRIC SHALL BE SELECTED FROM THE FOLLOWING TABLE:

APPROVED FILTER FABRICS FOR COVERING STONE AGGREGATE

MANUFACTURE	DESIGNATION NUMBER
AMERICAN ENGINEERING FABRICS	AEF-480
BRADLEY INDUSTRIAL TEXTILE	PHENOIX LIJOMA
CARTHAGE MILLS	M35
CULTEC	410
DUPONT	SF20
ENGINEERED SYNTHETIC PRODUCTS	TNS R020
GEO FABRICS	GF 150
L&M SUPPLY COMPANY	L&M 231
MIRAFI	65304 (4' WIDE), 65303 (3' WIDE)
SKAPS INDUSTRIES	SKAPS GT 120
SRW PRODUCTS	SRW PRODUCTS DF1 SRW PRODUCTS DF2
TERRA TEX	SO1.5, PO1.5
TYPAR	3151, 3201
US FABRIC INC.	US 1.5 CT

- NO DEVIATION FROM THIS PLAN WILL BE ALLOWED WITHOUT THE APPROVAL OF THE ENGINEER AND SANITARIAN.
- SEPTIC TANK CONSTRUCTION JOINTS SHALL BE SEALED WITH ASPHALT CEMENT. ALL PIPE CONNECTIONS TO THE SEPTIC TANK AND DISTRIBUTION BOXES SHALL BE SEALED WITH A POLYETHYLENE GASKET ("POLY-LOK" OR APPROVED EQUAL).
- SEPTIC TANK AND BAFFLES SHALL CONFORM TO SECTION V.A.1 TECHNICAL STANDARDS OF THE STATE HEALTH CODE.
- SEPTIC TANK SHALL BE TWO COMPARTMENT TANK WITH HEAVY DUTY STEEL HANDLES FOR MANHOLE ACCESS COVERS AND GAS BAFFLES INSTALLED ON OUTLET PIPING. SEPTIC TANK TO BE EQUIPPED WITH AN APPROVED NON-BY-PASS EFFLUENT FILTER AT THE OUTLET. SEE TABLE BELOW:

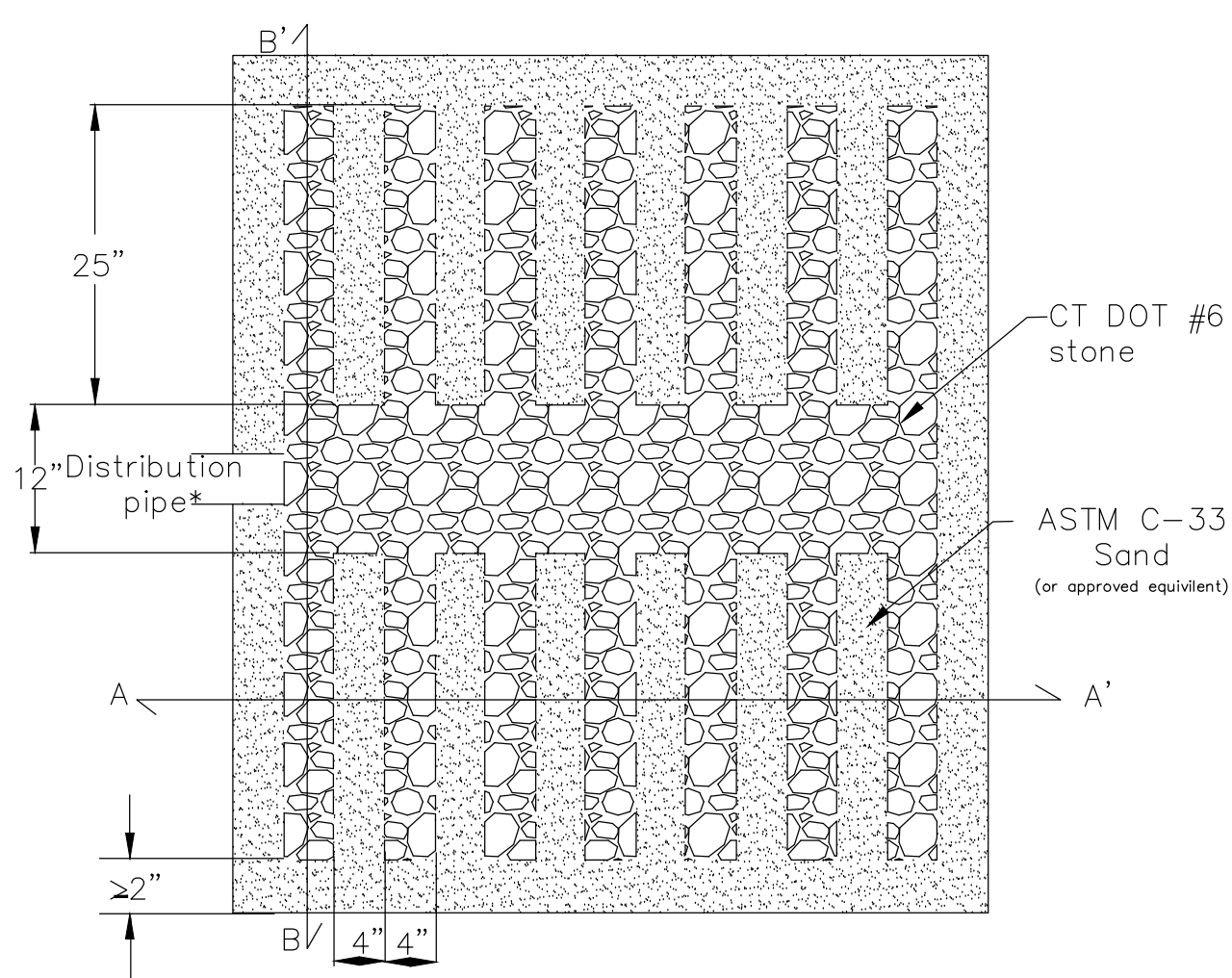
APPROVED SEPTIC TANK EFFLUENT FILTERS

MANUFACTURER	MODEL
BEAR ONSITE	ML2-416, ML2-920, ML3-910 ML3-916, ML3-925, ML3-932
BIO-MICROBICS	Sonitee Series: ST 416, ST 418, ST 818 ST 838, ST 1618, ST 1638
BOWCO INDUSTRIES	EF-235
GAG-SIMTECH	STF-110, STF-110-7R STF-110-6W, STF-110-8B
NORWECO	BIO-KINETIC BK2000
ORENCO SYSTEMS	FT044-36 FT0854-36 FT1254-36 FT1554-36 FTJ0418
POLYLOK	PL-68, PL-122, PL-525, PL-625 GF 10-8, GF 10-16
PREMIER TECH	EFT-080
RISSY PLASTICS	45 - CLIK N'STICK
TUF-TITE	EF-4, EF-6
ZABEL	A100 A300 A1800 A1801 A100-HIP A300-HIP A1800-HIP A1801-HIP
ZOELLER/CLARUS	A600-12, A600-B WW1 (170-0078) WW4 (5000-0007)

- STONE AGGREGATE MEANS BROKEN STONE, CRUSHED STONE, OR SCREENED GRAVEL MEETING DEPARTMENT OF TRANSPORTATION FORM 816 SPECIFICATION M.01.01 FOR NO. 4 OR NO. 6 STONE (AS SHOWN BELOW OR LATEST SPECIFICATION). STONE AGGREGATE SHALL BE FREE OF SILT, DIRT OR DEBRIS AND SHALL SHOW A LOSS OF ABRASION OF NOT MORE THAN 50 PERCENT USING AASHTO METHOD T-96.

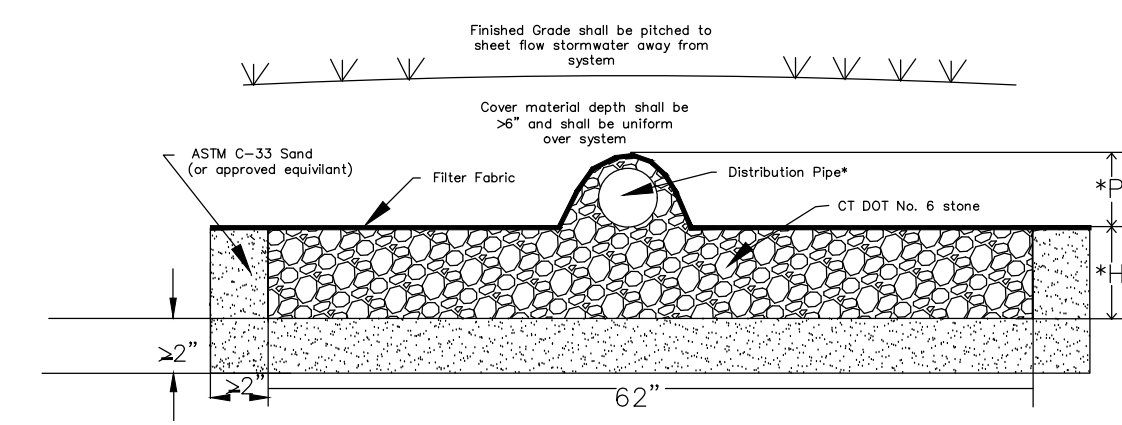
SIEVE SIZE	NO. 4 STONE AGGREGATE (A.K.A. 1 & 2" STONE)		NO. 6 STONE AGGREGATE (A.K.A. 3/4" STONE)	
	PERCENT PASSING (by weight)		PERCENT PASSING (by weight)	
2 - INCH	100		N/A	
1.5 INCH	90-100		N/A	
1 INCH	20-55		100	
3/4 INCH	0-5		90-100	
1/2 INCH	N/A		20-55	
3/8 INCH	0-5		0-15	
#4	N/A		0-5	
#40	0-3		0-3	
#200	0-15		0-15	

- ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS, HAVE RISER COVERS THAT WEIGHS AT LEAST 59 LBS. AND/OR INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO THE TANK. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.



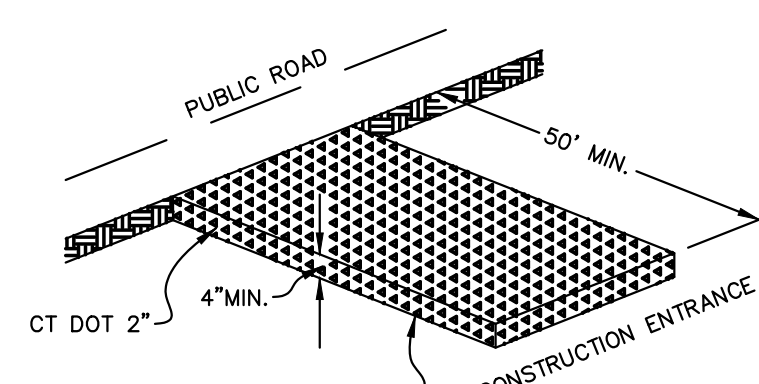
*3" min. I.D., ASTM D-3034, SDR 35 pipe for gravity applications
0.75" min. I.D., ASTM D-2665, SCH 40 PVC pipe for pressure applications

GEOMATRIX GST LEACHING SYSTEM
Plan View
12" (GST6212)



*H=24" (GST6224) *P= 2" - 5.5"

GEOMATRIX GST LEACHING SYSTEM
B-B' CROSS SECTION
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE

TEST HOLE DATA
PERFORMED BY DON MITCHELL, MPH, RS
& DOANE ENGINEERING
05/30/23

PERCOLATION TEST DATA
PERFORMED BY DOANE ENGINEERING
ON 5/30/23

TH 1
0 - 36" MISCELLANEOUS DISTURBED SANDY SOIL
36 - 66" TAN FINE SAND
66 - 80" TAN MEDIUM TO COARSE SAND AND GRAVEL
80 - 88" TAN FINE SAND
88 - 109" TAN WELL GRADE SAND, GRAVEL AND STONE (FIRM)
ROOTS @ 60"
NO MOTTILING OBSERVED
NO GROUNDWATER OBSERVED
NO LEDGE OBSERVED

PT 1
9:05 - PRE-SOAK 52" - DEPTH
9:25 - FILL
TIME DEPTH MIN./INCH
9:25 - 18
9:30 - 24 0.83
9:32 - 26 1.0
PERC RATE = <1 MIN./INCH

TH 2
0 - 4" TOPSOIL
4 - 16" ORANGE BROWN LOAMY FINE SAND
16 - 23" LIGHT BROWN FINE SAND
23 - 51" TAN FINE SAND
51 - 71" COARSE SAND AND GRAVEL (CLEAN)
71 - 89" GREY FINE SAND
ROOTS @ 72"
NO MOTTILING OBSERVED
NO GROUNDWATER OBSERVED
NO LEDGE OBSERVED

PT 2
9:20 - PRE-SOAK 20" - DEPTH
9:40 - FILL
TIME DEPTH MIN./INCH
9:40 - 5
9:45 - 12 0.71
9:50 - 15.5 1.43
9:55 - 19 1.43
PERC RATE = 1 - 10.0 MIN./INCH

TH 3*
0 - 12" DISTURBED SOIL
12 - 17" TOPSOIL
17 - 40" ORANGE BROWN SILTY FINE SANDY LOAM
40 - 53" COARSE SAND & GRAVEL
53 - 73" GREY FINE SAND WITH STRATIFIED SILT (60") AND FINE SAND
73 - 92" GREY F-M SAND
ROOTS @ 47"
NO MOTTILING OBSERVED
NO GROUNDWATER OBSERVED
NO LEDGE OBSERVED

SANITARY SYSTEM DESIGN CRITERIA:

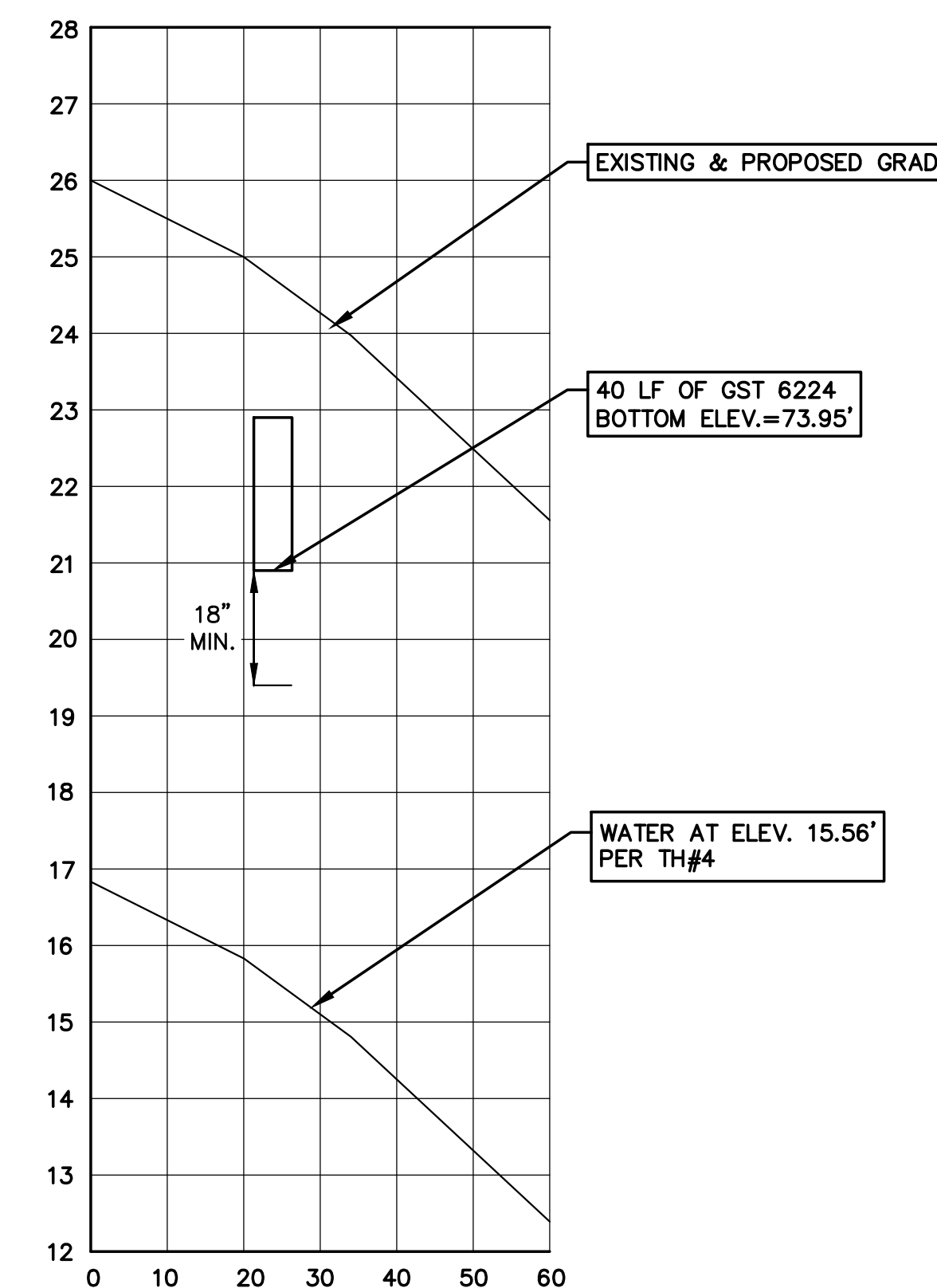
PROPOSED 4 BEDROOM HOUSE
DESIGN PERCOLATION RATE = 0-10.0 MIN/IN
REQUIRED EFFECTIVE LEACHING AREA = 578 SF
PROVIDE 1 - 70 LF ROWS OF GST 6224
EFFECTIVE LEACHING AREA PROVIDED =
1 X 32 LF X 18.1 SF/LF = 580 SF
PROVIDE A 1,500 GALLON SEPTIC TANK TO ACCOMMODATE 4 BEDROOMS AND A GARBAGE DISPOSAL.
PROVIDE 100 PERCENT RESERVE AREA
MINIMUM LEACHING SPREAD (MLSS)
DEPTH TO RESTRICTIVE LAYER > 60 INCHES
THEREFORE, MLSS NEED NOT BE CONSIDERED

* - METAL DEBRIS AND PLASTIC AT ONE END OF HOLE AT ABOUT 50" (END CLOSEST TO TH 4)

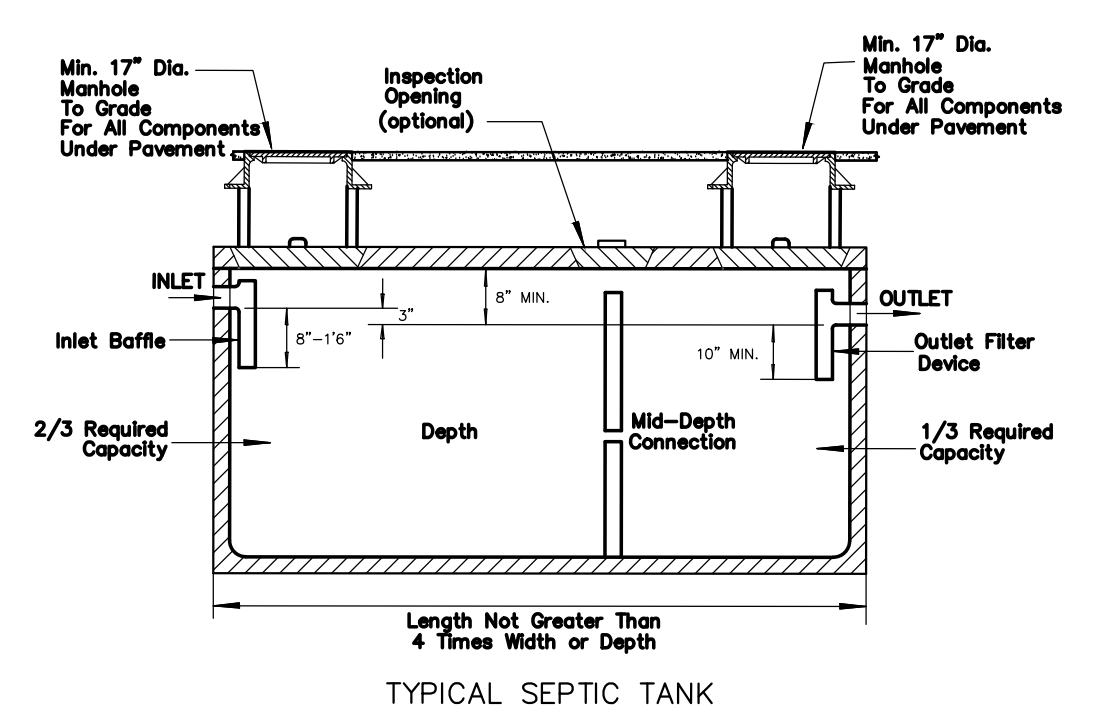
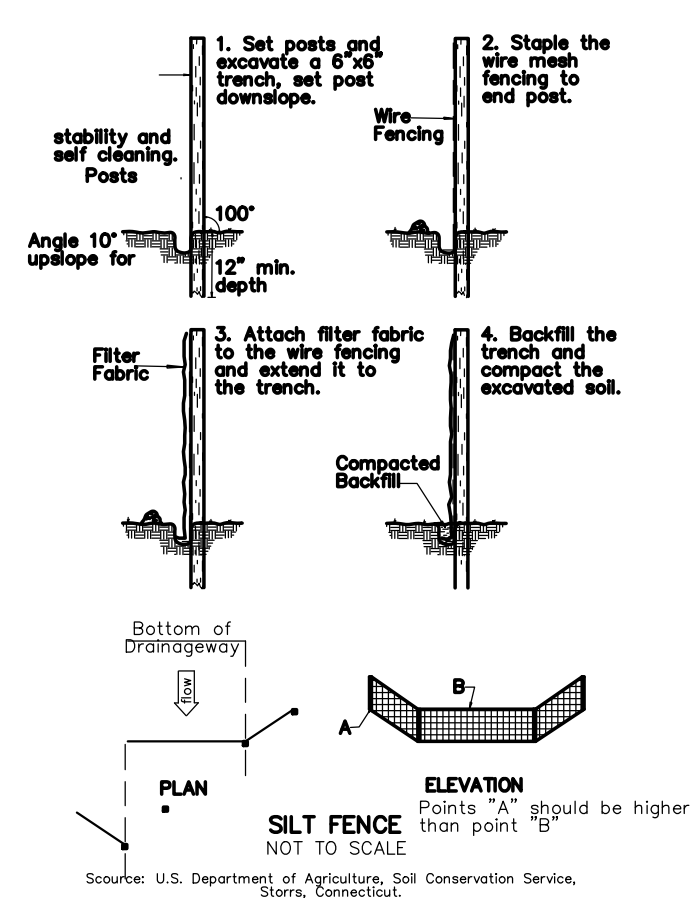
TH 4

BURY HOLE

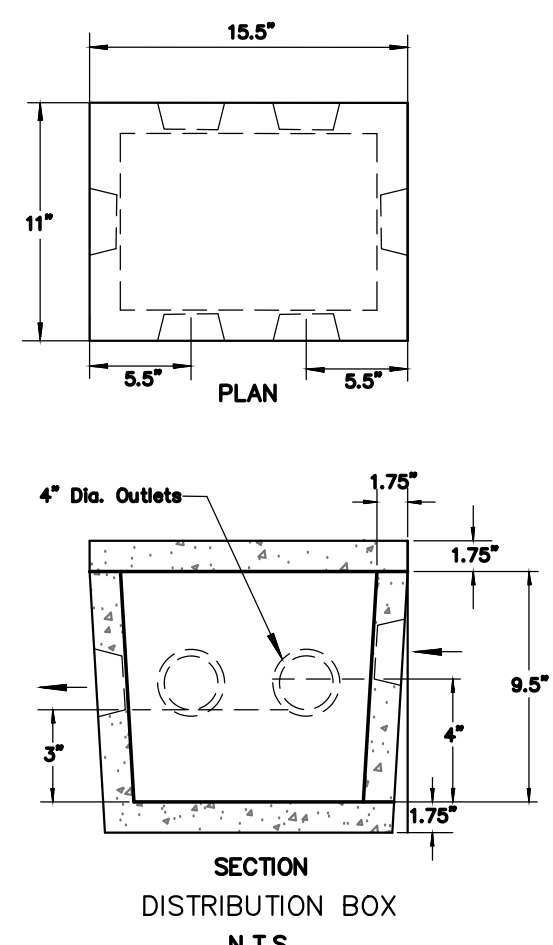
CONTAINED ORANGE, BROWN VERY FINE SANDY LOAM BUT WAS NOT READ DUE TO DEBRIS AND SOIL MIXING.
LOGGED FOR DEPTH ONLY.
GROUNDWATER @ 110"
TOTAL DEPTH 113"



SECTION A-A
SANITARY SYSTEM X-SECTION
HORZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 2'



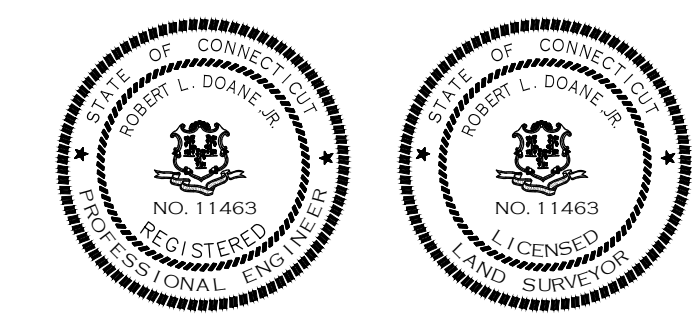
TYPICAL SEPTIC TANK



SECTION DISTRIBUTION BOX N.T.S.

DOANE ENGINEERING PERFORMED THE SOIL TESTING AND SITE DEVELOPMENT

Robert L. Doane, Jr.
ROBERT L. DOANE, JR.
CONN. P.E. & L.S. LIC. NO. 11463



MAP #71 LOT #005

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DETAIL SHEET
PREPARED FOR
ROBERT J & LYNN S KELLER
HERON POND ROAD, ESSEX, CONNECTICUT

SCALE: N.T.S. DATE: 06/26/23 SHEET NO.: 2 OF 2 IDENT. NO.: