

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.
 - REMOVE SUBSOIL TO EXTENT OF SELECT FILL SHOWN ON PLAN AND PLACE EMBANKMENT DOWN GRADIENT OF SANITARY SYSTEM PER SITE PLAN.
 - PLACE SELECT FILL TO HORIZONTAL AND VERTICAL LIMITS SHOWN ON THE SITE PLAN. SELECT FILL SHALL CONFORM WITH THE FOLLOWING CRITERIA AND GRADATION:

SELECT FILL PLACED WITHIN AND ADJACENT TO LEACHING SYSTEM AREAS SHALL BE A CLEAN MATERIAL COMPRISED OF SAND, OR SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY THE DESIGN P.E. SELECT FILL EXCEEDING 6 PERCENT PASSING THE #200 SIEVE BASED ON A WET SIEVE ANALYSIS CANNOT BE APPROVED BY THE DESIGN P.E.

SIEVE SIZE	PERCENT PASSING	
	WET SIEVE	DRY SIEVE
#4	100	100
#10	70-100	70-100
#40	10-50	10-75
#100	0-20	0-5
#200	0-5	0-2.5

*PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75 IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10 AND THE #200 SIEVE DOES NOT EXCEED 5.

- ENGINEER/LAND SURVEYOR SHALL FIELD STAKE THE PROPOSED SYSTEM PRIOR TO INSTALLATION.
- INSTALL SEPTIC SYSTEM AS SHOWN.
 - 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 GARBAGE GRINDER INSTALLATION IS PLANNED FOR THE PROPOSED RESIDENCE. SHOULD A GARBAGE GRINDER BE INSTALLED THE PROPOSED SEPTIC TANK SHALL BE INCREASED TO 2,000 GALLON TANK.
- WATER SUPPLY IS PUBLIC WATER.
- 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		
MANUFACTURER	DESIGNATION	NUMBER
AMERICAN ENGINEERING FABRICS	AEF-480	
BRADLEY INDUSTRIAL TEXTILE	PHOENIX LUJOMA	
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)	
SKAFPS INDUSTRIES	SKAFPS GT 120	
SRW PRODUCTS	SRW PRODUCTS DF1 SRW PRODUCTS DF2	
TERRA TEX	S01.5, P01.5	
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	Sanitee 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-B, GF 10-16
PREMIER TECH	EFT-080
RISSEY PLASTICS	45 - CLK N-STICK
TUF-TITE	EF-4, EF-6
ZABEL	A100 A300 A1800 A1801 A100-HIP A300-HIP A1800-HIP A1801-HIP A600-12, A600-8
ZOELLER/CLARUS	WW1 (170-0078) WW4 (5000-0007)

- STONE AGGREGATE MEANS BROKEN STONE, CRUSHED STONE, OR SCREENED GRAVEL MEETING DEPARTMENT OF TRANSPORTATION FORM 816 SPECIFICATION M.O.I.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	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	0-15	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

TEST HOLE DATA
PERFORMED BY DOANE ENGINEERING
TOM METCALF & CRAHD, STEVEN YENCO, RS
7/13/20

TH 1

0 - 8" TOPSOIL
8 - 30" YELLOW BROWN FINE SAND WITH SILT
FEW STONES LITTLE FINE GRAVEL
30 - 94" PALE BROWN FINE MEDIUM SAND TRACE
SILT STONE 1/2"-3" DIAMETER
ROOTS OBSERVED TO 60"
NO LEDGE OBSERVED
NO GROUNDWATER OBSERVED
NO MOTTLING OBSERVED
RESTRICTIVE LAYER = 94"

TH 2

0 - 8" TOPSOIL
8 - 32" YELLOW BROWN VERY FINE/FINE SAND
WITH SILT FEW STONES LITTLE FINE GRAVEL
30 - 94" PALE BROWN FINE MEDIUM SAND TRACE
FINE GRAVEL BONY COBBLES STONE 0-18"
DIAMETER
ROOTS OBSERVED TO 64"
NO LEDGE OBSERVED
NO GROUNDWATER OBSERVED
NO MOTTLING OBSERVED
RESTRICTIVE LAYER = 78"

PERCOLATION TESTS
PERFORMED BY DOANE ENGINEERING
7/23/20

PT 1

D = 26"

TIME (min)	CHANGE (IN)	DEPTH (IN)	CHANGE (IN)
2:30	5 5/8		
13:00	9 1/2	3 7/8	
20:00	11 1/2	2	
25:15	12 1/2	1	
30:00	13 5/8	1 1/8	
37:30	14 3/4	1 1/8	

PERCOLATION RATE = 1-10 MIN/IN

PT 2

D = 25"

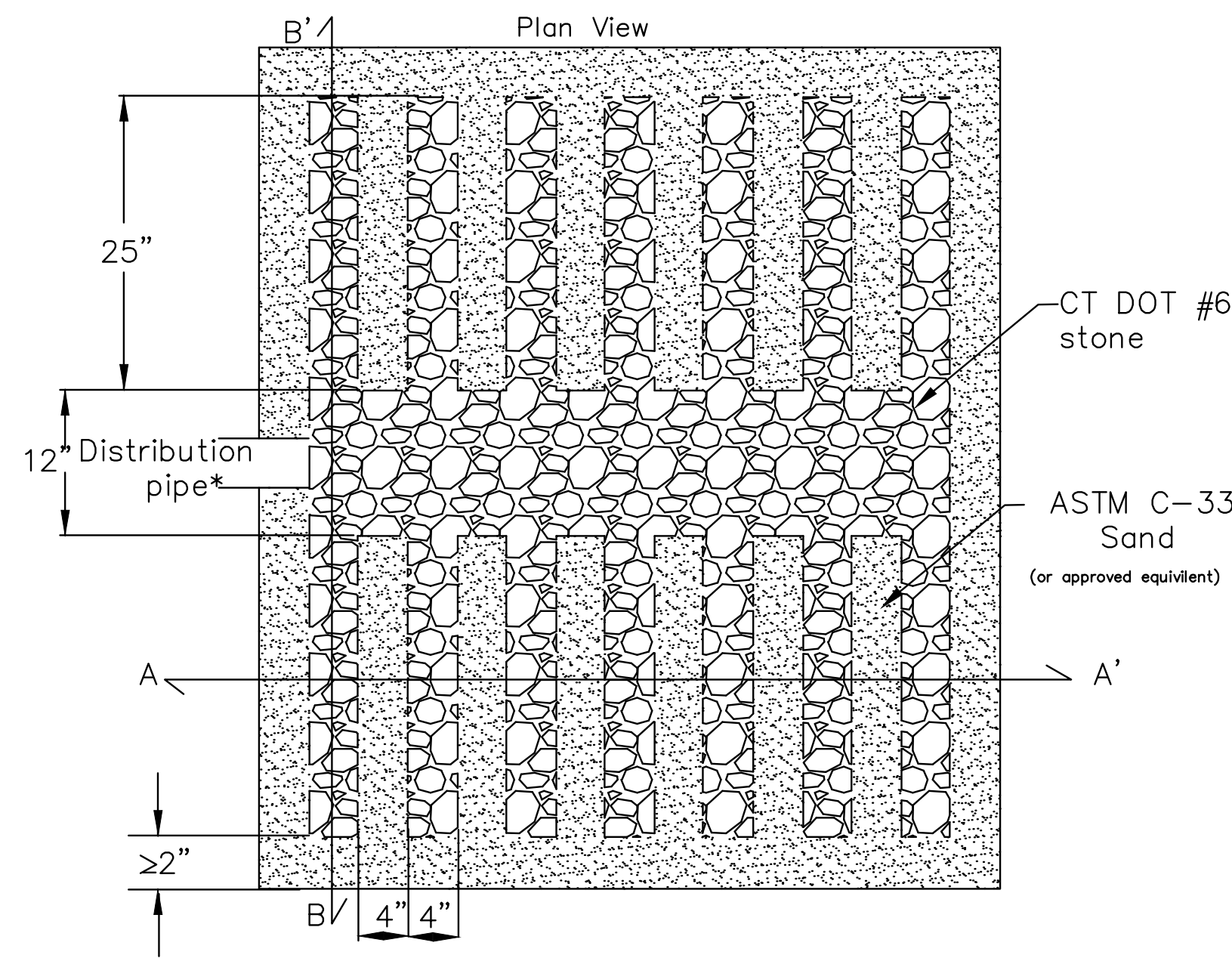
TIME (min)	CHANGE (IN)	DEPTH (IN)	CHANGE (IN)
0:00	9 1/4		
11:30	14	4 3/4	
15:00	14 7/8	7/8	
19:00	15 7/8	1	
24:00	17	1 1/8	

PERCOLATION RATE = 1-10 MIN/IN

SANITARY SYSTEM DESIGN CRITERIA:

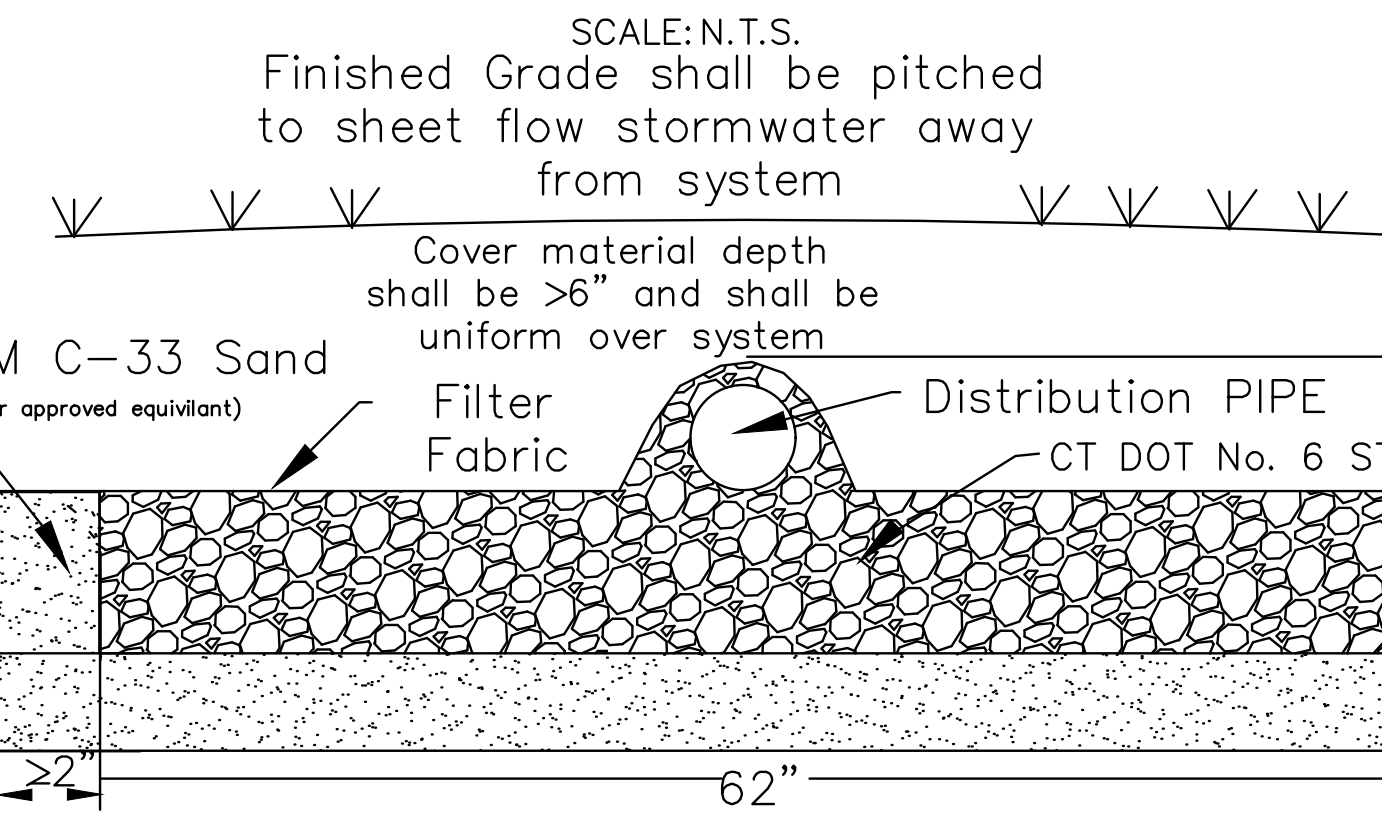
PROPOSED 5 BEDROOM HOUSE
PERCOLATION RATE = 1-10 MIN/IN
REQUIRED EFFECTIVE LEACHING AREA = 660 SF
PROVIDE 40 LF OF GST 6224
EFFECTIVE LEACHING AREA PROVIDED
40 LF X 18.1 SF/LF = 724 SF PROVIDED
PROVIDE 1,250 GALLON SEPTIC TANK
RESERVE AREA NOT REQUIRED

*H=24" (GST6224)



*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

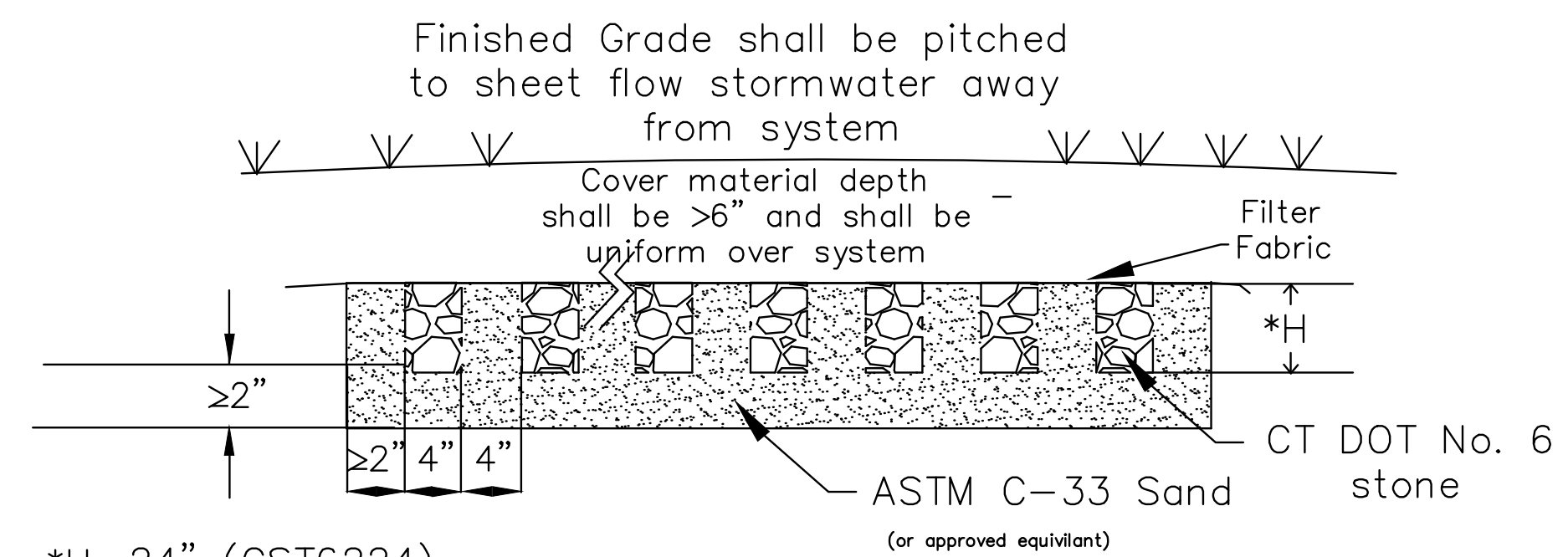
GEOMATRIX GST™ LEACHING SYSTEM
SCALE: N.T.S.



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

*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

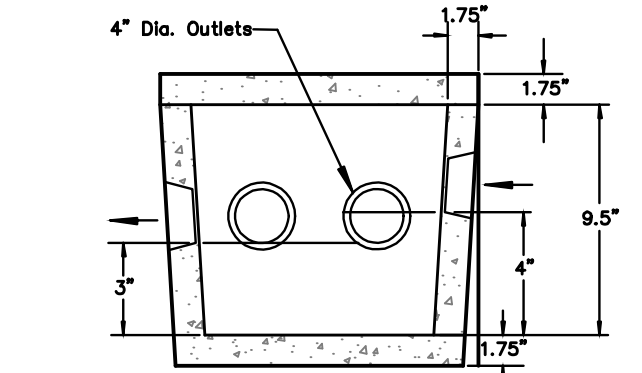
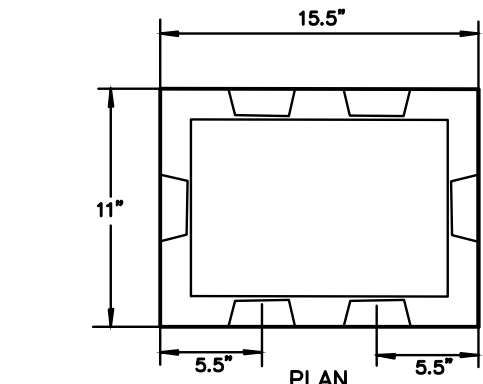
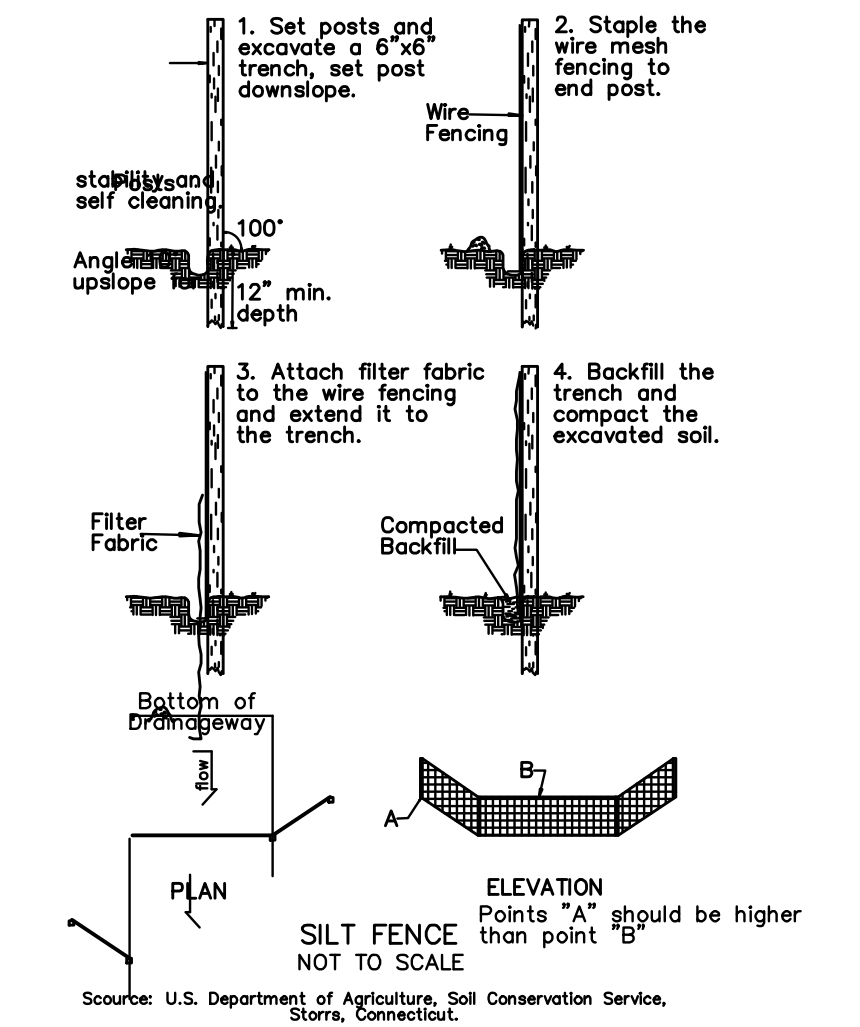
GEOMATRIX GST™ LEACHING SYSTEM
B-B' CROSS SECTION



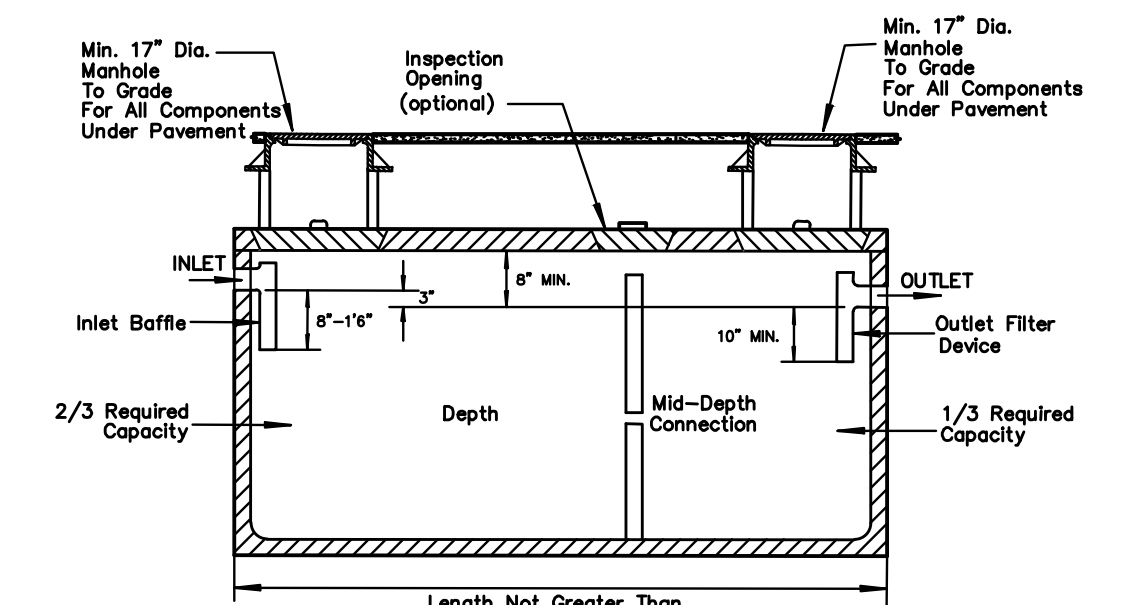
*H=24" (GST6224)

GEOMATRIX GST™ LEACHING SYSTEM
A-A' CROSS SECTION
SCALE: N.T.S.

DATE	REVISION	CK.



SECTION
DISTRIBUTION BOX
N.T.S.



TYPICAL SEPTIC TANK

"DETAIL SHEET"

DOANE ENGINEERING
CIVIL ENGINEERING AND LAND SURVEYING
P.O. BOX 113 CENTERBROOK, CONNECTICUT 06409
TEL: (860)767-0138, FAX: (860)767-9104

IMPROVEMENT LOCATION SURVEY
PREPARED FOR
DONNA M TUTHS & MICHAEL F OPPENHEIMER
#15 LIBERTY STREET, CHESTER, CONNECTICUT

SCALE: 1"=20'	DATE: 07/17/20	SHEET NO.: 2 OF 2	IDENT. NO.:
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