

VICINITY MAP
NO SCALE

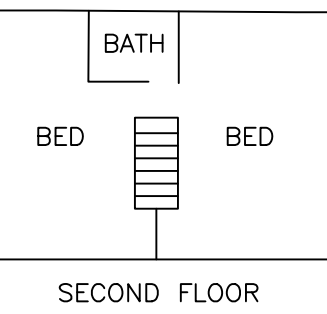
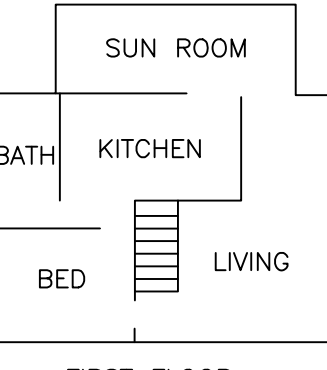
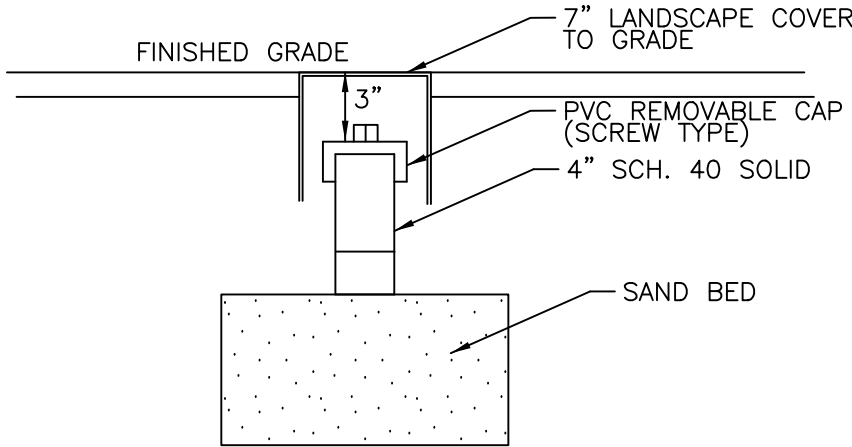


SOIL TEST DATA

SOIL TESTING AND EVALUATION BY: PAUL G. GUNN, SE #14392
SOIL TESTING WITNESSED BY: RALPH H. COLE, P.L.S.
DATE: JUNE 26, 2020

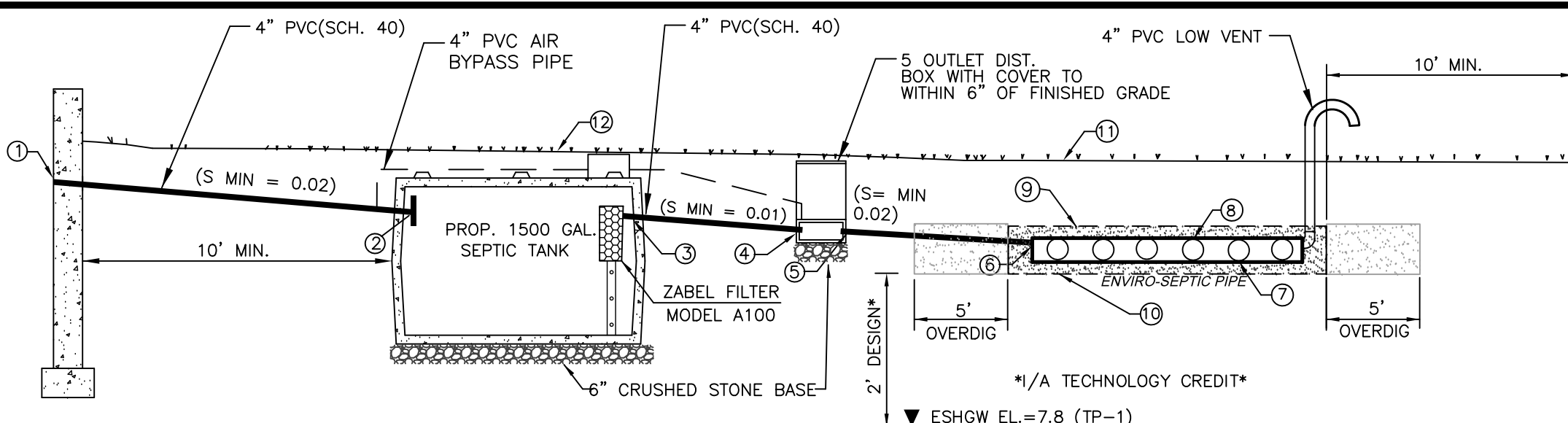
TP-1	APPROX. GRADE EL. 11.3	TP-2	APPROX. GRADE EL. 11.3
EL. 9.8	FILL A HORIZON LOAMY SAND 10YR 3/2	EL. 9.3	FILL A HORIZON LOAMY SAND 10YR 3/2
EL. 9.3	B HORIZON LOAMY SAND 10YR 5/4	EL. 8.3	B HORIZON LOAMY SAND 10YR 5/4
EL. 8.6	C HORIZON MEDIUM/FINE SAND 2.5Y 6/3	EL. 7.4	C HORIZON MEDIUM/FINE SAND 2.5Y 6/3
EL. 1.3	WEAVING OBSERVED: 80" (EL. 4.6) MOTTLING OBSERVED: 42" (EL. 7.8) PERC. RATE: 20 MPI @ 32-50" ESHW: 42" (EL. 7.8)	EL. 1.3	WEAVING OBSERVED: 84" (EL. 4.3) MOTTLING OBSERVED: 50" (EL. 7.1) PERC. RATE: NONE ESHW: 50" (EL. 7.1)

INSPECTION PORT



FLOOR PLAN

NOT TO SCALE



SCHEDULE OF ELEVATIONS

1. PIPE INV. AT FOUNDATION = 11.9± (CONTRACTOR TO VERIFY PRIOR TO CONSTRUCTION)	7. INVERT OF ENVIRO-SEPTIC PIPE = 10.30
2. INVERT OF PIPE AT SEPTIC TANK INLET = 11.48	8. TOP OF ENVIRO-SEPTIC PIPE = 11.30
3. INVERT OF PIPE AT SEPTIC TANK OUTLET = 11.23	9. TOP OF C-33 SAND = 11.80
4. INVERT OF 4" PVC AT DIST. BOX INLET = 11.12	10. BOTTOM OF C-33 SAND = 9.80
5. INVERT OF 4" PVC AT DIST. BOX OUTLET = 10.95	11. FINISHED GRADE OVER LEACHING FACILITY = 12.3(MIN)-14.3(MAX)
6. INVERT OF 4" PVC AT ENVIRO-SEPTIC PIPE INLET = 10.89	12. FINISHED GRADE OVER SEPTIC TANK = 13.2(MIN)-15.5(MAX)

GENERAL NOTES

- SEPTIC SYSTEM INSTALLATION CONTRACTORS SHALL BE LICENSED BY THE BOARD OF HEALTH AND MUST COMPLY WITH ALL REQUIREMENTS OF THE BOARD OF HEALTH DISPOSAL WORKS CONSTRUCTION PERMIT AND ANY CONDITIONS, IF ISSUED BY THE CONSERVATION COMMISSION.
- ALL CONSTRUCTION MUST COMPLY WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE 310 CMR 15 & THE ANY LOCAL BOARD OF HEALTH SUPPLEMENTAL REGULATIONS.
- THERE SHALL BE NO CHANGES MADE IN THIS PLAN WITHOUT THE WRITTEN PERMISSION OF THE BOARD OF HEALTH AND DESIGN ENGINEER.
- ANY CHANGE IN SITE CONDITIONS, DISCREPANCIES, ERRORS OR OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF MORSE ENGINEERING PRIOR TO THE COMMENCEMENT OF WORK.
- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH TITLE 5 (310 CMR 15) AND THE LOCAL BOARD OF HEALTH REQUIREMENTS TO THE FULLEST EXTENT PRACTICABLE. NO GUARANTEE TO THE SYSTEMS PERFORMANCE IS EXPRESSED OR IMPLIED.
- SOIL TEST DATA SHOWN IS LIMITED TO THE CONDITIONS EXISTING AT THE SUBJECT TEST PIT LOCATION ONLY. IF DIFFERENT SOIL CONDITIONS ARE FOUND IN THE AREA OF THE PROPOSED SOIL ABSORPTION SYSTEM THEY SHALL BE BROUGHT TO THE ATTENTION OF MORSE ENGINEERING IMMEDIATELY.
- THE CONTRACTOR SHALL NOTIFY DIGSAFE PRIOR TO ANY EXCAVATION AT THE SUBJECT PROPERTY. IT IS SPECIFICALLY CAUTIONED THAT THE SUBSURFACE UTILITIES SHOWN ARE APPROXIMATE ONLY AND HAVE BEEN COMPILED FROM AVAILABLE RECORDS AND OBSERVABLE SITE FEATURES. UTILITIES OTHER THAN THOSE SHOWN MAY BE PRESENT AT THIS LOCATION.
- THIS PLAN HAS BEEN PREPARED SPECIFICALLY AS A SEPTIC SYSTEM DESIGN AND IS NOT TO BE USED TO ESTABLISH PROPERTY LINES OR BUILDING SETBACKS. PROPERTY LINES AND BUILDING LOCATIONS ARE GRAPHIC ONLY, PROPERTY LINES NOT HAVING BEEN VERIFIED. NO REPRESENTATION OR CERTIFICATION AS TO THE ACCURACY OF THOSE SHOWN IS IMPLIED.
- CONTRACTOR TO VERIFY AND ENSURE THAT ALL INTERIOR PLUMBING IS DIRECTED INTO PROPOSED SEPTIC SYSTEM. ANY VARIATIONS FROM THE DESIGN AS SHOWN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.

CONSTRUCTION NOTES

- CONTRACTOR SHALL COORDINATE INSPECTION TIMES WITH THE LOCAL BOARD OF HEALTH AND DESIGN ENGINEER 24-HOURS IN ADVANCE OF THE FOLLOWING INSPECTIONS:
 - AFTER EXCAVATION OF ALL UNSUITABLE MATERIAL FROM SOIL ABSORPTION AREA.
 - PRIOR TO CONSTRUCTED SYSTEM.
 - AFTER SYSTEM BACKFILL AND FINAL GRADING.
- ALL CONSTRUCTION MUST COMPLY WITH TITLE 5 OF THE STATE ENVIRONMENTAL CODE 310 CMR 15 & THE ANY LOCAL BOARD OF HEALTH SUPPLEMENTAL REGULATIONS.
- ALL TIGHT-JOINT PLUMBING SHALL BE CONSTRUCTED OF SCH. 40 PVC PIPE WITH CLEANED AND CEMENTED FITTINGS, UNLESS OTHERWISE NOTED.
- ALL PRECAST/PIPE CONSTRUCTION JOINTS AND FITTINGS SHALL BE MADE WATERTIGHT BY PRISING WITH HYDRAULIC CEMENT.
- THE CONTRACTOR SHALL PROVIDE A SIEVE ANALYSIS OF THE TITLE 5 PERC SAND UTILIZED FOR FILL TO VERIFY THAT IT MEETS THE REQUIREMENTS OF 310 CMR 15.255(3). TITLE 5 SAND FILL SHALL COMPLY WITH THE FOLLOWING:

SIEVE SIZE	PARTICLE SIZE
#4	4.75 mm
#50	0.30 mm
#100	0.15 mm
#200	0.075 mm
- THE CONTRACTOR SHALL PREVENT ANY HEAVY CONSTRUCTION MACHINERY AND/OR TRUCKS FROM DRIVING OVER THE PROPOSED SOIL ABSORPTION SYSTEM LOCATION UNTIL FINISHED GRADE IS ESTABLISHED.
- THE CONTRACTOR SHALL INSTALL MAGNETIC TAPE OVER SYSTEM PIPING & COMPONENTS
- THE DESIGN ENGINEER SHALL CERTIFY AND PREPARE AN "AS-BUILT" PLAN FOR SUBMITTAL TO THE BOARD OF HEALTH UPON SEPTIC SYSTEM COMPLETION.
- ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" LOAM & SEED POST CONSTRUCTION.
- ALL SEPTIC SYSTEM COMPONENTS TO BE STAKED OUT BY PROFESSIONAL LAND SURVEYOR PRIOR TO SYSTEM INSTALLATION.
- CONTRACTOR SHALL ABANDON EXISTING SEPTIC COMPONENTS IN ACCORDANCE WITH 310 CMR SEC. 15.354 OF TITLE 5 AND LOCAL REGULATIONS BY PUMPING DRY, CRUSHING AND ABANDONING

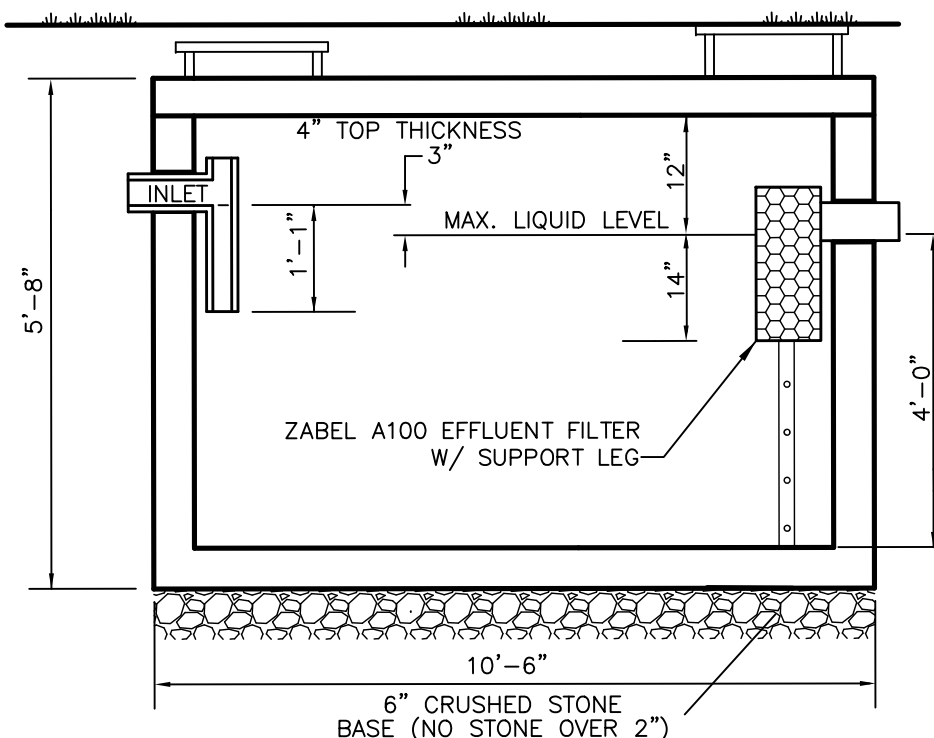
SITE NOTES

- LOCUS DOES NOT LIE WITHIN A DEP DESIGNATED ZONE II RESOURCE AREA.
- ALL KNOWN WETLANDS WITHIN 100 FEET OF THE PROPOSED SEWAGE SYSTEM ARE SHOWN.
- PROPERTY LINE DATA WAS OBTAINED FROM RECORDED DEED (14198-258) AND RECORDED PLANS ON FILE AT THE PLYMOUTH COUNTY REGISTRY OF DEEDS.
- THERE WERE NO ACTIVE/POTABLE WELLS OBSERVED WITHIN 100' OF THE PROPOSED SYSTEM.
- LOCUS LIES IN FEMA FLOOD ZONE "X" AND "AE" (EL. 11) AS SHOWN ON FEMA COMMUNITY MAP PANEL 250230C 0109K DATED NOVEMBER 4, 2016. ZONE X IS DESCRIBED AS AN AREA OF MINIMAL FLOODING ABOVE THE 100-YR. FLOOD BOUNDARY. ZONE "AE" IS DESCRIBED AS A 1% ANNUAL CHANCE FLOOD ZONE.

CONTRACTOR TO BE PRESBY CERTIFIED

		PREPARED BY: 	
PROJECT: SEPTIC SYSTEM DESIGN PLAN 143 HOLLETT STREET ASSESSOR'S PARCEL: 20-6-18 SCITUATE, MASSACHUSETTS		DESIGN: JDG CHECK: GJM JOB NO: 20-236	
PREPARED FOR: MIKE GALLUP		DATE: 7/9/2020 REV: -	
PLAN TITLE: SEPTIC SYSTEM DESIGN PLAN		SHEET: 1	

1,500 GAL. SEPTIC TANK DETAIL

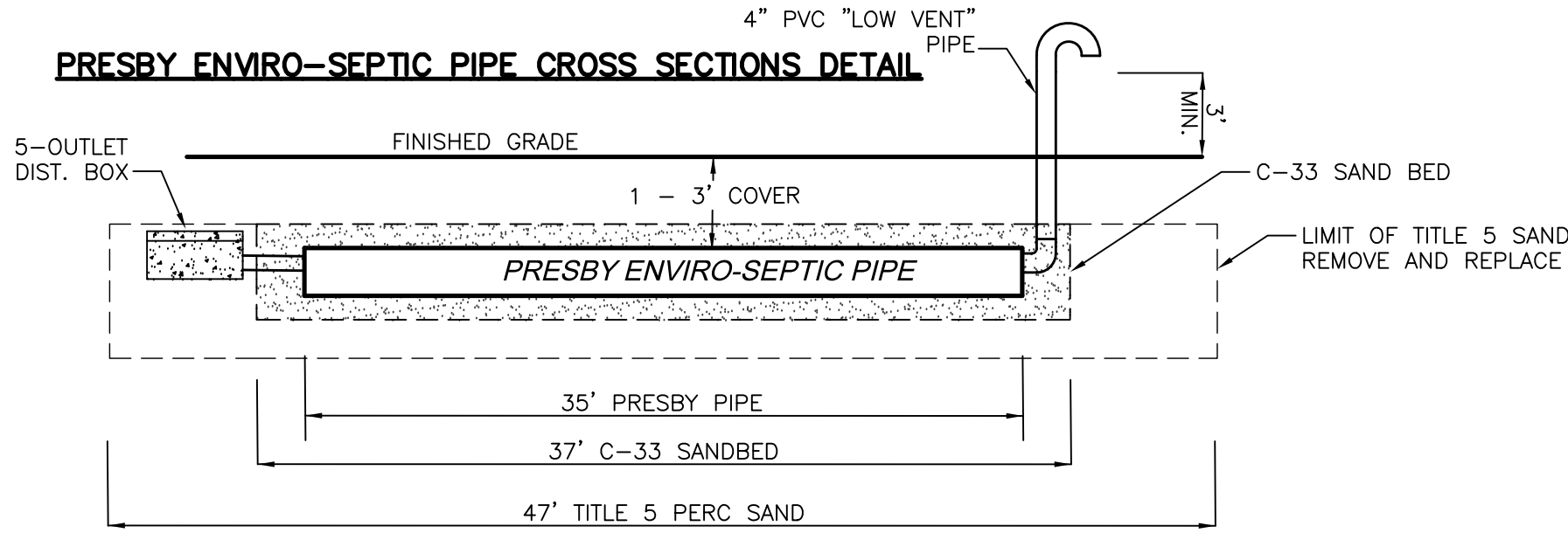


- NOTES:
- THE SEPTIC TANK INLET COVER SHALL BE EXTENDED TO WITHIN 6" OF FINISHED GRADE. THE SEPTIC TANK OUTLET COVER SHALL BE EXTENDED TO FINISHED GRADE & BE EQUIPPED WITH A FRAME & COVER (20" DIA.).
 - ALL PIPE CONNECTION AND CONSTRUCTION JOINTS SHALL BE SEALED WITH HYDRAULIC CEMENT.
 - SEPTIC TANK SHALL BE INSTALLED ON A LEVEL 6" CRUSHED STONE BASE.
 - OUTLET SHALL BE EQUIPPED WITH A ZABEL A100 EFFLUENT FILTER (OR APPROVED EQUAL).

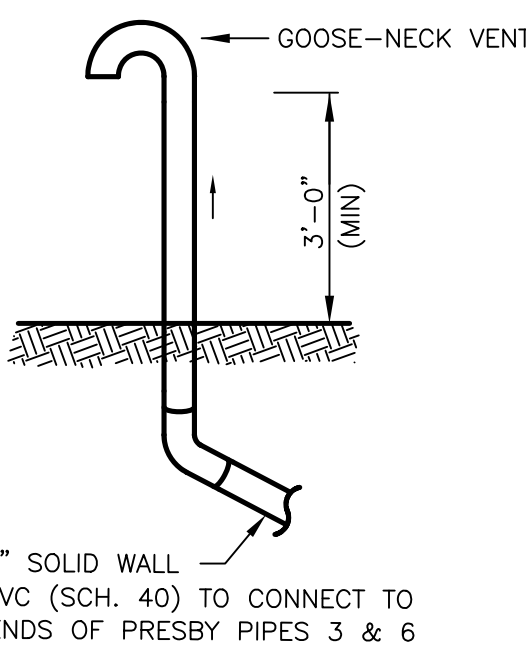
LOCAL UPGRADE APPROVAL REQUESTS

310 CMR 15.405(b): TO ALLOW A REDUCTION FROM 20' (REQ'D) TO 15.1' (PROP.) BETWEEN THE FOUNDATION AND THE SAS.

PRESBY ENVIRO-SEPTIC PIPE CROSS SECTIONS DETAIL



LOW VENT SYSTEM



20-6-19
CHARLEY & DEBORAH
SIMMONS
BK. 51737 PG. 85

REMOVE & REPLACE

- CONTRACTOR TO REMOVE FILL, A & B HORIZONS WITHIN 5' OF PROPOSED SOIL ABSORPTION SYSTEM & REPLACE WITH CLEAN TITLE 5 PERC. SAND TO TOP OF C33 SAND.
- C33 SAND REQUIRED:
2'D x 11.75'W x 37'L x 1.2% / 27 = 38.6 C.Y.
38.6 C.Y. - (6 PIPES x 35.0' x 3.14 x 0.5" / 27) = 32.5 C.Y.
- TITLE 5 SAND REQUIRED = 47' x 21.75' x (11.80-7.4) x 1.2% / 27 = 32.5 C.Y. = 167± C.Y.

*CONTRACTOR TO EXCAVATE ALL CONTAMINATED SOIL ASSOCIATED WITH EXISTING CESSPOOLS WITHIN AREA OF 5' OVERDIG AND REPLACE WITH CLEAN TITLE 5 PERC SAND.

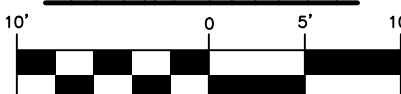
I/A TECHNOLOGY CREDIT

- ALLOW 2' SEPARATION BETWEEN BOTTOM OF SAS AND SEASONAL HIGH GROUNDWATER
- ALLOW A SAS SIZE REDUCTION OF 30.2% (REDUCTION ALLOWABLE FOR UP TO 40%)

DESIGN DATA

- BUILDING TYPE: RESIDENTIAL
- NO. OF BEDROOMS: 3
- DESIGN FLOW: 3 BEDROOMS x 110 G.P.D./BED = 330 G.P.D.
- DESIGN PERCOLATION RATE: 20 MPI (TP-1)
- GARBAGE DISPOSAL: NO
- SEPTIC TANK DESIGN REQUIREMENT: 200% DESIGN FLOW 330 X 2 = 660 GAL. (USE 1500 GAL. SEPTIC TANK)
- LEACH AREA REQUIREMENTS GALLONS/SQ. FT. (CLASS II SOILS) BOTTOM: 0.53 GAL./S.F. SIDE: 0.53 GAL./S.F.
- TOTAL LEACH AREA REQUIRED: TITLE 5: 330 GPD / (0.53 GPD/S.F.) = 622.6 S.F. PROVIDED: PRESBY ENVIRO-PIPE LEACHING SYSTEM (OR EQUAL) REQ'D AREA: 622.6 x 0.60 (40% SIZE REDUCTION) = 373.6 S.F. PROVIDED AREA: 11.75'W x 37'L SAND BED = 434.8 S.F. PER TABLE A: SYSTEM REQUIRES 210 L.F. OF ENVIRO-SEPTIC PIPE (210 L.F. PROVIDED)

SEPTIC LAYOUT



SCALE: 1" = 10'

HOLLETT STREET