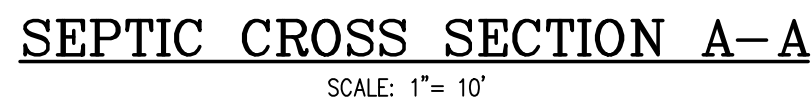


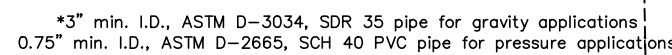
1. All construction shall comply with applicable sections of the State of Connecticut and City of Stamford Public Health Codes, and those criteria shall take precedent over these plans.
2. The septic system installer shall be licensed by the State of Connecticut.
3. The licensed installer shall notify Muller Engineering LLC, and the City of Stamford Health Department at least 24 hrs prior to commencing construction or the system installation will not be certified.
4. The licensed installer shall be responsible to install the subsurface sewage disposal system in accordance with the approved plans. Any change in the location or design of the system without prior approval of Muller Engineering LLC is not permitted.
5. Prior to commencing construction, all portions of the septic system disposal area shall be clearly marked and enclosed using construction fencing, so that it is not subject to heavy loading from construction equipment.
6. A Professional Engineer licensed in the State of Connecticut and acceptable to the City of Stamford shall inspect construction to insure compliance with the proposed plan.
7. An "As Built" plan, certified by a Professional Engineer licensed in the State of Connecticut, shall be submitted to the Department of Health before a "Permit to Use and/or Operate" is issued.
8. Any portion of the septic system that is covered prior to proper inspection shall be uncovered by the installer and inspected as required.
9. This system is NOT designed to accept any wastes from garbage disposal units, NOR backwash from water treatment devices, NOR discharge from whirlpool type baths of volumes greater than 100 gallons.

1. INSTALL 75 LB OF GEMATAC GSP 6218
2. THE BOTTOM OF UNITS SHALL BE SET LEVEL.
3. THE END OF PIPE WITHIN UNITS SHALL BE CAPPED.
4. THE NOMINAL LIQUID CAPACITY OF THE PROPOSED SEPTIC TANK AND PUMP CHAMBER IS 1500 GALLONS.
5. THE SEPTIC TANK SHALL BE PRECAST CONCRETE AND WATERPROOFED ON THE OUTSIDE AND MEET ASTM SPEC C-1227-95. ACCESS MANHOLES OVER EACH CLEANOUT OF THE SEPTIC TANK SHALL EXTEND WITHIN 18" OF FINISH GRADE. RISERS, IF REQUIRED, SHALL BE GRADED SLOPED TO THE TOP OF THE TANKS AND WATERPROOFED.
6. THE SOIL LINE FROM THE DWELLING TO THE SEPTIC TANK SHALL BE 4" DIMITERED PVC SCHEDULE 40 ASTM D 1785 PRESSURE WATER PIPE WITH RUBBER COMPRESSION GASKET COUPLINGS (OR EQUAL). SEWER PIPE SHALL BE SET AT A MINIMUM FATH OF 1/4" PER FOOT.
7. ALL DISTRIBUTION PIPE, AFTER THE SEPTIC TANK, SHALL BE ASTM D 3034 SR 35 WITH RUBBER COMPRESSION GASKETS OF EQUAL. (TABLE 2-C OF STATE REGS) UNLESS OTHERWISE NOTED.
8. JUNCTION BOXES SHALL BE PRECAST CONCRETE WITH REMOVABLE COVER AND A 12"x12" MINIMUM INSIDE DIMENSION UNLESS OTHERWISE NOTED. THE BOXES SHALL BE SET LEVEL AND SOLIDLY SUPPORTED TO A DEPTH BELOW FINISH GROUND LINE.
9. STRIP TOPSOIL IN THE AREA REQUIRING FILL. STOCKPILE AND USE EROSION CONTROL, FENCING AS NECESSARY. TOPSOIL MAY BE REUSED ON TOP OF LEACHING AREA, CHISEL PLOW OR ROTOTILL GROUND SURFACE PRIOR TO PLACING FILL.
10. SELECT FILL MATERIAL SHALL CONSIST OF SAND AND GRAVEL MIXTURES WHICH COMPLY WITH SECTION VIA OF THE CALIFORNIA PUBLIC HEALTH CODE TECHNICAL STANDARDS AND HAVE A MINIMUM IN PLACE PERCOLATION RATE OF 15 MINUTES PER INCH DROP AND HAVE A GRADATION THAT ALLOWS NO MORE THAN 2.5% OF THE MATERIAL BY WEIGHT TO PASS THE NO. 200 SIEVE AND A SIEVE ANALYSIS MUST BE SUBMITTED AND APPROVED BY THE ENGINEER BEFORE THE CERTIFYING ENGINEER AND STAMFORD HEALTH DEPT. SHALL BOTH APPROVE. THE FILL TO BE USED PRIOR TO SPREADING.
11. FILL SHALL BE PLACED ON THE PERIMETER OF TRENCH AREA AND SPREAD WITH A SMALL CRAWLER, TRACTOR OR OTHER APPROVED MACHINE. FILL SHALL NOT BE TAMPOD, ROLLED, OR PUDDLED. NO HEAVY EQUIPMENT OR MACHINERY SHALL BE PERMITTED TO PASS OVER THE AREA.
12. PERFORMANCE TESTING: WHEN NECESSARY DUE TO INSTALLATION CONCERNS, TESTING FOR LEAKAGE WILL BE PERFORMED USING WITHIN A VACUUM TEST AND WATER-PRESSURE TEST. VACUUM TEST: SEAL THE EMPTV TANK AND FILL WITH WATER TO A MINIMUM OF 18" ABOVE THE TOP OF THE TANK. A VACUUM IS HELD FOR TWO MINUTES. WATER-PRESSURE TEST: SEAL THE TANK, FILL WITH WATER, AND LET STAND FOR 24 HOURS. REFILL THE TANK AND A VACUUM IS APPLIED IF THE WATER LEVEL FALLS MORE THAN 1/4" IN FOUR HOURS.
13. TANK BOTTOMS LOCATED BELOW MAXIMUM GROUNDWATER LEVELS MUST BE PROVIDED WITH ANTI BUOYANCY/FLOATATION PROVISIONS (CHECK WITH MANUFACTURER).
14. THE CERTIFYING ENGINEER SHALL PREPARE BUOYANCY CALCULATIONS TO REPRESENT THE SEPTIC TANK WILL NOT FLOAT; AS PER AS-BUILT CONDITIONS.
15. ALL PROPOSED DRAINAGE CONTROL STRUCTURES SHALL BE A MINIMUM OF 50 FEET FROM ANY PART OF THE SEPTIC SYSTEM.



- PUMP CHAMBER MANUFACTURED BY EASTERN PRECAST
- PUMP CHAMBER TO CONFORM TO H-20 LOADING DESIGN
- 1500 GALLON PUMP CHAMBER = 29.5 GALLONS / INCH
- PUMP TO BE SET 6" OFF THE PUMP CHAMBER FLOOR
- Chamber to be waterproof
- 1,120 GALLONS STORAGE AVAILABLE ABOVE ALARM.

REQUIRED STORAGE = 4 BEDROOMS X 150 = 600 GALLONS



N.T.S.

1. THE EXISTING DWELLING CONTAIN 4 BEDROOMS.
2. THE MINIMUM UNIFORM PERCOLATION RATE FOR DESIGN SHALL BE 20 MINUTES PER INCH. SYSTEM TO BE PLACED IN NEW SELECTED SEPTIC FILL.
3. THE DESIGN PERCOLATION RATE 1/20" MIN. PROPOSED 4 BEDROOM DWELLING - 675 SQ. FT. FOR 3 BEDROOM PLUS 112.5 SQ. FT. FOR EACH BEDROOM OVER 3 BEDROOMS TOTAL - 787.5 SQ. FT. REQUIRED. 1,080 SQ. FT. PROVIDED WITH 75 LINEAR FEET OF GEOMATRIX GST 6218.
4. THE TOTAL LEACHING AREA REQUIRED IS 787.5 SQ. FT.

MISS CALCULATIONS:

$$\left[ \begin{array}{l} \text{RESTRICTIVE LAYER} \\ \frac{\text{TH\#1} + \text{TH\#2}}{2} = 24.5" + 18" = 42.5" \\ \text{*18" RAISED SELECT FILL BED} \\ \text{RESTRICTIVE LAYER} \end{array} \right] = \frac{42.5" + 20"}{2} = 31.25"$$

$$\left[ \begin{array}{l} \text{TH\#3} = 20" \end{array} \right]$$

HF = 34  
 FF = 1.75 (4 BEDROOM)  $\left[ \text{SLOPE } \frac{84.1 - 83.2}{40} = 2.25\% \right]$   
 PF = 1.25 (20 MINUTES)  
 MLSS = 34 x 1.75 x 1.25 = 74.375 FEET REQUIRED < 75 FEET PROVIDED

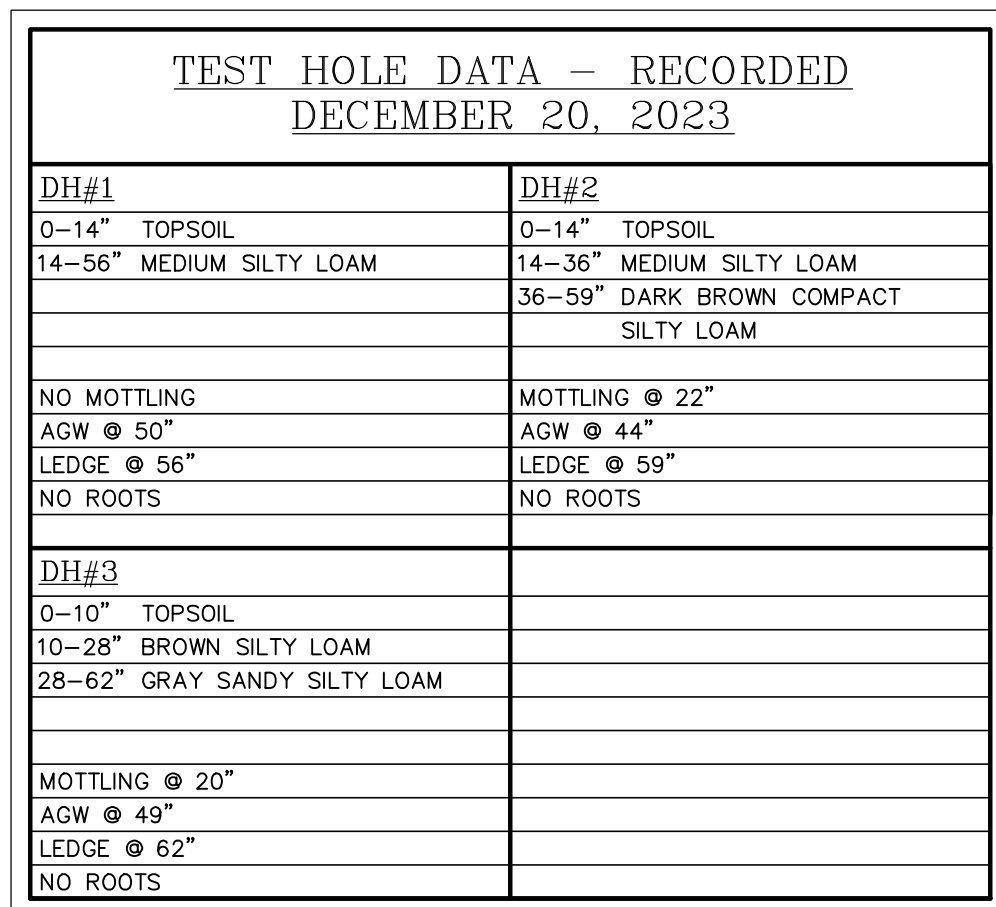
THE EFFECTIVE LEACHING AREA OF THE SYSTEM IS 14.0 sq. ft. PER LINEAR FOOT.  
THE TOTAL LEACHING AREA  $14.0 \text{ SF/LF} \times 75 \text{ LF} = 1,050 > 787.5 \text{ REQ'D}$

C33 SAND - MEDIUM TO COARSE TEXTURED WASHED SILICA SAND  
LESS THAN 5% PASSING NO. 200 SIEVE  
LESS THAN 10% PASSING NO. 100 SIEVE

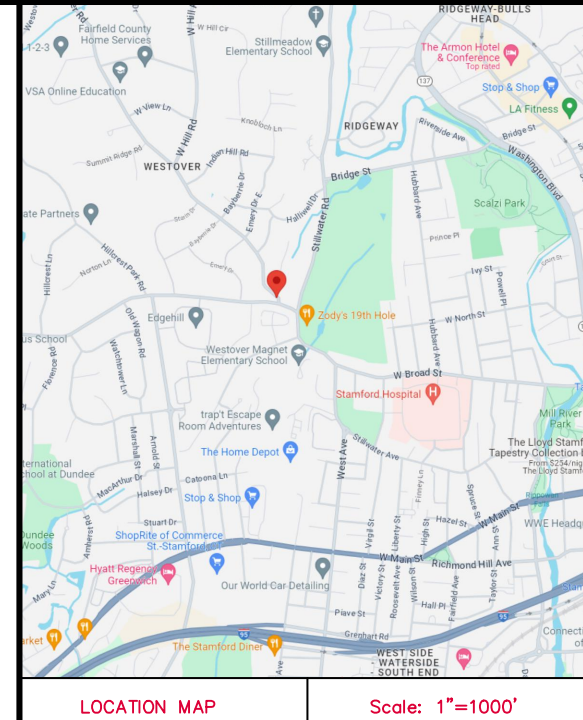
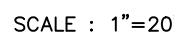


N.T.S.

N.T.S.



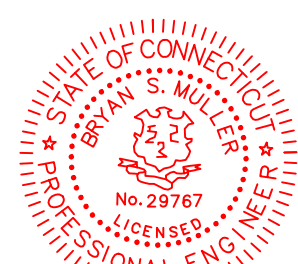
PERC TEST HOLE DATA-RECORDED DECEMBER 20, 2023		
PERC-1		
TIME	READINGS	RATE
11:03	3 1/4"	
11:13	6 3/4"	3 MIN/INCH
11:23	8 3/4"	5 MIN/INCH
11:33	10 1/2"	6 MIN/INCH
11:43	11 1/2"	10 MIN/INCH
11:53	12 3/4"	8 MIN/INCH
12:03	13 1/2"	13 MIN/INCH
DESIGN RATE = 1" IN 20 MIN.		

[illegible]

## Engineering Consulting

26 Widgeon Way  
Greenwich, Connecticut 06830  
Telephone (203) 921-9059  
Email: Bryan.Muller@Ymail.com

**Bryan S. Muller, P.E.**



*Bryan Muller*  
BRYAN S. MULLER, P.E.  
CT PROFESSIONAL ENGINEER  
LICENSE No. 29767

PREPARED FOR:

JAMES BITZONIS

ADDRESS:

38 WESTOVER AVENUE  
STAMFORD, CONNECTICUT

SHEET TITLE
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SEPTIC DESIGN  
PLANS

JUNE 10, 2024

SCALE

 $t = 20$ 

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CHKD.

1 OF 1