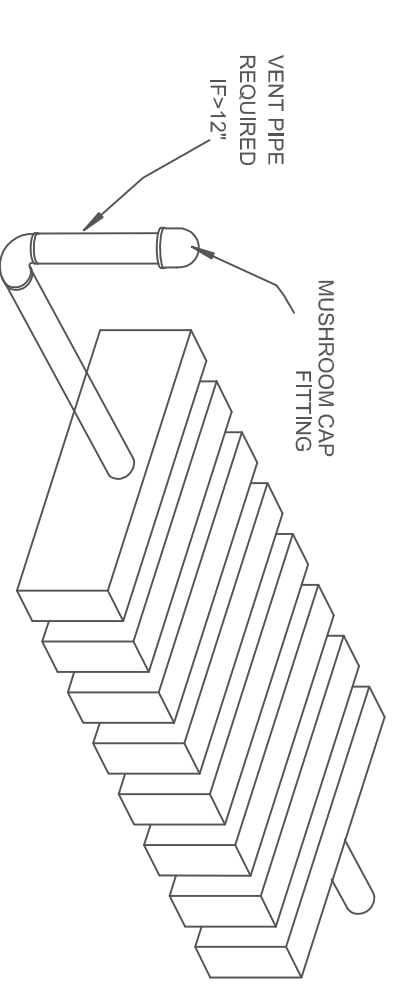
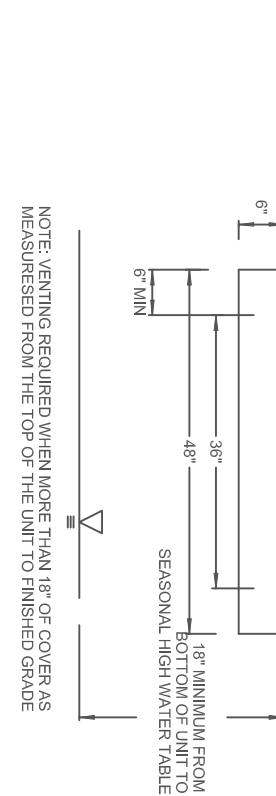


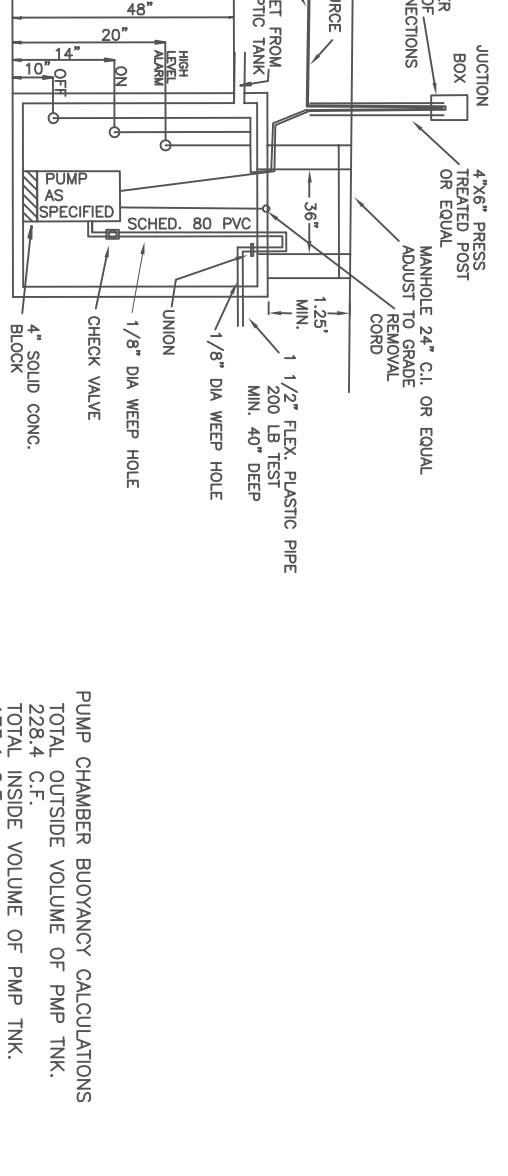
DEEP TEST PIT RESULTS 5/22/07	DEEP TEST PIT RESULTS 3/20/20 BY GPELS, LLC & TAHD	PERC. TEST 7/17/07	LOT 1 DESIGN CRITERIA
DH/19 0-10" Topsoil 10-40" O/B/SL 28-75" Grey Mod. Comp. Sandy loam W/Some Mica Mottles @ 28"	DH/20 0-10" Topsoil 10-40" O/B/SL 40-80" Grey Firm Sandy loam W/Some Mica Mottles @ 40"	DH/21 0-10" Topsoil 10-48" O/B/SL 48-80" Grey Firm Sandy loam W/Some Mica Mottles @ 48"	DESIGN CRITERIA CATEGORY 2 NUMBER OF BEDROOMS (3) NATIVE SOIL PERCOLATION RATE 1" IN 10.1-20 MINUTE SYSTEM ENTIRELY IN SEPTIC FILL PERCOLATION RATE LESS THAN 10.0/MIN. USED FOR ELA LEACHING AREA REQUIRED (S.F.) 495.0 LEACHING AREA PROVIDED (S.F.) 550.0
DH/22 0-10" Topsoil 10-24" O/B/SL 24-48" Grey Firm Sandy loam W/Some Mica Mottles @ 48"	DH/24 0-10" Topsoil 10-60" O/B/SL 60-80" Sandy loam Mottles @ 60"	DH/24 0-10" Topsoil 10-60" O/B/SL 60-80" Sandy loam L1.1 P1 <1 MIN./INCH L1.1 P2 <1 MIN./INCH L1.1 P3 1.2 MIN./INCH	

SOIL	DEPTH	PERCENT PASSING	START	END	MIN.	MAX.
DTP A	0-8" TOPSOIL	100	20"	20"	DEEP	20"
	8-24" ORG. BRN FSL	95-100	Presoak 8:30am	10:30am	DEEP	20"
	24-67" GREY F SANDY TILL	80-100	Start perc. 10:30am		DEEP	20"
DTP B	0-12" TOPSOIL	100	0	4 1/8"	DEEP	20"
	8-27" ORG. BRN FSL	80-100	0	8 3/4"	DEEP	20"
	27-55" GREY F SANDY TILL	50-85	0	9 1/2"	DEEP	20"
DTP C	0-16" TOPSOIL	100	0	7 1/8"	DEEP	20"
	16-29" ORG. BRN FSL	80-100	0	9 1/8"	DEEP	20"
	29-60" GREY F SANDY TILL	25-60	0	12 1/4"	DEEP	20"
DTP D	0-8" TOPSOIL	100	0	1 1/2"	DEEP	20"
	8-24" ORG. BRN FSL	80-100	0	1 1/2"	DEEP	20"
	24-77" GREY F SANDY TILL	5-30	0	14 3/4"	DEEP	20"
DTP E	0-8" TOPSOIL	100	0	1 1/2"	DEEP	20"
	8-20" ORG. BRN FSL	80-100	0	1 1/2"	DEEP	20"
	20-31" GREY F SANDY TILL	5-10	0	1 1/2"	DEEP	20"

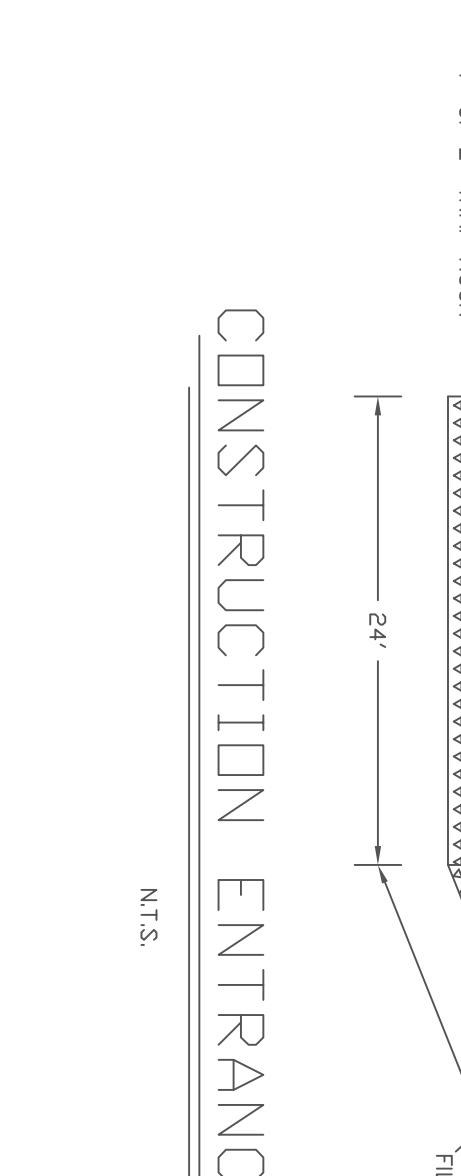
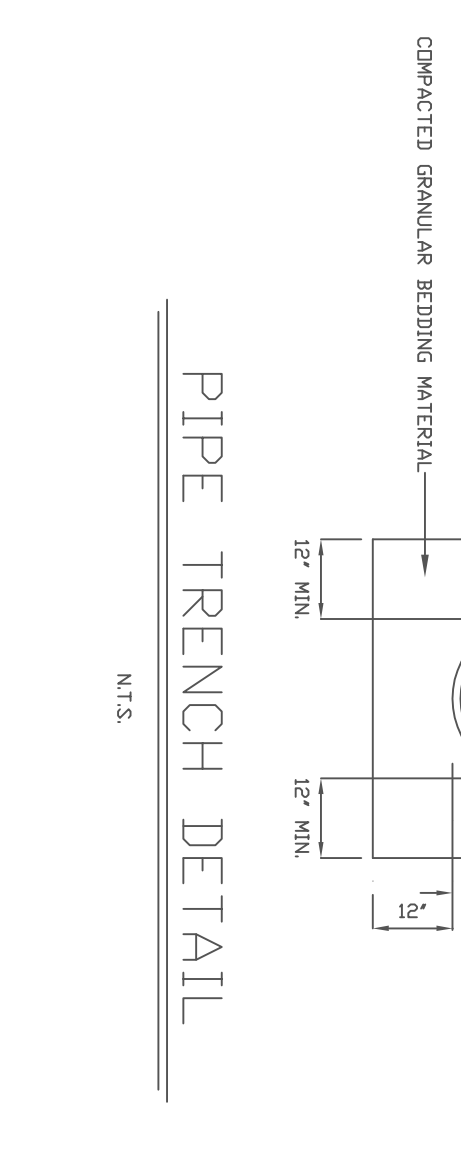


MANTIS 536-8 FILL REQUIREMENTS

GRAIN SIZE LIMITS	WET SIEVE NUMBER	PERCENT PASSING
0.375"	100	100
4	95-100	100
8	80-100	100
16	50-85	100
30	25-60	100
50	5-30	100
100	< 10	100
< 5	< 5	100



NOTES:
-PUMP TO BE LIBERTY FLD - 0.5 H.P. OR EQUAL
-USE HIGH WATER ALARM BELL AND LEVEL CONTROL FLOOR SWITCHES OR ELECTRICAL SPURS INSIDE PUMP CHAMBER
-PUMP CONTROLS TO BE OUTSIDE OF PUMP CHAMBER AND VANDAL-PROOF
-MANHOLE SHALL BE OVER PUMP & UNION CONNECTION
-ALL PIPE PENETRATIONS SHALL BE SEALED WITH FLEXIBLE WATERPROOF DUCK OR MAKE LOCK TYPED FLEXIBLE BOSSERS
-ALL PIPES SHALL BE 1/2" ABOVE FINISH GRADE
-ALL PIPES SHALL BE 1/2" ABOVE FINISH GRADE
-PUMP CHAMBER SHALL HAVE THESED JOINTS TO ALLOW EASY DISASSEMBLY & REPAIR.



NOTES:
TOPOGRAPHIC INFORMATION BASED ON FIELD SURVEY BY GPELS, LLC
GOUNDARY INFORMATION BASED UPON FIELD SURVEY BY GPELS, LLC
THE SEPTIC SYSTEM SHOULD BE STAKED OUT BY A LICENSED SURVEYOR
THE INTENT OF THIS PLAN IS FOR THE DESIGN OF SUBSURFACE SEWAGE DISPOSAL SYSTEM SHOWN HEREON. THE HOUSE DRAINAGE AND ASSOCIATED GRADING ARE FOR SCHEMATIC PURPOSES ONLY
THIS PLAN IS FOR DESIGN OF A SEPTIC SYSTEM IN ACCORDANCE WITH STATE & LOCAL HEALTH CODES. IT IS NOT A GUARANTEE AGAINST FAILURE DUE TO LACK OF MAINTENANCE, MISUSE, IMPROPER INSTALLATION OR CONDITIONS WHICH WERE BEYOND THE NORMAL FIELD INVESTIGATION.
THE SYSTEM IS DESIGNED FOR DOMESTIC SEWAGE ONLY. THE SYSTEM IS DESIGNED FOR 50 GALLONS PER PERSON PER DAY OR A UNICZEL TUB OVER 50 GALLONS

NO WELLS WITHIN 75' OF PROPOSED SEPTIC SYSTEM
NO SEPTIC SYSTEMS WITHIN 75' OF PROPOSED WELL

CONSTRUCTION NOTES:
NO CONSTRUCTION EQUIPMENT SHALL BE PERMITTED IN THE SEPTIC SYSTEM AREA, EXCEPT WHAT IS REQUIRED TO CONSTRUCT SEPTIC SYSTEM
TOPSOIL TO BE REMOVED FROM SEPTIC SYSTEM AREA AND STOCK PILED AWAY FROM SYSTEM AREA, PRIOR TO EXCAVATION OR PLACING OF ANY APPROVED SEPTIC FILL
DURING EXCAVATION FOR LEACHING TRENCH, ANY LARGE ROCKS/BOULDERS REMOVED SHALL BE REPLACED WITH APPROVED SEPTIC FILL
SEPTIC FILL IS REQUIRED TO BE TESTED & APPROVED BEFORE PLACEMENT ACCORDING TO SPECIFICATIONS LISTED.
SEPTIC TANK TO BE TWO COMPARTMENT WITH APPROPRIATE BARRIERS AND OUTLET FILTER DEVICE TO BE INSTALLED LEVEL WITH GLEDED END CAPS ON PIPING
NO IN-GROUND OIL TANKS ARE PERMITTED.
ANY DISPERGANCES IN THE PLAN OR JOB SITE CONDITIONS IN THE FIELD SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
ANY CHANGES TO THE PLAN WILL REQUIRE THE APPROVAL OF THE ENGINEER AND HEALTH DEPARTMENT.
INSTALLER IS RESPONSIBLE FOR ALL PERMITS AND NOTIFYING OF HEALTH DEPARTMENT AND ENGINEER OF START OF WORK AND SCHEDULING OF ALL REQUIRED INSPECTIONS, TESTING AND ASBUILT INFORMATION.

TAHD, NOTES:
1. DESIGN ENGINEER SHALL PERFORM PERCOLATION TESTS IN THE IN-PLACE SEPTIC FILL ON SITE DURING CONSTRUCTION.
2. DESIGN ENGINEER WILL TAKE COMPOSITE SAMPLES OF IN-PLACE SEPTIC FILL FROM SITE DURING CONSTRUCTION AND PERFORM SIEVE TESTING ON SEPTIC FILL. SYSTEM SHALL NOT BE INSTALLED UNTIL THE SEPTIC FILL HAS PASSED THE SIEVE TESTING REQUIREMENTS.
3. DESIGN ENGINEER SHALL INSPECT THE SEPTIC SYSTEM PRIOR TO BACKFILLING AND PREPARE A SEPTIC SYSTEM RECORD DRAWING.
4. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE DESIGN ENGINEER 48 HOURS PRIOR TO ANY REQUIRED TESTS OR INSPECTIONS.

NOT VALID
UNLESS EMBOSSED
SEAL AFFIXED HEREON
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GPELS, LLC

GARY GIORDANO PROFESSIONAL ENGINEER & LICENSED LAND SURVEYOR, LLC
19 TERRELL PARK ROAD, BETHLEHEM, CT 06751 (203)-266-6780

DAVID & NICOLE NITKOWSKI
LOT 1, EUGENE MARCONI
FIRST DIVISION OF LAND
BUELL ROAD
TAX MAP 070, BLOCK 015, PARCEL 02A
LITCHFIELD CONNECTICUT
SCALE 1" = 30'
DEC. 22, 2020

LOT 1 DESIGN CRITERIA
MINIMUM LEACHING SYSTEM SPREAD DEPTH TO RESTRICTION 20"
GRADE 29.0 % AVERAGE
HYDRAULIC FACTOR 26
FLOW FACTOR 1.25
PERCOLATION FACTOR 1.25
MISS REQUIRED 48.75
MISS PROVIDED 50.0

SYSTEM DESIGN
PRIMARY AREA LEACHING SYSTEM
1 ROW OF 4' X 18" X 50.0' OF
MANTIS 536-8
50.0 LF X 11.0 SF/LF = 550.0 SF
RESERVE AREA LEACHING SYSTEM
1 ROW OF 4' X 18" X 50.0' OF
MANTIS 536-8
50.0 LF X 11.0 SF/LF = 550.0 SF

SCALE IN FEET
0 30 60

SHEET 2 OF 2