

PUMP NOTES

- GENERAL: FURNISH AND INSTALL A COMPLETE PUMPING SYSTEM CONSISTING OF ONE SUBMERSIBLE PUMP AND MOTOR, DISCHARGE PIPING AND HIGH WATER ALARM. A CONTROL PANEL AND A PRECAST CONCRETE DOSING TANK. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND SHALL BE WARRANTED FOR AT LEAST ONE YEAR. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT QUANTITY OF CLEAN WATER TO CONDUCT TWO OPERATION TESTS.

THE DOSING TANK SHALL BE A 1000 GAL. PRECAST REINFORCED CONCRETE STRUCTURE. ALL CONCRETE SURFACES INSIDE AND OUTSIDE SHALL BE WATERPROOFED WITH TWO COATS OF A TAR BASE EPOXY PAINT OR OTHER CONCRETE SEALANT. CONSTRUCTION JOINTS AND OPENINGS SHALL BE SEALED WITH HYDRAULIC CEMENT OR OTHERWISE MADE WATERTIGHT. USE AN PC 4.83'x8.5'x5.4'H PUMPING CHAMBER AS MANUFACTURED BY A. ROTONDO & SON, INC. OR AN EQUIVALENT.
- PUMPS AND MOTORS: PUMP AND MOTOR SHALL BE A MEYERS WHRS (1/4 HP) PUMP WITH 2 INCH DISCHARGE AND CAPABLE OF PASSING 1.25 INCH SOLIDS. PUMP MOTOR SHALL BE FULLY SUBMERSIBLE OPERATE AT 1625 RPM WITH 115V., 60 CYCLE SINGLE PHASE AC POWER SOURCE. (NOTE ELECTRICAL CONTRACTOR TO VERIFY AVAILABLE VOLTAGE AT THE PUMP CONTROL PANEL) PUMP SHALL BE RATED AS FOLLOWS 1/4 HORSEPOWER 42 GALLONS PER MINUTE 12 FEET TOTAL DYNAMIC HEAD. USE MEYERS PUMP WHRS 1/4 HP OR AN APPROVED EQUIVALENT.

PUMP CHAMBER DISCHARGE PIPING AND FITTINGS SHALL BE 2 INCH SDR 40 PVC.

THREE SEALED FLOAT TYPE MERCURY SWITCHES SHALL BE SUPPLIED TO CONTROL THE SUMP LEVEL AND ALARM SIGNAL, ONE FOR PUMP "OFF", ONE FOR PUMP "ON", A THIRD SWITCH SHALL BE PROVIDED WITH POWER SOURCE SEPARATE FROM THE PUMP AND SHALL BE FOR THE ALARM UNIT. THE FLOAT LEVEL CONTROLS SHALL BE SET TO OPERATE AT THE ELEVATIONS INDICATED ON THE PLAN. THE JUNCTION BOX FOR THE SWITCHES SHALL BE INSTALLED IN A NEMA-4.

LOCAL WAIVER REQUEST

- A WAIVER REQUEST FOR A SIEVE TEST TO BE PERFORMED INSTEAD OF PERC TEST.
- REQUEST 2' SEPARATION WITH PRESBY DESIGN INSTEAD OF 4 FOOT SEPARATION.

THE PANEL FOR PUMP CONTROLS SHALL BE PROVIDED WITH PROPERLY SIZED CIRCUIT BREAKERS, MAGNETIC CONTACTORS, THREE WAY HAND CONTROL SWITCHES, RUN LIGHT FOR PUMP AND A TRANSFORMER TO GIVE PROPER VOLTAGE TO THE CONTROL CIRCUITS. THE HAND SWITCH POSITIONS SHALL BE PUMP "OFF", "AUTOMATIC PUMP ON", AND "MANUAL PUMP ON". INDICATOR THE PUMP CONTROLS SHALL BE HOUSED IN A NEMA-4 CONTROL BOX FOR A 115 VOLT SINGLE PHASE OPERATION. PANEL SHALL BE INSTALLED IN A SUITABLE LOCATION INSIDE BUILDING.

THE HIGH WATER ALARM SHALL BE SUPPLIED WITH BOTH AUDIBLE & VISUAL ALARMS & WITH A SEPARATE POWER SUPPLY FROM THE PUMPS. THE ALARM SHALL BE MOUNTED IN A NEMA-1 ENCLOSURE SEPARATE FROM THE CONTROL PANEL. AN ALARM SILENCER BUTTON SHALL BE PROVIDED TO SILENCE THE AUDIBLE ALARM WHILE THE VISUAL ALARM REMAINS LIGHTED UNTIL MANUALLY RESET. THE ALARM SHALL BE INSTALLED ADJACENT TO THE CONTROL PANEL.

CONCRETE SEALANT SHALL BE KOPPER'S BITUMASTIC 300-M COAL TAR EPOXY. THE SEALANT SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. THICKNESS OF SEALANT SHALL BE 16 MILS (TWO COAT).

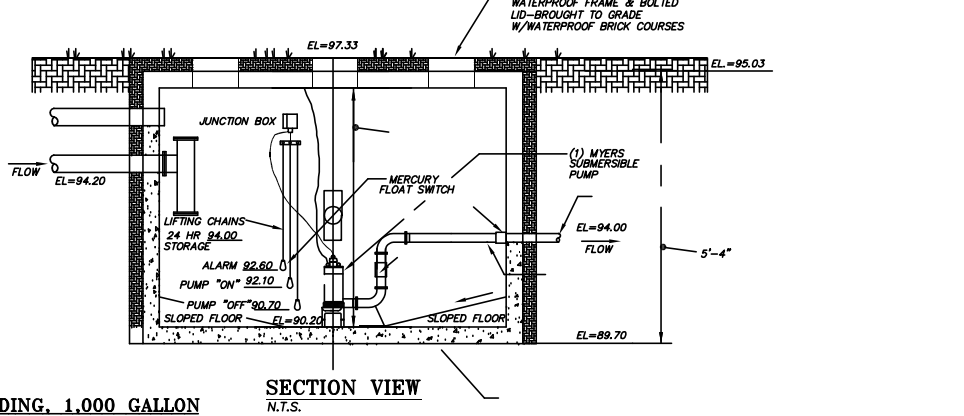
WHERE THE 2 INCH PVC FORCE MAIN IS LESS THAN 4 FEET BELOW GRADE IT SHALL BE SURROUNDED WITH A MINIMUM OF 2 INCHES STYROFOAM INSULATION.

AUXILIARY POWER WILL NOT BE SUPPLIED. THE PUMP CHAMBER HAS A CAPACITY FOR ONE DAY OF ADDITIONAL STORAGE. ALSO THE PUMP CONTROL PANEL WILL BE EQUIPPED WITH A PLUG AND SUITABLE CIRCUIT BREAKERS FOR THE CONNECTION OF AN AUXILIARY GENERATOR.

ELECTRICAL WORK MUST BE COMPLETED BY A LICENSED ELECTRICIAN, WHO MUST RECEIVE A PERMIT AND HAVE THE WORK INSPECTED AND APPROVED BY THE STOUGHTON WIRING INSPECTOR.

- NOTES:**
- BENCHMARK TO BE SET WITHIN 50' OF THE PROPOSED LEACHING AREA PRIOR TO CONSTRUCTION.
 - THERE ARE NO EXISTING WELLS WITHIN 200' OF THE PROPOSED LEACHING AREA OTHER WISE SHOWN ON THE PLAN.
 - THERE ARE NO PROPOSED WELLS WITHIN 100' OF THE PROPOSED LEACHING AREA.
 - TEST HOLE ELEVATIONS FROM ON THE GROUND SURVEY.
 - EXISTING LOT IS SERVICED BY TOWN WATER.
 - THE LOT IS NOT IN THE AQUIFER PROTECTION DISTRICT, FLOOD PLAIN DISTRICT.
 - MAGNETIC TAPE TO BE PLACED ON TOP OF SEPTIC TANK, D-BOX AND ALL ACTIVE LINES IN THE PROPOSED LEACH FIELD.

- CONSTRUCTION NOTES:**
- SEPTIC TANK AND DISTRIBUTION BOX SHALL BE INSTALLED LEVEL AND TRUE TO GRADE ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ON TO WHICH 6" OF CRUSHED STONE HAS BEEN PLACED. IN FILL PROPER COMPACTION IS REQUIRED TO ENSURE STABILITY AND TO PREVENT SETTLING.
 - FILL SHALL BE PLACED IN NOT GREATER THAN 12" INCREMENTS AND COMPACTED BY DOZER TO THE SATISFACTION OF THE ENGINEER.
 - ALL EXTRA CUTOFFS IN SEPTIC TANK AND DISTRIBUTION BOX ARE TO BE SEALED WITH HYDRAULIC CEMENT.
 - MAXIMUM COVER OVER ANY COMPONENT OF THE SEPTIC SYSTEM SHALL NOT EXCEED 36".
 - MINIMUM COVER OVER ANY COMPONENT OF THE SEPTIC SYSTEM TO BE 9" PRIOR TO PLACEMENT OF 3" MIN. TOPSOIL.
 - LOCATOR TAPE TO BE PLACED OVER THE SEPTIC TANK, D-BOX & LINES WITHIN THE BED CONFIGURATION.



- DESIGN NOTES:**
- ALL TOPSOIL, SUBSOIL AND OTHER IMPERVIOUS MATERIAL SHALL BE EXCAVATED TO PERVIOUS MATERIALS.
 - THE INSTALLATION OF PROPOSED SYSTEM SHALL BE DONE IN CONFORMANCE WITH LOCAL AND STATE BOARD OF HEALTH REGULATIONS
 - NO PORTION OF THIS SYSTEM SHALL BE ALTERED WITHOUT APPROVAL FROM THE BOARD OF HEALTH AND THE DESIGN ENGINEER.
 - FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL, CONSISTING OF CLEAN GRANULAR SAND FREE FROM ORGANIC MATTER AND DELETERIOUS SOIL SUBSTANCES, MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. A SIEVE ANALYSIS SHALL BE PERFORMED IN ACCORDANCE WITH 310 CMR 15.255(3).
 - THIS SYSTEM IS NOT DESIGNED TO NOT ACCOMMODATE FOR A GARBAGE DISPOSAL.
 - THIS PLAN REFERS TO ASSESSORS ATLAS SHEET 54 LOT 4.
 - OFFSETS NOT TO BE USED FOR THE REPRODUCTION OF PROPERTY LINES.
 - ALL INSPECTIONS NECESSARY FOR THE CERTIFICATION OF THE SEPTIC SYSTEM AND THE PREPARATION OF AN AS-BUILT PLAN ARE TO BE PERFORMED BY THE DESIGN ENGINEER.

DESIGN ELEVATIONS

FIRST FLOOR ELEV.	100.00
INV. AT FOUNDATION	EXISTING
INV. AT SEPTIC TANK INLET	94.50
INV. AT SEPTIC TANK OUTLET	94.25
INV. AT PUMP CHAMBER INLET	94.20
INV. AT PUMP CHAMBER OUTLET	94.00
INV. AT DIST. BOX INLET	97.50
INV. AT DIST. BOX OUTLET	97.33
TOP OF SAND	98.00
TOP OF PRESBY PIPE	97.50
INV. 4" PIPE IN	97.17
INV PRESBY PIPE	96.50
EL. AT BOTTOM OF LEACHING BED	96.00 (2')*
ELEV. OF GROUND WATER	94.00 (DTH#1)

WITNESSED KARL DROWN
SOIL EVALUATOR PETER LAVOIE ON 4/20/21

96.00	DTH#1	24" WATER
		48" SAMPLE
		24" MOTTLES
		SIEVE PERC
		CLASS I SOIL
		SIEVE TEST FOR PERC

ANDREW R. BAUM
CIVIL ENGINEER
NO. 47076
REGISTERED PROFESSIONAL ENGINEER

DESIGN FLOW FOR 4 BEDROOMS
4 Bedrooms x 110 gal./bedroom/day(1.25)= 550 gallons/day

THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL. THE USE OF A GARBAGE DISPOSAL IS NOT ALLOWED.

SEPTIC TANK CAPACITY: 1,500 GALLON
PRESBY ENVIRONMENTAL SYSTEM CALCULATIONS

- FROM TABLE A
5 BR @ 1-9 MIN/INCH = 350 LF OF PIPE
- PROVIDE LF OF PIPE:
9 lines @ 40'/line = 360 LF
- FROM TABLE B
MIN SPACING = 1.50' FOR 1-10% SLOPE (USE 1.75' SPACING)
- FROM TABLE D
CALCULATE SAND BED = 471 S.F. MIN.
- PROVIDED AREA:
17.5' x 42' = 567 S.F.

1 NEW STREET
PROPOSED SEPTIC DESIGN PLAN
IN
REHOBOTH, MA
SCALE: 30 FEET TO AN INCH
DATE: JULY 6, 2021

PREPARED FOR: BRADFORD HOLMES
1 NEW STREET
REHOBOTH, MA 02769

Landmark Site Design

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