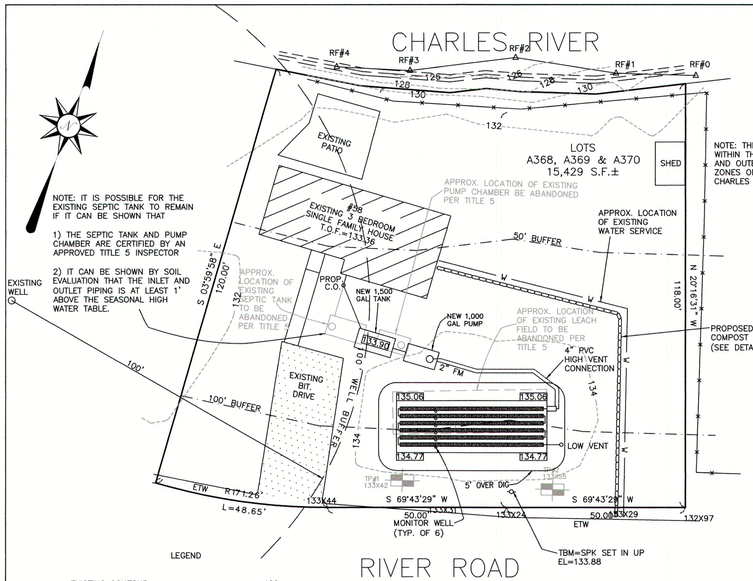


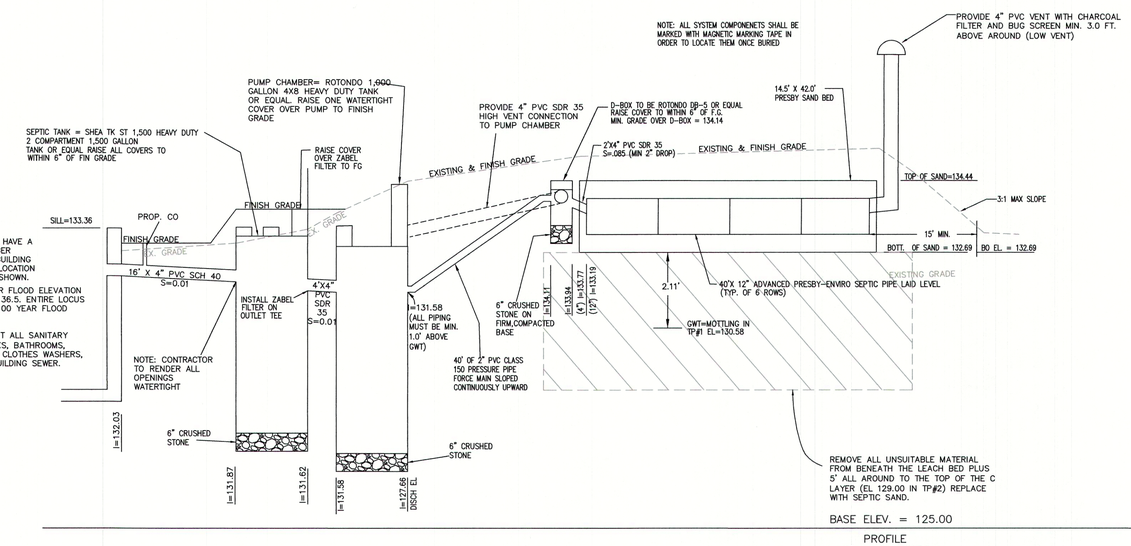
PLAN
1"=20'

LEGEND

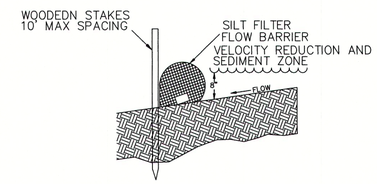
EXISTING CONTOUR	100
PROPOSED CONTOUR	F100
EXISTING SPOT GRADE	100X0
PROPOSED SPOT GRADE	100.00
TEST PIT	

CONSTRUCTION NOTE:

CONSTRUCTION ACCESS IS LIMITED TO THE EXISTING DRIVEWAY. PRIOR APPROVAL AND PERMITTING FROM THE TOWN OF NORFOLK HIGHWAY DEPARTMENT WILL BE REQUIRED FOR AN AREA OF DISTURBANCE WITHIN THE RIGHT OF WAY TO OBTAIN ACCESS AND INSTALL THE PROPOSED SYSTEM



PROFILE
1" = 10' HOR.
1" = 2' VERT.



8" COMPOST SOCK DETAIL
NOT TO SCALE

DESIGN CALCULATIONS

PER TITLE V

3 BEDRROMS X 110 GDP/BEDROOM = 330 GPD
GARBAGE GRINDER IF ANY TO BE REMOVED

USE PRESBY ADVANCED ENVRIO-SEPTIC WASTE WATER TREATMENT SYSTEM
DEED NOTIFICATION REQUIRED

PERC TEST COULD NOT BE PERFORMED DUE TO HIGH GROUND WATER
USE LTAR OF 0.33 GPD/S.F. FOR SANDY LOAM PER DEP POLICY.
LTAR OF 0.33 = PERC RATE OF 30 MPI FOR PRESBY DESIGN

SIZE LEACH BED PER PRESBY (600 S.F. REQUIRED PER TABLE C ON PAGE 13)
INSTALL 14.50 FT. WIDE X 42.00 FT. LONG SAND BED

SIDEWALL AREA
NONE ALLOWED = 0 S.F.

BOTTOM AREA
14.50 FT. X 42.00 FT. = 609.00 S.F.
0 S.F. + 609 S.F. = 609.00 S.F. > 600.00 S.F.

SEPTIC TANK CALCULATION
330 GAL. X 200% = 660 GAL. REQUIRED
INSTALL NEW 1,500 GALLON TWO-COMPARTMENT SEPTIC TANK

PER PRESBY REQUIREMENTS

FOR A 3 BEDROOM HOUSE WITH A 30 MPI PERC RATE
INSTALL A 14.50 FT. WIDE X 42.00 FT. LONG SAND BED WITH A CROSS SLOPE = 0%

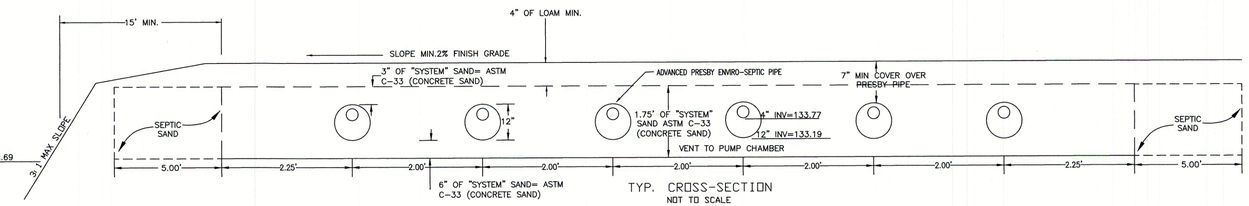
PER PRESBY TABLE A
210 L.F. OF PRESBY PIPE REQUIRED
6 LINES X 40 FT. = 240 L.F. PROVIDED

PER PRESBY TABLE B
PERC RATE < 5 = LTAR OF 1.233.

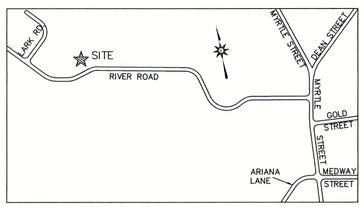
MINIMUM CENTER-TO-CENTER SPACING IS 1.5 FT. FOR 1-60 MPI (SECTION 4.4 PAGE 4 OF AES MANUAL)

PER PRESBY SECTION 4.27 (PAGE 7)
1.00 FT. SAND EXTENSIONS REQUIRED
2.25 FT. SAND EXTENSIONS PROVIDED

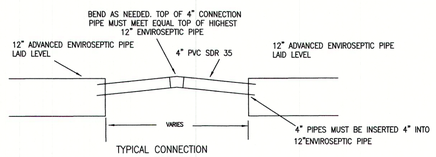
PER PRESBY TABLE C
600 S.F. REQUIRED
609 S.F. PROVIDED



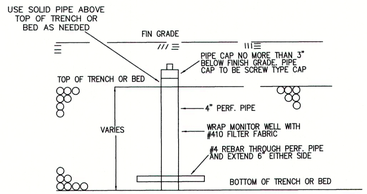
TYP. CROSS-SECTION
NOT TO SCALE



LOCUS MAP
NOT TO SCALE

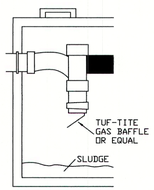


TYPICAL CONNECTION
NOT TO SCALE



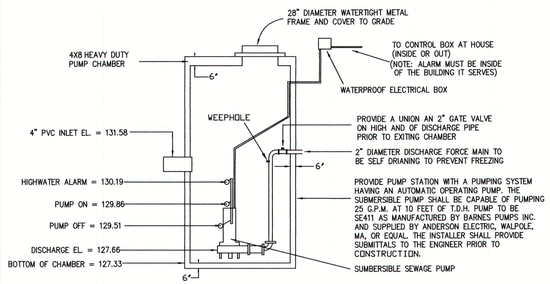
TYPICAL MONITOR WELL
NOT TO SCALE

TUF-TITE SOLUTION
CONNECT A PLASTIC SANITARY TEE AND A TUR-TITE GAS BAFFLE IN THE OUTLET PIPE. GAS BUBBLES ARE DEFLECTED AWAY FROM THE TEE RISER. SOLIDS STAY IN THE TANK.



GAS BAFFLE
NOT TO SCALE

NOTE: CONTRACTOR TO INSTALL EMERGENCY TRANSFER SWITCH AT THE ELECTRIC PANEL TO ALLOW FOR ALTERNATIVE POWER GENERATION IN CASE OF ELECTRICAL POWER FAILURE.



PUMP STATION
NOT TO SCALE

1. THE PUMP SYSTEM SHALL CONSIST OF A SUBMERSIBLE SEWAGE PUMP, EQUAL TO THE BARNES SE411 AS SUPPLIED BY ANDERSON ELECTRIC, WALPOLE, MA. THE PUMP SHALL BE AN AUTOMATIC OPERATING PUMP CAPABLE OF PUMPING 25 GPM AT 10 FT. OF T.D.H.

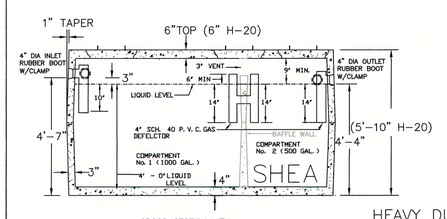
2. THE PUMP INSTALLATION SHALL INCLUDE A CONTROL PANEL, WHICH INCLUDES A MANUAL ON - MANUAL OFF AUTOMATIC ON-OFF SWITCH, VISUAL ALARM, AUDIBLE ALARM, AND AUDIBLE ALARM SILENCER SWITCH. THERE SHALL BE A MINIMUM OF THREE SWITCHES IN THE PUMP CHAMBER.

3. THE ALARM SHALL BE CONNECTED TO A SEPERATE ELECTRICAL CIRCUIT FROM THE PUMP

4. PRIOR TO INSPECTION OF THE PUMP SYSTEM, THE SYSTEM DESIGNER SHALL CONDUCT A FLOW RATE TEST FOR EACH PUMP AND CERTIFY IN WRITING TO THE BOARD OF HEALTH.

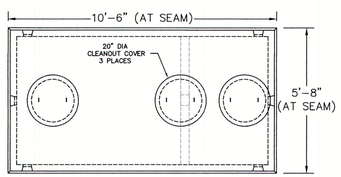
5. THE SYSTEM INSTALLER SHALL CAUSE THE PUMP ELECTRICAL SYSTEM TO BE INSPECTED AND APPROVED BY THE ELECTRICAL INSPECTOR

6. CONTRACTOR TO INSTALL AN EMERGENCY TRANSFER SWITCH AT THE ELECTRICAL PANEL TO ALLOW FOR PUMP OPERATION BY A REMOTE POWER GENERATOR



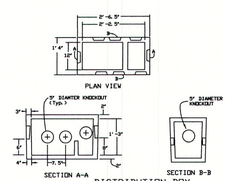
CROSS-SECTION VIEW

HEAVY DUTY SEPTIC TANK 1500 GALLON
NOT TO SCALE



PLAN VIEW

VENT AT D-BOX DETAIL
NOT TO SCALE



DISTRIBUTION BOX
NOT TO SCALE

NOTES:

1. DISPOSAL SYSTEM CONSTRUCTION SHALL COMPLY WITH THE COMMONWEALTH OF MASSACHUSETTS ENVIRONMENTAL CODE TITLE 5, AND THE TOWN OF NORFOLK BOARD OF HEALTH REGULATIONS FOR SEPTIC SYSTEM REPAIRS WITH THE FOLLOWING EXCEPTION:

   1)310 CMR 15.104 AND 15.105 – ALLOW THE SOIL ABSORPTION SYSTEM TO BE DESIGNED AND CONSTRUCTED WITHOUT A PERC TEST AS ALLOWED BY DEP POLICY

   2)310 CMR 15.227 – PLACEMENT AND CONSTRUCTION OF TEES – ALLOW THE INLET AND OUTLET PIPING AT THE SEPTIC TANK AND PUMP CHAMBER TO BE LESS THAT 12"(1') ABOVE THE SEASONAL HIGH GROUND WATER TABLE.

2. THE PROPOSED LEACHING FACILITY SHALL BE LOCATED A MINIMUM OF 20 FT. FROM FOUNDATION WALLS, 10 FT. FROM BUILDING SLABS, 50 FT. FROM SUBSURFACE DRAINS WHICH INTERCEPT GROUNDWATER, 10 FT. FROM OTHER SURFACE AND SUBSURFACE DRAINS, 10 FT. FROM WATER LINES AND 10 FT. FROM PROPERTY LINES

3. THE SEPTIC TANK SHALL BE LOCATED A MINIMUM OF 10 FT. FROM FOUNDATION WALLS, BUILDING SLABS, AND WATER LINES

4. THERE ARE NO KNOWN WELLS WITHIN 100 FT. OF THE PROPOSED LEACHING FACILITY

5. AN INSPECTION OF THE SITE INDICATED THAT THERE ARE WETLANDS WITHIN 100 FT. OF THE PROPOSED CONSTRUCTION. AN APPLICATION WITH THE NORFOLK CONSERVATION COMMISSION MAY BE REQUIRED.

6. PRIOR TO CONSTRUCTION, ALL TOPSOIL, PEAT, AND OTHER IMPERVIOUS MATERIAL BENEATH THE LEACHING FACILITY SHALL BE REMOVED FOR A DISTANCE OF 5 FT. IN ALL DIRECTIONS AND REPLACED WITH CLEAN, GRANULAR SAND,FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 2 INCHES. GRADATION OF THE FILL SHALL COMPLY WITH 310 CMR SECTION 15.255, AS AMENDED 10/25/95

7. THE SITE DOES NOT LIE WITHIN A ZONE II WELLHEAD PROTECTION AREA.

OWNER/APPLICANT
ROBERT G. GILMORE
58 RIVER ROAD
NORFOLK, MA

ASSESSOR'S PARCEL
MAP 4 BLOCK 27 LOT 9

SOIL TEST PERFORMED BY JOHN F. GLOSSA P.E. AND WITNESSED BY WADE SAUCIER, R. S. , NORFOLK BOARD OF HEALTH AGENT ON APRIL 6, 2020.

PERCOLATION TEST COULD NOT BE PERFORMED - SOIL SAMPLE TAKEN

SOIL DATA

TEST PIT # 1

0'	133.42
HTM – –	
24"	131.42
A SANDY LOAM 10YR 3/2	GWT=130.58
40"	130.08
C SANDY LOAM 2.5Y 6/3	
88"	126.08

NO REFUSAL
MOTTLES AT 34"
WEEPING AT 60"

TEST PIT # 2

0'	133.55
HTM – –	
40"	130.21=GWT
C SANDY LOAM 2.5Y 5/8	
108"	124.55

NO REFUSAL
MOTTLES AT 40"
WEEPING AT 48"

COMMONWEALTH OF MASSACHUSETTS
JOHN F. GLOSSA
CIVIL
No. 32398
REGISTERED PROFESSIONAL ENGINEER

4/27/2020

#58 RIVER ROAD
ON-SITE SEWAGE TREATMENT AND DISPOSAL
PLAN OF LAND
IN
NORFOLK, MA
SCALE: AS SHOWN APRIL 8, 2020
GLOSSA ENGINEERING INC.
46 EAST STREET
EAST WALPOLE, MA
508-668-4401