

THIS SYSTEM REQUIRES THE FOLLOWING LOCAL UPGRADE APPROVALS TO TITLE 5 AND/OR LOCAL REGULATIONS:

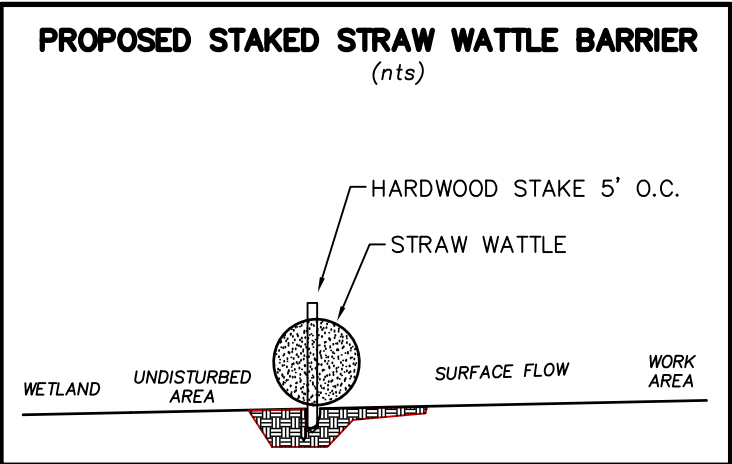
1. VARIANCE TO 310 CMR 15.212 (1) THE PROPOSED SAS DOES NOT MEET THE REQUIRED SETBACK TO SEASONAL GROUNDWATER. 4 ft. REQUIRED, 3 ft. PROVIDED.

RIVERS PROTECTION ACT INFORMATION:

PARCEL EXISTENCE PRIOR TO AUGUST 1, 1996

PROPOSED WORK CONSISTS OF REPAIRING EXISTING AN SEPTIC SYSTEM WITH NO EXPANSION OF FLOW.

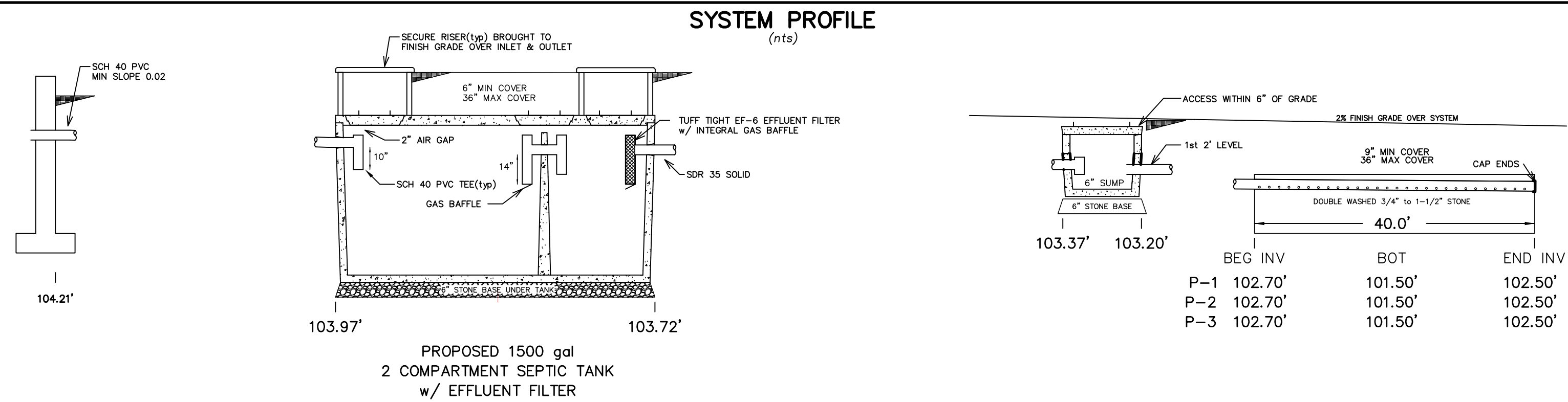
THE PROPOSED WORK WILL DISTURB APPROXIMATELY 4000 sq. ft. OF THE OUTER RIPARIAN ZONE. UPON COMPLETION THE AREA WILL BE RESTORED TO ITS ORIGINAL CONDITION.



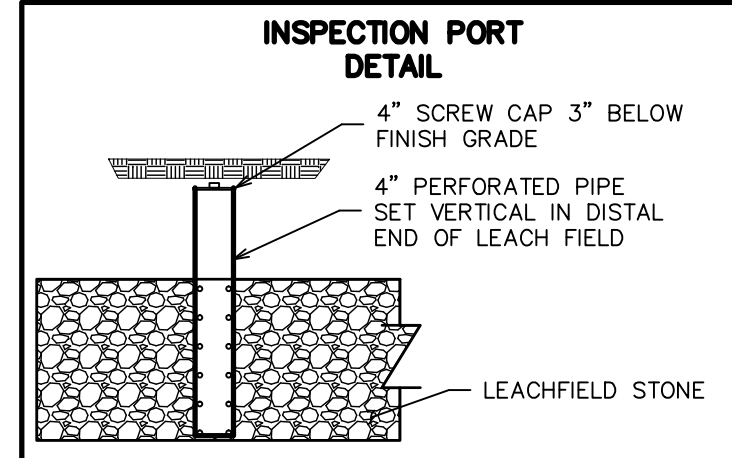
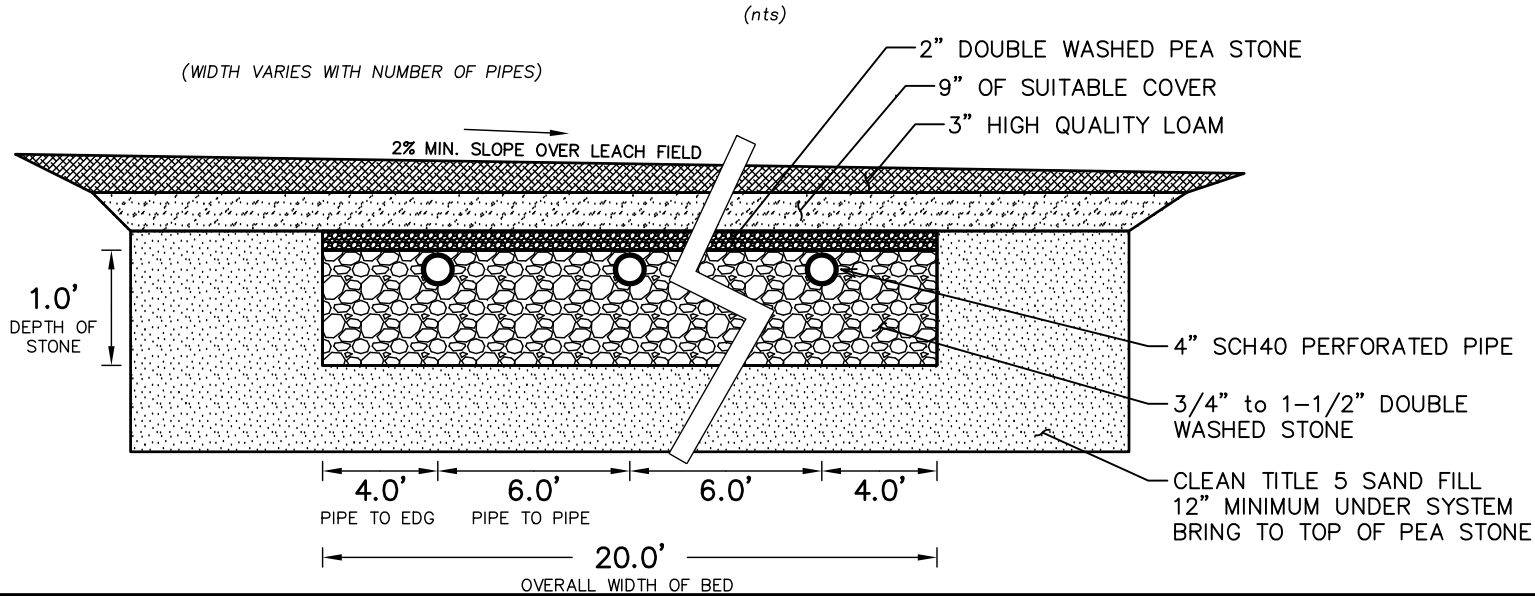
WETLAND PROTECTION MEASURES:

- 1) STAKED STRAW WATTLES SHALL BE INSTALLED AS SHOWN ON THE PLAN. THEY SHALL BE INSPECTED BY THE LOCAL CONSERVATION COMMISSION, IF REQUIRED, BEFORE CONSTRUCTION.
- 2) WITHIN THE 100ft BUFFER ZONE ALL DISTURBING OF SOIL SHALL BE MINIMIZED.
- 3) ALL DISTURBED AREAS SHALL BE LOAMED, SEEDED AND MULCHED AS SOON AS POSSIBLE.
- 4) NO WORK OR STORAGE OF MATERIAL SHALL BE DOWN HILL OF THE STRAW WATTLES.
- 5) ALL NECESSARY PERMITS SHALL BE OBTAINED BEFORE WORK COMMENCES.
- 6) OWNER AND CONTRACTOR SHALL ADHERE TO ANY ORDERS ISSUED BY THE LOCAL CONSERVATION COMMISSION.

PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL NOTIFY DIG SAFE



PIPE AND STONE LEACH FIELD DETAIL (nts)



DESIGN CALCULATIONS

DESIGN CRITERIA:
SINGLE FAMILY HOME NO GARBAGE DISPOSAL
DESIGN PERC RATE: 10 mpl
LOADING RATE: 0.6 gpd/ft²
DESIGN FLOW:
(4 BEDROOM(s)) (110 gpd/BEDROOM) = 440 gpd
SEPTIC TANK:
1500 gal REQUIRED - 1500 gal 2 COMPARTMENT PROVIDED
SOIL ABSORPTION SYSTEM (SAS):
REQUIRED: (440 gpd) / (0.60 gpd/ft²) = 733 ft²
PROVIDED: PIPE AND STONE BED
1 BED(s) 40 ft L x 20 ft W x 1 ft D
(1) 40 ft x 20 ft = 800 ft²

SOIL TESTING RESULTS

DATE OF TEST: 23 MAY 2019
SOIL EVALUATOR: MARK FARRELL
WITNESS: KEN LACEY
PERC RATE #1 4 mpl PERC RATE #2
ALTERNATIVE TO THE PERC TEST RESULTS:

SOIL LOGS:

DEPTH	HRZ	TXT	COLOR	MOTTLE/OTHER
0 - 48 in	Fill			
48 - 60 in	C1	S	10YR 6/8	
60 - 84 in	C2	LS	5Y 6/4	COMMON 10YR 6/8 066in

DEPTH	HRZ	TXT	COLOR	MOTTLE/OTHER
0 - 12 in	Fill			
12 - 24 in	A	SL	10YR 3/2	
24 - 36 in	Bw	SL	10YR 6/8	
36 - 96 in	C	S	2.5Y 6/4	COMMON 10YR 6/8 066in

DESIGNER CERTIFICATIONS

I certify that in June of 1994 I passed the soil evaluator examination by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.
Signature _____ Date _____

GENERAL NOTES

- 1) ALL CONSTRUCTION PRACTICE AND MATERIALS MUST CONFORM TO 310 CMR 15 (TITLE 5) AS REVISED 9 SEPTEMBER 2016 AND/OR LOCAL REGULATIONS.
- 2) CONTRACTOR IS RESPONSIBLE FOR VIEWING SITE BEFORE BIDDING JOB TO BECOME FAMILIAR WITH ALL ASPECTS OF THE JOB.
- 3) CONTRACTOR SHALL VERIFY ALL INVERTS AND SETBACKS FROM WELLS, PROPERTY LINES AND WATER BEFORE BEGINNING WORK.
- 4) IF CONDITIONS IN THE FIELD DIFFER THAN THOSE SHOWN ON THE PLAN, WORK SHALL STOP, AND THE DESIGN ENGINEER AND THE BOARD OF HEALTH SHALL BE CONSULTED BEFORE WORK CONTINUES.
- 5) CONTACT THE DESIGN ENGINEER AND BOARD OF HEALTH FOR A REQUIRED BOTTOM INSPECTION BEFORE PLACING SAND OR STONE. CONTACT DESIGN ENGINEER AND BOARD OF HEALTH FOR FINAL INSPECTION BEFORE COVERING SYSTEM.
- 6) THE CONTRACTOR SHALL INSURE ALL NECESSARY PERMITS HAVE BEEN OBTAINED BEFORE INSTALLING THE SYSTEM.
- 7) NO PERMANENT STRUCTURES SHALL BE PLACED ON THE PROPOSED DISPOSAL SYSTEM.
- 8) PROPERTY LINES ARE GRAPHIC ONLY AND ARE NOT TO BE USED TO ERECT FENCES OR SHEDS. NO PROPERTY SURVEY WAS DONE.
- 9) THE DESIGN ENGINEERS ONLY WARRANTY IS THE SYSTEM IS DESIGNED ACCORDING TO TITLE V UNLESS OTHERWISE NOTED.

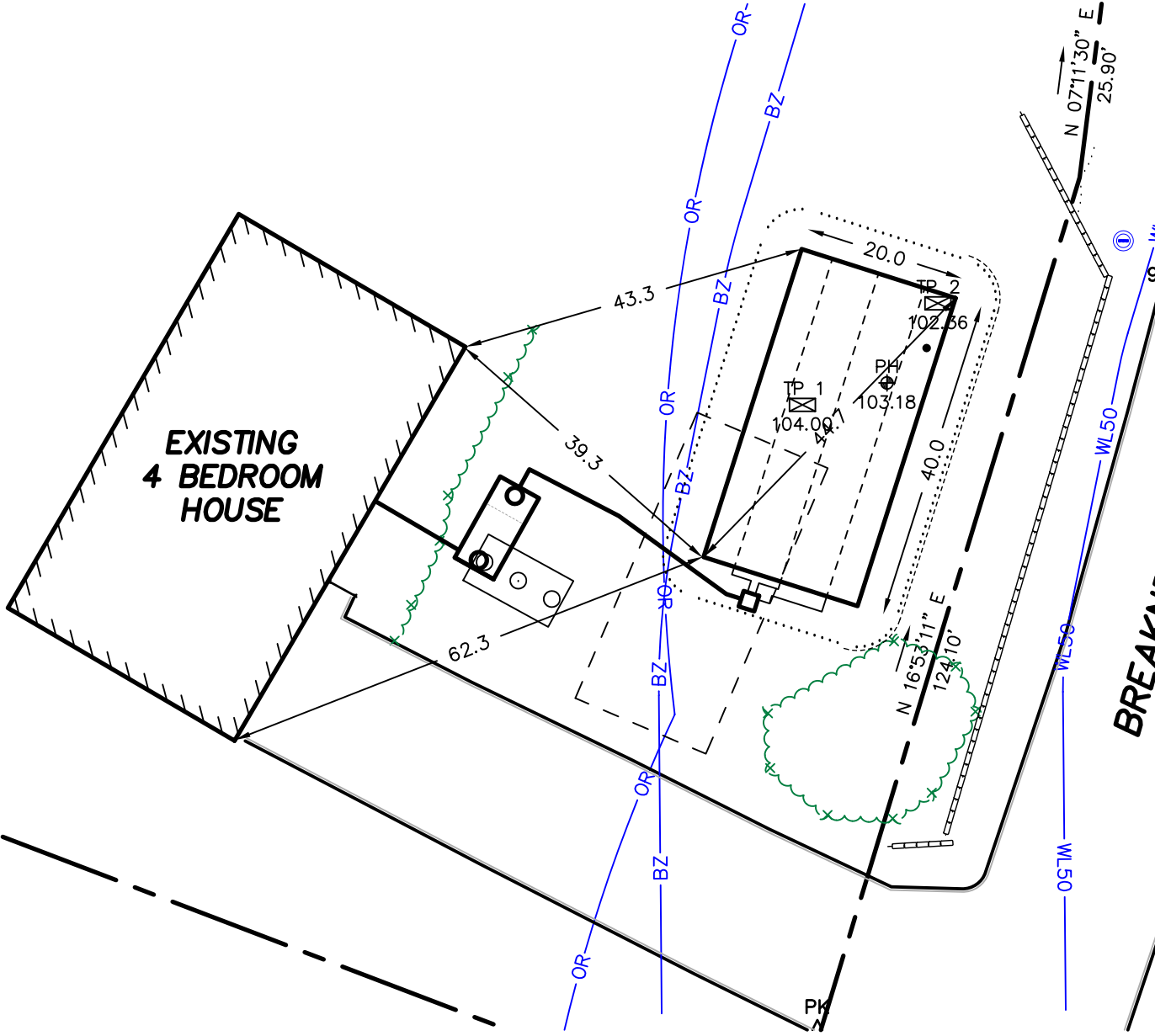
LOCUS MAP



SCHEDULE OF INVERTS

HSE INV	BEG INVERTS		END INVERTS	
	PROP.	AS-BUILT	PROP.	AS-BUILT
ST TANK	104.21'		103.72'	
PC TANK	103.97'		103.72'	
D-BOX	103.37'		103.20'	
PIPE 1	102.70'		102.50'	
PIPE 2	102.70'		102.50'	
PIPE 3	102.70'		102.50'	
PIPE 4				
PIPE 5				
PIPE 6				
PIPE 7				
PIPE 8				

STAKE OUT INFO



GREEN HILL
ENGINEERING

PERC TESTING SEPTIC DESIGN WETLAND PERMITTING ENVIRONMENTAL CONSULTING

PROPOSED SEPTIC SYSTEM

REPAIR
ALAN & SHELBY SHEPHERD
22 BREAKNECK ROAD
STURBRIDGE MA
29 AUGUST 2019
rev 9.27.19 SHOW RIPARIAN ZONE

MAP 41 PARCEL 22

PL01:9/27/2019 8:01 AM

JOB: 2019-033