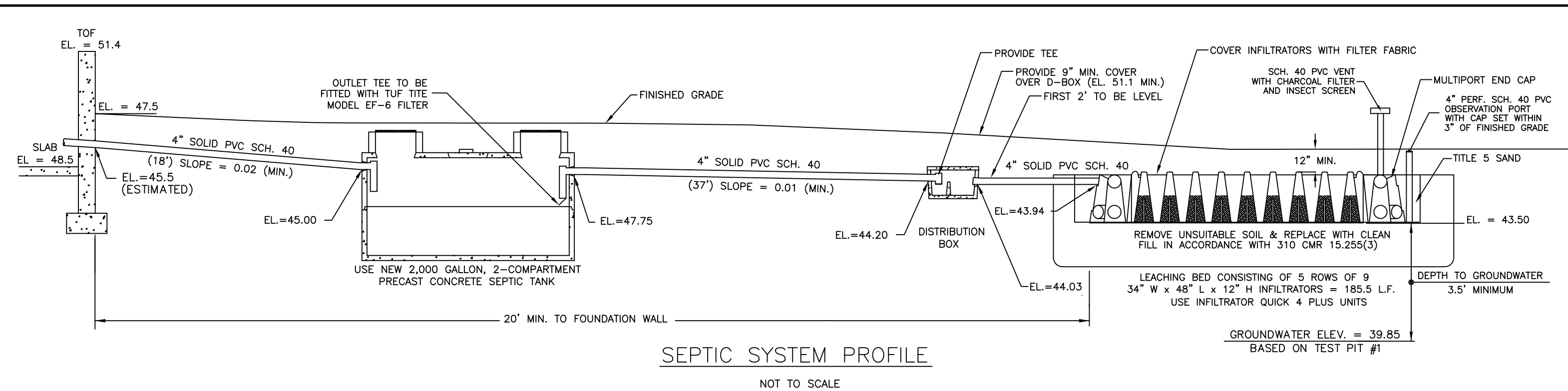


LOCUS PLAN

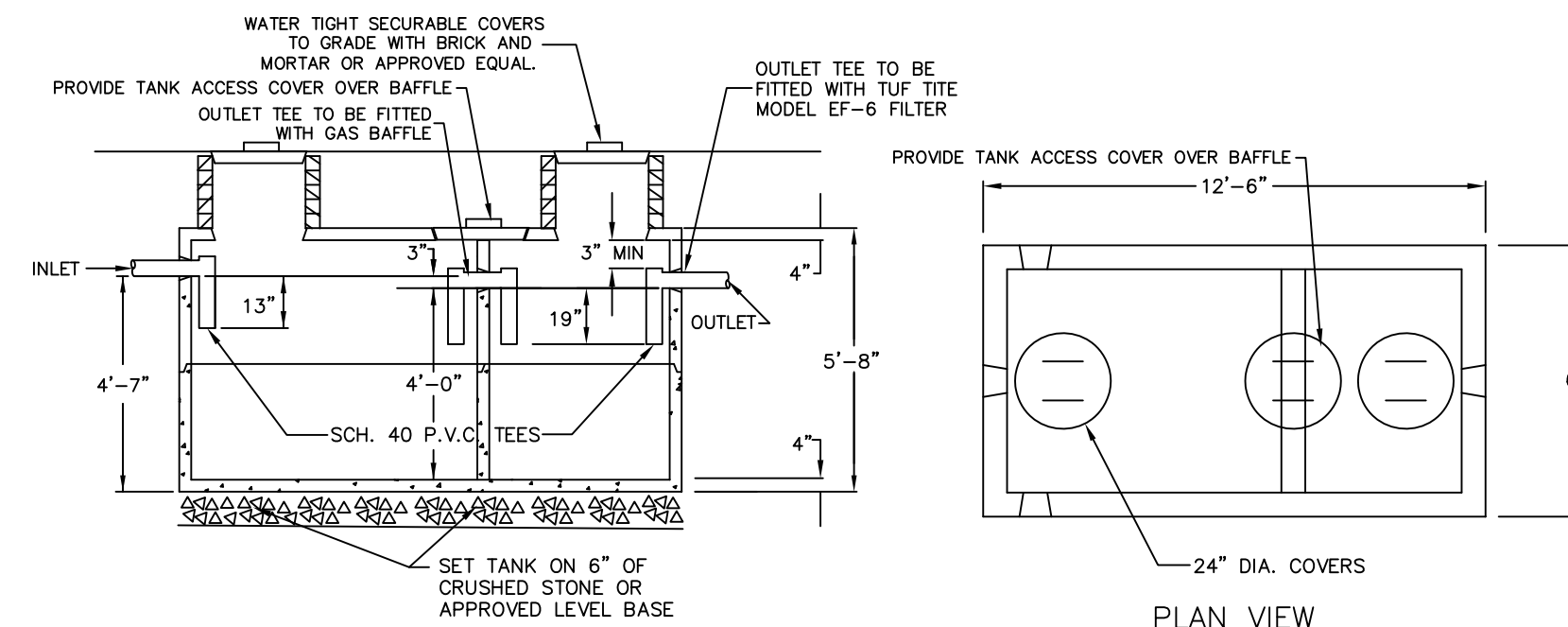


SEPTIC SYSTEM PROFILE

NOT TO SCALE

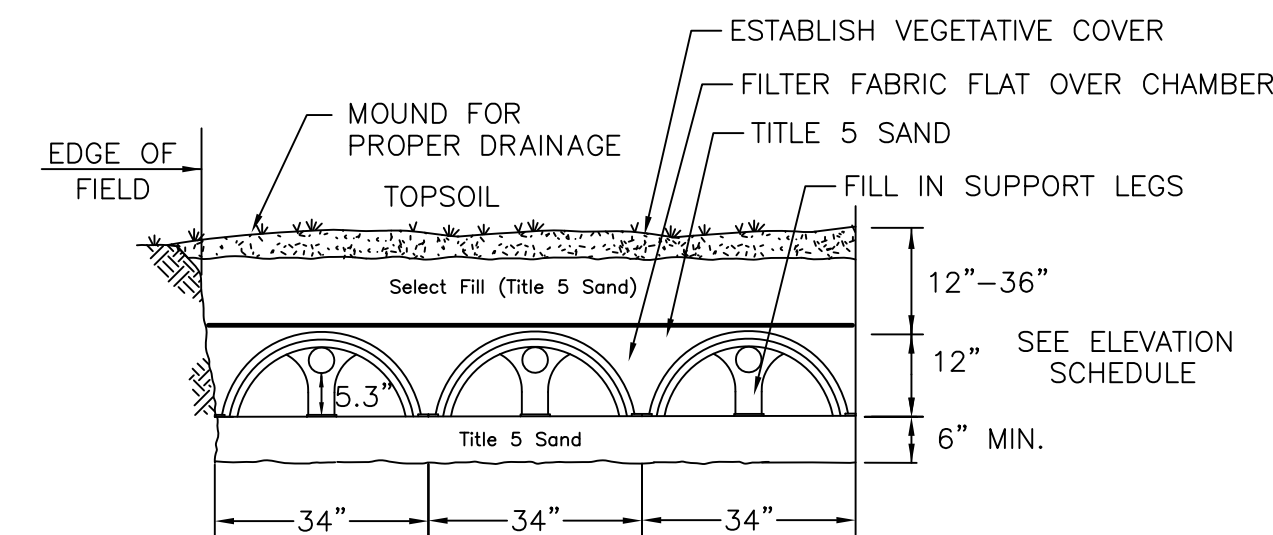
ELEVATION SCHEDULE:

DESCRIPTION	ELEVATION
4" INV. AT HOUSE (EXISTING)	45.5
4" INV. AT SEPTIC TANK (IN)	45.00
4" INV. AT SEPTIC TANK (OUT)	44.75
4" INV. AT DIST. BOX (IN)	44.20
4" INV. AT DIST. BOX (OUT)	44.03
4" INV. INTO SAS	43.94
ELEVATION AT BOTTOM OF SAS	43.50
GROUNDWATER ELEVATION	39.85



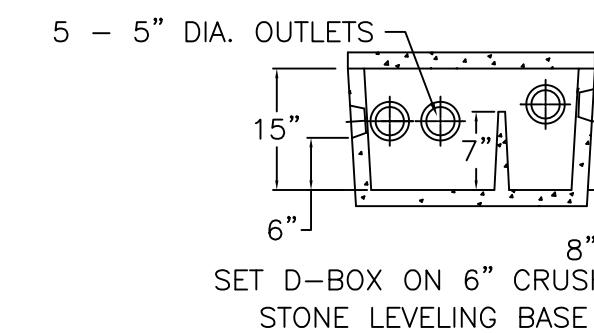
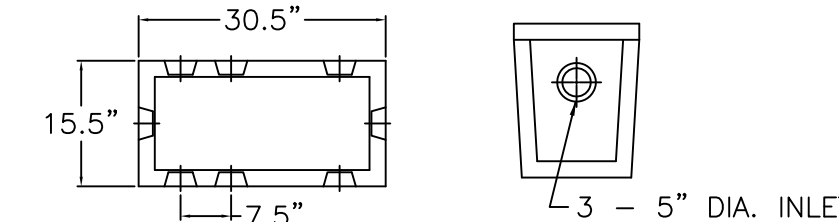
2,000 GALLON 2-COMPARTMENT PRECAST SEPTIC TANK

NOT TO SCALE



QUICK 4 PLUS STANDARD™ CONFIGURATION

NOT TO SCALE



DISTRIBUTION BOX

NOT TO SCALE

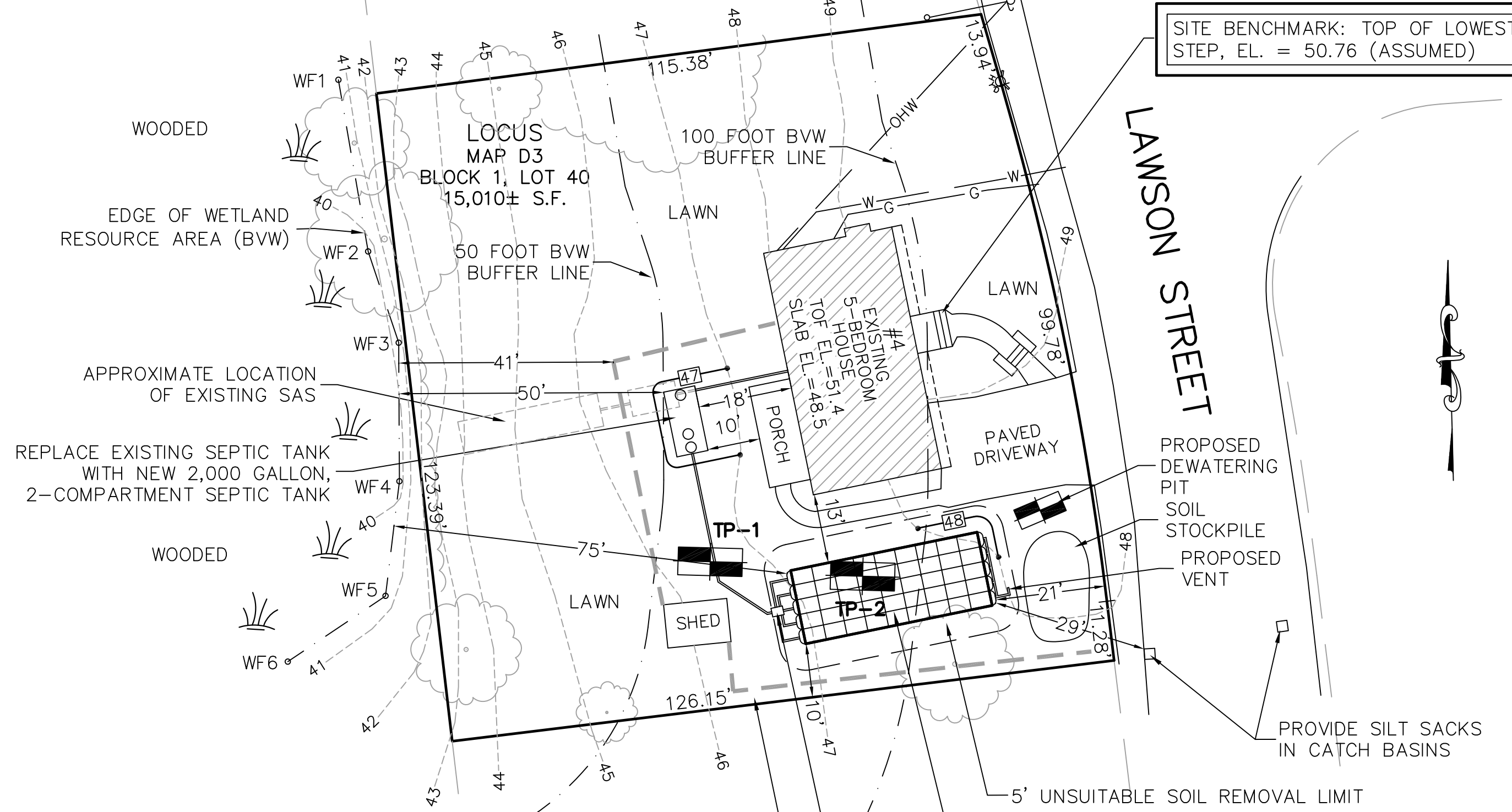
PLAN TO ACCOMPANY A CONSERVATION FILING

REV.	DATE	DESCRIPTION	BY	APP.	DRAWING TITLE SUBSURFACE SEWAGE DISPOSAL SYSTEM UPGRADE	SCALE: AS SHOWN	
					PROJECT 4 LAWSON STREET AVON, MA	DATE: 11-19-20	
					CLIENT WILSON AUGUSTE 4 LAWSON STREET, AVON, MA 02322	DRAWN BY: SWR	
					COLLINS CIVIL ENGINEERING GROUP, INC. BRAintree - FALMOUTH - WEST BRIDGEWATER CIVIL ENGINEERING - LAND SURVEY - L.S.P. SERVICES 225 SOUTH MAIN STREET, WEST BRIDGEWATER, MA 02379 TEL:508-580-2332 MOBILE: 617-347-1369 E-MAIL:GRCPE@AOL.COM	DESIGNED BY: SWR	
						CHECKED BY: GRC	DRAWING NO.
						APPROVED BY: GRC	PROJECT NO. 20-226-3199

MAP D3
BLOCK 1, LOT 16

MAP D3
BLOCK 1, LOT 41

MAP D3
BLOCK 1, LOT 16



SITE BENCHMARK: TOP OF LOWEST STEP, EL. = 50.76 (ASSUMED)

LAWSON STREET

PROVIDE SILT SACKS IN CATCH BASINS

5' UNSUITABLE SOIL REMOVAL LIMIT

PROPOSED 14.2' X 37.1' LEACHING BED WITH 5 ROWS OF 9 QUICK 4 PLUS STANDARD CHAMBERS

PROPOSED DISTRIBUTION BOX
PROPOSED 12" COMPOSTING SILT SOCK STAKED EVERY 10 FEET (WORK LIMIT)

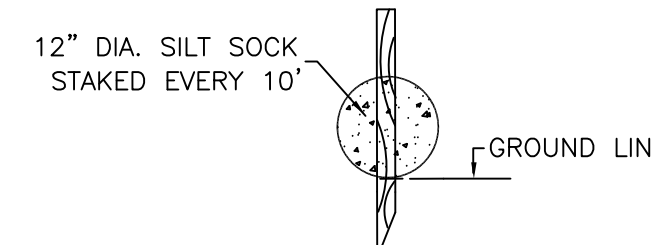
MAP D3
BLOCK 1, LOT 39

WETLAND AND EROSION CONTROL NOTES

1. WETLAND DELINEATION PERFORMED BY BROOKE MONROE, BOTANIST.
2. EROSION CONTROL (WORK LIMIT) LINE TO BE INSTALLED PRIOR TO ANY ACTIVITY AND REMAIN IN PLACE UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED.
3. CONTRACTOR RESPONSIBLE FOR IMPLEMENTING ALL CONSERVATION COMMISSION AND BOARD OF HEALTH DIRECTIVES.
4. THE SITE IS LOCATED IN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN.
5. CONTRACTOR TO SWEEP STREET AT THE END OF EACH WORK DAY.
6. SILT SACKS (2) TO BE INSTALLED AT THE 2 CATCH BASINS IN THE STREET AS SHOWN.
7. CONTRACTOR TO MAINTAIN AND MONITOR DURING WORK AND REMOVED AFTER WORK IS DONE.
8. THE NAME AND CONTACT NUMBERS OF THE GENERAL CONTRACTOR MUST BE PROVIDED TO THE ENGINEER AND CONSERVATION COMMISSION PRIOR TO STARTING WORK.
9. CONTRACTOR TO MONITOR, REPAIR AND MODIFY EROSION CONTROL TO ASSURE THAT THERE IS NO WETLAND RESOURCE AREA OR ABUTTER ENCROACHMENT.

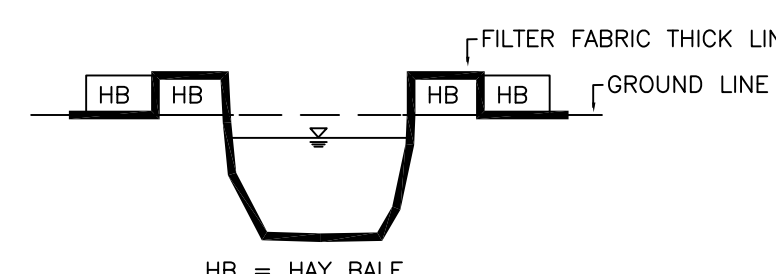
LOCAL UPGRADE APPROVAL REQUESTS:

1. VARIANCE FROM SECTION 310 CMR 15.212 OF THE STATE SANITARY CODE WHICH REQUIRES A MINIMUM VERTICAL SEPARATION FROM THE SOIL UNDERLYING THE SOIL ABSORPTION SYSTEM ABOVE THE HIGH GROUND-WATER ELEVATION SHALL BE FOUR (4) FEET WITH A RECORDED PERC RATE OF GREATER THAN TWO MINUTES PER INCH. A VARIANCE THAT WOULD ALLOW A VERTICAL SEPARATION REDUCTION FROM THE REQUIRED FOUR (4) FEET TO 3.5 FEET IS REQUESTED.
2. USE OF A GRAIN SIZE DISTRIBUTION ANALYSIS ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1 TO ESTABLISH DESIGN LOADING RATE.



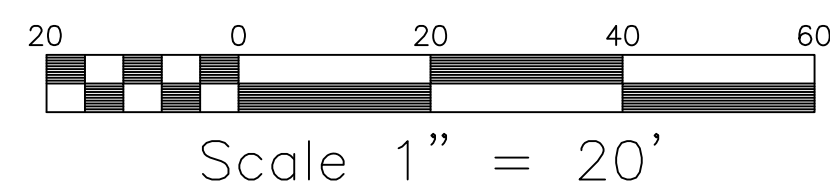
COMPOSTING SILT SOCK EROSION CONTROL DETAIL

NOT TO SCALE



DE-WATERING PIT DETAIL

NOT TO SCALE



Scale 1" = 20'

LEGEND

- 49 --- EXISTING CONTOURS
- 49 — PROPOSED CONTOURS
- — — PROPERTY LINES
- TP-1 OBSERVATION HOLE LOCATION
- — — EDGE OF BITUMINOUS PAVEMENT

DESIGN DATA:

DESIGN FLOW:
5 BEDROOMS x 110 GPD/BEDROOM = 550 GPD
SEPTIC TANK:
550 GPD x 2.0 = 1,100 GALLONS
USE NEW 2,000 GALLON, 2-COMPARTMENT SEPTIC TANK

SOIL ABSORPTION SYSTEM:
PERCOLATION RATE DETERMINED FROM SIEVE ANALYSIS PERFORMED ON SOIL SAMPLE COLLECTED FROM LAYER C AT TEST PIT TP-2. TEST REVEALED SOIL IS A LOAMY SAND (75.5% SAND, 19.2% SILT, 5.3% CLAY). DESIGN LOADING RATE SELECTED FOR CLASS 1 SOILS WITH 70-85% SAND IN ACCORDANCE WITH DEP GUIDANCE POLICY #BRP/DWM/PeP-P00-1.
DESIGN LOADING RATE = 0.66 GPD/SF
LEACHING AREA REQ'D = 550 GPD / 0.66 GPD/SF = 834 SF
USE 14.5' X 37.1' LEACHING BED WITH 5 ROWS OF 9 INFILTRATOR QUICK 4 PLUS CHAMBERS = 185.5 L.F.
EACH ROW (9) 4' UNITS PLUS 1.1' END CAP CREDIT = 36'+1.1' = 37.1'
37.1' PER ROW X 5 ROWS = 185.5 L.F.
QUICK 4 CHAMBER LEACHING AREA = 4.73 S.F./L.F.
LEACHING AREA PROVIDED:
185.5 L.F. X 4.73 S.F./L.F. = 877 SF > 834 SF REQUIRED
DAILY FLOW CAPACITY:
877 SF X 0.66 GPD/SF = 579 GPD > 550 GPD REQ'D

SOIL DATA:

DATE: OCTOBER 29, 2020
PERFORMED BY: GEORGE R. COLLINS, P.E.
WITNESSED BY: KATHLEEN WALDRON, AVON BOH

SOIL HORIZ. COLOR	TP-1	DEPTH	ELEV.	SOIL HORIZ. COLOR	TP-2	DEPTH	ELEV.
	FILL/A	0	46.35		FILL/A	0	47.30
Bw 10YR 5/6	SANDY LOAM	68"	39.85	Bw 10YR 5/6	SANDY LOAM	70"	
C 2.5Y 6/2	LOAMY SAND (SATURATED, UNCOMPACTED)	88"		C 2.5Y 6/2	LOAMY SAND (SATURATED, UNCOMPACTED)	90"	39.80
		146"	34.18			158"	34.13

EST. SEASONAL HIGH GROUNDWATER ELEV. 39.85
DESIGN LOADING RATE ESTABLISHED BY SIEVE SAMPLE COLLECTED FROM LAYER C AT TP-2.

NOTE: LAYERS FILL/A, B, AND C TO BE REMOVED TO A DEPTH OF 96" BELOW GRADE AND REPLACED WITH CLEAN FILL IN ACCORDANCE WITH 310 CMR 15.255(3). UNSUITABLE SOIL TO BE REMOVED TO A DISTANCE OF 5'-0" BEYOND THE LIMITS OF THE SOIL ABSORPTION SYSTEM.