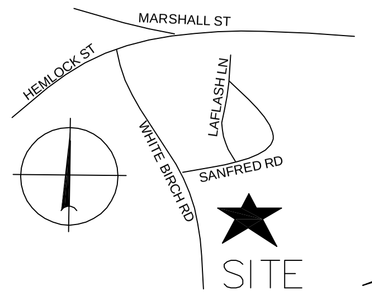
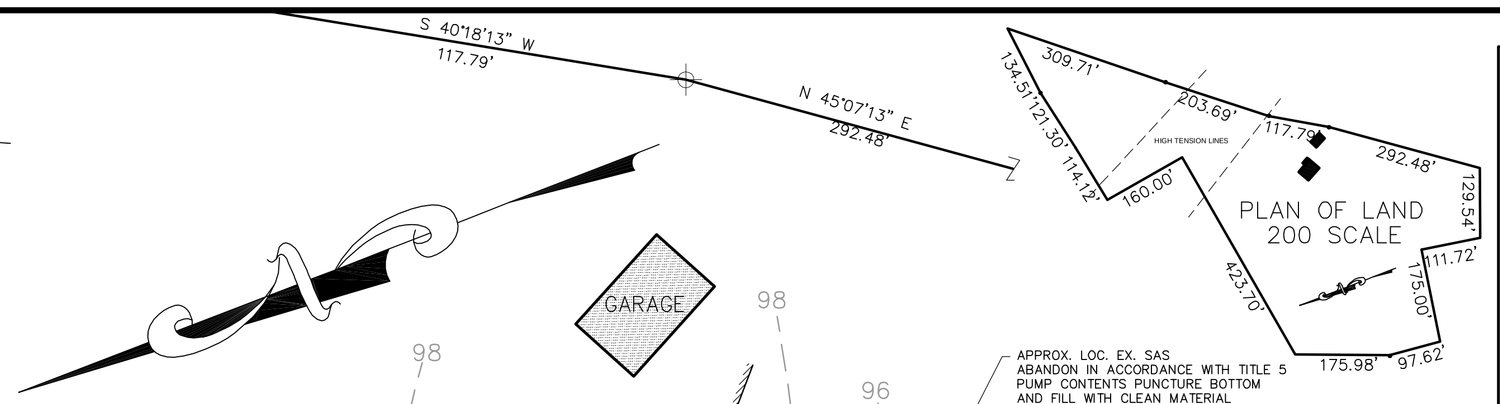
LEICESTER



LOCUS



APPROX. LOC. EX. SAS
ABANDON IN ACCORDANCE WITH TITLE 5
PUMP CONTENTS PUNCTURE BOTTOM
AND FILL WITH CLEAN MATERIAL

BENCHMARK
BOTTOM OF SIDING
EL. 100.0 (ASSUMED)

PROPOSED 1500 GAL. H-20 CONCRETE SEPTIC TANK
USE INLET AND OUTLET TEES, OUTLET FILTER
AND OUTLET MH TO GRADE
SET ON STABLE COMPACTED 6"-12" AGGREGATE BASE

TBM 1-92.41'
NAIL IN 2.5' DECID. TREE

PROPOSED DISTRIBUTION BOX
SET ON LEVEL, COMPACTED 6"-12"
AGGREGATE STONE BASE

TBM 2-89.98'
NAIL IN 18" DECID. TREE

LIMIT OF EXCAVATION AREA. EXCAVATION INCLUDES
THE **REMOVAL OF FILL, A & B HORIZONS AND** AND ANY
OTHER DELETARIOUS MATERIAL ENCOUNTERED
MAY DIFFER FROM SOIL EVALUATION RECORD.
BOTTOM OF EXCAVATION TO BE LEVEL PER 310 CMR 15.240 (8)

PROPOSED SAS
4-50' PERF. SCHED 40 PVC
OR EQUIV. DISTR. LATERALS
66'L X 20'W FIELD

40 MIL POLYVYNIL BARRIER
@5' DIGOUT END WHERE SHOWN
HOLD TOP EL. @ 89.75'

PROPOSED WATTLES
EROSION CONTROL BARRIER
AND LIMIT OF WORK

PROPOSED INSPECTION PORT
WITHIN 3" OF FINAL GRADE OR AT
GRADE

PROPOSED SEPTIC VENT
1' PAGODA VENT
RECOMMENDED

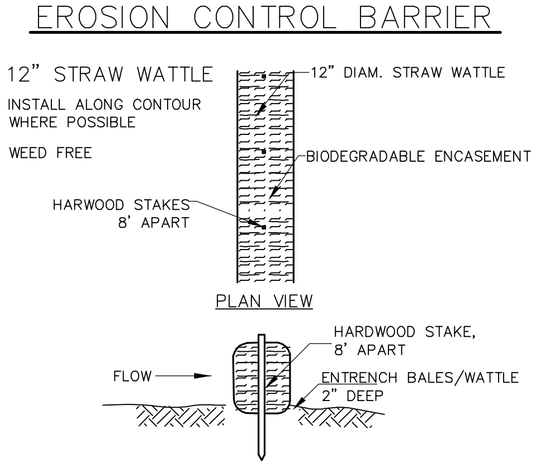
SIZING CALC'S

Hydraulic Loading 3 BEDROOMS @ 110 GPD = 330 GPD
This design does not allow for the use of a garbage grinder OR water filtration backwash/discharge connection.
Septic Tank Size
330 GPD x 200 % = 660 gal. MIN.
Leaching Area
40 MPI PERC RATE - DESIGN LOADING RATE
(LTAR) = 0.25 GPD/SFEFFECTIVE LEACHING AREA
330/0.25 = 1,320 S.F.
BOTTOM ONLY BED 66' X 20'
AREA PROVIDED= 1,320 S.F.
MIN. FLOW RATE PER STATE = 330 GPD
LOADING PROVIDED = 330 GPD
DOES NOT ACCOMODATE AVERAGE DAILY FLOWS >330 OR WASTEWATER CONSISTING OF ANYTHING OTHER THAN TYPICAL RESIDENTIAL BLACK + GRAY WATER

LOCAL UPGRADE APPROVAL REQUESTS
1. TO INSTALL THE SAS WITH A 1' VERTICAL REDUCTION FROM THE BOTTOM OF THE SAS TO SEASONALLY HIGH GROUND WATER

RESOURCE PROTECTION
CONSERVATION COMMISSION
FILING/NOTIFICATION IS REQUIRED
1. NO WORK PROPOSED WITHIN 50' OF THE WETLAND
2. EROSION CONTROL & LIMIT OF WORK AS SHOWN
3. STOCKPILING PROPOSED OUTSIDE 100' BZ

EROSION CONTROL BARRIER



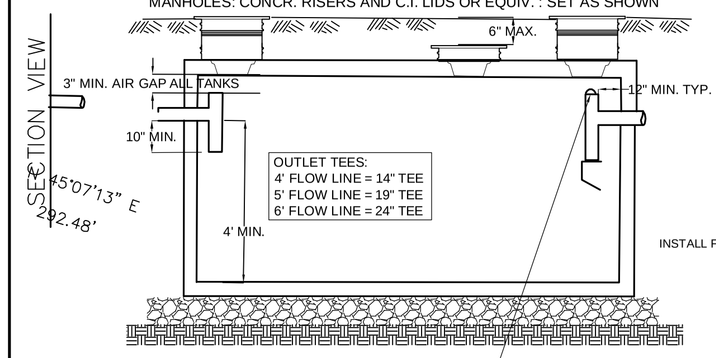
SCHEDULE OF ELEVATIONS

LOCATION	ELEVATION	FIN. GRADE
FOUNDATION INVERT OUT	94.4 NEW	
SEPTIC TANK INVERT IN	93.9	95.7 MIN. 97.9 MAX.
SEPTIC TANK INVERT OUT	93.7	
PUMP CHAMBER INVERT IN	NA	
PUMP CHAMBER INVERT OUT	NA	
DISTRIBUTION BOX INVERT IN	89.8	91.4 MIN.; 93.6 MAX.
DISTRIBUTION BOX INVERT OUT	89.6	
HIGHEST CONTOUR AT SAS	88.0'	
INVERT BEGINNING	89.33	90.9 MIN.; 93.1 MAX
INVERT END	89.0	
BOTTOM OF SAS	88.5	
ESTIMATED SEASONAL HIGH WATER	85.5	
BREAKOUT AT 15'	89.75	

SYSTEM SCHEMATICS

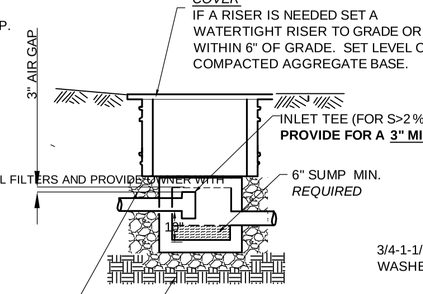
PR. 1,500 GAL. H20 SEPTIC TANK

MANHOLES: CONCR. RISERS AND C.I. LIDS OR EQUIV. : SET AS SHOWN



USE DEP APPROVED TUF-TITE EF-4: 1/16" FILTERATION AREA IN OUTLET TEE, A1800 ZABEL FILTER OR EQUIV.

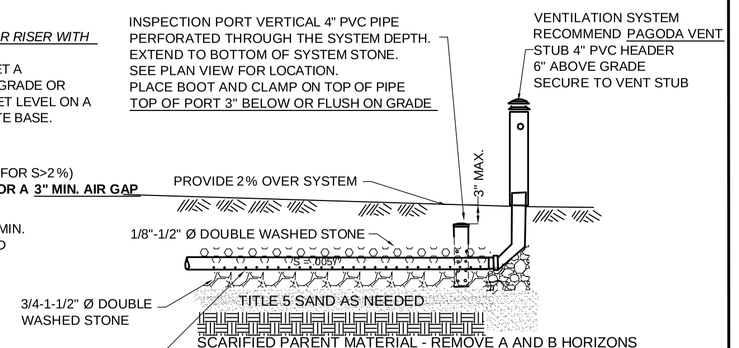
CONCRETE DISTRIBUTION BOX



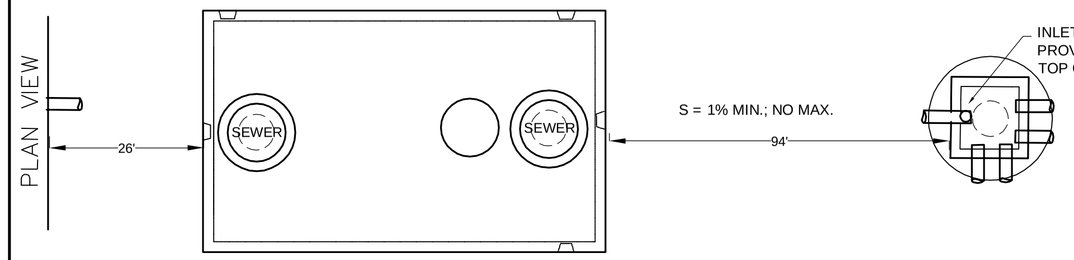
COMPACTED STABLE BASE UNDER RISER

NATIVE SOIL OR COMPACTED CLEAN FILL OVER NATIVE SOIL

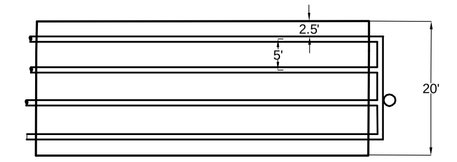
SOIL ABSORPTION SYSTEM



SET ALL TANKS ON A 6"-12" COMPACTED STONE AGGR. BASE



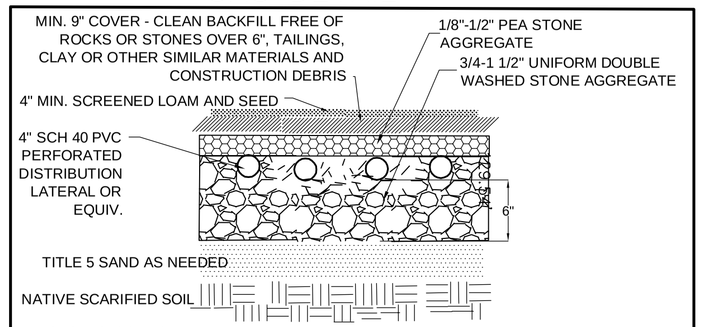
1 FIELD - 4 DISTRIBUTION LATERALS



4" (SOLID OR PERFORATED AS SPECIFIED) SCHEDULE 40 PVC PIPE THROUGHOUT SYSTEM OR EQUIV. UNLESS OTHERWISE NOTED
ALL PIPE NOT LAID ON VIRGIN GROUND SHOULD BE LAID ON A 4"-6" COMPACTED STONE AGGR. BASE THROUGHOUT SYSTEM
MANHOLES AND RISERS
20" MIN. WATERTIGHT RISERS/MANHOLE COVERS. PROVIDE INLET AND OUTLET RISERS WITH COVER SET FLUSH AT GRADE OR WITHIN 6" OF FINISHED GRADE

APPLY MAGNETIC TAPE OVER BURIED PIPES AND COMPONENTS

SAS DETAIL



ALL **STONE/AGGREGATE** MUST MEET TITLE 5 SPECIFICATION AND MUST BE FREE OF IRON PARTICLES,
FINES AND DUST *IN PLACE*. ALL **SAND** MUST MEET TITLE 5 SPECIFICATION AND BE CLEAN GRANULAR SAND FREE OF ORGANIC MATTER AND DELETARIOUS SUBSTANCES.

CERTIFIED SOIL TESTING RESULTS

DATE: *4-12-21*
SOIL EVALUATOR: *SCOTT DUPRE*
AGENT: *SHELLEY HULTGREN* OPERATOR: *BRAD JOHNSON*

TEST PIT #1 *GR. EL. = 86.5+/-*	*TEST PIT #2* *GR. EL. = 87.5+/-*
A 0-6 FSL 10YR 3/3	A 0-6 FSL 10YR 3/3
BW 6-18 FSL 2.5Y 4/4	BW 6-16 FSL 2.5Y 4/4
C 18-100 VFSL 2.5Y 4/3	B2 16-40 LS 2.5Y 4/4
MTLS@ 30" 10YR 6/8 & 7/1 DRY NO WEEPING	C 40-100 VFSL 2.5Y 4/3
	MTLS@ 55" 10YR 6/8 & 7/1 DRY NO WEEPING

I CERTIFY THAT IN OCTOBER 1997 I PASSED THE EXAMINATION APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME, CONSISTENT WITH THE TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.018(2).

SCOTT DUPRE, CERTIFIED MA SOIL EVALUATOR #SE2947

PERCOLATION TEST DATA

@TP1 DEPTH 40"
40 MPI RATE
LTAR 0.25 GPD/SF

GENERAL NOTES

1. REGULATIONS
i. This design is in accordance with the latest edition of Commonwealth of Massachusetts regulations 310 CMR 15.000 Title 5, of the State Environmental Code and the requirements of the local Board of Health, unless noted.
ii. The contractor is responsible to comply with all inspections and material requirements of Title 5 and have a valid installer's license.
2. CHANGES
i. Variation from this plan shall be made only with the direction from the Engineer and approval of the local BOH.
ii. The Design Engineer is to be notified of any discrepancies.
3. EXCAVATION & BACKFILLING
i. In excavation of the disposal system distribution area care must be taken to not compact or smear the bottom or sides of the excavation.
ii. All work should be done in favorable weather conditions, but in NO case shall fill or stone be placed on wet, smeared or frozen soils.
iii. It is the responsibility of the contractor to contact DIG SAFE before operating machinery on this property.
4.GENERAL NOTES
All known wells and wetlands and water courses within 100' of the septic system are shown or noted.
5. CERTIFICATE OF COMPLIANCE
The Contractor shall notify the Engineer and the local Board of Health to coordinate the following inspections (unless otherwise notified):
1) At completion of the SAS excavation 2) completion of component installation. All pipes and components must be VISIBLE, magnetic tape in place and 3) after backfilling system and components with final grade, loam and stabilization complete.
6. WARRANTY
The Design Engineers warranty is that the system is designed according to Title 5 and Local Board of Health regulations unless otherwise noted, which would require a variance or local upgrade approval. The intent of this plan is for the septic system design proposal only (which may or may not include the siting of a well). No certification is made with regard to zoning, property line, structure placement or location or retaining walls. Owner is responsible for all permit aquisitions, RLS or PE requirements or certifications and variance or local upgrade requests.

OWNER NOTE

1. OPERATION AND MAINTENANCE
i. Owners are responsible for the operation and maintenance of their subsurface wastewater systems.
ii. Septic tanks should be inspected yearly and cleaned when solids level is more than one (1) foot in depth, unless use of an alternative technology, other system, or special use requires additional maintenance.
iii. The use of toxic, hazardous or harse cleaners and chemicals are not permitted to be disposed of into this system. Disposal of sanitary waste only is permitted. Disposal of grease, garbage and other non-sanitary and insoluable products to the septic system is not allowed. Backwash from water softening or filtering devices is prohibitted to discharge into this system. Garbage grinders are prohibitted.

APPLICANT
SHEILA (BURTT) BARLOW
140 WHITE BIRCH STREET
LEICESTER, MASSACHUSETTS 01524

CONTACT
SHEILA BARLOW
508-826-0420

EX. 3 BEDROOM SFH
144 WHITE BIRCH ROAD
LEICESTER, MASSACHUSETTS
PROPOSED SEPTIC SYSTEM REPAIR

CLEAR WATER ENVIRONMENTAL
SEPTIC SYSTEM DESIGN | LAND PLANNING
Serving Greater MA Since 1999

COMMONWEALTH OF MASSACHUSETTS ELIZABETH DUPRE NO. 1210 REGISTERED SANITARIAN

ELIZABETH DUPRE, CIVIL ENGINEER, RS#1210

87 Bartlett Road
Kittery Point
Maine 03905

O (888) 439-0032
C (508) 868-0838
info@clearwater-env.com

0 10 20 40 60
SCALE 1"=20'
UNLESS OTHERWISE NOTED

DATE: MAY 24, 2021

DRAWN BY:	CHECKED BY:	APPROVED BY:
ED-SDD	SDD-ED	ED

DATE	REVISION

144 WHITE BIRCH STREET

SHEET: 1 OF 1