PERCOLATION TEST INFORMATION

TEST PIT TP1-1 (198.1)

Depth (in.)	Description	Horizon	Range (in.)
12	OTS LOAM TOP SOIL GRANULAR LOOSE	AP 10YR 3/3 SANDY LOAM	0–12
20	SANDY SUBSOIL MEDIUM GRAIN SINGLE GRAIN LOOSE	Bw 10YR 4/4 LOAMY SAND NO STONE	12–32
90	MEDIUM SAND SINGLE GRAIN LOOSE	C1 10YR 5/2 FINE/MEDIUM SAND NO GRAVEL STONE & NO COBBLES	32–122

NO H20
NO WEEPING
MOTTLING 10R 3/4 @ 120"
EHWT 120"" (188.1)

TEST PIT TP1-2 (198.3)

Depth (in.)	Description	Horizon	Range (in.)
15	OTS LOAM TOP SOIL GRANULAR LOOSE	AP 10YR 3/3 SANDY LOAM	0–15
17	SANDY SUBSOIL MEDIUM GRAIN SINGLE GRAIN LOOSE	Bw 10YR 4/4 LOAMY SAND NO STONE	15–32
88	MEDIUM SAND SINGLE GRAIN LOOSE	C1 10YR 5/2 FINE/MEDIUM SAND NO GRAVEL STONE & NO COBBLES	32–120

NO H20
NO WEEPING
MOTTLING 10R 3/4 @ 116"
EHWT 116" (188.6)

LATITUDE/LONGITUDE – 42°17'14"/72°38'41"
SOIL SURVEY – NRCS CUSTOM SOILS REPORT FOR BILL SULLIVAN
53 CLAPP ST, EASTHAMPTON MA 01027

DATE: 04/05/2023
ENGINEER: WILLIAM J SIERUTA AND JONATHAN M SIERUTA
WITNESS: BRAIN CHAPDELAINE B.O.H.

PERMEABILITY TEST 1
PERC 1 @ TP1-1 DEPTH – 65"
ACTUAL RATE – 0.66 MIN/IN
DESIGN RATE – 5.00 MIN/IN

PERMEABILITY TEST 2
PERC 2 @ TP1-2 DEPTH – 65"
ACTUAL RATE – 1.33 MIN/IN
DESIGN RATE – 5.0 MIN/IN

60" SEPARATION REQUIRED – PER 310 CMR 15.212 (TITLE 5 REGULATIONS)

DESIGN INFORMATION

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH 310 CMR 15.0 TITLE 5 AND ALL OTHER LOCAL BOARD OF HEALTH REGULATIONS

FINISH GRADING TO BE AS SHOWN ON PLANVIEW. ALL DISTURBED AREAS TO BE LOAMED AND SEEDED

DESIGN CRITERIA

USE: EXISTING SINGLE FAMILY RESIDENTIAL STRUCTURE – 4 BEDROOM HOME
USE 5 BEDROOM DESIGN FOR FUTURE EXPANSION FULL BASEMENT NO DISPOSAL

DESIGN FLOW: SHALL BE DETERMINED PER 310 CMR 15.223
REQUIRED: 110 GALLONS PER BEDROOM = 5 BEDROOM X 110 GAL = 550 GAL/DAY
550 GALLONS / DAY
NO DISPOSAL UNIT

SEPTIC TANK: SHALL BE DETERMINED PER 310 CMR 15.223
REQUIRED: 550 GALLONS
NO DISPOSAL UNIT
FULL BASEMENT – NO DISPOSAL
MINIMUM TANK SIZE PERMITTED PER
USE TWO COMPARTMENT PRECAST CONCRETE TANK – 2000 GALLON
DIMENSIONS (L x W x H) = 12'-2" x 5' x 6'
FROM BASE TO INLET INVERT IS 55" ON A TYPICAL TWO COMPARTMENT TANK

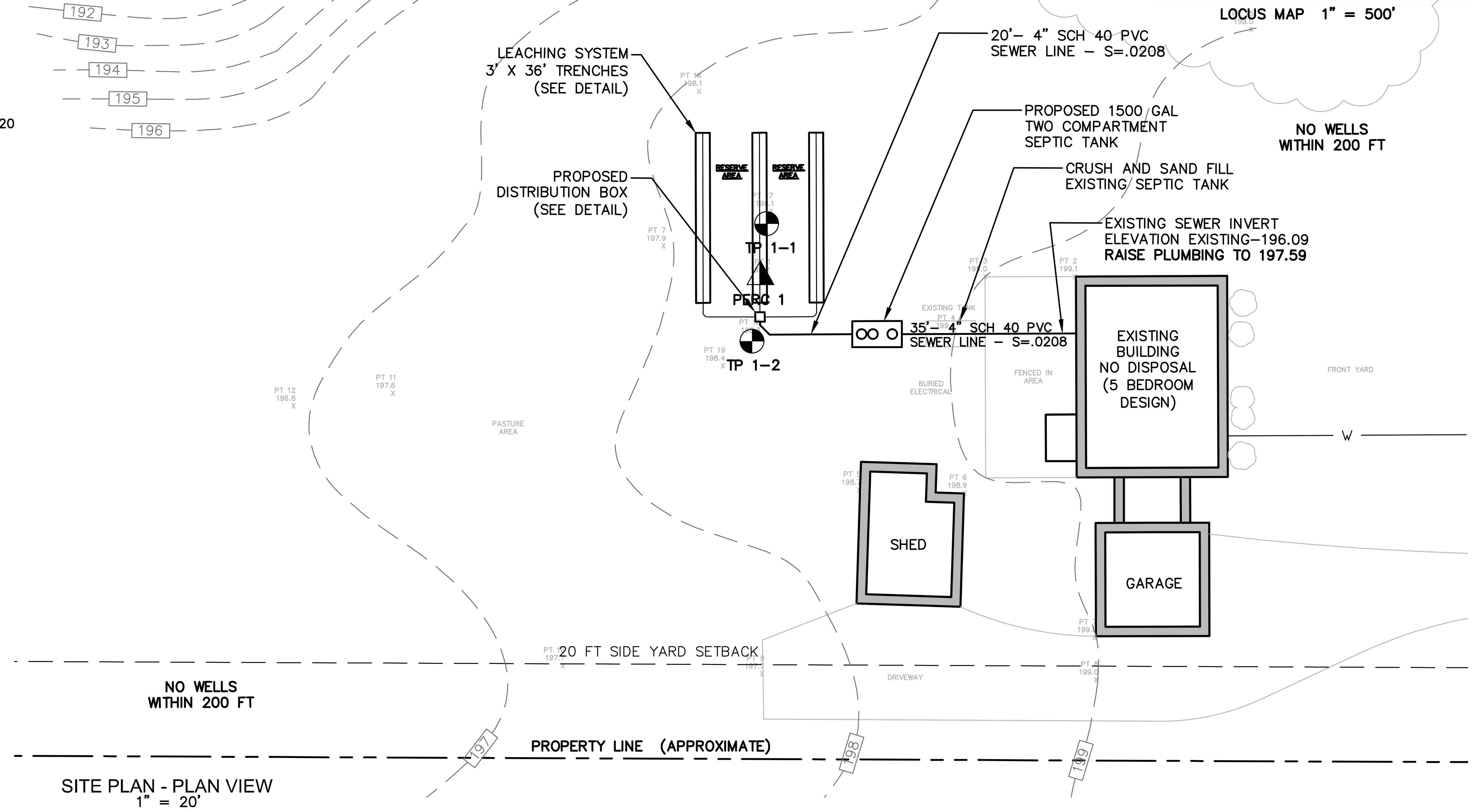
LEACHING SYSTEM: DUE TO SOIL CONDITIONS A LEACH TRENCH DESIGN IS TO BE USED PER 310 CMR 15.251

EFFECTIVE DEPTH – 24"
EFFECTIVE WIDTH – 36"
EFFECTIVE LENGTH – 36'
BOTTOM AREA – 3 (3' X 36') = 324'
SIDEWALL AREA – 3 (2' X 2' X 36') = 432'
CLASS I SOIL – SAND
USE 3 LEACH TRENCHES – 2' X 3' X 36'
WITH 9' SEPARATION BETWEEN

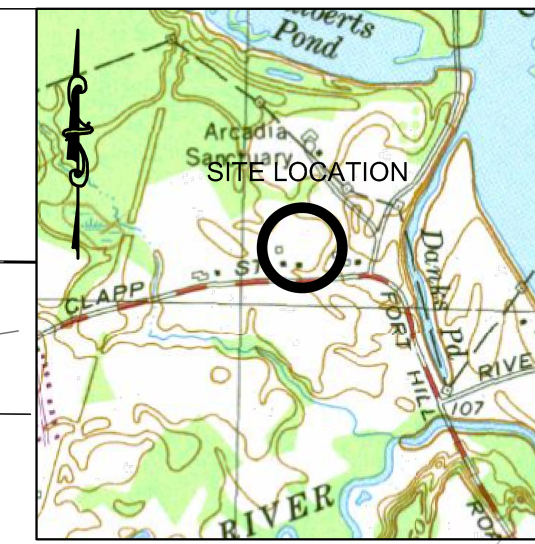
PERMEABILITY TEST 1
PERC 1 @ TP1-1
ACTUAL RATE – 1.33 MIN/IN
DESIGN RATE – 5.00 MIN/IN
BOTTOM AND SIDEWALL AREA = 0.74 GAL/FT²
60" SEPARATION REQUIRED PER 310 CMR 15.242

TOTAL PERMEABILITY = 0.74 (324' + 432') = 559.4 GALLONS /DAY
TBM SET @ BASE OF THE SILL OF THE EXISTING HOUSE ELEVATION 200.00

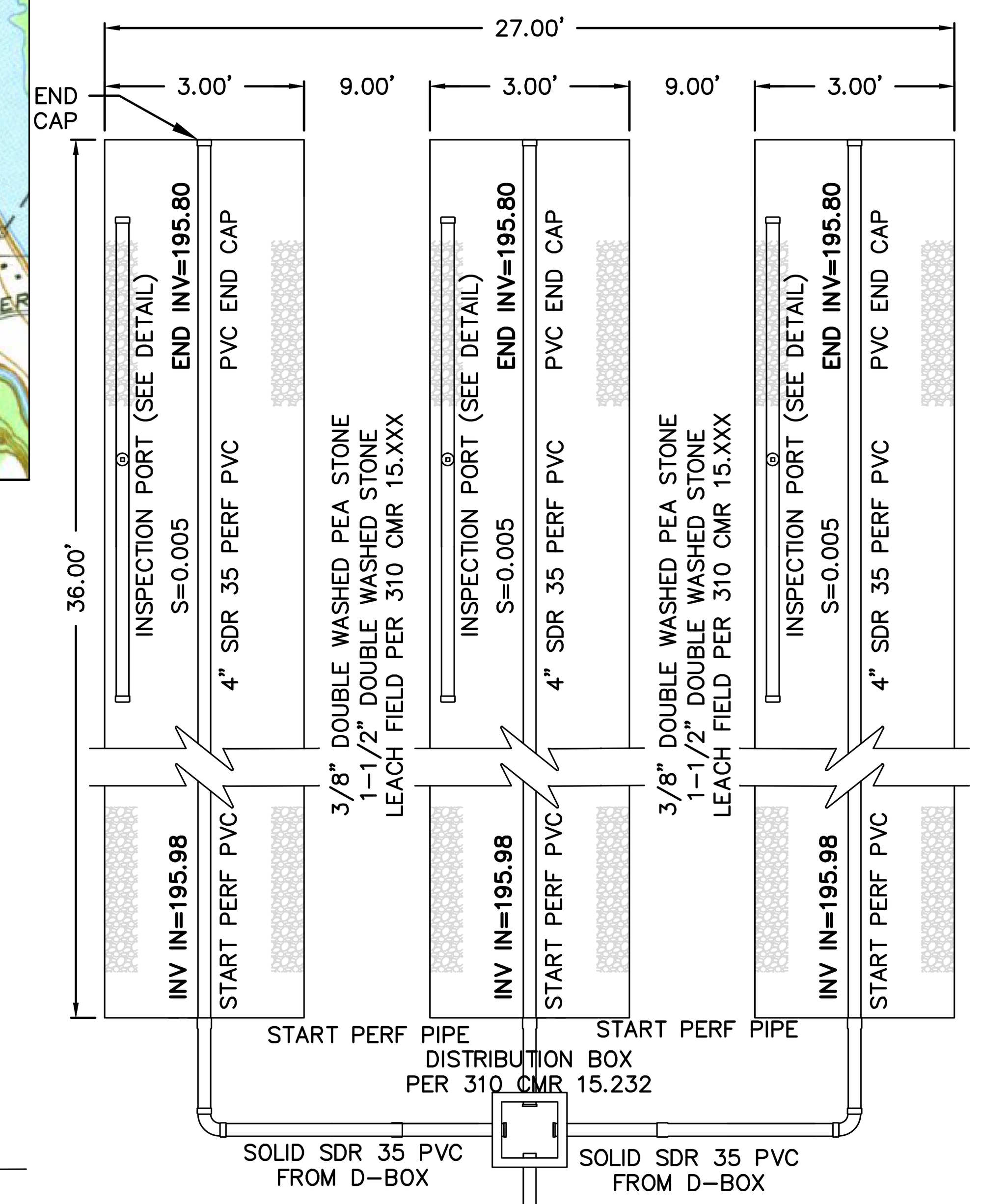
INSTALLATION NOTES
1) SEPTIC TANK TO HAVE INLET AND OUTLET TEES IN ACCORDANCE WITH 310 CMR 15.227 SECTION 5.0
2) SEPTIC TANK AND DISTRIBUTION BOX TO BE SET LEVEL ON 6" DEEP FOUNDATION PAD OF WASHED STONE
3) ALL STONE TO DOUBLE WASHED STONE FREE OF ALL SILT AND FINES PER 310 CMR 15.247
4) ALL PIPE JOINTS WITH TANK AND DISTRIBUTION BOX TO BE ASPHALT ROPE SEALED OR SILICON CAULKING SEALED
5) ALL COMPONENTS OF SYSTEM TO BE MARKED WITH METALLIC TAPE AND STEEL PLATES
6) AN INSPECTION PORT TO BE INSTALLED IN LEACH FIELD AS SHOWN.
7) EFFLUENT FILTERS SHALL BE INSTALLED IN SEPTIC TANK IN THE OUTLET TEE
8) SPEED LEVELERS SHALL BE INSTALLED WITHIN THE DISTRIBUTION BOX. OUTLETS SHALL BE ADJUSTED FOR EQUAL DISTRIBUTION OF FLOW.
9) OLD TANK TO BE PUMPED AND CLEANED, CRUSHED AND SAND FILLED.
10) ALL COMPONENTS OF SYSTEM TO BE MARKED WITH METALLIC TAPE AND/OR STEEL PINS
11) DISTRIBUTION LINES SHALL BE CONSTRUCTED OF CONSTRUCTED OF FOUR (4) INCH DIAMETER SDR 35 PERF PVC. DISTRIBUTION LINES OUTSIDE THE LEACHING AREA SHALL BE UNPERFORATED WITH WATERTIGHT CONNECTIONS AND JOINTS. DISTRIBUTION LINES INSIDE THE LEACHING AREA SHALL PERFORATED AND LAID AT SLOPE 0.005 FT/FT. DISTRIBUTION LINE ENDS SHALL HAVE CAPPED ENDS
12) THE BOTTOM OF THE SOIL ABSORPTION SYSTEM SHALL BE A EXCAVATED TO A LEVEL GRADE AND SCARIFIED. IF THE REMOVAL OF STONES OR BOULDERS IS REQUIRED, CREATING LOCALIZED DEPRESSIONS, FILLING TO GRADE WITH EXCAVATED SOIL IS ACCEPTABLE.
13) THE SOIL PLACED AS BACKFILL OVER THE SYSTEM SHALL BE A MINIMUM OF NINE (9) INCHES, EXCLUDING TOPSOIL, PLACED IN LIFTS AND SUFFICIENTLY COMPACTED TO PREVENT DEPRESSIONS DUE TO SETTLING WHICH MAY INTERCEPT OR COLLECT SURFACE WATER RUNOFF ABOVE THE SYSTEM. BACKFILL MUST BE CLEAN AND FREE OF STONES AND BOULDERS GREATER THAN SIX (6) INCHES



SITE PLAN - PLAN VIEW
1" = 20'

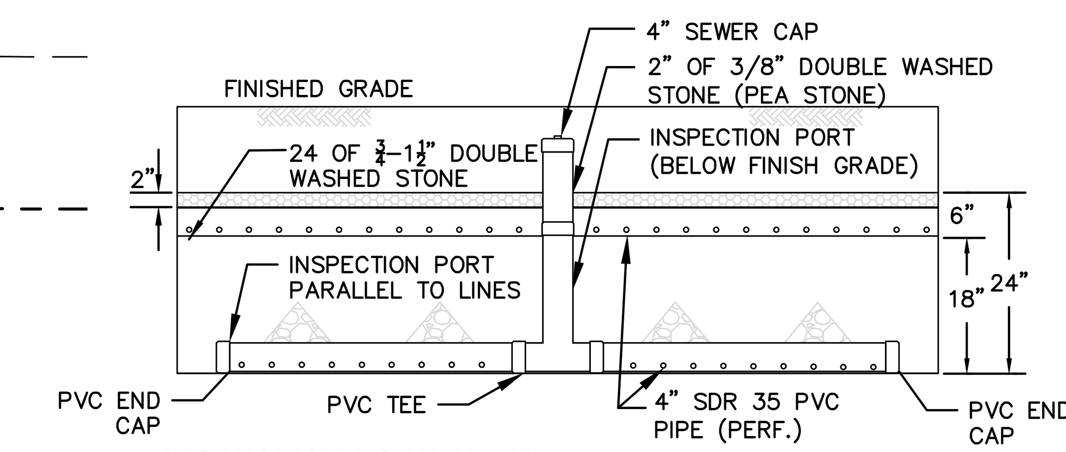


LOCUS MAP 1" = 500'

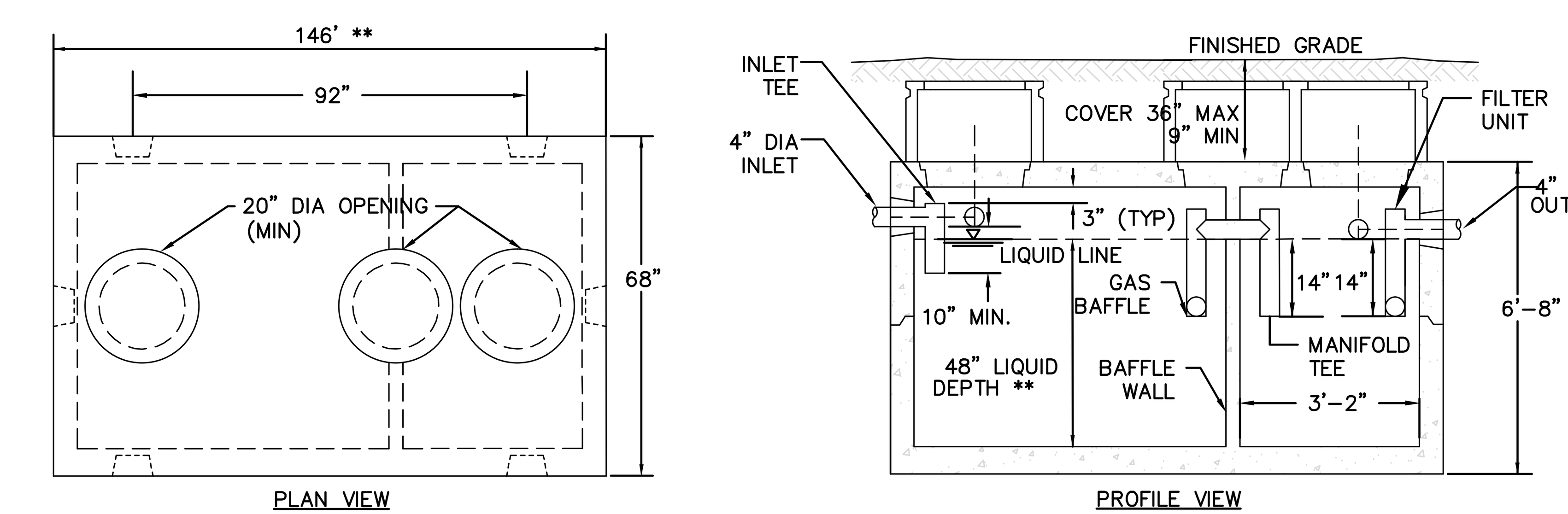


NOTES:
- TRENCHES AND FILL SHALL CONFORM TO TITLE 5 REQUIREMENTS
- DISTRIBUTION BOX BOTTOM SHALL BE SET LEVEL ON STONE
- ALL LINES SLOPE AT S=0.005
- FIRST 2 FT OF ALL LINES LEVEL AT 196.08
- SELF LEVELERS USED ON ALL OUTLET PIPES WITHIN DISTRIBUTION BOX

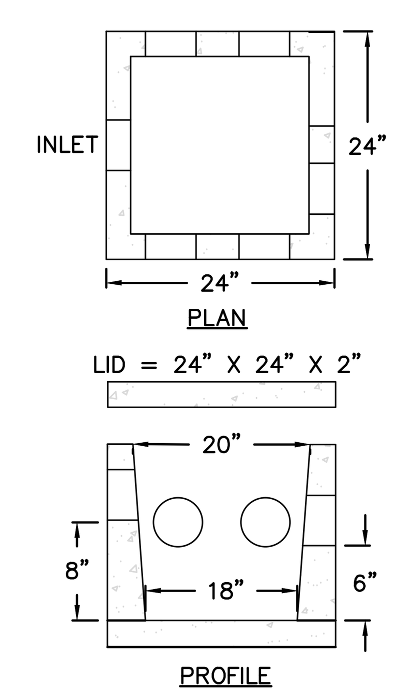
1 LEACH TRENCH PROFILE VIEW (2 LINES)
(NOT TO SCALE)



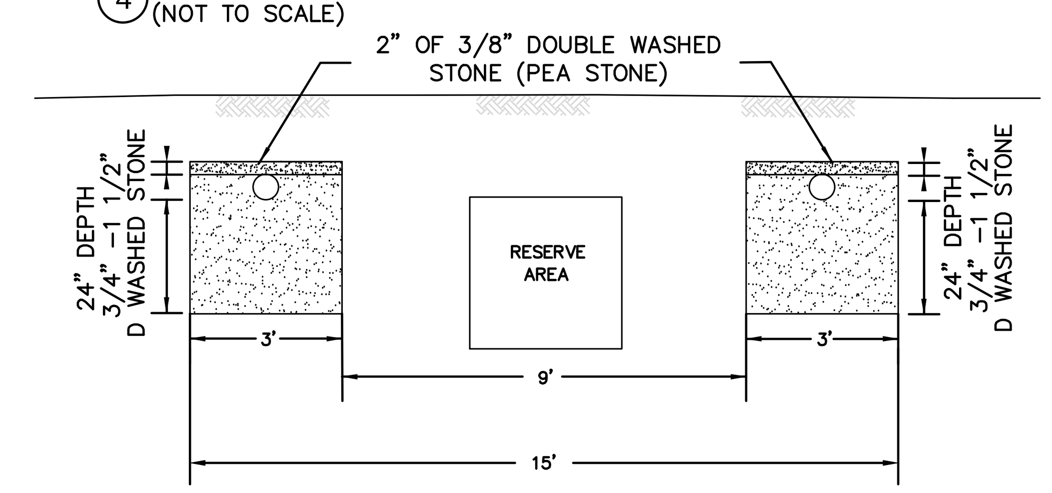
4 INSPECTION PORT DETAIL
(NOT TO SCALE)



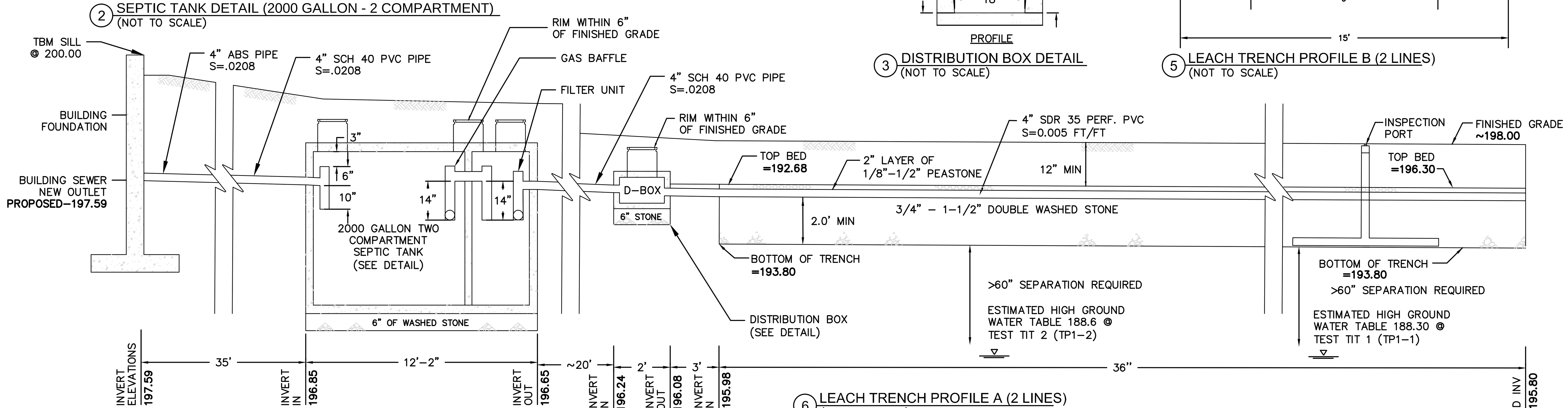
2 SEPTIC TANK DETAIL (2000 GALLON - 2 COMPARTMENT)
(NOT TO SCALE)



3 DISTRIBUTION BOX DETAIL
(NOT TO SCALE)



5 LEACH TRENCH PROFILE B (2 LINES)
(NOT TO SCALE)



6 LEACH TRENCH PROFILE A (2 LINES)
(NOT TO SCALE)

GENERAL NOTES

1. THESE PLANS AND SPECIFICATIONS ARE INTENDED TO BE EXPLANATORY OF THE WORK TO BE DONE AND OF EACH OTHER, BUT SHOULD ANY OMISSIONS, ERRORS OR DISCREPANCIES APPEAR THEY SHALL BE SUBJECT TO CORRECTION AND INTERPRETATION BY THE DESIGN ENGINEER.

2. ALL CONSTRUCTION AND CONSTRUCTION ACTIVITIES SHALL CONFORM TO STATE AND LOCAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE TOWN OF EASTHAMPTON, HAMPDEN COUNTY, COMMONWEALTH OF MASSACHUSETTS AND OSHA.

3. ALTERNATIVE MANUFACTURERS FOR MATERIALS SHOWN ON THESE PLANS MAY BE USED ONLY UPON APPROVAL BY THE DESIGN ENGINEER. ALTERNATE MANUFACTURERS WILL NOT BE APPROVED IF THE USE OF THEIR EQUIPMENT REQUIRES DESIGN CHANGES.

4. IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE DESIGN ENGINEER SHALL BE NOTIFIED AND THEIR APPROVAL OBTAINED PRIOR TO CONSTRUCTION.

5. NO RAINWATER LEADER OR ANY DRAIN OTHER THAN SANITARY SEWAGE LINES SHALL DISCHARGE OR BE CONNECTED TO THE SANITARY SYSTEM. NO INDUSTRIAL WASTE SHALL BE DISCHARGED INTO THE SANITARY SYSTEM.

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL PERMITS AND APPROVALS ARE OBTAINED. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL SAFETY CODES IN THE CONSTRUCTION OF THIS SUBSURFACE SEWAGE DISPOSAL SYSTEM

7. THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. NOTIFY "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY SITE DEMOLITION OR EXCAVATION.

8. NO WATER SUPPLY LINES ARE TO BE CONSTRUCTED WITHIN 10 FEET OF THE LEACHING AREA OR SEPTIC TANK.

9. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE DESIGN ENGINEER IMMEDIATELY IF CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN.

10. ALL STONE TO BE DOUBLE WASHED STONE FREE OF ALL SILT AND FINES

11. ALL TOP AND SUBSOIL TO BE REMOVED 5 FT IN ALL DIRECTIONS AND REPLACED WITH SELECT SAND FILL PER 310 CMR 15.255

13. THE BUILDING SEWER SHALL BE CONSTRUCTED OF FOUR (4) INCH DIAMETER, SCH 40 PVC PIPE EQUIPPED WITH WATERTIGHT JOINTS. THE BUILDING SEWER SHALL BE LAID AS STRAIGHT AS POSSIBLE, ON A COMPACTED FIRM BASE, AT A CONTINUOUS GRADE PER PLANS

PHIL SULLIVAN / GLORIA WARNOCK
SEPTIC SYSTEM DESIGN

SITE AND SEPTIC PLAN

53 CLAPP ST

EASTHAMPTON MASSACHUSETTS

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APPROVED BY: WILLIAM J. SIERUTA P.E.
SIERUTAENGINEERING@YAHOO.COM

PROJECT: 53 CLAPP ST EASTHAMPTON MA 01027
DATE: APRIL 19, 2023
SCALE: 1"=20'
STAMP