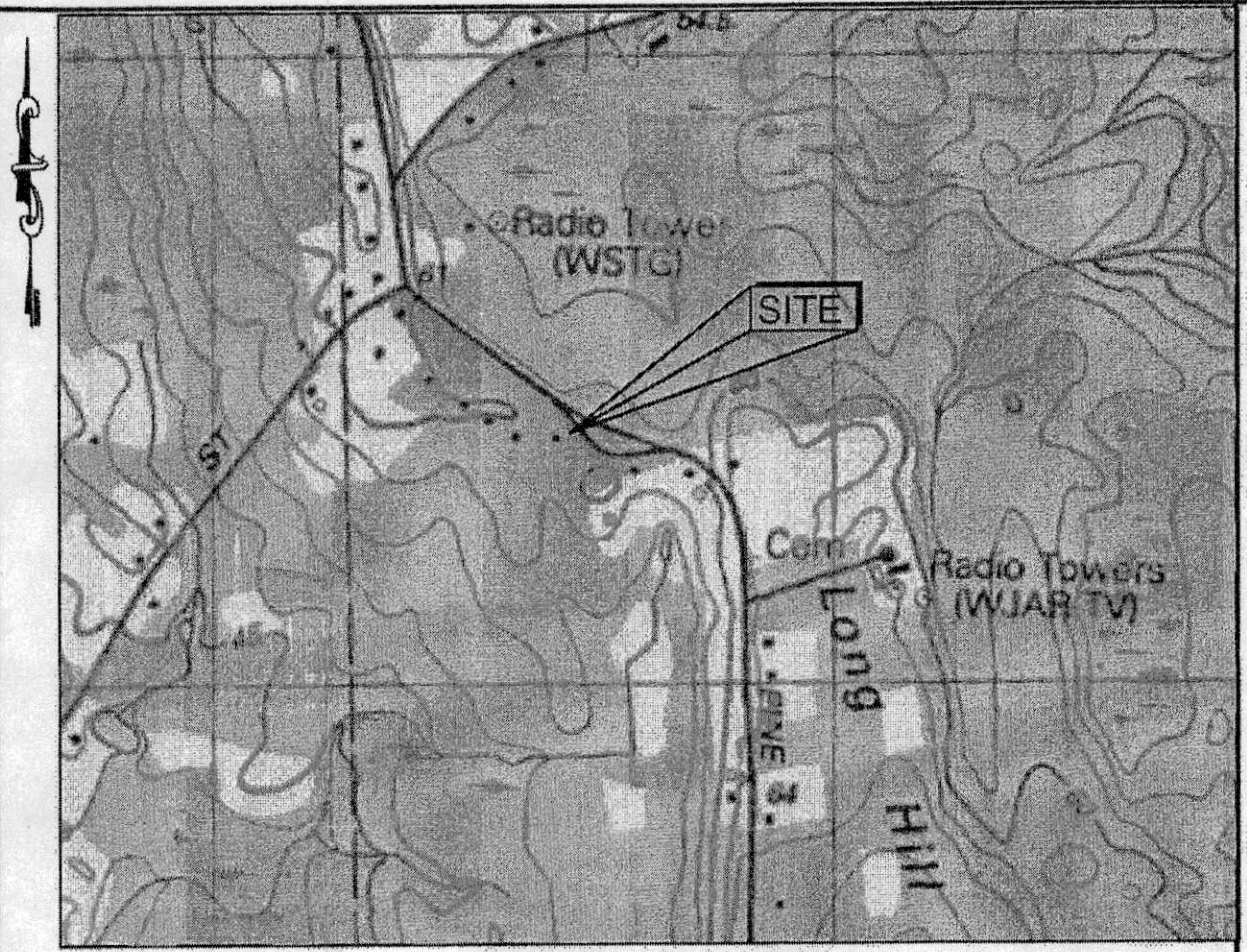


**PLAN NOTES:**

- EXISTING CONDITIONS WERE OBTAINED BY FIELD SURVEY BY LEVEL DESIGN GROUP, LLC, DATED MAY 29, 2020. SOIL TESTING COMPLETED BY SEAN M. BARRY ON MAY 27, 2020.
- THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. NOTIFY "DIG-SAFE" AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO ANY SITE DEMOLITION OR EXCAVATION.
- CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES IN THE DESIGN PLANS PRIOR TO THE START OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT RECEIVING IMPROVEMENTS SHALL BE LOAMED AND SEEDED.

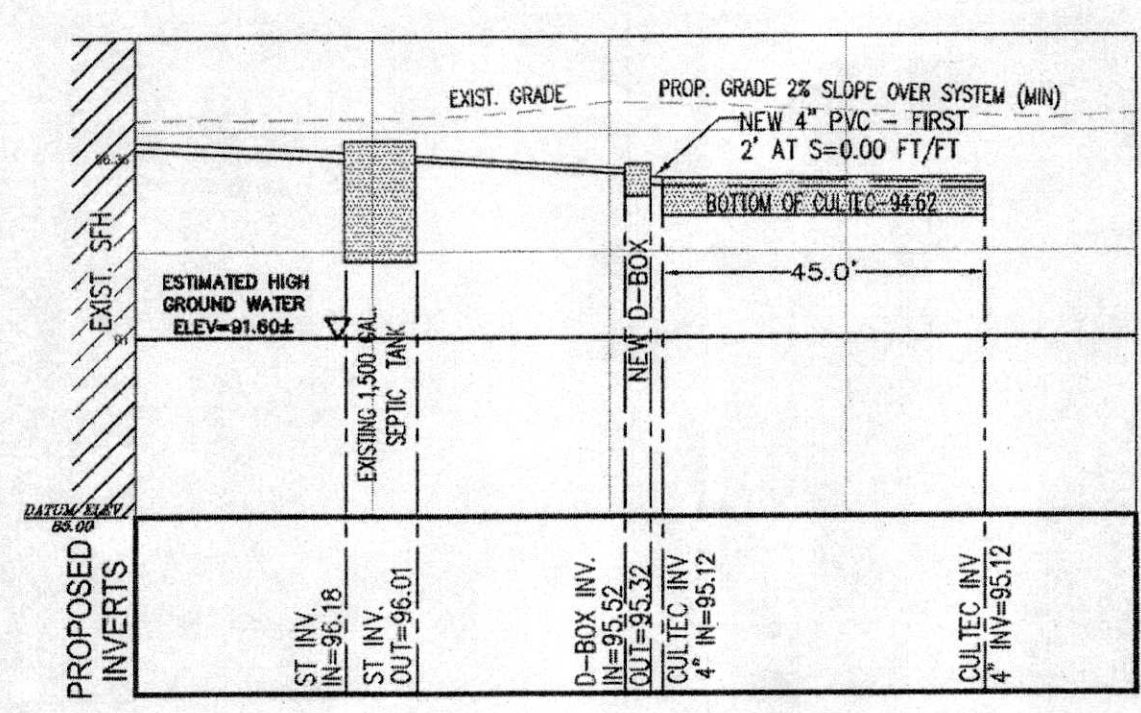
**SYSTEM NOTES:**

- THIS DESIGN PLAN 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.
- ALL CONSTRUCTION AND CONSTRUCTION ACTIVITIES SHALL CONFORM TO STATE AND LOCAL REQUIREMENTS. INCLUDING BUT NOT LIMITED TO THE TOWN OF REHOBOTH BOARD OF HEALTH, THE COMMONWEALTH OF MASSACHUSETTS AND, OSHA.
- ALTERNATIVE MANUFACTURERS FOR MATERIALS SHOWN ON THESE PLANS MAY BE USED ONLY UPON WRITTEN APPROVAL BY THE DESIGN ENGINEER. ALTERNATE MANUFACTURERS WILL NOT BE APPROVED IF THE USE OF THEIR EQUIPMENT REQUIRES DESIGN CHANGES.
- IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE DESIGN ENGINEER AND THE APPROVING AGENCIES SHALL BE NOTIFIED IN WRITING AND THEIR APPROVAL OBTAINED PRIOR TO CONSTRUCTION.
- 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.
- THE INSTALLER SHALL CONTACT THE REHOBOTH BOARD OF HEALTH PRIOR TO THE START OF CONSTRUCTION AND CONFORM TO ALL INSPECTION REQUIREMENTS OF THE REHOBOTH BOARD OF HEALTH BEFORE, DURING AND AFTER CONSTRUCTION.
- 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.
- 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.
- NO WATER SUPPLY LINES ARE TO BE CONSTRUCTED WITHIN 10 FEET OF THE LEACHING AREA OR SEPTIC TANK.
- GRAVITY SEWER PIPING BELOW GRADE SHALL BE PVC PIPE, SCH. 35 AT A MINIMUM. JOINTS SHALL BE PUSH-ON BELL & SPIGOT WITH A RUBBER GASKET AND CONFORMING TO ASTM STANDARDS FOR THIS PIPE.
- PIPE CONNECTIONS AT INLET AND OUTLET OF SEPTIC TANKS AND DISTRIBUTION BOX SHALL BE GROUTED WITH HYDRAULIC CEMENT GROUT FOR WATER TIGHTNESS.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE DESIGN ENGINEER IMMEDIATELY IF CONDITIONS ENCOUNTERED DIFFER FROM THOSE SHOWN.
- DEEP OBSERVATION HOLES WERE PERFORMED ON MAY 27, 2020 BY SEAN M. BARRY, EIT OF LEVEL DESIGN GROUP, LLC, AND WITNESSED BY MR. KARL DROWN, HEALTH AGENT FOR THE TOWN OF REHOBOTH BOARD OF HEALTH.
- THE SEPTIC TANK AND DISTRIBUTION BOX ARE TO BE CONSTRUCTED TO WITHSTAND A MINIMUM OF H-10 LOADING.
- IN ACCORDANCE WITH TOWN OF REHOBOTH BOARD OF HEALTH REGULATIONS THE SYSTEM HAS NOT BEEN DESIGNED FOR USE OF A GARBEAGE GRINDER. THE DESIGN ENGINEER DOES NOT RECOMMEND THE USE OF A GARBEAGE GRINDER IN CONJUNCTION WITH A SEPTIC SYSTEM DUE TO THE POSSIBILITY OF SOLIDS CLOGGING THE EFFLUENT DISTRIBUTION LINES.
- THE SEWER LINE SHALL BE CONSTRUCTED OF FOUR (4) INCH DIAMETER SCH 40 PVC. PIPING SHALL BE WATER TIGHT AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. A CLEANOUT SHALL BE REQUIRED AT CHANGES OF LINE AND/OR GRADE.
- DISTRIBUTION LINES SHALL BE CONSTRUCTED OF CONSTRUCTED OF FOUR (4) INCH DIAMETER SCH 40 PVC. DISTRIBUTION LINES OUTSIDE THE LEACHING AREA SHALL BE IMPERFORATED WITH WATER TIGHT CONNECTIONS AND JOINTS. DISTRIBUTION LINES INSIDE THE LEACHING AREA SHALL BE PERFORATED AND LAID AT A SLOPE OF 0.005 FT/FT. DISTRIBUTION LINE ENDS SHALL BE VENTED.
- THE BOTTOM OF THE SOIL ABSORPTION SYSTEM SHALL BE 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 NOT ACCEPTABLE.
- LEACHING AGGREGATE SHALL BE DOUBLE-WASHED STONE, FREE OF IRON, FINES, AND DUST IN PLACE.
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED.
- 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 IN SIZE.
- AN INSPECTION PORT SHALL BE INSTALLED WITHIN EACH TRENCH AND SHALL CONSIST OF A PERFORATED 4-INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE CAPPED AT GRADE AND BE CONSTRUCTED OF MATERIALS TO WITHSTAND H-10 LOADING.

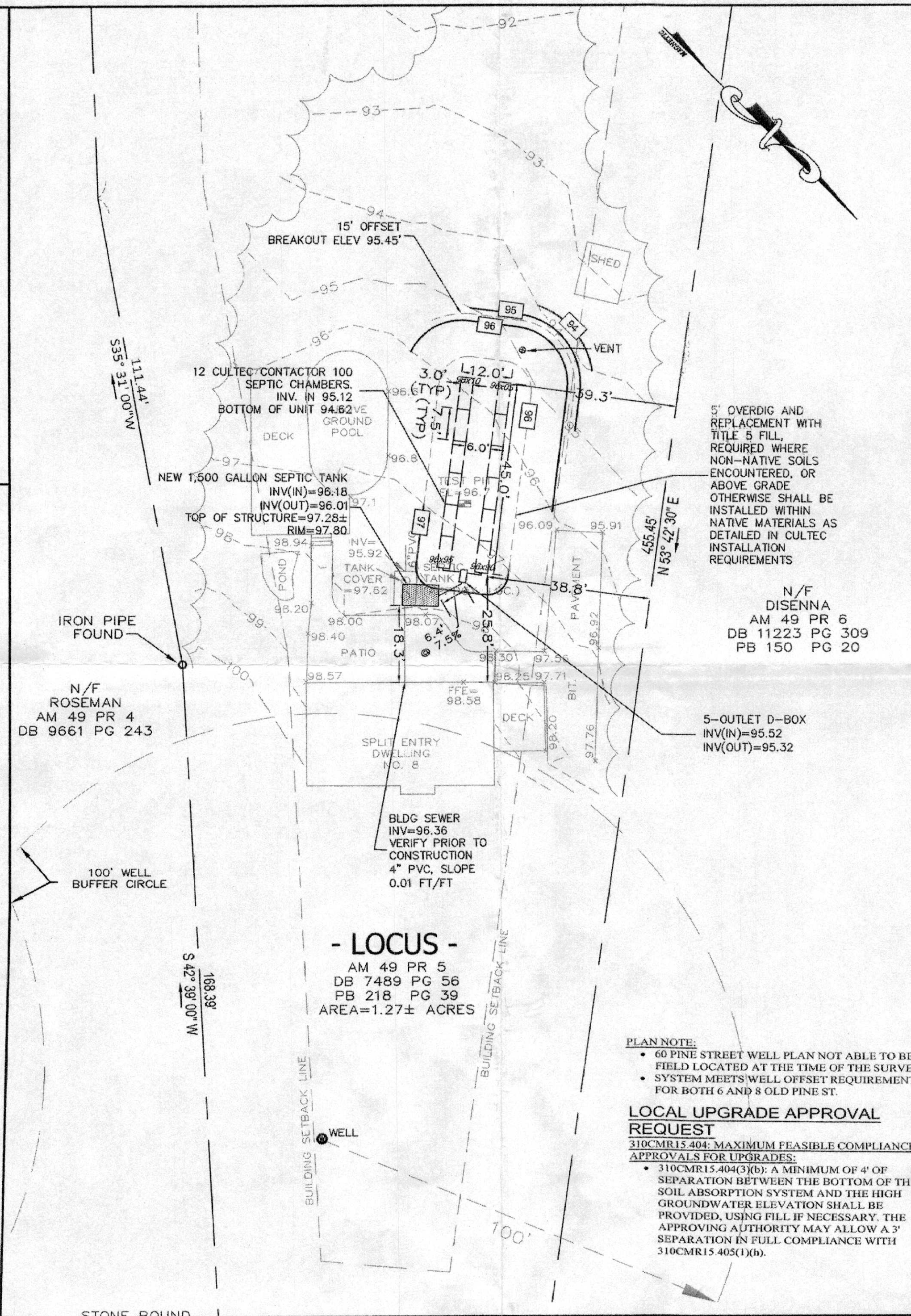
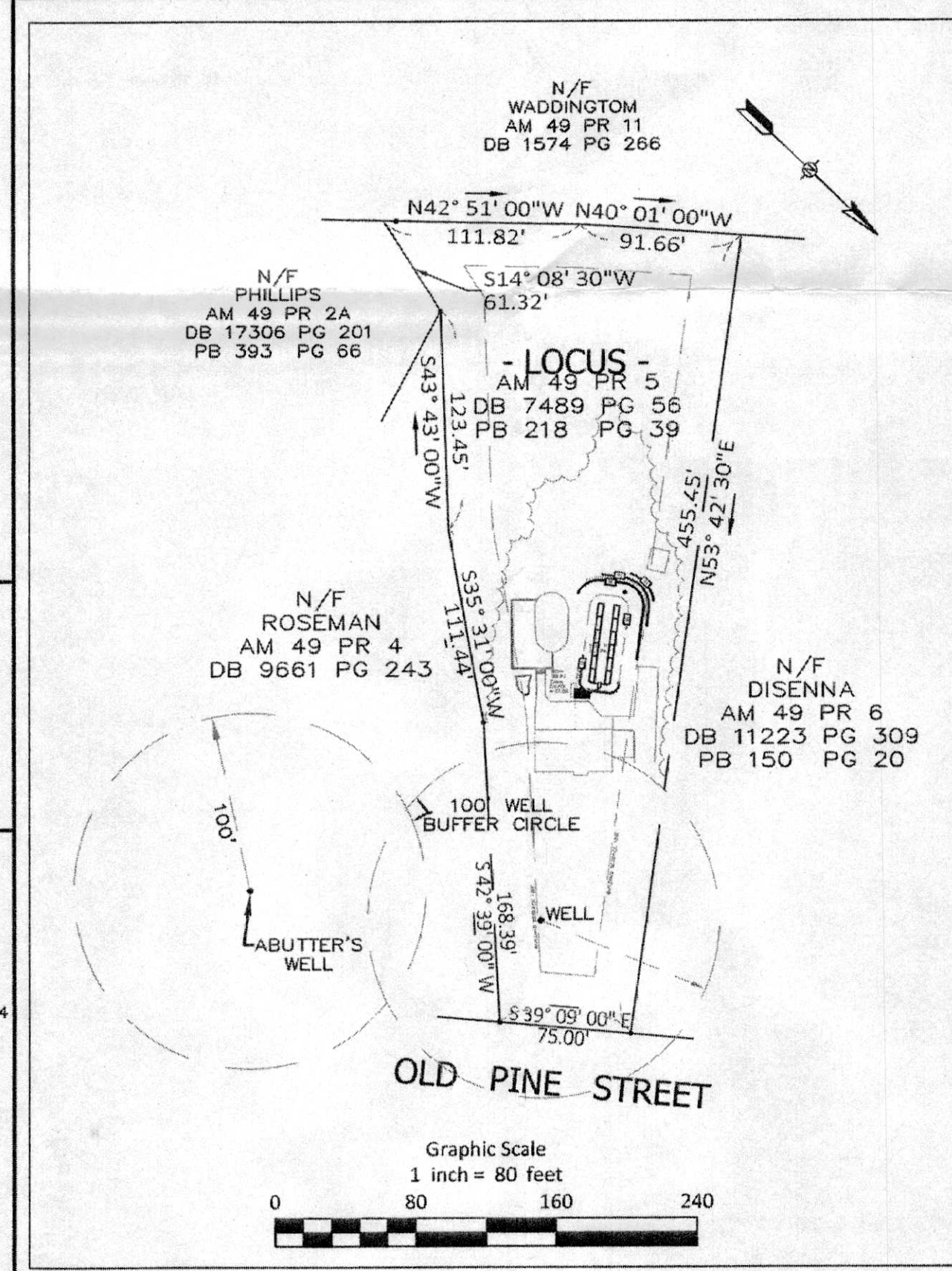


**LOCUS MAP**  
SCALE: 1" = 1,000'

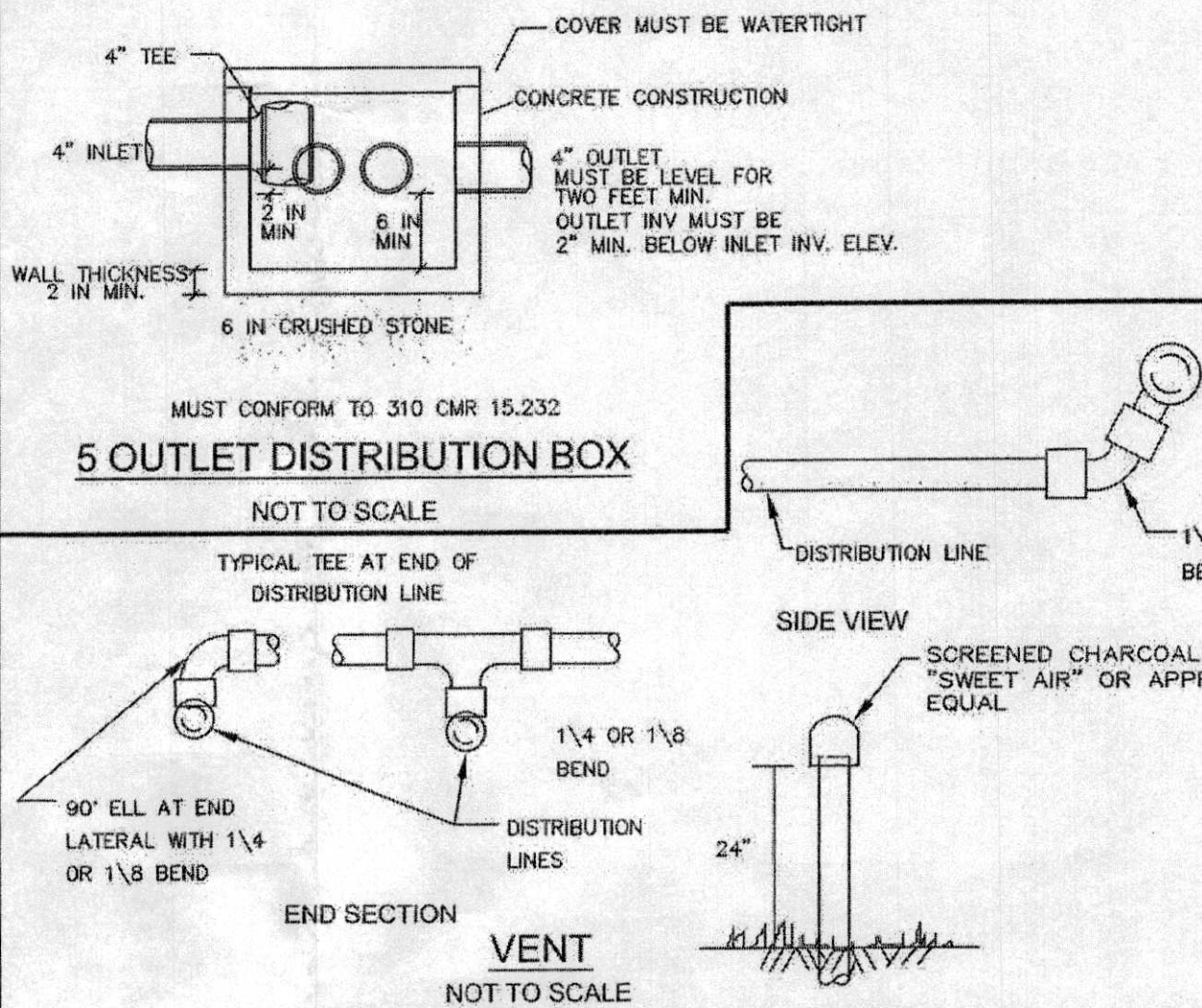
- NO PUBLIC WELLS WITHIN 400 FEET EXCEPT AS SHOWN.
  - PRIVATE WELLS WITHIN 200 FEET ARE SHOWN.
  - WETLANDS, INLAND BANKS, OR SURFACE WATERS WITHIN 200 FEET OF THE PROJECT EXCEPT AS SHOWN.
  - NO SURFACE WATER SUPPLIES WITHIN 400 FEET EXCEPT AS SHOWN.
  - NO SURFACE DRAINS EXCEPT AS SHOWN.
  - NO SURFACE OR SUBSURFACE DRAINS WHICH INTERCEPT GROUND WATER EXCEPT AS SHOWN.
  - LOCATION OF FLOODWAY SHOWN IF ANY.
  - NO 100 YEAR FLOOD LIMIT, EXCEPT IF SHOWN.
  - SITE IS NOT WITHIN A NITROGEN SENSITIVE AREA.
- TO ENSURE THE PERFORMANCE OF THE SYSTEM, MAINTENANCE SHOULD BE PERFORMED ANNUALLY BY A LICENSED SEWAGE PUMPING CONTRACTOR.
- LEVEL DESIGN GROUP, LLC, WILL NOT BE RESPONSIBLE FOR THE PERFORMANCE OF THIS SYSTEM UNLESS CONSTRUCTED AND INSPECTED IN ACCORDANCE WITH THIS PLAN. INSPECTIONS TO BE DONE AFTER EXCAVATION FOR SYSTEM AND AFTER CONSTRUCTION, BUT PRIOR TO BACKFILLING. ANY ALTERATION MUST BE APPROVED IN WRITING BY LEVEL DESIGN GROUP, LLC.
- LIMIT OF EXCAVATION:**  
ALL TOPSOIL, SUBSOIL, AND ANY DELETERIOUS MATERIAL MUST BE REMOVED FROM THE AREA OF THE SYSTEM AND OTHER DESIGNATED LIMITS AND BACKFILLED WITH APPROVED CLEAN BANK RUN GRAVEL GRADED SO NOT MORE THAN 45% OF THE SAMPLE IS RETAINED IN A #4 SIEVE, OF THAT PASSING, 20% OR LESS SHALL PASS A #100 SIEVE AND 5% OR LESS SHALL PASS THE #200 SIEVE. NOT MORE THAN 50% SHALL BE RETAINED ON THE #50 SIEVE. SAMPLE FOR SIEVE ANALYSIS TO BE TAKEN FROM SAMPLE IN PLACE BY DESIGN ENGINEER.



**SEWAGE DISPOSAL SYSTEM PROFILE**  
TRENCH 1  
1" = 20' H, 1" = 2' V



- PLAN NOTE:**
- 60 PINE STREET WELL PLAN NOT ABLE TO BE FIELD LOCATED AT THE TIME OF THE SURVEY.
  - SYSTEM MEETS WELD OFFSET REQUIREMENTS FOR BOTH 6 AND 8 OLD PINE ST.
- LOCAL UPGRADE APPROVAL REQUEST**  
310CMR15.404: MAXIMUM FEASIBLE COMPLIANCE - APPROVALS FOR UPGRADES:  
310CMR15.404(3)(b): A MINIMUM OF 4" OF SEPARATION BETWEEN THE BOTTOM OF THE SOIL ABSORPTION SYSTEM AND THE HIGH GROUNDWATER ELEVATION SHALL BE PROVIDED, USING FILL IF NECESSARY. THE APPROVING AUTHORITY MAY ALLOW A 3" SEPARATION IN FULL COMPLIANCE WITH 310CMR15.405(1)(b).



**DESIGN ANALYSIS:**  
**DESIGN FLOW:**  
SINGLE FAMILY DWELLING  
3 BDRM @ 110 GAL/DAY/BDRM = 330 GPD  
SEPTIC TANK REQUIREMENTS:  
200X X 330 GPD = 660 GAL  
USE 1,500 GALLON TANK  
**PRIMARY LEACHING FACILITY DESIGN:**  
DESIGN PERCOLATION RATE = 15 MIN/IN  
SOIL TEXTURAL CLASS: CLASS B

**CULTEC LEACHING DESIGN:**  
LEACHING AREA = 6.7 SF, PER 1 LF  
EFFECTIVE LEACHING AREA PROVIDED:  
330 GPD / 0.56 GPD/SF = 589.29 SF, REQUIRED  
989.29 SF, REQ'D / 6.7 SF/FT = 87.95 LF, REQ'D  
7.5 PER MODULE = 87.95/7.5 = 11.73-12 MODULES

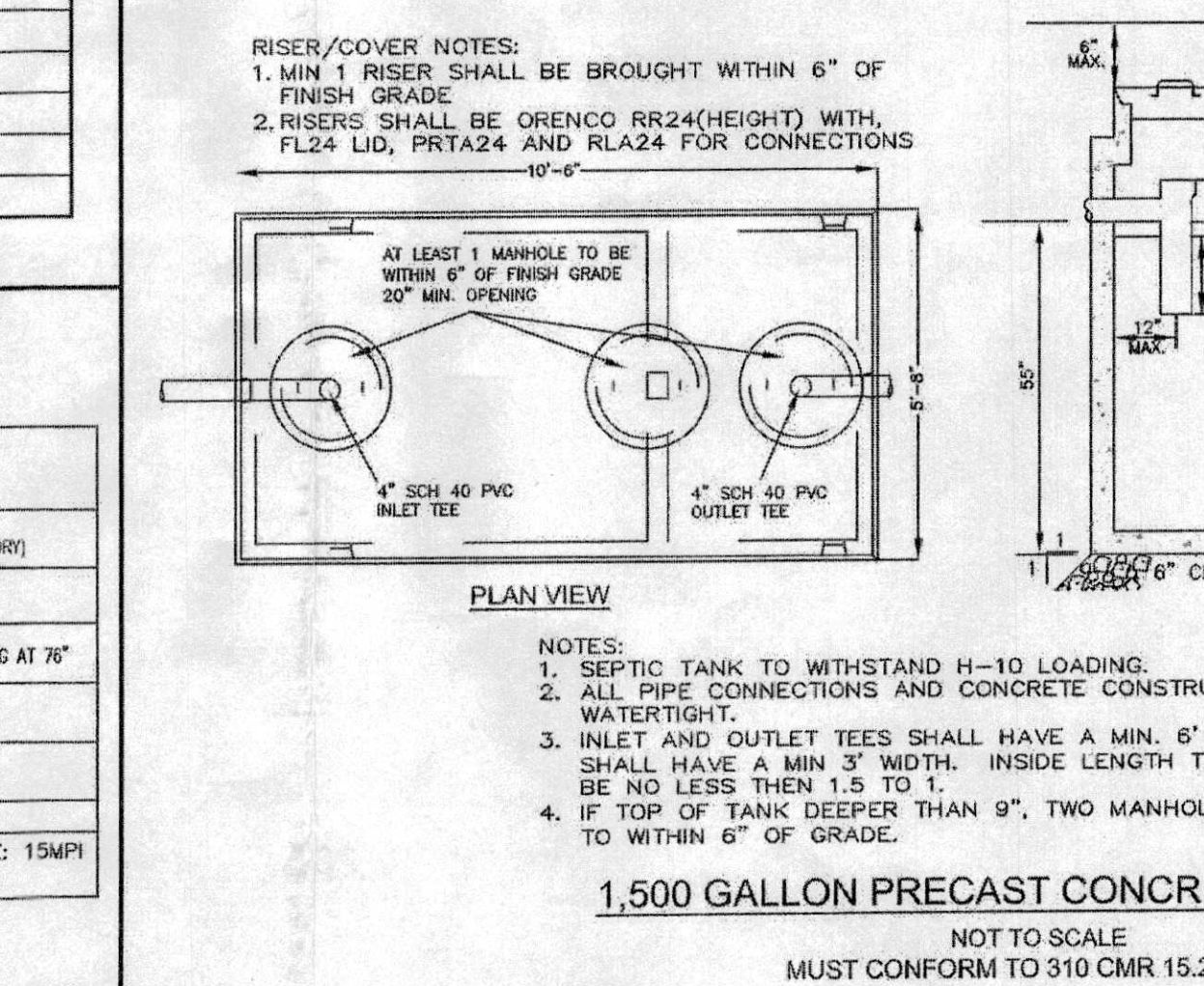
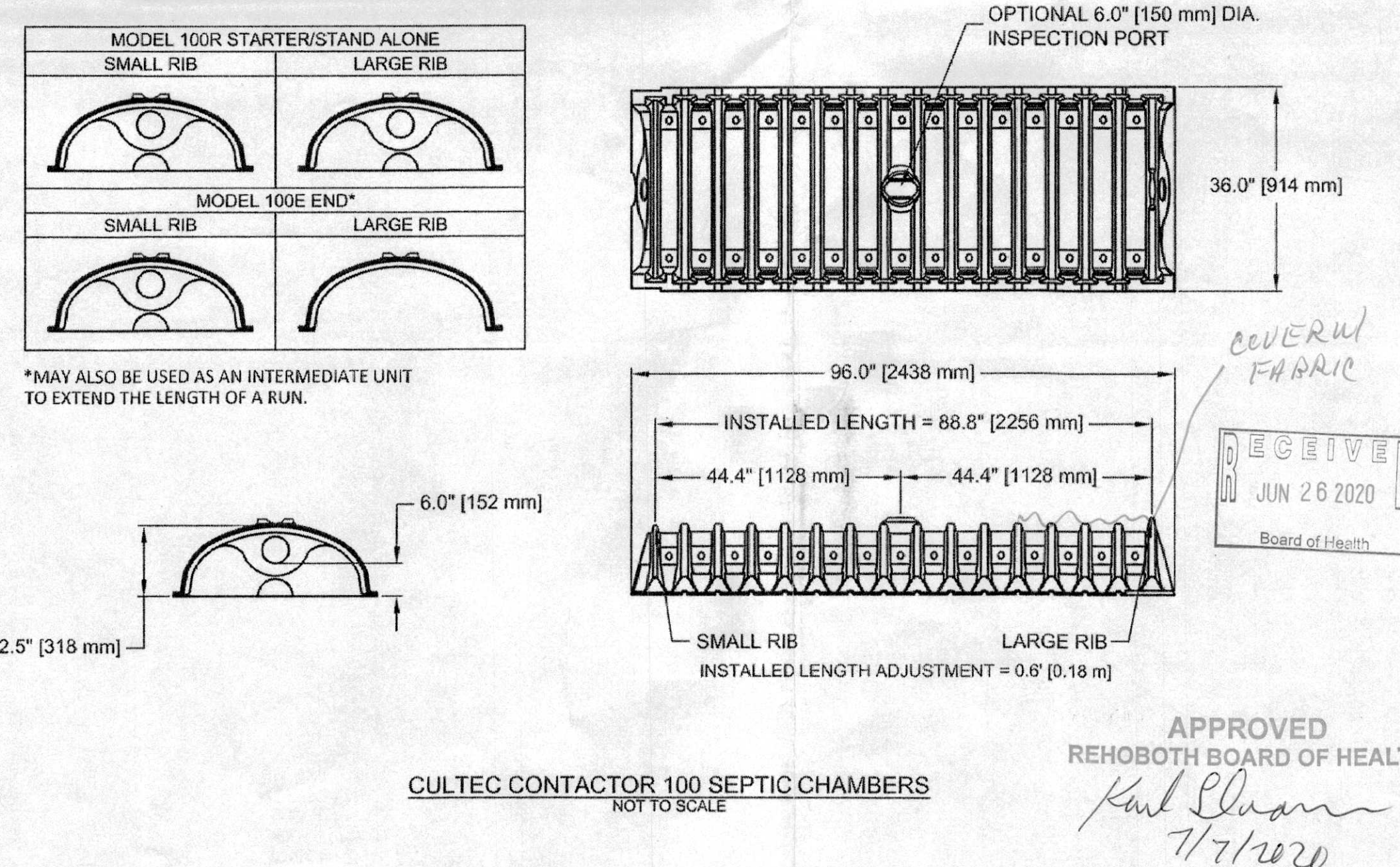


TABLE OF INVERTS					
DESCRIPTION	PIPE SIZE	TOP	INVERT	BOTTOM	AS-BUILT
4" BLDG INV	4"		96.36		
SEPTIC TANK (IN)	4"		96.18		
SEPTIC TANK (OUT)	4"		96.01		
DISTRIBUTION BOX (IN)	4"		95.52		
DISTRIBUTION BOX (OUT)	4"		95.32		
CULTEC INV	4"		95.12		
BOTTOM CULTEC				94.62	

DEEP OBSERVATION HOLE LOGS						
DEEP HOLE NO.: TP-1	DATE: MAY 27, 2020	GRD EL.: 96.70	PERFORMED BY: SEAN M. BARRY, SE#14412	OTHER		
DEPTH FROM SURFACE (IN.)	SOIL HORIZON	SOIL TEXTURE (USDA)	SOIL COLOR (MUNSELL)	SOIL REDOX	(STRUCTURE, CONSISTENCY, SOIL CATEGORY)	
0-47	FILL	-	-	-	-	-
47-116+	C1	GLS	2.5Y 5/3	61"	STANDING WATER AT ROUGHLY 112', KEEPING AT 75"	
-	-	-	-	-	-	-
-	-	-	-	-	-	-

MEAN ANNUAL HIGH GROUND WATER ESTIMATED TO BE AT EL. = 61' (91.62) GRD. EL.: 96.70  
DEPTH OF PERC: 71' (90.78) DEPTH OF HOLE: 47' (92.78) PERC RATE: 15MPI  
DATE: MAY 27, 2020 EFFLUENT LOADING RATE: 0.56 GPD/SF



NO	DATE	REVISIONS
1	6/16/2020	OWTS SUBMISSION

SEAL

DATE: JUNE 16, 2020  
DRAWN: SMB/DRC  
SCALE: 1" = 20'

**SEPTIC SYSTEM REPAIR**  
AM 49 PARCEL 5  
OWNER: WILLIAM & MARCIE CAMARA  
8 OLD PINE STREET  
REHOBOTH, MASSACHUSETTS

**LEVEL**  
DESIGN GROUP  
CIVIL ENGINEERING / LAND SURVEYING  
249 SOUTH STREET  
PLAINVILLE, MA 02762  
TEL: (508) 695-2221 FAX: (508) 695-2219

**SITE PLAN**

**S-1.0**

SHEET 1 OF 1

0' 10' 20' 40'

**1772.00**

APPROVED  
REHOBOTH BOARD OF HEALTH  
Karl Drown  
7/7/2020