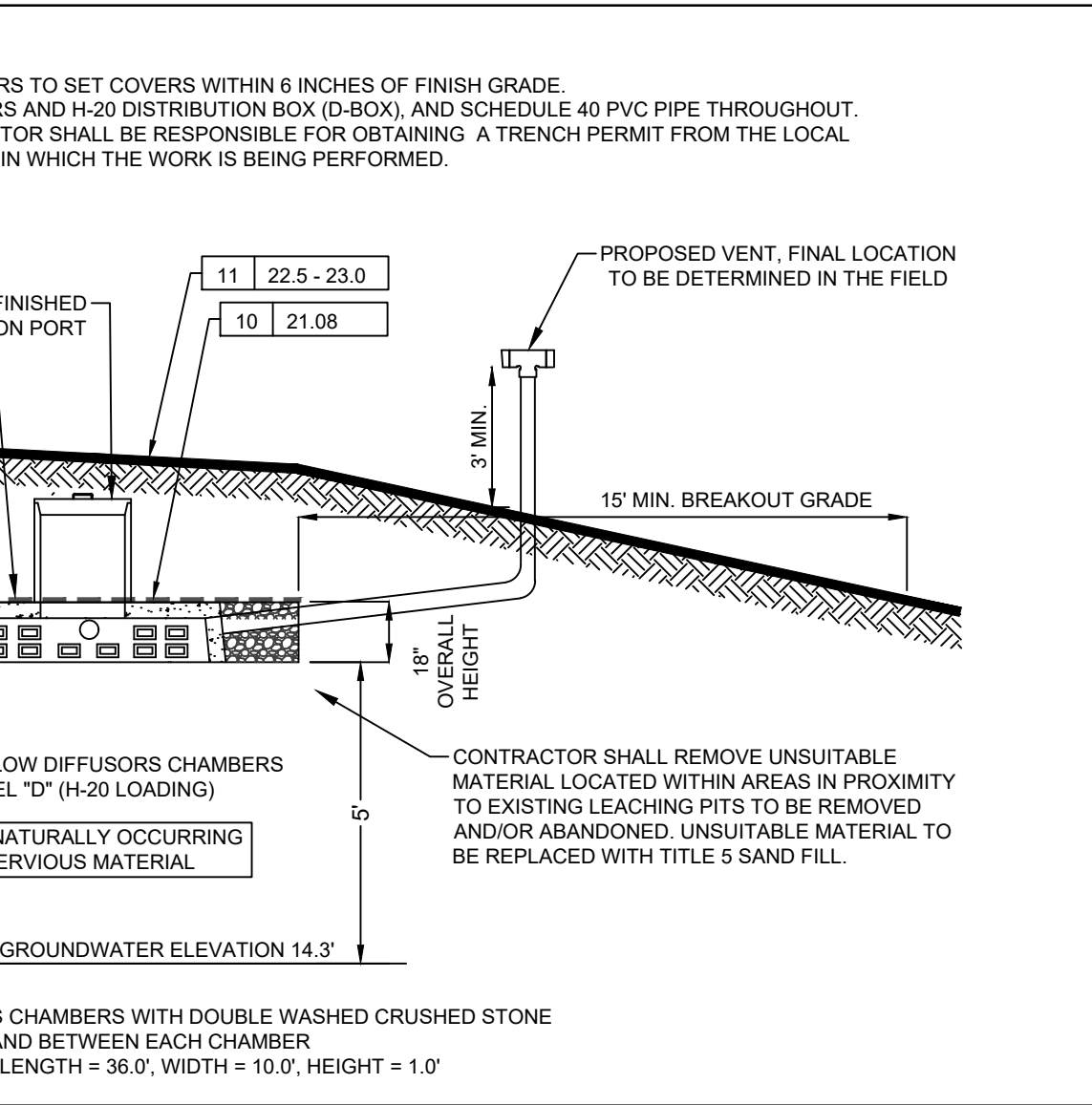
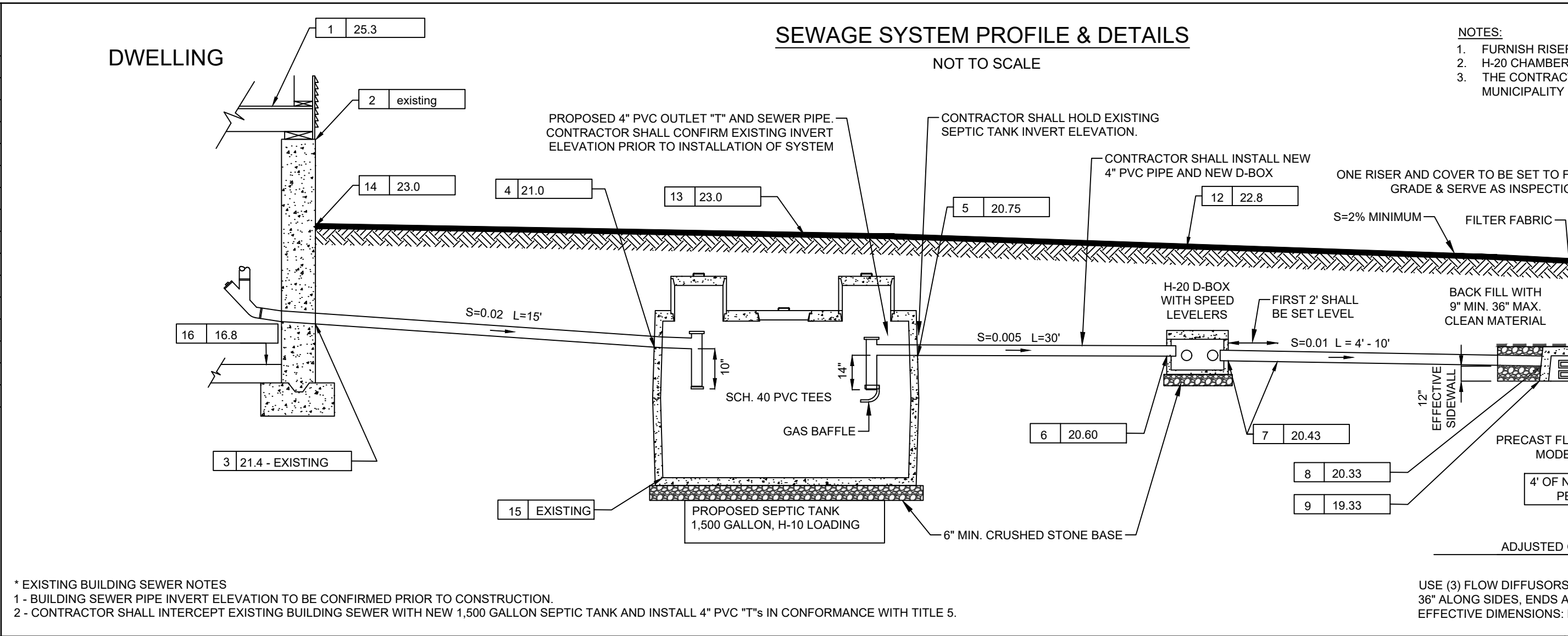
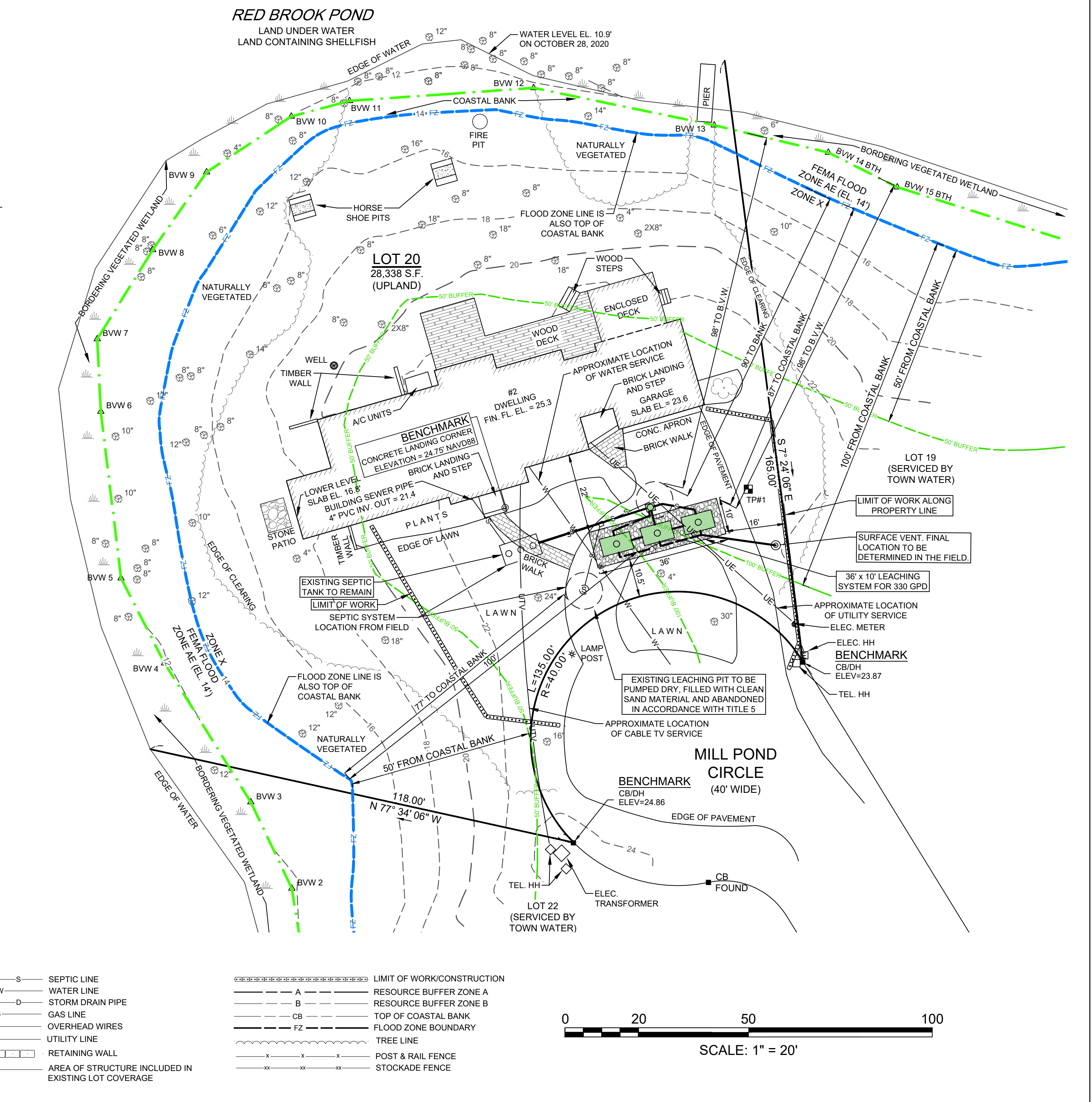


SCHEDULE OF ELEVATIONS	
1	FIRST FLOOR =
2	TOP OF FOUNDATION =
3	PIPE INV. AT FOUNDATION =
4	INV. OF PIPE AT SEPTIC TANK INLET =
5	INV. OF PIPE AT SEPTIC TANK OUTLET =
6	INV. OF PIPE AT D-BOX INLET =
7	INV. OF PIPE AT D-BOX OUTLET =
8	INV. OF PIPE AT LEACHING FIELD INLET =
9	BOTTOM OF LEACHING FIELD =
10	TOP OF STONE =
11	FINISHED GRADE OVER LEACHING FACILITY =
12	FINISHED GRADE OVER D-BOX =
13	FINISH GRADE OVER SEPTIC TANK =
14	FINISH GRADE AT FOUNDATION =
15	BOTTOM OF SEPTIC TANK =
16	TOP OF CELLAR FLOOR =



- ### SEPTIC SYSTEM NOTES
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE STATE ENVIRONMENTAL CODE, TITLE 5 (310 CMR 15.00), AND THE LOCAL BOARD OF HEALTH.
 - THERE SHALL BE NO CHANGES MADE IN THIS PLAN WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER AND LOCAL BOARD OF HEALTH.
 - ALL ERRORS, OMISSIONS, AND CHANGE OF CONDITIONS AT THE SITE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PERFORMING THE RELATED WORK.
 - ALL DISTURBED AREAS ARE TO BE LOAMED, SEEDED AND MAINTAINED TO PREVENT EROSION.
 - FOR PROPER PERFORMANCE, SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE A YEAR AND WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS 1/3 THE LIQUID DEPTH OF THE TANK, THE TANK SHOULD BE PUMPED.
 - THIS SYSTEM HAS BEEN DESIGNED FROM DATA REVIEWED AND ACKNOWLEDGED BY THE MASS. D.E.P. AND THE LOCAL BOARD OF HEALTH; AND CONFORMS WITH THE REQUIREMENTS OF THE STATE ENVIRONMENTAL CODE, TITLE 5. NO GUARANTEE OF PERFORMANCE IS EXPRESSED OR IMPLIED.
 - TEST HOLE INFORMATION SHOWN HEREON IS LIMITED TO SOIL CONDITIONS FOUND AT THAT PARTICULAR TEST HOLE LOCATIONS AND IS NOT CONSIDERED AN IMPLIED OR EXPRESSED WARRANTY OF SOIL CONDITIONS BEYOND LIMITS OF SUCH TEST HOLES.
 - ALL ORGANIC AND UNSUITABLE MATERIAL MUST BE REMOVED FROM THE AREA DIRECTLY UNDER AND 5 FEET BEYOND THE PROPOSED LEACHING FACILITY. THIS AREA MUST BE BACKFILLED TO THE ELEVATIONS INDICATED ON THESE PLANS WITH SELECT ON-SITE OR IMPORTED SOIL MATERIAL, CONSISTING OF CLEAN GRANULAR SAND OR OTHER GRANULAR MATERIAL, FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS SHALL NOT BE USED. THE FILL MATERIAL SHALL CONFORM TO THE STATE ENVIRONMENTAL CODE, TITLE 5 - 310 CMR SECTION 15.255 (3) AND SHALL HAVE PERCOLATION RATE OF BETWEEN TWO AND FIVE MINUTES PER INCH, BEFORE AND AFTER PLACEMENT.
 - ALL STONE MUST BE DOUBLE WASHED AND FREE FROM FINES AND ANY ORGANIC MATERIAL AND MUST HAVE LESS THAN 0.2 PERCENT MATERIAL FINER THAN A NUMBER 200 SIEVE.
 - THE DESIGNER HAS NOT BEEN RETAINED BY THE CLIENT TO CONSTRUCT OR SUPERVISE THE CONSTRUCTION OF THE SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS FOR INSPECTION OF INSTALLATION OF THE SYSTEM WITH THE LOCAL BOARD OF HEALTH.
 - THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL OF ALL SYSTEM COMPONENTS.
 - TIGHT JOINT PIPING MATERIAL TO CONSIST OF POLYVINYL CHLORIDE (P.V.C.) SCHEDULE 40, UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER FOR CONSTRUCTION INSPECTION AFTER EXCAVATION FOR THE LEACHING BED (PRIOR TO THE PLACEMENT OF STONE) AND AFTER PLACEMENT OF PIPE & STONE PRIOR TO BACKFILLING.
 - DESIGN ENGINEER SHALL CERTIFY CONSTRUCTION OF SYSTEM AND MATERIALS INSTALLED. THE CONTRACTOR SHALL PROVIDE A SIEVE ANALYSIS OF THE FILL MATERIAL REQUIRED. AN AS-BUILT PLAN SHALL BE SUBMITTED TO THE LOCAL BOARD OF HEALTH UPON COMPLETION.
 - NO RUBBER TIRE CONSTRUCTION MACHINERY SHALL DRIVE OVER THE PROPOSED SEPTIC BED EXCAVATION DURING CONSTRUCTION.
 - DIG-SAFE AND ALL OTHER NECESSARY AUTHORITIES SHALL BE NOTIFIED FOR THE PROPER LOCATION OF EXISTING UTILITIES PRIOR TO ANY EXCAVATION.
 - WATER SERVICE LINE SHALL BE LOCATED AND MARKED PRIOR TO ANY EXCAVATING AND 10' MIN. SETBACK DISTANCE FROM SAID SERVICE TO THE SEPTIC SYSTEM SHALL BE MAINTAINED.
 - ALL WATER LINES WITHIN 10' OF SEPTIC SYSTEM COMPONENTS SHALL BE SLEEVED WITHIN 4" PVC SCHEDULE 40 PIPE.

- ### CONSERVATION NOTES
- THE LIMIT OF WORK WILL BE INSTALLED PRIOR TO ANY WORK, EXCAVATION, CONSTRUCTION OR CLEARING OF VEGETATION, IN ORDER TO PREVENT DAMAGE TO THE INTERESTS OF THE ACT AND BYLAW. THE LIMIT OF WORK WILL CONSIST OF A ROW OF STAKED SEDIMENT STOP OR COMPOST ROLL WITH SILT FENCE BACKING. THE SEDIMENT STOP ROLL WILL BE REPLACED AS NECESSARY TO BE MAINTAINED IN GOOD CONDITION THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD. NO FILL WILL BE ALLOWED TO BE PLACED AGAINST THE LIMIT OF WORK AT ANY TIME. UPON COMPLETION OF ALL CONSTRUCTION AND STABILIZATION OF THE SITE, SEDIMENT STOP ROLL WILL BE REMOVED AND PROPERLY DISPOSED OF.
- NO DEBRIS, EQUIPMENT OR MATERIALS WILL BE STORED, EVEN TEMPORARILY, OUTSIDE THE DESIGNATED LIMIT OF WORK AREA WITH THE EXCEPTION OF EQUIPMENT AND MATERIALS RELATED TO THE PLANTINGS FOR THE REQUIRED MITIGATION.
- THE CONSTRUCTION SITE WILL BE CLEANED DAILY TO REMOVE ANY LOOSE DEBRIS.
- ALL DISTURBED AREAS WITHIN THE LIMIT OF WORK REQUIRING RESTORATION WILL BE STABILIZED TO PREVENT EROSION. STABILIZATION WILL BE DONE IMMEDIATELY FOLLOWING COMPLETION OF CONSTRUCTION.
- WORK AREA LIES COMPLETELY WITHIN PREVIOUSLY DISTURBED BUFFER ZONE AREAS.



SOIL EVALUATOR'S LOG					
Depth from surface in inches	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottles and Depth	Other Relative Factors
DEEP OBSERVATION HOLE TP#1, ELEVATION 22.8					
0 - 10	A	SANDY LOAM	7.5 YR 3/1		
10 - 36	B	LOAMY SAND	7.5 YR 4/4		
36 - 92	C1	MEDIUM SAND	7.5 YR 6/8	NO	
92 - 135	C2	COARSE SAND	7.5 YR 6/4	YES @ 102"	25% GRAVEL

PERCOLATION RATE = < 2 MINUTES / INCH IN C2 LAYER
DEPTH TO GROUNDWATER = NONE ENCOUNTERED
ADJUSTED HIGH GROUNDWATER = ADJUSTED AT 102" DEPTH FROM REDOX, ELEVATION 14.3' (NAVD83)
OBSERVATIONS BY: RAUL LIZARDI-RIVERA, P.E.
WITNESSED BY: TERRI GUARINO, R.S.
DATE TESTED: DECEMBER 14, 2020

LOCAL UPGRADE APPROVAL REQUEST					
NO	DESCRIPTION	BYLAW REQUIRED	TITLE 5 REQUIRED	PROPOSED	WAIVER
1	SOIL ABSORPTION SYSTEM TO COASTAL BANK	150 FT.	50 FT.	87 FT.	63 FT.
2	SOIL ABSORPTION SYSTEM TO WETLAND	150 FT.	50 FT.	98 FT.	52 FT.

- ### EXISTING UTILITIES NOTES
- THE CONTRACTOR SHALL CONTACT DIG-SAFE AND ARRANGE FOR EXISTING UTILITIES TO BE MARKED PRIOR TO CONSTRUCTION.
 - UTILITIES DEPICTED ON THIS PLAN ARE SHOWN AS LOCATED ON THE GROUND AND/OR FROM RECORD DRAWINGS. THIS PLAN DOES NOT WARRANT THE EXACT LOCATION OF EXISTING UTILITIES NOR DOES IT WARRANT THAT ALL EXISTING UTILITIES ARE SHOWN.
 - THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM MAY REQUIRE REMOVAL AND RESETTING OF EXISTING UTILITIES. THE CONTRACTOR SHALL COORDINATE WITH THE CORRESPONDING UTILITY SERVICE COMPANIES TO ARRANGE TEMPORARY SERVICE SHUT-DOWN AND STARTUP.
- ### PROTECTION OF PROPERTY
- THE CONTRACTOR SHALL AT ALL TIMES PROTECT FROM INJURY ANY ADJOINING PROPERTY BY PROVIDING ANY PROPER GUARDS AND BY TAKING SUCH OTHER PRECAUTIONS AS MAY BE NECESSARY FOR THE PURPOSE.
 - THE CONTRACTOR SHALL KEEP CONSTRUCTION ACTIVITIES CLEAR OF PROPERTY BOUNDARY MARKERS (MONUMENTS) AND PROTECT SUCH MARKERS FROM HARM.
 - IF PROPERTY MARKERS ARE DISTURBED OR HARMED DURING CONSTRUCTION THE CONTRACTOR SHALL ENGAGE A REGISTERED PROFESSIONAL LAND SURVEYOR TO RESET OR REPLACE IN-KIND SUCH BOUNDARY MARKER AS NECESSARY.

- ### LEGEND
- | | | | | |
|--------------------|---------------------|------------------|-------|---|
| TW | TOP OF WALL | UTILITY POLE | S | SEPTIC LINE |
| BW | BOTTOM OF WALL | GUY POLE | W | WATER LINE |
| 1X1 | PROPOSED SPOT GRADE | GUY WIRE | D | STORM DRAIN PIPE |
| CB | CONCRETE BOUND | LIGHT POLE | G | GAS LINE |
| SB | STONE BOUND | SIGN | OHW | OVERHEAD WIRES |
| RC | ROD CAP | CONIFEROUS TREE | E/T/C | UTILITY LINE |
| IP | IRON PIPE FOUND | DECIDUOUS TREE | | RETAINING WALL |
| STAKE | STAKE & TACK FOUND | TREE STUMP | | AREA OF STRUCTURE INCLUDED IN EXISTING LOT COVERAGE |
| HYDRANT | HYDRANT | SHRUB | | |
| WATER SHUTOFF | WATER SHUTOFF | CONIFEROUS SHRUB | | |
| CATCH BASIN SQUARE | CATCH BASIN SQUARE | | | |

- ### GENERAL NOTES
- LOCATIONS ARE BASED ON AN "ON THE GROUND" INSTRUMENT SURVEY AND ELEVATIONS BASED ON THE NAVD 1988 DATUM. COORDINATE SYSTEM USED IS THE MA-MAINLAND COORDINATE SYSTEM, DATUM: NAD 83, UNITS: U.S. SURVEY FEET.
- THE FINISHED FLOOR ELEVATION (FIN. FL. EL.) SHOWN HEREON IS BASED ON AN ASSUMED 1" LOWER THAN THE SURVEYED THRESHOLD ELEVATION. AN INTERIOR INSPECTION OF BUILDINGS WAS NOT PERFORMED.
- ZONING DISTRICT: R-40
- PROPERTY IS LOCATED WITHIN AN AREA HAVING A ZONE DESIGNATION OF AE (ELEV 14') & MINIMAL HAZARD X BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA). ON FLOOD INSURANCE RATE MAP NO. 25001C0511J, WITH A MAP EFFECTIVE DATE OF JULY 16, 2014.
- THIS LOT IS NOT LOCATED WITHIN A DEP APPROVED ZONE II WELLHEAD PROTECTION AREA.
- THIS LOT IS NOT MAPPED WITHIN A MESA NATURAL HERITAGE AND ENDANGERED SPECIES AREA.
- DEED REFERENCE: BOOK 29346 PAGE 307 PLAN REFERENCE: BOOK 262 PAGE 7
- OWNER: PETER H. CRESSY TRS PHC & SAC 2015 CHARITABLE REMAINDER TRUST 6419 WATERWAY DRIVE FALLS CHURCH, VA 22044-1325

DATE: _____ DESCRIPTION: _____ BY: _____ CHK: _____

PREPARED FOR: PETER H. CRESSY TRS PHC & SAC 2015 CHARITABLE REMAINDER TRUST 6419 WATERWAY DRIVE FALLS CHURCH, VA 22044-1325

PROJECT: 2 MILL POND CIRCLE POCASSET (BOURNE), MASSACHUSETTS

SHEET NO.: 1 OF 1 DATE: DECEMBER 22, 2020

DRAWN BY: JVB, RLR CHECKED BY: MC

PREPARED BY: CAPE & ISLANDS ENGINEERING

SUMMERFIELD PARK 800 FALMOUTH ROAD SUITE 301C 508.477.7272 PHONE 508.477.9072 FAX www.CapeEng.com

DRAWING TITLE: SEPTIC REPAIR DESIGN PLAN (NO INCREASE IN FLOW)

ASSESSORS INFORMATION: MAP 47.4 PARCEL 9-20