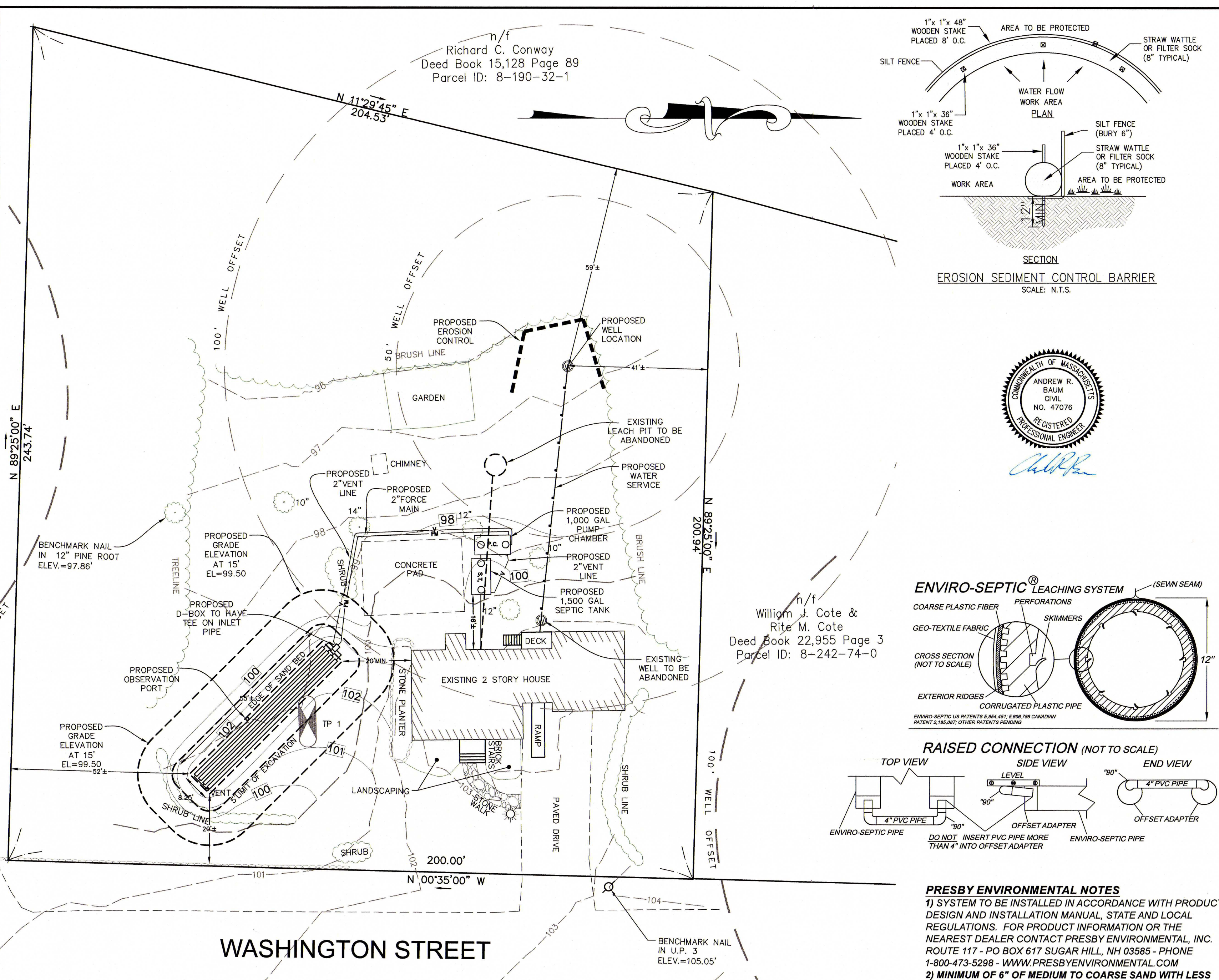


LOCUS MAP
1" = 2000'

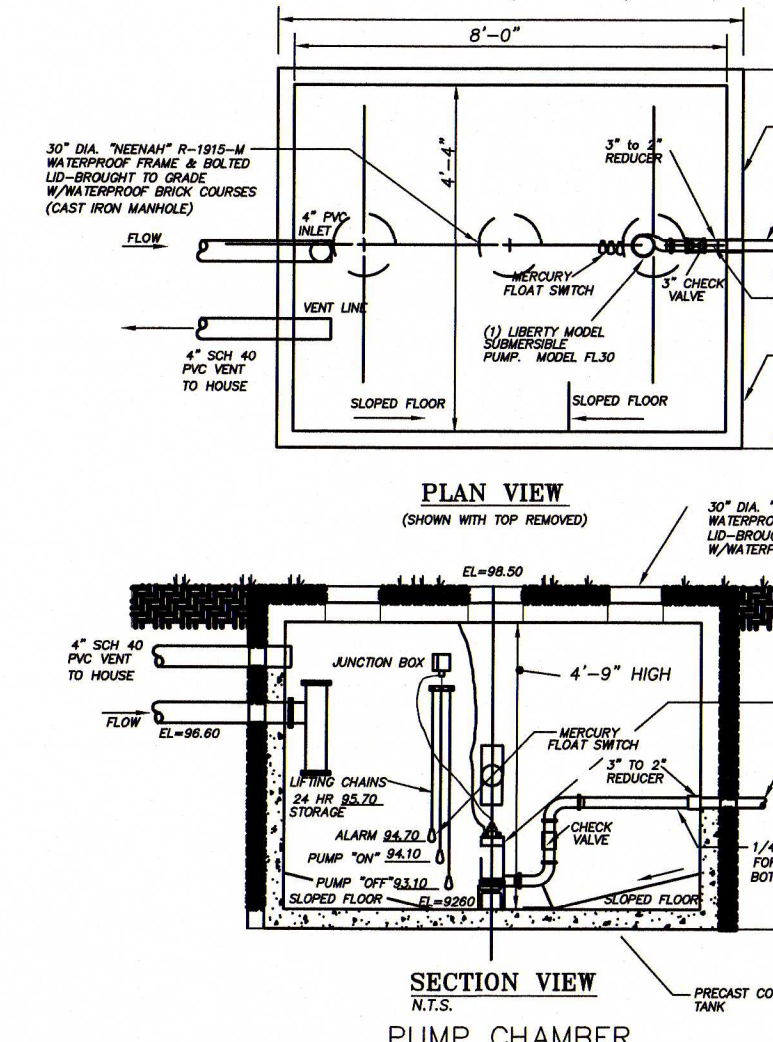
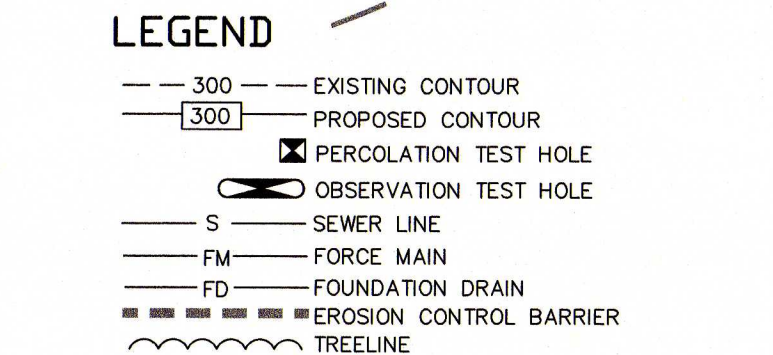
Richard C. Conway
Deed Book 15,128 Page 89
Parcel ID: 8-190-32-1

William J. Moffett
Deed Book 6,823 Page 2
Parcel ID: 8-242-68-0

William J. Cote &
Rite M. Cote
Deed Book 22,955 Page 3
Parcel ID: 8-242-74-0



WASHINGTON STREET



PUMP NOTES

- GENERAL: PROVIDE AND INSTALL A COMPLETE PUMPING SYSTEM CONSISTING OF ONE SUBMERSIBLE PUMP AND MOTOR, DISCHARGE PIPING AND HIGH WATER ALARM. A CONTROL PANEL AND PRECAST CONCRETE DRAIN TRAP ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS AND SHALL BE INSULATED FOR AT LEAST ONE YEAR. THE CONTRACTOR SHALL PROVIDE A SUFFICIENT QUANTITY OF CLEAN WATER TO CONDUCT TWO PERCOLATION TESTS.
- THE DRAINING TANK SHALL BE A 1000 GAL. PRECAST REINFORCED CONCRETE STRUCTURE. ALL CONCRETE SURFACES INSIDE AND OUTSIDE SHALL BE WATERPROOF WITH TWO COATS OF A 1/4" THICK EPDM PAINT OR OTHER COMPOSITE SEALANT OR OTHERS MAKE WATERPROOF. USE AN IP-42/30/15/15 PLASTIC PAINTING CHANGERS AS MANUFACTURED BY A. ROTONDO & SON, INC. OR AN EQUIVALENT.
- PUMPS AND MOTORS: PUMP AND MOTOR SHALL BE A 1/2 HP, 30 GPM LIBERTY PUMP WITH 2 INCH DISCHARGE AND CAPABLE OF PUMPING 200 FEET VERTICAL. PUMP MOTOR SHALL BE RELIABLE SUBMERSIBLE OPERATE AT 115V WITH 110V TO CYCLE SINGLE PHASE AC POWER SOURCE. NOTE: ELECTRICAL CONTRACTOR TO NOTIFY AVAILABLE VOLTAGE AT THE PUMP CONTROL PANEL. PUMP SHALL BE RATED AS FOLLOWS 1 / 3 HORSEPOWER 30 GAL/HR FOR 15 MINUTE IN FEET TOTAL, PUMPING HEAD. USE LIBERTY PUMP FL-30 1/3 HP OR AN APPROVED EQUIVALENT.
- PUMP CHAMBER DISCHARGE AND FITTINGS SHALL BE 2 INCH SCH 40 PVC.

THREE SEALED FLOAT TYPE MERCURY SWITCHES SHALL BE SUPPLIED TO CONTROL THE LOW LEVEL AND ALARM SIGNALS. ONE FOR PUMP "OFF", ONE FOR PUMP "ON", AND ONE FOR PUMP "OVERFLOW". THE SWITCHES SHALL BE SET TO OPERATE AT THE ELEVATIONS INDICATED ON THE PLAN. THE SWITCHES SHALL BE INSTALLED IN A SUBTERRANEAN LOCATION INSIDE BUILDING.

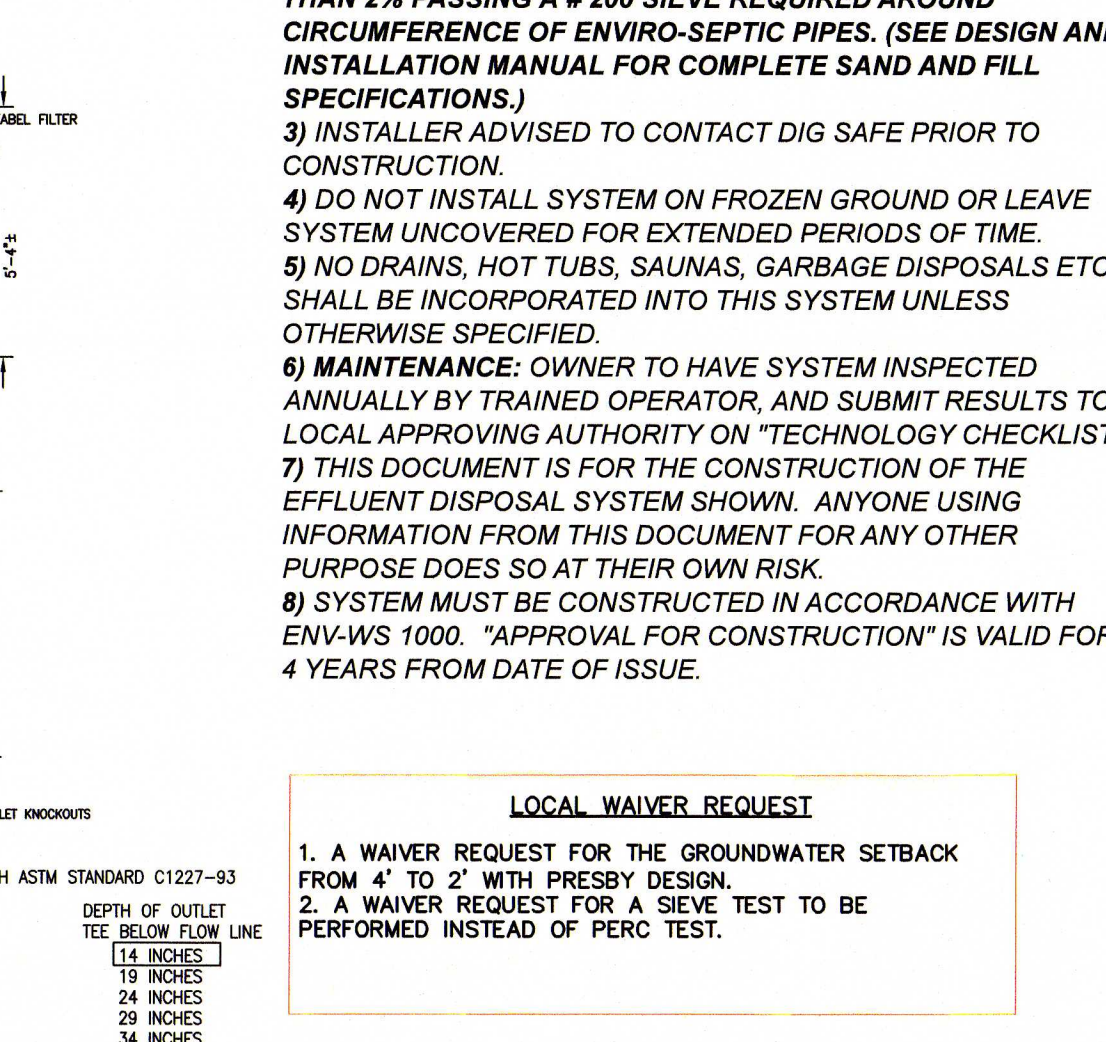
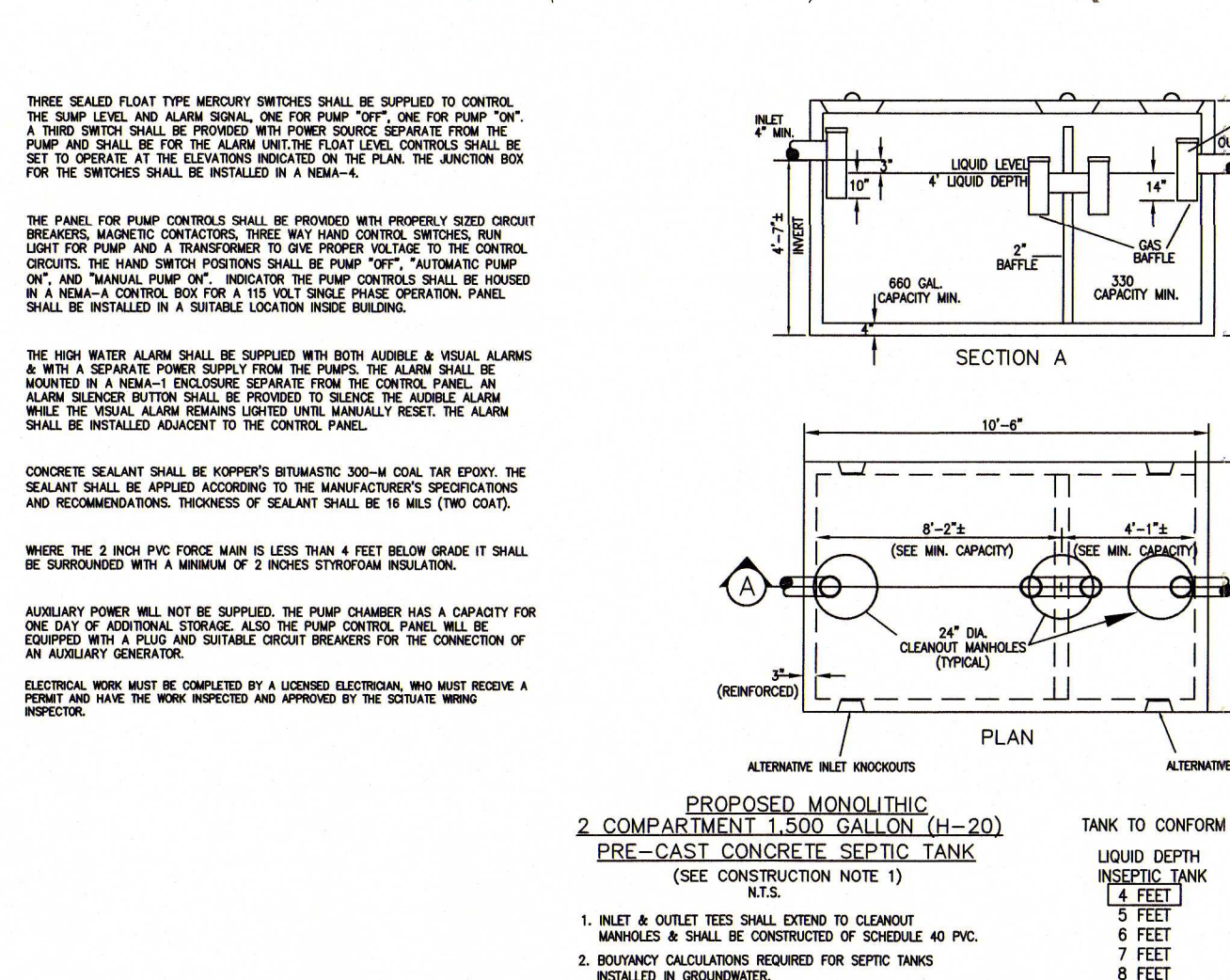
THE HIGH WATER ALARM SHALL BE SUPPLIED WITH BOTH AUDIBLE & VISUAL ALARMS & WITH A SEPARATE POWER SUPPLY FROM THE PUMP. THE ALARM SHALL BE MOUNTED IN A HOUSING ENCLOSED SEPARATE FROM THE CONTROL PANEL. AN ALARM BELLWINDER SHALL BE PROVIDED TO SOUND THE AUDIBLE ALARM. WHILE THE VISUAL ALARM REMAINS LAMPED, MANUALLY RESET THE ALARM. SHALL BE INSTALLED ADJACENT TO THE CONTROL PANEL.

CONCRETE SEALANT SHALL BE KOPPER'S BITUMASTIC 300-W COAL TAR EPDM. THE SEALANT SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS. THICKNESS OF SEALANT SHALL BE 1/8" (TWO COATS).

WHERE THE 2 INCH PVC FORCE MAIN IS LESS THAN 4 FEET BELOW GRADE IT SHALL BE SURROUNDED WITH A MINIMUM OF 2 INCHES STYROFOAM INSULATION.

AUXILIARY POWER WILL NOT BE SUPPLIED. THE PUMP CHAMBER HAS A CAPACITY FOR ONLY 1 HOUR OF STORAGE. KEEP THE PUMP CHAMBER DRY. THE PANEL SHALL BE EQUIPPED WITH A FUSE AND SATISFACTION GREAT BREAKERS FOR THE CONNECTION OF AN AUXILIARY CONNECTION.

ELECTRICAL WORK MUST BE COMPLETED BY A LICENSED ELECTRICIAN WHO MUST RECEIVE A PERMIT AND HAVE THE WORK INSPECTED AND APPROVED BY THE STATE WELD INSPECTOR.



LOCAL WAIVER REQUEST

- A WAIVER REQUEST FOR THE GROUNDWATER SETBACK FROM 4' TO 2' WITH PRESBY DESIGN.
- A WAIVER REQUEST FOR A SIEVE TEST TO BE PERFORMED INSTEAD OF PERC TEST.

SCOPE OF WORK

THE CONTRACTORS SCOPE OF WORK INCLUDES BUT IS NOT LIMITED TO:

- ALL LABORS AND MATERIALS TO INSTALL THE SEWAGE DISPOSAL SHOWN, COMPLETE AND PLACED IN SERVICE.
- INSURING ALL PERMITS HAVE BEEN OBTAINED.
- PERFORMING ALL WORK IN ACCORDANCE WITH TITLE 5.
- ANY MEASURES TO PROTECT THE WETLAND, IF ANY.
- TIMELY EXECUTION OF THE WORK.

MAINTENANCE NOTE

THE STATE ENVIRONMENTAL CODE, STATES: "SEPTIC TANKS SHOULD BE INSPECTED AND CLEANED AT LEAST ANNUALLY."

NO PERMANENT STRUCTURES ARE TO BE ERECTED IN THE RESERVE AREA.

DO NOT PLANT TREES OVER OR NEAR THE FIELD. AVOID VEHICULAR TRAFFIC OVER SYSTEM.

SOIL LOGS DATE: 11/04/2021 PERFORMED FOR: FRED LEBLANC

TEST PIT #1	DATE	PERFORMED BY
0-12	11/4/21	PETER LAVOIE, S.E.L.S.32
12-28	11/4/21	OF SUMMIT ENG. WITNESSED BY: TOM RYDER
28-108	11/4/21	RESULT: PERC TEST 1: SIEVE CLASS II RESULTS

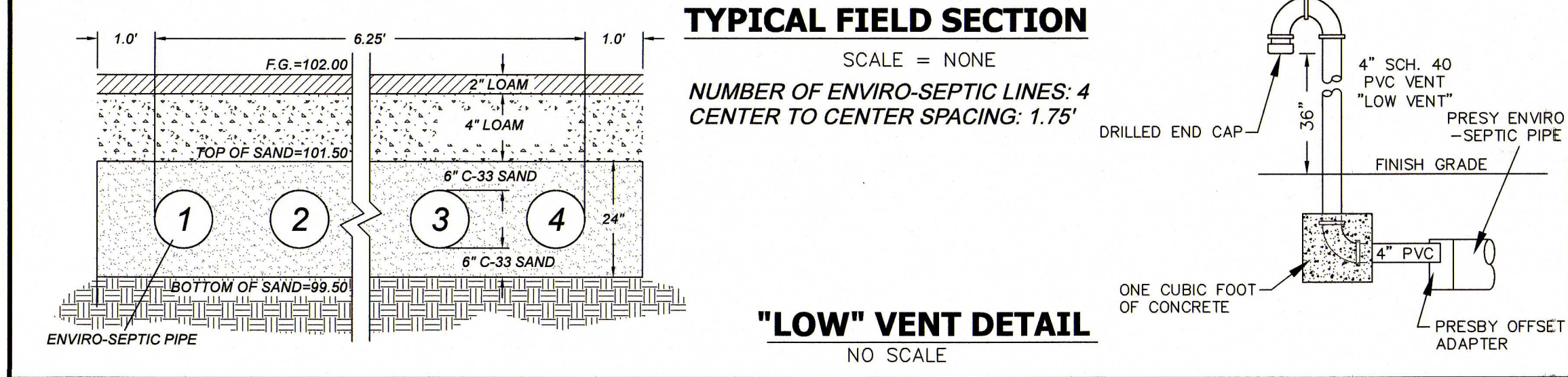
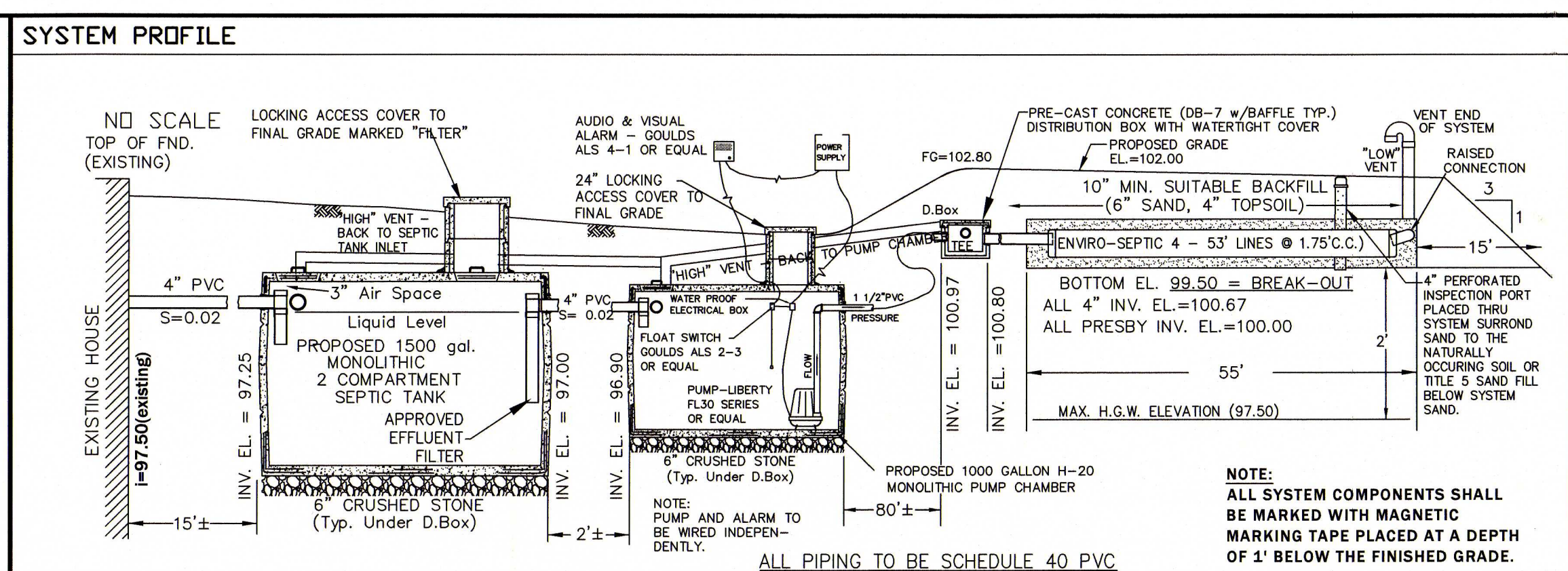
MOTTLES 10YR5/8 @ 26"

ADDITIONAL NOTES

DEED REFERENCE BOOK 29,936 PAGE 68.

PLAN REFERENCE PLAN BOOK 178 PAGE 50.

WATER SOFTENERS ARE NOT TO BE CONNECTED TO SEPTIC SYSTEM.



COMPONENT NOTES

SEPTIC TANK
SEPTIC TANK SHALL BE A PRECAST, REINFORCED CONCRETE TANK MADE WATERTIGHT. CONSTRUCTION MATERIALS AND DIMENSIONS SHALL CONFORM TO TITLE 5 AND ASHTO HS TO REQUIREMENTS AND PLACED ON A STABLE MECHANICALLY COMPACTED LEVEL BASE.

TANK / SYSTEM TO BE VENTED THROUGH THE BUILDING PLUMBING SYSTEM AS REQUIRED BY BUILDING CODE.

TANK SHOULD BE INSPECTED, MAINTAINED AND BE PUMPED OUT WHEN SLUDGE DEPTH IN THE BOTTOM EXCEEDS ONE FOURTH OF THE TOTAL LIQUID DEPTH.

AT LEAST THREE 20" MANHOLES SHALL BE PROVIDED. AT LEAST ONE OF THE MANHOLES SHALL HAVE AN ACCESS PORT ACCESSIBLE TO WITHIN 6" OF FINISH GRADE.

"D" BOX
"D" BOX TO BE MADE WATERTIGHT. CONSTRUCTION MATERIALS AND DIMENSIONS SHALL CONFORM TO TITLE 5 AND ASHTO HS TO REQUIREMENTS AND PLACED ON A STABLE MECHANICALLY COMPACTED LEVEL BASE.

"D" BOX OUTLETS SHALL BE INSTALLED LEVEL ("BUILT UP" INVERTS, NOT PERMITTED).

FIRST 2' (MIN.) OF OUTLETS SHALL BE INSTALLED LEVEL TO EQUALIZE FLOW.

THE MINIMUM INSIDE DIMENSIONS OF THE "D" BOX TO BE 12" AND THE MINIMUM WALL THICKNESS TO BE 2".

WHEN INLET PIPE SLOPE EXCEEDS 8%-PVC INLET TEE REQUIRED. CUT LOW END 1" ABOVE OUTLET INVERT.

"D" BOX COVER TO BE SEALED WITH BITUMEN.

LEACH AREA
ALL LOAM, LARGE BOULDERS OR FOREIGN MATERIAL ENCOUNTERED DURING EXCAVATION ARE TO BE REMOVED FROM THE LEACHING AREA.

ALL SOIL INTERFACES SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF STONE.

ALL STONE IN PLACE SHALL BE DURABLE, FREE FROM IRON, FINES AND DUST AND DOUBLE WASHED.

WHEN GRAVEL FILL IS REQUIRED, ALL LOAM AND ORGANIC MATERIAL SHALL BE REMOVED FROM AREA TO BE FILLED. FILL SHALL BE COMPACTED TO MINIMIZE SETTLEMENT AND SHALL BE CLEAN GRANULAR MATERIAL FREE FROM FINES AND ORGANIC MATERIALS, AND SHALL BE IN ACCORDANCE WITH 310 CMR 15.255(3).

ALL DISTURBED AREAS ARE TO BE LOAMED, SEEDING AND MAINTAINED TO PREVENT EROSION.

AREAS ABOVE THE SOIL ABSORPTION SYSTEM SHALL REMAIN PEROUS UNLESS UNAVOIDABLE. IN SUCH CASES THE SYSTEM SHALL BE VENTED.

SYSTEM IN FILL REQUIRED NOT REQUIRED

IF ANY PORTION OF THE PROPOSED LEACHING AREA IS LOCATED ABOVE EXISTING GRADE OR WITHIN TOPSOIL, SUBSOIL, PEAT OR OTHER UNSUITABLE OR IMPERVIOUS SOIL LAYER, THEN THE PLACEMENT OF FILL IS REQUIRED. PRIOR TO THE PLACEMENT OF FILL, ALL UNSUITABLE OR IMPERVIOUS SOILS SHALL BE EXCAVATED TO A MINIMUM OF FIVE FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE SOIL ABSORPTION SYSTEM TO THE DEPTH OF NATURALLY OCCURRING PERVIOUS MATERIAL. FILL MATERIAL SHALL BE SELECT, ON-SITE OR IMPORTED SOIL, CONSISTING OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT SOIL CLASSES SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN 2 INCHES. A SIEVE ANALYSIS USING A #4 SIEVE, SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED IN THE #4 SIEVE. SIEVE ANALYSES SHALL ALSO BE PERFORMED ON THE FRACTION OF FILL SAMPLE PASSING THE #4 SIEVE. SUCH ANALYSES MUST DEMONSTRATE THAT THE MATERIAL MEETS EACH OF THE FOLLOWING SPECIFICATIONS:

DESIGN CRITERIA: PROPOSED/EXISTING USE

DESIGN FLOW FOR 3 BEDROOMS
3 Bedrooms x 110 gal./bedroom/day = 330 gallons/day

THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL. THE USE OF GARBAGE DISPOSALS IS NOT RECOMMENDED WITH SUBSURFACE DISPOSAL FACILITIES.

LEACHFIELD CALCULATIONS

DESIGN CRITERIA: REPAIR/EXPANSION TO 3 BEDROOM

DESIGN FLOW FOR 3 BEDROOMS
3 Bedrooms x 110 gal./bedroom/day = 330 gallons/day

THIS SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL. THE USE OF GARBAGE DISPOSALS IS NOT ALLOWED.

SEPTIC TANK CAPACITY: 1,500 GALLON

PRESBY ENVIRONMENTAL SYSTEM CALCULATIONS

- FROM TABLE A: 3 BR @ 20-31 MIN/INCH = 210 LF OF PIPE
- PROVIDE LF OF PIPE: 4 lines @ 53 = 210 LF
- FROM TABLE B: MIN SPACING = 1.75' FOR 1-10% SLOPE (USE 1.75' SPACING)
- FROM TABLE D: CALCULATE SAND BED = 400 SF. MIN.

GENERAL NOTES

SYSTEM IS DESIGNED TO ACCOMMODATE SANITARY SEWAGE ASSOCIATED WITH NORMAL DOMESTIC USE AND CONSISTING OF WATER CARRIED PUTRESIBLE WASTE ONLY.

ALL COMPONENTS OF THE SEWAGE DISPOSAL SYSTEM SHALL BE COVERED BY A MAXIMUM OF 36" OF CLEAN BACKFILL MATERIAL, FREE OF STONES AND BOULDERS GREATER THAN 6" IN SIZE.

OWNER SHALL VERIFY EFFECTIVE ZONING REGULATIONS PRIOR TO CONSTRUCTION.

PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON DATE OF TOPOGRAPHY, AND THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. IS NOT INTENDED OR IMPLIED.

ALL PIPING SHALL BE LAID TRUE TO LINE, GRADE AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

THERE ARE NO EXISTING WELLS WITHIN 100' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM (50' OF THE SEPTIC TANK).

THERE ARE NO EXISTING SEWAGE DISPOSAL SYSTEMS WITHIN 100' OF THE PROPOSED WELL.

ALL KNOWN WELLS WITHIN 200' OF THE PROPOSED PRIMARY AND EXPANSION LEACH AREAS ARE SHOWN.

THE DESIGN ENGINEER SHALL BE NOTIFIED PROMPTLY OF ANY PLAN DEFICIENCIES FOUND DUE TO UNFORESEEN SUBSURFACE CONDITIONS OR OTHER REASONS THAT MIGHT AFFECT THE FUNCTION OF THIS DESIGNED SYSTEM.

DEVIATIONS IN DESIGN OR CONSTRUCTION FROM THIS PLAN OR ANY OF THE CONDITIONS RELATING TO THE USE OR MAINTENANCE OF THE PROPOSED SYSTEM SHALL BE DEEMED TO VOID ANY CERTIFICATION OR REPRESENTATION MADE RELATIVE TO THIS SUBSURFACE SEWAGE DISPOSAL SYSTEM.

CONTRACTOR SHALL NOTIFY "DIG SAFE" PRIOR TO ANY EXCAVATION. 1-888-DIG-SAFE (344-7233)

PRIOR TO ANY CONSTRUCTION A BENCHMARK SHALL BE SET WITHIN 50'-75' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM.

ZONING: RURAL RESIDENTIAL

LOT SIZE	REQ'D. PLAN
AREA: 60,000 SF	44,470 SF
FRONTAGE: 200'	200'
SETBACKS:	
STREET: 50'	38'
SIDE LINE: 20'	21'
REAR: 20'	135'

F.I.R.M. REFERENCE

COMMUNITY NO: 250316
PANEL NO: 25027C1030E
EFFECTIVE DATE: 07/04/2011

THE DESIGN SHOWN HEREON DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE.

MUNICIPALITY: MENDON **DEP FILE NO.**

SEWAGE DISPOSAL SYSTEM

FOR: LOT 72 STREET 72 WASHINGTON STREET
ASSESSOR'S MAP 8 PARCEL
TOWN: MENDON, MASSACHUSETTS
DESIGNED FOR
FRED LEBLANC

SCALE: 1" = 20' **DECEMBER 2, 2021**

REVISIONS

Rev	Date	Description	Made	Check	App.
1	11/19/21	ORIGINAL ENDORSEMENT	JES		

SUMMIT ENGINEERING & SURVEY, INC.

REGISTERED ENGINEERS, TOPOGRAPHIC SURVEYS
PERCOLATION TESTING, ENVIRONMENTAL CONSULTANTS
710 MAIN STREET NORTH OXFORD, MA 01537
PHONE: (508) 987-8713

PROJECT NO. 21-383 DRAWING 21-383 SHEET 1 OF 1