

1. FOR PROPER PERFORMANCE, THE SEPTIC TANKS SHOULD BE INSPECTED ANNUALLY AND PUMPED WHENEVER THE TOP OF THE SLUDGE OR SOLIDS LAYER IS WITHIN 12 INCHES OF THE BOTTOM OF THE OUTLET TEE, OR THE TOP OF THE SCUM LAYER IS WITHIN TWO INCHES OF THE TOP OF THE OUTLET TEE, OR IF THE BOTTOM OF THE SCUM LAYER IS WITHIN 2 INCHES OF THE BOTTOM OF THE OUTLET TEE. MINIMALLY THE TANKS SHOULD BE PUMPED ONCE EVERY TWO YEARS.
2. THE EFFLUENT FILTER INSTALLED IN THE OUTLET TEE OF THE TANK SHOULD BE INSPECTED ANNUALLY AND CLEANED AS NECESSARY.

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SEWAGE DISPOSAL SYSTEM GENERAL PERFORMANCE, INSTALLATION AND STANDARDS NOTES

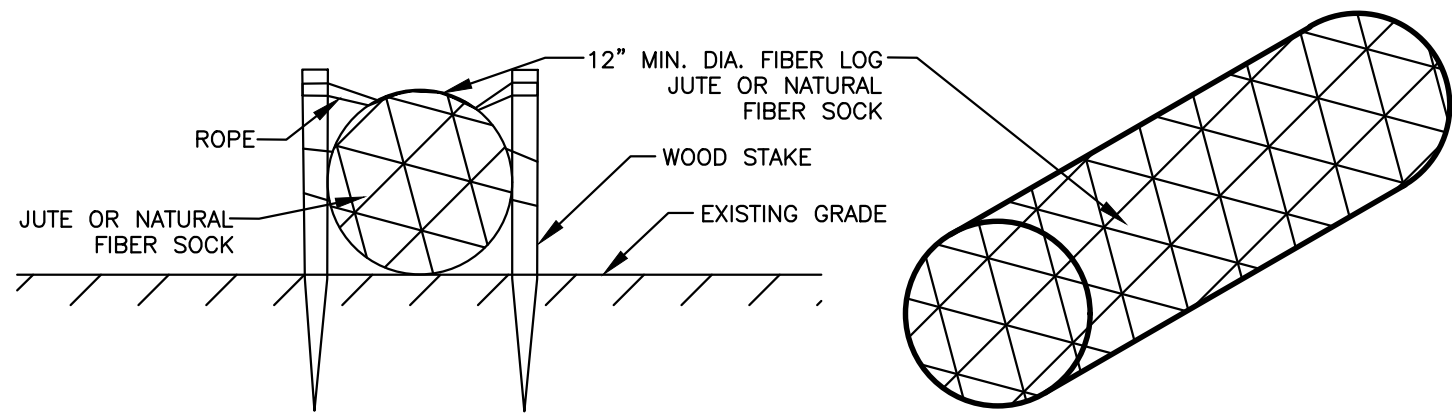
I. GENERAL CONSTRUCTION REQUIREMENTS FOR SEPTIC TANKS

- A. ALL COMPONENTS SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE, OR APPROVED EQUAL.
- B. ALL COMPONENTS SHALL BE CONSTRUCTED TO THE DIMENSIONAL REQUIREMENTS SHOWN ON THE ACCOMPANYING DETAILS.
- C. ALL CONSTRUCTION MATERIALS SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
- (1) CONCRETE STRENGTH: $f_c=4,000$ PSI AT 28 DAYS, DENSITY 140 PCF.
 - (2) CEMENT: PORTLAND TYPE I OR III PER ASTM C150-81.
 - (3) ADMIXTURES: PER ASTM C233-82.
 - (4) MINIMUM DESIGN LOADING: (SEE DETAILS)
 - (5) MINIMUM WALL THICKNESS: (SEE DETAILS)
- D. COMPONENTS SHALL BE EMBOSSED WITH A SEAL STATING THAT THE QUALITY CONTROL / QUALITY ASSURANCE STANDARD OUTLINED IN ASTM C 1227-93, HAS BEEN MET.
- E. ALL COMPONENTS SHALL BE PLACED ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ONTO WHICH SIX (6) INCHES OF CRUSHED STONE HAS BEEN PLACED. FOR COMPONENTS PLACED IN FILL, THE BASE MATERIAL SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY, BEFORE PLACEMENT OF CRUSHED STONE.
- F. NO STRUCTURES SHALL BE LOCATED DIRECTLY UPON OR ABOVE ANY COMPONENT ACCESS LOCATIONS WHICH INTERFERE WITH PERFORMANCE, ACCESS, INSPECTION, PUMPING OR REPAIR.
- G. ALL COMPONENTS SHALL BE EITHER:
- (1) WATERTIGHT THROUGH MANUFACTURER'S SPECIFICATIONS AND WARRANTY; OR
 - (2) MADE WATERTIGHT BY THE MANUFACTURER, EQUIPMENT SUPPLIER OF INSTALLER USING ASPHALT OR SYNTHETIC POLYMER SEALER SPECIFIED BY THE CONCRETE OR SYNTHETIC POLYMER MATERIAL MANUFACTURER.
- H. ALL SYSTEM COMPONENTS MUST BE MARKED WITH MAGNETIC TAPE BEFORE BACKFILLING OCCURS.

II.CONSTRUCTION REQUIREMENTS BY SYSTEM COMPONENT

- A. BUILDING SEWER:
1. THE BUILDING SEWER SHALL BE SEPARATED FROM A PRIVATE WATER SUPPLY WELL, OR SUCTION LINE, BY A MINIMUM OF TEN (10) FEET.
 2. THE BUILDING SEWER SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIAL AS SPECIFIED ON THE DESIGN PLANS.
 3. THE BUILDING SEWER SHALL BE LAID ON A COMPACTED FIRM BASE AT A CONTINUOUS UNIFORM GRADE AND IN A STRAIGHT LINE, AS NEARLY AS POSSIBLE.
 4. ALL PIPE JOINTS SHALL BE MADE WATERTIGHT AND PROTECTED AGAINST ROOT DAMAGE. POURED-TYPE JOINTS SHALL BE PROPERLY WIPED ON THE INSIDE TO PREVENT OBSTRUCTION OF FLOW.
 5. THE BUILDING SEWER SHALL BE VENTED THROUGH THE MAIN VENT STACK OR MAIN VENT OF THE BUILDING SERVED BY IT. NO TRAP SHALL BE INSTALLED IN THE BUILDING SEWER OR BUILDING DRAIN.
 6. ALL BUILDING SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STATE PLUMBING CODE 248 CMR.
 7. ALL SEWER PIPE SHOWN LABELED AS SCH-40 PVC IS TO CONFORM TO ASTM D 1785 GENERAL PURPOSE SEWER PIPE.
- B. SEPTIC TANKS: (UNLESS OTHERWISE SHOWN ON THE PLAN)
1. A MINIMUM 20-INCH DIAMETER OPENING SHALL BE CAST IN THE CENTER OF THE TANK AND OVER THE INLET AND OUTLET TEES. MANHOLE COVERS SHALL BE RAISED TO GRADE BY PROVIDING WATERTIGHT PRECAST 24-INCH I.D. RISERS, OR APPROVED EQUAL. EACH RISER SHALL BE TOPPED WITH A WATERTIGHT FRAME AND COVER (AS SHOWN ON THE DETAILS).
 2. THE SEPTIC TANK SHALL HAVE A MINIMUM OF 9" OF COVER AND A MAXIMUM OF 36" OF COVER.
- C. SOIL ABSORPTION SYSTEM: (UNLESS OTHERWISE SHOWN ON THE PLAN)
1. NO IMPERVIOUS AREA SHALL BE LOCATED ABOVE A SOIL ABSORPTION SYSTEM UNLESS THE SOIL ABSORPTION SYSTEM IS VENTED TO THE ATMOSPHERE IN ACCORDANCE WITH 310 CMR 15.241 AND APPROVED BY THE SHERBORN BOARD OF HEALTH.
 2. THE TOPSOIL AND FILL IS TO BE REMOVED WITHIN THE FOOTPRINT OF THE SOIL ABSORPTION SYSTEM PRIOR TO INSTALLATION.
 3. THE SOIL ABSORPTION SYSTEM SHALL BE COVERED WITH A MINIMUM OF NINE (9) INCHES OF BACKFILL, EXCLUDING TOPSOIL, AND SUFFICIENTLY COMPACTED TO PREVENT DEPRESSIONS. BACKFILL MUST BE CLEAN AND FREE OF STONES AND BOULDERS GREATER THAN SIX (6) INCHES IN SIZE. TAILINGS AND CLAY OR SIMILAR MATERIALS, ARE NOT ACCEPTABLE.
 4. THE FINAL GRADE OVER THE SYSTEM SHALL HAVE A MINIMUM SLOPE OF 2% AND SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM IT.
 5. CARE SHALL BE TAKEN TO ENSURE THAT THE BOTTOM OF THE SOIL ABSORPTION SYSTEM IS NOT SMEARED DURING EXCAVATION. THE BOTTOM AND SIDES OF THE LEACHING INTERFACES SHALL BE SCARIFIED PRIOR TO CONSTRUCTION. THE BOTTOM OF THE LEACHING FACILITY SHALL BE LEVEL.
 6. AGGREGATE REQUIRED FOR SOIL ABSORPTION SYSTEMS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - A. BASE AGGREGATE FROM BELOW THE CROWN OF THE DISTRIBUTION LINES TO THE BOTTOM OF THE SOIL ABSORPTION SYSTEM SHALL CONSIST OF DOUBLE WASHED STONE RANGING FROM 1-1/4" TO 1-3/4" IN DIAMETER AND SHALL BE FREE OF IRON, FINES AND DUST.
 - B. A MINIMUM TWO (2) INCH LAYER OF DOUBLE WASHED STONE RANGING FROM 1/8"-1/2" IN DIAMETER (FREE OF IRON, FINES AND DUST) SHALL BE PLACED OVER THE BASE AGGREGATE.
 7. FILL REQUIRED FOR THE LEACHING AREA AS SHOWN ON THE DESIGN PLAN, SHALL BE COMPRISED OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT MATERIALS SHALL NOT BE USED. THE FILL SHALL MEET THE GRADATION REQUIREMENTS OF 310 CMR 15.255 (3) WHICH IS AS FOLLOWS:

SIEVE / SIEVE	EFFECTIVE PARTICLE SIZE	PERCENT THAT MUST PASS SIEVE
#4	4.75mm	100%
#50	0.30mm	10%-100%
#100	0.15mm	0%-20%
#200	0.075mm	0%-5%
 - A. THE FILL SHALL CONTAIN NO MATERIAL LARGER THAN 2 INCHES.
 - B. NO GREATER THAN 45% BY WEIGHT SHALL BE RETAINED ON A NO.4 SIEVE.
 - C. THE GRADATION OF THE PORTION OF THE FILL PASSING A NO.4 SIEVE SHALL MEET THE FOLLOWING SPECIFICATIONS:
- D. A SIEVE ANALYSIS SHALL BE PERFORMED FROM THE FILL IN PLACE.
8. NO PERMANENT STRUCTURE MAY BE CONSTRUCTED OVER THE 100% EXPANSION AREA.
9. EXCAVATION TO BE DRY AND SCARIFIED.
10. FILL TO BE STOCKPILED NEAR THE PROPOSED SOIL ABSORPTION SYSTEM LOCATION SUCH THAT IT CAN BE PUSHED OR CAST INWARD OVER EXCAVATED AREA.
11. FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS.
12. DEWATERING IS REQUIRED FOR FILL TO BE PLACED BELOW THE ACTIVE GROUNDWATER TABLE.
13. THE SOIL ABSORPTION SYSTEM SHALL HAVE TWO (2) INSPECTION PORTS CONSISTING OF A PERFORATED FOUR (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 WITH A SCREW TYPE CAP AND ACCESSIBLE TO WITHIN THREE (3) INCHES OF FINISHED GRADE.
14. SOIL ABSORPTION SYSTEM PIPING
- A. ALL CONNECTIONS AND JOINTS SHALL BE WATER TIGHT AND MECHANICALLY SOUND.
 - B. EFFLUENT DISTRIBUTION LINES (LATERALS) SHALL BE 4 INCH SCH-40 PVC OR APPROVED EQUAL.
 - C. 4" PERFORATED SCH-40 PVC PIPE OR APPROVED EQUAL. PERFORATIONS TO BE EVENLY SPACED ALONG TWO ROWS, RUNNING THE LENGTH OF THE LINE, ON EACH SIDE MIDWAY BETWEEN THE INVERT AND CENTERLINE WHICH SEPARATES THE UPPER AND LOWER HALVES OF THE PIPE. PERFORATIONS SHALL BE BETWEEN 3/8" AND 5/8" IN DIAMETER. ALL SECTIONS OF PIPE TO USE TIGHT JOINT CONNECTIONS.

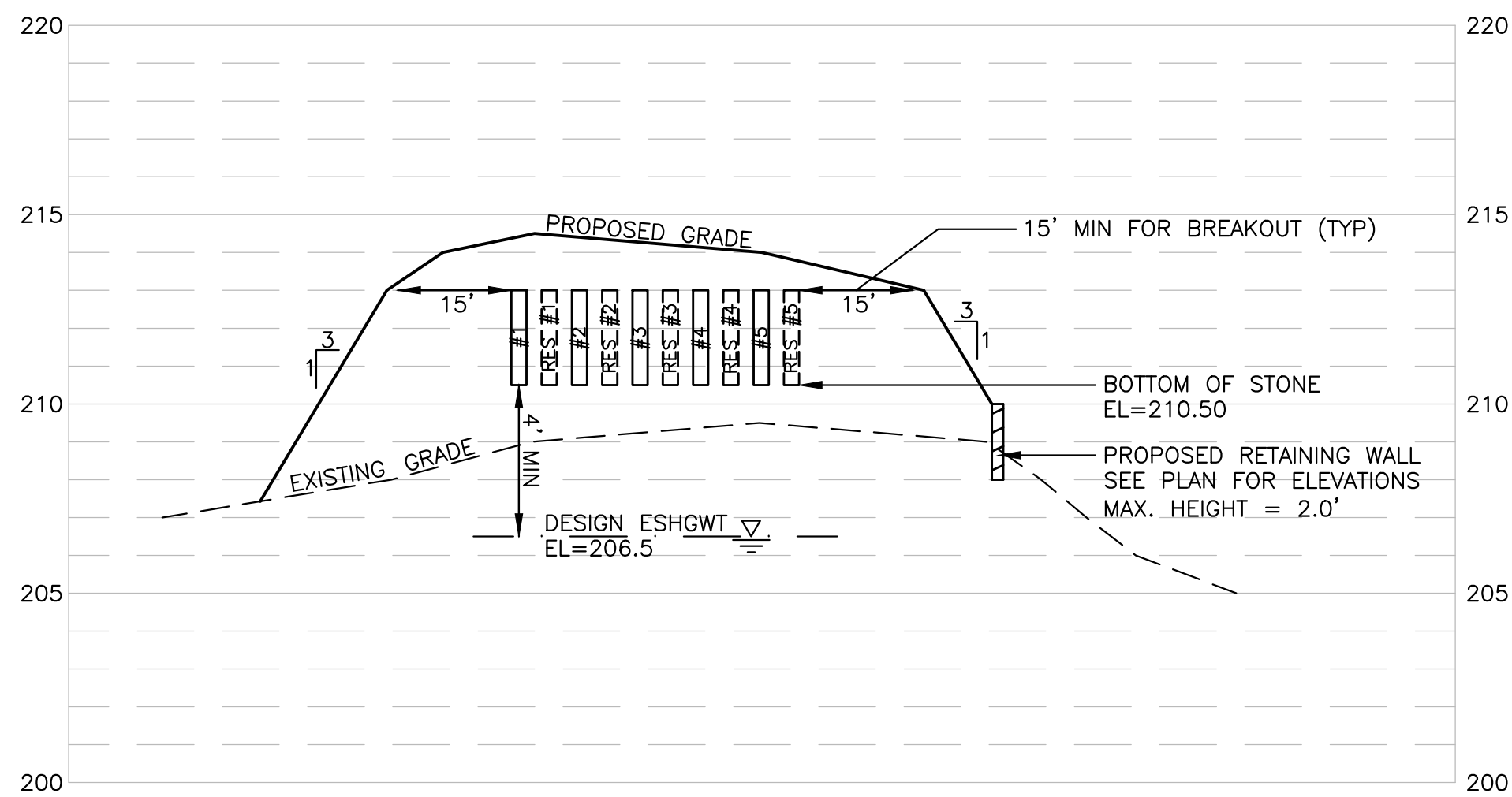


INSTALLATION NOTES FOR FIBER LOGS:

1. LAY THE FIBER LOG AT THE UPHILL BASE OF THE SILT FENCE. INSTALL APPROXIMATELY 4-6 WOOD STAKES THROUGH THE TWINE/NETTING ALONG THE FIBER LOG AS NEEDED TO HOLD THE LOG IN PLACE. DRIVE THE STAKE INTO THE GROUND DEEP ENOUGH TO HOLD THE LOG.
2. THE FILLING OF THE FIBER LOG MAY BE SHREDED STRAW, COIR, COMPOST OR OTHER APPROVED MATERIAL.
3. FIBER LOG SHALL BE 12 INCHES (MIN) IN DIAMETER UNLESS OTHERWISE NOTED ON THE PLANS.

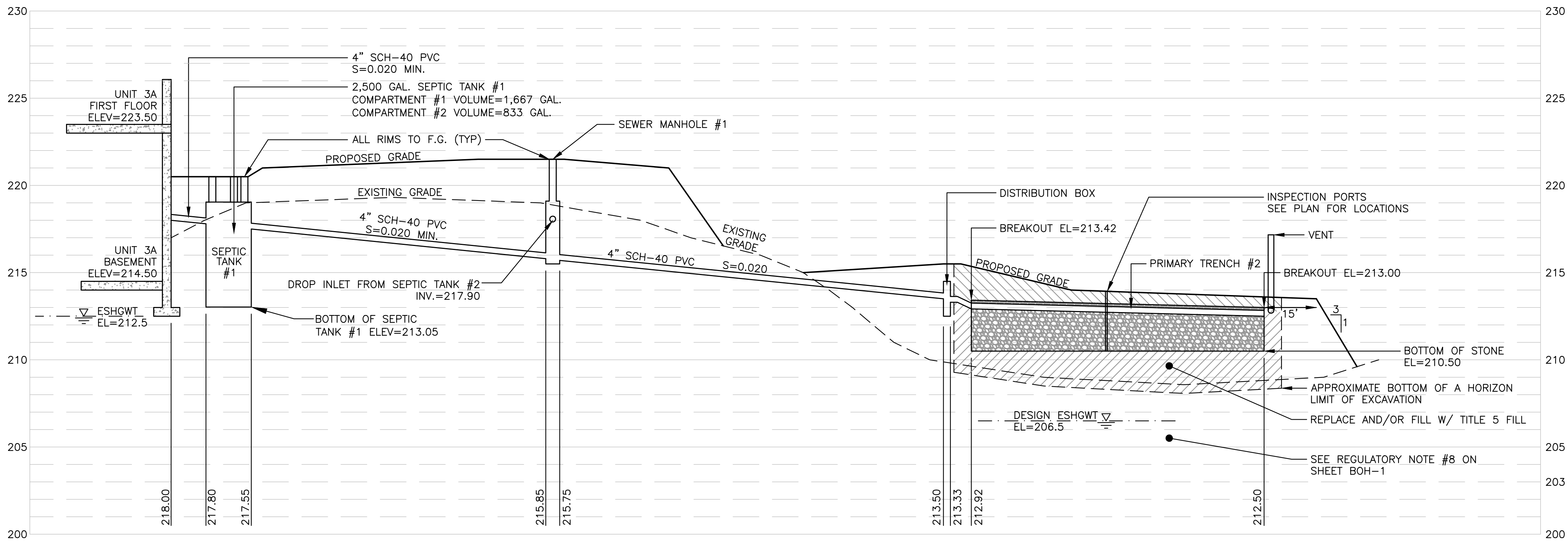
SEDIMENT BARRIER (FIBER LOG)

(NO SCALE)



CROSS SECTION A-A

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'



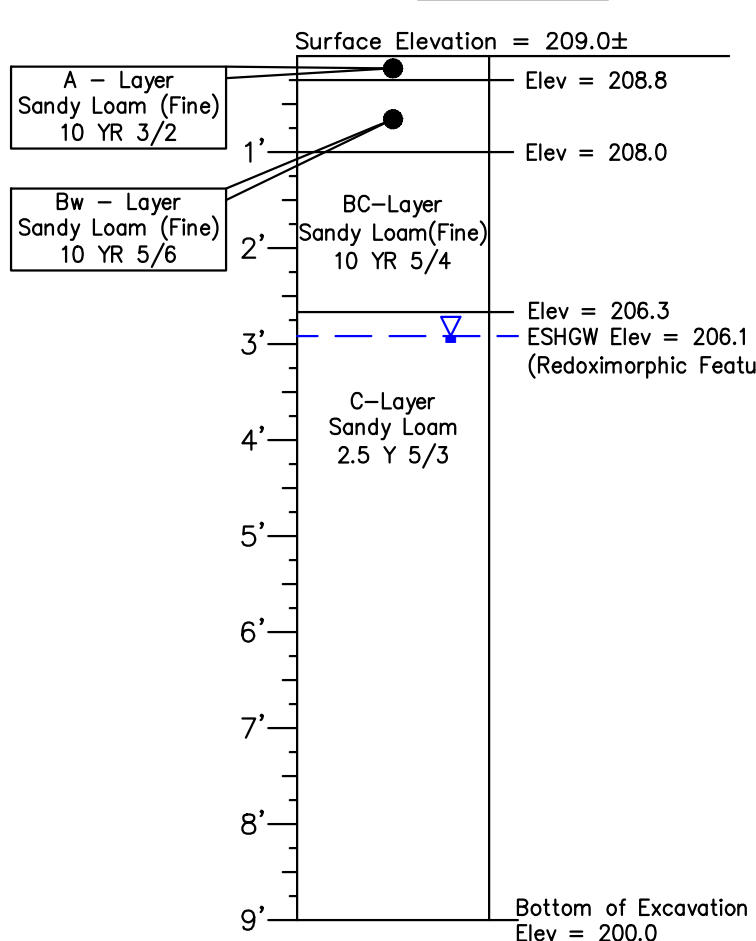
SUBSURFACE SEWAGE DISPOSAL SYSTEM PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 4'

SOIL TEST DATA (UNWITNESSED)

DATE: DECEMBER 5, 2023
SOIL EVALUATOR: FREDERICK SCHOBEL, E.I.T.
SE 14561
SOIL TEST PIT WAS FOR STORMWATER MANAGEMENT PURPOSES.
SOIL LOG FOR INFORMATIONAL PURPOSES.

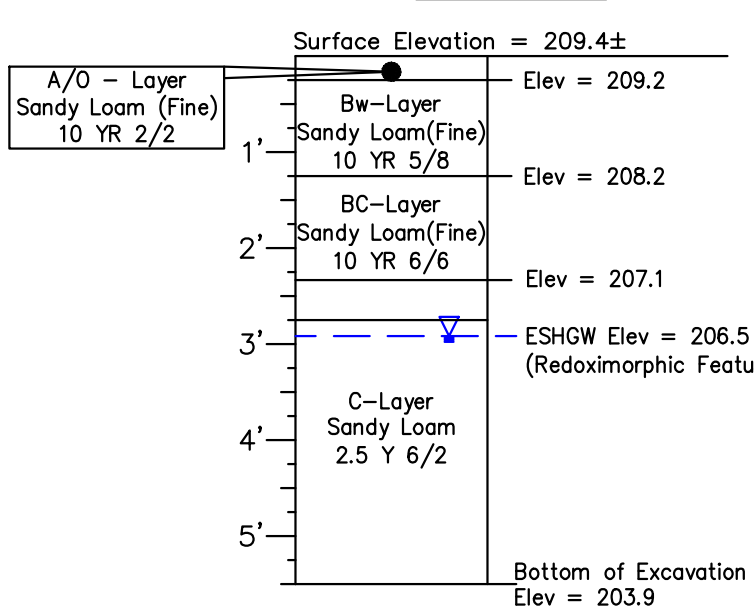
TEST PIT 23-05



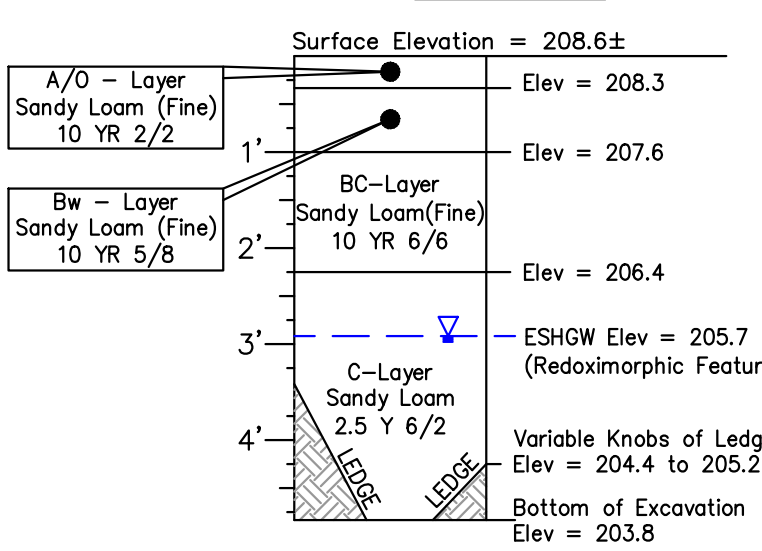
SOIL TEST DATA

DATE: NOVEMBER 6, 2024
WITNESSED BY: PAUL SAULNIER
OF THE SHERBORN BOARD OF HEALTH
SOIL EVALUATOR: FREDERICK SCHOBEL, E.I.T.
SE 14561

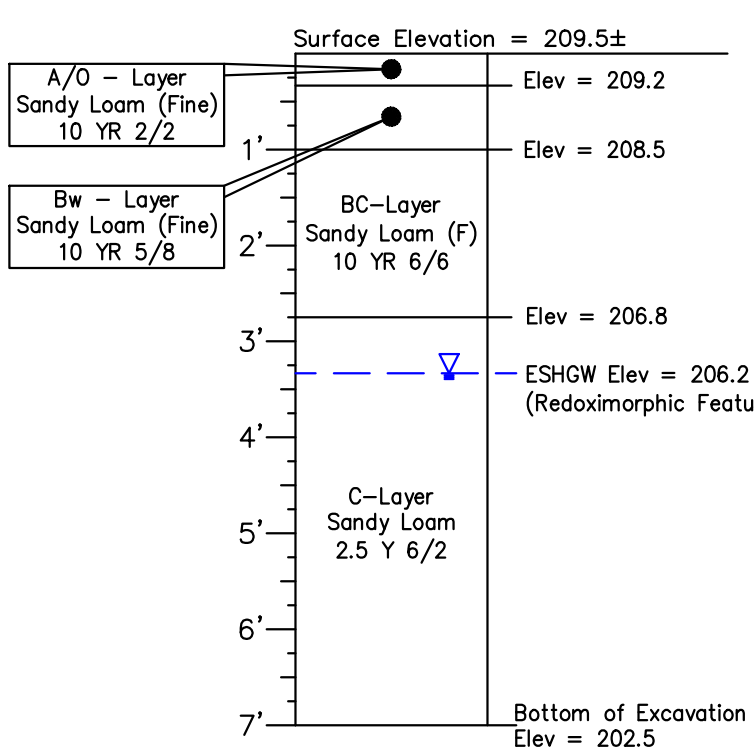
TEST PIT 24-01



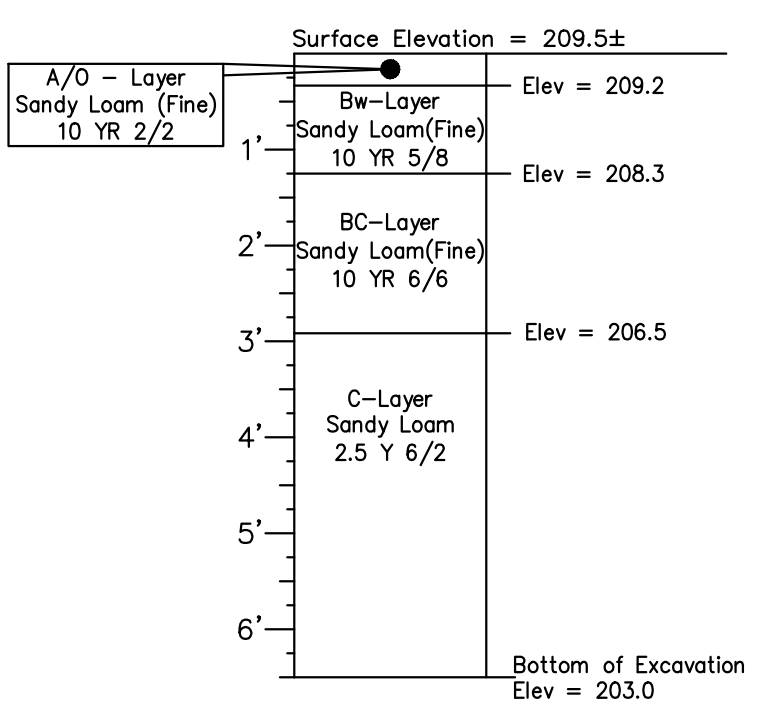
TEST PIT 24-02



TEST PIT 24-04



TEST PIT 24-05



PERCOLATION TEST DATA

TEST PIT NO.	DATE	SURFACE ELEVATION	TOP OF 12" OF WATER		INTERVAL TIME (MINUTES) FOLLOWING 15 MINUTE SOAK		RATE: MINUTES/INCH
			DEPTH FROM TOP OF PIT	ELEVATION	12" - 9"	9" - 6"	
24-01	11/6/2024	209.4	5"	209.0	4	6	2 MPI
24-04	11/6/2024	209.5	44"	205.8	38	55	19 MPI
24-05	11/6/2024	209.5	35"	206.6	*46 OR 54*	60	20 MPI

**PERMIT ISSUED UNDER
TITLE 5 ONLY AND DOES NOT
CONSTITUTE APPROVAL
UNDER LOCAL REGULATIONS**

OWNER/APPLICANT:

**WASHINGTON STREET
SHERBORN HOMES, LLC
ROBERT MURCHISON
177 LAKE STREET
SHERBORN, MA 01770**

PARCEL ID:

MAP 7, LOT 0, BLOCK 49

ISSUED FOR:

**SUBSURFACE SEWAGE
DISPOSAL SYSTEM DESIGN**



1	BEC	4/29/25	BOARD OF HEALTH COMMENTS
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DATE: **FEBRUARY 27, 2025**

SCALE: **AS NOTED**

DESIGN: BEC/KMR	DRAFTED: BEC/KMR	CHECKED: BEC
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PROJECT TITLE:

**LOT 3
WASHINGTON
STREET**

**0 WASHINGTON STREET
SHERBORN, MASSACHUSETTS 01770**

SHEET TITLE:

**SEWAGE DISPOSAL
SYSTEM COMPONENT
PROFILE & NOTES &
SOILS INFO.**

SHEET:
2 OF 3

PROJECT NO.:
F-25902

BOH-2

