

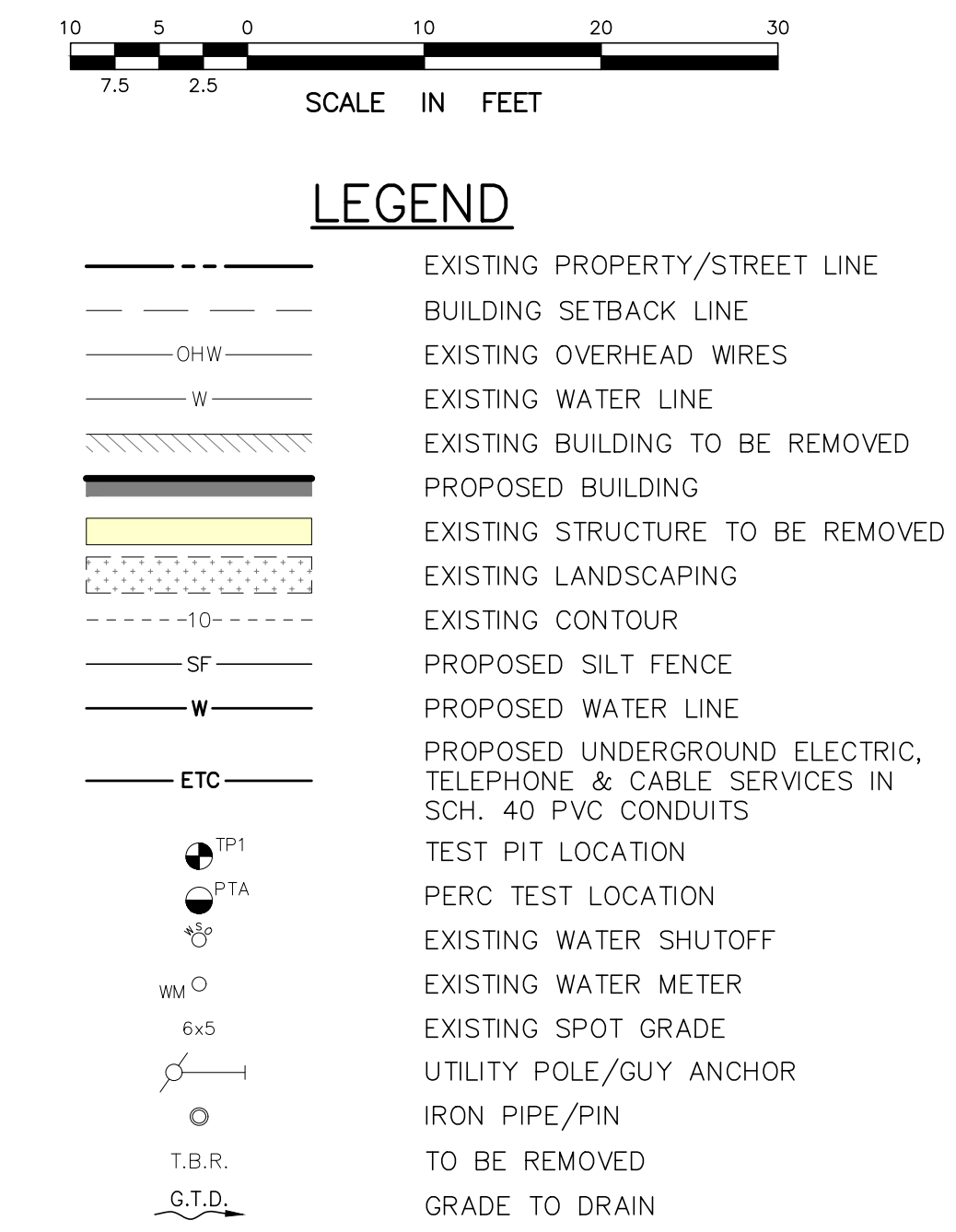
SEPTIC SYSTEM KEY

- (A) 10.0± L.F. 4" SCH. 40 ASTM D1785 SOLID PVC BUILDING SEWER PIPE @ 1/4" PER FT. MIN. SLOPE WITH 12" MIN. COVER.*
- (B) 1,000-GALLON H-20 RATED CONCRETE SEPTIC TANK (JOLLEY PRECAST OR EQUIVALENT) (SEE DETAIL).*
- (C) 4" SCH. 40 ASTM D1785 SOLID PVC PIPE OUT OF TANK WITH CONCENTRIC REDUCER TO 2" SCH. 40 ASTM D1785 TO CONNECT TO LEACHING SYSTEM PER MANUFACTURER'S SPECIFICATIONS.
- (D) 2" SCH. 40 PVC ASTM D1785 DISTRIBUTION TEE & CROSS.
- (E) 23.6 L.F. OF GEOMATRIX 'S-BOX' SB1-7-72 LEACHING SYSTEM W/ H-20 PROVISIONS (SEE DETAIL).

*SEPTIC TANK SHALL HAVE H-20 RATED RISERS TO WITHIN 12" OF FINISHED GRADE. CONTRACTOR SHALL VERIFY SEPTIC TANK IS WATERTIGHT PRIOR TO INSTALLATION. REFER TO SEPTIC SYSTEM INVERT TABLE ON SHEET ST-1 (2 OF 2) FOR PROPOSED INVERT ELEVATIONS.

OLD SAYBROOK COVERAGE TABLES

EXISTING		PROPOSED	
LOT AREA:	2,974 S.F.	LOT AREA:	2,974 S.F.
EXISTING HOUSE:	726.0 S.F.	PROPOSED HOUSE:	662.0 S.F.
EXISTING COVERED ENTRY & STEP:	33.0 S.F.	PROPOSED DECK & STEPS:	114.0 S.F.
EXISTING DECK & STEPS:	232.0 S.F.	PROPOSED BUILDING COVERAGE:	776 S.F.
EXISTING SHED:	48.0 S.F.	PERCENT PROPOSED BUILDING COVERAGE:	26.1%
EXISTING BUILDING COVERAGE:	1,039 S.F.		
PERCENT EXISTING BUILDING COVERAGE:	34.9%		



GENERAL NOTES:

- THIS PLAN WAS COMPILED USING THE FOLLOWING REFERENCE INFORMATION:
 - A CLASS A-2 SURVEY MAP ENTITLED "PROPERTY/TOPOGRAPHIC SURVEY, LAND OF REDLINE ENTERPRISES, LLC, TAX MAP 13, LOT 144, 102 MIDDLETOWN AVENUE, OLD SAYBROOK, CONNECTICUT," SCALE: 1"=10', DATED: JULY 28, 2021, PREPARED BY ANINO SURVEY, LLC.
 - ARCHITECTURAL DRAWINGS ENTITLED "102 MIDDLETOWN AVENUE, OLD SAYBROOK, CONNECTICUT," SCALE: 1/4"=1', DATED: JANUARY 8, 2024 WITH REVISIONS THROUGH APRIL 5, 2024, PREPARED BY CRAIG A. LAIBERTE.
- THE APPLICANT IS REDLINE ENTERPRISES, LLC OF 3 BUCK HILL ROAD, OLD SAYBROOK, CT 06475.
- THE SUBJECT PARCEL IS IDENTIFIED AS LOT 144 ON TAX ASSESSOR'S MAP 13. THE DEED REFERENCE OF THE PROPERTY IS VOLUME 629 PAGE 815. THE AREA OF THE PARCEL IS 2,974 S.F. OR 0.07 ACRES.
- THE SUBJECT PROPERTY IS LOCATED WITHIN THE 'RESIDENCE A' ZONING DISTRICT. THE PARCEL LIES WITHIN FEMA FLOOD HAZARD ZONE AE (EL. 11) AND THE OLD SAYBROOK FLOOD ORDINANCE ADDS TWO FEET TO THE FEMA FLOOD ELEVATION TO 13 (NAVD-88).
- THE APPLICANT IS PROPOSING TO DEMOLISH THE EXISTING 2-BEDROOM YEAR-ROUND DWELLING, CONSTRUCT A NEW FEMA-COMPLIANT 2-BEDROOM YEAR-ROUND DWELLING, REPLACE THE EXISTING SEPTIC SYSTEM AND OTHER ASSOCIATED IMPROVEMENTS. THE PROPOSED DWELLING WILL NOT HAVE FOOTING DRAINS. THE STRUCTURE IS PROPOSED TO BE IN COMPLIANCE WITH FEMA REGULATIONS AND LOCAL FLOOD ORDINANCES.
- THE PURPOSE OF THIS PLAN IS FOR REVIEW BY OLD SAYBROOK ZONING BOARD OF APPEALS TO SEEK NECESSARY VARIANCES. THE CONNECTICUT RIVER AREA HEALTH DISTRICT (CRAHD) APPROVED THIS PLAN ON APRIL 11, 2024.
- THIS PROPERTY IS SERVED BY PUBLIC WATER AND A SUBSURFACE SEWAGE DISPOSAL SYSTEM. THERE ARE NO KNOWN WELLS WITHIN 75 FEET OF THE PROPOSED SEPTIC SYSTEM.
- THE SUBJECT PROPERTY IS LOCATED WITHIN THE SAYBROOK MANOR WASTEWATER MANAGEMENT DISTRICT. THE SEPTIC SYSTEM SHALL MEET ALL REQUIREMENTS OF THE WASTEWATER MANAGEMENT DISTRICT, THE OLD SAYBROOK WATER POLLUTION CONTROL AUTHORITY (WPCA), THE TOWN OF OLD SAYBROOK, AND THE CONNECTICUT RIVER AREA HEALTH DISTRICT (CRAHD).
- REFER TO ARCHITECTURAL DRAWINGS (REF. B) FOR ADDITIONAL PROPOSED BUILDING INFORMATION.
- ALL ELEVATIONS SHOWN HEREON ARE REFERENCED TO NAVD-88 DATUM PER REF. MAP A.

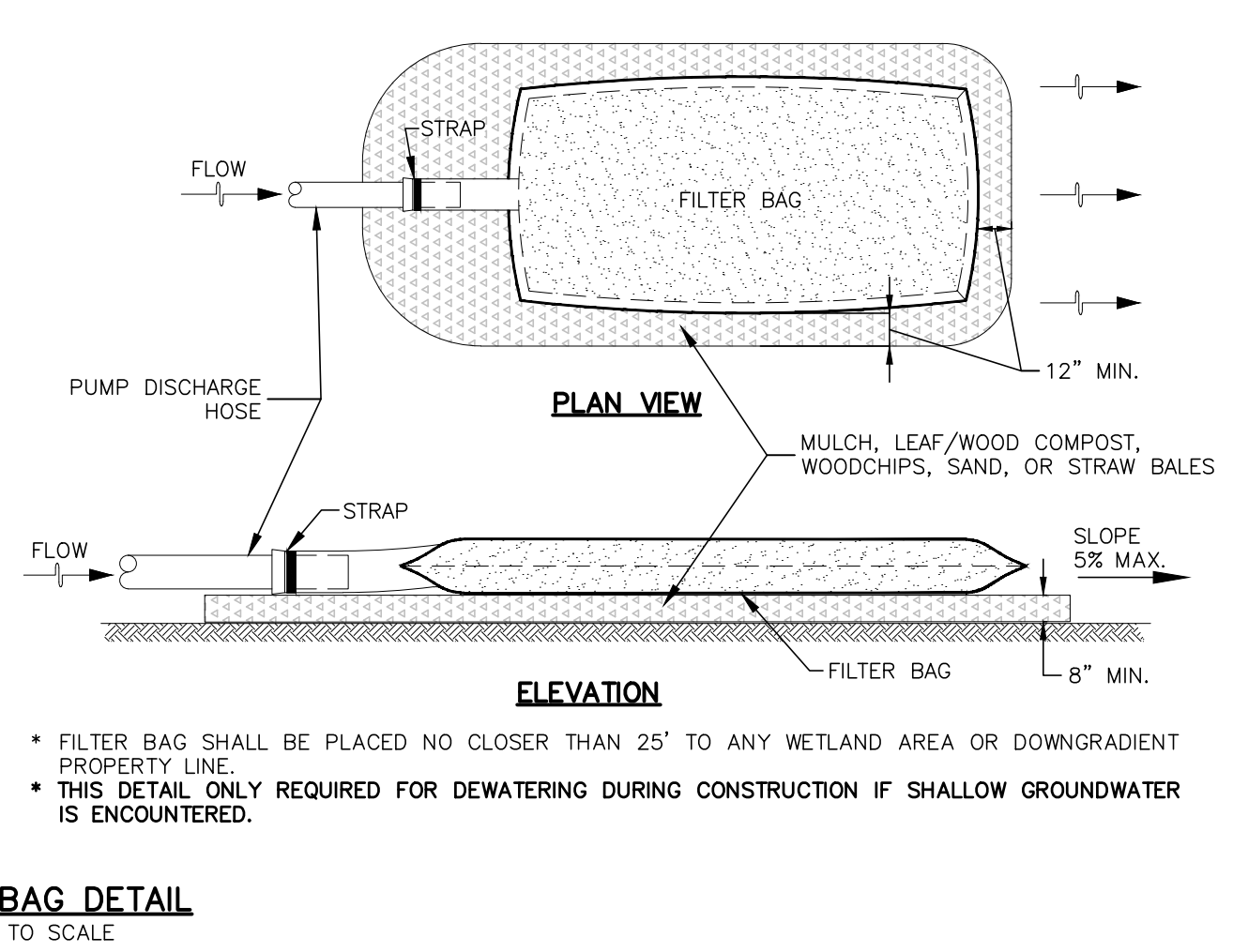
CONSTRUCTION NOTES:

- THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD LOCATIONS AND INFORMATION PROVIDED BY OTHERS. THEIR ACTUAL LOCATION MAY VARY FROM THOSE INDICATED AND ALL UNDERGROUND UTILITIES MAY NOT BE SHOWN. THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 800-922-4455 TO MARK OUT ALL UNDERGROUND UTILITIES A MINIMUM OF 3 DAYS PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. CONTRACTOR SHALL VERIFY ALL LOCATIONS, DIMENSIONS AND ELEVATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL ADHERE TO ALL APPLICABLE TOWN OF OLD SAYBROOK STANDARDS AND REGULATIONS.
- ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF OLD SAYBROOK AND THE CUSTODIAL UTILITY COMPANIES. ALL UTILITY TRENCHES SHALL BE NO LESS THAN 5 FEET FROM THE SEPTIC SYSTEM AND NOT BACKFILLED WITH FREE DRAINING MATERIAL. ALL WATER LINES SHALL BE A MINIMUM OF 10 FEET FROM ANY PART OF THE SEPTIC SYSTEM OR SLEEVED ACCORDINGLY.
- ALL PROPERTY LINES SHALL BE VERIFIED IN THE FIELD. NO PRIVATE PROPERTY SHALL BE DISTURBED UNLESS PROPER RIGHTS ARE OBTAINED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONFIRM AND ABIDE BY ANY APPLICABLE "NO HAMMER" TIME PERIODS OF THE COMMUNITY.
- THE CONTRACTOR SHALL OBTAIN, REVIEW AND ADHERE TO ALL REQUIREMENTS AND ANY CONDITIONS OF APPROVAL OF THE TOWN OF OLD SAYBROOK AND THE CONNECTICUT RIVER AREA HEALTH DISTRICT (CRAHD).
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES FROM ANY EROSION AND/OR SEDIMENTATION. SILT FENCE SHALL BE INSTALLED AND MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION.
- THE PROPOSED DWELLING WILL NOT HAVE FOOTING DRAINS.
- ALL MECHANICALS AND STRUCTURAL MEMBERS SHALL BE INSTALLED AT OR ABOVE ELEVATION 13.0 (NAVD-88) IN ACCORDANCE WITH FEMA FLOOD REGULATIONS AND LOCAL FLOOD ORDINANCES.
- ALL EXISTING DRAINAGE PATTERNS SHALL BE MAINTAINED. THE CONTRACTOR SHALL GRADE THE PROPERTY IN SUCH A MANNER TO MAINTAIN EXISTING LOCAL DRAINAGE PATTERNS AND TO PREVENT EXCESS RUNOFF AND/OR PONDING ON ADJACENT PROPERTIES BOTH DURING AND AFTER CONSTRUCTION.
- GENERAL LOT GRADING AND THE FINISHED FLOOR ELEVATION OF THE PROPOSED HOUSE AND THE SLAB ELEVATION OF THE PROPOSED GARAGE ARE BASED ON AVAILABLE INFORMATION AND FLOOD REGULATIONS. THESE ELEVATIONS MAY NOT BE ADJUSTED BY THE CONTRACTOR WITHOUT REVIEW AND APPROVAL OF THE DESIGN ENGINEER AND PROJECT ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE THE EXISTING SEPTIC SYSTEM, PUMP THE SYSTEM DRY, AND REMOVE AND/OR PROPERLY ABANDON THE SYSTEM IN CONFORMANCE WITH ALL APPLICABLE CODES.
- THE PROPOSED ELECTRIC METER AND ALL PROPOSED MECHANICAL EQUIPMENT SHALL BE INSTALLED IN STRICT CONFORMANCE WITH ALL APPLICABLE CODES, SPECIFICATIONS, AND SEPARATION DISTANCES. THE ELECTRIC METER AND ALL PROPOSED MECHANICAL EQUIPMENT SHALL BE INSTALLED AT OR ABOVE ELEVATION 13.0 (NAVD-88) IN ACCORDANCE WITH FEMA FLOOD REGULATIONS AND LOCAL FLOOD ORDINANCES.
- REFER TO ARCHITECTURAL DRAWINGS (REF. B) FOR ALL INFORMATION REGARDING FLOOD VENTS, GRADING AROUND THE PERIMETER OF BUILDING SHALL CONFORM TO FEMA FLOOD VENTING REQUIREMENTS.

CONSTRUCTION SPECIFICATIONS

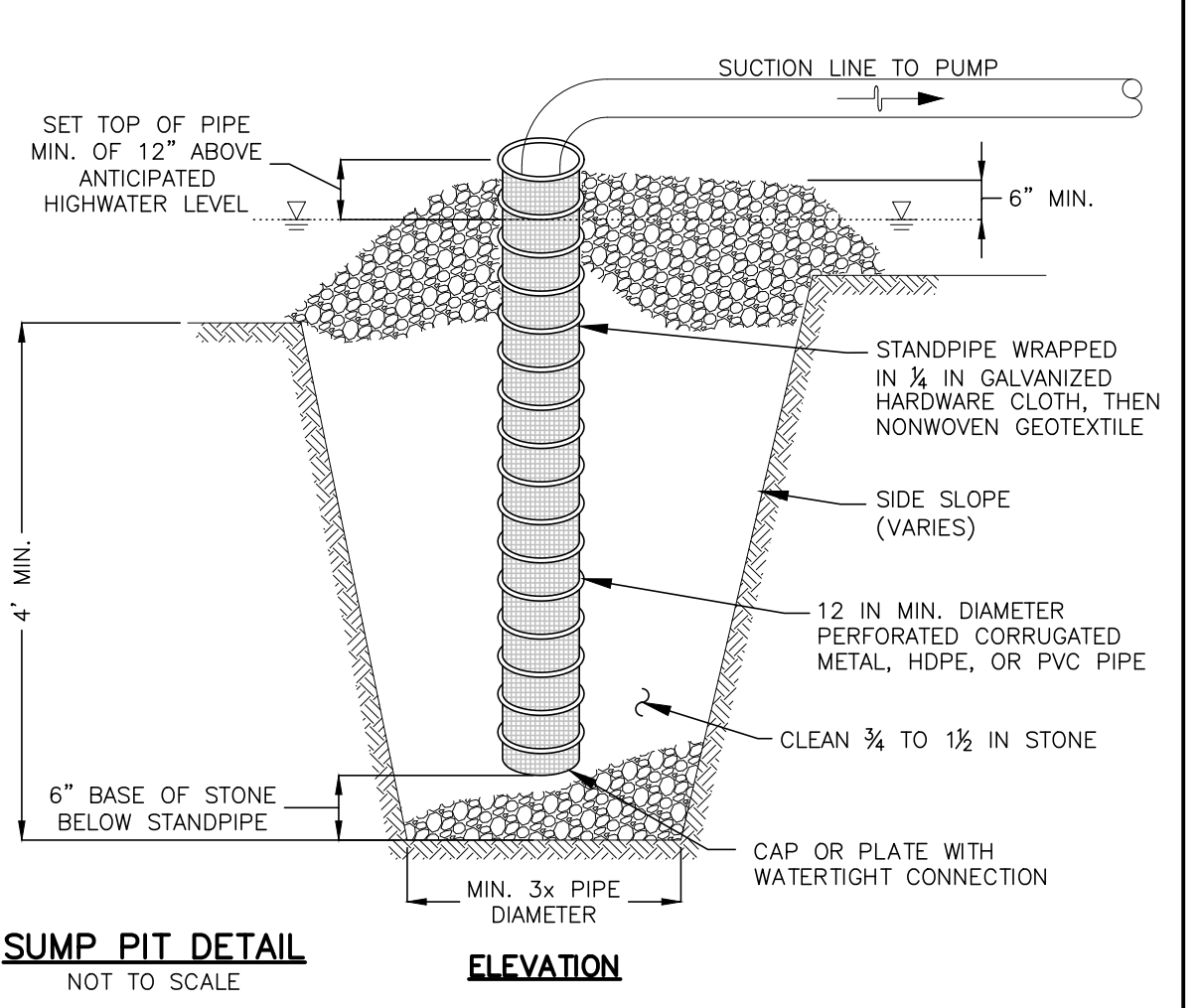
- TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
- PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
- CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
- REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
- USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT ²	ASTM D-4491
PERMITTIVITY (SEC ⁻¹)	1.2 SEC ⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632
- REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.



CONSTRUCTION SPECIFICATIONS

- USE 12 INCH OR LARGER DIAMETER CORRUGATED METAL, HDPE, OR PVC PIPE WITH 1 INCH DIAMETER PERFORATIONS, 6 INCHES ON CENTER. BOTTOM OF PIPE MUST BE CAPPED WITH WATER TIGHT SEAL.
 - WRAP PIPE WITH 1/2 INCH GALVANIZED HARDWARE CLOTH AND WRAP NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, OVER THE HARDWARE CLOTH.
 - EXCAVATE PIT TO THREE TIMES THE PIPE DIAMETER AND FOUR FEET IN DEPTH. PLACE 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE, 6 INCHES IN DEPTH PRIOR TO PIPE PLACEMENT.
 - SET TOP OF PIPE MINIMUM 12 INCHES ABOVE WATER SURFACE ELEVATION.
 - BACKFILL PIT AROUND THE PIPE WITH 3/4 TO 1 1/2 INCH CLEAN STONE OR EQUIVALENT RECYCLED CONCRETE AND EXTEND STONE A MINIMUM OF 6 INCHES ABOVE ANTICIPATED WATER SURFACE ELEVATION.
 - DISCHARGE TO A STABLE AREA AT A NONEROSIVE RATE.
 - A SUMP PIT REQUIRES FREQUENT MAINTENANCE. IF SYSTEM CLOGS, REMOVE PERFORATED PIPE AND REPLACE GEOTEXTILE AND STONE. KEEP POINT OF DISCHARGE FREE OF EROSION.
- THIS DETAIL ONLY REQUIRED FOR DEWATERING DURING CONSTRUCTION IF SHALLOW GROUNDWATER IS ENCOUNTERED.



ZONING DATA TABLE

OLD SAYBROOK RESIDENCE 'A' DISTRICT			
ITEM	REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA	12,500 S.F. (1)	2,974 S.F. (6)	2,974 S.F. (NO CHANGE) (6)
MIN. FRONTAGE	50 FT.	34.98 FT. (6)	34.98 FT. (NO CHANGE) (6)
MIN. WIDTH ALONG BUILDING LINE	100 FT.	5.0± FT. (2) (6)	5.0± FT. (NO CHANGE) (2) (6)
STREET LINE SETBACK (MIDDLETOWN AVENUE)	25 FT.	19.0± FT. (EX. PORCH) (6) 23.6± FT. (EX. EAVE) (6) 24.8± FT. (EX. HOUSE) (6)	29.3 FT. (PR. EAVE) 30.3 FT. (PR. HOUSE)
SIDE YARD SETBACK (NORTHERN BOUNDARY)	15 FT.	1.5± FT. (EX. SHED) (6) 8.5± FT. (EX. EAVE) (6) 9.6± FT. (EX. HOUSE) (6) 10.8± FT. (EX. DECK) (6)	8.1 FT. (PR. EAVE) (7) 9.1 FT. (PR. HOUSE) (7) 9.1 FT. (PR. DECK) (7)
SIDE YARD SETBACK (SOUTHERN BOUNDARY)	15 FT.	1.7± FT. (EX. EAVE) (6) 2.7± FT. (EX. HOUSE) (6) 3.4± FT. (EX. DECK) (6)	2.5 FT. (PR. STEPS) (7) 4.9 FT. (PR. EAVE) (7) 5.9 FT. (PR. HOUSE) (7)
REAR YARD SETBACK (EASTERN BOUNDARY)	15 FT.	0.7± FT. (EX. SHED) (6) 15.4± FT. (EX. STEPS) 26.5± FT. (EX. EAVE) 27.7± FT. (EX. HOUSE)	15.1± FT. (PR. DECK) 20.1± FT. (PR. EAVE) 21.1± FT. (PR. HOUSE)
MAX. # OF STORIES	2 1/2 STORY	1 STORY (EX. HOUSE)	2 STORIES (PR. HOUSE)
MAX. BUILDING HEIGHT	35 FT.	<35 FT. (EX. HOUSE) (3)	34.9 FT. (PR. HOUSE) (3)
MAX. GROSS FLOOR AREA	40% (1,190 S.F.)	±25.4% (756± S.F.) (4)	39.5% (1,176 S.F.) (+14.1% (+420 S.F.)) (4)
MAX. BUILDING/STRUCTURE COVERAGE	20% (595 S.F.)	±34.9% (1,039± S.F.) (5) (6)	26.1% (776 S.F.) (-8.8% (-263 S.F.)) (5) (7)

- NON-CONFORMING LOT OF RECORD SERVED BY PUBLIC WATER.
- THE MINIMUM WIDTH ALONG BUILDING LINE IS MEASURED ALONG THE STREET LINE SETBACK, LESS SIDE YARD SETBACKS.
- EXISTING BUILDING HEIGHT IS UNKNOWN. THE MAXIMUM PROPOSED BUILDING HEIGHT WAS ESTIMATED PER ARCHITECTURAL PLANS (REF. B) AND IS MEASURED FROM THE AVERAGE EXISTING GRADE AT THE PERIMETER OF THE PROPOSED BUILDING (EL. ±6.2) TO THE HIGHEST ROOF ELEVATION (MAX. ROOF RIDGE ELEV. = 41.1 FT.).
- PER TOWN OF OLD SAYBROOK ZONING REGULATIONS GROSS FLOOR AREA SHALL NOT INCLUDE UNROOFED PORCHES, STAIRWELLS OR ANY AREA INCAPABLE OF BEING USED FOR HUMAN OCCUPANCY. EXISTING GROSS FLOOR AREA WAS ESTIMATED PER ASSESSORS INFORMATION AND INCLUDES THE MAIN HOUSE, COVERED PORCH & SHED. PROPOSED GROSS FLOOR AREA WAS ESTIMATED PER ARCHITECTURAL DRAWINGS (REF. B).
- SEE BUILDING/STRUCTURE COVERAGE TABLES FOR MORE INFORMATION.
- EXISTING NON-COMFORMITY.
- VARIANCE REQUESTED. SHOWN IN BOLD FOR CLARITY.

PLAN PREPARED BY:
INDIGO LAND DESIGN, LLC
JOSEPH WREN, P.E.
CT REG. NO. 21090
INDIGO LAND DESIGN, LLC
200 S. MAIN STREET, 2ND FLOOR
OLD SAYBROOK, CT 06475
PHONE: (860) 388-9343
WEB: INDIGO-LAND.COM

THE EMBOSSED SEAL OF
INDIGO LAND DESIGN, LLC
MAY BE AFFIXED HERE FOR THIS
MAP TO BE VALID

#	DATE	DESCRIPTION
1	4/11/24	MINOR REVISIONS FOR ZBA SUBMITTAL
		CO BY

COASTAL SITE PLAN
PREPARED FOR REDLINE ENTERPRISES, LLC
102 MIDDLETOWN AVENUE, MAP 13 LOT 144
OLD SAYBROOK, CONNECTICUT

DATE: MARCH 26, 2024
SCALE: 1"=10'
DRAWN BY: CO
CHECKED BY: JW
DWG. NO.: CSP-1
SHEET NO.: 1 of 2
JOB NO.: 2021-754

DEEP TEST PIT DATA

DATE: 12/28/23
WITNESSED BY: JOE WREN, P.E. (INDIGO)
GREG MATUS, R.S. (CRAHO)
EXCAVATED BY: BRENDAN APPELBY

Table with 2 columns: TP #1, TP #2. Rows include depth (0-13", 13-30", 30-36", 36-57"), soil type, and groundwater observations.

Table with 2 columns: TP #1, TP #2. Rows include depth (0-16", 16-32"), soil type, and groundwater observations.

PERCOLATION TEST DATA

CONDUCTED BY: CAROLINE OHAGAN (INDIGO)

PERC A table with columns: TIME (MIN.), DEPTH (INCHES), DROP (INCHES), PERC RATE (MIN./INCH). Includes a note: PERCOLATION RATE = 1.0-10.0 MIN./INCH

GENERAL NOTES (SEPTIC SYSTEM):

- 1. THE APPLICANT IS PROPOSING TO DEMOLISH THE EXISTING 2-BEDROOM YEAR-ROUND DWELLING...
2. THIS PROPERTY WILL BE SERVED BY PUBLIC WATER AND A SUBSURFACE SEWAGE DISPOSAL SYSTEM...
3. THE USE OF A GARBAGE DISPOSAL IS NOT RECOMMENDED...
4. ALL UTILITIES SHALL BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF OLD SAYBROOK...

GENERAL CONSTRUCTION NOTES (SEPTIC SYSTEM):

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT CONNECTICUT PUBLIC HEALTH CODE, AS AMENDED.
2. A LICENSED SURVEYOR SHALL FIELD STAKE THE SEPTIC SYSTEM PRIOR TO CONSTRUCTION.
3. NO WORK SHALL COMMENCE IN THE SYSTEM AREA UNTIL A SEPTIC PERMIT HAS BEEN TAKEN OUT BY THE LICENSED INSTALLER.
4. THE LICENSED INSTALLER SHALL PERFORM SITE PREPARATION AND SHOULD CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455 TO VERIFY ALL UTILITY LOCATIONS PRIOR TO ANY CONSTRUCTION...

SANITARY SYSTEM DESIGN CRITERIA

Table with columns: DESIGN PERCOLATION RATE, # OF BEDROOMS, REQUIRED LEACHING AREA, LEACHING SYSTEM TYPE, LEACHING AREA PROVIDED, REQ'D TANK CAPACITY, TANK CAPACITY PROVIDED.

- (1) DESIGN PERCOLATION RATE OF LESS THAN 10.0 MINS. PER INCH USED PER FIELD MEASUREMENTS.
(2) SEE GENERAL NOTE #3 ON THIS SHEET

SANITARY SYSTEM PIPE INVERT TABLE

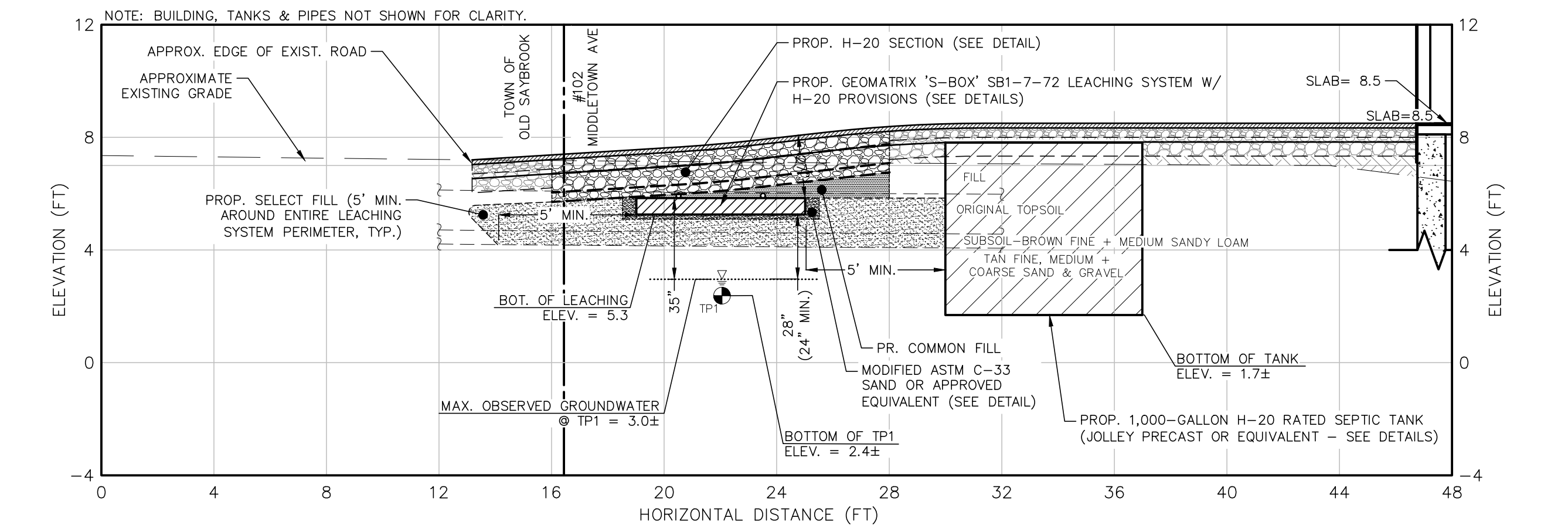
Table with columns: STRUCTURE, BUILDING TO SEPTIC TANK, SEPTIC TANK, LEACHING ROW. Rows show invert elevations in feet.

- (1) FOR ALL PIPE, A MIN. OF 12" OF COVER IS RECOMMENDED.
(2) PIPE SLOPE = (7.00-6.40) / 10.0 FT. = 6.0% > 2.08%
(3) BOTTOM OF LEACHING SYSTEM SHALL BE SET LEVEL AND AT ELEVATION 5.3'

MLSS COMPUTATIONS

Table with columns: RECEIVING SOIL, # OF BEDROOMS, PERCOLATION RATE, HYDRAULIC GRADIENT, FLOW FACTOR (FF), PERCOLATION FACTOR (PF), MLSS REQUIRED (HF x FF x PF), MLSS PROVIDED.

- (1) DESIGN PERCOLATION RATE OF 1.0-10.0 MINS. PER INCH USED BASED ON FIELD MEASUREMENTS.
(2) BASED ON THE SITE'S LOCATION WITH TIDAL WATER ON THREE SIDES (LONG ISLAND SOUND, OYSTER RIVER AND MUD CREEK), AND OTHER TESTING IN THE VICINITY, HYDRAULIC GRADIENT IS ESSENTIALLY FLAT.
(3) THE PERIMETER OF THE LEACHING SYSTEM SHALL BE USED TO COMPUTE M.L.S.S. PROVIDED DUE TO FLAT GROUNDWATER.
(4) PER CT PUBLIC HEALTH CODE, THE RECEIVING SOIL DEPTH IS THE AVERAGE DEPTH OF RECEIVING SOIL MEASURED DOWN TO THE RESTRICTIVE LAYER AND SHALL BE BASED ON SOIL INFO WITHIN THE LEACHING SYSTEM AREA AND 25 FT. DOWNGRADIENT.



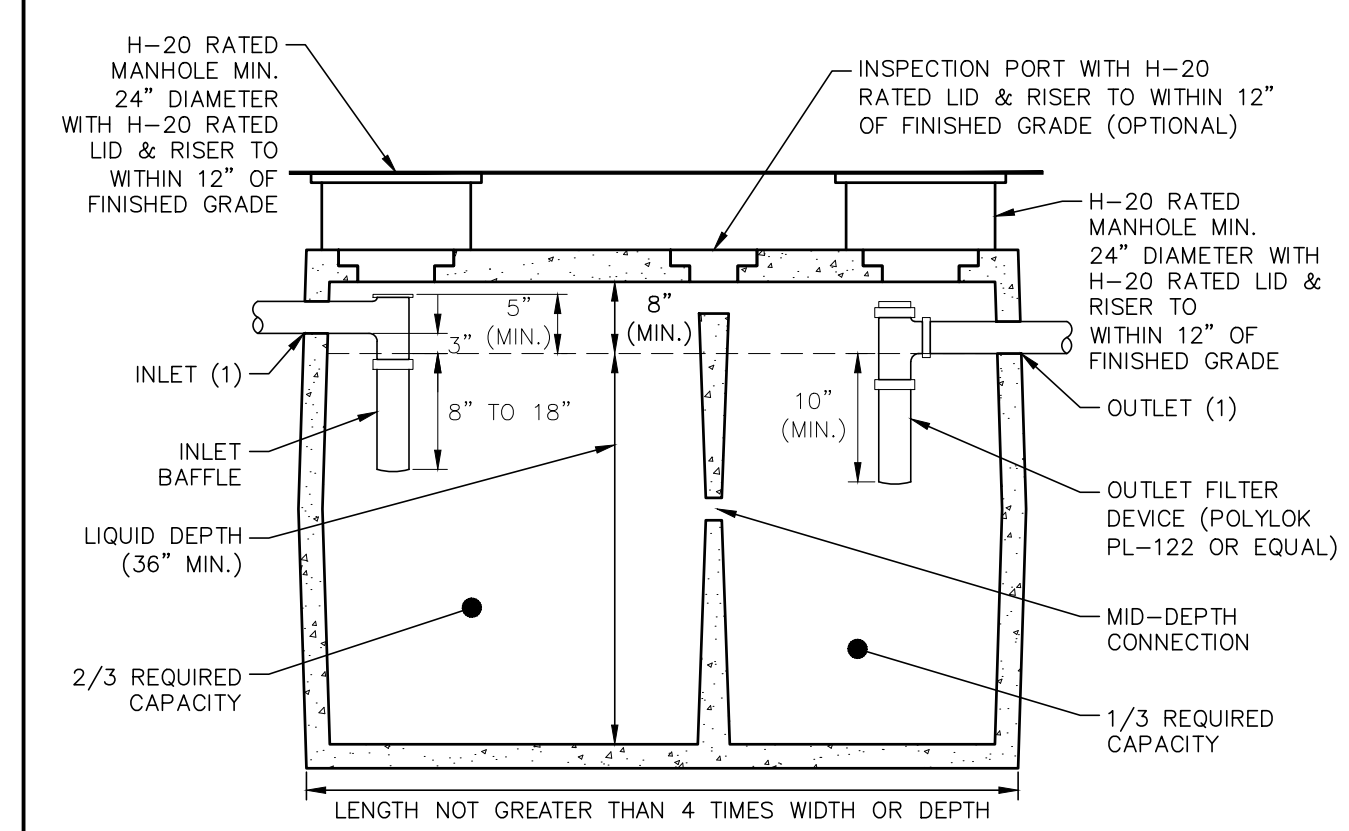
PROPOSED LEACHING SYSTEM PROFILE - X-SECTION A-A
HORIZ. SCALE = VERT. SCALE = 1"=4"

SEPTIC TANK BUOYANCY CALCULATIONS:

WEIGHT OF EMPTY H-20 RATED 1,000-GAL. CONCRETE SEPTIC TANK = 20,000 LBS. (JOLLEY PRECAST)
WEIGHT OF SOIL OVERBURDEN = 6" (MIN.) SOIL x 49.0 S.F. SURFACE AREA OF TANK x 100 P.C.F. = 2,450.0 LBS.
TOTAL WEIGHT OF EMPTY SEPTIC TANK AND SOIL OVERBURDEN = 22,450.0 LBS.
VOLUME OF H-20 RATED 1,000-GAL. CONCRETE SEPTIC TANK = 302.17 C.F. (JOLLEY PRECAST)
PROPERTY IS LOCATED WITHIN A FLOOD ZONE -- ASSUME SEPTIC TANK IS 100% SUBMERGED
TOTAL VOLUME OF DISPLACED GROUNDWATER = (100% x 302.17 C.F.) = 302.17 C.F.
TOTAL WEIGHT OF DISPLACED GROUNDWATER = (302.17 C.F. x 62.4 LBS./C.F.) = 18,855.2 LBS.
TOTAL ACTUAL WEIGHT (ASSUMING AN EMPTY TANK) WITH 6" SOIL OVERBURDEN OVER TANK IS GREATER THAN THE WEIGHT OF THE DISPLACED GROUNDWATER -- BUOYANCY 0.K.

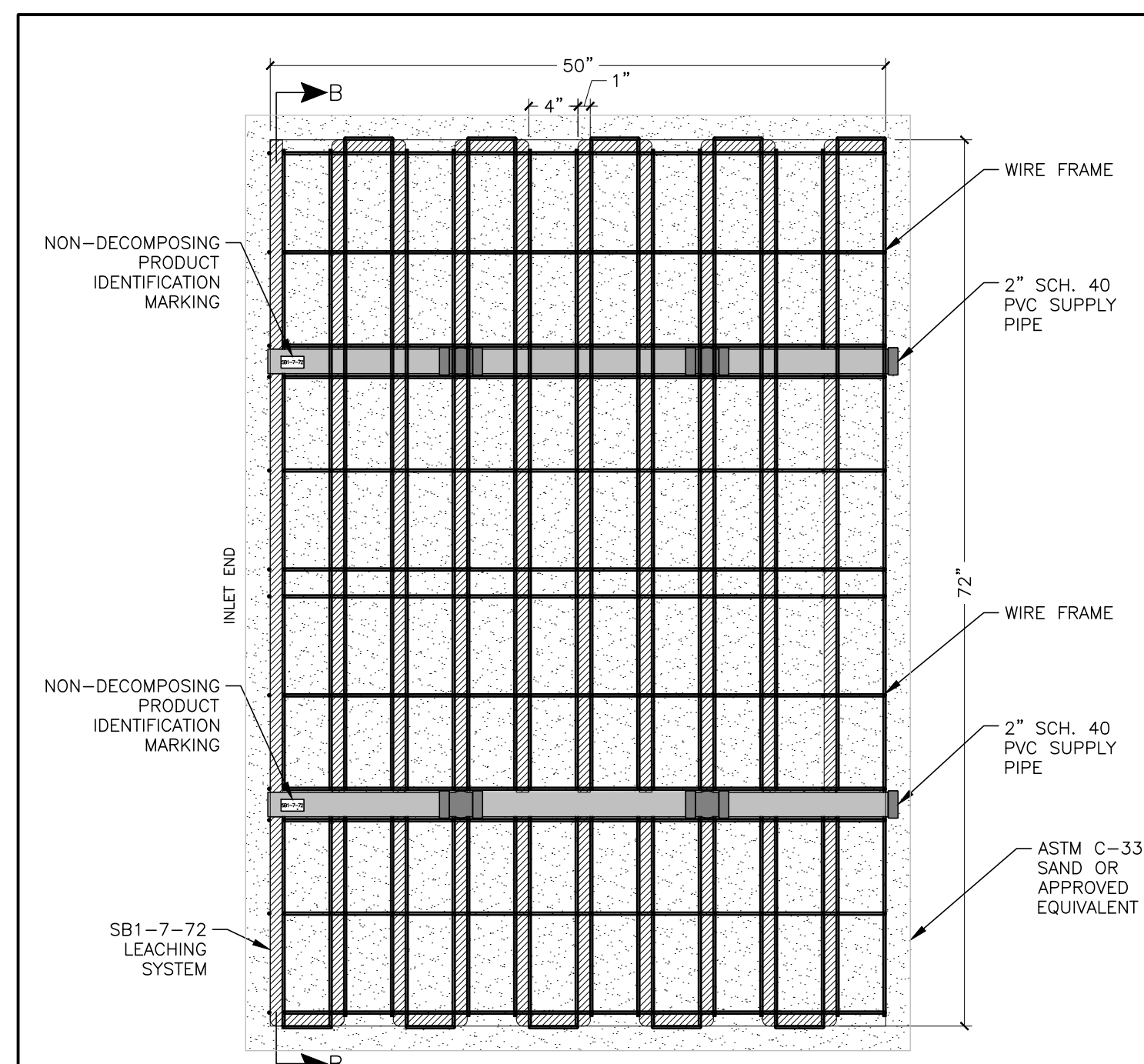
CONTRACTOR SHALL VERIFY THAT THE SEPTIC TANK USED MATCHES THE VOLUME AND WEIGHT GIVEN ABOVE OR SHALL PROVIDE REVISED BUOYANCY COMPUTATIONS ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 6 INCHES OF SOIL OVER THE TOP OF THE SEPTIC TANK.

SEPTIC TANK & PUMP CHAMBER BUOYANCY COMPUTATIONS

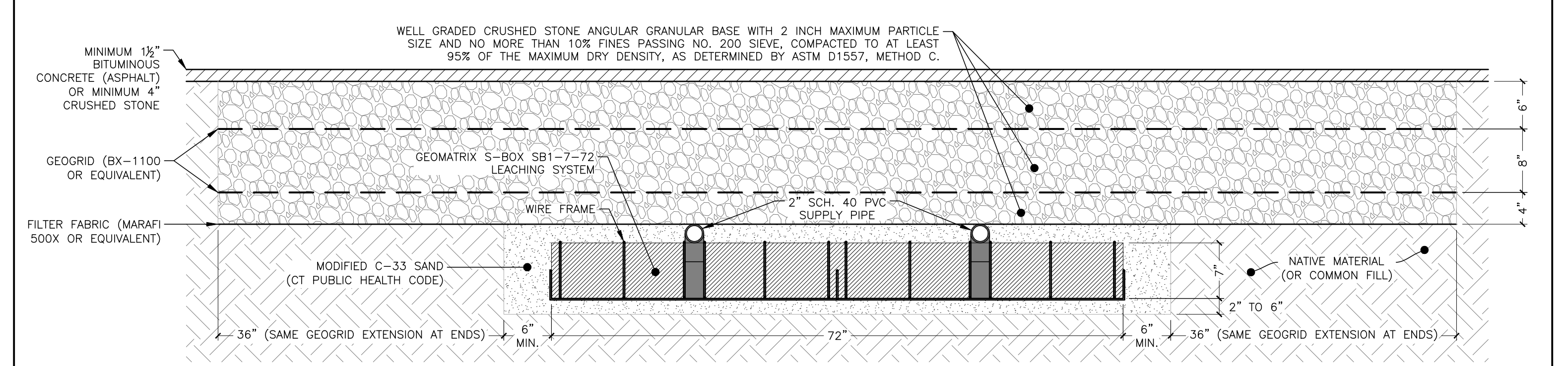


1,000-GALLON H-20 CONCRETE SEPTIC TANK DETAIL
NOT TO SCALE

- 1. INLET AND OUTLET PIPING SHALL BE AS LEVEL AS POSSIBLE AND SHALL NOT EXCEED 1/4" PER FOOT.
2. ALL TANKS REQUIRING RISERS SHALL MAINTAIN THE ORIGINAL COVERS ON THE TANKS, HAVE RISER COVERS THAT WEIGH AT LEAST 100 LBS AND INSTALL A SAFETY DEVICE BELOW THE RISER TO PREVENT INDIVIDUALS FROM FALLING INTO A TANK. IF THE RISER COVERS WEIGH LESS THAN 100 LBS THEN THE TANK COVER SHALL REMAIN IN PLACE OR A SECONDARY SAFETY LID OR DEVICE SHALL BE PROVIDED. ALL BELOW GRADE TANK OR RISER COVER HANDLES SHALL CONTAIN OR BE FITTED WITH A MATERIAL THAT CAN BE LOCATED WITH A METAL DETECTOR.
3. SEPTIC TANKS ARE AVAILABLE IN NUMEROUS SIZES AND DIMENSIONS FROM APPROVED MANUFACTURERS. THE LICENSED INSTALLER SHALL CONFIRM THAT THE SELECTED SEPTIC TANK SHALL BE CONSISTENT WITH THE DIMENSIONS INCLUDED ON THE PLAN AND SHALL MEET ALL CT PUBLIC HEALTH CODE REQUIREMENTS. IF TANK DIMENSIONS DO NOT MATCH THOSE INCLUDED ON THE APPROVED PLAN, THE INSTALLER SHALL REVIEW WITH THE DESIGN ENGINEER PRIOR TO ORDERING THE TANK.



GEOMATRIX SB1-7-72 LEACHING SYSTEM - PLAN VIEW
NOT TO SCALE



GEOMATRIX SB1-7-72 LEACHING SYSTEM W/ H-20 PROVISIONS - SECTION B-B
NOT TO SCALE

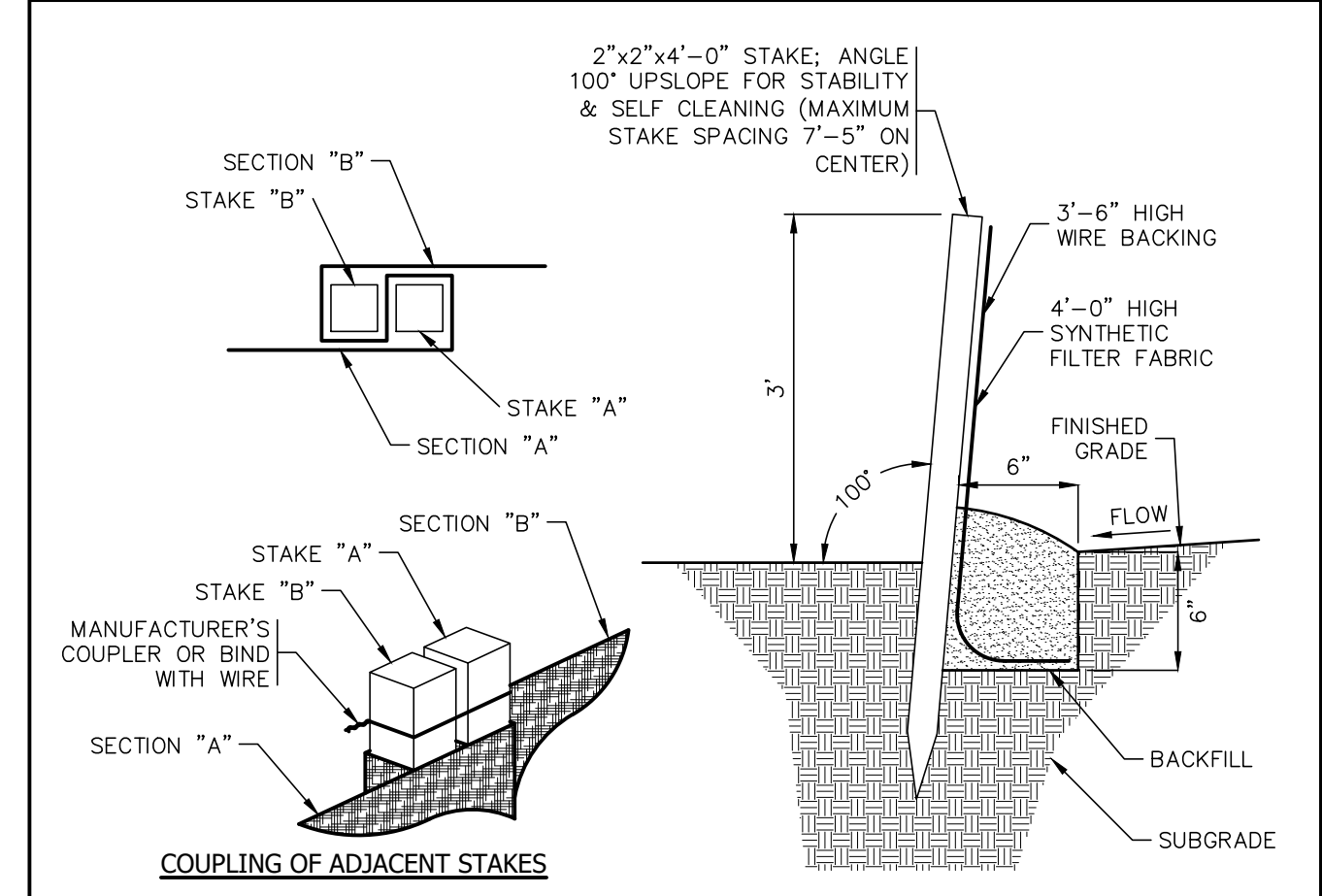
FILL AND GRADING NOTES (SEPTIC SYSTEM):

- 1. REMOVE ALL TOPSOIL AND/OR FILL WITHIN THE SYSTEM AREA AND SCARIFY THE SURFACE IN THE PROPOSED LEACHING SYSTEM AREA PRIOR TO PLACING ANY SELECT FILL MATERIAL. AVOID COMPACTING THE SCARIFIED AREA. FILL SHALL NOT BE PLACED OVER SNOW OR FROZEN GROUND. DISCONTINUE FILL PLACEMENT DURING HEAVY RAINFALL AND A MINIMUM OF 24 HOURS THEREAFTER. THE SELECT FILL MATERIAL SHALL BE PLACED IN 12" LIFTS AND COMPACTED TO 90% DENSITY.
2. SELECT FILL MATERIAL SHALL CONSIST OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE SELECT FILL MATERIAL SHALL MEET THE REQUIREMENTS OF THE PUBLIC HEALTH CODE PROVIDED IN THE TABLE ON THIS SHEET.
3. THE LICENSED INSTALLER SHALL BE RESPONSIBLE FOR PREPARING THE LEACHING AREA UTILIZING THE SELECT FILL MATERIAL.
4. ALL NECESSARY STEPS SHALL BE TAKEN TO PROTECT THE UNDERLYING NATURALLY OCCURRING SOILS FROM OVER COMPACTION AND SILTATION ONCE EXPOSED.
5. THE CONTRACTOR SHALL PROVIDE GRADATION SPECIFICATIONS OF THE SELECT FILL MATERIAL TO BE USED FOR THE PROPOSED SEPTIC SYSTEM TO THE DESIGN ENGINEER AND TOWN SANITARIAN PRIOR TO ORDERING AND INSTALLATION.

SELECT FILL GRADATION TABLE

Table with columns: SIEVE SIZE, WET SIEVE, PERCENT PASSING, DRY SIEVE.

* PERCENT PASSING THE #40 SIEVE CAN BE INCREASED TO NO GREATER THAN 75% IF THE PERCENT PASSING THE #100 SIEVE DOES NOT EXCEED 10% AND THE #200 SIEVE DOES NOT EXCEED 5%.
** A SIEVE ANALYSIS FOR THE SELECT FILL MATERIAL SHALL BE PROVIDED TO THE DESIGN ENGINEER. ONLY THE DESIGN ENGINEER MAY APPROVE SELECT FILL MATERIAL NOT IN COMPLIANCE WITH THE GRADATION TABLE IF THE MATERIAL PASSING THE #200 SIEVE DOES NOT EXCEED 6% BASED ON WET SIEVE.



SILT FENCE BARRIER
NOT TO SCALE

- 1. ALL SILT FENCE SHALL BE INSPECTED PERIODICALLY AND AFTER ALL RAINFALL EVENTS. REPAIRS SHALL BE MADE IMMEDIATELY TO KEEP THE SILTATION CONTROL BARRIER EFFECTIVE.

INDIGO logo and contact information: PLANT PREPARED BY: INDIGO LAND DESIGN, LLC. JOSEPH WREN, P.E. CT REG. NO. 21090. 100 FLORENCE AVENUE, SUITE 200, OLD SAYBROOK, CT 06475. PHONE: (860) 388-9343. WEB: INDIGOLAND.COM

Table with columns: #, DATE, DESCRIPTION. Row 1: 1, 4/11/24, MINOR REVISIONS FOR ZBA SUBMITTAL.

SOIL TEST DATA & SEPTIC DESIGN CRITERIA
PREPARED FOR REDLINE ENTERPRISES, LLC
102 MIDDLETOWN AVENUE, MAP 13 LOT 144
OLD SAYBROOK, CONNECTICUT
DATE: MARCH 26, 2024
SCALE: AS NOTED
DRAWN BY: CO
CHECKED BY: JW
DWG. NO.: ST-1
SHEET NO.: 2 of 2
JOB NO.: 2021-754