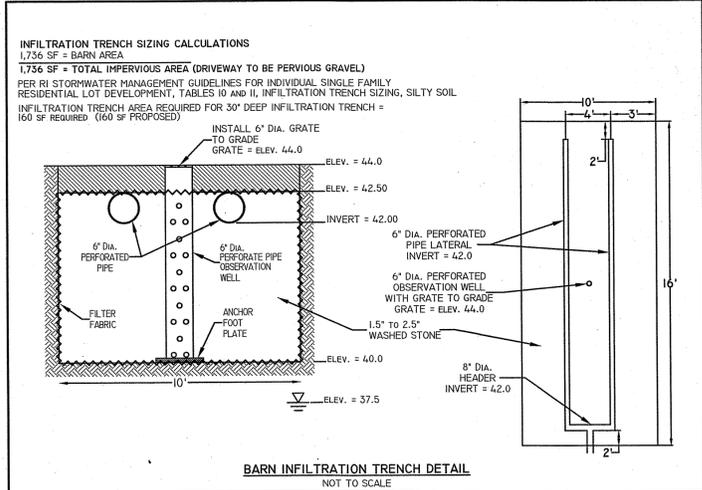
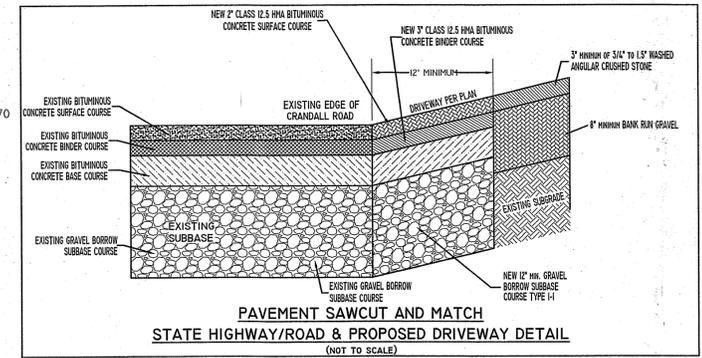
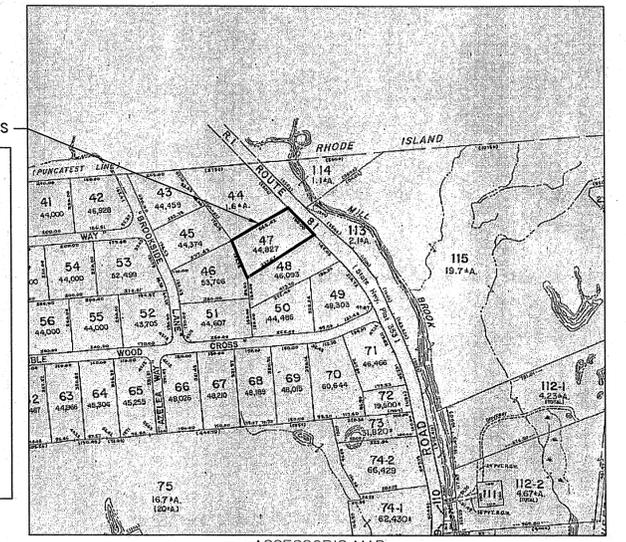
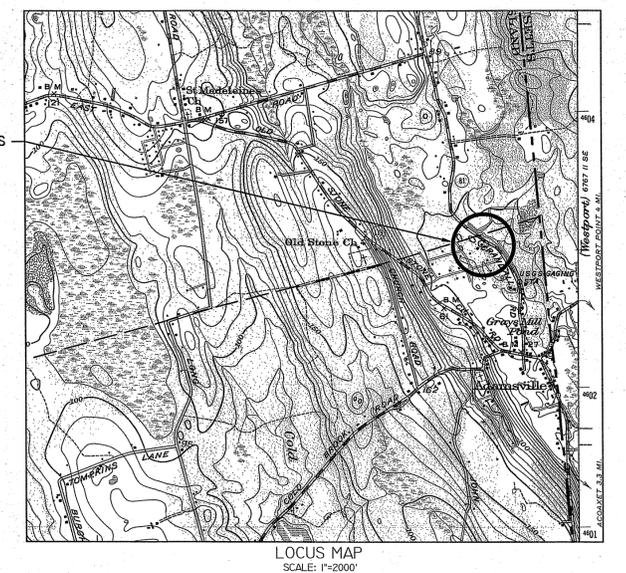
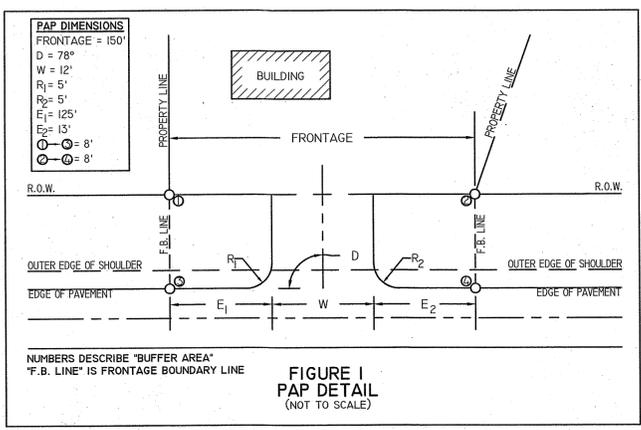


RIDOT NOTES:

1) ALL WORK TO BE DONE WITHIN THE STATE HIGHWAY RIGHT OF WAY (R.O.W.) SHALL CONFORM TO THE RHODE ISLAND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION (AMENDED MARCH 2018) WITH ALL REVISIONS AND ADDENDA. STANDARD DETAILS FOR THIS WORK ARE RHODE ISLAND STANDARD DETAILS 1998 EDITION (AMENDED JUNE 2019) WITH ALL REVISIONS.

2) ALL TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 2009 EDITION, INCLUDING ALL REVISIONS.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL

OWTSP# 1818-1349 PWW# 21-0194
APPROVED: [Signature] DATE 8/15/23
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site

RI Environmental Management
JUN 22 2023
Office of Water Resources

PROPOSED OWTS AND FRESH WATER WETLANDS PLAN
PREPARED FOR
JASON & KADIE SALFI
ASSESSOR'S PLAT 42 LOT 47
9 CRANDALL ROAD
LITTLE COMPTON, RHODE ISLAND

SCALE: 1" = 30' DATE: NOVEMBER 28, 2022

Civil Engineering Concepts, Inc.
34A MAIN STREET
LITTLE COMPTON, RI 02857
PH: (401) 592-0177
FAX: (401) 592-0178
EMAIL: wsmithcec@aol.com

WILLIAM F. SMITH
No. 05084
REGISTERED PROFESSIONAL ENGINEER

3) 5/24/23: HOUSE AND STORMWATER EDITS
2) 1/19/23: HOUSE AND OWTS EDITS
1) 1/19/23: EDITS PER RIDOT

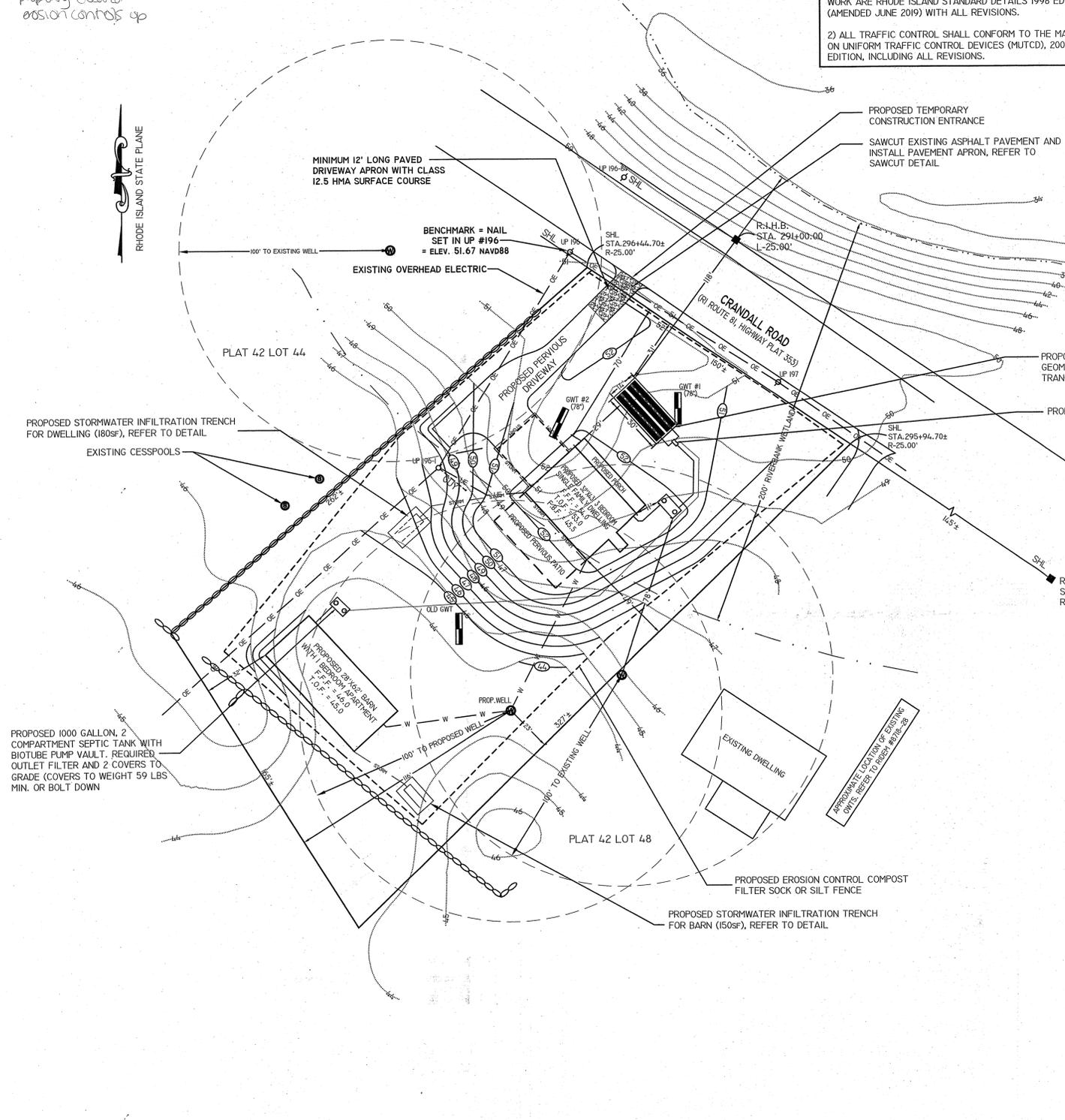
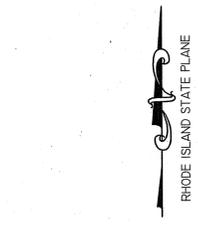


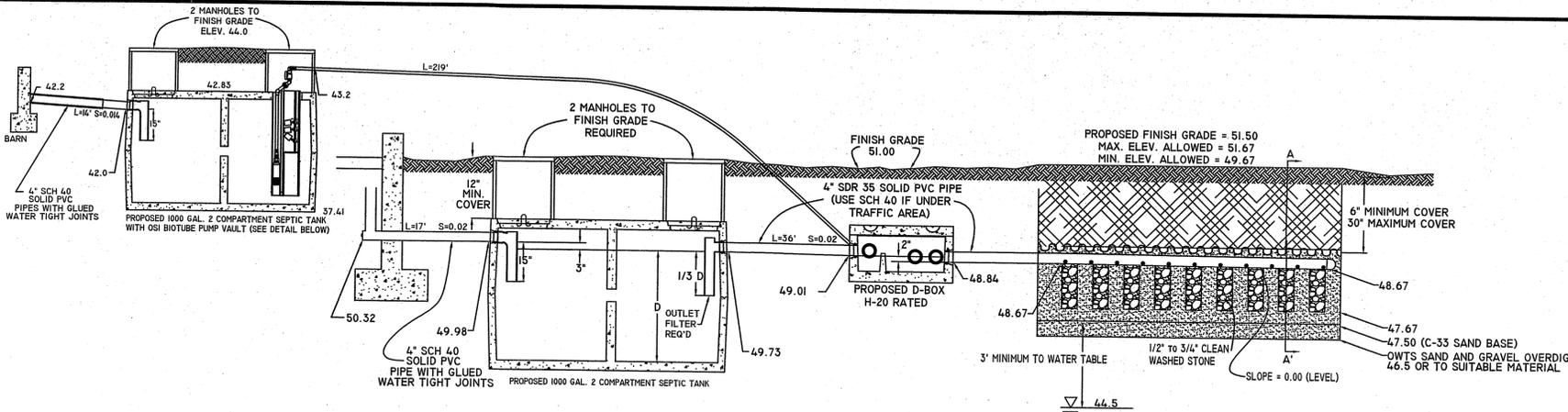
NOTE: EXCAVATE BELOW TRENCHES TO ELEV 47.0 OR UNTIL SUITABLE MATERIAL. BACKFILL WITH OWTS SAND AND GRAVEL TO ELEV. 50.0

NO FOUNDATION DRAIN PROPOSED OR ALLOWED

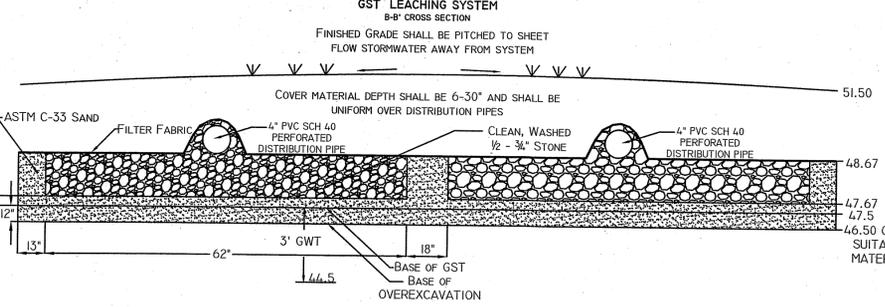
well installed property cleared erosion controls up

- LEGEND**
- 20 — EXISTING CONTOUR
 - 20 — PROPOSED CONTOUR
 - ○ ○ ○ ○ STONE WALL
 - - - - - APPROXIMATE DELINEATED STREAM
 - - - - - APPROXIMATE 200' RIVERBANK WETLAND
 - OE — OVERHEAD ELECTRIC
 - GWT — SOIL EVALUATION TEST PIT
 - ○ ○ ○ ○ EXISTING OWTS COVER
 - W — WATER LINE
 - UE — PROPOSED UNDERGROUND ELECTRIC LINE FROM UP 196-1 TO HOUSE
 - - - - - PROPOSED SILT FENCE OR COMPOST FILTER SACK
 - SHL — STATE HIGHWAY LINE

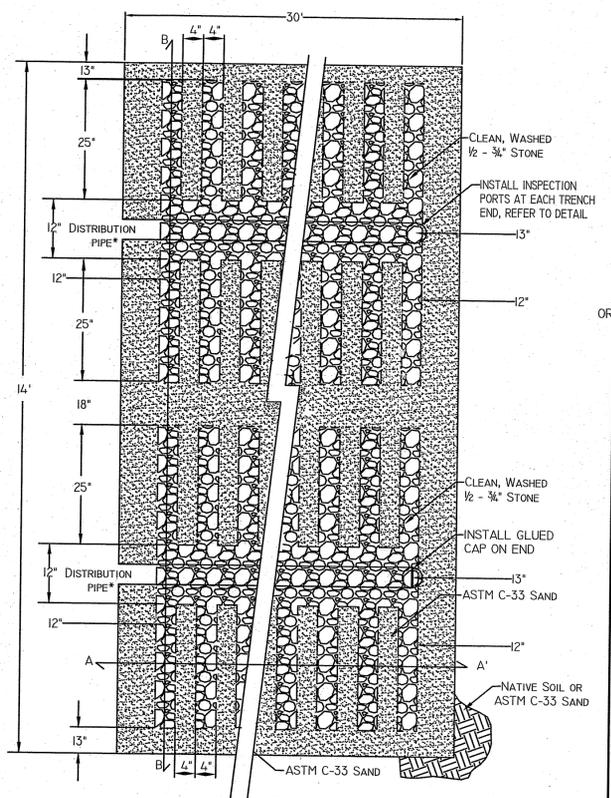




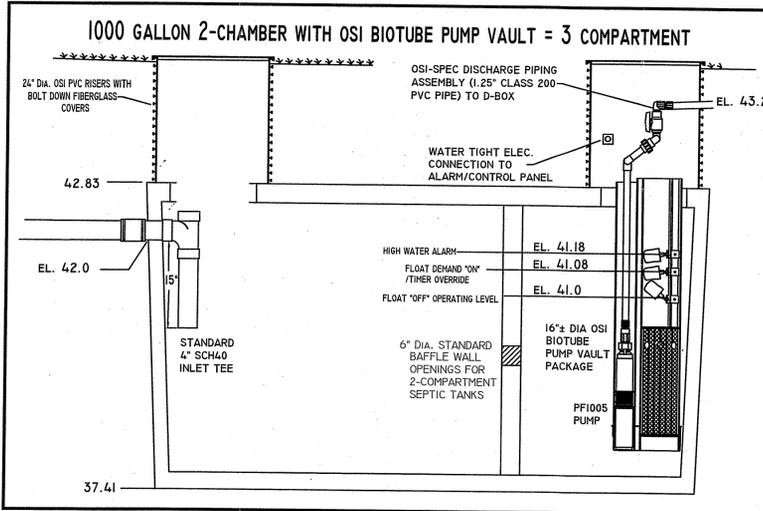
SYSTEM PROFILE
NOT TO SCALE



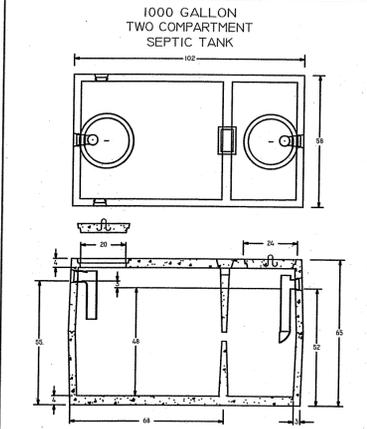
GST LEACHING SYSTEM



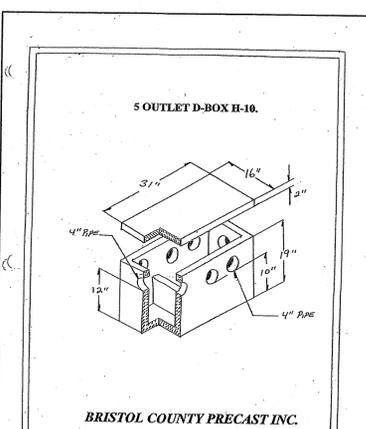
GEOMATRIX GST LEACHING SYSTEM
A-A CROSS SECTION



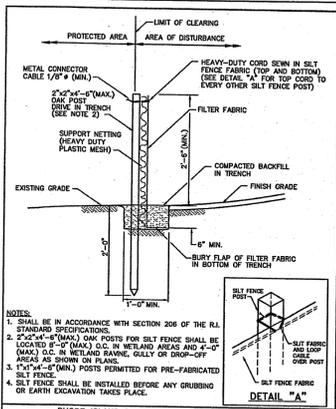
1000 GALLON 2-CHAMBER WITH OSI BIOTUBE PUMP VAULT = 3 COMPARTMENT



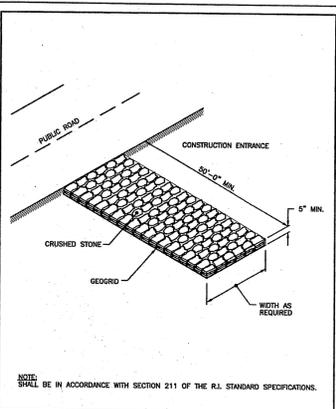
1000 GALLON TWO COMPARTMENT SEPTIC TANK



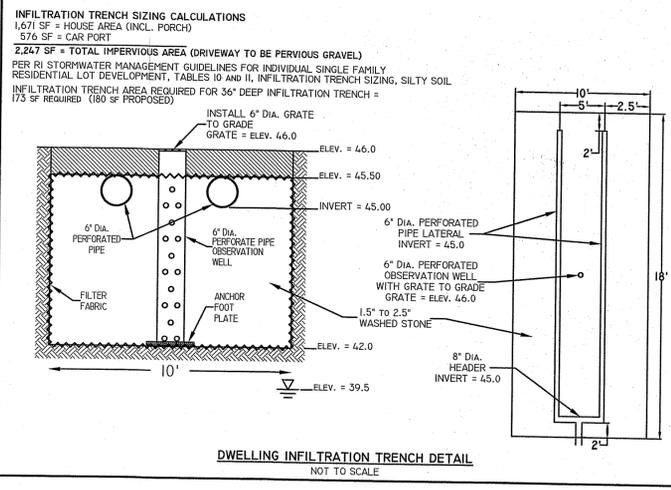
5 OUTLET D-BOX H-10



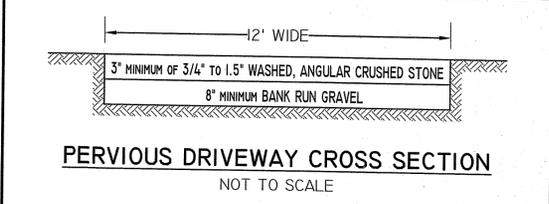
SILT FENCE DETAIL



CONSTRUCTION ACCESS



DWELLING INFILTRATION TRENCH DETAIL
NOT TO SCALE



PERVIOUS DRIVEWAY CROSS SECTION
NOT TO SCALE

WILLIAM F. SMITH
No. 45084
REGISTERED PROFESSIONAL ENGINEER

3) 5/24/23: HOUSE AND STORMWATER EDITS
2) 2/22/23: HOUSE AND OWTS EDITS
1) 1/19/22: NO CHANGES THIS SHEET
REVISIONS:

BASIS OF SANITARY DESIGN
NUMBER OF BEDROOMS: 4 PROPOSED (1 BEDROOM APARTMENT)
GARAGE GRINDER: NOT ALLOWED
WATER SOFTENER: NOT ALLOWED
JACUZZI/HOT TUB: NOT ALLOWED
ESTIMATED SEWAGE FLOW: 460 GALLONS PER DAY
SIZE OF SEPTIC TANK: 1000 GALLONS/1000 GALLON W/ BIOTUBE
DESIGN PERCOLATION RATE: SOIL CATEGORY 7 = 0.52 GAL/SF/DAY
LEACHING AREA PROVIDED: 2 GEOMATRIX GST 62 1/2 TRENCH SYSTEMS AT 30' LONG (7.5 SF/EFFECTIVE LEACHING CREDITS/SF) = 1,050 SF (885 SF REQUIRED)
SYSTEM CAPACITY: 1,050 SF x 0.52 GALLONS/SF/DAY = 546 GALLONS PER DAY

FINISHED FIRST FLOOR (DWELLING) 54.0
TOP OF FOUNDATION (DWELLING) 53.5
TOP OF FOUNDATION (BARN) 46.0
INVERT AT DWELLING 50.32
INVERT AT BARN 42.20
INVERT INTO SEPTIC TANK (BARN) 42.00
INVERT OUT OF SEPTIC TANK (BARN) 43.20 (THRU RISER)
HIGH WATER ALARM 41.18
PUMP "ON" 41.08
PUMP "OFF" 41.00
INVERT INTO SEPTIC TANK (DWELLING) 49.98
INVERT OUT OF SEPTIC TANK (DWELLING) 48.73
INVERT INTO D-BOX 49.01
INVERT OUT OF D-BOX 48.84
INVERT AT BEGINNING OF GST TRENCH 48.67
INVERT AT END OF GST TRENCH 48.67
BOTTOM OF GST TRENCH SYSTEM 47.50
BOTTOM OF ASTM C-33 SAND 46.50
ELEVATION OF WATER TABLE 47.50
EXISTING AVERAGE GRADE AT OWTS 52.0

****NOTE: ELEVATIONS ARE BASED ON CONVENTIONAL DWELLING. NOTIFY DESIGNER OF ANY DISCREPANCIES PRIOR TO ANY WORK. DESIGN DOES NOT PERMIT TOILETS IN BASEMENT AREA.**

ALL EXISTING AND PROPOSED WELLS WITHIN 200' OF PROPOSED OWTS ARE SHOWN.
NO EXISTING OR PROPOSED PUBLIC WELLS WERE OBSERVED WITHIN 500' OF PROPOSED OWTS.
NO EXISTING OR PROPOSED SEPTIC SYSTEMS WITHIN 100' OF PROPOSED WELL.
MAINTAIN ELEVATION 48.67 WITHIN 10' OF PROPOSED OWTS.
NO UPGRADIENT DRAINS ALLOWED WITHIN 25' OF PROPOSED OWTS.
NO DOWNGRADIENT DRAINS ALLOWED WITHIN 50' OF PROPOSED OWTS.
BRING SEPTIC TANK COVERS TO GRADE. COVER TO BE 20" MIN. (INSIDE DIA.) AND CAPABLE OF WITHSTANDING H-20 LOADING. COVERS TO WEIGH 59 LBS. MINIMUM OR BOLT DOWN.
ALL OWTS PIPE TO BE 4" DIAMETER, PVC SDR 35 (MIN) PERFORATED OR SOLID AS REQUIRED.
ALL OWTS PRESSURE PIPE TO BE 1.25", PVC CLASS 200 (MIN), SOLID AS REQUIRED.
OUTLET FILTER TO BE INSPECTED SEMI-ANNUALLY TO ENSURE PROPER FUNCTIONING.
WELTDING PERMIT TO BE 4" SCH 40 PVC WITH GLUED, WATERTIGHT JOINTS.
BETLANDS PERMIT REQUIRED FROM RIDEM

NOTES:

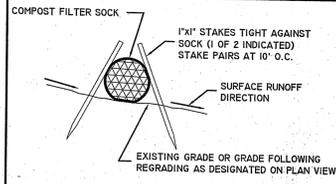
- 1) ALL CONSTRUCTION SHALL CONFORM TO THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RULES AND REGULATIONS ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ON-SITE WASTEWATER TREATMENT SYSTEMS MOST RECENTLY AMENDED.
- 2) ALL WORK SHALL BE DONE IN A WORKMANLIKE MANNER WITH LINES LAD AS STRAIGHT AS POSSIBLE AND JOINTS MADE WATERTIGHT. ALL WORK TO BE DONE BY AN INSTALLER LICENSED IN THE STATE OF RHODE ISLAND.
- 3) SEPTIC TANKS TO BE JOLLEY PRECAST 1000 GALLON TWO COMPARTMENT AND 1000 GALLON TWO COMPARTMENT WITH BIOTUBE PUMP VAULT. SEPTIC TANK COVERS TO BE BROUGHT TO FINISH GRADE. OUTLET FILTER REQUIRED.
- 4) DISTRIBUTION BOX TO BE BCP 5 OUTLET D-BOX OR APPROVED EQUALS. ALL DISTRIBUTION LINES FROM BOX ONE FOOT INTO START OF TRENCH TO BE MINIMUM SOLID BARNES AND BUCKLE. A DROP OF 2" IS REQUIRED FROM THE D-BOX TO THE START OF THE TRENCHES. ALL INLET TEE REQUIRED IN D-BOX.
- 5) LEACHING AREA EXCAVATION SHALL BE LEVEL AND SCARIFIED. CARE SHALL BE TAKEN TO AVOID CONFLICT OF THE LEACHING AREA. EXCAVATION SHALL BE STRIPPED OF ALL BRUSH, TREES, TOPSOIL, SUBSOIL AND OTHER UNDESIRABLE MATERIAL.
- 6) OWTS SAND AND GRAVEL TO BE FREE OF ORGANIC MATTER AND FOREIGN SUBSTANCES AND SHALL NOT CONTAIN MATERIAL LARGER THAN 3/4" AND UP TO 10% MAY BE BETWEEN 3/4" AND 3" REFERENCE IS MADE TO STATE OF RHODE ISLAND RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ON-SITE WASTEWATER TREATMENT SYSTEMS RULE 6.33 M.
- 7) ALL BACKFILL MATERIAL PLACED OVER THE SEPTIC SYSTEM SHALL BE FREE OF LARGE STONES, RUBBISH, OR OTHER DELETERIOUS MATERIALS. HEAVY EQUIPMENT SHALL NOT BE ALLOWED TO RUN OVER THE LEACHING AREA.
- 8) THE SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARAGE GRINDER, WATER SOFTENER, OR JACUZZI.
- 9) FOR PROPER OPERATION, THE SEPTIC TANK SHALL BE INSPECTED ANNUALLY AND CLEANED SEMI-ANNUALLY.
- 10) NO PARKING IS PERMITTED IN THE VICINITY OF THE OWTS.
- 11) DIG SAFE NOTIFICATION IS REQUIRED PRIOR TO ANY EXCAVATION.
- 12) CONTRACTOR TO INSTALL 6" MINIMUM COVER OVER OWTS. CONTRACTOR IS TO INSURE 6" LOW AND SEED OVER ALL DISTURBED AREAS UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE FOR FINISH LANDSCAPING.
- 13) PROPERTY LINES AS DEPICTED ON THIS PLAN ARE APPROXIMATE ONLY AND ARE NOT THE RESULT OF A BOUNDARY SURVEY.
- 14) CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL SAFETY AND BUILDING CODES ARE FOLLOWED.
- 15) DESIGNER TO BE NOTIFIED 72 HOURS (3 WORKING DAYS) PRIOR TO THE START OF OWTS CONSTRUCTION. CONTRACTOR IS TO INSURE THAT DESIGNER IS NOTIFIED 72 HOURS IN ADVANCE OF REQUIRED INSPECTIONS. NO PROPER NOTIFICATION TO RIDER CAN BE MADE.

SEWAGE PUMP CHAMBER NOTES:

- 1) THE SEWAGE PUMP IS TO BE OSI PFM105 HH EFFLUENT, 1/2 HORSEPOWER, SUBMERSIBLE SEWAGE/EFFLUENT PUMP INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. PUMP TO BE CAPABLE OF PASSING 2" SOLIDS.
- 2) THE PUMP SYSTEM TO BE INSTALLED IN THE SECOND COMPARTMENT OF THE 1000 GALLON SEPTIC TANK. CONTACT DESIGNER FOR PUMP CHAMBER SIZE TO BE MODIFIED SO THAT FLOAT LEVEL SETTINGS CAN BE MODIFIED.
- 3) A SIGN SHALL BE INSTALLED IN THE VICINITY OF THE MANHOLE COVER WARNING OF THE POTENTIAL ACCUMULATION OF HAZARDOUS SEWER GAS AND THE NEED FOR ADEQUATE VENTING AND AIR MONITORING PRIOR TO WORKING ON THE SEWAGE PUMP ASSEMBLY.
- 4) ALL MATERIALS AND CONSTRUCTION SHALL MEET THE MANUFACTURERS REQUIREMENTS AND APPLICABLE BUILDING, PLUMBING, ELECTRICAL, AND SAFETY CODES. A MANUFACTURERS MAINTENANCE SCHEDULE SHALL BE ACQUIRED AND FOLLOWED.
- 5) THE USE OF A BACKUP ELECTRICAL GENERATOR IS STRONGLY RECOMMENDED.
- 6) FOR ADDITIONAL INFORMATION - SEE ADDITIONAL DETAILS CONTAINED WITHIN THIS PLAN AND WITHIN MANUFACTURERS PUBLISHED LITERATURE. THE INFORMATION CONTAINED WITHIN THIS PLAN IS INTENDED TO PROVIDE SCHEMATIC REQUIREMENTS ONLY. ACTUAL SHOP DRAWINGS ARE TO BE COORDINATED WITH THE MANUFACTURER. ALL ACCESSORIES SUCH AS AUDIO AND VISUAL ALARMS, FLOAT SWITCHES, LIFT OUT RAIL SYSTEM, ETC. ARE TO BE READILY ADAPTABLE TO FIT THE PROPOSED SYSTEM PER THE PUMP MANUFACTURER. ODD COMPONENTS REQUIRING EXTENSIVE MODIFICATION TO THE SYSTEM WILL NOT BE PERMITTED.
- 7) THE PUMP SHALL HAVE OVERLOAD PROTECTION TO PREVENT DAMAGE TO THE PUMP.
- 8) ALL STAGES OF THE PUMP SHALL BE INSPECTED BY THE DESIGN ENGINEER. IT IS THE RESPONSIBILITY OF THE INSTALLER TO PROVIDE ADEQUATE NOTICE OF INSPECTION SCHEDULING TO THE DESIGNER.
- 9) THE SEWER LINE BETWEEN THE PUMP CHAMBER AND THE DISTRIBUTION BOX IS TO BE 1 1/4" DIAMETER PRESSURE PIPE. MAINTAIN POSITIVE DRAIN BACK TO PUMP CHAMBER.
- 10) NO DRIVING OR PARKING OVER ANY COMPONENT OF THE SYSTEM IS PERMITTED.
- 11) A NEMA APPROVED ELECTRICAL BOX WITH AUDIO ALARM AND VISUAL ALARM TO NOTIFY OF HIGH WATER LEVELS IN THE PUMP CHAMBER IS TO BE INSTALLED. THIS ASSEMBLY SHALL BE LOCATED AS SHOWN.
- 12) INSTALL A THREADED DISCONNECT ON PUMP DISCHARGE LINE FOR PUMP SERVICING.
- 13) A CHECK VALVE SHALL BE INSTALLED ON THE PUMP DISCHARGE LINE FOR PUMP PROTECTION. A WEEP HOLE SHALL BE DRILLED AFTER THE CHECK VALVE TO ALLOW BACKFLOW FROM DISCHARGE LINE INTO THE PUMP CHAMBER TO PREVENT LINE FREEZING.
- 14) INSTALLER SHALL INSTALL A CHAIN, ROPE OR SOME LIFTING DEVICE TO ALLOW PUMP REMOVAL TO WITHIN AN ARMS LENGTH OF THE PUMP CHAMBER COVER.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
OWTS & FRESHWATER WETLANDS
JOINT PERMIT APPROVAL

OWTS# 1818-1349 RW# 21-0194
APPROVED: [Signature] DATE: 8/15/23
No Changes Allowed Without RIDEM Approval
Approved Plans/Permit Must Be Kept at Construction Site



COMPOST FILTER SOCK MATERIAL SHALL BE IN ACCORDANCE WITH AASHTO DESIGNATION: HP 9-06 (2007 OR LATEST EDITION).
COMPOST FILTER MATERIAL SHALL BE IN ACCORDANCE WITH AASHTO DESIGNATION: MP9-06 (2007 OR LATEST REVISION).
COMPOST MATERIAL SHALL ALSO MEET ALL APPLICABLE FEDERAL AND STATE REGULATIONS. FOR COMPOST FILTER SOCKS 18 INCHES OR LESS IN DIAMETER, WOODEN STAKES SHALL BE 1 INCH BY 1 INCH, AT 10 FOOT INTERVALS ON CENTER, AND OF A LENGTH THAT SHALL PROJECT INTO THE SOIL 1 FOOT LEAVING 3 INCHES TO 4 INCHES PROTRUDING ABOVE THE TOP OF THE FILTER SOCK.

PROPOSED OWTS AND FRESH WATER WETLANDS PLAN
PREPARED FOR
KASON & KATIE SALFI
ASSESSOR'S PLAT 42 LOT 47
9 CRANDALL ROAD
LITTLE COMPTON, RHODE ISLAND

NOT TO SCALE DATE: NOVEMBER 28, 2022
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