

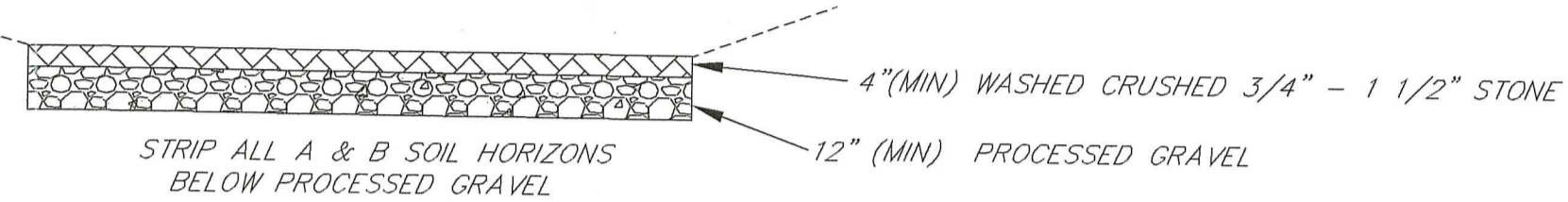
VEGETATED SWALE DETAIL
 TOTAL ROOF AREA=1,095 SF
 2 4'x 12' VEGETATED SWALES
 TOTAL BOTTOM SURFACE AREA PER SWALE=48 SF
 PROVIDING DRAINAGE FOR 600 SF PER SWALE
 TOTAL=1,200 SF

VEGETATED SWALE MAINTENANCE

1. VEGETATED SWALE SHALL BE INSPECTED ANNUALLY AND SHOULD BE INSPECTED AFTER LARGE STORM EVENTS
2. ERODED SIDE SLOPES AND CHANNEL BOTTOMS SHALL BE STABILIZED AS NECESSARY.
3. IF THE SURFACE OF THE DRY SWALE BECOMES CLOGGED TO THE POINT THAT STANDING WATER IS OBSERVED ON THE SURFACE 48 HOURS AFTER PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD PACKED SEDIMENT, AND THEN RESEED.
4. VEGETATION IN DRY SWALES SHALL BE MOWED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4-6 INCH RANGE.
5. EVERY FIVE YEARS, THE CHANNEL BOTTOM OF DRY SWALES SHOULD BE SCRAPED TO REMOVE SEDIMENT AND TO RESTORE ORIGINAL CROSS SECTION AND INFILTRATION RATE, AND SHOULD BE SEED TO RESTORE GROUND COVER, WHERE NECESSARY.

COMPOST FILTER SOCK
 NOT TO SCALE

TYPICAL PERVIOUS DRIVEWAY SECTION
 NO SCALE



OWTS NOTES & CONDITIONS

NO PUBLIC WATER SERVICE AREA; WELL REQUIRED.
 THERE ARE NO PROPOSED OR EXISTING SEPTIC SYSTEMS WITHIN 200' OF PROPOSED WELL, EXCEPT AS SHOWN.

THERE ARE NO PROPOSED OR EXISTING WELLS, FOR HUMAN CONSUMPTION, WITHIN 200 FEET OF PROPOSED SEPTIC SYSTEM UNLESS SHOWN HEREON.

THERE ARE NO EXISTING OR PROPOSED PUBLIC WELLS WITHIN 500 FEET OF THIS PROPOSED SEPTIC SYSTEM.

ALL PROPOSED AND EXISTING DRAINS WITHIN 200 FEET OF PROPOSED TRENCHES ARE SHOWN.

THERE ARE NO EXISTING OR PROPOSED DRAINS WITHIN 25 FEET OF PROPOSED TRENCHES.

ALL PIPING TO BE SCHEDULE 35, UNLESS OTHERWISE NOTED.

1000 GALLON SEPTIC TANK, MANHOLES (2) PLACED TO GRADE.

REFER TO PROFILE AND TYPICALS FOR ADDITIONAL DATA.

THIS DESIGNER IN NO WAY GUARANTEES SOIL CONDITIONS BEYOND THE LOCATION OF SHOWN TESTING. ANY SOIL CHANGES, FILL, LEDGE OR DISCREPANCIES IN REPORTED DATA SHALL BE FORWARDED TO THIS DESIGNER AND THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT ISDS DIVISION, IN WRITING, PRIOR TO COMMENCING CONSTRUCTION OF THE SHOWN SYSTEM.

THE INSTALLER SHALL NOTIFY DESIGNER OF RECORD 10 (TEN) DAYS PRIOR TO INSTALLATION OF THIS SYSTEM IF ITEM E. OF ISDS APPLICATION IS CIRCLED. HE SHALL NOTIFY DESIGNER 24 HOURS PRIOR TO REQUIRED INDIVIDUAL INSPECTIONS.

THE INSTALLER SHALL REMIT ALL DEM ISDS INSPECTOR REQUESTS (INSPECTION REPORTS) TO DESIGNER OF RECORD WITHIN 24 HOURS OF RECEIPT. HE SHALL NOT COVER SYSTEM UNTIL AN AGENT OF DESIGNER HAS GIVEN COVER ORDER.

THE OWNER SHALL BE RESPONSIBLE FOR PAYMENT OF ALL INSPECTIONS, AS-BUILT WORK AND AS-BUILT SUBMISSIONS.

CLASS II DESIGNER REQUIREMENTS

A. THE APPLICANT IS REQUIRED TO NOTIFY THIS DESIGNER OF INTENTION TO START CONSTRUCTION OR GRADING OF THIS SITE 10 DAYS PRIOR TO START OF SITE WORK. THE CONTRACTORS TELEPHONE & INSTALLER NUMBER SHALL BE FURNISHED TO THIS DESIGNER FOR COORDINATION OF PROPOSED WORK. THE FOLLOWING MINIMUM REQUIRED ITEMS ARE AS FOLLOWS:

1. 24 HOUR NOTICE OF START OF CONSTRUCTION.
2. NOTICE FOR INSPECTION OF OWTS BOTTOM LEACHING AREA PRIOR TO 12 NOON THE DAY BEFORE DESIRED DESIGNER/DEM INSPECTION.
3. NOTICE FOR INSPECTION OF COMPONENTS & PERIMETER GRADING PRIOR TO 12 NOON THE DAY BEFORE DESIRED DESIGNER/DEM INSPECTION.
4. ALL DEM INSPECTION SHEETS ARE TO BE FAXED TO THIS DESIGNER WITHIN 24 HOURS OF RECEIPT.

B. SITE LAYOUT AND REQUIRED INSPECTIONS TO BE MADE BY THIS DESIGNER FOR THE FOLLOWING WORK ITEMS:

1. FOUNDATION & OWTS LOCATION AND ELEVATION.
2. INSPECTION OF OWTS BOTTOM LEACHING AREA.
3. INSPECTION OF OWTS COMPONENTS & FILL PERIMETERS.
4. FINAL COVER & WELL LOCATION INSPECTION.

C. THE APPLICANT SHALL BE RESPONSIBLE FOR ANY CHANGES IN THE SHOWN DESIGN AND INCLUDE ANY OF THE FOLLOWING:

1. NEW APPLICATIONS AS REQUIRED BY DEM GUIDELINES.
2. AS-BUILT LOCATIONS AND REQUIRED PLANS.
3. COMMUNICATIONS OR COORDINATION WITH DEM STAFF.
4. CHANGES IN INSTALLATION NOT MEETING DEM REQUIRED GUIDELINES.

D. THE APPLICANT SHALL PROVIDE DESIGNER WITH MATERIALS RECEIPTS FOR ALL CONSTRUCTION MATERIALS PRIOR TO DESIGNER ISSUING CERTIFICATE OF CONSTRUCTION.

E. THE OWNER SHALL FURNISH ORIGINAL APPLICATION (PINK COPY) AND ACCOMPANYING PLAN APPROVAL TO INSTALLER PRIOR TO START OF CONSTRUCTION. SAID INFORMATION SHALL REMAIN ON SITE DURING ENTIRE CONSTRUCTION PERIOD AND RETURNED TO THE OWNER UPON COMPLETION OF OWTS INSTALLATION.

F. OWNER / APPLICANT'S SIGNING OF APPLICATION SHALL BE CONSIDERED PERMISSION TO INSPECT THE ABOVE SITE AT ANY TIME AFTER START OF CONSTRUCTION BEGINS TO ENSURE PROPER INSTALLATION PROCEDURES & FUNCTIONING OF OWTS SYSTEM.

G. THE ABOVE INFORMATION ARE MINIMUM REQUIREMENTS AND SHALL BE REVISED AS THE DESIGNER DEEMS NECESSARY FOR PROPER FUNCTIONING OF THE SHOWN OWTS DESIGN.

GEOMATRIX GST NOTES:

ALL BRUSH AND TREES TO BE REMOVED A MINIMUM 10' DISTANT FROM LEACHING AREA

STRIP INDIVIDUAL TRENCHES TO EL. 105.13. TRENCH WIDTH TO BE A MINIMUM OF 45" FOR GST137 SERIES AND 70" FOR GST162 SERIES.

RAKE/SCARIFY SIDEWALLS AND BOTTOM OF TRENCH TO ADDRESS ANY SMearing OF FINES. DO NOT ACCESS TRENCH BOTTOM AFTER THIS STEP.

PLACE A 2" LAYER OF ASTM C-33 SAND IN THE BOTTOM THE EXCAVATION TO EL. 105.30, RAKE AND LEVEL AND UNIFORMLY COMPACT.

SET THE GST FORMS IN THE CENTER OF TRENCH, PLACE COVERS OVER ENTIRE CENTER STONE CHANNEL AND ALTERNATING STONE FINGER COMPARTMENTS.

PLACE SAND INTO VOID SPACE BETWEEN TRENCH SIDEWALL AND GST FORM. ALSO FILL THE SAND FINGER VOIDS IN THE FORMS AND UNIFORMLY COMPACT.

REMOVE ALL COVERS FROM ENTIRE CENTER STONE CHANNEL AND FINGER COMPARTMENTS. PLACE CLEAN, WASHED 1/2" - 3/4" STONE INTO THE INTERIOR OF THE FORM. PULL FIRST FORM AND "LEAP FROG" FORM AHEAD OF THE LAST GST FORM. REPEAT SEQUENCE UNTIL SPECIFIED TRENCH LENGTH IS MET.

ENSURE SAND AND BACKFILL MATERIALS ARE COMPACTED TO PREVENT SETTLEMENT.

INSTALL APPROVED DISTRIBUTION PIPING ON TOP OF THE 12" CENTRAL STONE CHANNEL. PLACE STONE AROUND DISTRIBUTION PIPE.

PROVIDE ONE INSPECTION PORT PER TRENCH.

PLACE APPROVED FILTER FABRIC OVER SYSTEM.

BACKFILL SYSTEM TO ENSURE UNIFORM COVER AND COMPACTION EXISTS TO A MINIMUM DEPTH OF 6" AND A MAXIMUM DEPTH OF 30".

FINISH GRADE OVER SYSTEM SHOULD ENSURE SHEET FLOW STORMWATER AWAY FROM SYSTEM.

CONSTRUCTION NOTES:

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH RIDEM RULES AND REGULATIONS OF NOVEMBER 25, 2018, AS AMENDED

HEAVY EQUIPMENT SHALL NOT PASS OVER OWTS AREA. PAVEMENT, PARKING AND VEHICULAR TRAFFIC ARE PROHIBITED OVER OWTS UNLESS SPECIFIED BY DESIGN.

NO TRACKED VEHICLES ALLOWED OVER SYSTEM AREA.

SEPTIC SYSTEM NOTE:
 2 COMPARTMENT SEPTIC SYSTEM TO BE PLACED ON STABLE, LEVEL BASE WITH INLET & OUTLET TEES WITH MANHOLES PLACED TO GRADE.

WELL TO SEPTIC TANK MINIMUM SEPARATION VIA FEET WATERLINE TO SEPTIC TANK MINIMUM SEPARATION 10 FEET.

PIPING TO BE SOLID 4" SDR 35 PVC 2' MINIMUM TO OWTS.

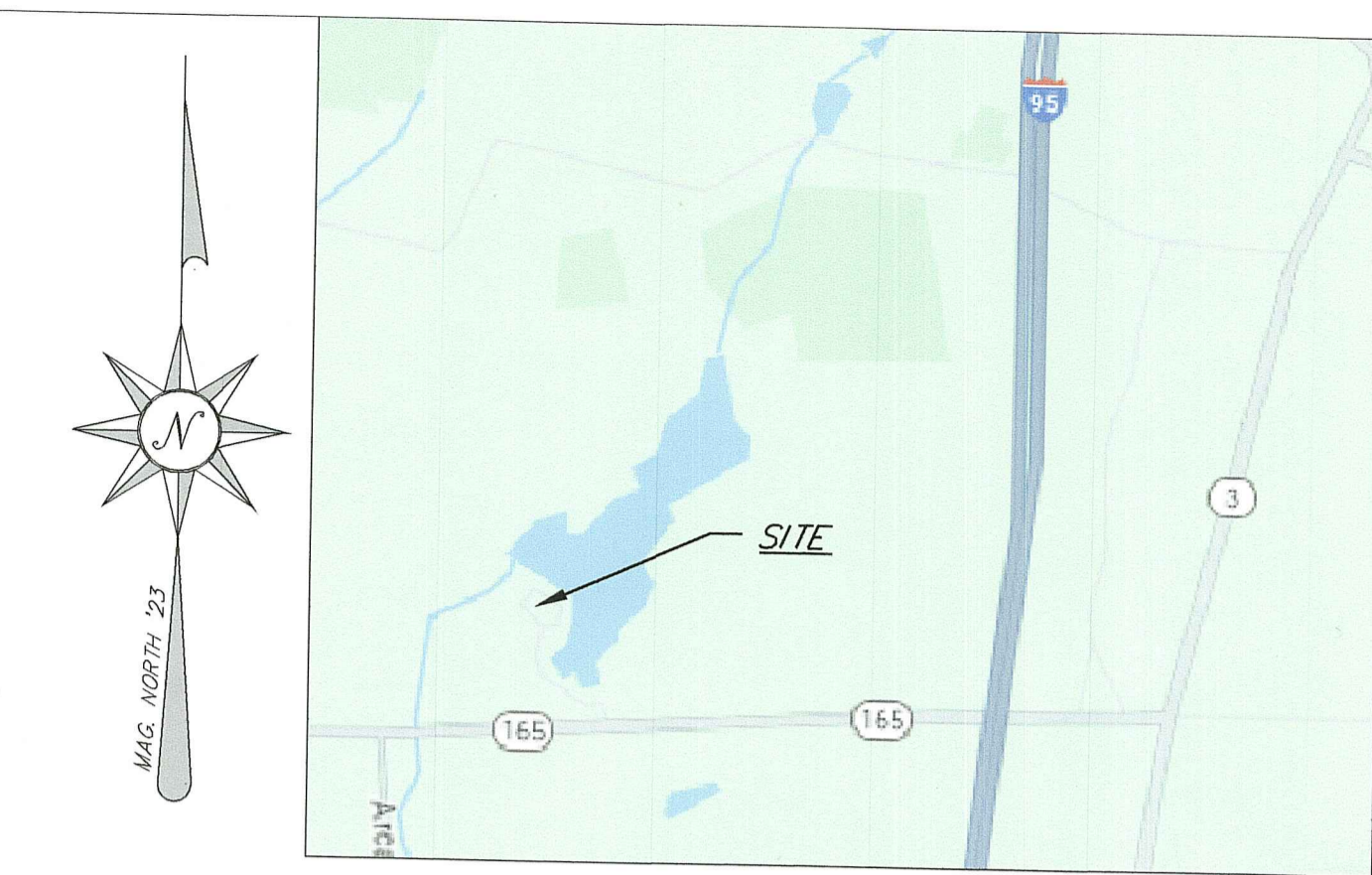
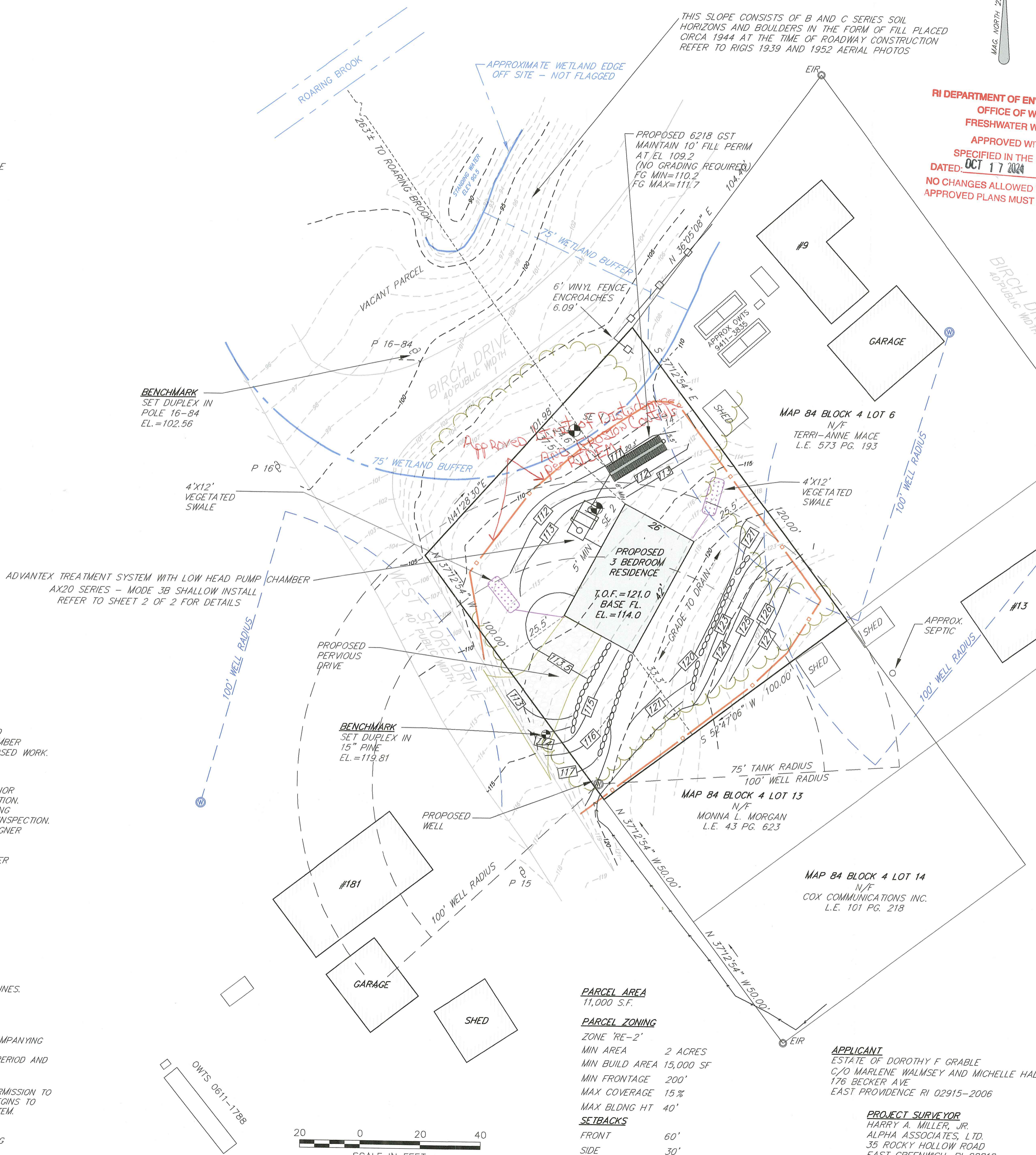
LEACHFIELD AREA CALCULATIONS

TOTAL # OF BEDROOMS = 3
 4 x 115 GAL./BEDROOM = 345 TOTAL GAL./DAY

SOIL CATEGORY 6M = LOADING RATE: 0.70
 460 / 0.70 = 493 S.F. REQUIRED

GST LEACHING CREDIT = (GST16218) 24.8 S.F. / L.F.
 REQUIRED S.F. GEOMATRIX GST LEACHFIELD = 20 L.F.

TOTAL L.F. OF GST 6218 = 20 X 24.8 = 496 S.F.



RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED: OCT 17 2024 FILE #: 21-005
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

LEGEND

- EXISTING PAVEMENT
- EXISTING WIRE FENCE
- EXISTING 6" VINYL FENCE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- PROPOSED PERVIOUS DRIVE
- APPROXIMATE WETLAND EDGE
- EXISTING WOODS
- PROPOSED VEGETATED SWALE
- EXISTING WELL
- PROPOSED WELL
- BENCHMARK
- EXISTING UTILITY POLE
- EXISTING IRON ROD

NOTE PER DEM:
 Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM

NOTE PER DEM:
 Kindly be advised that this Permit is not equivalent to a verification of the type or extent of freshwater wetlands on site

HARRY A. MILLER, JR.
 N. 1967
PROFESSIONAL LAND SURVEYOR
 D2101

CERTIFICATION:
 THIS PLAN, AND UNDERLYING SURVEY PRODUCT, WAS PREPARED FOR THE EXCLUSIVE USE OF THE PERSON, PERSONS, OR ENTITY NAMES IN THIS CERTIFICATION. SAID CERTIFICATION DOES NOT EXTEND TO ANY UN-NAMED PERSON, PERSONS, OR ENTITY WITHOUT AN EXPRESS RE-CERTIFICATION BY THE SURVEYOR OF RECORD NAMING SAID PERSON, PERSONS, OR ENTITY.

TO DAVID SMILEY, IT IS HEREBY CERTIFIED THAT THIS SURVEY AND BEEN CONDUCTED AND THIS PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR-00-00-1.9 RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 25, 2015, AS FOLLOWS:

NOT A BOUNDARY SURVEY
 TOPOGRAPHIC SURVEY T-2
 DATA ACCUMULATION SURVEY CLASS III

FURTHER, THE INFORMATION DEPICTED ON HEREON WAS OBTAINED FROM FIELD OBSERVATIONS MADE ON THE SITE IN FOR THE PURPOSE OF THE CONDUCT OF A SURVEY FOR THE PREPARATION OF AN O.W.S. DESIGN AND WETLAND APPLICATION

HARRY A. MILLER, JR. PLS 1967
 COA: LS-A101

APPLICANT
 ESTATE OF DOROTHY F GRABLE
 C/O MARLENE WALMSEY AND MICHELLE HALL
 176 BECKER AVE
 EAST PROVIDENCE RI 02915-2006

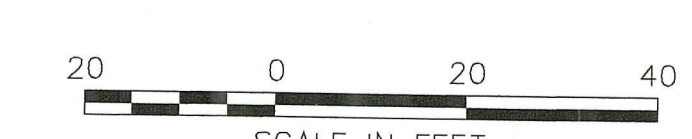
PROJECT SURVEYOR
 HARRY A. MILLER, JR.
 ALPHA ASSOCIATES, LTD.
 35 ROCKY HOLLOW ROAD
 EAST GREENWICH, RI 02818
 T:401.884.8506 F:401.884.7747
 P:401.884.8506 F:401.884.7747

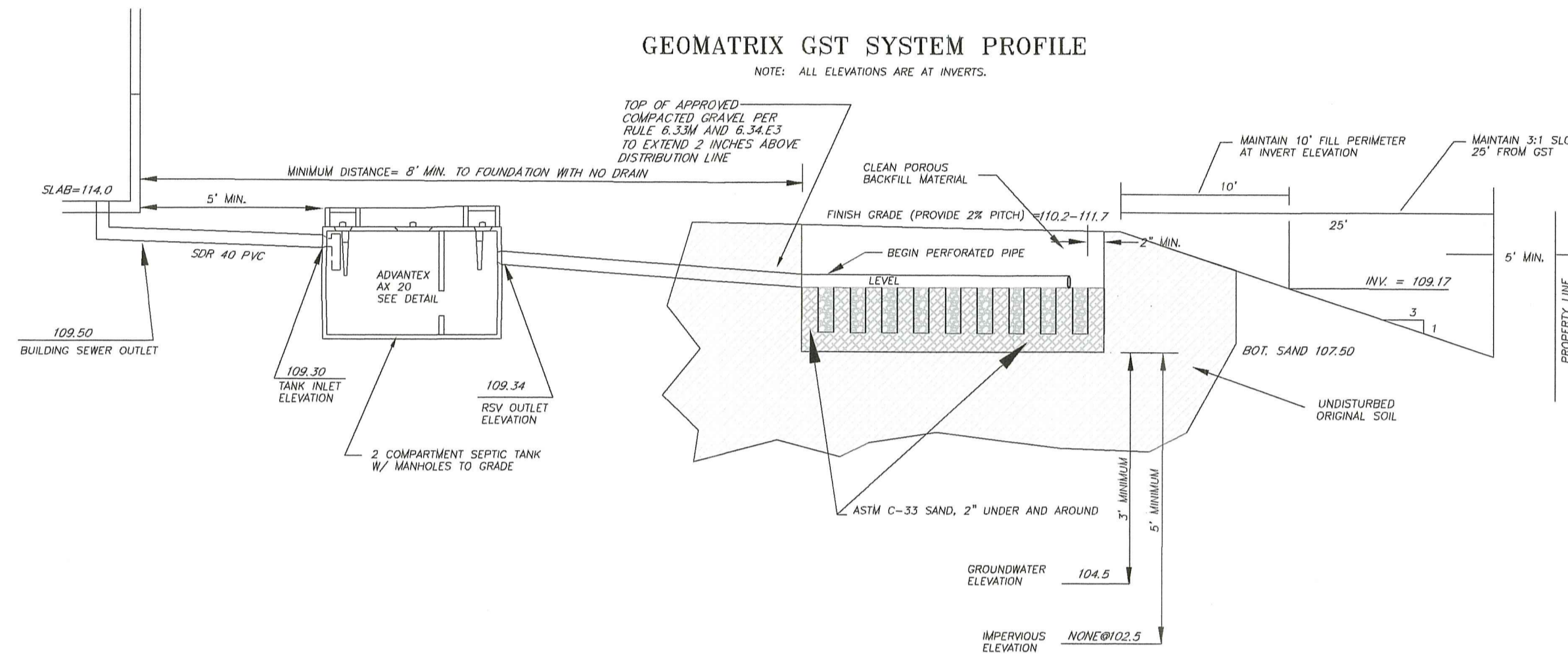
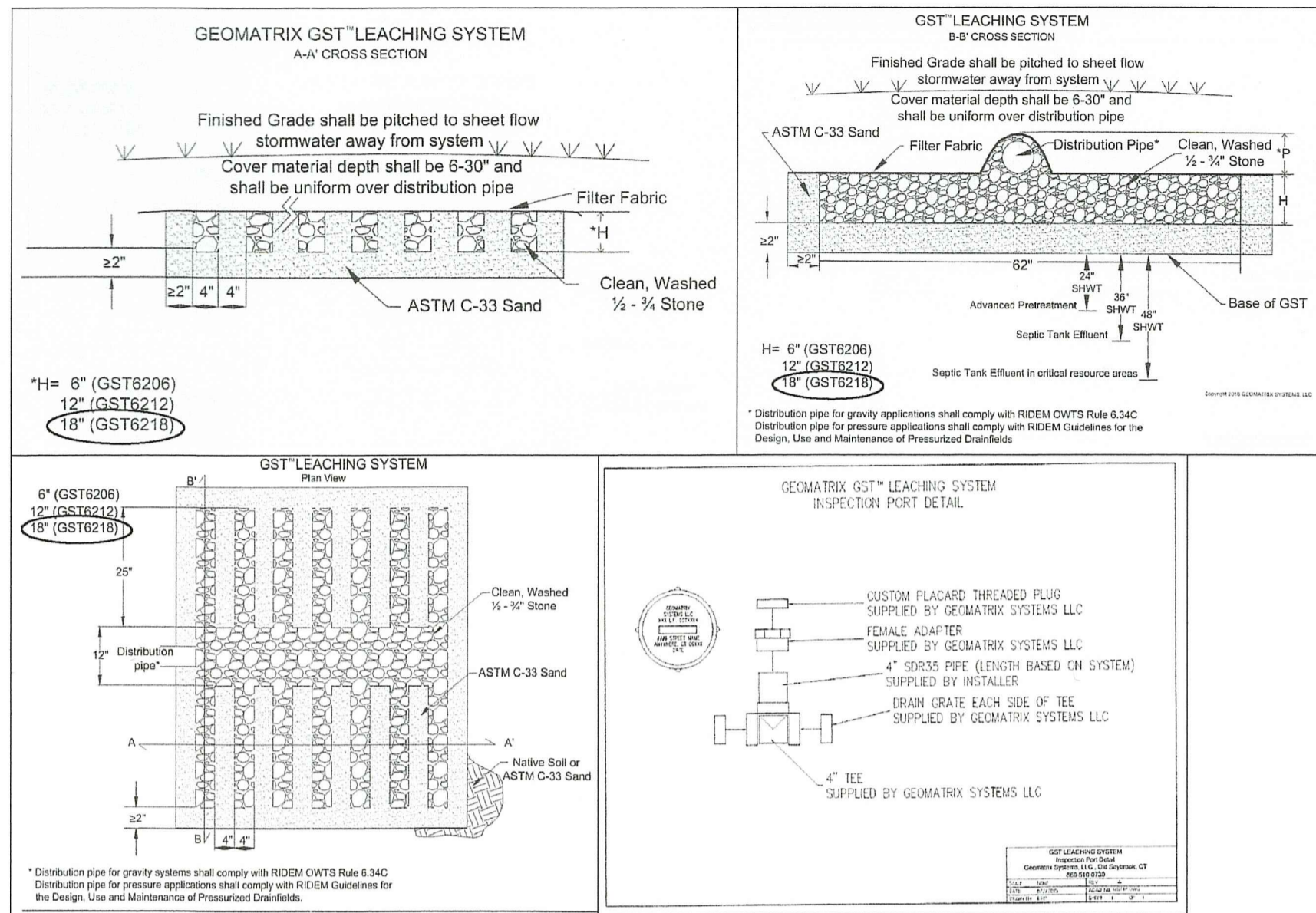
OWTS & WETLAND PLAN
MAP 84 BLOCK 8 LOTS 11 & 12
WEST SHORE DRIVE
EXETER, RHODE ISLAND 02816
PREPARED FOR: DAVID SMILEY
PREPARED BY: ALPHA ASSOCIATES, LTD.
 35 ROCKY HOLLOW ROAD
 EAST GREENWICH, RI 02818
 T:401.884.8506 F:401.884.7747
 SCALE 1" = 20' DATE: DECEMBER 26, 2023 SHEET 1 OF 2
 REVISED AUGUST 2024 DEWITE, WETLAND BUFFER

PARCEL AREA
 11,000 S.F.

PARCEL ZONING
 ZONE RE-2'
 MIN AREA 2 ACRES
 MIN BUILD AREA 15,000 SF
 MIN FRONTAGE 200'
 MAX COVERAGE 15%
 MAX BLDNG HT 40'

SETBACKS
 FRONT 60'
 SIDE 30'
 REAR 50'





MAINTENANCE NOTES

1. THE SEPTIC TANK, ADVANTEX SYSTEM, SAND FILTER AND PUMP SYSTEMS SHALL BE INSPECTED AND MAINTAINED AT A MINIMUM TWICE ANNUALLY.
2. INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH THE PROCEDURES SPECIFIED IN THE SYSTEM OPERATION AND MAINTENANCE MANUAL.
3. SAND FILTER AND ADVANTEX PIPING SHALL BE FLUSHED AND CLEANED AS REQUIRED. GRIPES SHALL BE CHECKED FOR FLUCCING AND SCOUR HEIGHT MEASURED. SCOUR HEIGHT SHOULD BE 2" MINIMUM FOR THE BOTTOMLESS SAND FILTER AND 5" MIN. FOR THE ADVANTEX.
4. PUMP VAULT SCREEN SHALL BE RAISED AND CLEANED BY FLUSHING WITH A HOSE INTO THE TANK.
5. PUMP FLOAT ASSEMBLY AND CONTROL PANEL SHALL BE CHECKED FOR PROPER OPERATION AND CYCLE TIMING.
6. DATE, ELAPSED TIME AND EVENT COUNTER METER READINGS SHALL BE RECORDED. AVERAGE DAILY PUMP RUNS SHALL BE CALCULATED AND CHECKED FOR CONFORMANCE TO DESIGN PROGRAM. TIMER ADJUSTMENTS SHALL BE MADE AS REQUIRED.
7. SCUM AND SLUDGE DEPTHS IN THE TANK SHALL BE MEASURED AND RECORDED ANNUALLY. THE TANK SHALL BE PUMPED IF THE SCUM DEPTH EXCEEDS 6" OR THE SLUDGE DEPTH EXCEEDS 12".
8. ALL MAINTENANCE SHALL BE PERFORMED BY A QUALIFIED SAND FILTER AND ADVANTEX MAINTENANCE CONTRACTOR.

ADVANTEX AX20-3B NOTES

1. SEPTIC TANK SHALL BE 1,500 GALLON TWO COMPARTMENT PRECAST CONCRETE TANK TESTED AND CERTIFIED WATER TIGHT BY THE MANUFACTURER.
2. PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PVJ 57-2419 BIOTUBE PUMP VAULT.
3. EFFLUENT PUMPS SHALL BE ORENCO SYSTEMS MODEL P3005 & PKP350 (REFER TO PLAN).
4. DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HY160 BX-DB.
5. FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MF3V.
6. CONTROL PANEL AND ALARM SHALL BE ORENCO SYSTEMS MODEL YC0M-AX20 WITH ELAPSED TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS.
7. P.Y.C. RISER MANHOLES SHALL BE ORENCO SYSTEMS MODEL RR24 RISERS, MODEL FL24-G LIDS WITH 2" FOAM INSULATION AND MODEL PR124 TANK ADAPTERS.
8. REGULATING SPLITTER VALVE RSV20 AND ADVANTEX AX20-3B SHALL BE SUPPLIED BY ORENCO SYSTEMS.
9. ALL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THESE PLANS.
10. PROGRAMMABLE TIMER SHALL BE SET FOR PUMP ON TIME OF 18 SECONDS AND PUMP OFF TIME OF 15.7 MINUTES.
11. HIGH WATER TIMER OVERRIDE SETTINGS SHALL BE: PUMP ON: 18 SEC. PUMP OFF: 7.8 MINUTES.
12. ALL COMPONENTS AND INSTALLATION MUST BE INSPECTED AND APPROVED BY THE DESIGNER. ANY COMPONENT SUBSTITUTION MUST BE PRE-APPROVED BY THE DESIGNER.
13. THE CONTROL PANEL, SPLITTER VALVE AND PUMP FLOATS SHALL BE SET BY THE DESIGNATED REPRESENTATIVE OF ORENCO SYSTEMS, INC.

I.S.D.S. NOTES:

1. CLEAR AND REMOVE ALL BRUSH AND TREES 10' AROUND SYSTEM
2. NO EXIST. OR PROP. WELLS, WATERCOURSES OR DRAINS WITHIN 200' OF SYSTEM NOR PUBLIC WELLS WITHIN 500' OF SYSTEM, EXCEPT AS NOTED.
3. NO SEWAGE SYSTEM WITHIN 100' OF WELL, EXIST. OR PROPOSED.
4. MIN. DISTANCE FROM LEACHING AREA TO SUBSURFACE DRAIN, FOUNDATION DRAIN, & WATER SUPPLY LINE = 25'(EXIST. OR PROP.)
5. ALL WORK SHALL CONFORM TO THE RIEM GUIDELINES FOR THE DESIGN, USE AND MAINTENANCE OF PRESSURIZED DRAINFIELDS DATED NOVEMBER, 2013.
6. ALL MANHOLES TO GRADE SHALL HAVE GASKETED WATER-TIGHT FIBERGLASS COVERS, GRADE SURFACE TO DRAIN AWAY FROM MANHOLES.
7. ALL PIPING SHALL BE INSTALLED AT CONTINUOUS SLOPE WITH NO SAGS OR HIGH POINTS.

SHALLOW TRENCH CONSTRUCTION NOTES

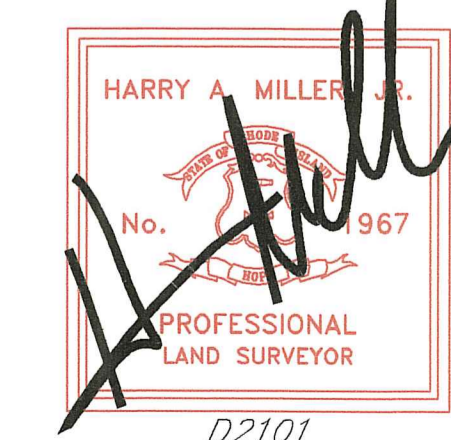
1. DISTRIBUTION PIPING SHALL BE SCH. 40 P.V.C. PRESSURE PIPE.
2. HEAVY CONSTRUCTION EQUIPMENT SHALL NOT BE ALLOWED WITHIN THE DISPOSAL FIELD AREA.
3. DISPOSAL TRENCHES SHALL BE EXCAVATED 42" WIDE AND GRADED LEVEL AT THE INV. ELEVATION.
4. SANDY LOAM SHALL BE SPREAD TO FINISH GRADE AND SEEDED.

RI DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS AS SPECIFIED IN THE LETTER OF APPROVAL
DATED: OCT 17 2024 FILE #: 24-0016
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

HOLLISTON SAND CO., INC. 214 AIRWAY AVE. WARWICK, RI 02886 401-786-6010
ORENCO SYSTEMS, INC. 80 WILVERT STREET NEWPORT, RI 02840 800-348-9843
ORENCO DISTRIBUTOR WASTE-WATER TECHNOLOGIES, INC. 15 CLINTON STREET NEWPORT, RI 02840 401-737-7810
ORENCO DISTRIBUTOR ATLANTIC SOLUTIONS, INC. 15 CLINTON STREET NEWPORT, RI 02840 401-849-2837

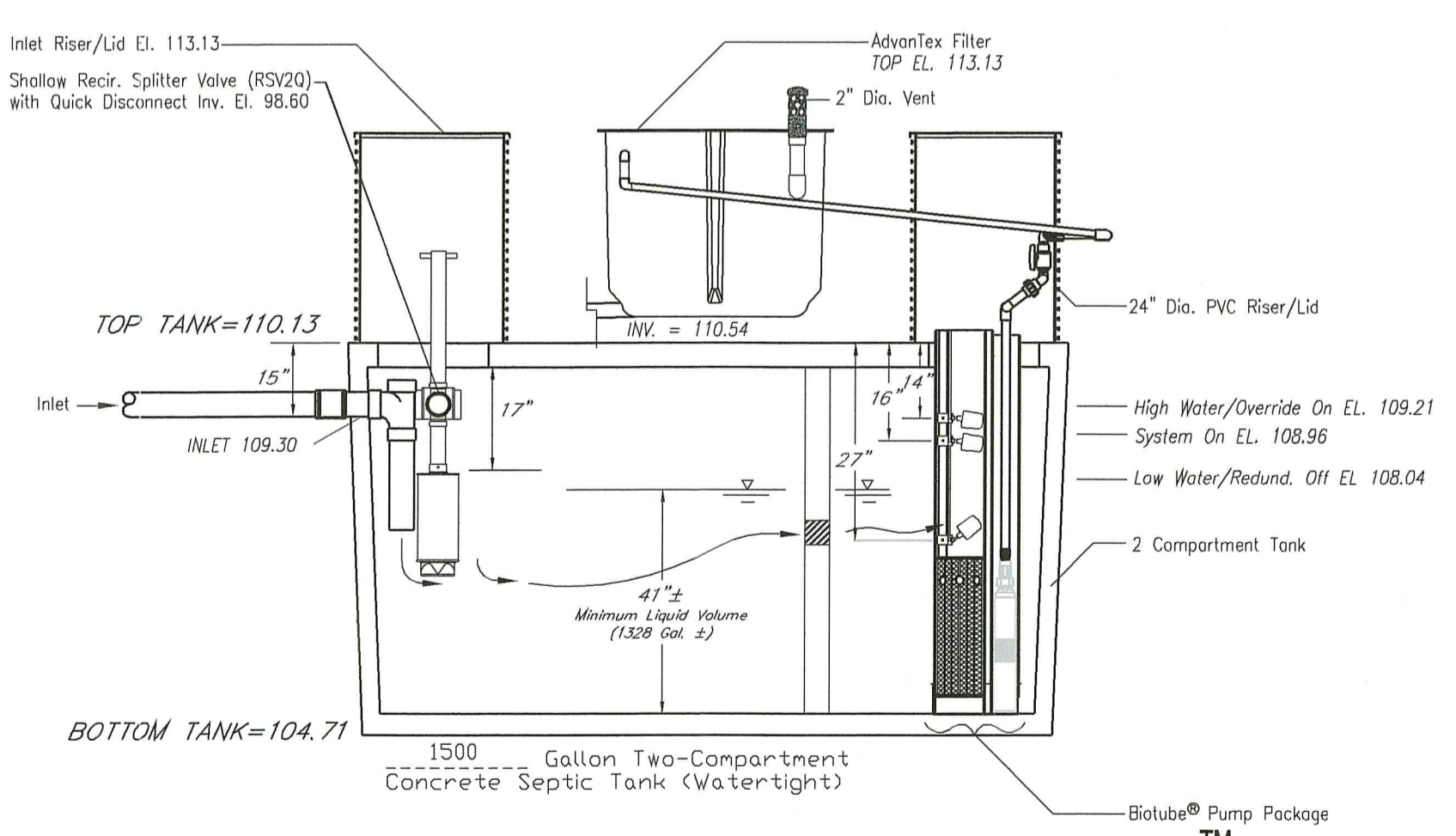
PROPOSED OWTS DETAILS

OWTS & WETLAND PLAN
MAP 84 BLOCK 8 LOTS 11 & 12
WEST SHORE DRIVE
EXETER, RHODE ISLAND 02816
PREPARED FOR: DAVID SMILEY
PREPARED BY: ALPHA ASSOCIATES, LTD.
35 ROCKY HOLLOW ROAD
EAST GREENWICH, RI 02818
T: 401.884.8506 F: 401.884.7747
SCALE 1" = 20' DATE: AUGUST, 2024



D2101

DETAIL SHEET



ADVANTEX TREATMENT SYSTEM WITH LOW HEAD PUMP CHAMBER AX20 SERIES - MODE 3B SHALLOW INSTALL NO SCALE

