

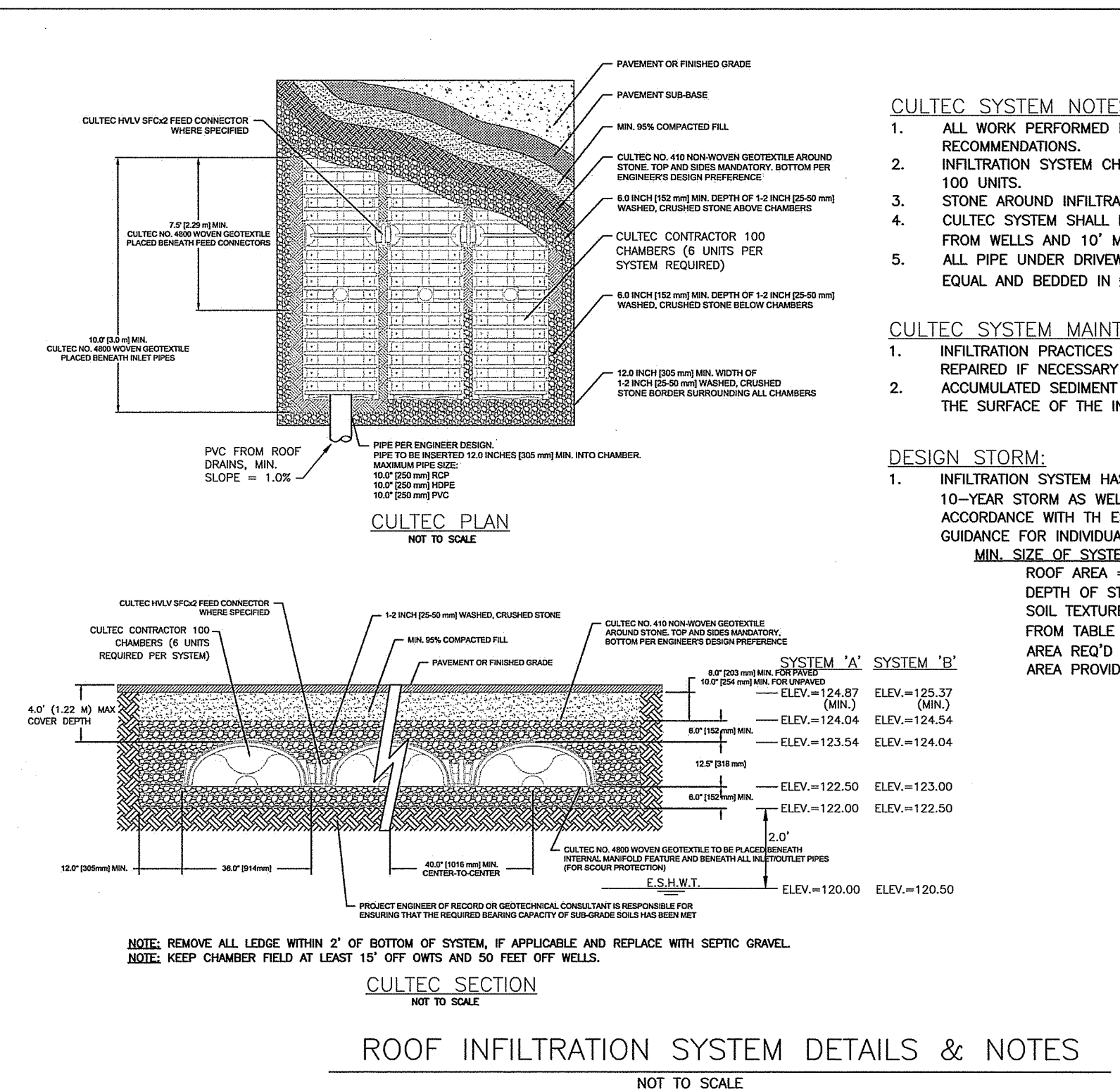
**SITE**  
 AP 26-3 LOT 17  
 N/F  
 GOLD KEY, LLC  
 145,138± SQ.FT.  
 (3.33± ACRES)

**STORMWATER PLAN**  
 SCALE: 1"=40'

Copy of Permit and Operation/  
 Maintenance contract must be  
 filed in land evidence records  
 prior to conformance.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 OWTS & FRESHWATER WETLANDS  
 JOINT PERMIT APPROVAL  
 OWTS# 1832-1529 RW# 22-0085  
 APPROVED: [Signature] DATE: 5/14/24

**TOWER HILL ROAD (US ROUTE 1)**  
 (R. HIGHWAY PLAT 857)



**ROOF INFILTRATION SYSTEM DETAILS & NOTES**  
 NOT TO SCALE

**EROSION CONTROL & SOIL STABILIZATION PROGRAM:**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARDS AND PROCEDURES SET FORTH IN THE CITY/TOWN LAND DEVELOPMENT AND SUBDIVISION REGULATIONS AND ZONING ORDINANCE.
  - EXTREME CARE SHALL BE EXERCISED AS TO PREVENT ANY MATERIALS FROM ENTERING WETLANDS, THE ROADWAYS, ROADWAY DRAINAGE SYSTEMS, AND ADJACENT PROPERTY.
  - STAKED HAY BALES OR SILT FENCE SHALL BE INSTALLED WHERE SHOWN ON THE PLAN AND AS REQUIRED TO PREVENT SEDIMENTATION ONTO ADJACENT PROPERTIES, WETLANDS AND THE ROADWAY DRAINAGE SYSTEM.
  - DENUDED SLOPES SHALL NOT BE UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
  - ALL DISTURBED SLOPES, EITHER NEWLY CREATED OR EXPOSED PRIOR TO OCTOBER 15 SHALL BE SEEDED OR PROTECTED BY THAT DATE.
- SEED MIX - (RIDEM STANDARD)**
- |             |             |
|-------------|-------------|
| 75 LBS/ACRE | 75 LBS/ACRE |
| 15 LBS/ACRE | 15 LBS/ACRE |
| 5 LBS/ACRE  | 5 LBS/ACRE  |
| 5 LBS/ACRE  | 5 LBS/ACRE  |
- TEMPORARY TREATMENTS SHALL CONSIST OF HAY, STRAW OR FIBER MULCH OR PROTECTIVE COVERS, SUCH AS A MAT OR FIBER LINING (BURAP, JUTE, FIBERGLASS NETTING, EXCELSIOR BLANKETS). THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE RIDEM, TOWN, ENGINEER OR OWNER AT NO ADDITIONAL COST.
  - HAY OR STRAW APPLICATIONS SHALL BE IN THE AMOUNT OF 3,000-4,000 LBS/ACRE.
  - ALL NEW HAY BALES OR TEMPORARY PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED AND POTENTIAL SEDIMENTATION SOURCES ARE REMOVED.
  - STOCKPILES SHALL HAVE NO SLOPE GREATER THAN 2:1 AND SHALL BE SURROUNDED BY STAKED HAY BALES OR SILT FENCE. STOCKPILES EXPOSED FOR EXCESSIVE PERIODS OF TIME SHALL RECEIVE TEMPORARY TREATMENT CONSISTING OF HAY, STRAW OR FIBER MATTING.
  - DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EROSION CONTROL MAINTENANCE AND SHALL INSPECT/REPLACE AS NEEDED.
  - ADDITIONAL HAY BALES/SILT FENCE OR OTHER TREATMENTS SHALL BE PROVIDED AS DIRECTED BY ENGINEER, RIDEM OR LOCAL REPRESENTATIVES AT NO ADDITIONAL COST.
  - THE CONTRACTOR SHALL REFERENCE THE "TRI EROSION AND SEDIMENT CONTROL HANDBOOK" AS PREPARED BY THE US DEPT. OF AGRICULTURE, SOIL CONSERVATION SERVICE, 1989, (AS REVISED) AS A GUIDE.
  - THE CONTRACTOR SHALL INSPECT THE SOIL EROSION CONTROL DEVICES AFTER EVERY RAIN STORM EVENT AND EVERY SEVEN DAYS DURING DRY PERIODS. ANY SOIL MIGRATION PAST THE DEVICES SHALL BE REMOVED AND THE SOIL EROSION CONTROL DEVICES SHALL BE RE-ESTABLISHED TO PREVENT SOIL EROSION. ALL ACCUMULATED SEDIMENT IN FRONT OF THE DEVICES SHALL BE REMOVED AFTER EVERY RAIN STORM EVENT.
  - ALL DISTURBED SOIL AREAS SHALL BE PROTECTED AGAINST SOIL EROSION BY PLACEMENT OF HAY BALES AND/OR SILT FENCE ON THE DOWN GRADIENT SIDE OF THE DISTURBED AREAS). SHOULD THE VOLUME AND/OR RATE OF STORMWATER RUNOFF BE TOO GREAT FOR A SINGLE DEVICE, THEN MULTIPLE DEVICES ARE REQUIRED SUCH AS SILT FENCE BACKED-UP WITH HAYBALES.
  - AT THE END OF THE PROJECT ALL SEDIMENT IN THE DRAIN MANHOLE SUMPS & PIPES SHALL BE REMOVED.
  - DISTURBED SOILS SHALL BE STABILIZED AS SOON AS PRACTICABLE AS DETERMINED BY OWNER/ENGINEER.
  - TEMPORARY VEGETATION AND/OR MULCHING SHALL BE USED TO PROTECT EXPOSED LAND AREAS DURING DEVELOPMENT.
  - PERMANENT (FINAL) VEGETATION SHALL BE PLANTED AND SUPPLEMENTAL EROSION CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE.
  - UNTIL A DISTURBED AREA IS STABILIZED, SEDIMENT IN THE RUNOFF WATER SHALL BE TRAPPED BY THE USE OF DEBRIS BASINS, SEDIMENT BUSTING, SILT TRAPS OR SIMILAR MEASURES.
  - DURING GRADING OPERATIONS, APPROPRIATE MEASURES FOR DUST CONTROL SHALL BE EXERCISED BY USE OF SPRAY WATER APPLIED AND APPROVED EQUAL.
  - A CONTRACTOR SHALL INSPECT AND MAINTAIN THE EROSION AND SEDIMENT CONTROL SYSTEM AS SPECIFIED. CONSTRUCTION INSPECTION AND MAINTENANCE SHALL BE PERFORMED AFTER EACH RAINSTORM EVENT AND ON A WEEKLY BASIS.

**EROSION CONTROL NARRATIVE:**

**PROJECT DESCRIPTION:** THE DEVELOPMENT CONSISTS OF THE CONSTRUCTION OF A SINGLE FAMILY DWELLING WHICH INCLUDES CONSTRUCTION OF DWELLING, DRIVEWAY, UTILITIES, OWTS, STORMWATER TREATMENT & MITIGATION, AND MISCELLANEOUS APPURTENANT ITEMS.

**TOTAL LAND DISTURBANCE = 12,000± SQ. FT.**

**PROPOSED DRAINAGE SYSTEM:** TWO ROOF INFILTRATION SYSTEMS AND A PERVIOUS DRIVEWAY ARE PROPOSED. DESIGN MEETS THE TOWN'S 10-YEAR STORM AND RIDEM'S WATER QUALITY TREATMENT REQUIREMENT.

**EMERGENCY PHONE NUMBERS:** CONTACT PETER SANTILLI AT 529-1239 FOR IMMEDIATE ATTENTION.

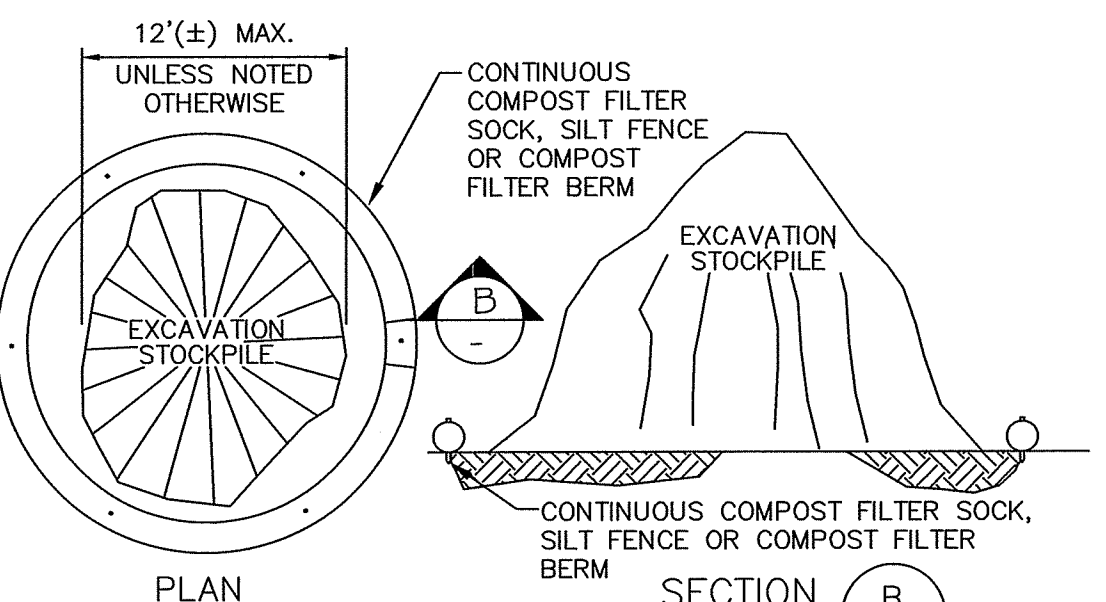
**SOIL EROSION AND SEDIMENT CONTROL MEASURES:** DOWN GRADIENT AREAS OF ALL DISTURBED AREAS SHALL BE PROTECTED WITH SILT FENCE AND/OR COMPOST FILTER SOCKS AS SHOWN ON THE PLANS/DETAILS. ALL SOIL STOCKPILE AREAS SHALL BE PROTECTED FROM SOIL EROSION AS SHOWN ON THE DETAIL. STABILIZE ALL DISTURBED AREAS AS SOON AS POSSIBLE WITH GRASS SEED OR A 2 INCH LAYER OF WOOD MULCH. ALL CATCH BASINS IN THE IMMEDIATE VICINITY OF SITE SHALL BE PROTECTED AGAINST SOIL EROSION. ALL CONSTRUCTION VEHICLES ENTERING PROPERTY SHALL TRAVEL OVER A 'CONSTRUCTION ACCESS' ENTRANCE WHICH IS CONSTRUCTED IN ACCORDANCE WITH DETAIL.

**TREES/STUMPS/TOPSOIL:** ALL TREES/STUMPS SHALL BE REMOVED AND DISPOSED OFF SITE. BURNAL OF TREES/STUMPS IS NOT PERMITTED. ALL TOPSOIL ON SITE SHALL REMAIN ON-SITE UNLESS APPROVED BY TOWN/CITY.

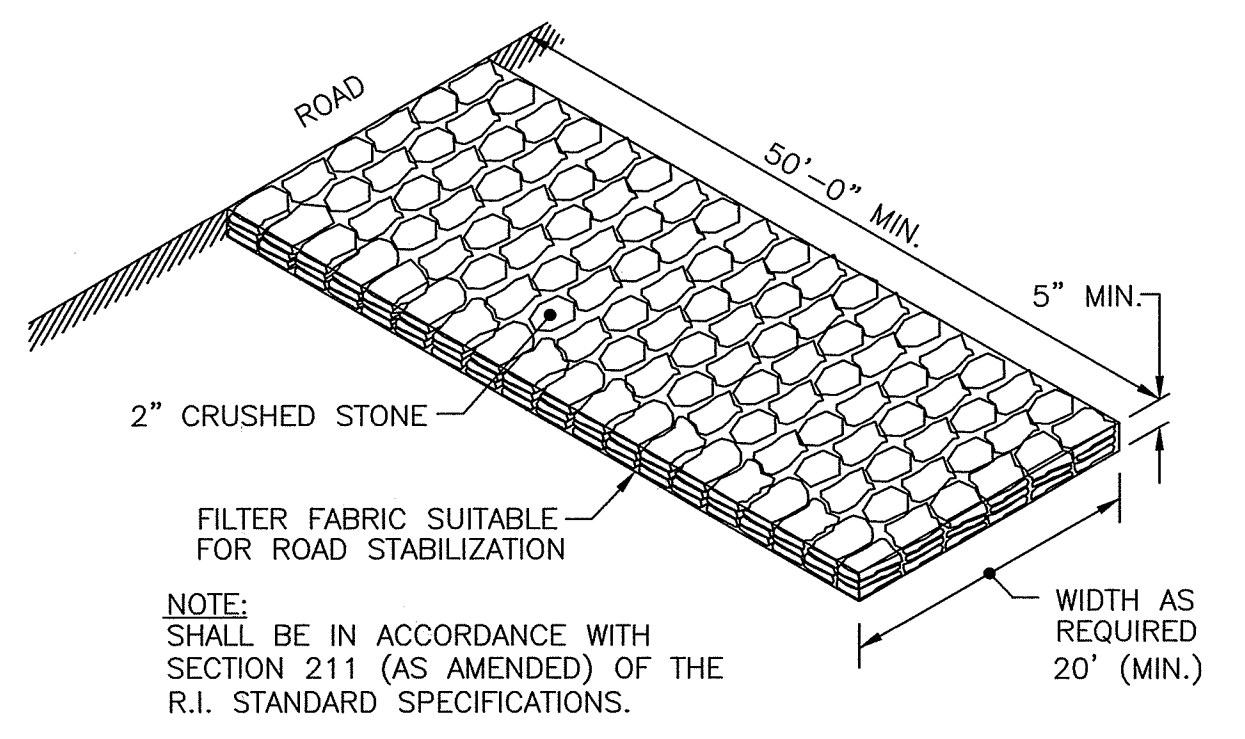
**SCHEDULE:** WORK IS ANTICIPATED TO COMMENCE IN SPRING 2024 AND BE COMPLETED BY FALL 2024.

**SEQUENCE AND STAGING OF LAND DISTURBING ACTIVITIES:**

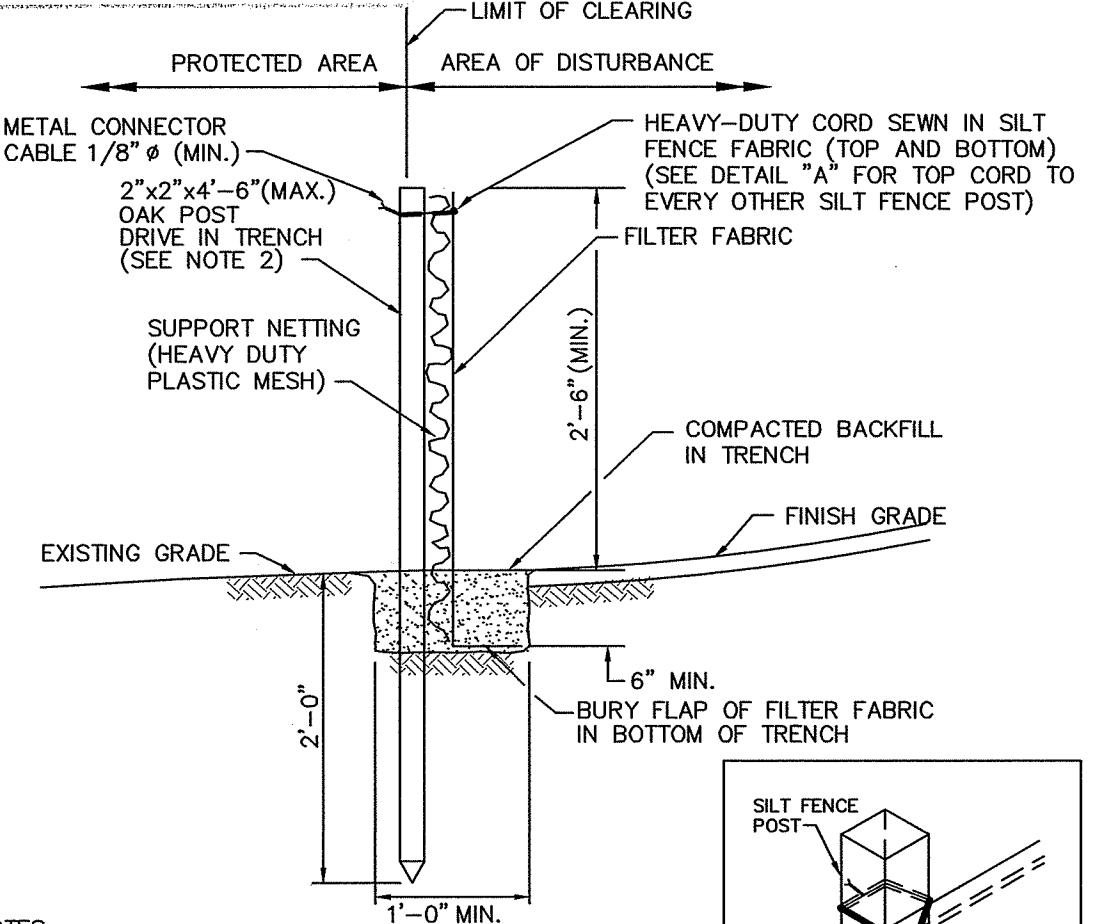
- PLACE PERIMETER SEDIMENTATION CONTROL DEVICES (SILT FENCE) AS SHOWN ON THE PLANS AND STAKED OUT IN THE FIELD. IN NO CASE IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION CONTROL DEVICES.
- CONSTRUCT CONSTRUCTION ENTRANCE DEVICES 9.9.0.
- CLEAR AND GRUB SITE.
- BEGIN CONSTRUCTION OF NEW DWELLING (EXCAVATING AND GRADING, ETC.). ALL STRIPPED SOILS WHICH ARE STOCKPILED SHALL BE STOCKPILED AND PROTECTED BY A ROW OF SEDIMENTATION DEVICES, REFER TO DETAIL.
- CONSTRUCT UTILITIES IF APPLICABLE (GAS, WATER, WELL, OWTS, ELECTRIC, ETC.).
- FINISH CONSTRUCTION OF DWELLING.
- CONSTRUCT DRIVEWAY AND ROOF INFILTRATION SYSTEMS.
- PLANT WETLAND BUFFER PLANTINGS.
- ALL DISTURBED AREAS SHALL BE LOADED AND SEEDED.
- REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES WHEN SITE IS STABILIZED.



**ON-SITE SOIL STOCKPILE DETAIL**  
 NOT TO SCALE



**CONSTRUCTION ACCESS**  
 NOT TO SCALE

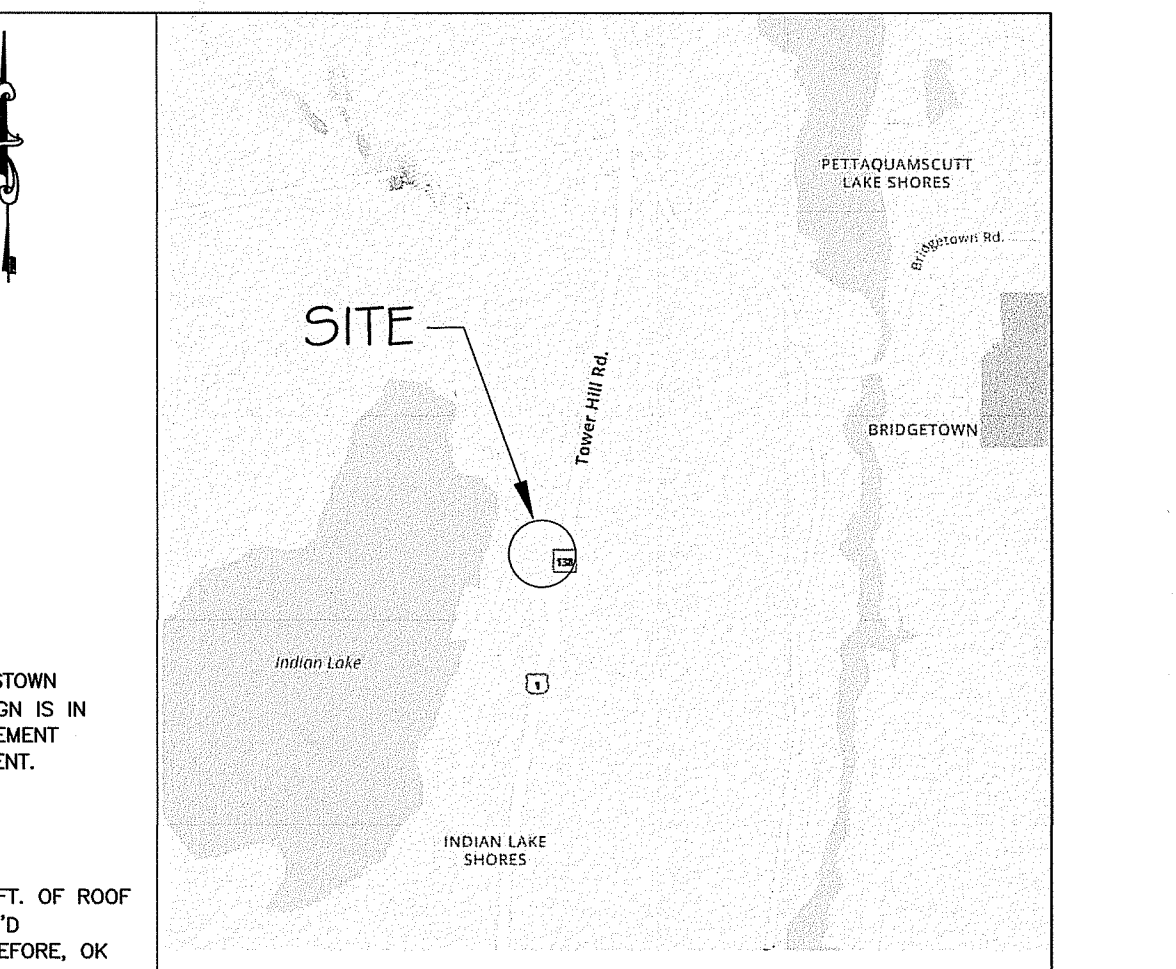


**SILT FENCE DETAIL**

**TYPICAL PERVIOUS PAVEMENT CROSS SECTION**  
 NOT TO SCALE

**LEGEND**

ABUTTER LINE	BUILDING SETBACK LINE	EXISTING CONTOUR	122	122
SUBJECT LOT LINE	EXISTING CONTOUR	PROPOSED CONTOUR	122	122
EDGE OF ROAD PAVEMENT	EXISTING SPOT GRADE	PROPOSED SPOT GRADE	297.50	296.00
ROADWAY CENTERLINE	TEST HOLE	PERC TEST	CD	DMH
ROADWAY STATION	LEGE TEST	HYDRANT	W	E
TEST HOLE	PERC TEST	LEGE TEST	W	E
PERC TEST	LEGE TEST	HYDRANT	W	E
LEGE TEST	HYDRANT	B.S.F.	W	E
BOTTOMLESS SAND FILTER				



**LOCUS MAP**  
 NOT TO SCALE

**NOTES:**

- THIS PLAN HAS BEEN PREPARED FOR THE DRAINAGE AND SOIL EROSION & SEDIMENTATION CONTROL REQUIREMENTS FOR THE DEVELOPMENT OF THE PROPOSED SINGLE FAMILY DWELLING. THIS IS NOT THE BUILDING PERMIT PLAN. REFER TO OTHER PLANS PREPARED BY OTHERS FOR OTHER ELEMENTS OF CONSTRUCTION SUCH AS SURVEY BOUNDARY, TOPOGRAPHY CERTIFICATION, BUILDING DETAILS, OWTS, FOUNDATION DRAINAGE, TOP OF FOUNDATION AND WETLAND PERMIT IF APPLICABLE.
- DO NOT ALLOW SEDIMENT LOADED RUNOFF TO ENTER THE STORMWATER AND DRIVEWAY SYSTEMS.
- ALL CONSTRUCTION OF THE DRAINAGE COMPONENTS SHALL BE IN ACCORDANCE WITH THE RIDEM ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL, AS AMENDED.
- PROPERTY LINE INFORMATION FOR SUBJECT PROPERTY TAKEN OFF TOWN PLAT MAPS AND IS APPROXIMATE.
- CONTRACTOR TO COORDINATE THIS PLAN WITH ARCHITECTURAL/FOUNDATION/OWTS PLANS PREPARED BY OTHERS. ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ENGINEERS ATTENTION PRIOR TO CONSTRUCTION.
- EXISTING UTILITIES OR CONNECTIONS - THE LOCATION OF EXISTING UNDERGROUND PIPES, CONDUITS, AND STRUCTURES AS SHOWN HAS BEEN COLLECTED FROM THE BEST AVAILABLE SOURCES, AND THE OWNER, TOGETHER WITH HIS AGENTS, DOES NOT IMPLY OR GUARANTEE THE DATA AND INFORMATION IN CONNECTION WITH UNDERGROUND PIPES, CONDUITS, STRUCTURES, AND SUCH OTHER PARTS, AS TO THEIR COMPLETENESS, NOR THEIR LOCATIONS AS INDICATED. THE CONTRACTOR SHALL ASSUME THAT THERE ARE EXISTING WATER, GAS AND OTHER UTILITY CONNECTIONS IN ROUTE, WHETHER THEY APPEAR ON THE DRAWINGS OR NOT. ANY EXPENSE AND/OR DELAY OCCASIONED BY UTILITIES AND STRUCTURES OR DAMAGE THEREOF, INCLUDING THOSE NOT SHOWN, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AT NO ADDITIONAL EXPENSE TO THE OWNER. BEFORE PROCEEDING WITH CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL MAKE SUCH SUPPLEMENTAL INVESTIGATIONS, INCLUDING EXPLORATORY EXCAVATIONS BY HAND DIGGING, AS HE DEEMS NECESSARY TO UNCOVER AND DETERMINE THE EXACT LOCATIONS OF UTILITIES AND STRUCTURES AND SHALL HAVE NO CLAIMS FOR DAMAGES DUE TO ENCOUNTERING SUBSURFACE STRUCTURES OR UTILITIES IN LOCATIONS OTHER THAN THOSE SHOWN ON THE DRAWINGS, OR WHICH ARE MADE KNOWN TO THE CONTRACTOR PRIOR TO CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE AND LIABLE FOR ALL DAMAGES TO EXISTING UTILITIES AND STRUCTURES.
- INSTALL ALL PRODUCTS/EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

**REFERENCE:**

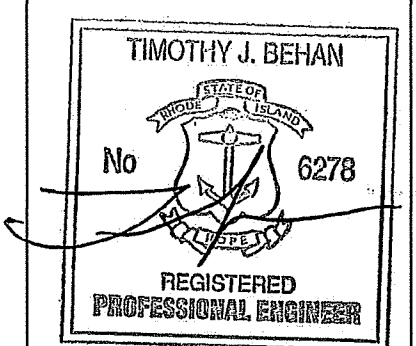
- REFERENCE IS MADE TO RIDEM OWTS PERMIT FILE #1832-1529 AND RIDEM WETLAND PERMIT FILE #22-0085.

**GRADING & DRAINAGE NOTES:**

- CONTRACTOR TO FINE GRADE LOTS IN ACCORDANCE WITH STATE OF RHODE ISLAND ONE AND TWO FAMILY DWELLING CODE. LOTS SHALL BE GRADED SO THAT ADDITIONAL ACCUMULATION OF SURFACE WATER DOES NOT OCCUR ACROSS ADJOINING PROPERTY. SURFACE DRAINAGE SHALL BE DIVERGED TO A STORM SEWER CONVEYANCE OR OTHER POINT OF COLLECTION SO AS NOT TO CREATE A HAZARD. LOTS SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10 FEET. IMPERVIOUS SURFACES (DRIVEWAY) SHALL BE SLOPED AWAY FROM HOUSE AT A SLOPE OF 2% FOR AT LEAST 10 FEET.
- DO NOT ALLOW STREET RUNOFF TO ENTER SUBJECT PROPERTY.
- PIPE ROOF DOWNSPOUT RUNOFF TO INFILTRATION SYSTEMS WITH 4" DRAIN PIPE.

**BUFFER MARKER NOTES:**

- A PERMANENT BUFFER MARKER MUST BE INSTALLED EVERY 50-FOOT ALONG THE LIMIT OF DISTURBANCE (LOD) WHERE THE LOD TOUCHES THE 50' PERIMETER WETLAND.
- APPLICABLE PERMANENT TYPE MARKERS INCLUDE 4"x4" PRESSURE TREATED TIMBER POSTS, GALVANIZED FENCE POST WITH CAP, OR GRANITE OR CONCRETE BOUNDARY MARKERS MUST EXTEND A MINIMUM OF TWENTY-FOUR (24) INCHES ABOVE GRADE. A PERMANENT TYPE TAG OR SIGN LABELED 'RIDEM BUFFER ZONE' MUST BE PLACED ON EACH MARKER. A PERMANENT TYPE FENCE AT LEAST TWENTY FOUR (24) INCHES TALL PLACED ALONG THE LIMITS OF DISTURBANCE AND SIMILARLY LABELED MAY BE SUBSTITUTED WHERE DESIRED.



**REVISIONS**

No.	DATE	DRWN	CHKD
1	3-4-24	TB	TB
2	4-5-24	TB	TB

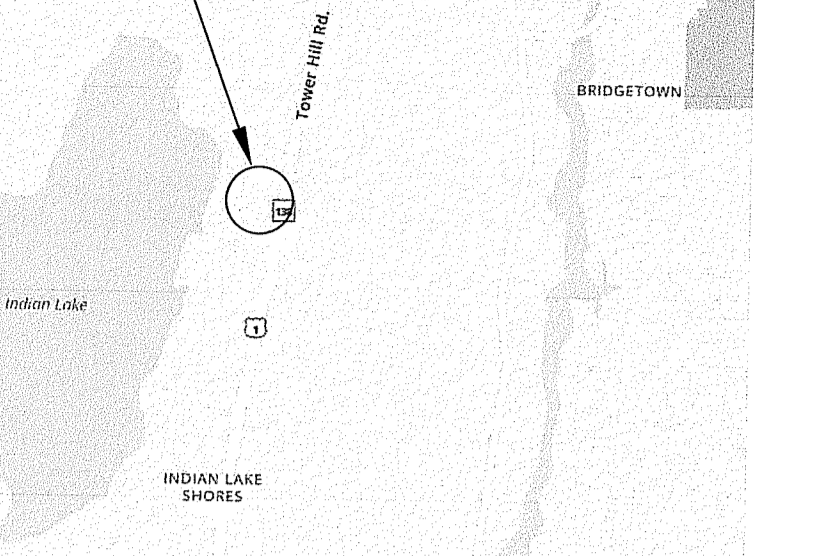
**COMMONWEALTH ENGINEERS & CONSULTANTS, INC.**  
 400 SMITH STREET  
 PROVIDENCE, RHODE ISLAND 02908  
 401-273-6600

**SITE PLAN**  
 for  
**AP 26-3 LOT 17**  
**HALF MOON TRAIL**  
 in  
 SOUTH KINGSTOWN, RHODE ISLAND

SCALE: AS-SHOWN SHEET NO: 1 of 2  
 DRAWN BY: TB DESIGN BY: TB CHECKED BY: TB  
 DATE: 1/26/24 PROJECT NO.: P23000.00

RI Environmental Management  
 APR 05 2024  
 Office of Water Resources

**SITE**



**LOCUS MAP**

SCALE: AS SHOWN

**GENERAL NOTES:**

- THIS PLAN WAS PREPARED FOR RIDEM SEPTIC SYSTEM PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER. THIS IS NOT THE BUILDING PERMIT PLOT PLAN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 'RULES' ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS, LATEST REVISION, AS REGULATED THROUGH THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (THESE ARE REFERRED TO AS THE 'RULES') AND THE STATE OF RHODE ISLAND ONE & TWO FAMILY DWELLING BUILDING CODE.
- THE PROPOSED ACTIVITIES ARE ( ) OR (ARE NOT X) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL'S JURISDICTION.
- PUBLIC SEWERS ARE ( ) OR (ARE NOT X) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
- DRINKING WATER LINES ARE ( ) OR (ARE NOT X) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTS. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTS ARE ( ) OR (PRIVATE WELL X) OR (PUBLIC WELL X).
- WATER SUPPLY IS BY (PUBLIC WATER SYSTEM ) OR (PRIVATE WELL X).
- THERE ARE ( ) OR (ARE NOT X) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN THE 'RULES' + 100 FEET. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE ARE ( ) OR (ARE NOT X) EXISTING AND PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 500 FEET OF THE PROPOSED OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN. THE TYPE OF PUBLIC WELL, IF PRESENT, IS NOTED NEXT TO THE WELL.
- THERE ARE ( ) OR (ARE NOT X) WATERCOURSES, WETLANDS, AND DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. IF PRESENT, THE LOCATIONS ARE SHOWN ON THE PLAN.
- THERE ARE ( ) OR (ARE NOT X) STORM AN SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. SAID DRAINS (DO ) OR (DO NOT X) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN THE 'RULES'.
- THE PROPOSED OWTS (S ) OR (S NOT X) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
- THE PROPOSED OWTS (S ) OR (S NOT X) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN THE 'RULES'. THE DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS N/A FEET.
- THERE ARE ( ) OR (ARE NOT X) EXISTING OWTS WITHIN 200 FEET OF ANY PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- EXISTING OWTS WITH A DESIGN FLOW GREATER THAN 1,000 GAL/DAY ARE ( ) OR (ARE NOT X) LOCATED WITHIN 400 FEET OF THE PROPOSED WELL. IF PRESENT, THE LOCATION AND SIZE HAS BEEN SHOWN ON THE PLAN.
- THERE ARE ( ) OR (ARE NOT X) AREAS ON SUBJECT PROPERTY WHERE SOIL HAS BEEN EXCAVATED AND/OR WHERE STORM DEPOSITED SAND IN THE BACKYARD ENVIRONMENT OR WHERE HUMAN TRANSPORTED MATERIAL HAS BEEN DEPOSITED.
- A REPLACEMENT DISPERSAL FIELD AREA MEETING THE HORIZONTAL SETBACK REQUIREMENTS IN THE 'RULES' (S ) OR (S NOT X) SHOWN ON THE PLAN. IF NOT SHOWN, A SURFACE AREA DOES NOT EXIST OR INSUFFICIENT DATA IS KNOWN TO MAKE A DETERMINATION AT THIS TIME.
- THE POTENTIAL FOR FLOODING WITHIN 100 FEET OF THE PROPOSED OWTS DOES NOT EXIST.
- THE PROPOSED WELL, IF APPLICABLE, (DOES ) OR (DOES NOT X) REQUIRE A VARIANCE FROM RIDEM'S 'RULES' AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS. THIS APPLICATION (S ) OR (S NOT X) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
- THE SUBJECT PROPERTY (S X) OR (S NOT ) SERVED WITH AN OWTS & PRIVATE WELL. THE NITROGEN LOADING RATE SHALL NOT EXCEED 345 GAL/DAY PER 20,000 SQUARE FEET OF PROPERTY WHEN SERVED WITH AN OWTS & PRIVATE WELL.
- THE CONTRACTOR SHALL STAKE AND FLAG TO PROTECT THE LEACHFIELD FROM VEHICLE TRAFFIC AND EXCESSIVE WEIGHT LOADS BEFORE AND DURING CONSTRUCTION OF THE OWTS AND THE STRUCTURE. FLAGGING SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES AT THE SITE ARE COMPLETE.
- APPLICANT/OWNER/CONTRACTOR SHALL NOT MOVE HOUSE, CHANGE HOUSE FOOTPRINT OR CONSTRUCT DRAINS/FOUNDATION DRAINS UNLESS PRE-AUTHORIZED IN WRITING BY OWTS DESIGNER.

**LEACHFIELD SIZING CALCULATIONS**

FLOW TO LEACHFIELD	= 2.1 GAL/SF/DAY (CAT. 7 SOIL)
LOADING RATE	= 345 / 2.1 = 164.3 SF.
SQUARE FEET REQ'D.	= 10.3 SF/LF
USE GST 6206	= 1 TRENCH AT 16 LF
AREA PROVIDED	= 10.3 SF/LF x 16 LF = 164.8 SF > 164.3 SF

**TANK SIZING CALCULATIONS:**

RESIDENTIAL DWELLING	= 3 BEDROOMS
	= 1,000 GAL REQUIRED

**CONTRACTOR'S NOTES - CONSTRUCTION:**

- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
- PRODUCT AND MATERIAL SPECIFICATION SHEETS FOR ALL COMPONENTS SHALL BE PROVIDED TO ENGINEER PRIOR TO ENGINEER NOTIFYING RIDEM FOR START OF CONSTRUCTION. THIS INCLUDES: 1) SEPTIC TANK 2) D-BOX, 3) ADVANTEX EQUIPMENT, 4) FILTER FABRIC, 5) WASHED STONE, 6) GRAVEL, 7) SAND, 8) GEOMATRIX, 9) SDR 35 PVC PIPE, 10) SCH 40 PVC PIPE.
- SURVEYOR TO STAKE OUT LEACHFIELD CORNERS FOR REVIEW AND APPROVAL BY ENGINEER.
- ENGINEER TO APPROVE BOTTOM OF LEACHFIELD BED PRIOR TO PLACEMENT OF GRAVEL.
- SCAFFRY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF GRAVEL, NOT THE DAY BEFORE.
- ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PROVIDE VACUUM TEST REPORT FROM TANK MANUFACTURER.
- ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING. FINE GRADE LEACHFIELD AND SEPTIC TANK AREA SO RUNOFF DOES NOT FLOW ONTO AREA FROM UPLAND AREAS DURING & AFTER CONSTRUCTION.
- ALL CONCRETE RISER SECTIONS SHALL BE MORTARED/SEALED WATER-TIGHT TO TANK.

**OWNER'S NOTES:**

- FOOD/GARBAGE GRINDERS ARE PROHIBITED FROM BEING CONNECTED TO THE SEPTIC SYSTEM.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD AND SEPTIC TANK IS PROHIBITED.
- BACKWASH WATER FROM WATER TREATMENT SYSTEMS (IF INSTALLED) SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM. MAINTENANCE IS DETERMINED TO BE REQUIRED BY OPERATION AND MAINTENANCE PROVIDER OF THE OWTS SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED. THIS IS NOT A GARBAGE DISPOSAL SYSTEM. NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
- NO SUBSURFACE DRAINS OR SUBURRANS SHALL BE INSTALLED WITHIN 50 FEET OF THE OWTS UNLESS IN ACCORDANCE WITH OWTS REGULATIONS.
- THIS OWTS REQUIRES MAINTENANCE FROM THE TREATMENT SYSTEM MANUFACTURERS REPRESENTATIVE. OWNER SHALL MAINTAIN SYSTEM IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

**LEACHFIELD CONSTRUCTION NOTES/SEQUENCE:**

- CLEARING: ALL TREES, BRUSH AND STUMPS WITHIN THE AREA OF THE LEACHFIELD AND WITHIN TEN (10) FEET OF THE LEACHFIELD SHALL BE REMOVED. INSTALL SOIL EROSION CONTROLS TO PREVENT SOILS FROM ERODING FROM SITE AND FROM BEING TRACKED ONTO THE STREET. PROVIDE BERMS ALONG STREET EDGE TO KEEP STREET RUNOFF FROM ENTERING SITE.
- EXCAVATION: LEACHFIELD SHALL BE STRIPPED OF ALL TOPSOIL (A HORIZONS) AND EXCAVATED TO THE CONTINUING. NATIVE SOIL BETWEEN TRENCHES SHALL REMAIN UNDISTURBED IF MORE THAN 1 TRENCH. SCAFFRY BOTTOM OF WALLS. DO NOT COMPACT OR SMEAR BOTTOM AND SIDE WALLS OF LEACHFIELD. REMOVE ALL TREE ROOTS IN SIDE WALLS.
- SYSTEM: CONSTRUCT SYSTEM IN ACCORDANCE WITH PLAN AND MANUFACTURERS INSTRUCTIONS.
- BACKFILL COVER: ALL BACKFILL SHALL BE FREE OF BOULDERS AND STONES GREATER THAN SIX (6) INCHES IN DIAMETER. FROZEN CLUMPS OF EARTH, RUBBISH, MASONRY, STUMPS OR WASTE CONSTRUCTION MATERIALS. BACKFILL SHALL BE PLACED CAREFULLY TO AVOID DISPLACEMENT AND DAMAGE TO PIPING. HEAVY MACHINERY SHALL NOT BE PERMITTED TO PASS OVER THE LEACHFIELD. FINE GRADE AREA SO RUNOFF IS DIVERTED FROM LEACHFIELD SURFACE.
- ADJACENT SIDE SLOPE: A MINIMUM TEN (10) FOOT HORIZONTAL SEPARATION DISTANCE SHALL BE PROVIDED BETWEEN THE OUTER EDGE OF THE DISPERSAL TRENCH AND ANY GROUND SURFACE ELEVATION LESS THAN THE ELEVATION OF THE INVERT OF THE DISTRIBUTION LINE. THE ADJACENT SIDE SLOPE SHALL NOT BE STEEPER THAN 3:1 (HORIZONTAL:VERTICAL) FOR A TWENTY-FIVE (25) FOOT MINIMUM DISTANCE FROM THE EDGE OF THE STONE IN THE DISPERSAL TRENCH OR UNTIL THE TOE OF THE SLOPE RETURNS TO THE ELEVATION OF THE ORIGINAL GRADE. THE TOE OF THE 3:1 SLOPE SHALL BE A MINIMUM OF FIVE (5) FEET FROM ANY PROPERTY LINE.
- FINISH GRADE STABILIZATION: IMMEDIATELY AFTER COMPLETION OF FINAL GRADINGS, THE AREA OF DISTURBANCE DUE TO INSTALLATION OF THE OWTS SHALL BE STABILIZED BY MULCHING AND SEEDING, OR SOODING, TO ESTABLISH A PERMANENT VEGETATIVE COVER TO PREVENT EROSION. THE LEACHFIELD SURFACE AREA SHALL BE FINE GRADED SO RUNOFF IS DIVERTED FROM LEACHFIELD AREA.

**ADVANTEX AX-20 NOTES:**

- THIS OWTS IS AND SHALL ALWAYS BE PRESSURE DOSED UTILIZING PROGRAMMABLE TIMERS. SINCE THE ADVANCED TREATMENT UNIT IS TIME-DOSED (CATEGORY 1 OPTION) THE TIMER SHALL ALSO CONTROL THE APPLICATION OF INFLUENT TO THE BSF.
- THE ADVANTEX UNIT & ASSOCIATED COMPONENTS (PUMPS, FLOATS, VALVES, PIPE CONNECTIONS, ETC.) SHALL BE INSTALLED BY AN ORENCO SYSTEMS MANUFACTURERS REPRESENTATIVE. THE O.S. REPRESENTATIVE SHALL PROVIDE CERTIFICATION TO THE ENGINEER THAT THE SYSTEM WAS INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS.
- ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK TO THE PUMP.
- ADVANTEX POD SHALL BE EQUIPPED WITH ANTI-FLOTATION FLANGES.
- THE PUMP DOSING THE AX-20 POD SHALL BE ORENCO SYSTEMS MODEL PF3005 OR APPROVED EQUAL.
- FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MFA3 OR APPROVED EQUAL.
- ORENCO SYSTEMS CONTROL & ALARM PANEL SHALL BE VERICOM WITH ELAPSE TIME METER, EVENT COUNTER & PROGRAMMABLE TIMER OPTIONS OR APPROVED EQUAL.

**SEPTIC TANK NOTES:**

- SEPTIC TANK SHALL BE WATER TIGHT AND CONSTRUCTED OF PRECAST REINFORCED CONCRETE.
- PRECAST REINFORCED CONCRETE TANKS SHALL CONFORM WITH ASTM C-1227-02, LATEST EDITION.
- TANKS SHALL BE PERMANENTLY MARKED AT THE INLET END OF THE TANK WITH DATE OF MANUFACTURE, NAME OF MANUFACTURER, CAPACITY, AN EXTERNAL LOADS FOR WHICH TANK IS DESIGNED TO RESIST.
- A WARNING LABEL AT ALL OPENINGS SHALL BE PROVIDED WHICH READS "ENTRANCE INTO THE TANK COULD BE FATAL".
- TANK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS.
- TANK SHALL BE INSTALLED ON A LEVEL, STABLE BASE THAT WILL NOT SETTLE.
- SURFACE WATER SHALL BE DIVERTED AWAY FROM THE TANK OPENINGS.
- TANK SHALL NOT BE DAMAGED DURING BACKFILLING. BACKFILL MATERIAL SHALL BE FREE OF LARGE STONES, STUMPS, WASTE, CONSTRUCTION MATERIAL, RUBBISH, ORGANIC MATERIAL, AND FROZEN SOILS.
- TANK AND RISERS SHALL BE TESTED FOR WATER TIGHTNESS BY EITHER VACUUM TESTING OR WATER PRESSURE TEST AS SPECIFIED IN THE 'RULES'. CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT THE TEST PASSED PRIOR TO C.C.O.
- JOINTS OF ALL CONCRETE TANKS SHALL BE SEALED WITH A 1" DIA. BUTYL RUBBER SEALANT OR APPROVED EQUAL.
- MANHOLE OPENINGS SHALL BE 20 INCH MINIMUM.
- PROVIDE VENT OPENING AT TOP OF BAFFLE WALL EQUAL TO 4" PIPE OR GREATER.

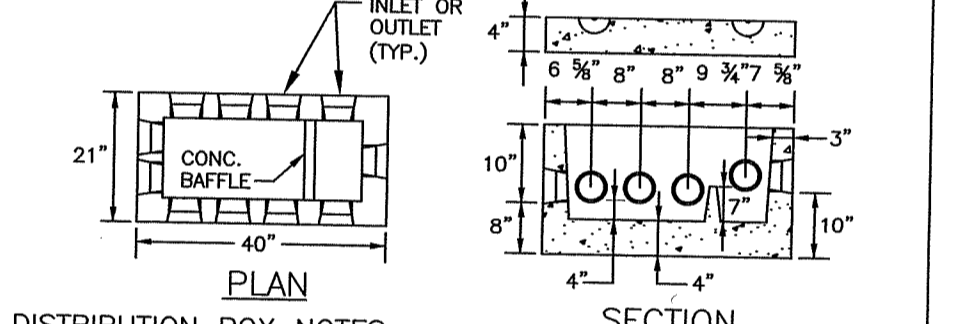
**GRADING & DRAINAGE NOTES:**

- CONTRACTOR TO FINE GRADE LOTS IN ACCORDANCE WITH STATE OF RHODE ISLAND ONE AND TWO FAMILY DWELLING CODE. LOTS SHALL BE GRADED SO THAT ADDITIONAL ACCUMULATION OF SURFACE WATER DOES NOT OCCUR ACROSS ADJOINING PROPERTY. SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER POINT OF COLLECTION SO AS NOT TO CREATE A HAZARD. LOTS SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE AWAY FROM FOUNDATION WALLS SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10 FEET. IMPERVIOUS SURFACES (DRIVEWAY) SHALL BE SLOPED AWAY FROM HOUSE AT A SLOPE OF 2% FOR AT LEAST 10 FEET.
- FINE GRADE PROPERTY TO PREVENT STREET RUNOFF FROM ENTERING SUBJECT PROPERTY.

**WASTEWATER STRENGTH:**

THE ADVANTEX SYSTEM REQUIRES THE FOLLOWING WASTEWATER STRENGTH. THE PROPOSED USE TYPICALLY PRODUCES WASTEWATER STRENGTHS WHICH MEET THE CRITERIA BELOW. SHOULD WASTEWATER STRENGTH NOT MEET THE BELOW CRITERIA, ADDITIONAL MEASURES MAY NEED TO BE INCORPORATED INTO THE SYSTEM. OWNER IS RESPONSIBLE FOR INCORPORATING SUCH MEASURES.

	AVERAGE	WEEKLY PEAK	RARELY EXCEEDS
	(mg/L)	(mg/L)	(mg/L)
BOD	150	250	500
TSS	40	75	150
TKN	85	150	300
FOG	20	25	30



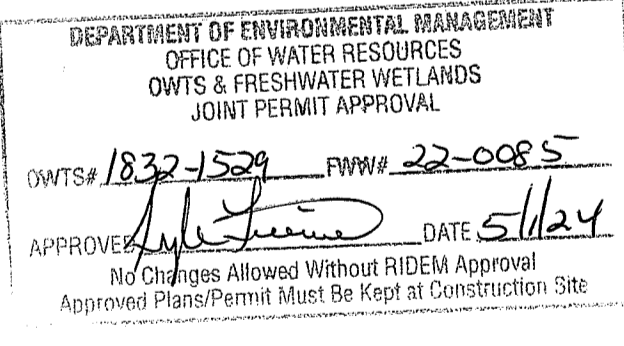
**DISTRIBUTION BOX NOTES:**

- D-BOX SHALL BE CONSTRUCTED OF 4,000 PSI (MIN.) CONCRETE, BE CAPABLE OF WITHSTANDING H-20 LOADINGS & A TOP LOAD CARRYING CAPACITY OF 500 LBS/ SQ. INCH.
- INLET SHALL ACCEPT 4" SCH 40 OR SDR 35 PVC PIPE.
- OUTLETS SHALL HAVE STATE APPROVED SEALS THAT ACCEPT 4" SCH 40 OR 4" SDR 35 PVC PIPE.
- EXTEND COVER TO WITHIN 12" OF FINISHED GRADE WITH CONCRETE RISERS AND PLACE A MARKER TO FINISH GRADE OVER THE COVER.
- D-BOX SHALL BE PLACED ON A LEVEL AND COMPACTED BASE.
- D-BOX SHALL HAVE A MINIMUM AREA OF 3 SQUARE FEET.
- PROVIDE AN INLET TEE IF A CONCRETE BAFFLE IS NOT PROVIDED.
- PIPES SHALL EXTEND INTO THE DISTRIBUTION BOX ONE (1) INCH.
- D-BOX AND ALL PIPE PENETRATIONS SHALL BE MADE WATER TIGHT.

**DISTRIBUTION BOX**

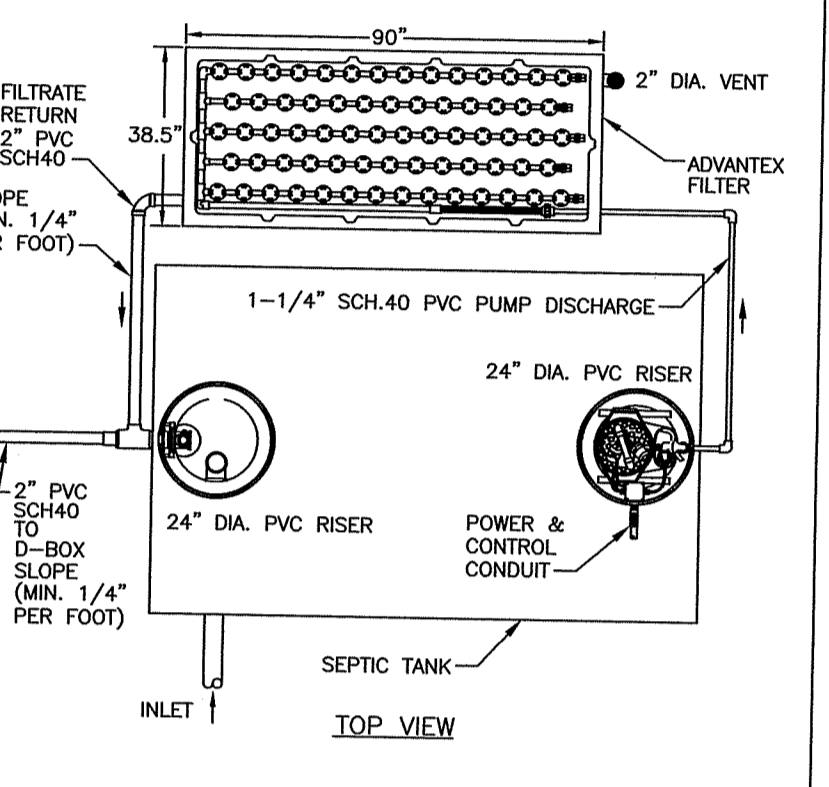
NOT TO SCALE

Copy of Permit and Operation/Maintenance contract must be filed in land evidence records prior to conformance.



**LEGEND**

- SUBJECT PARCEL BOUNDARY
- EXISTING PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE (LOD)
- SILT FENCE AND LIMIT OF DISTURBANCE
- TEST PITS
- EXISTING OVERHEAD WIRES
- PROPOSED WATER
- X 100.0 EXISTING SPOT GRADE
- X 100.0 PROPOSED SPOT GRADE
- A.P. ASSESSOR'S PLAT
- CB. CATCH BASIN
- DIA. DIAMETER
- EL. ELEVATION
- ELEV. ELEVATION
- FEET FEET
- GAL. GALLON
- CAR. CARTRIDGE
- INV. INVERT
- MAX. MAXIMUM
- MIN. MINIMUM
- ONSITE. ONSITE WASTEWATER TREATMENT SYSTEM
- STREET. STREET RIGHT OF WAY
- SLOPE. SLOPE
- STAINLESS. STAINLESS STEEL
- TOP. TOP OF FOUNDATION
- TYP. TYPICAL
- UTILITY. UTILITY POLE #3
- W/O. WALK OUT
- R.O.W. RIGHT OF WAY
- S.S. STAINLESS STEEL
- TYP. TYPICAL
- UP#3. UTILITY POLE #3
- W/O. WALK OUT



**LOW PROFILE MODE ADVANTEX TREATMENT SYSTEM AX20 SERIES MODE 3**

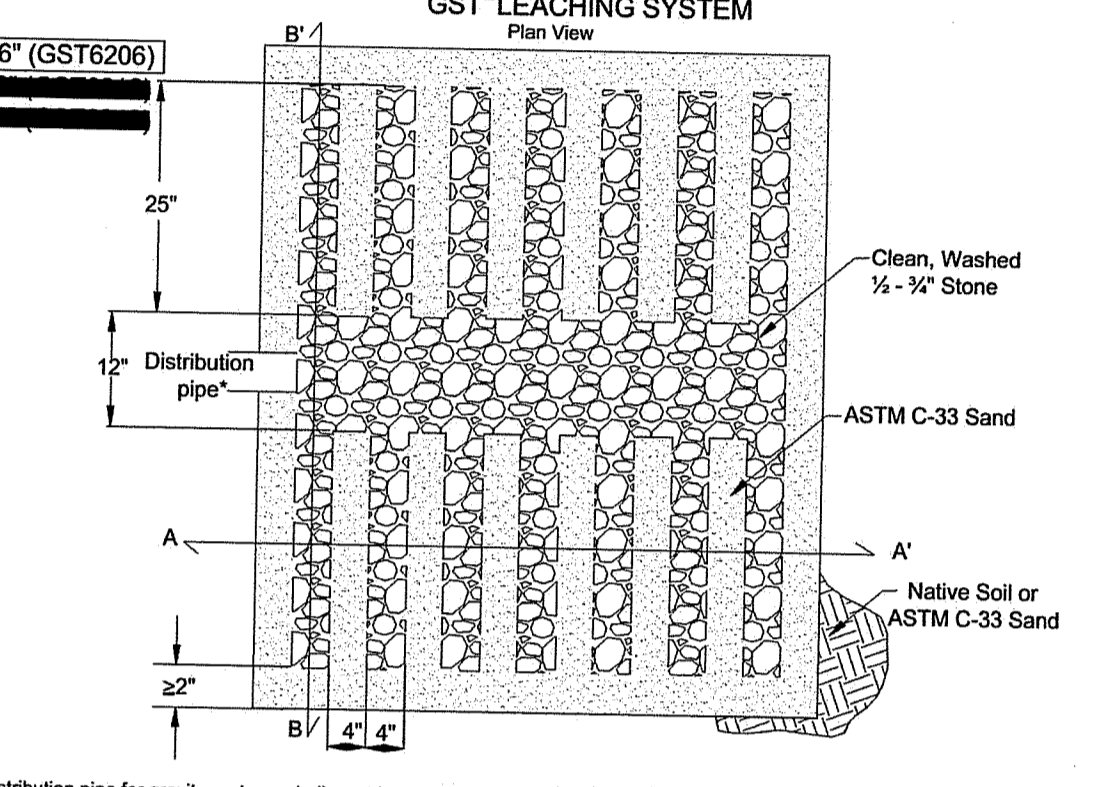
N.T.S.

**GSF LEACHFIELD PLAN VIEW DETAIL**

NOT TO SCALE

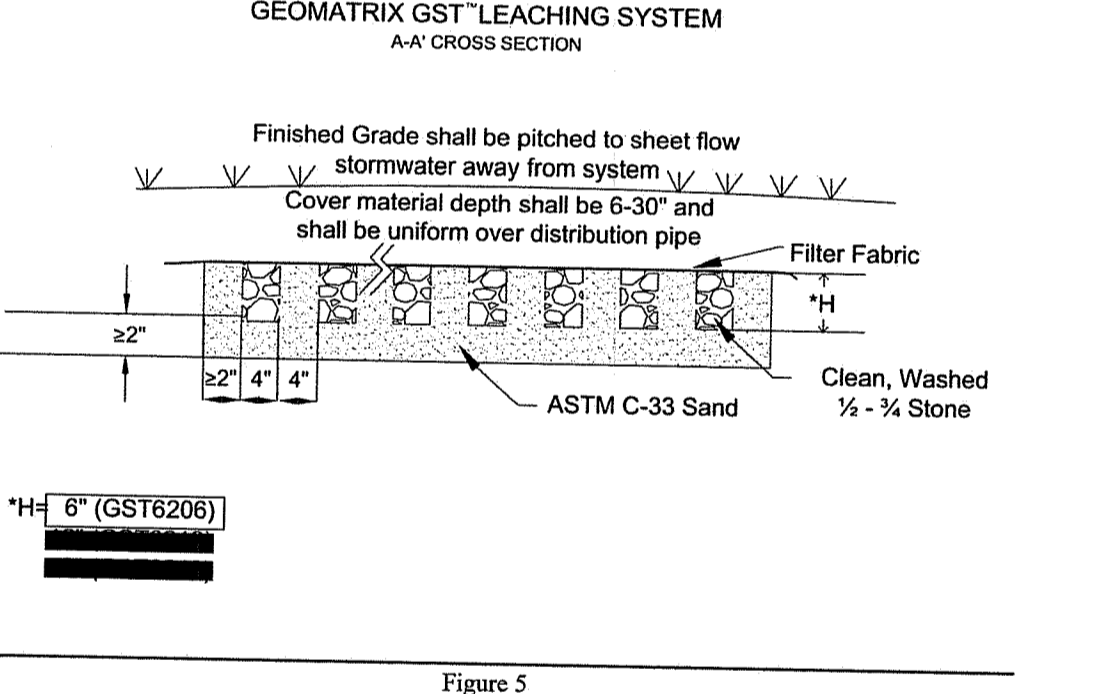
**GSF LEACHFIELD SECTION DETAIL**

NOT TO SCALE



**GSF LEACHFIELD**

NOT TO SCALE



**GSF LEACHFIELD**

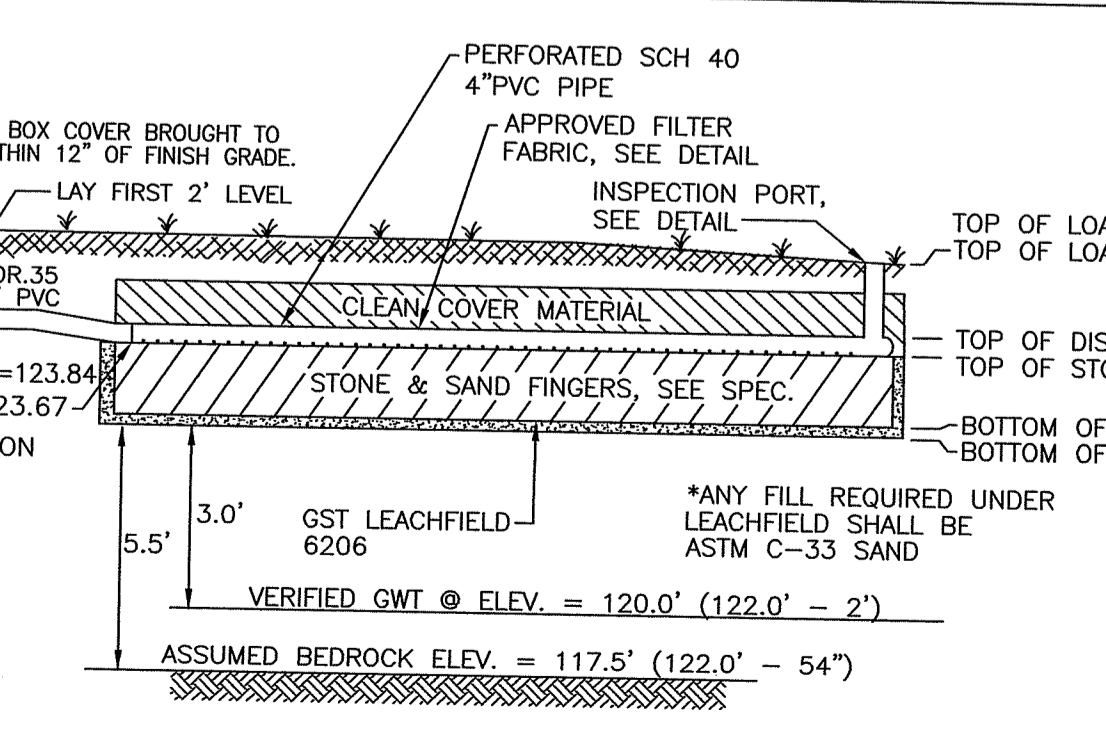
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**GSF LEACHFIELD TYPICAL DETAILS**

NOT TO SCALE

TH#	DATE	SOIL DATA	CAT.	SHWT DEPTH	TOTAL DEPTH
2	10/5/2018	Ap 0'-7" 10YR 3/3 Bw 7"-24" 10YR 4/6 C 24"-54" 2.5Y 4/3	SIL 1-SB K SIL 1-SB K SIL SL 0-M	VFR 5 VFR 5 FR 7	24" 54"

**SOILS TESTING DATA**



**SYSTEM PROFILE**

NOT TO SCALE

**9.1 ASTM C-33 Sand Specifications**

Sieve Size	Percent Passing
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	5-30
#100	0-10
#200	0-3

**GSF LEACHFIELD ASTM C-33 SAND SPECIFICATION**

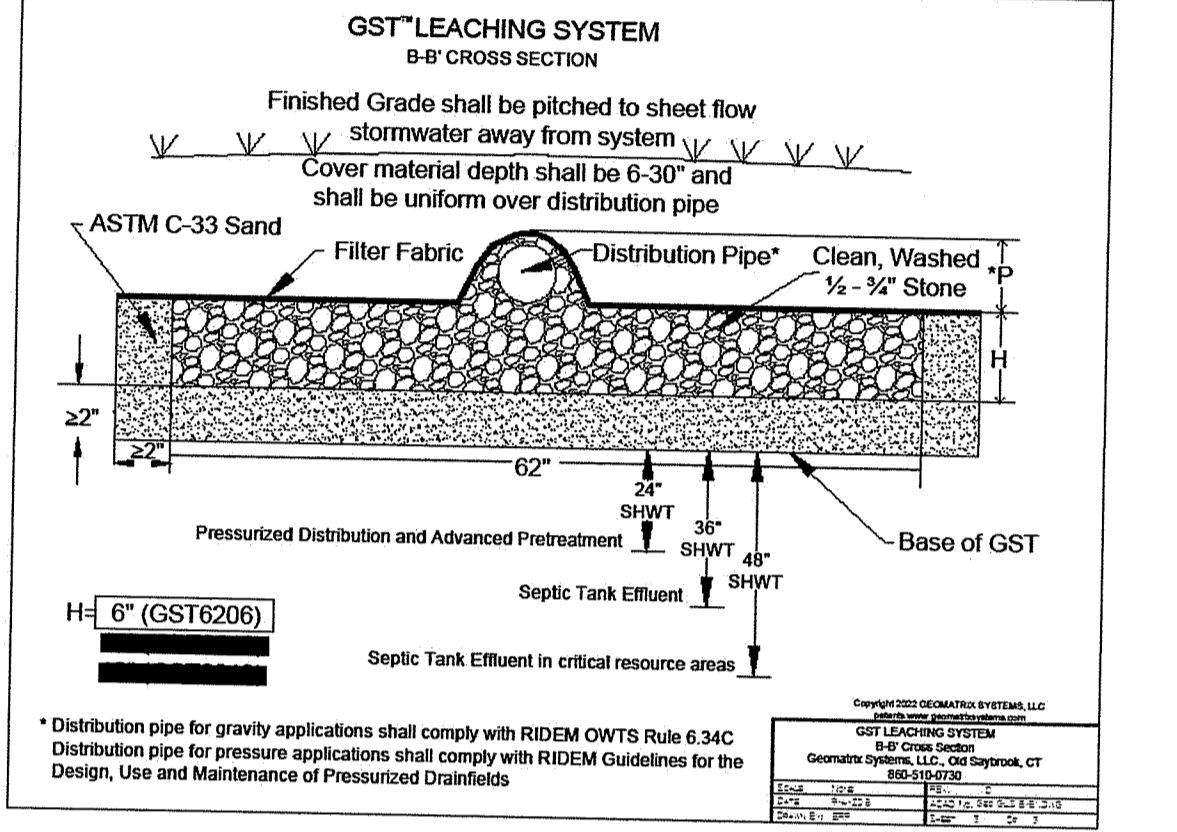
NOT TO SCALE

**9.2 Clean Washed 1/2 to 3/4 inch Stone**

Sieve Size	Percent Passing (by weight)
2-inch	N/A
1.5-inch	N/A
1-inch	100
3/4-inch	90-100
1/2-inch	20-55
3/8-inch	0-15
#4	0-5
#40	0-3
#200	0-1.5

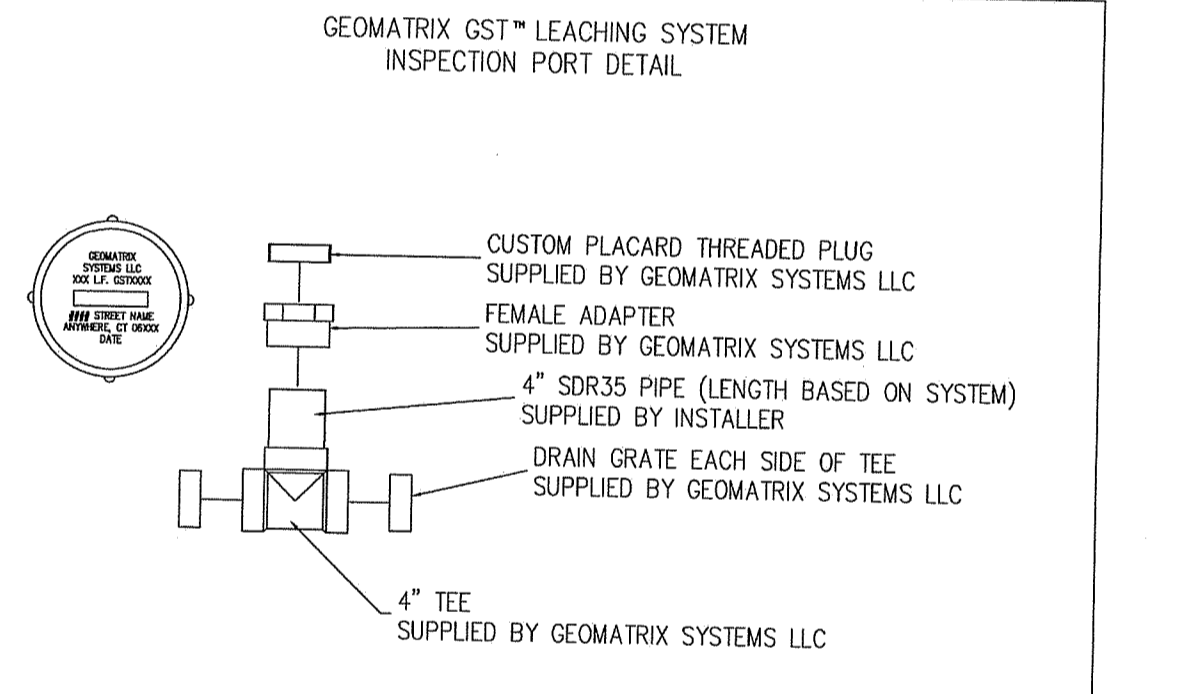
**GSF LEACHFIELD 1/2" TO 3/4" STONE SPECIFICATION**

NOT TO SCALE



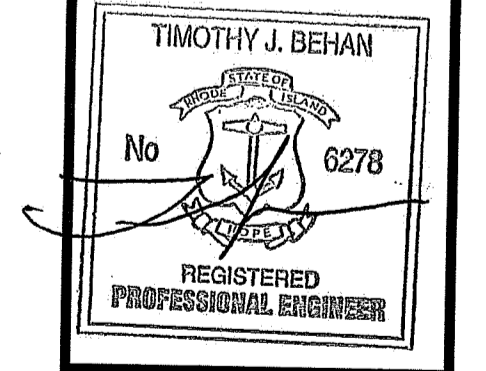
**GSF LEACHFIELD**

NOT TO SCALE



**GSF LEACHFIELD**

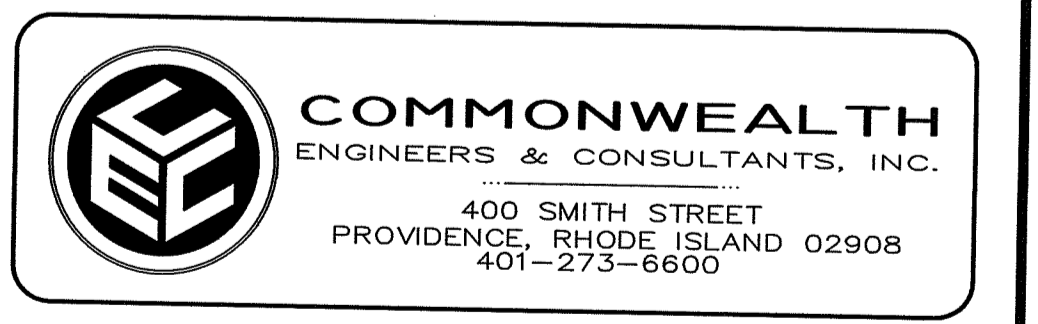
NOT TO SCALE



**REVISIONS**

No.	DATE	DRWN	CHKD
1	3-4-24	TB	TB
2	4-5-24	TB	TB

PREPARED FOR P/S AGREEMENT  
AQUIDNECK BUILDERS, LLC  
1004 BOSTON NECK RD, SUITE 6  
NARRAGANSETT, RI 02882



**SITE PLAN for AP 26-3 LOT 17 HALF MOON TRAIL in SOUTH KINGSTOWN, RHODE ISLAND**

SCALE: AS-SHOWN	SHEET NO: 2 of 2
DRAWN BY: TB	DESIGN BY: TB
CHECKED BY: TB	
DATE: 1/26/24	PROJECT NO.: P23000.00