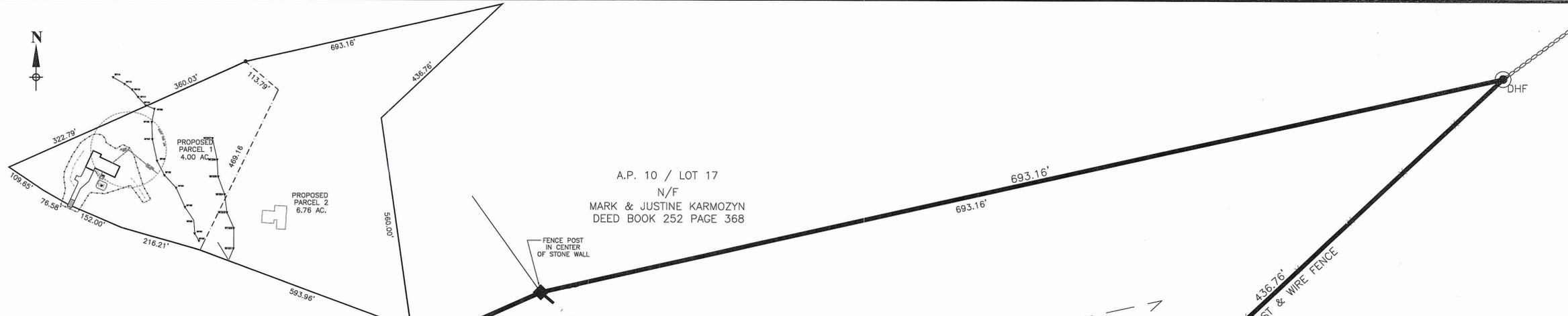
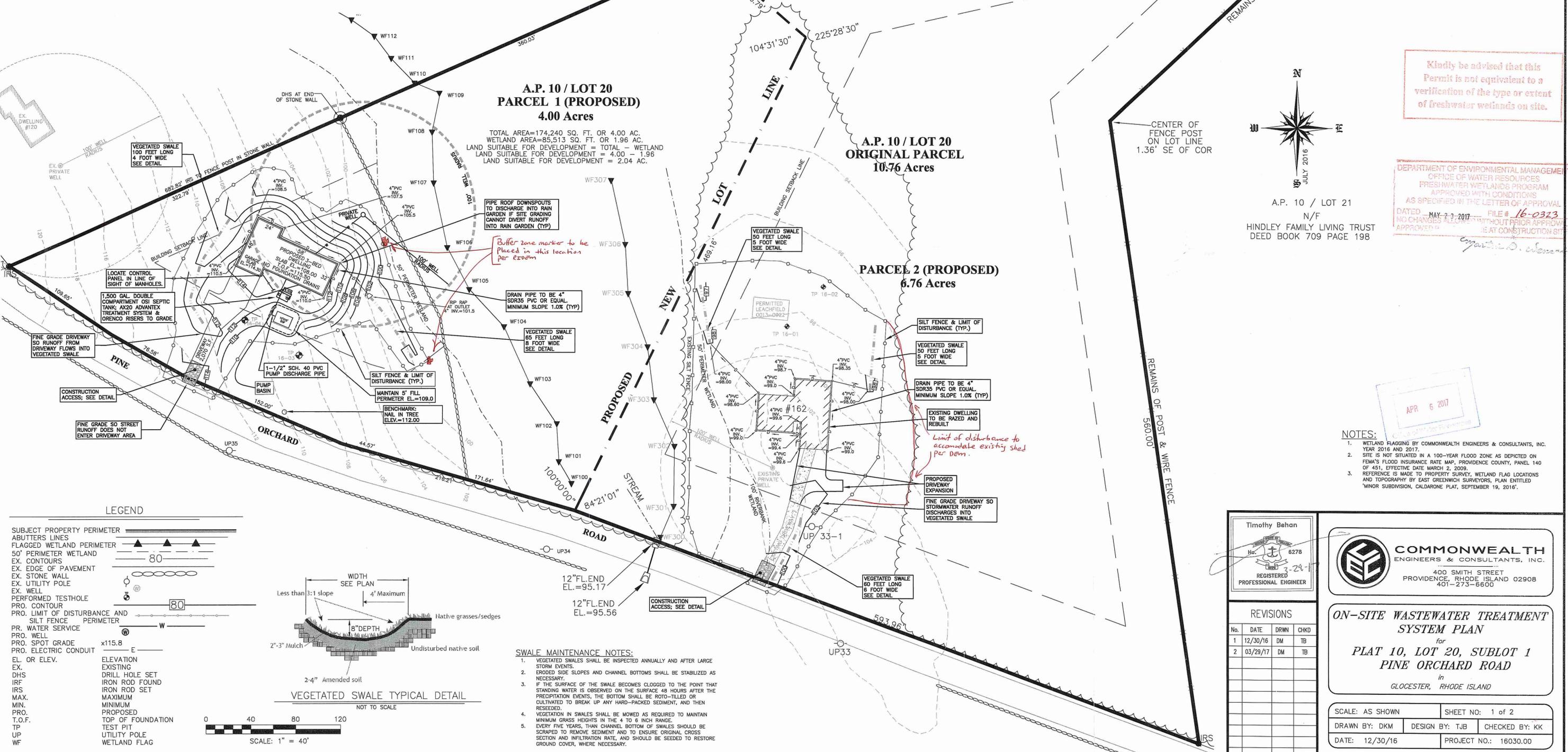


LOCUS MAP



OVERALL PROPERTY PLAN



**A.P. 10 / LOT 20
PARCEL 1 (PROPOSED)
4.00 Acres**

TOTAL AREA=174,240 SQ. FT. OR 4.00 AC.
WETLAND AREA=85,513 SQ. FT. OR 1.96 AC.
LAND SUITABLE FOR DEVELOPMENT = TOTAL - WETLAND
LAND SUITABLE FOR DEVELOPMENT = 4.00 - 1.96
LAND SUITABLE FOR DEVELOPMENT = 2.04 AC.

**A.P. 10 / LOT 20
ORIGINAL PARCEL
10.76 Acres**

**PARCEL 2 (PROPOSED)
6.76 Acres**

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 23, 2017 FILE # 16-0323
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
AT CONSTRUCTION SITE



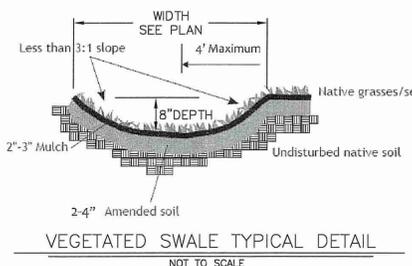
A.P. 10 / LOT 21
N/F
HINDLEY FAMILY LIVING TRUST
DEED BOOK 709 PAGE 198

APR 6 2017

- NOTES:
1. WETLAND FLAGGING BY COMMONWEALTH ENGINEERS & CONSULTANTS, INC. YEAR 2016 AND 2017.
 2. SITE IS NOT SITUATED IN A 100-YEAR FLOOD ZONE AS DEPICTED ON FEMA'S FLOOD INSURANCE RATE MAP, PROVIDENCE COUNTY, PANEL 140 OF 451, EFFECTIVE DATE MARCH 2, 2009.
 3. REFERENCE IS MADE TO PROPERTY SURVEY, WETLAND FLAG LOCATIONS AND TOPOGRAPHY BY EAST GREENWICH SURVEYORS, PLAN ENTITLED "MINOR SUBDIVISION, CALDARONE PLAT, SEPTEMBER 19, 2016".

LEGEND

SUBJECT PROPERTY PERIMETER	—
ABUTTERS LINES	—▲—▲—▲—
FLAGGED WETLAND PERIMETER	—▲—▲—▲—
50' PERIMETER WETLAND	—▲—▲—▲—
EX. CONTOURS	80
EX. EDGE OF PAVEMENT	—
EX. STONE WALL	—
EX. UTILITY POLE	—
EX. WELL	—
PERFORMED TESTHOLE	—
PRO. CONTOUR	80
PRO. LIMIT OF DISTURBANCE AND	—
PRO. SILT FENCE PERIMETER	—
PR. WATER SERVICE	—
PRO. WELL	—
PRO. SPOT GRADE	x115.8
PRO. ELECTRIC CONDUIT	—
EL. OR ELEV.	—
EX. DRILL HOLE SET	—
EX. IRON ROD FOUND	—
EX. IRON ROD SET	—
MAX. MINIMUM	—
PRO. PROPOSED	—
T.O.F. TOP OF FOUNDATION	—
TP TEST PIT	—
UP UTILITY POLE	—
WF WETLAND FLAG	—



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

Timothy Behan
No. 6278
REGISTERED PROFESSIONAL ENGINEER

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

REVISIONS

No.	DATE	DRWN	CHKD
1	12/30/16	DM	TB
2	03/29/17	DM	TB

ON-SITE WASTEWATER TREATMENT SYSTEM PLAN
for
PLAT 10, LOT 20, SUBLOT 1
PINE ORCHARD ROAD
in
GLOCESTER, RHODE ISLAND

SCALE: AS SHOWN SHEET NO: 1 of 2
DRAWN BY: DKM DESIGN BY: TJB CHECKED BY: KK
DATE: 12/30/16 PROJECT NO.: 16030.00

STANDARD OWTS NOTES:

- THIS PLAN WAS PREPARED FOR RIDEEM SEPTIC SYSTEM PERMIT ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN AUTHORIZATION FROM THE ENGINEER.
- 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".
- THE PROPOSED ACTIVITIES (ARE) OR (ARE NOT) UNDER THE RHODE ISLAND COASTAL RESOURCE MANAGEMENT COUNCIL'S JURISDICTION.
- PUBLIC SEWERS (ARE) OR (ARE NOT) LOCATED WITHIN 200 FEET OF THE PROPERTY LINE.
- DRINKING WATER LINES (ARE) OR (ARE NOT) LOCATED WITHIN 50 FEET OF THE PROPOSED OWTS. ALL DRINKING WATER LINES WITHIN 50 FEET OF THE PROPOSED OWTS HAVE BEEN SHOWN, IF PRESENT.
- WATER SUPPLY IS BY (PUBLIC WATER SYSTEM) OR (PRIVATE WELL)
- THERE (ARE) OR (ARE NOT) EXISTING AND PROPOSED PRIVATE DRINKING WATER WELLS LOCATED WITHIN THE SPECIFIED SETBACK DETAILED IN TABLE 22.5 OF THE "RULES" + 100 FEET. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE) OR (ARE NOT) EXISTING AND PROPOSED WELLS SERVING NON-POTABLE USES WITHIN 100' OF THE OWTS. IF WELL(S) ARE PRESENT, THEY HAVE BEEN SHOWN ON THE PLAN.
- THERE (ARE) OR (ARE NOT) 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) 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) STORM AND SUBSURFACE DRAINS WITHIN 200 FEET OF THE PROPOSED OWTS. SAID DRAINS (DO) OR (DO NOT) DISCHARGE DIRECTLY OR INDIRECTLY INTO A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES".
- THE PROPOSED OWTS (IS) OR (IS NOT) LOCATED WITHIN THE WATERSHED OF A PUBLIC WATER SUPPLY.
- THE PROPOSED OWTS (IS) OR (IS NOT) LOCATED WITHIN A CRITICAL RESOURCE AREA AS IDENTIFIED IN RULE 38 OF THE "RULES". THE DISTANCE TO THE NEAREST CRITICAL RESOURCE OF CONCERN IS N/A FEET.
- THERE (ARE) OR (ARE NOT) 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 N/A) OR (ARE NOT N/A) 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) AREAS ON SUBJECT PROPERTY WHERE SOIL HAS BEEN EXCAVATED AND/OR WHERE STORM DEPOSITED SAND IN THE BACKLOGUE ENVIRONMENT OR WHERE HUMAN TRANSPORTED MATERIAL HAS BEEN DEPOSITED.
- A REPLACEMENT DISPERSAL FIELD AREA MEETING THE HORIZONTAL SETBACK REQUIREMENTS IN RULE 22 OF THE "RULES" (IS) OR (IS NOT) SHOWN ON THE PLAN. IF NOT SHOWN, A SUITABLE 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) REQUIRE A VARIANCE FROM RIDEEM'S "RULES AND REGULATIONS GOVERNING THE ENFORCEMENT OF CHAPTER 46-13.2 RELATING TO THE DRILLING OF DRINKING WATER WELLS".
- THIS APPLICATION (IS) OR (IS NOT) PART OF A SUBDIVISION OF FIVE (5) LOTS OR LESS WITH EXISTING ROAD FRONTAGE.
- THE SUBJECT PROPERTY (IS) OR (IS 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. PROPOSED: $\frac{345}{174,517} < \frac{345}{20,000}$ MAXIMUM

GENERAL NOTES:

- SEPTIC TANK, PUMP BASIN, & RISERS SHALL BE WATER-TIGHT. CONTRACTOR TO TEST BY FILLING WITH WATER, WITNESSED BY ENGINEER (IN ACCORDANCE WITH RULE 26.11).
- BUILDING SEWER TO SEPTIC TANK SHALL HAVE NO BENDS EXCEEDING 45°.
- VEHICLE PARKING OR TRAFFIC OVER THE LEACHFIELD/SEPTIC TANK AREA IS PROHIBITED.
- FINISH GRADE SHALL FITCH AWAY FROM ALL MANHOLES.
- THE CONTRACTOR SHALL REMOVE ALL TREES AND TREE ROOTS WITHIN 10 FEET OF THE PROPOSED SEPTIC SYSTEM.
- THE CONTRACTOR SHALL STRIP ALL EXISTING SOIL, ORGANIC SOIL, HORIZON, VEGETATION, FILL, TREES, ROOTS, BRUSH, AND STUMPS IN THE LEACHFIELD AREA PRIOR TO PLACING ANY MATERIAL. LEACHFIELD BOTTOM SHALL BE INSPECTED BY THE ENGINEER. IF BOTTOM IS UNACCEPTABLE TO ENGINEER, CONTRACTOR SHALL EXCAVATE TO THE ELEVATION SPECIFIED BY THE ENGINEER AT NO ADDITIONAL COST.
- TOP OF FOUNDATION TO BE DETERMINED BY OTHERS. ELEVATION PROVIDED ON PLAN IS THE ELEVATION WHICH PROVIDES ADEQUATE COVER OVER BUILDING SEWER.

CONTRACTOR'S NOTES - CONSTRUCTION:

- NOTIFY ENGINEER 5 DAYS PRIOR TO START OF CONSTRUCTION.
- INSTALLATION OF PIPING/PUMP/INLET TO & FROM ADVANTEX POD AND PUMP SHALL BE PERFORMED BY A ORENCO SYSTEMS APPROVED AGENT.
- CONSTRUCTION OF THE BOTTOMLESS SAND FILTER (BSF) CAN ONLY OCCUR DURING DRY PERIODS WHEN THE GROUNDWATER TABLE IS LOWER THAN ANY PROPOSED WORK.
- PRODUCT & MATERIAL SAMPLES FOR ALL COMPONENTS SHALL BE PROVIDED TO ENGINEER PRIOR TO ENGINEER NOTIFYING RIDEEM FOR START OF CONSTRUCTION. THIS INCLUDES: 1) SEPTIC TANK AND 2) SAND SIEVE ANALYSIS.
- STAKE OUT LEACHFIELD CORNERS FOR REVIEW AND APPROVAL BY ENGINEER.
- ENGINEER TO APPROVE BOTTOM OF LEACHFIELD BED PRIOR TO PLACEMENT OF SAND.
- SCARIFY LEACHFIELD BOTTOM IMMEDIATELY PRIOR TO PLACEMENT OF SAND, NOT THE DAY BEFORE. MIX THE TOP 3" OF NATIVE SOIL WITH SAND.
- ENGINEER TO INSPECT SEPTIC TANK PRIOR TO BACKFILLING. CONTRACTOR SHALL PERFORM A WATER PRESSURE TEST ON THE TANK & TANK RISERS. COORDINATE TESTING WITH ENGINEER.
- ENGINEER TO INSPECT COMPLETED SYSTEM PRIOR TO BACKFILLING.

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, AND 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, RUBBER, 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.
- 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.

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

ADVANTEX AX-20 NOTES:

- ALL WORK AND INSTALLATION PROCEDURES SHALL CONFORM TO RIDEEM'S "GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS, LATEST REVISION". ONLY RIDEEM APPROVED INSTALLERS ARE PERMITTED TO INSTALL THIS OWTS.
- THE 6"x6" P.T. TIMBERS AROUND THE BSF SHALL BE SECURED WITH IRON PINS, OR REBARS FASTENED TO THE SUPPORT WALLS TO PREVENT MOVEMENT TO THE SATISFACTION OF THE ENGINEER.
- THIS BOTTOMLESS SAND FILTER 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 FRESHWATER 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.
- THE LAND SURFACE ELEVATION 2 FEET BELOW THE PEASTONE/SAND MEDIA INTERFACE SHALL BE MAINTAINED FOR A DISTANCE OF 5 FEET FROM THE EDGE OF THE BSF. LAND SURFACE REGRADE ADJOINING THIS 9'-FOOT PERIMETER MUST MAINTAIN A MINIMUM OF 3H:1V SLOPE DOWN GRADIENT.
- ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK INTO THE PUMP BASIN.
- ADVANTEX POD SHALL BE EQUIPPED WITH ANTI-FLOUTATION FLANGES.
- PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PUJ57-1819 OR APPROVED EQUAL.
- THE PUMP DOSING THE AX-20 POD SHALL BE ORENCO SYSTEMS MODEL PF3005 OR APPROVED EQUAL.
- THE PUMP DOSING THE BSF SHALL BE ORENCO SYSTEMS MODEL PKP350 OR APPROVED EQUAL.
- DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HV125 BX-DB OR APPROVED EQUAL.
- ALL PIPING AND FITTINGS SHALL BE INSTALLED TO ENSURE DRAIN-BACK INTO THE PUMP BASIN.
- ORENCO SYSTEMS CONTROL & ALARM PANEL SHALL BE VERICOM WITH ELAPSE TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS OR APPROVED EQUAL.

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 SHALL NOT BE DISCHARGED INTO THE SEPTIC SYSTEM.
- SEPTIC TANKS SHALL BE PUMPED OUT EVERY 24 MONTHS AND SYSTEM MAINTAINED BY AN APPROVED ORENCO SYSTEMS APPROVED MAINTENANCE SERVICE PROVIDER.
- ONLY WASTEWATER AS DEFINED IN THE RIDEEM OWTS REGULATIONS IS ALLOWED TO BE DISCHARGED INTO THE SEPTIC SYSTEM. ABSOLUTELY NO CHEMICALS, OILS, FATS, GREASE, OR PAINTS ARE ALLOWED.
- NO TREES OR LARGE SHRUBS SHALL BE PLANTED WITHIN 10 FEET OF THE LEACHFIELD.
- NO SUBSURFACE DRAINS OR SUBDRAINS SHALL BE INSTALLED ON SUBJECT PROPERTY UNLESS IN ACCORDANCE WITH OWTS RULES.

GENERAL SITE, SOILS & DESIGN DATA:

- PROPOSED B.S.F. LEACHFIELD IS LOCATED IN BETWEEN TEST PITS 16-04 AND 16-03. E.S.H.W.T. FOR THIS LOT IS 18 INCHES BELOW ORIGINAL GRADE. THE HIGHEST ELEVATION OF EXISTING GROUND AT THE CORNERS OF THE PROPOSED B.S.F. IS 109.5; THEREFORE, THE E.S.H.W.T. UNDER THE PROPOSED LEACHFIELD IS 108.0. LEACHFIELD IS ASSUMED AT 8 FEET BELOW EXISTING GRADE (BOTTOM OF TESTHOLE); THEREFORE, AT THE SITE OF THE SANDFILTER LEACHFIELD IS ASSUMED AT ELEVATION 101.4; THEREFORE, AT THE SITE OF THE SANDFILTER LEACHFIELD IS ASSUMED AT ELEVATION 101.4.
- USE SLOWEST B.S.F. LOADING RATE = 2.30 GAL/SF/DAY, BASED ON CATEGORY 6 SOIL. (BSF REGS. STATE SLOWEST RATE WITHIN 3.0 FEET OF PROPOSED BOTTOM SHALL BE USED).

SEPTIC TANK SIZING CALCULATIONS:

ADVANTEX REQUIRES 2/3 DESIGN FLOW IN FIRST COMPARTMENT
USE 1,500 GAL. TANK SINCE DESIGN FLOW IS LESS THAN VOLUME OF FIRST COMPARTMENT

BOTTOMLESS SAND FILTER (BSF) SIZING CALCULATIONS (CATEGORY 1 TECHNOLOGY):

BLDG. USE = 3 BEDROOMS
FLOW TO LEACHFIELD = 3 BEDS X 115 GAL/BED = 345 GAL/DAY
LOADING RATE = 2.30 GAL/SF/DAY (CATEGORY 6 SOIL IS THE MOST RESTRICTIVE SOIL WITHIN 3.0 FEET OF BSF BASE)
SQUARE FEET REQ'D. = $\frac{345}{2.30} = 150.0$ SQUARE FEET REQ'D
SELECT LEACHFIELD = USE 10' X 15' BOTTOMLESS SAND FILTER = 150 SQ. FT. PROVIDED

DOSING DATA TO B.S.F.:

MAX. DOSE TO ORIFICES = 20.0 GAL. (0.25 GAL/ORIFICE X 80 ORIFICES)
DRAINBACK TO PUMP = 10 FT. X 0.0018 GAL/FT. = 1.0 GAL
MAX. DOSE TO BSF = 20.0 GAL + 1.0 GAL = 21.0 GAL.
PUMP SETTING: PUMP SYSTEM SHALL DOSE NO MORE THAN 21.0 GALLONS PER DOSE TO THE BSF. SET FLOAT SETTING BETWEEN ON/OFF AT 0.75 FEET (23.5 GAL/VOLUME OF PUMP BASIN X 0.75 FEET = 17.63 GAL/DOSE < 21.0 GAL/DOSE; THEREFORE, DESIGN OK).

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.

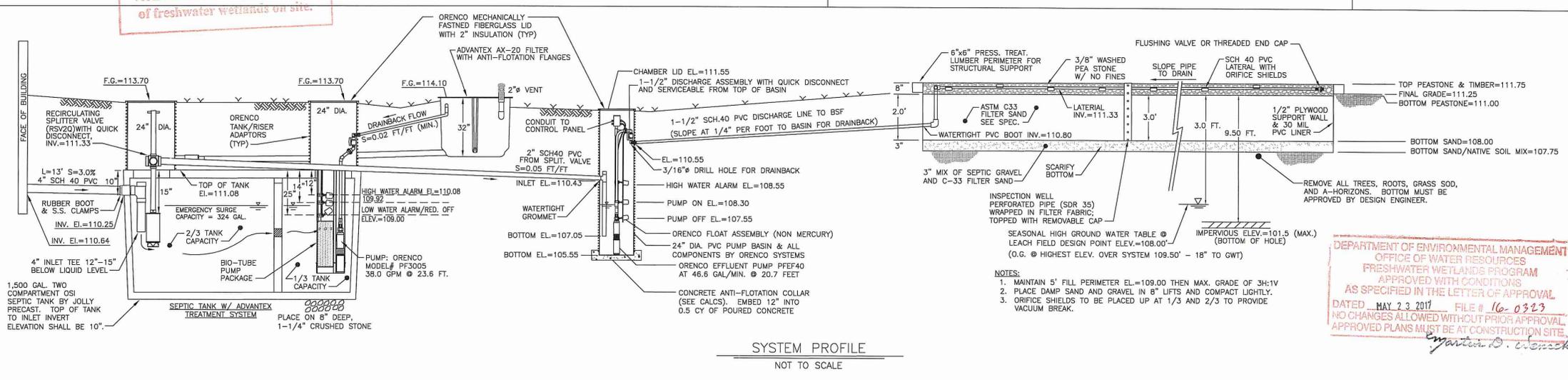
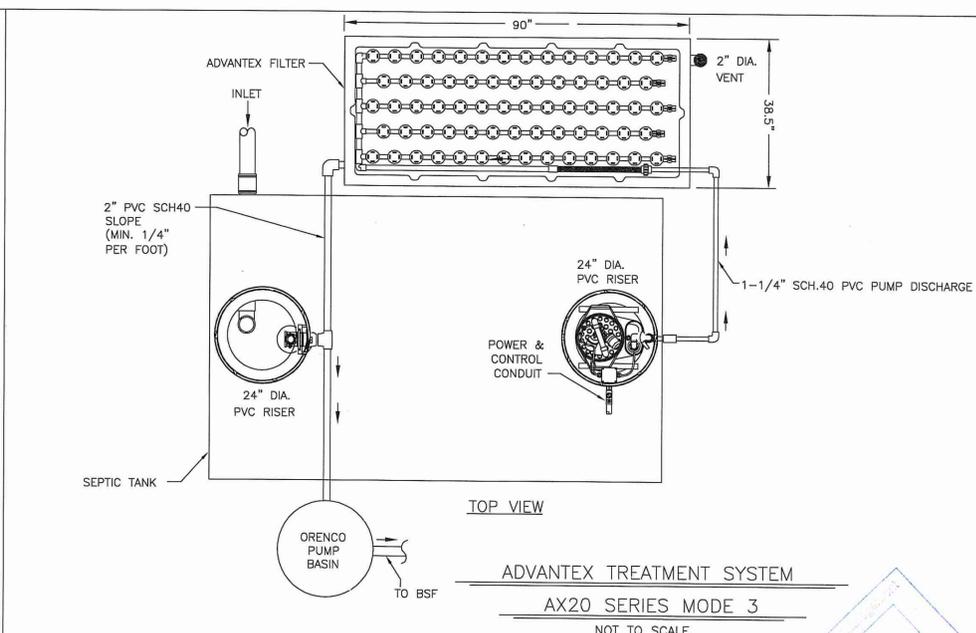
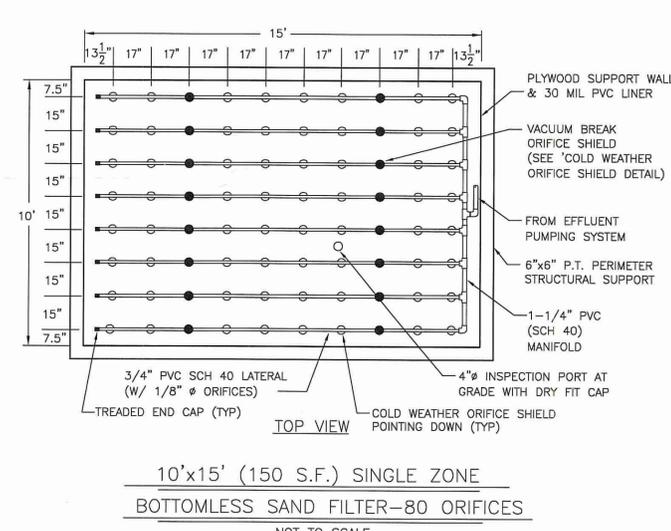
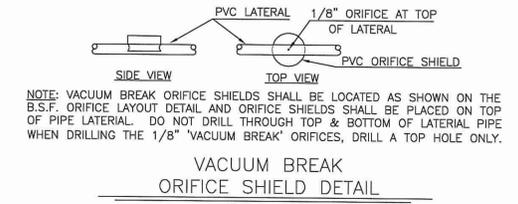
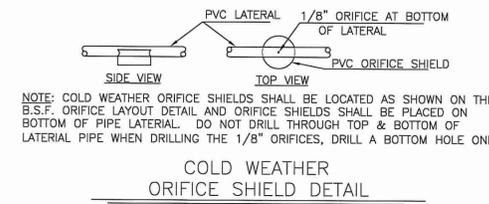
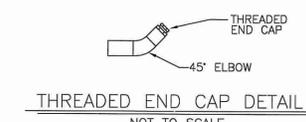
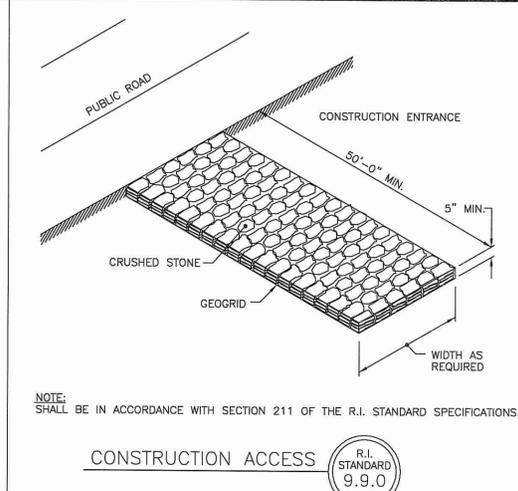
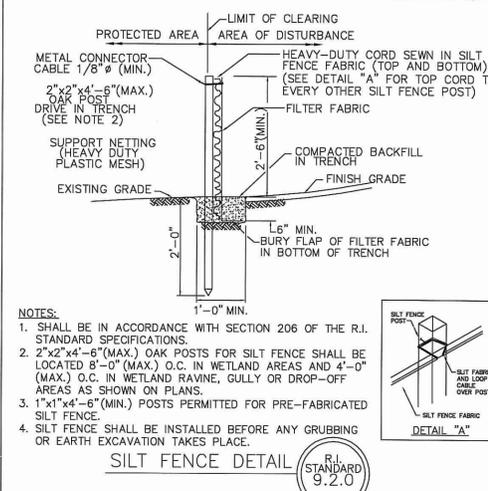
	AVERAGE (mg/L)	WEEKLY PEAK (mg/L)	RARELY EXCEEDS (mg/L)
BOD	150	250	500
TSS	40	75	150
TKN	65	75	150
POC	20	25	30

ASTM C-33 SAND SPEC.:

ASTM C-33 SAND SHALL MEET ASTM C-33 REQUIREMENTS AND ALSO THE FOLLOWING:
D(10) = 0.33 mm
U.C. = 3.0 TO 4.0
% PASS 200 SIEVE < 1.0%

TEST PIT TH 16-03			TEST PIT TH 16-04		
DATE:	G.S. ELEV.	SOIL DESCRIPTION	DATE:	G.S. ELEV.	SOIL DESCRIPTION
06/07/16	108.7	FSL 1,GR FR SOIL CAT. 4	06/07/16	110.8	FSL 1,GR FR SOIL CAT. 4
A	0"-2"	FSL 1,GR FR SOIL CAT. 4	A	0"-2"	FSL 1,GR FR SOIL CAT. 4
Bw1	2"-8"	FSL 1,SBK FR SOIL CAT. 4	Bw1	2"-5"	G,FSL 1,SBK FR SOIL CAT. 4
Bw2	8"-18"	G,FSL 1,SBK FR SOIL CAT. 4	Bw2	5"-14"	G,FSL 1,SBK FR SOIL CAT. 4
Bw3	18"-23"	G,FSL 1,SBK FR SOIL CAT. 4	Bw3	14"-20"	G,FSL 1,SBK FR SOIL CAT. 4
Bw4	23"-34"	G,FSL 1,SBK FR SOIL CAT. 4 REDOX: C,2,P	C	20"-96"	LS O,M FR SOIL CAT. 6 REDOX: C,2,P
C	34"-96"	SL O,M SOIL CAT. 6 REDOX: C,2,P			

APPROVED SHGWT DEPTH: 22" APPROVED SHGWT DEPTH: 18"



Timothy Behan
6278
REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH ENGINEERS & CONSULTANTS, INC.
400 SMITH STREET
PROVIDENCE, RHODE ISLAND 02908
401-273-8600

REVISIONS

No.	DATE	DRWN	CHKD
1	12/30/16	DM	TB
2	03/29/17	DM	TB

ON-SITE WASTEWATER TREATMENT SYSTEM PLAN
for
PLAT 10, LOT 20, SUBLT 1 PINE ORCHARD ROAD
in
GLOCESTER, RHODE ISLAND

SCALE: AS SHOWN SHEET NO: 2 of 2
DRAWN BY: DKM DESIGN BY: TJB CHECKED BY: KK
DATE: 12/30/16 PROJECT NO.: 16030.00

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 23 2017 FILE # 16-0323
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE.