

GROUND WATER & LEDGE DEPTH TABLE

TEST PIT	GROUNDWATER DEPTH	EXISTING GROUND	GROUNDWATER ELEVATION	LEDGE DEPTH	LEDGE ELEVATION
18-01	1.7'	97.6'	95.9'	8.0'	89.6'
18-02	1.7'	98.1'	96.4'	8.0'	90.1'

- DESIGN AND CONSTRUCTION NOTES:**
- ALL WORK SHALL CONFORM TO THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RULES AND REGULATIONS, AS AMENDED.
 - THE TOP OF FOUNDATION ELEVATION SHOWN HAS BEEN DESIGNED FOR O.W.T.S. PURPOSES ONLY. THE OWNER AND/OR CONTRACTOR IS ADVISED TO DETERMINE WHETHER THE BASEMENT FLOOR OF THE PROPOSED DWELLING IS AT OR BELOW THE GROUND WATER TABLE AND, IF SO, RAISE THE FOUNDATION ACCORDINGLY.
 - THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THIS SITE PLAN. THE DESIGNER MUST PERFORM ALL NECESSARY INSPECTIONS, BOTH DURING AND AFTER INSTALLATION, BEFORE ANY COMPONENT OF THE SYSTEM IS COVERED.
 - THE PROPERTY BOUNDARIES SHOWN HEREON HAVE BEEN COMPILED FROM MAPS, DEEDS, AND OTHER SOURCES OF INFORMATION, AND ARE SUBJECT TO SUCH MODIFICATIONS AS AN ACTUAL BOUNDARY SURVEY MAY DISCLOSE. TO THE EXTENT THAT SUCH BOUNDARIES ARE CRITICAL TO THE O.W.T.S. LOCATION, THEY MUST BE ESTABLISHED PRIOR TO CONSTRUCTION.
 - A MINIMUM BUFFER OF 10' SHOULD BE MAINTAINED BETWEEN THE BOTTOMLESS SAND FILTER AND NEIGHBORING TREES AND SHRUBS. IF THE BUFFER CANNOT BE MAINTAINED THEN A ROOT BARRIER FABRIC SHALL BE PLACED BETWEEN THE TREES/SHRUBS AND THE SAND FILTER.
 - THE EXCAVATION SHALL BE LEVEL AND SCARIFIED.
 - ALL TOPSOIL AND SUBSOIL WITHIN A 5' PERIMETER OF THE SYSTEM SHALL BE STRIPPED AND BACKFILLED WITH FILTER SAND. EXCAVATION INTO IMPERVIOUS MATERIAL IS PROHIBITED UNLESS OTHERWISE APPROVED BY THE DIRECTOR.
 - MAINTAIN TRENCH INVERT ELEVATION FOR 5' BEYOND THE PERIMETER OF THE LEACH FIELD. THE ADJACENT SIDE SLOPE SHALL NOT BE STEEPER THAN 3:1 FOR A 25' MIN. DISTANCE FROM THE EDGE OF LEACH FIELD. MAINTAIN 5' TO PROPERTY LINE FROM TOE OF 3:1 SIDE SLOPE.
 - INSTALL CAST IRON PIPE OR EQUIVALENT FROM THE FOUNDATION TO THE SEPTIC TANK. ALL OTHER PIPES MUST BE SDR 35 P.V.C. OR EQUIVALENT. ALL PIPING SHALL BE INSTALLED AT CONTINUOUS SLOPE WITH NO SAGS OR HIGH POINTS. ALL MANHOLES TO GRADE SHALL HAVE GASKETED WATERTIGHT COVERS AND THE SURFACE SHALL BE GRADED TO DRAIN AWAY FROM THE MANHOLES.
 - SUBSURFACE DRAINS AND WATER SUPPLY LINE TO BE INSTALLED IN CONFORMANCE WITH DISTANCES SPECIFIED IN TABLE 22.1.
 - ALL KNOWN EXISTING AND PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200' OF THE SYSTEM ARE SHOWN; ALL KNOWN EXISTING AND PROPOSED SEPTIC SYSTEMS WITHIN 100' OF THE WELL ARE SHOWN.
 - ALL WORK MUST CONFORM TO THE REQUIREMENTS OF OTHER EXISTING PERMITS, IF ANY.
 - WITH RESPECT TO MUNICIPAL ZONING REQUIREMENTS, THE DESIGNER HAS MADE A REASONABLE EFFORT TO ASCERTAIN THE APPLICABLE DIMENSIONAL SETBACKS AND OTHER CONSTRAINTS TO DEVELOPMENT. DUE, HOWEVER, TO THE POSSIBILITY OF UNRECORDED VARIANCES, NON-CONFORMING USES, AND OTHER RELEVANT DOCUMENTS, IT REMAINS THE RESPONSIBILITY OF THE OWNER TO VERIFY THAT THIS DESIGN SATISFIES LOCAL CODES.
 - ALL STAGES OF CONSTRUCTION MUST BE SUPERVISED BY THE DESIGNER OF RECORD. UNLESS WAIVED BY THE DESIGNER, ALL IMPROVEMENTS MUST BE STAKED BY THE DESIGNER OR HIS AGENTS PRIOR TO CONSTRUCTION. THESE INCLUDE THE O.W.T.S., FOUNDATION, WELL, EROSION CONTROLS, CLEARING LIMITS AND ANY OTHER FEATURES DEEMED CRITICAL TO THE DESIGN.

- GENERAL NOTES**
- TOPOGRAPHY AND ELEVATIONS SHOWN ARE FROM AN ON-SITE SURVEY PERFORMED IN NOVEMBER AND DECEMBER 2018. THE VERTICAL AND HORIZONTAL DATUMS ARE ASSUMED.
 - THE SITE LIES WITHIN FLOOD HAZARD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). REFERENCE F.I.R.M. MAP NUMBER 44007C0380G DATED MARCH 2, 2009.
 - REFER TO SOIL EVALUATION APPLICATION #1813-1441 DATED OCTOBER 10, 2018 FOR WATER TABLE DATA.
 - EXCEPT WHERE INDICATED SITE IS ENTIRELY WOODED.
 - STRAW BALE EROSION CHECK (R.I. STANDARD 9.1.0), SILT FENCE AND/OR SILT SOX SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES AND SHALL BE MAINTAINED UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
 - ALL IMPROVEMENTS SHALL BE ACCURATELY LOCATED AND STAKED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - ALL DISTURBED AREAS SHALL BE STABILIZED WITH 4" LOAM AND SEED OR SOD, PROPOSED SLOPES SHALL BE 3:1 (TYPICAL).
 - EXISTING UTILITY LOCATIONS ARE APPROXIMATE ONLY. DIG SAFE AND APPROPRIATE UTILITY AUTHORITIES SHALL BE NOTIFIED PRIOR TO ANY CONSTRUCTION FOR ACCURATE UTILITY LOCATIONS.
 - ALL WORK SHALL BE PERFORMED IN STRICT CONFORMANCE WITH THE REQUIREMENTS OF THE R.I.D.E.M. WETLANDS PERMIT, O.W.T.S. PERMIT, AND IN COMPLIANCE WITH ALL TOWN REGULATIONS.
 - ALL STAGES OF O.W.T.S. CONSTRUCTION MUST BE SUPERVISED BY THE SYSTEM DESIGNER.
 - THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY SOURCES WITHIN 25' OF PROPOSED LOT OTHER THAN THOSE SHOWN ON PLAN.
 - THERE ARE NO EXISTING OR PROPOSED SEWAGE DISPOSAL SYSTEMS WITHIN 25' OF THE PROPOSED WATER SUPPLY LINE OTHER THAN THOSE SHOWN ON THE PLAN.
 - THERE ARE NO EXISTING OR PROPOSED INDIVIDUAL WATER SUPPLIES WITHIN 200' OF THE PROPOSED ON-SITE WASTEWATER TREATMENT SYSTEM OTHER THAN THOSE SHOWN ON THE PLAN.
 - THE SITE IS WITHIN THE SCITUATE RESERVOIR WATERSHED CRITICAL RESOURCE AREA.
 - THE WETLANDS DELINEATION WAS CONDUCTED BY NATURAL RESOURCE SERVICES, INC. IN NOVEMBER, 2018 AND LOCATED IN THE FIELD BY SCITUATE SURVEYS, INC.
 - PRIOR TO COMMENCEMENT OF ANY SITE ALTERATIONS, PERMANENT BUFFER ZONE MARKERS MUST BE INSTALLED ALONG THE LIMIT OF DISTURBANCE AT THE LOCATIONS INDICATED AS "PM" ON THE APPROVED SITE PLANS, IN ORDER TO PROVIDE PERMANENT REFERENCE POINTS ON THE SITE THAT ARE CLEAR TO PRESENT AND FUTURE PROPERTY OWNERS. A PERMANENT-TYPE TAG OR SIGN LABELED "RIDEM BUFFER ZONE" MUST BE PLACED ON EACH MARKER. NO ALTERATIONS OF ANY KIND ARE PERMITTED BEYOND THESE MARKERS WITHOUT FIRST OBTAINING THE NECESSARY PERMIT FROM RIDEM.

SCOTT F. MOOREHEAD
REGISTERED PROFESSIONAL ENGINEER
No. 4298

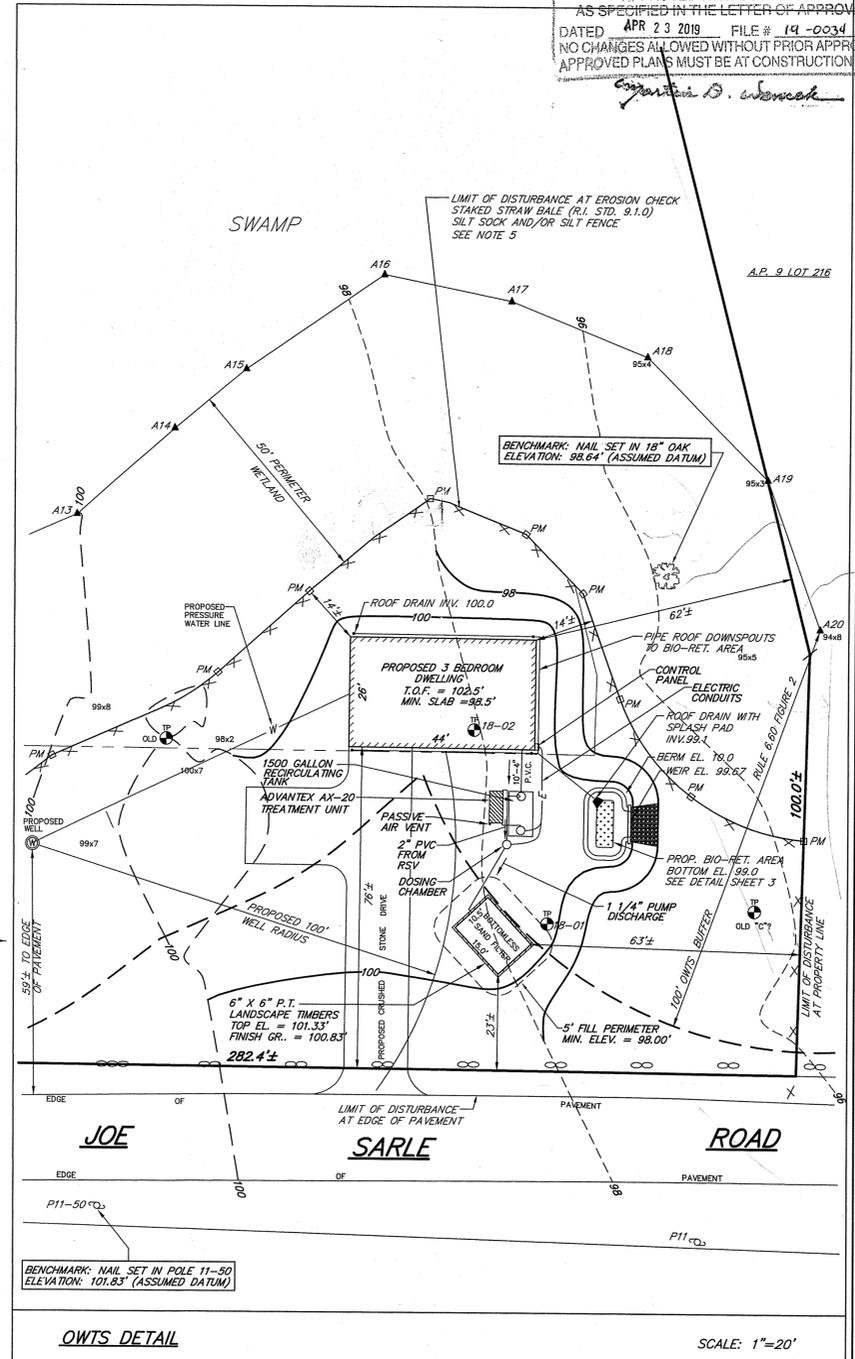
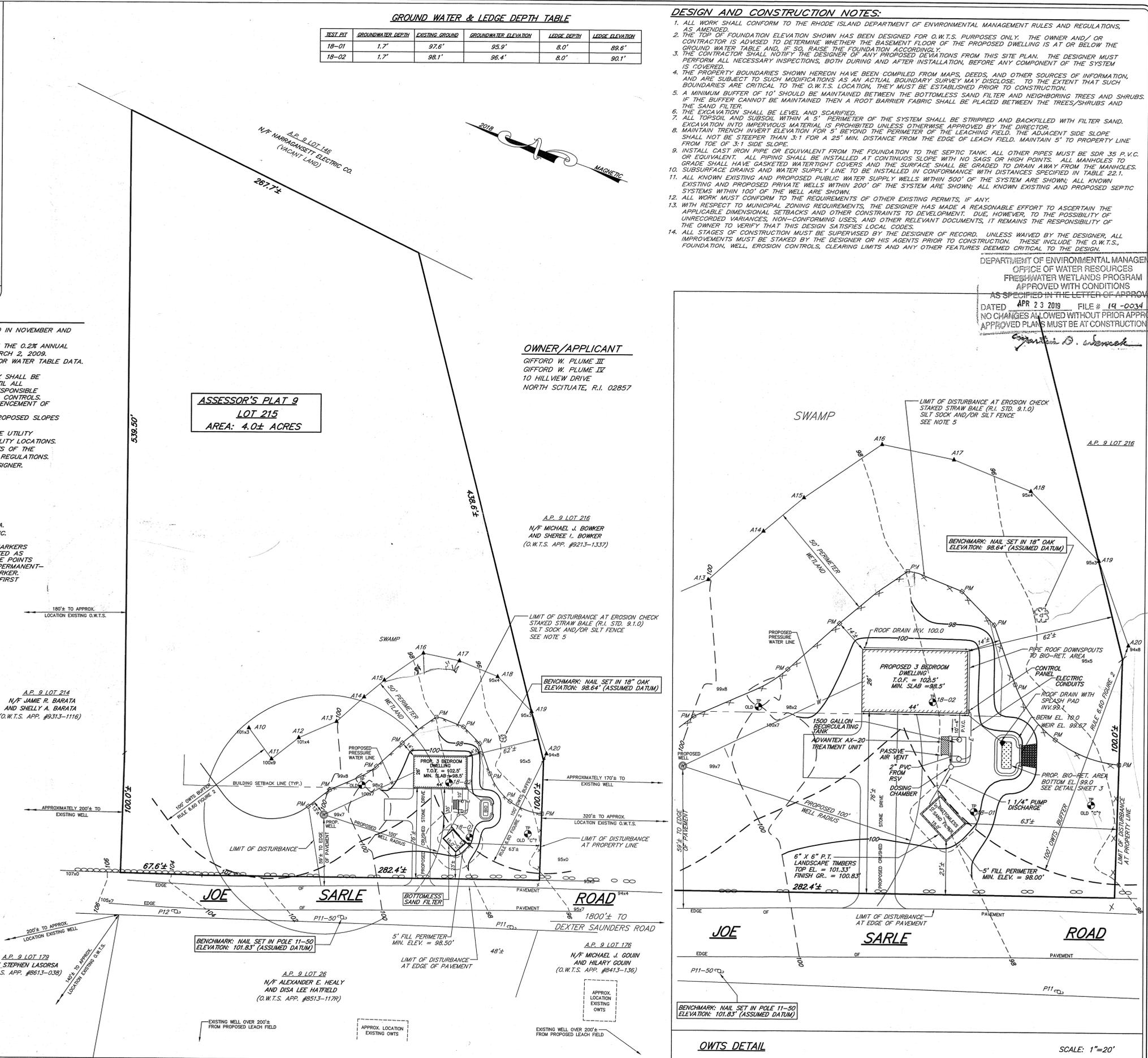
DRAINAGE DESIGNER/ENGINEER
S.F.M. ENGINEERING ASSOCIATES
410 TIOGUE AVENUE
COVENTRY, R.I. 02816
(401)826-3736

DATE	REVISION

CHK. BY: SFM JOB. NO. SFM862

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

- LEGEND**
- A.P. ASSESSOR'S PLAT
 - N/F NOW OR FORMERLY
 - SQ. FT. SQUARE FEET
 - EXISTING CONTOUR ELEVATION
 - - - PROPOSED CONTOUR ELEVATION
 - ==== STONE WALL
 - o o o STONE WALL REMAINS
 - ▲ A13 WETLANDS DELINEATION FLAG
 - ⊙ SOIL EVALUATION TEST PIPE
 - ⊙ P11 UTILITY POLE
 - ⊙ EXISTING/PROPOSED WELL
 - PM PROPOSED 4"x4" PRESSURE TREATED POST, 24" (MIN.) ABOVE GROUND



SCITUATE SURVEYS, INC.

410 TIOGUE AVENUE
COVENTRY, RHODE ISLAND 02816
401-821-8101

LAND SURVEYING/MAPPING/SITE PLANNING

SCALE IN FEET: 0 20 40 80 120

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL

DATED APR 23 2019 FILE # 19-0034
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Signature: Stephen D. Jensen

STATEMENT OF PURPOSE: THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL MANAGEMENT AND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 28, 2018, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY: MEASUREMENT SPECIALIZATION
CLASS III
DATE OF SURVEY: 11/2018
DATE OF ACCUMULATION SURVEY: 11/2018

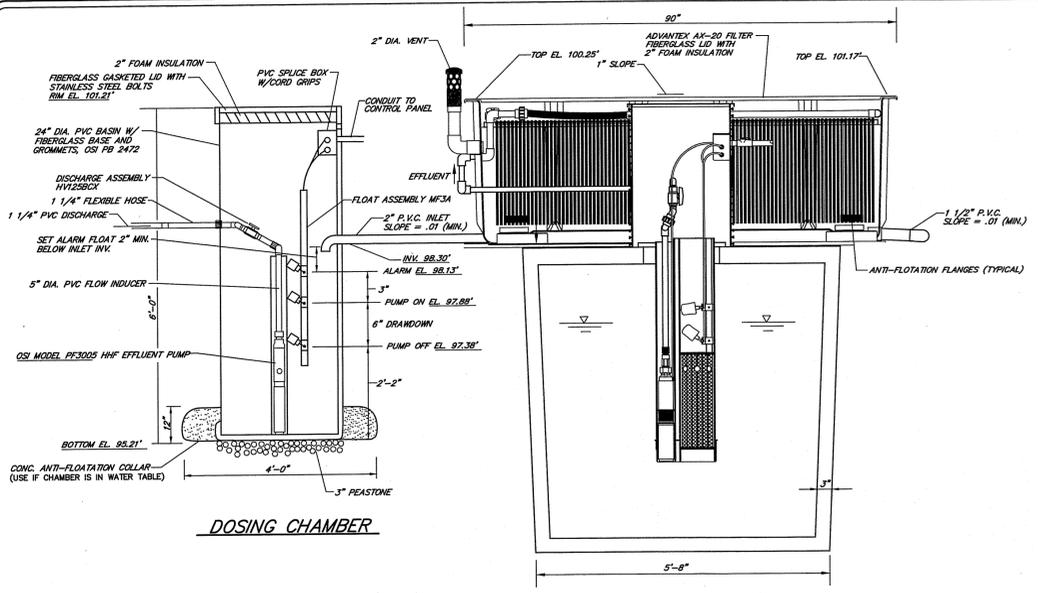
STATEMENT OF PURPOSE: THIS SURVEY HAS BEEN CONDUCTED FOR THE PURPOSE OF DATA ACCUMULATION SURVEY, AND TO COLLECT TOPOGRAPHIC AND PHYSICAL FEATURE LOCATION DATA FOR DESIGN OF AN O.W.T.S. TREATMENT SYSTEM.

BY: *Signature: Angelo M. Rainondi*
ANGELO M. RAINONDI
No. 1763
PROFESSIONAL LAND SURVEYOR

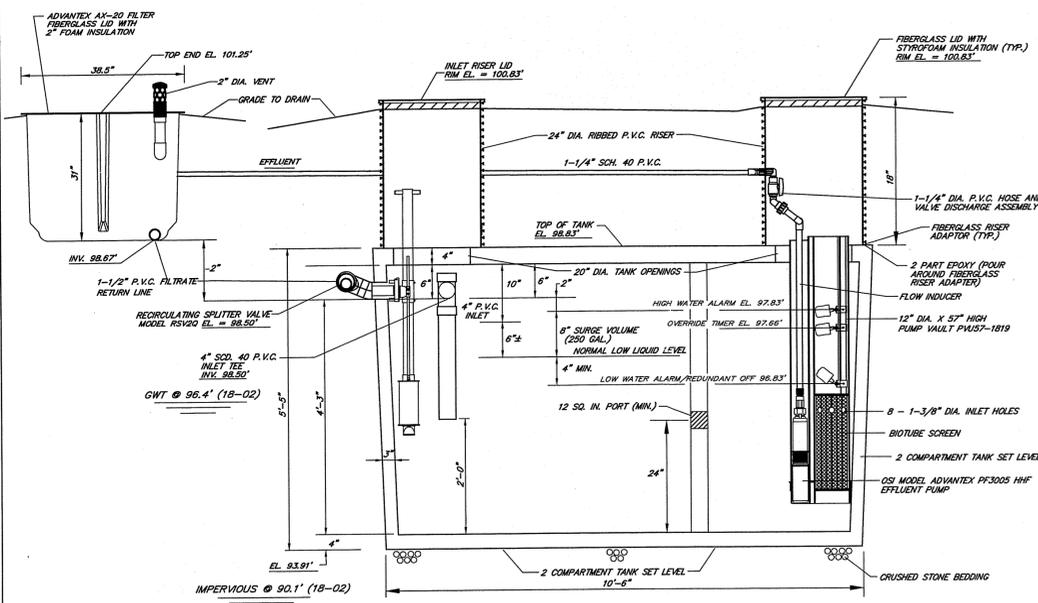
PLAN OF PROPOSED IMPROVEMENTS TO ASSESSOR'S PLAT 9 LOT 215

JOE SARLE ROAD
GLOUCESTER, RHODE ISLAND
PREPARED FOR: GIFFORD W. PLUME, III & GIFFORD W. PLUME, II
FEB - 8 2019
SCALE: 1"=40' DATE: JANUARY 3, 2019 REVISION:

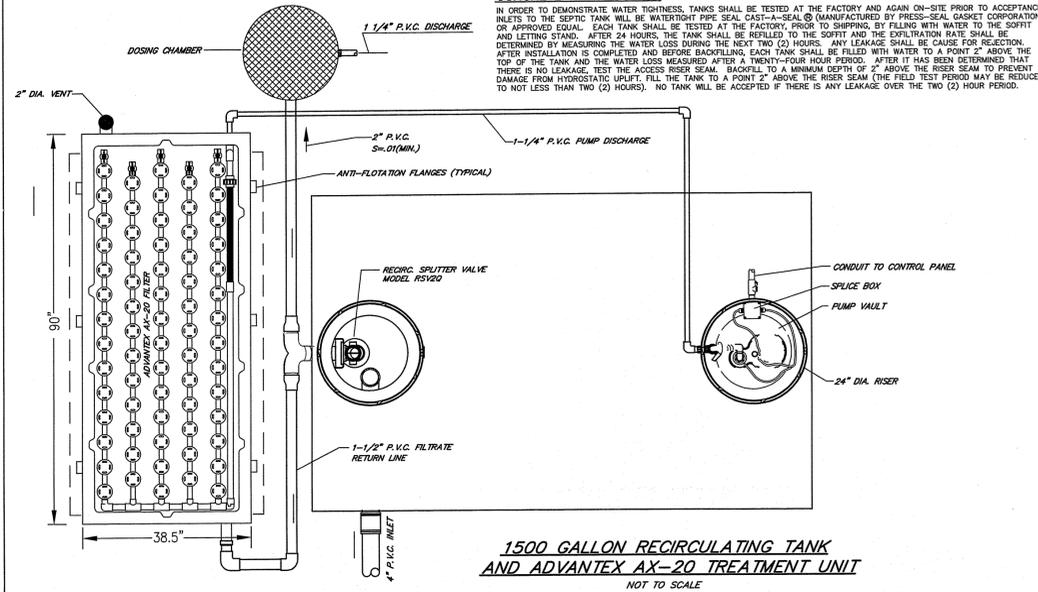
PROJECT NO.: SS2884 SHEET 1 OF 3
DRAWING NO.: SS4581



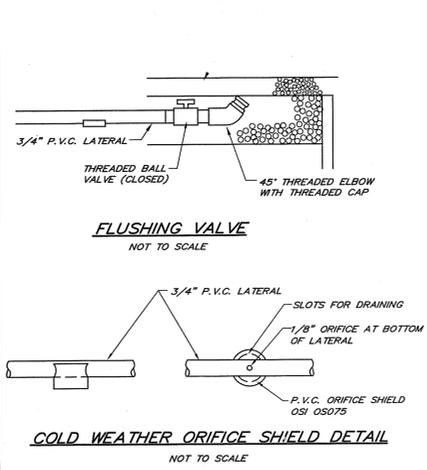
DOSING CHAMBER



CONCRETE TANK TESTING
 IN ORDER TO DEMONSTRATE WATER TIGHTNESS, TANKS SHALL BE TESTED AT THE FACTORY AND AGAIN ON-SITE PRIOR TO ACCEPTANCE. IN ORDER TO DEMONSTRATE WATER TIGHTNESS, TANKS SHALL BE TESTED AT THE FACTORY AND AGAIN ON-SITE PRIOR TO ACCEPTANCE. IN ORDER TO DEMONSTRATE WATER TIGHTNESS, TANKS SHALL BE TESTED AT THE FACTORY AND AGAIN ON-SITE PRIOR TO ACCEPTANCE. IN ORDER TO DEMONSTRATE WATER TIGHTNESS, TANKS SHALL BE TESTED AT THE FACTORY AND AGAIN ON-SITE PRIOR TO ACCEPTANCE. IN ORDER TO DEMONSTRATE WATER TIGHTNESS, TANKS SHALL BE TESTED AT THE FACTORY AND AGAIN ON-SITE PRIOR TO ACCEPTANCE.

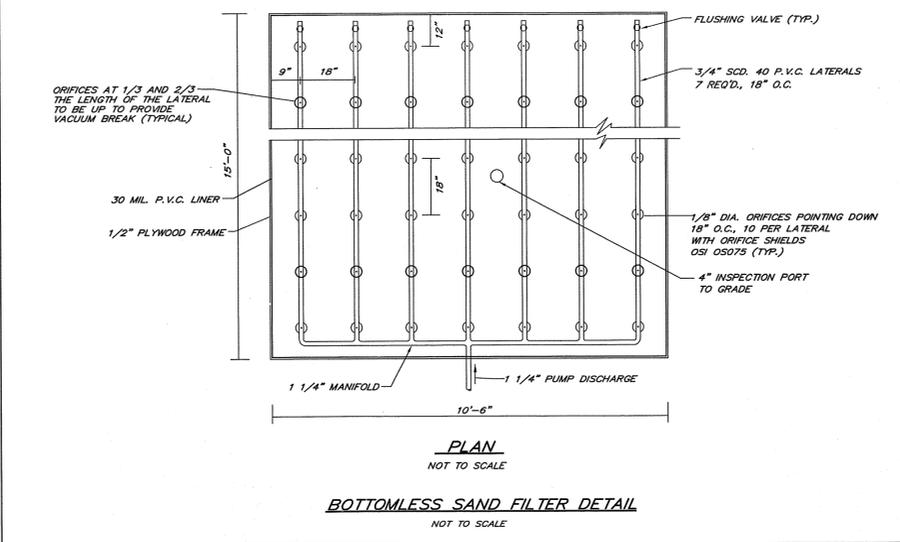


1500 GALLON RECIRCULATING TANK AND ADVANTEX AX-20 TREATMENT UNIT
 NOT TO SCALE

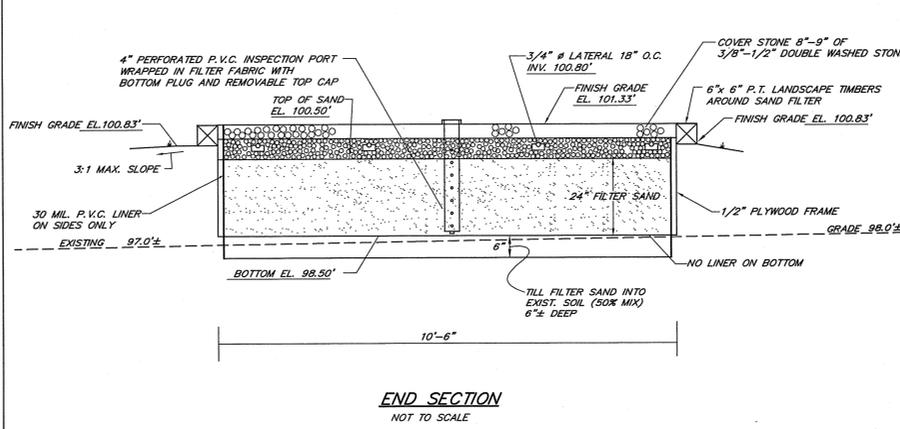


FLUSHING VALVE
 NOT TO SCALE

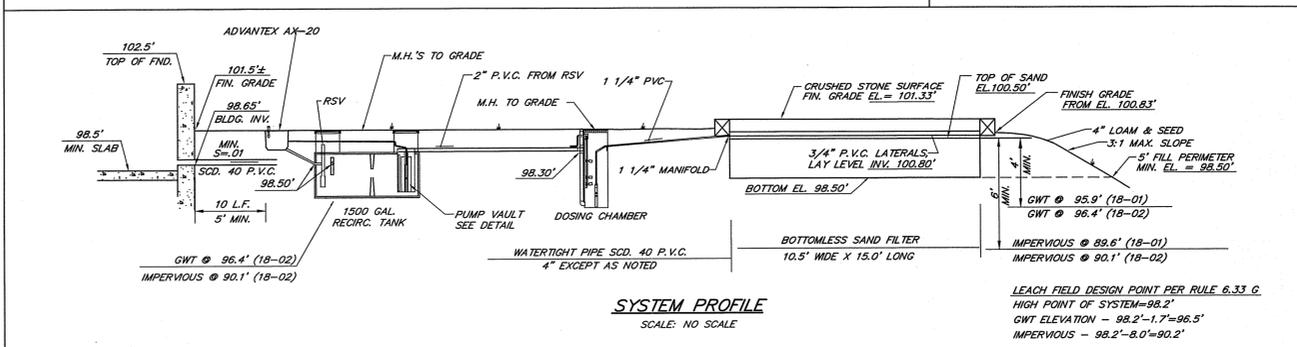
COLD WEATHER ORIFICE SHIELD DETAIL
 NOT TO SCALE



BOTTOMLESS SAND FILTER DETAIL
 NOT TO SCALE



END SECTION
 NOT TO SCALE



SYSTEM PROFILE
 SCALE: NO SCALE

ADVANTEX AX-20 NOTES

- SEPTIC TANK SHALL BE 1500 GALLON TWO COMPARTMENT PRECAST CONCRETE TANK TESTED AND CERTIFIED WATER TIGHT BY THE MANUFACTURER.
- PUMP VAULT SHALL BE ORENCO SYSTEMS MODEL PVU 57-1819 BIOTUBE PUMP VAULT.
- EFFLUENT PUMP SHALL BE ORENCO SYSTEMS MODEL PF3005 HHF.
- DISCHARGE ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL HV125 BX-DB.
- FLOAT ASSEMBLY SHALL BE ORENCO SYSTEMS MODEL MF3A.
- RECIRCULATING SPLITTER VALVE SHALL BE ORENCO RSV20.
- SI OR SRO CONTROL PANEL AND ALARM SHALL BE ORENCO SYSTEMS MODEL MYP OR VERICOM ADVANTEX AXB WITH ELAPSED TIME METER, EVENT COUNTER AND PROGRAMMABLE TIMER OPTIONS.
- P.V.C. RISER MANHOLES SHALL BE ORENCO SYSTEMS MODEL RR24 RISERS, MODEL FL24-G LIDS WITH 2" FOAM INSULATION AND MODEL PRTA24 TANK ADAPTERS.
- RECIRCULATING SPLITTER VALVE AND ADVANTEX AX-20 SHALL BE SUPPLIED BY ORENCO SYSTEMS.
- ALL COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THESE PLANS.
- PROGRAMMABLE TIMER SHALL BE SET FOR PUMP ON TIME OF 30 SECONDS AND PUMP OFF TIME OF 17.5 MINUTES.
- HIGH WATER TIMER OVERRIDE SETTINGS SHALL BE: PUMP ON: 30 SEC, PUMP OFF: 8.5 MIN.
- ALL COMPONENTS AND INSTALLATION MUST BE INSPECTED AND APPROVED BY SCITUATE SURVEYS, INC. ANY COMPONENT SUBSTITUTION MUST BE PRE-APPROVED BY SCITUATE SURVEYS, INC.
- THE CONTROL PANEL, SPLITTER VALVE AND PUMP FLOATS SHALL BE SET BY THE DESIGNATED REPRESENTATIVE OF ORENCO SYSTEMS, INC.

MAINTENANCE NOTES

- THE SEPTIC TANK, ADVANTEX SYSTEM, SAND FILTER AND PUMP SYSTEMS SHALL BE INSPECTED AND MAINTAINED AT A MINIMUM TWICE ANNUALLY.
- INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH THE PROCEDURES SPECIFIED IN THE SYSTEM OPERATION AND MAINTENANCE MANUAL.
- SAND FILTER AND ADVANTEX PIPING SHALL BE FLUSHED AND CLEANED AS REQUIRED. ORIFICES SHALL BE CHECKED FOR PLUGGING AND SOURTY HEIGHT MEASURED. SOURTY HEIGHT SHOULD BE 2" MINIMUM FOR THE BOTTOMLESS SAND FILTER AND 5" MIN. FOR THE ADVANTEX.
- PUMP VAULT SCREEN SHALL BE RAISED AND CLEANED BY FLUSHING WITH A HOSE INTO THE TANK.
- PUMP, FLOAT ASSEMBLY AND CONTROL PANEL SHALL BE CHECKED FOR PROPER OPERATION AND CYCLE TIMING.
- 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.
- 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".
- ALL MAINTENANCE SHALL BE PERFORMED BY A QUALIFIED SAND FILTER AND ADVANTEX MAINTENANCE CONTRACTOR.

BOTTOMLESS SAND FILTER NOTES

- ALL DISTRIBUTION PIPING AND FITTINGS SHALL BE SCD 40 P.V.C. PRESSURE PIPE OR EQUAL.
- STONE SHALL BE ROUND DOUBLE WASHED STONE WITH A DIAMETER OF 3/8" TO 1/2" CONTAINING NO FINES.
- FILTER SAND SHALL BE ASTM C-33 SAND WITH AN EFFECTIVE SIZE (D10) OF 0.3 mm AND A UNIFORMITY COEFFICIENT (Cu) BETWEEN 3.0 AND 4.0. SAND TO BE SUPPLIED BY HOLLISTON SAND CO.
- FILTER SAND SHALL BE SIEVE TESTED AND CERTIFIED PRIOR TO DELIVERY TO THE SITE.
- FILTER SAND SHALL BE PLACED DAMP IN 8" LIFTS AND LIGHTLY COMPACTED.
- FILTER FABRIC SHALL BE A LIGHTWEIGHT NON-WOVEN FABRIC. COVER STONE SHALL BE ROUNDED OR SUB-ROUNDED DOUBLE WASHED STONE WITH A DIAMETER OF 3/8" TO 1/2" CONTAINING NO FINES.
- ORIFICE SHIELDS TO BE UP AT 1/3 AND 2/3 POINTS TO PROVIDE VACUUM BREAK.
- DOSING CHAMBER PUMP SHALL BE ORENCO MODEL PF3005.
- REFERENCE THE R.I.D.E.M. NOV. 2001 GUIDELINES FOR THE DESIGN AND USE OF BOTTOMLESS SAND FILTERS FOR INSTALLATION PROCEDURES.
- ALL MATERIALS AND COMPONENTS MUST BE INSPECTED AND APPROVED BY SCITUATE SURVEYS, INC. AT THE SITE PRIOR TO INSTALLATION.

DESIGN FLOW

3 BEDROOMS X 115 GPD/BEDROOM = 345 GPD (MAXIMUM DAILY FLOW)
 AVERAGE DAILY FLOW: 4 PERSONS X 60 GPD/PERSON = 240 GPD

INFLUENT CHARACTERISTICS

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

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED APR 23 2019 FILE # 19-0034
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

ORENCO DISTRIBUTOR
 ATLANTIC SOLUTIONS, INC.
 2417 EAST MAIN ROAD
 PORTSMOUTH, R.I. 02871
 401-849-2837

HOLLISTON SAND CO., INC.
 1171 ROAD P.O. BOX 393
 SLATERSVILLE, R.I. 02876
 401-766-5010

ORENCO DISTRIBUTOR
 WASTEWATER TECHNOLOGIES, INC.
 80 KILVERT STREET
 WARWICK, RHODE ISLAND 02886
 401-737-7810

ORENCO SYSTEMS, INC.
 814 43RD AVE.
 SUTHERLIN OR 97479
 800-348-9843

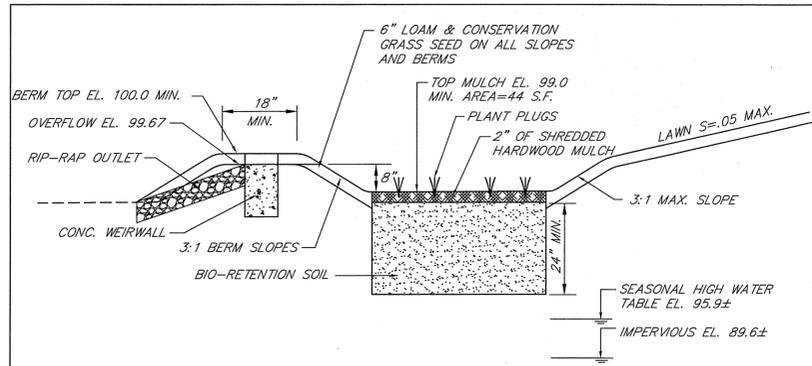
SCITUATE SURVEYS, INC.
 410 TIQUOE AVENUE
 COVENTRY, RHODE ISLAND 02816
 401-821-8101
 LAND SURVEYING/MAPPING/SITE PLANNING

MEASUREMENT SPECIFICATIONS
 CLASS III
 NATIONAL STANDARD 10-3
 PROFESSIONAL SURVEY ACCURACY 1-3

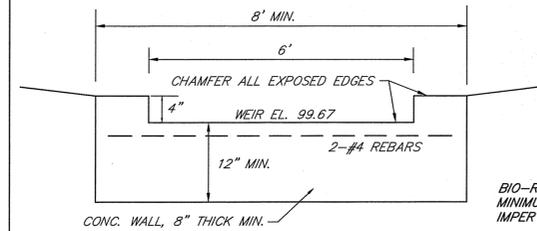
STATEMENT OF PURPOSE
 THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON NOVEMBER 24, 2003, AS FOLLOWS:
 TYPE OF SURVEY: SITE SURVEY
 TYPE OF SURVEY: SITE SURVEY
 DATE OF SURVEY: 11/19/18
 DATE OF PLAN: 11/19/18

ANGELLO W. RAIBONDI
 11/62
 PROFESSIONAL
 LAND SURVEYOR

PLAN OF PROPOSED IMPROVEMENTS TO ASSESSOR'S PLAT 9 LOT 215
 JOE SARLE ROAD
 GLOUCESTER, RHODE ISLAND
 PREPARED FOR: GIFFORD W. PLUME, III & GIFFORD W. PLUME, IV
 SCALE: AS NOTED DATE: JANUARY 3, 2019 REVISION:
 PROJECT NO.: SS2884 SHEET 2 OF 3
 DRAWING NO.: SS4581



BIO-RETENTION AREA CROSS-SECTION
NOT TO SCALE



BIO-RETENTION AREAS
BIO-RETENTION AREA BOTTOM DIMENSION TO BE 4' X 11' AT EL. 99.0 WITH 3:1 SIDE SLOPES

EL.	AREA
99.0	44 S.F.
99.67	124 S.F.
100.0	163 S.F.

BIO-RETENTION AREA SHALL BE 44 S.F. MINIMUM BASED ON A PROPOSED IMPERVIOUS ROOF AREA OF 1,144 S.F.

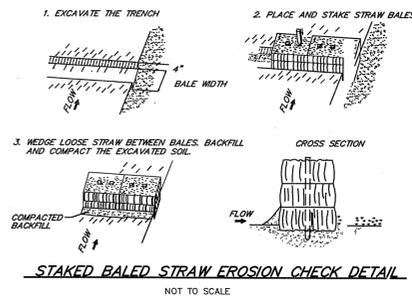
CONC. OVERFLOW WEIR DETAIL
NOT TO SCALE

BIO-RETENTION AREA NOTES

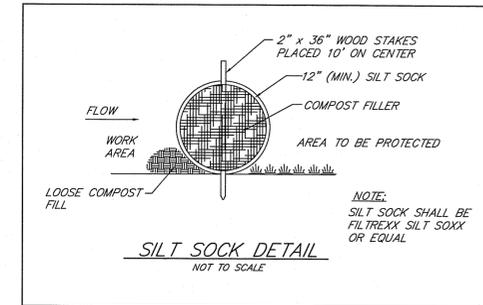
- BIO-RETENTION AREAS SHALL BE PROTECTED FROM COMPACTION PRIOR TO AND DURING CONSTRUCTION.
- ALL LOAM & SUBSOIL SHALL BE STRIPPED AND THE AREA EXCAVATED TO DESIGN BOTTOM GRADE. BIO-RETENTION SOIL SHALL BE PLACED TO A DEPTH OF 24" AND COVERED WITH 2" OF MULCH.
- MULCH SHALL BE SHREDDED HARDWOOD MULCH.
- BOTTOM OF BIO-RETENTION AREA SHALL BE PLANTED WITH AN EQUAL MIXTURE OF BLUEFLAG IRIS, WOOL GRASS AND PICKEREL WEED PLUGS AT 18" ON CENTER. PLANTINGS SHALL COMPLY WITH APPENDIX B.9.3 OF THE R.I. STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL (MARCH 2015).
- BIO-RETENTION AREA PLANTINGS SHALL BE INSTALLED BY A LANDSCAPE CONTRACTOR. SURVIVAL SHALL BE GUARANTEED FOR ONE YEAR.
- BIO-RETENTION SOIL SHALL HAVE A LOAMY SAND TEXTURE AND CONFORM TO THE FOLLOWING GRADATION:
SAND 85 - 88%
SILT 8 - 12%
CLAY 0 - 2%
ADD ORGANIC MATTER (LEAF COMPOST) TO LOAMY SAND, 3% - 5% BY VOLUME

BIO-RETENTION AREA MAINTENANCE PLAN

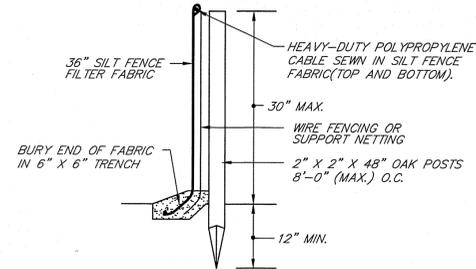
- BIO-RETENTION AREA SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL APPROVAL OF CONSTRUCTION. AFTER FINAL APPROVAL THE AREA SHALL BE MAINTAINED BY THE OWNER.
- DURING THE SIX MONTHS IMMEDIATELY AFTER CONSTRUCTION, BIO-RETENTION AREA SHALL BE INSPECTED FOLLOWING THE FIRST TWO RAIN EVENTS EQUAL TO OR GREATER THAN THE 1-YEAR, 24 HOUR TYPE III STORM EVENT. AFTER THAT PERIOD, IT SHALL BE INSPECTED TWICE PER YEAR.
- SOIL EROSION GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.
- IF STANDING WATER REMAINS 48 HOURS AFTER A RAINFALL EVENT, THE BOTTOM SHALL BE ROTO-TILLED THEN RE-SEEDED.
- MULCH LAYER SHALL BE REPLENISHED TO ORIGINAL DEPTH EVERY OTHER YEAR. PREVIOUS MULCH LAYER SHALL BE REMOVED.
- PRUNING OR REPLACEMENT OF VEGETATION SHOULD OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
- SILT AND DEBRIS SHALL BE REMOVED WHEN ACCUMULATION EXCEEDS 6" AT POSTS.
- GRASS SHALL BE MOWED THREE TIMES BETWEEN THE MONTHS OF MAY AND OCTOBER. MOWED HEIGHT OF VEGETATION SHALL NOT BE LESS THAN TWO INCHES.



STAKED BALED STRAW EROSION CHECK DETAIL
NOT TO SCALE



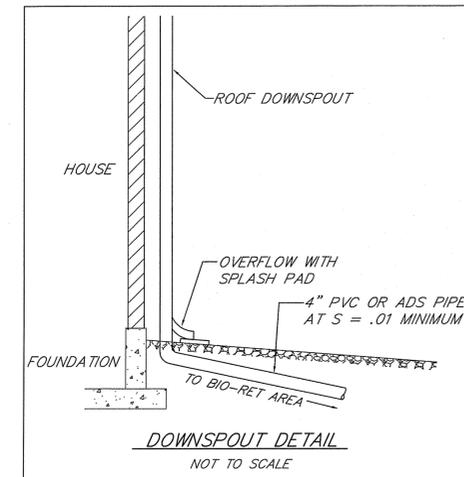
SILT SOCK DETAIL
NOT TO SCALE



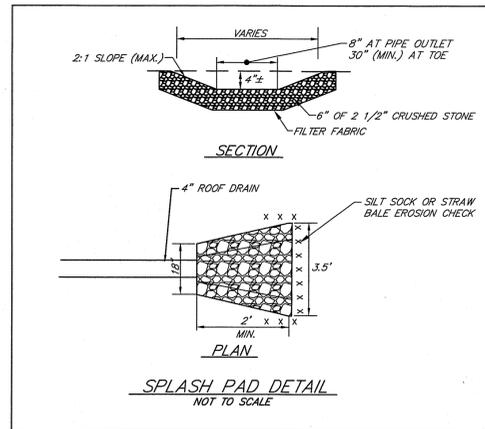
INSTALLATION NOTES:

- SET POSTS MINIMUM DEPTH 12" AND EXCAVATE 6" X 6" TRENCH UPSLOPE ALONG LINE OF POSTS.
- STAPLE WIRE FENCING TO THE POSTS.
- ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND TO TRENCH.
- BACKFILL AND COMPACT THE EXCAVATED SOIL.
- BARRIER HEIGHT NOT TO EXCEED 30". LOCATE 6 FEET FROM TOE OF SLOPE. OVERLAP FILTER FABRIC 6" AT POSTS. POST SPACING MAXIMUM 8 FEET.

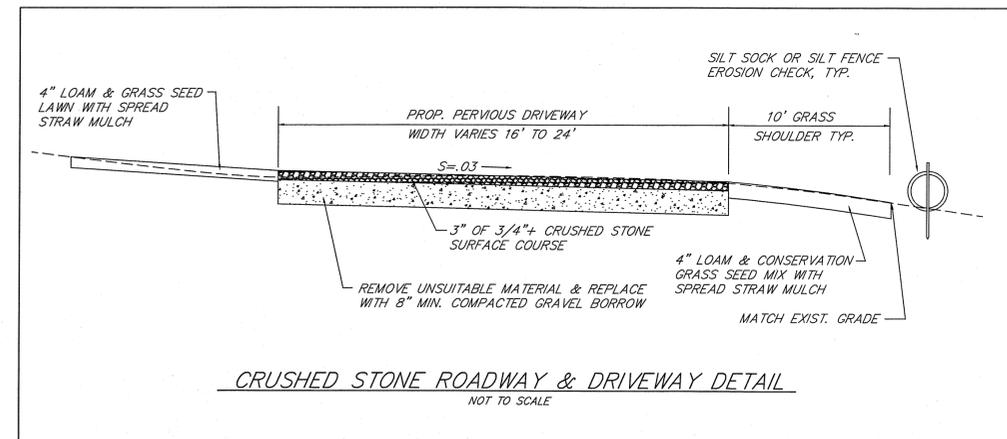
SILT FENCE DETAIL
NOT TO SCALE



DOWNSPOUT DETAIL
NOT TO SCALE



SPLASH PAD DETAIL
NOT TO SCALE



CRUSHED STONE ROADWAY & DRIVEWAY DETAIL
NOT TO SCALE

	DRAINAGE DESIGNER/ENGINEER	
	S.F.M. ENGINEERING ASSOCIATES 410 TIOGUE AVENUE COVENTRY, R.I. 02816 (401)826-3736 SCOTT.SFM@ATLANTICBB.NET	
DATE	REVISION	
CHK. BY: SFM	JOB. NO. SFM862	

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 100-23-2019 FILE # 19-0031
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

SCITUATE SURVEYS, INC.
410 TIOGUE AVENUE
COVENTRY, R.I. 02816
(401) 826-3736
LAND SURVEYING/MAPPING/SITE PLANNING

SCITUATE SURVEYS, INC. CON. NO. 430
THIS STATE DOES NOT REGULATE THE PRACTICE OF SURVEYING.
REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS
ON NOVEMBER 29, 2014, AS FOLLOWS:
TITLE OF BOUNDARY SURVEY
JOB OR SUBSEQUENCE
DATE ACQUISITION SURVEY

MEASUREMENT GENERALIZATION
N/A
VERTICAL CONTROL STANDARD I-2
TOPOGRAPHIC SURVEY ACCURACY I-2

ESTIMATE OF CURBAGE
PHYSICAL SURVEY LOCATION DATA FOR DESIGN OF AN ON-SITE WASTEWATER TREATMENT SYSTEM

ANGELO W. BAIKONDI
1792
PROFESSIONAL
LAND SURVEYOR

PLAN OF PROPOSED IMPROVEMENTS TO ASSESSOR'S PLAT 9 LOT 215
JOE SABLE ROAD
GLOUCESTER, RHODE ISLAND
PREPARED FOR: GIFFORD W. PLUME, III & GIFFORD W. PLUME, IV
SCALE: AS NOTED DATE: JANUARY 3, 2019 REVISION:
PROJECT NO.: SS2884 SHEET 3 OF 3
DRAWING NO.: SS4581