# TOWN OF JAMESTOWN ZONING BOARD OF REVIEW

# Application for Exception or Variation under the Zoning Ordinance

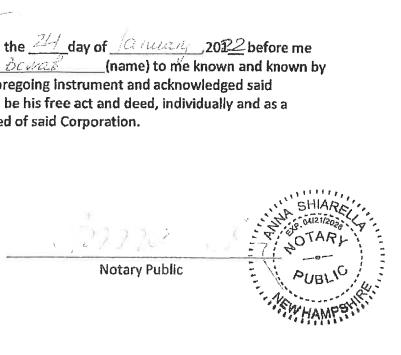
Zoning Board of Review;	
Jamestown, R. I.	Date September , 2021
Gentlemen:	
the application of the provisions or regul described premises in the manner and on Applicant 5A Builders, LLC	50 South County Commons Way Address Wakefield, RI 02879
Owner Emily Bowab	Address Methuen, MA 01844
Lessee	Address
1. Location of premises: No	Seaside Drive State
2. Assessor's Plat 3 Lot	139
3. Dimensions of lot: frontage 120	ft. depth119 ft. Area14,280sq. f
4. Zoning Districts in which premises are	c located: Use R40 Area 14,280 Height
5. How long have you owned above pren	nises? In Bowab family 54 years
6. Is there a building on the premises at p	resent?
7. Size of existing buildingnone	
Size of proposed building or alteration	44' x 32'
8. Distance of proposed bldg.or alteration	from lot lines:
front 41.5' rear 52.9'	left side 41' right side 31'
9. Present use of premises: Vacant	
10. Proposed use of premises: single fan	
Location of septic tank & well on	lot as shown on attached plan

1. Give extent	of proposed alterations _c	construction of single family dwelling
2. Number of f	amilies for which buildin	g is to be arranged: _ one
3. Have you su	bmitted plans for above to	o Inspector of Buildings? no
	ector of Buildings refused	
4. Provision or or or exception or	regulation of Zoning Ord variance is made:	linance or State Enabling Act under which application 82-314C Development within Subdistrict A
-		
5. State the ground of the state of the stat	unds for exception or vari	iation in this case: en utilized to minimize the environmental
effects of the p	roposed improvements	to the property. An AdvanTex Wastewater
Treatment Sys	tem has been approve	d by RIDEM.
vner:		Respectfully Submitted,
nily Bowab		
•		Signature
mily	Bowal	Address 220 Concurs 1000 Color
mily	Bowal	

NOTE: A LOCATION PLAN AND SKETCH AND DRAWINGS NECESSARY TO GIVE FULL INFORMATION MUST BE FILED WITH THE APPLICATION.

# Town of Jamestown OWNER AUTHORIZATION FORM FOR APPLICATION TO JAMESTOWN PLANNING COMMISSION

APPLICANTS: Fill out only (1) below if property owner is same as applicant. Fill out (1) and (2) below if applicant is other than property owner. hereby certify that I am the owner (1) I, Emily Bowab Lot 139 as shown on the Town of property, designated as Plat \_\_3 of Jamestown Tax Assessor's Maps. (2) I hereby authorize the application for Special Use Permit 5A Builders, LLC (name of applicant or agent) to be submitted to the Planning Department of the Town of Jamestown for review and decision by the Planning Commission. WITNESS its name this 24 day of Achuan 2012. NEW Hampshire County of Hillstoren 4 on the 24 day of 10 many 2012 before me me to the party executing the foregoing instrument and acknowledged said instrument, by him executed, to be his free act and deed, individually and as a partner and the free act and deed of said Corporation.





# SAMPLE ZONING ADVERTISEMENT MUST BE FILLED OUT BY THE APPLICANT

Application of 5A Builders, LLC (Emily Bowab, Owner) whose
property is located at <u>0 Seaside Drive</u> , and further
identified as Tax Assessor's Plat 3 , Lot 139 for a **XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
from Article 3 , Section 82-314C Development within Subdistrict A
SPhar Perint repunintes Article 6, Sections 82-601, 602, 603, 60
to construct a single family dwelling
Said property is located in a R40 zone and contains 14,280 acres/square feet.

# **HOW TO WRITE YOUR AD:**

Name of owner must be advertised exactly as it appears on the most recent deed for the property. If the applicant's name differs from the owner, the ad must read: "Application of John R. Smith et ux Mary, (Jane L. Doe, owner), whose property...etc." The exact street address must be included in the advertisement, as well as the Tax Assessor's Plat and Lot numbers. Cross out "Variance" or "Special Use Permit" if one does not apply to what you are seeking. List the exact Article(s) and Section(s) numbers from the Zoning Ordinance from which you are seeking relief, followed by the title of the section as it appears in the Ordinance. Then briefly describe what you wish to do: "to construct a tool shed five feet from the side lot line instead of the required ten feet". List what zone your property is in: R8, R20, R40, RR80, RR200, CL, CD, CW or OS. Finally, enter the total acreage or square footage of your lot, crossing out the term that does not apply: acres or square feet.



# TOWN OF JAMESTOWN

93 Narragansett Avenue, Jamestown RI, 02835 William L Moore, Building official & Zoning Enforcement Officer 401-423-9803, wmoore@jamestownri.net

# Zoning Memorandum

**Date:** 3/1/2022

From: William L Moore, Jamestown Zoning Enforcement Officer

Subject: March 22, 2022 Meeting hearing 5A Builders, Bowab

Dear Zoning Board members,

I have reviewed the Subject application. I have also reviewed the findings of Jean Lambert PE, 12/20/2021. I have also reviewed the findings of the Planning Commission 1/14/2022.

The property is located in an R-40/20 due to less than 20,000 square feet, and is in the High Groundwater Overlay District.

The property is currently a vacant lot, the Proposed Site plan is compliant with the zoning requirement of Front Setback of 30' from Dory St. Secondary Front setback of 15' from Seaside drive, together with 10' from the side setbacks of the North and West boundary. When an official address is issued, it will be Dory Street.

The AE 13 Flood Zone reaches the edge of the property on Seaside Drive, and the proposed structure will be compliant with FEMA regulations.

The Average grade at the proposed structure is 12.63, and the Top of foundation is 16'. There will be a slab on grade construction, together with a Total height above average grade at 32' not to exceed 35'.

Therefore, the proposed construction will not require a Use, or Dimensional, Variance.





# Office of the Town Planner MIEMORANDUM

Jamestown Zoning Board of Review

FROM:

Michael Swistak, Chair and

The Jamestown Planning Commission

RE:

DRAFT Motion for Zoning Section 82-314: High

Groundwater Table and Impervious Overlay District, Sub-District A - Emily Bowab: AP 3, Lot 139; Seaside Drive,

Jamestown, RI

DATE: January 14, 2022

At the January 19, 2022 a Planning Commission meeting, held remotely by Zoom where all Planning Commissioner were present, the Planning Commission voted unanimously to recommend to the Jamestown Zoning Board, approval of the application of Emily Bowab: AP 3, Lot 139; Seaside Drive, Jamestown, RI; being reviewed under Zoning Ordinance Section 314 - High Groundwater Table and Impervious Overlay District Subdistrict A review in accordance with the plans entitled "On-Site Wastewater Treatment System for Ap 3 Lot 139", Seaside Drive, Jamestown Rhode Island dated revised 4/6/21. The plans are prepared by Principe Company, Inc. Engineering Division, PO Box 298, Tiverton, RI 02878, 401-816-5385.

The recommendation for approval is based on the following findings of facts and recommended conditions of approval as noted in the Memo from Jean Lambert, PE and amended at the Planning Commission meeting:

## Findings of Fact Section 314

- 1. The property is 14,280 square feet (sf) in area;
- 2. The existing site is undeveloped. Topography on the lot slopes from east to west on the site. There are no freshwater wetlands on the property.
- 3. Soil evaluation results show that the site falls under Sub-district "A" requirements of the High Groundwater Table and Impervious Overlay District with 18" to the seasonal highwater table and 26" to impervious soil.
- 4. The maximum impervious cover allowed is 10.0% or a maximum of 1428 sf.
- 5. The applicant is proposing to develop the site with a house, crushed stone driveway, pervious walkways, well, and an advanced treatment OWTS (Advantex to bottomless sand filter).
- 6. The OWTS permit for 3-bedrooms was issued on 6/24/2021.
- 7. The total proposed impervious cover will be 1408 sf or 9.86%.
- 8. A vegetated swale is proposed to provide water quality treatment and stormwater mitigation of new rooftop runoff. The required stormwater treatment volume for the new rooftop is 518 cubic feet (cf). The total proposed volume is 547 cf.
- 9. In Conclusion, the Town Engineer Jean Lambert, PE stated that the proposal meets the intent of the ordinance in that the proposed impervious cover is 9.86%.

Bowab, AP 2, Lot 139 January 14, 2022 Page 2

The maximum allowable impervious coverage for this site is 10%. The rain garden provides treatment and mitigation for the new impervious rooftop;

- 10. The applicant's representative \_\_\_\_\_\_ of Principe Co, Inc, was present at the Planning Commission meeting and represented the applicant before the Planning Commission on January 19, 2022; and,
- 11. Jamestown Engineer Jean Lambert provided correspondence to William Moore, Building Official and Lisa Bryer, Town Planner dated December 20, 2022 regarding the Bowab application (attached).

# **Recommended Conditions of Approval**

- 1. An erosion and sediment controls must be installed at the down gradient limits of site disturbance and maintained until stabilization of the site is attained:
- 2. Maintenance and inspection of the existing OWTS shall continue as required by the Town Onsite Wastewater Management Ordinance;
- 3. The vegetated swale shown on the approved site plans must be installed and maintained as outlined on the rain garden noted on the approved site plan;
- 4. The Operation and Maintenance (O & M) Plan (reproduced in 8.5" x 11" for the stormwater mitigation (rain garden) shall be recorded in the Office of the Town Clerk with the Zoning Approval and evidence of such shall be provided to the Zoning Enforcement Officer as well as the Planning Department; and,
- 5. Any additional future site work including a change to the driveway surface that increases the area of impervious coverage will require a review following the requirements of the High Groundwater Ordinance.

Attachments: 1) Memo from Jean Lambert, PE dated December 20, 2021

- 2) A copy of the Plan referenced above dated revised 4/6/21
- C: William Moore, Building Official/ZEO Emily Bowab, Applicant Thomas Principe, III, PE



# Town of Jamestown, Rhode Island

Engineering/GIS Office

93 Narragansett Ave ♦ Jamestown, RI 02835 – 1509

Date: December 20, 2021

Γο: William Moore, Building Official

Lisa Bryer, Town Planner

From: Jean Lambert, P.E.

RE: Zoning Section 82-314: High Groundwater Table and Impervious Overlay District, Sub-District A

Emily Bowab: AP 3, Lot 139; Seaside Drive at Dory Ave, Jamestown, RI

I have reviewed the site plan entitled, "Onsite Wastewater Treatment System for AP 3 Lot 139, Seaside Drive in Jamestown RI" revision dated 10/7/21 (sheets 1,2) and 12/21/21 (sheet 3), prepared by Principe Company, Inc. for the above referenced property.

## Existing Site/Soil Information:

The property is 14,280 square feet (sf) in area. The existing site is undeveloped. Topography on the lot slopes from east to west on the site. There are no freshwater wetlands on the property.

Soil evaluation results show that the site falls under Sub-district "A" requirements of the High Groundwater Table and Impervious Overlay District with 18" to the seasonal high water table and 26" to impervious soil. The maximum impervious cover allowed is 10.0% or a maximum of 1428 sf.

### Proposed Site:

The applicant is proposing to develop the site with a house, crushed stone driveway, pervious walkways, well, and an advanced treatment OWTS (Advantex to bottomless sand filter). The OWTS permit for 3-bedrooms was issued on 6/24/2021. The total proposed impervious cover will be 1408 sf or 9.86%.

A vegetated swale is proposed to provide water quality treatment and stormwater mitigation of new rooftop runoff. The required stormwater treatment volume for the new rooftop is 518 cubic feet (cf). The total proposed volume is 547 cf.

## **Zoning Section 82-314 Review**

### Impervious Coverage & Stormwater Management:

The proposed impervious cover is 9.86%. The maximum allowable impervious coverage for this site is 10%. The rain garden provides treatment and mitigation for the new impervious rooftop. **OK** 

# Recommendations/Conclusions:

- Erosion and sediment controls must be installed at the down gradient limits of site disturbance and maintained until stabilization of the site is attained.
- After installation, maintenance and inspection of the OWTS shall continue as required by the Town Onsite Wastewater Management Ordinance.
- The vegetated swale shown on the approved site plans must be installed and maintained as outlined on the notes on the approved site plan and the operation and maintenance plan.
- Any additional future site work that increases the area of impervious coverage will require a review following the requirements of the High Groundwater Ordinance.

Phone: 401-423-7193 Fax: 401-423-7226 Email: jlambert@jamestownri.net



# STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Department of Environmental Management
Office of Water Resources



# Site Evaluation Form

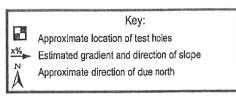
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	or: DeRi		0				License	Number: D-30	)31	
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Horizon	Depth	Dist	Торо	Matrix	Re-Dox Features	Ab. S. Con.	Texture	Structure	Consistence	Category
A	0-10"	а	C	10y4/3			FSL	Granular	Friable	4
В	10-26"	а	G	5y3/2			SL	SBK	Friable	3
С	26-96"	а	C	5yr5/6	10yr6/2		Sil	0,SG	Friable	9
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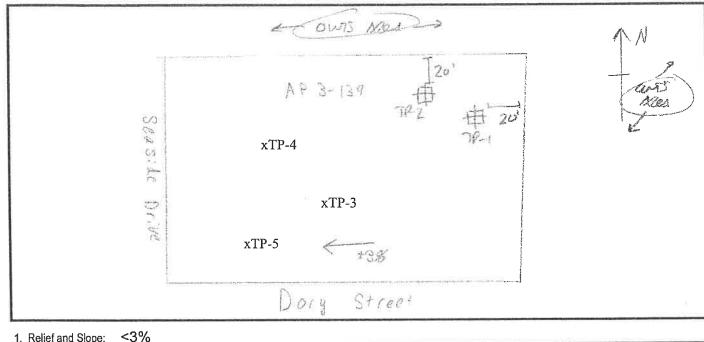
# Part B

Site Evaluation - to be completed by Class II or III Designer or Soil Evaluator Please use the area below to locate:

1. Test holes

Approximate direction of due north
 Offsets from test holes to fixed points such as street, utility pole, or other permanent, marked object

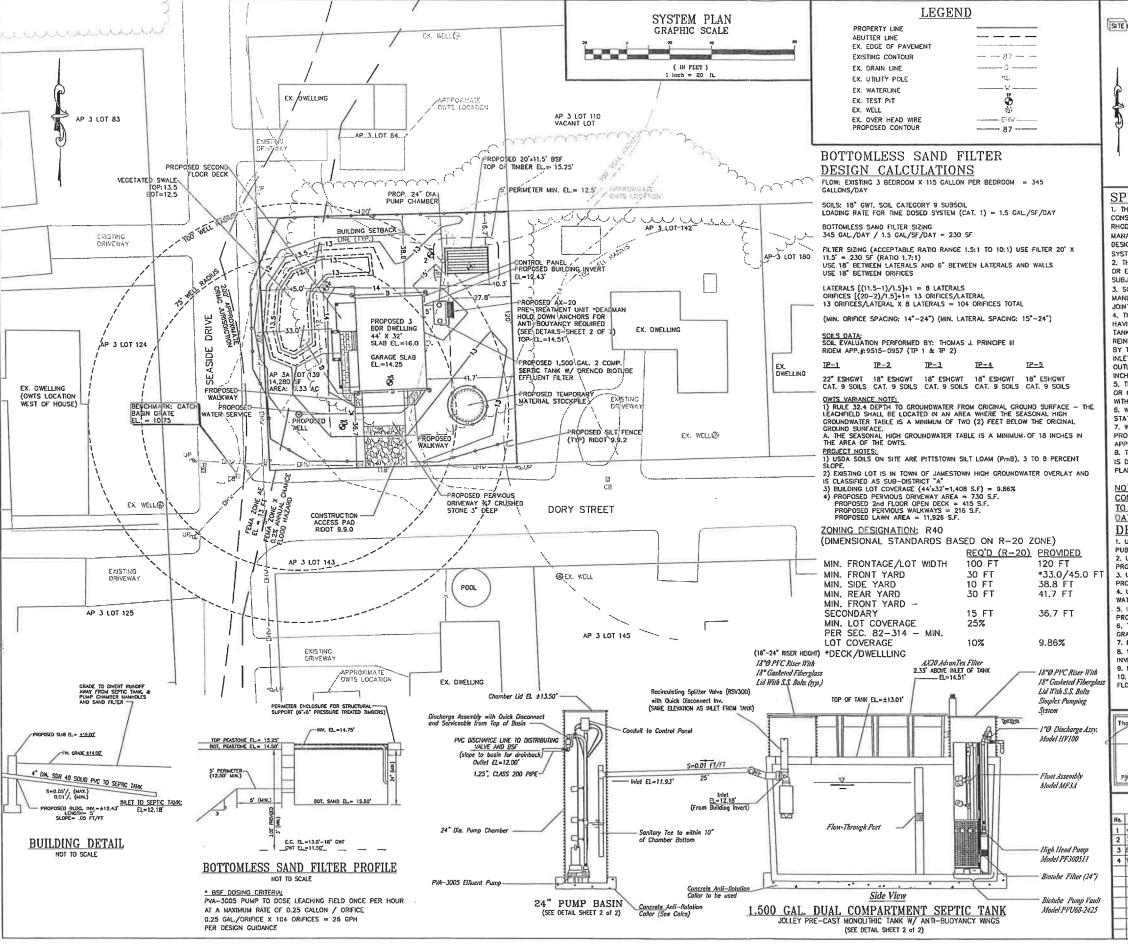




	362	*38		
[	Dory	Street		0
I. Relief and Slope: <3%				
2. Presence of any watercourse, wetlands or surfac	e water bodies, within 20	00 feet of test holes: \	'ES□ NOZI If yes, locate	on above sketch.
3. Presence of existing or proposed private drinking	water wells within 200 f	eet of test holes: YES	NOD If yes, locate of	n above sketch.
4. Public drinking water wells within 500 feet of test	holes: YES NO	If yes, locate on a	above sketch.	
5. Is site within the watershed of a public drinking w	ater reservoir or other cr	ritical area defined in	SD 19.00? YES□ NOZ	
<ol><li>Has soil been excavated from or fill deposited on</li></ol>	site? YES NOZ	If yes, locate on	above sketch.	
7. Site's potential for flooding or ponding: NONE□	SLIGHT <b>IZ</b> I MO	DDERATE□ SEV	ERE	
8. Landscape position: Back Slope				
9. Vegetation: Wooded				
<ol> <li>Indicate approximate location of property lines a</li> </ol>	•			
<ol> <li>Additional comments, site constraints or addition</li> </ol>	nal information regarding	g site:		
	- Venezuskut-			
Certification The undersigned hereby certifies that all information or been authorized by the owner(s)-to-conduct these necessity.	n this application and acco	ompanying forms, sub- and submit this reques	mittals and sketches are true and a	accurate and that I have
Part A prepared by:	D-4075	Part B prepared by:	The state of the s	D-4075
Signature	License #	Signature	11	License #
FOR OFFICE USE ONLY				_
Decision: Approved (SD 26.00(f)(1)  Not in col	mpliance, or more infomrati	on required (SD 26.00(f)	(2) Disclaimed (SD 27.00(f)	(3)
Comments:				
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Signature Authorized Agent	Date			

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SITE LOCUS NOT TO SCALE

# SPECIFICATIONS

1. THE SYSTEM FOR SUBSURFACE DISPOSAL OF SANITARY SEWAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS, DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION. DESIGN, CONSTRUCTION, AND MAINTENANCE OF ON-SITE WASTEWATER TREATMENT SYSTEMS," RULE 1 THROUGH RULE 55.

2. THE PIPE FROM THE BUILDING TO THE SEPTIC TANK SHALL BE SDR-35 PVC PIPE OR EQUIVALENT. SDR-40 PVC OR EQUIVALENT TO BE USED FOR ALL PORTIONS SUBJECT TO VEHICULAR TRAFFIC.

3. SOLID WALL PIPE AND FITTINGS SHALL BE SCHEDULE 35 PVC (POLYVINYL CHLORIDE)
MANUFACTURED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF ASTM D 3034.
JOINTS SHALL BE SOLYENT WEIGHD TYPE.

4. THE SEPTIC TANK MUST HAVE TWO COMPARTMENTS WITH THE FIRST COMPARTMENT HAVING A LIQUID VOLUME THAT IS TWO THIRDS THE REQUIRED VOLUME OF THE ENTRE TANK. THE SEPTIC TANK SHALL BE WATER TIGHT, AND CONSTRUCTED OF PRECAST REINFORCED CONCRETE, FIBERGLASS, POLYETHYLENE OR OTHER MATERIALS APPROVED BY THE RIDEM. OUTLET TEES MUST BE EQUIPPED WITH AN EFFLUENT SCREEN. THE INLET AND OUTLET TEES MUST HAVE A MINIMUM OF 20 INCH ACCESS OPENINGS. THE OUTLET TEE RISER MUST BE AT FINISH GRADE, AND THE INLET TEE RISER WITHIN 12 INCHES OF FINISH GRADE.

5. THE DISTRIBUTION BOX SHALL BE A WATERTIGHT PRECAST CONCRETE STRUCTURE OR OTHER DURABLE MATERIAL MEETING THE REQUIREMENTS OF THE SPECIFICATIONS WITH A BAFTLE AND SUITABLE PIPE PENETRATION KNOCKOUTS.

WITH A BAFFLE AND SUITABLE PIPE PENETRATION KNOCKOUTS.

6. WASHED STONE AND OTHER SOIL MATERIALS SHALL BE IN CONFORMANCE WITH THE
STATE RULES AND REGULATIONS. RULE 32.0.

7. WHENEVER THE SYSTEM IS TO BE CONSTRUCTED WHOLLY OR PARTIALLY IN FILL. THE PROCEDURE AS DEFINED IN RULE 33.5 OF THE STATE RULES AND REGULATIONS SHALL APPLY.

8. THE DESIGN INTENT IS TO MEET THE STATE STANDARDS. THE SYSTEM OPERATION IS DEPENDENT ON PROPER USAGE, AND IT'S OPERATION IS NOT CUARANTEED BY THIS BEAM.

#### OTF ·

CONTRACTOR TO VERIFY BENCHMARK & EXISTING CONDITIONS PRIOR TO CONSTRUCTION, ANY DISCREPANCIES BETWEEN FIELD AND DESIGN DATA SHOWN HEREON TO BE REPORTED TO THE ENGINEER

### DESIGN NOTES

1. UNLESS SPECIFICALLY NOTED, THE PROPOSED OWTS IS NOT WITHIN A WATERSHED OF A PUBLIC WATER SUPPLY OR OTHER CRITICAL RESOURCE AREA,
2. UNLESS OTHERWISE NOTED, THERE ARE NO DRINKING WATER LINES, EXISTING OR

PROPOSED WITHIN 50 FEET OF THE PROPOSED OWTS.

3. UNLESS OTHERWISE NOTED, THERE ARE NO NON-POTABLE WATER WELLS, EXISTING OR PROPOSED WITHIN 100 FEET OF THE PROPOSED OWTS

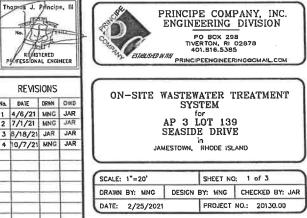
4. UNLESS OTHERWISE NOTED, THERE ARE NO EXISTING OR PROPOSED PUBLIC DRINKING WATER SUPPLY WELLS WITHIN 500 FEET OF THE PROPOSED OWTS.

5. INDICATED, THERE ARE WETLANDS AND DRAINS (STORM) WITHIN 200 FEET OF THE PROPOSED OWTS.

6. THE SEPTIC TANK WILL BE PROVIDED WITH AN OUTLET TEE, INLET TEE AND RISERS TO GRADE,

7. DISTRIBUTION BOX TO HAVE A MINIMUM BOTTOM AREA OF 3 SQ. FT. 8. WITHIN FIVE (5) FEET OF THE SYSTEM, FINISH GROUND WILL BE GREATER THAN THE

9. LEACH FIELD CONSTRUCTION SHALL CONFORM TO RULE 33 OF THE SPECIFICATIONS.
10. PROPOSED BUILDING IS WITHIN FEMA FLOOD ZONE X, 0.2% ANNUAL CHANCE FOR FLOOD HAZARD.



ADVANTEX TREATMENT SYSTEM- AX MODE 3b GENERAL NOTES: BATTE BOYANTER THE ADENT STSTEM SHALL INCLUDE A PROCRAMMENT THER TO PROVIDE SMALL DOES OF TO COMPETE THE PROPERTY OF THE PROCRAMMENT OF THE PROPERTY OF THE STREET WAS THE STREET, AS INCLUDED FOR ARREND THE TOTAL THE TOTAL THE PROCRAMMENT OF THE PROPERTY OF THE STREET, AS INCLUDED FOR ARREND FOR ARREND THE STREET, AS INCLUDED AND ADDITIONATION FOR THE STREET, AND ADDITIONATION FOR THE STREET, AS INCLUDED ADDITIONATION FOR THE STREET, AS INCLUDED ADDITIONATION FOR THE STREET, THE "TE RESIDENCE BY CHEFFEN YEE A WICH LEVEL MY TER ALARM FOWE AND FORT EXCEPTING SET TO OVERRIDE DETAILS THE SPECET. THANK AND FORTH ALSO BE PROVIDED — REFER TO SEPTIC THANK AND FORTH BASIN 8. AN IMPULSE COUNTER SHALL BE PROVIDED ON THE TIMER OVERRIDE OR HIGH WATER ALARM FLOAT (WHICHEVER IS APPLICABLE BASED ON ESTIMATED FLOW CONDITIONS) FOR THE ADVANTEX TREATMENT SYSTEM AND DIMES CAMPORT OF THE ADVANTEX TREATMENT SYSTEM

10. INSTALLATION OF THE ADVANTEX TREATMENT SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE ADVANTEX TREATMENT SYSTEM INSTALLATION GUIDE. 11. If the advantex - XX filter is placed over the 1DP of the Tank a minimum 5" thick layer of 30.0PE compacted that is a same must be placed on 100 filter in a filter than 20.0PE on the Tank in additional the control of 30.0PE of 100.0PE of 13. INSTALLATION OF THE RECIRCULATING SPLITTER VALVE SHALL BE INSTALLED WITHIN THE RISER OVER THE SEPTIC TANK'S INLET AND MUST BE INSTALLED SO AS NOT TO INTERFERE WITH THE INLET TEE. 15. THE HIGH THEAD PUMP AND RESPECTIVE FLOAT LEVELS FOR THE ADVANTER FILTER POOL WITH THE TWO COMPATIBLES PECFFICIATIONS. 16. CONTROL PANEL, ELECTRICAL JUNCTION BOXES, AND WIRING RUNS SHALL BE INSTALLED BY A LICENSED 17. PUMPS AND FLOAT LEVELS SHALL BE MANUALLY AND AUTOMATICALLY TESTED, DESIGNER SHALL BE PRESENT DURING TESTING OF SYSTEM CORPORNIS MANUAL AND AUTOMATIC TESTING SHALL BE PERFORMED IN ACCORPORATE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. 18. WHENEVER AN ALARM CONDITION OCCURS, THE RED LIGHT ON THE FRONT OF THE ALARM PANEL WILL COME ON ALCONG WITH THE AUDIBLE HORN. THE AUDIBLE PORTION OF ALL ALARMS CAN BE SILENCED BY PUSHING THE ILLUMINATE OF LIGHT

### ADVANTEX TREATMENT SYSTEM OPERATION MAINTENANCE (0&M) REQUIREMENTS:

2. THE INSTALLER AND SYSTEM SERVICE PROVIDER SHALL BE FAMILIAR WITH THE ADVANTEX TREATMENT SYSTEM OWN MANUAL REQUIREMENTS AND PROCEDURES FOR THE SYSTEM TO BE INSTALLED. A. THE OWNER(S) SHALL BE PROVIDED WITH A 3-YEAR LIMITED WARRANTY FOR THE ADVANTEX TREATMENT TO THE ADVANTEX TREATMENT TO THE ADVANTEX TREATMENT TO THE OWNER, AS SOLITED WARRANTY SHALL BE SOLVED TO THE OWNER. 9 ALL TANKS AND BASINS SHALL BE VISUALLY INSPECTED FOR WATER-TIGHTNESS AND STRUCTURAL SOUNDNESS

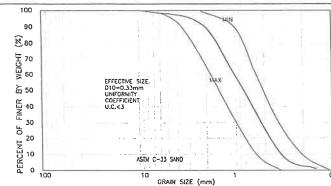
### BOTTOMLESS SAND FILTER GENERAL NOTES

4. THE BOTTOULESS SAND FRITER (BSF) MUST BE USED IN CONJUNCTION WITH THE REQUIRED ADVANCED PRETREATMENT SYSTEM INDICATED ON THE APPROVED DESIGN. S. THE PREPARED BOTTOM OF BED EXCAVATION OF THE BSF SHALL BE INSPECTED BY THE DESIGNER PRIOR CONSTRUCTION OF THE STRUCTURAL ENCLOSURE AND PLACEMENT OF SAND FILTER MEDIA MATERIALS. 

# SYSTEM INSTALLER AND PROPERTY OWNER NOTE

### BOTTOMLESS SAND FILTER (BSF) OPERATION OPERATION & MAINTENANCE (O&H) REQUIREMENTS:

TOUGHANN THE SOLDS IN LATERALS, FIRST OFFI THE LATERAL FOR BALL VALVE OR THREADED END
FOR THE FORM AND FLIES OLD TAYL'S COURS. THE LATERAL FOR BALL VALVE OR THREADED END
FOR THE FORM AND FLIES OLD TAYL'S COURS. A BOTTLE BRISH (SZED APPROPRIATELY TOR THE
FORM AND FLIES OLD THE VALVE OFFI THE SHOULD AND THE MANUALLY ERCO. AND EACH LATERAL THE
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BOTTOMLESS SAND FILTER MEDIA SPECIFICATIONS

SIDE VIEW

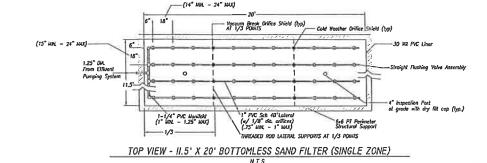
COLD WEATHER ORIFICE SHIELD DETAIL

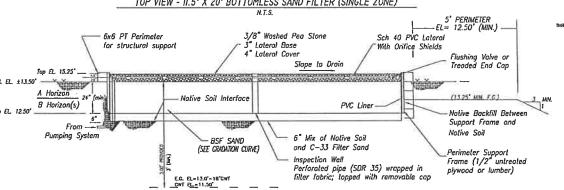
THREADED END CAP DETAIL

1/8" CRIFICE AT BOTTOM

TEST ASSEMBLY

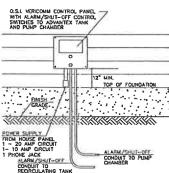
# 11.5' x 20' (230 S.F.) Bottomless Sand Filter - Single Zone - 104 Orifices- 8 Laterals

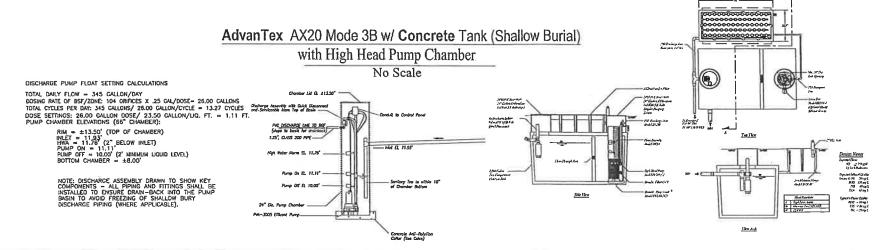


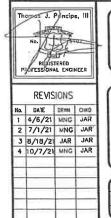


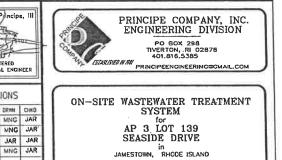
PROFILE VIEW - II.5' X 20' BOTTOMLESS SAND FILTER (SINGLE ZONE)

# **Electrical Control Panel**

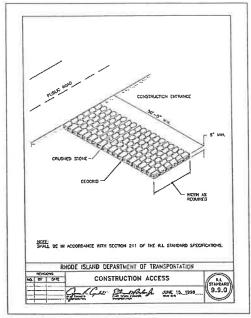


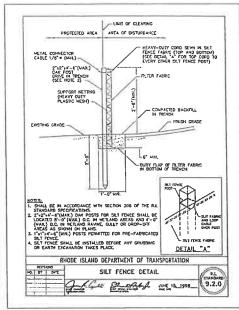


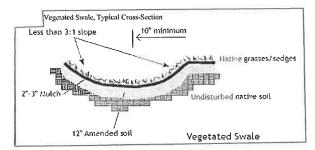




SCALE: 1"=20"		SHEET NO: 2 of 3		
DRAWN BY: MNG	DESIGN	BY: MNG	CHECKED BY: JAR	
DATE: 2/25/2021		PROJECT	NO.: 20130.00	

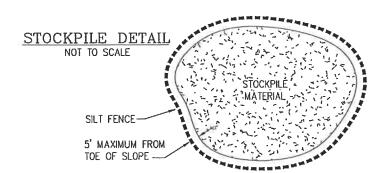






VEGETATED SWALE SIZING:
ROOF AREA= 1,408 sf
Runoff from 1,408 sf of impervious area (10-year storm) = 1,408 x 0.90 x (4.9/12)= 518 cf Req'd

BMP Analysis (Grossed Swale)
Reference HydroCAD Colculations:
Bottom Elevation = 12.5, area=455 sf
Top Elevation = 13.5, area=1,048 sf
Total Storage Capacity in Swale = 631 cf
Soils: Underlying Sondy Loam, Infiltration Rate 0.27 in/hr
During 10 year storm event - peak elevation in swale = 13.27',
(No credit taken for infiltration)
Total Volume= 547 cf > 518 cf OK



### VEGETATIVE COVER AND PLANTING

- 1. THE NORMAL ACCEPTABLE SEASONABLE SEEDING DATES ARE APRIL 1ST THROUGH OCTOBER 15TH.
- TOP SOIL FOR PERMANENT OR LONG TERM TEMPORARY SEEDING SHOULD HAVE A SANDY LOAM TEXTURE, RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMES, TRASH OR CONSTRUCTION DEBRIS, TOP SOIL SHALL CONFORM WITH RHODE ISLAND SPECIFICATIONS M18.01.

3. THE DESIGN SEED MIX UTILIZED IN ALL DISTURBED AREAS TO BE SEEDED SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	% BY WEIGHT	SEEDING DATE
CREEPING RED FESCUE	70	
ASTORIA BENTGRASS	5	APRIL 1 - JUNE 15
BIRDFOOT TREFOIL	15	AUG. 15 - OCT. 15
PERENNIAL RYE GRASS	10	

APPLICATION RATE - 100 LBS PER ACRE

- SEED MIX SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING, WITH APPROPRIATE INOCULATION FOR EACH SEED VARIETY. ALTERNATE SEED TYPES DUE TO SITE SPECIFIC CONDITIONS AND SOILS ARE ACCEPTABLE WITH THE ENGINEER'S APPROVAL.
- 4. IN TOPSOIL SEEDING AREAS, THE CONTRACTOR WILL LIME AND FERTILIZE AS REQUIRED TO COMPLIMENT OR UPGRADE SOIL CONDITIONS.
- 5. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY PERMANENT VEGETATIVE COVER AREAS THAT DO NOT DEVELOP OR WHICH ERODE WITHIN A ONE (1) YEAR PERIOD.

#### VEGETATED SWALE AMENDED SOIL:

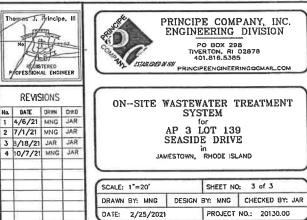
A UNIFORM MIX (50/50) OF THE EXCAVATED NATIVE SOILS AND MATURE ORGANIC COMPOST.

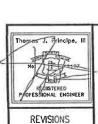
VEGETATED SWALE MAINTENANCE:

- 1) INSPECT ANNUALLY AND AFTER LARGE STORM EVENTS.
- 2) ERODED SIDE SLOPES AND BOTTOMS SHALL BE STABILIZED AS NECESSARY.
- 3) IF THE SURFACE OF THE SWALE BOTTOM BECOMES CLOGGED AND STANDING WATER IS OBSERVED 48 HOURS AFTER PRECIPITATION EVENTS, THE BOTTOM SHALL BE ROTO-TILLED OR CULTIVATED TO BREAK UP ANY HARD PACKED SEDIMENT AND THEN RESELED.
- 4) VEGETATION SHALL BE MOVED AS REQUIRED TO MAINTAIN MINIMUM GRASS HEIGHTS IN THE 4-6 INCH RANGE.
- 5) EVERY 5 YEARS THE CHANNEL BOTTOM SHOULD BE SCRAPED TO REMOVE SEDIMENT AND SHOULD BE RESEEDED TO RESTORE GROUND COVER, WHERE NECESSARY.

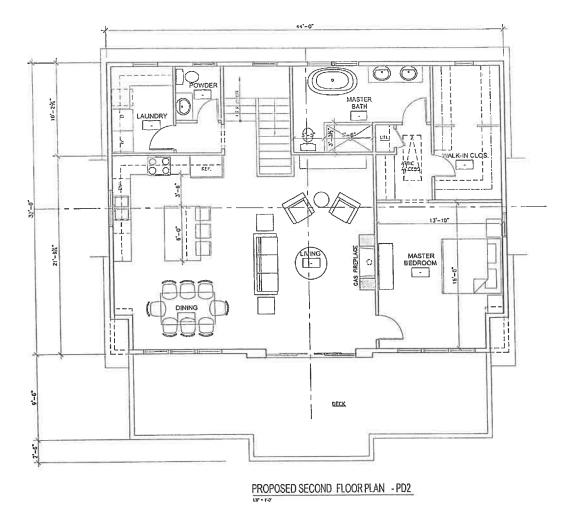
#### EROSION CONTROL, SOIL STABILIZATION AND SEDIMENT CONTROL PLAN

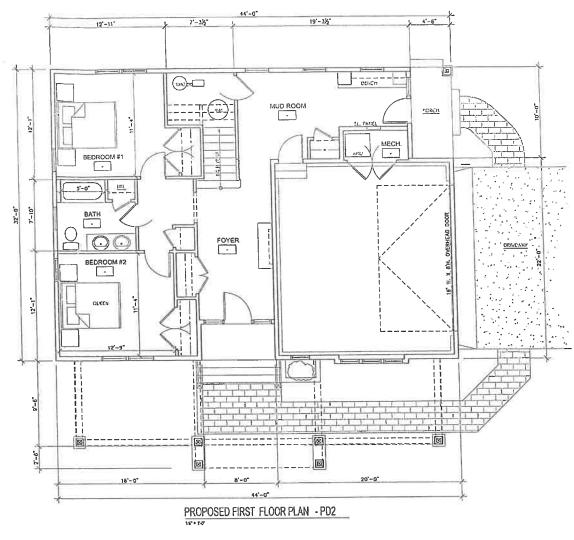
- 1. PRIOR TO THE COMMENCEMENT OF ANY CLEARING, GRUBBING, DEMOLITION OR EARTHWORK ACTIVITY, TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE PLANS ARE TO BE INSTALLED BY THE CONTRACTOR.
- 2. CONSTRUCTION ACCESS STABILIZATION ENTRANCE PADS ARE TO BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE GRUBBING OR EARTHWORK ACTIVITY.
- 3. EXISTING CATCH BASINS ARE TO BE PROTECTED WITH HAY BALES AND/OR SILT SACS PRIOR TO THE START OF SITE GRUBBING, EARTHWORK OR UNDERGROUND UTILITY AND DRAINAGE INFRASTRUCTURE INSTALLATION TO SERVE THE DEVELOPMENT SITE.
- 4. THE PROJECT CONSTRUCTION SEQUENCE, TO THE EXTENT PRACTICAL, SHOULD REQUIRE THE INSTALLATION OF DOWN GRADE AND OFF SITE STORM DRAININGE SYSTEM IMPROVEMENTS BEFORE THE START OF SITE GRUBBING AND EARTHWORK ACTIVITY.
- 5. TEMPORARY SITE SLOPE TREATMENTS FOR SOIL STABILIZATION SHALL CONSIST OF HAY, STRAW, FIBER MULCH, RIP RAP OR PROTECTIVE COVERS SUCH AS MAT OR FIBER LINING (BRURAP, JUTE, FIBERGLASS NETTING, AND EXCELSIOR OR EQUAL PRODUCTS). THESE AND OTHER ACCEPTABLE MEASURES SHALL BE INCORPORAITED INTO THE SITE WORK AS WARRANTED OR AS ORDERED BY THE
- 6. CONSTRUCTION SITES ARE DYNAMIC, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND OR MOVEMENT AND MAINTENANCE OF EROSION CONTROLS, SOIL STABILIZATION AND SEDIMENT CONTROL MEASURES AS NEEDED TO MAXIMIZE THE INTENT OF THE PLAN FOR ALL SITE CONDITIONS THROUGHOUT THE CONSTRUCTION PERIOD.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERIODIC INSPECTION, MAINTENANCE, REPAIR, AND REPLACEMENT OF EROSION CONTROLS, SOIL STABILIZATION AND SEDIMENT CONTROL DEVICES UNTIL AN ACCEPTABLE PERMANENT VEGETATIVE GROWTH IS ESTABLISHED. THE CONTRACTOR SHALL MAINTAIN A DETAIL LOG OF ALL EROSION CONTROL INSPECTIONS, COMPLAINTS RELATED TO EROSION OR SEDIMENT, AND CORRECTIVE REMEDIAL MEASURES TAKEN THROUGHOUT THE COURSE OF THE PROJECT CONSTRUCTION.
- 8. SOIL EROSION AND SEDIMENT CONTROL IS NOT LIMITED TO DAMAGES CAUSED BY WATER BUT ALSO INCLUDES EROSION AND SEDIMENT RESULTING FROM WINDS. MEASURES, SUCH AS TEMPORARY GROUND COVERS, WATER AND CALCIUM APPLICATIONS ARE TO BE UNDERTAKEN AS NEEDED TO MINIMIZE WIND RELATED SOIL AND DUST CONTROL.
- 9. STOCK PILES OF EARTH MATERIALS SHALL NOT BE LOCATED NEAR WATERWAYS OR WETLANDS. 5. STOCK PILES SHALL HAVE SIDE SLOPES NO GREATER THAN THIRTY PERCENT (30%). STOCK PILES SHALL BE SURROUNDED ON THE DOWN GRADIENT OF THE EMSTING GROUND SURFACE BY HAY BALES OR SILT FENCE. THE STOCK PILES SHALL ALSO BE SEEDED OR STABILIZED IN SOME MANOR TO PREVENT SOIL EROSION.
- 10. THE SMALLEST POSSIBLE SITE AREAS SHALL BE DISTURBED OR EXPOSED AT ONE TIME AND DENUDED SLOPES OR WORK AREAS SHALL NOT BE LETT EXPOSED FOR EXCESSIVE PERIODS OF TIME, SUCH AS INACTIVE PERIODS OR SITE WORK SHUT DOWNS.
- 11. TO THE EXTENT POSSIBLE, ALL DISTURBED AREAS MUST BE SEEDED OR STABILIZED WITHIN THE CONSTRUCTION SEASON, STABILIZATION OF ONE FORM OR ANOTHER SHALL BE ACHIEVED WITHIN FIFTEEN (15) DAYS OF FINAL GRADING.
- 12. EXPOSED STEEP OR LONG SLOPES SHOULD BE TREATED WITH "CRIMPING" OR "TRACKING" TO REDUCE EROSION AND SEDIMENT AND TO TACK DOWN SEEDING OR MULCH APPLICATIONS.
- 13. IF CONCRETE IS TO BE USED ON SITE, THE CONTRACTOR MUST ESTABLISH AND MAINTAIN SPECIFIC WASHOUT AREAS FOR THE CONCRETE TRUCKS WITH APPROPRIATE PROTECTION CONTROLS.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING COLLECTION AND STORAGE LOCATIONS ON—SITE FOR ALL CONSTRUCTION DEBRIS AND TRASH SO THAT THIS MATERIAL DOES NOT BECOME A NEIGHBORHOOD NUISANCE.
- 15. EXISTING TREES AND VEGETATION WILL BE RETAINED WHENEVER FEASIBLE.
- 16, SITE SOIL EROSION AND SOIL STABILIZATION AND SEDIMENT CONTROLS MUST CONFORM TO ALL REQUIREMENTS OF THE APPLICABLE LOCAL COMMUNITY ORDINANCES AND STATE RECULATIONS.





	SCALE: 1"=20"	SHEET	SHEET NO: 3 of 3		
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A FIRST FLOOR PLAN



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