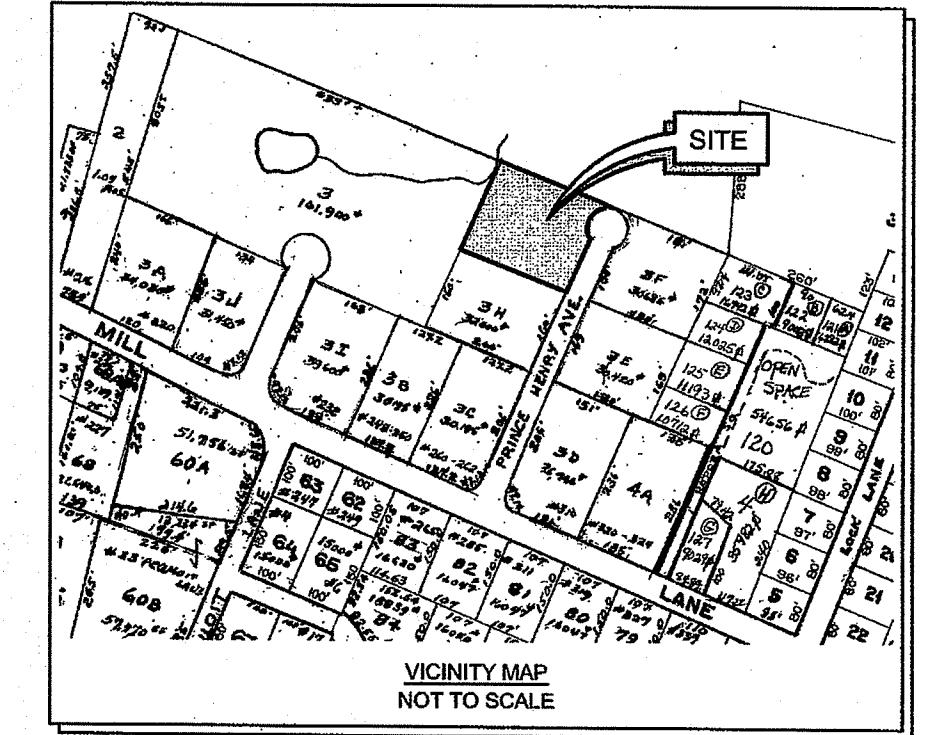


A KNOWLEDGE CORPORATION

6 VALLEY ROAD MIDDLETOWN RHODE ISLAND 02842
 PHONE (401) 849-0810 FAX (401) 846-4169
 WWW.NORTHEASTENGINEERS.COM

SITE/CIVIL
 LAND PLANNING
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 GEOTECHNICAL
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 TRANSPORTATION
 STRUCTURAL
 MATERIALS TESTING

Environmental Management
 DEC 18 2020
 Office of Water Resources



VARIANCES REQUIRED FROM THE FOLLOWING RULES:
 1. ESTIMATED SEASONAL HIGH WATER TABLE LESS THAN 18" (OWTS RULE 6.33.E)

No.	Revision	Date	App.
1		11/18/20	

Designed By: GES Drawn by: DJW Checked by:
 Scale: 1" = 20' Date: 10AUG2020

A.P. 68, LOT 3G
PRINCE HENRY AVENUE
 PORTSMOUTH, RHODE ISLAND

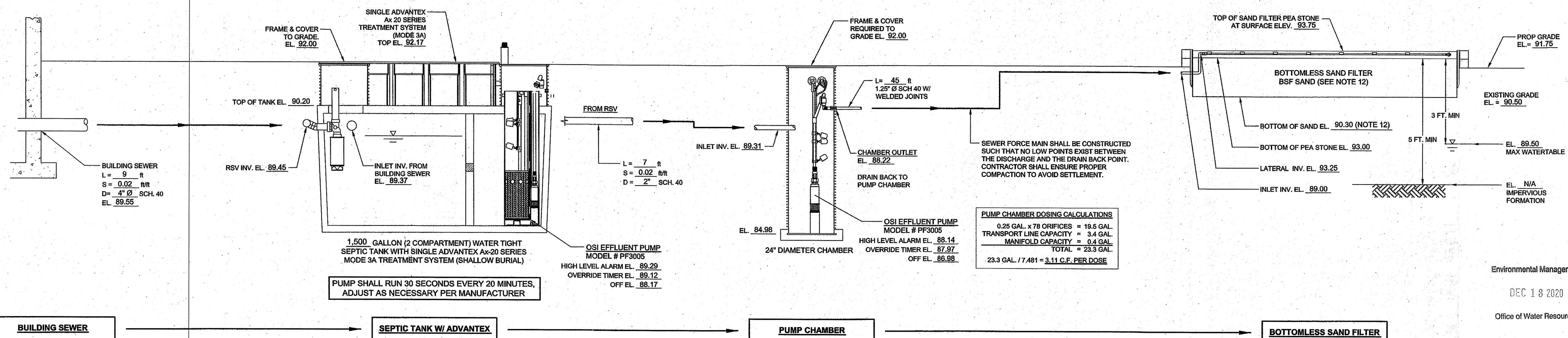
Client/Owner:
 VLADA REPOSA
 2012 CROWNDALE LAN
 CANTON, MI 48188

Issued for:
 RIDEM

PROPOSED
OWTS PLAN

Drawing Number:
C-1
 Sheet 1 of 3
 Project Number:
 19148.1
 Survey Index:
 12 - 68 - 3G

OWNERSHIP AND USE OF DOCUMENTS: DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF PROFESSIONAL SERVICE, ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. THESE DOCUMENTS ARE NOT TO BE USED, IN WHOLE OR PART, FOR ANY OTHER PROJECTS OR PURPOSES, OR BY ANY OTHER PARTIES, THAN THOSE PROPERLY AUTHORIZED BY CONTRACT, WITHOUT THE EXPRESS AUTHORIZATION OF THE ENGINEER.



SEWER PROFILE
 SCALE: NOT TO SCALE

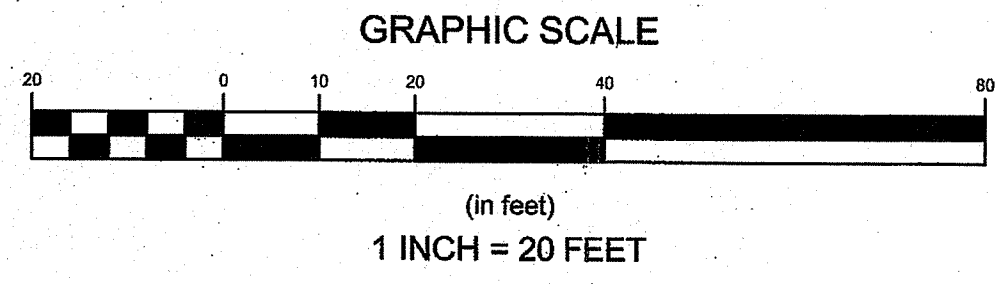
DESIGN COMPUTATION		
DESIGN PERC. RATE	DESIGN APP. RATE	SEEPAGE SYSTEM
CATEGORY 9	1.0 gal/SF/day	ADVANTEK AX-20 WITH A BOTTOMLESS SAND FILTER
DESIGN WATER TABLE:		
TH 1: WT = 12"	TOTAL LEACHING AREA REQUIRED: 345 SF	
TH 2: WT = 16"	LEACHING AREA PROVIDED: 350 SF	
SEWAGE FLOW:		
3 BEDROOMS x 115 g/day = 345 g/day	NUMBER OF LATERALS: 6	
SEPTIC TANK:		
CAPACITY PROVIDED: 1,500 GALLONS	LENGTH OF SAND FILTER: 25 FT	
	WIDTH OF SAND FILTER: 14 FT	

LEGEND:	
---	PROPERTY LINE
---	ADJUTERS PROPERTY LINE
---	EDGE OF PAVEMENT
---	EXISTING CONTOUR
---	WETLAND EDGE
---	50' PERIMETER WETLAND
---	STONE WALL
---	EXISTING WATER MAIN
---	EXISTING OVERHEAD WIRE
---	PROPOSED CONTOUR
---	PROPOSED SPOT ELEVATION
---	PROPOSED WATER SERVICE
---	PROPOSED ELECTRIC SERVICE
---	SILT FENCE
---	WETLAND BUFFER MARKER
---	IRON ROD
---	CATCH BASIN
---	EXISTING GATE VALVE
---	TEST HOLE
---	WETLAND FLAG

- GENERAL OWTS SYSTEM NOTES:**
- ALL BRUSH AND TREES WILL BE CLEARED WITHIN (10') OF THE SYSTEM.
 - A MINIMUM ELEVATION OF 91.00, CORRESPONDING TO 2 FEET BELOW THE BOTTOM OF THE PEASTONE, SHOULD BE MAINTAINED WITHIN 5 FEET OF OWTS.
 - ALL EXISTING AND PROPOSED PRIVATE WELLS WITHIN 200' OF OWTS ARE SHOWN. ALL PUBLIC WELLS EXISTING OR PROPOSED WITHIN 500' ARE SHOWN.
 - NO DRAINS OR WATER LINES ARE KNOWN TO EXIST OR ARE TO BE CONSTRUCTED IN THE PROXIMITY OF THE SYSTEM WITHIN THE DISTANCES SPECIFIED IN RIDEM OWTS TABLE 6.23.
 - PROPOSED TANKS, INLETS, OUTLETS, & PIPING MUST BE WATERTIGHT TO PREVENT THE INFILTRATION OF GROUND WATER.
 - THE SYSTEM FOR THE SUBSURFACE DISPOSAL OF SANITARY SEWAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF RHODE ISLAND, DEPARTMENT ENVIRONMENTAL MANAGEMENT, "RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION, DESIGN, CONSTRUCTION, AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS."
 - THE DESIGN INTENT IS TO MEET THE STATE STANDARDS, SINCE THIS PLAN HAS BEEN CREATED TO GAIN THE NECESSARY PERMITTING, NO CONSTRUCTION INSTALLATIONS HAVE COMMENCED. BECAUSE THIS IS NOT A "RECORD DRAWING OF AS-BUILT CONDITIONS" AND NOTHING HAS BEEN INSTALLED, THE ENGINEER SIGNING AND STAMPING THIS PLAN IS NOT GUARANTEEING THE OPERATION OF THE INSTALLED SEPTIC SYSTEM UPON THE APPROVED SYSTEM INSTALLATION. THE DESIGN ENGINEER WILL SUPERVISE, VERIFY, AND CERTIFY THAT THE SYSTEM WAS INSTALLED AS SPECIFIED ON THE APPROVED PLAN.
 - ANTI-FLOATATION DEVICES AS PROVIDED BY THE MANUFACTURER SHALL BE USED FOR THE PROPOSED ADVANTEK POD.
 - NO FOUNDATION DRAIN LINES ARE TO BE CONSTRUCTED WITHIN 25 FT. OF THE OWTS OR BUILDING SEWER.
 - SEWER FORCE MAIN SHALL BE CONSTRUCTED SUCH THAT NO LOW POINTS EXIST BETWEEN THE DISCHARGE AND THE DRAIN BACK POINT. CONTRACTOR SHALL ENSURE PROPER COMPACTION TO AVOID SETTLEMENT.
 - LAND OWNER MUST MINIMIZE SHADING OF THE BOTTOMLESS SAND FILTER. THE RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT RECOMMENDS THAT BOTTOMLESS SAND FILTERS BE EXPOSED TO THE SUNLIGHT TO PREVENT FREEZING DURING THE WINTER MONTHS.
 - ANY FILL OR A_p HORIZON BENEATH THE BOTTOMLESS SAND FILTER SHALL BE REMOVED AND REPLACED WITH ASTM C-33 SAND, TWO (2) FEET BELOW THE BOTTOM OF PEASTONE SHALL BE FILLED WITH BSF SAND IN ACCORDANCE WITH RIDEM OWTS RULE 6.37.C.2.b.
 - ALL PROPOSED UTILITY SERVICES SUBJECT TO REVIEW BY ALL APPLICABLE AGENCIES.
 - SEPTIC TANK INLET AND OUTLET PIPES SHALL BE CONNECTED TO THE TANK WITH WATERTIGHT SEALED FLEXIBLE JOINTS. THE PIPE GASKET SHALL BE AN INTEGRAL PART OF ALL TANKS AND THE PIPE GASKET SHALL BE FASTENED TO THE PIPE WITH A STAINLESS STEEL RETRACTABLE CLAMP PER RIDEM RULE 6.27.F.3.
 - THE PROPOSED LEACHFIELD AREA SHALL BE PROTECTED FROM ANY ACTIONS THAT COULD RESULT IN THE COMPACTION OF SOILS INCLUDING PARKING, VEHICLE TRAFFIC, STAGING AREAS, ETC.
 - PROPERTY LINE TAKEN FROM PLAN TITLED, "A.P. 68 LOT 3G, PRINCE HENRY AVENUE, PORTSMOUTH, RHODE ISLAND, LIMITED CONTENT BOUNDARY SURVEY WITH EXISTING CONDITIONS AND TOPOGRAPHY" PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS, INC. DATED JUNE 2020.
 - BASE OF ELEVATIONS IS ASSUMED.
 - EXISTING CONDITIONS & TOPOGRAPHY ARE THE RESULT OF A FIELD SURVEY BY NORTHEAST ENGINEERS & CONSULTANTS, INC. IN JUNE OF 2020.
 - NORTH ARROW SCALED FROM PORTSMOUTH TAX ASSESSORS MAP AND SHOULD BE CONSIDERED APPROXIMATE.
 - SOIL EVALUATIONS, WETLAND AREA, WETLAND FLAGS, AND 50' PERIMETER TAKEN FROM WETLAND DELINEATION BY NATURAL RESOURCE SERVICES, INC. ON OCTOBER 10, 2019. LOCATIONS WERE NOT FIELD VERIFIED BY NORTHEAST ENGINEERS & CONSULTANTS, INC. AND SHOULD BE CONSIDERED APPROXIMATE.
 - WATER MAIN SCALED FROM PLAN TITLED, "SEPTIC SYSTEM DESIGN FOR J&R CONSTRUCTION" PREPARED BY BOARDMAN ASSOCIATES, DATED 5/15/84. THIS LOCATION MATCHES THE LOCATION DESCRIBED BY PORTSMOUTH WATER ON APRIL 3, 2017.
 - FUTURE OWNER TO REMOVE THE INVASIVE PLANT SPECIES JAPANESE KNOTWEED. PLEASE CONFIR WITH RIDEM FOR FURTHER GUIDANCE.

TP#	1	DEPTH (INCHES)	HORIZON BOUNDARIES		SOIL COLORS		RE-DOX FEATURES	RE-DOX DESCRIPTION	TEXTURE	STRUCTURE	CONSISTENCE	SOIL CATEGORY
			DIST	TOPO	MATRIX	RE-DOX FEATURES						
Ap	0-8	a	s	10YR 3/1	-	-	-	-	sil	1mgr	fr	5
Bw	8-32	a	s	10YR 4/3	10YR 5/6	10YR 6/1	f,2,d	f,2,d	sil	1lsbk	fr	5
Cdg1	32-40	a	s	5B 4/	-	-	-	-	sil	0m	vfl	9
Cdg2	40-104	-	-	5YR 3/1	10YR 5/6	-	f,1,p	-	sil	0m	fi	9
TP#	1	DEPTH (INCHES)	HORIZON BOUNDARIES	SOIL COLORS		RE-DOX FEATURES	RE-DOX DESCRIPTION	TEXTURE	STRUCTURE	CONSISTENCE	SOIL CATEGORY	
			DIST	TOPO	MATRIX							
Ap	0-12	a	s	10YR 3/2	-	-	-	-	sil	1mgr	fr	5
Bw	12-23	a	s	10YR 5/3	10YR 5/6	10YR 6/1	f,2,d	f,2,d	sil	1lsbk	fr	5
Cdg1	23-30	a	s	5B 4/	-	-	-	-	sil	0m	vfl	9
Cdg2	30-118	-	-	5YR 3/1	10YR 5/6	-	f,1,p	-	sil	0m	fi	9

ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING PLANS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM ALL AVAILABLE INFORMATION. (PLEASE CONTACT DIGSAFE PRIOR TO CONSTRUCTION AT 1-888-344-7233, AND/OR ALL LOCAL UTILITY COMPANIES)



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED 2/2/2021 FILE # 20-0194
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

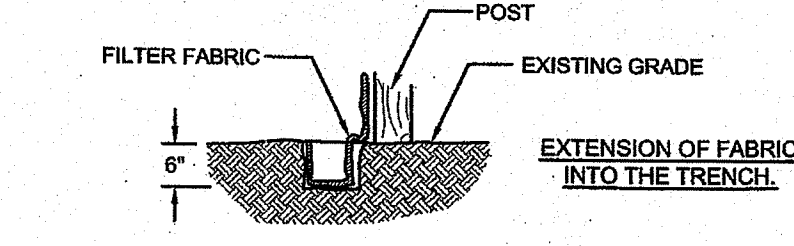
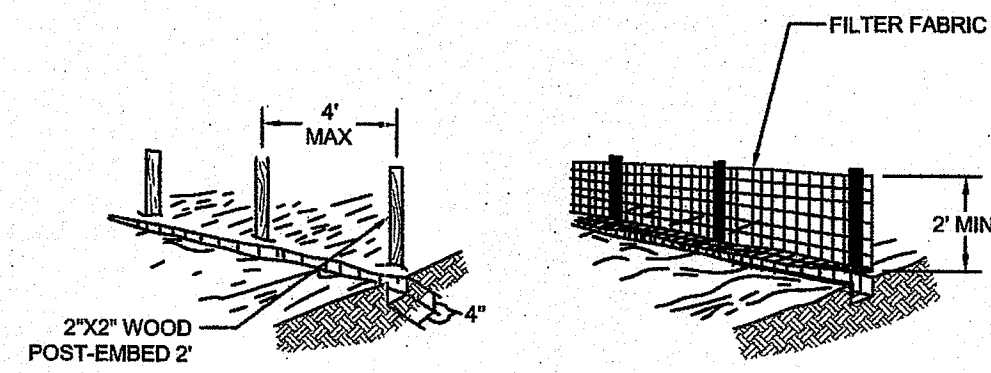
Kindly be advised that this permit is not equivalent to a verification of the type or extent of freshwater wetlands on site.

Per RIDEM:
 Crushed stone driveway is required, per condition No. 14.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. CONSTRUCTION SEQUENCE

- DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED. CONTRACTOR/OWNER SHALL NOTIFY PORTSMOUTH D.P.W. IN ADVANCE OF HIS INTENT TO BEGIN CONSTRUCTION.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE LOCATED AS SHOWN ON PLANS. CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA THIS ENTRANCE.
- INSTALL SILT FENCES, SILT BAGS, CHECK DAMS AND/OR HAY BALES AS INDICATED ON THE DRAWINGS TO CONTROL EROSION AND PREVENT SEDIMENT CONTAMINATION OF DOWNSTREAM AREAS PRIOR TO ANY EARTH MOVING ACTIVITIES. EROSION CONTROLS SHALL BE IN PLACE BEFORE ANY OTHER SITE WORK IS UNDERTAKEN.
- FLAG AREA OF LEACHFIELD AND RAIN GARDEN SUCH THAT CONSTRUCTION DISTURBANCE IS MINIMAL. REMOVE TREES AND VEGETATION ONLY WHERE NECESSARY. ALL STUMPS TO BE GROUND OR DISPOSED OF OFF SITE.
- EXCAVATE AREA OF RESIDENCE IN ACCORDANCE WITH THE PLANS AND NOTES. GRADE ENTRANCE DRIVE AS SHOWN. ONLY THOSE AREAS UNDER CONSTRUCTION WILL BE DISTURBED BY EARTHWORK. THE REMAINDER OF THE LOT WILL NOT BE STRIPPED OR DISTURBED UNTIL CONTRACTOR IS DONE WITH THE RESIDENCE CONSTRUCTION AND IS READY FOR THE FINAL LAWN / LANDSCAPING INSTALLATION.
- TEMPORARY SOIL STOCKPILES SHALL BE PROTECTED WITH ADDITIONAL EROSION CONTROL MEASURES AS NECESSARY.
- EXCAVATE FOR AND CONSTRUCT UTILITY SERVICES.
- COMPLETE STRUCTURE.
- INSTALL DRIVEWAY SURFACING.
- ESTABLISH A VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF THE TOWN ENGINEER. COMPLETE AREAS OF LANDSCAPING.
- UPON COMPLETION OF CONSTRUCTION AND PRIOR TO REMOVAL OF EROSION & SEDIMENT CONTROLS, CONTRACTOR SHALL CONTACT PORTSMOUTH D.P.W. FOR A FINAL INSPECTION.
- MAINTAIN SITE IN ACCORDANCE WITH THE MAINTENANCE NOTES. EROSION CONTROLS MUST BE MAINTAINED AND REMAIN IN PLACE UNTIL THE LAWN HAS RECEIVED TWO (2) MOWINGS.



- NOTES:**
- SET POSTS AND EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF POSTS.
 - STAPLE FILTER FABRIC TO THE POSTS AND EXTEND INTO TRENCH.
 - BACK FILL AND COMPACT THE EXCAVATED SOIL INTO THE TRENCH.

SILT FENCE
SCALE: NOT TO SCALE

2. EARTHWORK NOTES:

- DURING CONSTRUCTION AND THEREAFTER, EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED AS NOTED. ONLY THE SMALLEST PRACTICAL AREA OF LAND SHOULD BE EXPOSED AT ANY ONE TIME DURING DEVELOPMENT. WHEN LAND IS EXPOSED DURING DEVELOPMENT, THE EXPOSURE SHOULD BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME.
- NO DRAINAGE OR OWTS AREA SHALL BE USED FOR STOCKPILES OR STORAGE OF MATERIALS OR EQUIPMENT.
- ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY AND WHICH WILL BE REGRADED LATER DURING CONSTRUCTION SHALL BE STABILIZED WITHIN FOURTEEN DAYS IN ACCORDANCE WITH TEMPORARY MEASURES IN THE VEGETATIVE PRACTICE NOTES.
- AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOP SOIL TO REMOVE VEGETATION, ROOTS, AND ANY OTHER OBJECTIONABLE MATERIAL.
- ALL FILL SHALL BE COMPACTED TO 95% MAX. DENSITY TO REDUCE EROSION, SLIPPAGE, SETTLEMENT SUBSIDENCE, OR OTHER RELATED PROBLEMS.
- FILL INTENDED TO SUPPORT BUILDING STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL CODES AND SPECIFICATIONS.
- ALL FILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN THICKNESS.
- FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN, SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIAL SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION SUBGRADE.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.
- ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 14 DAYS OF FINISH GRADING IN ACCORDANCE WITH THE VEGETATIVE PRACTICE NOTES.
- EXCESS QUANTITIES OF SOIL WILL BE REMOVED FROM SITE BY CONTRACTOR AND DISPOSED OF IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS.

3. VEGETATIVE PRACTICE NOTES:

PERMANENT MEASURES:

- EROSION CONTROL BLANKET SHALL BE INSTALLED ON ANY SLOPES STEEPER THAN 3:1 (SEE PLAN).
 - A MINIMUM OF 4" OF LOAM SHALL BE INSTALLED. THE LOAM SHALL BE GRADED TO A SMOOTH CONDITION AND STONES AND OTHER OBJECTS LARGER THAN 2" SHALL BE REMOVED.
 - THE FOLLOWING SEEDING MIXTURE SHALL BE APPLIED AT THE INDICATED RATE UNLESS OTHERWISE APPROVED BY THE PORTSMOUTH D.P.W.

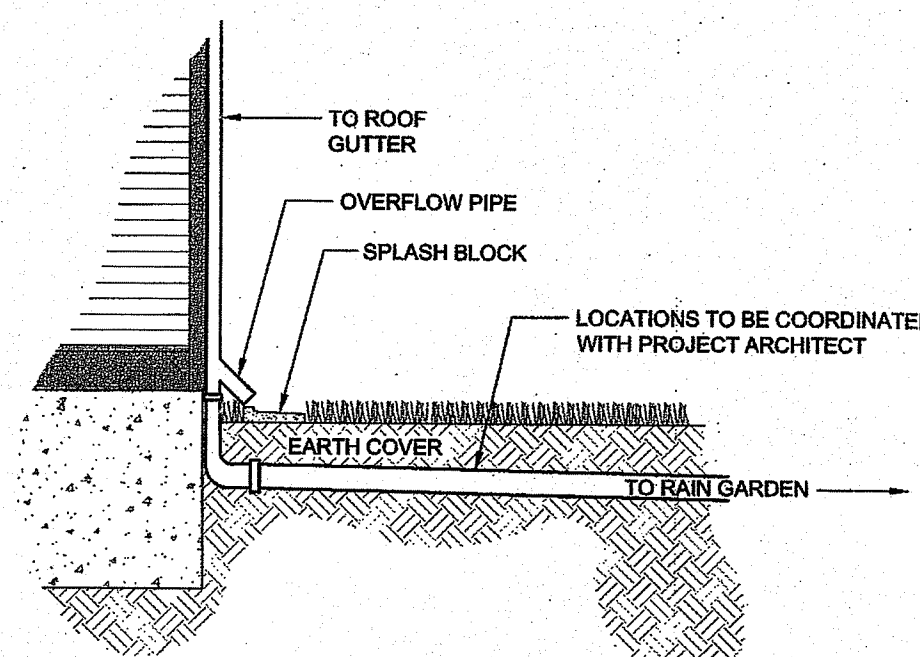
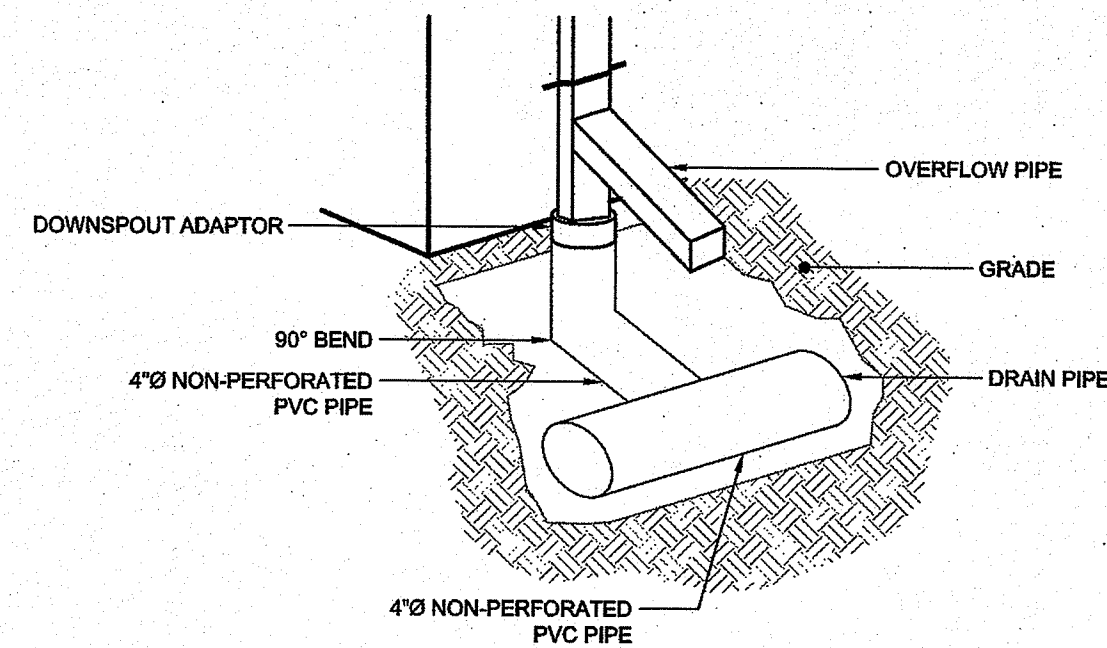
RED FESCUE:	40 LBS/ACRE
KENTUCKY BLUEGRASS:	40 LBS/ACRE
PERENNIAL RYEGRASS:	20 LBS/ACRE
 - HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE
- TEMPORARY MEASURES (FOR TEMPORARY PROTECTION OF DISTURBED AREAS)**
- LIMESTONE AND FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATE:
LIMESTONE: 3 TONS/ACRE
FERTILIZER: (10-10-10): 600 LBS/ACRE
 - SEED SHALL BE APPLIED AT THE FOLLOWING RATE:
WINTER RYE: 100 LB/ACRE
 - HAY MULCH SHALL BE APPLIED AT THE RATE OF 1.5 TONS/ACRE.

4. SHORT-TERM MAINTENANCE

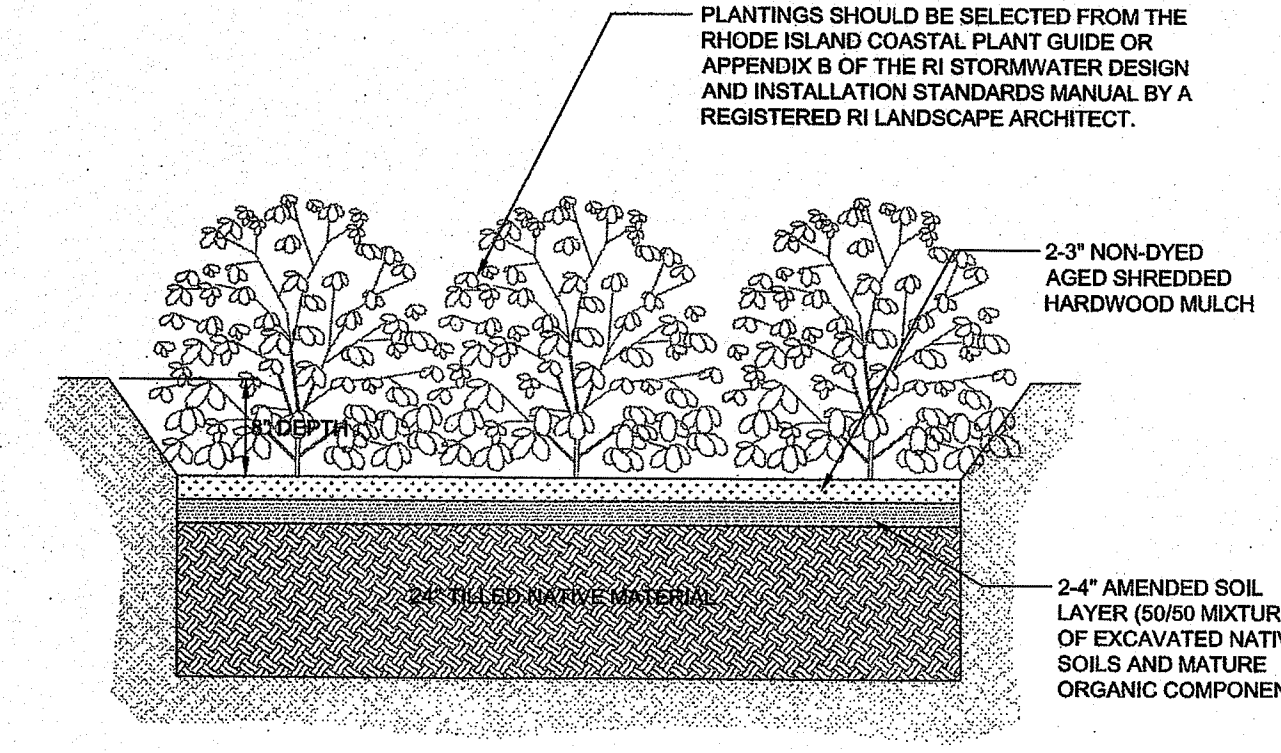
- DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED, THE EROSION CONTROL MEASURES SHALL BE INSPECTED.
- SILT FENCES SHALL BE INSPECTED AS INDICATED IN THE PLAN DETAILS. AT A MINIMUM THE SILT FENCING SHALL BE INSPECTED AND REPAIRED ONCE A WEEK AND/OR IMMEDIATELY FOLLOWING A SIGNIFICANT RAINFALL OR SNOWMELT. SEDIMENT TRAPPED BEHIND THE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REGRADED ON THE SITE.
 - ANY EROSION CONTROL BLANKETS SHALL BE INSPECTED ON A WEEKLY BASIS.
 - STONE ENTRANCE SHALL BE INSPECTED MONTHLY FOR EXCESSIVE ACCUMULATION OF SEDIMENT. IT MAY BE NECESSARY TO REMOVE STONES, EXCAVATE SEDIMENT, AND REPLACE STONES.
 - THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE REMOVED PRIOR TO FINAL SURFACING. DURING CONSTRUCTION THE ENTRANCE SHALL BE INSPECTED WEEKLY, AND RE-ESTABLISHED AS NECESSARY.
 - SEEDED AREAS SHALL BE FERTILIZED AND RESEED AS NECESSARY TO INSURE ESTABLISHMENT OF A VEGETATIVE GROWTH THAT MEETS THE APPROVAL OF REVIEWING ENTITIES.
 - MAINTENANCE OF THE RAIN GARDEN DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR. ONCE CONSTRUCTION OF THE SITE IS COMPLETE, MAINTENANCE OF THE SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER.

5. DRAINAGE NOTES:

- ALL DRAIN PIPES ARE TO BE SCH 40 PVC PIPE OR ADS N-12 TYPE IB (SOILTIGHT) UNLESS OTHERWISE SPECIFIED.
- ROOF OVERHANGS SHALL BE GUTTERED WITH DOWNSPOUTS CONVEYED TO RAIN GARDEN. CONNECTIONS SHALL BE COORDINATED WITH PROJECT ARCHITECT.
- RAIN GARDEN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL PROVIDED.
- AREA OF RAIN GARDEN SHALL NOT BE USED FOR STOCKPILING OF MATERIAL OR EQUIPMENT DURING CONSTRUCTION.
- MAINTENANCE OF THE RAIN GARDEN DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE SITE CONTRACTOR. ONCE CONSTRUCTION OF THE SITE IS COMPLETE, MAINTENANCE OF THE SYSTEM SHALL BE THE RESPONSIBILITY OF THE OWNER.



ROOF DOWNSPOUT DETAIL
SCALE: NOT TO SCALE

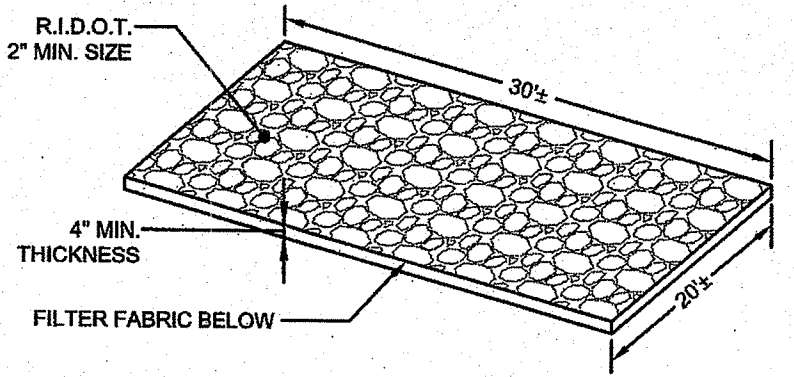


- NOTES:**
- A CRUSHED STONE ENTRANCE SHALL BE INSTALLED AT INFLOW TO PREVENT CHANNELING.
 - DOWNHILL SIDE OF GARDEN SHALL BE BERMED TO PROVIDE THE NECESSARY DEPTH.

TYPICAL RAIN GARDEN CROSS SECTION
SCALE: NOT TO SCALE

WATER QUALITY CALCULATIONS	
PROPOSED IMPERVIOUS (SQUARE FEET)	
RESIDENCE & GARAGE	1,338
TOTAL	1,338
PROPOSED NEW IMPERVIOUS = 1,338 SF	
WATER QUALITY REQ. FOR NEW IMPERVIOUS = 1,338 SF / 12 = 112 CF	

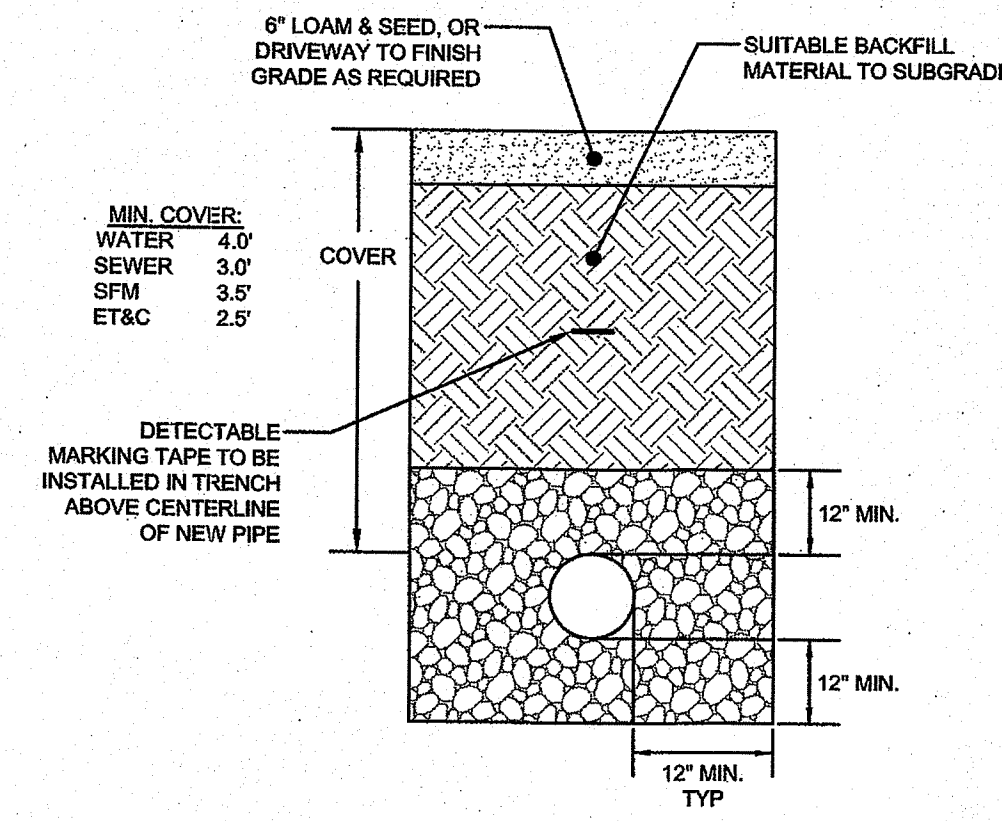
PER TABLE 8 OF THE STORMWATER MANAGEMENT GUIDANCE DOCUMENT FOR A SINGLE FAMILY RESIDENTIAL DEVELOPMENT, AN 8" DEEP RAIN GARDEN IN SANDY LOAM WOULD REQUIRE AN AREA OF 108 SQUARE FEET TO PROVIDE SUFFICIENT TREATMENT.
A RAIN GARDEN WITH AN AREA OF 118 SQUARE FEET IS PROVIDED.



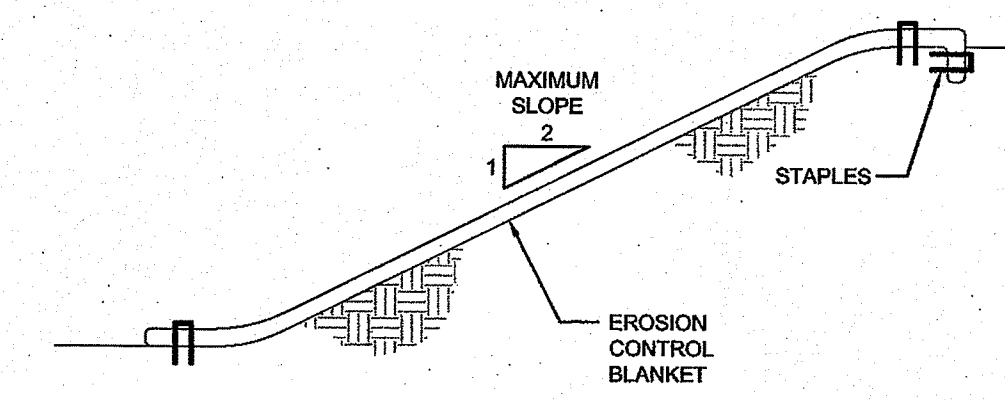
CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE

TRENCH NOTES:

- UNSATURABLE MATERIAL SHALL BE EXCAVATED TO A MINIMUM DEPTH OF 12-INCHES BELOW THE DESIGN INVERT ELEVATION.
- TRENCH PROTECTION SHALL BE REQUIRED IN ACCORDANCE WITH OSHA REGULATIONS, AND AS OTHERWISE REQUIRED TO PROTECT UTILITIES, ROADWAYS, AND ADJACENT STRUCTURES.
- SEWER AND DRAIN PIPES SHALL BE LAID BEGINNING AT THE DOWNSTREAM END OF THE PIPE LINE.
- ALL PVC SEWER PIPES SHALL BE IPEX RING-TITE SDR 35, OR SIMILAR APPROVED. 6" DIA SERVICE.
- ALL SEWER PIPE AND GASKETS SHALL CONFORM TO ASTM 3034 AND ASTM F679.
- BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN HEIGHT WHEN INSTALLED UNDER LANDSCAPED AREAS ONLY. INSTALLATIONS UNDER PAVEMENT REQUIRE BACKFILL MATERIAL TO BE PLACED IN LAYERS NOT TO EXCEED 6" IN HEIGHT. THESE LAYERS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (ASHTO T180). SUITABLE BACKFILL SHALL BE FREE OF LOAM, CLAY, ORGANIC MATTER AND PARTICLES LARGER THAN 2 INCHES IN DIAMETER.
- SEWER AND DRAINAGE PIPE TRENCHES SHALL BE BEDDED WITH CRUSHED STONE OR SCREENED GRAVEL. THESE MATERIALS MUST CONFORM TO RIDOT STANDARD M01.09 TYPE II MATERIAL.
- WATER PIPE TRENCHES MUST BE BEDDED WITH SAND CONTAINING NO PARTICLES LARGER THAN 3/8". THIS MATERIAL MUST CONFORM TO AASHTO M8 REQUIREMENTS.
- UTILITY INSTALLATIONS SHALL CONFORM TO ALL REQUIREMENTS OF THE TOWN OF PORTSMOUTH PUBLIC WORKS DEPARTMENT RULES AND REGULATIONS.



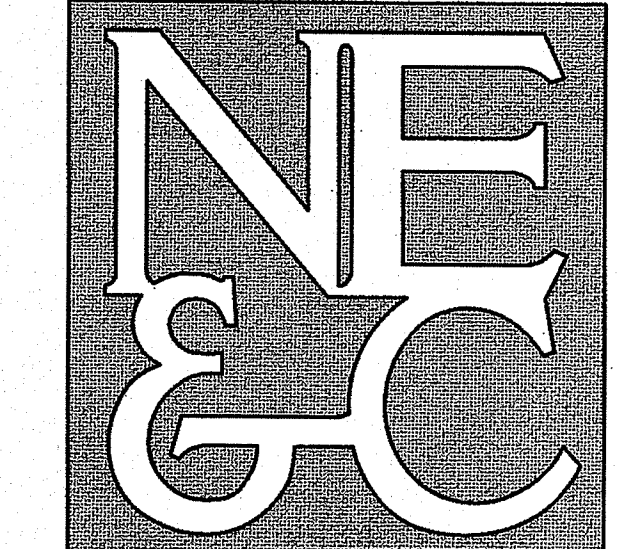
UTILITY TRENCH DETAIL
SCALE: NOT TO SCALE



- NOTES:**
- PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
 - BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
 - ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER FLOW.
 - THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
 - WHEN BLANKETS MUST BE SPICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

EROSION CONTROL BLANKET
SCALE: NOT TO SCALE

NORTHEAST ENGINEERS & CONSULTANTS, INC.



A KNOWLEDGE CORPORATION

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DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED 2/2/2021 FILE # 20-0194
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE APPROVED BY THE TOWN ENGINEER
Andy L. Freeman

Environmental Management
DEC 13 2020
Office of Water Resources

1	RIDEM COMMENTS	11/18/20
No.	Revision	Date App.
Designed By:	GES	Drawn by: DJW
Scale:	AS SHOWN	Date: 10AUG2020
Project Title:		
A.P. 68, LOT 3G PRINCE HENRY AVENUE PORTSMOUTH, RHODE ISLAND		
Client/Owner:		
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Survey Index:		12 - 68 - 3G
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