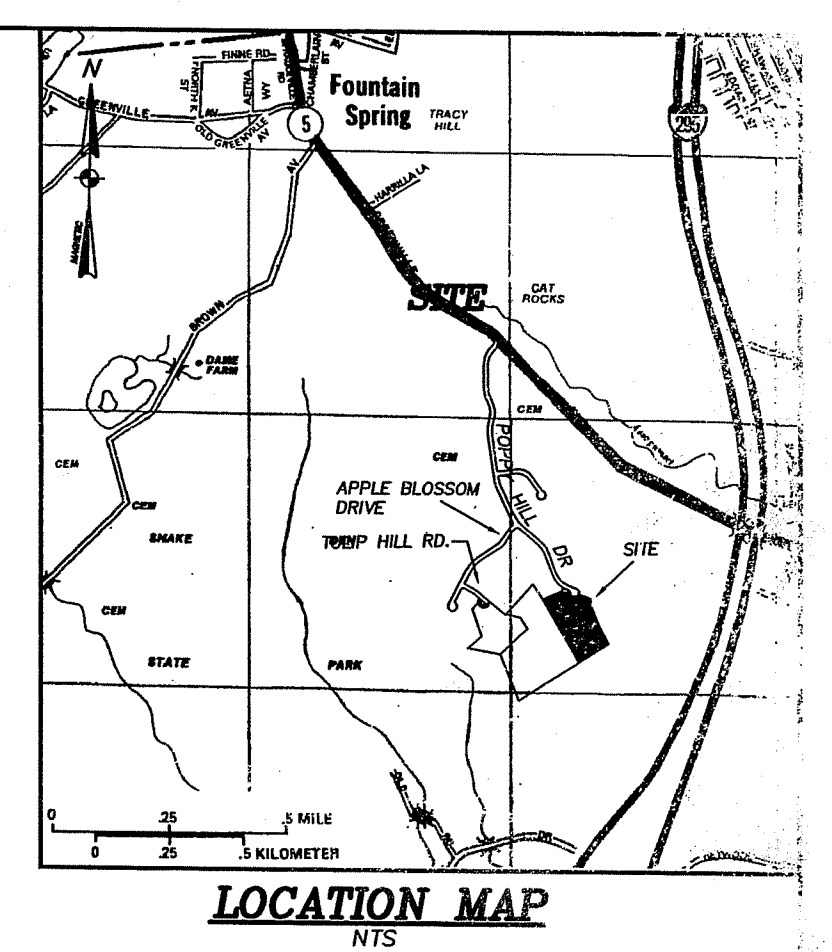
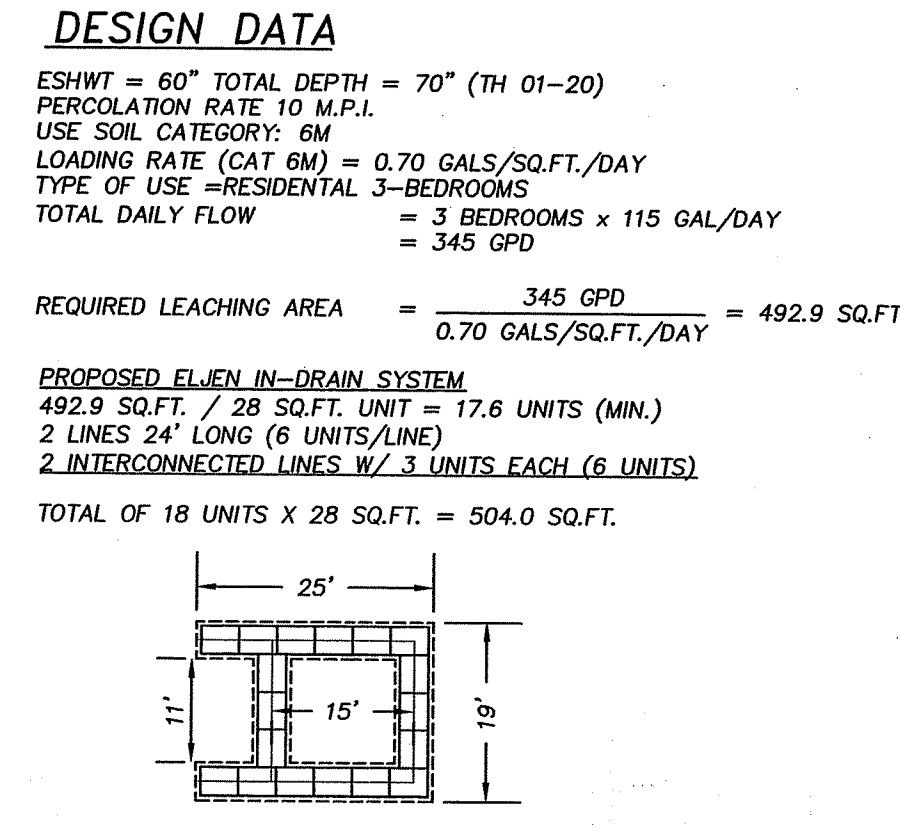
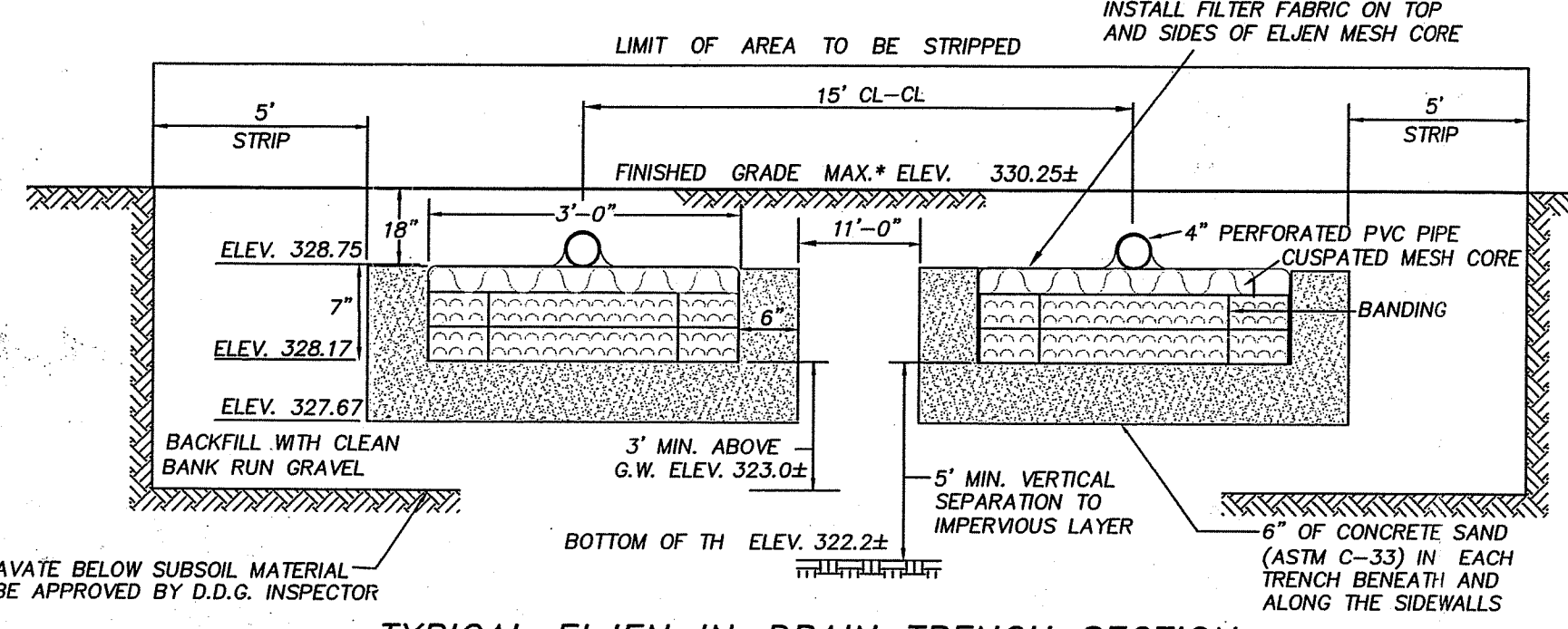
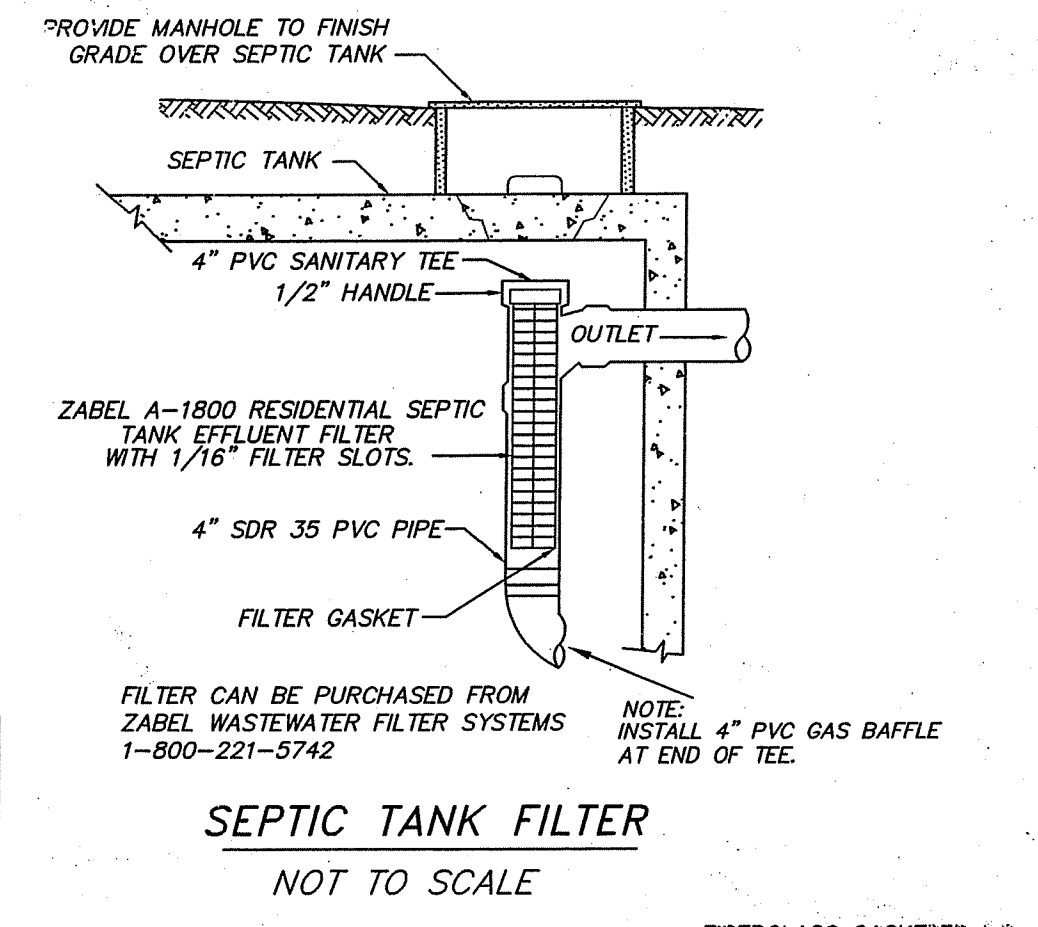
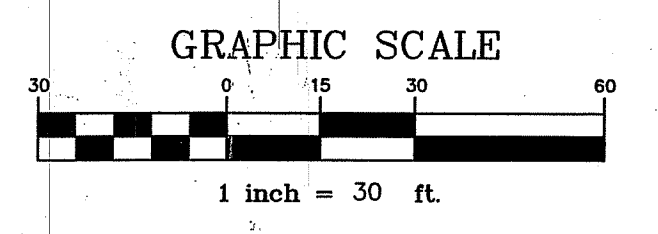


**OWTS INSTALLATION NOTES:**

1. ALL OTHER DESIGN, CONSTRUCTION AND MAINTENANCE REQUIREMENTS WHETHER NOTED HEREON, OR NOT, SHALL BE IN CONFORMANCE WITH THE LATEST RIDEM OFFICE OF WATER RESOURCES RULES ESTABLISHING MINIMUM STANDARDS RELATING TO LOCATION DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE WASTEWATER TREATMENT SYSTEMS AS AMENDED.
2. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE APPROVED PLAN ON-SITE AT ALL TIMES.
3. THE CONTRACTOR MUST FOLLOW ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE OWTS APPLICATION LABEL—IMPORTANT AND NOTIFY ENGINEER DURING THE DIFFERENT STAGES OF CONSTRUCTION TO ALLOW THE ENGINEER TO OBSERVE COMPLIANCE WITH THE APPROVED PLANS, AS REQUIRED BY RIDEM.
4. THE CONTRACTOR SHALL COMPLY WITH ALL ADDITIONAL TERMS OF APPROVAL AS MAY BE REQUIRED BY RIDEM.
5. THE CONTRACTOR MUST NOTIFY LICENSED DESIGNER 48 HOURS PRIOR TO START OF CONSTRUCTION WITH VALID INSTALLER'S LICENSE NUMBER. DESIGNER MUST NOTIFY RIDEM 24 HOURS PRIOR TO START OF CONSTRUCTION IN ACCORDANCE WITH RIDEM RULE 6.47.
6. THE LICENSED DESIGNER SHALL WITNESS AND INSPECT ALL ASPECTS OF THE INSTALLATION, KEEP RECORDS, PREPARE THE CERTIFICATE OF COMPLETION AND PROVIDE O & M INFORMATION AND RECOMMENDATIONS TO THE OWNER, IN ACCORDANCE WITH RIDEM RULE 6.47.
7. PROPERTY LINE SHOWN ON THIS PLAN WAS PREPARED BY DAVID D. GARDNER & ASSOCIATES, INC. TOPOGRAPHY AND LOCATIONS BASED ON FIELD SURVEY. THE CONTRACTOR SHALL VERIFY PROPERTY LINE LOCATION, BENCHMARK ELEVATION AND ALL FIELD CONDITIONS PRIOR TO ANY CONSTRUCTION.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING SEWER INVERTS PRIOR TO CONSTRUCTION (BUILDING, SEPTIC TANK, GREASE TANK, D-BOX & FIELD).
9. IF FIELD CONDITIONS VARY FROM PLANS OR IF CONTRACTOR ENCOUNTERS UNANTICIPATED CONDITIONS DURING CONSTRUCTION WHICH INDICATE THAT THE SYSTEM CANNOT BE INSTALLED IN ACCORDANCE WITH THE APPROVED DESIGN, INSTALLER SHALL STOP CONSTRUCTION AND NOTIFY THE LICENSED DESIGNER RESPONSIBLE FOR WITNESSING AND INSPECTING THE INSTALLATION IN ACCORDANCE WITH RIDEM RULE 6.47.
10. THERE ARE NO EXISTING OR PROPOSED PRIVATE DRINKING WATER WELLS WITHIN 200' OF THE PROPOSED OWTS EXCEPT AS SHOWN.
11. THERE ARE NO EXISTING OR PROPOSED PUBLIC WATER SUPPLY WELLS WITHIN 500' OF THE PROPOSED OWTS AREA EXCEPT AS SHOWN.
12. ALL KNOWN OWTS WITHIN 100' OF EXISTING OR PROPOSED WELLS ARE SHOWN.
13. ALL KNOWN OWTS'S AND WATER SUPPLIES WITHIN 100' OF ADJACENT PROPERTY LINES ARE SHOWN.
14. THERE ARE NO KNOWN EXISTING OR PROPOSED SUBSURFACE DRAINS WITHIN 50 FEET OF THE PROPOSED OWTS.
15. THE CONTRACTOR SHALL CALL "DIG-SAFE" AND VERIFY THE LOCATION OF ALL THE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
16. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES PRIOR TO START OF LAND DISTURBING ACTIVITIES.
17. CLEAR ALL TREES, BRUSH AND STUMPS WITHIN 10' OF SYSTEM.
18. STRIP LEACHING AREA PERIMETER IF FILL OR OTHER HTM IS FOUND. EXCAVATE DOWN TO ELEVATION AS SHOWN ON PLAN, REMOVING ALL TREES, BRUSH, TOPSOIL, UNDESIRABLE MATERIAL AND SOIL CONTAINING FINES. REPLACE WITH SEPTIC GRAVEL AS REQUIRED AND SPECIFIED IN RIDEM REGULATIONS.
19. INSTALLER MUST ASSURE THAT BOTTOM AND SIDES OF EXCAVATION FOR THE LEACHFIELD ARE NOT COMPACTED OR SMOORED.
20. NO VEHICULAR TRAFFIC IS ALLOWED OVER THE LEACHFIELD.
21. ALL PVC PIPE SHALL BE 4" DIA, SDR 35 OR EQUIVALENT, UNLESS OTHERWISE NOTED.
22. DISTRIBUTION LINES MUST BE INTERCONNECTED AT ALL ENDS AND AT INTERVALS NOT EXCEEDING 25'.
23. MAINTAIN INVERT ELEVATION (FILL PERIMETER) FOR 10 FEET AROUND SYSTEM AS SHOWN.
24. EXISTING SEPTIC TANK(S) TO REMAIN IN SERVICE SHALL BE PUMPED AND INSPECTED. EXISTING TANK(S) SHALL BE REPLACED IF CONDITION IS FOUND TO BE INADEQUATE. PROPOSED SEPTIC TANKS SHALL CONFORM TO ALL STANDARDS PER RULE 6.27.
25. ALL MANHOLES SHALL BE SET TO GRADE; GRADE TO DIVERT SURFACE RUNOFF.
26. THE DESIGNER IS NOT RESPONSIBLE FOR ANY NEGLIGENT ACT OF OMISSION OF A USER OF AN OWTS, INCLUDING BUT NOT LIMITED TO, FAILURE TO PROPERLY USE AND MAINTAIN THE SYSTEM, WHICH CAUSES DAMAGE TO THE OWTS.
27. THIS SYSTEM IS NOT DESIGNED TO HANDLE HIGH WATER USE AND/OR ANY DISCHARGE FROM ANY WATER TREATMENT SYSTEMS (WATER SOFTENERS).
28. THIS SYSTEM IS NOT DESIGNED TO HANDLE A GARBAGE DISPOSAL.
29. THE CONTRACTOR SHALL PROVIDE DESIGNER WITH MATERIAL RECEIPTS FOR ALL CONSTRUCTION MATERIALS SHOWN ON PLAN, REMOVING ALL ITEMS CIRCLED IN THE LOWER RIGHT HAND AREA OF THE OWTS APPLICATION LABEL.
30. ALL CURBING, PAVEMENT, LANDSCAPING AND OTHER EXISTING SITE CONDITIONS DISTURBED DURING THE CONSTRUCTION WORK SHALL BE RESTORED PER THE OWNER'S SPECIFICATION BY CONTRACTOR.
31. CONTRACTOR TO COORDINATE CONSTRUCTION SCHEDULE WITH THE OWNER.
32. GROUNDWATER TABLE FLUCTUATES ANNUALLY, NO GUARANTEE OF A DRY BASEMENT IS EXPRESSED OR IMPLIED.
33. GROUNDWATER TABLE BASED ON TEST HOLE DATA FROM DEM OWTS APPLICATION NO. 0216-0697.



- LEGEND**
- GRANITE MONUMENT FOUND
  - DRILL HOLE FOUND
  - 5/8" REBAR WITH PLASTIC CAP
  - UTILITY POLE
  - BOUNDARY PROPERTY LINE
  - BUILDING SETBACK LINE
  - STONE WALL
  - EDGE OF WOODS
  - EDGE OF PAVEMENT
  - CONTOUR LINE
  - GRADE
  - SOIL EVALUATION TEST HOLE
  - LEDGE TEST PIT
  - WETLAND FLAGGING
  - PROPOSED CONTOUR LINE
  - PROPOSED GRADE
  - WATER SERVICE
  - WELL
  - GRADE TO DRAIN
  - PROPOSED RIP-RAP SLASH PAD
  - PROPOSED ROOF LEADER (PVC OR HDPE)
  - REMOVE & DISPOSE
  - EROSION CONTROL/LIMIT OF THE DISTURBANCE (LOD)
  - PROPOSED ELJEN IN DRAIN



**PERMIT NOTES:**

1. CONTOUR ELEVATIONS OBTAINED FROM AERIAL PHOTOGRAMMETRY.
2. WETLANDS FLAGGING, EXISTING WELLS, SOIL TEST HOLES, LEDGE TEST HOLES AND PROPERTY LINE OBTAINED FROM ON-SITE SURVEY.
3. SUBJECT PROPERTY RECEIVED PREVIOUS RIDEM OWTS APPROVAL UNDER APPLICATION NO. 0216-0697 ON 4/2/03, EXPIRED ON 11/16/19.
4. SUBJECT PROPERTY RECEIVED PREVIOUS RIDEM FRESHWATER WETLANDS APPROVAL UNDER APPLICATION NO. 02-0234 ON 3/17/03.
5. ON-SITE FRESHWATER WETLANDS HAVE BEEN DELINEATED BY MASON & ASSOCIATES, INC. ON JUNE 7, 2021.

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 OWTS & FRESHWATER WETLANDS  
 JOINT PERMIT APPROVAL

OWTS# 0216-0697 FWH# 21-093

APPROVED BY: [Signature] DATE: 9/1/21

Approved Plans/Permit Must Be Kept at Construction Site

DAVID D. GARDNER  
 No. [Signature] 1909  
 PROFESSIONAL LAND SURVEYOR

**NOTE:**  
 INSTALLER SHALL NOTIFY DESIGNER PRIOR TO BEGINNING OF INSTALLATION TO SCHEDULE INSPECTIONS.

**CERTIFICATION**  
 THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO SECTION 8 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS EFFECTIVE NOVEMBER 25, 2016 AND ARE AS FOLLOWS:  
 TOPOGRAPHIC SURVEY T-1  
 THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:  
 PROPOSED OWTS PLAN

BY: [Signature] LICENSE NO. 1809  
 DAVID D. GARDNER PLS COA NO. A569

DATE	PROJECT NO.
7/7/21	21-035
SCALE	DRAWING NO.
1"=30'	21-035 OWTS
REVISIONS	DESIGNED BY
	D.D.G.
	DRAWN BY
	S.B.C.
	CHECKED BY
	D.D.G.
SHEET NO.	1
SHEET	1 OF 2

**RIDEM OWTS APPLICATION NO. 0216-0697**

**PROPOSED OWTS PLAN**  
 29 POPPLY HILL ROAD  
 A.P. 55 LOT 34  
 JOHNSTON, RI

FOR  
**JOHN & ALYSSA LAMOTHE**

**DAVID D. GARDNER & ASSOCIATES, INC.**  
 1 HOPE COURT  
 BARRINGTON, RHODE ISLAND 02806  
 (401) 738-3200 | FAX: (401) 739-4740

ENGINEERS • SURVEYORS • PLANNERS

Office: Water Resources  
 4/11/2021

**GENERAL CONSTRUCTION NOTES:**

- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE AND THE MUNICIPALITY IN WHICH WORK IS BEING PERFORMED PRIOR TO START OF ANY WORK.
- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DOCUMENT EXISTING CONDITIONS OF SURROUNDING PROPERTIES AND TO MAINTAIN THE INTEGRITY OF THE SAME. ANY DAMAGE TO AND THE COST OF REPAIR OF UTILITIES, ROADWAYS, STRUCTURES AND SURROUNDING PROPERTY SHALL BE FULLY BORNE BY THE CONTRACTOR.
- ALL WORKMANSHIP AND MATERIALS SHALL MEET OR EXCEED THE LATEST STANDARDS OF THE MUNICIPALITY, AND THE LATEST STATE STANDARDS AND SPECIFICATIONS PUBLISHED FOR ROAD AND BRIDGE CONSTRUCTION.
- CONTACT DIG-SAFE AND UTILITY COMPANIES FOR EXACT ON-SITE LOCATION OF EXISTING UNDERGROUND UTILITIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL OBTAIN REQUIRED INSPECTION SCHEDULE OF THE MUNICIPALITY, UTILITY COMPANIES AND ALL OTHER REQUIRED PARTIES AND SHALL STRICTLY ADHERE TO THOSE REQUIREMENTS.
- ALL CONTRACTORS SHALL ADHERE TO ALL CONDITIONS OF CONSTRUCTION APPROVALS AND SHALL KEEP A COPY OF ALL APPROVALS ON-SITE DURING CONSTRUCTION. CONTRACTOR SHALL READ ALL APPROVALS PRIOR TO START OF CONSTRUCTION AND SHALL CLARIFY ANY QUESTIONS BEFOREHAND.
- OIL ABSORBING PILLIOWS OR OTHER MEANS SHALL BE USED TO REMOVE ACCUMULATIONS OF HYDROCARBONS (OIL, GREASE) THAT ARE REGULARLY OBSERVED TO CONTAIN HYDROCARBONS, THAT DO NOT EVAPORATE BETWEEN INSPECTIONS.
- ANY REFUELING, OILING OR ADJUSTMENTS OF CONSTRUCTION VEHICLES OR EQUIPMENT SHALL TAKE PLACE AT LEAST 100 FEET FROM WETLAND AREAS.
- ANY ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING EARTH MATERIALS, SHALL OCCUR OUTSIDE RIDEM/CRMC JURISDICTIONAL WETLANDS AND OUTSIDE OF THE CONSTRUCTION AREAS (UNLESS OTHERWISE DESIGNATED). ANY MATERIAL NOT RE-USED ON-SITE SHALL BE HAULED OFF-SITE TO AN AUTHORIZED, LEGAL LOCATION.
- ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO WETLANDS.
- THE LOCATION AND DEPTH OF EXISTING UTILITIES HAVE BEEN PLOTTED FROM THE LATEST AVAILABLE INFORMATION. THE UTILITY LOCATIONS ARE APPROXIMATE AND MAY NOT BE ALL INCLUSIVE. THE CONTRACTOR SHALL CHECK AND VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, BOTH OVERHEAD AND UNDERGROUND, AND "DIG-SAFE" MUST BE NOTIFIED PRIOR TO COMMENCING ANY CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND LEGALLY DISPOSING (RRD) ALL MATERIALS TO INCLUDE, BUT NOT BE LIMITED TO, TREES, STUMPS, UNSUITABLE MATERIAL, FERTILIZERS, ETC.
- MATTING AS SPECIFIED BY ENGINEER OR ENVIRONMENTAL CONSULTANT IS TO BE PLACED ALONG ACCESS ROUTE FROM PAVED DRIVEWAY TO STAGING AREA FOR ANY EQUIPMENT MOVEMENT.
- ALL STORMWATER FACILITIES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MOST CURRENT VERSION OF RHODE ISLAND STORMWATER DESIGN AND INSTALLATION STANDARDS MANUAL.

**EROSION AND SEDIMENTATION CONTROL CONSTRUCTION NOTES:**

- EROSION AND SEDIMENTATION (E&S) CONTROLS WILL BE INSTALLED PRIOR TO THE COMMENCEMENT OF WORK ALONG THE LIMITS OF DISTURBANCE (LOD) AS SHOWN ON THE SITE PLAN AND DETAILS. CRITICAL AREAS SUCH AS WETLAND AREAS, SLOPED STREAMS SHALL BE PROTECTED AS PER PLAN AND, IN THE PRESENCE OF WETLANDS, PER THE CONDITIONS OF THE CRMC ASSENT ORDER AND/OR RIDEM PERMIT. ALL E&S CONTROLS SHALL BE FULLY MAINTAINED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL VEGETATIVE STABILIZATION HAS BEEN ACHIEVED. E&S CONTROLS ARE TO BE INSPECTED WEEKLY AND IMMEDIATELY FOLLOWING ALL PRECIPITATION EVENTS THAT INCLUDE RAINFALL OF 1.0" OR MORE OR WHICH PRODUCES STORMWATER RUNOFF. UNDER NO CIRCUMSTANCES SHALL THE E&S CONTROLS BE COVERED WITH FILL MATERIAL. ANY FILL MATERIAL THAT IS PLACED ON OR AGAINST E&S CONTROLS SHALL BE IMMEDIATELY REMOVED. ALL FILTER SOCK (OR SILT FENCE AND/OR STRAW WATTLES) SHALL BE INSTALLED IN ACCORDANCE WITH THE RIDOT STANDARD DETAILS. ALL REFERENCED SOIL EROSION AND SEDIMENTATION CONTROLS, INCLUDING MATERIALS USED, APPLICATION RATES AND THE INSTALLATION PROCEDURES SHALL BE PERFORMED PER THE MOST CURRENT VERSION OF THE RHODE ISLAND SOIL EROSION AND SEDIMENTATION CONTROL HANDBOOK AND THE RHODE ISLAND STORMWATER INSTALLATION & DESIGN MANUAL, AS APPROPRIATE.
- ALL EXPOSED SLOPES, INCLUDING STOCKPILES OF MATERIAL, SHALL RECEIVE TEMPORARY SEDIMENTATION AND EROSION CONTROLS. THIS WILL INCLUDE LOAMING AND SEEDING, MULCHING, HAYMATS, ETC., TO STABILIZE THE AREA.
- ALL DRAINAGE STRUCTURES SHALL BE SURROUNDED BY HAYBALES TO PREVENT INFILTRATION OF SEDIMENTS.
- SHOULD SEDIMENTS ENTER A CRITICAL AREA (WETLAND, BUFFER AREA OR ABUTTING PROPERTY), THE CONTRACTOR SHALL IMMEDIATELY CLEAN AND RESTORE THE AFFECTED AREA.
- ALL DISTURBED SOILS, EITHER NEWLY CREATED, OR EXPOSED, PRIOR TO OCTOBER 15 OF ANY CALENDAR YEAR SHALL BE SEEDED OR PROTECTED BY THAT DATE. ANY AREAS THAT DO NOT HAVE ADEQUATE VEGETATIVE STABILIZATION BY NOVEMBER 15 OF THE SAME YEAR MUST BE STABILIZED BY INSTALLING EROSION CONTROL MATTING, HAY MULCH OR EQUIVALENT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROPER EROSION CONTROL BOTH ON AND OFF-SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE CONTROLS ARE SPECIFIED ON THE SITE PLAN.
- TEMPORARY CONSTRUCTION ACCESS, CHECK DAMS AND STAGING AREAS WILL BE INSTALLED, THEN Dewatering BASIN WILL BE EXCAVATED, AND HAY MATS SHALL BE EXCAVATED AND BANK STABILIZATION INSTALLED ONCE EXCAVATED MATERIALS HAVE BEEN REMOVED.
- TEMPORARY CONSTRUCTION ACCESS, CHECK DAMS AND STAGING AREAS WILL BE REMOVED, THE AREAS OF DISTURBANCE WILL BE RESTORED IF NECESSARY. ONCE VEGETATION IS ESTABLISHED, EROSION CONTROL MATERIALS SHALL BE REMOVED FOR OFF-SITE DISPOSAL.

**SOIL STABILIZATION & PLANTING PROGRAM**

ACCEPTABLE PLANTING MATERIALS: LOAM - THE MATERIAL TO BE FURNISHED SHALL CONSIST OF LOOSE, FRIABLE, SANDY LOAM OR LOAM TOPSOIL FREE OF A MIXTURE OF SUBSOIL, REFUSE, STUMPS, ROOTS, ROCKS, BRUSH, WEEDS AND OTHER MATERIAL WHICH WILL PREVENT THE FORMATION OF A SUITABLE SEED BED.

SEED MIXTURES - ALL LEGUME SEED SHALL BE INOCULATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING WITH THE APPROPRIATE INOCULUM FOR EACH VARIETY. ALL INOCULA SHALL BE FRESH AND SHALL BE USED WITHIN THE DATE LIMIT PRESCRIBED BY THE MANUFACTURER.

FOR RELATIVELY FLAT SLOPES:

MIX	% BY WEIGHT
RED FESCUE - CHEWING'S PENNLAWN	70
OR CREEPING	
KENTUCKY BLUEGRASS	15
COLONIAL BENTGRASS - ASTORIA OR	5
EXETER	
PERENNIAL RYEGRASS	10
- SEEDING RATE = 100 LBS. PER ACRE	

FOR STEEP SLOPES 3:1 OR GREATER:

MIX	% BY WEIGHT
RED FESCUE - PENNLAWN OR CREEPING	75
PERENNIAL RYEGRASS	5
COLONIAL BENTGRASS - ASTORIA OR	5
EXETER	
BIRFOOT TREFOIL - EMPIRE	15
- SEEDING RATE: 100 LBS. PER ACRE	

FOR SOD WATERWAYS, DRAINAGE DITCHES, DRAINAGE BASINS:

MIX	% BY WEIGHT
CREEPING RED FESCUE	50
TALL FESCUE OR	
REED CANARYGRASS*	50

\* USE REED CANARYGRASS WHERE MOWING IS NOT REQUIRED. THE ACCEPTED PLANTING SEASON SHALL BE BETWEEN APRIL 1ST AND OCTOBER 15TH. CONTRACTOR SHOULD COORDINATE ON ALL DISTURBED AREAS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF FOUR (4) INCHES OF LOAM ON AREAS UP TO 10% IN GRADE. ALL AREAS OVER 10% SHALL RECEIVE A MINIMUM OF SIX (6) INCHES.

**PROJECT NARRATIVE**

THE SUBJECT SITE IS LOCATED AT THE END OF POPPY HILL DRIVE (SOUTHWEST END OF THE EXISTING CUL-DE-SAC) AND IS IDENTIFIED AS ASSESSOR'S PLAT 55 LOT 34 IN THE TOWN OF JOHNSTON. THE PROPERTY CONTAINS 6.37 ACRES OF PREDOMINATELY UPLAND AREA. A PORTION OF THE SITE SLOPES TOWARD POPPY HILL DRIVE, A PORTION TOWARD A FOREST WETLAND AREA (LESS THAN 3 ACRES) TO THE NORTHWEST CORNER OF THE LOT, A PORTION TO A SMALL WETLAND AREA TO THE WESTERN SIDE OF THE LOT AND A PORTION TO A SMALL WETLAND AREA TO THE SOUTH SIDE OF THE LOT (SEE ATTACHED WETLAND REPORT). THE LOT IS CURRENTLY VACANT CONSISTING OF BRUSH, WITH EXISTING RESIDENTIAL DWELLINGS LOCATED ON ALL ADJACENT LOTS. THE APPLICANT IS PROPOSING TO CONSTRUCT A SINGLE FAMILY DWELLING WITH AN ATTACHED GARAGE (1,998 SF) AND ASSOCIATED SITE IMPROVEMENTS, INCLUDING A PAVED DRIVEWAY, PRIVATE WELL, ON-SITE WASTEWATER TREATMENT SYSTEM (OWTS) AND PROPOSED RAIN GARDEN & GRASSED SWALE TO TREAT STORMWATER RUN-OFF FOR WATER QUALITY.

**CONSTRUCTION SEQUENCE**

- THE PROPOSED LAND DISTURBANCE AND CONSTRUCTION WILL BE COMPLETED IN THE FOLLOWING PHASES:
- INSTALL ALL EROSION & SEDIMENT (E&S) CONTROL MEASURES ON SITE AND OFF SITE IF NECESSARY.
  - CLEAR PROPERTY; STRIP, REMOVE AND STOCKPILE TOPSOIL TO DESIGNATED PROTECTED AREA.
  - EXCAVATE AREA FOR FOUNDATION; STOCKPILE MATERIAL TO DESIGNATED PROTECTED AREA.
  - FOUR FOUNDATION, INSTALL SITE UTILITIES, WELL, OWTS AND STORMWATER FACILITIES.
  - RE-GRADE, RE-LOAM & SEED SITE AND COMPLETE FINAL SITE LANDSCAPING.
  - CHECK & MAINTAIN ALL E&S CONTROL MEASURES THROUGHOUT CONSTRUCTION OF PROJECT. ONLY REMOVE WHEN SITE HAS BEEN STABILIZED AND ALL FINAL LANDSCAPING IS COMPLETE.

**GENERAL LANDSCAPING NOTES:**

- ALL DISTURBED AREAS ARE TO BE REVEGETATED AS SOON AS POSSIBLE. ALL BANKS AND SLOPING AREAS ARE TO RECEIVE A MINIMUM OF 6" OF CLEAN TOPSOIL, THEN SEED AND FERTILIZE. LEVEL AREAS TO RECEIVE 4" MIN. OF CLEAN TOPSOIL, SEED AND FERTILIZE.
- SEED AND SOD SHALL CONSIST OF A BLEND OF KENTUCKY BLUE GRASSES. PLANT BY SUPPLIER'S SPECIFICATIONS.
- LIME SHALL BE APPLIED AS NECESSARY.
- USE OF HAY OR STRAW MULCH DURING SLOPE STABILIZATION IN CONJUNCTION WITH TEMPORARY SEEDING, APPLY MULCH AT A RATE OF 75 TO 100 LBS. PER 1000 SQUARE FEET.
- CONTRACTOR TO MAINTAIN TREE REMOVAL AT A MINIMUM. STOCKPILE ALL STRIPPED TOPSOIL FOR LATTER USE. THE LOCATION IS TO BE APPROVED BY THIS ENGINEER. MULCH AND TEMPORARY SEED THE STOCKPILE.
- REMOVE ALL ROCKS 3" OR LARGER IN PLANTING AREA.
- ALL CLEARING SHALL CONFORM TO THE LIMITS AS SHOWN ON PLANS. CLEARING LIMITS ARE TO BE MARKED IN THE FIELD BY THE ENGINEER.

**STORMWATER MANAGEMENT DESIGN CALCULATIONS**

AREAS REQUIRED FOR WATER QUALITY VOLUME (WQV):

- HOUSE/ATTACHED GARAGE ROOF AREA = 1,998 SF
- PAVED DRIVEWAY AREA = 2,300 SF

RAIN GARDEN SIZE FOR ROOF AREA:

WQV REQUIRED = 1,998 SF X 1" = 167 CF  
PROPOSED RAIN GARDEN AREA = 250 SF; 8" DEEP

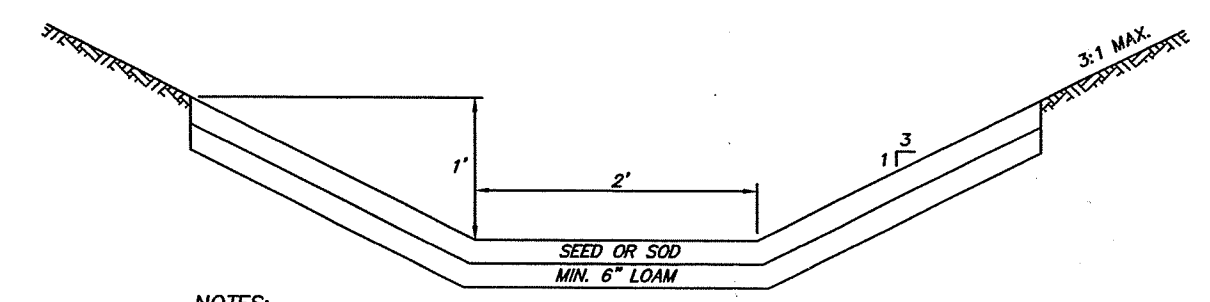
PROPOSED VEGETATED SWALE FOR DRIVEWAY AREA\*\*:

USING A 2-FT WIDE 8" DEEP SWALE:  
80 SF SURFACE AREA/1000 SF OF IMPERVIOUS SURFACE AREA OF SWALE AREA REQUIRED AND 24 SF SURFACE AREA/300 SF OF IMPERVIOUS SURFACE AREA OF SWALE AREA REQUIRED; THEREFORE, 8" DEEP SWALE AREA REQUIRED = 184 SF; PROVIDE 2' WIDE SWALE X 92' LONG

\* THE WATER QUALITY DESIGN IS BASED ON RECOMMENDATIONS AND PROCEDURES AS DEFINED AND AS REQUIRED IN MINIMUM STANDARD 11, IN THE LATEST RHODE ISLAND STORMWATER DESIGN AND INSTALLATION MANUAL (CRISM).

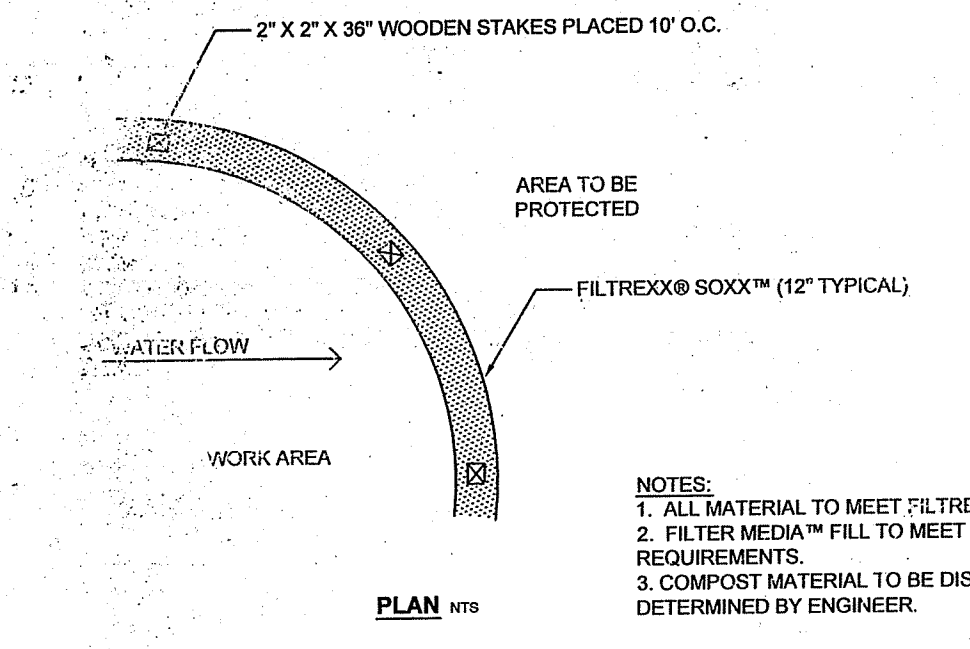
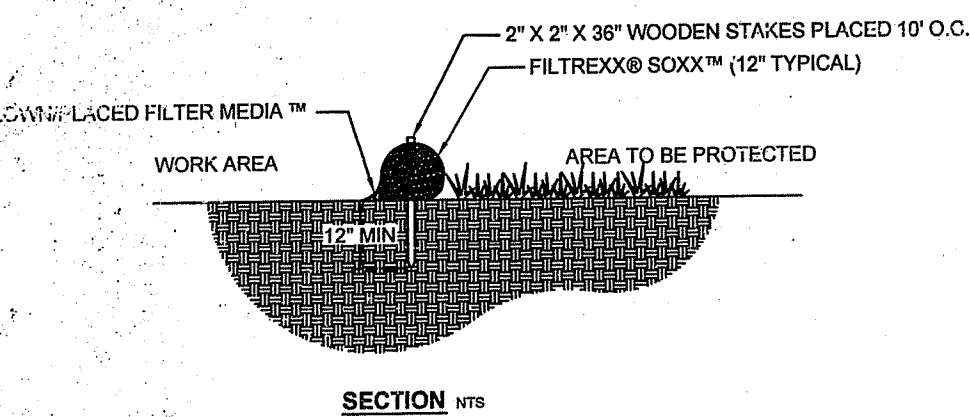
\*\* VEGETATED SWALE SIZING BASED THE STATE OF RHODE ISLAND STORMWATER MANAGEMENT GUIDANCE FOR INDIVIDUAL SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT SECTION 300.6 OF THE RI COASTAL RESOURCES MANAGEMENT PROGRAM (CRICMP) DOCUMENT, SECTION 8, VEGETATED SWALES AND TABLE 5 SIZING GUIDANCE FOR SANDY SOILS.

THE RECOMMENDATIONS AND GUIDELINES OF THE RIDIM AND THE LATEST RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK SHOULD BE INCORPORATED INTO THE CONSTRUCTION PRACTICES ON SITE.

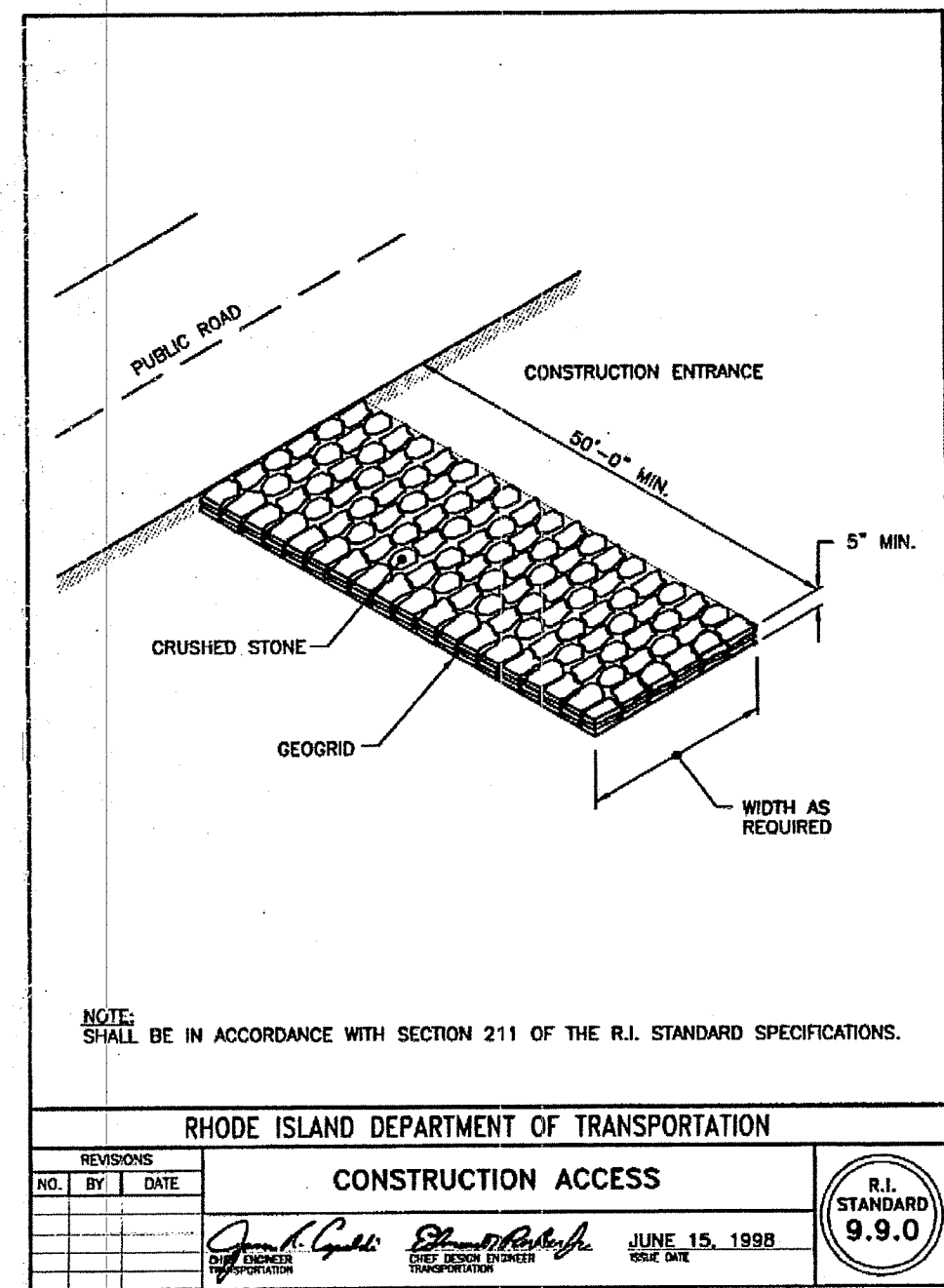


- NOTES:
- SWALE SEEDING SHALL BE AN EQUAL MIXTURE OF CREEPING RED FESCUE & TALL FESCUE.
  - SLOPES AND OTHER AREAS SHALL BE LOAMED AND SEEDED AS PER THE SOIL STABILIZATION AND PLANTING PROGRAM LISTED ON THIS SHEET.
  - SWALE AREA TO BE PROTECTED WITH TEMPORARY EROSION CONTROL MATTING TO BE INSTALLED AS PER THE MANUFACTURER'S INSTRUCTIONS.

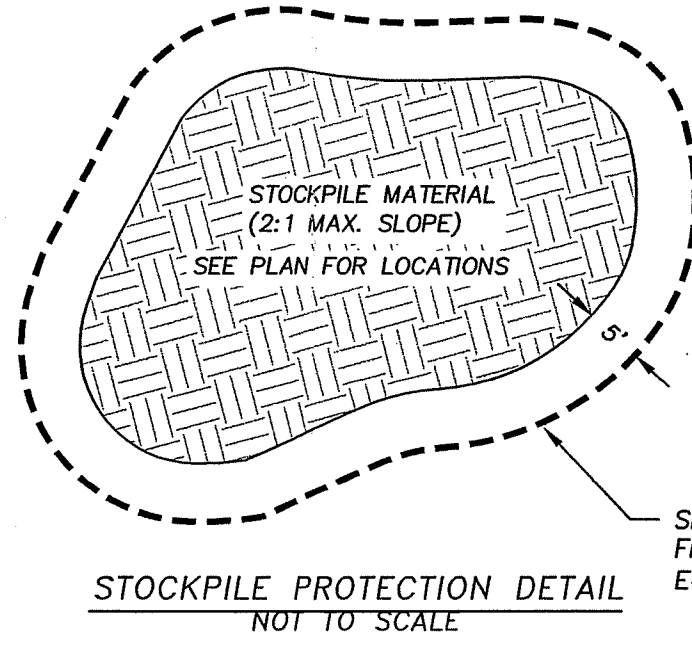
**GRASSED SWALE**  
NOT TO SCALE



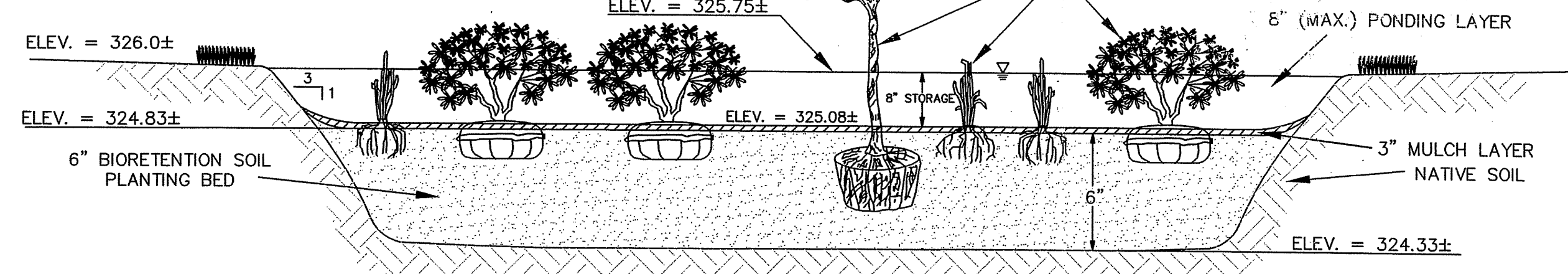
- NOTES:
- ALL MATERIAL TO MEET FILTERSOX SPECIFICATIONS.
  - FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
  - COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.



- CONSTRUCTION ENTRANCE DETAIL NOTES
- CONSTRUCTION ENTRANCE DEPTH SHALL BE A MINIMUM OF 5" THICK.
  - CONSTRUCTION ENTRANCE WIDTH SHALL BE THE AT LEAST THE FULL WIDTH OF THE INGRESS/EGRESS ACCESS POINT.
  - CONSTRUCTION ENTRANCE LENGTH SHALL BE A MINIMUM OF 50'.
  - AGGREGATE SIZE SHALL BE RIDOT 2" CRUSHED STONE OR GRAVEL. DETAIL BASED ON RHODE DEPARTMENT OF TRANSPORTATION DETAIL, R.I. STANDARD 9.9.0 CONSTRUCTION ACCESS AND RIDOT STANDARD STANDARD SPECIFICATIONS, SECTION 211, CONSTRUCTION ACCESSSES.



STOCKPILE PROTECTION DETAIL  
NOT TO SCALE



BIORETENTION AREA (RAIN GARDEN) - TYPICAL CROSS-SECTION  
NOT TO SCALE

BIORETENTION AREA PLANTING NOTES:

THE FOLLOWING IS A LIST OF POTENTIAL BIORETENTION AREA PLANTINGS. A FULL PLANTING DETAIL SHALL BE PROVIDED FOR FINAL DEVELOPMENT PLAN REVIEW PER LANDSCAPER.

(PLANT SPECIES BELOW WERE SELECTED FROM THE RHODE ISLAND COASTAL PLANT GUIDE PREPARED BY THE URI CELS AND RI CRMC. ONLY THOSE NATIVE PLANTS THAT ARE SUITABLE FOR RAIN GARDENS AND ARE TOLERANT OF WET SITES AND SHADE ARE SHOWN HERE.)

SPECIES	COMMON NAME	PLANT TYPE
<i>Ilex opaca</i>	AMERICAN HOLLY	TREE
<i>Iris versicolor</i>	BLUE FLAG	PERENNIAL
<i>Carex stricta</i>	TUSSOCK SEDGE	GRASS
<i>Cephalanthus occidentalis</i>	COMMON BUTTONBUSH	SHRUB
<i>Camptonia peregrina</i>	SWEET FERN	SHRUB
<i>Cornus racemosa</i>	GRAY DOGWOOD	SHRUB
<i>Ilex glabra</i>	INKBERRY HOLLY	SHRUB
<i>Ilex verticillata</i>	WINTERBERRY HOLLY	SHRUB
<i>Lindera benzoin</i>	SPICEBUSH	SHRUB
<i>Photinia melanocarpa</i>	BLACK CHOKEBERRY	SHRUB
<i>Photinia pyrifolia</i>	RED CHOKEBERRY	SHRUB
<i>Rhododendron vacuosum</i>	SWAMP AZALEA	SHRUB
<i>Vaccinium corymbosum</i>	HIGHBUSH BLUEBERRY	SHRUB
<i>Viburnum dentatum</i>	ARROWWOOD	SHRUB

TREES SHALL BE PLANTED WITH A DENSITY OF NO MORE THAN ONE PER 250 SF. SPACED 15 FT ON CENTER. SHRUBS SHALL BE PLANTED 5-10 FT ON CENTER AND HERBACEOUS VEGETATION PLANTED 2.5 FT ON-CENTER.

BIORETENTION AREA LOCATED AT LEAST 10 FT FROM BUILDING FOUNDATION, 15 FT FROM EXIST. OWTS AND 25 FT FROM ANY WELL OR WATER SUPPLY.

ROOF GUTTER DOWNSPOUTS SHALL DIRECT WATER TO BIORETENTION AREA VIA UNDERGROUND PIPING OR OVERLAND WHERE UNDERGROUND PIPING IS UNFEASIBLE OR NOT PERMISSIBLE.

**FILTERREX® SEDIMENT CONTROL**  
NTS

**FILTER SOCK NOTES**

- Soxox™ shall meet Filterrex Soxox™ Specifications and use Filterrex GrowingMedia™.
- Contractor is required to be a Filterrex Certified™ Installer.
- Soxox™ must be installed and stabilized before flow is allowed from culverts and storm outlets.
- Land surface shall be cleared of debris, including rocks, roots, large clods, and sticks prior to Soxox™ installation.
- Channel bed shall be made smooth prior to installation of Soxox™.
- Soil bed may be compacted and graded prior to installation.
- The upslope end of the Soxox™ shall be installed under the lip of the culvert or outlet drain to ensure initial storm flow contact is on top of the Soxox™, not under or in front of the system.
- Soxox™ shall be placed parallel to water flow, where sockets are lightly abutted to prevent water seepage between and underneath the Soxox™.
- Once in place, Soxox™ shall be lightly compacted and abutting edges leveled to tighten seal between sockets and encourage even water flow over Soxox™ system.
- Stakes shall be installed through the middle of the Soxox™ on 10 ft (3m) centers, using 2 in (50mm) by 2 in (50mm) by 3 ft (1m) wooden stakes. Top of stakes should be cut off, leaving 3 in (75mm) above the top of the Soxox™.
- Soxox™ may be seeded at the time of application, seed selection will be determined by the Engineer.

**RIDEM OWTS APPLICATION NO. 0216-0097**

**PROPOSED DETAILS**

29 POPPY HILL ROAD  
A.P. 55 LOT 34  
JOHNSTON, RI

FOR  
**JOHN & ALYSSA LAMOTHE**

**DAVID D. GARDNER & ASSOCIATES, INC.**

1 HOPE COURT  
BARRINGTON, RHODE ISLAND 02806  
(401) 738-3200 | FAX: (401) 738-4740  
ENGINEERS • SURVEYORS • PLANNERS

DATE	PROJECT NO.
7/7/21	21-035
SCALE	DRAWING NO.
1"=30'	21-035 OWTS
REVISIONS	DESIGNED BY
	D.D.G.
	DRAWN BY
	S.B.C.
	CHECKED BY
	D.D.G.
SHEET NO.	
2	
SHEET 2 OF 2	