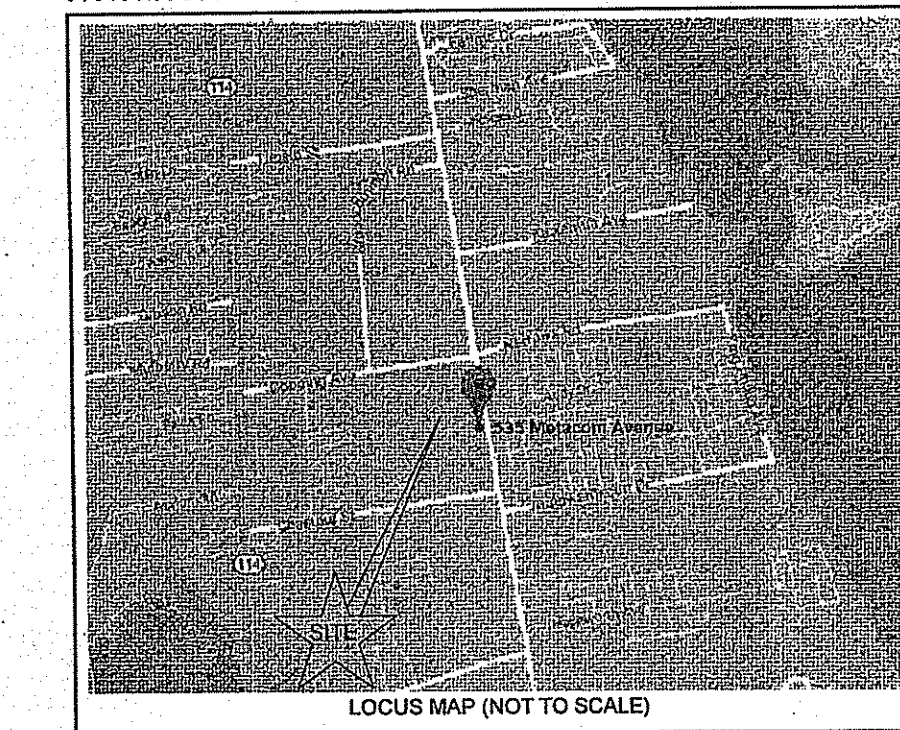


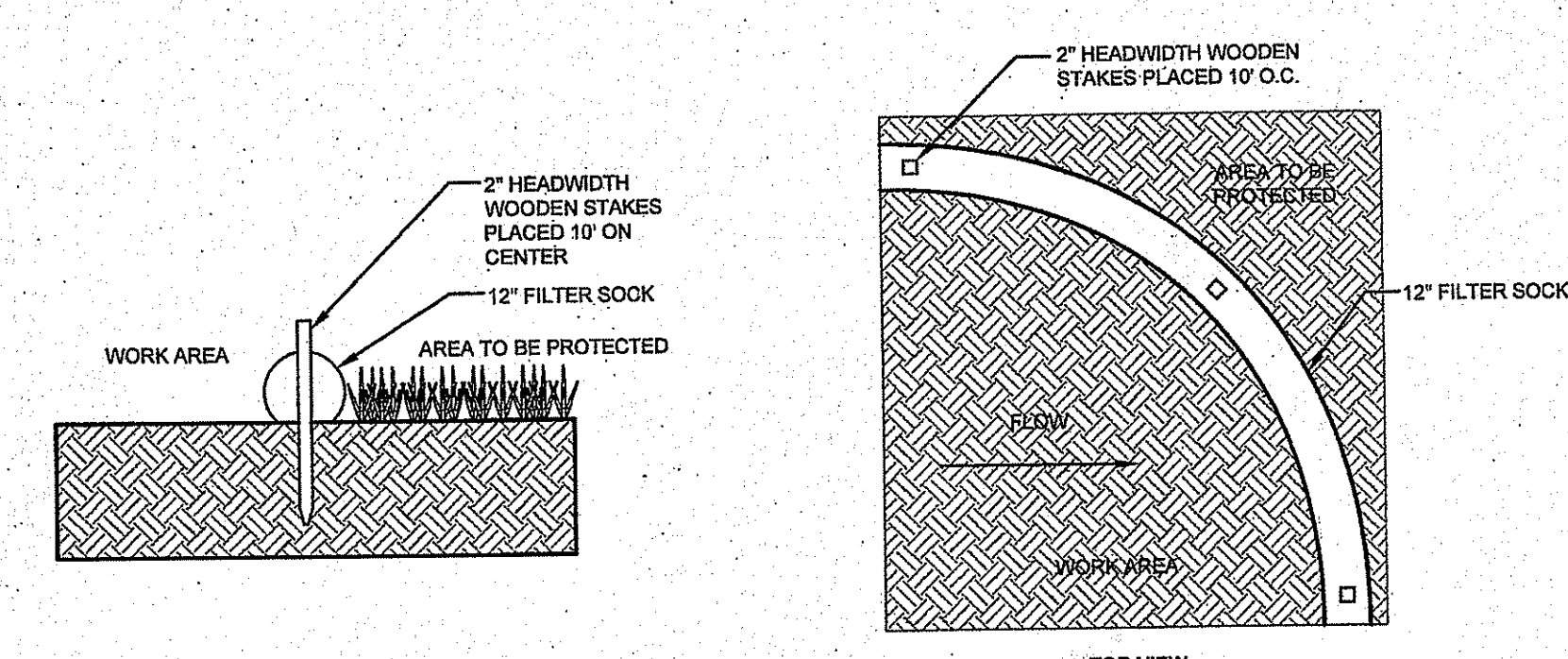
A KNOWLEDGE CORPORATION®

55 JOHN CLARKE ROAD MIDDLETOWN RHODE ISLAND 02842
PHONE (401) 849-0810 FAX (401) 846-4169
WWW.NORTHEASTENGINEERS.COM

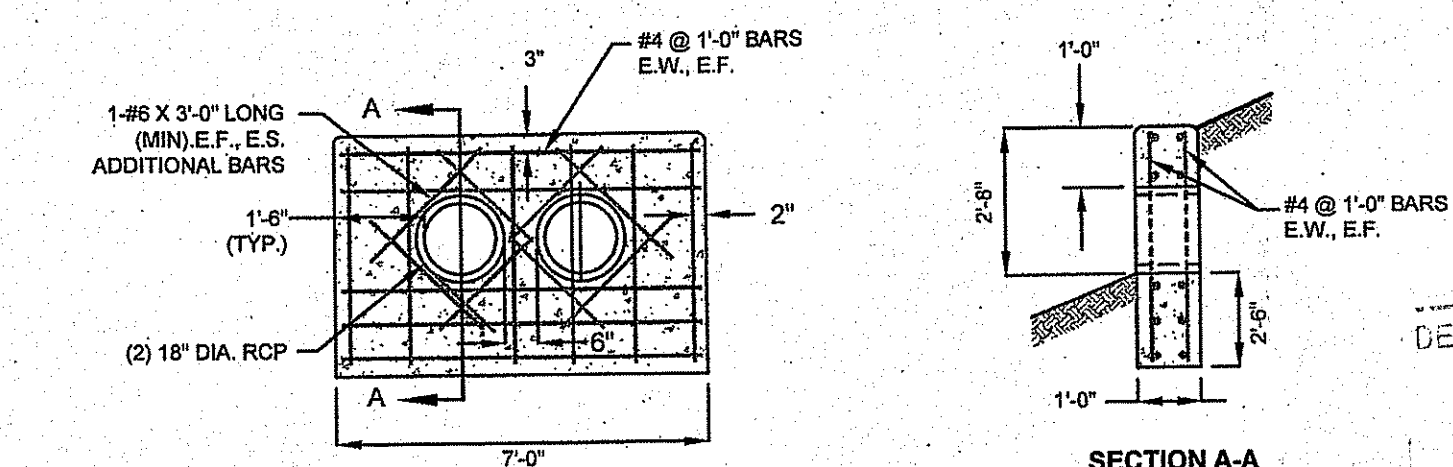
SITE/CIVIL
LAND PLANNING
WATERFRONT
SURVEYING
GEOTECHNICAL
ENVIRONMENTAL
TRANSPORTATION
STRUCTURAL



LOCUS MAP (NOT TO SCALE)



12" FILTER SOCK DETAIL
SCALE: NOT TO SCALE



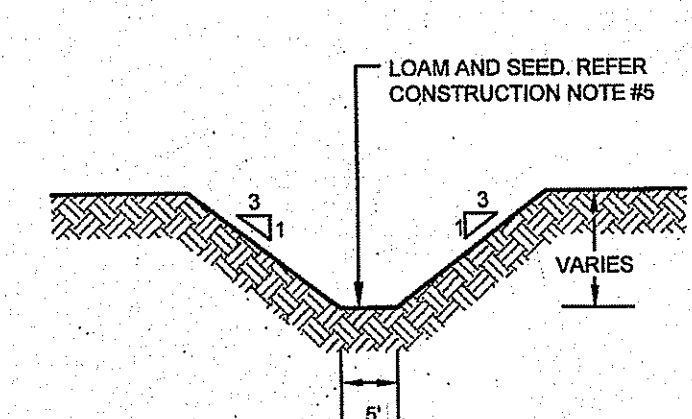
CONCRETE HEADWALL DETAIL
SCALE: NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED NOV 08 2018 FILE # 18-01331
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

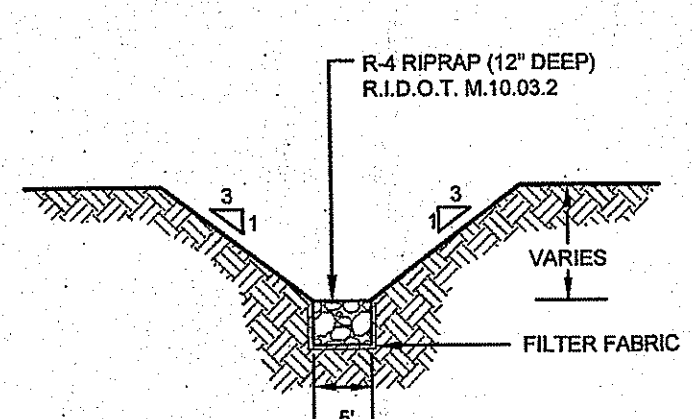
Jonathan D. Wawack

OCT 12 2018

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

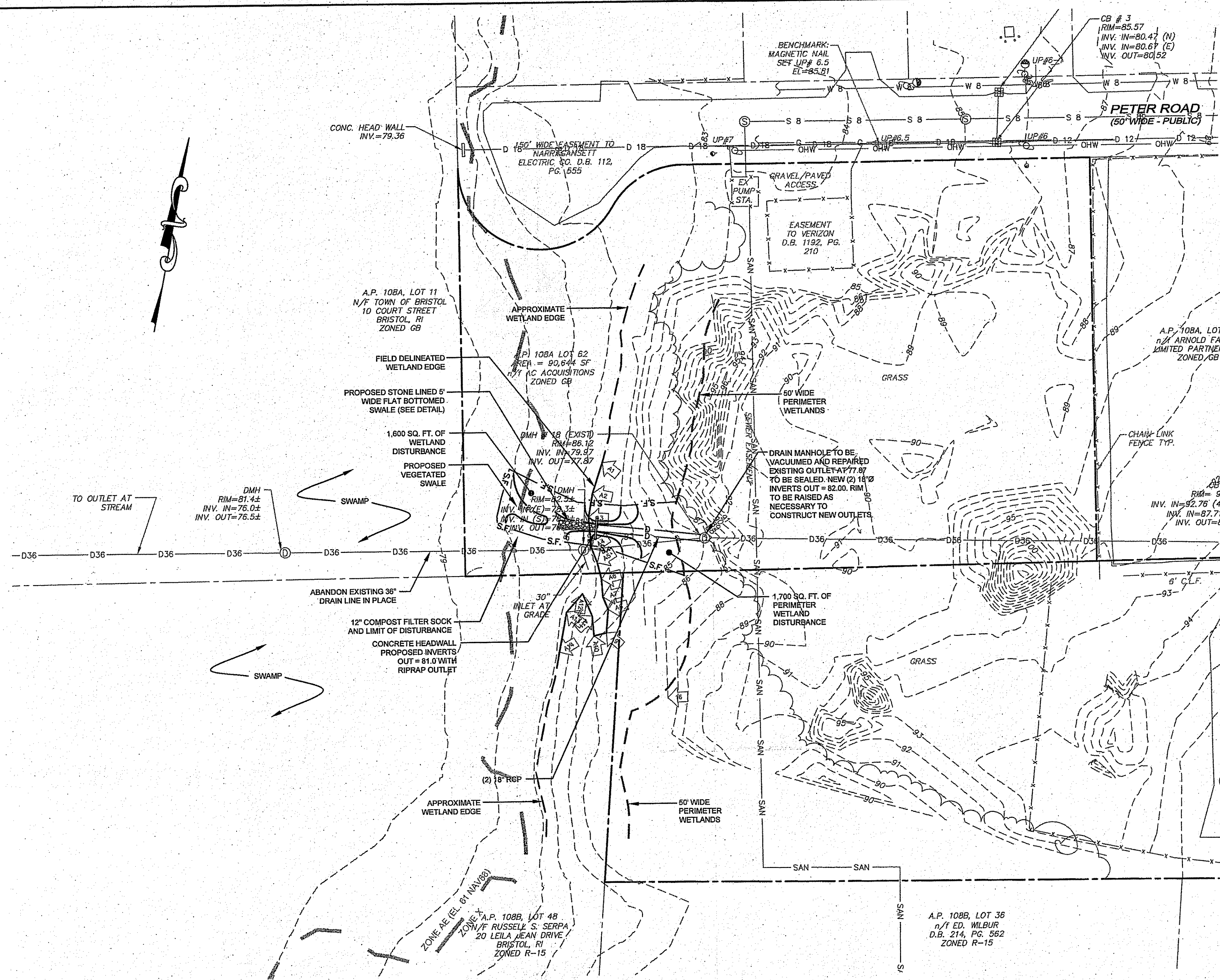
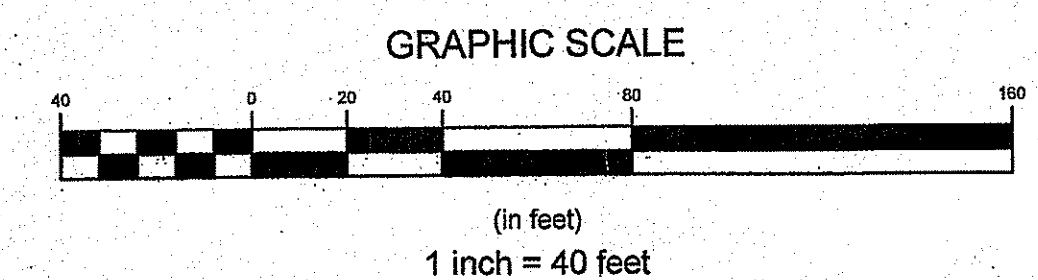


VEGETATED SWALE SECTION



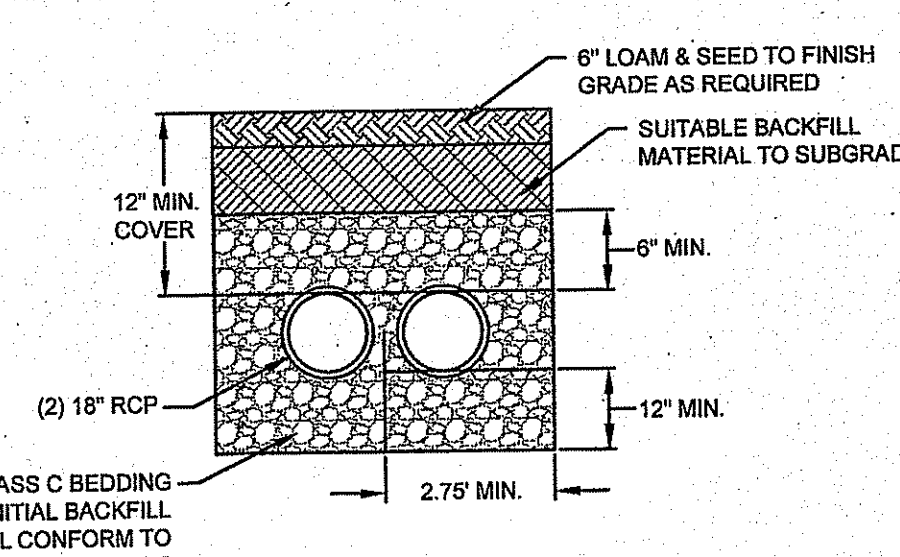
STONE LINED SWALE SECTION

TYPICAL SWALE CROSS SECTIONS
SCALE: NOT TO SCALE



- GENERAL NOTES:**
- PROPERTY LINES TAKEN FROM "PLAN OF LAND ADMINISTRATIVE SUBDIVISION A.P. 108A LOT 62 & A.P. 108B LOTS 4, 5, 63, METACOM AVENUE AND PETER ROAD, BRISTOL, RI," A CLASS I SURVEY PREPARED BY NORTHEAST ENGINEERS & CONSULTANTS, INC. LAST REVISED 2-5-2007.
 - TOPOGRAPHY AND EXISTING CONDITIONS ARE BASED UPON AN ASSUMED DATUM AND ESTABLISHED IN JANUARY AND JULY OF 2006 AND SEPTEMBER OF 2017.
 - WETLAND EDGE DELINEATION ("A" SERIES) BY CAPUTO AND WICK LTD SEPTEMBER 27, 2018.
 - 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 DISSAFE PRIOR TO CONSTRUCTION AT 1-888-344-7233, AND/OR ALL LOCAL UTILITY COMPANIES)
 - THE SITE IS LOCATED WITHIN FLOOD ZONE "X" AND FLOOD ZONE "AE" (EL. 61) AS SHOWN ON THE SITE PLAN PER FLOOD INSURANCE RATE MAP (FIRM) NO. 44001C0011H BRISTOL COUNTY, DATED 7/7/2014.
 - SOIL CHARACTERISTICS OF THE ENTIRE SITE ARE "S" - STISSING SILT LOAM AS IDENTIFIED BY THE NRCS.
 - INSIGNIFICANT ALTERATION PERMIT FOR A PROPOSED DEVELOPMENT OF THIS PROPERTY WAS ISSUED BY RIDEM ON JUNE 7, 2018. SEE APPLICATION NO. 18-0079 FOR DETAILS.
- CONSTRUCTION NOTES:**
- DO NOT BEGIN CONSTRUCTION UNTIL ALL LOCAL, STATE, AND FEDERAL PERMITS HAVE BEEN APPLIED FOR AND RECEIVED.
 - CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT THE SITE VIA AN EXISTING STABILIZED ACCESS ON PETER ROAD. ALL MACHINERY SHALL REMAIN WITHIN DESIGNATED PROJECT LIMITS IN THE AREA OF WORK DURING CONSTRUCTION OPERATIONS.
 - PRUNING OF OVERHANGING SHRUBS AND TREES IN THE SWAMP AND 50-FT PERIMETER WETLAND SHALL BE KEPT TO A MINIMUM AND OCCUR ONLY AS REQUIRED TO CONDUCT THE NECESSARY WORK AND ALLOW FOR UNOBSTRUCTED CONSTRUCTION EQUIPMENT ACCESS.
 - ALL EXCAVATED MATERIALS SHALL BE REMOVED FROM THE WORK AREA AND DISPOSED OF OFF-SITE AT A LICENSED FACILITY. NO TEMPORARY SOIL STOCKPILES SHALL BE ALLOWED WITHIN DELINEATED WETLAND OR 50-FOOT PERIMETER WETLAND.
 - GRASED SWALE SHALL BE SEEDED WITH NATIVE, NON-WOODY, WETLAND MIX IMMEDIATELY UPON FINAL SHAPING. IF SEEDING IS TO OCCUR OUTSIDE OF THE GROWING SEASON, EROSION CONTROL BLANKET / CHANNEL LINER MUST BE INSTALLED AND PROPERLY PINNED WITH ITS UPGRADIENT END ABUTTED TO THE STONE LINED SWALE.
 - PERIODIC MOWING (TWICE ANNUALLY, AS MAY BE NEEDED) OF A 6-FOOT WIDE PATH SHALL OCCUR OVER THE PROPOSED PIPES EXTENDING TO THE HEADWALL TO PROVIDE FOOT ACCESS FOR INSPECTIONS AND MAINTENANCE.
 - PIPE INSTALLATION SHALL CONFORM TO THE DETAIL PROVIDED.

- DRAIN PIPE NOTES:**
- UNSUITABLE 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.
 - PIPES SHALL BE LAID BEGINNING AT THE DOWNSTREAM END OF THE PIPE LINE, IN ACCORDANCE WITH RIDOT SPECIFICATION 701.03.4
 - PIPE JOINTS SHALL BE MADE WITH RUBBER GASKETS, INSTALLED SO AS TO FORM A FLEXIBLE, WATER TIGHT JOINT.
 - BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT TO EXCEED 12" IN HEIGHT. THESE LAYERS SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (AASHTO T199).



DRAIN TRENCH DETAIL
SCALE: NOT TO SCALE