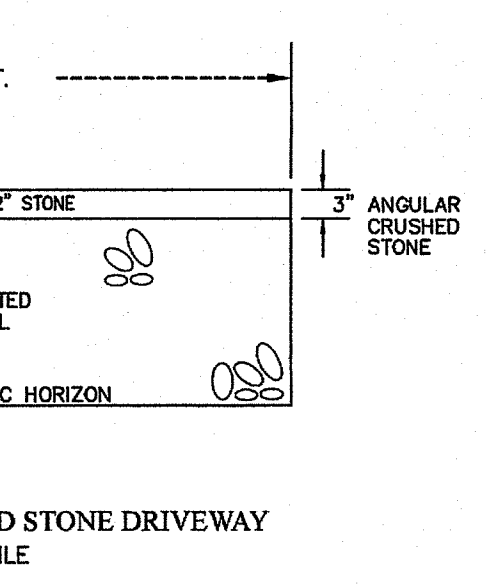
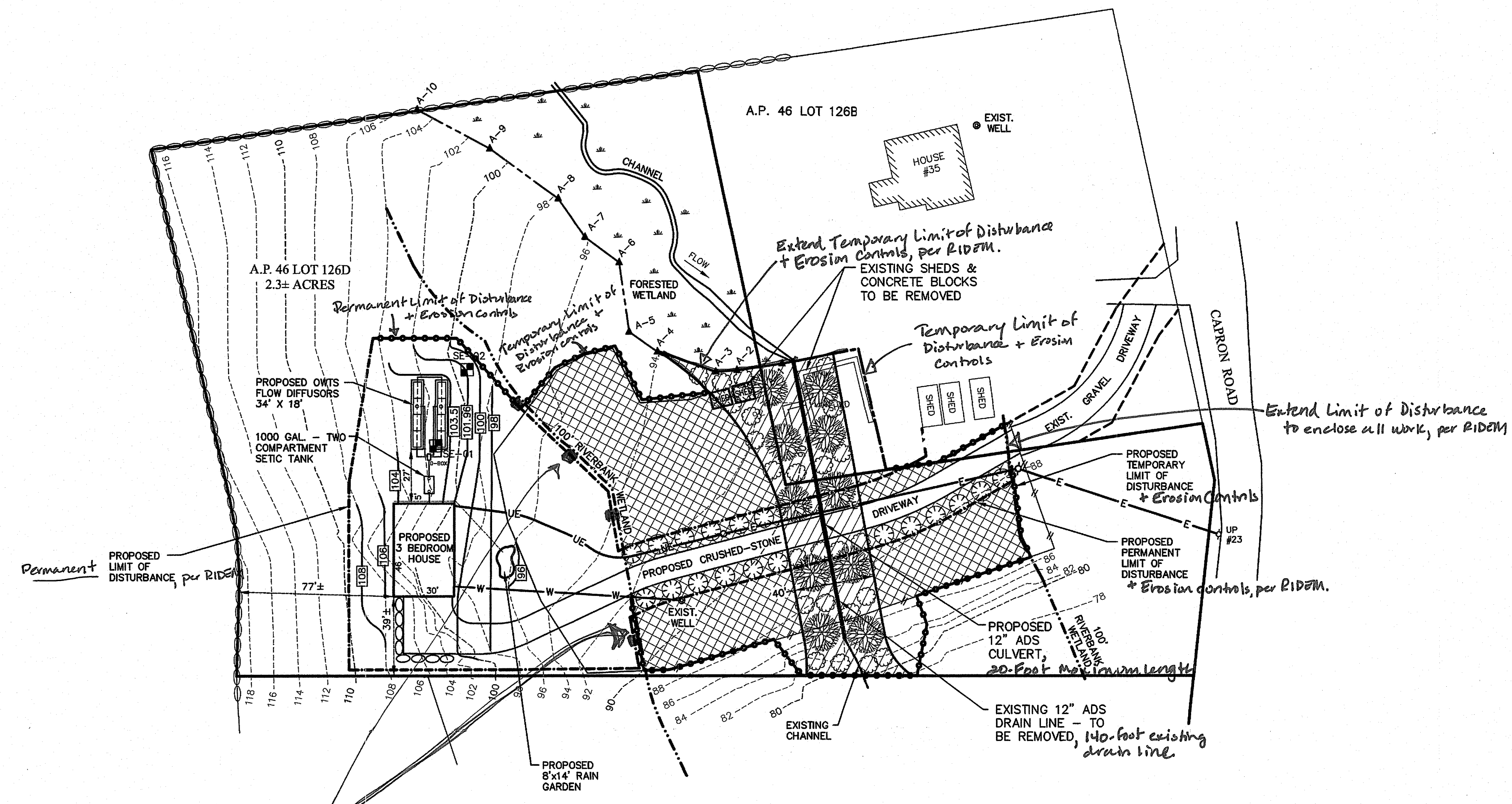


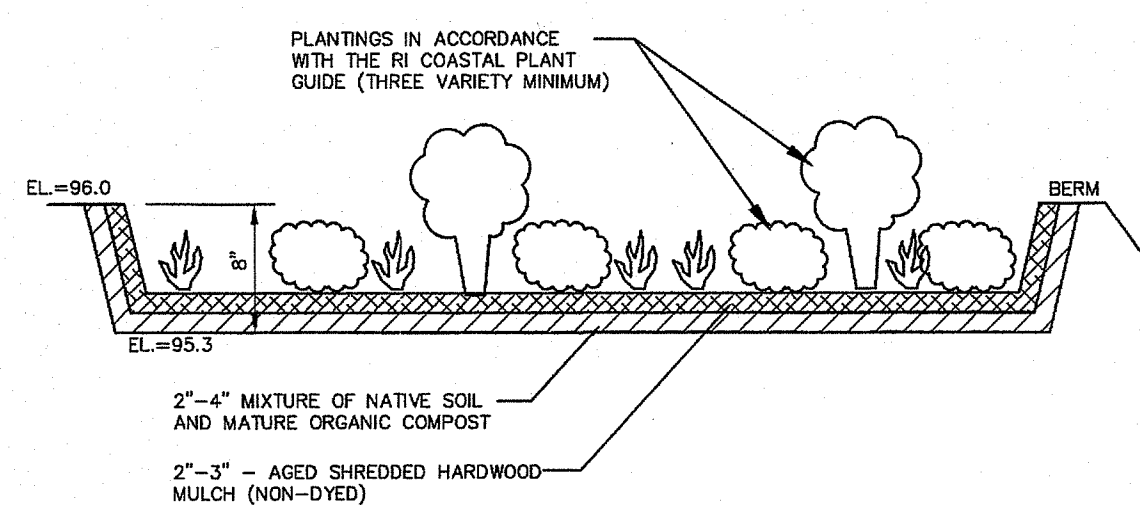
LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING STONE WALL
- PROPOSED WATER LINE
- PROPOSED SILT FENCE OR SILT SOCK EROSION CONTROL
- PROPOSED TEMPORARY LIMIT OF DISTURBANCE
- PROPOSED PERMANENT LIMIT OF DISTURBANCE
- PROPOSED UTILITY POLE
- PROPOSED OVERHEAD ELECTRIC LINE
- PROPOSED UNDERGROUND ELECTRIC LINE
- EXISTING UTILITY POLE
- PROPOSED PLANTINGS (SEE WETLAND RESTORATION NOTES)
- PROPOSED DRIVEWAY SCREENING VEGETATION (RHODODENDRON MAXIMUM)



12 FT. WIDE - CRUSHED STONE DRIVEWAY PROFILE

THE AREA OF THE DISTURBED 100' RIVERBANK WETLAND IS TO BE RESTORED TO ORIGINAL GRADE. ANY SIDE SLOPES SHALL BE FINISH GRADED AT A 3:1 SLOPE. THE SIDE SLOPES SHALL BE SUPPLEMENTED WITH 6"-8" OF SCREENED LOAM AND SEEDED WITH A NORTHEAST WILDLIFE CONSERVATION MIX.



RAIN GARDEN DETAIL
14 FT. x 8 FT. x 8" DEEP - ROOF DRAIN COLLECTION

Rain Garden Plantings:

LATIN NAME	COMMON NAME	SIZE	SPACING
GRASSES / PERENNIALS			
FESTUCA OVINE GLAUCA	BLUE FESCUE	1 GAL	18" O.C.
PANICUM VIRGATUM	SWITCHGRASS	1 GAL	18" O.C.
PENNISETUM ALPOUROIDES	FOUNTAIN GRASS	1 GAL	18" O.C.
RUDEBECKIA HIRTA	BLACK EYED SUSAN	1 GAL	18" O.C.
SHRUBS			
CEPHALANTHUS OCCIDENTALIS	COMMON BUTTONBUSH		
COMPTONIA PEREGRINA	SHEET FERN		
LEDUM GROENLANDICUM	LABRADOR TEA		
PHOTINIA MELANOCARPA	BLACK CHOKEBERRY		

- Maintenance Notes:**
- THE RAIN GARDEN SHALL BE INSPECTED FOLLOWING AT LEAST THE FIRST TWO PRECIPITATION EVENTS AT AT LEAST 1.0 INCH TO ENSURE THAT THE SYSTEM IS FUNCTIONING PROPERLY. THEREAFTER, THE RAIN GARDEN SHALL BE MONITORED AND MAINTAINED TO ASSURE PROPER FUNCTIONING. PLANT GROWTH AND SURVIVAL. PLANTS SHALL BE REPLACED ON AN AS-NEEDED BASIS DURING THE GROWING SEASON.
 - SILT/SEDIMENT SHALL BE REMOVED FROM THE RAIN GARDEN WHEN THE ACCUMULATION EXCEEDS ONE INCH, OR WHEN WATER PONDS ON THE SURFACE OF THE RAIN GARDEN FOR MORE THAN 48 HOURS. THE TOP FEW INCHES OF MATERIAL SHALL BE REMOVED AND SHALL BE REPLACED WITH FRESH SOIL MIXTURE AND MULCH.
 - PRUNING OR REPLACEMENT OF VEGETATION SHALL OCCUR WHEN DEAD OR DYING VEGETATION IS OBSERVED.
 - GULLIES SHALL BE REPAIRED WHEN THEY OCCUR.
 - FERTILIZER OR PESTICIDES SHALL NOT BE APPLIED TO PLANTS WITHIN RAIN GARDENS.
 - SWALES SHALL BE INSPECTED ANNUALLY AND SHOULD BE INSPECTED AFTER LARGE STORM EVENTS.
 - ERODED SIDE SLOPES AND CHANNEL BOTTOMS SHALL BE STABILIZED AS NECESSARY.

FORESTED WETLAND RESTORATION NOTES

- PROPOSED FORESTED WETLAND RESTORATION AREA = [Symbol]
- EROSION CONTROLS SHALL BE ESTABLISHED PRIOR TO THE START OF THE RESTORATION.
 - ALL FILL SHALL BE REMOVED FROM THE IDENTIFIED RESTORATION AREA. THE FINAL GRADE SHALL BE AT THE POINT WHERE THE NATIVE HYDROLOGIC SOIL CONDITIONS ARE PRESENT. IF PLANTABLE TOPSOIL IS REQUIRED, A MIXTURE OF SCREENED LOAM AND LEAF COMPOST (75% TO 25% RESPECTIVELY) SHALL BE PREPARED AND SPREAD EVENLY THROUGHOUT ANY AREA REQUIRING AUGMENTATION.
 - THE EXISTING 12" ADS DRAIN LINE SHALL BE REMOVED.
 - THE SIDE SLOPES SHALL BE FINISH GRADED AT A 3:1 SLOPE. THE SIDE SLOPES SHALL BE SUPPLEMENTED WITH 6"-8" OF SCREENED LOAM AND SEEDED WITH A NORTHEAST WILDLIFE CONSERVATION MIX.
 - THE FORESTED WETLAND RESTORATION AREA SHALL BE SEED WITH A NEW ENGLAND WETMIX (OR EQUIVALENT) AND PLANTED WITH THE FOLLOWING:
 - 10 RED MAPLE (ACER RUBRUM) TREES
 - 5 FT. - 6 FT. TALL, SPACED 12 FT. ON-CENTER
 - 25 WINTERBERRY (ILEX VERTICILLATA) SHRUBS
 - 25 HIGH BUSH BLUEBERRY (VACCINIUM CORYMBOSUM)
 - ALL SHRUBS TO BE 2 FT. - 3 FT. TALL, SPACED 5 FT. ON-CENTER
 - THE SIDE SLOPES WITHIN THE 100 FT. RIVERBANK WETLAND SHALL BE PLANTED WITH THE FOLLOWING:
 - 20 GRAY BIRCH (BETULA POPULIFOLIA) TREES
 - 5 FT. - 6 FT. TALL, SPACED 12 FT. ON-CENTER
 - 40 PEPPERBUSH (CLETHRA ALNIFOLIA) SHRUBS
 - 40 ARROWWOOD (VIBURNUM DENTATUM)
 - ALL SHRUBS TO BE 2 FT. - 3 FT. TALL, SPACED 5 FT. ON-CENTER
 - ALL TREES AND SHRUBS SHALL BE WATERED AS NEEDED DURING THE FIRST GROWING SEASON TO ENSURE SURVIVAL.
 - UPON COMPLETION OF THE FORESTED WETLAND RESTORATION WORK, THE ENTIRE AREA SHALL BE ALLOWED TO REVERT TO A WLD/NATURAL CONDITION.

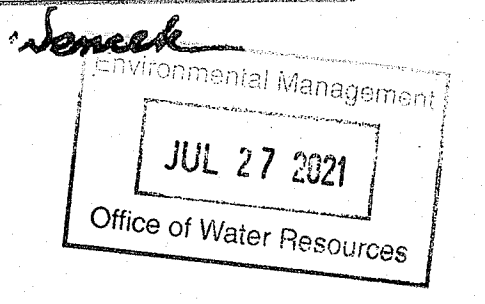
100 FT. RIVERBANK WETLAND RESTORATION NOTES

- PROPOSED 100 FT. RIVERBANK WETLAND RESTORATION AREA = [Symbol]
- ALL HARDSCAPE AND PACKED GRAVEL SHALL BE REMOVED AND PROPERLY DISPOSED OF OUTSIDE ANY REGULATED WETLAND.
 - 6-8 INCHES OF SCREENED LOAM SHALL BE SPREAD EVENLY THROUGHOUT THE RESTORATION AREA.
 - THE AREA SHALL BE SEED WITH A NORTHEAST WILDLIFE CONSERVATION MIX.
 - THE RIVERBANK WETLAND RESTORATION AREA SHALL BE PLANTED WITH THE FOLLOWING:
 - 30 RED MAPLE (ACER RUBRUM)
 - 10 GRAY BIRCH (BETULA POPULIFOLIA)
 - TREES SHALL BE 5-6 FT. TALL AND PLANTED 15 FT. ON-CENTER
 - 50 SWEET PEPPERBUSH (CLETHRA ALNIFOLIA)
 - 50 ARROWWOOD (VIBURNUM DENTATUM)
 - 50 MOUNTAIN LAUREL (KALMIA LATIFOLIA)
 - SHRUBS SHALL BE 2-3 FT. TALL AND PLANTED 5 FT. ON-CENTER
 - ALL TREES AND SHRUBS SHALL BE WATERED AS NEEDED DURING THE FIRST GROWING SEASON TO ENSURE SURVIVAL.
 - UPON COMPLETION OF THE RIVERBANK RESTORATION WORK, THE ENTIRE AREA SHALL BE ALLOWED TO REVERT TO A WLD/NATURAL CONDITION.

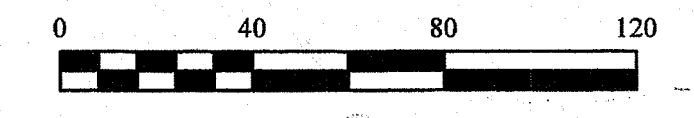
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED AUG 16 2021 FILE # 21-0158
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

NOTES:

- WETLAND FLAGS BY NATURAL RESOURCE SERVICES, INC. DATED FEBRUARY 2021.
- CONTRACTOR IS TO COORDINATE PLANTINGS WITH WETLANDS BIOLOGIST.



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



SOIL EROSION AND SEDIMENT CONTROL NOTES:

- SLOPES SHALL NOT BE LEFT UNATTENDED OR EXPOSED FOR EXCESSIVE PERIODS OF TIME SUCH AS THE INACTIVE WINTER SEASON.
- ALL DISTURBED SLOPES EITHER NEWLY CREATED OR CURRENTLY EXPOSED SHALL BE SEED OR PROTECTED.
- PLANTABLE SOIL SHALL HAVE A SANDY LOAM TEXTURE RELATIVELY FREE OF SUBSOIL MATERIAL, STONES, ROOTS, LUMPS OF SOIL, TREE LIMBS, TRASH OR CONSTRUCTION DEBRIS, AND SHALL CONFORM WITH RHODE ISLAND'S STANDARD SPECIFICATIONS, AS AMENDED.
- THE NON-RESTORATION AREA MIX SHALL BE COMPRISED OF THE FOLLOWING:

TYPE	LBS/ACRE
CREeping RED FESCUE	75
KENTUCKY BLUE GRASS	15
COLONIAL BENT GRASS	5
PERENNIAL RUE GRASS	5
- EARLY SPRING OR LATE SUMMER SEEDING IS RECOMMENDED. LIME AND FERTILIZER AS REQUIRED BY SOIL TESTING TO COMPLEMENT OR UPGRADE EXISTING CONDITIONS. THE SEED MIX SHALL BE INCULCATED WITHIN 24 HOURS BEFORE MIXING AND PLANTING WITH APPROPRIATE INOCULUM FOR EACH VARIETY. THE RECOMMENDED SEEDING DATES ARE APRIL 1ST THROUGH JUNE 15TH AND AUGUST 15TH THROUGH SEPTEMBER 30TH.
- TEMPORARY TREATMENTS SHALL CONSIST OF NORTH AMERICAN GREEN S150 EROSION CONTROL BLANKET OR EQUAL. THEY SHALL BE INCORPORATED INTO THE WORK AS WARRANTED OR AS ORDERED BY THE ENGINEER.
- ALL TEMPORARY EROSION PROTECTION SHALL REMAIN IN PLACE UNTIL AN ACCEPTABLE STAND OF GRASS OR APPROVED GROUND COVER IS ESTABLISHED.
- ALL FILL SHALL BE THOROUGHLY COMPACTED UPON PLACEMENT IN STRICT CONFORMANCE WITH THE RHODE ISLAND STANDARD SPECIFICATION'S FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- STOCKPILES OF TOPSOIL SHALL NOT BE LOCATED NEAR ANY WATERWAYS. THEY SHALL HAVE SIDE SLOPES NO GREATER THAN 2:1 AND SHALL BE TEMPORARILY SEED OR STABILIZED.
- THE CONSTRUCTION SUPERINTENDENT SHALL HAVE THE OVERALL RESPONSIBILITY FOR PLAN IMPLEMENTATION AND FOR SEEING THAT THE APPROPRIATE WORKERS ARE AWARE OF THE PROVISIONS OF THE PLAN. THE CONTRACTOR MUST REPAIR AND/OR RESEED ANY AREAS THAT DO NOT DEVELOP WITHIN A PERIOD OF SIX (6) MONTHS AND SHALL DO SO AT NO ADDITIONAL EXPENSE.
- MAXIMUM GRADED SLOPE TO BE 3:1 UNLESS NOTED OTHERWISE ON THE PLANS.
- REFERENCE THE "RHODE ISLAND EROSION AND SEDIMENTATION CONTROL HANDBOOK" PREPARED BY USDA SOIL CONSERVATION SERVICE AS A GUIDE.

CERTIFICATION

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 25, 2015, AS FOLLOWS:

TYPE OF BOUNDARY SURVEY: NOT A BOUNDARY SURVEY
MEASUREMENT SPECIFICATION: CLASS III
VERTICAL CONTROL STANDARD: V-3
TOPOGRAPHIC SURVEY ACCURACY: T-2

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS:
WETLAND RESTORATION PLAN

By: Patricia A. Kelly 7/26/21
PATRICIA A. KELLY, PLS #1988 034 #1734 DATE

NO.	REVISION	DATE	BY

DEM PRELIMINARY DETERMINATION and WETLAND RESTORATION PLAN

CLIVER CALDERON
CAPRON ROAD
SMITHFIELD, RI
A.P. 46 LOT 126B & 126D

KELLY LAND SERVICES, INC.
kellylandservices@gmail.com
LAND SURVEYING - SURVEYORS - SEPTIC DESIGNS - SOIL EVALUATIONS

PO BOX 278 GREENVILLE, RI 02828 401-232-2630 DATE: 3/29/21
97 BUCKS WAY TIVERTON, RI 02878 401-293-0335 SCALE: 1"=40' SHEET NO: 1 OF 1 PROJ. NO: IMS 201201-WET