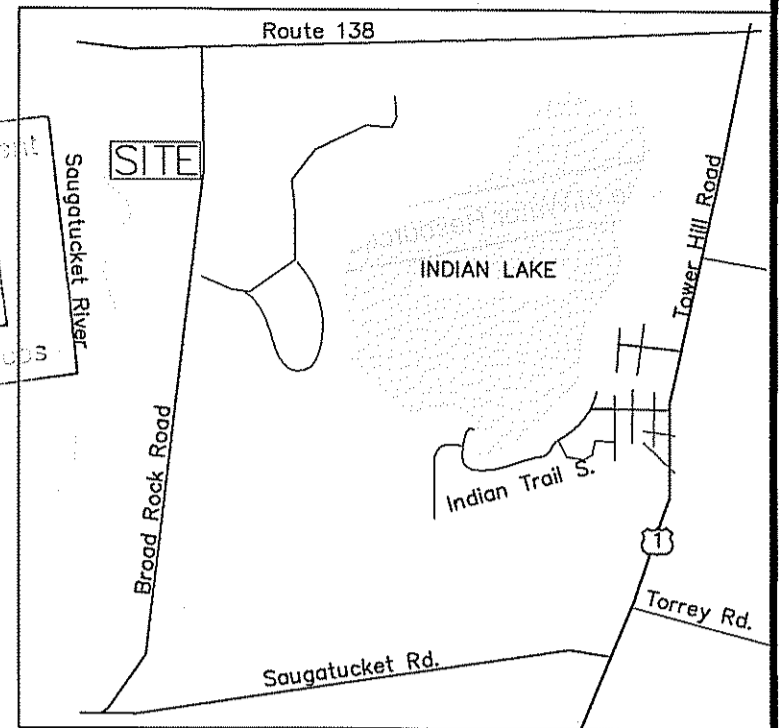


PROPERTY LAYOUT
SCALE: 1" = 50'



LOCUS MAP

GENERAL NOTES:

1. THE HOME IS SERVICED BY A PRIVATE OWTS (RIDEM #0932-1293; INSTALLED JULY 2013) & PRIVATE WATER SERVICE; A NEW DRILLED WELL IS PROPOSED.
2. THE EXISTING DWELLING IS A ONE BEDROOM BUNGALOW WITH WITH A 277 S.F. FOOTPRINT. THE EXISTING STRUCTURE CAN NOT BE RENOVATED AND REQUIRES DEMOLITION. THE PROPOSED BUILDING EXPANSION WILL SATISFY CURRENT BUILDING CODES TO UTILIZE THE EXISTING BUILDING FOOTPRINT WITH ADDITIONAL SUPPORT PROVIDED BY REINFORCED CONCRETE PIERS. PIERS AND CANTILEVER CONSTRUCTION WILL BE UTILIZED TO EXPAND THE FOOTPRINT TO 480 S.F., USING THE EXISTING FOUNDATION, IF SOUND.
3. SOILS ONSITE ARE CLASSIFIED AS BRIDGEHAMPTON SILT LOAM (Bhb) - USDA HYDROLOGICAL SOIL GROUP "B".
4. THIS SITE IS NOT LOCATED WITHIN A NATURAL HERITAGE AREA OR CRITICAL RESOURCE AREA AS DEFINED BY CRMC OR RIDEM.
5. THIS PARCEL IS NOT LOCATED WITHIN A ZONING OVERLAY DISTRICTS, HISTORIC DISTRICT, OR ARCHAEOLOGICALLY SENSITIVE AREA.
6. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP COMMUNITY PANEL NUMBER 44009C0201H REVISED 10/19/2010, THIS ENTIRE SITE LIES WITHIN FLOOD ZONE X - AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

A.P. 25 / LOT 24
2.2 ACRES

SET HAYBALES 12' FROM DWELLING;
CLEAN DEBRIS FROM WETLAND
AREA AND PLANT CONSERVATION
SEED MIX (TYP.)

EXISTING DWELLING
TO BE DEMOLISHED
(18' X 14')±

EXISTING 1,000 GALLON
SEPTIC TANK WITH LIFT
STATION (PUMP)

PROPOSED DWELLING
EXPANSION USING CANTILEVER
BUMP-OUTS AND PIER
SUPPORTS; AS REQ'D.
(24' X 20')

DRIVEWAY TO REVERT
TO TURF

TURF X LANDSCAPING
EXISTING LAWN TO BE RAKED
AND SEED

EXISTING OWTS
(30' X 4')
ELJEN INDRAINS

FORESTED WETLAND

PLANT WITH EASTERN RED CEDAR,
WILD BLACK CHERRY AND
WINTERBERRY FOR WILDLIFE VALUE;
SEE PLANTING LIST

RAIN GARDEN (8" DEPTH);
40 S.F. BTM AREA (9' X 4.5')±
100 S.F. TOP AREA (13' X 9')±
ROOF DRAIN OUTFALL

EXISTING DUG WELL TO BE
FILLED & ABANDONED

EROSION CONTROLS
NO GRADING OR ELEVATION CHANGES ARE REQUIRED
FOR THIS PROJECT; EROSION CONTROLS TO REMAIN
UNTIL AREA IS STABILIZED.

274 S.F. EXISTING FOOTPRINT
+ 206 S.F. PROPOSED EXPANSION
480 S.F. PROPOSED FOOTPRINT

PROPOSED WELL
& WATER-SERVICE

L.O.D. EAST OF WATERLINE
INSTALLATION INCLUDES NO
EXCAVATION; LANDSCAPING
ONLY

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 16 2013 FILE # 13-0161
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

LEGEND

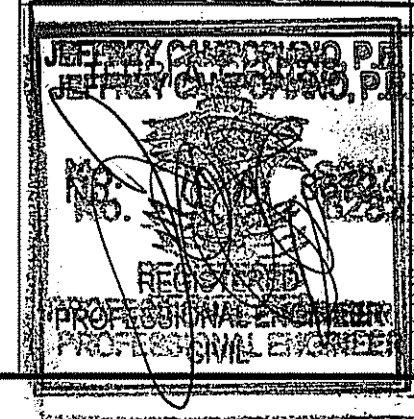
- 101 EXISTING CONTOURS
- 102 PROPOSED CONTOUR
- EXISTING SITE CONDITIONS
- PROPOSED CONDITIONS
- PROPERTY LINE
- BUILDING SETBACKS
- EXISTING WATER LINE
- EXISTING UTILITY POLE
- EXISTING DRAINAGE
- TREELINE
- STONEWALL
- FENCE (STOCKADE)
- PROPOSED WATERLINE
- DELINEATED WETLANDS
- PERIMETER WETLAND
- LIMIT OF DISTURBANCE (LOD)
- PROPOSED PIERS
- LANDSCAPING
- EROSION CONTROLS (SILT FENCE)

RESIDENTIAL HOME RENOVATION

1380 BROAD ROCK ROAD
A.P. 25 / LOT 24
SOUTH KINGSTOWN, RHODE ISLAND

PREPARED BY:
JEFFREY J. CAMPOPIANO P.E.
16 WEST MAIN STREET
WICKFORD, RHODE ISLAND 02852
PHONE: (401) 295-3037 / FAX: (401) 295-1118

PREPARED FOR:
DANIEL CUNNINGHAM
3986B TOWER HILL ROAD
SOUTH KINGSTOWN, RHODE ISLAND 02879
OWNER / APPLICANT



SITE PLAN

REV.	DATE	DESCRIPTION	DATE: 8/26/13
1	10/13	EXISTING TREELINE LIMITS OF DISTURBANCE	SCALE: 1" = 20'
			1
			SHEET: 1 OF 3

BROAD ROCK ROAD

BIO-RETENTION CONSTRUCTION NOTES:

- THE BIORETENTION AREA SHALL BE CONSTRUCTED FOLLOWING THE COMPLETION AND STABILIZATION OF OTHER SITE WORK. COMPACTION OF THE RAIN GARDEN AREA PRIOR TO AND DURING CONSTRUCTION MUST BE AVOIDED. EXCAVATION SHALL BE COMPLETED USING LIGHT EQUIPMENT WITH WIDE TRACKS. IF THE AREA DOES BECOMES COMPACTED, SOIL MUST BE TILLED TO A MINIMUM DEPTH OF 12".
- IF SPECIFIED, UNDERDRAINS SHALL BE PLACED ON A MINIMUM OF 3'0" WIDE SECTION OF FILTER CLOTH, OVERLAIN BY GRAVEL BEDDING FREE FROM FINES. PIPE SHALL BE SLOPED A MINIMUM OF 0.5%.
- FOLLOW SOIL SPECIFICATIONS TO PROVIDE A PLANTING MEDIA WITH ADEQUATE NUTRIENTS. PLANTING MEDIA SHALL BE PLACED IN 12" LIFTS.

MATERIALS

PLANTING MEDIA - THE MATERIAL TO BE FURNISHED SHALL BE A UNIFORM MIX FREE OF SUBSOIL, REFUSE, STUMPS, ROOTS, ROCKS, BRUSH, WEEDS OR OTHER MATERIAL WHICH WOULD PREVENT THE FORMATION OF A SUITABLE SEED BED. THE MEDIA SHALL CONSIST OF THE 4 PARTS PLANTING SOIL & 1 PART WELL AGED, AERATED, LEAF COMPOST.

PLANTING SOIL:
 SAND: 85-88%
 SOIL FINES: 8-12% (NO MORE THAN 2% CLAY)
 ORGANIC MATTER: 3-5%

A TEXTURAL ANALYSIS IS REQUIRED TO ENSURE THE BIORETENTION SOIL MEETS THE SPECIFICATION LISTED ABOVE. THE BIORETENTION SOIL SHOULD ALSO BE TESTED FOR THE FOLLOWING CRITERIA:

- PH RANGE 5.2 - 7.0
- MAGNESIUM NOT TO EXCEED 32 PPM
- PHOSPHORUS P205 NOT TO EXCEED 69 PPM
- POTASSIUM K20 NOT TO EXCEED 78 PPM
- SOLUBLE SALTS NOT TO EXCEED 500 PPM

ALL BIORETENTION AREAS SHOULD HAVE A MINIMUM OF ONE TEST. EACH TEST SHOULD CONSIST OF BOTH THE STANDARD SOIL TEST FOR PH, PHOSPHORUS, AND POTASSIUM AND ADDITIONAL TESTS OF ORGANIC MATTER, AND SOLUBLE SALTS. SINCE DIFFERENT LABS CALIBRATE THEIR TESTING EQUIPMENT DIFFERENTLY, ALL TESTING RESULTS SHOULD COME FROM THE SAME TESTING FACILITY.

SHOULD THE PH FALL OUT OF THE ACCEPTABLE RANGE, IT MAY BE MODIFIED (HIGHER) WITH LIME OR (LOWER) WITH IRON SULFATE PLUS SULFUR.

MULCH LAYER SPECIFICATIONS.

A FINELY SHREDDED, WELL-AGED ORGANIC HARDWOOD MULCH IS THE PREFERRED ACCEPTED MULCH; A FINELY SHREDDED, WELL-AGED ORGANIC DARK PINE MULCH MAY BE ACCEPTED ON A CASE-BY-CASE BASIS. BARK DUST MULCHES AND WOOD CHIPS WILL FLOAT AND MOVE TO THE PERIMETER OF THE BIORETENTION AREA DURING A STORM EVENT AND ARE NOT ACCEPTABLE.

SHREDDED MULCH MUST BE WELL AGED (6-12 MONTHS) FOR ACCEPTANCE. MIX APPROXIMATELY 1/2 THE SPECIFIED MULCH LAYER INTO THE PLANTING SOIL TO A DEPTH OF APPROXIMATELY 4 INCHES TO HELP FOSTER A HIGHLY ORGANIC SURFACE LAYER.

INSTALLATION

- IT IS VERY IMPORTANT TO MINIMIZE COMPACTION OF BOTH THE BASE OF THE BIORETENTION AREA AND THE REQUIRED BACKFILL. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL. IF BIORETENTION AREA IS EXCAVATED USING A LOADER, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT, OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH PRESSURE TIRES ARE NOT ACCEPTABLE.
- COMPACTION CAN BE ALLEVIATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS A CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE PERFORMED TO REFRACATURE THE SOIL PROFILE THROUGH THE 12-IN COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT TILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.
- WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12IN OR GREATER. DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

PLANT INSTALLATION

- THE PLANT ROOT BALL SHOULD BE PLANTED SO 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE.
- ROOT STOCK OF THE PLANT MATERIAL SHOULD BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE DIAMETER OF THE PLANTING PIT SHOULD BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION.
- TREES SHOULD BE BRACED USING 2 IN X 2 IN STAKES ONLY AS NECESSARY AND FOR THE FIRST GROWING SEASON ONLY. STAKES ARE TO BE EQUALLY SPACED ON THE OUTSIDE OF THE TREE BALL. GRASSES AND LEGUME SEED SHOULD BE TILLED INTO THE SOIL TO A DEPTH OF AT LEAST ONE INCH.

MAINTENANCE

MAINTENANCE: REPLACE DEAD PLANTS, DEAD-HEAD AND PRUNE AS REQUIRED. MULCH ANNUALLY; FERTILIZER SHALL NOT BE UTILIZED, AMEND SOIL YEARLY WITH A COMPOST MIX.

ACCEPTABLE PLANTING MATERIALS:

GENERAL LAWN:

MIXTURES WHICH REQUIRE REGULAR FERTILIZATION SHALL NOT BE UTILIZED.

GENERAL USE - TURFGRASS SEED MIX: (URI #2)

MIX	% BY VOLUME
CREeping RED FESCUE	50
IMPROVED KENTUCKY BLUEGRASS	40
KENTUCKY BLUE 98/85	20
PERENNIAL RYEGRASS	20

SHADE / LOW MAINTENANCE TURFGRASS SEED MIX: (URI #3)

MIX	% BY VOLUME
CHEWINGS FESCUE	50
KENTUCKY BLUE 98/85	40
COLONIAL BENTGRASS	10

THE ACCEPTED PLANTING SEASON SHALL BE BETWEEN MARCH 15 AND NOVEMBER 15TH. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF SIX (6) INCHES OF LOAM.

REGULATED AREAS & WATERWAYS

DISTURBED AREAS IN BUFFER ZONES WILL BE SEEDING WITH A WILDLIFE CONSERVATION MIX.

BUFFER ZONES / WETLAND AREAS:

MIX	% BY VOLUME
PERENNIAL RYEGRASS	25
CREeping RED FESCUE	25
ANNUAL RYE	25
TALL FESCUE	17
KENTUCKY BLUEGRASS	5
COLONIAL BENTGRASS	1
RED TOP	1
WHITE CLOVER*	1

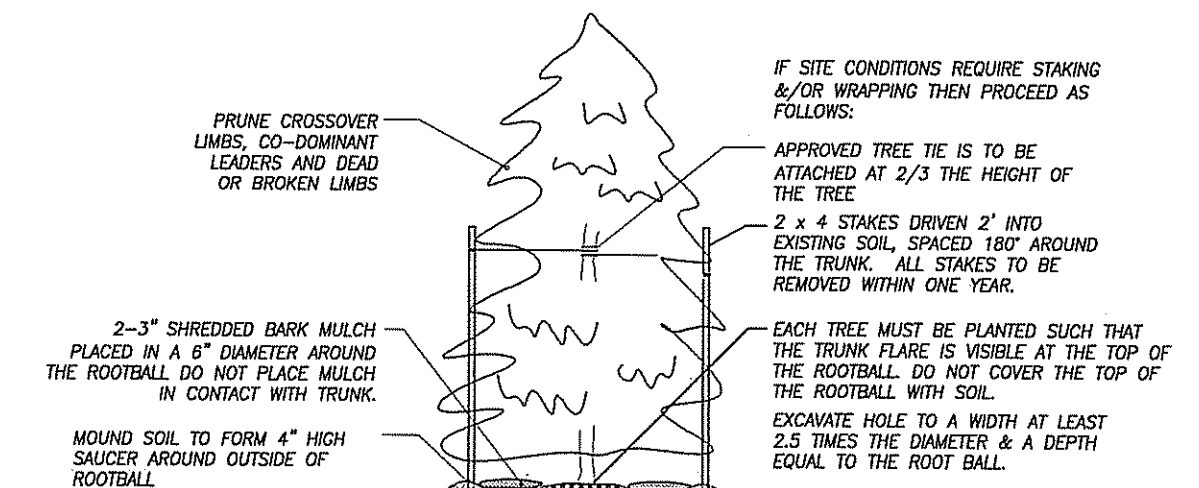
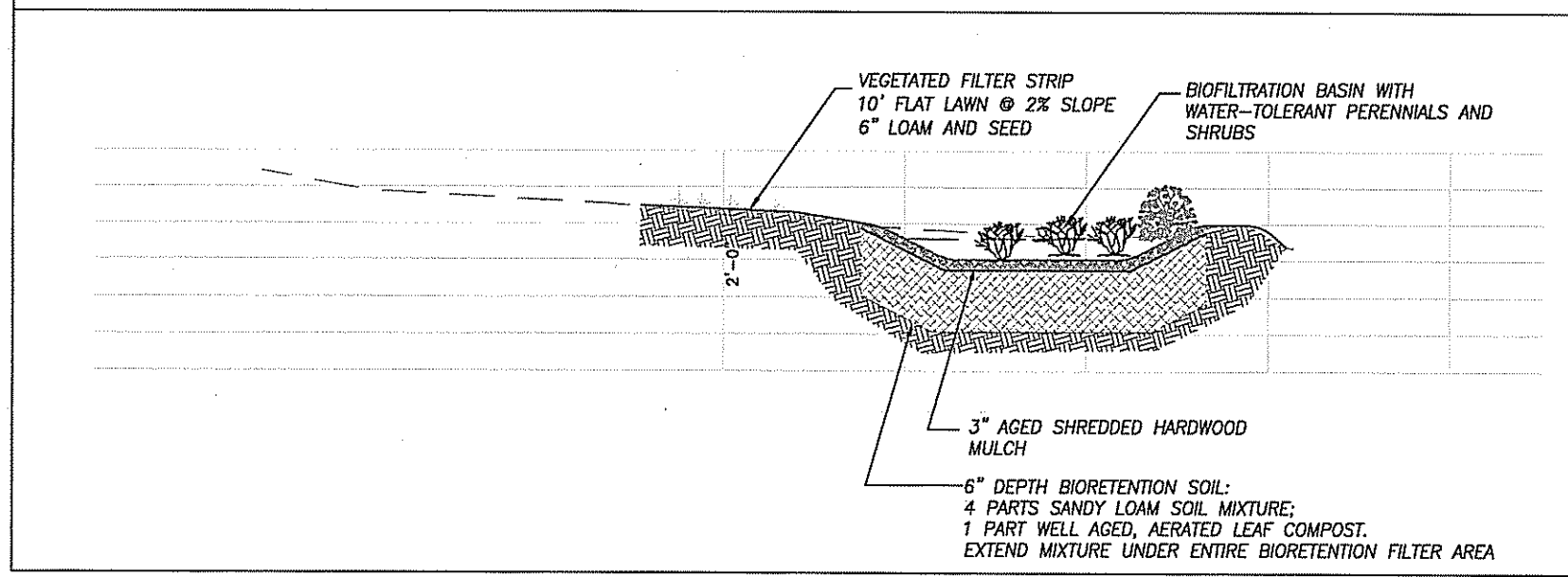
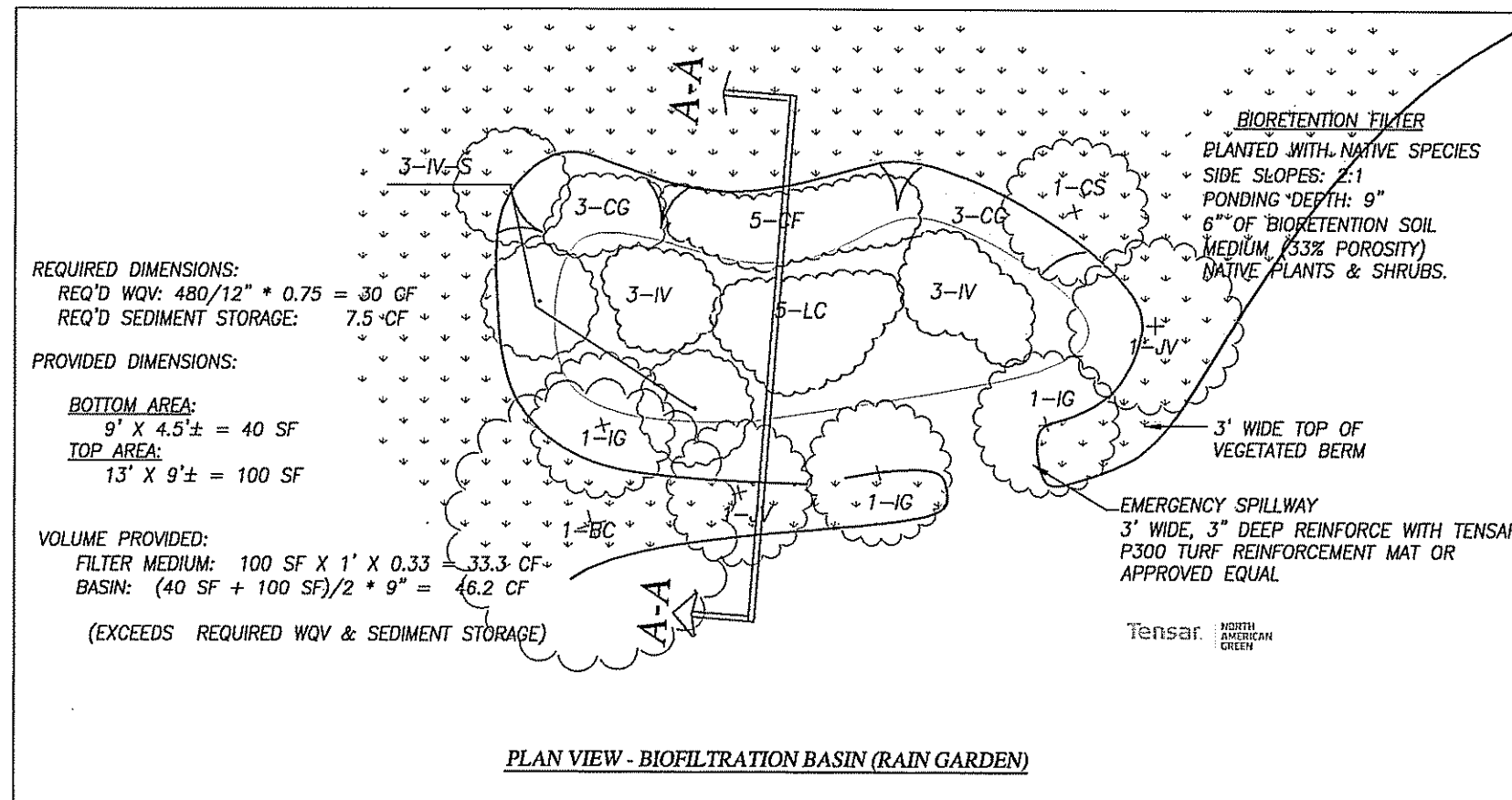
SOD WATERWAYS & DRAINAGE DITCHES:

IT IS IMPORTANT TO PROVIDE A SEED MIXTURE THAT CAN HANDLE FLUCTUATING WATER LEVELS AND/OR HIGH VELOCITIES. FERTILIZER CANNOT BE USED IN THESE AREAS.

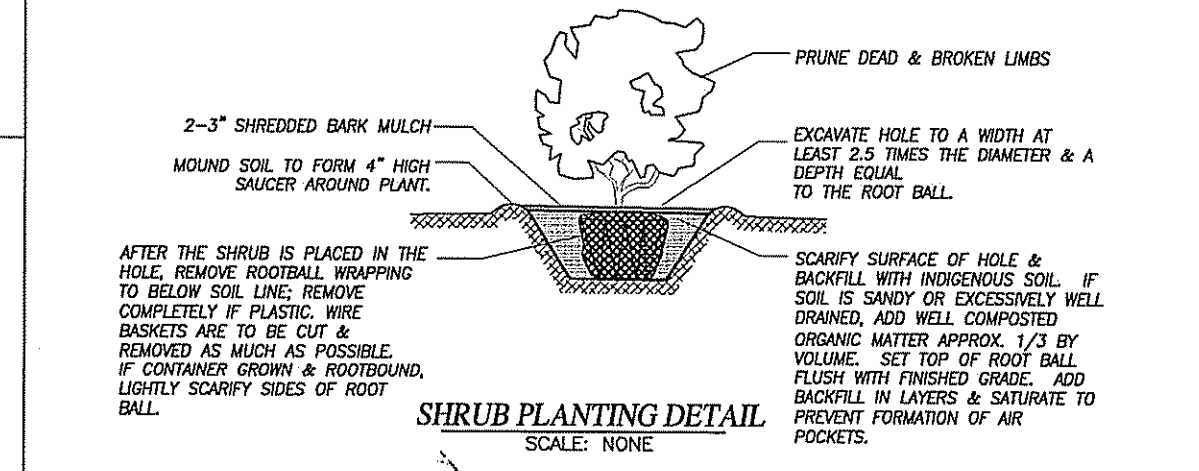
MIX	% BY VOLUME
CREeping RED FESCUE *	50
TALL FESCUE OR REED CANARYGRASS	50

* CREEPING RED FESCUE FOR SLOPES 0-5% ONLY
 SUBSTITUTE SMOOTH BROME FOR SLOPES 5-10% &
 SUBSTITUTE BUFFALO GRASS FOR SLOPES > 10%

Abreviation	Qty	Botanical Name	Common Name	Mature Height	Spread	Spacing	Install Size
BC	1	PRUNUS SEROTINA	WILD BLACK CHERRY	30'-50'	25-35'	15' O.C.	2'-3" Dia.
JV	2	JUNIPERUS VIRGINIANA	EASTERN RED CEDAR (EVERGREEN)	15'	4-6'	6' O.C.	5' HIGH
CS	1	CORNUS SERICEA	BAILEY'S RED TWIG DOGWOOD	6-10'	3'-5'	5 O.C.	3 GALLON
IV-S	3	ILEX VERTICILLATA "RED SPRITE"	WINTERBERRY	2-3'	3'-4'	48" O.C.	3 GALLON
IG	3	ILEX GALBRA	INKBERRY (EVERGREEN)	4-6'	4-6'	60" O.C.	3 GALLON
CF	5	CAREX FLACCA	BLUE SEDGE	12-18"	12-18"	15"	1/2 GALLON
LC	5	LOBELIA CARDINALIS	CARDINAL FLOWER	18"-36"	15-18"	18" O.C.	1 GALLON
IV	6	IRIS VERSICOLOR	BLUE FLAG IRIS	24-36"	12"-15"	15" O.C.	1 GALLON
CG	6	COREOPSIS GRANDIFLORA "FULL MOON"	FULL MOON COREOPSIS	18-24"	12-18"	15" O.C.	1 GALLON



IF SITE CONDITIONS REQUIRE STAKING &/OR WRAPPING THEN PROCEED AS FOLLOWS:
 APPROVED TREE TIE IS TO BE ATTACHED AT 2/3 THE HEIGHT OF THE TREE
 2 x 4 STAKES DRIVEN 2' INTO EXISTING SOIL, SPACED 180° AROUND THE TRUNK. ALL STAKES TO BE REMOVED WITHIN ONE YEAR.
 EACH TREE MUST BE PLANTED SUCH THAT THE TRUNK FLARE IS VISIBLE AT THE TOP OF THE ROOTBALL. DO NOT COVER THE TOP OF THE ROOTBALL WITH SOIL.
 EXCAVATE HOLE TO A WIDTH AT LEAST 2.5 TIMES THE DIAMETER & A DEPTH EQUAL TO THE ROOT BALL.
 AFTER THE TREE IS PLACED IN THE HOLE, REMOVE ROOTBALL WRAPPING TO BELOW SOIL LINE; REMOVE COMPLETELY IF PLASTIC. WIRE BASKETS ARE TO BE CUT & REMOVED AS MUCH AS POSSIBLE. IF CONTAINER GROWN & ROOTBOUND, LIGHTLY SCARIFY SIDES OF ROOT BALL.
 SCARIFY SURFACE OF HOLE & BACKFILL THE HOLE WITH PLANTABLE SOIL CONSISTING OF LOAM, ORGANIC MATTER AND LOOSE FRIABLE TOPSOIL, FREE OF REFUSE AND OTHER MATERIALS WHICH ARE LARGER THAN 1" IN SIZE. ORGANIC MATTER SHALL CONSTITUTE NOT LESS THAN 4% AND NO MORE THAN 20% OF THE SOIL MIXTURE. THE PH RANGE SHALL BE 5.5-7.5 ADD BACKFILL IN LAYERS AND SATURATE TO PREVENT FORMATION OF AIR POCKETS.



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 OCT 16 2013 FILE # 13-0141
 CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

RESIDENTIAL HOME RENOVATION
 1380 BROAD ROCK ROAD
 A.P. 25 / LOT 24
 SOUTH KINGSTOWN, RHODE ISLAND

PREPARED BY: **JEFFREY J. CAMPOPIANO P.E.**
 16 WEST MAIN STREET
 WICKFORD, RHODE ISLAND 02852
 PHONE: (401) 285-3037 FAX: (401) 295-1118

PREPARED FOR: **DANIEL CUNNINGHAM**
 3986B TOWER HILL ROAD
 SOUTH KINGSTOWN, RHODE ISLAND 02879
 OWNER / APPLICANT

SITE DETAILS

REV.	DATE	DESCRIPTION	DATE: 8/26/13
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

SCALE: VARIES

3

SHEET: 3 OF 3

SEP 13 2013
 Office of Water Resources