

NEW ENGLAND EROSION CONTROL/ RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES		
SPECIES	COMMON NAME	QUANTITY
ELYMUS RIPARIUS	RIVERBANK WILD RYE	35 LBS/ ACRE
SCHIZACHRIUM SCOPARIUM	LITTLE BLUESTEM	(1 LBS/ 1,250 S.F.)
FESTUCA RUBRA	RED FESCUE	
ANDROPOGON GERARDII	BIG BLUESTEM	TOTAL AREA: 4,532 S.F.
panicum VIRGATUM	SWITCH GRASS	TOTAL SEED: 3.6 LBS
VERNONIA NOVEBORACENSIS	NEW YORK IRONWEED	
AGROSTIS PERENNANS	UPLAND BENTGRASS	
BIDENS FRONDOSA	BEGGAR TICKS	
EUPATORIUM MACULATUM	SPOTTED JOE PYE WEED	
EUPATORIUM PERFOLIATUM	BONASET	
ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	
SCIRPUS CYPERINUS	WOOL GRASS	
JUNCUS EFFUSUS	SOFT RUSH	

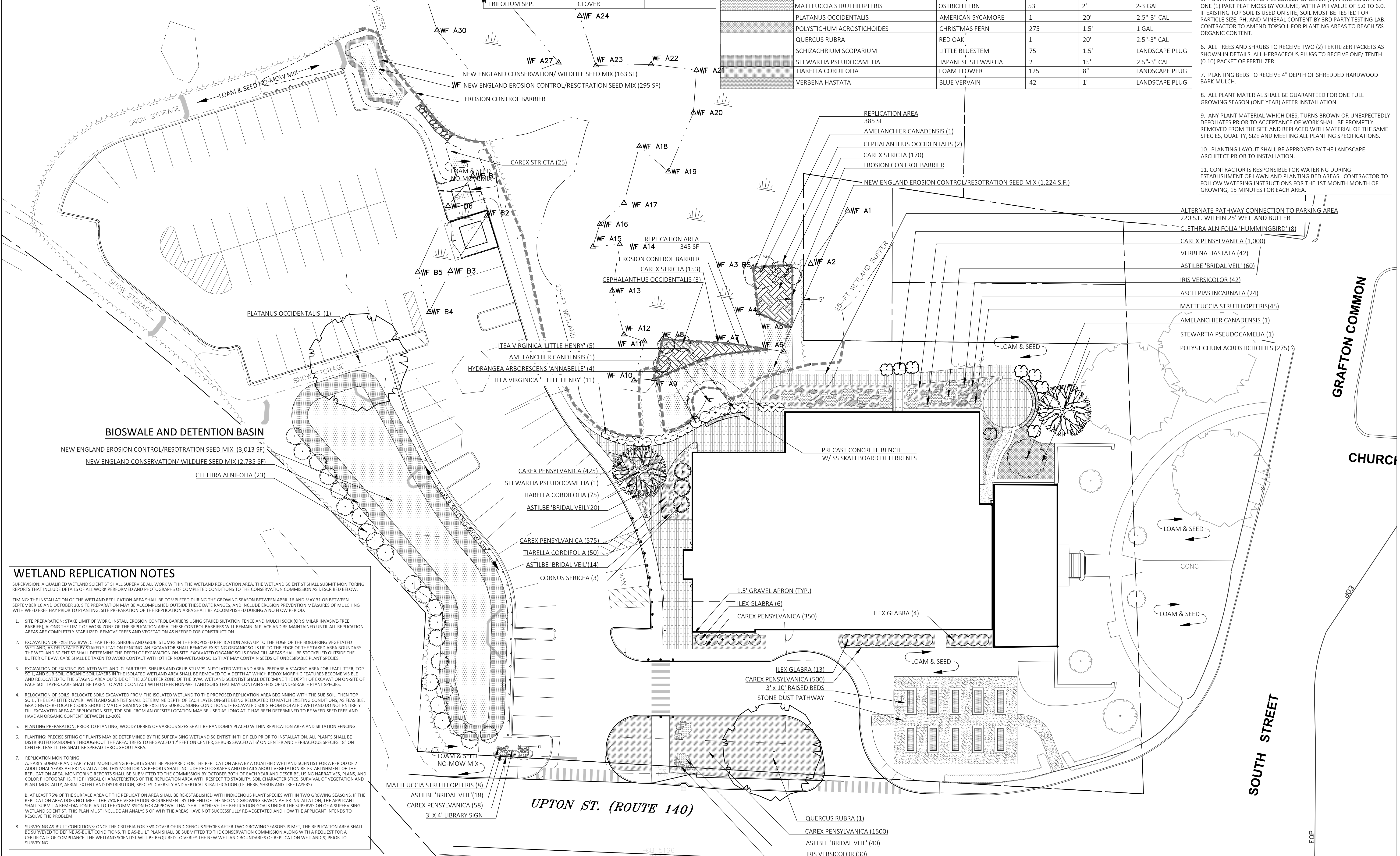
NEW ENGLAND CONSERVATION/ WILDLIFE MIX FOR DETENTION BASINS SIDE SLOPES		
SPECIES	COMMON NAME	QUANTITY
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	25 LBS/ ACRE
SCHIZACHRIUM SCOPARIUM	LITTLE BLUESTEM	(1 LBS/ 1,750 S.F.)
FESTUCA RUBRA	RED FESCUE	
ANDROPOGON GERARDII	BIG BLUESTEM	TOTAL AREA: 2,898 S.F.
panicum VIRGATUM	SWITCH GRASS	TOTAL SEED: 1.7 LBS
SORGASTRUM NUTANS	INDIAN GRASS	
CHAMAECRISTA FASCICULATA	PARTRIDGE PEA	
BIDENS FRONDOSA	BEGGAR TICKS	
EUPATORIUM PURPUREUM	PURPLE JOE PYE WEED	
RUDEBECKIA HIRTA	BLACK EYED SUSAN	
ASTER PILOSUS	HEATH ASTER	
DESMODIUM CANADENSE	SHOWY TICK TREFOIL	
ASCLEPIAS TUBEROSA	BUTTERFLY WEED	
SOLIDAGO JUNCEA	EARLY GOLDENROD	

NO MOW SEEDING SPECIES LIST		
SPECIES	COMMON NAME	QUANTITY
FESTUCA BREVIPILA	HARD FESCUE	5LBS/ 1,000 S.F.
FESTUCA OVINA	SHEEP FESCUE	
FESTUCA RUBRA	RED FESCUE	TOTAL AREA: 6,260 S.F.
FESTUCA RUBRA VAR. FALLAX	CHEWINGS FESCUE	TOTAL SEED: 32 LBS
FESTUCA RUBRA VAR. RUBRA	CREeping RED FESCUE	

LOAM & SEED STANDARD SPECIES LIST		
SPECIES	COMMON NAME	QUANTITY
POA PRATENSIS	KENTUCKY BLUEGRASS	3-4LBS/ 1,000 S.F.
LOLIUM PERENNE	PERENNIAL RYE GRASS	
FESTUCA RUBRA VAR. RUBRA	CREeping RED FESCUE	
TRIFOLIUM SPP.	CLOVER	

PLANTING LIST					
ATTERN	SPECIES	COMMON NAME	QUANTITY	FT. CENTER	SIZE
	AMELANCHIER CANADENSIS	SHAD BUSH	3	10'	2.5"-3" CAL
	ASCLEPIAS INCARNATA	SWAMP MILKWEED	24	1.5'	1 GAL
	ASTILBE 'BRIDAL VEIL'	BRIDAL VEIL ASTILBE	152	1.5'	1 GAL
	CAREX PENNSYLVANICA	OAK SEDGE	4,058	9"	LANDSCAPE PLUG
	CAREX STRICTA	TUSsock SEDGE	478	1.5'	LANDSCAPE PLUG
	CEPHALANTHUS OCCIDENTALIS	BUTTON BUSH	5	7	2 GAL
	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	SWEET PEPPER BUSH	31	6'	2-3 GAL
	CORNUS SERICEA	RED-OSIER DOGWOOD	3	6'	2-3 GAL
	HYDRANGAEA ARBORESCENS 'ANNABELLE'	SMOOTH HYDRANGAEA	4	7'	2 GAL
	ILEX GLABRA	INKBERRY	19	5'	2-3 GAL
	IRIS VERSICOLOR	BLUE FLAG	72	1.5'	1 GAL
	ITEA VIRGINICA 'LITTLE HENRY'	VIRGINIA SWEETSPICE	16	3'	2-3 GAL
	MATTEUCCIA STRUTHIOPTERIS	OSTRICH FERN	53	2'	2-3 GAL
	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	1	20'	2.5"-3" CAL
	POLYSTICHUM ACROSTICHOIDES	CHRISTMAS FERN	275	1.5'	1 GAL
	QUERCUS RUBRA	RED OAK	1	20'	2.5"-3" CAL
	SCHIZACHRIUM SCOPARIUM	LITTLE BLUESTEM	75	1.5'	LANDSCAPE PLUG
	STEWARTIA PSEUDOCAMELIA	JAPANESE STEWARTIA	2	15'	2.5"-3" CAL
	TIARELLA CORDIFOLIA	FOAM FLOWER	125	8"	LANDSCAPE PLUG
	VERBENA HASTATA	BLUE VERVAIN	42	1'	LANDSCAPE PLUG

- ### PLANTING NOTES
1. ALL NURSERY STOCK SHALL COMPLY WITH THE LATEST STANDARDS OF THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION WITH REGARD TO GRADING AND QUALITY.
 2. ALL PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED, EXCEPT THAT PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED IF APPROVED BY THE LANDSCAPE ARCHITECT.
 3. ALL PLANTS SHALL BE NURSERY GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICES AND SHALL BE GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE PROJECT LOCALITY FOR AT LEAST TWO YEARS; HERBACEOUS PERENNIAL PLUGS MAY BE GROWN FOR LESS THAN ONE YEAR, BUT SHOULD BE FULLY ROOTED PRIOR TO PLANTING.
 4. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE MOVED WITH THE ROOT SYSTEM AS SOLID UNITS; ROOT BALLS SHALL BE FIRMLY WRAPPED WITH BURLAP. CONTAINER GROWN PLANTS SHALL NOT BE REMOVED FROM CONTAINER PRIOR TO THE TIME OF INSTALLATION; ROOT SYSTEM SHALL BE FIRMLY SET IN CONTAINER.
 5. PLANTING SOIL MIX SHALL CONSIST OF SEVEN (7) PARTS LOAM AND ONE (1) PART PEAT MOSS BY VOLUME, WITH A PH VALUE OF 5.0 TO 6.0. IF EXISTING TOP SOIL IS USED ON SITE, SOIL MUST BE TESTED FOR PARTICLE SIZE, PH, AND MINERAL CONTENT BY 3RD PARTY TESTING LAB. CONTRACTOR TO AMEND TOPSOIL FOR PLANTING AREAS TO REACH 5% ORGANIC CONTENT.
 6. ALL TREES AND SHRUBS TO RECEIVE TWO (2) FERTILIZER PACKETS AS SHOWN IN DETAILS. ALL HERBACEOUS PLUGS TO RECEIVE ONE/ TENTH (0.10) PACKET OF FERTILIZER.
 7. PLANTING BEDS TO RECEIVE 4" DEPTH OF SHREDED HARDWOOD BARK MULCH.
 8. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR ONE FULL GROWING SEASON (ONE YEAR) AFTER INSTALLATION.
 9. ANY PLANT MATERIAL WHICH DIES, TURNS BROWN OR UNEXPECTEDLY DEFOLIATES PRIOR TO ACCEPTANCE OF WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUALITY, SIZE AND MEETING ALL PLANTING SPECIFICATIONS.
 10. PLANTING LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 11. CONTRACTOR IS RESPONSIBLE FOR WATERING DURING ESTABLISHMENT OF LAWN AND PLANTING BED AREAS. CONTRACTOR TO FOLLOW WATERING INSTRUCTIONS FOR THE 1ST MONTH MONTH OF GROWING, 15 MINUTES FOR EACH AREA.



WETLAND REPLICATION NOTES

SUPERVISION: A QUALIFIED WETLAND SCIENTIST SHALL SUPERVISE ALL WORK WITHIN THE WETLAND REPLICATION AREA. THE WETLAND SCIENTIST SHALL SUBMIT MONITORING REPORTS THAT INCLUDE DETAILS OF ALL WORK PERFORMED AND PHOTOGRAPHS OF COMPLETED CONDITIONS TO THE CONSERVATION COMMISSION AS DESCRIBED BELOW.

TIMING: THE INSTALLATION OF THE WETLAND REPLICATION AREA SHALL BE COMPLETED DURING THE GROWING SEASON BETWEEN APRIL 15 AND MAY 31 OR BETWEEN SEPTEMBER 15 AND OCTOBER 30. SITE PREPARATION MAY BE ACCOMPLISHED OUTSIDE THESE DATE RANGES, AND INCLUDE EROSION PREVENTION MEASURES OF MULCHING WITH WEED FREE HAY PRIOR TO PLANTING. SITE PREPARATION OF THE REPLICATION AREA SHALL BE ACCOMPLISHED DURING A NO FLOW PERIOD.

1. SITE PREPARATION: STAKE LIMIT OF WORK. INSTALL EROSION CONTROL BARRIERS USING STAKED SILTATION FENCE AND MULCH SOCK (OR SIMILAR INVASIVE-FREE BARRIER). ALONG THE LIMIT OF WORK ZONE OF THE REPLICATION AREA, THESE CONTROL BARRIERS WILL REMAIN IN PLACE AND BE MAINTAINED UNTIL ALL REPLICATION AREAS ARE COMPLETELY STABILIZED. REMOVE TREES AND VEGETATION AS NEEDED FOR CONSTRUCTION.
2. EXCAVATION OF EXISTING BWV: CLEAR TREES, SHRUBS AND GRUB STUMPS IN THE PROPOSED REPLICATION AREA UP TO THE EDGE OF THE BORDERING VEGETATED WETLAND, AS DELINEATED BY STAKED SILTATION FENCING. AN EXCAVATOR SHALL REMOVE EXISTING ORGANIC SOILS UP TO THE EDGE OF THE STAKED AREA BOUNDARY. THE WETLAND SCIENTIST SHALL DETERMINE THE DEPTH OF EXCAVATION ON-SITE. EXCAVATED ORGANIC SOILS FROM FILL AREAS SHALL BE STOCKPILED OUTSIDE THE BUFFER OF BWV. CARE SHALL BE TAKEN TO AVOID CONTACT WITH OTHER NON-WETLAND SOILS THAT MAY CONTAIN SEEDS OF UNDESIRABLE PLANT SPECIES.
3. EXCAVATION OF EXISTING ISOLATED WETLAND: CLEAR TREES, SHRUBS AND GRUB STUMPS IN ISOLATED WETLAND AREA. PREPARE A STAGING AREA FOR LEAF LITTER, TOP SOIL, AND SUBSOIL. ORGANIC SOIL LAYERS IN THE ISOLATED WETLAND AREA SHALL BE REMOVED TO A DEPTH AT WHICH REDOMORPHIC FEATURES BECOME VISIBLE AND RELOCATED TO THE STAGING AREA OUTSIDE OF THE BWV. WETLAND SCIENTIST SHALL DETERMINE THE DEPTH OF EXCAVATION ON-SITE OF EACH SOIL LAYER. CARE SHALL BE TAKEN TO AVOID CONTACT WITH OTHER NON-WETLAND SOILS THAT MAY CONTAIN SEEDS OF UNDESIRABLE PLANT SPECIES.
4. RELOCATION OF SOILS: RELOCATE SOILS EXCAVATED FROM THE ISOLATED WETLAND TO THE PROPOSED REPLICATION AREA BEGINNING WITH THE SUB SOIL, THEN TOP SOIL, THE LEAF LITTER LAYER. WETLAND SCIENTIST SHALL DETERMINE DEPTH OF EACH LAYER ON-SITE BEING RELOCATED TO MATCH EXISTING CONDITIONS, AS FEASIBLE. GRADING OF RELOCATED SOILS SHOULD MATCH GRADING OF EXISTING SURROUNDING CONDITIONS. IF EXCAVATED SOILS FROM ISOLATED WETLAND DO NOT ENTIRELY FILL EXCAVATED AREA AT REPLICATION SITE, TOP SOIL FROM AN OFFSITE LOCATION MAY BE USED AS LONG AS IT HAS BEEN DETERMINED TO BE WEED-SEED FREE AND HAVE AN ORGANIC CONTENT BETWEEN 12-20%.
5. PLANTING PREPARATION: PRIOR TO PLANTING, WOODY DEBRIS OF VARIOUS SIZES SHALL BE RANDOMLY PLACED WITHIN REPLICATION AREA AND SILTATION FENCING.
6. PLANTING: PRECISE SITING OF PLANTS MAY BE DETERMINED BY THE SUPERVISING WETLAND SCIENTIST IN THE FIELD PRIOR TO INSTALLATION. ALL PLANTS SHALL BE DISTRIBUTED RANDOMLY THROUGHOUT THE AREA, TREES TO BE SPACED 12 FEET ON CENTER, SHRUBS SPACED AT 6' ON CENTER AND HERBACEOUS SPECIES 18" ON CENTER. LEAF LITTER SHALL BE SPREAD THROUGHOUT AREA.
7. REPLICATION MONITORING:
 - A. EARLY SUMMER AND EARLY FALL MONITORING REPORTS SHALL BE PREPARED FOR THE REPLICATION AREA BY A QUALIFIED WETLAND SCIENTIST FOR A PERIOD OF 2 ADDITIONAL YEARS AFTER INSTALLATION. THIS MONITORING REPORTS SHALL INCLUDE PHOTOGRAPHS AND DETAILS ABOUT VEGETATION RE-ESTABLISHMENT OF THE REPLICATION AREA. MONITORING REPORTS SHALL BE SUBMITTED TO THE COMMISSION BY OCTOBER 30TH OF EACH YEAR AND DESCRIBE, USING NARRATIVES, PLANS, AND COLOR PHOTOGRAPHS, THE PHYSICAL CHARACTERISTICS OF THE REPLICATION AREA WITH RESPECT TO STABILITY, SOIL CHARACTERISTICS, SURVIVAL OF VEGETATION AND PLANT MORTALITY, AERIAL EXTENT AND DISTRIBUTION, SPECIES DIVERSITY AND VERTICAL STRATIFICATION (I.E. HERB, SHRUB AND TREE LAYERS).
 - B. AT LEAST 75% OF THE SURFACE AREA OF THE REPLICATION AREA SHALL BE RE-ESTABLISHED WITH INDIGENOUS PLANT SPECIES WITHIN TWO GROWING SEASONS. IF THE REPLICATION AREA DOES NOT MEET THE 75% RE-VEGETATION REQUIREMENT BY THE END OF THE SECOND GROWING SEASON AFTER INSTALLATION, THE APPLICANT SHALL SUBMIT A REMEDIATION PLAN TO THE COMMISSION FOR APPROVAL THAT SHALL ACHIEVE THE REPLICATION GOALS UNDER THE SUPERVISION OF A SUPERVISING WETLAND SCIENTIST. THIS PLAN MUST INCLUDE AN ANALYSIS OF WHY THE AREAS HAVE NOT SUCCESSFULLY RE-VEGETATED AND HOW THE APPLICANT INTENDS TO RESOLVE THE PROBLEM.
8. SURVEYING AS-BUILT CONDITIONS: ONCE THE CRITERIA FOR 75% COVER OF INDIGENOUS SPECIES AFTER TWO GROWING SEASONS IS MET, THE REPLICATION AREA SHALL BE SURVEYED TO DEFINE AS-BUILT CONDITIONS. THE AS-BUILT PLAN SHALL BE SUBMITTED TO THE CONSERVATION COMMISSION ALONG WITH A REQUEST FOR A CERTIFICATE OF COMPLIANCE. THE WETLAND SCIENTIST WILL BE REQUIRED TO VERIFY THE NEW WETLAND BOUNDARIES OF REPLICATION WETLAND(S) PRIOR TO SURVEYING.

DRA

Drumrey Rosane Anderson, Inc.
 225 Oakland Road Studio
 205 South Windsor, CT 06074
 860.644.8300
 info@draws.com

Planning | Architecture | Interior Design

THE GRAFTON PUBLIC LIBRARY

GRAFTON, MA

Berkshire Design Group

4 ALLEN PLACE
 NORTHAMPTON, MA 01060
 T: (413) 582-7000

PLANTING PLAN OPTION A

PROJECT NORTH

Scale: 1"=20'-0"

Job No.: WDS

Drawn By: WDS

Date: 1/30/2019

L-301