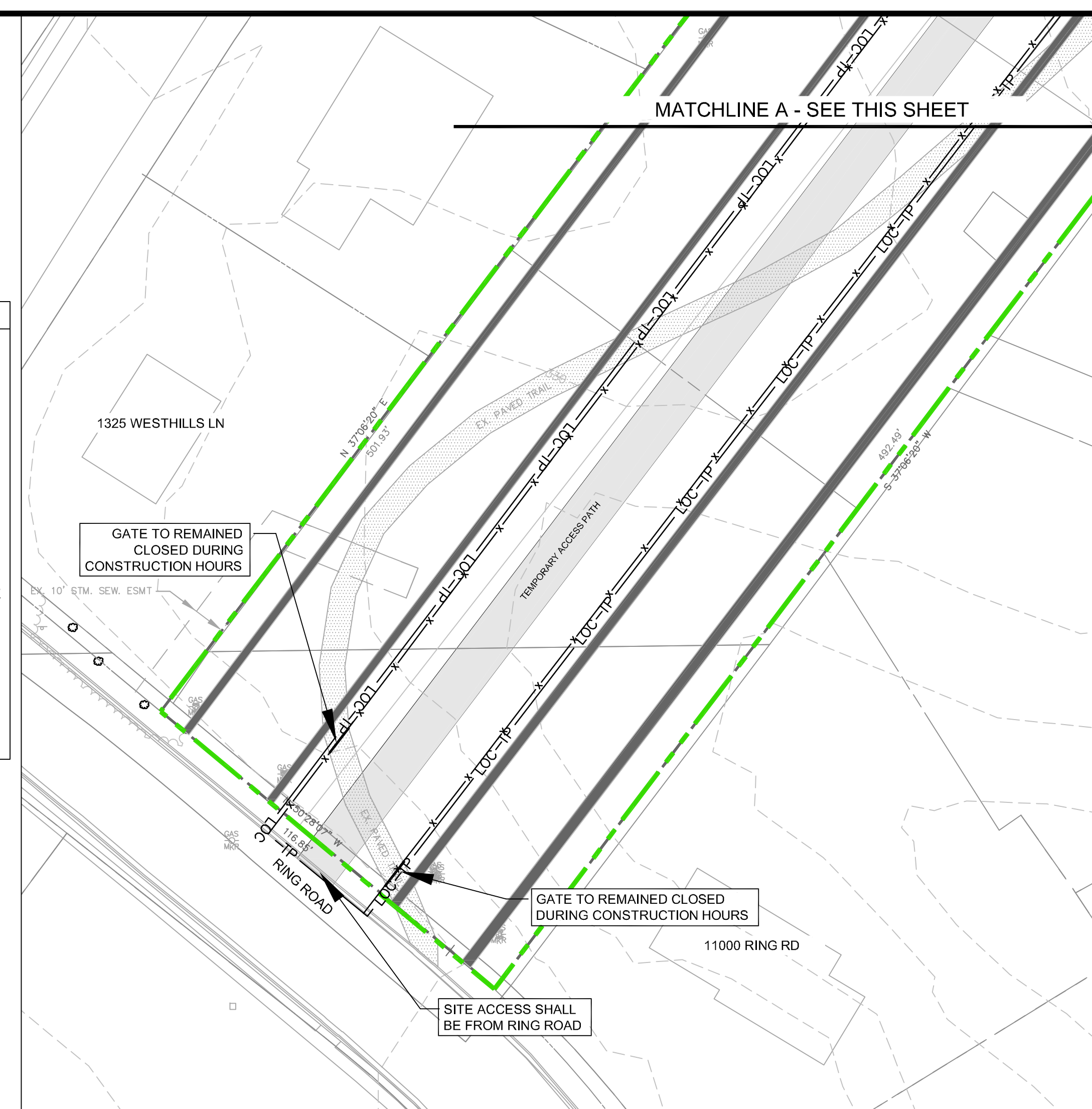
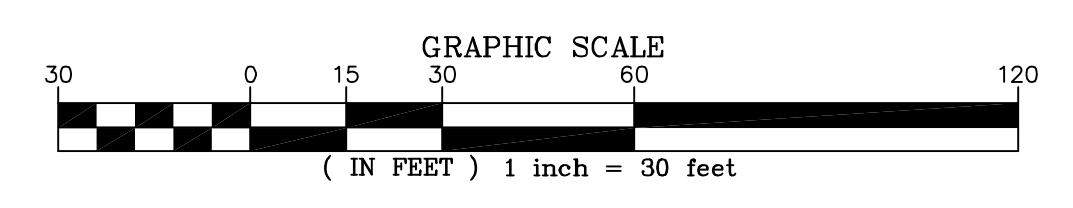


PROPOSED STREAM LENGTH:
BUTTERMILK CREEK = 1,440'
TRIBUTARY #1 = 227'
TRIBUTARY #2 = 120'
TRIBUTARY #3 = 54'
TOTAL STREAM LENGTH = 1,841'

PRELIMINARY PLAN LEGEND

	TEMP. GRADING & CONST. ESMNT, & INGRESS-EGRESS ESMNT		NEST
	PROPOSED STREAM ESMNT		CAVITY
	PROPOSED STREAM ESMNT, TEMP. GRADING & CONST. ESMNT, & INGRESS-EGRESS ESMNT		VERNAL POOL
	EXISTING CONTOURS (0.5')		SNAG
	EXISTING INFRASTRUCTURE		DEN
	NON-PERENNIAL STREAM (EXISTING TOP OF BANK)		ACCESS PATH
	PERENNIAL STREAM (EXISTING TOP OF BANK)		TREE TO BE REMOVED
	LTS		LIMITS OF CLEARING/TREE PROTECTION FENCE
	PROPOSED BANKFULL TOP OF BANK		CHAIN LINK FENCE
	PROPOSED CENTERLINE		PEDESTRIAN GATE
	PROPOSED CONTOURS (0.5')		

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 Colvin Run - Buttermilk Creek
 Fairfax County, Virginia

Preliminary Plan

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Boundary and Topo Source: WSSI and Fairfax Digital Data

Design	Draft	Approved
SRP	SRP	FRG

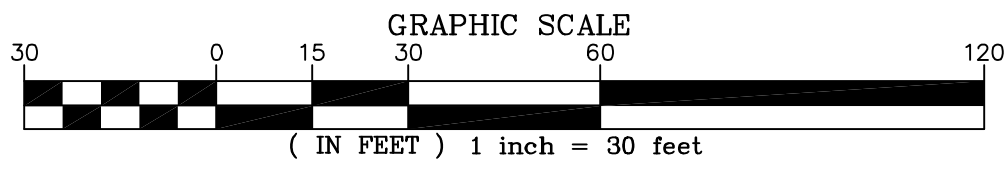
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1 of 5

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DATE: FEBRUARY 11, 2012 SCALE: 1" = 30' C.I. = 0.5'



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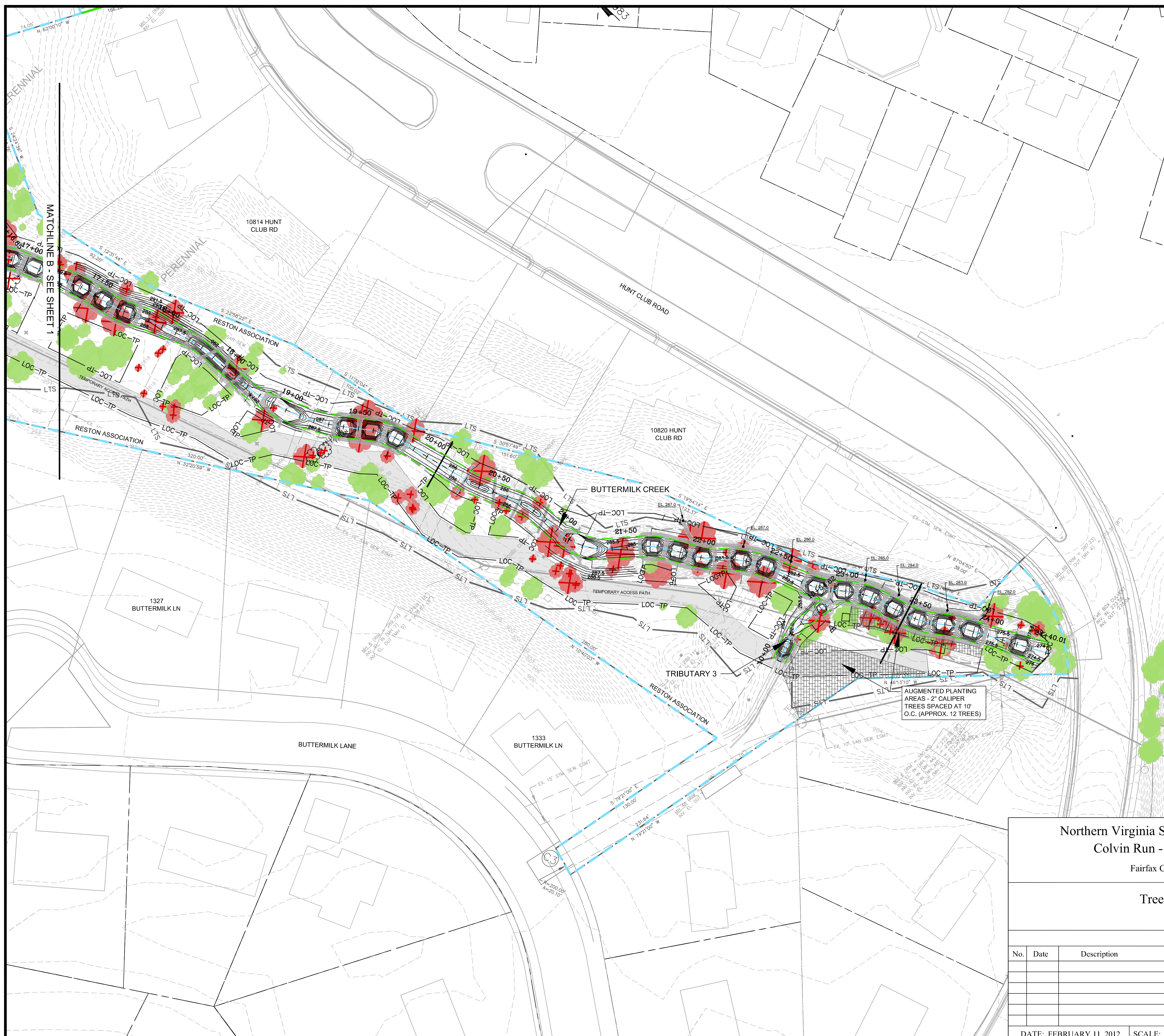
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SRP	SRP	FRG

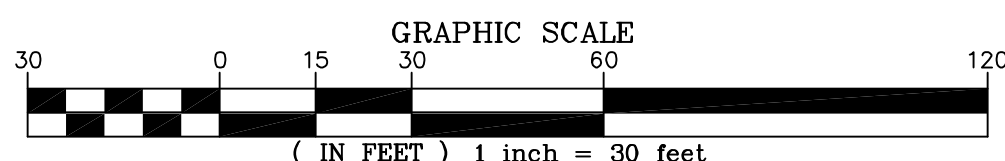
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3 of 5

Computer File Name:
C:\Users\jmc\Documents\2012\NSRB\Colvin Run\Tree Save Plan.dwg

DATE: FEBRUARY 11, 2012 SCALE: 1"=30' C.I. = 0.5'



TREE SAVE PLAN LEGEND	
--- TEMP. GRADING & CONST. ESMNT, & INGRESS-EGRESS ESMNT	▲ NEST
--- PROPOSED STREAM ESMNT	■ CAVITY
--- PROPOSED STREAM ESMNT, TEMP. GRADING & CONST. ESMNT, & INGRESS-EGRESS ESMNT	● VERNAL POOL
--- EXISTING CONTOURS (0.5')	◆ SNAG
--- EXISTING INFRASTRUCTURE	⊕ DEN
--- FLOODPLAIN EASEMENT	--- ACCESS PATH
--- NON-PERENNIAL STREAM (EXISTING TOP OF BANK)	--- LIMITS OF CLEARING/TREE PROTECTION FENCE
--- LTS --- LIMITS OF TREE SURVEY	--- PEDESTRIAN BARRICADE
--- PROPOSED BANKFULL TOP OF BANK	● TREE TO BE REMOVED
--- PROPOSED CENTERLINE	● TREE NOT TO BE DISTURBED
--- PROPOSED CONTOURS (0.5')	● TREE DOWN, DAMAGED, OR REMOVED
--- LOMA --- LIMITS OF MOWED AREA	




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Tree Save Plan

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DATE: FEBRUARY 11, 2012 SCALE: 1"=30' C.I. = 0.5'

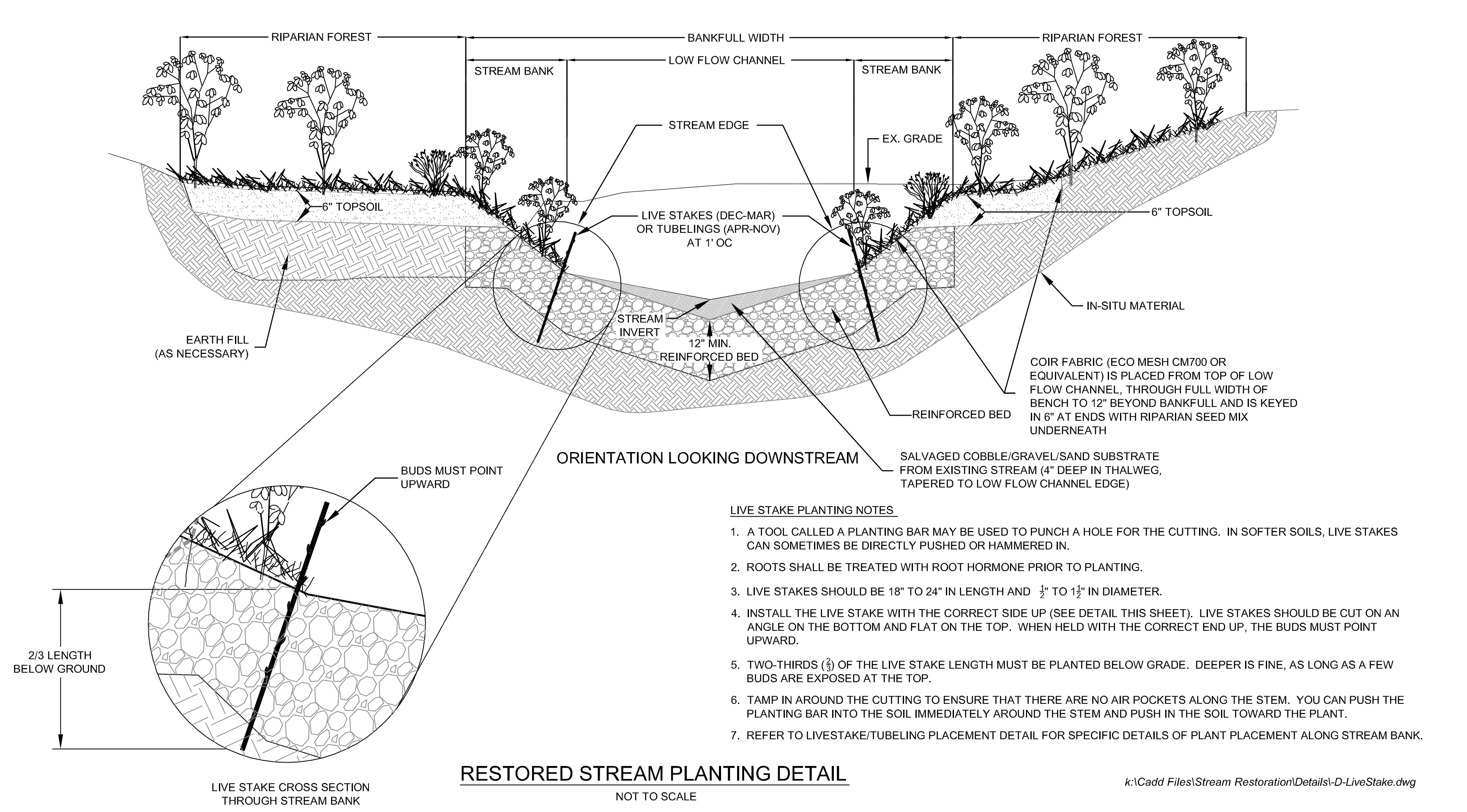
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Boundary and Topo Source:
WSSI and Fairfax Digital Data

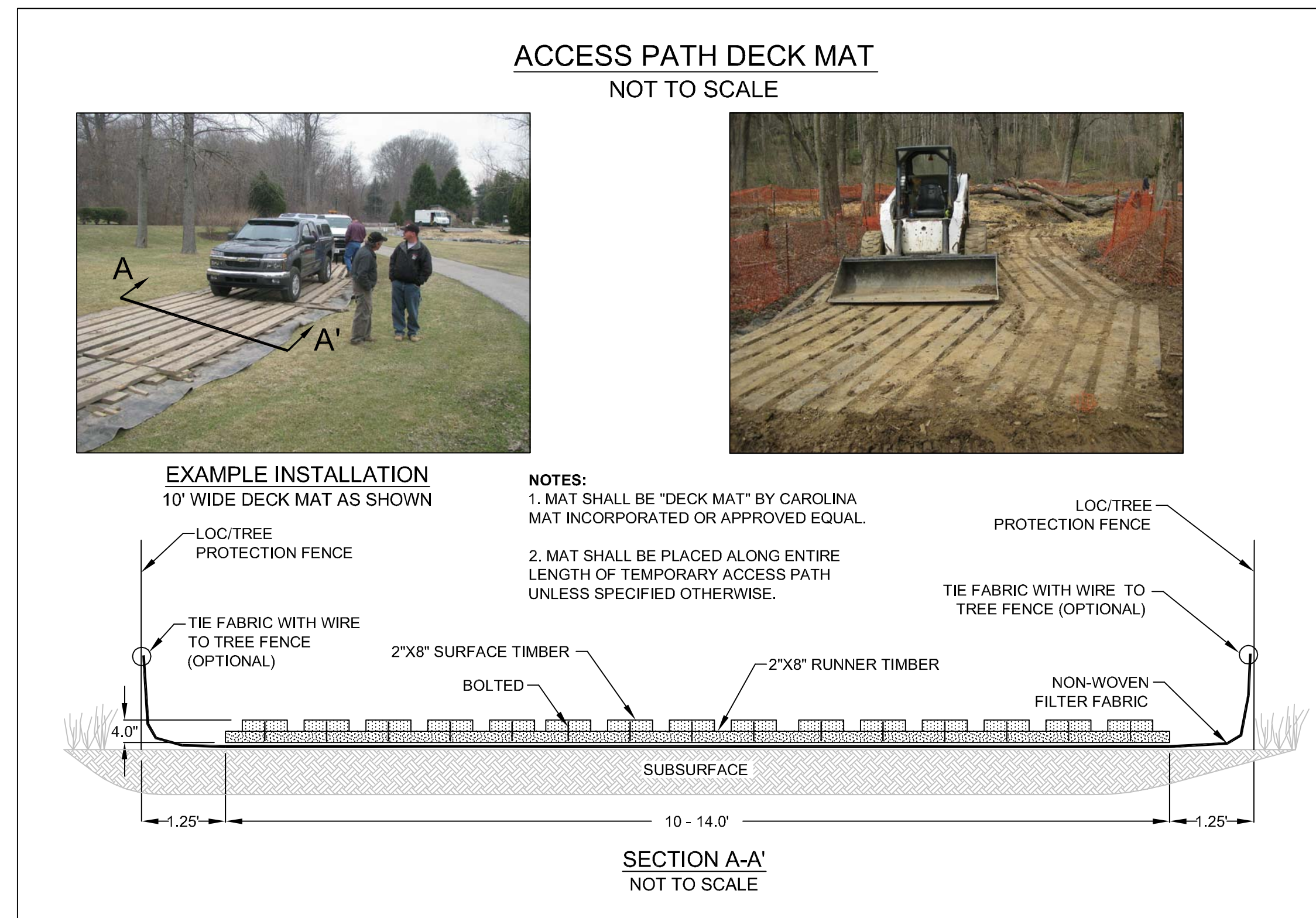
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Sheet #
4 of 5

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TRF_SAVE_12.dwg



- LIVE STAKE PLANTING NOTES**
1. A TOOL CALLED A PLANTING BAR MAY BE USED TO PUNCH A HOLE FOR THE CUTTING. IN SOFTER SOILS, LIVE STAKES CAN SOMETIMES BE DIRECTLY PUSHED OR HAMMERED IN.
 2. ROOTS SHALL BE TREATED WITH ROOT HORMONE PRIOR TO PLANTING.
 3. LIVE STAKES SHOULD BE 18" TO 24" IN LENGTH AND 3/8" TO 1 1/2" IN DIAMETER.
 4. INSTALL THE LIVE STAKE WITH THE CORRECT SIDE UP (SEE DETAIL THIS SHEET). LIVE STAKES SHOULD BE CUT ON AN ANGLE ON THE BOTTOM AND FLAT ON THE TOP. WHEN HELD WITH THE CORRECT END UP, THE BUDDS MUST POINT UPWARD.
 5. TWO-THIRDS (2/3) OF THE LIVE STAKE LENGTH MUST BE PLANTED BELOW GRADE. DEEPER IS FINE, AS LONG AS A FEW BUDDS ARE EXPOSED AT THE TOP.
 6. TAMP IN AROUND THE CUTTING TO ENSURE THAT THERE ARE NO AIR POCKETS ALONG THE STEM. YOU CAN PUSH THE PLANTING BAR INTO THE SOIL IMMEDIATELY AROUND THE STEM AND PUSH IN THE SOIL TOWARD THE PLANT.
 7. REFER TO LIVESTAKE/TUBELING PLACEMENT DETAIL FOR SPECIFIC DETAILS OF PLANT PLACEMENT ALONG STREAM BANK.



PLANTING SCHEDULE					
CONTAINER PLANTING ZONE	SPECIES GROUP ^{1,2}	SPECIES ²	INDICATOR STATUS	PLANT SPACING ³	CONTAINER SIZE, RATE, AND QUANTITY ⁴
RIPARIAN FOREST	1	QUERCUS ALBA (WHITE OAK)	FACU-	SEE NOTE #3	300 ONE-GALLON TUBELINGS
		QUERCUS BICOLOR (SWAMP WHITE OAK)	FACW+	SEE NOTE #3	800 TUBELINGS
		QUERCUS PALMIS TRIS (PIN OAK)	FACW	SEE NOTE #3	800 TUBELINGS
		QUERCUS PHELLOS (WILLOW OAK)	FAC+	SEE NOTE #3	MIX AT 1:2 RATIO
		QUERCUS RUBRA (NORTHERN RED OAK)	FACU-	SEE NOTE #3	MIX AT 1:2 RATIO
	2	ACER NEGUNDO (BOX ELDER)	FAC+	SEE NOTE #3	150 ONE-GALLON
		ACER RUBRUM (RED MAPLE)	FAC	SEE NOTE #3	300 TUBELINGS
		BETULA NIGRA (RIVER BIRCH)	FACW	SEE NOTE #3	300 TUBELINGS
		LIODIAMBAR STYRACIFULA (SWEET GUM)	FAC	SEE NOTE #3	MIX AT 1:2 RATIO
		NYSSA SYLVATICA (BLACK GUM)	FACW+	SEE NOTE #3	MIX AT 1:2 RATIO
3	PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	FACW-	SEE NOTE #3	100 ONE-GALLON	
	ILEX OPACA (AMERICAN HOLLY)	FACU+	SEE NOTE #3	200 TUBELINGS	
				200 TUBELINGS	
				MIX AT 1:2 RATIO	
				MIX AT 1:2 RATIO	
SHRUB LAYER	4	AMELANCHIER CANADENSIS (CANADIAN SERVICE BERRY)	FAC	SEE NOTE #3	150 ONE-GALLON
		CERCIS CANADENSIS (EASTERN REDBUD)	FACU-	SEE NOTE #3	300 TUBELINGS
		CORNUS FLORIDA (FLOWERING DOGWOOD)	FACU-	SEE NOTE #3	300 TUBELINGS
		CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU-	SEE NOTE #3	MIX AT 1:2 RATIO
		LINDERA BENZOIN (NORTHERN SPRUCEBUSH)	FACW-	SEE NOTE #3	MIX AT 1:2 RATIO
VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC	SEE NOTE #3			
VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU	SEE NOTE #3			

SEEDING SCHEDULE					
SEED PLANTING ZONE	SPECIES GROUP ^{1,2}	SPECIES ²	INDICATOR STATUS	SEEDING RATE ³ (LBS/AC)	
RIPARIAN BUFFER SEED MIX	7	LOLIUM MULTIFLORUM (ANNUAL RYEGRASS)	NI	45.00	
		SETARIA ITALICA (FOXTAIL MILLET) (OR ECHINOCHLOA CRUSGALII VAR. FRUMENTACEA)	UPL	45.00	
	8	CAREX SCOPARIA (BLUNT BROOM SEDGE)	FACW	0.20	
		CAREX SQUARROSA (SQUARROSE SEDGE)	NI	0.20	
		CAREX VULPINOIDEA (FOX SEDGE)	OBL	0.20	
		CYPERUS ESCULENTUS (CHUFA)	FACW	0.20	
		JUNCUS EFFUSUS (SOFT RUSH)	FACW+	0.20	
	9	JUNCUS TENUIS (PATH RUSH)	FAC-	0.20	
		ELYMUS RIPARIUS (RIVERBANK WILD RYE)	FACW	10.00	
	10	ELYMUS VIRGINICUS (VIRGINIA WILD RYE)	FACW-	10.00	
		PANICUM CLANDESTINUM (DEER TONGUE GRASS)	FAC+	10.00	
		PANICUM DICHOTOMIFLORUM (SMOOTH PANIC GRASS)	FACW-	10.00	
		ANEMONE VIRGINIANA (THIMBLEWEED)	NI	0.10	
		ASTER NOVAE-ANGLIAE (NEW ENGLAND ASTER)	FACW-	0.10	
	11	ASTER PILOSUS (HEATH ASTER)	UPL	0.10	
ASTER PRENANTHOIDES (ZIG ZAG ASTER)		FAC	0.10		
LILIU SUPERBUM (TURKISH CAP LILY)		FACW+	0.10		
SOLIDAGO JUNCEA (EARLY GOLDENROD)		UPL	0.10		
SOLIDAGO CANADENSIS (CANADIAN GOLDENROD)		FACU	0.10		
12	SOLIDAGO SPECIOSA (SHOWY GOLDENROD)	UPL	0.10		
	VERNONIA NOVEBORACENSIS (NEW YORK IRONWEED)	FACW+	0.10		
	ZIZIA AUREA (GOLDEN ALEXANDERS)	FAC	0.10		
	ASCLEPIAS SYRIACA (COMMON MILKWEED)	UPL	0.20		
	BIDENS FRONDOSA (BEGGAR TICKS)	FACW	0.20		
13	HELENIUM AUTUMNALE (COMMON SNEEZEWEED)	FACW+	0.20		
	HELIANTHUS ANGSTIFOLIUS (NARROWLEAF SUNFLOWER)	FACW	0.20		
	ONOCLEA SENSIIBILIS (SENSITIVE FERN)	FACW	0.20		
	PENSTEMON DIGITALIS (PENSTEMON)	FAC	0.20		
	VERBENA HASTATA (BLUE VERVAIN)	FACW+	0.20		
14	VERBENA ALTERNIFOLIA (WINGSTEM)	FAC	0.20		
	COREOPSIS LANCEOLATA (LANE LEAVED COREOPSIS)	FACU	0.20		
	HELIOPSIS HELIANTHOIDES (OXEYE SUNFLOWER)	UPL	0.20		
	POLYGONUM PENNSYLVANICUM (PA SMARTWEED)	FACW	0.20		
	RUBROCKIA HIRTA (BLACK EYED SUSAN)	FACU-	0.20		
15	SENA HEBE CARPA (WILD SENNA)	FAC	0.20		
	AMELANCHIER CANADENSIS (CANADIAN SERVICE BERRY)	FAC	0.20		
	ARONIA MELANOCARPA (BLACK CHOKEBERRY)	UPL	0.20		
	HAMAMELIS VIRGINIANA (WITCH HAZEL)	FAC-	0.20		
	ILEX VERTICILLATA (WINTER BERRY)	FACW+	0.20		
SEEDING TOTALS				137.90	

- PLANTING AND SEEDING NOTES:**
1. IT IS EXPECTED AND PREFERRED THAT ALL SPECIES IN EACH OF THE SPECIES GROUPS ARE PLANTED. THE TOLERANCES LISTED IN THIS NOTE ARE INTENDED TO INCORPORATE FLEXIBILITY ACCORDING TO SPECIES AVAILABILITY. AT A MINIMUM, CONTRACTOR TO PROVIDE AT LEAST:
 - A) 3 OF THE 5 SPECIES IN GROUP 1,
 - B) 4 OF THE 6 SPECIES IN GROUP 2,
 - C) ALL OF GROUP 3,
 - D) 5 OF THE 7 SPECIES IN GROUP 4,
 - E) 3 OF THE 5 SPECIES IN GROUP 5,
 - F) 3 OF THE 4 SPECIES IN GROUP 6 (WITH SALIX NIGRA A REQUIRED SPECIES),
 - G) ALL OF GROUP 7,
 - H) 4 OF THE 6 SPECIES IN GROUP 8,
 - I) 3 OF THE 4 SPECIES IN GROUP 9,
 - J) 5 OF 6 SPECIES IN GROUP 10,
 - K) 5 OF 7 IN GROUP 11,
 - L) 6 OF 8 IN GROUP 12,
 - M) 4 OF 5 IN GROUP 13,
 - N) 5 OF 8 IN GROUP 14, AND
 - O) 5 OF 6 IN GROUP 15.
 2. SUBSTITUTIONS FOR SELECTED SPECIES BASED UPON AVAILABILITY SHALL BE REQUESTED IN WRITING TO ENGINEER DOCUMENTING THE LACK OF AVAILABILITY IF THE FLEXIBILITY INHERENT IN THE ABOVE SCHEDULE IS STILL NOT SUFFICIENT. ENGINEER IS UNDER NO OBLIGATION TO APPROVE SUBSTITUTIONS.
 3. THE PLANTED TREES AND SHRUBS SHALL BE RANDOMLY SPACED AND SPECIES MIXED THROUGHOUT THE PLANTING AREAS.
 4. CONTAINER RATES AND QUANTITIES SHOWN FOR ONE GALLON SIZE. FOR PURPOSES OF SUBSTITUTION, TWO TUBELINGS ARE THE EQUIVALENT OF ONE 1-GALLON CONTAINER PLANT IN THIS SCHEDULE. CONTRACTOR MAY PROVIDE A MIX OF CONTAINER AND TUBELING SIZES FOR EACH SPECIES REQUIREMENT, PROVIDED THE RATIO OF TUBELINGS TO CONTAINERS IS NOT LESS THAN 2:1. EXCEPTION -- GROUP 6 (STREAM EDGE) SHALL BE PLANTED IN ACCORDANCE WITH NOTE #5.
 5. GROUP 6 (STREAM EDGE) ZONE SHALL BE PLANTED WITH TUBELINGS, OR AS LIVESTAKES (SALIX NIGRA ONLY, AND ONLY BETWEEN FEBRUARY 1 AND MARCH 31), NO ONE GALLONS ARE TO BE USED FOR ANY OF THIS GROUP'S SPECIES.
 6. STREAM BANK AND STREAM EDGE ZONES SHALL BE PLANTED SUCH THAT THE COMBINED MIX OF SPECIES IS SPACED APPROX. 3' O.C. AND 1' O.C. RESPECTIVELY. THESE ZONES SHALL NOT BE PLANTED SUCH THAT EACH INDIVIDUAL SPECIES IN THESE ZONES IS PLANTED AT THESE RATES, RESULTING IN TIGHTER SPACING.
 7. ALL SEEDING RATES ARE EXPRESSED IN POUNDS OF PURE LIVE SEED (PLS).

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