



ENGINEER  
WETLAND STUDIES AND  
SOLUTIONS, INC.

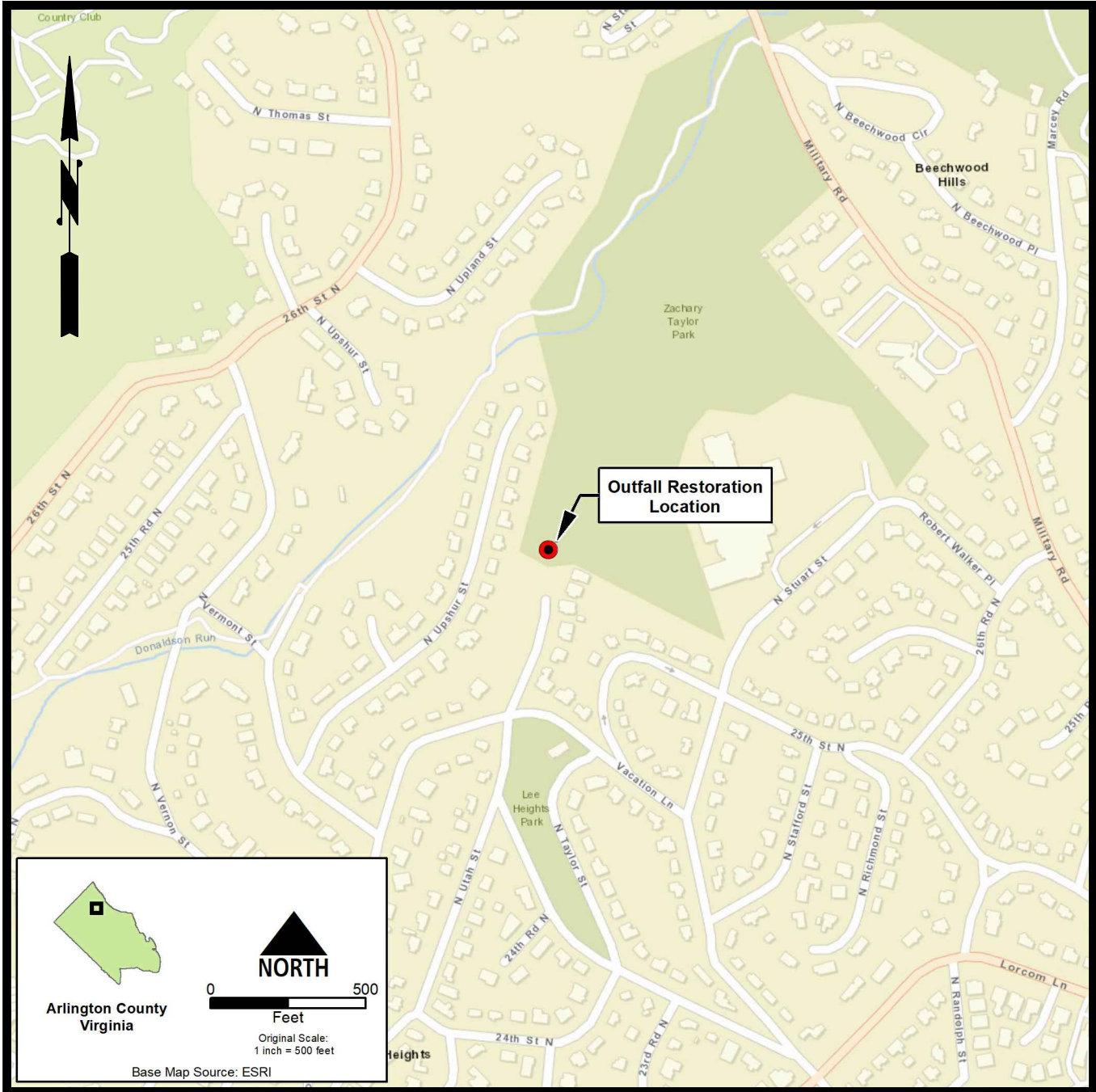
5300 WELLINGTON BRANCH DRIVE, SUITE 100  
GAINESVILLE, VA 20155  
PHONE: 703.679.5600  
WWW.WETLANDS.COM

OWNER  
DEPARTMENT OF  
ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629 FAX: 703.228.3606  
WWW.ARLINGTONVA.US

CONTRACTOR  
TO BE DETERMINED

LOCATION MAP



Source: ESRI 1" = 500'

THE SITE SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD RUN BOUNDARY AND HORIZONTAL CONTROL SURVEY

THE SITE SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 AS COMPUTED FROM A FIELD RUN VERTICAL CONTROL SURVEY.

PROJECT ADDRESS: 23355 N. UTAH STREET, ARLINGTON, VA 22207



GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
- ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
- EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
- ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

STORMWATER AND ENVIRONMENTAL PROTECTION

- THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

TREE PROTECTION

- TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

TRAFFIC CONTROL

- CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
- THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
- WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
- THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
- WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

- UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
- IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

FIRE DEPARTMENT NOTES:

- ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

SHEET LIST TABLE

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SWM#

SWM21-0254  
This Maintenance and Emergency Repair Project is exempt from stormwater quality requirements.

This Maintenance and Emergency Repair Project is for a stream channel previously restored using Natural Channel Design Techniques. Pursuant to 62.1-44.15:52 of the Virginia Legislative Code, "Stream restoration and relocation projects that incorporate Natural Channel Design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to this section or 62.1-44.15:54 or 62.1-44.15:65"

ADT

7,600 - MILITARY RD (FROM BEECHWOOD CIRCLE TO QUINCY STREET) - 2021 - VDOT

STREET CLASSIFICATION

MILITARY RD - MINOR ARTERIAL

POSTED SPEED

MILITARY RD - 30MPH



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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE


TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

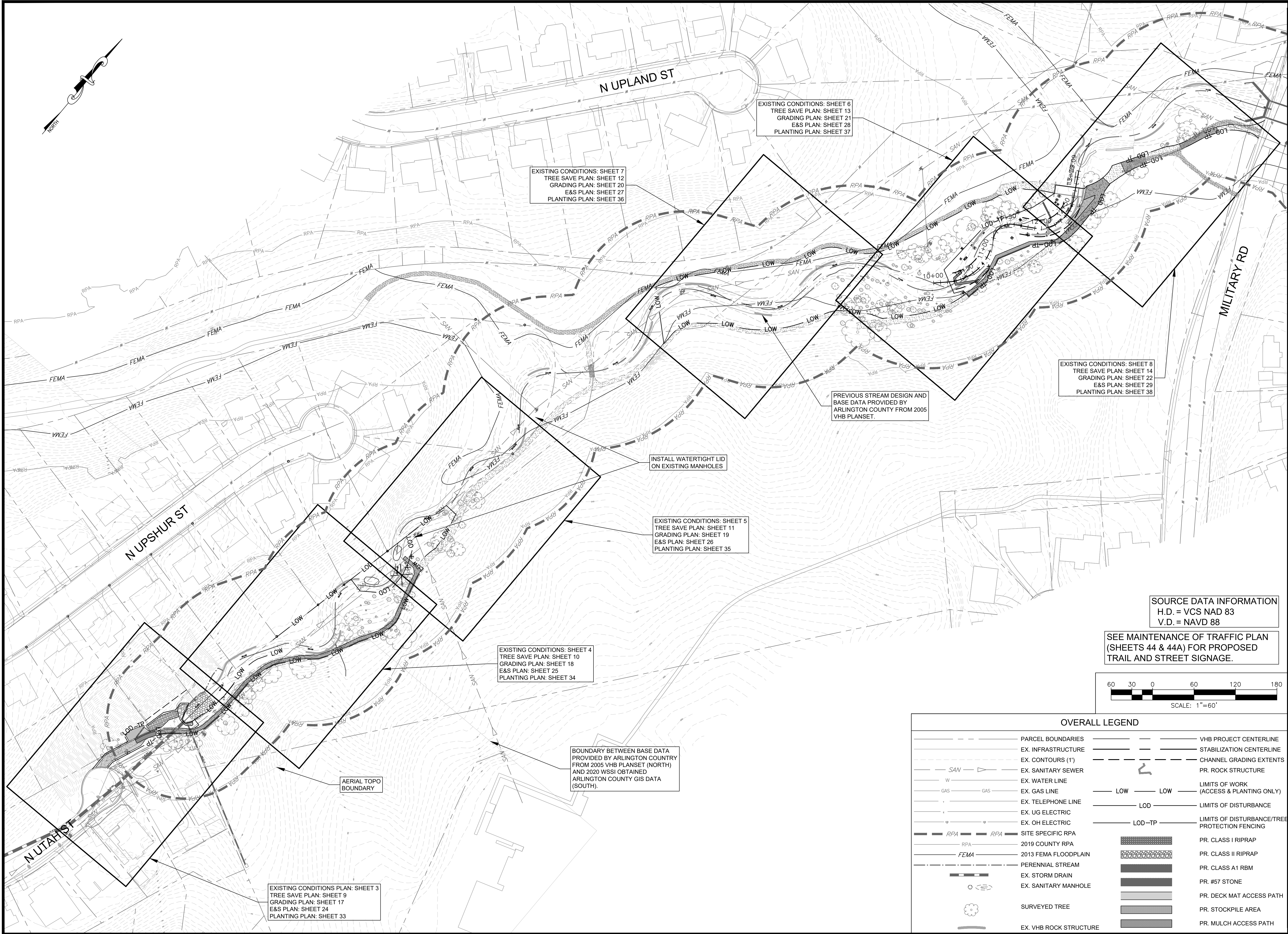
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DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A

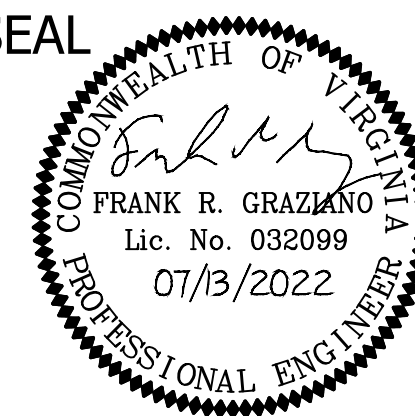




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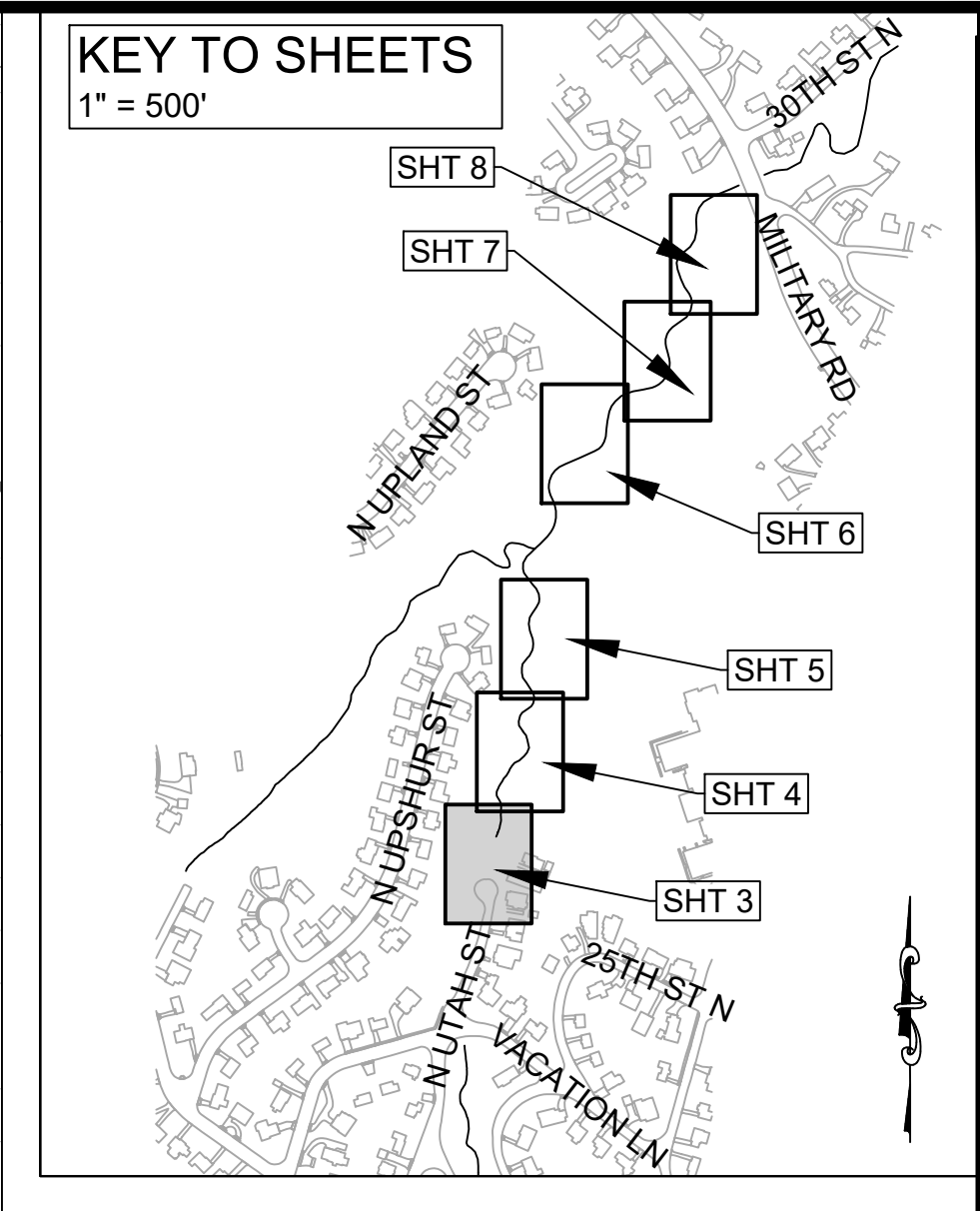
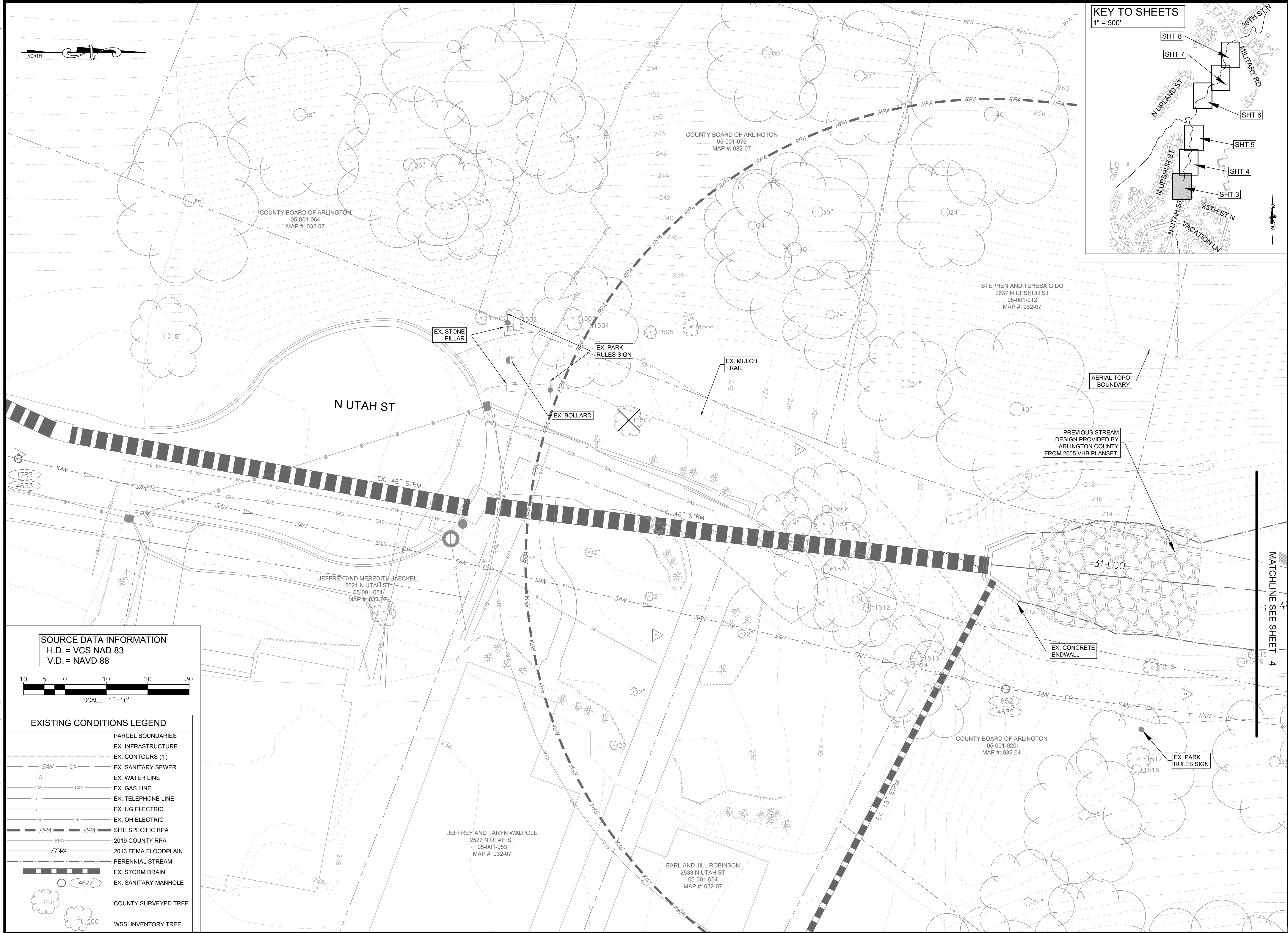
OVERALL SITE PLAN (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

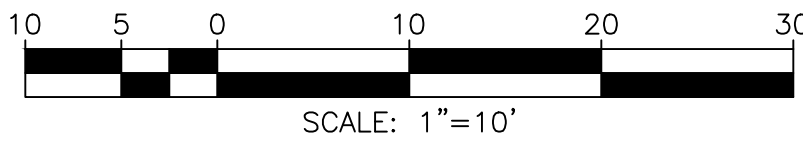
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SCALE: 1"=60'





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



EXISTING CONDITIONS LEGEND

	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE



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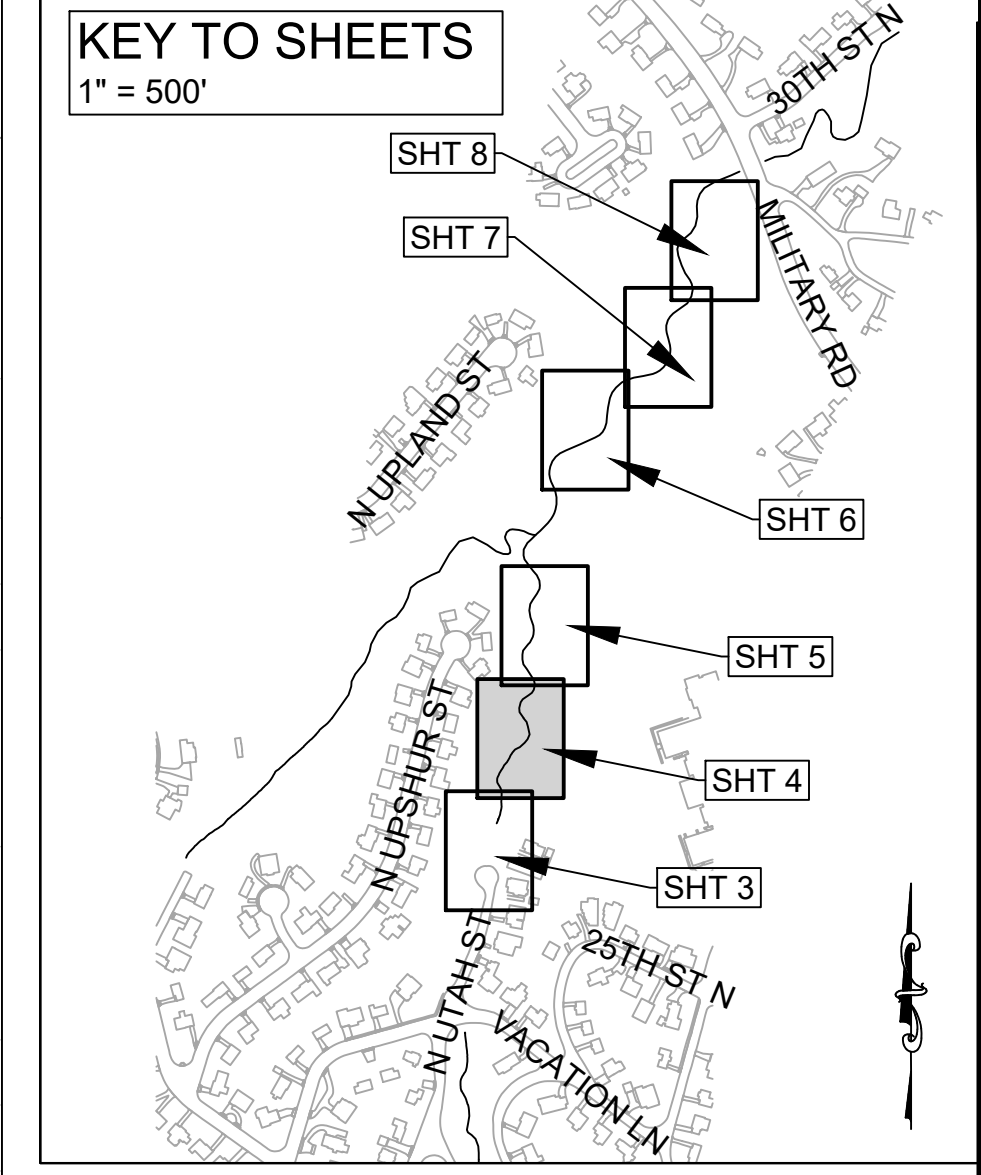
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
EXISTING CONDITIONS PLAN (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



EXISTING CONDITIONS LEGEND

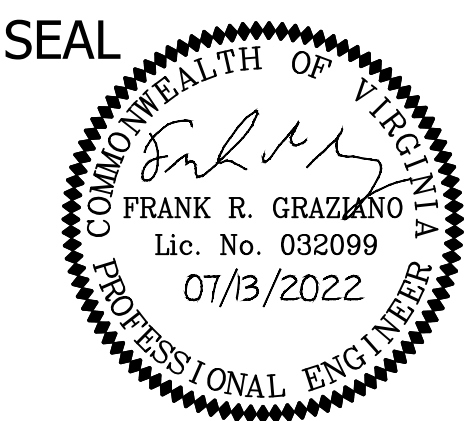
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	EX. WATER LINE
	EX. GAS LINE
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ARLINGTON COUNTY, VIRGINIA

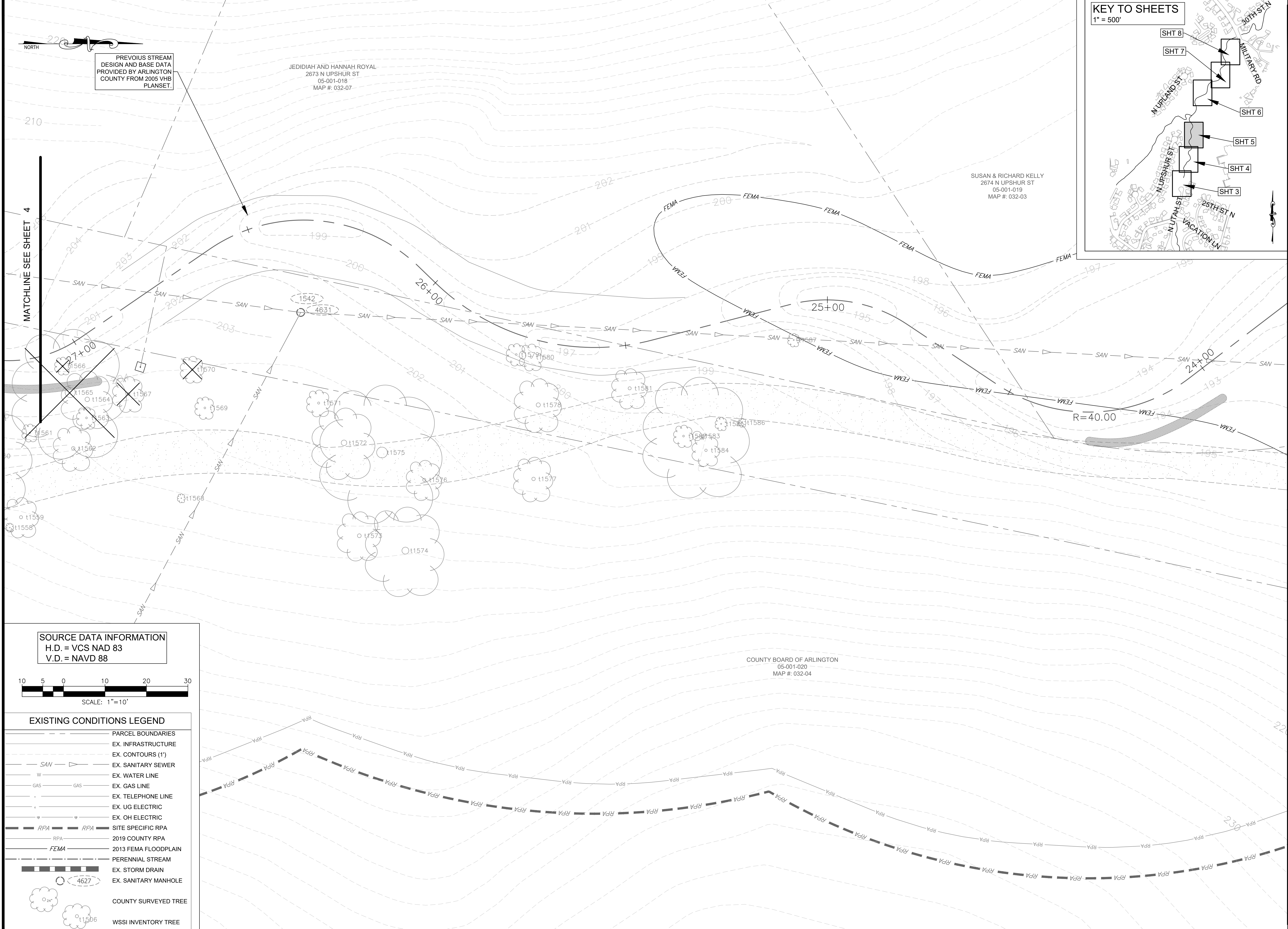
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DESIGNED: AMC  
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CHECKED: FRG

PLOTTED: JULY 13 2022

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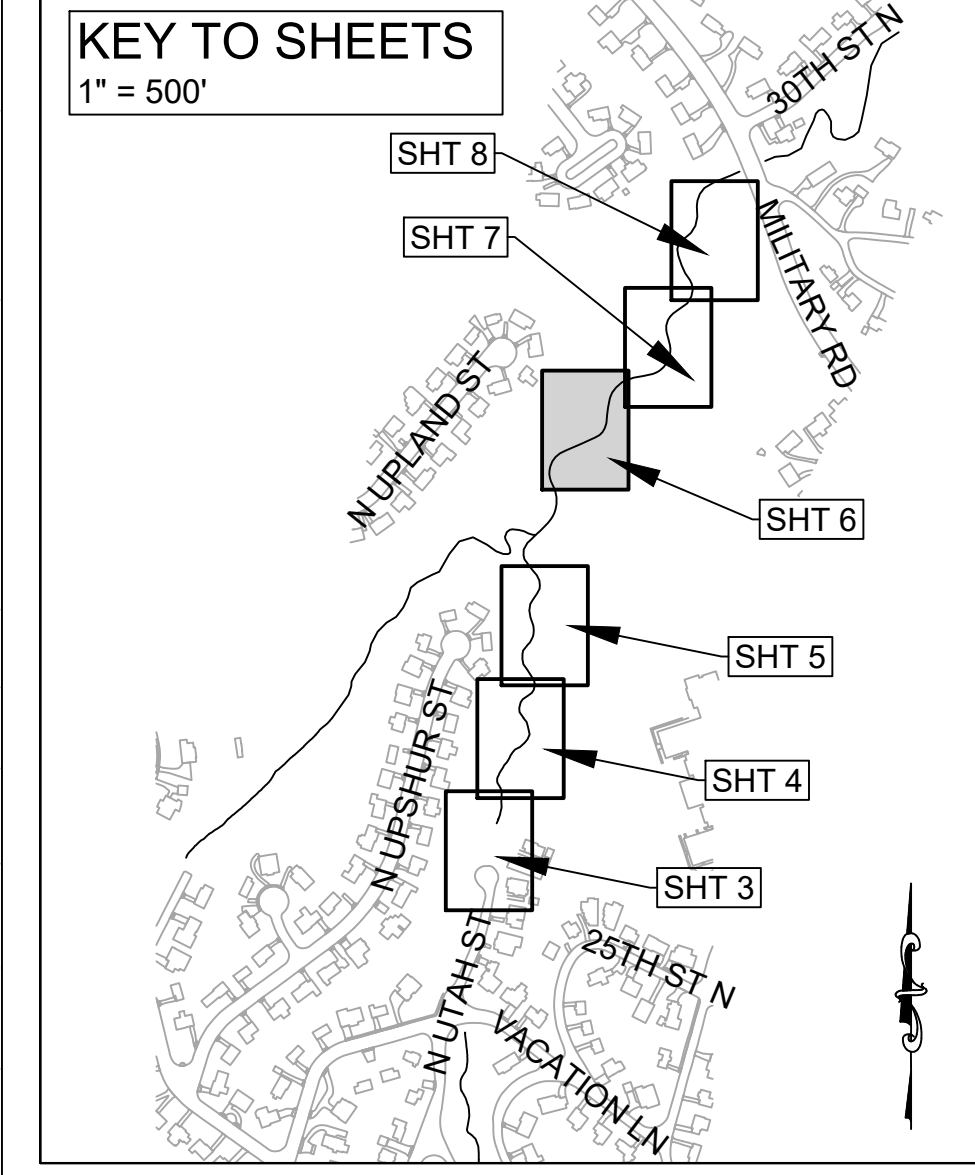
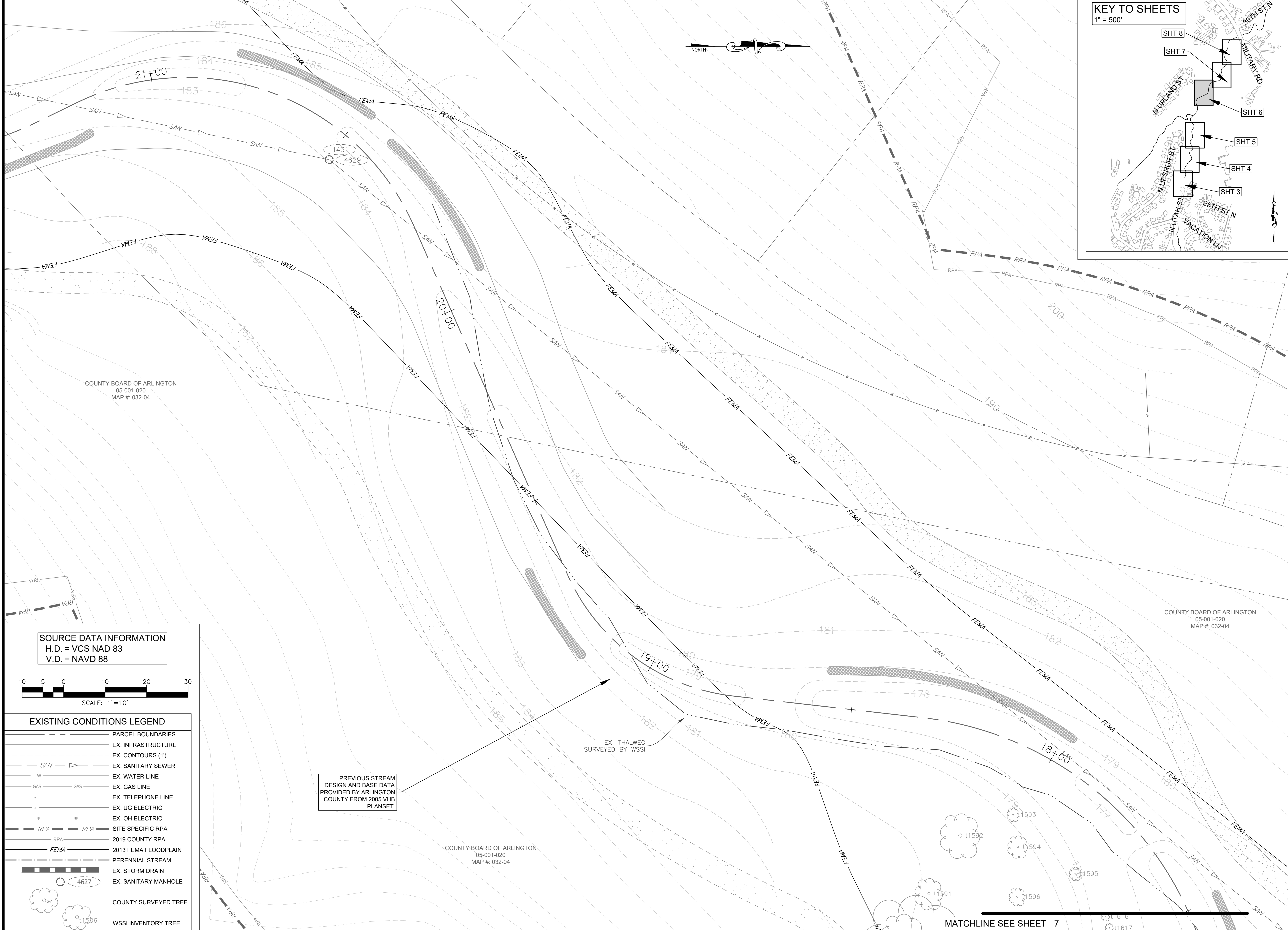




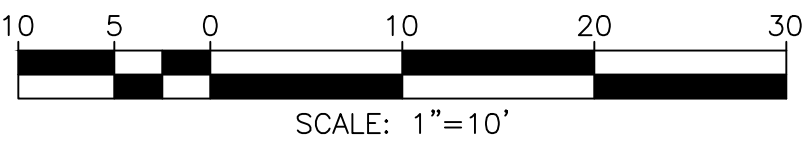


REVISED ON 1/24/2022

FILENAME: EXISTING CONDITIONS PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04\ENGR\07-FINAL PLOTTED BY: SH0036



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



EXISTING CONDITIONS LEGEND

- |  |                      |
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|  | PARCEL BOUNDARIES    |
|  | EX. INFRASTRUCTURE   |
|  | EX. CONTOURS (1')    |
|  | EX. SANITARY SEWER   |
|  | EX. WATER LINE       |
|  | EX. GAS LINE         |
|  | EX. TELEPHONE LINE   |
|  | EX. UG ELECTRIC      |
|  | EX. OH ELECTRIC      |
|  | SITE SPECIFIC RPA    |
|  | 2019 COUNTY RPA      |
|  | 2013 FEMA FLOODPLAIN |
|  | PERENNIAL STREAM     |
|  | EX. STORM DRAIN      |
|  | EX. SANITARY MANHOLE |
|  | COUNTY SURVEYED TREE |
|  | WSSI INVENTORY TREE  |

PREVIOUS STREAM  
DESIGN AND BASE DATA  
PROVIDED BY ARLINGTON  
COUNTY FROM 2005 VHB  
PLANSET.

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

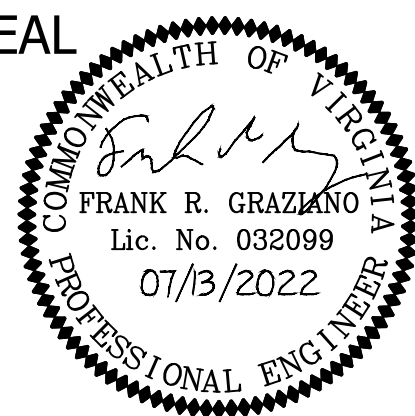
COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04



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DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

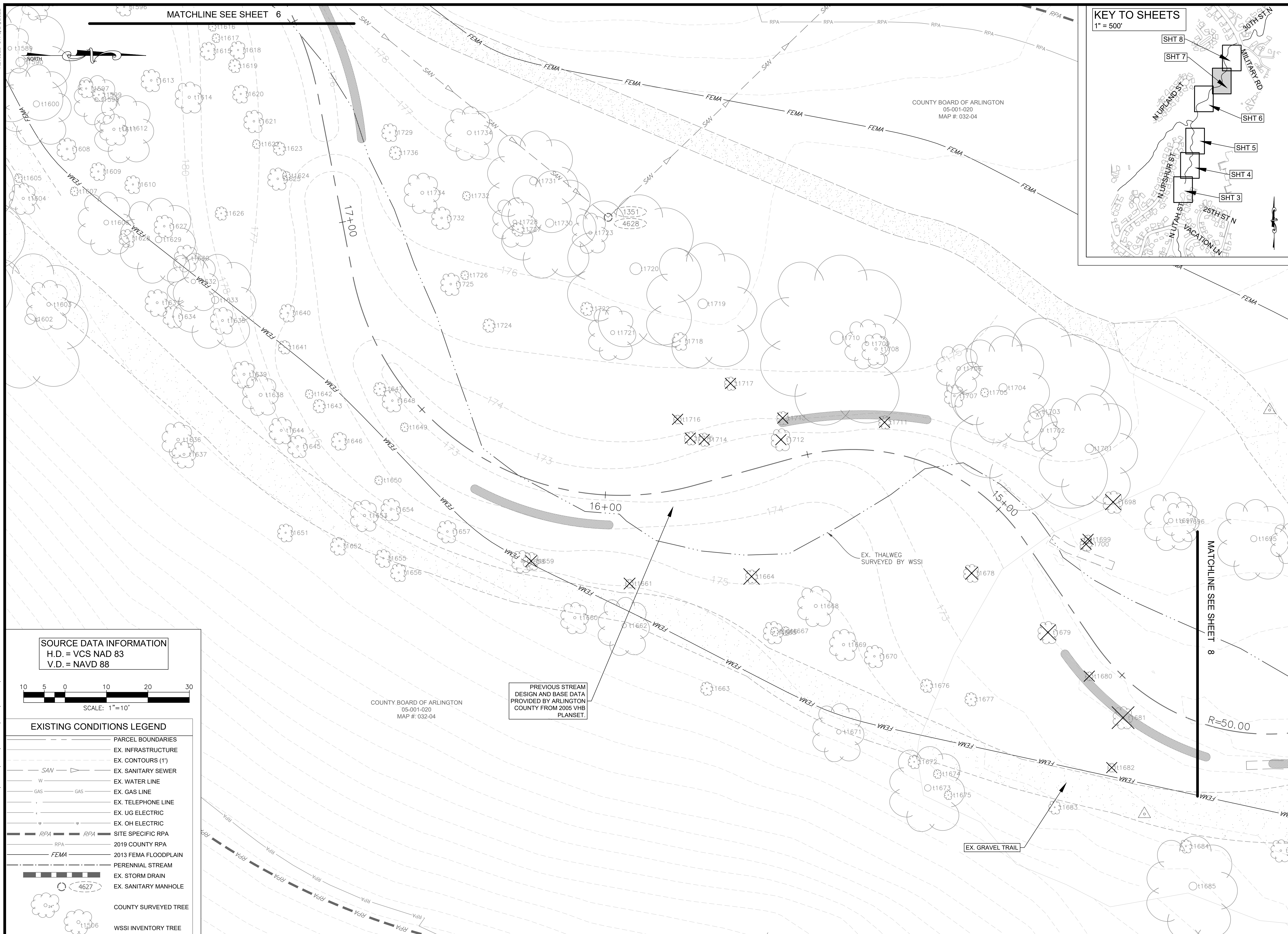
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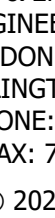

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DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

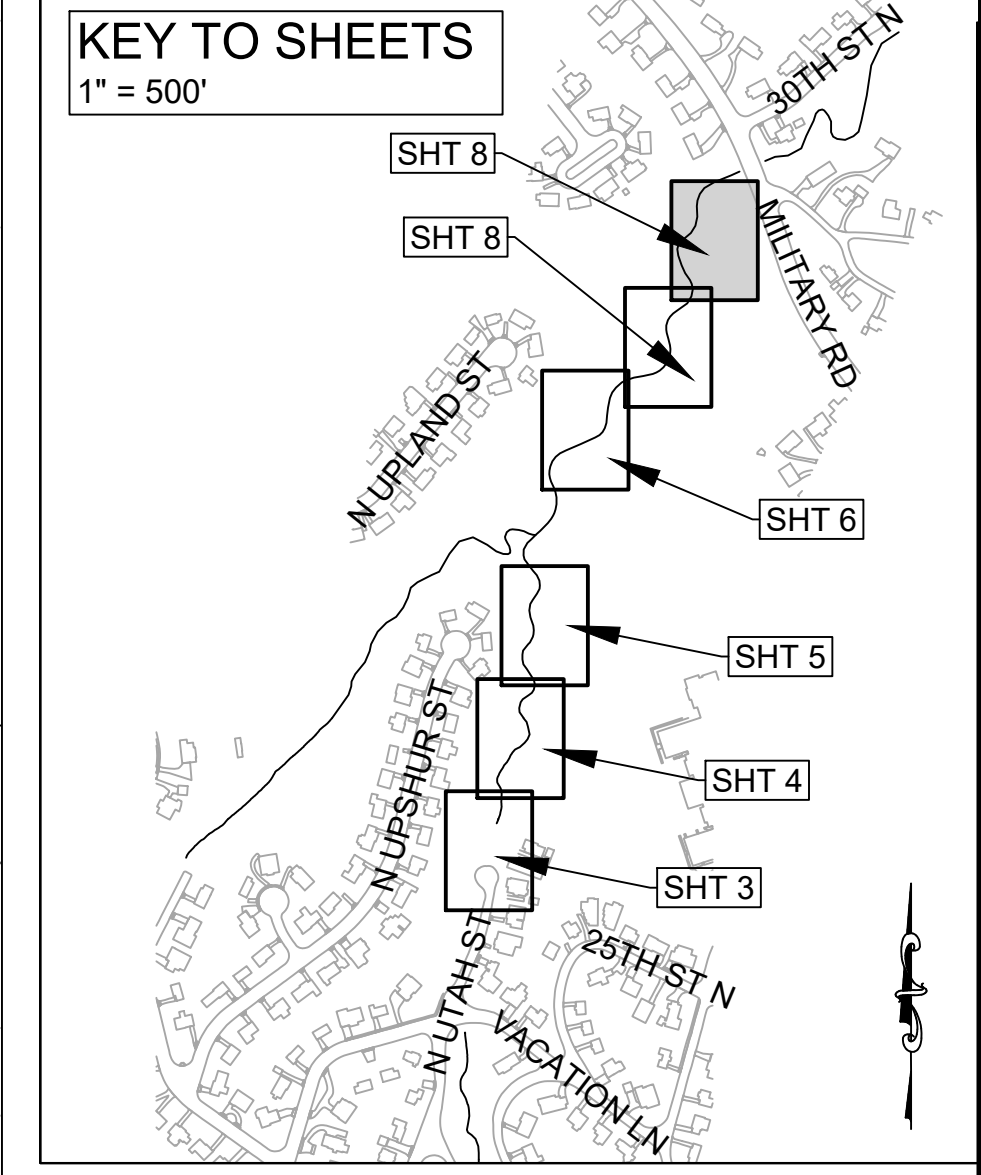
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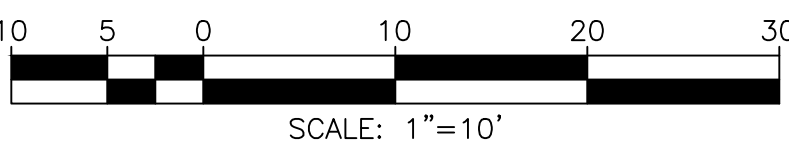


 <b>ARLINGTON VIRGINIA</b> DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED	
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<b>APPROVALS</b>	<b>DATE</b>
DESIGN TEAM ENGINEER SUPERVISOR _____	
CONSTRUCTION MANAGEMENT SUPERVISOR _____	
WATER, SEWER, STREETS BUREAU CHIEF _____	
TRANSPORTATION DIRECTOR _____	
PROJECT MANAGER _____	
<b>REVISIONS</b>	<b>DATE</b>
<hr/>	
<div><div>TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN</div><div>ARLINGTON COUNTY, VIRGINIA</div><div>EXISTING CONDITIONS PLAN (05)</div></div>	
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DESIGNED:	AMC
DRAWN:	AMC
CHECKED:	FRG
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PLOTTED: AUGUST 11 2022	
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<b>SCALE: 1"=10'</b>	
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7 of 49	





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



EXISTING CONDITIONS LEGEND

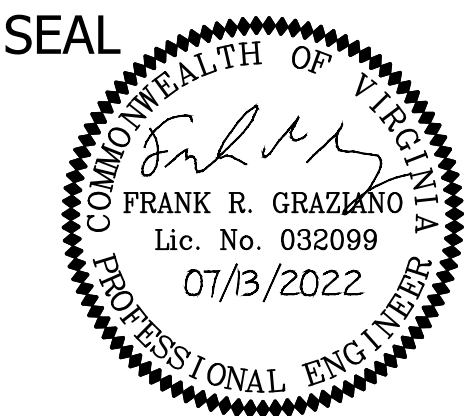
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|  | PARCEL BOUNDARIES    |
|  | EX. INFRASTRUCTURE   |
|  | EX. CONTOURS (1')    |
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TRANSPORTATION DIRECTOR

PROJECT MANAGER

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TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

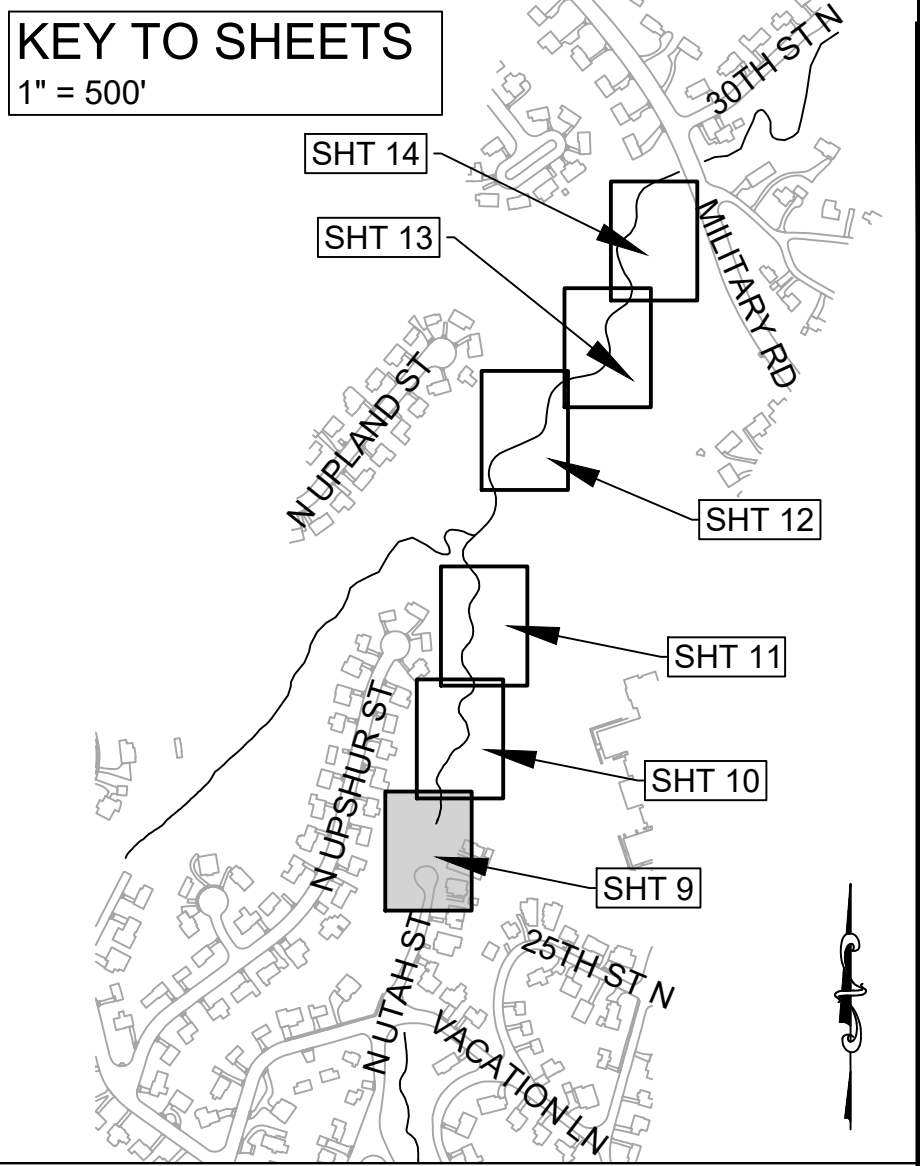
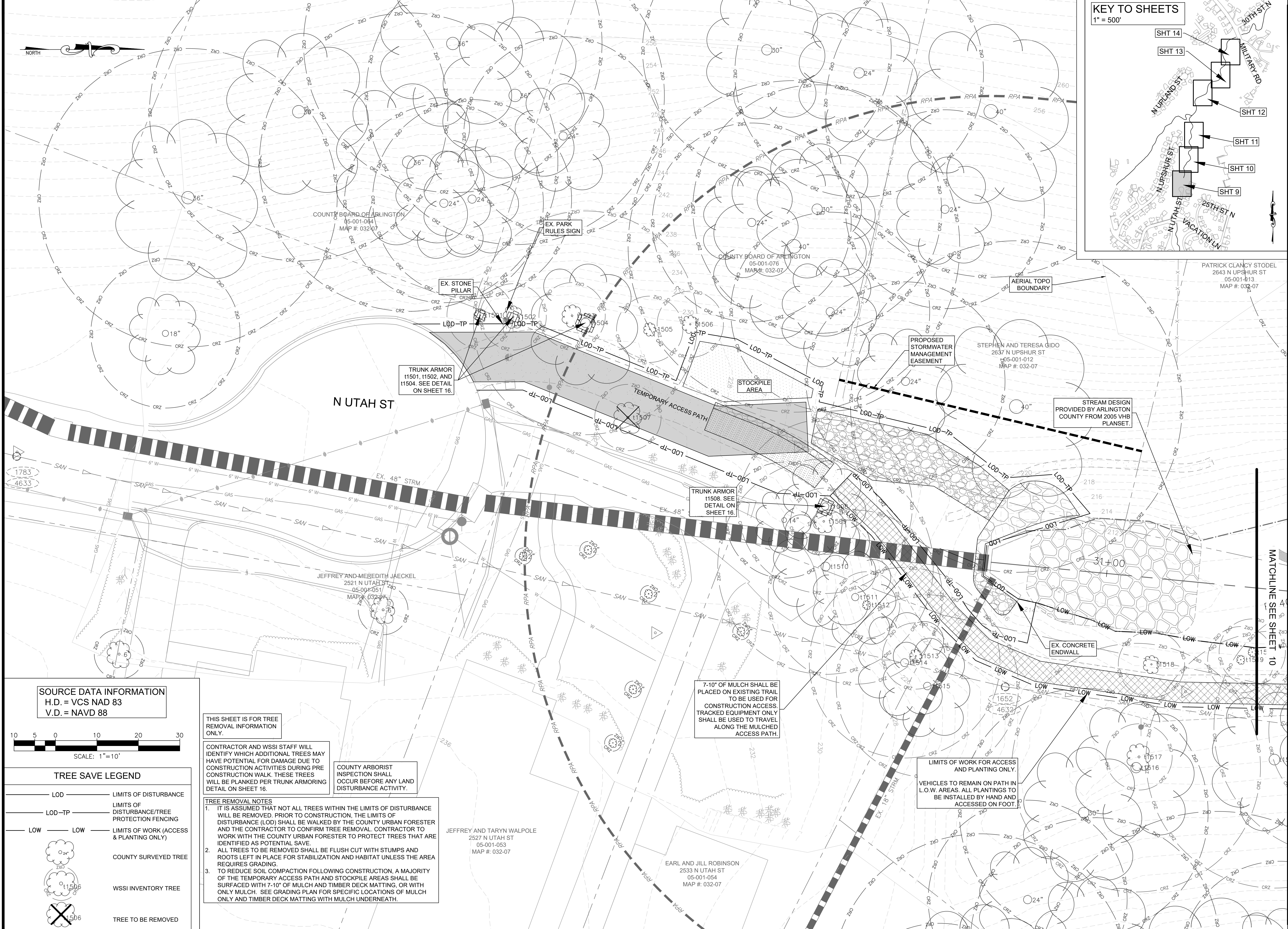
EXISTING CONDITIONS PLAN (06)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

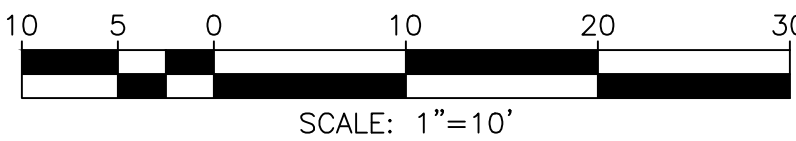
PLOTTED: JULY 13 2022

SCALE: 1"=10'





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



TREE SAVE LEGEND

- |            |   |
|------------|---|
| — LOD —    | LIMITS OF DISTURBANCE                         |
| — LOD-TP — | LIMITS OF DISTURBANCE/TREE PROTECTION FENCING |
| — LOW —    | LIMITS OF WORK (ACCESS & PLANTING ONLY)       |
|            | COUNTY SURVEYED TREE                          |
|            | WSSI INVENTORY TREE                           |
|            | TREE TO BE REMOVED                            |

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

TREE REMOVAL NOTES

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7-10" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

JEFFREY AND TARYN WALPOLE  
2527 N UTAH ST  
05-001-053  
MAP #: 032-07

EARL AND JILL ROBINSON  
2533 N UTAH ST  
05-001-054  
MAP #: 032-07

**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

TREE SAVE PLAN (01)

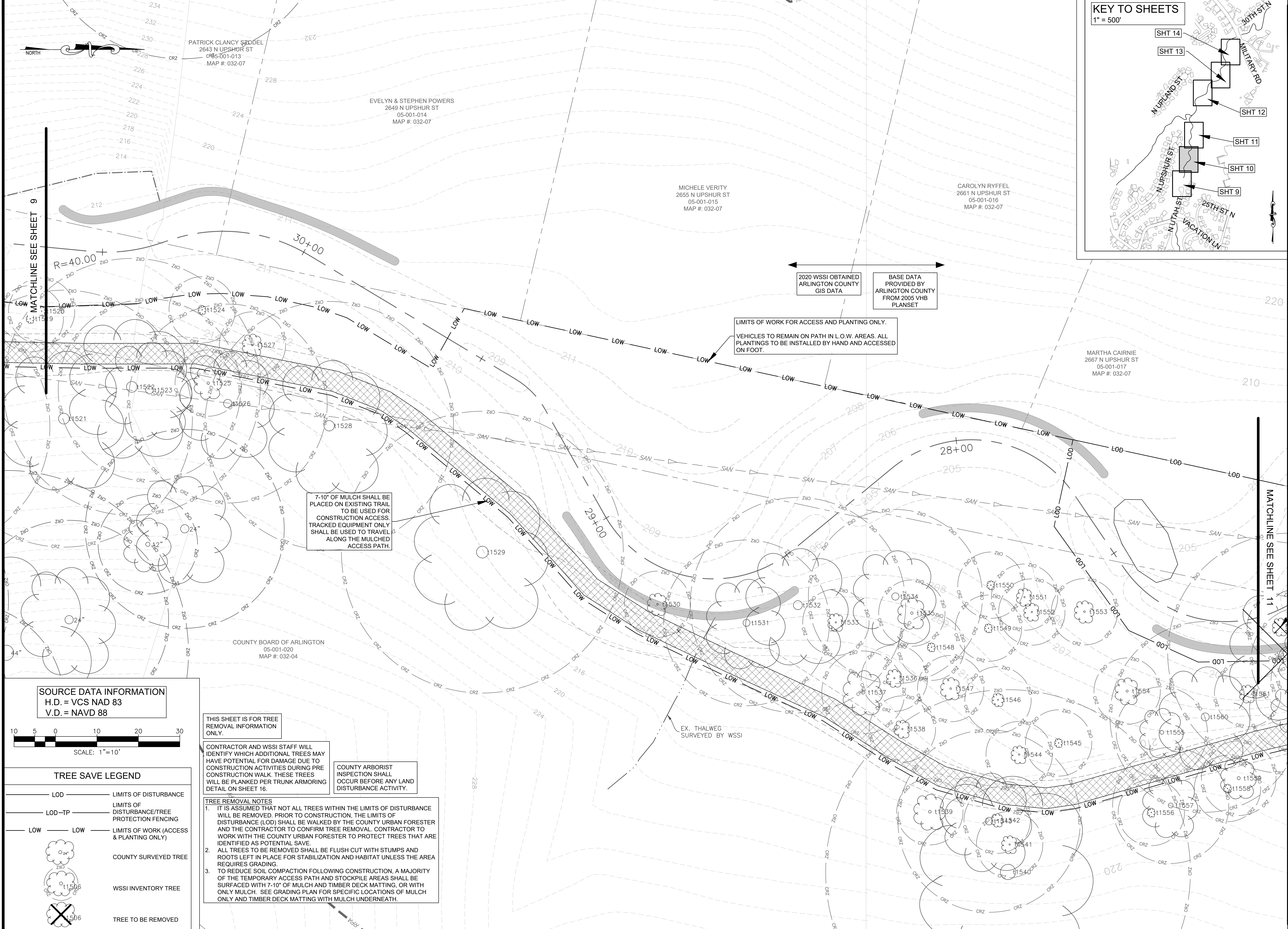
DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

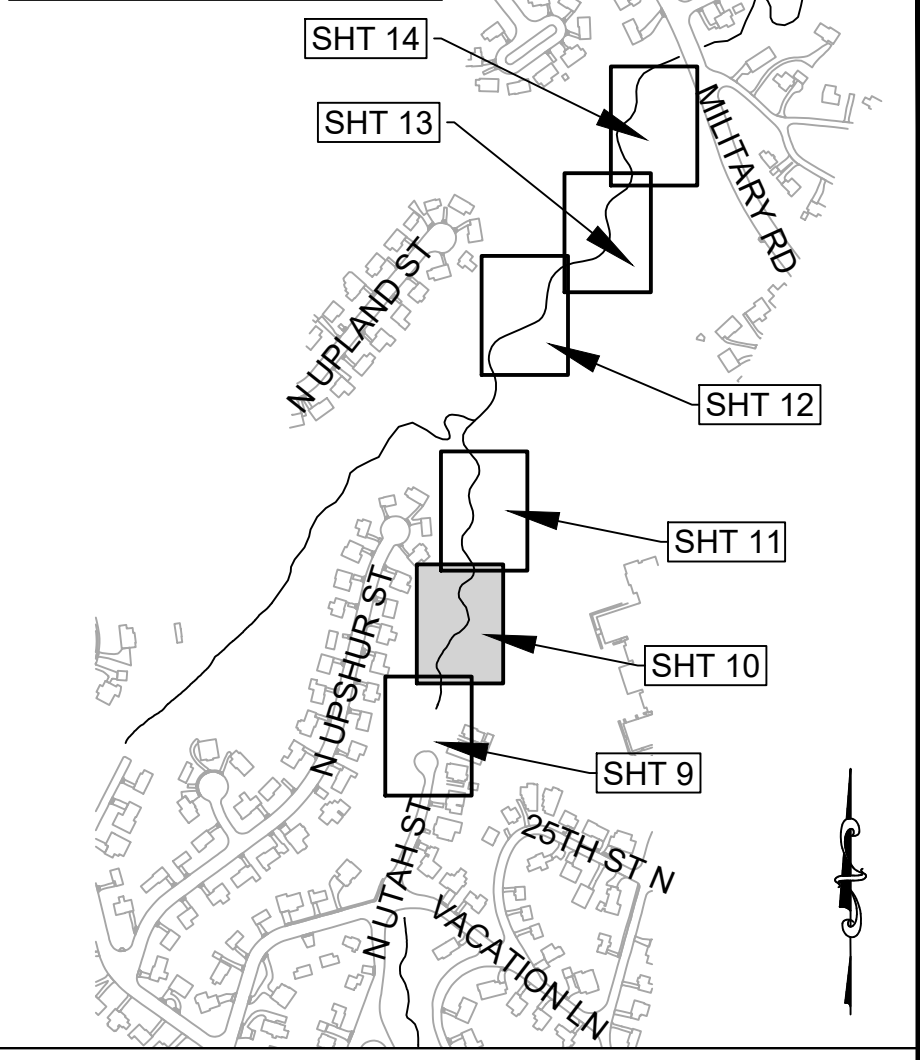
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9 of 49



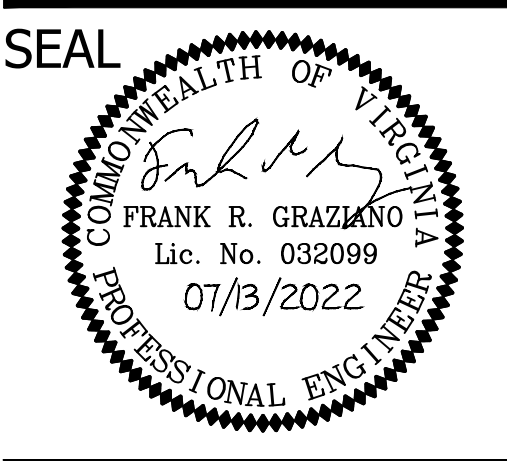


KEY TO SHEETS  
1" = 500'



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DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

REVISIONS	DATE

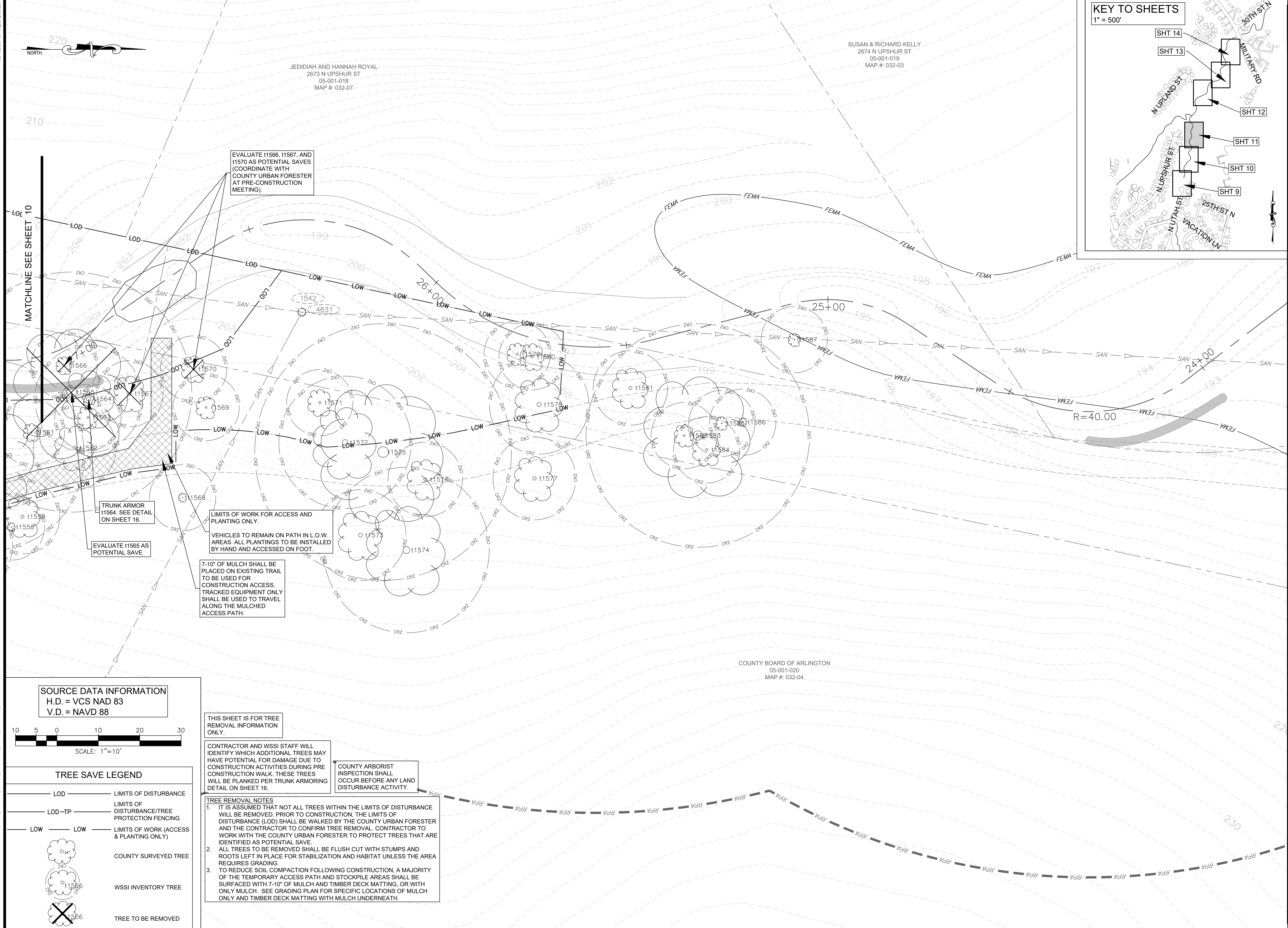
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
TREE SAVE PLAN (02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

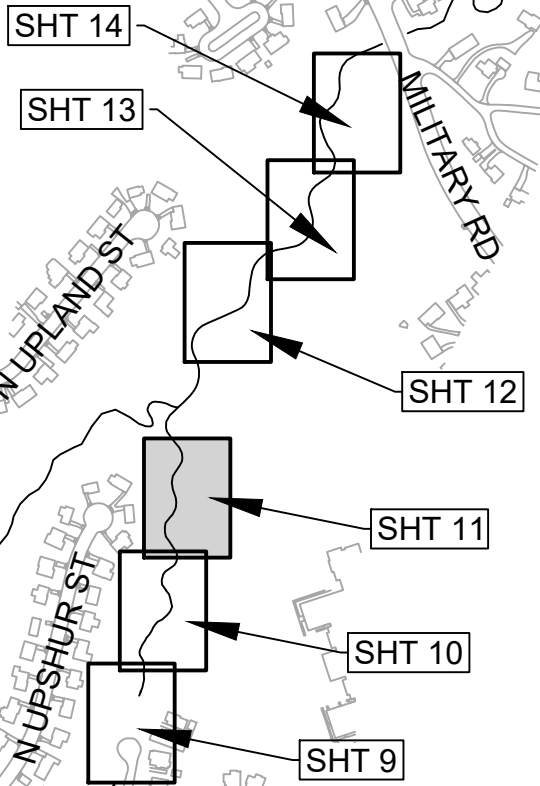
PLOTTED: JULY 13 2022

SCALE: 1"=10'





KEY TO SHEETS  
1" = 500'



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DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

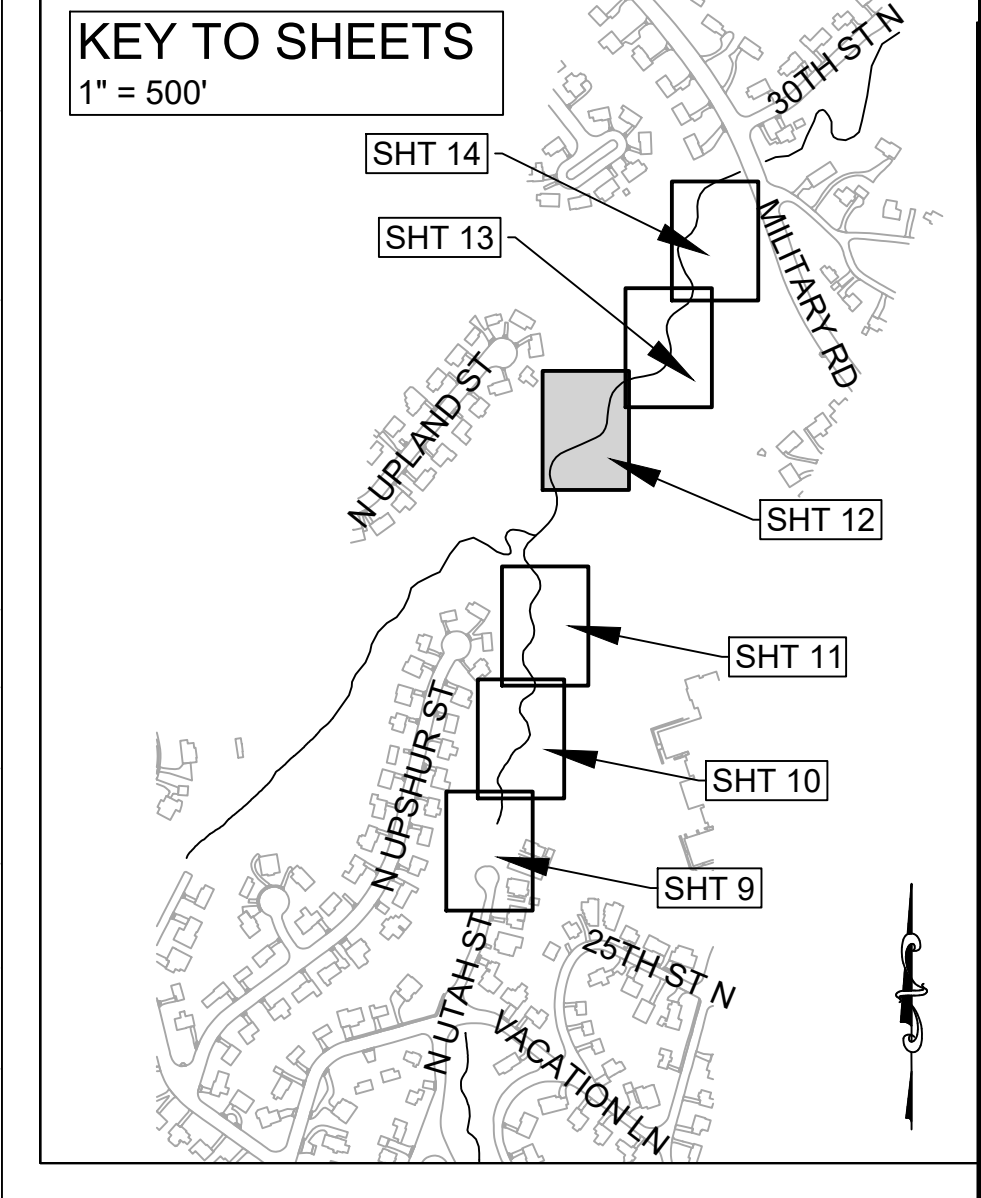
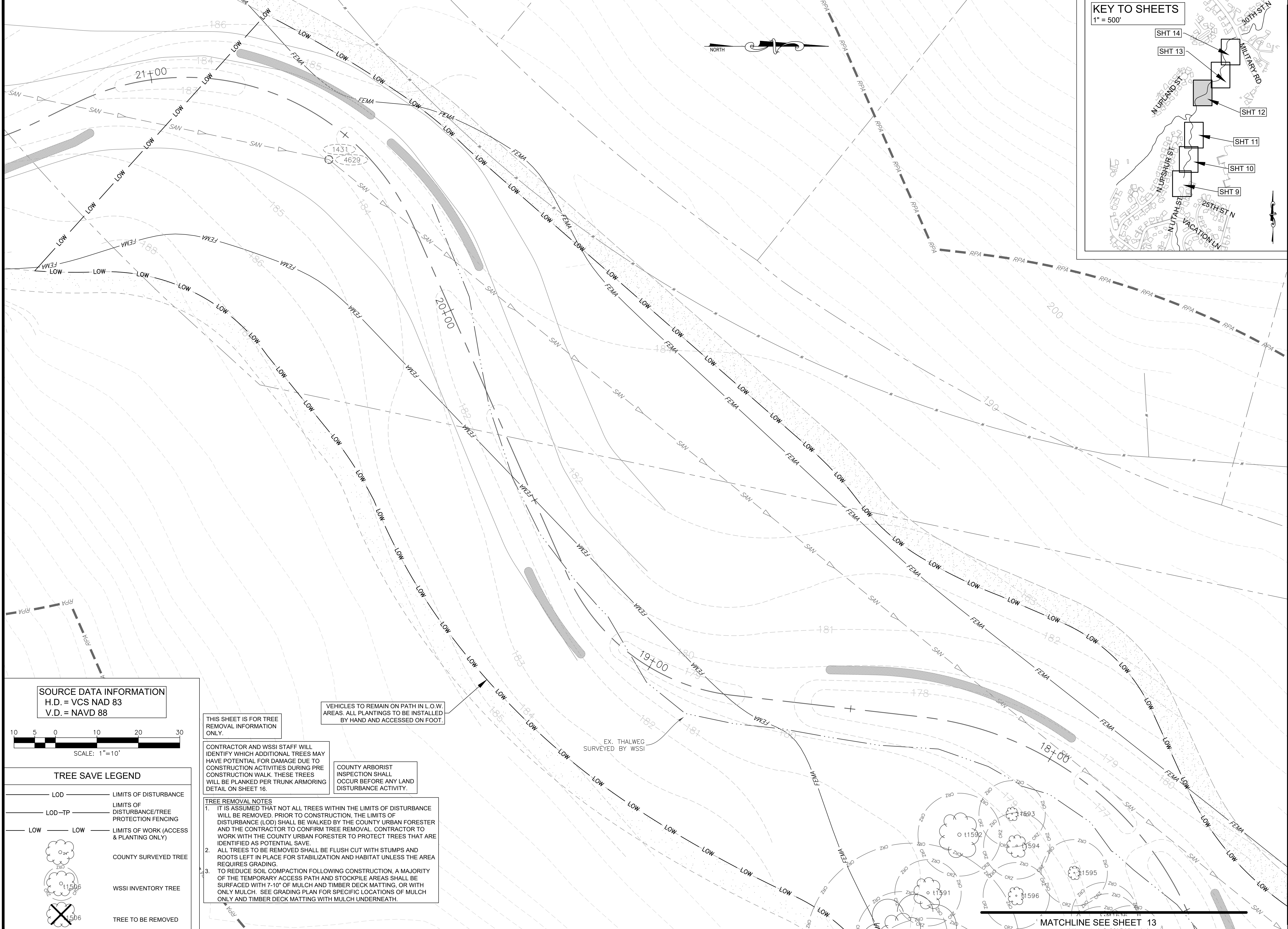
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
TREE SAVE PLAN (03)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

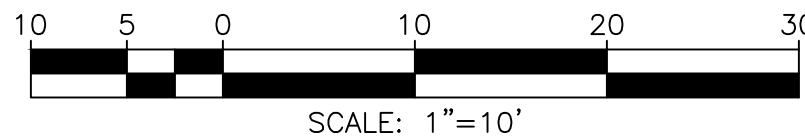
PLOTTED: JULY 13 2022

SCALE: 1"=10'





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



TREE SAVE LEGEND

- |            |   |
|------------|---|
| — LOD —    | LIMITS OF DISTURBANCE                         |
| — LOD-TP — | LIMITS OF DISTURBANCE/TREE PROTECTION FENCING |
| — LOW —    | LIMITS OF WORK (ACCESS & PLANTING ONLY)       |
|            | COUNTY SURVEYED TREE                          |
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|            | TREE TO BE REMOVED                            |

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CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

VEHICLES TO REMAIN ON PATH IN LOW AREAS. ALL PLANTINGS TO BE INSTALLED BY HAND AND ACCESSED ON FOOT.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

TREE REMOVAL NOTES

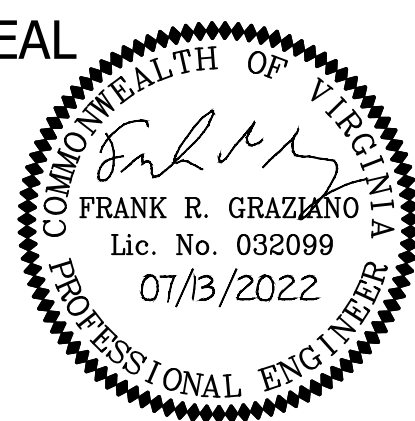
- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

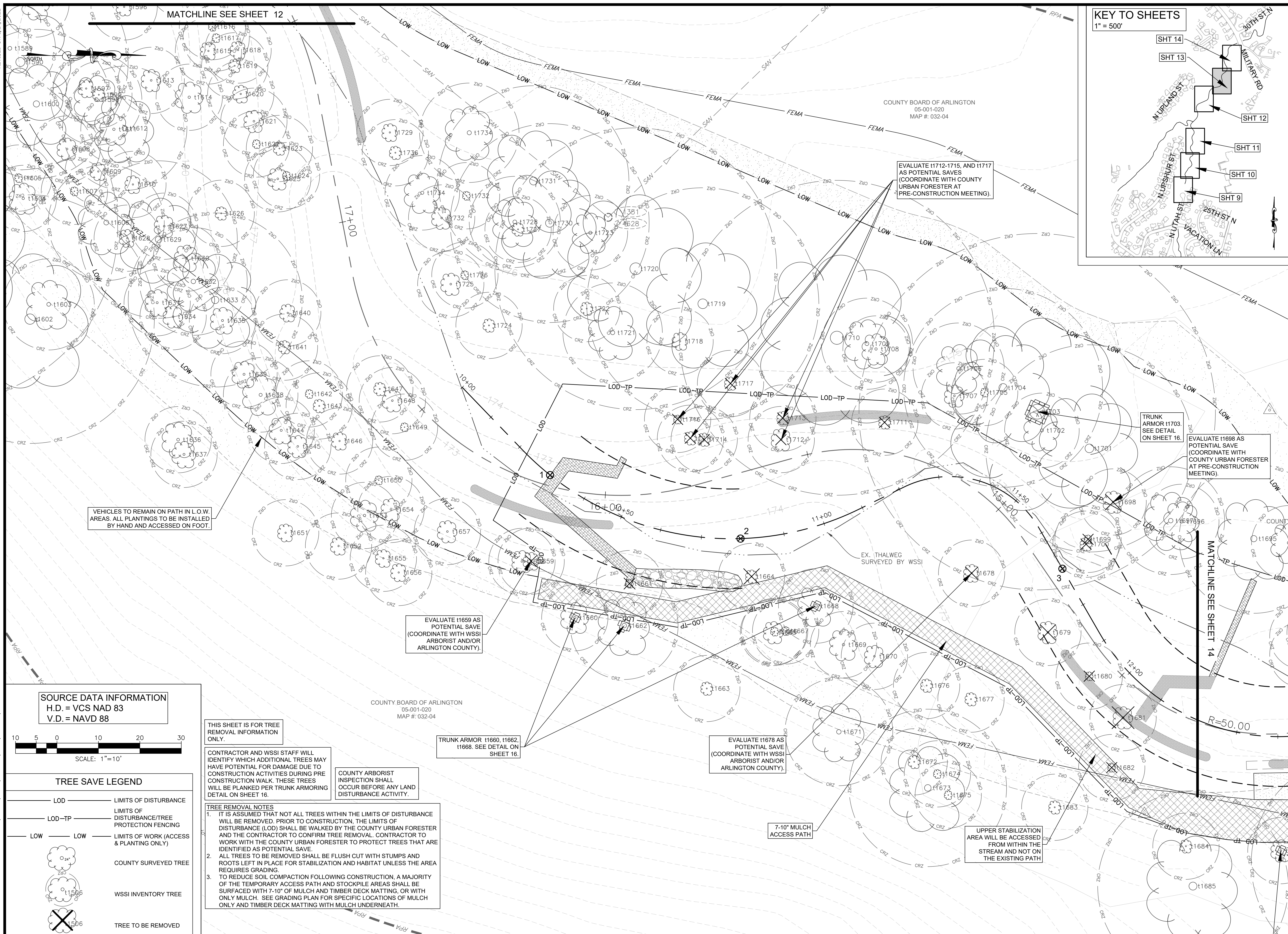
TREE SAVE PLAN (04)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

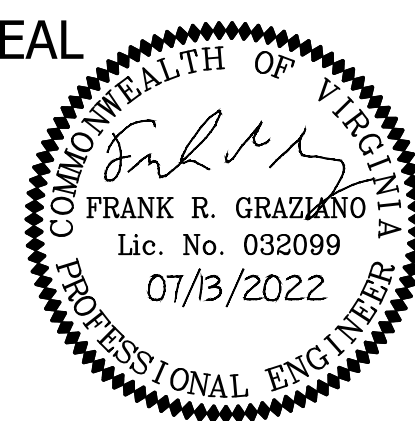




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APPROVALS	DATE
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DESIGN TEAM ENGINEER SUPERVISOR

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CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS	DATE
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## CONTRIBUTOR A MAINTENANCE AND EMERGENCY REPAIR

## FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

## TREE SAVE PLAN (05)

DESIGNED: AMC

DRAWN: AMC

CHECKED: FRG

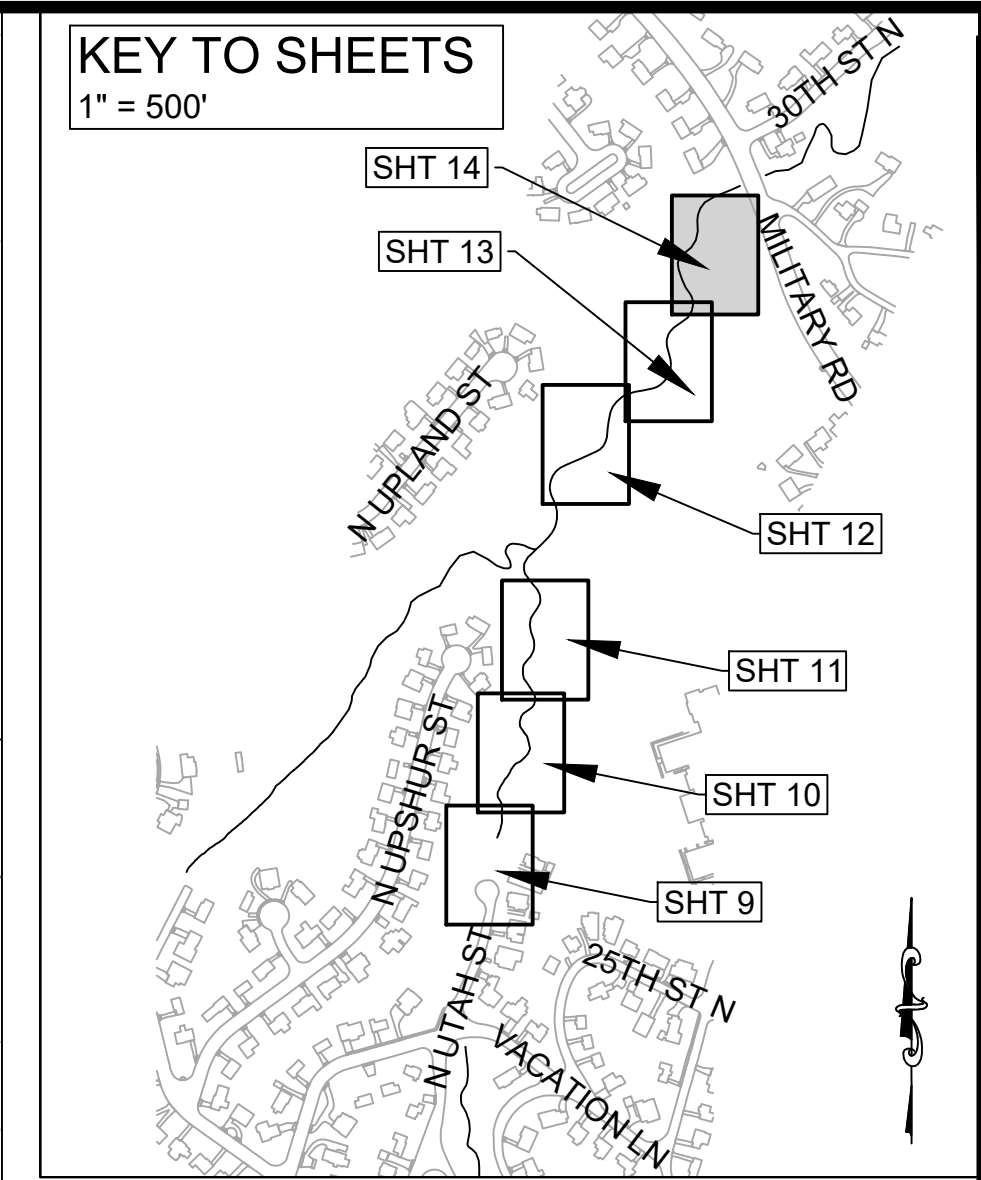
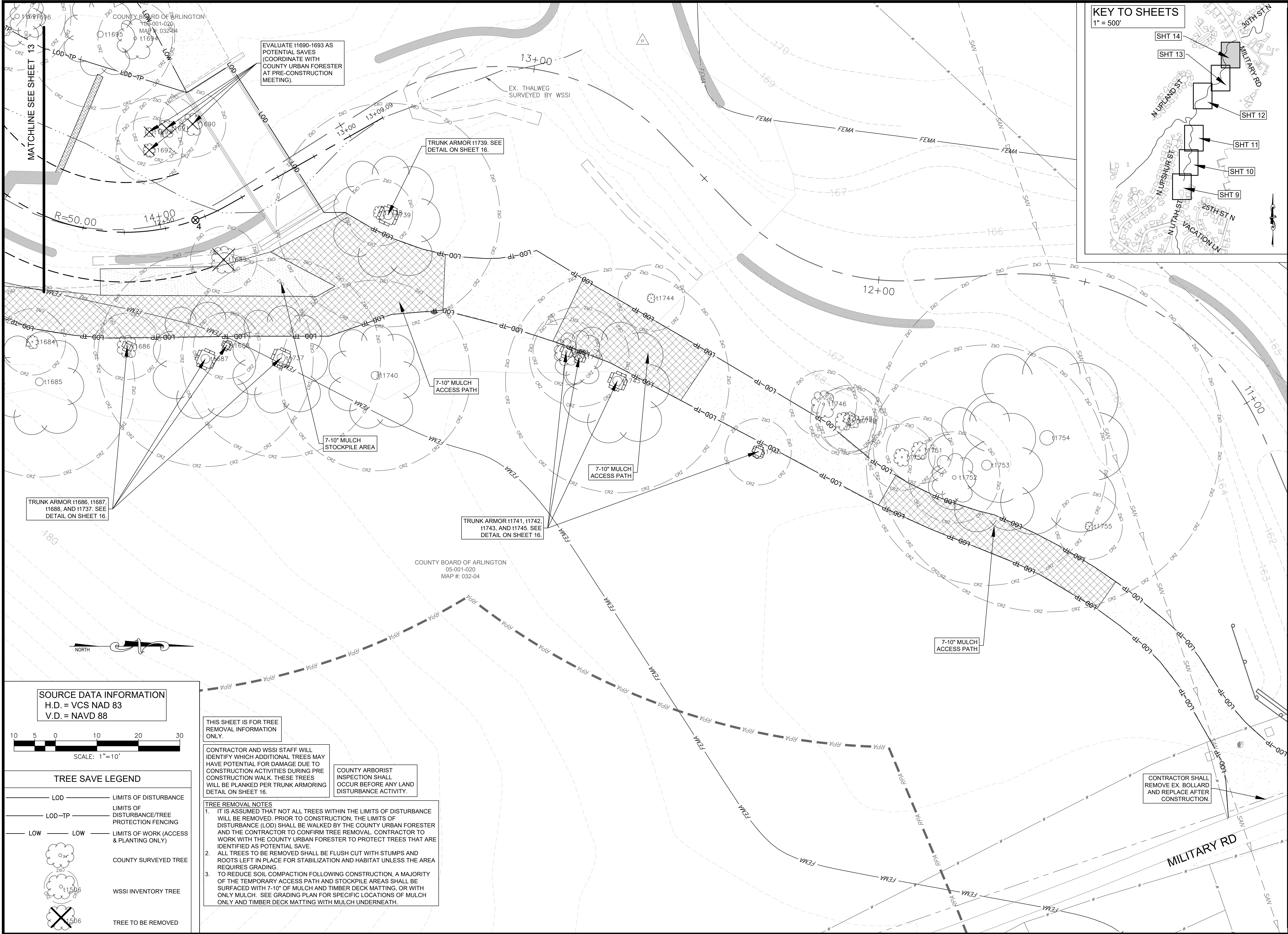
PLOTTED: JULY 13 2022

SCALE: 1"=10'



REVISED ON 1/24/2022

FILENAME: TREE SAVE PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF  
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FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

TREE SAVE PLAN (06)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'



TREE TAG #	SPECIES	COMMON NAME	STEMS	DIAMETER AT BREAST HEIGHT (IN)	CRITICAL ROOT ZONE (FT)	CRZ AREA (FT²)	CRZ AREA WITHIN LOD (FT²)	SUBTRACTED AREA (FT²)	% OF CRZ WITHIN LOD*	APPROXIMATE CANOPY RADIUS (FT)	PRIORITY (1-4)	TO BE REMOVED	TRUNK ARMOR
1501	<i>Ulmus americana</i>	American Elm	2	2;2	3	201	68	14	27%	6	3		X
1502	<i>Carya glabra</i>	Pignut Hickory	1	5	5	201	73	42	15%	8	3		X
1503	<i>Acer rubrum</i>	Red Maple	1	5	5	201	25	24	1%	9	3		
1504	<i>Quercus alba</i>	White Oak	1	27	27	2290	726	515	9%	22	2		X
1505	<i>Ulmus americana</i>	American Elm	1	3	3	201			0%	5	3		
1506	<i>Fagus grandifolia</i>	American Beech	1	4	4	201	33		16%	7	3		
1507	<i>Ulmus americana</i>	American Elm	2	6;4	7	201	153	61	46%	13	4	X	
1508	<i>Liriodendron tulipifera</i>	Tuliptree	1	21	21	1385	563	175	28%		3		X
1509	<i>Cercis canadensis</i>	Eastern Redbud	1	5	5	201	9	9	0%	9	3		
1510	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124	252	84	8%	27	2		
1511	<i>Liriodendron tulipifera</i>	Tuliptree	1	21	21	1385	8	8	0%	27	2		
1512	<i>Ligustrum lucidum</i>	Glossy Privet	1	2	2	201			0%	6	4		
1513	<i>Cercis canadensis</i>	Eastern Redbud	1	3	3	201			0%	9	3		
1514	<i>Liriodendron tulipifera</i>	Tuliptree	1	23	23	1662	36		2%	23	3		
1515	<i>Liriodendron tulipifera</i>	Tuliptree	1	22	22	1521	22		1%	3	4		
1516	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	28	3		
1517	<i>Acer palmatum</i>	Japanese Maple	1	6	6	201			0%	14	4		
1518	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	12	3		
1519	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	5	3		
1520	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	0	4		
1521	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	23	3		
1522	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	14	4		
1523	<i>Liriodendron tulipifera</i>	Tuliptree	1	22	22	1521			0%	18	3		
1524	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	5	3		
1525	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	9	3		
1526	<i>Liriodendron tulipifera</i>	Tuliptree	1	24	24	1810			0%	22	3		
1527	<i>Acer rubrum</i>	Red Maple	1	5	5	201			0%	12	3		
1528	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	24	3		
1529	<i>Liriodendron tulipifera</i>	Tuliptree	1	34	34	3632			0%	29	3		
1530	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	8	3		
1531	<i>Liriodendron tulipifera</i>	Tuliptree	1	20	20	1257			0%	16	3		
1532	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124			0%	20	3		
1533	<i>Carya glabra</i>	Pignut Hickory	1	4	4	201			0%	8	3		
1534	<i>Acer rubrum</i>	Red Maple	2	17;12	21	1385			0%	19	4		
1535	<i>Nyssa sylvatica</i>	Blackgum	1	7	7	201			0%	11	3		
1536	<i>Carya glabra</i>	Pignut Hickory	1	4	4	201			0%	12	3		
1537	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	15	2		
1538	<i>Acer rubrum</i>	Red Maple	1	4	4	201			0%	8	3		
1539	<i>Carya glabra</i>	Pignut Hickory	1	8	8	201			0%		3		
1540	<i>Liriodendron tulipifera</i>	Tuliptree	1	44	44	6082			0%	31	2		
1541	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	7	3		
1542	<i>Fagus grandifolia</i>	American Beech	1	3	3	201			0%	8	3		
1543	<i>Quercus montana</i>	Chestnut Oak	1	22	22	1521			0%	18	3		
1544	<i>Quercus palustris</i>	Pin Oak	1	4	4	201			0%	8	3		
1545	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1546	<i>Quercus palustris</i>	Pin Oak	1	3	3	201			0%	7	3		
1547	<i>Liquidambar styraciflua</i>	American Sweetgum	1	5	5	201			0%	6	3		
1548	<i>Fraxinus spp.</i>	Ash Spp.	1	2	2	201			0%	4	3		
1549	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1550	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1551	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201			0%	7	3		
1552	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	4		
1553	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201	14		7%	7	3		
1554	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201			0%	15	3		
1555	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	16	3		
1556	<i>Acer rubrum</i>	Red Maple	1	2	2	201			0%	5	3		
1557	<i>Liriodendron tulipifera</i>	Tuliptree	1	14	14	616			0%	20	3		
1558	<i>Fagus grandifolia</i>	American Beech	1	2	2	201			0%	6	3		
1559	<i>Acer rubrum</i>	Red Maple	1	9	9	254			0%	13	3		
1560	<i>Quercus rubra</i>	Northern Red Oak	1	23	23	1662	207	74	8%	0	4		
1561	<i>Fagus grandifolia</i>	American Beech	1	4	4	201	0.3		0%	7	3		
1562	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	16	3		
1563	<i>Fagus grandifolia</i>	American Beech	1	5	5	201	22		11%	12	3		
1564	<i>Quercus rubra</i>	Northern Red Oak	1	13	13	531	230		43%	18	3		X
1565	<i>Liriodendron tulipifera</i>	Tuliptree	1	29	29	2642	1287	704	22%	0	4	X	
1566	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201	201		100%	10	3	X	
1567	<i>Acer rubrum</i>	Red Maple	1	8	8	201	64		32%	12	3	X	
1568	<i>Carya glabra</i>	Pignut Hickory	1	2	2	201			0%	5	3		
1569	<i>Liquidambar styraciflua</i>	American Sweetgum	1	5	5	201			0%	12	3		
1570	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201	73		37%	14	3		X
1571	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201			0%	12	3		
1572	<i>Liriodendron tulipifera</i>	Tuliptree	1	16	16	804			0%	24	3		
1573	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	12	2		
1574	<i>Quercus alba</i>	White Oak	1	20	20	1257			0%	25	3		
1575	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	28	2		
1576	<i>Fagus grandifolia</i>	American Beech	1	9	9	254			0%	16	3		
1577	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	16	3		
1578	<i>Liriodendron tulipifera</i>	Tuliptree	1	12	12	452			0%	18	3		
1579	<i>Ulmus americana</i>	American Elm	1	5	5	201			0%	14	3		
1580	<i>Ulmus americana</i>	American Elm	1	6	6	201			0%	13	3		
1581	<i>Platanus occidentalis</i>	American Sycamore	1	9	9	254			0%	12	3		
1582	<i>Fagus grandifolia</i>	American Beech	1	5	5	201			0%	8	3		
1583	<i>Liriodendron tulipifera</i>	Tuliptree	1	27	27	2290			0%	28	3		
1584	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	9	3		
1585	<i>Ulmus americana</i>	American Elm	1	3	3	201			0%	6	3		

HEALTH RATING KEY

- 1 - Tree is in excellent condition and requires little to no management/treatment  
2 - Tree is in good condition and could use minor management/treatment  
3 - Tree is stressed and requires significant management/treatment  
4 - Tree is in serious decline or dead

ABBREVIATION KEY

- TBR - To Be Removed  
DND - Do Not Disturb  
TST - Total Surveyed Trees

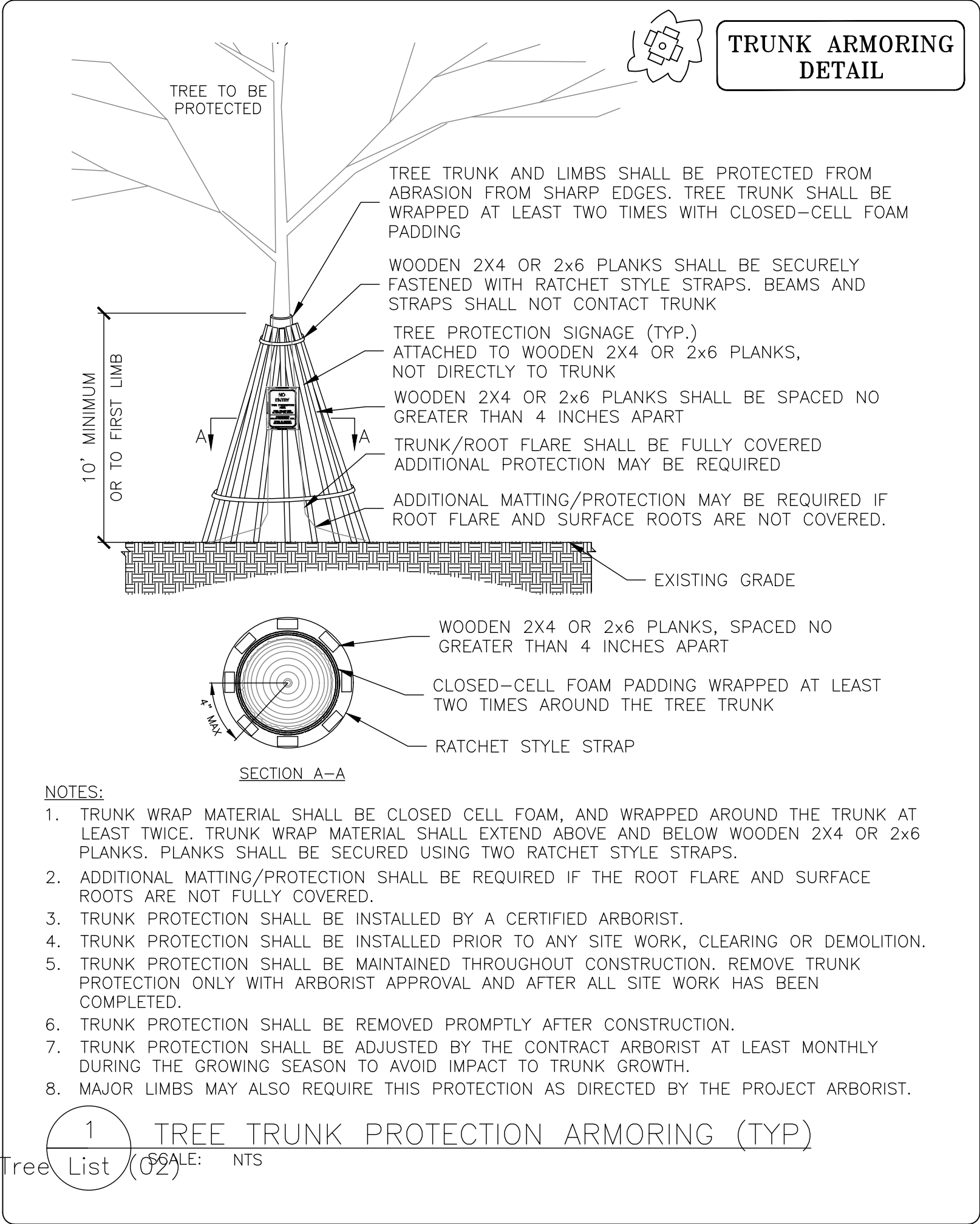
ALL SURVEYED TREES WITH AT LEAST 30% OF THEIR CRZ WITHIN THE LIMITS OF DISTURBANCE\* SHALL BE MARKED FOR REMOVAL. SOME OF THESE TREES MAY BE NOTED AS POTENTIAL SAVES REQUIRING FIELD EVALUATION.

\*PORTIONS OF THE CRZ THAT ARE WITHIN THE LOD, BUT DETERMINED UNLIKELY TO HOLD SENSITIVE ROOTS (I.E. UNDER COMPACTED PATHS, UNDER PROPOSED ROOT MATTING AREAS, OR IN STREAM CHANNEL) ARE SUBTRACTED FROM THIS PERCENTAGE

TREE TAG #	SPECIES	COMMON NAME	STEMS	DIAMETER AT BREAST HEIGHT (IN)	CRITICAL ROOT ZONE (FT)	CRZ AREA (FT²)	CRZ AREA WITHIN LOD (FT²)	SUBTRACTED AREA (FT²)	% OF CRZ WITHIN LOD*	APPROXIMATE CANOPY RADIUS (FT)	PRIORITY (1-4)	TO BE REMOVED	TRUNK ARMOR
1586	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	6	3		
1587	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	6	3		
1588	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	10	3		
1589	<i>Liriodendron tulipifera</i>	Tuliptree	1	11	11	380			0%	10	3		
1590	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124			0%	23	3		
1591	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	14	3		
1592	<i>Platanus occidentalis</i>	American Sycamore	1	10	10	314			0%	12	3		
1593	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	7	3		
1594	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	10	3		
1595	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	8	3		
1596	<i>Quercus palustris</i>	Pin Oak	1	4	4	201			0%	7	3		
1597	<i>Acer rubrum</i>	Red Maple	1	4	4	201			0%	10	3		
1598	<i>Liriodendron tulipifera</i>	Tuliptree	1	11	11	380			0%	17	3		
1599	<i>Acer rubrum</i>	Red Maple	1	3	3	201			0%	7	3		
1600	<i>Liriodendron tulipifera</i>	Tuliptree	1	18	18	1018			0%	15	3		
1601	<i>Liriodendron tulipifera</i>	Tuliptree	2	30;30	42	5542			0%	28	4		
1602	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	32	3		
1603	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	17	3		
1604	<i>Liriodendron tulipifera</i>	Tuliptree	1	7	7	201			0%	12	3		
1605	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	6	3		
1606	<i>Liriodendron tulipifera</i>	Tuliptree	1	14	14	616			0%	18	3		
1607	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	4	3		
1608	<i>Acer rubrum</i>	Red Maple	1	5	5	201			0%	7	3		
1609	<i>Ulmus americana</i>	American Elm	1	4	4	201			0%	4	3		
1610	<i>Cornus florida</i>	Flowering Dogwood	1	4	4	201			0%	4	3		
1611	<i>Ulmus americana</i>	American Elm	1	7	7	201			0%	10	3		
1612	<i>Liriodendron tulipifera</i>	Tuliptree	1	15	15	707			0%	19	3		
1613	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	11	3		
1614	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	13	3		
1615	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	3		
1616	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	4	3		
1617	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	4	3		
1618	<i>Gleditsia triacanthos</i>	Honeylocust	1	4	4	201			0%	6	4		
1619	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	4	3		
1620	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	3		
1621	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	10	3		
1622	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	8	3		
1623	<i>Amelanchier spp.</i>	Serviceberry Spp.	1	3	3	201			0%	8	2		
1624	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	6	3		
1625	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	10	3		
1626	<i>Quercus palustris</i>	Pin Oak	1	3	3	201			0%	7	3		
1627	<i>Prunus serotina</i>	Black Cherry	1	5	5	201			0%	5	4		
1628	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	6	3		
1629	<i>Liriodendron tulipifera</i>	Tuliptree	1	19	19	1134			0%	24	3		
1630	<i>Prunus serotina</i>	Black Cherry	1	6	6	201			0%	12	3		
1631	<i>Ulmus americana</i>	American Elm	1	6	6	201			0%	10	3		
1632	<i>Liriodendron tulipifera</i>	Tuliptree	1	13	13	531			0%	17	3		
1633	<i>Liriodendron tulipifera</i>	Tuliptree	1	21	21	1385			0%	19	3		
1634	<i>Fagus grandifolia</i>	American Beech	1	5	5	201			0%	7	3		
1635	<i>Fagus grandifolia</i>	American Beech	1	6	6	201			0%	11	3		
1636	<i>Liriodendron tulipifera</i>	Tuliptree	1	8	8	201			0%	11	3		
1637	<i>Fagus grandifolia</i>	American Beech	1	6	6	201			0%	9	3		
1638	<i>Liriodendron tulipifera</i>	Tuliptree	1	9	9	254			0%	9	4		
1639	<i>Prunus serotina</i>	Black Cherry	1	6	6	201			0%	12	3		
1640	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	3		
1641	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	6	3		
1642	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	5	3		
1643	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	7	3		
1644	<i>Ulmus americana</i>	American Elm	1	6	6	201			0%	11	3		
1645	<i>Prunus serotina</i>	Black Cherry	1	5	5	201			0%	11	3		
1646	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	8	3		
1647	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	7	3		
1648	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	5	4		
1649	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	4	3		
1650	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	6	3		
1651	<i>Prunus serotina</i>	Black Cherry	1	4	4	201			0%	7	3		
1652	<i>Acer rubrum</i>	Red Maple	1	4	4	201			0%	6	3		
1653	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	10	3		
1654	<i>Fagus grandifolia</i>	American Beech	1	5	5	201			0%	8	3		
1655	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	8	3		
1656	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	8	3		
1657	<i>Liriodendron tulipifera</i>	Tuliptree	1	5	5	201			0%	8	3		
1658	<i>Liriodendron tulipifera</i>	Tuliptree	1	5	5	201	60	6	27%	6	3		
1659	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201	93	12	40%	0	4	X	
1660	<i>Fagus grandifolia</i>	American Beech	1	7	7	201	70	70	0%	10	3		X
1661	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	201		100%	4	3	X	
1662	<i>Liriodendron tulipifera</i>	Tuliptree	1	13	13	531	219	142	14%	17	3		X
1663	<i>Viburnum spp.</i>	Viburnum Spp.	3	2;2;1	3	201			0%	5	3		
1664	<i>Quercus palustris</i>	Pin Oak	1	3	3	201	200	72	64%	8	3	X	
1665	<i>Liriodendron tulipifera</i>	Tuliptree	1	5	5	201	10	10	0%	10	3		
1666	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	10	10	0%	5	3		
1667	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	5	5	0%	5	3		
1668	<i>Platanus occidentalis</i>	American Sycamore	1	9	9	254	93	74	7%	2	4		X
1669	<i>Liriodendron tulipifera</i>	Tuliptree	1	7	7	201			0%	8	3		
1670	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	11	3		



TREE TAG #	SPECIES	COMMON NAME	STEMS	DIAMETER AT BREAST HEIGHT (IN)	CRITICAL ROOT ZONE (FT)	CRZ AREA (FT²)	CRZ AREA WITHIN LOD (FT²)	SUBTRACTED AREA (FT²)	% OF CRZ WITHIN LOD*	APPROXIMATE CANOPY RADIUS (FT)	PRIORITY (1-4)	TO BE REMOVED	TRUNK ARMOR
1671	<i>Prunus spp.</i>	Cherry/plum Spp.	1	13	13	531			0%	0	4		
1672	<i>Gleditsia triacanthos</i>	Honeylocust	1	3	3	201			0%	6	4		
1673	<i>Liriodendron tulipifera</i>	Tuliptree	1	19	19	1134			0%	16	3		
1674	<i>Gleditsia triacanthos</i>	Honeylocust	1	2	2	201			0%	4	4		
1675	ZZ Add 01	Zz Add 01	1	2	2	201			0%	5	3		
1676	<i>Quercus palustris</i>	Pin Oak	1	3	3	201			0%	5	3		
1677	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201	9	9	0%	5	3		
1678	<i>Quercus palustris</i>	Pin Oak	1	4	4	201	201		100%	7	3	X	
1679	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201	201		100%	9	3	X	
1680	ZZ Unknown snag	Zz Unknown Snag	1	2	2	201	201		100%	0	4	X	
1681	<i>Liriodendron tulipifera</i>	Tuliptree	1	5	5	201	201		100%	8	3	X	
1682	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201	171	77	47%	4	3	X	
1683	<i>Gleditsia triacanthos</i>	Honeylocust	1	3	3	201			0%	5	4		
1684	ZZ Unknown snag	Zz Unknown Snag	1	3	3	201	47	47	0%	0	4		
1685	<i>Liriodendron tulipifera</i>	Tuliptree	1	23	23	1662	263	262	0%	23	3		
1686	<i>Liriodendron tulipifera</i>	Tuliptree	1	5	5	201	68	68	0%	7	3		X
1687	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124	788	703	4%	20	3		X
1688	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	65	65	0%	4	3		X
1689	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201	201	87	57%	8	3	X	
1690	<i>Ulmus americana</i>	American Elm	1	5	5	201	201		100%	10	3	X	
1691	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201	201		100%	6	3	X	
1692	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201	201		100%	6	3	X	
1693	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	201		100%	4	3	X	
1694	<i>Fagus grandifolia</i>	American Beech	1	9	9	254	0.5		0%	14	3		
1695	<i>Quercus alba</i>	White Oak	1	18	18	1018	257		25%	22	3		
1696	<i>Fagus grandifolia</i>	American Beech	1	9	9	254	45		18%	16	3		
1697	<i>Quercus alba</i>	White Oak	1	13	13	531	171	23	28%	16	3		
1698	<i>Ulmus americana</i>	American Elm	1	5	5	201	86		43%	8	3	X	
1699	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201	201		100%	4	3	X	
1700	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201	201		100%	6	3	X	
1701	<i>Quercus alba</i>	White Oak	1	25	25	1963	522	163	18%	20	3		
1702	<i>Ulmus americana</i>	American Elm	1	9	9	254	9		3%	14	3		
1703	<i>Liriodendron tulipifera</i>	Tuliptree	1	43	43	5809	1902	880	18%	26	3		X
1704	<i>Liriodendron tulipifera</i>	Tuliptree	1	24	24	1810	343	166	10%	21	3		
1705	<i>Fagus grandifolia</i>	American Beech	1	2	2	201			0%	6	3		
1706	<i>Fagus grandifolia</i>	American Beech	1	11	11	380	0.2		0%	12	2		
1707	<i>Fagus grandifolia</i>	American Beech	1	5	5	201	30		15%	9	3		
1708	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	12	3		
1709	<i>Quercus alba</i>	White Oak	1	11	11	380			0%	9	4		
1710	<i>Quercus alba</i>	White Oak	1	38	38	4536	1159		26%	28	3		
1711	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201	177		88%	5	3	X	
1712	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201	201		100%	9	3	X	
1713	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201	180		90%	5	3	X	
1714	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201	201		100%	7	3	X	
1715	ZZ Unknown snag	Zz Unknown Snag	1	3	3	201	201		100%	0	4	X	
1716	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201	201		100%	4	3	X	
1717	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201	66		33%	6	3	X	
1718	<i>Quercus palustris</i>	Pin Oak	1	4	4	201			0%	8	3		
1719	<i>Liriodendron tulipifera</i>	Tuliptree	1	28	28	2463	175		7%	22	3		
1720	<i>Liriodendron tulipifera</i>	Tuliptree	1	34	34	3632	131		4%	22	4		
1721	<i>Fagus grandifolia</i>	American Beech	1	12	12	452			0%	17	2		
1722	<i>Fagus grandifolia</i>	American Beech	1	3	3	201			0%	6	3		
1723	<i>Fagus grandifolia</i>	American Beech	1	9	9	254			0%	13	3		
1724	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	6	4		
1725	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	11	3		
1726	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	8	3		
1727	<i>Fagus grandifolia</i>	American Beech	1	3	3	201			0%	12	3		
1728	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	15	3		
1730	<i>Quercus alba</i>	White Oak	1	24	24	1810			0%	21	3		
1731	ZZ Unknown snag	Zz Unknown Snag	1	23	23	1662			0%	0	4		
1732	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	5	3		
1732	<i>Quercus palustris</i>	Pin Oak	1	5	5	201			0%	10	3		
1734	<i>Platanus occidentalis</i>	American Sycamore	1	9	9	254			0%	14	3		
1734	<i>Nyssa sylvatica</i>	Blackgum	1	12	12	452			0%	15	3		
1729	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	9	3		
1736	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	6	4		
1737	<i>Liriodendron tulipifera</i>	Tuliptree	1	24	24	1810	634	634	0%	28	3		X
1738	<i>Cercis canadensis</i>	Eastern Redbud	2	2.2	3	201	39	39	0%	9	3		
1739	<i>Platanus occidentalis</i>	American Sycamore	1	27	27	2290	940	818	5%	25	3		X
1740	<i>Liriodendron tulipifera</i>	Tuliptree	1	23	23	1662	279	279	0%	18	3		
1741	<i>Fagus grandifolia</i>	American Beech	1	6	6	201	81	81	0%	7	3		X
1742	<i>Nyssa sylvatica</i>	Blackgum	1	12	12	452	197	197	0%	12	3		X
1743	<i>Liriodendron tulipifera</i>	Tuliptree	1	27	27	2290	730	730	0%	19	3		X
1744	<i>Amenlanchier spp.</i>	Serviceberry Spp.	1	2	2	201	35	35	0%	6	3		
1745	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201	64	64	0%	9	3		X
1746	<i>Liriodendron tulipifera</i>	Tuliptree	1	6	6	201	46	46	0%	15	3		
1747	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201	55	55	0%	15	3		
1748	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201	35	35	0%	8	3		
1749	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201	33	33	0%	7	3		
1750	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201	33	33	0%	9	3		
1751	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201			0%	10	3		
1752	<i>Fagus grandifolia</i>	American Beech	1	11	11	380	72	72	0%	13	3		
1753	<i>Liriodendron tulipifera</i>	Tuliptree	1	29	29	2642	412	412	0%	20	3		
1754	<i>Platanus occidentalis</i>	American Sycamore	2	30,30	42	5542	515		0%	40	3		
1755	<i>Prunus serotina</i>	Black Cherry	1	2	2	201	1	1	0%	6	3		



HEALTH RATING KEY

1 - Tree is in excellent condition and requires little to no management/treatment  
2 - Tree is in good condition and could use minor management/treatment  
3 - Tree is stressed and requires significant management/treatment  
4 - Tree is in serious decline or dead

ABBREVIATION KEY

TBR - To Be Removed  
DND - Do Not Disturb  
TST - Total Surveyed Trees

ALL SURVEYED TREES WITH AT LEAST 30% OF THEIR CRZ WITHIN THE LIMITS OF DISTURBANCE\* SHALL BE MARKED FOR REMOVAL. SOME OF THESE TREES MAY BE NOTED AS POTENTIAL SAVES REQUIRING FIELD EVALUATION.

\*PORTIONS OF THE CRZ THAT ARE WITHIN THE LOD, BUT DETERMINED UNLIKELY TO HOLD SENSITIVE ROOTS (I.E. UNDER COMPACTED PATHS, UNDER PROPOSED ROOT MATTING AREAS, OR IN STREAM CHANNEL) ARE SUBTRACTED FROM THIS PERCENTAGE

TOTAL REPLACEMENTS REQUIRED: 27  
TOTAL REPLACEMENTS (10:1): 326  
SEE SHEETS 39-40 FOR PLANTING QUANTITIES

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION

ENGINEERING BUREAU

2100 CLARENDON BOULEVARD, SUITE 813

ARLINGTON, VA 22201

PHONE: 703.228.3629

FAX: 703.228.3606

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SEAL

COMMONWEALTH OF VIRGINIA  
FRANK R. GRAZIANO  
Lic. No. 032099  
07/13/2022  
PROFESSIONAL ENGINEER

APPROVALS

DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS

DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR

FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

TREE LIST (02)

DESIGNED: AMC

DRAWN: AMC

CHECKED: FRG

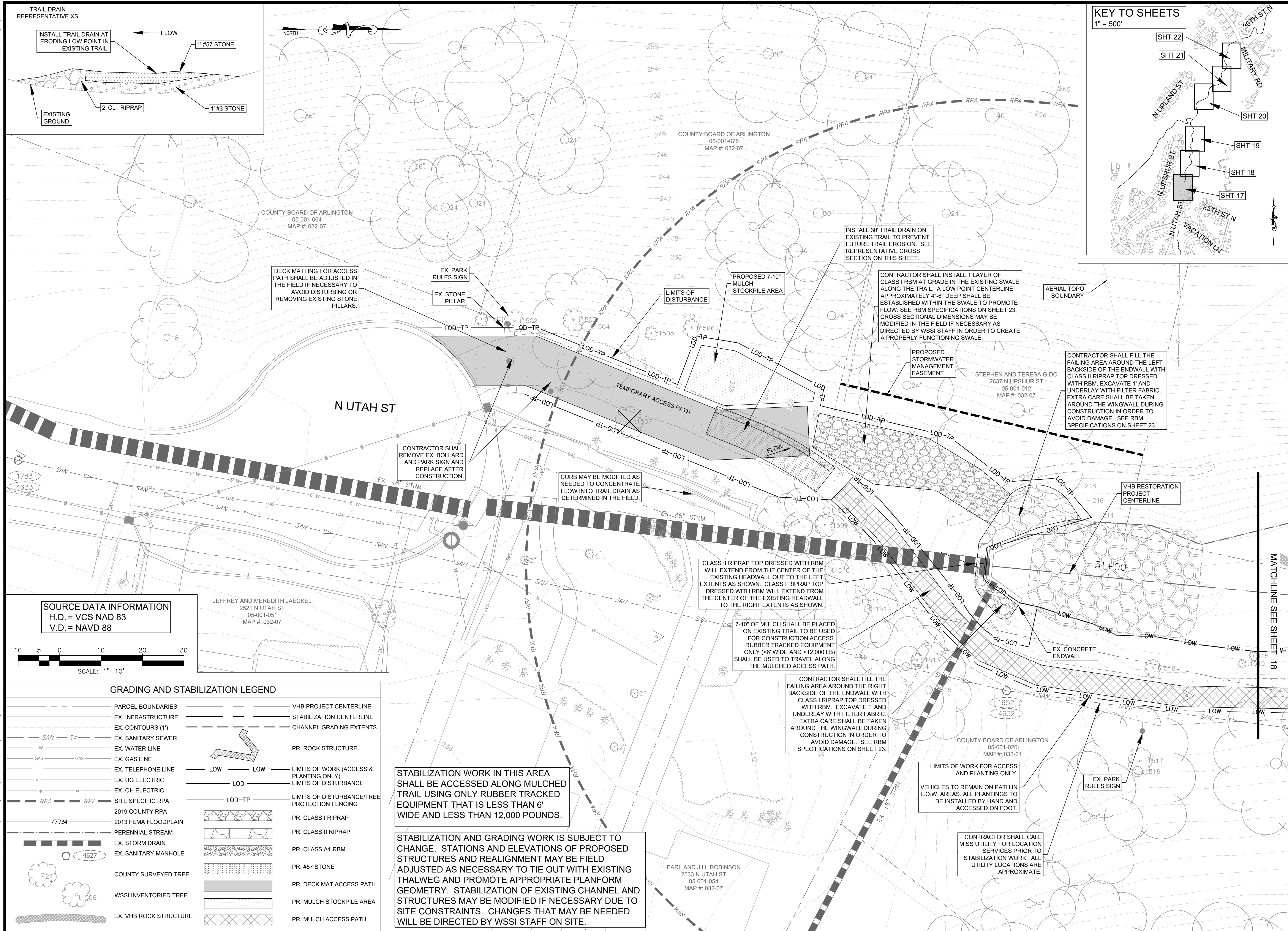
PLOTTED: AUGUST 8 2022

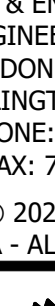
SCALE: 1"=10'

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TRIB A MAINTENANCE AND EMERGENCY REPAIR







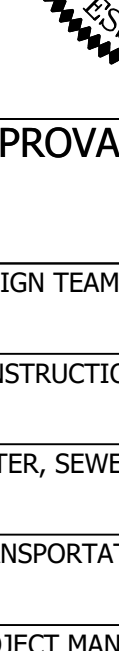
# ARLINGTON VIRGINIA

DEPARTMENT OF  
ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION

2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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**SEAL**



APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

GRADING AND STABILIZATION PLAN (01)

DESIGNED: AMC

DRAWN: AMC

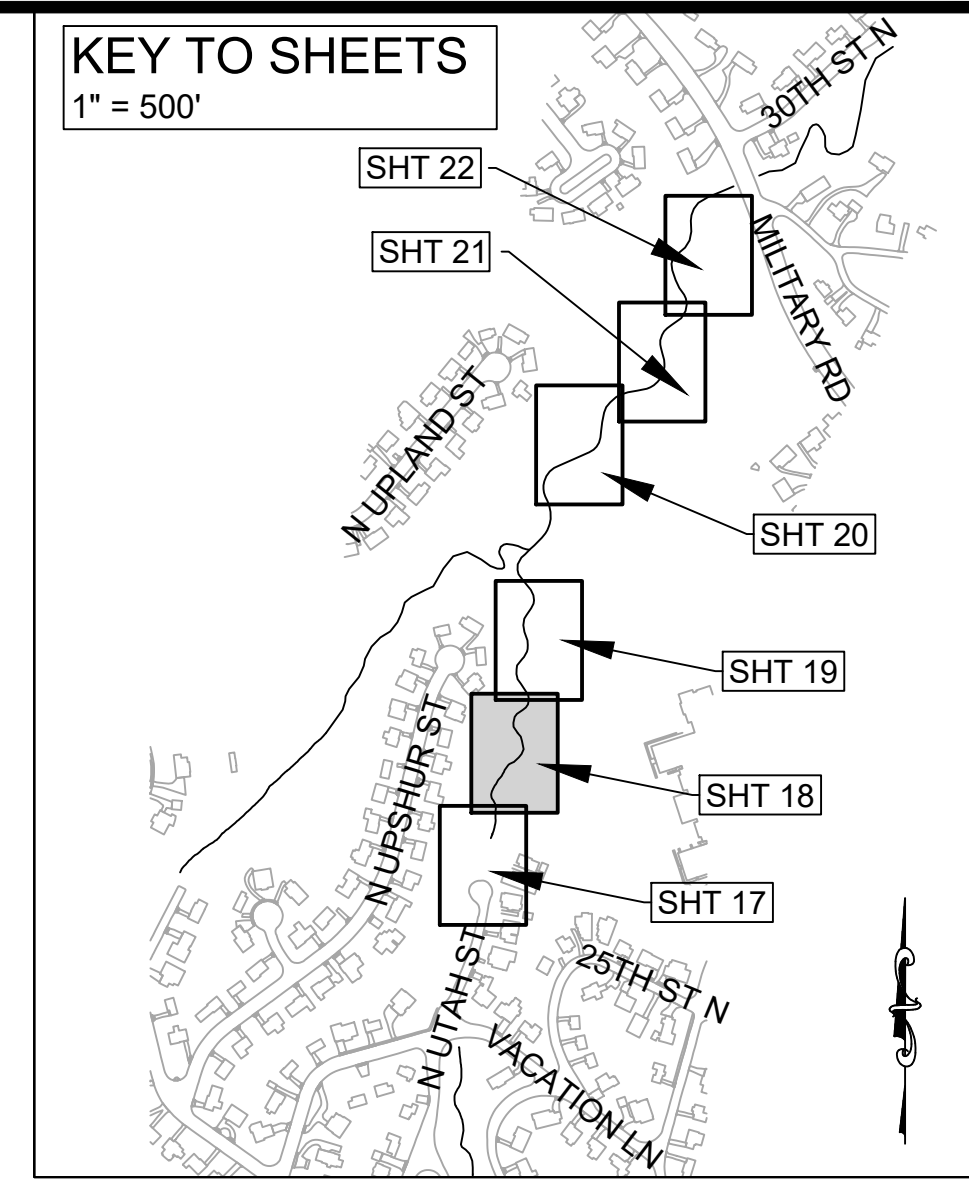
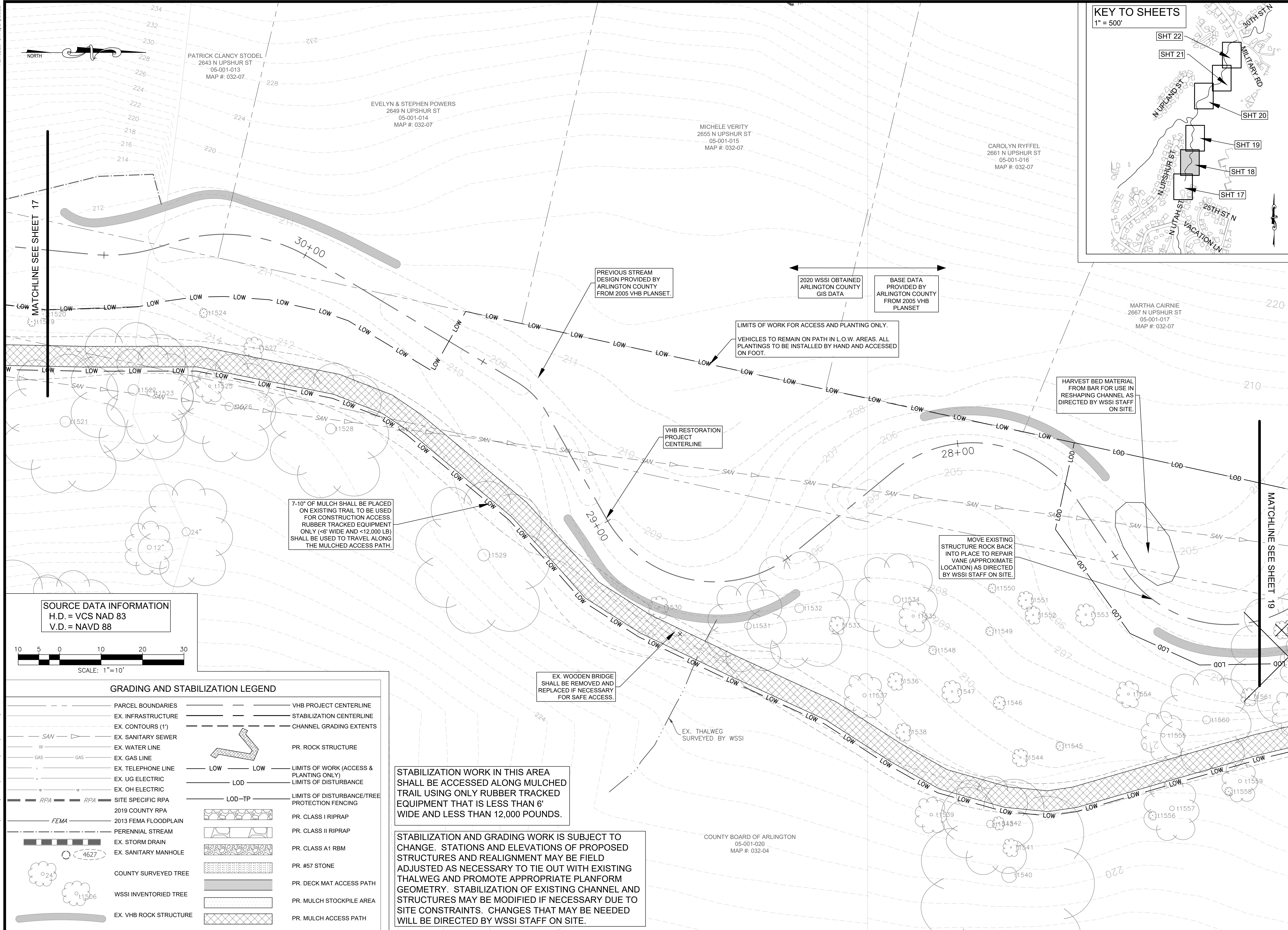
CHECKED: FRG

PLOTTED: JULY 13 2022

**SCALE: 1"=10'**

17 of 49





**ARLINGTON VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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SEAL

FRANK R. GRAZIOPLENE  
Lic. No. 032099  
07/13/2022  
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

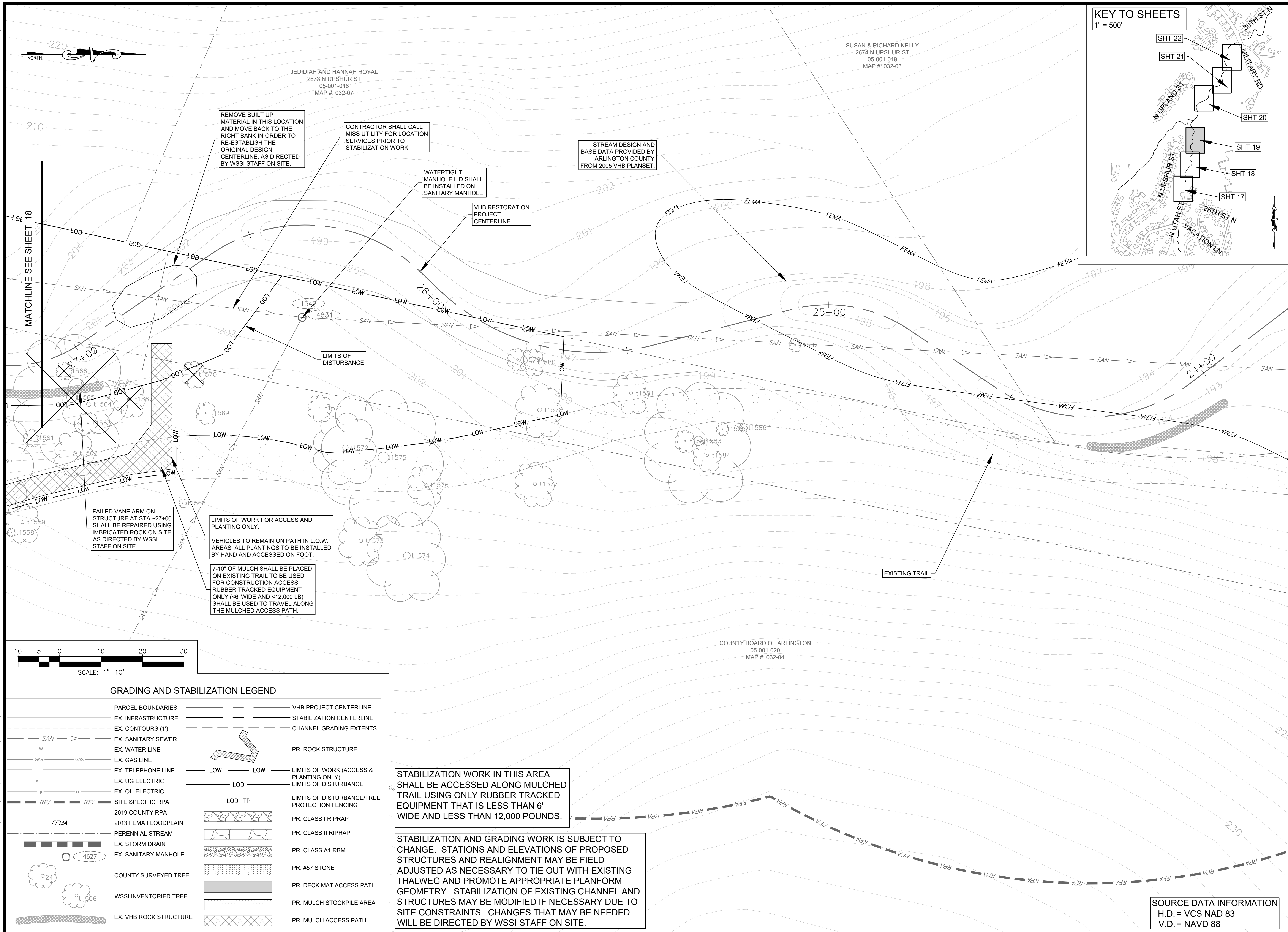
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

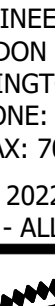

GRADING AND STABILIZATION PLAN (02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG  
PLOTTED: JULY 13 2022

SCALE: 1"=10'



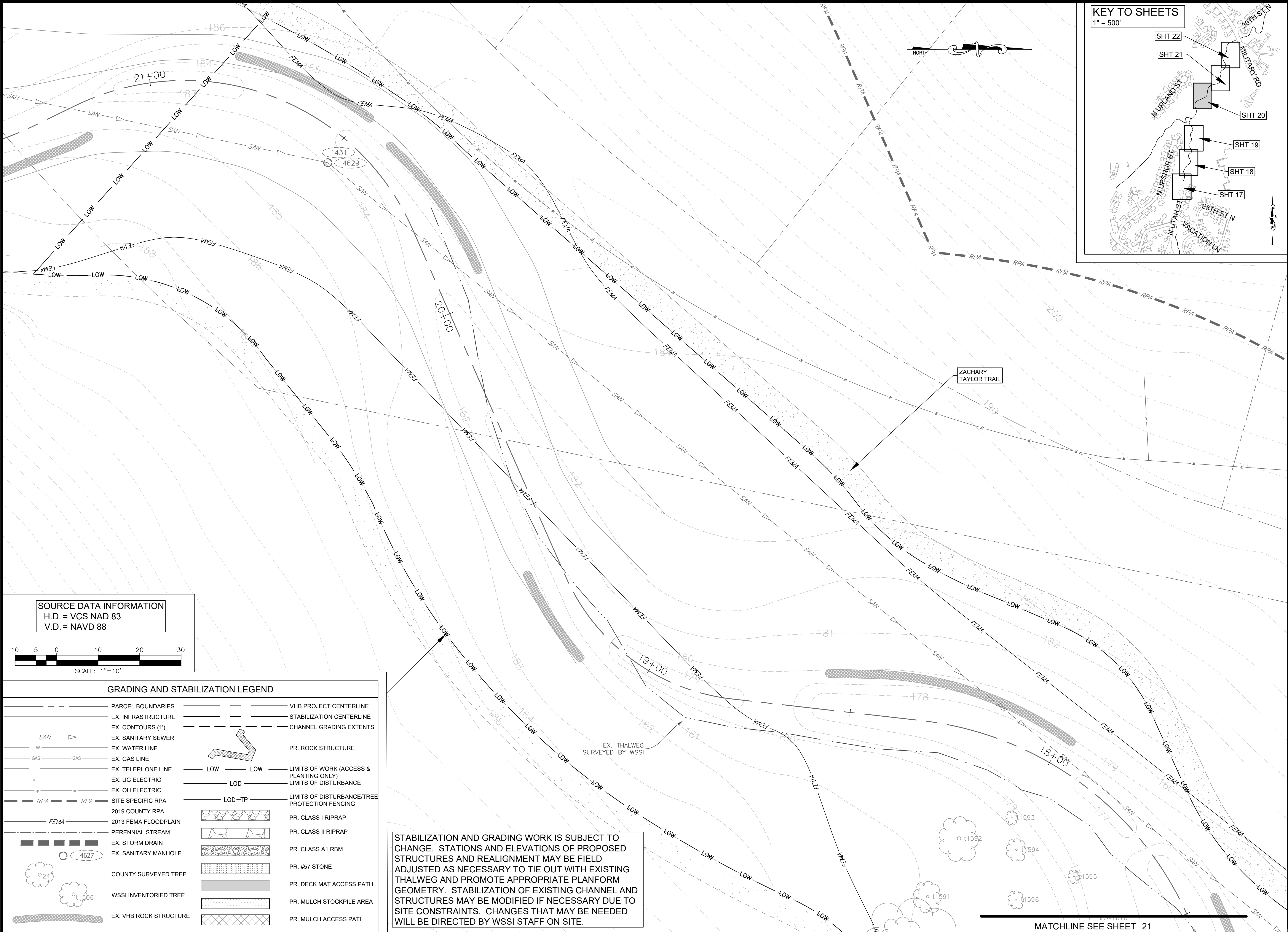


 <b>ARLINGTON VIRGINIA</b> DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED	
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<b>APPROVALS</b>	<b>DATE</b>
DESIGN TEAM ENGINEER SUPERVISOR _____	
CONSTRUCTION MANAGEMENT SUPERVISOR _____	
WATER, SEWER, STREETS BUREAU CHIEF _____	
TRANSPORTATION DIRECTOR _____	
PROJECT MANAGER _____	
<b>REVISIONS</b>	<b>DATE</b>
_____	_____
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TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN ARLINGTON COUNTY, VIRGINIA	
GRADING AND STABILIZATION PLAN (03)	
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DESIGNED:	AMC
DRAWN:	AMC
CHECKED:	FRG
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PLOTTED: JULY 13 2022	
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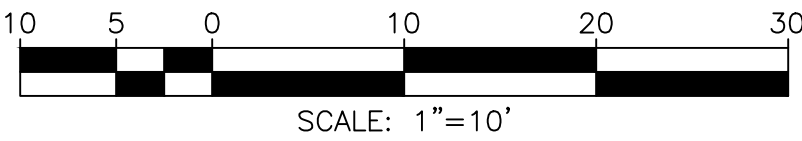


REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88

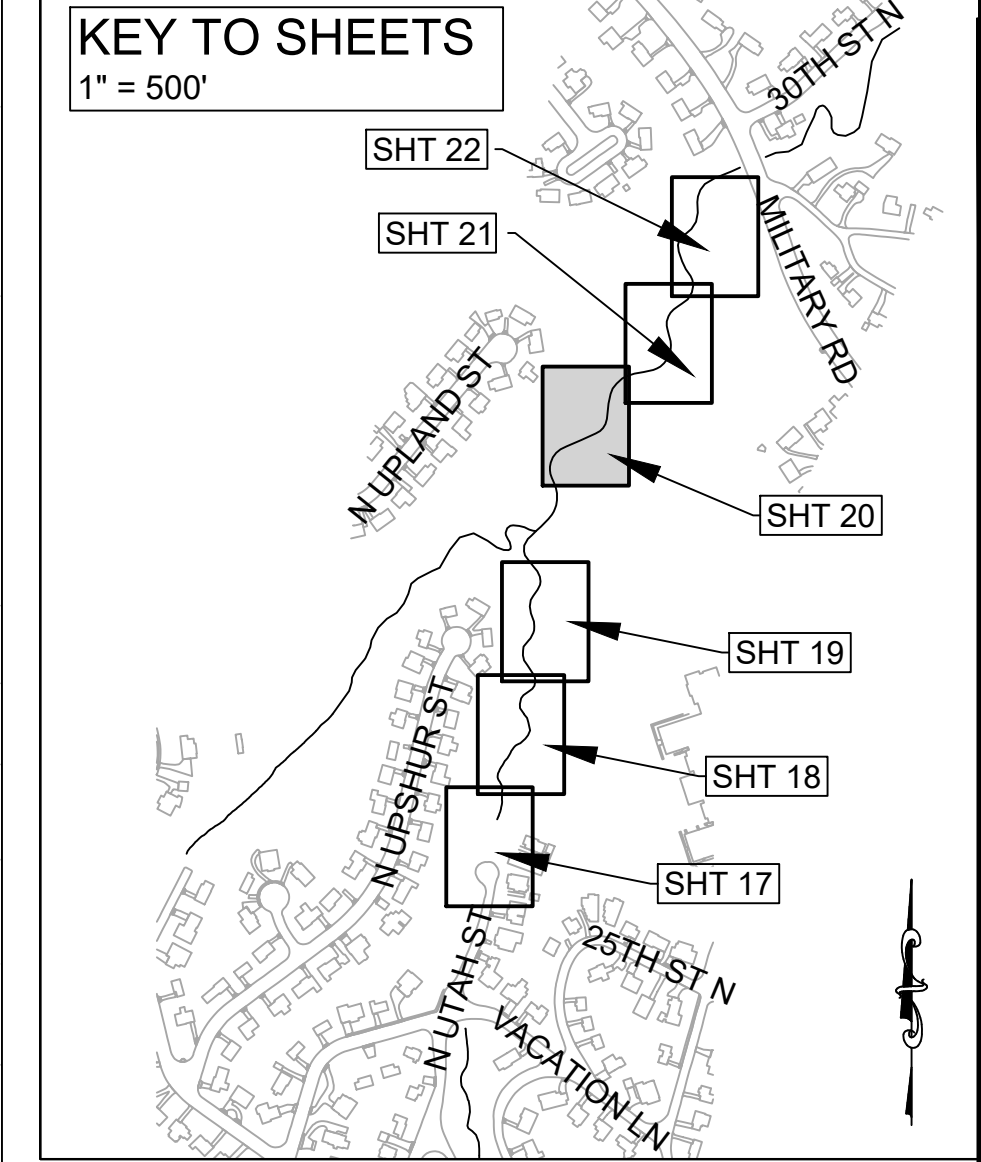


GRADING AND STABILIZATION LEGEND

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
---	EX. CONTOURS (1')	---	CHANNEL GRADING EXTENTS
SAN	EX. SANITARY SEWER	---	PR. ROCK STRUCTURE
W	EX. WATER LINE	LOW	LIMITS OF WORK (ACCESS & PLANTING ONLY)
GAS	EX. GAS LINE	LOD	LIMITS OF DISTURBANCE
---	EX. TELEPHONE LINE	LOD-TP	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC	---	PR. CLASS I RIPRAP
---	EX. OH ELECTRIC	---	PR. CLASS II RIPRAP
RPA	SITE SPECIFIC RPA	---	PR. CLASS A1 RBM
FEMA	2019 COUNTY RPA	---	PR. #57 STONE
---	2013 FEMA FLOODPLAIN	---	PR. DECK MAT ACCESS PATH
---	PERENNIAL STREAM	---	PR. MULCH STOCKPILE AREA
---	EX. STORM DRAIN	---	PR. MULCH ACCESS PATH
---	EX. SANITARY MANHOLE	---	
---	COUNTY SURVEYED TREE	---	
---	WSSI INVENTORIED TREE	---	
---	EX. VHB ROCK STRUCTURE	---	

STABILIZATION AND GRADING WORK IS SUBJECT TO CHANGE. STATIONS AND ELEVATIONS OF PROPOSED STRUCTURES AND REALIGNMENT MAY BE FIELD ADJUSTED AS NECESSARY TO TIE OUT WITH EXISTING THALWEG AND PROMOTE APPROPRIATE PLANFORM GEOMETRY. STABILIZATION OF EXISTING CHANNEL AND STRUCTURES MAY BE MODIFIED IF NECESSARY DUE TO SITE CONSTRAINTS. CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

KEY TO SHEETS  
1" = 500'



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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
GRADING AND STABILIZATION PLAN (04)

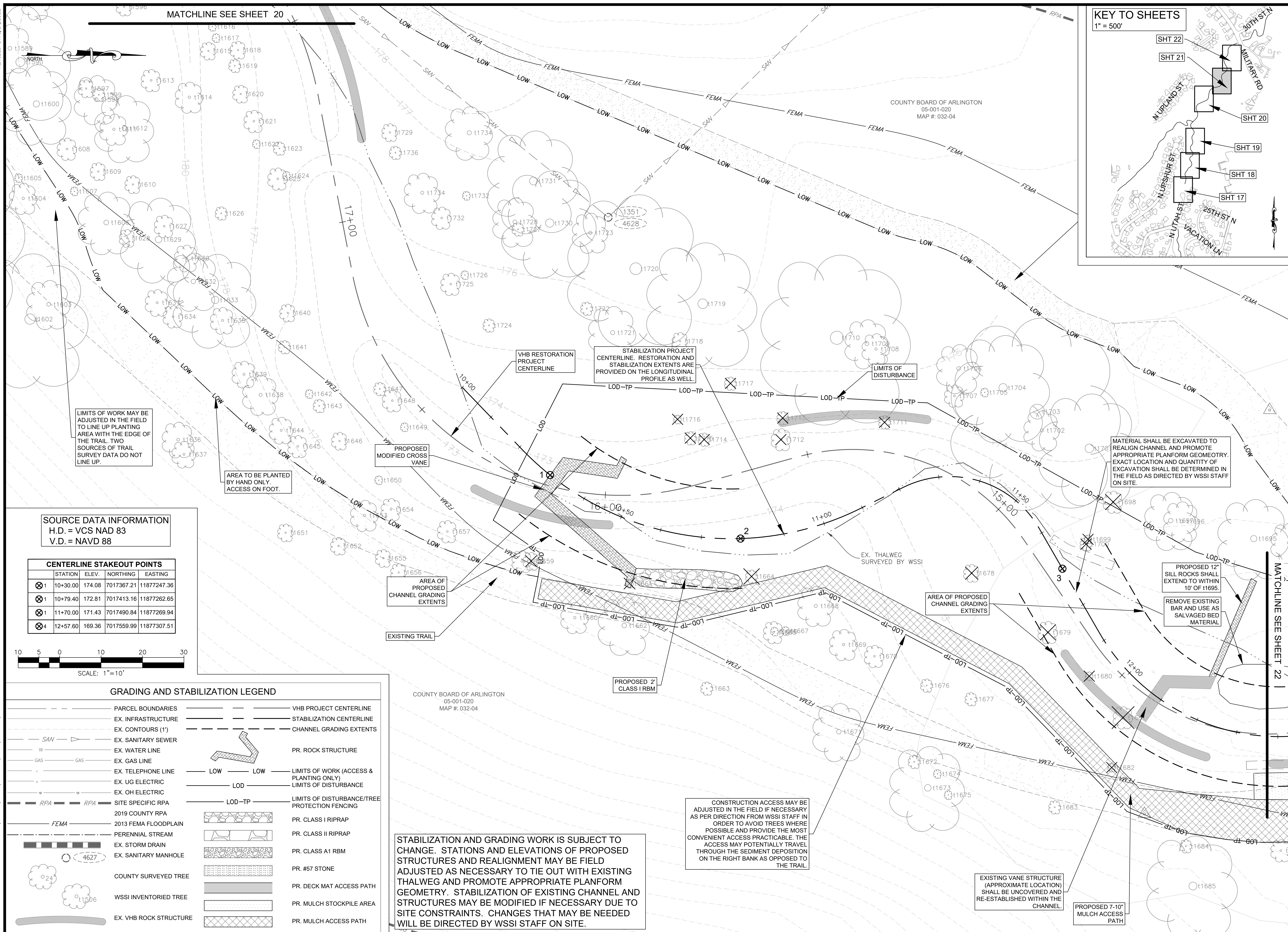
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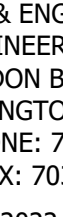

PLOTTED: JULY 13 2022

SCALE: 1"=10'

MATCHLINE SEE SHEET 21



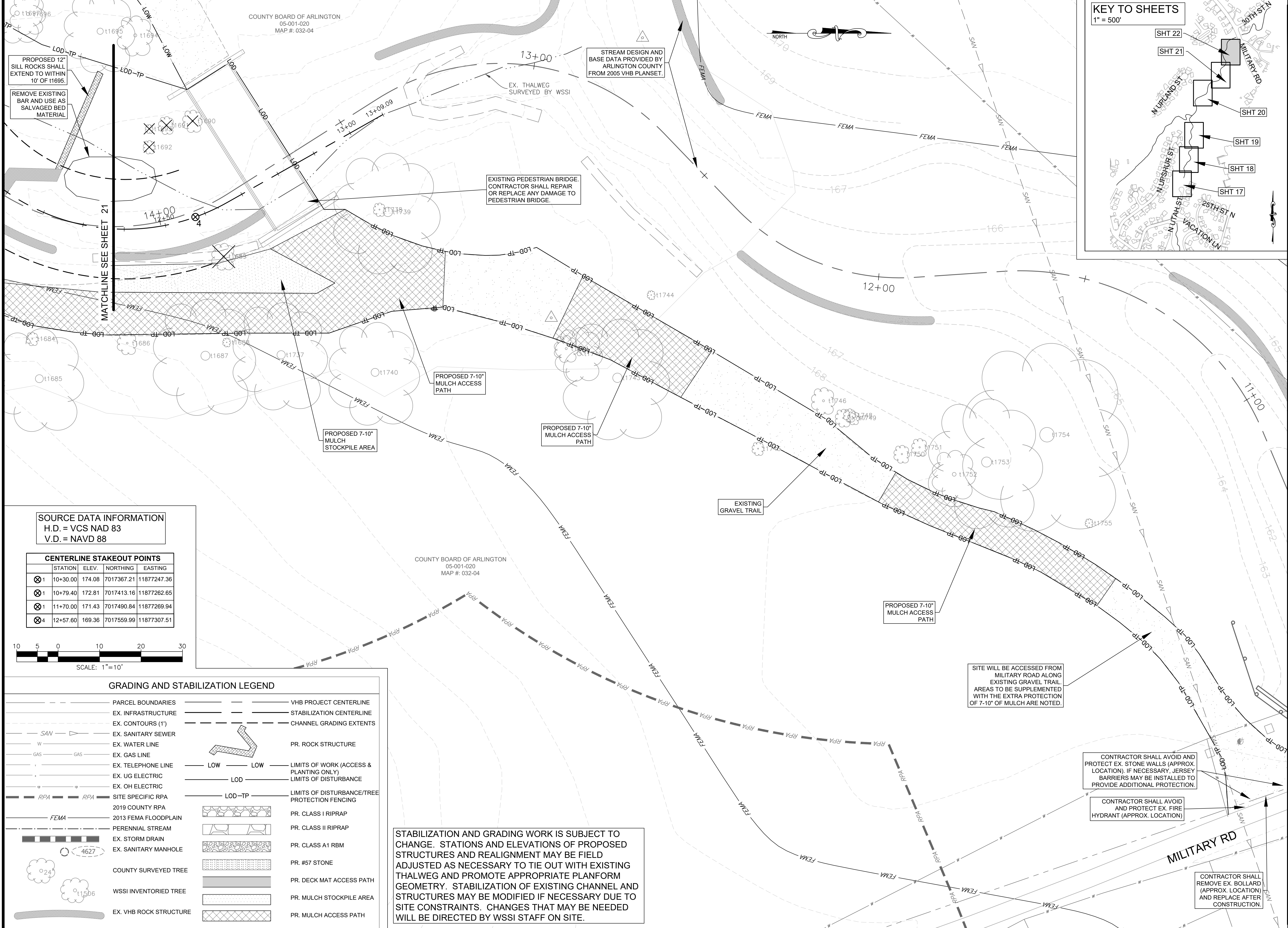


 <b>ARLINGTON</b> <b>VIRGINIA</b>	
DEPARTMENT OF <b>ENVIRONMENTAL SERVICES</b> FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606	
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<b>APPROVALS</b>	<b>DATE</b>
DESIGN TEAM ENGINEER SUPERVISOR _____	
CONSTRUCTION MANAGEMENT SUPERVISOR _____	
WATER, SEWER, STREETS BUREAU CHIEF _____	
TRANSPORTATION DIRECTOR _____	
PROJECT MANAGER _____	
<b>REVISIONS</b>	<b>DATE</b>
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DESIGNED: AMC	
DRAWN: AMC	
CHECKED: FRG	
PLOTTED: JULY 13 2022	
<b>SCALE: 1"=10'</b>	



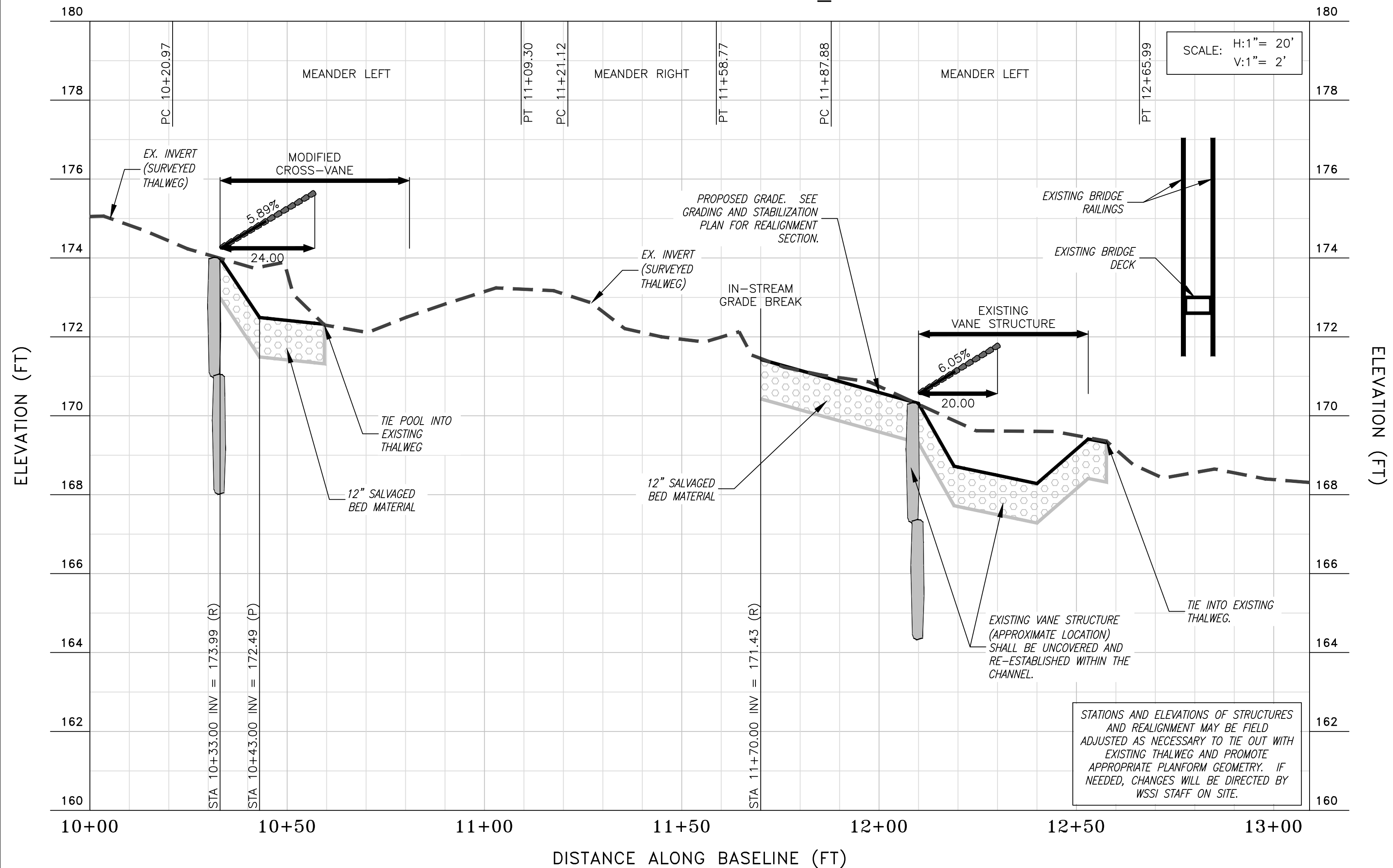
REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036

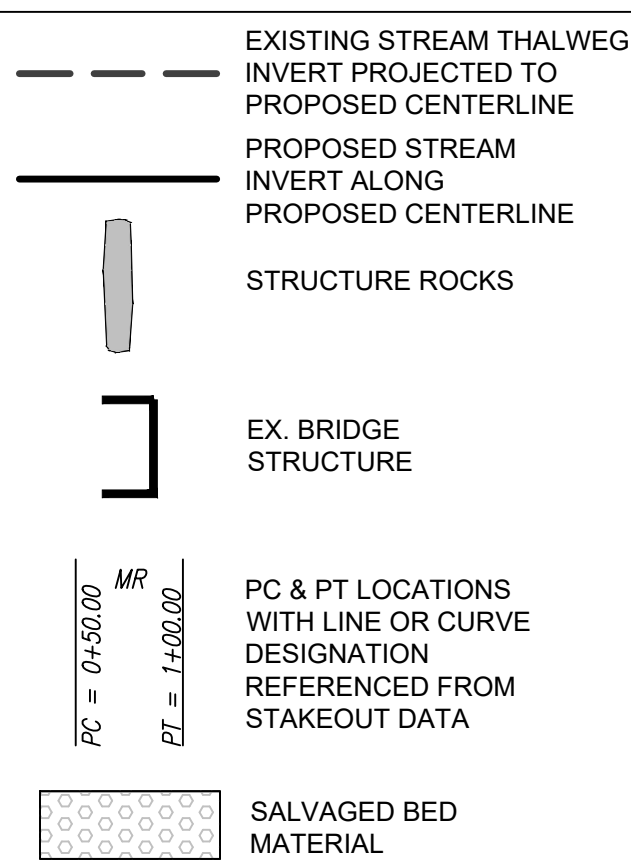




# LONGITUDINAL PROFILE REACH\_00-i01



## PROFILE LEGEND



## "REINFORCED BED" MIXTURE SPECIFICATIONS

THE REINFORCED BED MIXTURE SPECIFIED BELOW MUST BE APPROVED BY THE C.O.R. PRIOR TO BEING PLACED IN THE STREAM CHANNEL.

MATERIAL CATEGORY	MATERIAL SIZE RANGE	CL A1 RBM	CL I RBM	CL II RBM
ROCK <sup>2</sup>	VDOT CL A1 ROCK - D <sub>50</sub> = 6.7" - 10.8"	35 - 40%		10 - 15%
	VDOT CL I ROCK - D <sub>50</sub> = 13.2"		35 - 40%	
	VDOT CL II ROCK - D <sub>50</sub> = 19.2"			55 - 65%
BANK RUN <sup>3</sup> GRAVEL	WELL GRADED GRAVEL (0.08" - 2.5") D <sub>50</sub> = 1.3"	35 - 40%	35 - 40%	10 - 15%
COARSE SAND <sup>4</sup>	0.04" - 0.08" (1 - 2 mm)	12 - 17%	12 - 17%	5 - 10%
TOPSOIL <sup>5</sup>	LOAM OR SILT LOAM WITH 3-5% ORGANIC CONTENT	7 - 12%	7 - 12%	3 - 7%

<sup>1</sup> THE REINFORCED BED SHALL BE A MINIMUM OF 12" IN DEPTH. SEE GRADING PLAN FOR LOCATION.

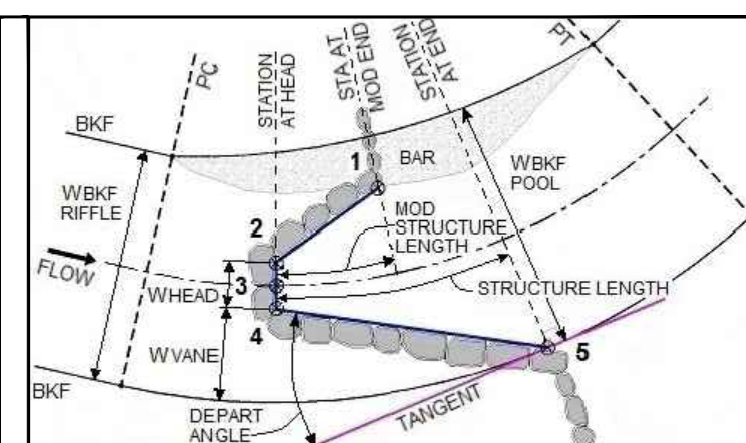
<sup>2</sup> THE ROCK PORTION OF THE MIXTURE SHALL CONSIST OF RIVER WASHED COBBLE (TAN, YELLOW, OR BROWN) WITH THE SPECIFIED D<sub>50</sub>. THE VOIDS FILLED WITH A MIXTURE OF SAND, GRAVEL, AND TOPSOIL. THE COMBINATION OF PARTICLE SIZES SPECIFIED IN CONJUNCTION WITH THE FILLING OF THE VOIDS, WILL RESULT IN A VERY RESISTANT, ARMORED SUBSTRATE THAT WILL BE CAPABLE OF WITHSTANDING MUCH GREATER SHEAR STRESS THAN THE COMPUTATION OF THE REQUIRED D<sub>50</sub> WOULD SUGGEST.

<sup>3</sup> BANK RUN GRAVEL MAY INCLUDE UP TO 5% CLAY, SILT, AND/OR SAND, AND UP TO 25% COBBLE (D<sub>50</sub> = 3" TO 8"). GRAVEL MUST HAVE NATURAL COLOR (TAN, YELLOW, OR BROWN).

<sup>4</sup> THE SAND PORTION OF THE MIXTURE SHALL CONSIST OF A WELL MIXED SAND PREDOMINANTLY 1.0 MILLIMETERS TO 2.0 MILLIMETERS IN SIZE. SUBJECT TO ENGINEER APPROVAL (I.E. WASHED CONCRETE SAND IS NOT REQUIRED). SAND MUST BE WHITE, TAN, YELLOW, OR BROWN IN COLOR.

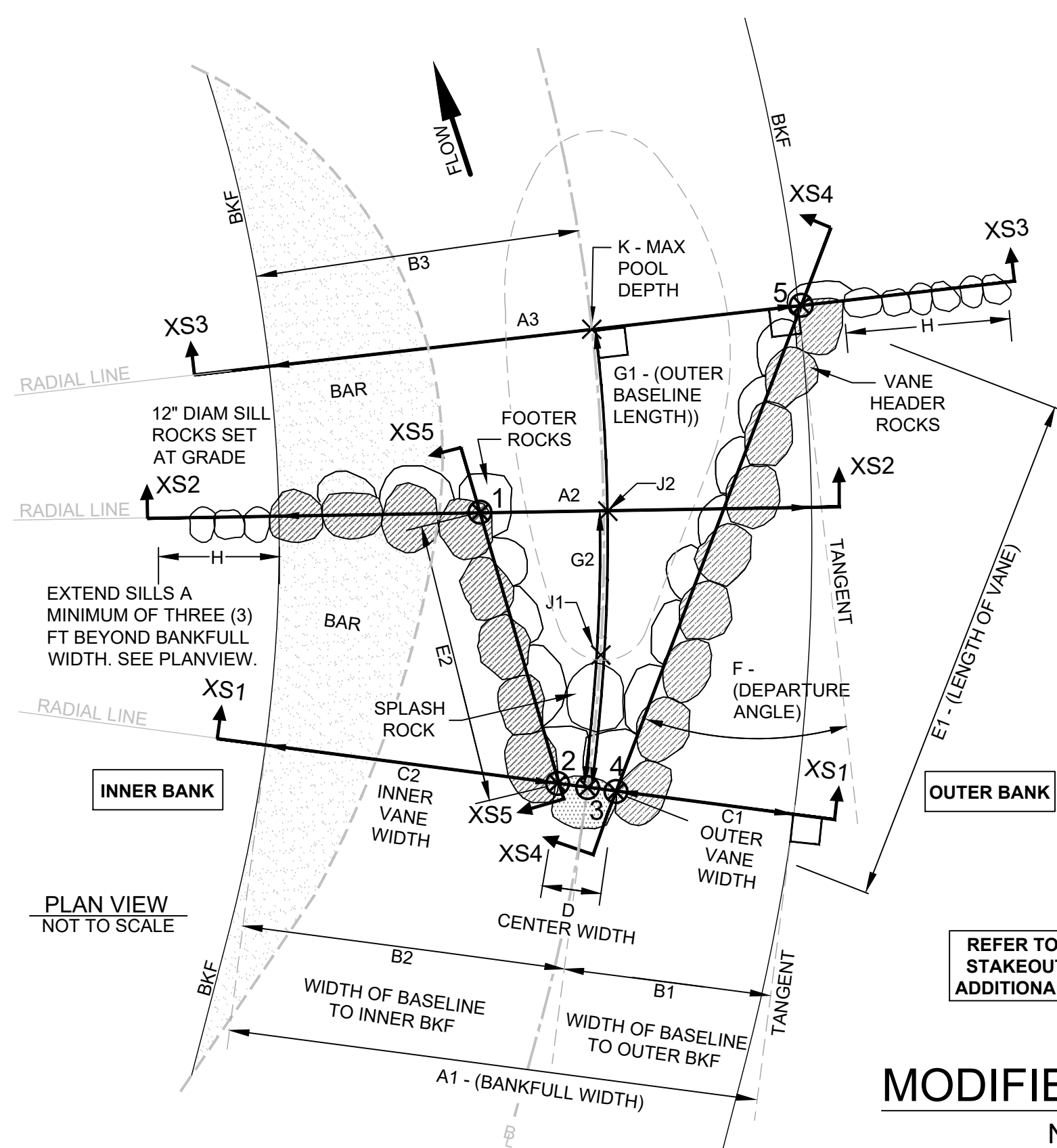
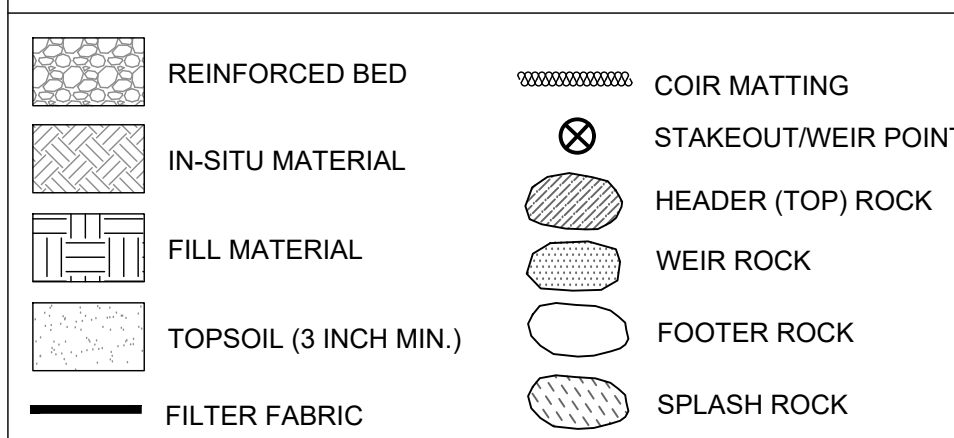
<sup>5</sup> THE TOPSOIL PORTION OF THE MIXTURE SHALL CONSIST OF 50% SIFTED, UNWASHED COARSE SAND (WITH FINES ALLOWED), 25% COMPOSTED LEAF/BARK MULCH, 25% MINERAL SILT OR FINER MATERIAL (STONE DUST FROM ROCK CRUSHING OPERATIONS OR ANY SILT/CLAY).

		MODIFIED CROSS VANE - LEFT MEANDER		PC	PT	RC	
10+33.00	WBKF-POOL	21	DBKF	2.1	10+20.97	11+09.30	70
WHAD	WBANK	WBANK	STRUC LENGTH	MOD LENGTH	SLOPE BKF	STEP	LPOOL
7.0	7.0	5.5	24.0	12.0	0.010	0.5	48.0
Δ Y-HEAD	DEPART ANGLE	WRAMP	LVANE-OUT	LVANES-MOD	SLOPE VANE		Mod % WIDTH
0.25	24.5	1.5	27.2	11.9	0.059		100
POINT #	STATION	BL DIST TO PREVIOUS POINT	OFFSET FROM BL TO POINT	ELEVATION AT POINT	DISTANCE TO PREVIOUS POINT	BANKFULL ELEVATION	SLOPE TO PREVIOUS POINT
1	10+45.00	0.0	8.1	175.09	0.0	175.97	---
2	10+33.00	12.0	3.5	174.24	11.9	176.09	0.071
3	10+33.00	0.0	---	173.99	3.5	176.09	0.071
4	10+33.00	0.0	---	174.24	3.5	176.09	0.071
5	10+57.00	24.0	10.5	175.84	27.2	175.84	0.059

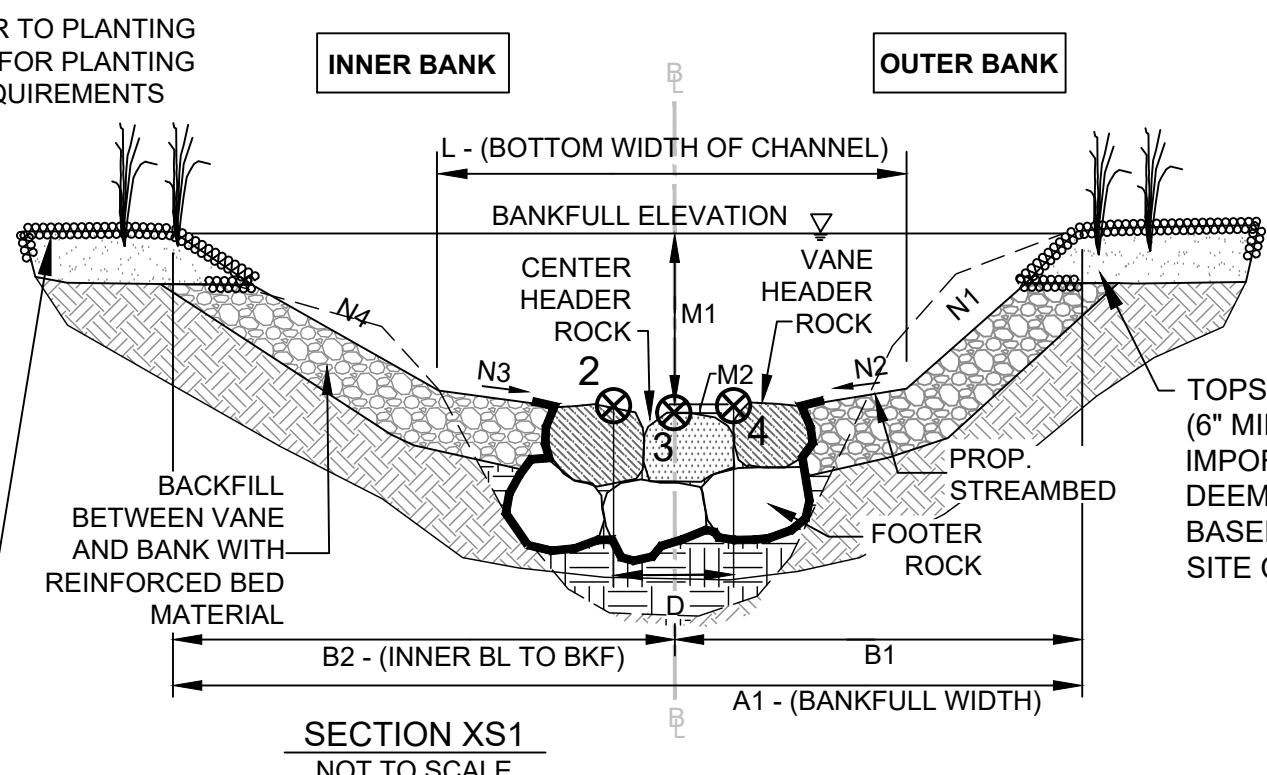


STRUCTURE STAKEOUT POINTS AND DIMENSIONS ARE SUBJECT TO CHANGE IF NECESSARY DUE TO SITE CONSTRAINTS. FIELD CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

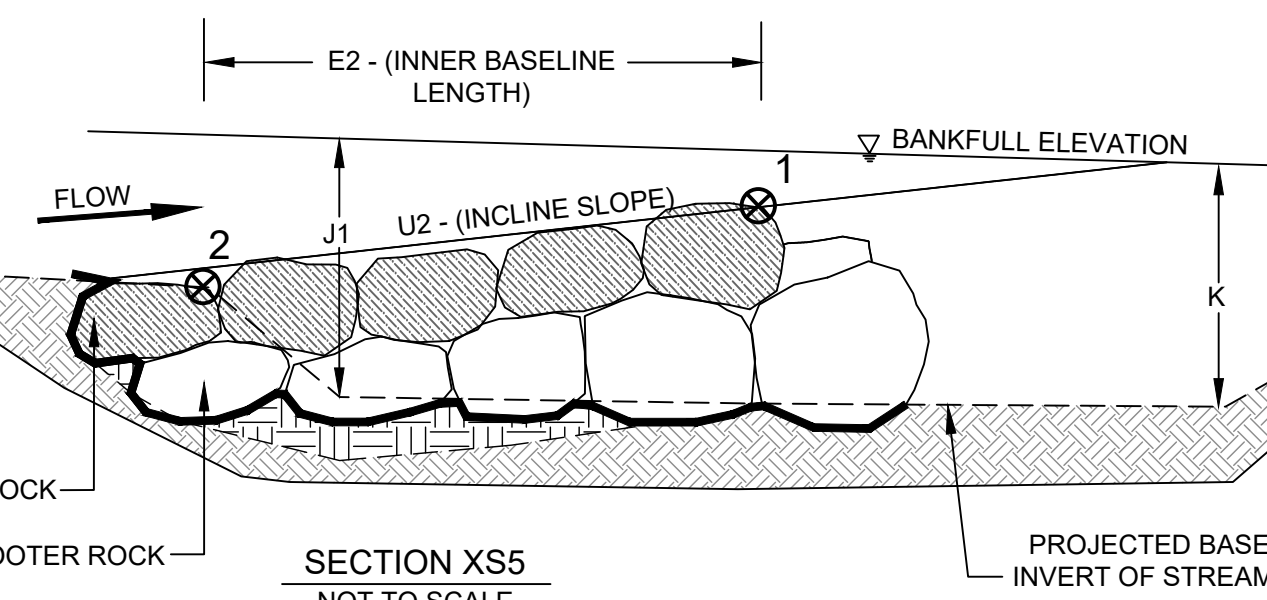
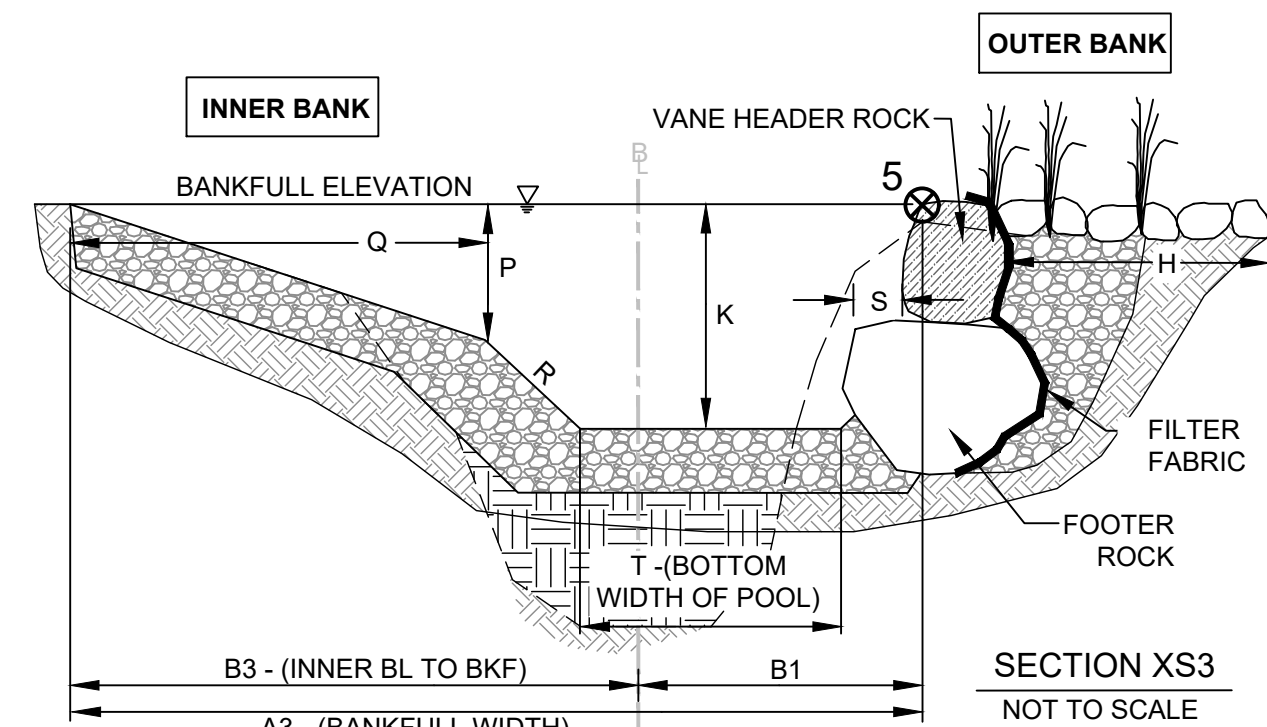
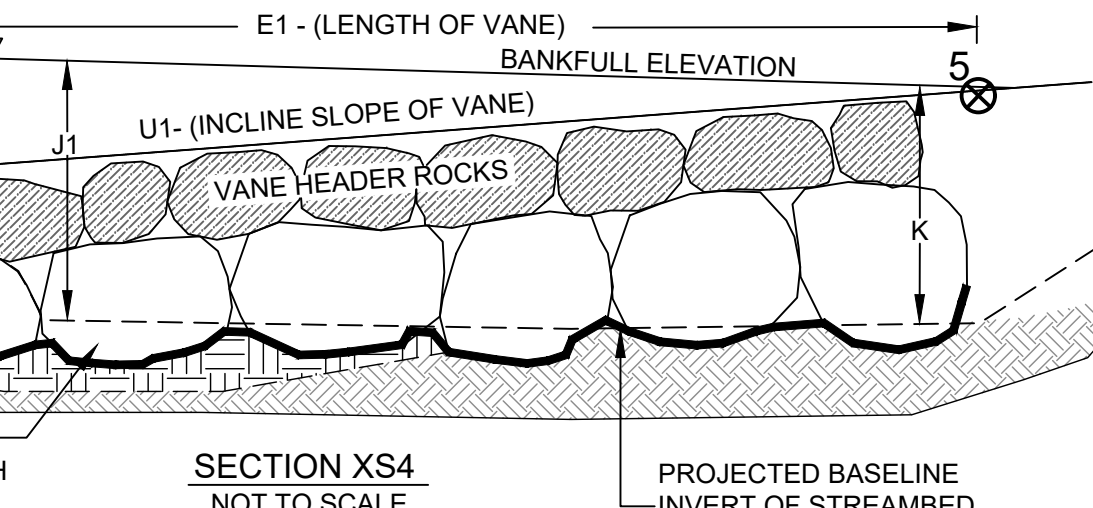
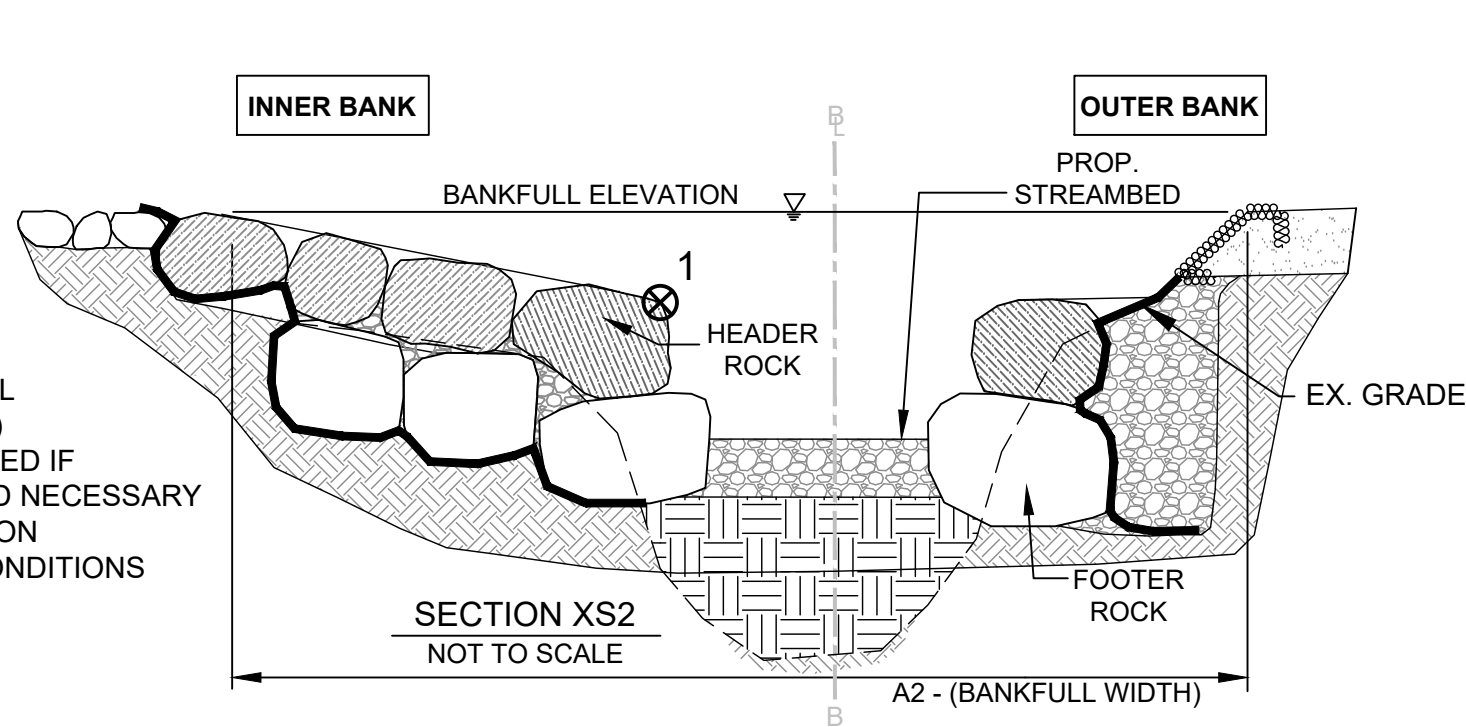
## STRUCTURE DETAIL LEGEND



## MODIFIED CROSS VANE NOT TO SCALE



COIR FABRIC (ECO MESH CM700 OR EQUIVALENT) IS PLACED FROM TOP OF LOW FLOW CHANNEL, THROUGH FULL WIDTH OF BENCH OR 12 INCHES BEYOND BANKFULL, WHICHEVER IS GREATER AND IS KEVED IN 6 INCHES AT ENDS WITH RIPARIAN SEED MIX UNDERNEATH. COIR FABRIC TO BE SECURED WITH ECO-STAKES (ACF WEST INC.), OR APPROVED EQUIVALENT.



PLAN VIEW DEPICTS A STRUCTURE IN A LEFT MEANDER (WITH THE OUTER BANK SITUATED ON THE RIGHT LOOKING DOWNSTREAM). FOR A RIGHT MEANDER STRUCTURE (WITH THE OUTER BANK ON THE LEFT), THE PLAN VIEW IS A MIRROR IMAGE OF WHAT SHOULD BE CONSTRUCTED. \*\*THE LONG VANE IS ALWAYS SITUATED ON THE OUTER BANK.

STRUCTURE LOCATION			MODIFIED CROSS VANE																															
REACH ID	BASELINE STATION AT HEADER ROCK	MEANDER DIRECTION	MODIFIED CROSS VANE DIMENSIONS PARAMETER (FT)																															
			A1 <sup>1</sup>	A2 <sup>1</sup>	A3 <sup>1</sup>	B1	B2	B3	C1	C2	D	E1	E2	F <sup>2</sup>	G1	G2	H	J1 <sup>3</sup>	J2 <sup>3</sup>	K <sup>3</sup>	L	M1 <sup>3</sup>	M2	N1	N2	N3	N4	P	Q	R	S	T	U1 <sup>2</sup>	U2 <sup>2</sup>
MAIN CHANNEL	10+33.00	LEFT	22.4	23.8	25.2	10.5	11.9	14.7	7.0	8.4	7.0	27.2	11.9	24.5	24.0	12.0	---	3.5	3.5	3.5	12.0	2.1	0.3	40.0:1	50.0:1	50.0:1	30.5:1	0.9	6.6	1.0:1	1.5	15.0	0.059	0.071



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## SEAL

APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

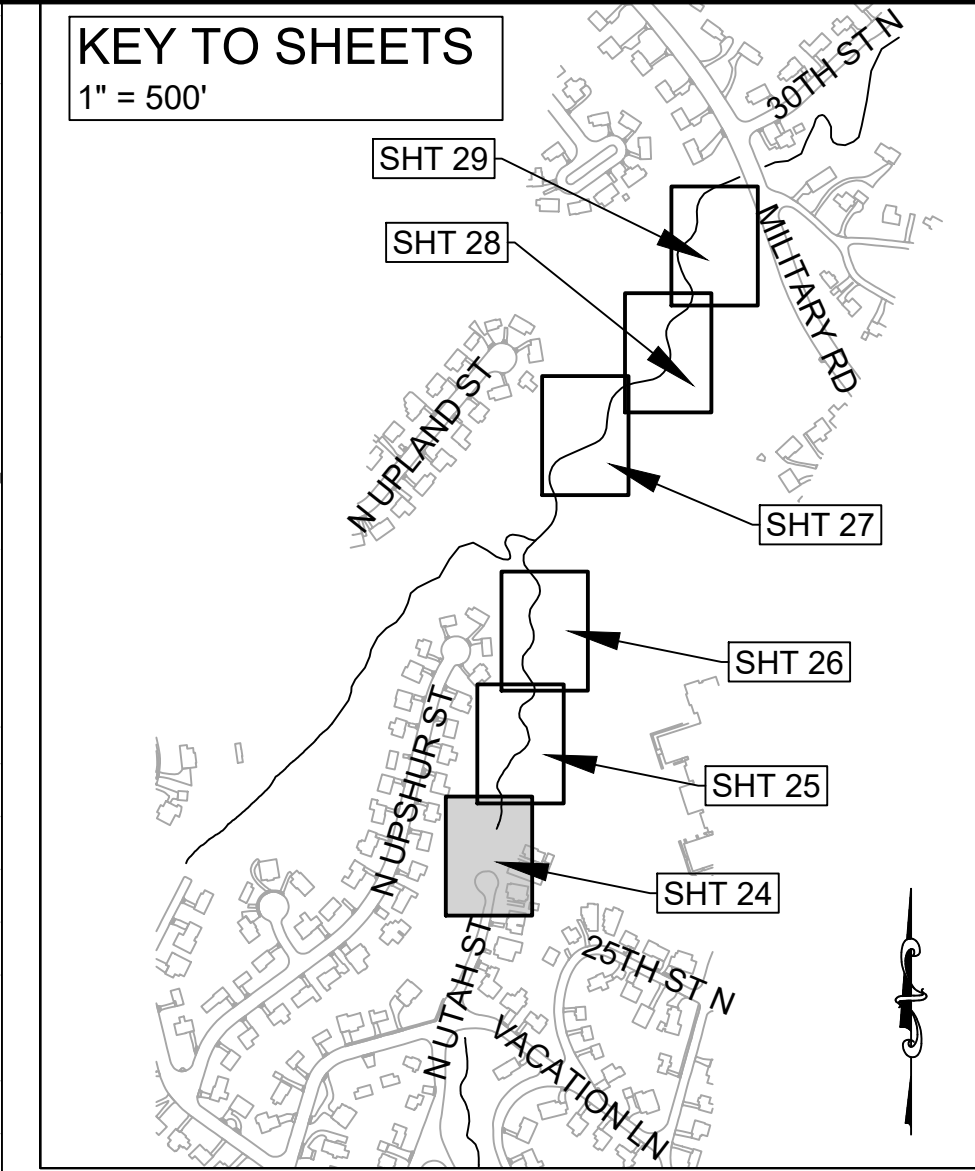
PROFILE AND CONSTRUCTION DETAILS  
(01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: AS NOTED





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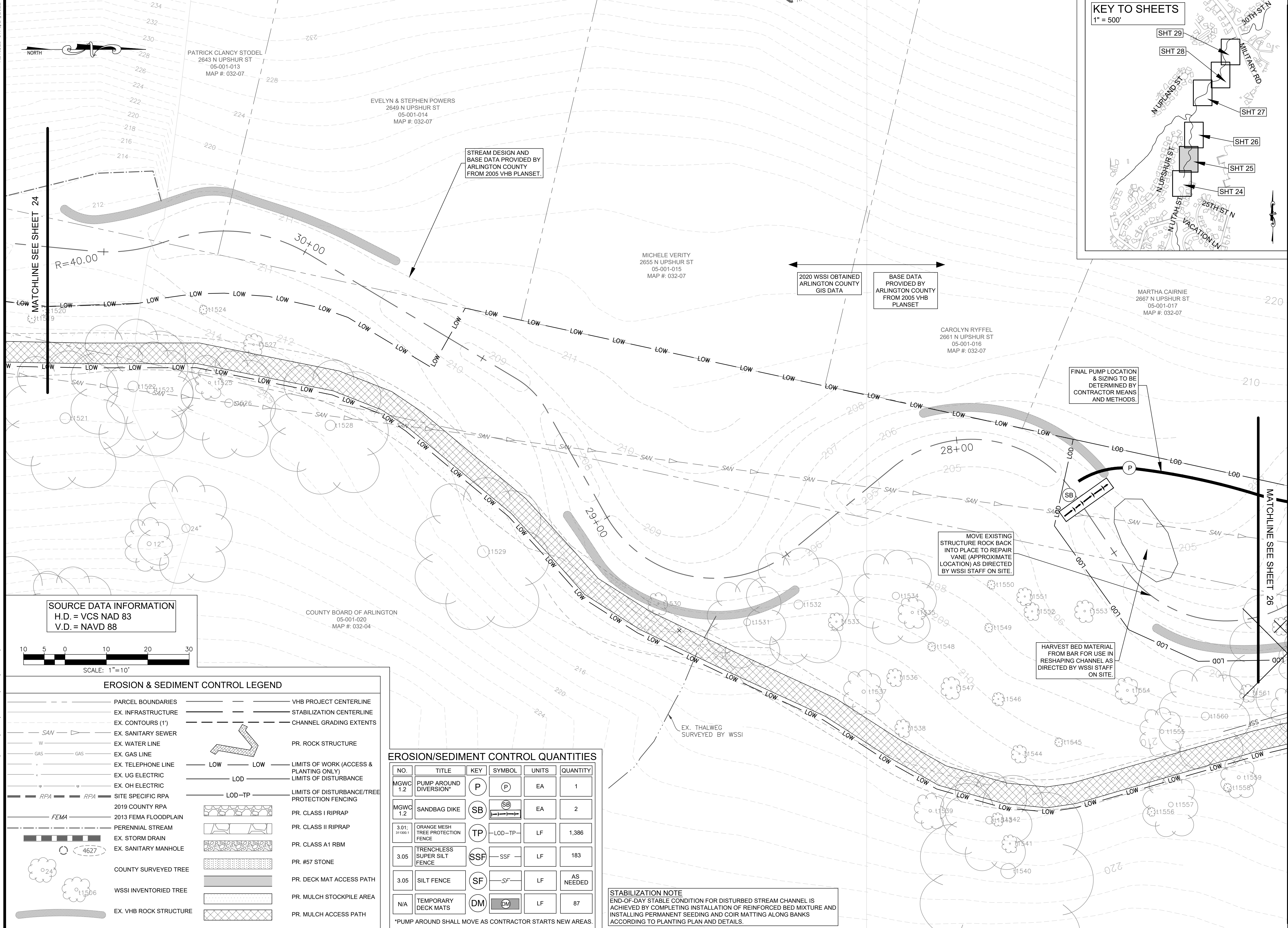
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DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

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PLOTTED: JULY 13 2022





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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

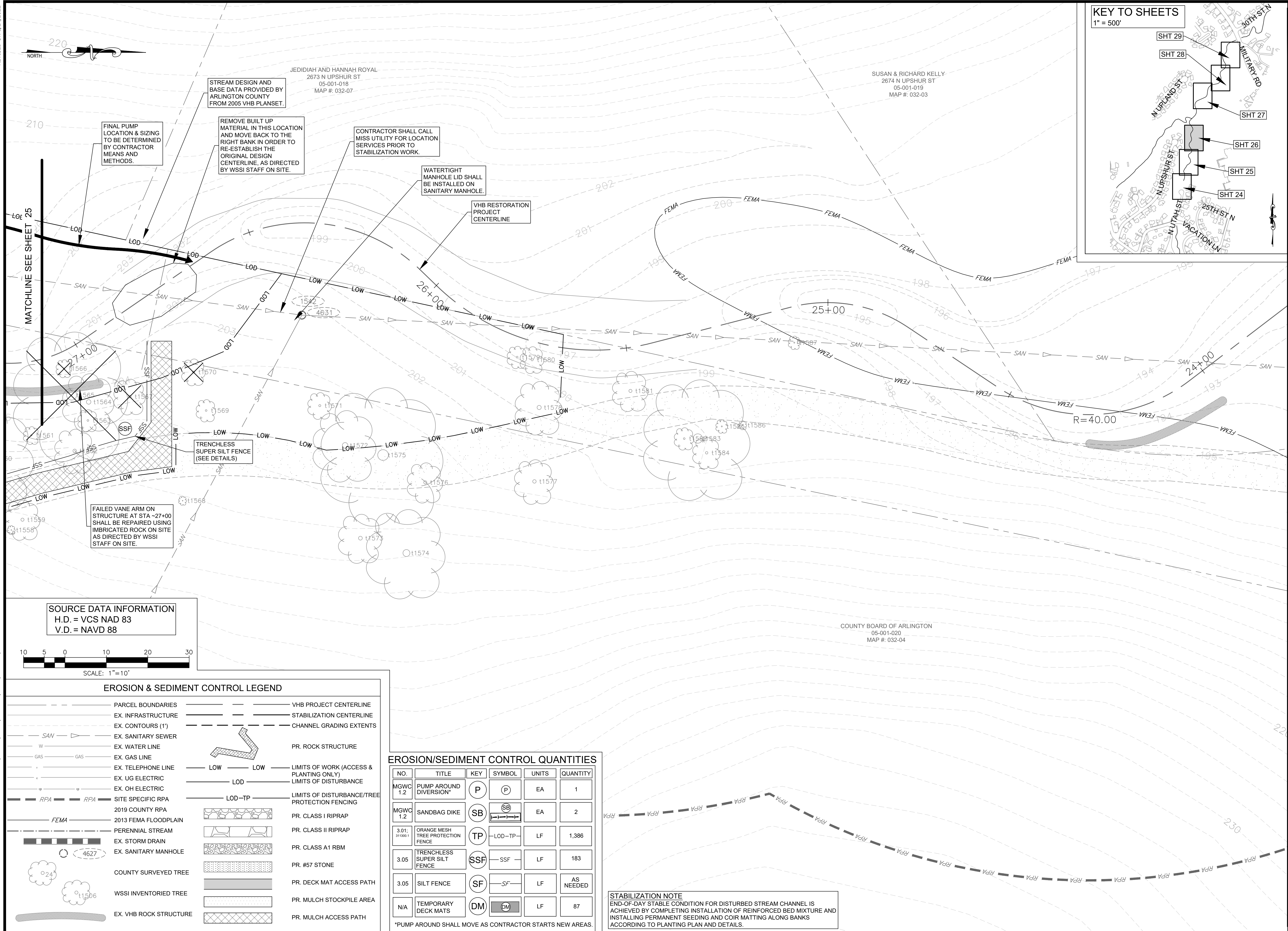
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
EROSION & SEDIMENT CONTROL PLAN  
(02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'





**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
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SEAL

APPROVALS

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS

NO.	DATE	DESCRIPTION

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

**EROSION & SEDIMENT CONTROL PLAN**  
(03)

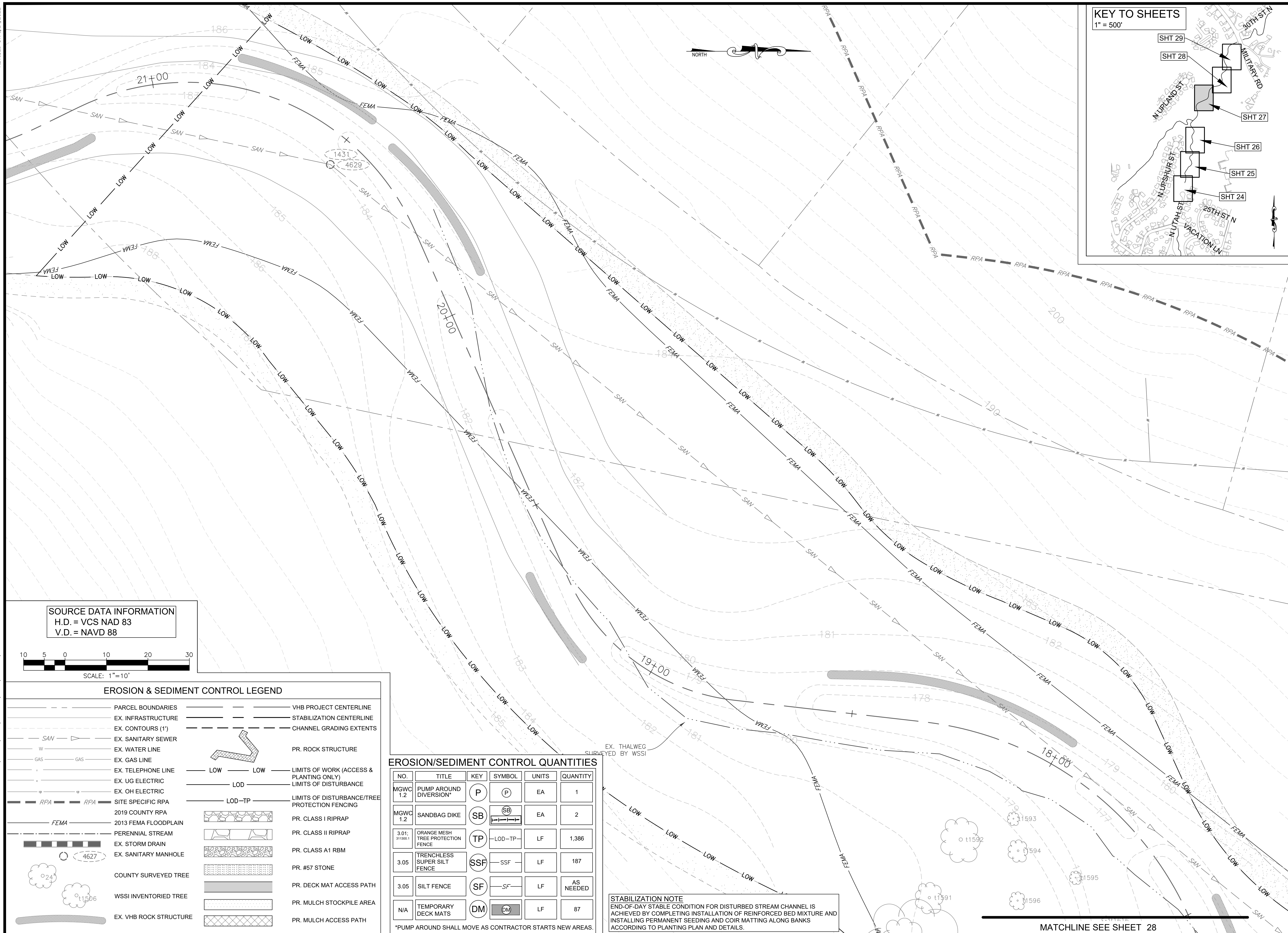
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PLOTTED: JULY 13 2022

SCALE: 1"=10'

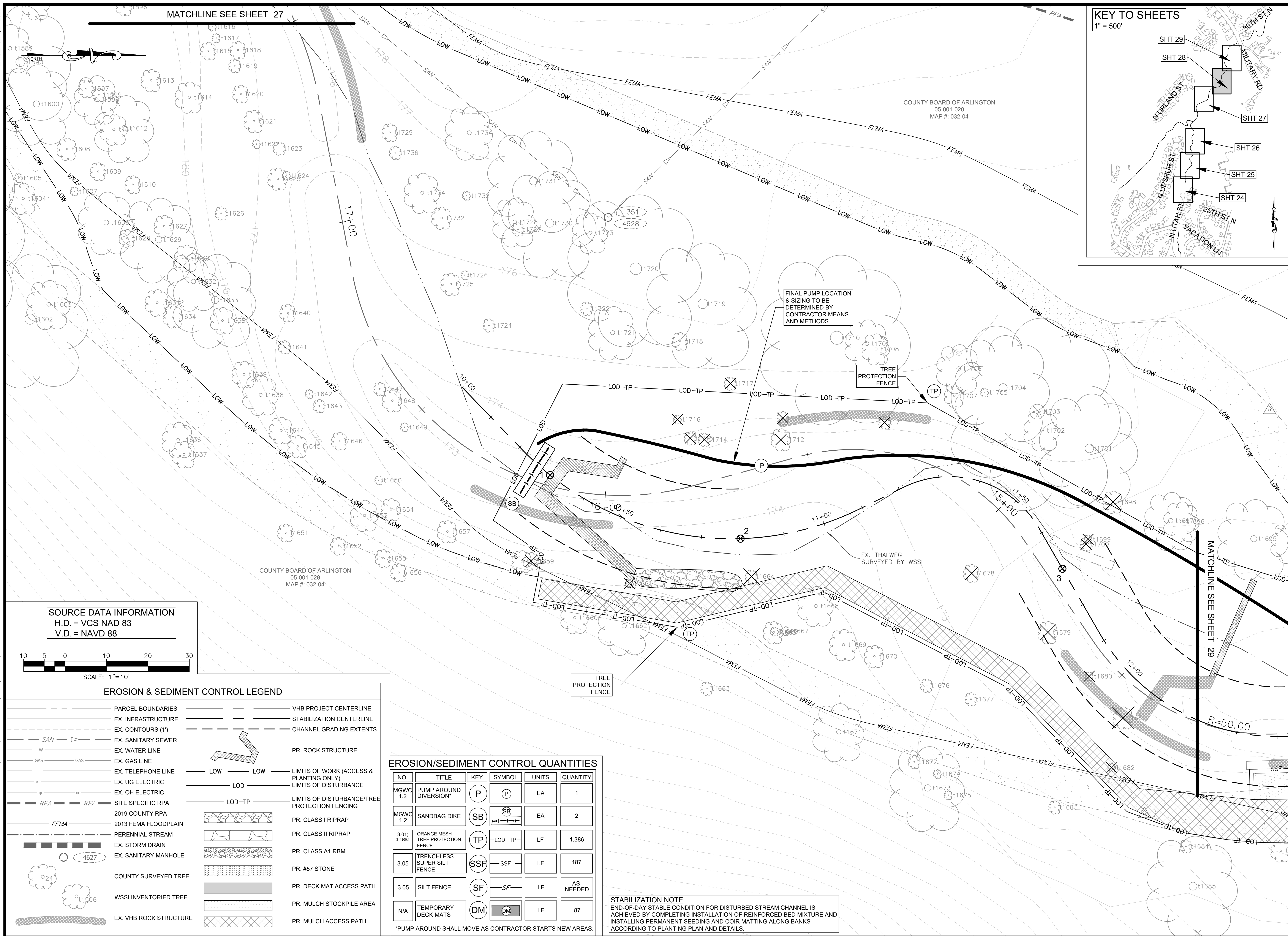
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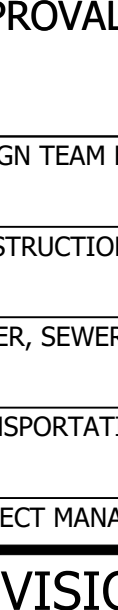




 <b>ARLINGTON VIRGINIA</b> DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED	
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<b>APPROVALS</b>	<b>DATE</b>
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CONSTRUCTION MANAGEMENT SUPERVISOR _____	
WATER, SEWER, STREETS BUREAU CHIEF _____	
TRANSPORTATION DIRECTOR _____	
PROJECT MANAGER _____	
<b>REVISIONS</b>	<b>DATE</b>
_____	_____
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DESIGNED: AMC	
DRAWN: AMC	
CHECKED: FRG	
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PLOTTED: JULY 13 2022	
<hr/>	
<b>SCALE: 1"=10'</b>	
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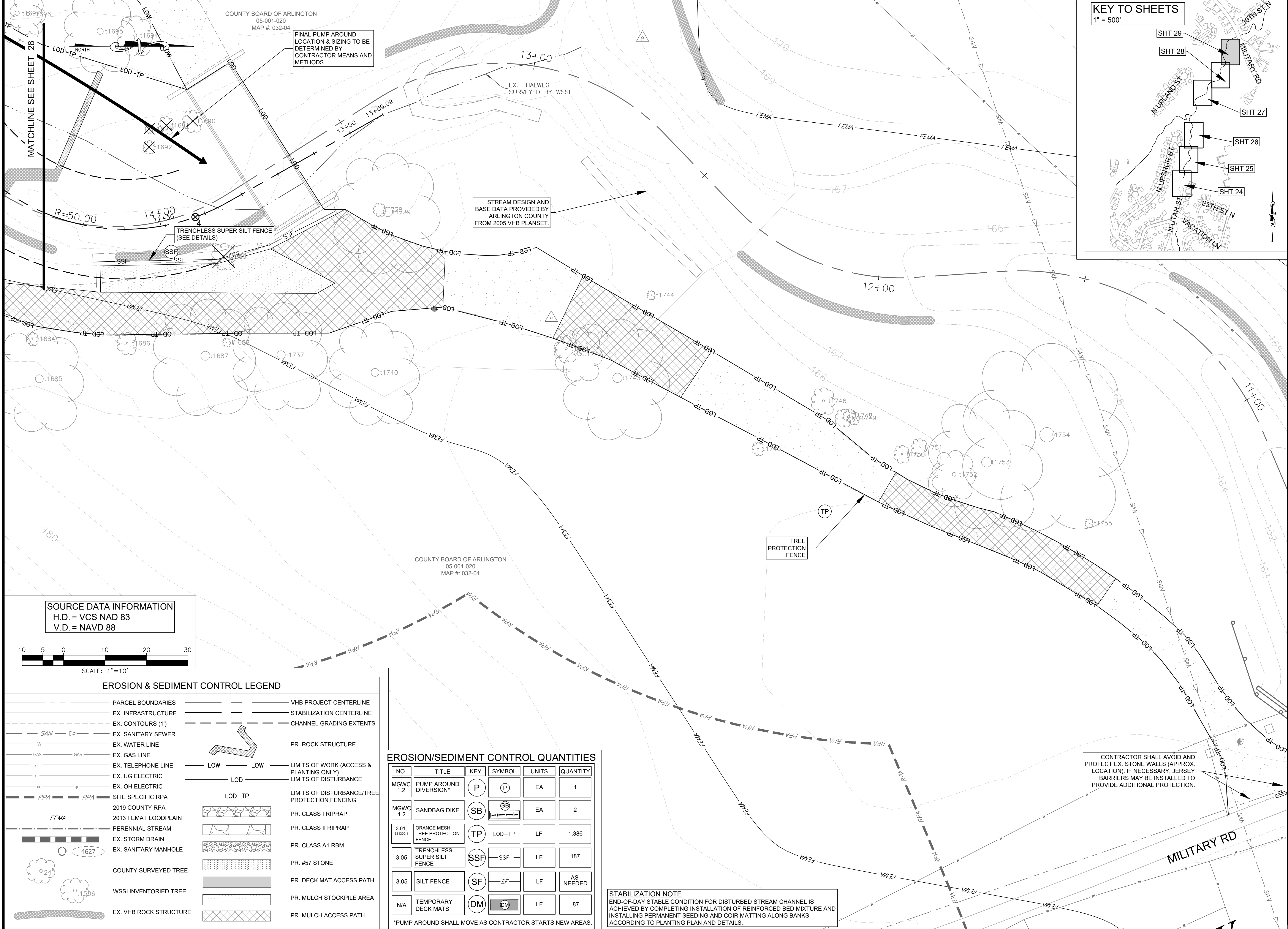


 <b>ARLINGTON VIRGINIA</b> DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606 COPYRIGHT © 2022 ARLINGTON COUNTY VIRGINIA - ALL RIGHTS RESERVED	
<b>SEAL</b>	
	
<b>APPROVALS</b>	<b>DATE</b>
DESIGN TEAM ENGINEER SUPERVISOR _____	
CONSTRUCTION MANAGEMENT SUPERVISOR _____	
WATER, SEWER, STREETS BUREAU CHIEF _____	
TRANSPORTATION DIRECTOR _____	
PROJECT MANAGER _____	
<b>REVISIONS</b>	<b>DATE</b>
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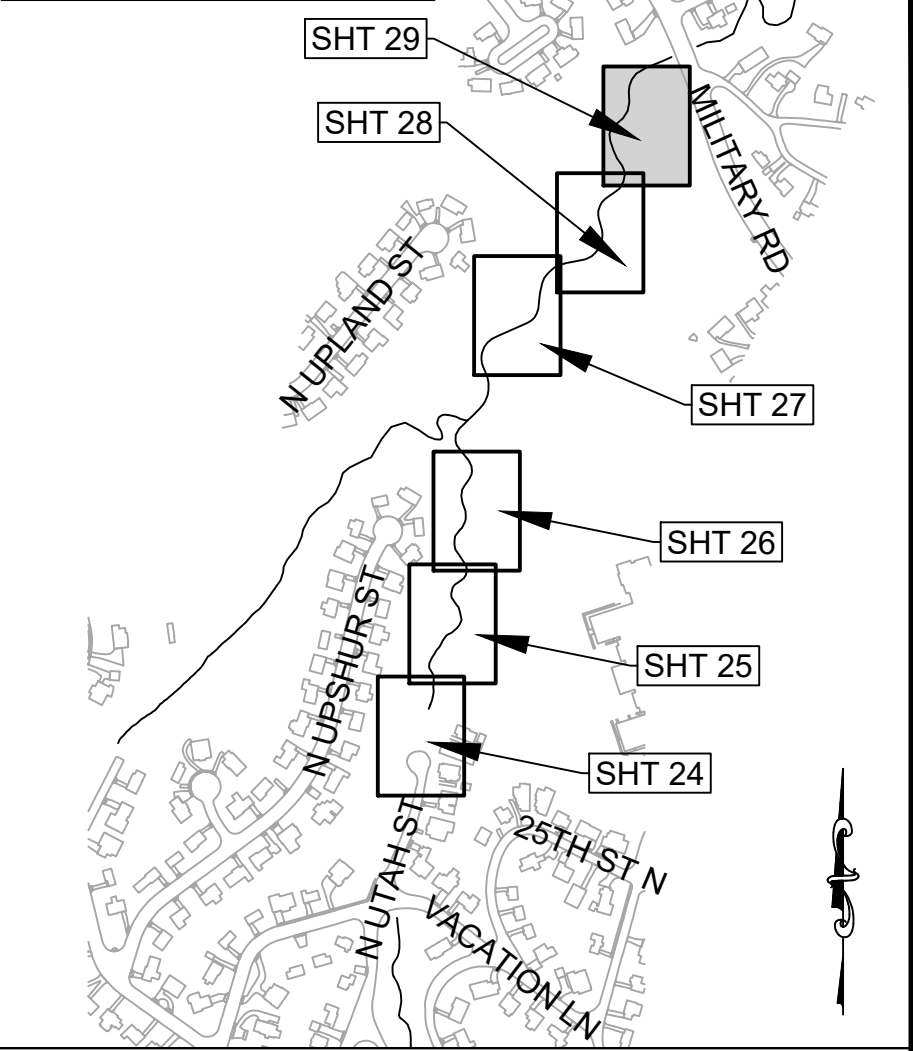


REVISED ON 1/24/2022

FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



KEY TO SHEETS  
1" = 500'



**ARLINGTON**  
VIRGINIA

DEPARTMENT OF  
ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

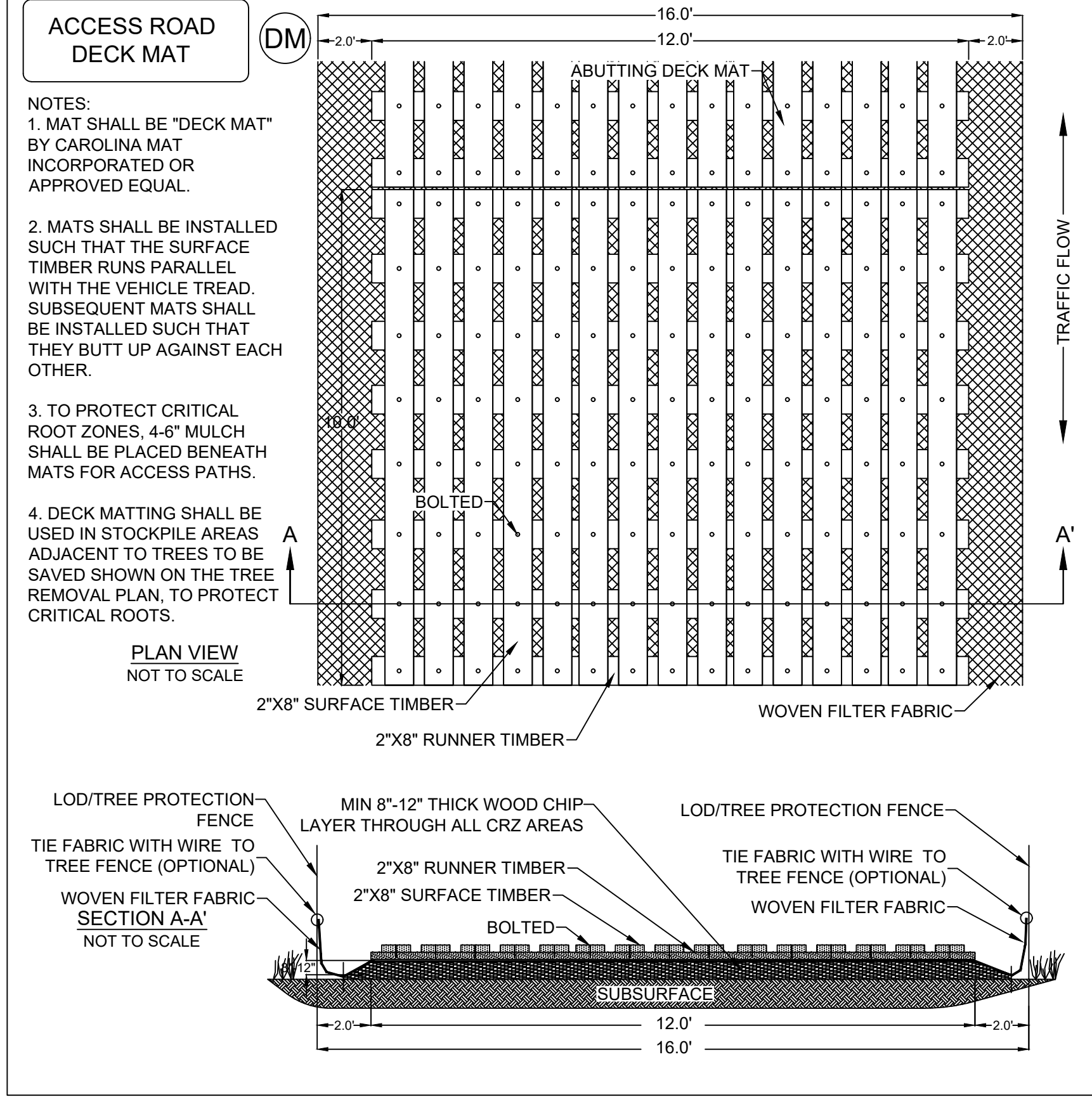
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
(06)

DESIGNED: AMC  
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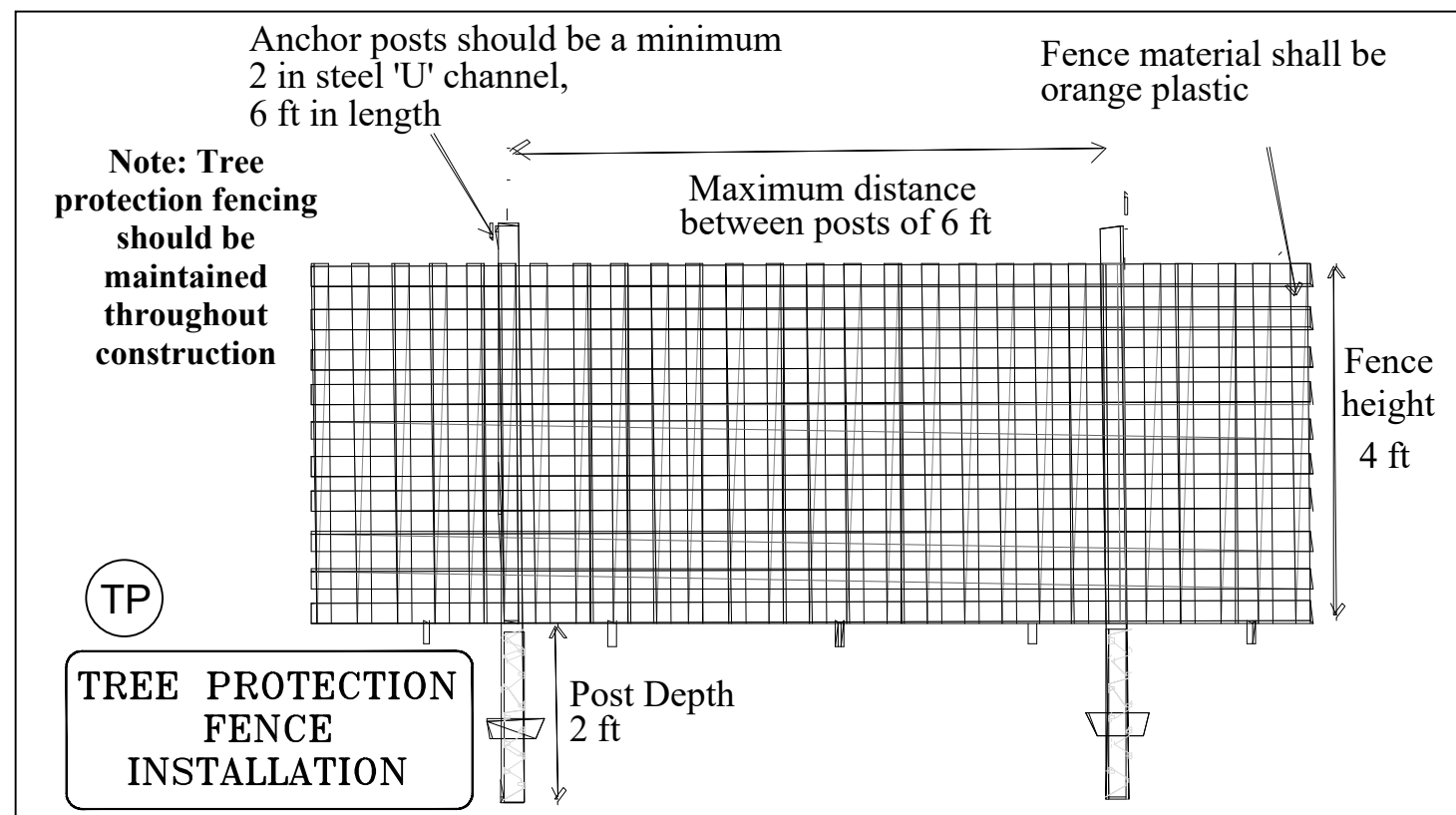
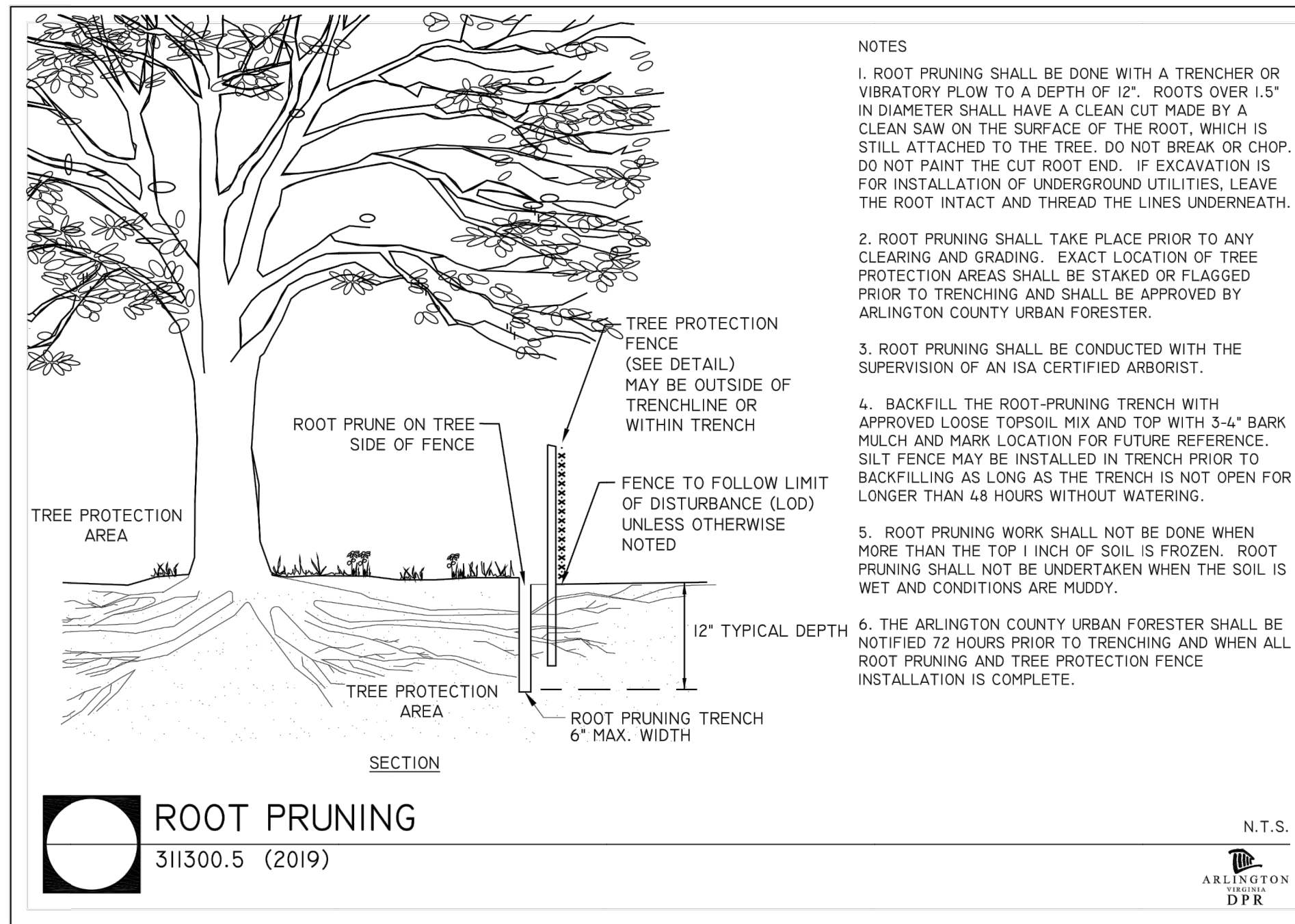
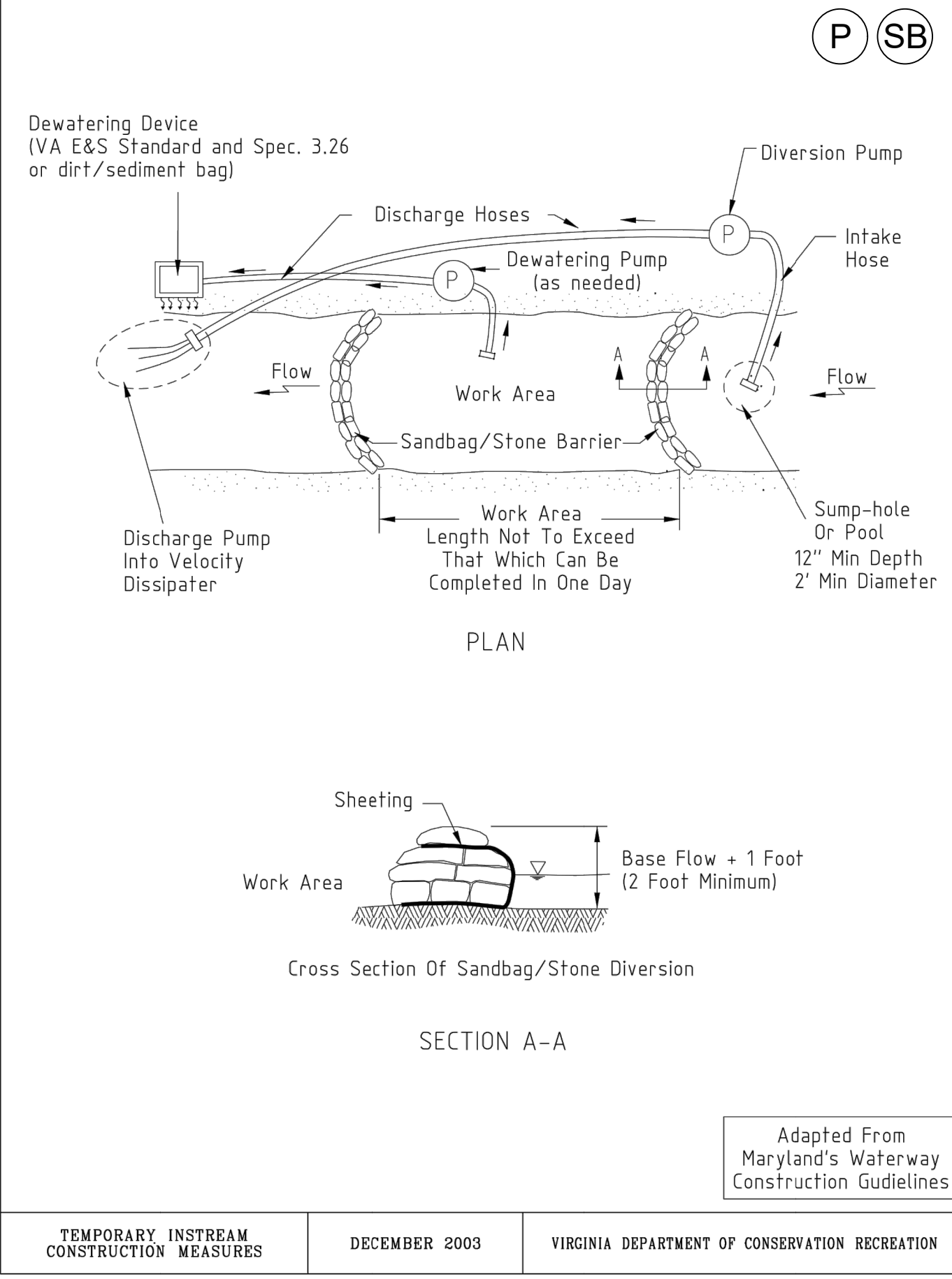
PLOTTED: JULY 13 2022

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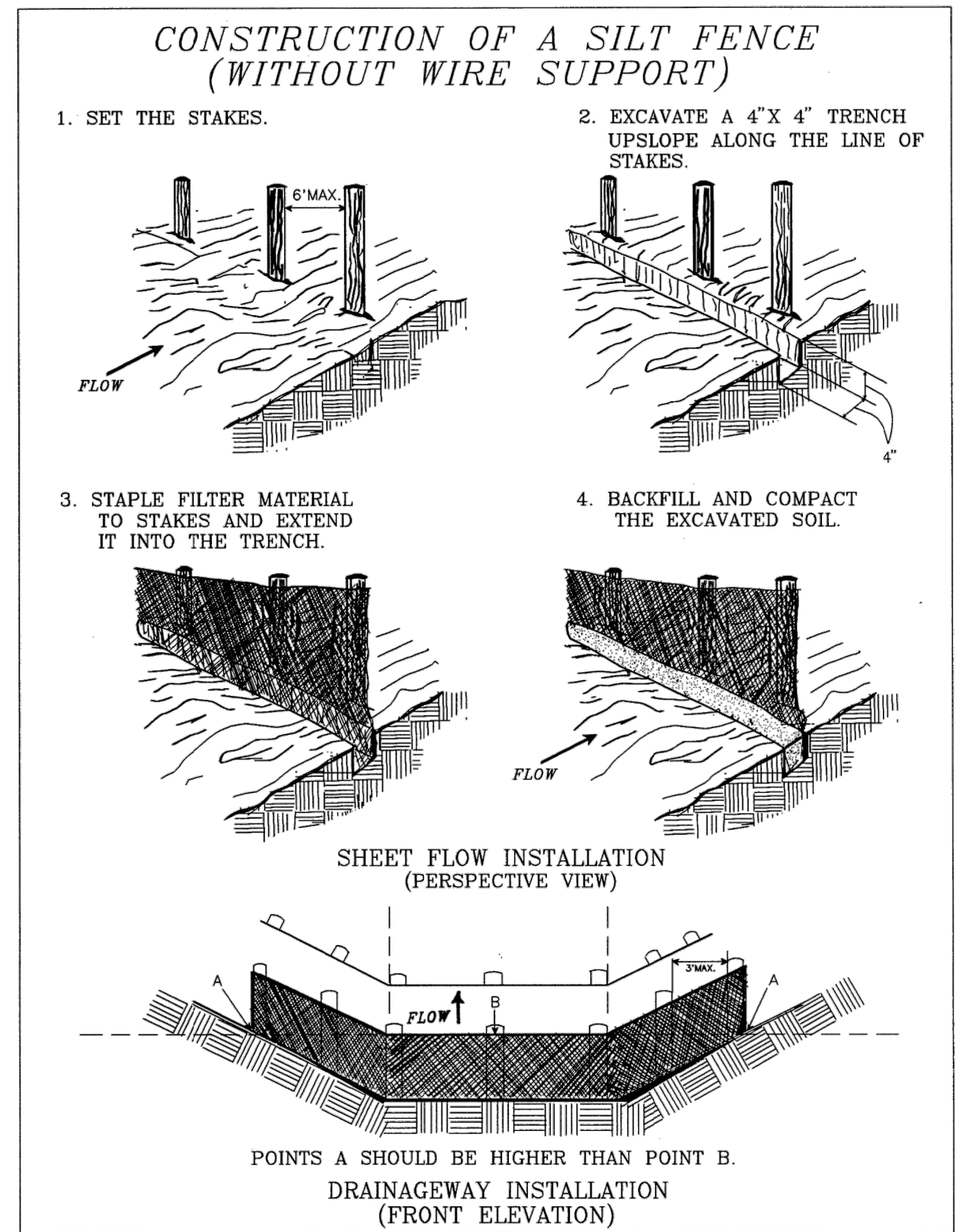


The Virginia Stream Restoration & Stabilization Best Management Practices Guide  
DETAIL 5.1: PUMP-AROUND PRACTICE



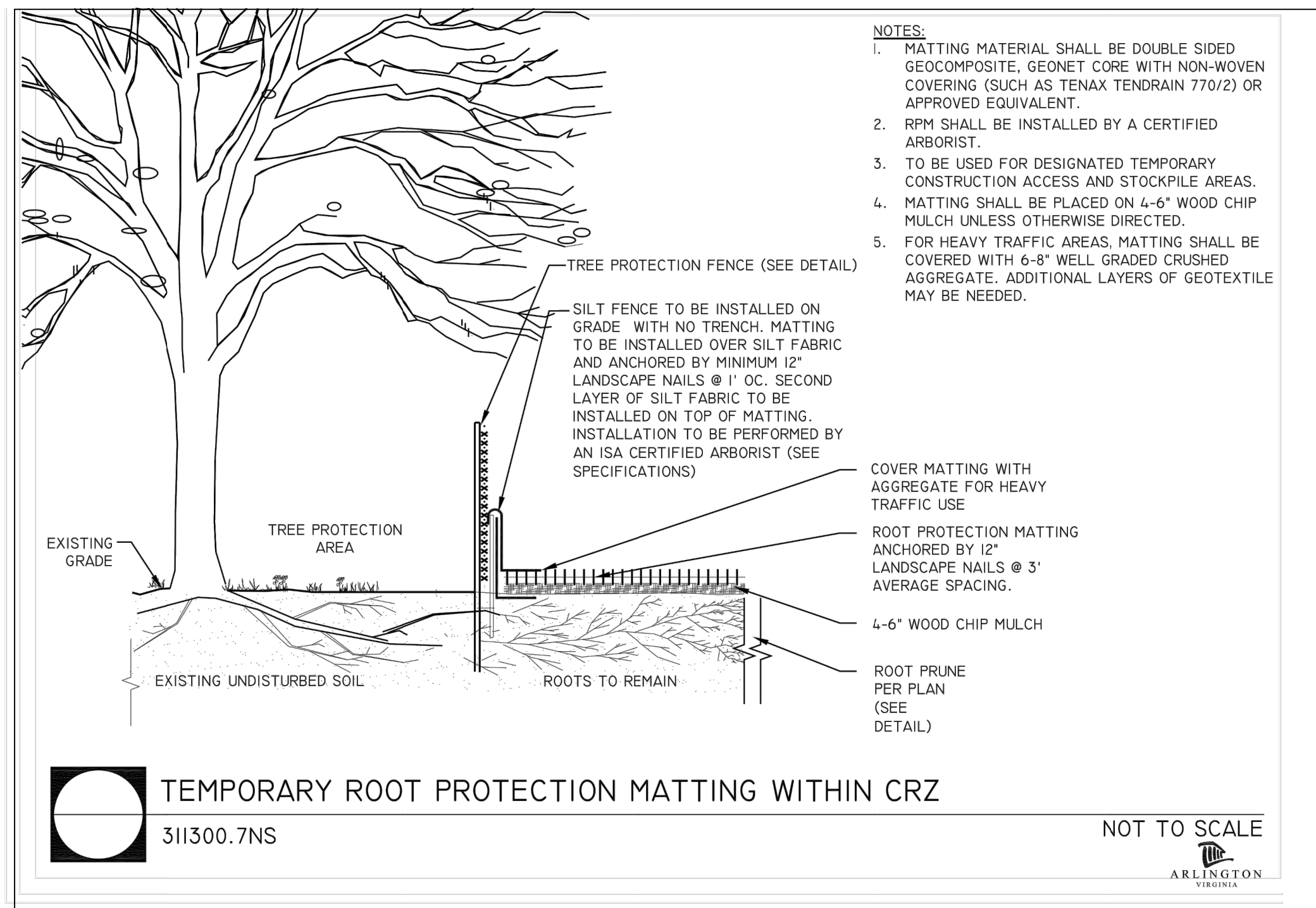
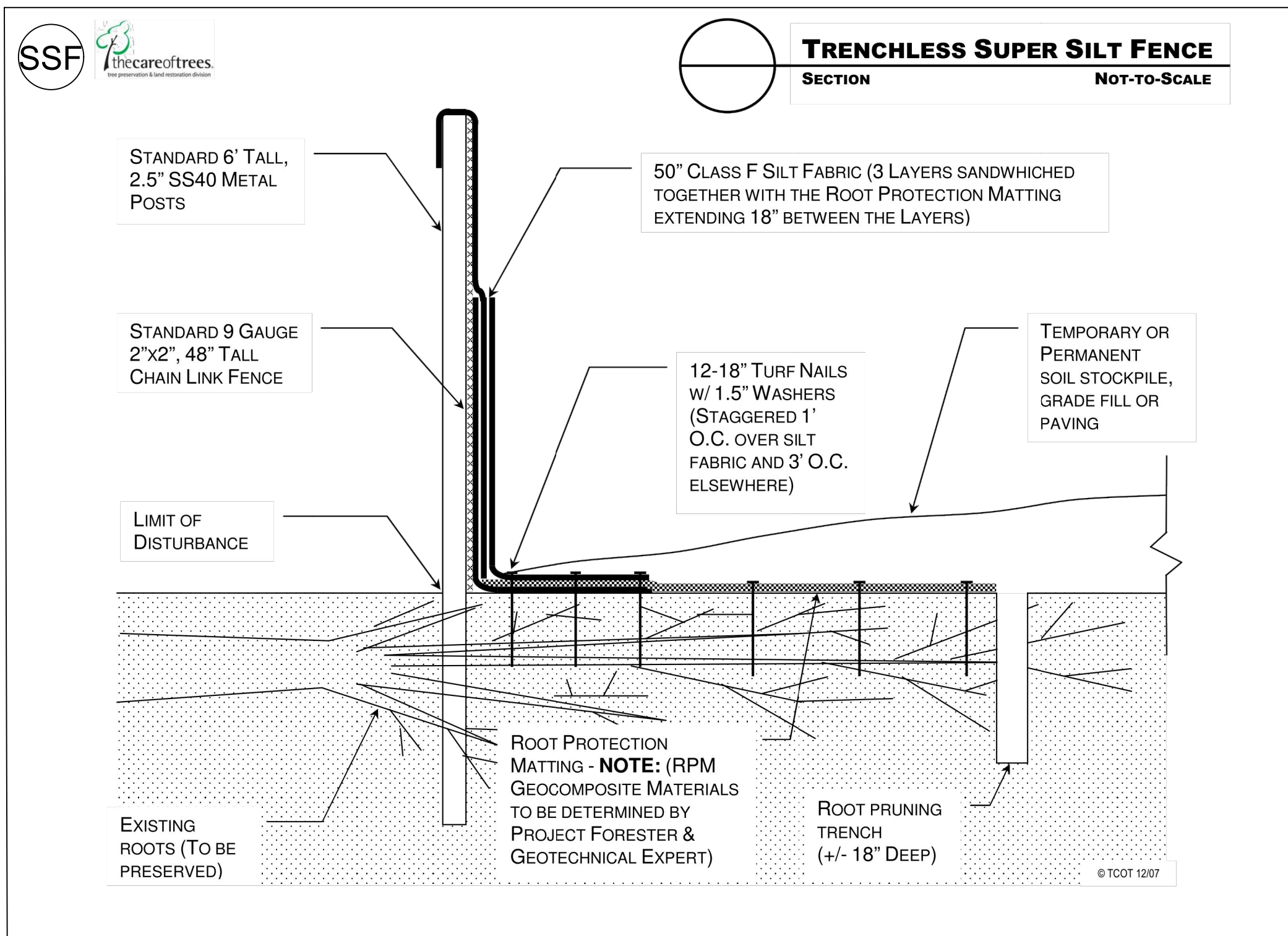
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**SF** 3.05



Source: Adapted from *Installation of Straw and Fabric Filter Barriers for Sediment Control*, Sherwood and Wyant

Plate 3.05-2



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SEAL



APPROVALS DATE

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CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

EROSION & SEDIMENT CONTROL DETAILS  
(01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A



EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THIS STREAM STABILIZATION PROJECT INVOLVES THE REPAIR AND ENHANCEMENT OF SEVERAL LOCATIONS ALONG TRIBUTARY A OF DONALDSON RUN IN ARLINGTON COUNTY, VIRGINIA. THE TOTAL DISTURBED AREA WILL BE 23,766 SF (0.55 ACRES). THE STABILIZATION WILL TAKE PLACE ON COUNTY BOARD OF ARLINGTON PROPERTY, EXCEPT FOR IN ONE LOCATION WHERE A PROPOSED STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED.

THE STREAM STABILIZATION WILL TAKE PLACE IN ZACHARY TAYLOR PARK. THE REACH BEGINS AT A 48" RCP OUTFALL THAT COMES FROM UNDERNEATH N. UTAH STREET, AND ENDS AT A PEDESTRIAN BRIDGE WITHIN THE PARK APPROXIMATELY 350 FEET UPSTREAM OF WHERE THE STREAM PASSES UNDERNEATH MILITARY ROAD. THERE IS A 470 FOOT GAP IN THE MIDDLE OF THIS REACH WHERE NO STABILIZATION WORK WILL BE TAKING PLACE.

STABILIZATION COMPONENTS INVOLVE ARMORING A SECTION OF TRAIL EROSION, PLACING RIPRAP MATERIAL IN AN ERODING SWALE AND BEHIND AN ERODING HEADWALL, REPAIRING SEVERAL EXISTING IN-STREAM STRUCTURES, AND RE-ESTABLISHING A PREVIOUSLY DESIGNED BANKFULL CHANNEL TO PROMOTE IMPROVED PLANFORM GEOMETRY IN SEVERAL PLACES. ADDITIONALLY, LARGE AREAS WILL BE RECEIVE SUPPLEMENTARY PLANTING AND SEEDING IN AN EFFORT TO IMPROVE FLOODPLAIN STABILIZATION AND ENHANCE THE RIPARIAN CORRIDOR.

EXISTING SITE CONDITIONS:

THE STABILIZATION REACH IS BOUNDED AT THE UPSTREAM LIMITS OF BY A 48" CULVERT COMING FROM UNDERNEATH N. UTAH STREET, AND AT THE DOWNSTREAM LIMITS A PEDESTRIAN BRIDGE APPROXIMATELY 350 FEET UPSTREAM OF WHERE THE STREAM PASSES UNDERNEATH MILITARY ROAD. IN THE MIDDLE OF THE REACH THERE IS APPROXIMATELY A 470 FOOT GAP WHERE NO STABILIZATION EFFORT WILL TAKE PLACE. THE MAJORITY OF THE PROJECT IS ON PROPERTY OWNED BY THE COUNTY BOARD OF ARLINGTON, WITH THE EXCEPTION OF A SMALL SECTION OF SWALE STABILIZATION ON PRIVATE PROPERTY WHERE A PROPOSED STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED. THE DRAINAGE AREA FOR THE RESTORATION REACH IS APPROXIMATELY 4.53 ACRES WITH 27.8% IMPERVIOUSNESS. MEASURED TO THE DOWNSTREAM EXTENT OF THE PROJECT. THE STREAM REACH WAS PREVIOUSLY RESTORED, HOWEVER MULTIPLE STRUCTURES HAVE EXPERIENCED FAILURE AND WILL REQUIRE REPAIR. THESE FAILED STRUCTURES HAVE CAUSED ISSUES IN THE RIFLES ASSOCIATED WITH THEM THAT WILL REQUIRE MINOR EARTHWORK TO RETURN THE CHANNEL TO ITS INTENDED PLANFORM GEOMETRY. AT THE UPSTREAM END OF THE PROJECT, THE SLOPES BEHIND THE WINGWALLS ARE EXPERIENCING EROSION AND LEFT ALONE WILL UNDERMINE THE HEADWALL. ADDITIONALLY, DRAINAGE HAS BEEN CONCENTRATING IN A SPECIFIC LOCATION NEXT TO THE WALKING TRAIL AND IS CREATING AN UNSTABLE GULLY THAT WILL CONTINUE TO ERODE SHOULD IT NOT RECEIVE ATTENTION. FINALLY, MUCH OF THE REACH HAS VERY SPARSE VEGETATION, ESPECIALLY IN THE UNDERSTORY LAYER.

ADJACENT PROPERTIES:

THE PROJECT AREA IS BOUNDED BY SINGLE FAMILY HOMES. CONSTRUCTION ACTIVITIES WILL NOT AFFECT ANY OF THE ADJACENT PROPERTIES EXCEPT FOR ONE OWNED BY STEPHEN AND TERESA GIDO, ON WHICH A STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED.

OFF-SITE AREAS:

NO OFF-SITE LAND DISTURBING ACTIVITIES ARE PROPOSED.

CRITICAL AREAS:

THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE. THIS PROJECT IS LOCATED ENTIRELY WITHIN A STREAM CHANNEL; HOWEVER, THE DESIGN PRESENTED HEREIN PROPOSES TO STABILIZE AND RESTORE THIS DEGRADED STREAM CHANNEL THUS IMPROVING THE WATER QUALITY OF THE DOWNSTREAM RECEIVING WATERS.

EROSION AND SEDIMENT CONTROL MEASURES:

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS. (REVISE AS NEEDED)

PERMANENT STABILIZATION:

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

STORMWATER RUNOFF CONSIDERATIONS:

NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.....= 23,766 SF (0.55 ACRES)

PRE-IMPROVEMENT IMPERVIOUS AREA.....= 0 SF (0 ACRES)

POST-IMPROVEMENT IMPERVIOUS AREA.....= 0 SF (0 ACRES)

INCREASED IMPERVIOUS AREA.....= 0 SF (0 ACRES)

SOILS INFORMATION:

THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET 43 FOR LOCATION).

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODABILITY:
6	GLENELG-MANOR COMPLEX	D	HIGH
7	GLENELG-URBAN LAND COMPLEX	D	HIGH

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):

FLOODPLAIN INFORMATION IS ADDRESSED ON SHEET 43 AND RESOURCE PROTECTION AREA INFORMATION IS ADDRESSED ON SHEETS 45 - 47.

EROSION & SEDIMENT CONTROL PROJECT PHASING

EROSION AND SEDIMENT CONTROL SHALL BE IMPLEMENTED IN 1 PHASE ONLY. AS THIS IS A STREAM PROJECT, THE ONLY ADDITIONAL E&S CONTROL THAT WILL NOT BE IMPLEMENTED IMMEDIATELY WILL BE THE PUMPAROUND/DEWATERING. THE SANDBAG AND PUMPING OPERATION SHALL BE MOVED THROUGHOUT THE PROJECT AS WORK IS COMPLETED.

- a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
- b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.
- c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.
- d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS SUPER SILT FENCE (SSF) AS PER THE E&S PLAN.

SITE DISTURBANCE SHALL BE LIMITED TO THE SECTION OF STREAM CHANNEL THAT IS BEING RESTORED THAT DAY, AS WELL AS THE AREA IMMEDIATELY ADJACENT. TREE CLEARING IS TO OCCUR IN PHASES THAT ALLOW LOGS TO BE STOCKPILED FOR STRUCTURE USE. STUMPS WILL BE LEFT TO MINIMIZE DISTURBANCE UNTIL GRADING IN THE AREA COMMENCES. NO SECTION OF STREAM WILL BE LEFT UNSTABILIZED OVERNIGHT. THIS WORK AREA WILL BE ISOLATED FROM THE ACTIVE STREAM CHANNEL THROUGH THE USE OF A PUMP AROUND DIVERSION. OVERNIGHT STABILIZATION WILL CONSIST OF BRINGING THE CHANNEL TO FINISHED GRADE CONDITIONS WITH NON-ERODIBLE MATERIAL. ALTHOUGH ONLY MINIMAL OVERBANK WORK IS ANTICIPATED, BANKS WILL BE STABILIZED WITH CM700 COIR FABRIC FOR EROSION PREVENTION, AS WELL AS SEED AND STRAW. IN ADDITION, THIS DIVERSION WILL NOT BE REMOVED UNTIL THE STREAM CHANNEL IS STABILIZED AND THE ADJACENT AREA IS COVERED WITH STRAW.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

1. STRUCTURAL PRACTICES

- a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02
  - a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.
  - a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.
  - a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
  - a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- b. SILT FENCE - VESCH 3.05
  - a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
  - b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
  - b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
  - b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH

- THE EXISTING GRADE, THEN PREPARED AND SEEDED.
- c. TEMPORARY DIVERSION DIKE - VESCH 3.09
  - c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.
  - c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
- d. STORM DRAIN INLET PROTECTION - VESCH 3.07
  - d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
  - d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
  - d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
- e. DEWATERING STRUCTURE - VESCH 3.26
  - e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.
  - e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.
  - e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.
- f. TREE PROTECTION - VESCH 3.38
  - f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:
    - f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSEENED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSEENED.
    - f.a.b. REPAIR OF DAMAGE:
      - f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.
      - f.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.
      - f.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.
      - f.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENED BARK BACK INTO THE UNDAMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.
      - f.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.
      - f.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.
    - f.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.
      - f.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.
      - f.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.
      - f.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.
      - f.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

2. VEGETATIVE PRACTICES

- a. TOPSOILING (STOCKPILE)
  - a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.
- b. TEMPORARY SEEDING
  - b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING.
  - b.b. TEMPORARY SEED SPECIES SHALL BE LOLIUM PERENNE SPP. MULTIFLORUM (ANNUAL RYEGRASS) AND SECALE CEREALE (WINTER RYEGRASS). SEE SPECIES GROUP 9 ON SHEET 39. SEEDING LOCATIONS ARE AND QUANTITIES ARE PROVIDED ON SHEETS 33 - 39, AND ADDITIONAL SEEDING SPECIFICATIONS ARE PROVIDED ON SHEET 42. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.
- c. PERMANENT SEEDING
  - c.a. PERMANENT SEEDING INFORMATION IS PROVIDED ON SHEETS 33 - 42.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES

PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

LAND CONSERVATION NOTES:

- 1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- 3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
- 4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
- 5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- 6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
- 7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
- 8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

EROSION & SEDIMENT CONTROL PROGRAM:

- 1. THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
- 2. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
- 3. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
  - a. CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
  - b. FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
  - c. CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
- 4. MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
- 5. ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
- 6. WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
- 7. FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- 1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
- 2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- 3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- 7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- 8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- 9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- 10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
- 11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:

PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL.

- 1. PERIMETER CONTROLS
  - a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
  - b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
  - c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
  - d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
- 2. EXPOSED SLOPES AND SOIL
  - a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
  - b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
  - c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
  - d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
- 3. STOCKPILES
  - a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
- 4. INLET PROTECTION
  - a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)

- 1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S M54 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
  - a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- 2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S M54 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- 3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

UTILITY INSTALLATION:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- 1. NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- 2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- 3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
- 4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- 5. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- 6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- 7. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
- 10. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

MAINTENANCE PROGRAM:

THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:

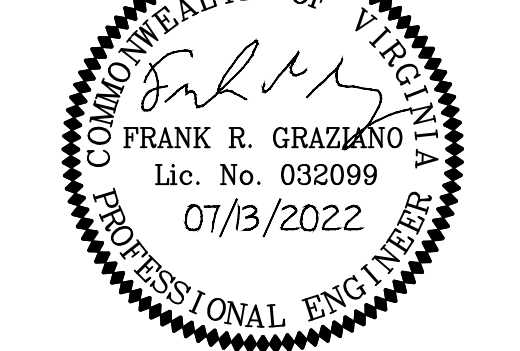
- 1. THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
- 2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
- 3. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
- 4. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
- 5. AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

EROSION & SEDIMENT CONTROL  
NARRATIVE (01)

DESIGNED: AMC

DRAWN: AMC

CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A



06/30/2022  
date

Qianqian Li, P.E.  
ESC Program Administrator  
Department of Environmental Sevices  
2100 Clarendon Boulevard, Suite 813  
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:  
**2355 N. Utah Street, Arlington, VA 22207**  
street address

lot, block, section subdivision

**LDA21246**  
permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.

2. Walking the site prior to construction to identify critical areas.

3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.

4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.


5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.

6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-679-5600 with questions about this plan or my execution of the duties of  
telephone number  
Responsible Land Disturber.

Sincerely,

  
signed

John Connelly  
name printed

DEQ E&S Combined Administrator #6006  
professional registration (type and number)

- CONSTRUCTION SEQUENCE**
1. PRIOR TO THE START OF ANY EARTH DISTURBANCE AN ON-SITE PRE-CONSTRUCTION MEETING SHALL BE HELD TO ENSURE THAT ALL AFFECTED PARTIES (DESIGN ENGINEER, CONTRACTOR, COUNTY STAFF, OWNER, AND PROJECT MANAGER) FULLY UNDERSTAND THE CONSTRUCTION SEQUENCING.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1-800-552-7001 FOR THE LOCATION OF ALL PUBLIC AND PRIVATE UTILITY LINES, PIPES, CABLES, AND ASSOCIATED FEATURES PRIOR TO ANY CONSTRUCTION WORK; ALL UTILITIES SHALL BE CLEARLY IDENTIFIED PRIOR TO CONSTRUCTION.

3. THE PROJECT WILL BE COMPLETED IN TWO PHASES - PHASE 1 FOR THE UPSTREAM SECTION OF REPAIRS AND PHASE 2 FOR THE DOWNSTREAM SECTION, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS.

4. PRIOR TO ANY EARTH DISTURBING ACTIVITIES ALL NECESSARY EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSTALLED AS SPECIFIED ON THE EROSION & SEDIMENT CONTROL PLAN SHEETS, AND INSPECTED AND APPROVED BY COUNTY INSPECTOR.

5. PRIOR TO ANY EARTH DISTURBING ACTIVITIES, THE TEMPORARY CONSTRUCTION ACCESS ROAD AND PEDESTRIAN DETOUR SHALL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS SHEETS. SEE MOT PLAN SHEETS FOR PHASING OF TRAIL CLOSURES AND DETOURS.

6. FOR ANY CLEARING OR GRADING ON THE SITE, THE LIMITS OF DISTURBANCE AND GRADING (LOD) SHALL BE MARKED WITH FLAGGING.

7. THE LOD SHALL BE REVIEWED ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER, OWNER OR OWNER'S REPRESENTATIVE(S), AND A COUNTY URBAN FORESTER. A DETERMINATION SHALL BE MADE AT THAT TIME REGARDING WHICH TREES WILL BE REMOVED BASED ON THE APPROVED GRADING AND STREAM RESTORATION ACTIVITIES.

8. ADJUSTMENTS MAY BE MADE TO FLAGGING MARKING THE LOD TO ADEQUATELY PROTECT TREES. TREE PROTECTION FENCING SHALL BE ADJUSTED IN CONJUNCTION WITH ANY CHANGES TO THE LOD PRIOR TO THE COMMENCEMENT OF ANY OTHER CONSTRUCTION ACTIVITIES, AND VERIFIED AT THE PRE-CONSTRUCTION FIELD MEETING.

9. NO WORK SHALL BE STARTED THAT CANNOT BE COMPLETED AND STABILIZED IN ONE DAY (INCLUDING CLEARING). TREES CAN BE FLUSH CUT IN ONE MOBILIZATION , HOWEVER STUMPS TO BE REMOVED SHALL REMAIN UNTIL AREA IS BEING ACTIVELY WORKED. END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.

10. INSTALL ROCK SILLS, ROCK STEPS, AND ANY FURTHER STABILIZATION OF THE OUTLET AND WINGWALLS THAT MAY BE REQUIRED.

11. UPON COMPLETION OF WORK, ALL E&S MEASURES ARE TO REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS ACHIEVED.

12. THE "LIMITS OF WORK" SHOWN ON PLAN INDICATES AREA OUTSIDE OF THE LIMITS OF DISTURBANCE THAT WILL BE USED ONLY FOR ACCESS PATHS AND PLANTING AND WILL NOT BE DENUDED AT ANY POINT DURING THE PROJECT.

13. E&S MEASURES SHALL REMAIN IN PLACE UNTIL SITE HAS BEEN INSPECTED AND FINAL APPROVAL HAS BEEN RECEIVED FROM ARLINGTON COUNTY.



**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

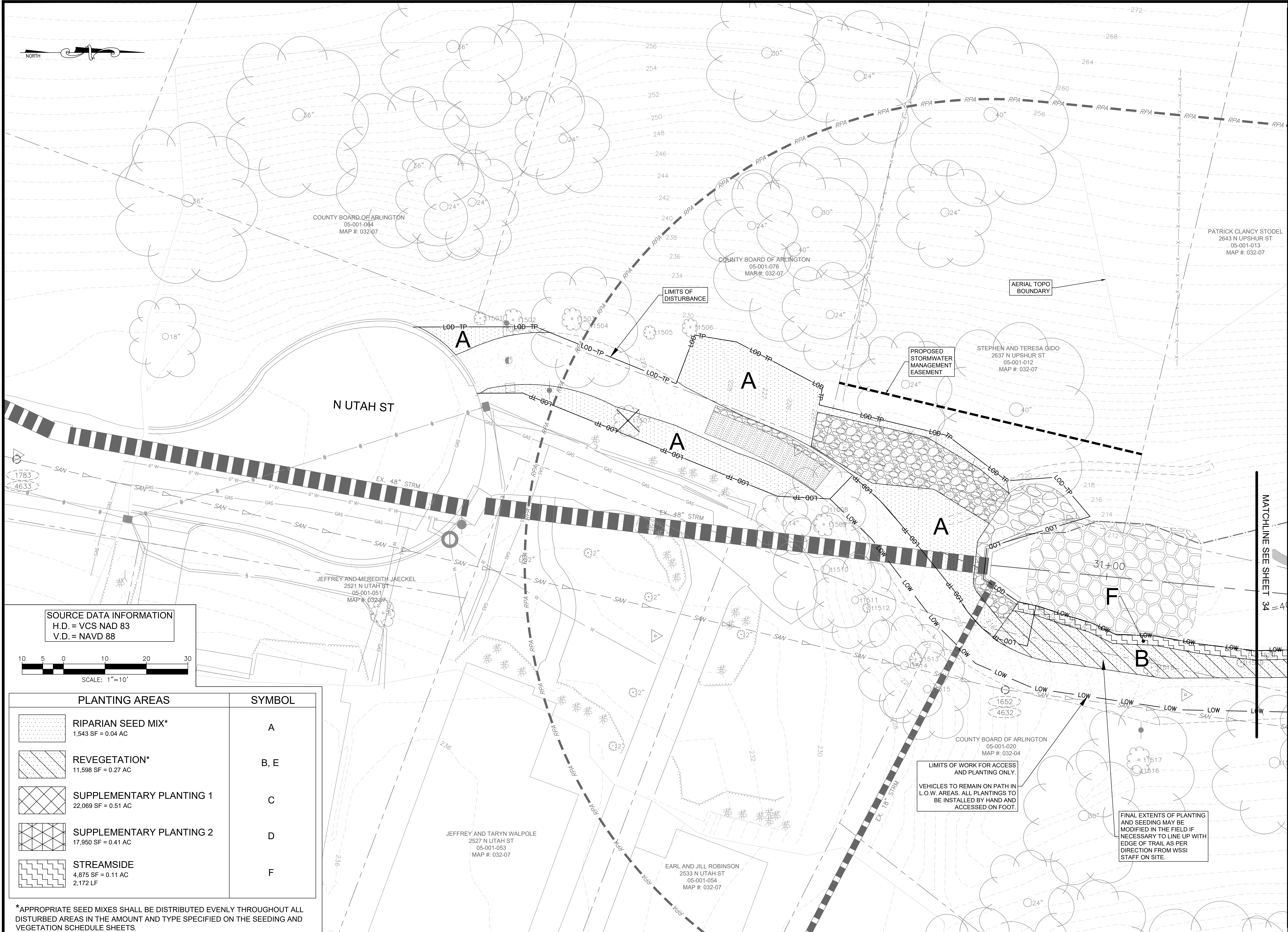
RLD AND CONSTRUCTION SEQUENCE (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG  
PLOTTED: JULY 13 2022  
SCALE: N/A



REVISED ON 1/24/2022

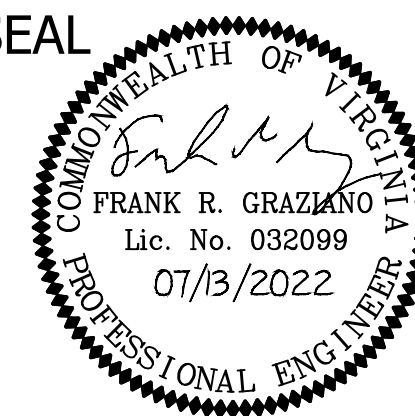
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

PLANTING PLAN (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

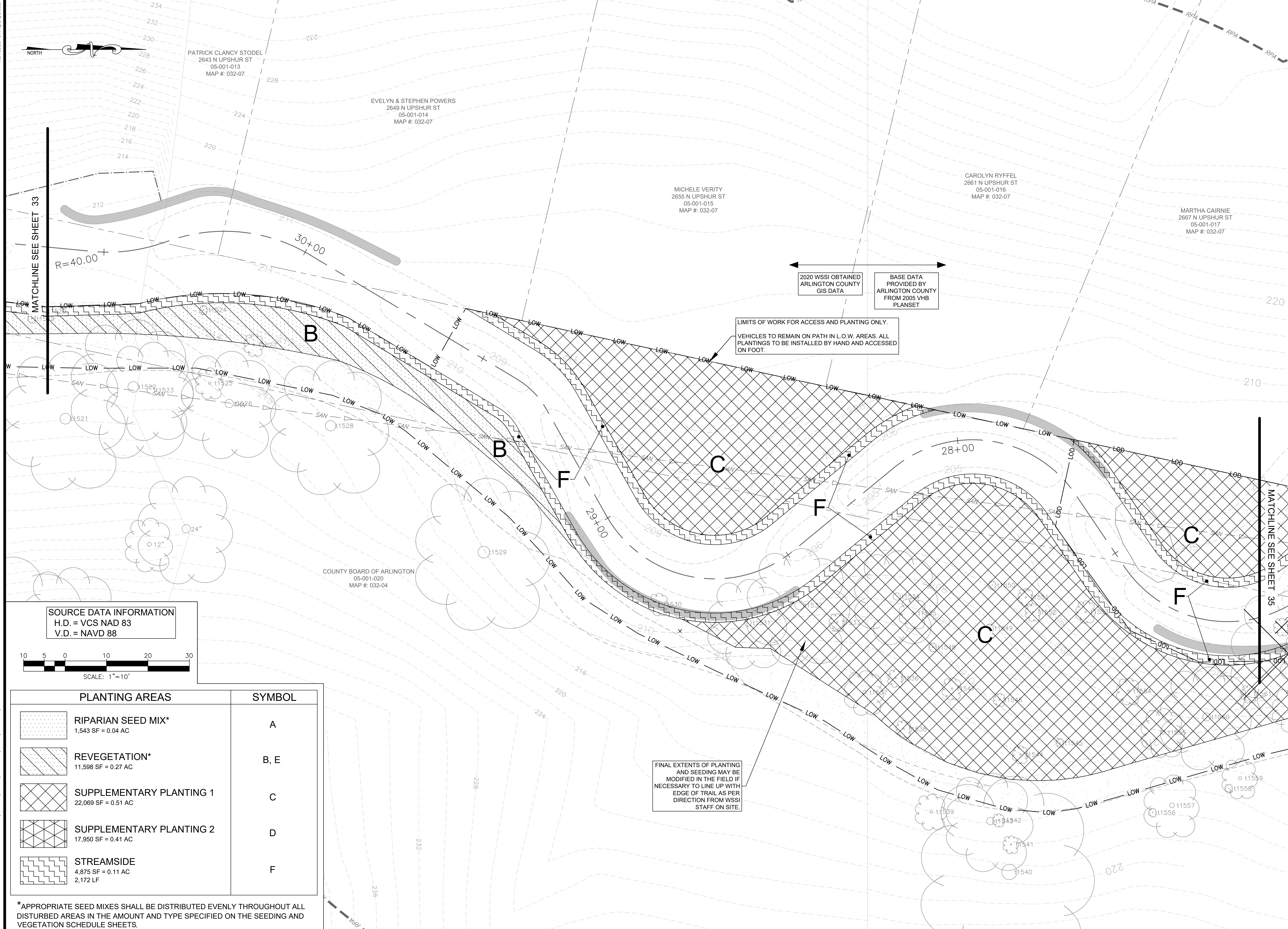
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REVISED ON 1/24/2022

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**ARLINGTON VIRGINIA**

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

**PLANTING PLAN (02)**

DESIGNED: AMC  
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PLOTTED: JULY 13 2022

**SCALE: 1"=10'**

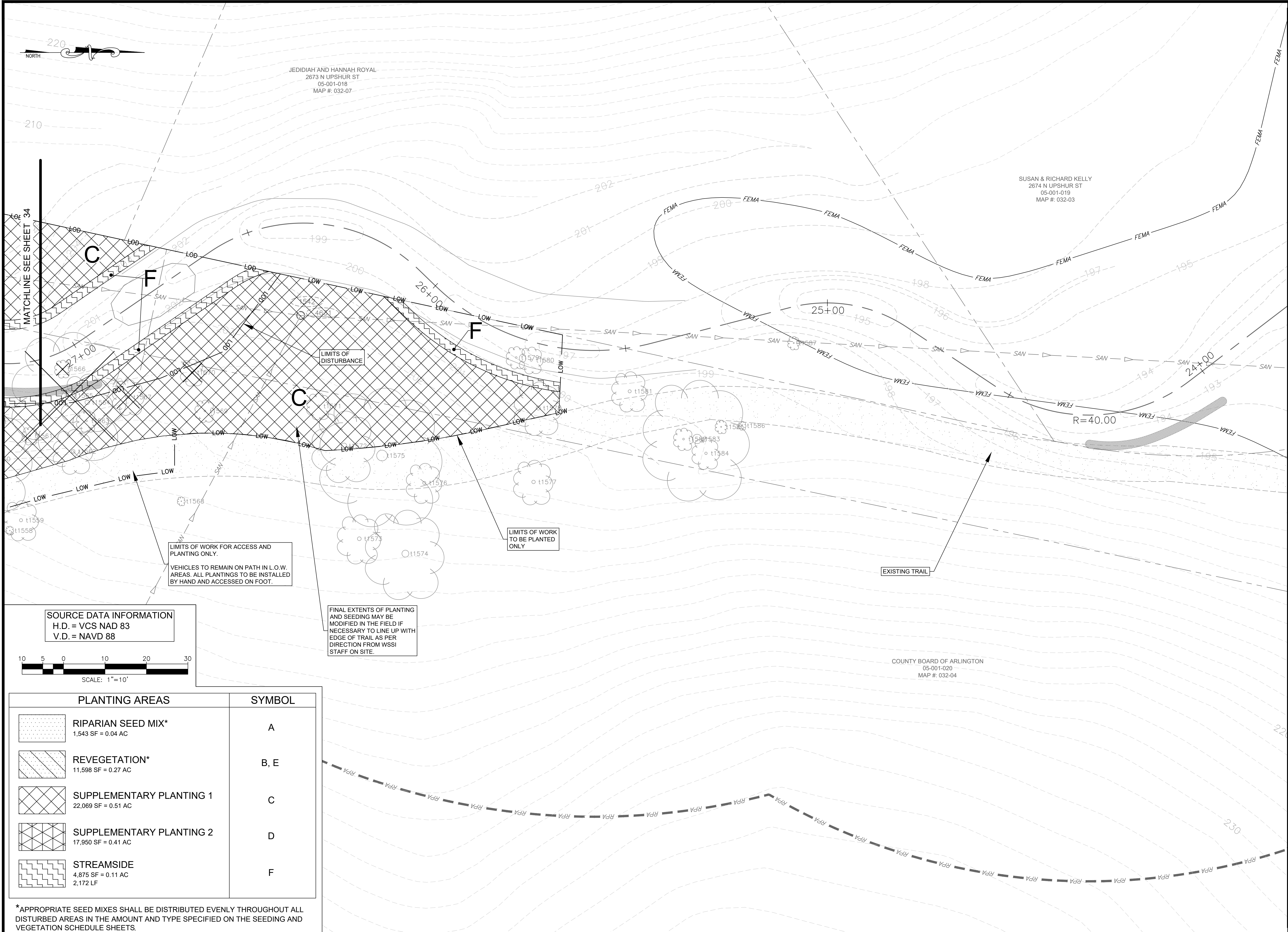
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TRIB A MAINTENANCE AND EMERGENCY REPAIR



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**ARLINGTON VIRGINIA**

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**SEAL**

FRANK R. GRAZIANO  
Lic. No. 032099  
07/13/2022  
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

**PLANTING PLAN (03)**

DESIGNED: AMC  
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CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

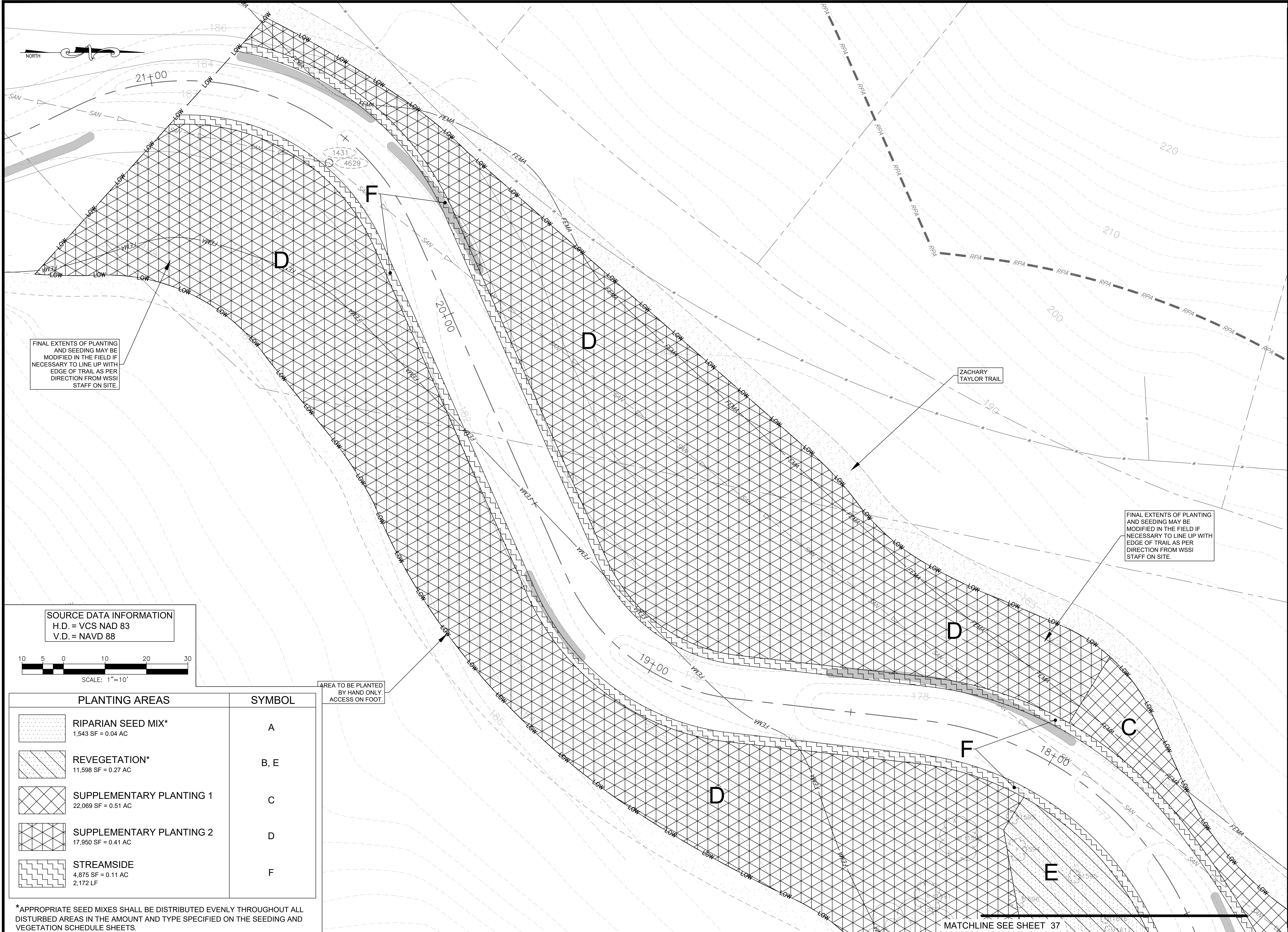
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TRIB A MAINTENANCE AND EMERGENCY REPAIR



REVISED ON 1/24/2022

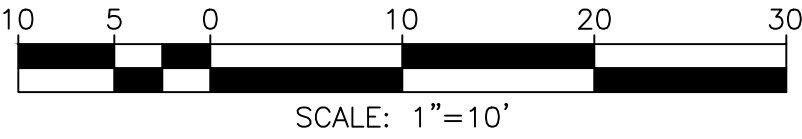
FILENAME: PLANTING PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

AREA TO BE PLANTED BY HAND ONLY ACCESS ON FOOT.

MATCHLINE SEE SHEET 37



DEPARTMENT OF  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

PLANTING PLAN (04)

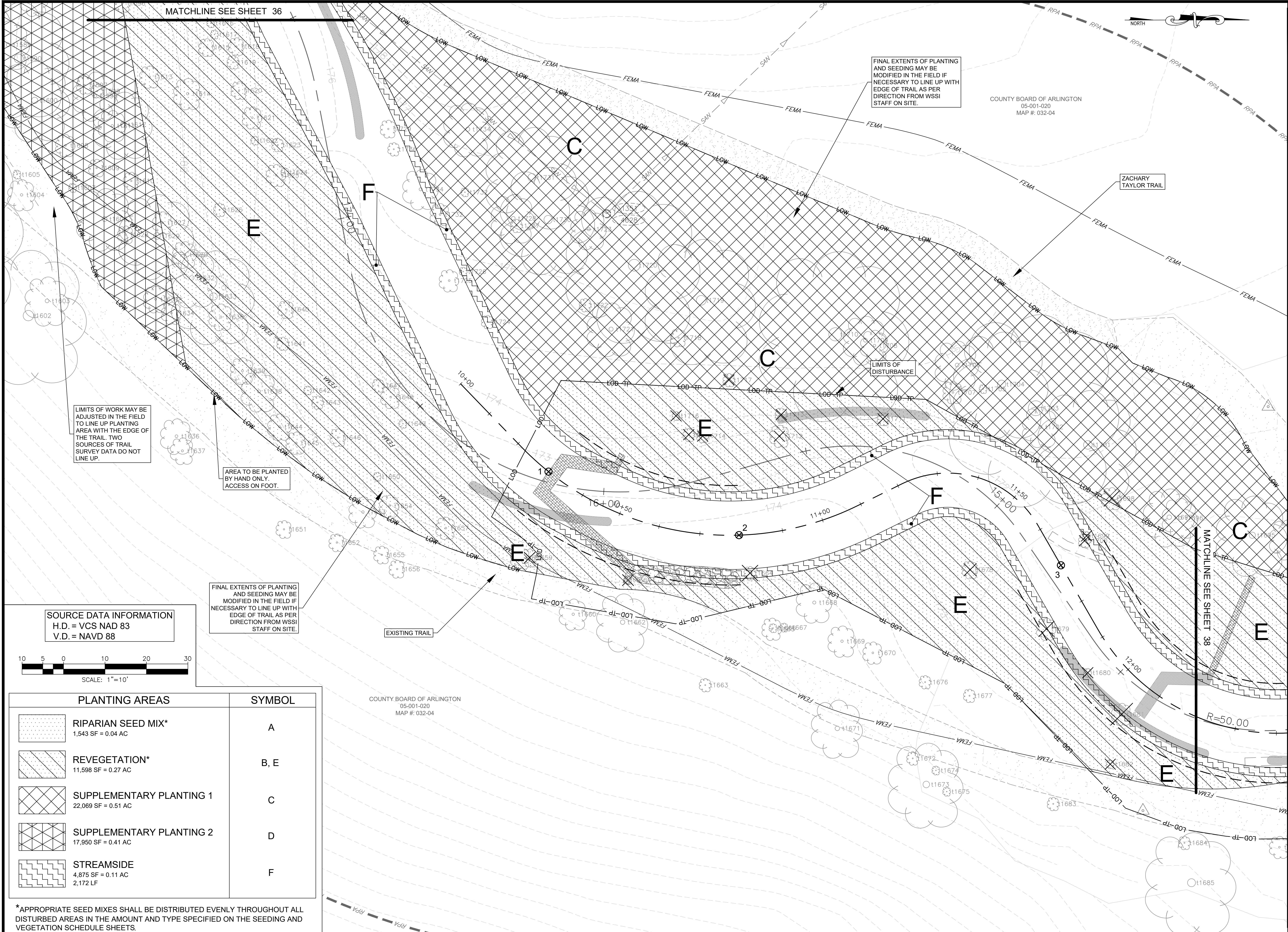
DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

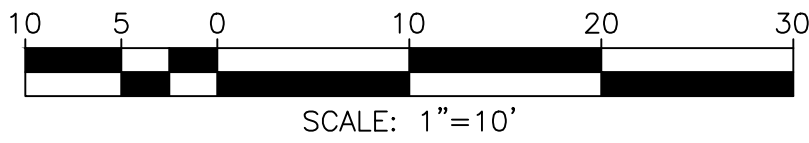
SCALE: 1"=10'



REVISED ON 1/24/2022  
FILENAME: PLANTING PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

ZACHARY TAYLOR TRAIL

LIMITS OF DISTURBANCE

FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

AREA TO BE PLANTED BY HAND ONLY. ACCESS ON FOOT.

LIMITS OF WORK MAY BE ADJUSTED IN THE FIELD TO LINE UP PLANTING AREA WITH THE EDGE OF THE TRAIL. TWO SOURCES OF TRAIL SURVEY DATA DO NOT LINE UP.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

PLANTING PLAN (05)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

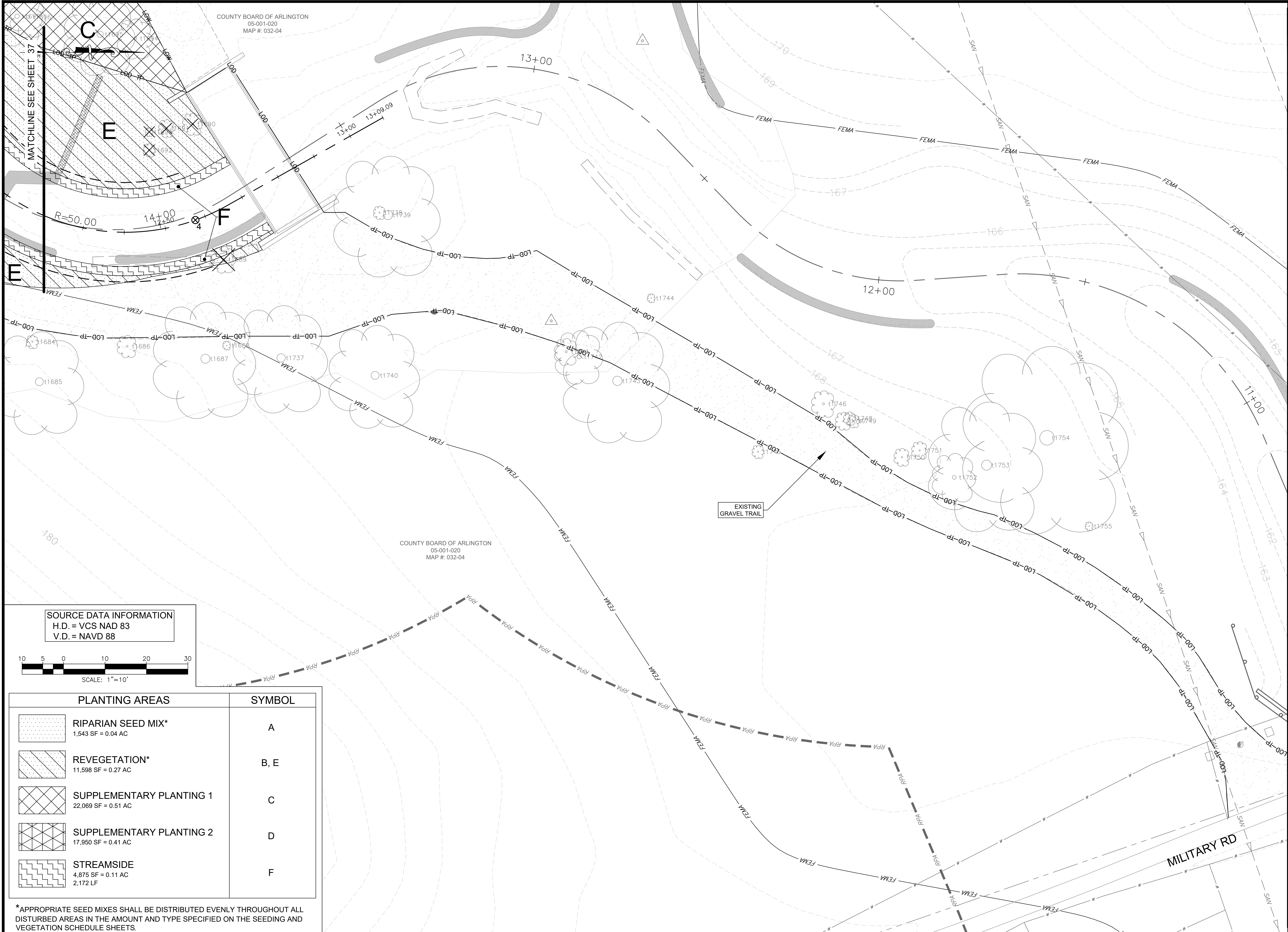
PLOTTED: JULY 13 2022

SCALE: 1"=10'

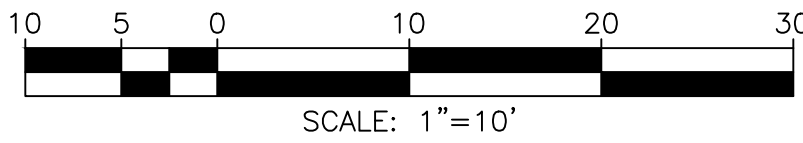


REVISED ON 1/24/2022

FILENAME: PLANTING PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

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ARLINGTON  
VIRGINIA

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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR

FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

PLANTING PLAN (06)

DESIGNED: AMC

DRAWN: AMC

CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'



REVISED ON 1/24/2022

FULL REVEGETATION : ZONES B AND E

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS														
PLANTING SCHEDULE								PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>						
CONTAINER PLANTING ZONE		SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172
						PLANTS PER ACRE	# OF PLANTS							
RIPARIAN FOREST (VARIABLE, SHADY)	OVERSTORY LAYER	1	QUERCUS FALCATA (SOUTHERN RED OAK)	FACU	12' O.C. <sup>3</sup>	300 ONE GAL -- or -- 600 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	78 (BASED ON ONE-GALLON)			9				69
			QUERCUS ALBA (WHITE OAK)	FACU										
			QUERCUS PALUSTRIS (PIN OAK)	FACW										
			QUERCUS PHELLOS (WILLOW OAK)	FACW										
			QUERCUS RUBRA (NORTHERN RED OAK)	FACU										
		2	ACER NEGUNDO (BOX ELDER) <sup>8</sup>	FAC	21' O.C. <sup>3</sup>	100 ONE-GALLON -- or -- 400 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	26 (BASED ON ONE-GALLON)			3			23	
			CARYA CORDIFORMIS (BITTERNUT HICKORY)	FAC										
			DIOSPYROS VIRGINIANA (COMMON PERSIMMON)	FAC										
			LIQUIDAMBAR STYRACIFLUA (SWEET GUM)	FAC										
			NYSSA SYLVATICA (BLACK GUM)	FAC										
	PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	FACW												
	UNDERSTORY LAYER	3	ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC	15' O.C.3	200 ONE-GALLON -- or -- 400 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	52 (BASED ON ONE-GALLON)			6			46	
			AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)	FAC										
			ASIMINA TRILOBA (PAWPAW)	FAC										
			CERCIS CANADENSIS (EASTERN REDBUD)	UPL										
			JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	FACU										
			MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW										
	SHRUB LAYER	4	CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU	15' O.C. <sup>3</sup>	200 ONE-GALLON -- or -- 400 TUBELINGS <sup>4</sup>	52 (BASED ON ONE-GALLON)			6			46	
			HYDRANGEA ARBORESCENS (WILD HYDRANGEA)											
			LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW										
			VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC										
			VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU										
RIPARIAN FOREST QUANTITY SUBTOTALS						800	208		-	24	-	-	184	

STREAMSIDE PLANTING : ZONE F

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS																
PLANTING SCHEDULE								PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>								
CONTAINER PLANTING ZONE			SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.1 2,172	
							PLANTS PER ACRE	# OF PLANTS								
STREAMSIDE PLANTING ZONES	STREAM BANK	SHRUB LAYER	5	ALNUS SERRULATA (BROOKSIDE ALDER)	FACW	3' O.C. <sup>6</sup>	4800 ONE-GALLON -- or -- 9600 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	528 (BASED ON ONE-GALLON)							528	
				ARONIA ARBUTIFOLIA (RED CHOKEBERRY)	FACW											
				CEPHALANTHUS OCCIDENTALIS (BUTTONBUSH)	OBL											
				ILEX VERTICILLATA (COMMON WINTERBERRY)	FACW											
				VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FACU											
	STREAM BANK QUANTITY SUBTOTALS							4800	528		-	-	-	-	-	528
	STREAM EDGE	SHRUB LAYER	6	ALNUS SERRULATA (SMOOTH ALDER)	FACW	1 PER L.F. STAGGERED <sup>5</sup>	N/A	2,133 (TUBELINGS OR LIVESTAKES ONLY) <sup>7</sup>								2133
				CEPHALANTHUS OCCIDENTALIS (BUTTONBUSH)	OBL											
				CORNUS AMOMUM (SILKY DOGWOOD)	FACW											
				SAMBUCUS NIGRA spp. CANADENSIS (ELDERBERRY/BLACK ELDER)	FACW											
	STREAM EDGE QUANTITY SUBTOTALS							--	2,133		-	-	-	-	-	2,133
	LIVE STAKE	UPSTREAM OF STRUCTURE	7	SALIX NIGRA (BLACK WILLOW)	OBL	1 PER L.F. STAGGERED <sup>5</sup>	N/A	16 LIVE STAKES								16
	LIVE STAKE	DOWNSTREAM OF STRUCTURE	8	SALIX NIGRA (BLACK WILLOW)	OBL	4 PER L.F. STAGGERED <sup>5</sup>	N/A	93 LIVE STAKES								93
	LIVE STAKE QUANTITY SUBTOTALS							--	109		-	-	-	-	-	109

- PLANTING AND SEEDING NOTES:**
- 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) 4 of the 5 species in Group 1, b) 5 of the 6 species in Group 2, c) 5 of the 6 species in Group 3, d) 3 of the 4 species in Group 4, e) 4 of the 5 species in Group 5, f) 3 of the 4 species in Group 6, g) all of the species in Group 7, h) all of the species in Group 8, i) all of the species in Group 9, j) 3 of the 4 species in Group 10, k) 3 of the 4 species in Group 11, l) 5 of the 6 species in Group 12, m) 5 of the 7 species in Group 13, n) 4 of the 5 species in Group 14, and o) 5 of the 6 species in Group 15.
  - 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.
  - The planted trees and shrubs shall be randomly spaced and species mixed throughout the planting areas.
  - 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.
  - Group 6 (Stream Edge) zone shall be planted with tubelings, or as livestakes. No one gallons are required to be used for any of this Group's species.
  - Stream Bank (Group 5) and Stream Edge (Group 6) zones shall be planted such that the combined mix of species is spaced approx. 3' O.C. and 1 plant per L.F. respectively. Live stake zones upstream of outer vane arm (Group 7) spaced at 1 plant per L.F. Live stake zones downstream of outer vane arm (Group 8) spaced at 4 plants per L.F.
  - All seeding rates are expressed in pounds of pure live seed (PLS).
  - If there is an abundance of existing or established maples on site, a substitution for maples may be made with an alternate species to avoid tapping into and adding to existing saturated seed bank. Final decision as to whether or not to plant maples will be made by engineer of record.
  - Contractor shall not plant white oak, southern or northern red oak, persimmon, viburnum prunifolium, or any UPL or FACU species in wetland areas



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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE


TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
VEGETATION SCHEDULE (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A

FILENAME: VEGETATION SCHEDULE.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



REVISED ON 1/24/2022

SUPPLEMENTARY PLANTING 1 : ZONE C (1/2 DENSITY - OVERSTORY, UNDERSTORY, AND SHRUB)

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS														
PLANTING SCHEDULE								PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>						
CONTAINER PLANTING ZONE		SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172
						PLANTS PER ACRE	# OF PLANTS							
RIPARIAN FOREST (VARIABLE, SHADY)	OVERSTORY LAYER	1	QUERCUS FALCATA (SOUTHERN RED OAK)	FACU	12' O.C. <sup>3</sup>	150 ONE GAL -- or -- 300 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	77 (BASED ON ONE-GALLON)							
			QUERCUS ALBA (WHITE OAK)	FACU										
			QUERCUS PALUSTRIS (PIN OAK)	FACW										
			QUERCUS PHELLOS (WILLOW OAK)	FACW										
			QUERCUS RUBRA (NORTHERN RED OAK)	FACU										
		2	ACER NEGUNDO (BOX ELDER) <sup>8</sup>	FAC	21' O.C. <sup>3</sup>	50 ONE-GALLON -- or -- 200 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	26 (BASED ON ONE-GALLON)							
			CARYA CORDIFORMIS (BITTERNUT HICKORY)	FAC										
			DIOSPYROS VIRGINIANA (COMMON PERSIMMON)	FAC										
			LIQUIDAMBAR STYRACIFLUA (SWEET GUM)	FAC										
			NYSSA SYLVATICA (BLACK GUM)	FAC										
	UNDERSTORY LAYER	3	PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	FACW	15' O.C.3	100 ONE-GALLON -- or -- 200 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	51 (BASED ON ONE-GALLON)							
			ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC										
			AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)	FAC										
			ASIMINA TRILOBA (PAWPAW)	FAC										
			CERCIS CANADENSIS (EASTERN REDBUD)	UPL										
			JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	FACU										
	SHRUB LAYER	4	MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW	15' O.C. <sup>3</sup>	100 ONE-GALLON -- or -- 200 TUBELINGS <sup>4</sup>	51 (BASED ON ONE-GALLON)							
			CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU										
			HYDRANGEA ARBORESCENS (WILD HYDRANGEA)											
			LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW										
			VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC										
			VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU										
RIPARIAN FOREST QUANTITY SUBTOTALS						400	205		-	-	205	-	-	

SUPPLEMENTARY PLANTING 2 : ZONE D (1/2 DENSITY - UNDERSTORY AND SHRUB)

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS															
PLANTING SCHEDULE								PLANTING QUANTITIES (BASED ON ONE-GALLON							
CONTAINER PLANTING ZONE		SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172	
						PLANTS PER ACRE	# OF PLANTS								
RIPARIAN FOREST (VARIABLE, SHADY)	UNDERSTORY LAYER	3	ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC	15' O.C.3	100 ONE-GALLON -- or -- 200 TUBELINGS -- or -- MIX AT 1:2 RATIO <sup>4</sup>	41 (BASED ON ONE-GALLON)					41			
			AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)	FAC											
			ASIMINA TRILOBA (PAWPAW)	FAC											
			CERCIS CANADENSIS (EASTERN REDBUD)	UPL											
			JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	FACU											
			MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW											
	SHRUB LAYER	4	CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU	15' O.C. <sup>3</sup>	100 ONE-GALLON -- or -- 200 TUBELINGS <sup>4</sup>	41 (BASED ON ONE-GALLON)						41		
			LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW											
			VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC											
			VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU											
RIPARIAN FOREST QUANTITY SUBTOTALS						600	82		-	-	-	82	-	-	

- PLANTING AND SEEDING NOTES:**
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a) 4 of the 5 species in Group 1, i) all of the species in Group 9,  
b) 5 of the 6 species in Group 2, j) 3 of the 4 species in Group 10,  
c) 5 of the 6 species in Group 3, k) 3 of the 4 species in Group 11,  
d) 3 of the 4 species in Group 4, l) 5 of the 6 species in Group 12,  
e) 4 of the 5 species in Group 5, m) 5 of the 7 species in Group 13,  
f) 3 of the 4 species in Group 6, n) 4 of the 5 species in Group 14, and  
g) all of the species in Group 7, o) 5 of the 6 species in Group 15.  
h) all of the species in Group 8,
  - 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.
  - The planted trees and shrubs shall be randomly spaced and species mixed throughout the planting areas.
  - 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.
  - Group 6 (Stream Edge) zone shall be planted with tubelings, or as livestakes. No one gallons are required to be used for any of this Group's species.
  - Stream Bank (Group 5) and Stream Edge (Group 6) zones shall be planted such that the combined mix of species is spaced approx. 3' O.C. and 1 plant per L.F. respectively. Live stake zones upstream of outer vane arm (Group 7) spaced at 1 plant per L.F. Live stake zones downstream of outer vane arm (Group 8) spaced at 4 plants per L.F.
  - All seeding rates are expressed in pounds of pure live seed (PLS).
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FILENAME: VEGETATION SCHEDULE.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



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APPROVALS DATE

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WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE


TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
VEGETATION SCHEDULE (02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A



REVISED ON 1/24/2022

SEEDING : ZONES A, B, C, D, AND E

SEEDING SCHEDULE						SEEDING QUANTITIES						
SEED PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	SEEDING RATE <sup>7</sup> (LBS/AC)	AREA PER PLANT (AC)	QUANTITY (LBS)	AREA (SF): AREA (AC):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172
RIPARIAN FOREST (VARIABLE, SHADY) SEED MIX	9	LOLIUM PERENNE spp. MULTIFLORUM (ANNUAL RYEGRASS)	45.00	1.33	13.50		1.80	1.35			10.35	
		SECALE CEREALE (WINTER RYEGRASS)	45.00	1.33	13.50		1.80	1.35			10.35	
	10	ELYMUS RIPARIUS (RVERBANK WILD RYE)	10.00	1.33	3.00		0.40	0.30			2.30	
		ELYMUS VIRGINICUS (VIRGINIA WILD RYE)	10.00	1.33	3.00		0.40	0.30			2.30	
		DICHANTHELIUM CLANDESTINUM (DEER TONGUE GRASS)	10.00	1.33	3.00		0.40	0.30			2.30	
		SENNA HEBECARPA (WILD SENNA)	10.00	1.33	3.00		0.40	0.30			2.30	
	11	AGRIMONIA PARVIFLORA (HARVESTLICE)	0.20	1.33	0.07		0.01	0.01			0.05	
		CAREX SQUARROSA (SQUARROSE SEDGE)	0.20	1.33	0.07		0.01	0.01			0.05	
		PARTHENOCISSUS QUINQUEFOLIA (VIRGINIA CREEPER)	0.20	1.33	0.07		0.01	0.01			0.05	
		JUNCUS TENUIS (PATH RUSH)	0.20	1.33	0.07		0.01	0.01			0.05	
	12	ANEMONE VIRGINIANA (THIMBLEWEED)	0.10	1.33	0.02		0.00	0.00			0.02	
		EUPATORIUM PERFOLIATUM (COMMON BONESET)	0.10	1.33	0.02		0.00	0.00			0.02	
		SYMPHYOTRICHUM PILOSUM (WHITE OLDFIELD AMERICAN-ASTER)	0.10	1.33	0.02		0.00	0.00			0.02	
		RHUS GLABRA (SMOOTH SUMAC)	0.10	1.33	0.02		0.00	0.00			0.02	
		SOLIDAGO RUGOSA (WRINKLELEAF GOLDENROD)	0.10	1.33	0.02		0.00	0.00			0.02	
		VERNONIA NOVEBORACENSIS (NEW YORK IRONWEED)	0.10	1.33	0.02		0.00	0.00			0.02	
	13	BIDENS FRONDOSA (BEGGAR TICKS)	0.20	1.33	0.07		0.01	0.01			0.05	
		GEUM CANADENSE (WHITE AVENS)	0.20	1.33	0.07		0.01	0.01			0.05	
		CHAMAECRISTA NICITANS (SENSITIVE PARTRIDGE PEA)	0.20	1.33	0.07		0.01	0.01			0.05	
		DESMODIUM GLABELLUM (DILLENIOUS' TICK-TREFOIL)	0.20	1.33	0.07		0.01	0.01			0.05	
		PENSTEMON DIGITALIS (PENSTEMON)	0.20	1.33	0.07		0.01	0.01			0.05	
		CLEMATIS VIRGINIANA (VIRGIN'S BOWER)	0.20	1.33	0.07		0.01	0.01			0.05	
		VERBESINA ALTERNIFOLIA (WINGSTEM)	0.20	1.33	0.07		0.01	0.01			0.05	
	14	HAMAMELIS VIRGINIANA (WITCH HAZEL)	0.20	1.33	0.07		0.01	0.01			0.05	
		ILEX VERTICILLATA (WINTERBERRY)	0.20	1.33	0.07		0.01	0.01			0.05	
		LINDERA BENZOIN (NORTHERN SPICEBUSH)	0.20	1.33	0.07		0.01	0.01			0.05	
		VIBURNUM DENTATUM (SOUTHERN ARROW WOOD)	0.20	1.33	0.07		0.01	0.01			0.05	
		VIBURNUM PRUNIFOLIUM (BLACK-HAW)	0.20	1.33	0.07		0.01	0.01			0.05	
	15	ACER RUBRUM (RED MAPLE) <sup>8</sup>	0.50	1.33	0.16		0.02	0.02			0.12	
		CARPINUS CAROLINIANA (AMERICAN HORNBEAM)	0.50	1.33	0.16		0.02	0.02			0.12	
		CERCIS CANADENSIS (EASTERN REDBUD)	0.50	1.33	0.16		0.02	0.02			0.12	
		CORNUS FLORIDA (FLOWERING DOGWOOD)	0.50	1.33	0.16		0.02	0.02			0.12	
		NYSSA SYLVATICA (BLACK GUM)	0.50	1.33	0.16		0.02	0.02			0.12	
		PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	0.50	1.33	0.16		0.02	0.02			0.12	
SEEDING TOTALS			136.80		41.20		5.48	4.18	0.00	0.00	31.54	0.00

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) 4 of the 5 species in Group 1,  
b) 5 of the 6 species in Group 2,  
c) 5 of the 6 species in Group 3,  
d) 3 of the 4 species in Group 4,  
e) 4 of the 5 species in Group 5,  
f) 3 of the 4 species in Group 6,  
g) all of the species in Group 7,  
h) all of the species in Group 8,

i) all of the species in Group 9,  
j) 3 of the 4 species in Group 10,  
k) 3 of the 4 species in Group 11,  
l) 5 of the 6 species in Group 12,  
m) 5 of the 7 species in Group 13,  
n) 4 of the 5 species in Group 14, and  
o) 5 of the 6 species 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.  
No one gallons are required to be used for any of this Group's species.

6. Stream Bank (Group 5) and Stream Edge (Group 6) zones shall be planted such that the combined mix of species is spaced approx. 3' O.C. and 1 plant per L.F. respectively.  
Live stake zones upstream of outer vane arm (Group 7) spaced at 1 plant per L.F. Live stake zones downstream of outer vane arm (Group 8) spaced at 4 plants per L.F.

7. All seeding rates are expressed in pounds of pure live seed (PLS).


8. If there is an abundance of existing or established maples on site, a substitution for maples may be made with an alternate species to avoid tapping into and adding to existing saturated seed bank. Final decision as to whether or not to plant maples will be made by engineer of record.

9. Contractor shall not plant white oak, southern or northern red oak, persimmon, viburnum prunifolium, or any UPL or FACU species in wetland areas.
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- 

**ARLINGTON**  
VIRGINIA

DEPARTMENT OF  
ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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PHONE: 703.228.3629  
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- SEAL


- APPROVALS

DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER
- REVISIONS

DATE
- TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

VEGETATION SCHEDULE (03)
- DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A
- 41 of 49
- TRIB A MAINTENANCE AND EMERGENCY REPAIR







DESIGN NARRATIVE

THE TRIB A MAINTENANCE AND EMERGENCY REPAIR PROJECT INVOLVES THE INSTALLATION OF A CLASS II AND CLASS I RBM REINFORCEMENT AROUND THE BACKSIDE OF THE OUTFALL WINGWALLS. THIS REINFORCEMENT EXTENDS TO THE FAILING AREA TO THE LEFT DOWNSTREAM SIDE OF THE OUTFALL AS WELL. ADDITIONALLY, A CLASS A1 RBM SWALE WILL BE INSTALLED UP-SLOPE TO PREVENT FURTHER EROSION FROM OCCURRING. FURTHERMORE, IN-STREAM REPAIR WORK WILL BE CONDUCTED AT VARIOUS LOCATIONS IN THE CHANNEL TO RECONSTRUCT FAILING COMPONENTS OF A PREVIOUS STREAM RESTORATION PROJECT. THE ANTICIPATED TOTAL DISTURBED AREA ASSOCIATED WITH THE OUTFALL REPAIR WILL BE APPROXIMATELY 23,766 SQUARE FEET (0.55 ACRES). THE STABILIZATION WILL TAKE PLACE IN THE N UTAH ST RIGHT OF WAY AND ON THE PROPERTY OF STEPHEN AND TERESA GIDO (05-001-012). TEMPORARY ACCESS AND STOCKPILE IMPACTS WILL ALSO OCCUR ON A COUNTY BOARD OF ARLINGTON PROPERTY (05-001-076). THE OUTFALL IS LOCATED TO THE NORTH OF N UTAH STREET, TO THE WEST OF N STUART STREET AND TAYLOR ELEMENTARY SCHOOL, AND TO THE EAST OF N UPSHUR STREET IN ARLINGTON COUNTY, VIRGINIA. THE CULVERT OUTFALL IS THE START OF TRIB A OF DONALDSON RUN. CURRENTLY, WATER COMING OFF OF THE HILL TO THE WEST OF THE OUTFALL IS CONCENTRATING IN A SWALE TO THE WEST OF THE EXISTING MULCH TRAIL AND HAS CAUSED SEVERE EROSION ON THE BACKSIDE OF THE OUTFALL WINGWALL. THE AREA BEHIND THE WINGWALL WILL BE RESTORED AND REINFORCED WITH CLASS II AND CLASS I RBM TO PREVENT FUTURE FAILURE, AND THE SWALE UPHILL OF THE OUTFALL WILL BE FORTIFIED WITH CLASS A1 RBM INSTALLED AT GRADE.

THE DRAINAGE AREA FOR THE LOCATION OF THE STABILIZATION IS 4.53 ACRES. DUE TO THE SMALL WATERSHED, THE RATIONAL METHOD WAS USED TO CALCULATE THE FLOW REACHING THE STABILIZATION AREA. A 10 YEAR STORM WAS ASSUMED GIVING A  $C_i$  VALUE OF 1.0. A COMPOSITE RUNOFF COEFFICIENT OF 0.45 WAS DETERMINED USING AERIAL IMAGERY. THE LAND WITHIN THE DRAINAGE AREA CONSISTED OF 1.84 ACRES OF WOODS, 1.43 ACRES OF LAWN, 0.60 ACRES OF ROOF, AND 0.66 ACRES OF PAVEMENT. THE RAINFALL INTENSITY FOR THE OUTFALL LOCATION WAS OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S PRECIPITATION FREQUENCY DATA SERVER (NOAA PFDS). A 5 MINUTE TIME OF CONCENTRATION AND 10 YEAR STORM GIVES 6.82 IN/HR.

$$Q = C_i C_i A$$
$$Q = (1.0)(0.45)(6.82)(4.53)$$
$$Q = 13.9 \text{ CFS}$$

THIS FLOW WOULD BE CONVEYED BY A HYPOTHETICAL CHANNEL 6 FT IN WIDTH AND 0.6 FT IN DEPTH. THEREFORE, THIS APPROXIMATE CHANNEL SIZE WITH CLASS I RBM GRADE CONTROL CAN HANDLE THE FLOW COMING TOWARDS THE STABILIZATION AREA.

PERMIT NARRATIVE

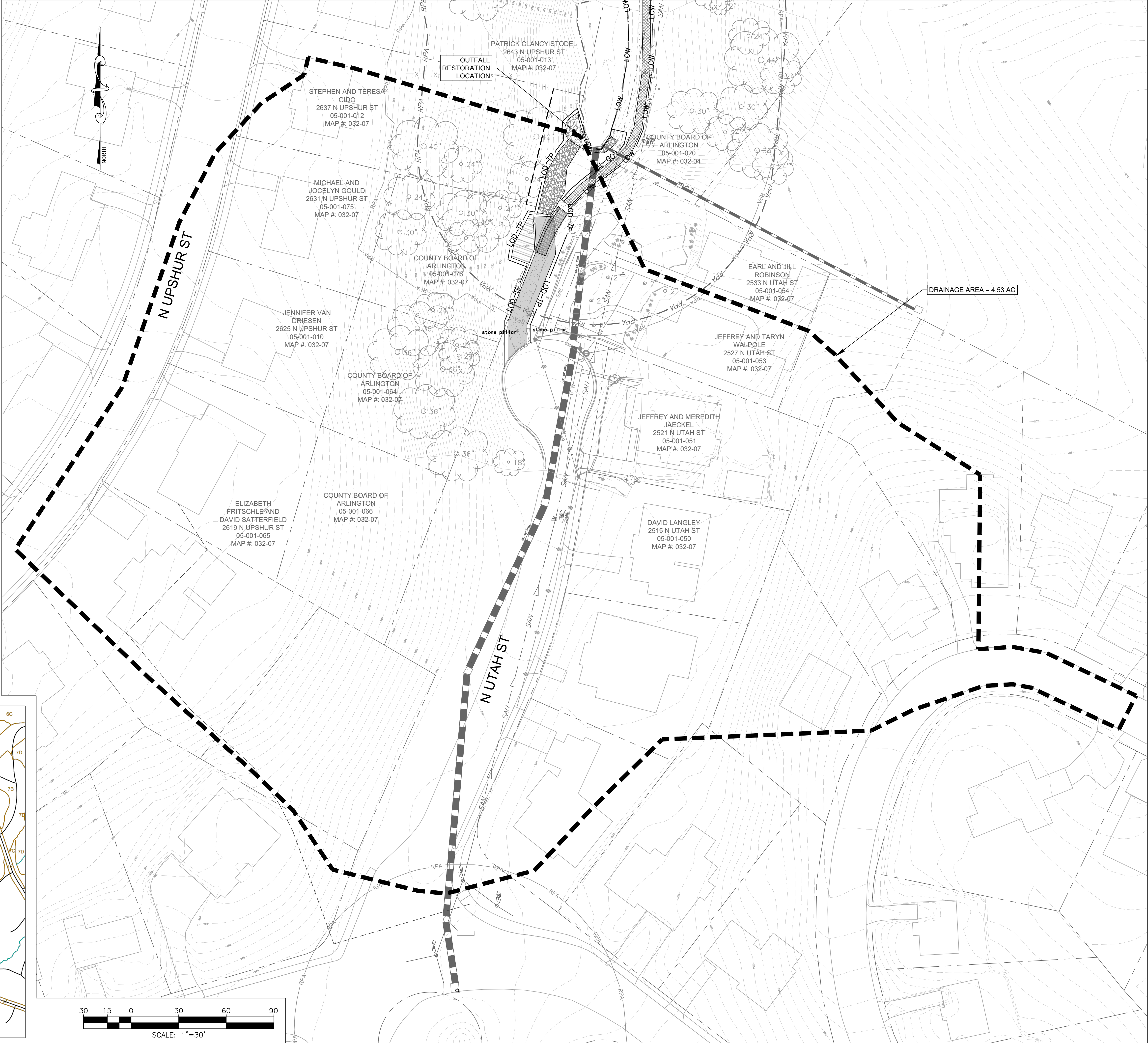
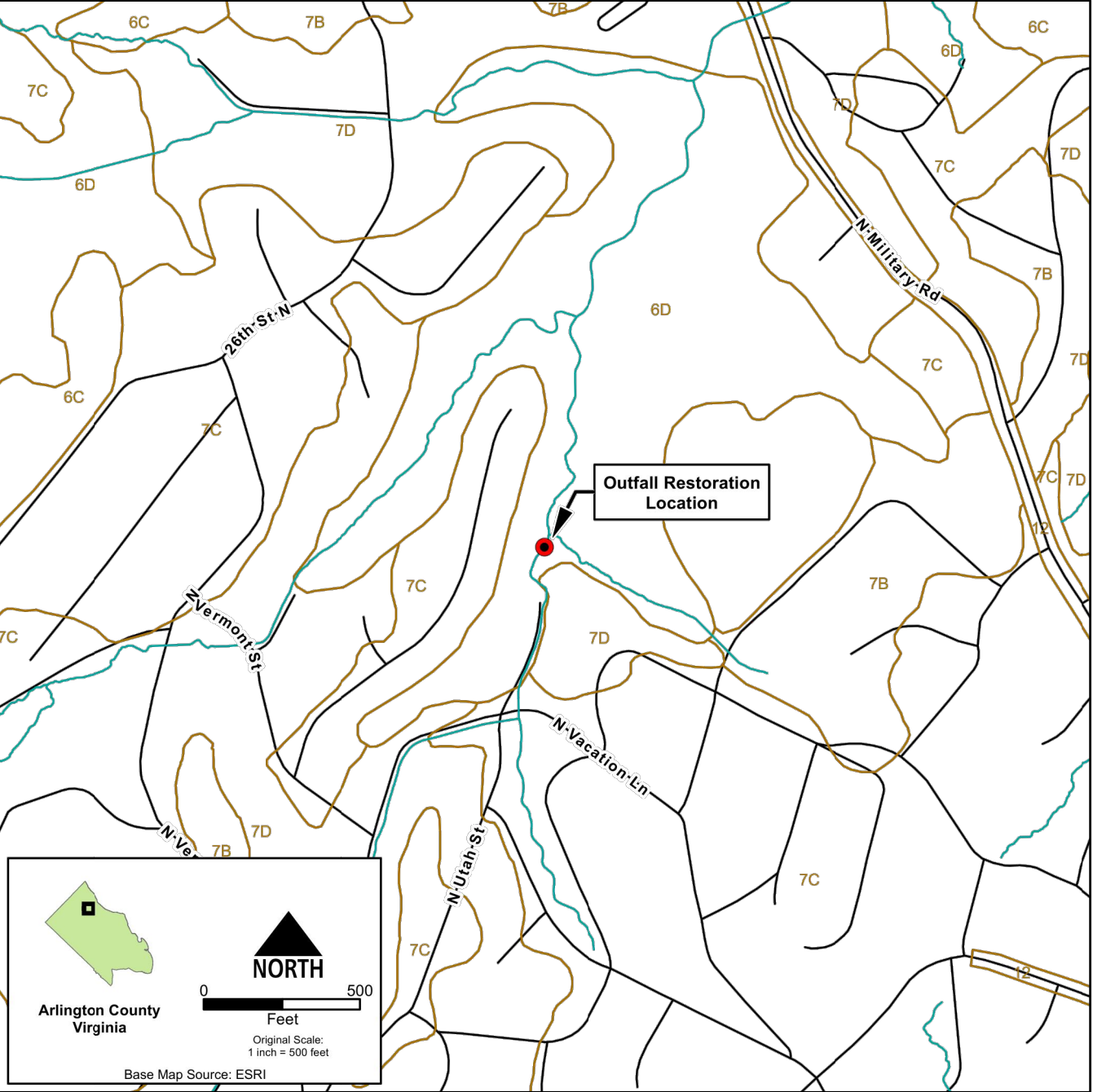
THERE WILL BE SEVERAL PERMIT ASSOCIATED WITH THE TRIB A MAINTENANCE AND EMERGENCY REPAIR PROJECT. IT IS EXPECTED THAT A NATIONWIDE PERMIT 18 (MINOR DISCHARGES) WILL BE REQUIRED IN ASSOCIATION WITH THE SWALE AND FAILING SLOPE STABILIZATION AROUND THE HEADWALL, AND A NATIONWIDE PERMIT 3 (MAINTENANCE) WILL BE REQUIRED ASSOCIATED WITH THE IN STREAM REPAIR. ADDITIONALLY, AN ARLINGTON COUNTY LAND DISTURBING ACTIVITY AND STORMWATER PERMIT WILL BE REQUIRED AS THE DISTURBED AREA IS GREATER THAN 2500 SF.

FLOODPLAIN STATEMENT

THE STREAM STABILIZATION PERFORMED IN THIS PROJECT IS MAINTENANCE OF A PREVIOUSLY DESIGNED AND CONSTRUCTED STREAM RESTORATION PROJECT. THE SCOPE OF THE WORK WILL BE ENTIRELY MAINTENANCE IN NATURE, WITH THE GOAL OF RETURNING CURRENT CONDITIONS OF THE STREAM STRUCTURES AND PLANFORM GEOMETRY TO THEIR ORIGINALLY DESIGNED FORM. THERE IS NO EXPECTED CHANGE IN THE 100 YR FLOODPLAIN EXTENTS FROM THE PERVIOUS RESTORATION PROJECT.

THE PROJECT MEETS ALL REQUIREMENTS OF THE FLOODPLAIN ORDINANCE PER THE FLOODPLAIN DETERMINATION ISSUED BY ELIZABETH L. THURBER DATED MARCH 4TH, 2022.

SOILS MAP



DEPARTMENT OF  
ENVIRONMENTAL SERVICES  
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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

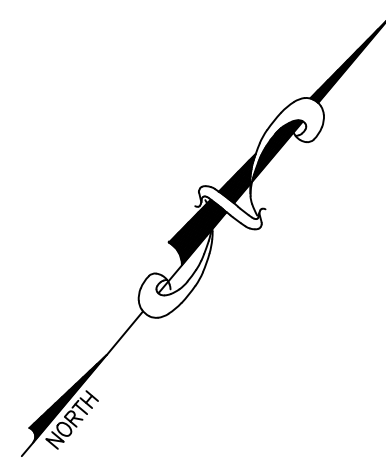
DESIGN NARRATIVE (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=30'

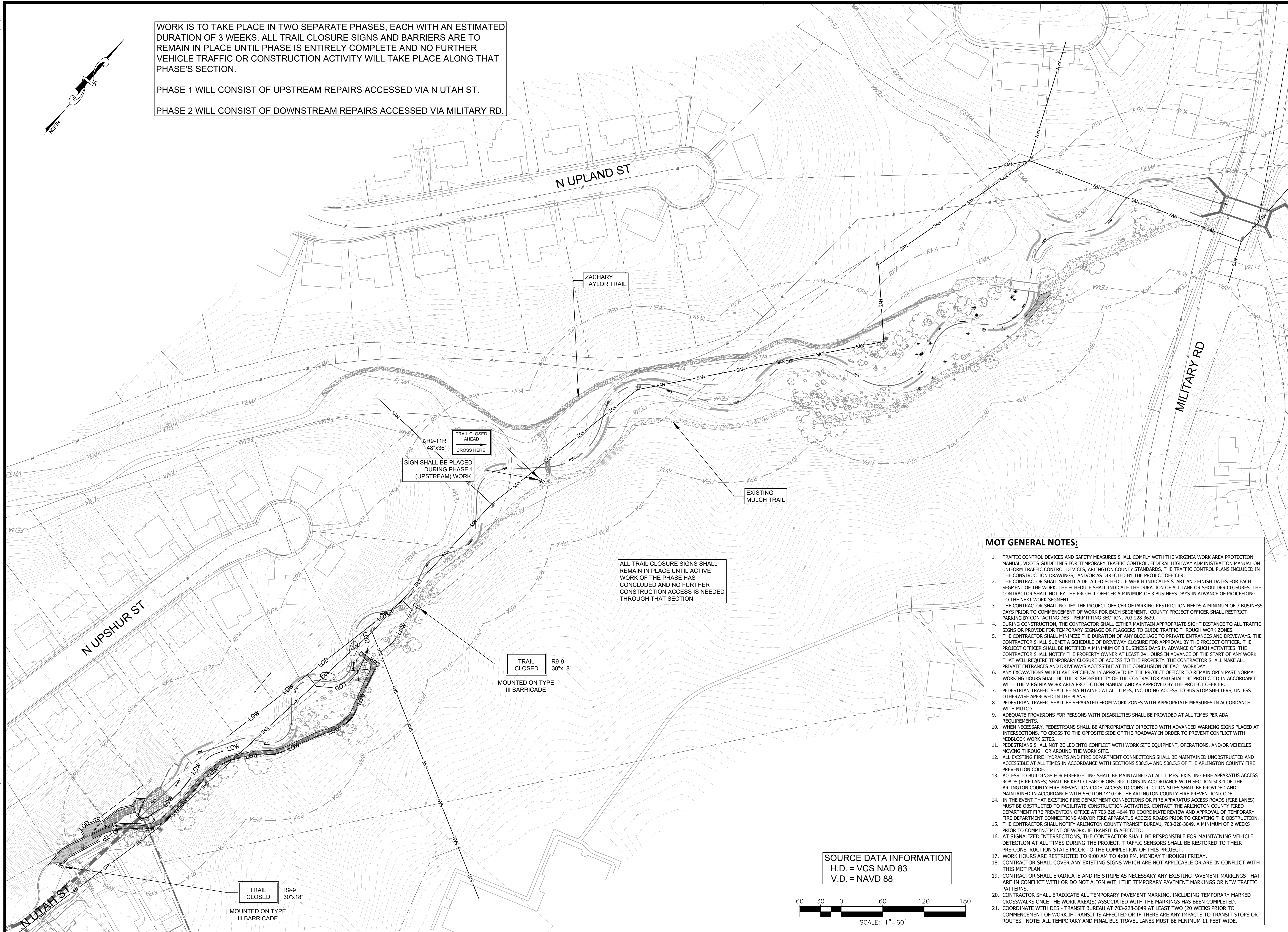




WORK IS TO TAKE PLACE IN TWO SEPARATE PHASES, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS. ALL TRAIL CLOSURE SIGNS AND BARRIERS ARE TO REMAIN IN PLACE UNTIL PHASE IS ENTIRELY COMPLETE AND NO FURTHER VEHICLE TRAFFIC OR CONSTRUCTION ACTIVITY WILL TAKE PLACE ALONG THAT PHASE'S SECTION.

PHASE 1 WILL CONSIST OF UPSTREAM REPAIRS ACCESSED VIA N UTAH ST.

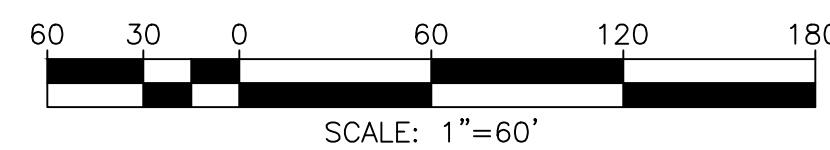
PHASE 2 WILL CONSIST OF DOWNSTREAM REPAIRS ACCESSED VIA MILITARY RD.



**MOT GENERAL NOTES:**

1. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARRLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
2. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF ANY CLOSURE, DETOUR, AND/OR FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NECESSARY A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES-1 PERMITTING SECTION, 703-228-3629.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
5. THE CONTRACTOR SHALL MINIMIZE DETOUR OF TRAFFIC ON ANY BLOCKED OR PARTIALLY CLOSED DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
6. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, AND AS APPROVED BY THE PROJECT OFFICER.
7. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
8. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
9. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
10. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
11. PEDESTRIANS SHALL NOT BE LED INTO CONTACT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
12. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARRLINGTON COUNTY FIRE PREVENTION CODE.
13. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4.3 OF THE ARRLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARRLINGTON COUNTY FIRE PREVENTION CODE.
14. THE EVENT THAT THE EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARRLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-6644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.
15. THE CONTRACTOR SHALL NOTIFY ARRLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 2 WEEKS PRIOR TO COMMENCEMENT OF ANY WORK THAT MAY AFFECT TRANSIT ROUTES.
16. AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
17. WORK HOURS ARE RESTRICTED TO 9:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY.
18. CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THE NEW PLAN.
19. CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH WORK OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
20. CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKING, INCLUDING TEMPORARY MARKED CROSSINGS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
21. CONTRACTOR SHALL COORDINATE WITH ARRLINGTON COUNTY TRANSIT BUREAU AT 703-228-3049, A MINIMUM OF 20 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11-FEET WIDE.

SOURCE DATA INFORMATION
H.D. = VCS NAD 83
V.D. = NAVD 88



**ARLINGTON**  
VIRGINIA

**DEPARTMENT OF  
ENVIRONMENTAL SERVICES**  
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SEAL 4



<u>APPROVALS</u>	<u>DATE</u>
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DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS	DATE
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# TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

# MAINTENANCE OF TRAFFIC PLAN PHASE 1

DESIGNED: AMC

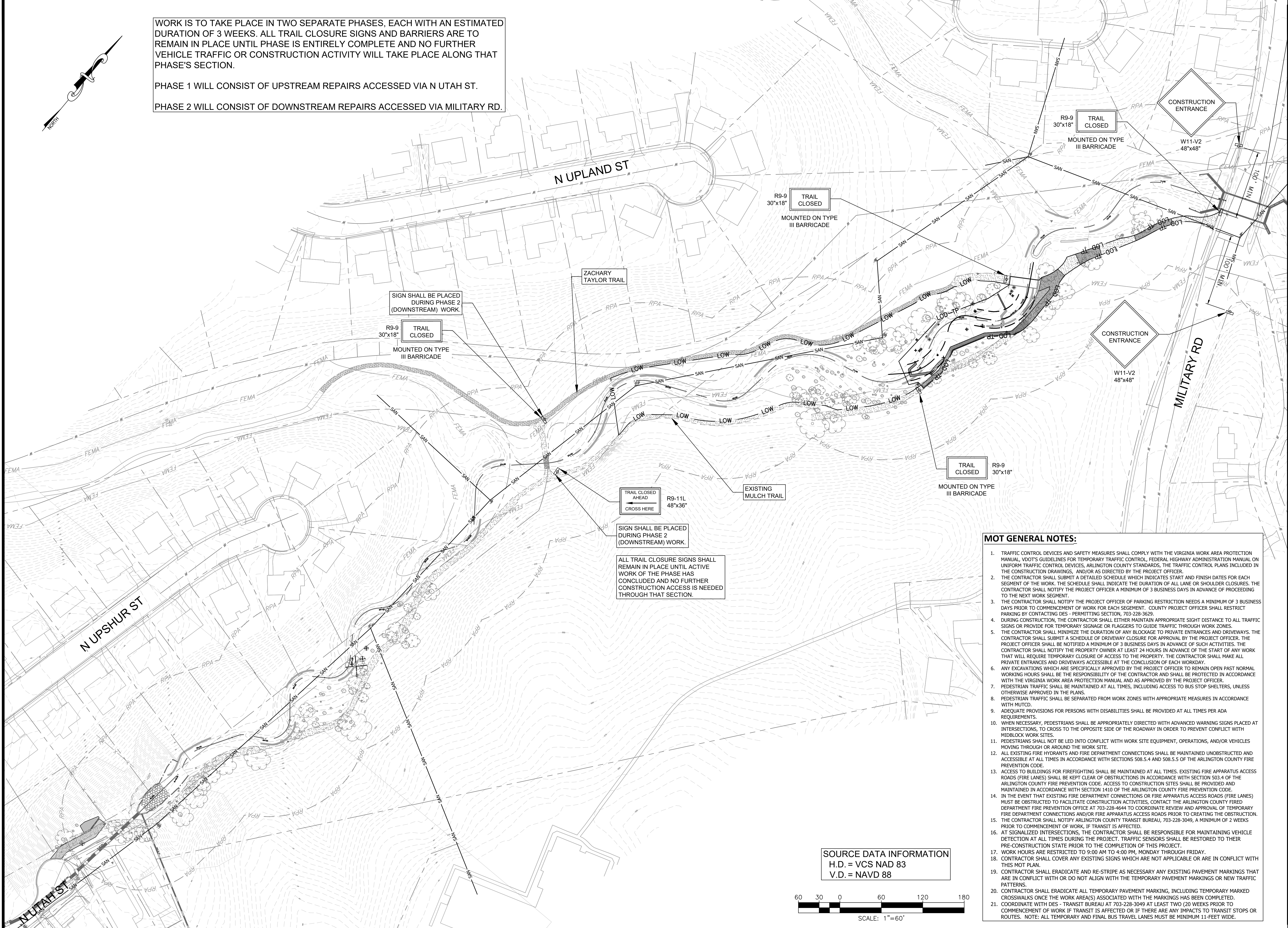
DRAWN: AMC

CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'





WORK IS TO TAKE PLACE IN TWO SEPARATE PHASES, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS. ALL TRAIL CLOSURE SIGNS AND BARRIERS ARE TO REMAIN IN PLACE UNTIL PHASE IS ENTIRELY COMPLETE AND NO FURTHER VEHICLE TRAFFIC OR CONSTRUCTION ACTIVITY WILL TAKE PLACE ALONG THAT PHASE'S SECTION.

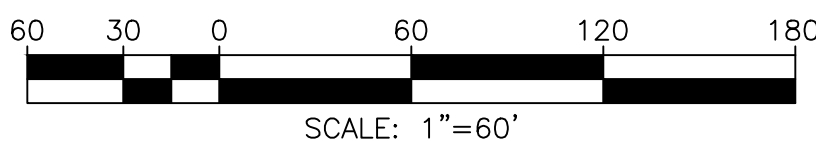
PHASE 1 WILL CONSIST OF UPSTREAM REPAIRS ACCESSED VIA N UTAH ST.

PHASE 2 WILL CONSIST OF DOWNSTREAM REPAIRS ACCESSED VIA MILITARY RD.

**MOT GENERAL NOTES:**

1. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NEEDS A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES - PERMITTING SECTION, 703-228-3629.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
5. THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE TO PRIVATE ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
6. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE PROJECT OFFICER.
7. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
8. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
9. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
10. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
11. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
12. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
13. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
14. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRED DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 2 WEEKS PRIOR TO COMMENCEMENT OF WORK, IF TRANSIT IS AFFECTED.
16. AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
17. WORK HOURS ARE RESTRICTED TO 9:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY.
18. CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THIS MOT PLAN.
19. CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
20. CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKING, INCLUDING TEMPORARY MARKED CROSSWALKS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
21. COORDINATE WITH DES - TRANSIT BUREAU AT 703-228-3049 AT LEAST TWO (20) WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11-FEET WIDE.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



DEPARTMENT OF  
ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
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**SEAL**



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

MAINTENANCE OF TRAFFIC PLAN PHASE 2

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'





SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88

6030060120180

SCALE: 1"=60'

RPA

RPA

LOD

LOD

SITE SPECIFIC RPA

2019 COUNTY RPA

LIMITS OF DISTURBANCE

LIMITS OF DISTURBANCE/TREE PROTECTION FENCING

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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SEAL

COMMONWEALTH OF VIRGINIA

FRANK R. GRAZIANO  
Lic. No. 032099  
07/13/2022

PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

WATER QUALITY IMPACT ASSESSMENT  
(01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'

45 of 49

TRIB A MAINTENANCE AND EMERGENCY REPAIR



Project Clover Stream Restoration and Enhancement - Water Quality Impact Assessment

This stream stabilization project involves the repair and enhancement of several locations along Tributary A of Donaldson Run in Arlington County, Virginia. The stream stabilization reach begins at a 48" RCP outfall from underneath N. Utah Street, and ends at a pedestrian bridge, with a large gap in the middle. Stabilization components involve armoring a section of trail erosion, placing riprap material in an eroding swale and behind an eroding headwall, repairing several existing in-stream structures, and re-establishing a previously designed bankfull channel to promote improved planform geometry in several places. Additionally, large areas will be receive supplementary planting and seeding in an effort to improve floodplain stabilization and enhance the riparian corridor.

With a total disturbed area of 23,766 sf (0.55 acres), this stabilization project requires a major Water Quality Impact Assessment (WQIA) according to Section 61-12 of the Arlington County Code. Pursuant to Section 118-1-6 (ff) of the Chesapeake Bay Preservation Ordinance (Ordinance), stream bank stabilization measures are included in the definition for "water dependent development". Section 118-2-1 (a) lists "water dependent development" as an "Allowed Use" provided the performance criteria presented in Article 3 are met. As a result, this WQIA has been developed for the stream bank stabilization measures pursuant to the requirements listed in Section 118-4-3 as well as in the Arlington County Code Section 61-12. A discussion of each of the required elements in the Arlington Code is provided below:

1) Location of components of the RPA;

The 2019 Arlington County Mapped RPA is depicted on this WQIA as displayed on the previous sheet. This County-Mapped RPA was obtained from Arlington County Digital Data and is not based on surveyed field conditions. Additionally, site specific RPA was created by buffering the top of bank of the previous existing stream restoration project. Rather than submit a formal RPA Delineation Study, it is conceded that the entire site is within the RPA. Compliance with the performance criteria will be demonstrated accordingly.

2) Location and nature of the proposed encroachment into the RPA buffer, including the thype of paving material, areas of clearing or grading, location of any structures, drives or other impervious cover, and sewage disposal systems or reserve drainfield sites;

The proposed project involves the stabilization of a reach of Tributary A of Donaldson Run, as depicted in this plan set. The stabilization armoring a section of trail erosion, placing riprap material in an eroding swale and behind an eroding headwall, repairing several existing in-stream structures, and re-establishing a previously designed bankfull channel to promote improved planform geometry in several places. Additionally, large areas will be receive supplementary planting and seeding in an effort to improve floodplain stabilization and enhance the riparian corridor. No paving, permanent clearing, impervious area, sewage systems, or drainfield sites will be involved in the project.

3) Estimation of pre- and post-development impervious surfaces on the site and stormwater calculations required by the Director;

No change in impervious area will occur as part of this project.

4) Type and location of proposed Best Management Practices to mitigate the proposed encroachment and the location of existing and proposed runoff outfalls or drainage pathways from the property;

The stream stabilization work proposed within the RPA is self-mitigating. The work re-establish a former stream restoration project, which is designed with goals of improving the stability of the bed and banks, reducing the sediment and nutrient supply to downstream receiving waters, creating riffle and pools for improved habitat, and planting native vegetation throughout the riparian corridor. Any adverse impacts will be temporary in nature and will ultimately lead to a much improved RPA condition. Best Management Practices (BMP's) are not required as the impervious area will not change. The buffer area will be re-established with a mixture of native overstory trees, understory trees, shrubs, and other plant materials.

5) Location of existing on-site vegetation, including the number and type of trees and other vegetation to be removed in the RPA buffer area to accommodate the encroachment or modification;

Location, description, and quantification of existing on-site vegetation is provided on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16). Impacts to existing vegetation will be minimized to the maximum extent practicable

6) Re-vegetation or vegetation establishment plan that supplements the existing RPA buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control;

Planting information is provided on the Planting Plan (Sheets 33 - 38), Vegetation Schedule (Sheets 39 - 41), and Planting Notes and Details (Sheet 42). The planting plan will include a wide variety of native trees, shrubs, and herbaceous materials.

7) A hydrogeological element which shall:

a. Describe the existing topography, soils, hydrology, and geology of the site and adjacent lands;

The current configuration of the proposed stabilization reach varies throughout its length in terms of channel shape, riparian buffer width, floodplain accessibility, and planform geometry. However, in general, the stream represents a C type channel and is currently being stabilized with numerous in-stream rock structures, some of which are failing. The soils present within the stabilization areas are Glenelg-Manor complex and Glenelg-Urban land complex.

b. Describe the impacts of the proposed development on topography, soils, hydrology and geology on the site and adjacent lands;

This reach will benefit from a stream stabilization that will repair areas of the stream that are experiencing erosion due to failed in-stream structures. These properly function structures and restored stream channel will experience connected flow with the available floodplain, thereby reducing stress on the bed and banks that will in turn reduce erosion, dissipate energy, and provide water quality treatment in the expansive floodplain during storm events.

c. Indicate the following elements, if applicable:

1. Disturbance or removal of wetlands and justification for such action;

No disturbance or removal of wetlands will take place as part of this project.

2. Changes or reductions in the supply of water to wetlands, streams, lakes, rivers, or other water bodies;

No changes or reductions in water supply will take place as part of this project.

3. Changes to the existing hydrology of the site or adjacent lands;

No changes to the existing hydrology will take place as part of this project.

4. Source, location, and description of proposed fill material;

Several class sizes of Reinforced Bed Material (RBM) and riprap will be used in this project to provide stabilization to areas of erosion. These will be sourced from local quarries. Descriptions of RBM can be found on Sheet 23. Additionally, fill will also come from salvaged material on site.

5. Location of dredging and location of dumping area for such dredged material;

No dredging will take place as part of this project.

6. Percent of the site to be cleared for the proposed project;Estimation of pre-development and post-development pollutant loads in runoff;

No permanent clearing will take place as part of this restoration project. Any disturbed area will be temporary in nature and will be vegetated and restored as the final stage of construction.

7. Anticipated duration and phasing schedule of the proposed construction project;

The restoration and enhancement construction is expected to be completed within 1 month. Depending on the time of year that construction occurs, planting may be delayed such that it takes place during the correct planting window.

8. List of all requisite permits from all applicable agencies necessary to develop the proposed project;

Encroachment into the stream will require Individual Permits from the U.S. Army Corps of Engineers (COE), NAO-2020-01667-rdb, and the Virginia Department of Environmental Quality (DEQ), 20-0029. A pre-construction notification will be submitted to COE and DEQ following approval of this plan. Additionally, VSMP requirements will be met through procurement of a Construction General Permit and maintenance of a SWPPP on site during construction.

d. Descriptions the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures may include, but are not limited to:

(i) Additional proposed erosion and sediment control concepts beyond those normally required under 61-10.E of this chapter; these additional concepts may include the following: minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, and schedule and personnel for site inspection;

Erosion and Sediment Control information is provided on Sheets 24 - 31. The proposed stabilization method represents a minimal impact to the RPA. There is not potential for velocity reduction as part of the stabilization project, and personnel will be present for site inspection.

(ii) Proposed stormwater management system.

Not applicable to this project.

8) A landscape conservation element that:

a. Identifies and delineates all woody material on site;

Location, description, and quantification of existing on-site vegetation is provided on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16).

b. Describes the impacts the development or use will have on the existing vegetation. Information shall include:

1. General limits land disturbance, based on all anticipated improvements including buildings, drives, and utilities;

Disturbance will be very limited and no permanent clearing of the site will take place as part of this restoration project. Trees and vegetation will be selectively removed as noted in the plan to allow for construction activity and these cleared areas are temporary in nature. They will be restored and re-vegetated as the last step in construction activity.

2. Clear delineation of all trees and other woody vegetation that will be will be removed;

Trees to be removed are described on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16).

c. Describes the potential measures for mitigation, including a proposed design plan and planting schedule for trees and other woody vegetation removed for construction, including a list of proposed plants and trees to be used. Possible mitigation measures may include, but are not limited to:

1. The re-vegetation plan shall supplement the existing RPA buffer in a manner that provides for pollutant removal, erosion, and runoff control;;

Planting information is provided on the Planting Plan (Sheets 33 - 38), Vegetation Schedule (Sheets 39 - 41), and Planting Notes and Details (Sheet 42). The planting plan will include a wide variety of native trees, shrubs, and herbaceous materials.

2. The design of the plan shall preserve to the greatest extent possible any significant trees and vegetation on the site and will provide maximum erosion control and overland flow benefits from such vegetation;

The nature of this stabilization is to inflict as little disturbance as possible on the site. Additionally, the construction oversight team will work with the contractor to attempt to save as many trees as possible during construction. Not all trees marked to be removed on this plan will necessarily be removed. Utilizing the existing trail, as well as protecting it with either deck matting or mulch when in close proximity to large trees, will further lower the necessity of tree removal or disturbance.

3. Indigenous plants shall be used unless otherwise approved by the Director.

All species listed in the vegetation schedule are native.

9) Impact Summary

As part of this project, 9 trees are proposed to be removed in order to complete construction activity and site access. The revegetation component will consist of upland riparian planting of 207 overstory trees, 144 understory trees, and 144 shrubs. Additionally, streamside planting will consist of 528 shrubs, 2,133 tubelings, and 109 live stakes.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE


TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
WATER QUALITY IMPACT ASSESSMENT  
(02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'



Appendix C. Water Quality Impact Assessment Data Sheet

Project Address 2355 N. Utah Street, Arlington, VA 22207		Date: August 12, 2021	
Applicant Name/Affiliation: Wetland Studies and Solutions, Inc.		Applicant Contact Information (phone and email): 703-679-5600, amchapla@ncsu.edu	
Owner/Client Name: Arlington County Department of Environmental Services, Facilities and Engineering Division		Owner/Client Contact Information (phone and email): 703-228-3629, cjolicoeur@arlingtonva.us	

Section 1: Type of activity proposed

Activity type (check all that apply): <input type="checkbox"/> New construction (residential, commercial, public, etc.) <input type="checkbox"/> Alteration of non-residential structure <input type="checkbox"/> Residential addition <input type="checkbox"/> Detached residential structure		<input type="checkbox"/> Deck, patio, or retaining wall <input type="checkbox"/> Landscaping (includes tree removal) <input type="checkbox"/> Utility work <input type="checkbox"/> Fence <input checked="" type="checkbox"/> Other (please describe): Stream maintenance and emergency repair	
--	--	--	--

Section 2: Key details of the proposed activity

Complete all that apply		Explanation	
Total area of disturbance on parcel (sf)		88,954 sf	Includes building footprint plus a 10 foot buffer. Also includes all soil disturbance, ingress/egress areas, stockpiling areas, etc.
Area of disturbance within RPA (sf)		88,476 sf	Includes removal of trees ≥ 3" in diameter
Area of disturbance on slopes greater than or equal to 15 percent located adjacent to landward RPA boundary (sf)		0 sf	Does not apply to RPA parcels along Chain Bridge Road (15 percent and greater slopes are included as part of RPA)

Complete all fields		Existing condition	Proposed condition	Explanation
RPA encroachment (ft)	Left third of parcel or site	0 ft	0 ft	The <b>distance</b> (in feet) from the existing or proposed structure to the designated RPA feature (edge of stream or open channel, wetland, etc.). Encroachments of zero (0) indicate the project will impact the stream or other RPA feature.
	Middle third of parcel or site	0 ft	0 ft	
	Right third of parcel or site	0 ft	0 ft	
Total development footprint in RPA (sf)		0 ft	0 ft	The existing footprint includes the <b>area</b> of any existing structures, patios, decks, walkways, etc. Proposed footprint is the anticipated post-project area of all structures, additions, decks, walkways, regraded area behind a retaining wall, etc.
Impervious footprint in RPA (sf)		0 ft	0 ft	Total <b>area</b> of impervious surfaces within the RPA (rooftops, pavement, etc.)

(OVER)

STAFF USE ONLY

Building/demolition/LDA/Fence permit number(s):

Major WQIA required? ☐ Yes ☐ No

Date WQIA/Exception request information complete:

Date Chesapeake Bay Preservation Ordinance and E/S ordinance (if applicable) approvals issued in Permits Plus:

Section 3: Plan and Narrative

Provide a plan showing the location of the proposed activity, along with the RPA boundary. Briefly describe the proposed project, including any potential water quality impacts and mitigation measures proposed. The narrative must address three impact categories: 1. Tree/vegetation impacts, 2. Stormwater and runoff, 3. Erosion and sediment control. Please refer to the WQIA plan/narrative checklist for additional information.

A WQIA plan view of the proposed activity and RPA boundary can be found on Sheet 45. A narrative describing the proposed project, water and vegetation impacts, stormwater and runoff, erosion and sediment control, and mitigation measures can be found on Sheet 46.

Additional Water Quality Impact Assessment Information

The information supplied on this form satisfies the minimum requirements for a Minor Water Quality Impact Assessment. For projects that disturb over 2500 square feet, elements of a Major Water Quality Impact Assessment may also be required, depending on the nature and extent of the proposed RPA encroachment, as outlined in Section 61-12 of the ordinance.



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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

WATER QUALITY IMPACT ASSESSMENT  
DATA SHEET (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'



STORMWATER POLLUTION PREVENTION PLAN  
Trib A Maintenance and Emergency Repair

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) COVER PAGE

For Construction Activities At:

Trib A Maintenance and Emergency Repair  
2355 N. Utah Street  
Arlington, VA 22207

Latitude: 38.906509 N (decimal degrees)  
Longitude: 77.115921 W (decimal degrees)

Construction Activity Operator:

Insert Company/Organization Name  
Insert Name  
Insert Address  
Insert City, State, Zip Code  
Insert Telephone Number  
Insert Email Address  
Insert 24-hour Emergency Contact

SWPPP Preparation Date:

August 16, 2021

CERTIFICATION

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Trib A Maintenance and Emergency Repair

1.0 SWPPP Documents Located Onsite & Available for Review

SWPPP Document Type Located Onsite & Available for Review?

Registration Statement ☐ Yes ☐ NA  
Notice of Coverage Letter ☐ Yes ☐ NA  
Construction General Permit ☐ Yes ☐ NA  
Pollution Prevention Plan ☐ Yes ☐ NA  
Erosion & Sediment Control Plan (or agreement in lieu of) ☐ Yes ☐ NA  
Stormwater Management Plan ☐ Yes ☐ NA

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharge Likely Present at Your Project Site?

External buildings wash down ☐ Yes ☐ No  
Uncontaminated foundation or footing drains ☐ Yes ☐ No  
Uncontaminated excavation dewatering ☐ Yes ☐ No  
Landscape irrigation ☐ Yes ☐ No  
Others [describe] ☐ Yes ☐ No

3.0 Pollution Prevention Awareness

Employees will be given a "walk through" of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices (identified in Sections 4.0 and 5.0 of this SWPPP) that are applicable to their assigned job duties. A refresher meeting and "walk through" will be conducted on an as needed basis.

4.0 Erosion & Sediment Controls

Select all that apply	Erosion & Sediment Control	Estimated Installation Date	Estimated Removal Date	Responsible Party
<input type="checkbox"/>	Construction Entrance (Std. & Spec. 3.02)	Insert Date	Insert Date	Construction Activity Operator (See Cover Page of this SWPPP)
<input type="checkbox"/>	Silt Fence (Std. & Spec. 3.05)	Insert Date	Insert Date	
<input type="checkbox"/>	Culvert Inlet Protection (Std. & Spec. 3.08)	Insert Date	Insert Date	
<input type="checkbox"/>	Outlet Protection (Std. & Spec. 3.18)	Insert Date	NA	
<input type="checkbox"/>	Temporary Seeding (Std. & Spec. 3.31)	As required by 3.31	NA	
<input type="checkbox"/>	Permanent Seeding (Std. & Spec. 3.32)	Insert Date	NA	
<input type="checkbox"/>	Sodding (Std. & Spec. 3.33)	Insert Date	NA	
<input type="checkbox"/>	Mulching (Std. & Spec. 3.35)	Insert Date	NA	
<input type="checkbox"/>	Safety Fence (Std. & Spec 3.01)	Insert Date	Insert Date	
<input type="checkbox"/>	Storm Drain Inlet Protection (Std. & Spec 3.08)	Insert Date	Insert Date	

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Trib A Maintenance and Emergency Repair

<input type="checkbox"/>	Dewatering (Std. & Spec 3.26)	Insert Date	Insert Date
<input type="checkbox"/>	Turbidity Curtain (Std. & Spec 3.27)	Insert Date	Insert Date
<input type="checkbox"/>	Tree Protection (Arlington County Std. & Spec.)	Insert Date	Insert Date
<input type="checkbox"/>	Others [describe]	Insert Date	Insert Date

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Pollutant-Generating Activity	Pollutants										Pollution Prevention Practice	Responsible Party
	Likely Present at your Project Site?	Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals		
Clearing, grading, excavating, and un-stabilized areas	<input type="checkbox"/> Yes <input type="checkbox"/> No	X							X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving operations	<input type="checkbox"/> Yes <input type="checkbox"/> No	X					X		X		(2)	
Concrete washout and cement waste	<input type="checkbox"/> Yes <input type="checkbox"/> No			X	X				X		(3)	
Structure construction, stucco, painting, and cleaning	<input type="checkbox"/> Yes <input type="checkbox"/> No			X	X				X	X	(4)	
Dewatering operations	<input type="checkbox"/> Yes <input type="checkbox"/> No	X	X						X		(5)	
Material delivery and storage	<input type="checkbox"/> Yes <input type="checkbox"/> No	X	X	X	X		X		X	X	(6)	
Material use during building process	<input type="checkbox"/> Yes <input type="checkbox"/> No		X	X	X		X		X	X	(7)	
Solid waste disposal	<input type="checkbox"/> Yes <input type="checkbox"/> No								X	X	(8)	
Sanitary waste	<input type="checkbox"/> Yes <input type="checkbox"/> No		X		X			X			(9)	
Landscaping operations	<input type="checkbox"/> Yes <input type="checkbox"/> No	X	X			X			X	X	(10)	
Others [describe]	<input type="checkbox"/> Yes <input type="checkbox"/> No	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	(11)	

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

Pollution Prevention Practices:

- (1) **Clearing, grading, excavating and un-stabilized areas** – Utilize erosion and sediment controls to prevent sediment laden or turbid runoff from leaving the construction site. Dispose of clearing debris at acceptable disposal sites. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities.
- (2) **Paving operations** – Cover storm drain inlets during paving operations and utilize pollution prevention materials such as drip pans and absorbent/oil dry for all paving machines to limit leaks and spills of paving materials and fluids.
- (3) **Concrete washout and cement waste** – Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes.
- (4) **Structure construction, stucco, painting and cleaning** – Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff. Conduct painting operations consistent with local air quality and OSHA regulations. Mix paint indoors, in a containment area or in a flat unpaved area. Prevent the discharge of soaps, solvents, detergents and wash water from construction materials, including the clean-up of stucco paint, form release oils and curing compounds.
- (5) **Dewatering operations** – Construction site dewatering from building footings or other sources may not be discharged without treatment. Sediment laden or turbid water shall be filtered, settled or similarly treated prior to discharge.
- (6) **Material delivery and storage** – Designate areas of the construction site for material delivery and storage. Place near construction entrances, away from waterways, and avoid transport near drainage paths or waterways.
- (7) **Material use during building process** – Use materials only where and when needed to complete the construction activity. Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability and mixing of chemicals.
- (8) **Solid waste disposal** – Designate a waste collection area on the construction site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterway. Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible. Schedule waste collection to prevent the containers from overflowing.
- (9) **Sanitary waste** – Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities. Locate sanitary facilities in a convenient location away from waterways.
- (10) **Landscaping operations** – Maintain as much existing vegetation as practicable. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities. Apply nutrients in accordance with manufacturer's recommendations and not during rainfall events.
- (11) **Others** – If applicable, describe your Pollution Prevention Practice.

6.0 Stormwater Management Controls

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
<input type="checkbox"/>	Post-development Stormwater Management Controls provided by a Larger Common Plan of Development or Sale	NA	Common Plan Construction Activity Operator
<input type="checkbox"/>	Rooftop Disconnection	Insert Date	Construction Activity Operator (See Cover Page of this SWPPP)
<input type="checkbox"/>	Sheet flow to Vegetated Filter (1 or 2)	Insert Date	
<input type="checkbox"/>	Grass Channel	Insert Date	
<input type="checkbox"/>	Rainwater Harvesting	Insert Date	
<input type="checkbox"/>	Permeable Pavement (1 or 2)	Insert Date	

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
<input type="checkbox"/>	Infiltration (1 or 2)	Insert Date	Construction Activity Operator (See Cover Page of this SWPPP)
<input type="checkbox"/>	Bioretention (1 or 2)	Insert Date	
<input type="checkbox"/>	Others [describe]	Insert Date	
<input type="checkbox"/>	Exempted	NA	NA

7.0 Spill Prevention & Response

Most spills can be cleaned up following manufacturer specifications. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at this location.

1<sup>st</sup> Priority: Protect all people  
2<sup>nd</sup> Priority: Protect equipment and property  
3<sup>rd</sup> Priority: Protect the environment

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. **LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.**
2. Make Sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from entering drains (use absorbent or other material as necessary).
6. Stop spill from spreading (use absorbent or other material)
7. If spilled material has entered a storm sewer, contact locality's storm water department.
8. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
9. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

VA Dept. of Emergency Management 804-674-2400  
24 Hour Reporting Service

Local Contacts

Arlington County Fire & Police 703-558-2222  
DES Water, Sewer, Streets 24-Hour Emergency 703-228-6555  
Washington Gas Emergency 703-750-1400

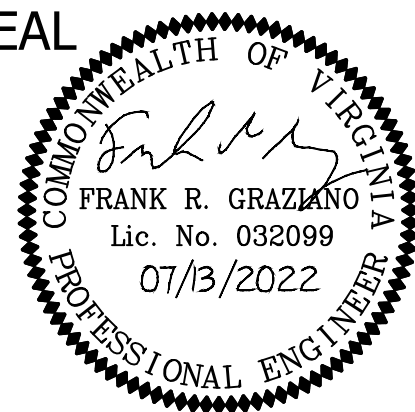
Arlington County – SWPPP 9/2016



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE


TRIB A MAINTENANCE AND EMERGENCY REPAIR

FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

SWPPP (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A



<b>STORMWATER POLLUTION PREVENTION PLAN</b> <span style="color: #000080;">Insert Project/Site Name</span>			
<b>8.0 Self Inspections Report &amp; Corrective Action Log (make additional copies as necessary)</b>			
<b>Qualified Inspector</b>			
<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> Company/Organization:			
<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> Name:			
<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> Telephone Number:			
<div style="border: 1px solid black; height: 20px; margin-bottom: 5px;"></div> Qualifications:			
<b>Inspection Schedule</b>			
<b>Discharges to impaired waters, surface waters within a TMDL watershed, or exceptional waters:</b>			
<input type="checkbox"/> Once every 4 business days.			
<b>Inspection Date:</b>			
<b>Type of Inspection:</b> <input type="checkbox"/> Regular <input type="checkbox"/> Pre-storm event <input type="checkbox"/> During storm event <input type="checkbox"/> Post-storm event			
Phase of construction: <input type="checkbox"/> Pre-Con <input type="checkbox"/> DEMO <input type="checkbox"/> Clearing <input type="checkbox"/> Building <input type="checkbox"/> Grading <input type="checkbox"/> Final Stabilization			
Is a copy of the SWPPP available on site? <input type="checkbox"/> Yes <input type="checkbox"/> No           Is the SWPPP complete? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Are there any discharges at the time of this inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No           If yes, describe:			
Have any discharge occurred since the last inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No           If yes, describe:			
<b>Best Management Practices (BMPs)</b>	<b>In Compliance with SWPPP?</b>	<b>Corrective Action Needed; Responsible Party &amp; Notes</b>	<b>Date Corrective Action Taken</b>
Are all construction exits preventing sediment from being tracked onto the adjacent streets?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are perimeter controls and sediment barriers adequately installed and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are storm drain inlets properly protected? (on-site and adjacent)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are discharge points and receiving waters free of any sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		

Arlington County – SWPPP 9/2016

**INSTRUCTIONS FOR COMPLETING the  
SINGLE FAMILY RESIDENCE, COMMON PLAN OF DEVELOPMENT or SALE  
STORMWATER POLLUTION PREVENTION PLAN (SWPPP)**

**General**  
A Stormwater Pollution Prevention Plan (SWPPP) must be developed prior to obtaining locality (e.g., City, County, Town) authorization to commence land disturbance.

**SWPPP Cover Page**  
For a construction activity, enter the project/site name and physical address (if available), including city (or town), state and zip code. Enter the latitude and longitude in decimal degrees of the construction activity.  
  
Enter the Construction Activity Operator's company/organization name, the Operator's name and mailing address, including city (or town), state, and zip code, telephone number, email address (if available), and a 24-hour emergency contact.  
  
Enter the SWPPP preparation date.

The Construction Activity Operator identified on the cover page of the SWPPP is responsible for certifying the information contained therein. *Please sign the certification in INK.* Please note that state statutes require the SWPPP to be signed as follows:  
(1) For a corporation, by a responsible corporate officer;  
(2) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively;  
(3) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official.

**Section 1.0 SWPPP Documents Located Onsite & Available for Review**  
Utilize the provided checklist to ensure that the required SWPPP documents are located onsite and are available for review, if applicable.

**Section 2.0 Authorized Non-Stormwater Discharges**  
Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

**Section 3.0 Pollution Prevention Awareness**  
Provide employees with a "walk through" of the project site and identify areas of possible pollution, erosion and sediment controls, and pollution prevention practices which are applicable to their assigned job duties. Conduct refresher meetings and perform additional "walk throughs" on an as needed basis.

**Section 4.0 Erosion & Sediment Controls**  
Identify the erosion and sediment controls to be implemented at the project site. For each erosion and sediment control, enter the estimated installation date and estimated removal date. If an unlisted erosion and sediment control will be implemented at the project site, provide the applicable information here.

**Section 5.0 Potential Sources of Pollution & Pollution Prevention Practices**  
Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

**Section 6.0 Stormwater Management Controls**  
Identify the stormwater management controls to be implemented at the project site, if applicable. For each stormwater management control, enter the estimated installation date. If an unlisted stormwater management control will be implemented at the project site, provide the applicable information here.

**Section 7.0 Spill Prevention & Response**  
Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

**Section 8.0 Inspections & Corrective Action Log**  
Enter the qualified inspector's company/organization name, the inspector's name, telephone number, and qualifications. Select the applicable inspection type, enter the construction activity inspection date, and enter the date and rainfall amount of the last measurable storm event (if applicable). Identify if the implemented best management practices are in compliance with the SWPPP. Enter corrective actions needed; the party responsible for implementing the corrective actions, and the date corrective actions were taken, if applicable. Make additional copies of the inspection and corrective action log as necessary.

**Section 9.0 Grading & Stabilization Activities Log**  
Enter the date grading activities were initiated, a description of the grading activities including location, the date grading activities ceased, the date stabilization measures were initiated, and a description of the stabilization measures including location.

**Section 10.0 SWPPP Modification & Update Log**  
Enter the SWPPP modification date, description of the SWPPP modification/update, and the name and title of the SWPPP modification preparer, if applicable.

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN			
Insert Project/Site Name			
Best Management Practices (BMPs)	In Compliance with SWPPP?	Corrective Action Needed; Responsible Party & Notes	Date Corrective Action Taken
Are all slopes and disturbed areas not actively being worked properly stabilized?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are washout facilities (e.g., concrete, paint, stucco) available, clearly marked and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Is trash/litter from work areas collected and contained in dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are natural resources (e.g., streams, wetlands, mature trees) area protected with barriers or similar BMPs?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are vehicle and equipment fueling, cleaning and maintenance areas free of spills, leaks, or other deleterious material?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are materials that are potential stormwater contaminants stored inside or under cover?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		
Are disturbed areas stabilized within 7 days, if areas denuded will remain undisturbed for 14 days?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		

**Non – Compliance**  
 Describe any incidents of non-compliance not described above (use another page is necessary)

**Certification**

"I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Operator or Assigned Qualified Personnel Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Arlington County – SWPPP 9/2016

**STORMWATER POLLUTION PREVENTION PLAN**  
Insert Project/Site Name

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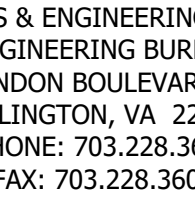
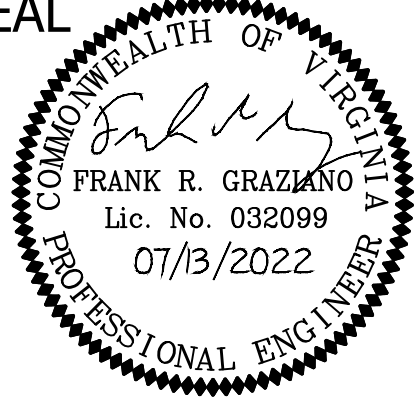
**9.0 Grading & Stabilization Activities Log**

Date Grading Activity Initiated	Description of the Grading Activity (including location)	Date Grading Activity Ceased	Date Stabilization Measures Initiated	Description of the Stabilization Measure (including location)

**10.0 SWPPP Modification & Update Log**

Modification Date	Description of the Modification / Update (name & title that request the modification)	Modification Prepared By (name & title)

Arlington County – SWPPP 9/2016

 <b>ARLINGTON VIRGINIA</b>	
DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606	
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<b>SEAL</b> 	
<b>APPROVALS</b>	<b>DATE</b>
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DESIGN TEAM ENGINEER SUPERVISOR	
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CONSTRUCTION MANAGEMENT SUPERVISOR	
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WATER, SEWER, STREETS BUREAU CHIEF	
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TRANSPORTATION DIRECTOR	
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DESIGNED: AMC	
DRAWN: AMC	
CHECKED: FRG	
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PLOTTED: JULY 13 2022	
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