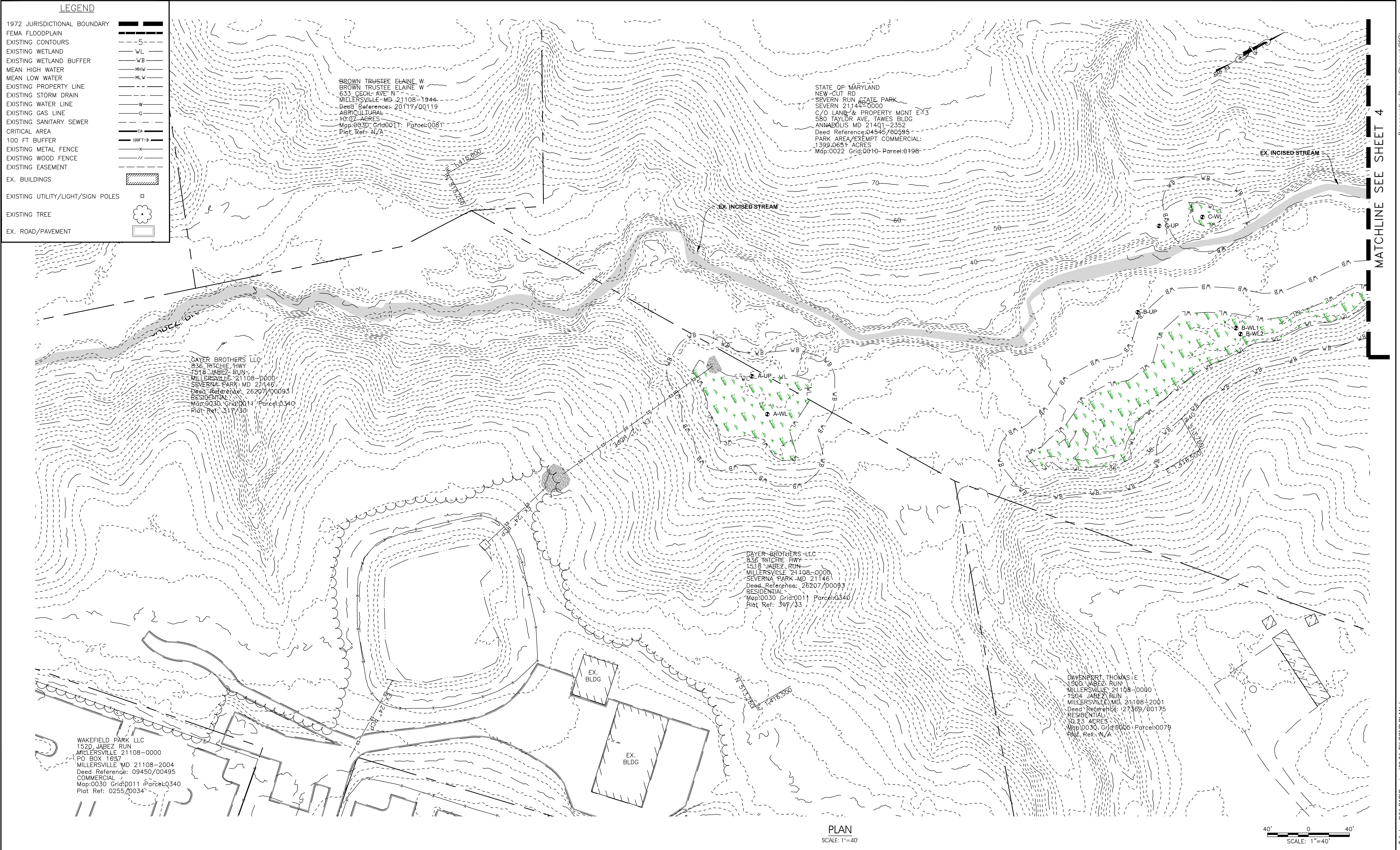


LEGEND

1972 JURISDICTIONAL BOUNDARY
FEMA FLOODPLAIN
EXISTING CONTOURS
EXISTING WETLAND
EXISTING WETLAND BUFFER
MEAN HIGH WATER
MEAN LOW WATER
EXISTING PROPERTY LINE
EXISTING STORM DRAIN
EXISTING WATER LINE
EXISTING GAS LINE
EXISTING SANITARY SEWER
CRITICAL AREA
100 FT BUFFER
EXISTING METAL FENCE
EXISTING WOOD FENCE
EXISTING EASEMENT
EX. BUILDINGS
EXISTING UTILITY/LIGHT/SIGN POLES
EXISTING TREE
EX. ROAD/PAVEMENT



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tel. 410-849-3211 fax 410-849-2136

MARYLAND
DEPARTMENT OF
NATURAL RESOURCES
Severn
RIVERKEEPER

DEVELOPER
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Annapolis, MD 21401
Phone: 410 849-8540

No.	Date	Revision	By	Approved By

DAVID J. WALLACE, P.E.
PROFESSIONAL CERTIFICATION
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DAVID J. WALLACE, P.E.
701 CHESAPEAKE AVENUE
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BUSINESS PH. 410.544.1225

STATE OF MARYLAND
DAVID J. WALLACE
NO. 11466
PROFESSIONAL ENGINEER

Scale	AS SHOWN
Drawn By	K.B./J.K.
Approved By	D.W.
Sheet No.	3 Of 17
Project No.	16-008
Proposal No.	...

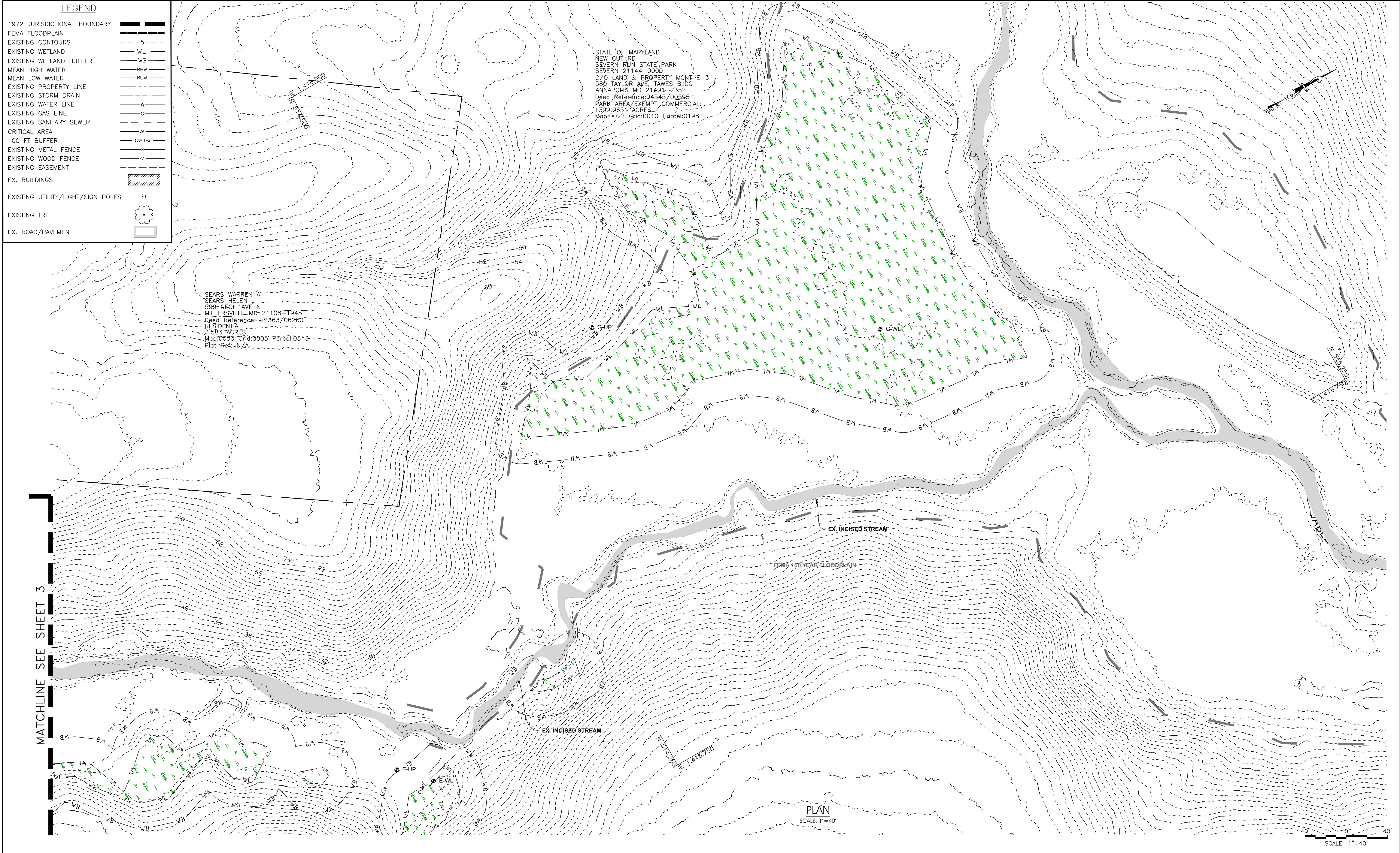
EXISTING CONDITION
JABEZ TRIBUTARY 3
RESTORATION
1510 JABEZ RUN
MAP 5172, GRID H9 & J8 & J9, PARCEL 0523
FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523
4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

AUGUST 6, 2021

PLOTTED: Aug 06, 2021 - 12:14pm

Regenerative Stream Channel (RSC)

Cadd File : S:\005-Projects\Jabez Tributary 3\04-CAD\Drawings\03-04_EX COND PLAN.dwg



PLOTTED: Aug 06, 2021 - 12:14pm

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STATE OF MARYLAND
DAVID J. WALLACE
NO. 11466
REGISTERED PROFESSIONAL ENGINEER

Signature
Date

AUGUST 6, 2021

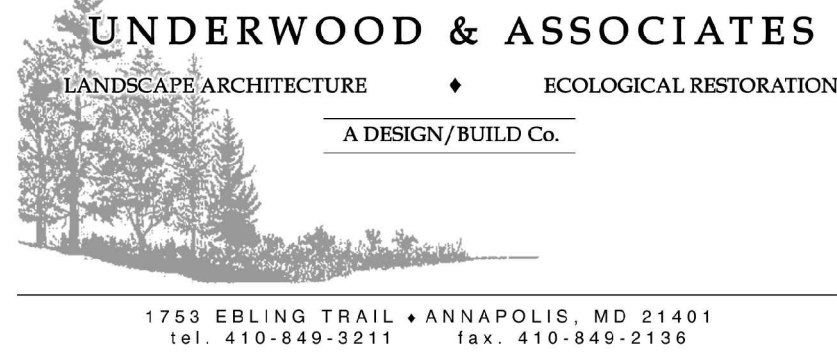
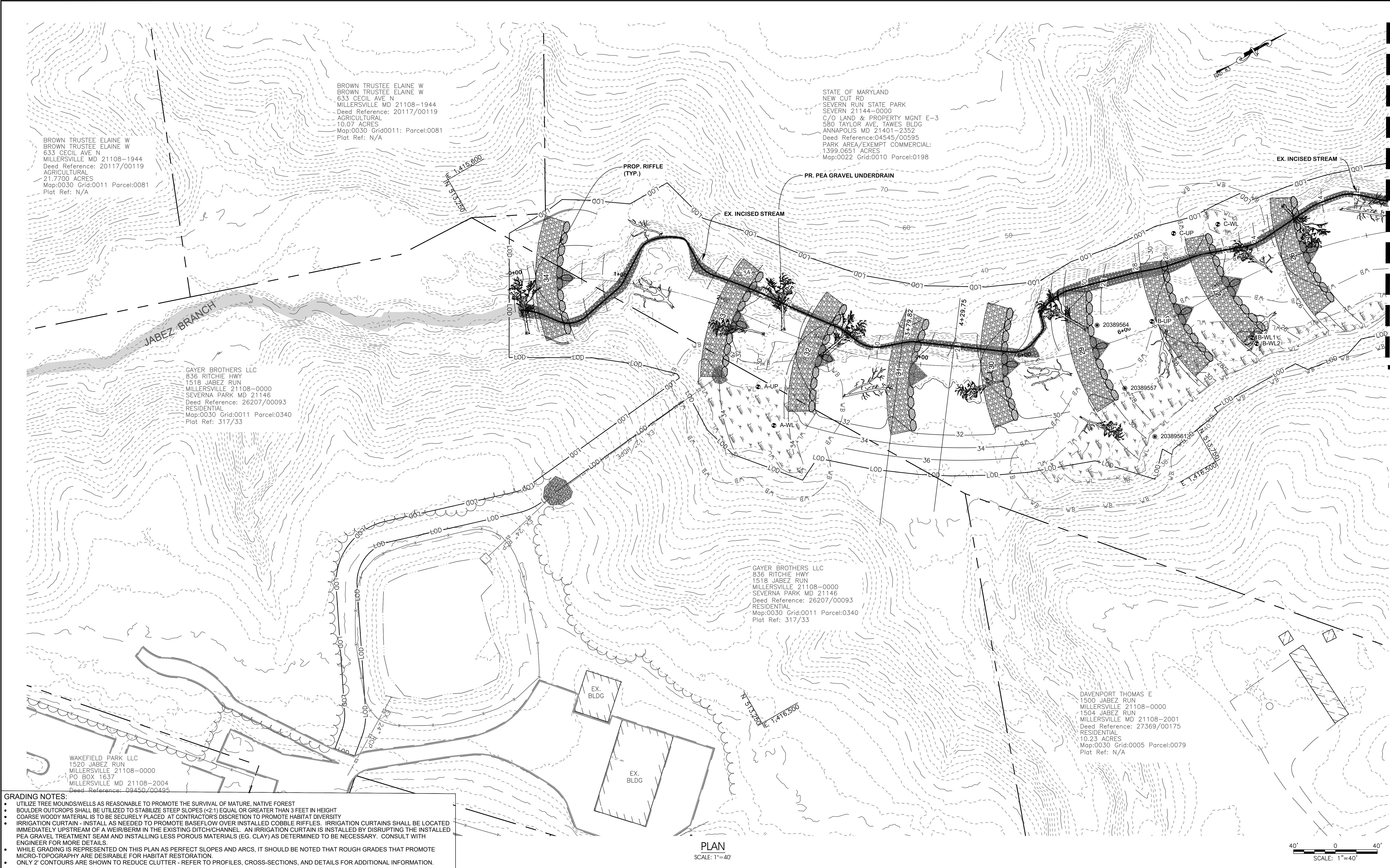
Scale	AS SHOWN
Drawn By	K.B./J.K.
Approved By	D.W.
Sheet No.	4 Of 17
Project No.	16-008
Proposal No.	...

EXISTING CONDITION
JABEZ TRIBUTARY 3 RESTORATION
1510 JABEZ RUN
MAP 5172, GRID H9 & J8 & J9, PARCEL 0523
FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523
4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

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Regenerative Stream Channel (RSC)

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Approved By	D.W.
Sheet No.	5 Of 17
Project No.	16-008
Proposal No.	...

GRADING PLAN
 JABEZ TRIBUTARY 3
 RESTORATION
 1510 JABEZ RUN
 MAP 5172, GRID H9 & J8 & J9, PARCEL 0523
 FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523
 4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

Regenerative Stream Channel (RSC)

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PLOTTED: Aug 06, 2021 - 12:16pm

MATCHLINE SEE SHEET 5

STATE OF MARYLAND
NEW CUT RD
SEVERN RUN STATE PARK
SEVERN 21144-0000
C/O LAND & PROPERTY MGMT E-3
580 TAYLOR AVE, TAWES BLDG
ANNAPOLIS, MD 21401-2352
Deed Reference:04545/00595
PARK AREA/EXEMPT COMMERCIAL:
1399.0651 ACRES
Map:0022 Grid:0010 Parcel:0198

SEARS WARREN A
SEARS HELEN J
599 CECIL AVE N
MILLERSVILLE MD 21108-1945
Deed Reference: 22363/00260
RESIDENTIAL
3.583 ACRES
Map:0030 Grid:0005 Parcel:0513
Plat Ref: N/A

- GRADING NOTES:**
- UTILIZE TREE MOUNDS/WELLS AS REASONABLE TO PROMOTE THE SURVIVAL OF MATURE, NATIVE FOREST
 - BOULDER OUTCROPS SHALL BE UTILIZED TO STABILIZE STEEP SLOPES (1:2:1) EQUAL OR GREATER THAN 3 FEET IN HEIGHT
 - COARSE WOODY MATERIAL IS TO BE SECURELY PLACED AT CONTRACTOR'S DISCRETION TO PROMOTE HABITAT DIVERSITY
 - IRRIGATION CURTAIN - INSTALL AS NEEDED TO PROMOTE BASEFLOW OVER INSTALLED COBBLE RIFFLES. IRRIGATION CURTAINS SHALL BE LOCATED IMMEDIATELY UPSTREAM OF A WEIR/BERM IN THE EXISTING DITCH/CHANNEL. AN IRRIGATION CURTAIN IS INSTALLED BY DISRUPTING THE INSTALLED PEA GRAVEL TREATMENT SEAM AND INSTALLING LESS POROUS MATERIALS (EG. CLAY) AS DETERMINED TO BE NECESSARY. CONSULT WITH ENGINEER FOR MORE DETAILS.
 - WHILE GRADING IS REPRESENTED ON THIS PLAN AS PERFECT SLOPES AND ARCS, IT SHOULD BE NOTED THAT ROUGH GRADES THAT PROMOTE MICRO-TOPOGRAPHY ARE DESIRABLE FOR HABITAT RESTORATION
 - ONLY 2' CONTOURS ARE SHOWN TO REDUCE CLUTTER - REFER TO PROFILES, CROSS-SECTIONS, AND DETAILS FOR ADDITIONAL INFORMATION.



DEVELOPER
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Annapolis, MD 21401
Phone: 410 849-8540

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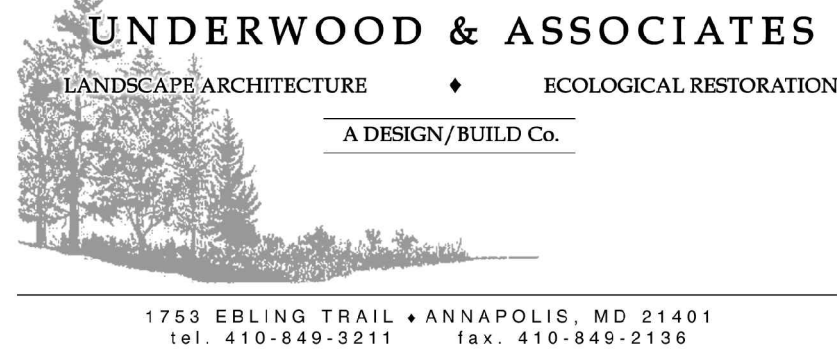
Scale	AS SHOWN	GRADING PLAN JABEZ TRIBUTARY 3 RESTORATION 1510 JABEZ RUN MAP 5172, GRID H9 & J8 & J9, PARCEL 0523 FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523 4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY
Drawn By	K.B./J.K.	
Approved By	D.W.	
Sheet No.	6 Of 17	
Project No.	16-008	
Proposal No.	...	

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Regenerative Stream Channel (RSC)

PLOTTED: Aug 06, 2021 - 12:16pm

- PROFILE NOTES:
- PROPOSED PROFILE IS DRAWN AT PROPOSED ALIGNMENT WHICH DOES NOT NECESSARILY COINCIDE WITH EXISTING OR PROPOSED THALWEG OF STREAM. EXISTING STREAM CENTERLINE IS ESTIMATED AND IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY - REFER TO PLAN VIEW AND CROSS SECTIONS FOR MORE DETAILS.
 - IRRIGATION CURTAINS SHALL BE INSTALLED AS NEEDED TO PROMOTE BASEFLOW OVER INSTALLED COBBLE RIFFLES. IRRIGATION CURTAINS SHALL BE LOCATED IMMEDIATELY UPSTREAM OF A WEIR/BERM IN THE EXISTING DITCH/CHANNEL. AN IRRIGATION CURTAIN IS INSTALLED BY DISRUPTING THE INSTALLED PEA GRAVEL TREATMENT SEAM AND INSTALLING LESS POROUS MATERIALS (EG. CLAY) AS DETERMINED TO BE NECESSARY. CONSULT WITH ENGINEER FOR MORE DETAILS.



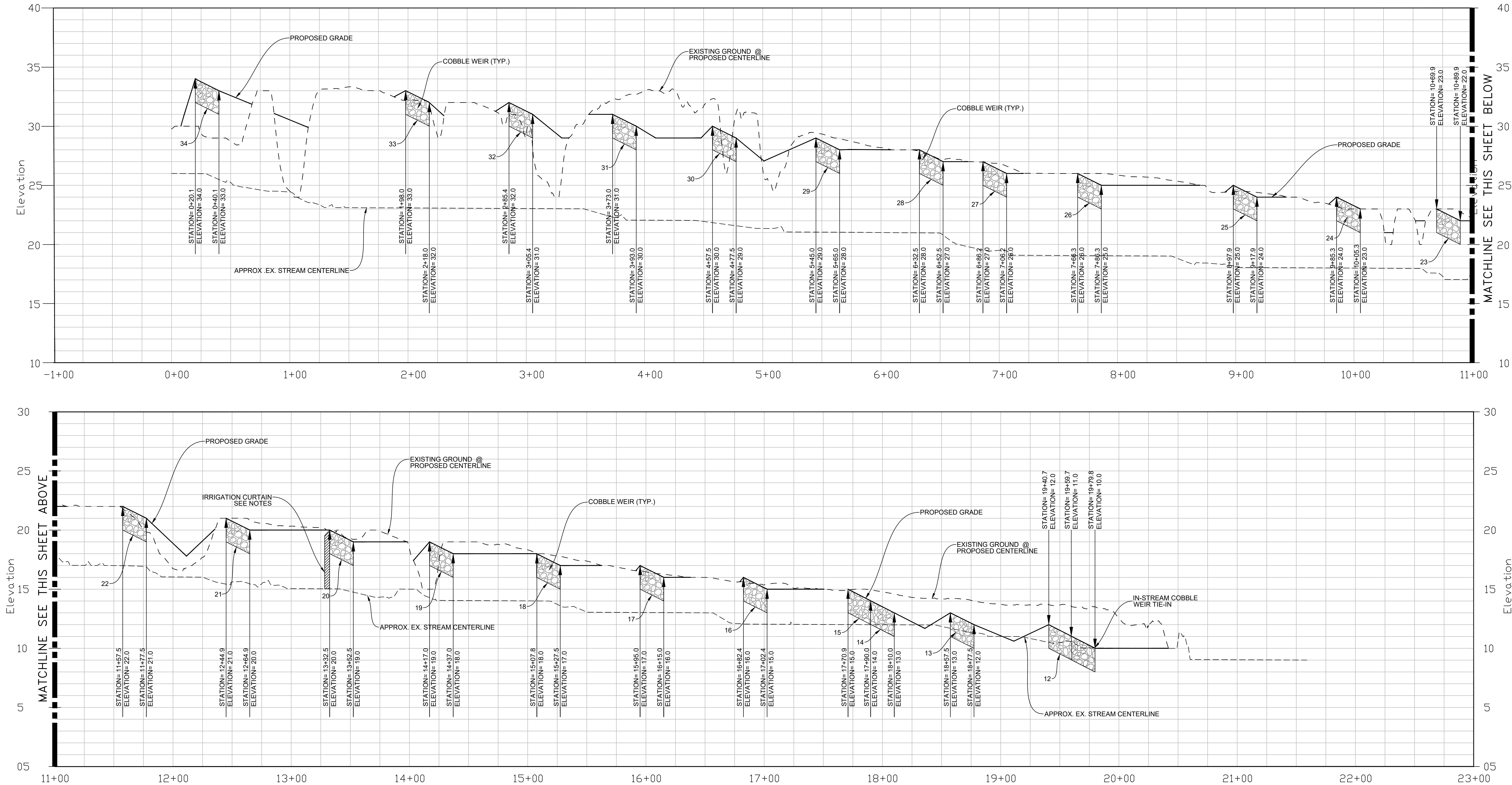
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AUGUST 6, 2021		PROFILE	
Scale	AS SHOWN	JABEZ TRIBUTARY 3 RESTORATION 1510 JABEZ RUN MAP 5172, GRID H9 & J8 & J9, PARCEL 0523 FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523 4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY	
Drawn By	K.B./J.K.		
Approved By	D.W.		
Sheet No.	7 Of 17		
Project No.	16-008		
Proposal No.	...		



MAIN CHANNEL - CENTERLINE

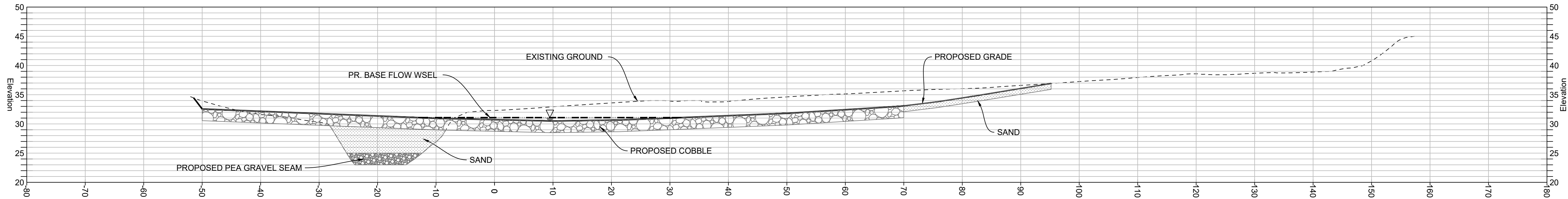
PROFILE

SCALE: HORI. 1"=40', VERT. 1"=4'

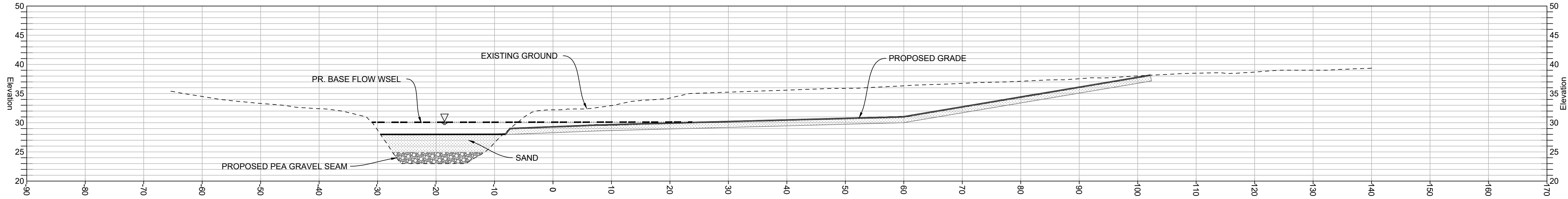
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Regenerative Stream Channel (RSC)

WEIR 31 CROSS SECTION - STA. 3+79.82



POOL 30 CROSS SECTION - STA. 4+29.75



CROSS SECTIONS

SCALE: 1"=10'

- NOTE:
- SECTIONS ARE MEASURED FROM LEFT TO RIGHT LOOKING DOWNSTREAM.
 - SLOPES STEEPER THAN 2:1 SHALL BE ADEQUATELY STABILIZED WITH SANDSTONE BOULDER OUTCROPS OR EQUIVALENT.

LEGEND	
EXISTING GRADE	---
PROPOSED GRADE	—
SAND/WOOD CHIP MIX	
COBBLE	

PLOTTED: Aug 06, 2021 - 12:17pm

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MARYLAND

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SEVERN

RIVERKEEPER

DEVELOPER

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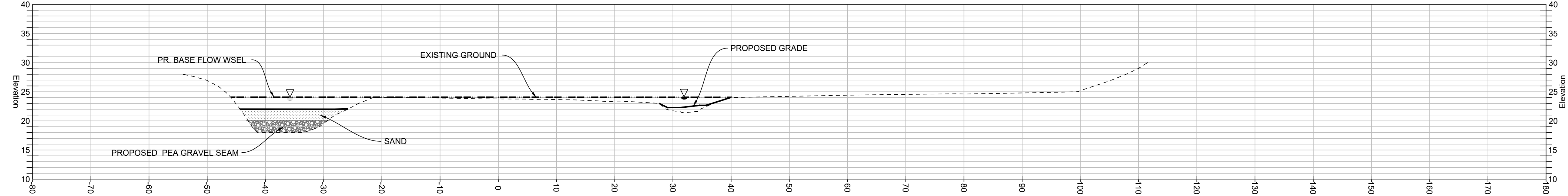
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BUSINESS PH. 410.544.1225

Signature

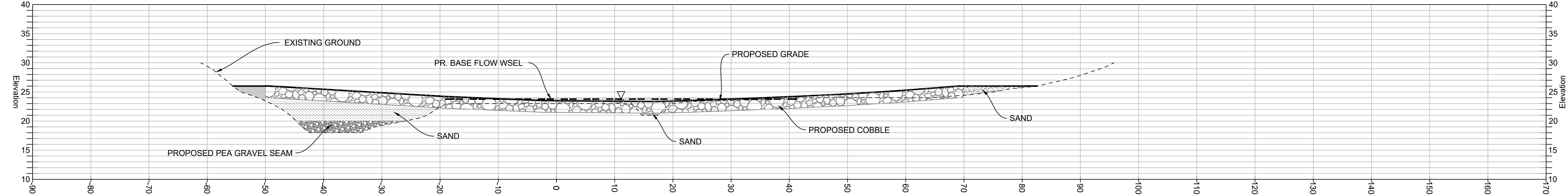
Date

AUGUST 6, 2021	
Scale	AS SHOWN
Drawn By	K.B./J.K.
Approved By	D.W.
Sheet No.	8 Of 17
Project No.	16-008
Proposal No.	...
CROSS SECTION PLAN	
JABEZ TRIBUTARY 3 RESTORATION	
1510 JABEZ RUN	
MAP 5172, GRID H9 & J8 & J9, PARCEL 0523	
FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523	
4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY	

POOL 24 CROSS SECTION - STA. 9+59.24



WEIR 24 CROSS SECTION - STA. 9+96.20



CROSS SECTIONS

SCALE: 1"=10'

- NOTE:
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 - SLOPES STEEPER THAN 2:1 SHALL BE ADEQUATELY STABILIZED WITH SANDSTONE BOULDER OUTCROPS OR EQUIVALENT.

LEGEND

EXISTING GRADE

PROPOSED GRADE

SAND/WOOD CHIP MIX

COBBLE

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Date

AUGUST 6, 2021

Scale AS SHOWN

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Approved By D.W.

Sheet No. 9 Of 17

Project No. 16-008

Proposal No. ...

CROSS SECTION PLAN

JABEZ TRIBUTARY 3 RESTORATION

1510 JABEZ RUN


MAP 5172, GRID H9 & J8 & J9, PARCEL 0523

FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523

4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

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LEGEND

EXISTING GRADE

PROPOSED GRADE

SAND/WOOD CHIP MIX

COBBLE

AUGUST 6, 2021

CROSS SECTION PLAN

JABEZ TRIBUTARY 3 RESTORATION

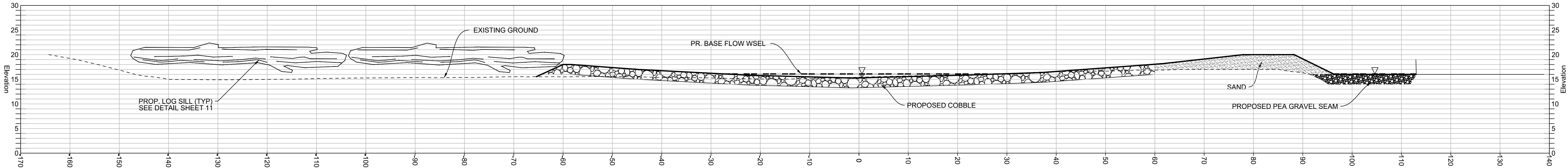
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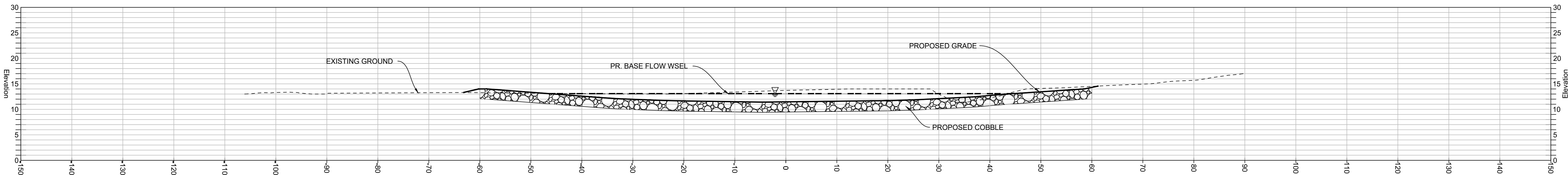
FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523

4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

WEIR 16 CROSS SECTION - STA. 16+95.72



WEIR 12 CROSS SECTION - STA. 19+52.25

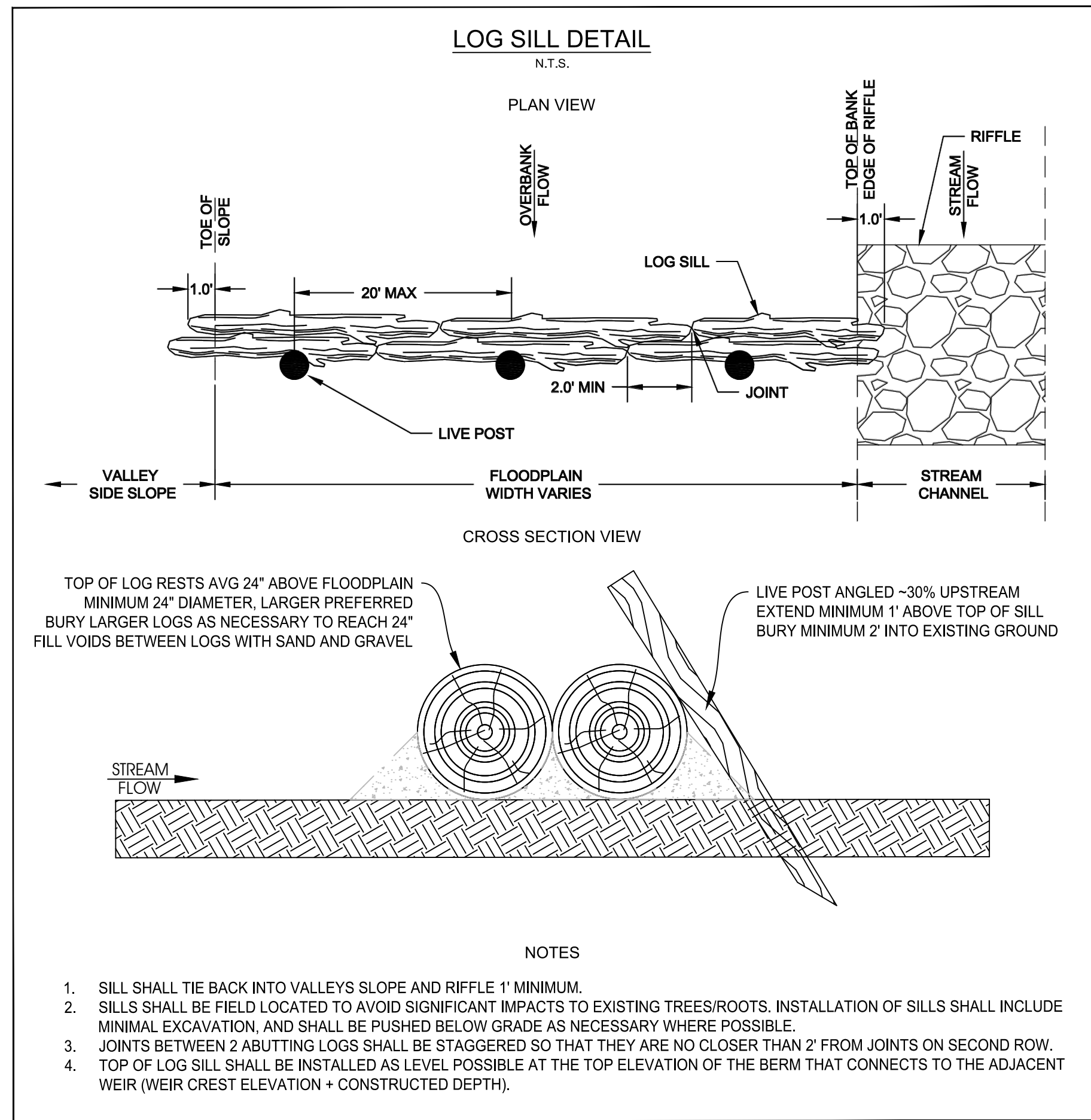
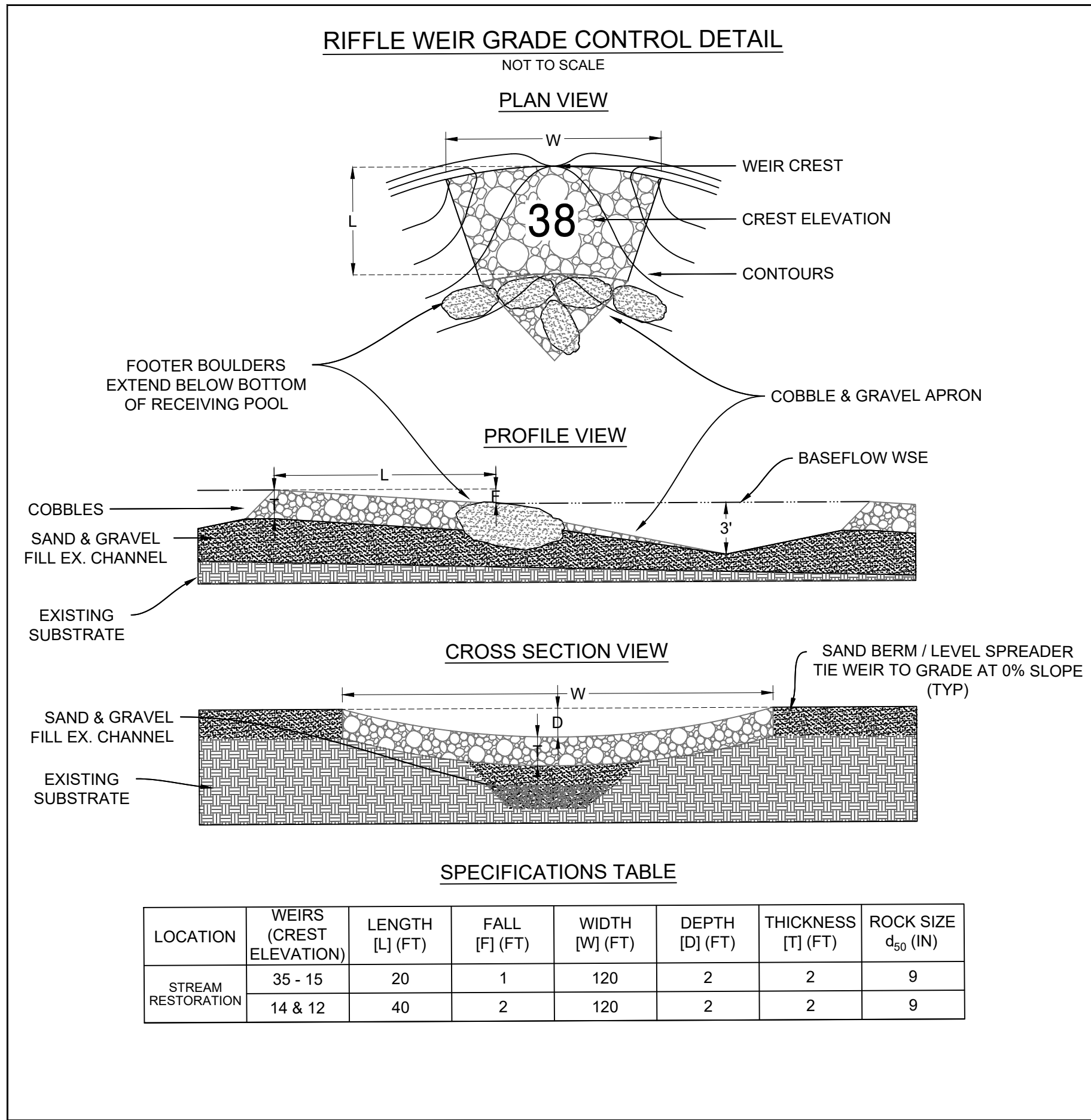
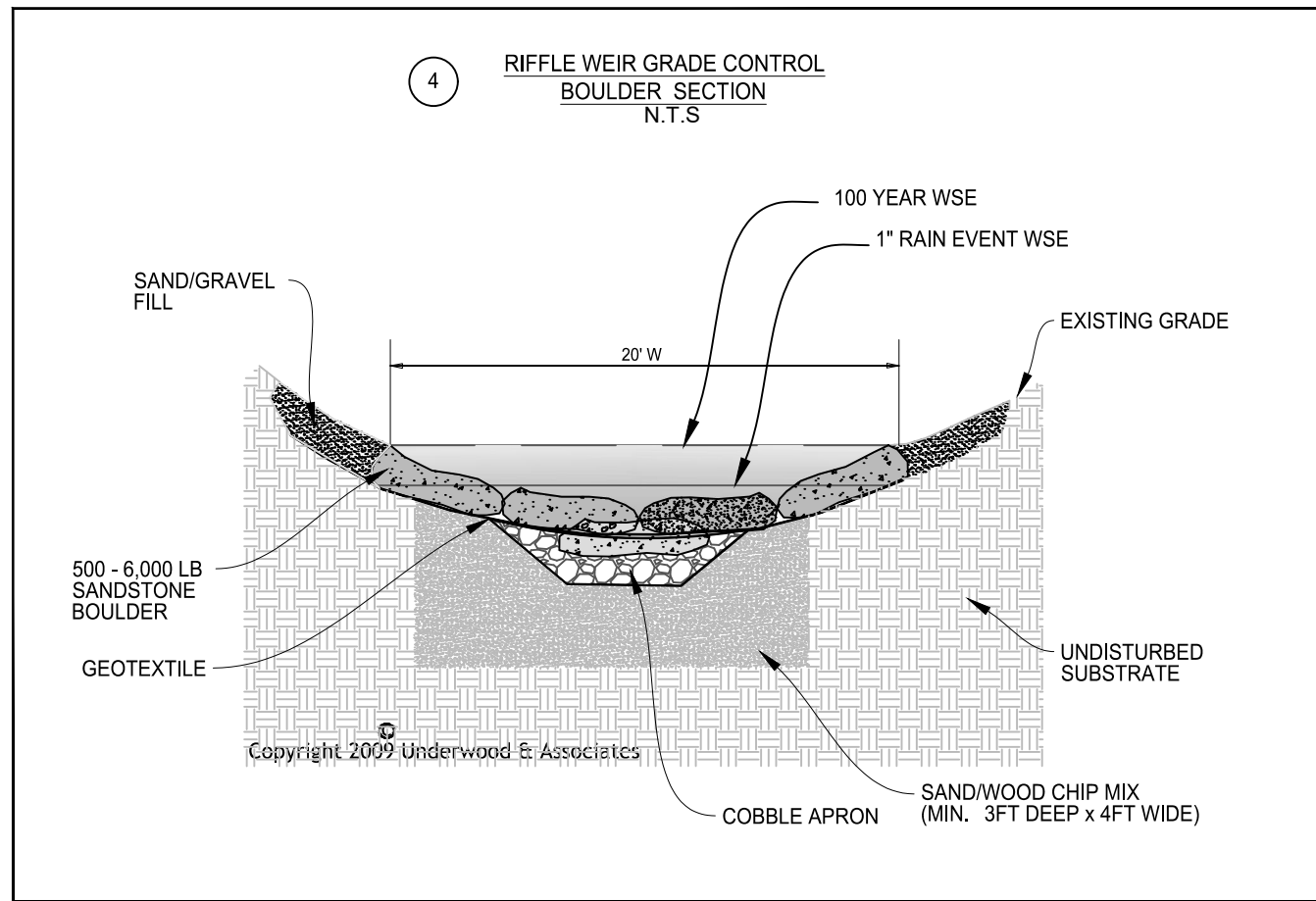
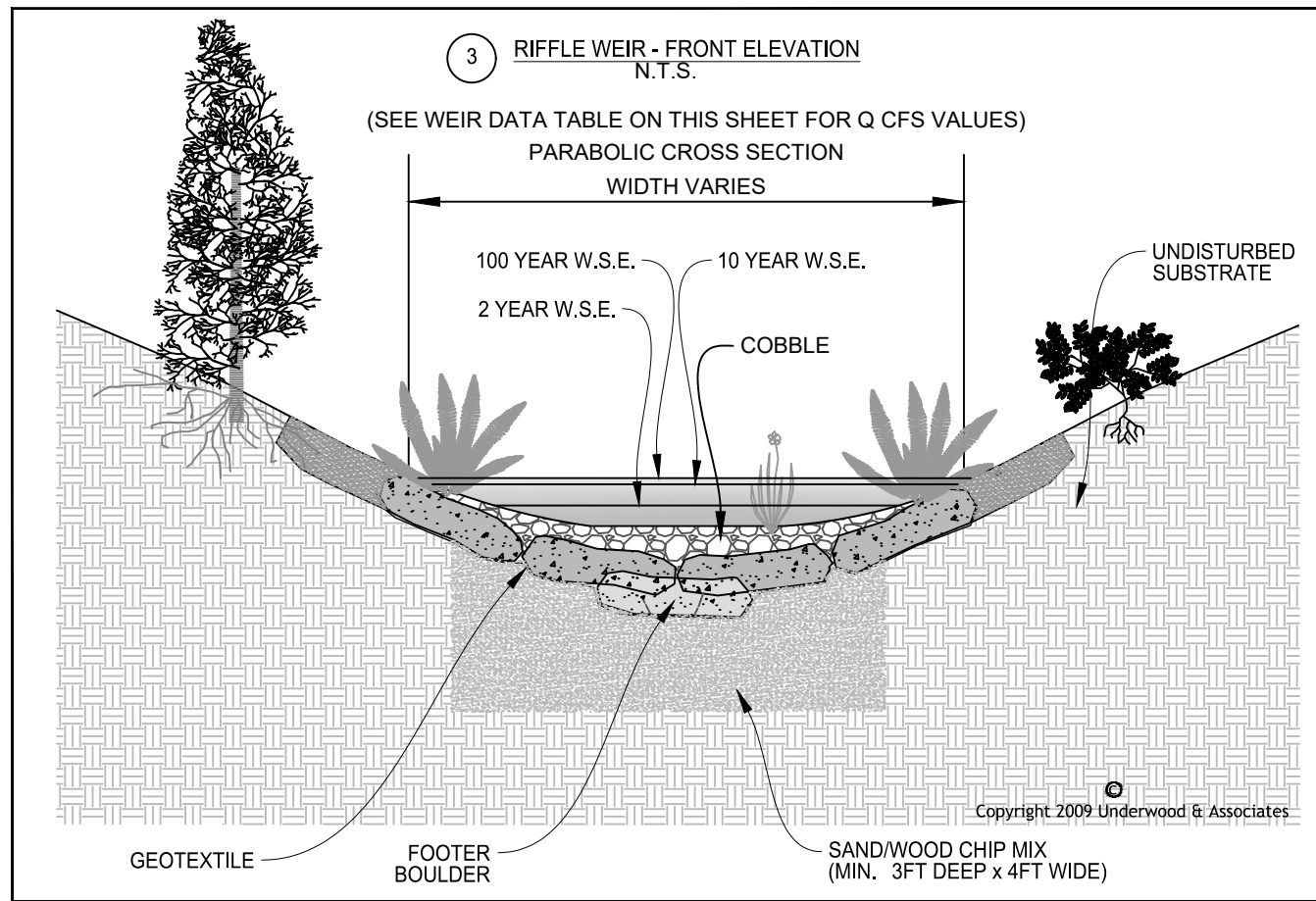
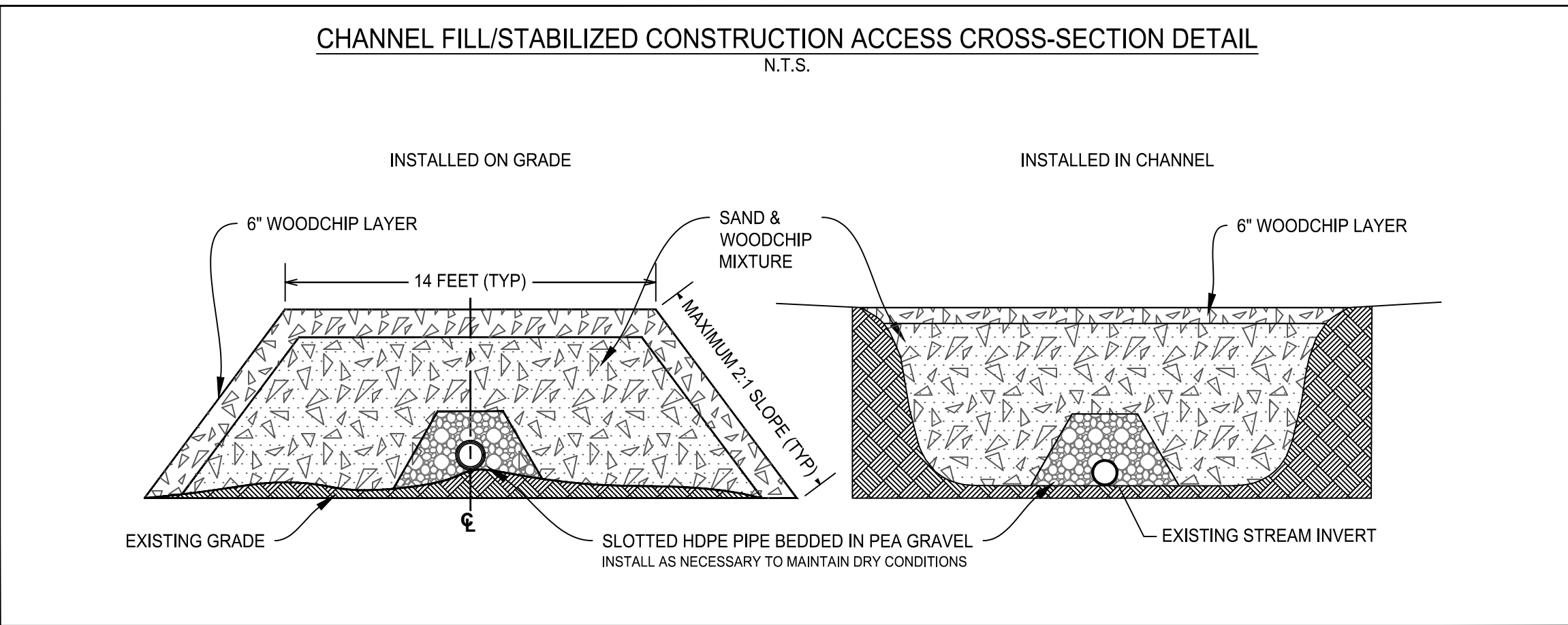
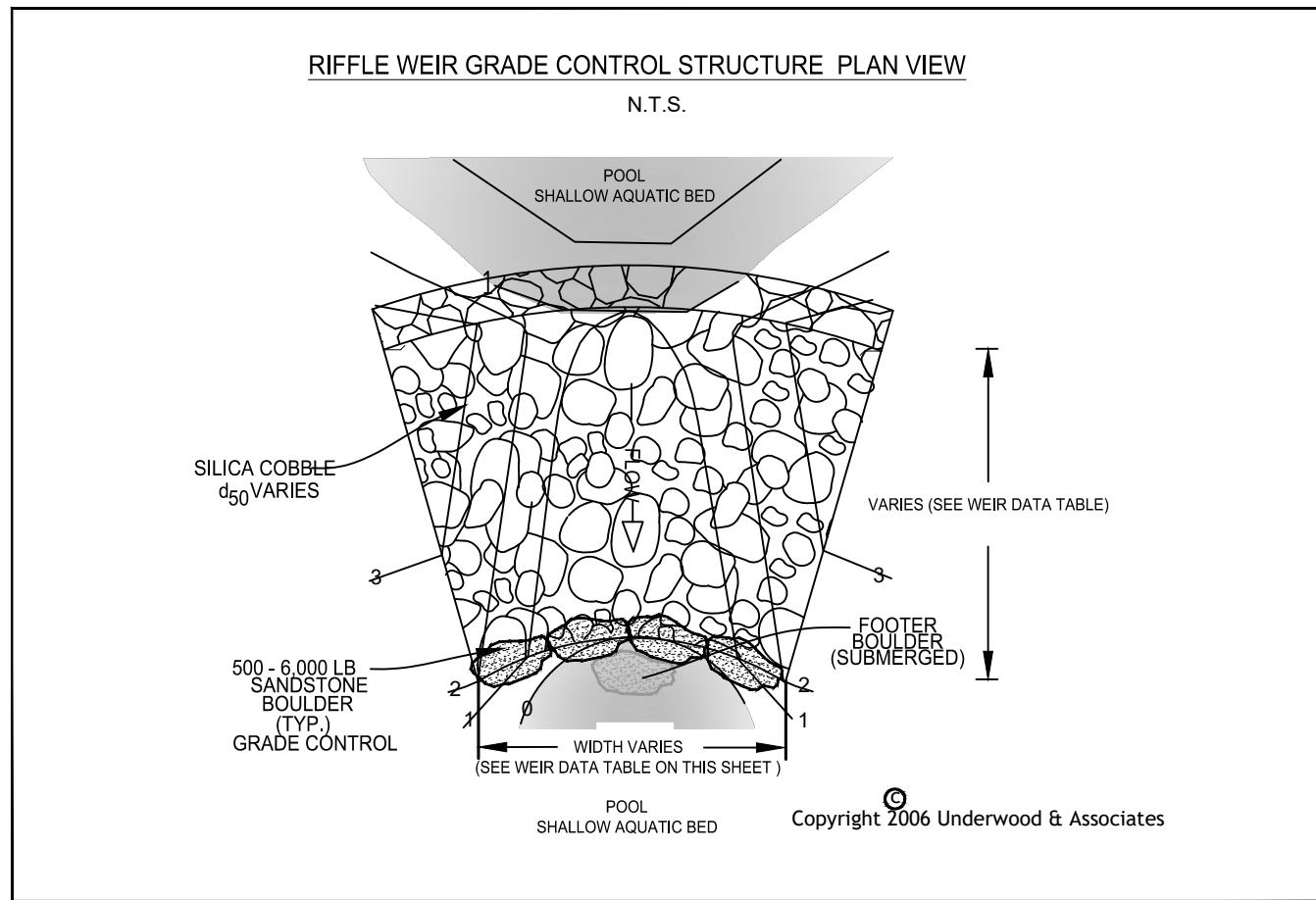
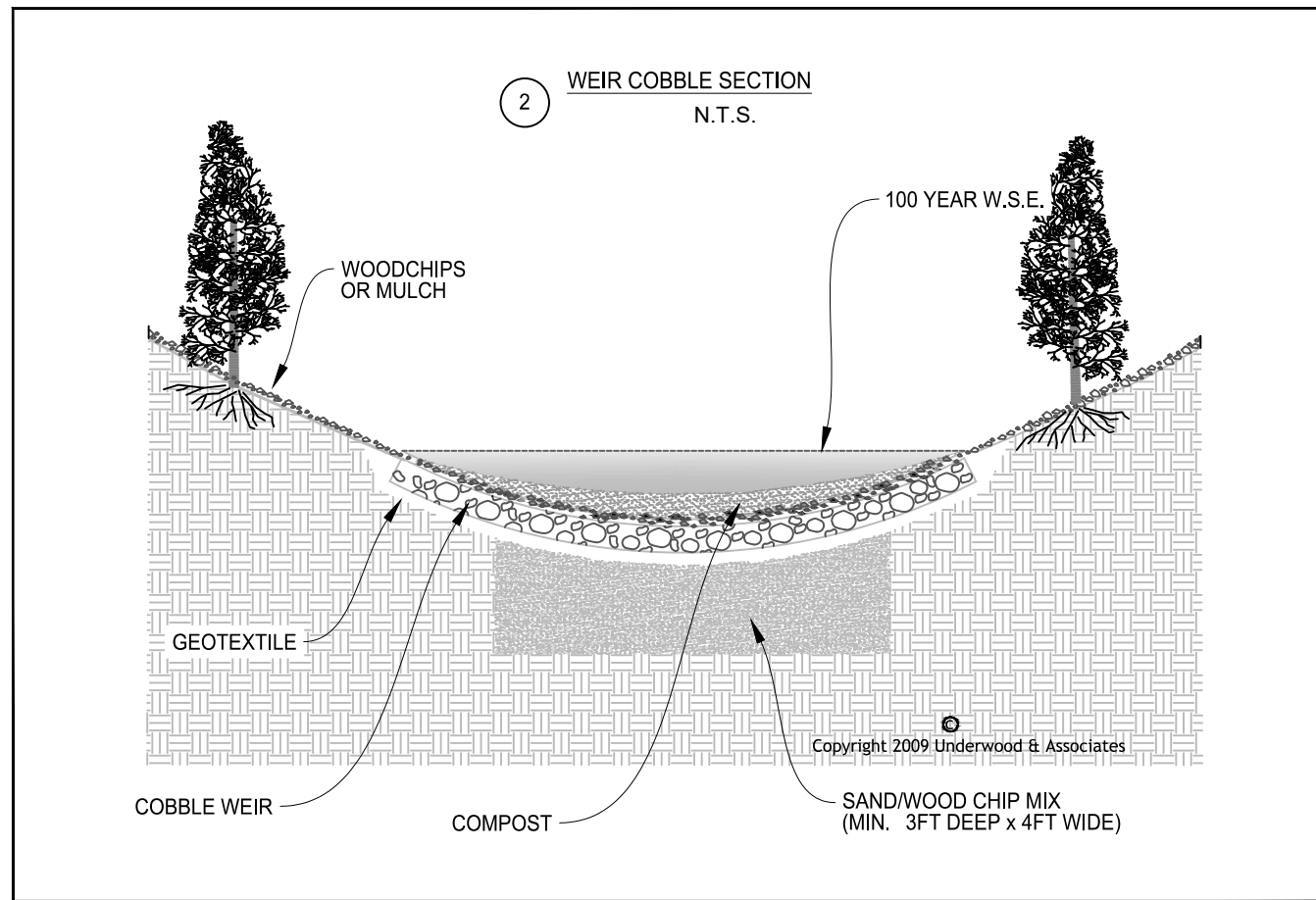
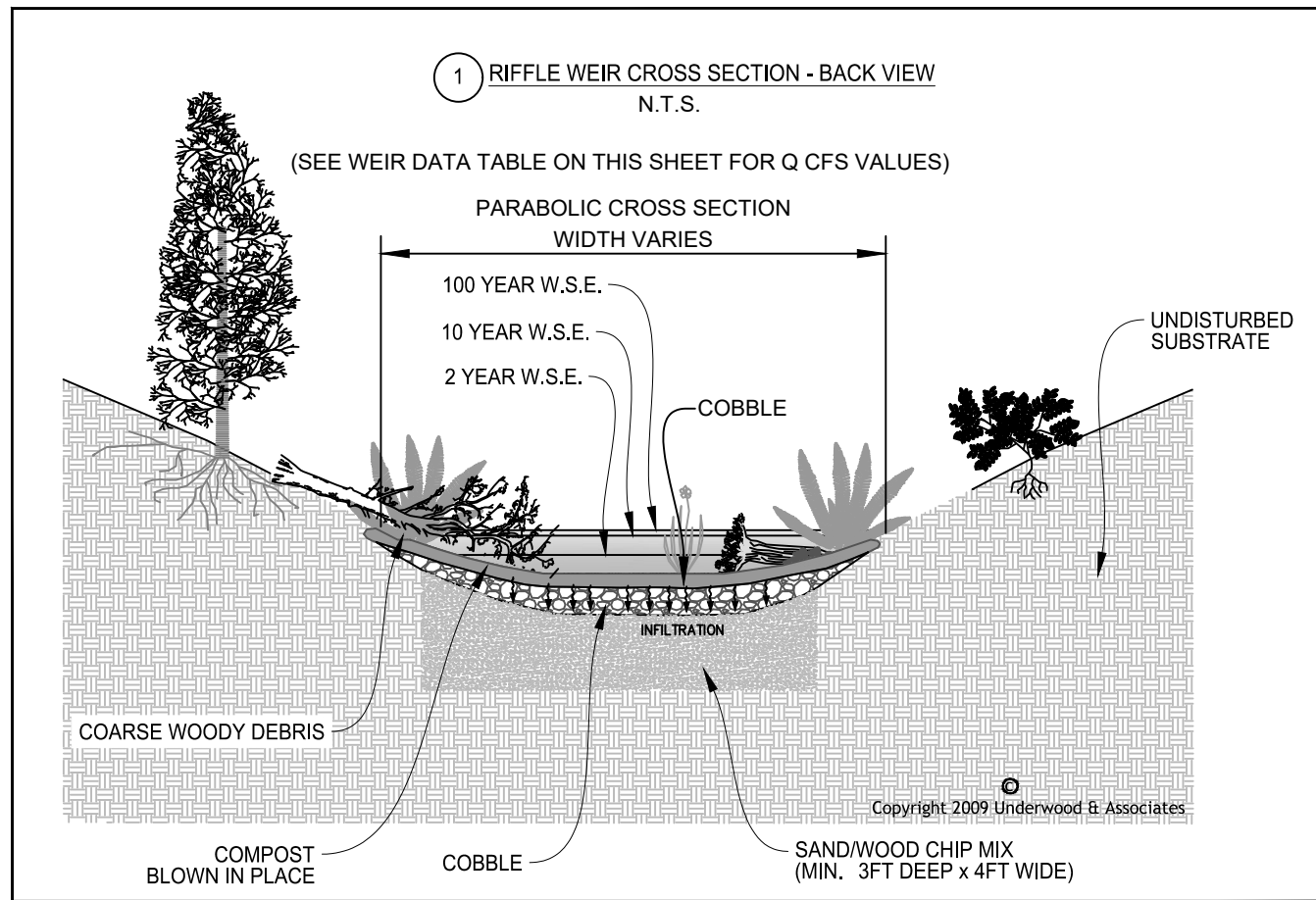
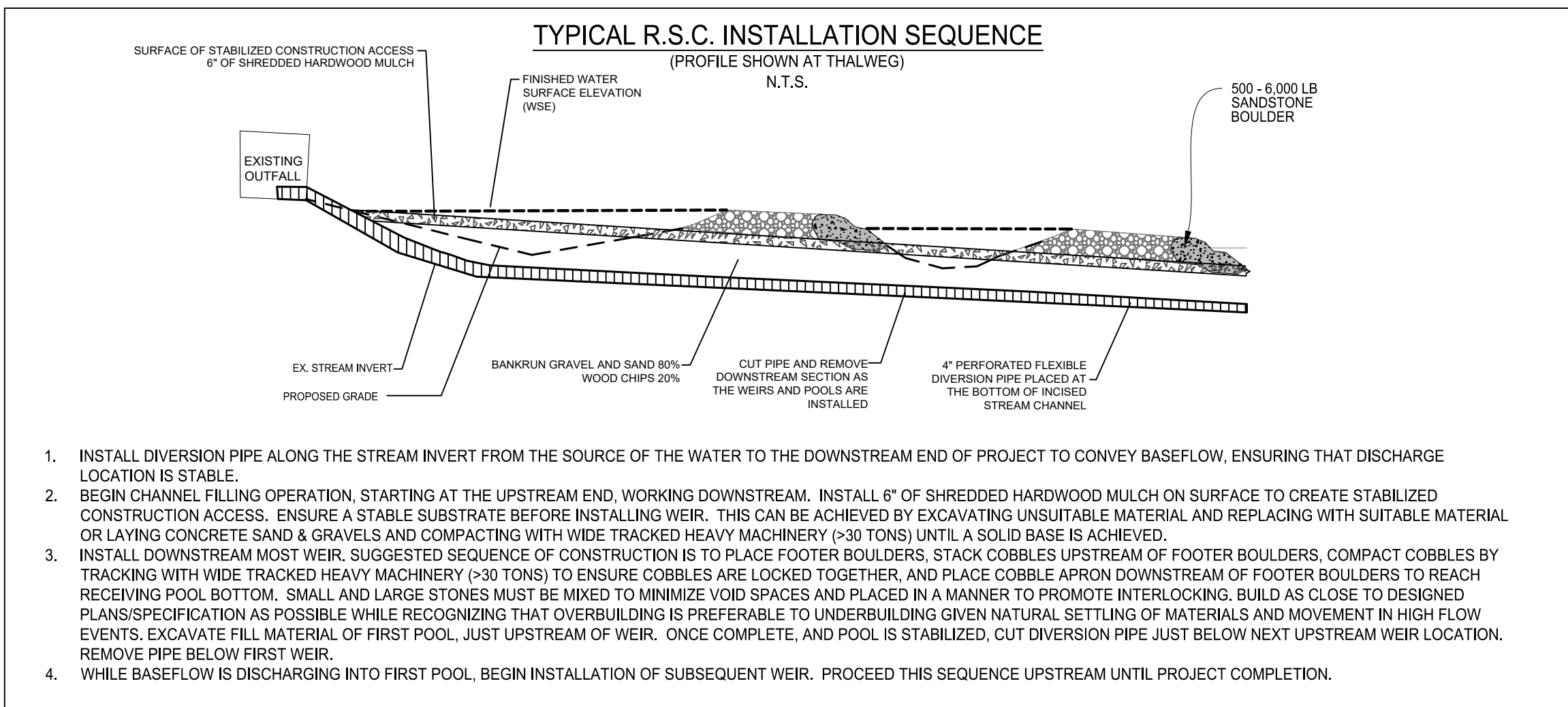
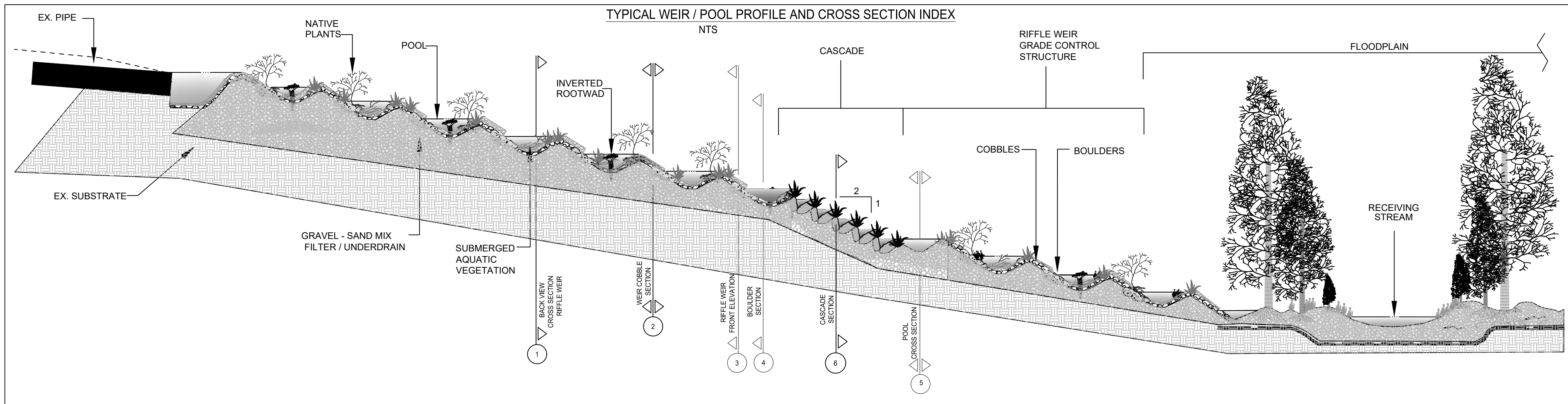


CROSS SECTIONS

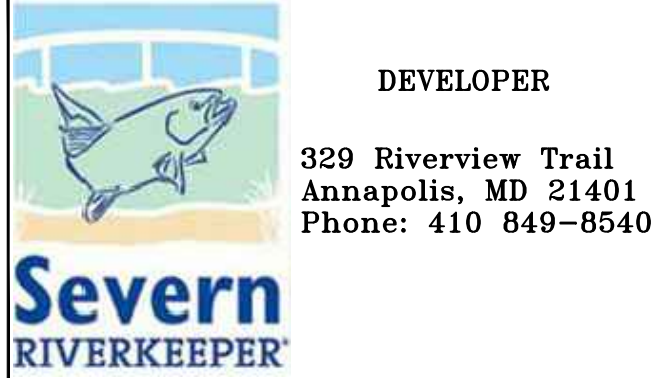
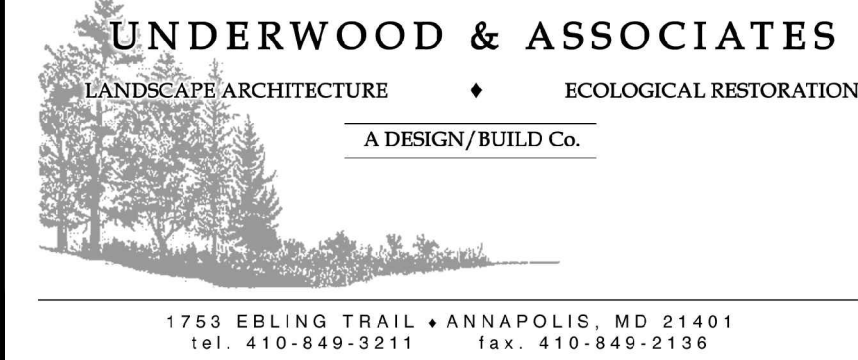
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Regenerative Stream Channel (RSC)

Cadd File : S:\005-Projects\Jabez Tributary 3\04-CADD\Drawings\08-10_X SECTIONS.dwg



PLOTTED: Aug 06, 2021 - 12:18pm



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Approved By	D.W.
Sheet No.	11 Of 17
Project No.	16-008
Proposal No.	...

STANDARD DETAILS
JABEZ TRIBUTARY 3 RESTORATION
1510 JABEZ RUN
MAP 5172, GRID H9 & J8 & J9, PARCEL 0523
FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523
4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

Regenerative Stream Channel (RSC)

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PLOTTED: Aug 06, 2021 - 12:20pm

MGWC 1.2: PUMP-AROUND PRACTICE

Temporary measure for dewatering in-channel construction sites

DESCRIPTION

The work should consist of installing a temporary pump around and supporting measures to divert flow around in-stream construction sites.

IMPLEMENTATION SEQUENCE

Sediment control measures, pump-around practices, and associated channel and bank construction should be completed in the following sequence (refer to Detail 1.2):

- Construction activities including the installation of erosion and sediment control measures should not begin until all necessary easements and/or right-of-ways have been acquired. All existing utilities should be marked in the field prior to construction. The contractor is responsible for any damage to existing utilities that may result from construction and should repair the damage at his/her own expense to the county's or utility company's satisfaction.
- The contractor should notify the Maryland Department of the Environment or WMA sediment control inspector at least 5 days before beginning construction. Additionally, the contractor should inform the local environmental protection and resource management inspection and enforcement division and the provider of local utilities a minimum of 48 hours before starting construction.
- The contractor should conduct a pre-construction meeting on site with the WMA sediment control inspector, the county project manager, and the engineer to review limits of disturbance, erosion and sediment control requirements, and the sequence of construction. The contractor should stake out all limits of disturbance prior to the pre-construction meeting so they may be reviewed. The participants will also designate the contractor's staging areas and flag all trees within the limit of disturbance which will be removed for construction access. Trees should not be removed within the limit of disturbance without approval from the WMA or local authority.
- Construction should not begin until all sediment and erosion control measures have been installed and approved by the engineer and the sediment control inspector. The contractor should stay within the limits of the disturbance as shown on the plans and minimize disturbance within the work area whenever possible.
- Upon installation of all sediment control measures and approval by the sediment control inspector and the local environmental protection and resource management inspection and enforcement division, the contractor should begin work at the upstream section and proceed downstream beginning with the establishment of stabilized construction entrances. In some cases, work may begin downstream if appropriate. The sequence of construction must be followed unless the contractor gets written approval for deviations from the WMA or local authority. The contractor should only begin work in an area which can be completed by the end of each day including grading adjacent to the channel. At the end of each work day, the work area must be stabilized and the pump around removed from the channel. Work should not be conducted in the channel during rain events.
- Sandbag dikes should be situated at the upstream and downstream ends of the work area as shown on the plans, and stream flow should be pumped around the work area. The pump should discharge onto a stable velocity dissipater made of riprap or sandbags.
- Water from the work area should be pumped to a sediment filtering measure such as a dewatering basin, sediment bag, or other approved source. The measure should be located such that the water drains back into the channel below the downstream sandbag dike.
- Traversing a channel reach with equipment within the work area where no work is proposed should be avoided. If equipment has to traverse such a reach for access to another area, then timber mats or similar measures should be used to minimize disturbance to the channel. Temporary stream crossings should be used only when necessary and only where noted on the plans or specified. (See Section 4, Stream Crossings, Maryland Guidelines to Waterway Construction).
- All stream restoration measures should be installed as indicated by the plans and all banks graded in accordance with the grading plans and typical cross-sections. All grading must be stabilized at the end of each day with seed and mulch or seed and matting as specified on the plans.
- After an area is completed and stabilized, the clean water dike should be removed. After the first sediment flush, a new clean water dike should be established upstream from the old sediment dike. Finally, upon establishment of a new sediment dike below the old one, the old sediment dike should be removed.
- A pump around must be installed on any tributary or storm drain outfall which contributes baseflow to the work area. This should be accomplished by locating a sandbag dike at the downstream end of the tributary or storm drain outfall and pumping the stream flow around the work area. This water should discharge onto the same velocity dissipater used for the main stem pump around.
- If a tributary is to be restored, construction should take place on the tributary before work on the main stem reaches the tributary confluence. Construction in the tributary, including pump around practices, should follow the same sequence as for the main stem of the river or stream. When construction on the tributary is completed, work on the main stem should resume. Water from the tributary should continue to be pumped around the work area in the main stem.
- The contractor is responsible for providing access to and maintaining all erosion and sediment control devices until the sediment control inspector approves their removal.
- After construction, all disturbed areas should be regraded and revegetated as per the planting plan.

Maryland's Guidelines To Waterway Construction
DETAIL 1.2: PUMP-AROUND PRACTICE

PLAN VIEW

SECTION A-A

TEMPORARY INSTREAM CONSTRUCTION MEASURES

REVISED NOVEMBER 2000 PAGE 12 - 3

MARYLAND DEPARTMENT OF THE ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

2018 VEGETATIVE ESTABLISHMENT

Following initial soil disturbances or redistribution, permanent or temporary stabilization shall be completed within three calendar days for the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than 3 horizontal to 1 vertical (3:1) and seven days for all other disturbed or graded areas on the project site.

- Permanent Seeding:
 - Soil Tests: Lime and fertilizer will be applied per soil tests results for sites greater than 5 acres. Soil tests will be done at completion of initial rough grading or as recommended by the sediment control inspector. Rates and analyses will be provided to the grading inspector as well as the contractor.

Occurrence of acid sulfate soils (grayish black color) will require covering with a minimum of 12 inches of clean soil with 6 inches minimum capping of top soil. No stockpiling of material is allowed. If needed, soil tests should be done before and after a 6-week incubation period to allow oxidation of sulfates.

The minimum soil conditions required for permanent vegetative establishment are:

 - Soil pH shall be between 6.0 and 7.0.
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or sercila lespedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by soils on site, adding topsoil is required in accordance with the Standard and Specification for Soil Preparation, Topsoiling and Soil Amendments from the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control or amendments made as recommended by a certified agronomist.
- Seedbed Preparation: Area to be seeded shall be loose and friable to a depth of at least 3-5 inches. The top layer shall be loosened by raking, disking or other acceptable means before seeding occurs. For sites less than 5 acres, apply 100 pounds dolomitic limestone and 21 pounds of 10-10-10 fertilizer per 1,000 square feet. Harrow or disk lime and fertilizer into the soil to a depth of at least 3-5 inches on slopes flatter than 3:1.
- Seeding: Apply 5-6 pounds per 1,000 square feet of tall fescue between February 1 and April 30 or between August 15 and October 31. Apply seed uniformly on a moist firm seedbed with a cyclone seeder, cultipacker seeder or hydroseeder (slurry includes seeds and fertilizer, recommended on steep slopes only). Maximum seed depth should be ¼ inch in clayey soils and ½ inch in sandy soils when using other than the hydroseeder method. Irrigate where necessary to support adequate growth until vegetation is firmly established. If other seed mixes are to be used, select from Table B3 and B5 of the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Mulching: Mulch shall be applied to all seeded areas immediately after seeding. During the time periods when seeding is not permitted, mulch shall be applied immediately after grading. Mulch shall be untreated, unchopped, small grain straw applied at a rate of 2 tons per acre or 90 pounds per 1,000 square feet (2 bales). Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch-anchoring tool is used, apply 2.5 tons per acre. Mulch materials shall be relatively free of all kinds of weeds and shall be completely free of prohibited noxious weeds. Spread mulch uniformly, mechanically or by hand, to a depth of 1-2 inches.
- Securing Straw Mulch: Straw mulch shall be secured immediately following mulch application to minimize movement by wind or water. The following methods are permitted:
 - Use a mulch-anchoring tool which is designed to punch and anchor mulch into the soil surface to a minimum depth of 2 inches. This is the most effective method for securing mulch, however, it is limited to relatively flat areas where equipment can operate safely.
 - Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. If mixed with water, use 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Liquid binders may be used. Apply at higher rates at the edges where wind catches mulch, such as in valleys and on crests of slopes. The remainder of the area should appear uniform after binder application. Binders listed in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control or approved equal shall be applied at rates recommended by the manufacturers.
 - Lightweight plastic netting may be used to secure mulch. The netting will be stapled to the ground according to manufacturer's recommendations.

2. Temporary Seeding:

Lime: 100 pounds of dolomitic limestone per 1,000 square feet.
 Fertilizer: 15 pounds of 10-10-10 per 1,000 square feet.
 Seed: Perennial rye – 0.92 pounds per 1,000 square feet (February 1 through April 30 or August 15 through October 31).
 Millet – 0.92 pounds per 1,000 square feet (May 1 through August 15).
 Mulch: Same as 1 D and E above.

3. No fills may be placed on frozen ground. All fill is to be placed in approximately horizontal layers, each layer having a loose thickness of not more than 8 inches. All compaction requirements are in accordance to Anne Arundel County Standard Specifications for Construction as well as the AA County Design Manual and Standard Details. Fills for pond embankments shall be compacted as per MD-378 Construction Specifications. All other fills shall be compacted sufficiently so as to be stable and prevent erosion and slippage.

4. Permanent Sod:

Installation of sod should follow permanent seeding dates. Seedbed preparation for sod shall be as noted in section (B) above. Permanent sod is to be tall fescue, state approved sod; lime and fertilizer per permanent seeding specifications and lightly irrigate sod prior to laying sod. Sod is to be laid on the contour with ends tightly abutting. Joints are to be staggered between rows. Water and roll or tamp sod to insure positive root contact with the soil. All slopes steeper than 3:1, as shown, are to be permanently sodded or protected with an approved erosion control netting. Additional watering for establishment may be required. Sod is not to be installed on frozen ground. Sod shall not be transplanted when moisture content (dry or wet) and/or extreme temperature may adversely affect its survival. In the absence of adequate rainfall, irrigation should be performed to ensure establishment of sod.

5. Mining Operations:

Sediment control plans for mining operations must include the following seeding dates and mixtures:

For seeding dates of February 1 through April 30 and August 15 through October 31, use seed mixture of tall fescue at the rate of 2 pounds per 1,000 square feet and sericea lespedeza at the minimum rate of 0.5 pounds per 1,000 square feet.

6. Topsoil shall be applied as per the Standard and Specifications for Soil Preparation, Topsoiling, and Soil Amendments from the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

7. Use of these Vegetative Establishment Specifications does not preclude the permittee or contractor from meeting all of the requirements set forth in the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control.

AASCD - 2019 SPSC STABILIZATION NOTES

TEMPORARY STABILIZATION:
 TEMPORARY STABILIZATION FOR ANY AREA OF EARTH DISTURBANCE AROUND THE POOLS AND RIFLE ZONES OF A SPSC (E.G. STEP POOL STORM CONVEYANCE SYSTEM) SHALL BE CONSIDERED ACHIEVED WHEN UNIFORMLY COVERING THE AREA WITH 2 TO 4 INCHES OF WOOD CHIPS. ANNUAL RYE MAY BE UTILIZED FOR THE TEMPORARY SEEDING APPLICATION PERIOD FOUND UNDER THE ANNE ARUNDEL SOIL CONSERVATION DISTRICT'S (AASCD) VEGETATIVE ESTABLISHMENT SPECIFICATION OR 2011 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

PERMANENT STABILIZATION:
 PERMANENT STABILIZATION FOR AN AREA OF EARTH DISTURBANCE OF A SPSC SHALL BE CONSIDERED ACHIEVE WHEN THE AREA IS COVERED WITH 2 TO 4 INCHES OF COMPOST (APPLIED OVER ANY WOODCHIPS USED FOR TEMPORARY STABILIZATION) OR 2 TO 4 INCHES OF WOODCHIPS TRACKED INTO SOIL AND A (NATIVE PLANTS) PLANTING PLAN HAS BEEN IMPLEMENTED, REGARDLESS OF SOIL TREATMENT.

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL

CONSTRUCTION SPECIFICATIONS

- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE. MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF WOODCHIP OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
- PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- PLACE WOODCHIPS AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD WOODCHIPS OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE. MOUNTABLE BERM AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE WOODCHIPS OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
B.2		

DETAIL F-4 FILTER BAG

STANDARD SYMBOL

CONSTRUCTION SPECIFICATIONS

- TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
- PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
- CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
- REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
- USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

GRAB TENSILE	250 LB	ASTM D-4832
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL./MIN./FT²	ASTM D-4491
PERMITTIVITY (SEC⁻¹)	1.2 SEC⁻¹	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4832
- REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL

CONSTRUCTION SPECIFICATIONS

- PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLOGS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
- FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
- INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
- FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
- STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 6 FEET OR CLOSER.
- USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
- WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
- REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLOGGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
E.16		

TREE PROTECTION FENCE DETAIL

NOT TO SCALE

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LANDSCAPE ARCHITECTURE

ECOLOGICAL RESTORATION

A DESIGN/BUILD Co.

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TEL. 410-849-3211 FAX. 410-849-2136

MARYLAND

DEPARTMENT OF
NATURAL RESOURCES

DEVELOPER

329 Riverview Trail
Annapolis, MD 21401
Phone: 410 849-8540

No.	Date	Revision	By	Approved By

DAVID J. WALLACE, P.E.

PROFESSIONAL CERTIFICATION

I, DAVID J. WALLACE, CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 11466 EXPIRATION DATE: MAY 28, 2023.

DAVID J. WALLACE, P.E.
701 CHESAPEAKE AVENUE
ANNAPOLIS, MARYLAND 21403
BUSINESS PH. 410.544.1225

Signature

Date

AUGUST 6, 2021

Scale
AS SHOWN

Drawn By
K.B./J.K.

Approved By
D.W.

Sheet No.
14 Of 17

Project No.
16-008

Proposal No.
...

S.E.C. DETAILS

JABEZ TRIBUTARY 3 RESTORATION

1510 JABEZ RUN

MAP 5172, GRID H9 & J8 & J9, PARCEL 0523 FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523 4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

Regenerative Stream Channel (RSC)

Cood File : S:\008-Projects\Jabez Tributary 304-CAD\Drawings\14_SEC DETAILS.dwg

PLOTTED: Aug 06, 2021 - 12:21pm

- PLANTING NOTES:

 - SEE PLANTING DETAILS FOR PLANT SCHEDULE
 - CONTRACTOR TO USE TOTALS IN PLANT SCHEDULE FOR MITIGATION PURPOSES
 - SUBSTITUTIONS AND ADDITIONS OF SIMILAR PLANTS FROM THE USFWS CHESAPEAKE NATIVE PLANT GUIDE ARE ACCEPTABLE
 - PLANT LOCATIONS APPROXIMATE - PLANTINGS SHALL BE PLACED BASED ON FINAL SITE CONDITIONS
 - CONTRACTOR TO LEAVE A 6' WIDE PATH ALONG THE TOPS OF BERMS TO ALLOW FOR ADAPTIVE MANAGEMENT

UNDERWOOD & ASSOCIATES

LANDSCAPE ARCHITECTURE

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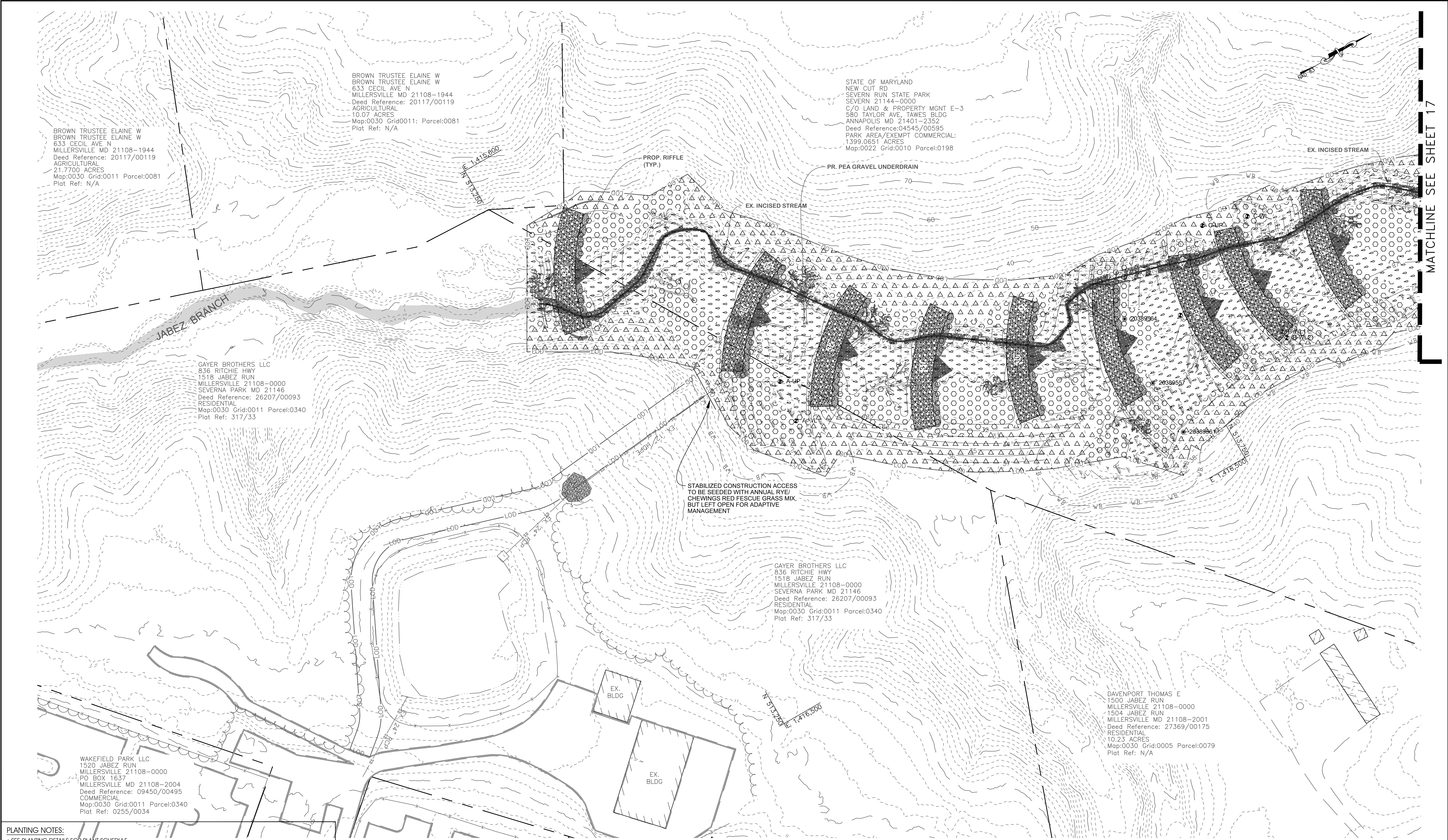
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Signature

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AUGUST 6, 2021	
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Drawn By	K.B./J.K.
Approved By	D.W.
Sheet No.	15 Of 17
Project No.	16-008
Proposal No.	...
PLANTING PLAN JABEZ TRIBUTARY 3 RESTORATION 1510 JABEZ RUN MAP 5172, GRID H9 & J8 & J9, PARCEL 0523 FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523 4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY	



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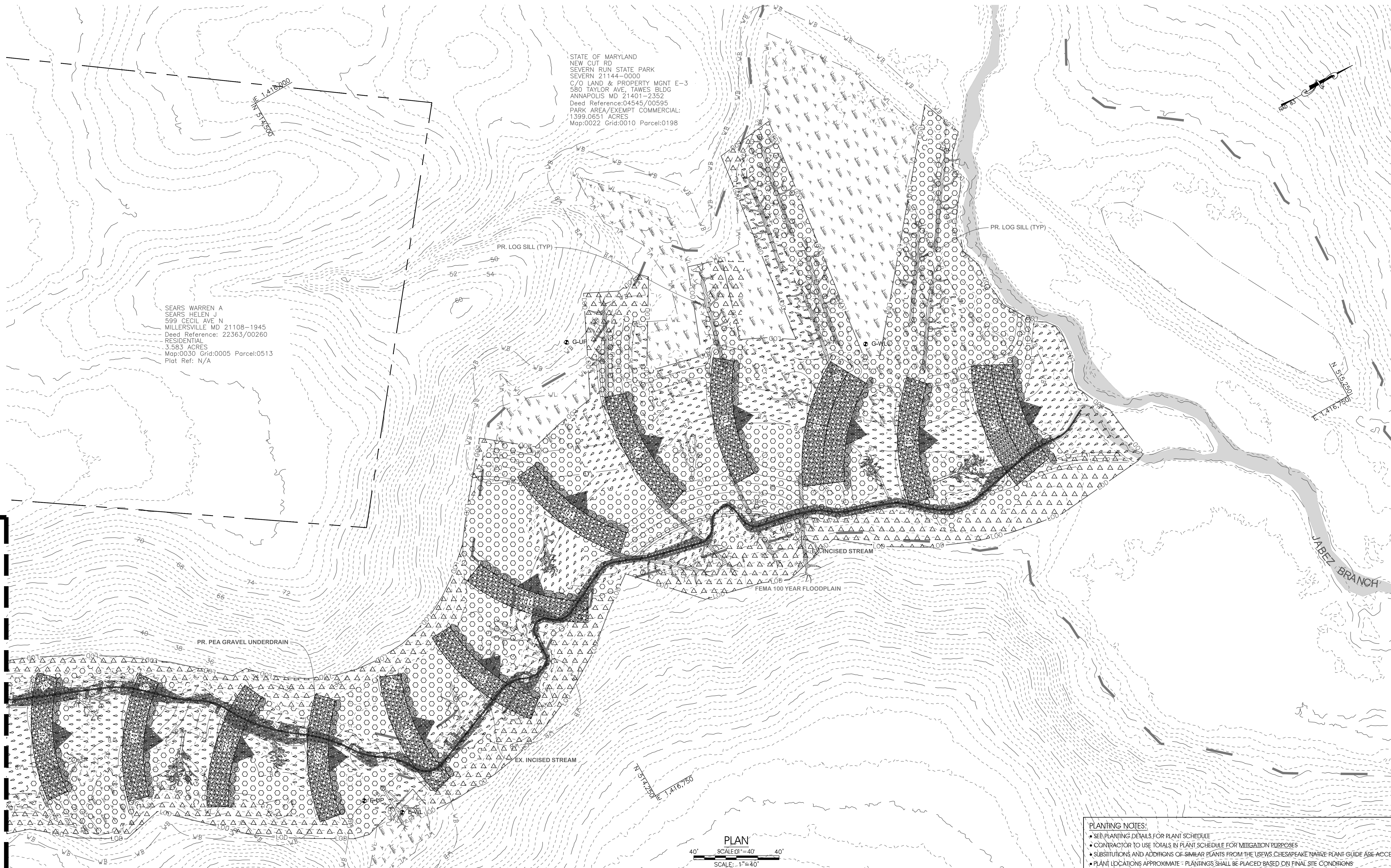
Regenerative Stream Channel (RSC)

PLOTTED: Aug 06, 2021 - 12:21pm

MATCHLINE SEE SHEET 16

STATE OF MARYLAND
NEW CUT RD
SEVERN RUN STATE PARK
SEVERN 21144-0000
C/O LAND & PROPERTY MGMT E-3
580 TAYLOR AVE, TAWES BLDG
ANNAPOLIS MD 21401-2352
Deed Reference:04545/00595
PARK AREA/EXEMPT COMMERCIAL:
1399.0651 ACRES
Map:0022 Grid:0010 Parcel:0198

SEARS WARREN A
SEARS HELEN J
599 CECIL AVE N
MILLERSVILLE MD 21108-1945
Deed Reference: 22363/00260
RESIDENTIAL
3.583 ACRES
Map:0030 Grid:0005 Parcel:0513
Plat Ref: N/A



PLAN
SCALE 0"=40'
SCALE: 1"=40'

- PLANTING NOTES:**
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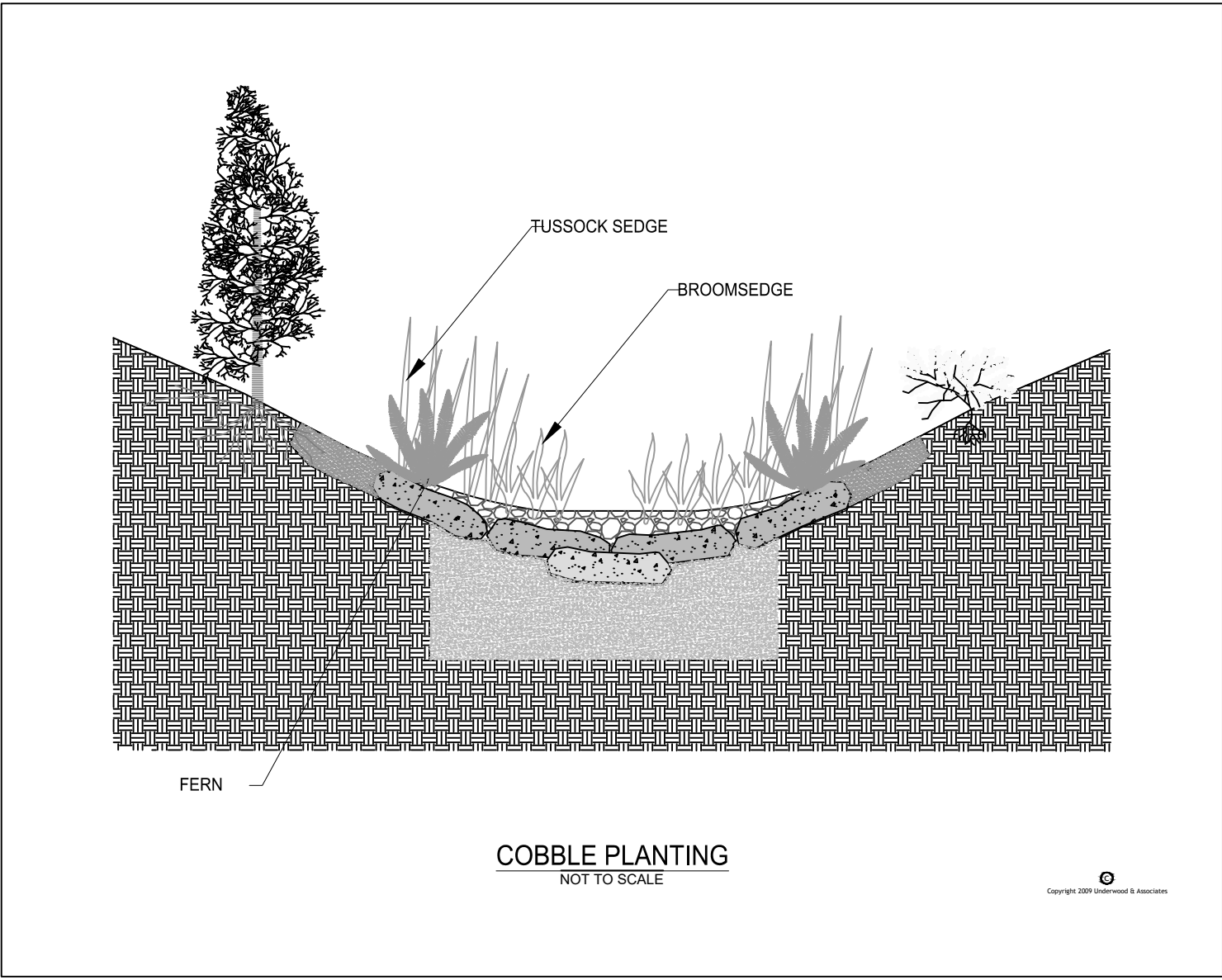
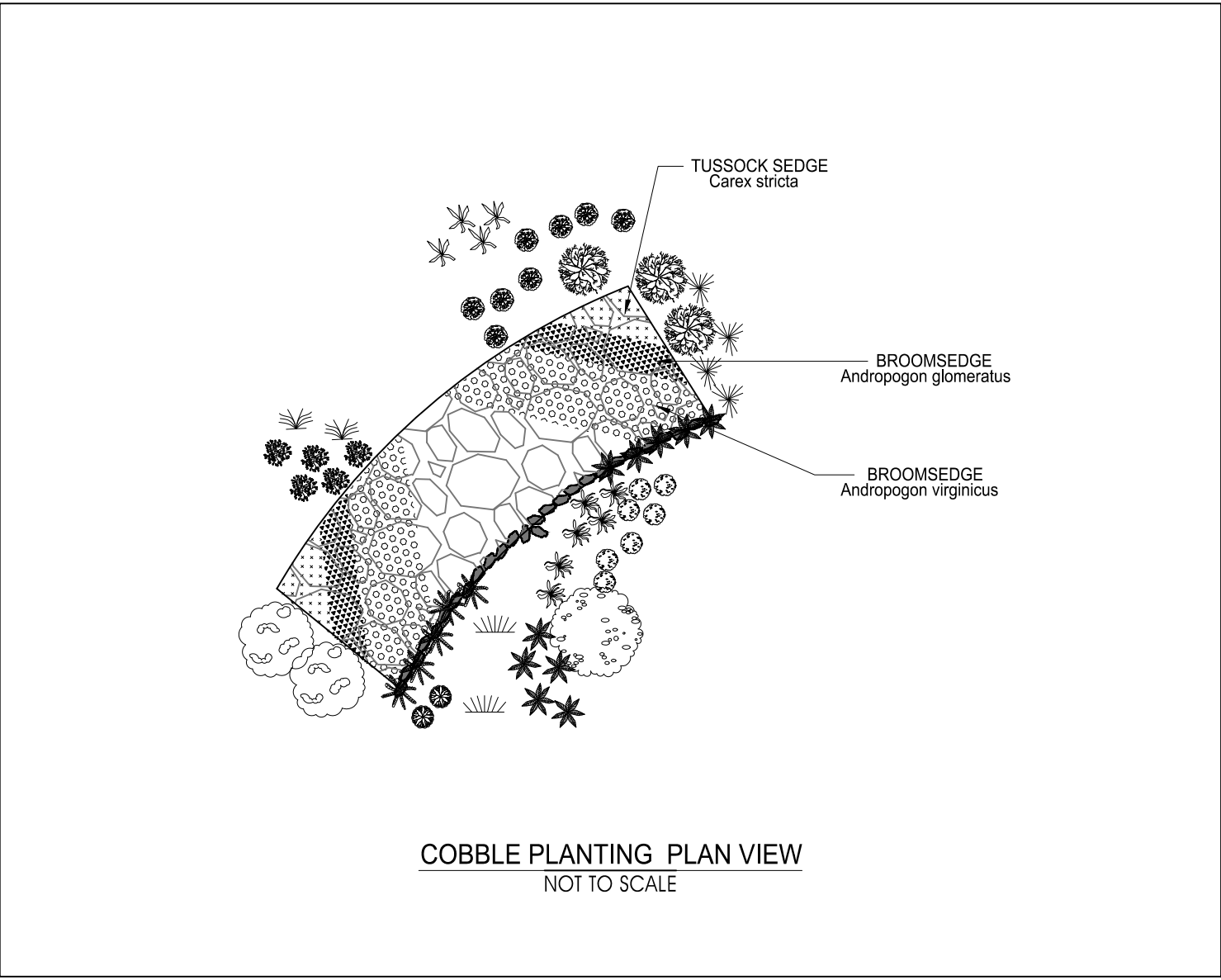
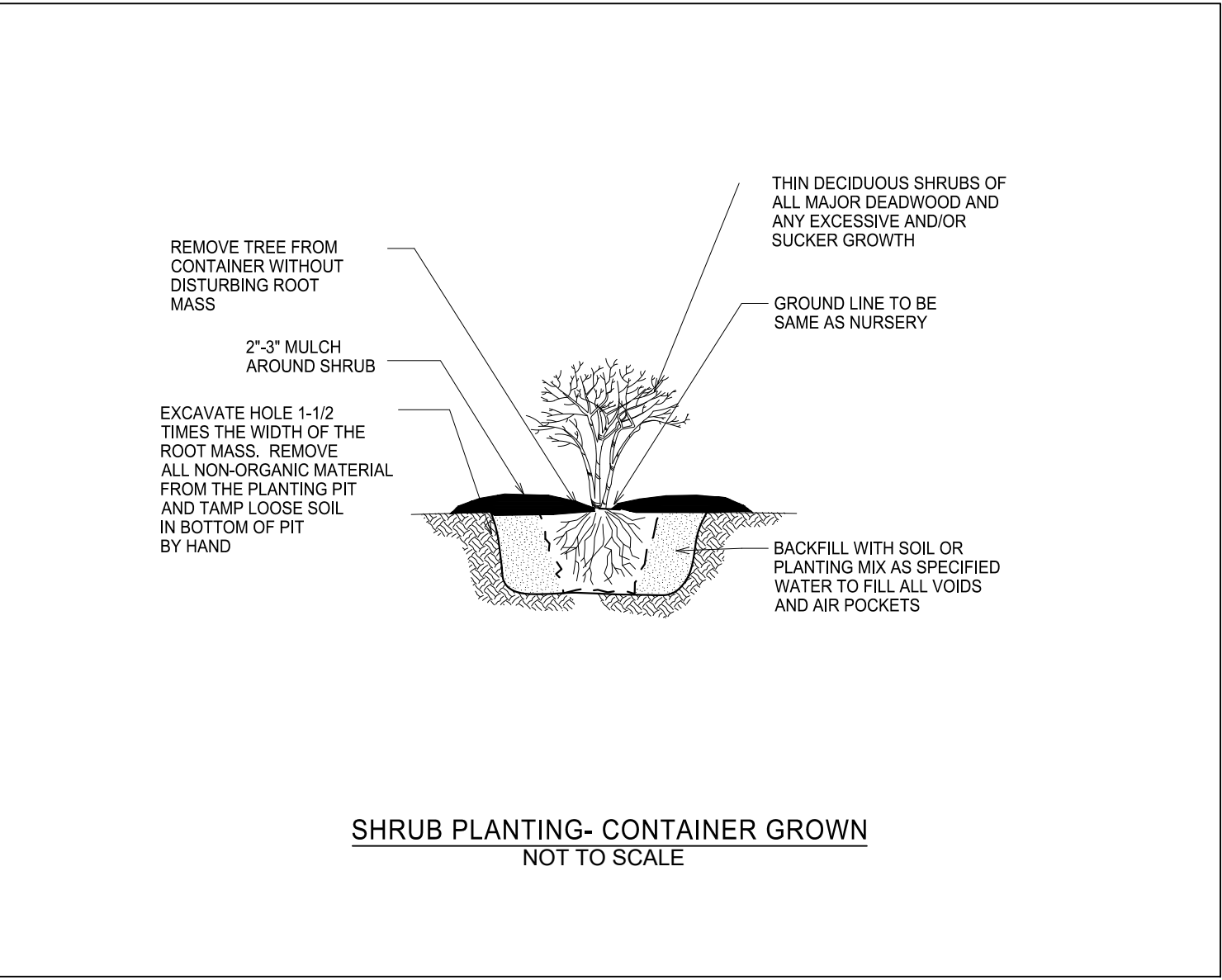
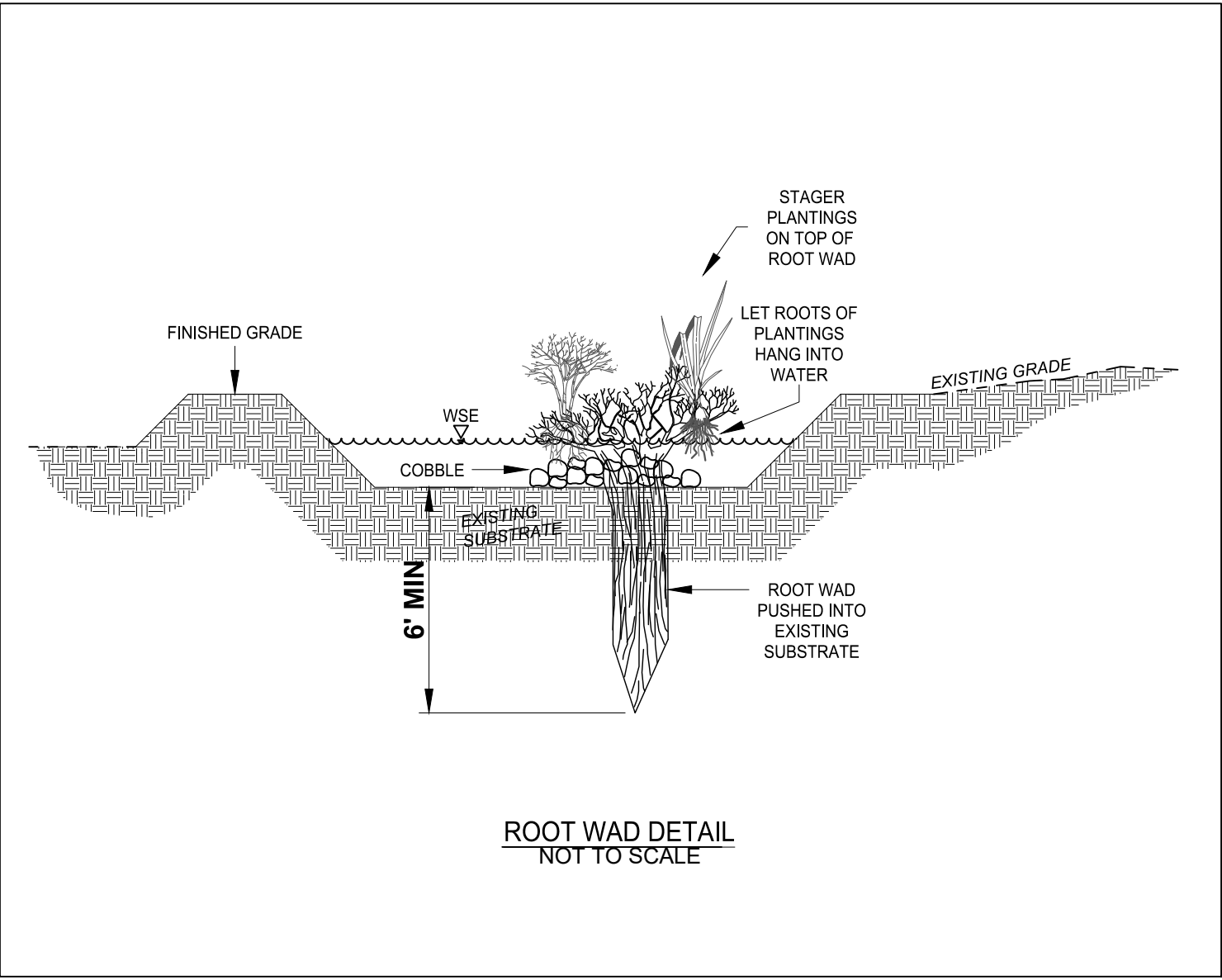
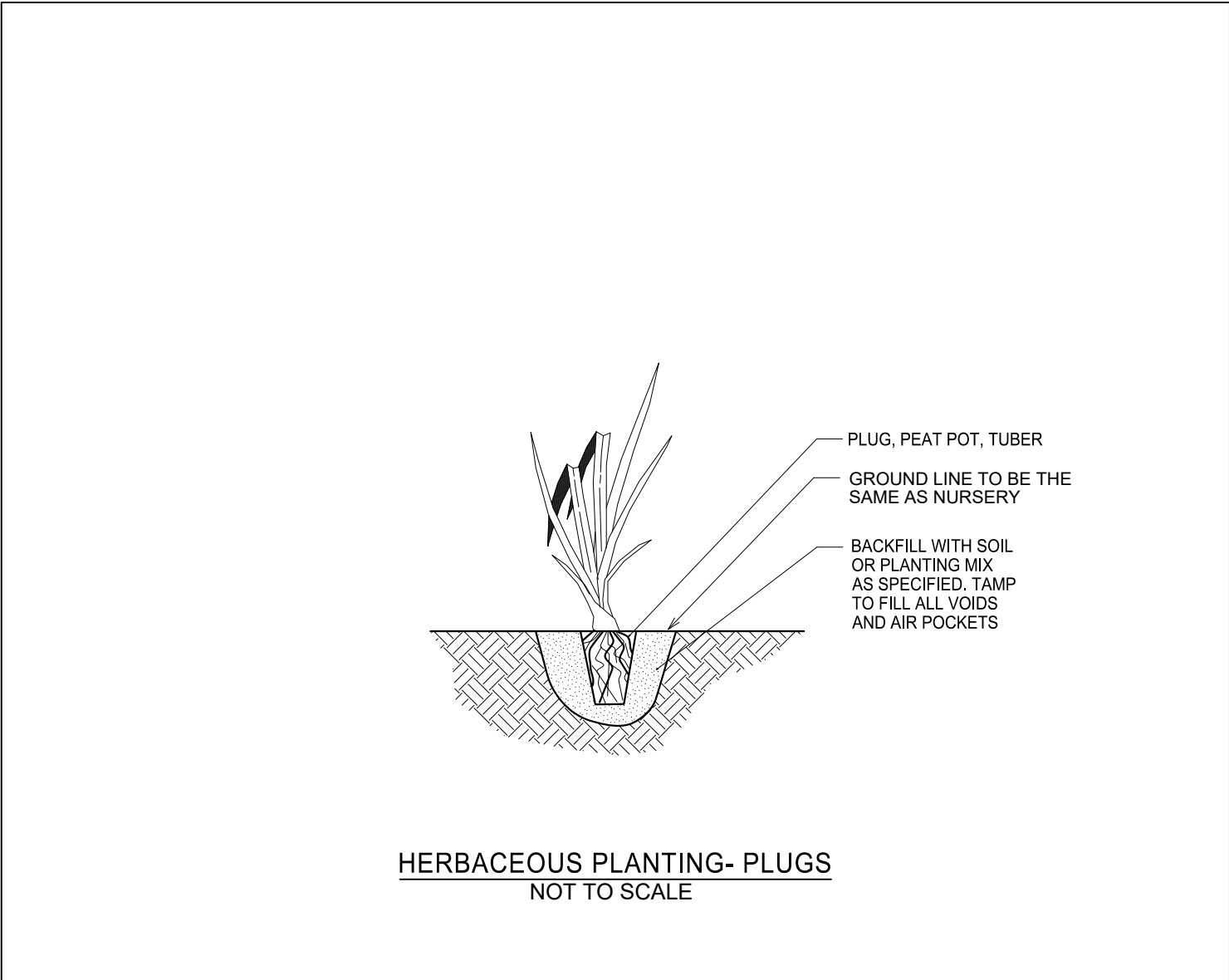
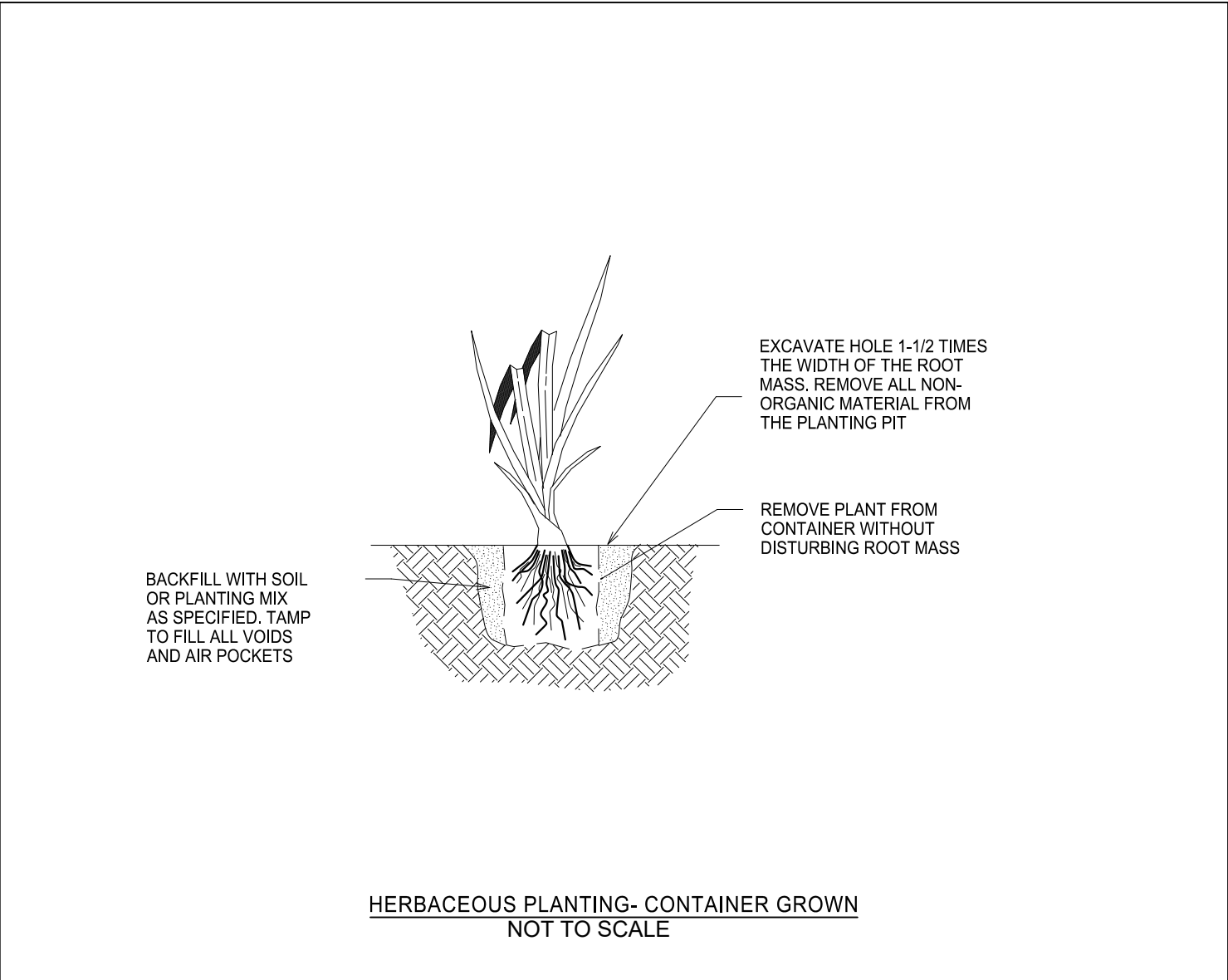
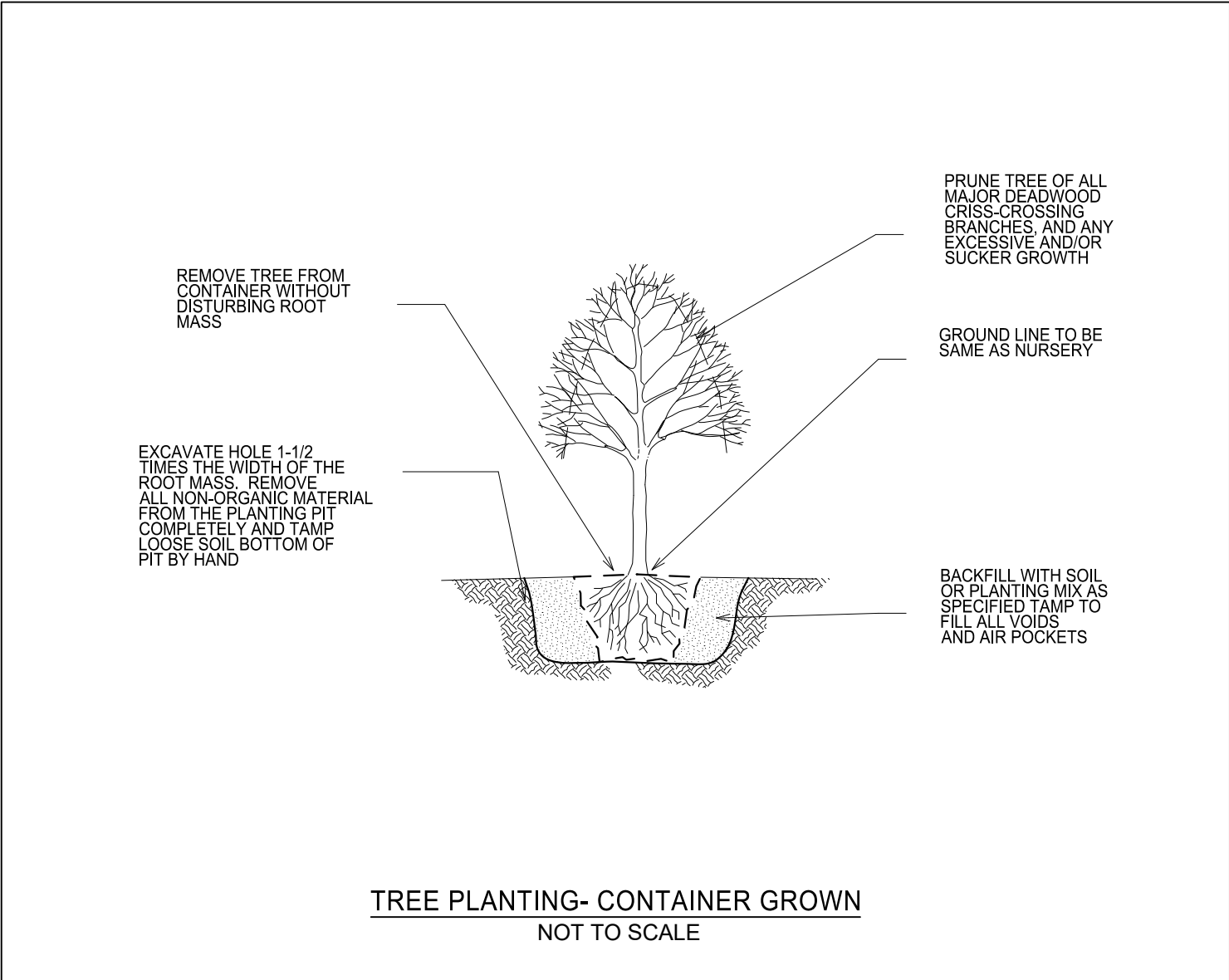
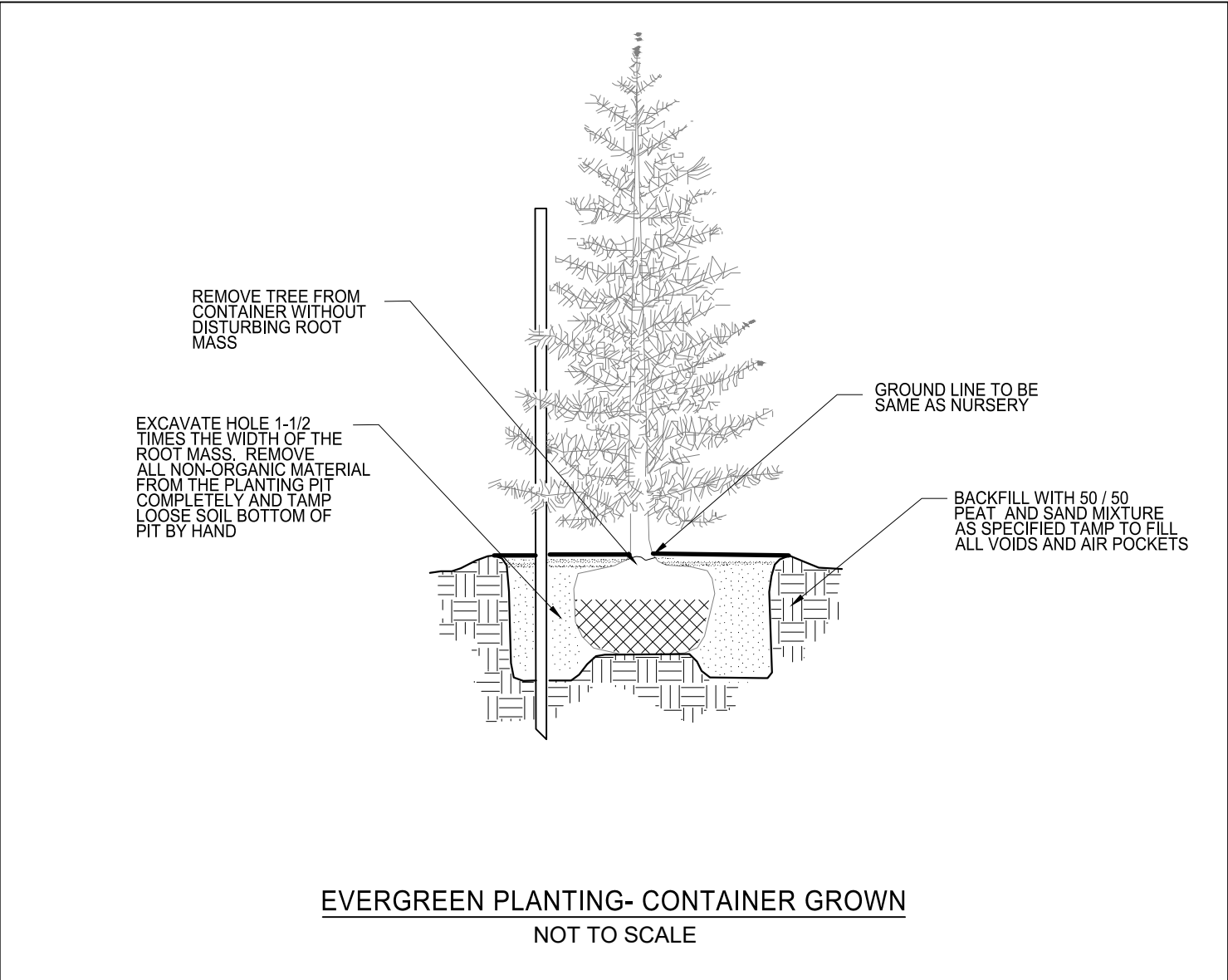


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Regenerative Stream Channel (RSC)

PLANTING SCHEDULE										
Planting Zone	Symbol	Total Area (Sq.Ft.)	Common Name	Scientific Name	Type	Size	Distribution	Avg Spacing (ft)	Quantity	Description
Wetlands/ Pools		113,928	Water Lilly	Nymphae odorata	SAV	Qt	Random	5	1,139	Within shallow perennially or intermittently flooded areas
			Bladderwort	Utricularia spp.	SAV	Qt	Random	5	1,139	
			Redhead Grass	Potamogeton perfoliatus	SAV	Qt	Random	5	1,139	
			Golden Club	Orontium aquaticum	SAV	Qt	Random	5	1,139	
Riparian		135,974	Blueflag Iris	Iris versicolor	Herbaceous	Qt	Random	3	2,158	Within 2 feet of elevation of perennially or intermittently flooded areas or base water surface elevation (WSE)
			Cardinal Flower	Lobelia cardinalis	Herbaceous	Qt	Random	3	2,158	
			Cinnamon Fern	Osmunda cinnamomea	Herbaceous	Qt	Random	3	2,158	
			Dense Blazing Star	Liatrus spicata	Herbaceous	Qt	Random	3	2,158	
			Little Bluestem	Schizachyrium scoparium	Herbaceous	Qt	Random	3	2,158	
			Path Rush	Juncus tenous	Herbaceous	Qt	Random	3	2,158	
			Royal Fern	Osmunda regalis	Herbaceous	Qt	Random	3	2,158	
			Dwarf Huckleberry	Gaylussacia dumosa	Shrub	Gal	Random	6	378	
			Black Huckleberry	Gaylussacia baccata	Shrub	Gal	Random	6	378	
			Inkberry	Ilex glabra	Shrub	Gal	Random	6	378	
			New England Aster	Symphotrichum novae angliae	Shrub	Gal	Random	6	378	
			Smooth Alder	Alnus serrulata	Shrub	Gal	Random	6	378	
			Summersweet	Clethra alnifolia	Shrub	Gal	Random	6	378	
			Swamp Azelea	Rhododendron viscosum	Shrub	Gal	Random	6	378	
			Swamp Bayberry	Myrica heterophylla	Shrub	Gal	Random	6	378	
			Swamp Milkweed	Asclepias incarnata	Shrub	Gal	Random	6	378	
			Wax Myrtle	Myrica cerifera	Shrub	Gal	Random	6	378	
			Bald Cypress	Taxodium distichum	Tree	1-2'	Random	12	94	
			American Beech	Fagus gradiflora	Tree	1-2'	Random	12	94	
			American Cranberry	Vaccinium macrocarpon	Tree	1-2'	Random	12	94	
			American Persimmon	Diospyros virginiana	Tree	1-2'	Random	12	94	
			Atlantic White Cedar	Chamaecyparis thyoides	Tree	1-2'	Random	6	378	
			Fringe Tree	Chioanthus retusa	Tree	1-2'	Random	12	94	
			Pitch Pine	Pinus rigida	Tree	1-2'	Random	12	94	
			Serviceberry	Amelanchier canadensis	Tree	1-2'	Random	12	94	
			Black Gum	Nyssa sylvatica	Tree	1-2'	Random	12	94	
			Sweetbay Magnolia	Magnolia virginiana	Tree	1-2'	Random	12	94	
Weir Sedges		54,888	Bladder Sedge	Carex intumescens	Herbaceous	Qt	Random	3	1,220	Within the footprint of constructed riffle weirs above limits of baseflow, between cobbles
			Fringed Sedge	Carex crinita	Herbaceous	Qt	Random	3	1,220	
			Bushy Bluestem	Andropogon glomeratus	Herbaceous	Qt	Random	3	1,220	
			Broomsedge	Andropogon virginicus	Herbaceous	Qt	Random	3	1,220	
Upland Forest		92,817	Tussock Sedge	Carex stricta	Herbaceous	Qt	Random	3	1,220	Replanting disturbed upland forest and areas that are 2' of elevation or more above base WSE
			Christmas Fern	Polystyichum acrostichoides	Herbaceous	Qt	Random	3	1,473	
			Coastal Wood Fern	Dryopteris arguta	Herbaceous	Qt	Random	3	1,473	
			Creeping Phlox	Phlox stolonifera	Herbaceous	Qt	Random	3	1,473	
			Golden Rod	Solidago spp. (e.g. rugosa)	Herbaceous	Qt	Random	3	1,473	
			Switchgrass	Panica virgatum	Herbaceous	Qt	Random	3	1,473	
			Virginia Chain Fern	Woodwardia virginica	Herbaceous	Qt	Random	3	1,473	
			Wild Bergamot	Monarda fistulosa	Herbaceous	Qt	Random	3	1,473	
			Mountain Laurel	Kalmia latifolia	Shrub	Gal	Random	6	859	
			Sheep Laurel	Kalmia augustifolia	Shrub	Gal	Random	6	859	
			Winterberry	Ilex verticillata	Shrub	Gal	Random	6	859	
			American Holly	Ilex opaca	Tree	1-2'	Random	12	215	
			Black Chokeberry	Prunus virginiana	Tree	1-2'	Random	12	215	
			Southern Red Oak	Quercus falcata	Tree	1-2'	Random	12	215	



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DEPARTMENT OF

NATURAL RESOURCES

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DEVELOPER

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Annapolis, MD 21401

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No.	Date	Revision	By	Approved By

DAVID J. WALLACE, P.E.

PROFESSIONAL CERTIFICATION

I, DAVID J. WALLACE, CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 11466 EXPIRATION DATE: MAY 28, 2023.

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STATE OF MARYLAND

DAVID J. WALLACE

PROFESSIONAL ENGINEER

NO. 11466

REGISTERED

EXPIRATION DATE: MAY 28, 2023

Signature

Date

AUGUST 6, 2021

Scale AS SHOWN

Drawn By K.B./J.K.

Approved By D.W.

Sheet No. 17 Of 17

Project No. 16-008

Proposal No. ...

PLANTING SCHEDULE & DETAILS

JABEZ TRIBUTARY 3 RESTORATION

1510 JABEZ RUN

MAP 5172, GRID H9 & J8 & J9, PARCEL 0523

FORMERLY MAP 13, GRID H5 & H6 & J5, PARCEL 0523

4TH ELECTION DISTRICT, ANNE ARUNDEL COUNTY

PLOTTED: Aug 06, 2021 - 12:21pm

Coord File : S:\005-Projects\Jabez Tributary 304-CAD\Drawings\17_PLANTING DETAILS.dwg