

CONSTRUCTION SEQUENCE

- CONTRACTOR SHALL ENSURE ALL NECESSARY PERMITS HAVE BEEN OBTAINED AND CONDUCT A PRE-CONSTRUCTION MEETING PRIOR TO THE START OF CONSTRUCTION. NOTIFY CID 72 HOURS BEFORE THE MEETING AT 410-313-1855.
- MDE REQUIRES ANY WATER IN THE THREE STORAGE TANKS MUST BE PUMPED INTO THE COUNTY SEWAGE SYSTEM AT THE EXISTING MANHOLE IN RACE ROAD ON THE 48" SEWER LINE. SUGGESTED PUMPING ROUTE IS SHOWN. PUMPING MUST BE COORDINATED WITH COUNTY OPERATIONS AS DISCHARGE IS PREFERRED TO BE DONE ONLY DURING LOW FLOW PERIODS. TREATMENT UNIT #1 IS KNOWN TO BE FULL OF WATER.
- SITE IS HEAVILY OVERGROWN. CLEAR & GRUB WITHIN LOD & INSTALL ESC MEASURES.
- REMOVE EX. OVERHEAD WIRES & UTILITY POLES AFTER COORDINATION WITH BGE & VERIZON. LEAVE 3 LABELED POLES INTACT.
- OPERATIONS BUILDING HAS TESTED POSITIVE FOR ASBESTOS IN THE FLOOR TILES AND WINDOWS. NO OTHER ASBESTOS WAS FOUND ONSITE. ASBESTOS IS TO BE REMOVED FROM THE SITE & DISPOSED OF IN AN APPROVED HAZARDOUS WASTE LANDFILL. FOLLOW SUPPLEMENTAL SPECIFICATIONS FOR SAFETY INSTRUCTIONS ON HANDLING THE ASBESTOS MATERIAL.
- REMOVE ALL BUILDINGS, STRUCTURES, & PAVEMENT WITHIN THE FENCE. SEE ADDITIONAL SHEETS FOR DETAILS. MDE REQUIRES ANY SOLIDS FOUND IN THE BOTTOM OF THE THREE STORAGE TANKS IS TO BE DISPOSED OF AT AN APPROVED COUNTY FACILITY FOR WASTE SOLIDS.
- REMOVE THE EXISTING FENCE AND POSTS. CLEAR ONLY A 10 FT WIDE CORRIDOR TO REMOVE THE FENCE AND POSTS. SPECIMEN TREES, EXCEPT TREE #1, AS SHOWN ON SHEET TO ARE TO BE PROTECTED. SPECIMEN TREE #1 IS IN POOR CONDITION & GROWN AGAINST THE FENCE. IT IS TO BE REMOVED.
- CAP ALL EXISTING UNDERGROUND UTILITIES ONSITE. CONTRACTOR IS TO COORDINATE WITH HOWARD COUNTY BEFORE CUT & CAPPING EXISTING WATER & SEWER & PROVIDE BYPASS SERVICES TO RESIDENTS DURING CONSTRUCTION IF REQUIRED.
- SAW CUT AND REMOVE EXISTING ASPHALT PAVING, FOLLOWED BY THE EXCAVATION AND REMOVAL OF GRADED AGGREGATE BASE TO 2- FEET BELOW EXISTING GRADE. FILL WITH BACKFILL AND TOPSOIL FOLLOWED BY RESTORATION OF THE SITE WITH SEED & MULCH AS PER ESC NOTES SHEET.

DEVELOPER'S CERTIFICATE :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL ON SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

SIGNATURE OF DEVELOPER (PRINT NAME BELOW SIGNATURE) Eric J. Schroeder DATE 6/27/24

ENGINEER'S CERTIFICATE

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

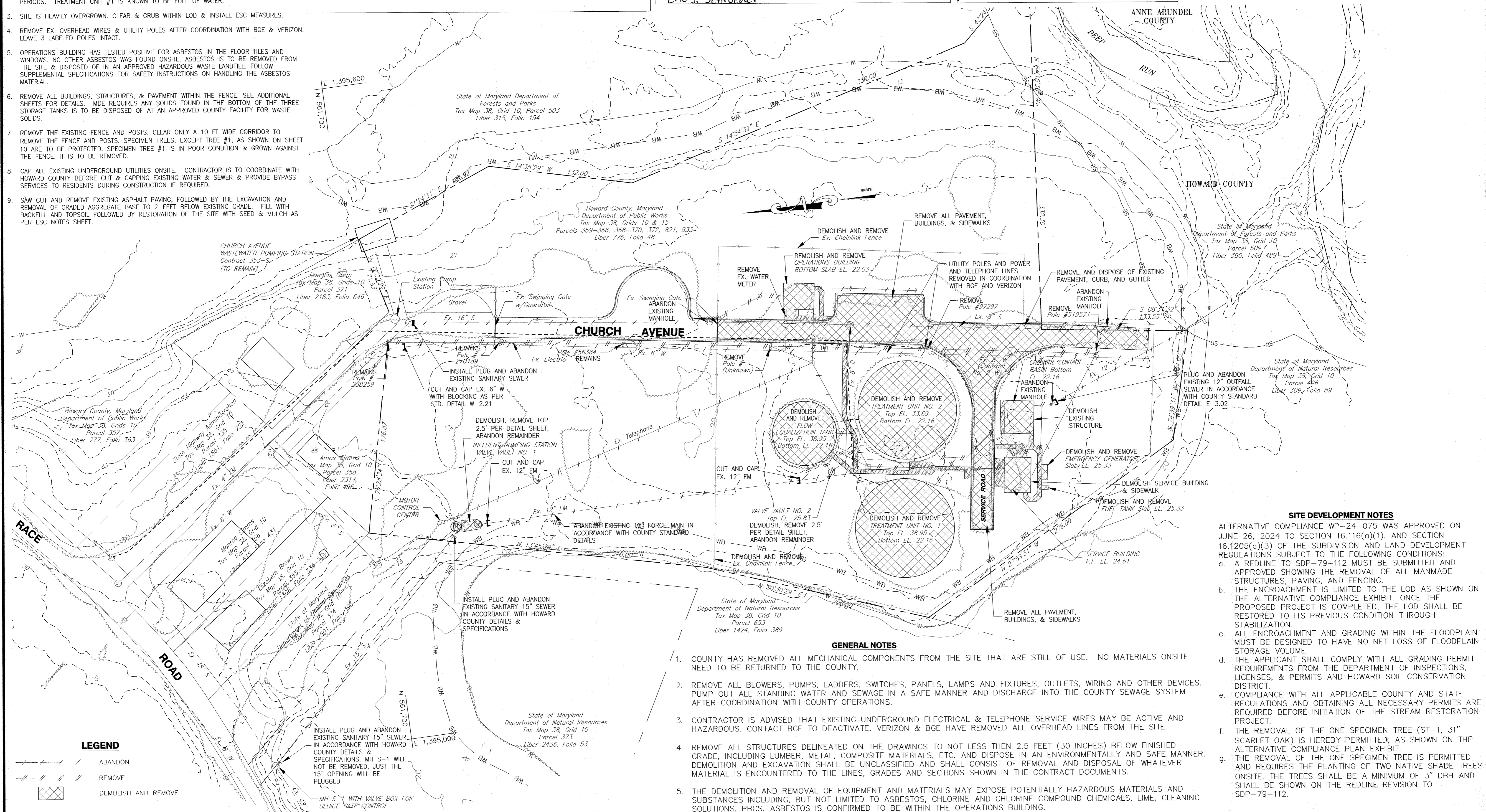
SIGNATURE OF ENGINEER (PRINT NAME BELOW SIGNATURE) Eric J. Schroeder DATE 6/27/2024

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS SECTION 300 AND AS SHOWN ON THESE PLANS.

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT DATE

THE SCOPE OF THIS REDLINE IS IN COMPLIANCE WITH SECTION 16.115(C) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS.



ABANDONMENT AND REMOVAL PLAN
SCALE: 1"=40'

SITE DEVELOPMENT NOTES

- ALTERNATIVE COMPLIANCE WP-24-075 WAS APPROVED ON JUNE 26, 2024 TO SECTION 16.116(a)(1), AND SECTION 16.1205(a)(3) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SUBJECT TO THE FOLLOWING CONDITIONS:
- A REDLINE TO SDP-79-112 MUST BE SUBMITTED AND APPROVED SHOWING THE REMOVAL OF ALL MANMADE STRUCTURES, PAVING, AND FENCING.
 - THE ENCROACHMENT IS LIMITED TO THE LOD AS SHOWN ON THE ALTERNATIVE COMPLIANCE EXHIBIT. ONCE THE PROPOSED PROJECT IS COMPLETED, THE LOD SHALL BE RESTORED TO ITS PREVIOUS CONDITION THROUGH STABILIZATION.
 - ALL ENCROACHMENT AND GRADING WITHIN THE FLOODPLAIN MUST BE DESIGNED TO HAVE NO NET LOSS OF FLOODPLAIN STORAGE VOLUME.
 - THE APPLICANT SHALL COMPLY WITH ALL GRADING PERMIT REQUIREMENTS FROM THE DEPARTMENT OF INSPECTIONS, LICENSES, & PERMITS AND HOWARD SOIL CONSERVATION DISTRICT.
 - COMPLIANCE WITH ALL APPLICABLE COUNTY AND STATE REGULATIONS AND OBTAINING ALL NECESSARY PERMITS ARE REQUIRED BEFORE INITIATION OF THE STREAM RESTORATION PROJECT.
 - THE REMOVAL OF THE ONE SPECIMEN TREE (ST-1, 31" SCARLET OAK) IS HEREBY PERMITTED, AS SHOWN ON THE ALTERNATIVE COMPLIANCE PLAN EXHIBIT.
 - THE REMOVAL OF THE ONE SPECIMEN TREE IS PERMITTED AND REQUIRES THE PLANTING OF TWO NATIVE SHADE TREES ONSITE. THE TREES SHALL BE A MINIMUM OF 3" DBH AND SHALL BE SHOWN ON THE REDLINE REVISION TO SDP-79-112.

GENERAL NOTES

- COUNTY HAS REMOVED ALL MECHANICAL COMPONENTS FROM THE SITE THAT ARE STILL OF USE. NO MATERIALS ONSITE NEED TO BE RETURNED TO THE COUNTY.
- REMOVE ALL BLOWERS, PUMPS, LADDERS, SWITCHES, PANELS, LAMPS AND FIXTURES, OUTLETS, WIRING AND OTHER DEVICES. PUMP OUT ALL STANDING WATER AND SEWAGE IN A SAFE MANNER AND DISCHARGE INTO THE COUNTY SEWAGE SYSTEM AFTER COORDINATION WITH COUNTY OPERATIONS.
- CONTRACTOR IS ADVISED THAT EXISTING UNDERGROUND ELECTRICAL & TELEPHONE SERVICE WIRES MAY BE ACTIVE AND HAZARDOUS. CONTACT BGE TO DEACTIVATE. VERIZON & BGE HAVE REMOVED ALL OVERHEAD LINES FROM THE SITE.
- REMOVE ALL STRUCTURES DELINEATED ON THE DRAWINGS TO NOT LESS THAN 2.5 FEET (30 INCHES) BELOW FINISHED GRADE, INCLUDING LUMBER, METAL, COMPOSITE MATERIALS, ETC. AND DISPOSE IN AN ENVIRONMENTALLY AND SAFE MANNER. DEMOLITION AND EXCAVATION SHALL BE UNCLASSIFIED AND SHALL CONSIST OF REMOVAL AND DISPOSAL OF WHATEVER MATERIAL IS ENCOUNTERED TO THE LINES, GRADES AND SECTIONS SHOWN IN THE CONTRACT DOCUMENTS.
- THE DEMOLITION AND REMOVAL OF EQUIPMENT AND MATERIALS MAY EXPOSE POTENTIALLY HAZARDOUS MATERIALS AND SUBSTANCES INCLUDING, BUT NOT LIMITED TO ASBESTOS, CHLORINE AND CHLORINE COMPOUND CHEMICALS, LIME, CLEANING SOLUTIONS, PBCS. ASBESTOS IS CONFIRMED TO BE WITHIN THE OPERATIONS BUILDING.
- ASBESTOS REMOVAL PERMIT IS REQUIRED FROM THE CONTRACTOR BY MARYLAND DEPARTMENT OF ENVIRONMENT, DIVISION OF ASBESTOS LICENSE AND ENFORCEMENT TO ENSURE SAFE REMOVAL AND DISPOSAL.

LEGEND

- ABANDON
- REMOVE
- DEMOLISH AND REMOVE
- TEMPORARY PIPE FOR DRAINING TANKS (ONLY TO BE IN PLACE FOR ACTIVE DRAINING & TO BE REMOVED ONCE DRAINING IS COMPLETE)

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF DEVELOPMENT ENGINEERING DIVISION
Paul J. ... DATE 6/26/24

CHIEF, DIVISION OF LAND DEVELOPMENT
... DATE 6/27/24

DIRECTOR
... DATE 6/28/24

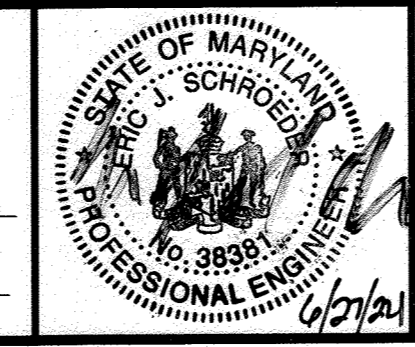
Dewberry
Dewberry Engineers Inc.

10461 MILL RUN CIRCLE
SUITE #300
OWINGS MILLS, MD 21117-6544
PHONE: 410.266.9500
FAX: 410.266.8875

PROFESSIONAL CERTIFICATION

I, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

License No. 38381 EXPIRATION DATE: JANUARY 5, 2026
Eric J. Schroeder DATE 6/27/2024



DES:	RLI				
DRN:	RLI				
CHK:	EJS				
DATE:	JUNE 2024				
BY:	NO.	REVISIONS	DATE	600 SCALE MAP NO. 38	BLOCK NO. 10

ABANDONMENT AND REMOVAL PLAN

CAPITAL PROJECT NO. W - 8603
CONTRACT NO. 10 - 4635

DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION

ELECTION DISTRICT NO. 1 HOWARD COUNTY, MARYLAND

DEED: 97/423
TAX MAP: 38
GRID: 10
PARCELS: 359-366, 368-370,372,821,833

SCALE: 1"=40'
SHEET 5 OF 11

SEQUENCE OF CONSTRUCTION

1. NOTIFY THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, & PERMITS (410-313-2455) AT LEAST 48 HOURS BEFORE COMMENCING WORK. WORK MAY NOT COMMENCE UNTIL THE PERMITTEE OR THE RESPONSIBLE PERSONNEL HAVE MET ON SITE WITH THE SEDIMENT & EROSION CONTROL INSPECTOR TO REVIEW THE APPROVED PLANS.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES
3. CLEAR AND GRUB IN THE LOD
4. INSTALL SEDIMENT & EROSION CONTROL MEASURES AS CLEARING PROGRESSES
5. CONTACT THE HOWARD COUNTY INSPECTORS FOR APPROVAL OF THE SEDIMENT CONTROL INSTALLATION
6. INSTALL PUMP & PIPING TO DRAIN 3 TANKS INTO SEWER MANHOLE IN CHURCH AVENUE. PIPING IS TO BE REMOVED AS SOON AS TANKS ARE DRAINED.
7. DEMOLISH OPERATIONS BUILDING WITH PROPER DISPOSAL OF ASBESTOS AT APPROVED HAZARDOUS DISPOSAL SITE
8. DEMOLISH ADDITIONAL TWO BUILDINGS, 3 TANKS, FENCE, ETC., AUGUST-SEPTEMBER.
DEBRIS IS NOT TO BE LEFT ONSITE FOR LONGER THAN THREE DAYS. FILTER BAGS MAY BE USED TO FILTER GROUNDWATER IF ENCOUNTERED AND FLOW MAY BE RELEASED ONSITE. WATER FROM TANKS OR BUILDINGS IS NOT PERMITTED TO BE RELEASED ONSITE, ONLY INTO SEWER MANHOLE.
9. FILL DIRT IS TO BE USED TO FILL THE EXCAVATIONS TO EXISTING GROUND LEVELS. GRADE IS TO BE ESTABLISHED TO KEEP POSITIVE DRAINAGE. DIRT MAY BE TEMPORARILY STOCKPILED ONSITE WITH SILT FENCE AROUND IT. AREA IS MARKED ON PLAN.
FRONT AREA OF LOD AROUND VALVE VAULT #1 & PUMPING STATION SHALL BE STABILIZED WITH FILL DIRT AND SEED ONCE THAT DEMOLITION IS COMPLETED.
DO NOT LEAVE AREA UNSTABILIZED FOR LONGER THAN THREE DAYS, AS PER STATE MANUAL.
10. REMOVE PAVEMENT, WORKING FROM OUTER EDGES OF SITE BACK TO THE EXISTING GATE. PAVEMENT REMOVAL WILL END AT THE EXISTING FENCE GATE. INSTALL SEED AS PER SEEDING SPECIFICATIONS AS RUBBLE IS REMOVED AND SITE IS STABILIZED. CONTRACTOR IS NOT TO REDISTURB STABILIZED AND SEEDED AREA OF LOD
11. CONTACT THE HOWARD COUNTY INSPECTORS FOR APPROVAL OF THE SITE STABILIZATION BEFORE SEDIMENT & EROSION CONTROL MEASURES ARE TO BE REMOVED.

WEEK ONE
WEEKS ONE & TWO
WEEK THREE
WEEK FOUR
WEEK FIVE
WEEK SIX
WEEKS SEVEN THRU TEN

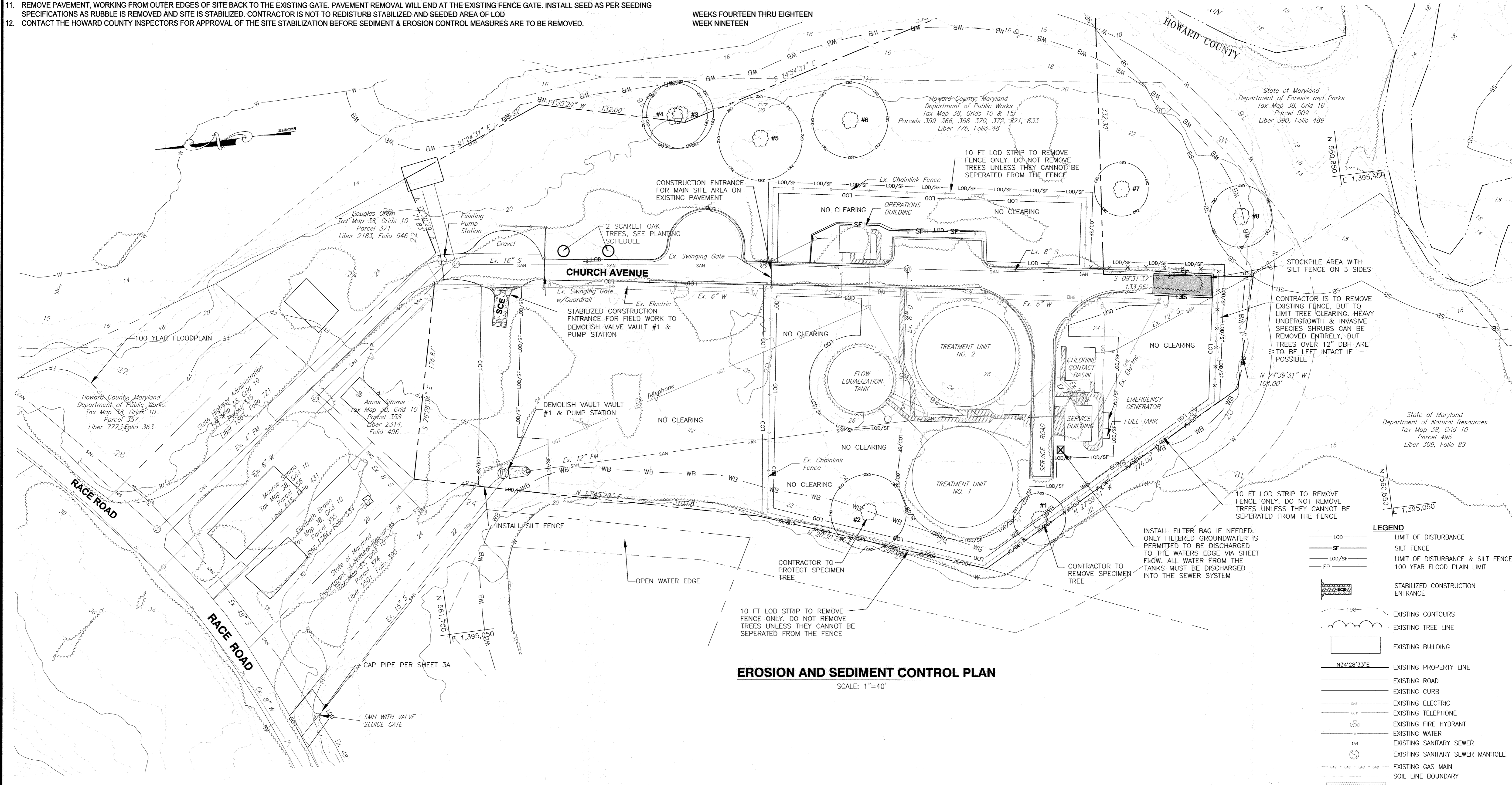
WEEKS ELEVEN THRU THIRTEEN

WEEKS FOURTEEN THRU EIGHTEEN
WEEK NINETEEN

WEB SOIL SURVEY TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	HYDRIC RATING
Cp	Codorus & Halboro soils, 0-2% slopes	D	YES
Ha	Halboro-Codorus silt loam, 0-3% slopes	D	YES
SfB	Sassafras gravelly sandy loam, 2-5% slopes	C	YES

NOTE: SEE ABANDONMENT & REMOVAL PLAN FOR DETAILED DEMOLITION



EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=40'

LEGEND

- LOD LIMIT OF DISTURBANCE
- SF SILT FENCE
- LOD/SF LIMIT OF DISTURBANCE & SILT FENCE
- FP 100 YEAR FLOOD PLAN LIMIT
- STABILIZED CONSTRUCTION ENTRANCE
- EXISTING CONTOURS
- EXISTING TREE LINE
- EXISTING BUILDING
- EXISTING PROPERTY LINE
- EXISTING ROAD
- EXISTING CURB
- EXISTING ELECTRIC
- EXISTING TELEPHONE
- EXISTING FIRE HYDRANT
- EXISTING WATER
- EXISTING SANITARY SEWER
- EXISTING SANITARY SEWER MANHOLE
- EXISTING GAS MAIN
- SOIL LINE BOUNDARY
- EXISTING SIDEWALK

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief Development Engineering Division
 Chief, Division of Land Development
 DATE: 6/28/24
 DATE: 6/28/24

Dewberry
 Dewberry Engineers Inc.
 10461 MILL RUN CIRCLE
 SUITE #400
 OWINGS MILLS, MD 21117-5544
 PHONE: 410.285.9500
 FAX: 410.285.8975

PROFESSIONAL CERTIFICATION
 I, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 38381
 EXPIRATION DATE: JANUARY 5, 2026
 Signature of Engineer: [Signature]
 Date: 6/27/2024

STATE OF MARYLAND
 PROFESSIONAL ENGINEER
 No. 38381
 [Seal]

DES:	RLI			
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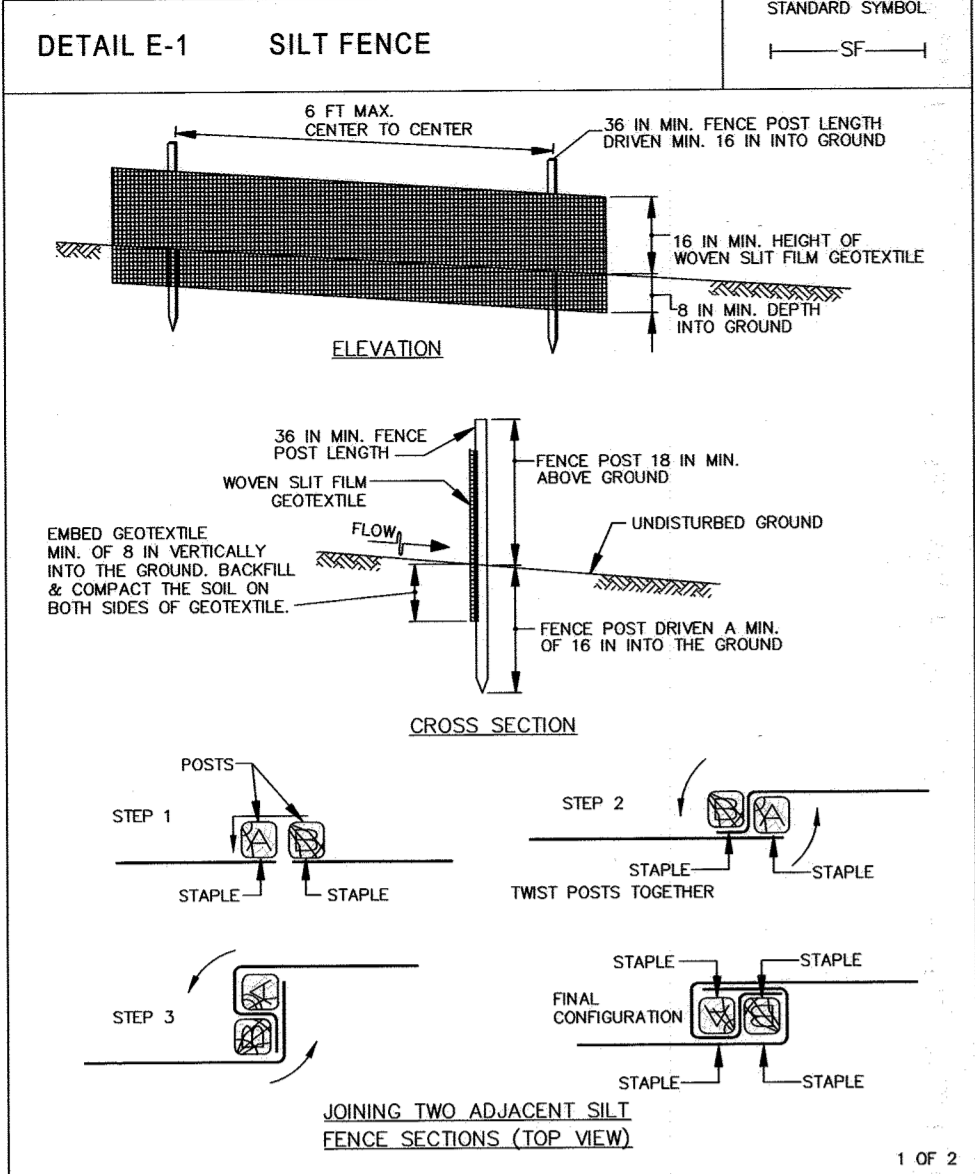
EROSION AND SEDIMENT CONTROL PLAN
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DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION
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 ELECTION DISTRICT NO. 1
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DEED: 97/423
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SCALE: 1"=40'
 SHEET 6 OF 11

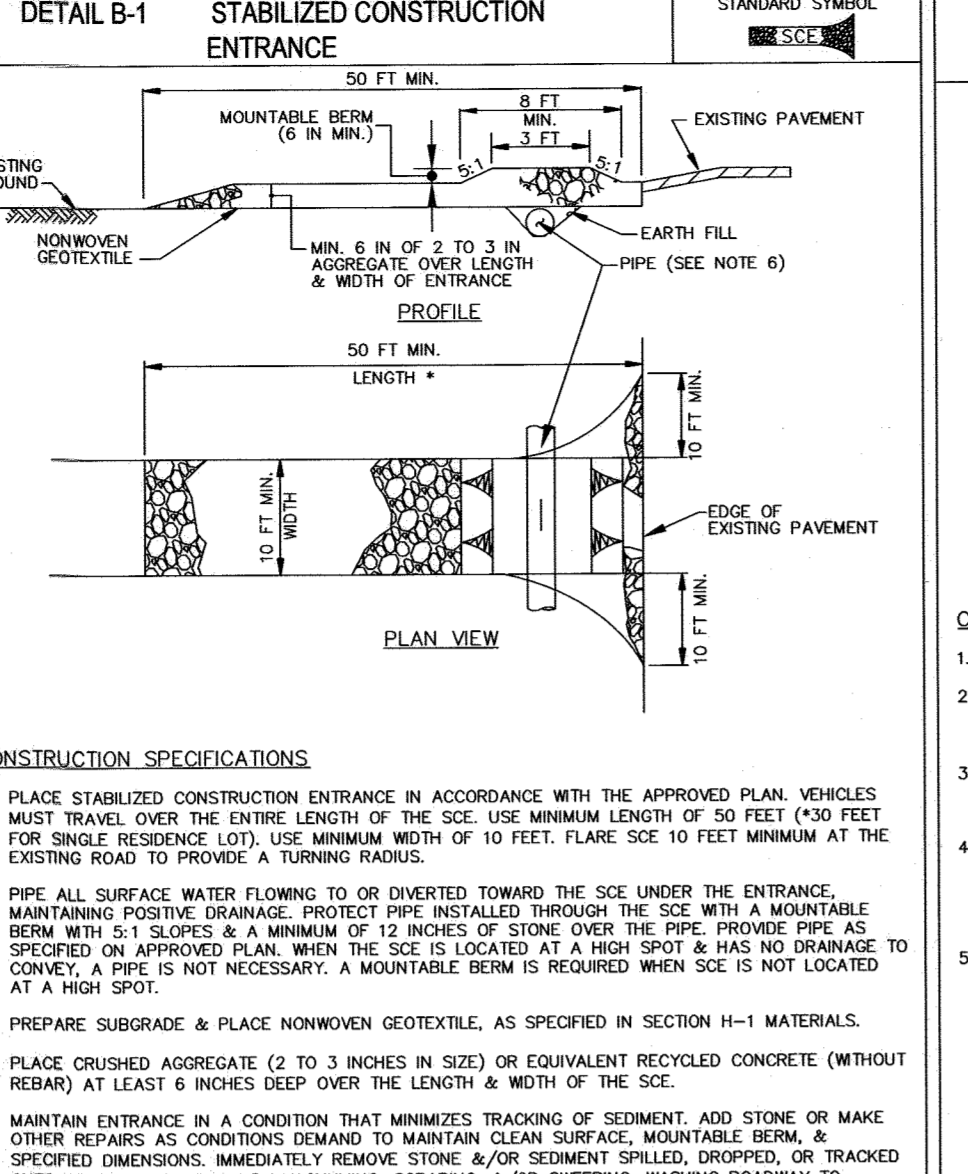
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MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

SILT FENCE CONSTRUCTION SPECIFICATIONS

- USE WOOD POSTS 1 1/2 x 1 1/2 x 1/8 (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
- USE 3/8 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
- USE WOVEN SILT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS & FASTEN GEOTEXTILE SECURELY TO UPSIDE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP & MID-SECTION.
- PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL & COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
- WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, & STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
- EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
- REMOVE ACCUMULATED SEDIMENT & DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25 PERCENT OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.



MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

B-1 STANDARDS AND SPECIFICATIONS FOR STABILIZED CONSTRUCTION ENTRANCE

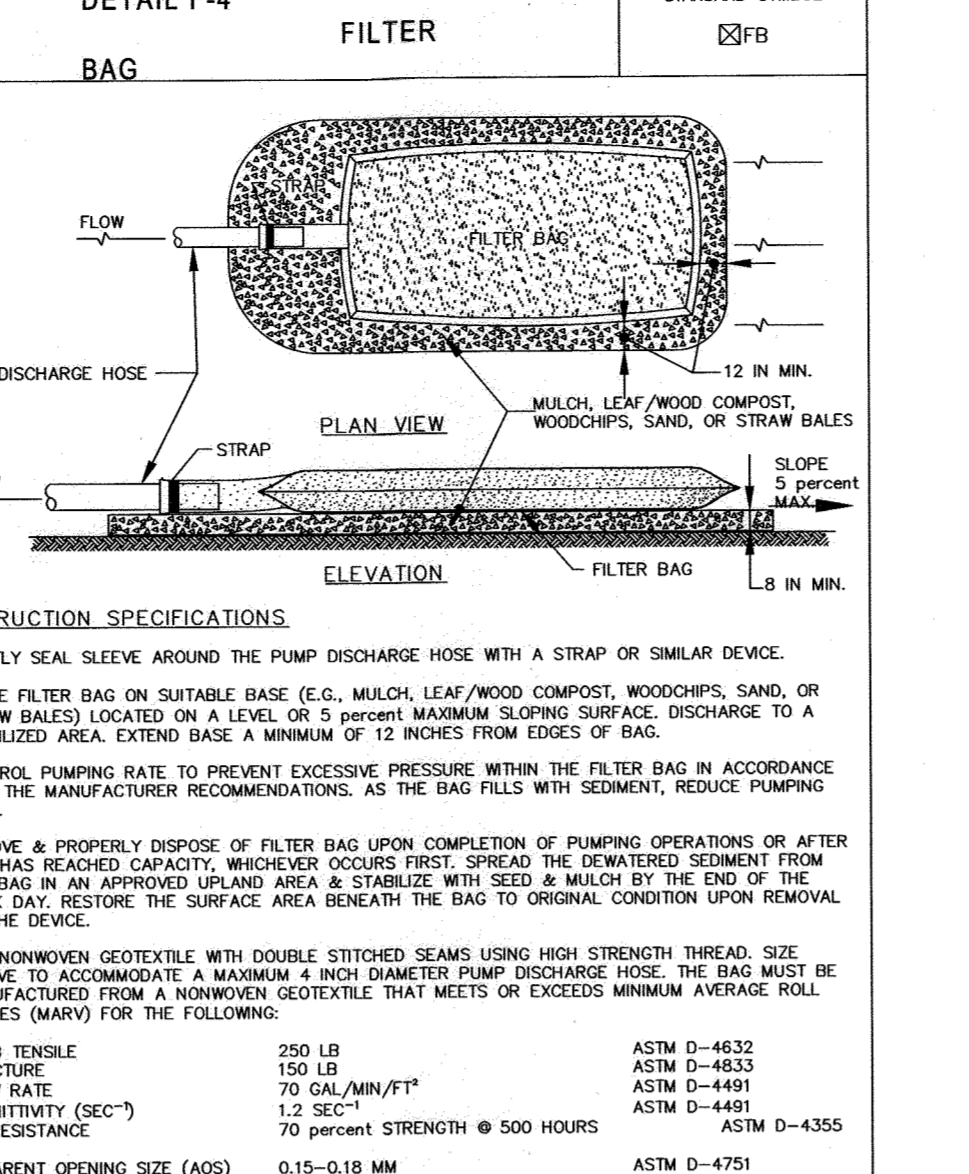
DEFINITION
A layer of aggregate that is underlain with nonwoven geotextile at points of ingress and egress of the construction site.

PURPOSE
To reduce tracking of sediment onto roadways and provide a stable area for entrance to or exit from the construction site.

CONDITIONS WHERE PRACTICE APPLIES
Stabilized construction entrances must be located at all points of construction ingress and egress.

DESIGN CRITERIA

- Where possible, locate the stabilized construction entrances at the high side of the project area.
 - For single family residential lots, locate the entrance at the permanent driveway.
 - Stabilized construction entrances cannot be installed over pavement.
 - Minimum length is 50 feet (30 feet for single family residential lots).
 - Minimum width is 10 feet. Flare entrance 10 feet minimum at the existing road to provide a turning radius.
 - The orientation of the stabilized construction entrance may vary from a straight line to a curve or "T" shape depending on the topography and right-of-way.
 - All surface water flowing to or diverted toward the stabilized construction entrance (SCE) must be piped under the entrance. Size the pipe to convey the runoff generated by the 2-year, 24-hour frequency storm at minimum. The minimum permissible pipe size is 8 inches. When the entrance is located at a high spot and has no drainage to convey, a pipe is not necessary.
- MAINTENANCE**
The SCE must be maintained in a condition that minimizes tracking of sediment. This may require adding stone or making other repairs as conditions demand to maintain a clean surface, the mountable berm, and the specified dimensions. All stone or sediment spilled, dropped, or tracked onto the adjacent roadway must be removed immediately by vacuuming, scraping, and/or sweeping. Washing the roadway to remove mud tracked onto pavement is not acceptable unless the wash water is directed to an approved sediment control practice.



MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, 2011

F-4 STANDARDS AND SPECIFICATIONS FOR FILTER BAG

DEFINITION
A geotextile bag through which sediment laden water is pumped.

PURPOSE
To filter sediment laden water prior to discharge.

CONDITIONS WHERE PRACTICE APPLIES
When dewatering is needed in association with excavations, trenches, cofferdams, sediment traps or basins.

DESIGN CRITERIA
The filter bag should be placed in a location that allows for ease of disposal of the sediment and has minimal interference with construction activities and pedestrian traffic.

MAINTENANCE
If the filter bag clogs, it needs to be replaced. Rips, tears, and punctures also necessitate replacement of the filter bag. The connection between the pump hose and the filter bag needs to be kept water tight during operation. If the bedding becomes displaced, it must be replaced.

- 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 PERCENT 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 & PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY. WHICHEVER OCCURS FIRST SPREAD THE DETAILED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA & STABILIZE WITH SEED & MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE BAG.
 - 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 BOLL VALUES (MARV) FOR THE FOLLOWING:
ORAB TENSILE 250 LB ASTM D-4632
PUNCTURE 150 LB ASTM D-4633
FLOW RATE 70 GAL/MIN/FT² ASTM D-4491
PERMITIVITY (SEC⁻²) 1.2 SEC⁻² ASTM D-4491
UV RESISTANCE 70 percent STRENGTH @ 500 HOURS ASTM D-4355
APPARENT OPENING SIZE (AOS) 0.15-0.18 MM ASTM D-4751
SEAM STRENGTH 90 percent ASTM D-4632
 - REPLACE FILTER BAG IF BAG CLOSURE OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE & FILTER BAG WATER TIGHT. REPLACE BEGGING IF IT BECOMES DISPLACED.

STANDARD SEDIMENT CONTROL NOTES

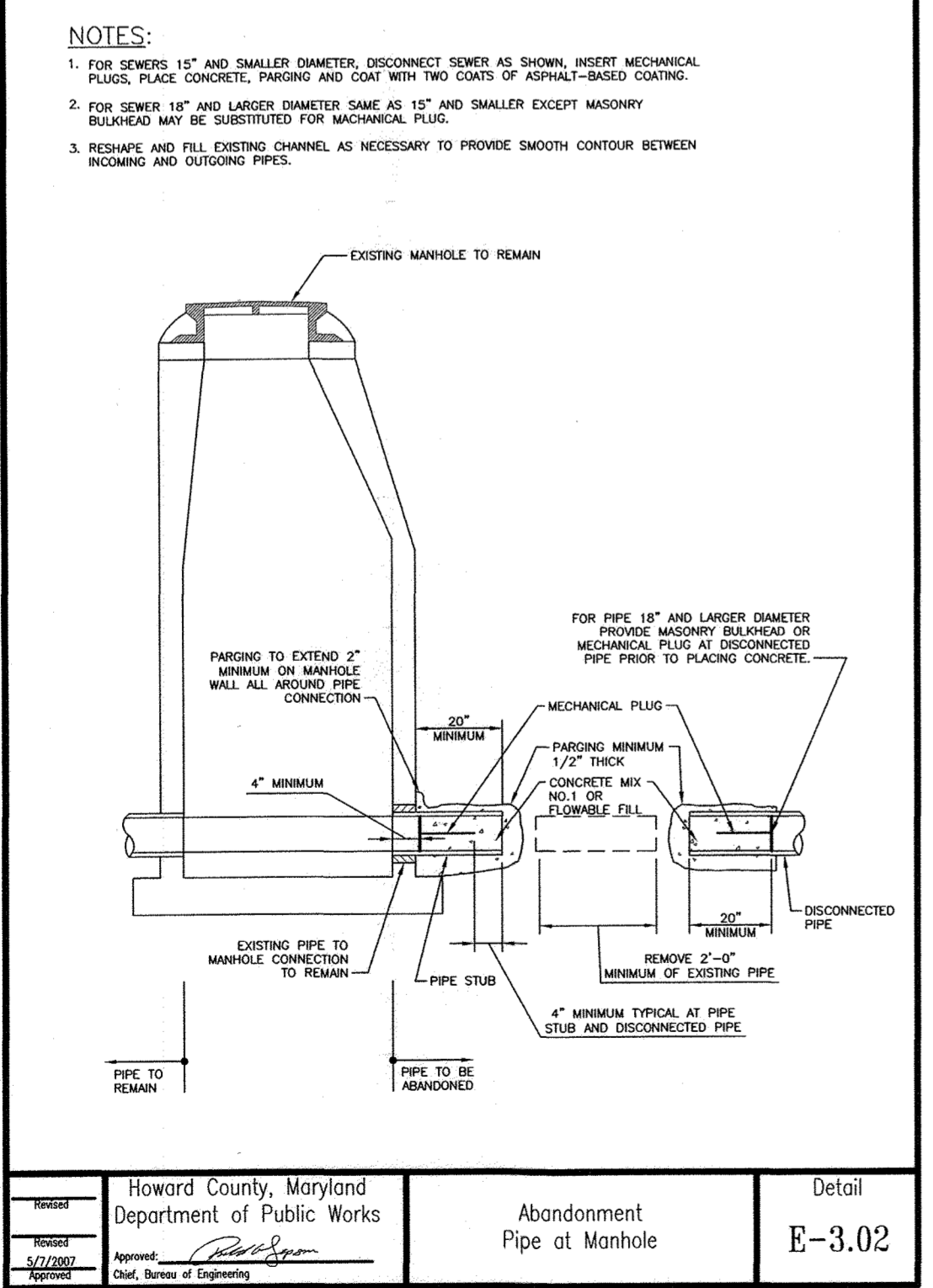
- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LOD & PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOURS NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES: PRIOR TO THE START OF EACH DISTURBANCE; UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION & SEDIMENT CONTROLS; BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING; PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT; & PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE. OTHER RELATED STATE AND FEDERAL PERMITS SHALL BE REFERENCED, TO ENSURE COORDINATION AND TO AVOID CONFLICTS WITH THIS PLAN.
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR TOPSOIL (SEC. B-4-2), PERMANENT SEEDING (SEC. B-4-5), TEMPORARY SEEDING (SEC. B-4-4), & MULCHING (SEC. B-4-3). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 20 FT. MUST BE BENCHED WITH STABLE WHEEL, ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING (SEC. B-4-6).
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE CID.
- SITE AREA SITE IS DEFINED AS AREAS INVOLVING ANY IMPROVEMENT

TOTAL AREA OF SITE	6.00 Acres
AREA DISTURBED	1.80 Acres
AREA TO BE PAVED	0.00 Acres
AREA TO BE VEGETATIVELY STABILIZED	1.80 Acres
TOTAL CUT	720 Cu. Yds.
TOTAL FILL	1592 Cu. Yds.

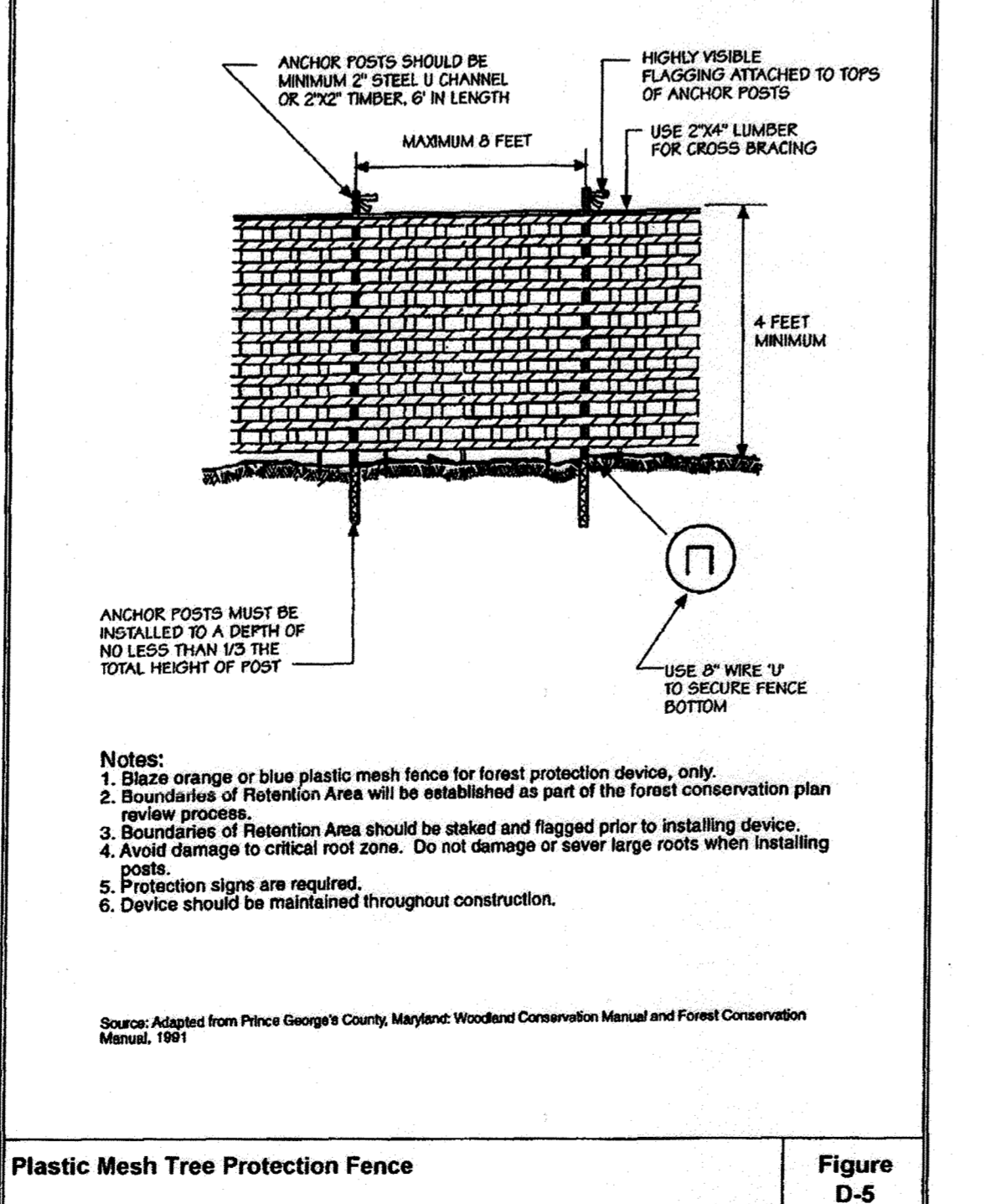
- OFFSITE WASTE/BORROW AREA LOCATION: A SITE WITH AN ACTIVE GRADING PERMIT APPROVED BY THE CID INSPECTOR
- ANY SEDIMENT CONTROL PRACTICES WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
 - ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID, THE SITE & ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY; & THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION & SHOULD INCLUDE: INSPECTION DATE, INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT), NAME & TITLE OF INSPECTOR, WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION), BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G. PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES, EVIDENCE OF SEDIMENT DISCHARGES, IDENTIFICATION OF PLAN DEFICIENCIES, IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE, IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS, COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION & STABILIZATION REQUIREMENTS, PHOTOGRAPHS, MONITORING/SAMPLING, MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED, OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
 - TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
 - ANY MAJOR CHANGES OR REVISIONS ON THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED & APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY BE ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
 - DISTURBANCE SHALL NOT OCCUR OUTSIDE THE LOD. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED & APPROVED BY THE CID. UNLESS OTHERWISE SPECIFIED & APPROVED BY THE HSCD, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
 - WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, & OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OR OTHER APPROVED WASHOUT STRUCTURE.
 - TOPSOIL SHALL BE STOCKPILED AND PRESERVED ONSITE FOR REDISTRIBUTION ONTO FINAL GRADE.
 - ALL SILT FENCE & SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR & BE IMBRICATED AT 25' MINIMUM INTERVALS WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
 - STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIOD: USE CLASS I, MARCH 1ST TO JUNE 15TH.
 - A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS & SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL, & ASSOCIATED PERMITS SHALL BE ON-SITE & AVAILABLE WHEN THE SITE IS ACTIVE.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, & 100 YEAR FLOODPLAIN

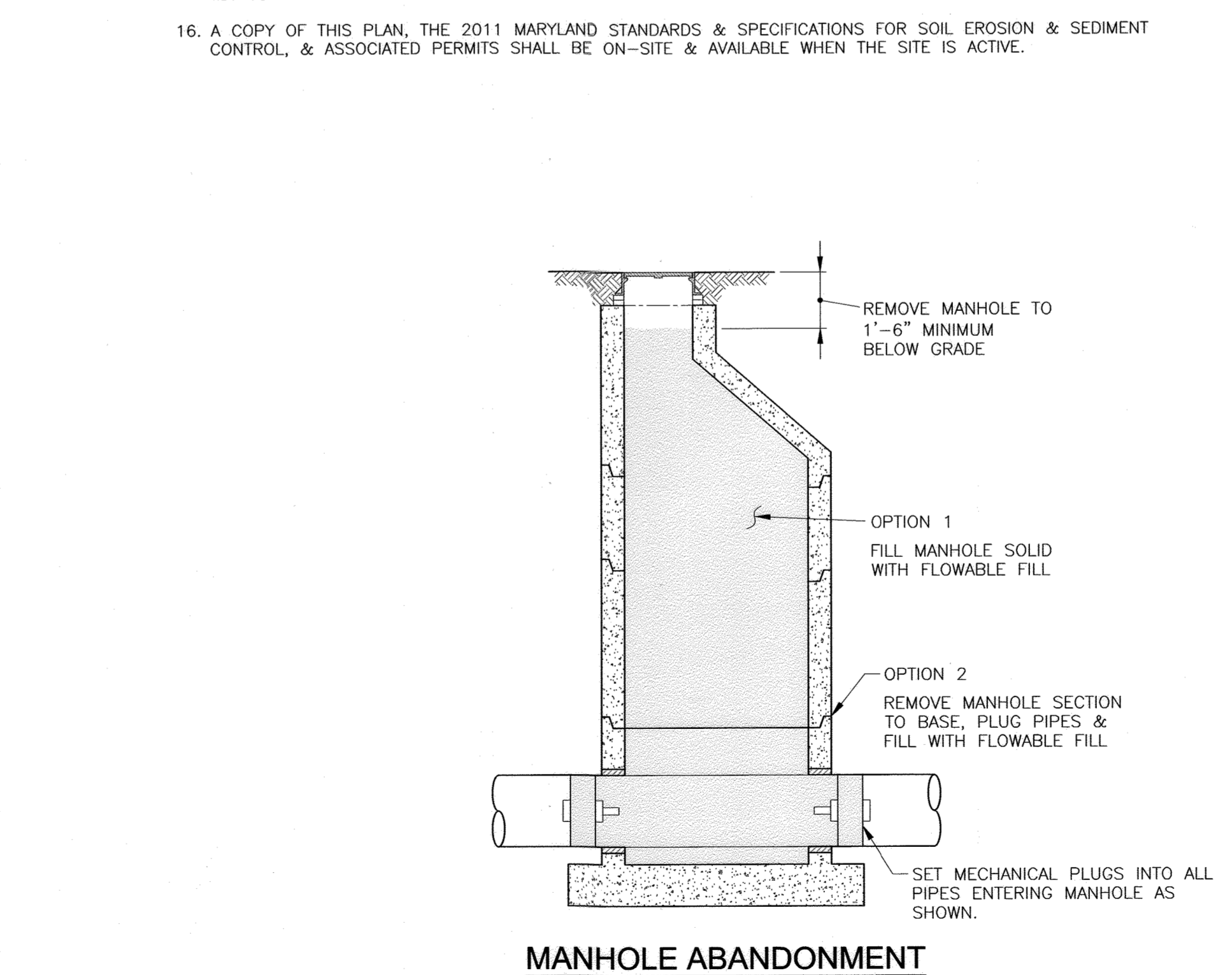
- NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- PLACE MATERIALS IN A LOCATION & MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100 YEAR FLOODPLAIN.
- DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE. IF ADDITIONAL BACKFILL IS REQUIRED, USE CLEAN MATERIAL FREE OF ANY WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.
- PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS.
- REPAIR & MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100 YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.
- RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100 YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.
- ALL STABILIZATION IN THE NONTIDAL WETLAND & NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES: ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOIA SP.), &/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES. OTHER NON-PERSISTENT VEGETATION MAY BE ACCEPTABLE, BUT MUST BE APPROVED BY THE NONTIDAL WETLANDS & WATERWAYS DIVISION, KENTUCKY 31 FESCUE SHALL NOT BE UTILIZED IN WETLAND OR BUFFER AREAS. THE AREA SHOULD BE SEED & MULCHED TO REDUCE EROSION AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED.
- AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST-CONSTRUCTION GRADES & ELEVATIONS THE SAME AS THE ORIGINAL GRADES & ELEVATIONS IN TEMPORARILY IMPACTED AREAS.
- TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM. USE CLASS I WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1ST TO JUNE 15TH, INCLUSIVE, DURING ANY YEAR.
- STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.
- CULVERTS SHALL BE CONSTRUCTED & ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER. THIS PROJECT DOES NOT INCLUDE INSTALLATION OF CULVERTS OR RIPRAP.
- DEEP RUN IS NOT A TIER II WATERWAY.
- DEEP RUN IMPAIRMENT RESULTS FROM MDE; CONTAINS BACTERIA, IONS, METALS, NUTRIENTS, SEDIMENTS, & CHLORDANE PESTICIDE. CHECKED OCTOBER 10, 2023.



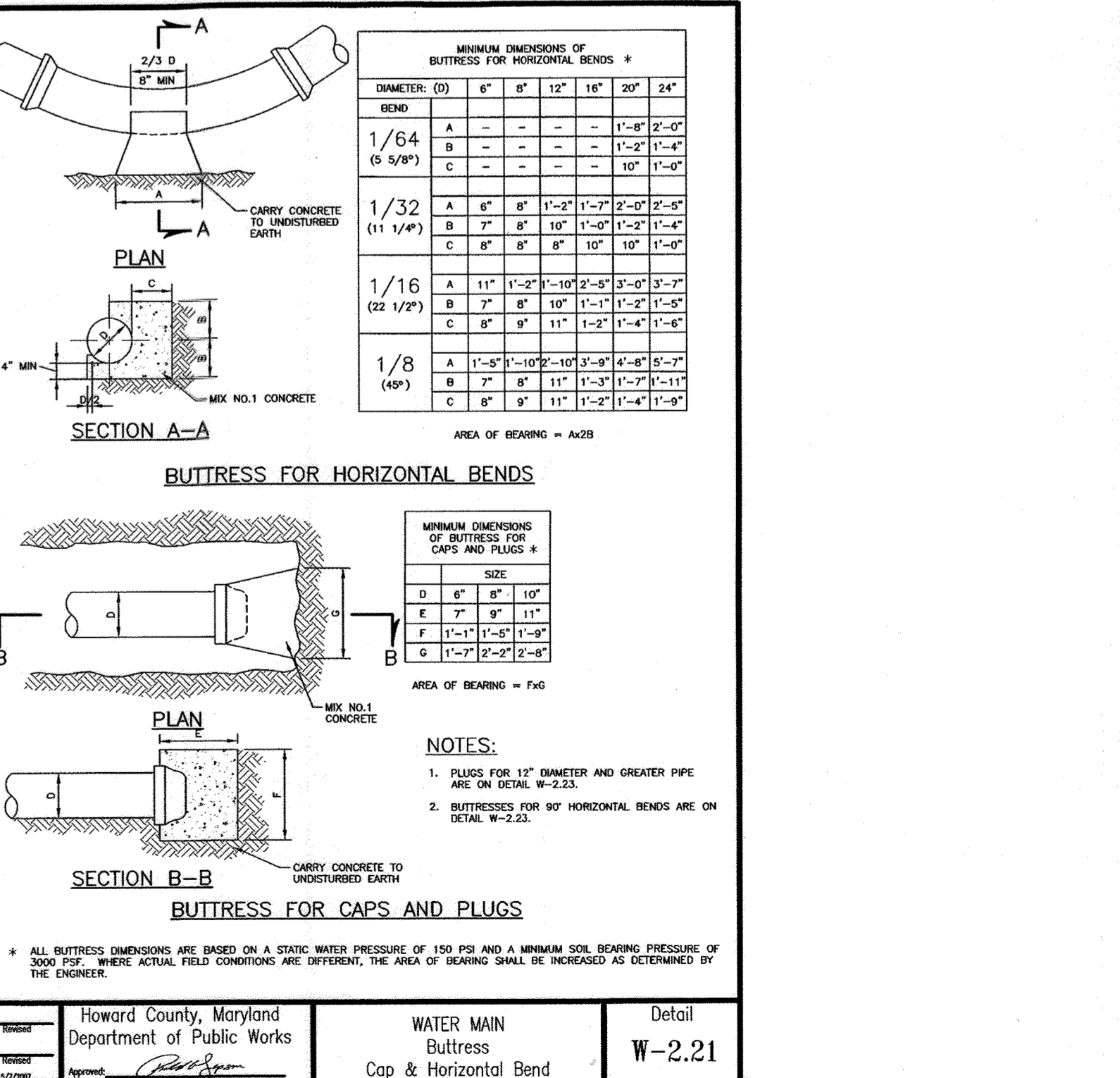
Howard County, Maryland
Department of Public Works
Abandonment
Pipe at Manhole
Detail
E-3.02



Plastic Mesh Tree Protection Fence
Figure
D-5



MANHOLE ABANDONMENT
NOT TO SCALE



Howard County, Maryland
Department of Public Works
WATER MAIN
Cap & Horizontal Bend
Detail
W-2.21

APPROVED: DEPARTMENT OF PLANNING AND ZONING
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: 6/28/24

Dewberry
Dewberry Engineers Inc.
10461 MILL RUN CIRCLE
SUITE #300
OWINGS MILLS, MD 21117-6644
PHONE: 410.285.9500
FAX: 410.285.8675

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 38391
EXPIRATION DATE: JANUARY 5, 2026

DES: RLI
DRN: RLI
CHK: EJS
DATE: JUNE 2024

EROSION AND SEDIMENT CONTROL DETAILS
DATE: JUNE 2024
BY: NO. REVISIONS DATE: 600 SCALE MAP NO. 38 BLOCK NO. 10

CAPITAL PROJECT NO. W - 8603
CONTRACT NO. 10 - 4635
DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION
ELECTION DISTRICT NO. 1 HOWARD COUNTY, MARYLAND
DEED: 87/423
TAX MAP: 38
GRID: 10
PARCELS: 359-366, 368-370, 372, 821, 833
SCALE: SHEET 8 OF 11

Printed by (User) on Plot Date: Jun 27, 2024, 8:28:57am
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 Tab-Layout: Name: ESC Details
 Last Saved: Mon 06/24/2024 4:10pm
 AEC/S-2-A, V, Common\NWP-Surfer RD.dwg

GENERAL NOTES:

- Approximate location of existing utilities is shown. The Contractor shall take all necessary precautions to protect existing mains and services and to maintain all uninterrupted water supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- Topographic field surveys were performed on May 2008 by Dewberry.
- Site analysis field work completed in October 2023 by Dewberry.
- Horizontal and Vertical Survey Controls:**
The coordinates shown on the drawings refer to the Maryland State Reference System NAD '83/91 based on GPS observation using the following National Spatial Reference System control stations: JV0983 and JV6581.
All vertical controls are based on NAVD '88.
- Contractor shall remove trees, stumps and roots along the line of excavation. Payment for such removal shall be included in the unit price bid for abandonment or demolition of structures and utilities.
- Trench repair shall be in accordance with Howard County Standard Details.
- Contractor is advised that existing overhead and underground electrical services may be active and hazardous. Contact BGE to deactivate.
- Wetland areas shown were obtained from MD DNR GIS Database

WEB SOIL SURVEY TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	HYDRIC RATING
Cp	Codorus & Hatboro soils, 0-2% slopes	D	YES
Ha	Hatboro-Codorus silt loam, 0-3% slopes	D	YES
SIB	Sassafras gravelly sandy loam, 2-5% slopes	C	YES

STAND SUMMARY:

Property Name: Deep Run WWTP
 Location: Elkridge, Howard County, MD; ADC 4937, 07 (Town, County, ADC Map#, and Grid Coordinates)
 Prepared By: MW, AD Date: 10/20/23

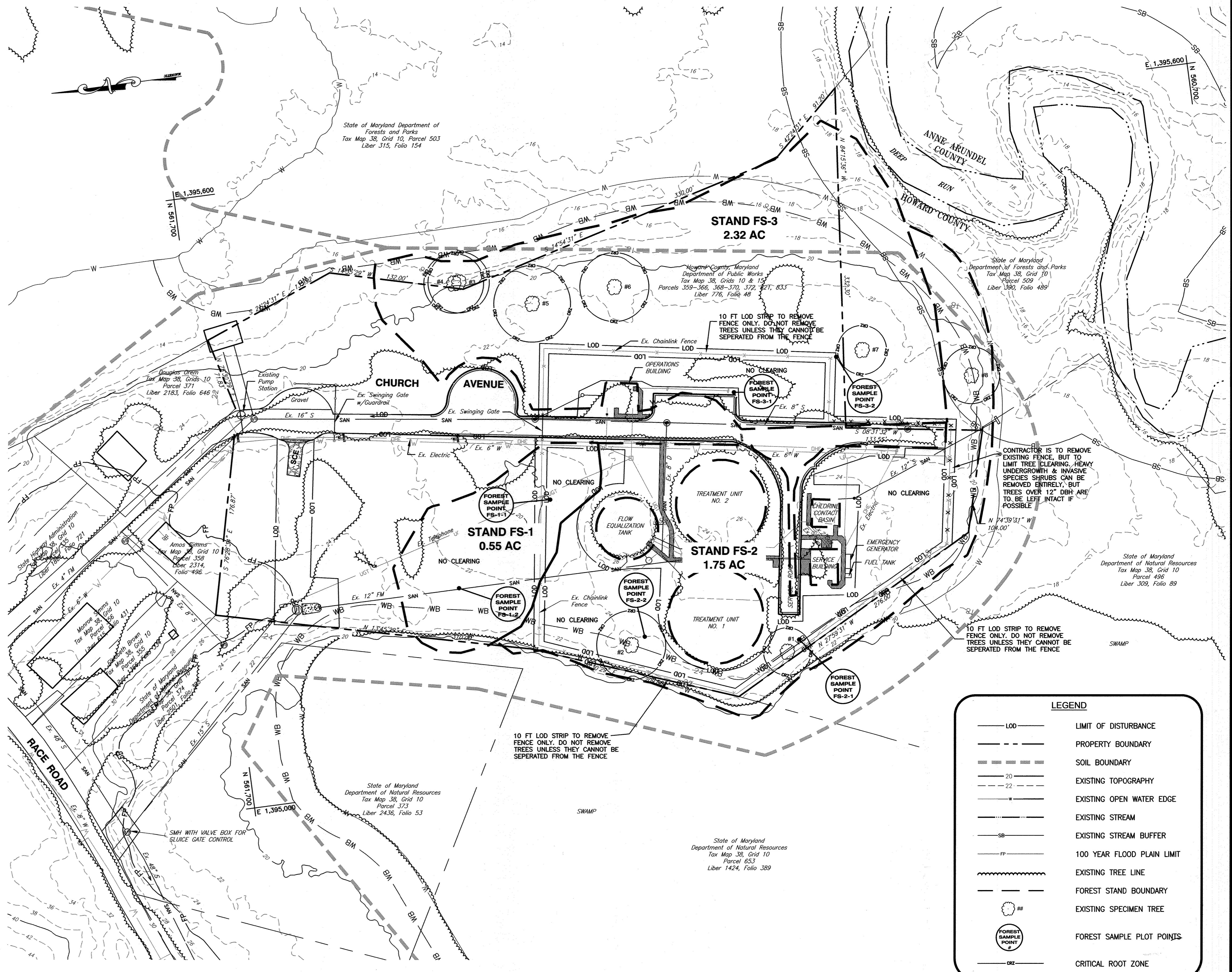
Stand Variable	Stand # FS-1	Stand # FS-2	Stand # FS-3
1. Dominant species/Codominant species	<i>Pinus strobus</i> , <i>Ulmus americana</i> , <i>Prunus serotina</i>	<i>Quercus coccinea</i> , <i>Quercus stellata</i> , <i>Quercus alba</i>	<i>Platanus occidentalis</i> , <i>Prunus serotina</i> , <i>Acer rubrum</i> , <i>Prunus pennsylvanica</i>
2. Successional stage	Mid	Mid-late	Mid
3. Basal area in s.f. per acre	70	75	70
4. Size class of dominant species	12" - 19.9" DBH	12" - 19.9" DBH	20" - 29.9" DBH
5. Percent of canopy closure	61%	65%	52%
6. Number of tree species per acre	3	4	6
7. Common understory species per acre	<i>Lonicera</i> spp., <i>Ligustrum sinense</i>	<i>Lonicera</i> spp., <i>Ligustrum vulgare</i> , <i>Pyrus calleryana</i> , <i>Wisteria</i> sp.	<i>Lonicera</i> spp., <i>Prunus pennsylvanica</i>
8. Percent of understory cover 3' to 20' tall	70%	72%	65%
9. Number of woody plant species 3' to 20' tall	4	4	4
10. Common herbaceous species 0' to 3' tall	<i>Lonicera japonica</i> , <i>Desmodium illinoense</i> , <i>Toxicodendron radicans</i>	<i>Wisteria</i> sp., <i>Lonicera japonica</i> , <i>Desmodium illinoense</i> , <i>Alliaria petiolata</i>	<i>Lonicera japonica</i> , <i>Alliaria petiolata</i> , <i>Rubus allegheniensis</i>
11. Percent of herbaceous & woody plant cover 0' to 3' tall	30%	70%	45%
12. List of major invasive plant species & percent of cover	<i>Lonicera</i> spp., <i>Ligustrum sinense</i> , <i>Lonicera japonica</i> , <i>Desmodium illinoense</i> , <i>Aspidoptera nervosa</i> , <i>Trifolium repens</i> - 68% of understory and 68% of herbaceous	<i>Lonicera japonica</i> , <i>Wisteria</i> sp., <i>Alliaria petiolata</i> - 98% of understory and 68% of herbaceous	<i>Lonicera</i> spp., <i>Lonicera japonica</i> , <i>Alliaria petiolata</i> - 79% of understory and 68% of herbaceous
13. Number of standing dead trees 6" dbh or greater	0	1	1
14. Comments	Priority 1 due to 100 year floodplain.	Priority 1 due to 100 year floodplain and stream buffer.	Priority 1 due to 100 year floodplain and stream buffer.

Forest Stand Summary Worksheet C:2

SPECIMEN TREE TABLE

TREE	COMMON NAME	SCIENTIFIC NAME	DBH (in.)	CRZ (ft.)	CONDITION	REMARKS	LOSS
1	Scarlet Oak	<i>Quercus Coccinea</i>	31	46.5	Poor	Large broken stem and cavity.	X
2	Scarlet Oak	<i>Quercus Coccinea</i>	45	67.5	Poor	Covered with vines.	
3	Sycamore	<i>Platanus Occidentalis</i>	40	60	Poor	Multi-stem below 4.5 feet. Tree #4 is one of the other stems.	
4	Sycamore	<i>Platanus Occidentalis</i>	39	58.5	Poor	Multi-stem below 4.5 feet. Tree #3 is one of the other stems.	
5	Red Maple	<i>Acer Rubrum</i>	50	75	Fair		
6	Sycamore	<i>Platanus Occidentalis</i>	45	67.5	Good		
7	Sycamore	<i>Platanus Occidentalis</i>	32	48	Poor	Multi-stem below 4.5 feet. Two smaller stems are dead.	
8	Scarlet Oak	<i>Quercus Coccinea</i>	37	55.5	Good		

*NOTE: Trees are considered to be lost if there is greater than 1/3 root disturbance



LEGEND

---	LIMIT OF DISTURBANCE
- - -	PROPERTY BOUNDARY
- - -	SOIL BOUNDARY
- - -	EXISTING TOPOGRAPHY
- - -	EXISTING OPEN WATER EDGE
- - -	EXISTING STREAM
- - -	EXISTING STREAM BUFFER
- - -	100 YEAR FLOOD PLAIN LIMIT
- - -	EXISTING TREE LINE
- - -	FOREST STAND BOUNDARY
#	EXISTING SPECIMEN TREE
○	FOREST SAMPLE PLOT POINTS
○	CRITICAL ROOT ZONE

FOREST STAND DELINEATION PLAN

SCALE: 1"=50'



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 3420
 EXPIRATION DATE 07-12-2029

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Engineering Division
 Chief, Division of Land Development
 Director

Dewberry
 Dewberry Engineers Inc.
 10461 MILL RUN CIRCLE
 SUITE #300
 OWINGS MILLS, MD 21117-5544
 PHONE: 410.265.9500
 FAX: 410.265.9875

DES:	DRN:	CHK:	DATE:	BY:	NO.	REVISIONS:	DATE:
MJS	MJS	MV	JUNE 2024				

FOREST STAND DELINEATION PLAN
 600 SCALE MAP NO. 38
 BLOCK NO. 10

DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION
 CAPITAL PROJECT NO. W - 8603
 CONTRACT NO. 10 - 4635
 DEED: 97/423
 TAX MAP: 38
 GRID: 10
 PARCELS: 359-366, 368-370, 372, 821, 833
SHEET 9 OF 11
 ELECTION DISTRICT NO. 1
 HOWARD COUNTY, MARYLAND

GENERAL NOTES:

- APPROXIMATE LOCATION OF EXISTING UTILITIES IS SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND TO MAINTAIN ALL UNINTERRUPTED WATER SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON MAY 2008 BY DEWBERRY.
- SITE ANALYSIS FIELD WORK COMPLETED IN OCTOBER 2023 BY DEWBERRY.
- HORIZONTAL AND VERTICAL SURVEY CONTROLS:
THE COORDINATES SHOWN ON THE DRAWINGS REFER TO THE MARYLAND STATE REFERENCE SYSTEM NAD '83/91 BASED ON GPS OBSERVATION USING THE FOLLOWING NATIONAL SPATIAL REFERENCE SYSTEM CONTROL STATIONS: JV0883 AND JV6581.
ALL VERTICAL CONTROLS ARE BASED ON NAVD '88.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ABANDONMENT OR DEMOLITION OF STRUCTURES AND UTILITIES.
- TRENCH REPAIR SHALL BE IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
- CONTRACTOR IS ADVISED THAT EXISTING OVERHEAD AND UNDERGROUND ELECTRICAL SERVICES MAY BE ACTIVE AND HAZARDOUS. CONTACT BGE TO DEACTIVATE.
- WETLAND AREAS SHOWN WERE OBTAINED FROM MD DNR GIS DATABASE

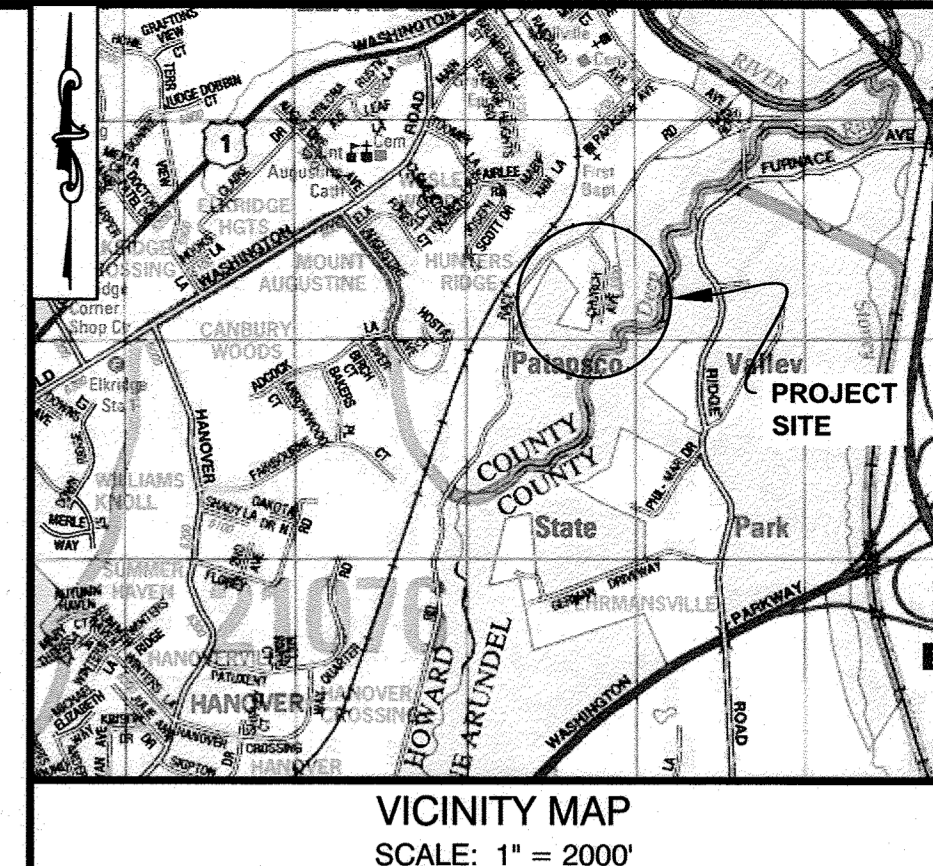
SITE DATA:

- TOTAL PARCEL AREA: 6.00 ACRES
- TOTAL TRACT AREA: 6.00 ACRES
- AREA IN 100-YEAR NONTIDAL FLOODPLAIN: 5.91 ACRES
- NET TRACT AREA: 6.00 ACRES
- EXISTING LAND USE CATEGORY: INSTITUTIONAL
- TOTAL AREA OF EXISTING FOREST COVER: 4.27 ACRES
- TOTAL AREA OF PROPOSED FOREST CLEARING: 0.77 ACRES
- TOTAL AREA OF PROPOSED REFORESTATION: 0.00 ACRES
- TOTAL AREA OF PROPOSED AFFORESTATION: 0.00 ACRES
- TOTAL AREA IN RETENTION: 3.50 ACRES

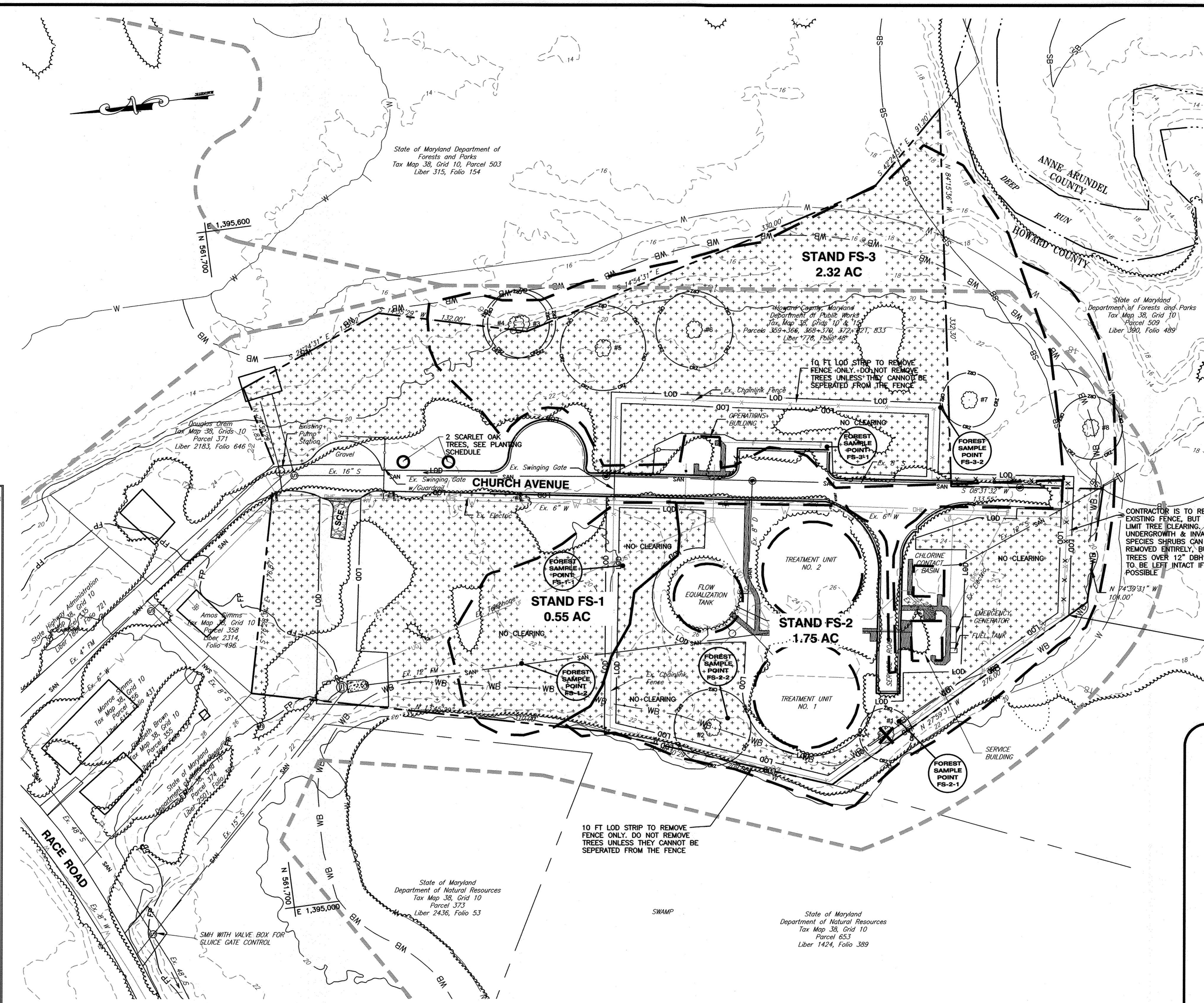


State of Maryland Department of Forests and Parks
Tax Map 38, Grid 10, Parcel 503
Liber 315, Folio 154

State of Maryland Department of Forests and Parks
Tax Map 38, Grid 10
Parcel 509
Liber 300, Folio 489



VICINITY MAP
SCALE: 1" = 2000'



10 FT LOD STRIP TO REMOVE FENCE ONLY. DO NOT REMOVE TREES UNLESS THEY CANNOT BE SEPERATED FROM THE FENCE

CONTRACTOR IS TO REMOVE EXISTING FENCE, BUT TO LIMIT TREE CLEARING, HEAVY UNDERGROWTH & INVASIVE SPECIES SHRUBS CAN BE REMOVED ENTIRELY, BUT TREES OVER 12" DBH ARE TO BE LEFT INTACT IF POSSIBLE

10 FT LOD STRIP TO REMOVE FENCE ONLY. DO NOT REMOVE TREES UNLESS THEY CANNOT BE SEPERATED FROM THE FENCE

FOREST CONSERVATION WORKSHEET

Net Tract Area
A. Total Tract Area
B. Deductions (Critical Area, area restricted by local ordinance or program)
C. Net Tract Area = Total Tract Area (A) - Deductions (B)

Land Use Category: Institutional
D. Afforestation (Net Tract Area (C) x 15 %)
E. Conservation Threshold (Net Tract Area (C) x 20 %)

Existing Forest Cover
F. Existing Forest Cover within the Net Tract Area
G. Area of Forest Above Conservation Threshold
 If the Existing Forest Cover (F) is greater than the Conservation Threshold (E), then G = F - E; otherwise G = 0.

Breakeven Point
H. Breakeven Point (Amount of forest that must be retained so that no mitigation is required)
 (1) If the Area of Forest Above Conservation Threshold (G) is greater than 0, then H = (0.2 x the Area of Forest Above Conservation Threshold (G)) + the Conservation Threshold (E);
 (2) If the Area of Forest Above Conservation Threshold (G) is equal to 0, then H = Existing Forest Cover (F)

Forest Clearing Permitted Without Mitigation
I. Forest Clearing Permitted Without Mitigation = Existing Forest Cover (F) - Breakeven Point (H)

Proposed Forest Clearing
J. Total Area of Forest to be Cleared
K. Total Area of Forest to be Retained
 K = Existing Forest Cover (F) - Forest to be Cleared (J)

Planting Requirements
 If the Total Area of Forest to be Retained (K) is at or above the Breakeven Point (H), no planting is required, and no further calculations are necessary (L=0, M=0, P=0, Q=0, R=0).
 Otherwise, calculate the planting requirement(s) as follows:
L. Reforestation for Clearing Above the Conservation Threshold
 (1) If the Total Area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then L = the Area of Forest to be Cleared (J) x 0.25;
 (2) If the Forest to be Retained (K) is less than or equal to the Conservation Threshold (E), then L = Area of Forest Above Conservation Threshold (G) x 0.25
M. Reforestation for Clearing Below the Conservation Threshold
 (1) If Existing Forest Cover (F) is greater than the Conservation Threshold (E) and the Forest to be Retained (K) is less than or equal to the Conservation Threshold (E), then M = 2.0 x (Conservation Threshold (E) - Forest to be Retained (K))
 (2) If Existing Forest Cover (F) is less than or equal to the Conservation Threshold (E), then M = 2.0 x Forest to be Cleared (J)
N. Credit for Retention Above the Conservation Threshold
 If the area of Forest to be Retained (K) is greater than the Conservation Threshold (E), then N = K - E; Otherwise N=0
P. Total Reforestation Required P = L + M - N
Q. Total Afforestation Required
 If Existing Forest Cover (F) is less than the Afforestation Threshold (D), then Q = Afforestation Threshold (D) - Existing Forest Cover (F)
R. Total Planting Requirement R = P + Q

Note: Use 0 for all negative numbers that result from the calculations.
 A= 6.00
 B= 5.91
 C= 0.09
 D= 0.01
 E= 0.02
 F= 0.03
 G= 0.01
 H= 0.02
 I= 0.02
 J= 0.0
 K= 0.03
 L= 0
 M= 0
 N= 0
 P= 0
 Q= 0
 R= 0

LEGEND

- LOD LIMIT OF DISTURBANCE
- PROPERTY BOUNDARY
- SOIL BOUNDARY
- EXISTING TOPOGRAPHY
- EXISTING OPEN WATER EDGE
- EXISTING STREAM
- EXISTING STREAM BUFFER
- 100 YEAR FLOOD PLAIN LIMIT
- EXISTING TREE LINE
- FOREST STAND BOUNDARY
- EXISTING SPECIMEN TREE
- EXISTING SPECIMEN TREE TO BE REMOVED
- TREE RETENTION AREA
- FOREST SAMPLE PLOT POINTS
- CRITICAL ROOT ZONE
- PROPOSED TREE PLANTING

FOREST CONSERVATION PLAN
SCALE: 1"=50'

WEB SOIL SURVEY TABLE

MAP UNIT SYMBOL	MAP UNIT NAME	HYDROLOGIC SOIL GROUP	HYDRIC RATING
Cp	Codorus & Hatboro soils, 0-2% slopes	D	YES
Ha	Hatboro-Codorus silt loam, 0-3% slopes	D	YES
SIB	Sassafras gravelly sandy loam, 2-5% slopes	C	YES

TREE PLANTING SCHEDULE

COMMON NAME	SCIENTIFIC NAME	SIZE	FORM	SPACING	QUANTITY	NOTES
SCARLET OAK	QUERCUS COCCINEA	3" CALIPER MINIMUM	CONTAINER/ B&B	AS SHOWN	2	FULL, EVENLY BRANCHING, NO SIGNS OF STRESS



PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 3420
 EXPIRATION DATE 07-12-2029

Plotted by: (rione) on Plot Date: Jun 26, 2024 - 4:41pm
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APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF DEVELOPMENT ENGINEERING DIVISION
 DATE: 6/26/24

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/27/24

DIRECTOR
 DATE: 6/27/24

Dewberry
 Dewberry Engineers Inc.
 10461 MILL RUN CIRCLE SUITE #300
 OWINGS MILLS, MD 21117-5544
 PHONE: 410.265.9500
 FAX: 410.265.8975

DES:	DRN:	CHK:	DATE:	BY:	NO.:	REVISIONS:	DATE:
MJS	MJS	MV	JUNE 2024				

FOREST CONSERVATION PLAN

600 SCALE MAP NO. 38 BLOCK NO. 10

CAPITAL PROJECT NO. W - 8603
CONTRACT NO. 10 - 4635

DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION

ELECTION DISTRICT NO. 1 HOWARD COUNTY, MARYLAND

DEED: 97/423
 TAX MAP: 38
 GRID: 10
 PARCELS: 359-366, 368-370,372,821,833

SCALE: 1"=50'
 SHEET 10 OF 11

FOREST CONSERVATION NOTES:

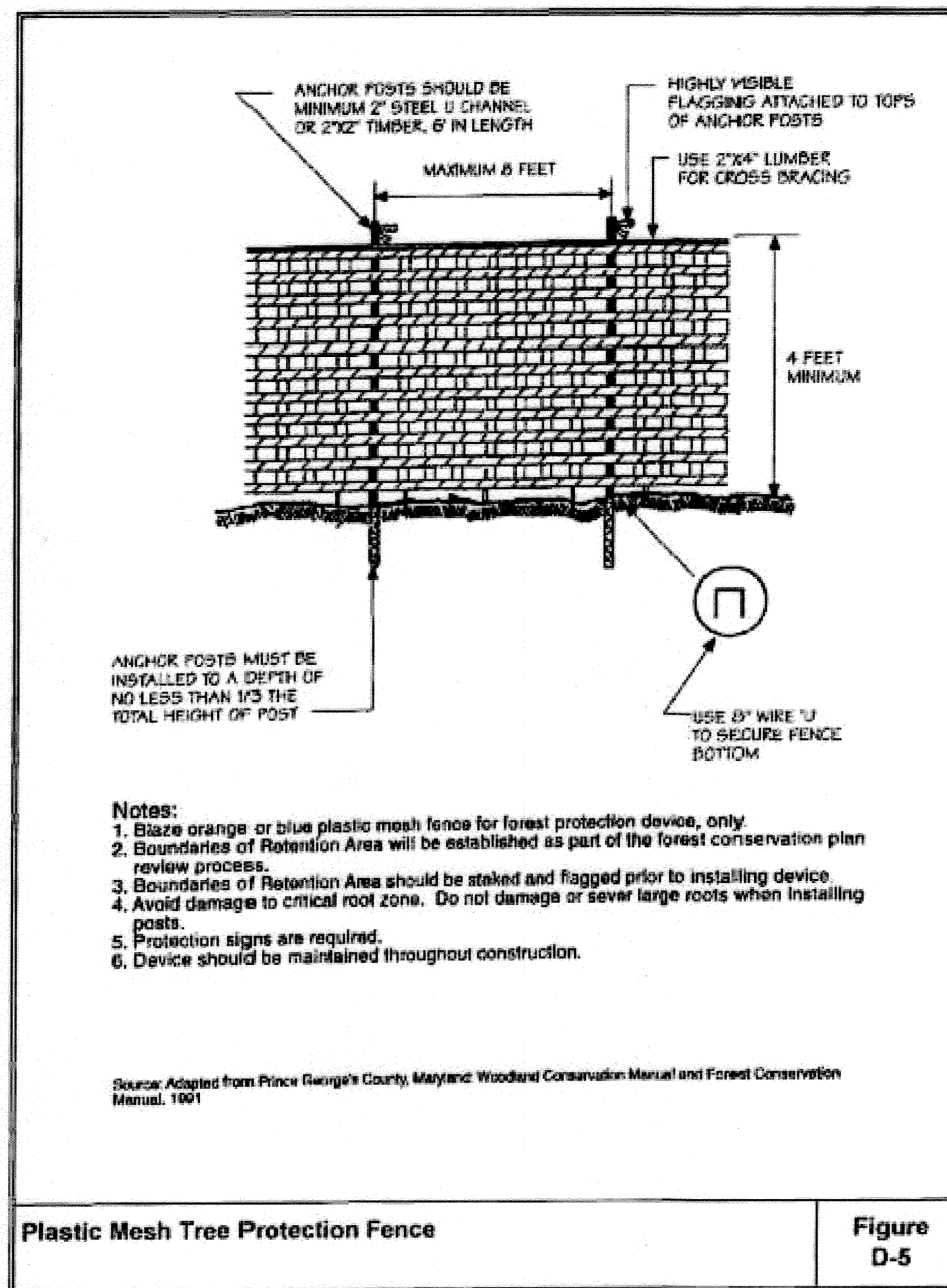
- THIS PLAN HAS BEEN PREPARED USING THE STATE FOREST CONSERVATION TECHNICAL MANUAL, THIRD EDITION, 1997.
- THIS PROJECT IS WITHIN THE PATAPSCO RIVER LOWER NORTH BRANCH WATERSHED. THE 100 YEAR FLOOD PLAIN IS PRESENT WITHIN THE TRACT AREA PER FEMA INSURANCE RATE MAP #24027C0180D

FOREST PROTECTION:

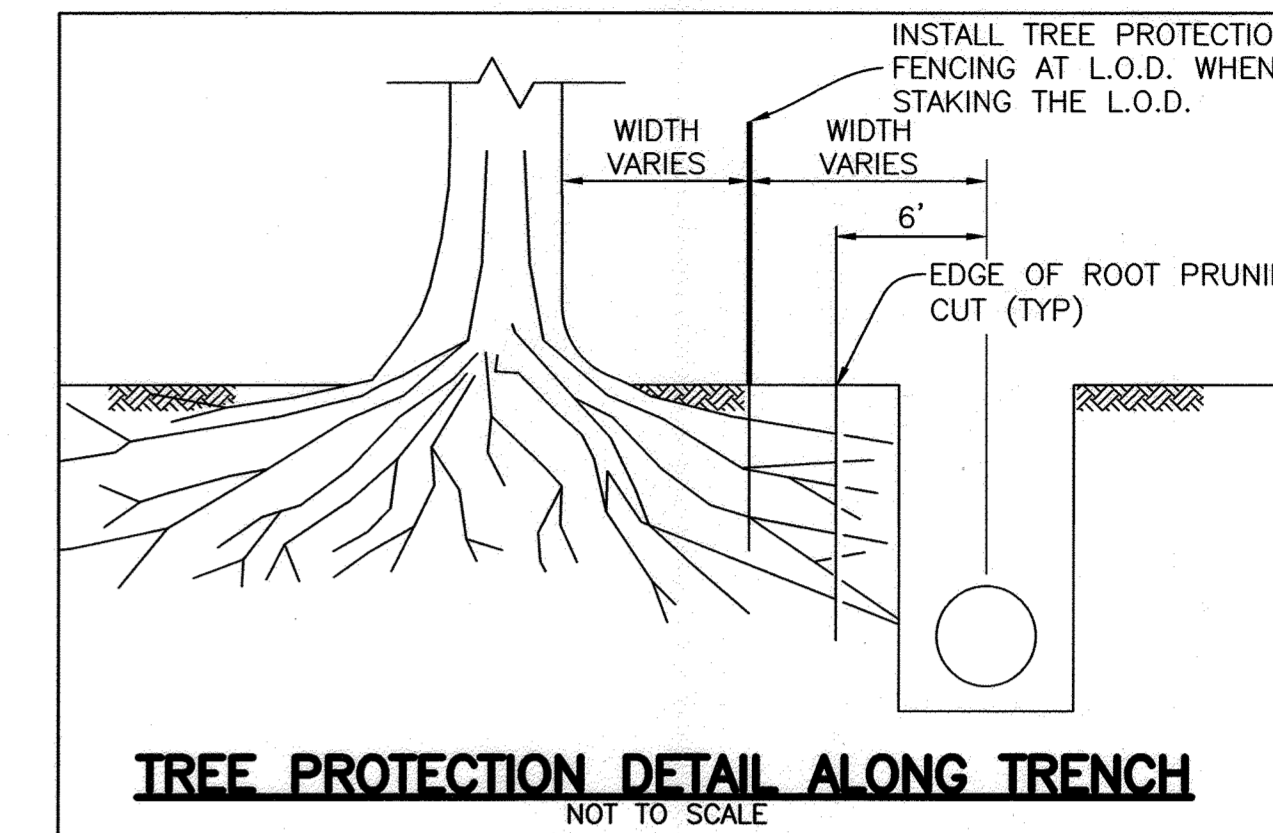
- FIELD LOCATE THE PROPOSED LIMIT OF DISTURBANCE AND RETENTION BOUNDARY (CONCURRENT) PRIOR TO THE START OF CONSTRUCTION. SEE SEQUENCE OF CONSTRUCTION, THIS SHEET.
- SPECIMEN TREES SHALL BE PRESERVED IF LESS THAN 30% OF THE CRITICAL ROOTZONE IS DISTURBED. IF MORE THAN 30% OF THE CRITICAL ROOT ZONE IS DISTURBED, THE TREE SHALL BE REMOVED AS INDICATED ON THIS PLAN.
- SOIL AND ROOT COMPACTION - AVOID UNNECESSARY COMPACTION WHENEVER AND WHEREVER POSSIBLE. COMPACTED SOILS SHALL BE AERATED AFTER CONSTRUCTION IS COMPLETE BUT BEFORE PLANTING BEGINS.
- ROOT PRUNING SHALL OCCUR PRIOR TO CONSTRUCTION. ROOTS SHALL BE CUT CLEANLY USING WELL-MAINTAINED PRUNING EQUIPMENT THAT DOES NOT TEAR UP THE ROOTS. COVER EXPOSED ROOTS IMMEDIATELY WITH TOPSOIL, PEAT MOSS OR OTHER SUITABLE MATERIAL. MONITOR FOR SIGNS OF STRESS AND APPLY WATER AND FERTILIZER IF NEEDED.
- WATER ONLY AS NECESSARY FOR TREES THAT HAVE BEEN ROOT PRUNED OR CROWN PRUNED. WHERE GRADING AFFECTS THE WATER TABLE, MONITOR FOR STANDING WATER OR EXCESSIVE DRYNESS.
- INTERIOR FOREST CANOPIES ARE SUSCEPTIBLE TO SUNSCALD, CAUSING STRESS AND DROUGHT-LIKE CONDITIONS TO SHADE TOLERANT SPECIES. CUTTING IN THESE AREAS SHOULD BE LIMITED TO CUTTING DURING THE DORMANT SEASON IN WINTER MONTHS.
- EQUIPMENT, VEHICLES, MACHINERY, DUMPING, STORAGE OR OTHER CONSTRUCTION ACTIVITIES SHALL NOT BE LOCATED WITHIN FOREST RETENTION AREAS.
- FOREST RETENTION AREA PROTECTIVE DEVICES SHALL BE A COMBINATION OF SILT FENCE AND TREE PROTECTION FENCE OR PLASTIC MESH TREE PROTECTION FENCE. FENCING SHALL BE VISIBLE, WELL ANCHORED, APPROVED IN THE FIELD PRIOR TO CLEARING, GRADING OR COMMENCEMENT OF CONSTRUCTION ACTIVITIES, AND REMAIN IN PLACE AND BE MAINTAINED UNTIL THE COMPLETION OF CONSTRUCTION AND FINAL INSPECTION. AVOID INJURY TO ROOTS WHILE INSTALLING ANCHOR POSTS. FENCING SHALL BE AT LEAST 4' HIGH WITH HIGHLY VISIBLE FLAGGING. FENCING SHALL BE SECURELY ANCHORED WITH AT LEAST 1/5 OF THE ANCHOR POST BELOW GROUND LEVEL. SIGNS SHALL BE POSTED AT ALL RETENTION AREAS CLEARLY DEFINING THE AREA.
- THERE WILL BE NO CLEARING WITHIN THE RETENTION AREAS, BUT A CONSERVATION EASEMENT WILL NOT BE RECORDED AS PART OF THIS PROJECT.

SEQUENCE OF CONSTRUCTION:

- PRECONSTRUCTION
 - LOCATE LIMITS OF DISTURBANCE AND TEMPORARY FOREST PROTECTION DEVICES.
 - INSPECTION AND APPROVAL OF LOCATIONS BY APPROVING AUTHORITY.
 - ROOT PRUNE AND CROWN PRUNE, WITH STRESS REDUCTION MEASURES AS NEEDED (WATERING, FERTILIZING, MULCHING).
 - INSTALL PLASTIC MESH TREE PROTECTION FENCE.
- DURING CONSTRUCTION
 - CLEAR DESIGNATED AREAS.
 - MONITOR TREES AND FOREST DURING CONSTRUCTION FOR SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, FLOOD CONDITIONS, DROUGHT CONDITIONS.
- POST CONSTRUCTION
 - REMOVE PLASTIC MESH TREE PROTECTION FENCE.
 - MONITOR TREES AND FOREST FOR SIGNS OF STRESS INCLUDING SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, LIMB INJURY, FLOOD CONDITIONS, DROUGHT CONDITIONS.

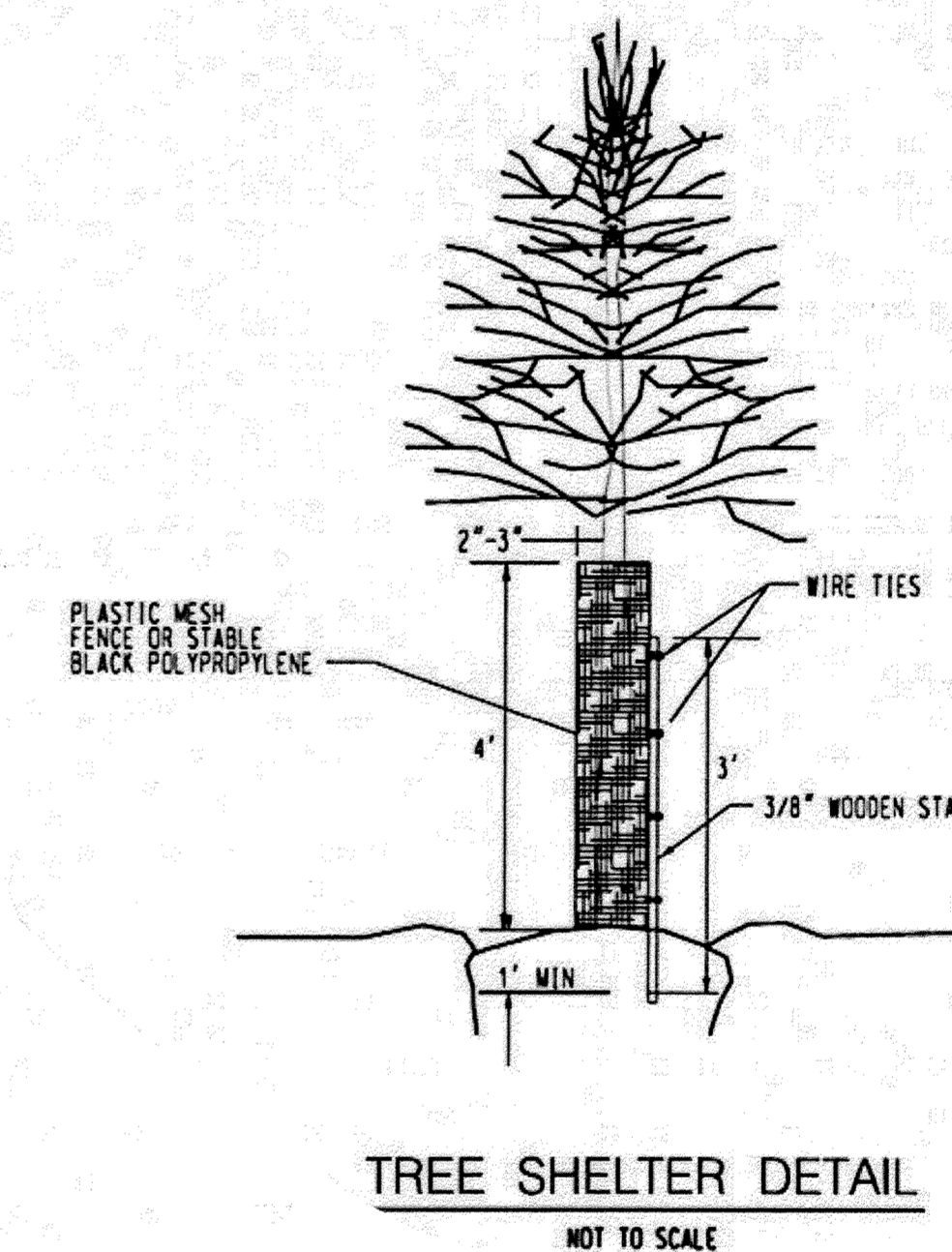


Plastic Mesh Tree Protection Fence **Figure D-5**



- Notes:**
- Blaze orange or blue plastic mesh fence for forest protection device, only.
 - Boundaries of Retention Area will be established as part of the forest conservation plan review process.
 - Boundaries of Retention Area should be staked and flagged prior to installing device.
 - Avoid damage to critical root zone. Do not damage or sever large roots when installing posts.
 - Protection signs are required.
 - Device should be maintained throughout construction.

Source: Adapted from Prince George's County, Maryland Woodland Conservation Manual and Forest Conservation Manual, 1991



TREE SHELTER DETAIL
NOT TO SCALE

D - 5

Plotted by: (none) on Plot Date: Jun 26, 2024 - 4:33pm
 Path: \\s01862161\161\CAD\Civil\Find\DeepRun-RD FCP 10 n 11.dwg
 User: jason.gilbert
 Last Saved: Jun 26, 2024 - 4:02pm
 XREFS: \\s01862161\161\CAD\Civil\Plan Sheets\Forest_Stand Delineation\01-FSD.dwg; XREFS: \\s0154114\CAD\Civil\Plan Sheets\Forest_Stand Delineation\01-FSD.dwg; XREFS: \\s0154114\CAD\Civil\Plan Sheets\Forest_Stand Delineation\01-FSD.dwg; XREFS: \\s0154114\CAD\Civil\Plan Sheets\Forest_Stand Delineation\01-FSD.dwg; XREFS: \\s0154114\CAD\Civil\Plan Sheets\Forest_Stand Delineation\01-FSD.dwg

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION
 DATE: 6/26/24

CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/26/24



10461 MILL RUN CIRCLE
 SUITE #300
 OWINGS MILLS, MD 21117-9544
 PHONE: 410.265.9500
 FAX: 410.265.8875

DES:	MJS				
DRN:	MJS				
CHK:	MV				
DATE:	JUNE 2024	BY	NO.	REVISIONS	DATE

FOREST CONSERVATION PLAN

600 SCALE MAP NO. 38 BLOCK NO. 10

06-26-2024

 PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO. 3420
 EXPIRATION DATE 07-12-2029

CAPITAL PROJECT NO. W - 8603
 CONTRACT NO. 10 - 4635
DEEP RUN INTERIM WASTEWATER TREATMENT PLANT DEMOLITION
 ELECTION DISTRICT NO. 1 HOWARD COUNTY, MARYLAND
 DEED: 97/423
 TAX MAP: 38
 GRID: 10
 PARCELS: 359-366, 368-370, 372, 821, 833

SCALE:
 NTS
SHEET
 11 OF 11