CONCEPT SITE DEVELOPMENT PLAN FOR

PINE CREEK STRUCTURES

GENERAL NOTES:

- EXISTING ZONING: C-2 COMMERCIAL MEDIUM INTENSITY
- TOTAL AREA OF SITE: 2.3363 ACRES (PROPERTY BOUNDARY)
- TOTAL DEVELOPED AREA: 2.00 ACRES
- THE PROPERTY SHOWN HEREON IS OWNED BY AMOS K. STOLTZFUS AND BARBIE M. STOLTZFUS BY DEED DATED NOVEMBER 30TH 2022, RECORDED AMONG THE LAND RECORDS OF CARROLL COUNTY IN LIBER 10948, FOLIO 92.
- TAX MAP/BLOCK/PARCEL 0053/14/1039. SUBJECT TO SHA PLATS NO. 7301 AND 7302
- TOPOGRAPHY AND PROPERTY INFORMATION SHOWN HEREON IS FIELD SURVEYED, DATED 05/31/23, AND PREPARED BY CLSI (SURVEYOR)
- LOCATION OF NEAREST WATER SUPPLY AVAILABLE FOR FIRE PROTECTION: UNKNOWN
- THE LOCATION OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY, CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION, AND DEPTH OF ANY EXISTING UTILITIES AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 THREE WORKING DAYS PRIOR TO BEGINNING ANY WORK IN THE VICINITY OF EXISTING UTILITIES

- THIS SITE PLAN SHALL BECOME VOID EIGHTEEN MONTHS AFTER THE DATE OF APPROVAL IF NO BUILDING PERMIT OR ZONING CERTIFICATE HAS BEEN ISSUED FOR THIS
- A COMBINED FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN, AS PREPARED BY YOUNG & COMPANY, IS INCLUDED AS PART OF THIS SET
- 15. THE PURPOSE OF THIS PLAN IS FOR THE CONSTRUCTION OF PROPOSED COMMERCIAL SALES YARD AND RELATED SITE IMPROVEMENTS

PROJECT, UNLESS AN EXTENSION OF THIS TIME LIMIT IS ISSUED BY THE DIRECTOR OF THE DEPARTMENT OF PLANNING.

- HORIZONTAL DATUM IS NAD 83. HORIZONTAL AND VERTICAL DATUM ESTABLISHED BY GPS OBSERVATIONS
- THE EXISTING LOT IS NOT SERVICED BY PUBLIC WATER AND SEWER

- BLASTING. THE ACTUAL LOCATIONS OF THESE UTILITIES HAVE NOT BEEN FIELD VERIFIED AND THE LOCATIONS ARE APPROXIMATE. WAREHAUS DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE, OR GUARANTEE THAT THE UNDERGROUND UTILITY LOCATION PROVIDED BY OTHERS AND REFLECTED ON THESE DRAWINGS ARE CORRECT AND ACCURATE. WAREHAUS ASSUMES NO RESPONSIBILITY FOR ANY DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OF
- 21. THERE ARE NO KNOWN CONDITIONS OR RESTRICTIONS EXISTING ON THE LOT DEPICTED BY THIS PLAN OTHER THAN THOSE SHOWN ON THE PLAN
- UNDER THE CLEAN WATER ACT THE PROJECT SITE IS REQUIRED TO OBTAIN A MARYLAND GENERAL PERMIT NO. 20-CP "GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES". THIS PERMIT APPLICATION WILL HAVE TO BE REVIEWED AND APPROVED BY MARYLAND DEPARTMENT OF THE
- ALL PUBLIC IMPROVEMENTS SHALL CONFORM TO CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN MANUAL AND MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
- ORDINANCE IN EFFECT AT THE TIME OF THIS PLAN SUBMISSION: CARROLL COUNTY COUNTY CODE - PASSED MARCH 20, 2014
 - STORMWATER MANAGEMENT
 - FOREST CONSERVATION
- WATER RESOURCE MANAGEMENT GRADING AND SEDIMENT CONTROL
- DEVELOPMENT OF SUBDIVISION OF LAND ORDINANCE ZONING REGULATIONS - ENACTED DECEMBER 1, 2022
- CALCULATIONS ASSOCIATED WITH THE PROPOSED STORMWATER MANAGEMENT FACILITIES SHOWN ON THIS PLAN ARE PROVIDED IN A SEPARATE REPORT ENTITLED "STORMWATER MANAGMENT NARRATIVE FOR PINE CREEK STRUCTURES WESTMINSTER" DATED AUGUST 122, 2023 AND LAST REVISED MARCH 1, 2024.
- 26. ALL DISTURBED AREAS THAT WILL BE PERMANENTLY VEGETATED SHALL BE SURFACED WITH A MINIMUM FOUR INCHES OF TOPSOIL, UNLESS DESIGN REQUIREMENTS SPECIFY ADDITIONAL TOPSOIL, OR OTHER SURFACE MATERIAL THAT WILL SUSTAIN VEGETATION AND SOIL PERMEABILITY.
- NO PERSON SHALL PLACE ANY OBSTRUCTION OR ENCROACHMENT IN A STORMWATER FACILITY OR DRAINAGE EASEMENT WITHOUT PRIOR WRITTEN AUTHORIZATION BY
- 28. THE FACILITY'S INTENDED USE IS A COMMERCIALS SALES YARD. THE PROPOSED BUILDING AS SHOWN ON THESE PLANS WILL BE THE SALES OFFICE. THE OPERATION OF THE FACILITY WILL REQUIRE ONLY ONE EMPLOYEE.
- 29. A 1,000-GALLON SEPTIC TANK AND TWO (2) 12 FOOT DIAMETER SEEPAGE PITS ARE BEING PROPOSED IN LIEU OF AN ON-SITE SEPTIC FIELD / TRENCH. CONSERVATIVELY ASSUMING TWO EMPLOYEES MAXIMUM RESULTS IN AN ANTICIPATED WASTEWATER FLOW OF 58 GPD.
- 30. TRASH FROM THE OFFICE WILL BE DISPOSED OF IN TRASH CANS AND PICKED UP BY A LOCAL PROVIDER.
- 31. THERE ARE NO OTHER WELLS OR SEPTIC SYSTEMS WITHIN 100 FEET OF THE PROPERTY BOUNDARY OTHER THAN SHOWN.
- 32. IF GRAVITY FLOW TO SEWAGE DISPOSAL AREA CANNOT BE ENSURED, A PUMPED SEWAGE DISPOSAL SYSTEM WILL BE REQUIRED.
- 33. A PERCOLATION TEST IS ONLY ONE OF THE CRITERIA USED IN CONSIDERING A LOT FOR INSTALLATION OF A SEPTIC SYSTEM. ADDITIONAL TESTING CAN BE REQUIRED AND MAY BE SUBJECT TO SCHEDULING DURING THE WET WEATHER PERIOD. THE ENTIRE LOT IS EVALUATED WHEN APPLICATION FOR A SEPTIC PERMIT IS MADE. ADJOINING PROPERTY HISTORY, PERCOLATION TEST METHODOLOGY, ADJOINING WELLS AND SEPTIC SYSTEMS, PROPOSED NUMBER OF BEDROOMS, HISTORY OF FAILING SEPTIC SYSTEMS AND WELLS, DESIGN, SOIL AND GEOLOGICAL CONDITIONS, AND TOPOGRAPHY IN THE IMMEDIATE AREA ARE THEN USED TO DETERMINE IF THE LOT IS SUITABLE FOR THE UNDERGROUND DISPOSAL OF SEWAGE. ISSUANCE OF A SEPTIC SYSTEM PERMIT CONSTITUTES LOT APPROVAL BY THE HEALTH
- THE AREA SHOWN AS PARCEL A, CONTAINING 0.047 ACRES, IS TO BE CONVEYED TO THE CARROLL COUNTY COMMISSIONERS BY A DEED TO BE RECORDED
- PARKING TABULATIONS: THERE ARE NO EXISTING PARKING SPACES. SITE IS A VACANT LOT. THE MINIMUM NUMBER OF PARKING SPACES REQUIRED FOR THE PROPOSED USE IS 5 SPACES FOR EVERY 1,000 SF OF FLOOR AREA. THE PROPOSED BUILDING HAS A FLOOR AREA OF APPROXIMATELY 504 SF. 5 SPACES X 504 SF / 1000 SF = 2.52 ~ 3 PARKING SPACES. 5 PARKING SPACES ARE PROVIDED WITH ONE ACCESSIBLE SPACE.
- 36. THE LIMIT OF DISTURBANCE IS 2.19 ACRES. PROJECT SITE AREA IS 2.3649 AC.
- 37. A STORMWATER MANAGEMENT EASEMENT AND MAINTENANCE AGREEMENT IS TO BE GRANTED TO THE COUNTY COMMISSIONERS OF CARROLL COUNTY AS AN EASEMENT OF ACCESS BY DEED INTENDED TO BE RECORDED SIMULTANEOUSLY HEREWITH.

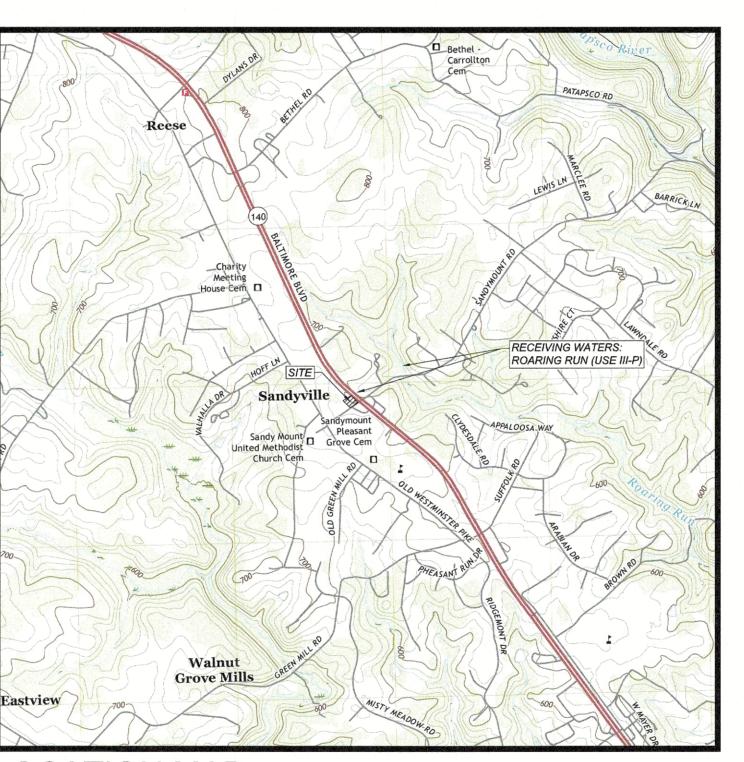
LOT OLD WESTMINSTER PIKE, FINKSBURG, MD 21048 FINKSBURG, CARROLL COUNTY

OWNER / DEVELOPER

44 WALNUT LANE CONTACT: AMOS STOLTZFUS

EXISTING / PROPOSED USE

VACANT LOT (COMMERCIAL)/ GENERAL RETAIL (COMMERCIAL



LOCATION MAP

SOURCE: USGS WESTMINSTER, MD QUADRANGLE DATE: 2019

SCALE: 1" = 2000

LOT INFORMATION									
ADDRESS	TOWN, COUNTY, STATE	OWNER	SIZE	LIBER, FOLIO	MAP, GRID, PARCEL	ELECTION DISTRICT NO.			
LOT OLD WESTMINSTER PIKE, FINKSBURG, MD 21048	FINKSBURG, CARROLL COUNTY, MARYLAND	PINE CREEK STRUCTURES	2.3363 ACRES	10948, 92	0053, 14, 1039	4			

ROADWAY DATA								
NAME POSTED SPEED FUNCTIONAL ADT TRIP GENER								
SANDYMOUNT ROAD	30 MPH	4U MAJOR COLLECTOR ROAD	2267 (SOUTH OF MD 140)	20				

Sheet Number	Sheet Title
SP-1	COVER SHEET
SP-2	NOTES
SP-3	EXISTING CONDITIONS & DEMOLITION PLAN
SP-4	CONCEPT SITE PLAN
SP-5	CONCEPT GRADING PLAN
SP-5A	CONCEPT UTILITY PLAN
SP-6	SITE CONSTRUCTION DETAILS
SP-7	ARCHITECTURAL BUILDING ELEVATIONS
SP-8	UTILITY DETAILS
SP-8A	UTILITY DETAILS
SP-9	PROFILES
SP-10	PROFILES
SP-10A	PROFILES
SP-11	STORMWATER PLAN AND DETAILS
SP-12	WB-67 TRAILER TRUCK TURNING TEMPLATE
SP-13	LANDSCAPING PLAN
SP-14	COLOR CODED EXISTING CONDITIONS PLAN
SP-15	COLOR CODED PROPOSED CONDITIONS PLAN
SP-16	COLOR CODED PROPOSED CONDITIONS WITH SWM FACILITIES
SP-17	EROSION AND SEDIMENTATION CONTROL COVER SHEET
SP-18	EROSION AND SEDIMENTATION CONTROL NOTES
SP-19	EROSION AND SEDIMENTATION CONTROL EXISTING CONDITIONS
SP-20	EROSION AND SEDIMENTATION CONTROL INTERIM CONDITIONS
SP-21	EROSION AND SEDIMENTATION CONTROL PLAN
SP-22	EROSION AND SEDIMENTATION CONTROL DETAILS
SP-23	EROSION AND SEDIMENTATION CONTROL DETAILS
SP-24	EROSION AND SEDIMENTATION CONTROL DETAILS
FSD-1	COMBINED FOREST STAND DELINEATION AND FOREST CONSERVATION PLAN

BY CERTIFICATION OF THIS PLAN THERE ARE NO WETLANDS IN THE PROJECT AREA. THE PROPOSED PROJECT WILL NOT IMPACT OFF-SITE WETLANDS, AND WETLAND PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

BY CERTIFICATION OF THIS PLAN THERE ARE NO FEMA MAPPED FLOODPLAINS ON THE SUBJECT PROPERTY OR THE LIMIT OF DISTURBANCE AREA. FEMA FIRM PANNEL NO. 24013C0220D EFFECTIVE 10/02/2015.

STREAM INFORMATION: NAME: UNT TO ROARING RUN (USE III-P)

RECEIVING WATERSHED

SUBWATERSHED: ROARING RUN SUBBASIN: LIBERTY RESERVOIR

MAJOR RIVER BASIN: PATAPSCO RIVER MDE TIER II WATERSHED:

BY CERTIFICATION OF THIS PLAN THE PROJECT SITE IS NOT LOCATED WITHIN A MDE TIER II HIGH QUALITY WATERSHED.

RESOURCE MANAGEMENT AREAS

BY CERTIFICATION OF THIS PLAN THE PROJECT SITE IS LOCATED WITHIN A SURFACE WATER PROTECTION AREA.

OWNER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) HAS BEEN REVIEWED BY ME/US AND THAT I/WE FULLY UNDERSTAND WHAT IS NECESSARY TO ACCOMPLISH THIS WORK AND THAT THE WORK WILL BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I/WE ALSO UNDERSTAND THAT ANY CHANGES TO THESE PLANS WILL REQUIRE AN AMENDED PLAN TO BE REVIEWED AND APPROVED BY THE CARROLL COUNTY PLANNING AND ZONING COMMISSION BEFORE ANY CHANGE IN THE WORK IS MADE.

NAME(S) PRINTED/DATE

CARROLL COUNTY PLANNING AND ZONING COMMISSION

_SIGNED/DATE

CARROLL COUNTY DEPARTMENT OF **PUBLIC WORKS BUREAU OF UTILITIES**

CARROLL COUNTY HEALTH DEPARTMENT

FINAL LANDSCAPE PLAN OWNER CERTIFICATION

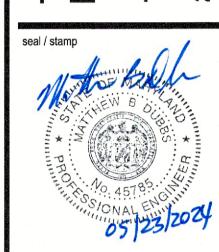
HAVE READ AND UNDERSTAND THE REGULATIONS PRESENTED IN THE CARROLL COUNTY LANDSCAPE MANUAL; AND I AGREE TO COMPLY WITH THESE REGULATIONS AND ALL APPLICABLE POLICY, GUIDELINES AND ORDINANCES. I AGREE TO CERTIFY THE IMPLEMENTATION OF THIS APPROVED FINAL LANDSCAPE PLAN NO LATER THAN ONE (1) YEAR FROM THE DATE OF APPROVAL OF THIS PLAN TO THE DEPARTMENT OF PLANNING, BUREAU OF RESOURCE MANAGEMENT, ROOM 209, 225 N. CENTER STREET, WESTMINSTER, MD 21157-5194.

I CERTIFY THAT I HAVE REVIEWED THIS FINAL LANDSCAPE PLAN (PLAN SHEET SP-13); THAT I

APPLICANTS SIGNATURE	DATE	PRINT NAME	
ADDRESS (PLEASE PRINT)	STREET		
CITY	STATE	ZIP	

CREEK

COUNTY FILE NO. S-23-0020



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drawing set

CONCEPT SITE **DEVELOPMENT PLAN**

08/22/2023 project no. **2023.0102.00** project mgr. MS

description 11/22/23 REVISED PER CARROLL C

05/22/24 REVISED PER CARROLL C

STRUCTURES

EXISTING FEATURES CONFLICTING WITH THE PROPOSED IMPROVEMENTS SHALL BE RELOCATED AND/OR DEMOLISHED AND REMOVED FROM THE SITE UNLESS OTHERWISE NOTED. ALL DEMOLITION AND SITE CLEARING SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL RULES AND REGULATIONS.

SITE DEVELOPMENT PLAN INSPECTION SEQUENCE NOTES

- 1. CONTRACTOR SHALL NOTIFY THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674, AT LEAST ONE DAY PRIOR TO BEGINNING ANY WORK.
- 2. SITE COMPLIANCE INSPECTIONS ARE REQUIRED AT THE FOLLOWING STAGES DURING CONSTRUCTION:
 - PROPOSED STUCTURES STAKED OUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS
 - PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON THESE APPROVED PLANS
 - SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING.
 - COMPLETION OF ALL WORK SHOWN ON PLANS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE CARROLL COUNTY BUREAU OF PERMITS AND INSPECTIONS AT 410-386-2674 UPON COMPLETION OF EACH PHASE OF CONSTRUCTION.

- CONTRACTOR SHALL NOTIFY CARROLL COUNTY BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 PRIOR TO BEGINNING ANY WORK. ALL FOREST CONSERVATION PLAN DEVICES MUST BE IN PLACE PRIOR TO ANY CONSTRUCTION.
- FINAL LANDSCAPING INSPECTION SHALL BE ARRANGED THROUGH BUREAU OF RESOURCE MANAGEMENT, ENVIRONMENTAL INSPECTION SERVICES DIVISION AT 410-386-2210 BY THE CONTRACTOR/DEVELOPER OR AGENT. WRITTEN APPROVAL FROM THE LANDSCAPE REVIEW SPECIALIST, BUREAU OF RESOURCE MANAGEMENT, MUST BE OBTAINED FOR ANY DEVIATIONS FROM THE LANDSCAPING OR FOREST CONSERVATION PLANS OR MODIFICATIONS IN THE PLANT MATERIAL.
- THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION UNTIL GIVEN APPROVAL OF PRIOR PHASES.

TEMPORARY TRAFFIC CONTROL GENERAL NOTES

- IT IS THE RESPONSIBILITY OF THE CONTRACTOR PERFORMING THE WORK ON OR ADJACENT TO A PUBLIC ROAD TO PROVIDE, INSTALL AND MAINTAIN APPROPRIATE TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD) FOR THE TRAVELING PUBLIC, PEDESTRIANS, BICYCLISTS, ROAD WORKERS, ETC. AT ALL TIMES.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS (DPW) CONSTRUCTION INSPECTION DIVISION AT 410-386-2157 THREE (3) WORKING DAYS IN ADVANCE OF ANY CONSTRUCTION ON OR ADJACENT TO A COUNTY ROAD, INCLUDING INSTALLATION OF TRAFFIC CONTROL DEVICES. IF DPW CONSTRUCTION INSPECTION DIVISION IS NOT NOTIFIED THEY CAN STOP ALL WORK UNTIL THEY ARE COMFORTABLE IT IS SAFE FOR THE CONTRACTOR TO PROCEED.
- ALL STANDARD REGULATORY AND WARNING SIGNS, BARRICADES AND OTHER TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MD MUTCD, MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, THE NCHRP 350 AND APPROVED BY THE DPW CONSTRUCTION INSPECTION DIVISION.
- 4. THE CONTRACTOR SHALL FOLLOW THE LATEST STANDARDS IN ACCORDANCE WITH THE MDSHA BOOK OF STANDARD FOR HIGHWAYS INCIDENTAL STRUCTURES AND THE APPROVED MARYLAND STATE HIGHWAY ADMINISTRATION PRODUCTS LIST. THE STANDARDS CAN BE FOUND AT WWW.ROADS.MARYLAND.GOV / BOOK OF STANDARDS - FOR HIGHWAY AND INCIDENTAL STRUCTURES / CATEGORY 1 - PRELIMINARY.
- WORK SHALL NOT BE PERFORMED UNTIL ALL APPLICABLE TRAFFIC CONTROL DEVICES ARE IN PLACE. TRAFFIC CONTROL DEVICES MUST BE IN PLACE ANY TIME WORK IN
- OR ADJACENT TO A PUBLIC ROAD IS IN PROGRESS. TRAFFIC CONTROL DEVICES SHALL BE REMOVED WHEN WORK IS NOT IN PROGRESS. IF APPROVED BY THE DPW CONSTRUCTION INSPECTION DIVISION SIGNS MAY BE
- COVERED SO THAT THE MESSAGE IS NOT VISIBLE TO DRIVERS.
- LOCATIONS OF DEVICES MAY BE MODIFIED AS DIRECTED BY THE DPW CONSTRUCTION INSPECTION DIVISION TO ACCOMMODATE FIELD CONDITIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES AND IMMEDIATELY REPLACE ANY WHICH ARE MISSING OR DETERMINED BY THE DPW CONSTRUCTION INSPECTION DIVISION TO BE UNSUITABLE FOR USE.
- 9. ALL SIGNS THAT ARE TO BE PART OF A WORK ZONE FOR MORE THAN THREE (3) DAYS SHALL BE PLACED ON POSTS.
- 10. COLLECTOR OR HIGHER CLASSIFICATION COUNTY ROADWAYS WORK HOURS ARE 9:00 AM AND 3:00 PM MONDAY THROUGH FRIDAY, UNLESS APPROVED OTHERWISE BY
- 11. ACCESS TO DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES UNLESS OTHER ARRANGEMENTS ARE MADE.

12. CHANNELIZING DEVICES SHALL BE EXTENDED TO A POINT WHERE THEY ARE VISIBLE TO APPROACHING TRAFFIC. A FULL LENGTH TAPER SHALL ALWAYS BE PROVIDED IN

- 13. IF FLAGGERS ARE NOT ABLE TO SEE EACH OTHER TWO-WAY RADIO COMMUNICATIONS SHALL BE USED.
- 14. WARNING SIGNS SHALL BE MOUNTED IN ACCORDANCE WITH SHA STANDARD NO. MD 104.01-17A THROUGH D OR AS DIRECTED BY DPW.
- WHEN PAVEMENT DROP OFFS ARE PRESENT THE CONTRACTOR SHALL PLACE TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING SIGNS, CHANNELIZING DEVICES AND BARRIERS, AS WELL AS SLOPE FILLET WEDGES IN ACCORDANCE WITH SHA STANDARD NO. MD 104.06-15 THROUGH 104.06-19. THE ENGINEER MAY RECOMMEND ALTERNATIVE METHODS TO PROTECT THE PAVEMENT EDGE; CONSIDERING FACTORS SUCH AS PEDESTRIANS, BICYCLES, TRAFFIC VOLUMES, VEHICLE SPEEDS, SIZE OF THE WORK ZONE, DURATION OF WORK, ETC.
- 16. PORTABLE VARIABLE MESSAGE SIGNS MAY BE REQUIRED BY DPW CONSTRUCTION INSPECTION DIVISION'S DISCRETION.
- ANY CORRECTIONS, MODIFICATIONS OR ADDITIONS TO THIS PLAN MUST BE APPROVED BY THE BUREAU OF DEVELOPMENT REVIEW, ENGINEERING REVIEW, THROUGH THE RED-LINE REVISION PROCESS.

MAINTENANCE INSPECTIONS

- 1. THE COUNTY SHALL ENSURE THAT PREVENTATIVE MAINTENANCE IS PERFORMED BY INSPECTING ALL ESD, NON-STRUCTURAL TREATMENT SYSTEMS AND STRUCTURAL STORMWATER TREATMENT MEASURES. INSPECTION SHALL OCCUR DURING THE FIRST YEAR OF OPERATION AND AT LEAST ONCE EVERY THREE YEARS THEREAFTER. IN ADDITION, A STORMWATER MANAGEMENT DEED OF EASEMENT AND MAINTENANCE AGREEMENT BETWEEN THE OWNER AND THE COUNTY SHALL BE EXECUTED FOR ESD. NON-STRUCTURAL TREATMENT SYSTEMS AND STRUCTURAL STORMWATER TREATMENT MEASURES AS REQUIRED BY THIS CHAPTER.
- INSPECTION REPORTS SHALL BE MAINTAINED BY THE COUNTY FOR ESD. NON-STRUCTURAL TREATMENT SYSTEMS AND STRUCTURAL STORMWATER TREATMENT MEASURES.
- INSPECTION REPORTS FOR ESD, NON-STRUCTURAL TREATMENT SYSTEMS AND STRUCTURAL STORMWATER TREATMENT MEASURES SHALL INCLUDE THE FOLLOWING:

3.3. AN ASSESSMENT OF THE QUALITY OF THE SWM SYSTEM RELATED TO ESD TREATMENT PRACTICE EFFICIENCY AND THE

- 3.1. THE DATE OF INSPECTION
- 3.2. NAME OF THE INSPECTOR;
- CONTROL OF RUNOFF TO THE MEP;
- 3.4. THE CONDITION OF:
- VEGETATION OR FILTER MEDIA; FENCES OR OTHER SAFETY DEVICES:
- SPILLWAYS, VALVES, OR OTHER CONTROL STRUCTURES; EMBANKMENTS, SLOPES, AND SAFETY BENCHES;
- RESERVOIR OR TREATMENT AREAS: INLET AND OUTLET CHANNELS OR STRUCTURES
- UNDERGROUND DRAINAGE: SEDIMENT AND DEBRIS ACCUMULATION IN STORAGE AND FOREBAY AREAS;
- ANY NON-STRUCTURAL PRACTICES TO THE EXTENT PRACTICABLE; ANY OTHER ITEM THAT COULD AFFECT THE PROPER FUNCTION OF THE SWM SYSTEM.
- 3.5 DESCRIPTION OF NEEDED MAINTENANCE.
- 4. AFTER NOTIFICAFTER NOTIFICATION OF ANY DEFICIENCIES DISCOVERED FROM AN INSPECTION OF A STRUCTURAL SWM FACILITY, THE OWNER SHALL HAVE 30 DAYS OR OTHER TIME FRAME AS DETERMINED BY THE COUNTY TO CORRECT THE DEFICIENCIES. THE COUNTY SHALL CONDUCT A SUBSEQUENT INSPECTION TO ENSURE COMPLETION OF THE REPAIRS.
- 5. IF REPAIRS ARE NOT PROPERLY COMPLETED, THE COUNTY MAY INITIATE ENFORCEMENT PROCEEDINGS.
- 6. IF, AFTER AN INSPECTION BY THE COUNTY, THE CONDITION OF A STRUCTURAL SWM FACILITY PRESENTS AN IMMEDIATE DANGER TO THE PUBLIC HEALTH OR SAFETY, THE COUNTY MAY TAKE ACTION AS MAY BE NECESSARY TO PROTECT THE PUBLIC AND MAKE THE FACILITY SAFE. ANY COST INCURRED BY THE COUNTY SHALL BE ASSESSED AGAINST THE OWNER PURSUANT TO THIS CHAPTER.
- 7. IN ADDITION TO THE ITEMS GIVEN ABOVE, PLEASE REFER TO SPECIFIC MAINTENANCE SCHEDULES FOR UNDERGROUND FACILITIES AND MICRO-BIORETENTION FACILITES SHOWN BELOW AND IN THE CHART SHOWN ON THIS SHEET RESPECTIVELY.

SPECIFIC MAINTENANCE INSPECTION SCHEDULE FOR UNDERGROUND FACILITIES

MINIMUM ANNUAL INSPECTIONS AND MAINTENANCE

- 1. REMOVE STANDING WATER FROM INLETS/MANHOLES/UNDERGROUND STRUCTURES.
- 2. REMOVE ACCUMULATED SEDIMENTS AND DEBRIS FROM INLETS/MANHOLES/UNDERGROUND STRUCTURES.
- 3. INSPECT INLETS/MANHOLES/WEIR WALLS, LOW FLOW ORIFICE, AND THE UNDERGROUND STRUCTURE FOR CRACKS, SPALLING AND CLOGGING. REMOVE CLOGS.
- 4. INSPECT TRASH RACK FOR ATTACHMENT AND BLOCKAGES. REMOVE BLOCKAGES.
- INSPECT INLETS/MANHOLES/WEIR WALLS AND THE UNDERGROUND STRUCTURE FOR INTEGRITY (HOLES, CORROSION, CRACKS, SPALLING, SEPARATIONS AND MISSING PARTS (MANHOLE LIDS, GRATES, PLATES, ETC.). REPAIR/REPLACE TO GOOD CONDITION ACCORDING TO APPROVED PLANS AND SPECIFICATIONS.
- 6. DOCUMENT THE ABOVE STEPS USING THE CARROLL COUNTY INSPECTION REPORT FORM AND REQUIRED PHOTOGRAPHS. OWNER IS RESPONSIBLE FOR PROVIDING COPIES OF THIS FORM DOCUMENTING COMPLETED ANNUAL MAINTENANCE WHEN REQUIRED.

INSPECTION SCHEDULE AND REPORTS FOR STORMWATER FACILITIES

- 1. THE DEVELOPER SHALL NOTIFY THE INSPECTING PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR LISTED ON THE PLANS AT LEAST 48 HOURS BEFORE COMMENCING ANY WORK IN CONJUNCTION WITH SITE DEVELOPMENT, THE SWM PLAN, AND UPON COMPLETION OF THE PROJECT.
- 2. REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED FOR EACH ESD PLANNING TECHNIQUE AND PRACTICE AT THE STAGES OF CONSTRUCTION SPECIFIED IN THE DESIGN MANUAL. AT A MINIMUM, ALL ESD AND OTHER NONSTRUCTURAL PRACTICES SHALL BE INSPECTED UPON COMPLETION OF FINAL GRADING, THE ESTABLISHMENT OF PERMANENT STABILIZATION, AND BEFORE ISSUANCE OF A GRADING COMPLETION CERTIFICATE.
- 3. ALL INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER OR THE PROFESSIONAL LAND SURVEYOR LISTED ON THE PLAN. WITH THE COUNTY'S PRIOR WRITTEN PERMISSION, AN EQUALLY QUALIFIED PROFESSIONAL ENGINEER OR LAND SURVEYOR MAY BE SUBSTITUTED. WRITTEN INSPECTION REPORTS SHALL BE PREPARED AND THE INSPECTION CHECKLIST COMPLETED TO ENSURE COMPLIANCE WITH THE APPROVED PLANS. INSPECTION REPORTS SHALL INCLUDE:
- THE DATE AND LOCATION OF THE INSPECTION; WHETHER CONSTRUCTION WAS IN COMPLIANCE WITH THE APPROVED SWM PLAN:
- ANY VARIATIONS FROM THE APPROVED CONSTRUCTION SPECIFICATIONS; AND ANY EXISTING VIOLATIONS.
- 4. THE OWNER OR DEVELOPER AND ONSITE PERSONNEL SHALL BE NOTIFIED IN WRITING WHEN VIOLATIONS ARE OBSERVED. WRITTEN NOTIFICATION SHALL DESCRIBE THE NATURE OF THE VIOLATION AND THE REQUIRED CORRECTIVE ACTION.
- 5. NO WORK SHALL PROCEED UNTIL THE PROFESSIONAL ENGINEER OR LAND SURVEYOR INSPECTS, APPROVES THE WORK, AND SIGNS THE INSPECTION CERTIFICATION CHART ON THE PLAN.

INSPECTION REQUIREMENTS DURING CONSTRUCTION

AT A MINIMUM, REGULAR INSPECTIONS SHALL BE MADE AND DOCUMENTED AT THE FOLLOWING STAGES OF CONSTRUCTION:

- 1. UPON COMPLETION OF EXCAVATION TO SUBFOUNDATION AND, WHEN REQUIRED, INSTALLATION OF STRUCTURAL SUPPORTS OR REINFORCEMENT FOR STRUCTURES, INCLUDING BUT NOT LIMITED TO:
 - CORE TRENCHES FOR STRUCTURAL EMBANKMENTS:
 - INLET AND OUTLET STRUCTURES, ANTI-SEEP COLLARS OR DIAPHRAGMS, AND WATERTIGHT CONNECTORS ON PIPES; AND TRENCHES FOR ENCLOSED STORM DRAINAGE FACILITIES.
- 2. DURING PLACEMENT OF STRUCTURAL FILL, CONCRETE, AND INSTALLATION OF PIPING AND CATCH BASINS;
- 3. DURING BACKFILL OF FOUNDATIONS AND TRENCHES;
- 4. DURING EMBANKMENT CONSTRUCTION; AND
- 5. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

INFILTRATION TRENCHES

- DURING EXCAVATION TO SUBGRADE;
- 2. DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS AND OBSERVATION WELLS;
- 3. DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
- 4. DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS DIVERSION STRUCTURES, PREFILTERS AND FILTERS, INLETS, OUTLETS, AND FLOW DISTRIBUTION STRUCTURES; AND

- 1. AT THE STAGES SPECIFIED FOR POND CONSTRUCTION NOTES ABOVE; AND
- 2. DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS

FILTERING SYSTEMS

- 1. DURING EXCAVATION TO SUBGRADE;
- 2. DURING PLACEMENT AND BACKFILL OF UNDERDRAIN SYSTEMS;
- 3. DURING PLACEMENT OF GEOTEXTILES AND ALL FILTER MEDIA;
- 4. DURING CONSTRUCTION OF APPURTENANT CONVEYANCE SYSTEMS SUCH AS FLOW DIVERSION STRUCTURES, PREFILTERS AND FILTERS, INLETS, OUTLETS, ORIFICES, AND FLOW DISTRIBUTION STRUCTURES; AND
- 5. UPON COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF PERMANENT STABILIZATION.

ONCE CONSTRUCTION IS COMPLETE, AN AS-BUILT PLAN CERTIFICATION SHALL BE SUBMITTED BY A PROFESSIONAL ENGINEER OF PROFESSIONAL LAND SURVEYOR AS APPROPRIATE TO ENSURE THAT ESD PLANNING TECHNIQUES. NONSTRUCTURAL AND STRUCTURAL SWM PRACTICES AND CONVEYANCE SYSTEMS COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE APPROVED PLANS. THE AS-BUILT PLAN SHALL BE SUBMITTED WITHIN 60 DAYS OF COMPLETION OF CONSTRUCTION. AT A MINIMUM, AS-BUILT PLAN CERTIFICATION SHALL INCLUDE A SET OF DRAWINGS COMPARING THE APPROVED SWM PLAN WITH THE COMPLETED CONSTRUCTION. BOTH THE AS-BUILT BLOCK AND INSPECTION CHART SHALL BE COMPLETED, SIGNED, AND CERTIFIED ON THE AS-BUILT. THE COUNTY MAY REQUIRE ADDITIONAL INFORMATION.

THE COUNTY SHALL SUBMIT NOTICE OF CONSTRUCTION COMPLETION TO THE ADMINISTRATION ON A FORM SUPPLIED BY TH ADMINISTRATION FOR EACH STRUCTURAL SWM PRACTICE. THE TYPE, NUMBER, TOTAL DRAINAGE AREA, AND TOTAL IMPERVIOUS AREA TREATED BY ALL ESD TECHNIQUES AND PRACTICES SHALL BE REPORTED TO THE ADMINISTRATION ON A SITE-BY-SITE BASIS. IF BMPS REQUIRING SCD APPROVAL ARE CONSTRUCTED, NOTICE OF CONSTRUCTION COMPLETION SHALL ALSO BE SUBMITTED TO THE

STORMWATER MAINTENANCE SCHEDULE MICRO-BIORETENTION

	MONTHLY INSPECTION	JN	
INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION	
DEBRIS AND TRASH	CHECK FOR TRASH AND DEBRIS IN FACILITY INCLUDING INLETS, OUTLETS, CONVEYANCE SYSTEMS, AND AREA AROUND FACILITY.	REMOVE ALL TRASH AND DEBRIS AND DISPOSE IN AN ACCEPTABLE MANNER. UNCLOG ALL OPENINGS.	
PLANT COMPOSITION AND HEALTH	COMPARE PLANT COMPOSITION WITH APPROVED PLANS. CHECK FOR INVASIVE SPECIES OR WEEDS. CHECK FOR DEAD OR DYING VEGETATION.	REMOVE INVASIVE SPECIES AND WEEDS. REPLACE DEAD PLANTS IN ACCORDANCE WITH APPROVED LANDSCAPING PLAN OR RESEED AND REMULCH PER FILTER BED MIX.	
VEGETATIVE COVER	CHECK FOR CHANNELIZING, EROSION, AND BARE SPOTS. CHECK FOR VEGETATION BLOCKING INLET AND OUTLET.	REMOVE OR CUT BACK VEGETATION AROUND INLET AND OUTLET STRUCTURES. MOW SIDE SLOPES AND EMBANKMENT WHEN GRASS EXCEEDS 12 INCHES IN HEIGHT, BUT DO NOT MOW FILTER BED (WOODY VEGETATION IS PROHIBITED ON THE EMBANKMENT). IF USING FILTER BED MIX, MAY MOW BED TWICE PER YEAR. REMOVE GRASS CLIPPINGS. RE-SEED OR RE-PLANT IN ACCORDANCE WITH APPROVED LANDSCAPING PLANS.	
MULCH LAYER	CHECK MULCH FOR ADEQUATE COVER, SEDIMENT ACCUMULATION, OR DISCOLORATION.	REPLACE AND REMOVE OLD MULCH AND EXCESS SEDIMENT. PROVIDE ADEQUATE MULCH COVER ACCORDING TO APPROVED DESIGN.	
	SEASONAL INSPECTION AFTER A	MAJOR STORM	
INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION	
DEWATERING	CHECK PONDING LEVEL. SURFACE STORAGE MUST DEWATER WITHIN 48 HOURS OF RAINFALL. NOTICEABLE ODORS, STAINED WATER ON THE FILTER SURFACE OR AT THE OUTLET, OR THE PRESENCE OF ALGAE OR AQUATIC VEGETATION ARE INDICATORS OF ANAEROBIC CONDITIONS AND INADEQUATE DEWATERING OF THE FACILITY.	REMOVE AND REPLACE TOP FEW INCHES OF MEDIA. IF THE FACILITY DOES NOT FUNCTION AS INTENDED AFTER THE ABOVE ACTION, EXCAVATE, REMOVE, CLEAN, AND REPLACE STONE, UNDERDRAIN, MEDIA, AND PLANTS IN ACCORDANCE WITH APPROVED PLANS.	
EROSION	CHECK INLETS, FILTER BED, OUTLETS, AND SIDE SLOPES FOR EROSION, RILLS, GULLIES, AND RUNOFF CHANNELIZATION.	RE-GRADING MAY BE REQUIRED WHEN CONCENTRATED FLOW CAUSES RILLS OR GULLYING THROUGH THE FACILITY. GRADE, VEGETATE, AND/OR ARMOR TO PROVIDE STABLE CONVEYANCE IN ACCORDANCE WITH APPROVED PLANS.	
SEDIMENT ACCUMULATION	CHECK FOR ACCUMULATED SEDIMENT IN CONVEYANCE SYSTEMS AND ON FILTER BED.CHECK FOR CLOGGED OPENINGS (BLOCKAGES).	WHEN SEDIMENT ACCUMULATES TO 1 INCH DEPTH, REMOVE SEDIMENT. REMOVE SEDIMENT FROM CLOGGED OPENINGS. DISPOSE OF ALL SEDIMENT IN AN ACCEPTABLE LOCATION	
	ANNAUL INSPECTIO	DN	
INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION	
STRUCTURAL COMPONENTS	CHECK FOR EVIDENCE OF STRUCTURAL DETERIORATION, SPALLING, OR CRACKING. INLET AND OUTLET STRUCTURES AS WELL AS RIPRAP OUTFALLS MUST BE IN GOOD CONDITION.	REPAIR TO GOOD CONDITION ACCORDING TO SPECIFICATIONS ON THE APPROVED PLANS.	
OVERALL FUNCTION OF FACILITY	CHECK THAT PRACTICE IS FUNCTIONING	REPAIR TO GOOD CONDITION ACCORDING TO	

SPECIFICATIONS ON THE APPROVED PLANS.

UNDERGROUND STONE RESERVOIRS SEQUENCE OF CONSTRUCTION

- 1. CONTACT THE CERTIFYING PROFESSIONAL ENGINEER/PROFESSIONAL LAND SURVEYOR (GIVE NAME AND PHONE NUMBER). ONCE THE CERTIFYING PROFESSIONAL HAS GIVEN HIS/HER APPROVAL
- PROCEED AS FOLLOWS 2. EXCAVATE FOR INLET AND STONE RESERVOIR. INSTALL STONE BASE AND INLET. INSTALL SAND, STONE AND PERFORATED PIPES UNDER SUPERVISION OF CERTIFYING PROFESSIONAL. PLACE
- GEOTEXTILE AND BACKFILL. CAP ALL PERFORATED PIPES WITH EITHER TEMPORARY OR
- PERMANENT CAPS INSIDE THE INLET AS SHOWN ON THE DETAIL
- 3. ONCE THE ENTIRE DRAINAGE AREA TO THE INLET IS PAVED OR SUPPORTING A 2" STAND OF DENSE GRASS (ALL HOUSES BUILT), WITH THE APPROVAL OF THE CERTIFYING PROFESSIONAL, REMOVE
- ALL ACCUMULATED SEDIMENTS AND UNCAP THE DISTRIBUTION PIPES. 4. SUBMIT AS-BUILT CERTIFICATION FOR BOND RELEASE.
- STORM DRAIN STRUCTURE SCHEDULE COORDINATES PLATE / STANDARD TYPE ELEV. NORTHING EASTING PRECAST STANDARD SINGLE INV. IN 708.21 (EX. 24" | INV. OUT 704.23 (24' MDSHA STANDARD 1334046.5780' OPENING TYPE K INLET OPEN-END 676869.3130' HDPE TO MH-1) GRATE 60" DIAMETER PRECAST MANHOLE INV. IN 703.58 (24) INV. OUT 702.58 (36 MDSHA STANDARD 1334034.9798' 676887.4568 FOR 27" TO 36" PIPES HDPE FROM I-1 HDPE TO I-2) INV. IN 694.10 (36" INV. OUT (693.90 36 TYPE K INLET DOUBLE GRATE 677023.6403' 1334234.5436' HDPE FROM MH-1) HDPE TO I-3) TANDEM INV. OUT 691.00 (42 INV. IN 691.50 (36) TYPE K INLET DOUBLE GRATE 1334262.9354' 695.00 677093.0159' HDPE FROM I-2 HDPE TO MH-3 '2" DIAMETER PRECAST MANHOLE INV. IN 690.45 (42" INV. IN 690.60 (24" INV. OUT 690.25 (42) MDSHA STANDARD 677239.2820' 1334060.5180' HDPE FROM I-5) HDPE FROM EW-1 HDPE TO MH-2) FOR 42" AND 48" PIPES NO. 384.05 96" DIAMETER PRECAST MANHOLE INV. OUT 689.10 IDSHA STANDARD INV. IN 689.30 (42" INV. IN 689.30 (42" INV. IN 695.70 (24" 677199.1434 1334166.2748' HDPE FROM I-3) HDPE FROM MH-2 HDPE FROM I-4A) (42" HDPE TO I-4) FOR 72" PIPES NO. 384.09 INV. OUT 688.56 (EX INV. IN 688.76 (42" TYPE K INLET DOUBLE GRATE 1334126.3459' 677210.5865 HDPE FROM MH-3) TANDEM 42" RCP) INV. IN 696.50 (1) TYPE K INLET DOUBLE GRATE INV OUT 696 50 (24 SLOTTED PVC FROM 677190.7694' 1334063.5811' HDPE TO MH-3) INV IN 697 41 (18" INV OUT 697 21 (1 TYPE K INLET DOUBLE GRATE 1334139.3948' 677154.9441 HDPE FROM I-4C) HDPE TO I-4D) INV. OUT 697.77 (18) TYPE K INLET DOUBLE GRATE I-4C 701.25 677106.3643' 1334192.4358' HDPE TO I-4B) TYPE K INLET DOUBLE GRATE INV. IN 696.50 (18" SLOTTED PVC TO 677067.0621' 1334069.0237' HDPE FROM I-4B) TANDEM BASIN) INV. OUT 691.21 (42" TYPE K INLET DOUBLE GRATE 677289.7995 HDPE TO MH-2) TYPE K INLET DOUBLE GRATE INV. OUT 698.50 (18" 677211.0563' 1333997.3930' HDPE TO BASIN) TANDEM INV. IN 700.50 (4 INV. IN 700.50 (4) INV OUT 698,50 (18 PERF. HDPE PERF. HDPE IDSHA STANDARD STANDARD YARD INLET 1333962.5657' 677059 9141 UNDERDRAIN FROM UNDERDRAIN FROM | HDPE TO BASIN) CO-2) STANDARD TYPE S INLET DOUBLE INV. OUT 703.17 (30" 706.67 677033.9553' 1333995.7542' HDPE TO EW-2) GRATE TANDEM INV. OUT 702.26 (24" STANDARD TYPE E ENDWALL 1333924.7032' 702.26 677137.4750' HDPE TO MH-2) ROUND PIPE

INSTALLATION INSPECTION CHART						
STAGE*	INSPECTOR'S APPROVAL					
STAGE	INITIALS	DATE				
I. EXCAVATION TO SUBGRADE						
2. CONSTRUCTION OF THE INLET STRUCTURE						
3. PLACEMENT OF FILTER MEDIA ON THE BOTTOM						
4. PLACEMENT OF NO.57 OR NO.2 STONE AND PERFORATED PVC OR HDPE DISTRIBUTION AND DRAIN PIPES						
5. ALL PIPES CAPPED INSIDE THE NLET						
6. GEOTEXTILE INSTALLATION						
7. COMPLETION OF FINAL GRAVING, PAVING, CONSTRUCTION OR STRUCTURES AND ESTABLISHMENT OF 2" STAND OF DENSE GRASS						
3.REMOVE SEDIMENTS AND UNCAP ONLY THE DISTRIBUTION PIPES						
CARROLL COUNTY WITHIN 60 DAYS OF COMPLETION OF CONSTRUCTION						

INV. OUT 703.17 (30'

HDPE FROM I-8)

695.67

PLEASE NOTIFY CERTIFYING ENGINEER 48 HOURS PRIOR TO COMMENCING CONSTRUCTION

ENGINEER'S NAME:

STANDARD TYPE C ENDWALL

ROUND PIPE

EW-2

PHONE NUMBER:

seal / stamp

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CONCEPT SITE **DEVELOPMENT PLAN** 08/22/2023 project no. **2023.0102.00** project mgr. MS drawn by SMS

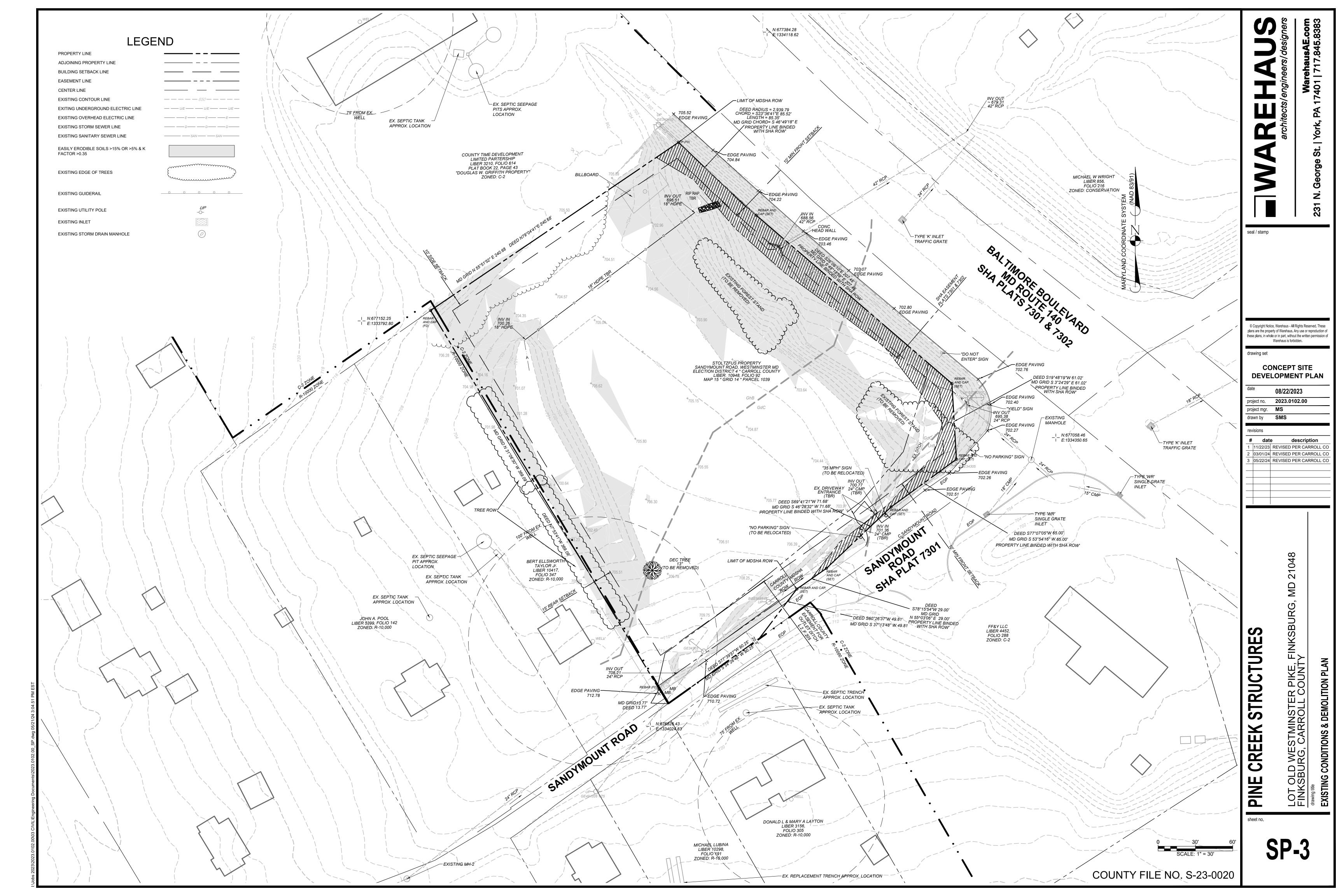
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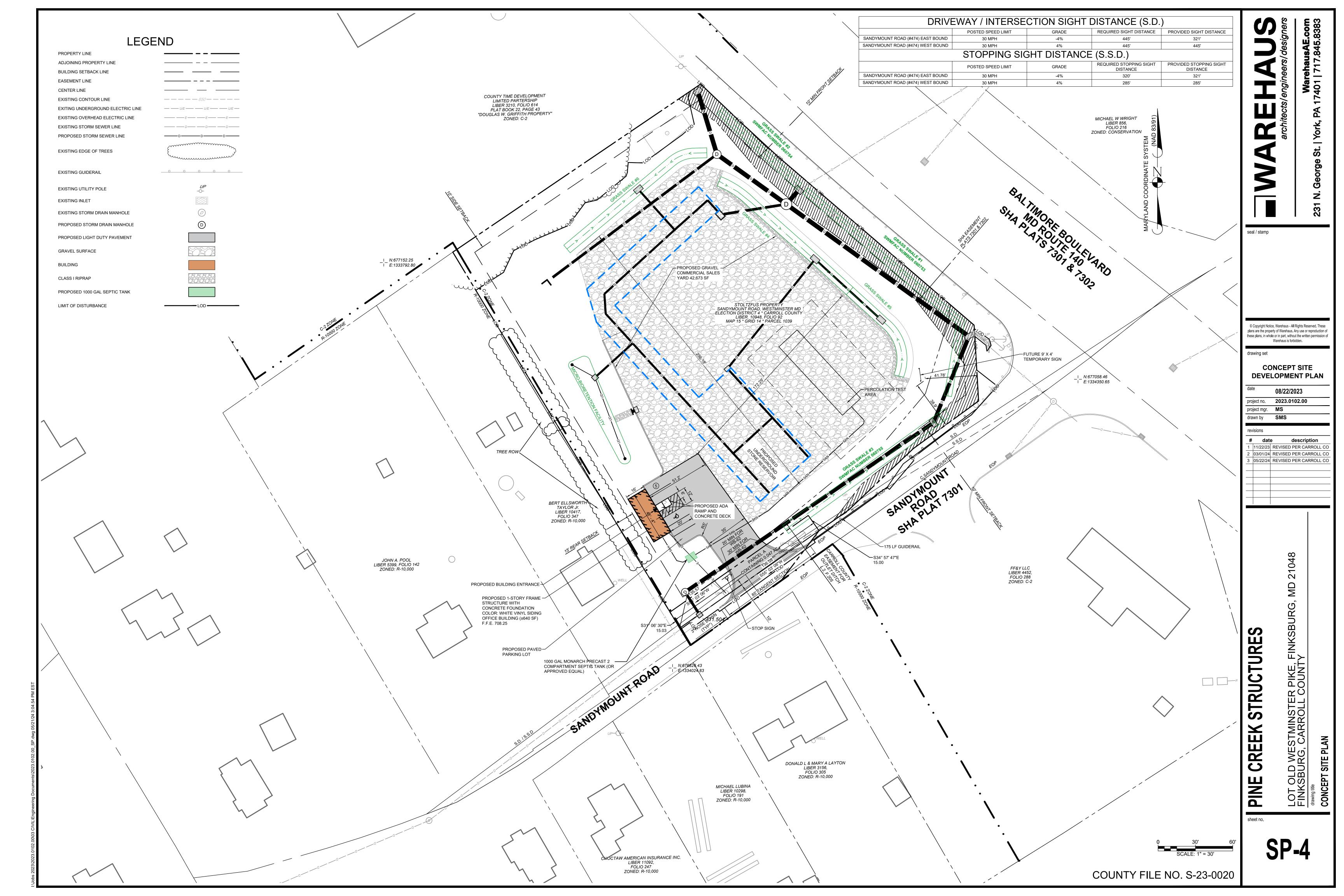
STRUCTURES

CREEK PINE

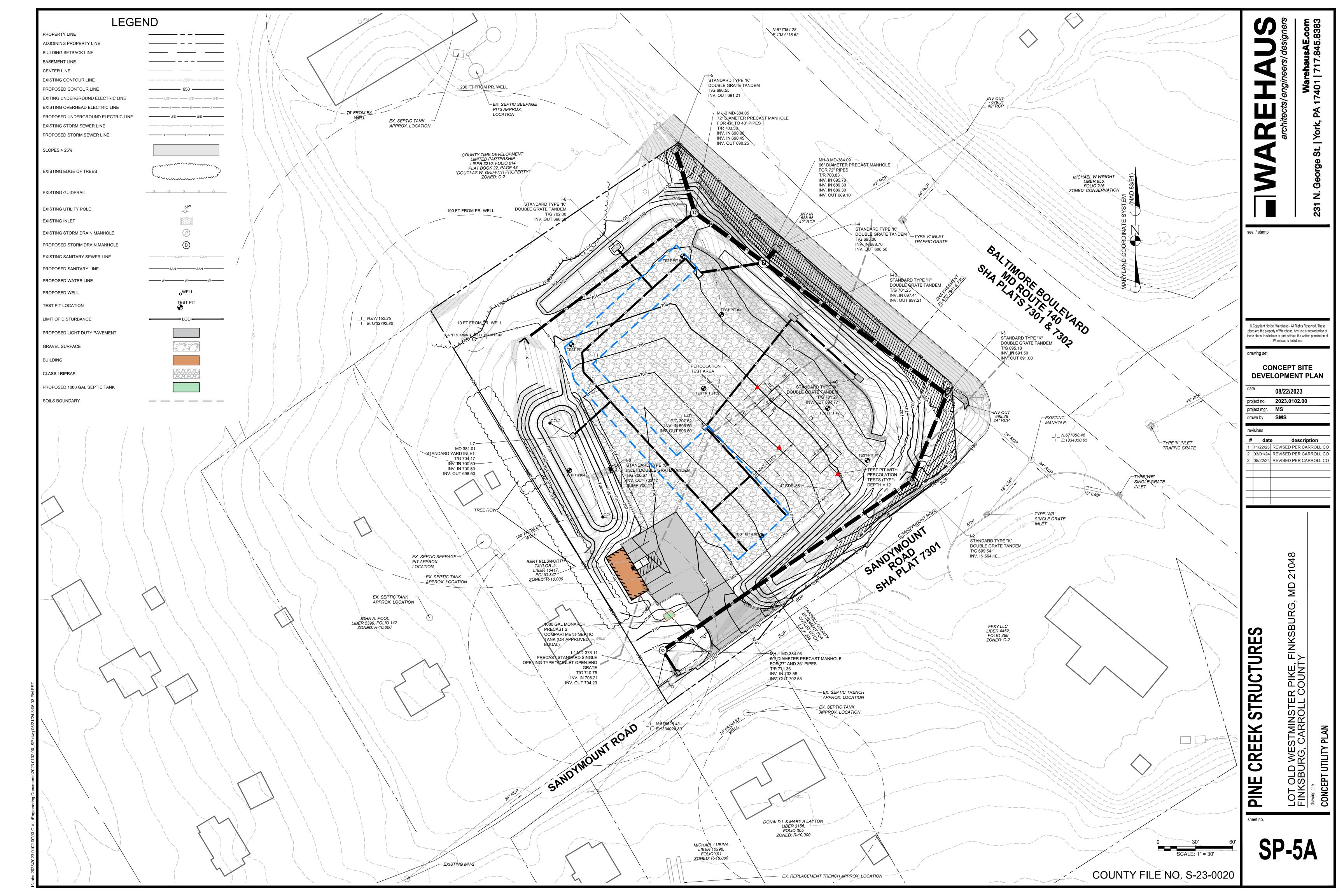
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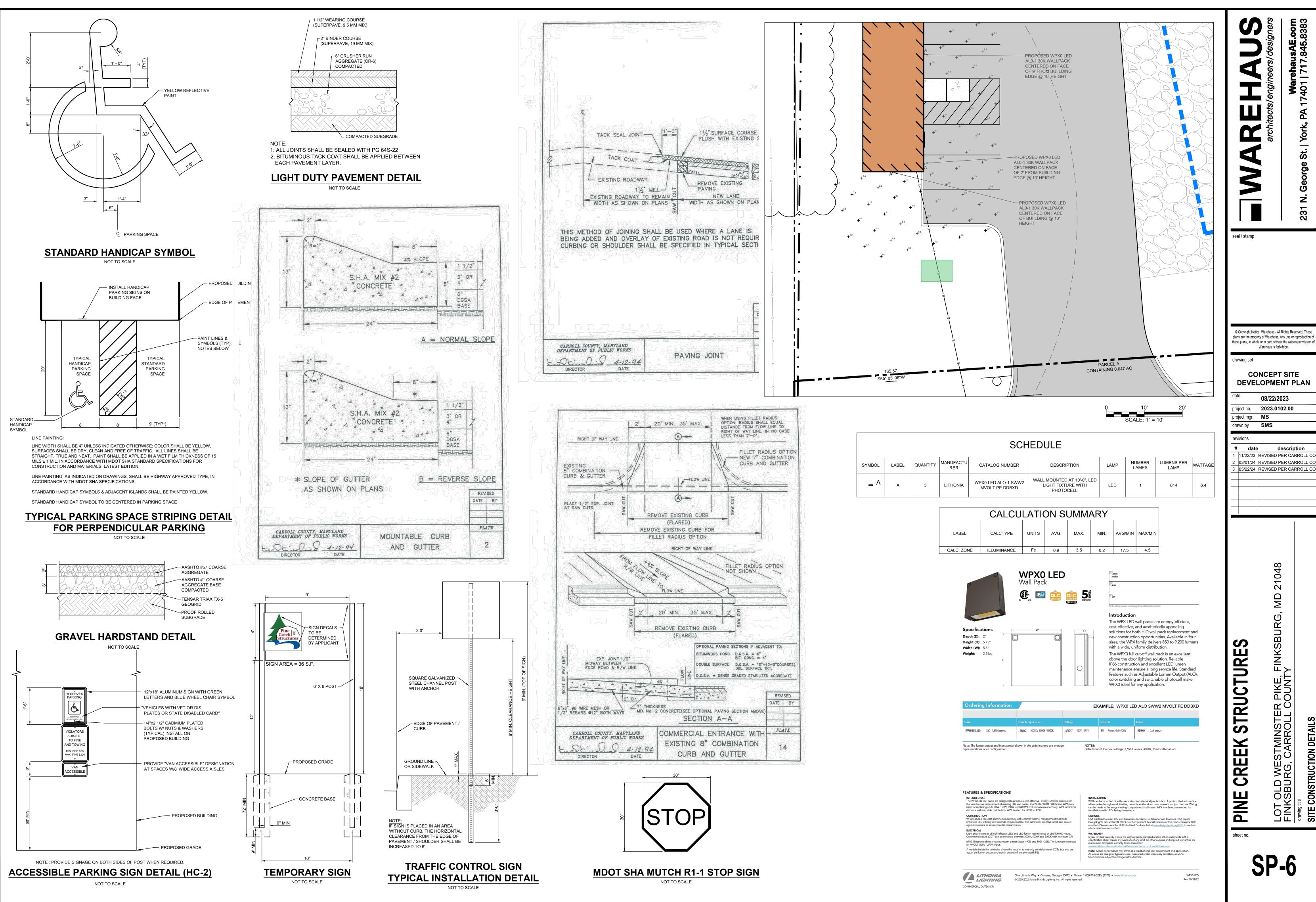
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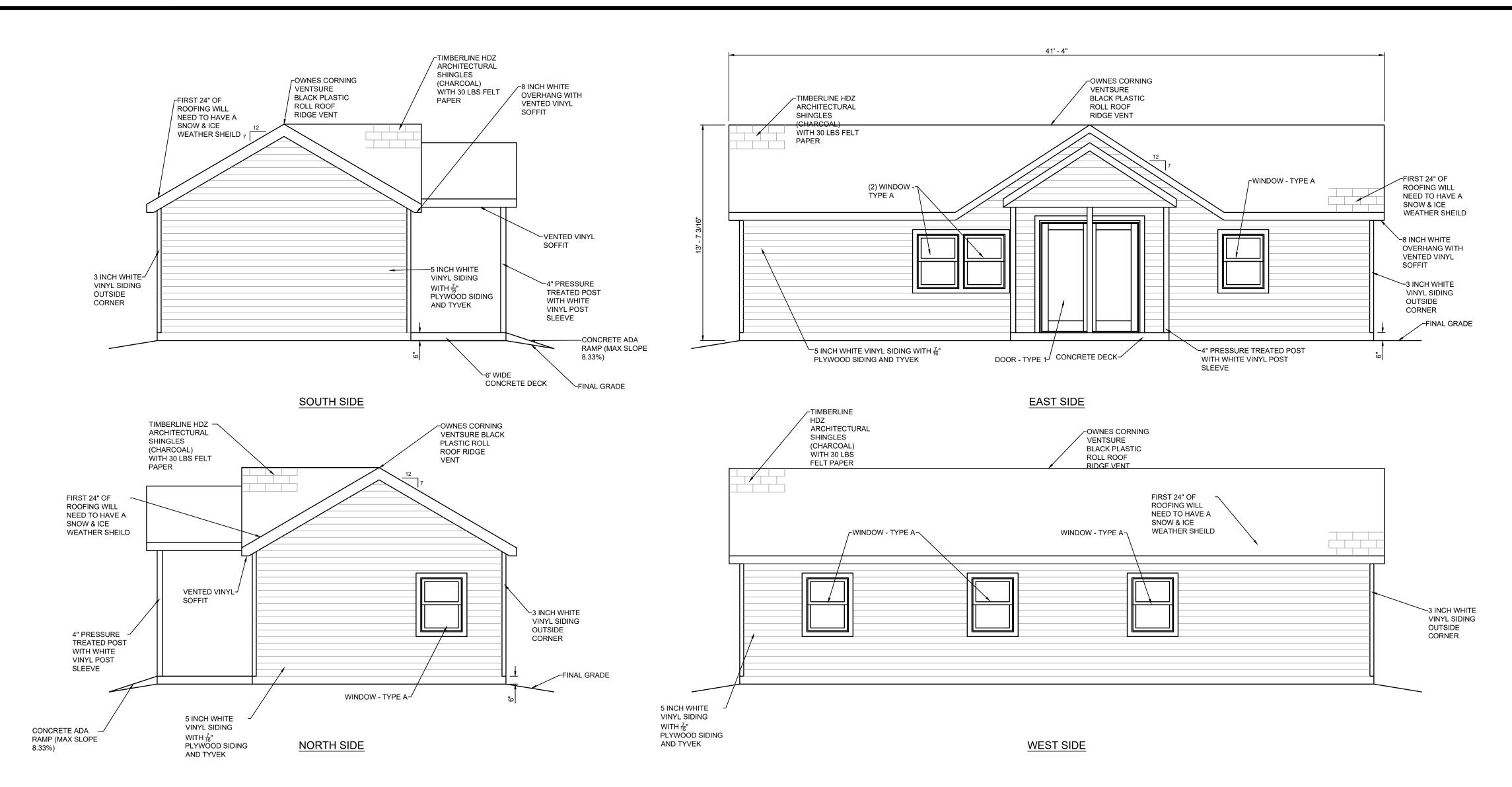
FINKSBURG, I

STMINSTER PIKE, CARROLL COUNT

LOT OLD WES
FINKSBURG, (
drawing title
SITE CONSTRUCTION

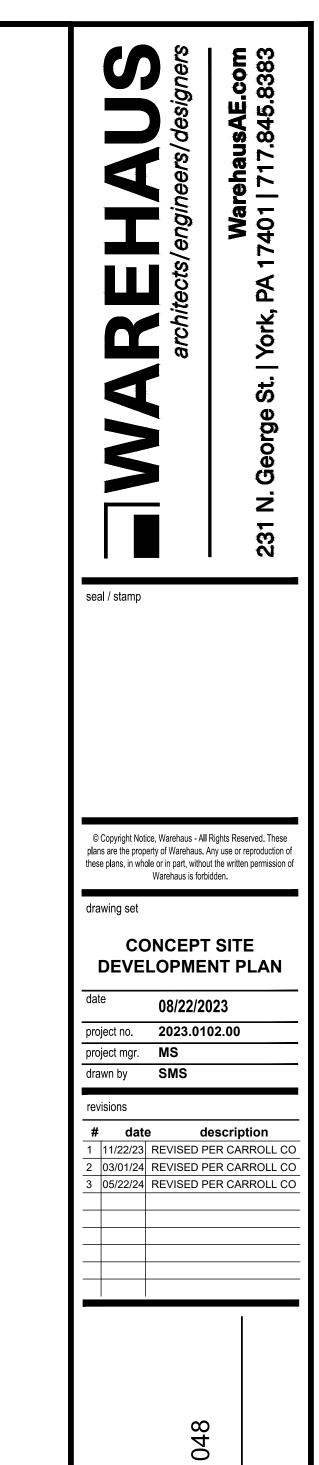
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08/22/2023

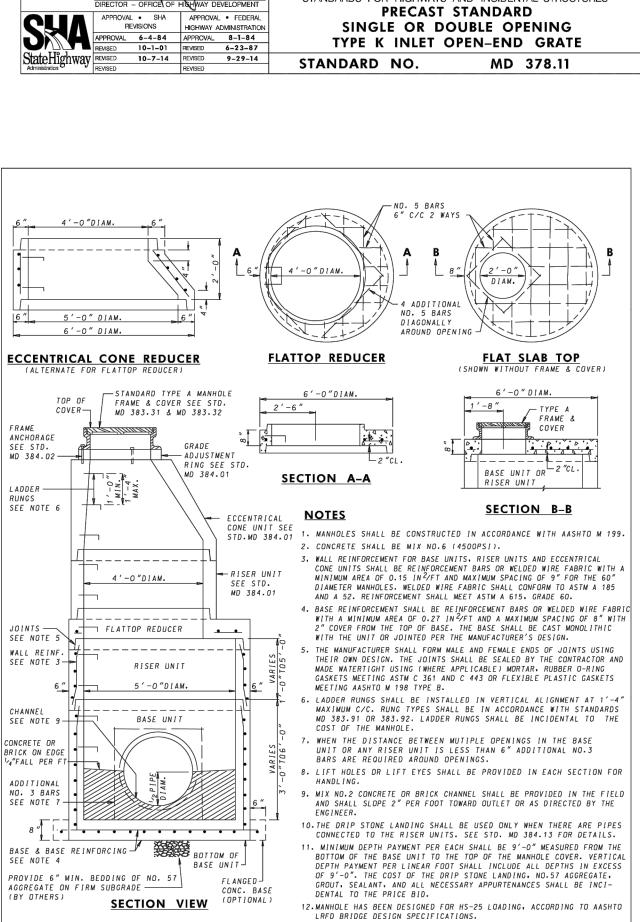


TYPICAL BUILDING ELEVATIONS

NOT TO SCALE



LOT OLD WESTMINSTER PIKE, FINKSBURG, MD FINKSBURG, CARROLL COUNTY PINE CREEK STRUCTURES



Maryland Department of Transportation

STATE HIGHWAY ADMINISTRATION

60" DIAMETER PRECAST MANHOLE

FOR 27" TO 36" PIPES

MD 384.03

STANDARD NO.

STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

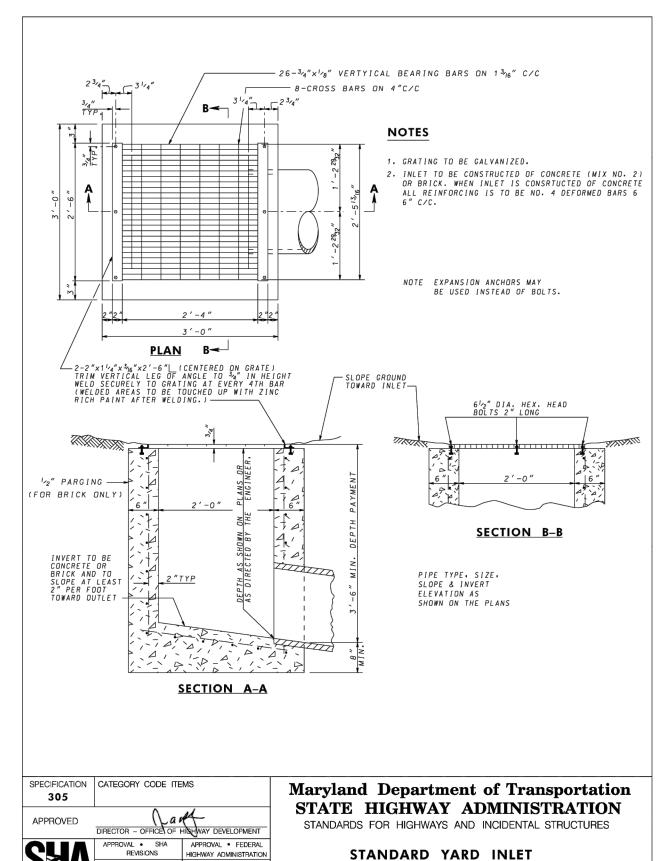
SPECIFICATION CATEGORY CODE ITEMS

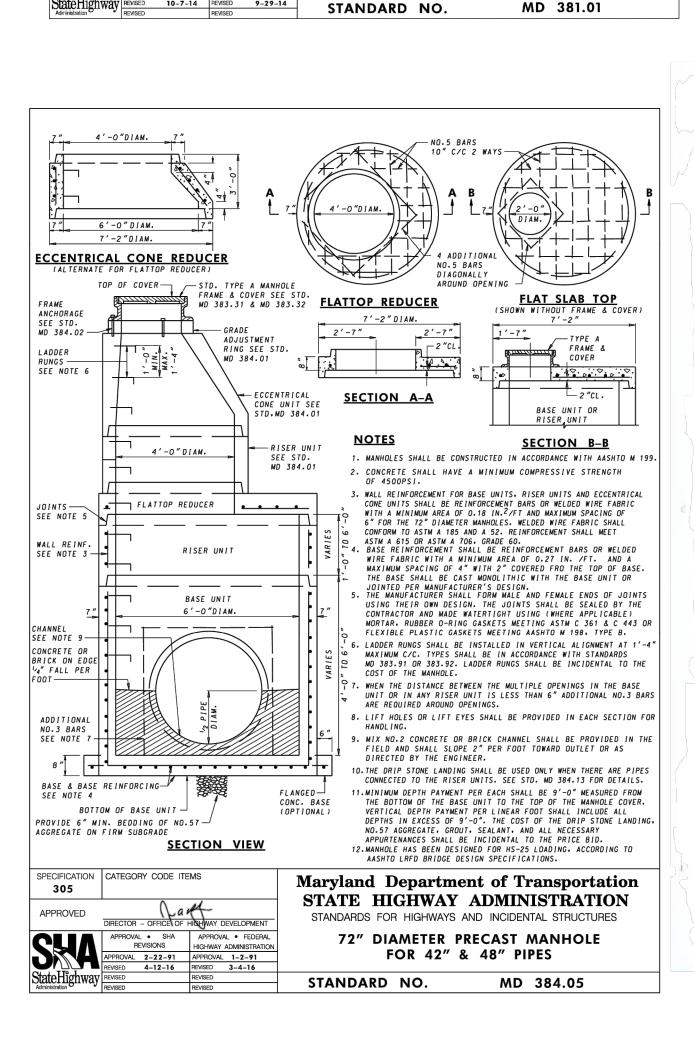
DIRECTOR - OFFICE OF HISHWAY DEVELOPMENT

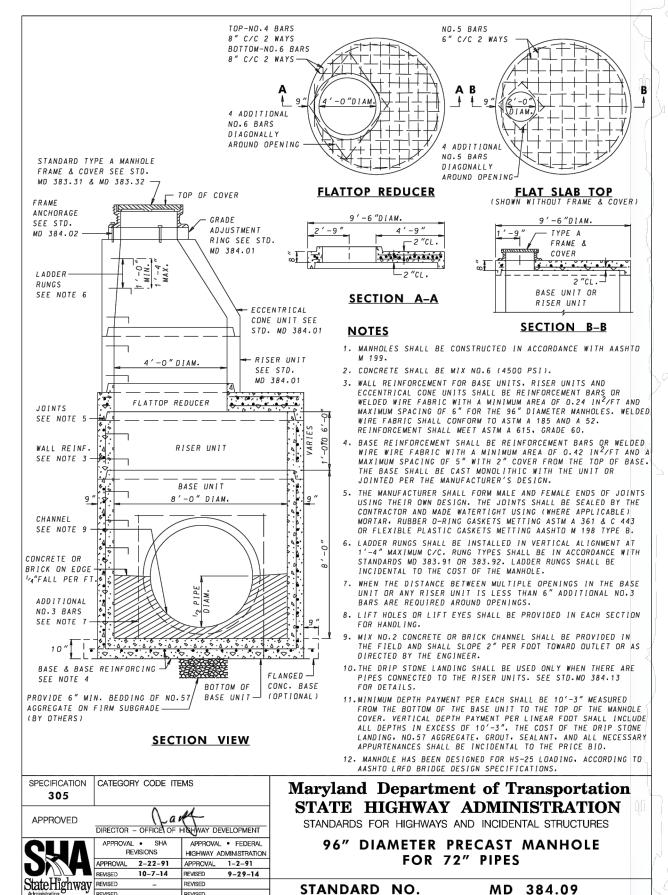
APPROVAL • SHA
REVISIONS
APPROVAL • FEDERAL
HIGHWAY ADMINISTRATION
APPROVAL 2-22-91
APPROVAL 1-2-91
BENISED 10-7-14
REVISED 9-29-14
PROMISED 9-29-14
PROMISED 9-29-14

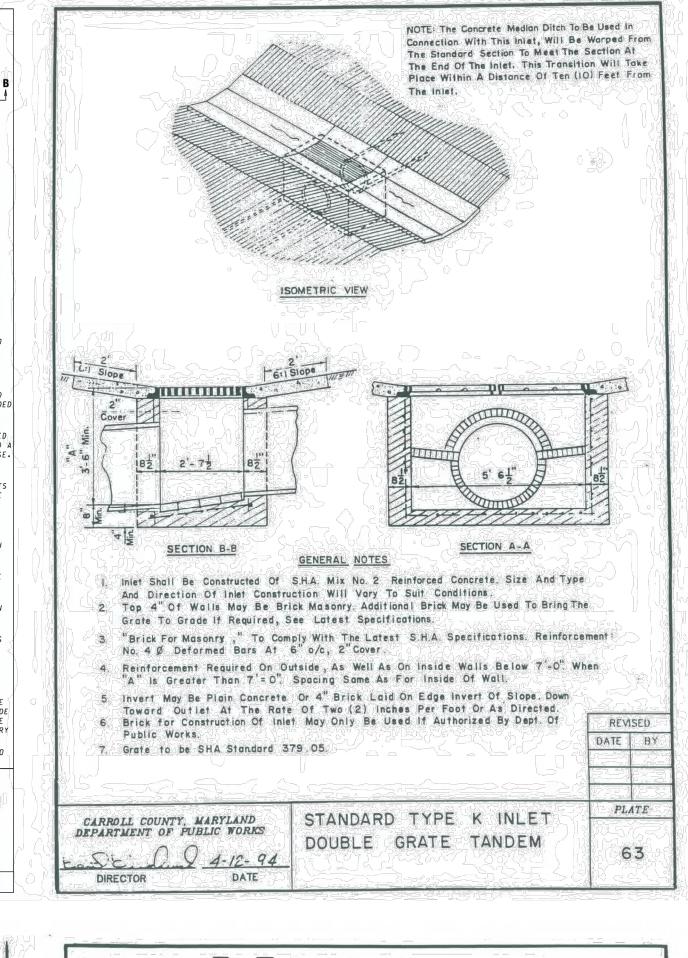
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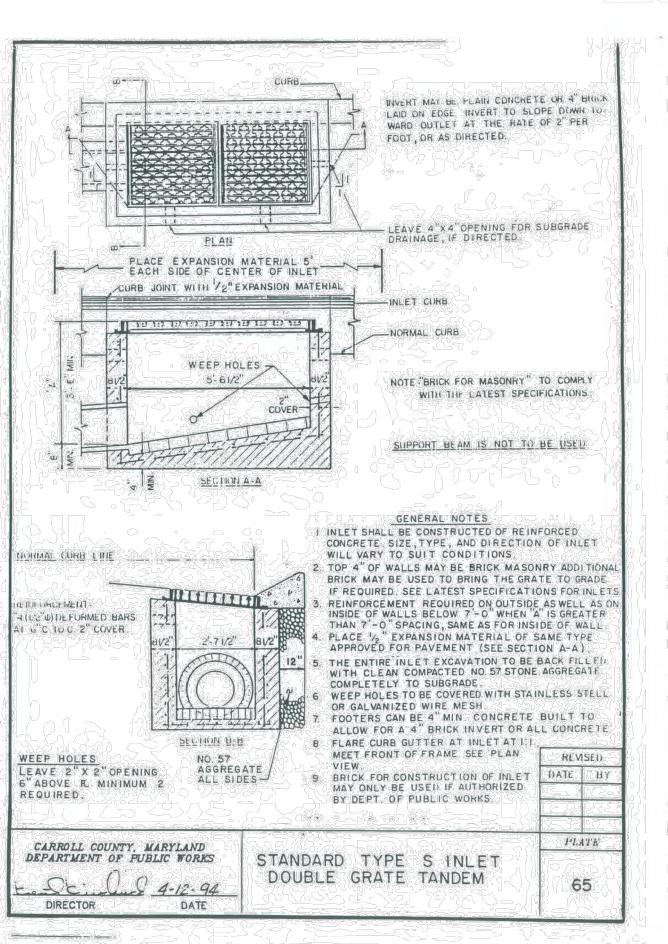
APPROVED



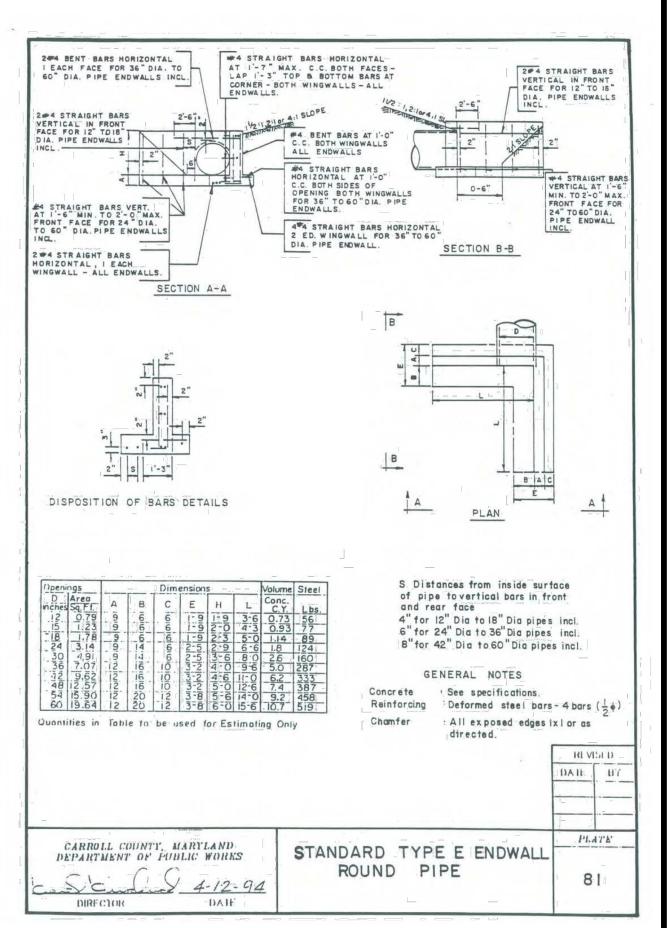


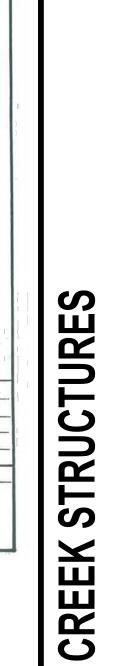






MD 384.09





PINE

sheet no.

STMINSTER CARROLL OLD WE: (SBURG, FINK

23

seal / stamp

drawing set

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CONCEPT SITE **DEVELOPMENT PLAN**

08/22/2023

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? |03/01/24| REVISED PER CARROLL CO

05/22/24 REVISED PER CARROLL CC

2

MD

FINKSBURG, I

R PIKE, COUNT

project no. **2023.0102.00**

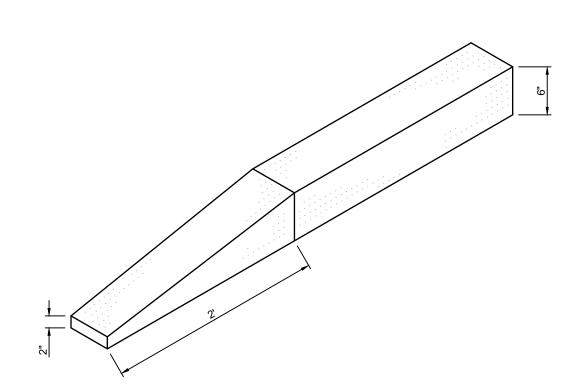
project mgr. MS

revisions

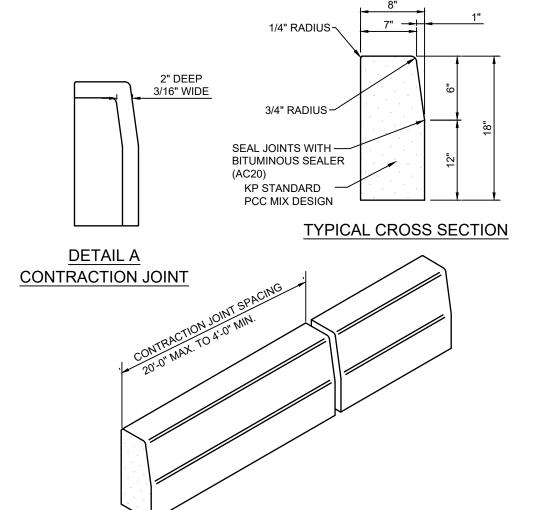
drawn by SMS

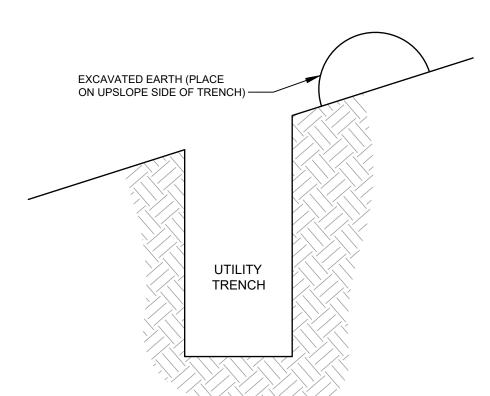
UTILITY

1000 GALLON CAPACITY



CURB END TREATMENT DETAIL - 6" REVEAL NOT TO SCALE





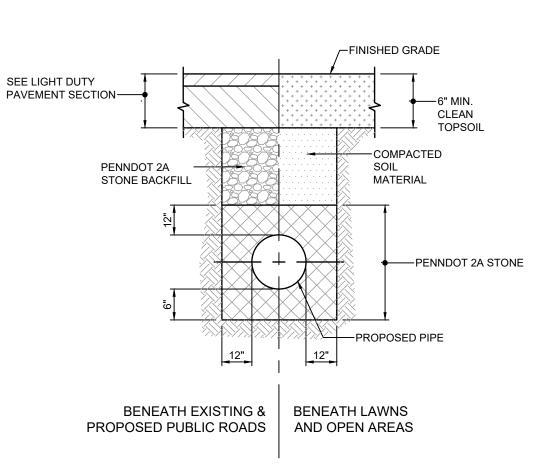
TRENCH SECTION

TRENCH EXCAVATION NOTES

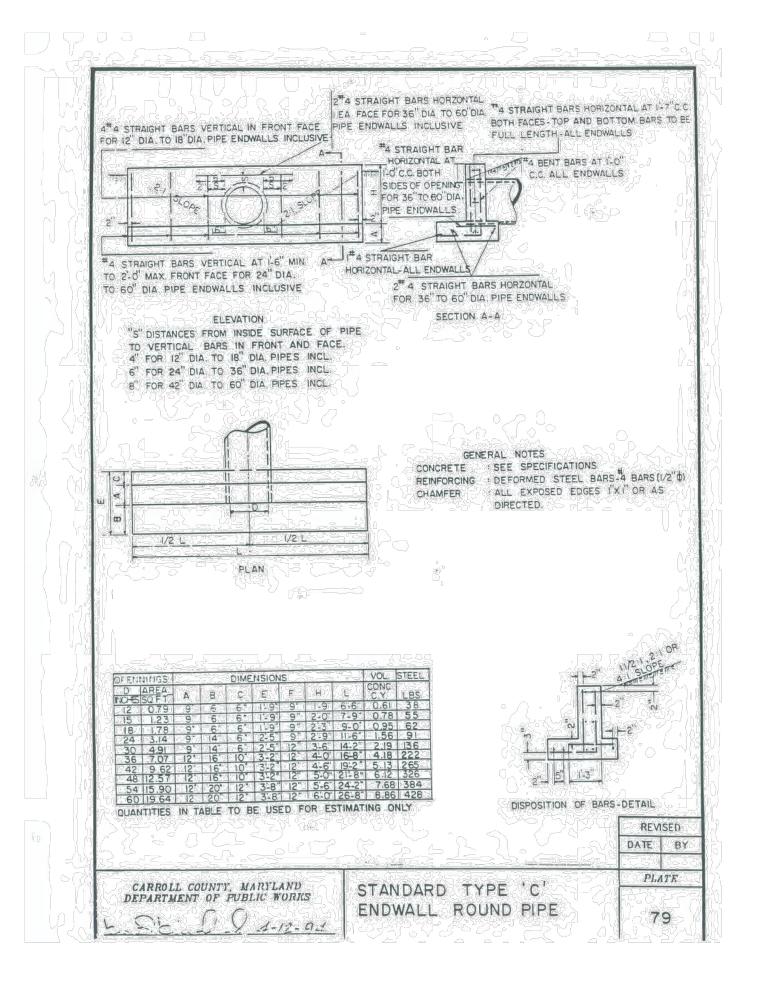
- 1. LIMIT ADVANCE CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE
- COMPLETED IN ONE DAY. 2. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE, AND BACKFILLING WILL BE SELF CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION OPERATIONS.
- 3. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT. AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY. 4. WATER THAT ACCUMULATES IN THE OPEN TRENCH WILL BE COMPLETELY
- REMOVED BY PUMPING TO A FILTER BAG FOR REMOVAL OF SEDIMENT. 5. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH
- 6. NO MORE THAN 50 LINEAL FEET OF OPEN TRENCH SHOULD EXIST WHEN PIPELINE/UTILITY LINE INSTALLATION CEASES AT THE END OF THE WORK DAY. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE
- OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY. 7. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES/FACILITIES WILL BE INSTALLED, AND THE AREA SEEDED AND MULCHED WITHIN THE NEXT TWO CALENDAR DAYS.

UTILITY TRENCH DETAIL

NOT TO SCALE



(WITHIN PUBLIC RIGHT-OF-WAY) TRENCH RESTORATION ON EXISTING PAVED SURFACES NOT TO SCALE



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drawing set

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08/22/2023 project no. **2023.0102.00** project mgr. MS drawn by SMS revisions

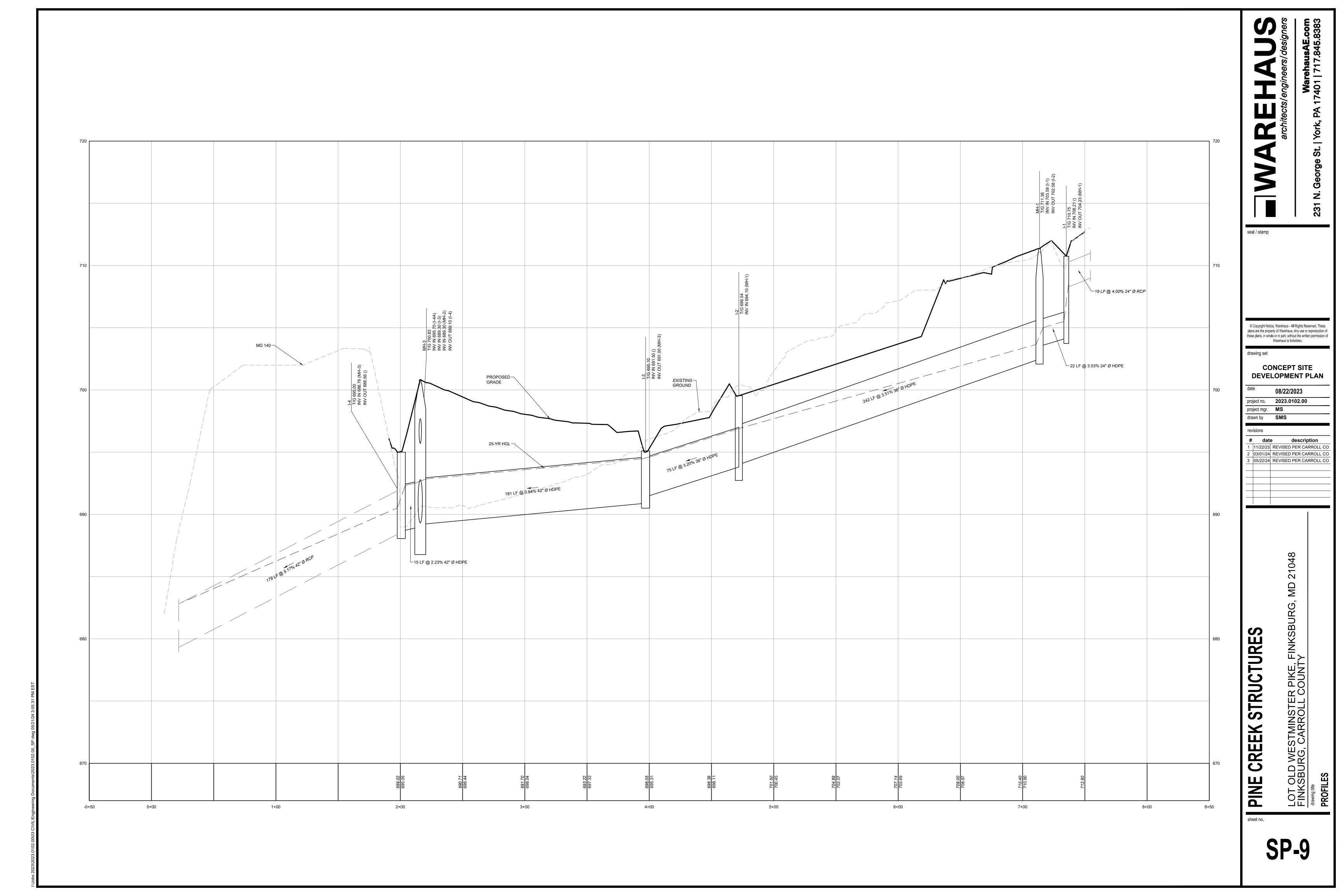
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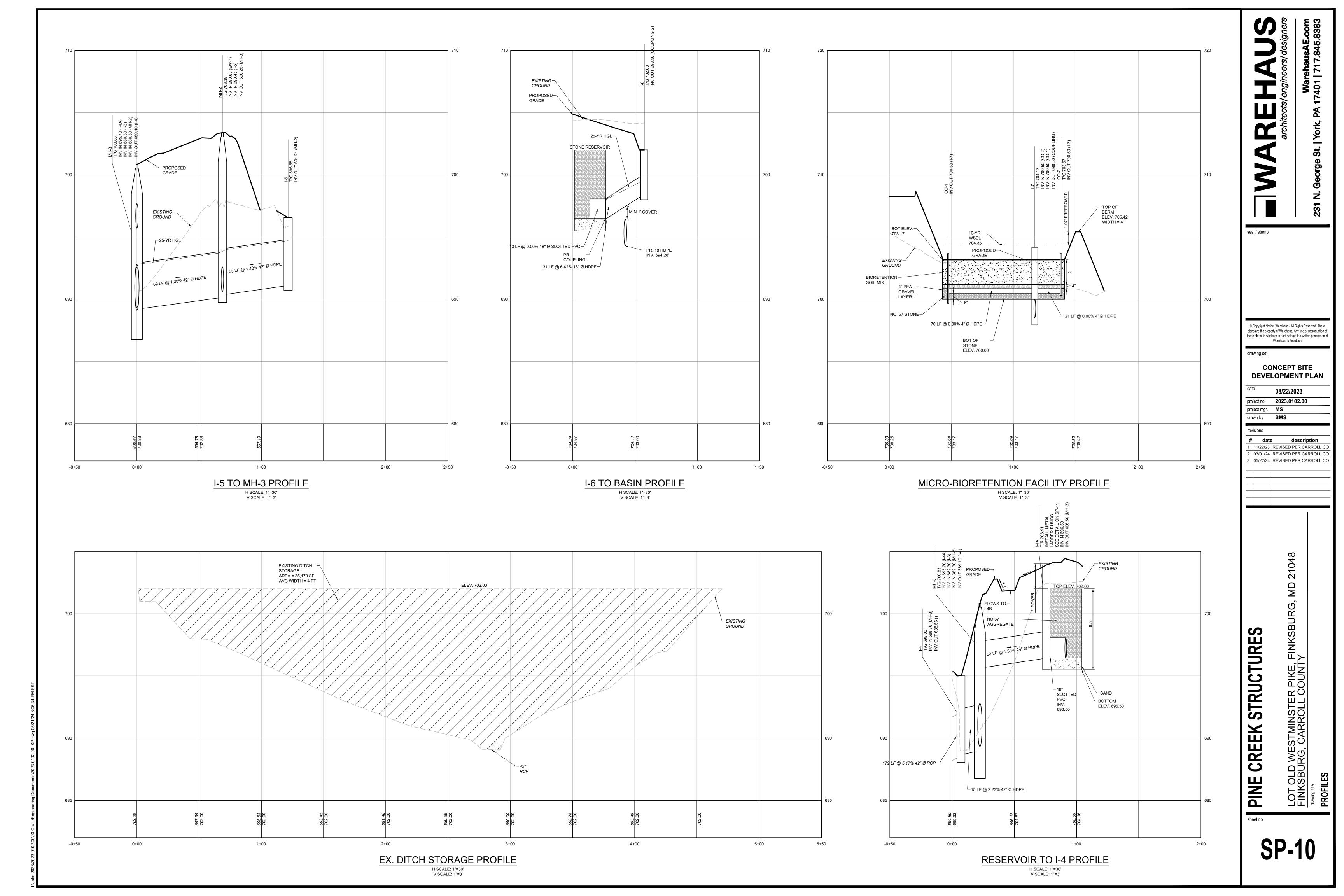
21048 MD

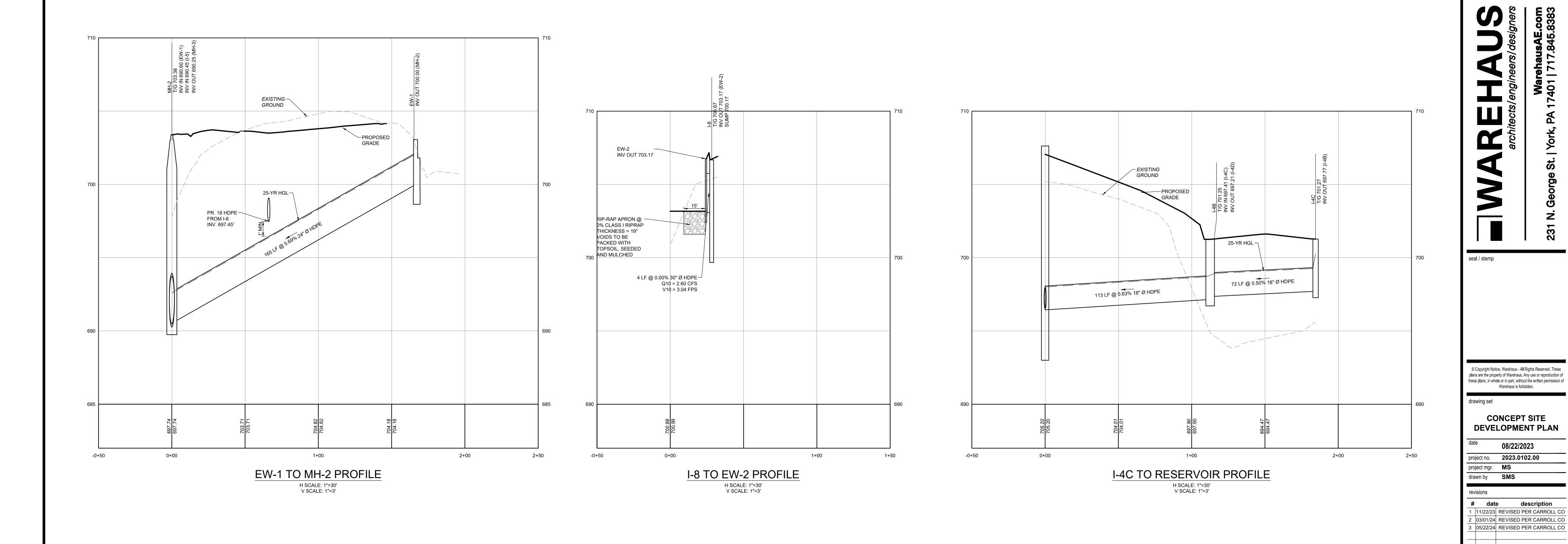
LOT OLD WESTMINSTER PIKE, FINKSBURG, FINKSBURG, CARROLL COUNTY

PINE CREEK STRUCTURES

PLAIN CEMENT CONCRETE CURB - 6" REVEAL







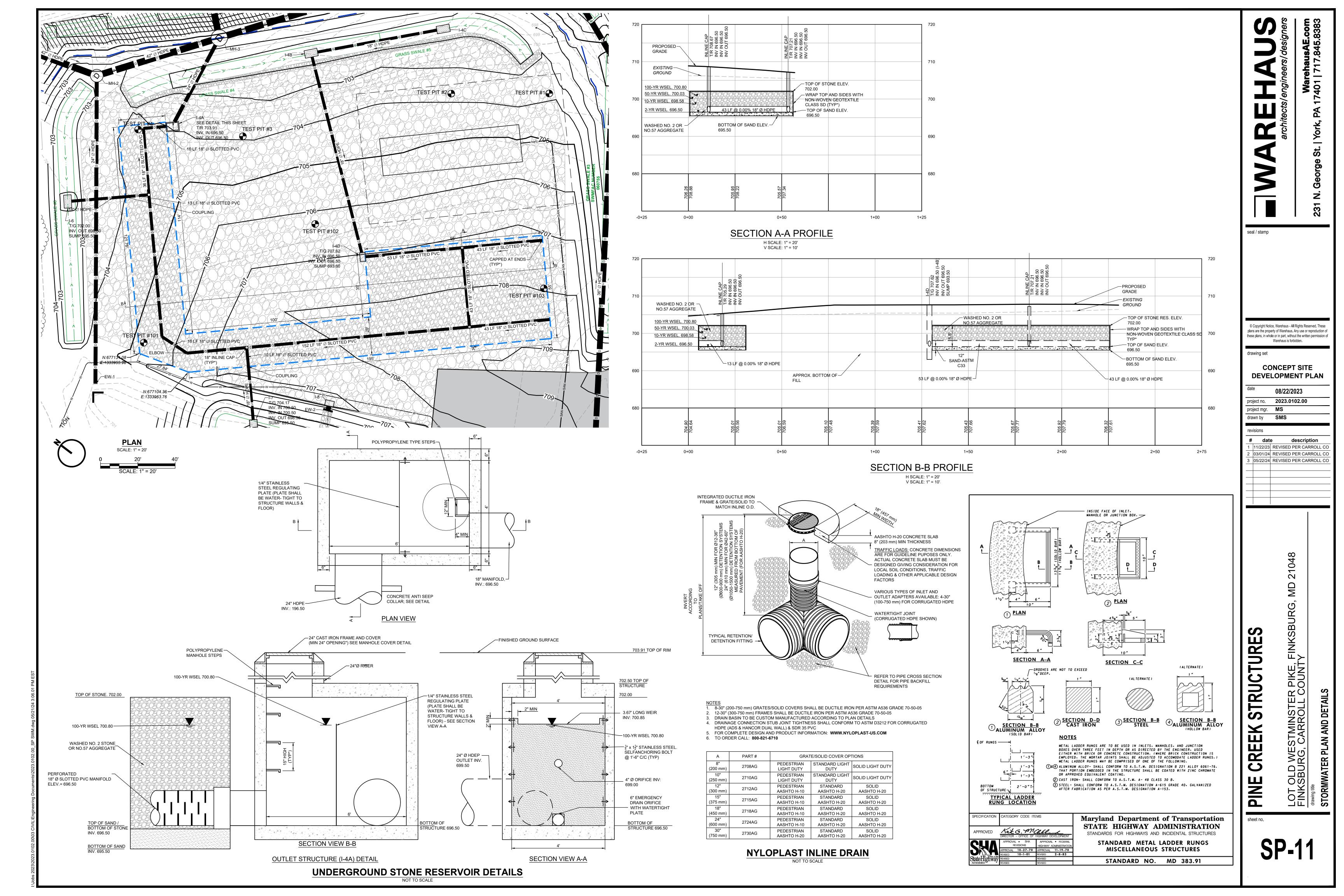
PINE CREEK STRUCTURES

LOT OLD WESTMINSTER PIKE, FINKSBURG, MD 21048
FINKSBURG, CARROLL COUNTY

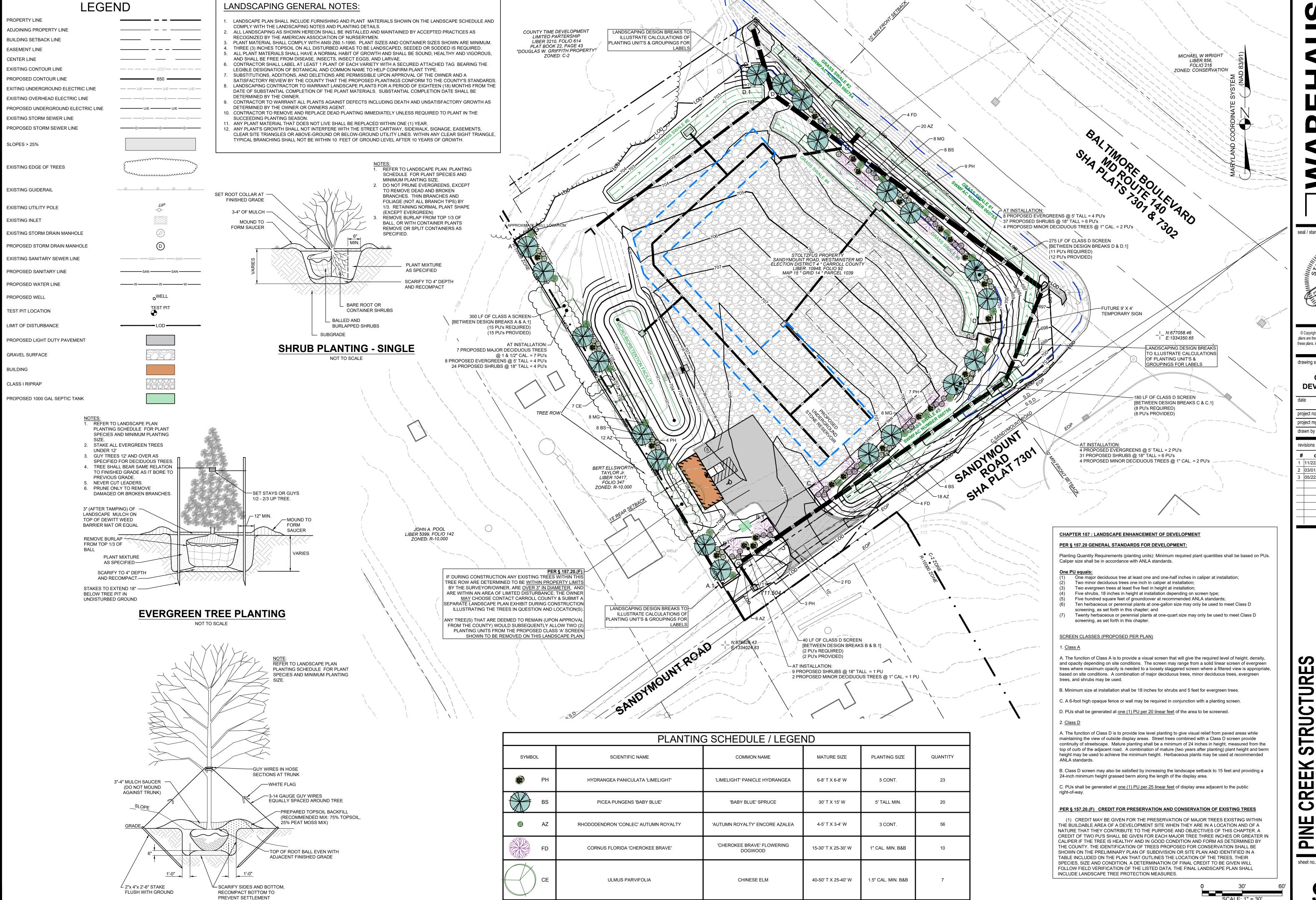
drawing title

PROFILES

description







MISCANTHUS SINENSIS 'GRACILLIMUS'

TREE PLANTING DETAIL

'GRACILLIMUS' MAIDEN GRASS

3 CONT.

seal / stamp



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CONCEPT SITE **DEVELOPMENT PLAN**

08/22/2023 project no. **2023.0102.00** project mgr. MS drawn by SMS

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LOT OLD WESTMINSTER PIKE, FINKSBURG, FINKSBURG, CARROLL COUNTY

sheet no.

PINE







EROSION & SEDIMENTATION CONTROL PLAN FOR

PINE CREEK STRUCTURES

Sheet List Table EROSION AND SEDIMENTATION CONTROL COVER SHEET **EROSION AND SEDIMENTATION CONTROL** EROSION AND SEDIMENTATION CONTROL EROSION AND SEDIMENTATION CONTROL INTERIM CONDITIONS EROSION AND SEDIMENTATION CONTROL PLAN **EROSION AND SEDIMENTATION CONTROL** EROSION AND SEDIMENTATION CONTROL **EROSION AND SEDIMENTATION CONTROL**

SEQUENCE OF CONSTRUCTION

THE MOST FEFECTIVE MEANS OF CONTROLLING EROSION AND PREVENTING SEDIMENT POLLUTION IS THE PROPER STAGING OF GRADING AND EARTH MOVING OPERATIONS AND LIMITING THE EXPOSURE OF DISTURBED AREAS TO THE SHORTEST DURATION POSSIBLE. THE CONTRACTOR MAY USE THE FOLLOWING APPROVED SEQUENCE OF CONSTRUCTION OR, AT HIS OWN EXPENSE, PREPARE AN ALTERNATE DETAILED CONSTRUCTION SCHEDULE AND SEQUENCE OF CONSTRUCTION AND SUBMIT THEM TO THE ENGINEER AND THE CARROLL COUNTY SOIL CONSERVATION DISTRICT FOR REVIEW AND APPROVAL PRIOR TO INITIATING EARTH MOVING OPERATIONS. THE SEQUENCE OF CONSTRUCTION MUST PAY PARTICULAR ATTENTION TO SCHEDULING AND IMPLEMENTATION OF EROSION AND SEDIMENT POLLUTION

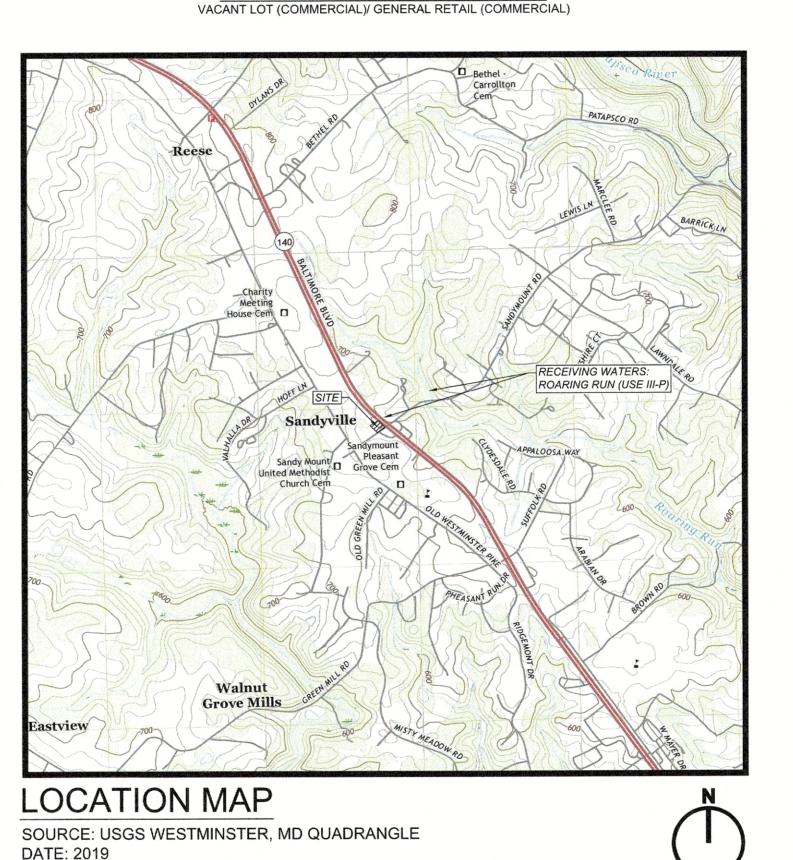
- CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR (1-410-386-2210) 24 HOURS PRIOR TO DOING ANYTHING ON SITE TO SET UP A PRE-CONSTRUCTION MEETING AND TO MAKE SURE ALL LOCAL ORDINANCE ITEMS HAVE BEEN SATISFIED.
- 2. FIELD LOCATE LIMITS OF DISTURBANCE, STORMWATER MANAGEMENT BMP'S (MICRO-BIORETENTION FACILITY, AND UNDERGROUND STONE RESERVOIR. SEPTIC DEEP TRENCH AREAS) WITH ROPE, FLAGGING, ORANGE SAFETY FENCE, ETC. AS SHOWN ON THE PLAN. MAXIMUM DISTANCE BETWEEN FLAGS, STAKES, ETC. SHALL BE NO MORE THAN 50 FEET.
- 3. INSTALL STABILIZED CONSTRUCTION ENTRANCES AS INDICATED ON THE PLAN IN ACCORDANCE WITH STABILIZED CONSTRUCTION
- 4. CLEAR MINIMUM AREA NECESSARY TO INSTALL PERIMETER SEDIMENT CONTROL DEVICES AND TREE PROTECTION FENCING AS SHOWN ON THE PLAN AND THE STAGING/LAYDOWN AREAS. MECHANICAL STABILIZATION WILL BE REQUIRED ON THE STAGING/LAYDOWN AREAS AND HEAVY USE AREAS, INCLUDING TRAVEL LANES. WOOD CHIPS MAY BE UTILIZED WITH APPROVAL FROM CARROLL COUNTY
- 5. ONCE SEDIMENT CONTROLS HAVE BEEN INSTALLED, CONTACT THE INSPECTOR FOR APPROVAL OF SEDIMENT CONTROL INSTALLATION
- 6. PERFORM CLEARING & GRUBBING AS NECESSARY TO BEGIN CONSTRUCTION OF THE PROPOSED STORM SEWERS AS SHOWN ON SP-20
- . INSTALL STORM DRAIN STRUCTURES, I-4, MH-3, MH-2, I-4A, I-5, I-3, AND EW-1 WITH ASSOCIATED STORM SEWER PIPES. THE STORM DRAIN CONSTRUCTION SHALL BE LIMITED TO AREAS WHERE THE PROPOSED WORK CAN BE COMPLETED IN A SINGLE WORKING DAY, INCLUDING APPLICATION OF PERMANENT STABILIZATION. PIPES NOT COMPLETELY BURIED SHALL BE BACKFILLED WITH STONE TO PREVENT FLOATATION. INSTALL RIPRAP OUTFALL PROTECTION AT I-3 AS SHOWN ON THE PLANS.
- 8. INSTALL MEDIAN SUMP INLET PROTECTION ON I-4A. INSTALL DIVERSION FENCING AS SHOWN ON THE PLANS
- 9. CONTRACTOR SHALL UTILIZE A PORTABLE SEDIMENT TANK TO DEWATER THE AREA LOCATED NEAR I-4 UNTIL FILL OPERATIONS HAVE
- 10. PROCEED WITH PLACEMENT OF SATISFACTORY FILL MATERIAL IN THE VICINITY OF I-4. ENSURE POSITIVE DRAINAGE TO I-4 AND INSTALL
- 11. PERFORM REMAINING CLEARING AND GRUBBING IN THE AREAS SHOWN ON THE PLAN.
- 12. STRIP TOPSOIL FROM THE EXISTING LAWN AREAS TO BE GRADED AND STOCKPILE TOPSOIL AT THE INDICATED TEMPORARY STOCKPILE AREA(S), APPLY TEMPORARY SEED AND MULCH.
- 13. CONTRACTOR SHALL PROCEED WITH THE PLACEMENT OF SATISFACTORY FILL MATERIAL. PLACEMENT OF FILL SHALL START IN ALONG THE PERIMETER OF THE SITE IN THE LOCATIONS OF GRASS SWALES #1, #2. INSTALL GRASS SWALES #1, AND #2, TO THE DIMENSIONS
- 14. INSTALL COMPOST FILTER LOGS #9 AND #10 AS SHOWN ON THE PLANS.
- 15. REMOVE SCE-1 AND INSTALL STORM DRAIN STRUCTURES I-2, MH-1, AND I-1. INSTALL MEDIAN SUMP INLET PROTECTION AT I-2 AND I-1. CONTINUE PLACEMENT OF FILL IN THE LOCATIONS OF GRASS SWALE #3, INSTALL GRASS SWALE #3 TO THE DIMENSIONS SHOWN ON
- 16. EXCAVATE THE UNDERGROUND STONE RESERVOIR. THE UNDERGROUND STONE RESERVOIR CANNOT BE INSTALLED UNTIL THE CONTRIBUTING DRAINAGE AREA TO THE FACILITY HAS 95% STABILIZATION. IF ALLOWED EARLY INSTALLATION OF THE STORMWATER BMPS. THE FACILITY MUST BE PROTECTED WITH COMPOST FILTER SOCKS AND SOD PLACEMENT ON THE PERIMETER OF THE
- 17. INSTALL STORM DRAIN STRUCTURES I-4B, I-4C, AND I-6 WITH ASSOCIATED STORM SEWER PIPES. INSTALL MEDIAN SUMP INLET PROTECTIONS ON I-4B, I-4C, AND I-6. INSTALL GRASS SWALES #4, #5, AND #6.
- 18. REMOVE FRAME AND GRATE FROM I-4A AND INSTALL TOP UNIT TO ELEVATION SHOWN ON THE GRADING AND UTILITY PLAN. INSTALL
- 19. INSTALL EARTHERN BERM FOR THE MICRO-BIORETENTION FACILITY. INSTALL STORM SEWER STRUCTURE I-7 WITH ASSOICATED STORM SEWER PIPE. INSTALL STANDARD INLET PROTECTION ON 1-4 AND BEGIN GRADING MICRO-BIORETETENTION FACILITY. CONTRACTOR SHALL USE FILTER BAG TO KEEP EXCAVATED FOOTPRINT CLEAR OF HIGH QUANTITIES OF RUNOFF UNTIL GRADING IS COMPLETE.
- 20. PLACE FILL AS NECESSARY, EXCAVATE AND GRADE NEW LAWN AREAS TO FINAL SUBGRADE ELEVATIONS (SURFACE ELEVATION MINUS
- 21. CONTRACTOR SHALL EXCAVATE FOR NEW BUILDING PAD.CONTRACTOR TO UTILIZE FILTER BAG TO KEEP EXCAVATED FOOTPRINT CLEAR
- 22. BUILDING CONSTRUCTION MAY NOT PROCEED PAST THE GROUND FLOOR UNTIL ALL REMAINING DISTURBED AREAS HAVE BEEN PERMANENTLY OR TEMPORARILY STABILIZED. DURING BUILDING CONSTRUCTION BEYOND THE GROUND FLOOR, ALL DISTURBED AREAS MUST BE STABILIZED AT THE END OF EACH BUSINESS DAY. A CERTIFICATE MUST BE PROVIDED TO THE INSPECTOR VERIFYING THE GRADES AND DRAINAGE PATTERNS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN OBTAINED.
- 23. PROCEED WITH CONSTRUCTION OF NEW SALES OFFICE BUILDING.
- 24. CONTRACTOR IS TO COMPLETE ALL PROJECT RELATED SITE WORK AND SHALL PERFORM FINAL GRADING.
- 25. CONTRACTOR SHALL THEN INSTALL UNDERGROUND STONE RESERVOIR SAND LAYER, SLOTTED PVC UNDERDRAIN PIPING, NON-WOVEN GEOTEXTILE, WASHED NO. 2 STONE OR NO. 57 AGGREGATE, AND 18" HDPE RISER AS SHOWN ON THE PLANS.
- 26. UPON ACHIEVING SUBSTANTIAL COMPLETION OF SITE CONSTRUCTION (WHEN HEAVY MACHINERY WILL NOT BE NEEDED ON LAWN AREAS), TOPSOIL IS TO BE SPREAD (FROM STOCKPILE AND/OR IMPORTED) TO A MINIMUM DEPTH OF 4" TO ALL DISTURBED AREAS INDICATED TO BE LAWN. IMMEDIATELY, SEED AND MULCH ALL LAWN AREAS UPON REACHING FINAL GRADES.
- 27. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS AND AFTER THE SITE IS 95% STABILIZED, CONTACT THE CARROLL COUNTY SEDIMENT CONTROL INSPECTOR PRIOR TO REMOVING ANY SEDIMENT CONTROL MEASURES. APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR IS REQUIRED.
- 28. CLEANUP THE PROJECT SITE AND DISPOSE OF ALL CONSTRUCTION DEBRIS OFF-SITE IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION. REPAIR, RESEED AND MULCH AREAS DISTURBED BY FINAL CONSTRUCTION ACTIVITIES OR BMP REMOVAL.

LOT OLD WESTMINSTER PIKE, FINKSBURG, MD 21048 FINKSBURG, CARROLL COUNTY

OWNER / DEVELOPER

PINE CREEK STRUCTURES 44 WALNUT LANE SACRAMENTO, PA 17968 CONTACT: AMOS STOLTZFUS PHONE: 717-409-0585

EXISTING / PROPOSED USE



SCALE: 1" = 2000'

PINE CREEK STRUCTURES

FINKSBURG, CARROLL COUNTY,

MARYLAND

ADDRESS

LOT OLD WESTMINSTER

PIKE, FINKSBURG, MD 21048

	LOT INFO	ORMATIO	N		
TOWN, COUNTY, STATE	OWNER	SIZE	LIBER, FOLIO	MAP, GRID, PARCEL	ELECTION DISTRICT NO.

2.3363 ACRES

0053, 14, 1039

BY CERTIFICATION OF THIS PLAN THERE ARE NO WETLANDS IN THE PROJECT AREA. THE PROPOSED PROJECT WILL NOT IMPACT OFF-SITE WETLANDS, AND WETLAND

FLOODPLAIN NOTE:

SUBJECT PROPERTY OR THE LIMIT OF DISTURBANCE AREA. FEMA FIRM PANNEL NO. 24013C0220D EFFECTIVE 10/02/2015.

STREAM INFORMATION:

RECEIVING WATERSHED: SUBWATERSHED: ROARING RUN

SUBBASIN: LIBERTY RESERVOIR MAJOR RIVER BASIN: PATAPSCO RIVER

BY CERTIFICATION OF THIS PLAN THE PROJECT SITE IS NOT LOCATED WITHIN A

RESOURCE MANAGEMENT AREAS

BY CERTIFICATION OF THIS PLAN THE PROJECT SITE IS LOCATED WITHIN A

LIMIT OF DISTURBANCE (LOD) / PROJECT SITE AREA:

SOIL CONSERVATION DISTRICT

THE DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT

APPROVED______ CARROLL S.C.D./DATE

ENGINEER

I CERTIFY THAT THIS PLAN OF SEDIMENT CONTROL IS DESIGNED WITH MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND HAS BEEN DESIGNED TO THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE CARROLL SOIL CONSERVATION DISTRICT.

OWNER/DEVELOPER

I CERTIFY THAT THIS PLAN OF SOIL EROSION & SEDIMENT CONTROL WILL BE IMPLEMENTED TO THE FULLEST EXTENT, AND ALL STRUCTURES WILL BE INSTALLED TO THE DESIGN AND SPECIFICATIONS AS SPELLED OUT IN THE ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT BEFORE EVALUATION BY THE CARROLL SOIL CONSERVATION DISTRICT PERSONNEL

DEVELOPER PRINTED NAME OF DEVELOPER **DEVELOPER COMPANY NAME**

PERMITS ARE NOT REQUIRED FROM THE STATE OR FEDERAL GOVERNMENT.

BY CERTIFICATION OF THIS PLAN THERE ARE NO FEMA MAPPED FLOODPLAINS ON THE

NAME: UNT TO ROARING RUN (USE III-P)

MDE TIER II HIGH QUALITY WATERSHED.

SURFACE WATER PROTECTION AREA.

PROJECT SITE AREA = 2.3668 AC

CONTROL BY THE SOIL CONSERVATION DISTRICT.

PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN CONSTRUCTION OF THIS PROJECT WILL HAVE A CERTIFICATION OF BEGINNING THE PROJECT. I ALSO AUTHORIZE THE PERIODIC ON-SITE

DEVELOPER PHONE NUMBER

STRUCTURE

CREEK

seal / stamp

drawing set

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EROSION & SEDIMENTATION

CONTROL PLAN

08/22/2023

1 11/22/23 REVISED PER CARROLL C

05/22/24 REVISED PER CARROLL C

project no. **2023.0102.00**

project mgr. MS

drawn by SMS

- A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO 2. THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION
- AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THAN 5 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES AND FOR STEEP SLOPES) MUST BE STABILIZED WITH MULCH OR TEMPORARY STABILIZATION. ANY AREAS THAT ARE IN TEMPORARY VEGETATION FOR OVER 6 MONTHS WILL NEED TO BE PERMANENTLY VEGETATED.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES. OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE MARYLAND ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-257-7777 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION, SEE B-4-4 AND B-4-5.
- VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1
- THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATION IN B-4-2
- THE REQUIRED SEQUENCE OF CONSTRUCTION MUST BE FOLLOWED DURING SITE DEVELOPMENT. ANY CHANGES IN THE SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ANY REVISIONS TO THE SEDIMENT CONTROL PLAN, NOT COVERED UNDER THE LIST OF PLAN MODIFICATIONS THAT CAN BE APPROVED BY THE SEDIMENT CONTROL INSPECTOR, NEED TO BE SUBMITTED TO THE SOIL CONSERVATION
- 10. NO PROPOSED SLOPE THAT IS REQUIRED TO BE SEEDED AND/OR MULCHED SHALL BE STEEPER THAN 2:1. SLOPES STEEPER THEN 2:1 SHALL REQUIRE A ENGINEERED DESIGN FOR STABILIZATION
- 11. ALL SEDIMENT CONTROL STRUCTURES WILL BE INSPECTED ONCE A WEEK AND AFTER EACH RAINFALL AND WILL BE REPAIRED, AS NEEDED, SO THAT THE STRUCTURE MEETS THE MINIMUM SPECIFICATIONS AS SHOWN IN THE 2011
- 12. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE 2. DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- 13. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON
- 14. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
- 15. VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA THE STABILIZED CONSTRUCTION ENTRANCES
- 16. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES. WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL
- EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE CONSERVATION DISTRICT OR THE DEPARTMENT.
- 18. IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE ANNE ARUNDEL SOIL CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
- 19. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
- 20. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- 21. THE CONTRACTOR SHALL PROTECT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS TO PREVENT THE DEPOSITION OF MATERIALS ONTO PUBLIC ROADS. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR MDE.
- 23. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER
- 24. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.

DEMOLITION NOTES:

- 1. SITE CLEARING TO BE LIMITED TO CUTTING OF TREES AND SHRUBS TO 18 INCHES FROM THE GROUND. NO EARTH DISTURBANCE IS PERMITTED OUTSIDE OF THE LIMIT OF DISTURBANCE.
- 2. WITHIN THE LIMIT OF DISTURBANCE, CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S CONTROL PLAN APPROVED BY THE LOCAL SOIL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
- 5. IF AN UNDERGROUND STORAGE TANK (UST) IS DISCOVERED ON THE PROPERTY, COLLECT POST EXCAVATION SAMPLES TO DEMOSTRATE THAT IT HAS NOT LEAKED. IF THE UST WAS FOUND TO HAVE LEAKED, IT SHOULD BE REMEDIATED UNDER THE MD DEP VOLUNTARY CLEANUP PROGRAM.

STABILIZATION SPECIFICATIONS:

- 1. ADEQUATE VEGETATIVE STABILIZATION REQUIRES 95 PERCENT GROUND COVER.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHENEVER POSSIBLE PRIOR TO SEEDING.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE, THE OPERATOR SHALL STABILIZE THE DISTURBED AREAS. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINAL GRADE OR WHICH WILL NOT BE RE-DISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- AN EROSION CONTROL BLANKET WILL BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1, AND ALL AREAS OF CONCENTRATED FLOWS
- EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED WHEN APPLYING TOPSOIL.
- MULCH ALONE MAY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES ONLY IF THE GROUND IS FROZEN. THE APPROPRIATE SEEDING MIXTURE MUST BE APPLIED WHEN THE GROUND THAWS.

RECYCLING MEASURES

- THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO , EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHALL BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIAL IS PREFERRED, RATHER THAN DISPOSAL
- ALL RECYCLABLE MATERIAL SHALL BE SEPARATED AND BE TAKEN TO AN APPROPRIATE RECYCLING FACILITY. ALL OTHER WASTE MATERIALS, EXCEPT EXCESS SOIL, SHALL BE DISPOSED OF OFF-SITE AT A LEGAL SANITARY LANDFILL. EXCESS SOIL WASTE AND BORROW AREAS SHALL RECEIVE PRIOR APPROVAL FROM THE CONSERVATION DISTRICT AND SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED.
- NO BUILDING DEMOLITION WASTES SHALL BE USED OR PLACED AS FILL MATERIAL EITHER ON-SITE OR OFF-SITE. ALL BUILDING DEMOLITION WASTES SHALL BE PROPERLY DISPOSED OF OR RECYCLED AS DISCUSSED ABOVE.
- OFFSITE DISPOSAL OF WASTE IN REGARD TO THE DEMOLITION PLAN ARE TO BE HANDLED IN THE FOLLOWING MANNER: THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE MDE'S SOLID WASTE MANAGEMENT REGULATIONS. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE
- FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 5. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF MARYLAND UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
 - ENVIRONMENTAL DUE DILIGENCE: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

EROSION AND SEDIMENT POLLUTION CONTROL MAINTENANCE SCHEDULE

- ALL SEDIMENT AND EROSION CONTROL FACILITIES SHALL BE CHECKED FOR DAMAGE AND CLOGGING ON A WEEKLY BASIS AND AFTER EACH STORM. ALL FACILITIES THAT ARE DAMAGED, CLOGGED, OR CAN NO LONGER PERFORM IN THE MANNER FOR WHICH THEY WERE DESIGNED SHALL BE REPLACED IMMEDIATELY
- A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- ANY PERMANENT SEEDED AREAS THAT BECOME ERODED SHALL HAVE THE TOPSOIL REPLACED AND THE GRASS RESOWN WITH NEW MULCH APPLIED. IF CULTIVATION OF A NEW LEGUME OR GRASS CROP IS NOT PRACTICAL IN THE ERODED AREA, THE CONTRACTOR SHALL INSTALL SOD.
- IF THE VEGETATIVE COVER ESTABLISHED IS ALLOWED TO DETERIORATE AND BECOME INEFFECTIVE, A FERTILIZATION AND RESEEDING PROGRAM SHALL BE ESTABLISHED AND CARRIED OUT AS THE CONSTRUCTION PROCEEDS. AREAS WHERE FAILURES HAVE BEEN EXPERIENCED IN THE ESTABLISHMENT OF BOTH PERMANENT AND TEMPORARY VEGETATIVE PROTECTION SHALL BE PROMPTLY TREATED. THE RE-ESTABLISHMENT OF PERMANENT VEGETATIVE COVER SHALL BE INITIATED AS SOON AS POSSIBLE.
- WHEN THE ACCUMULATION OF SEDIMENT IN THE CONTROL DEVICES REACHES 1/2 THE DEPTH OF THE DEVICE, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN SUCH LOCATIONS AS DETERMINED BY THE CONTRACTOR AND APPROVED BY THE OWNER. THESE LOCATIONS SHALL BE SELECTED SUCH THAT THE SEDIMENT WILL NOT ERODE INTO THE CONSTRUCTION AREA OR ANY NATURAL WATERWAY.
- ALL SEDIMENT AND EROSION FACILITIES MUST BE MAINTAINED IN OPERATING CONDITION UNTIL UPSTREAM AREAS ARE STABILIZED.
- THE CONTRACTOR WILL IMPLEMENT THIS PLAN, INCLUDING CONSTRUCTION AND MAINTENANCE.
- THE OWNER IS RESPONSIBLE TO INSURE THAT THE CONTRACTOR IS PERFORMING THE WORK AS DETAILED IN THIS PLAN.
- BASED UPON THE PROPOSED PROJECT SCOPE AND OUR REVIEW OF THE SOIL LIMITATIONS LISTED IN THE SOIL REPORTS, WE DO NOT ANTICIPATE ANY MAJOR ISSUES WITH THE SOILS EXISTING ON THE SITE. IF ANY SOIL LIMITATION ISSUES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL HALT CONSTRUCTION AND CONTACT THE ENGINEER PRIOR TO ANY ADDITIONAL EARTH MOVING ACTIVITIES.
- 10. BASED UPON OUR REVIEW OF THE SOIL REPORTS, NO KNOWN NATURALLY OCCURRING GEOLOGIC FORMATION OR SOIL CONDITIONS THAT MAY HAVE THE POTENTIAL TO CAUSE POLLUTION DURING EARTH DISTURBANCE ACTIVITIES EXIST ON THE PROJECT SITE. IF ANY SUCH FORMATIONS OR SOILS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL HALT CONSTRUCTION AND CONTACT THE ENGINEER PRIOR TO ANY ADDITIONAL EARTH MOVING ACTIVITIES. COMPOST FILTER LOG
- FILTER LOG SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE LOG FUNCTIONAL. IN ALL CASES, REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE LOG DIAMETER OR WHEN SEDIMENTS PROHIBIT FLOW THROUGH THE LOG.
- 12. STABILIZED CONSTRUCTION ENTRANCE 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'-0". USE MINIMUM WIDTH OF 10'-0". FLARE SCE 10'-0" MINIMUM AT THE EXISTING ROAD TO
- MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/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

BMP MAINTENANCE NOTES

- INSTALL AND MAINTAIN EROSION AND SEDIMENTATION CONTROL DEVICES IN ACCORDANCE WITH THE DRAWINGS AND MDE REQUIREMENTS. THE CONTRACTOR SHALL REGULARLY CHECK OPERATIONAL CONDITION OF THE CONTROL DEVICES AND PERFORM MAINTENANCE AS REQUIRED AND IN ACCORDANCE WITH THE BMP MAINTENANCE SCHEDULE ON THIS SHEET. THE CONTRACTOR SHALL IMMEDIATELY REPAIR OR REPLACE EROSION AND SEDIMENTATION CONTROL DEVICES DAMAGED DURING CONSTRUCTION.
- 2. THE CONTRACTOR SHALL PERFORM MAINTENANCE TO ALL EROSION CONTROL DEVICES OR REPLACE AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER. NEEDED REPAIRS OR REPLACEMENT AS APPLICABLE SHALL BE COMPLETED IMMEDIATELY AFTER THE INSPECTION BY THE CONSERVATION DISTRICT. MDE OR ENGINEER.
- 3. RECYCLE/DISPOSE OF ACCUMULATED SEDIMENT REMOVED FROM CONTROL DEVICES BY MIXING WITH THE MATERIAL TO BE USED AS FILL. CRUSHED ROCK/MASONRY MATERIALS EXCEEDING 6" IN ANY DIMENSION SHALL NOT BE USED FOR FILL ON THIS PROJECT. CRUSHED ROCK/MASONRY MATERIALS UP TO 6" IN ANY DIMENSION MAY BE USED AS FILL PROVIDED THAT IT IS FREE OF STEEL REINFORCEMENT AND NOT PLACED WITHIN 3'-0" OF THE FINAL SURFACE GRADE. EXCESS MATERIALS SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN ACCORDANCE WITH JURISDICTIONS HAVING AUTHORITY.
- AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADS OR PARKING AREAS SHALL BE REMOVED BY BROOM SWEEPING AND RETURNED TO THE CONSTRUCTION AREA. WASHING OF THE PAVEMENT SURFACE WITH WATER WILL NOT BE PERMITTED.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR ALL MAINTENANCE AND OPERATIONS DURING CONSTRUCTION AND THROUGHOUT THE WARRANTY PERIOD. THE OWNER IS RESPONSIBLE FOR MAINTENANCE AND OPERATIONS THEREAFTER.

DEBRIS/WASTE MATERIAL NOTE:

ALL CONSTRUCTION DEBRIS OR WASTE MATERIALS OTHER THAN SOIL AND ROCK AND INCLUDING MASONRY UNITS, STEEL, PLASTIC, WOOD, INSULATION, METALS, ETC., SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH APPLICABLE LAWS AND JURISDICTIONS HAVING AUTHORITY. ILLEGAL DUMPING IS PROHIBITED AND WILL RESULT IN THE ASSESSMENT OF FINES. THE DISPOSAL OF EXCESS SOIL AND ROCK MATERIALS SHALL BE IN ACCORDANCE WITH UNDER THE BMP MAINTENANCE NOTE NO 3 (LEFT)

PERMANENT SEEDING NOTE

THE CONTRACTOR SHALL APPLY PERMANENT SEED TO DISTURBED AREAS IMMEDIATELY UPON REACHING FINAL GRADES. PERMANENT SEED MIXTURES AND APPLICATION RATES SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND/OR SPECIFICATIONS. STAPLE ECMB TO ALL SEEDED AREAS WITH SLOPES

TEMPORARY SEEDING NOTE

THE CONTRACTOR SHALL APPLY TEMPORARY SEED TO DISTURBED AREAS THAT WILL NOT RECEIVE A FINAL SURFACE TREATMENT WITHIN FIVE (5) DAYS (EXAMPLE: TOPSOIL STOCKPILE). TEMPORARY SEED MIXTURES AND APPLICATION RATES SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND/OR SPECIFICATIONS. APPLY STRAW MULCH WITH NO SEED AT AN APPLICATION RATE OF 3 TONS PER ACRE TO DISTURBED AREAS DURING THE WINTER MONTHS (MID-NOV. TO 01 MAR.). STAPLE ECMB AS SPECIFIED TO ALL TEMPORARILY SEEDED AREAS WITH SLOPES STEEPER THAN 3:1.

STABILIZATION AND REMOVAL OF TEMPORARY E&S MEASURES:

DO NOT REMOVE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED AND AFTER THE SITE IS 95% STABILIZED AS DETERMINED BY ANNE ARUNDEL SOIL CONSERVATION DISTRICT. ALL TEMPORARY CONTROLS ARE TO BE REMOVED AND LEGALLY DISPOSED BY THE CONTRACTOR WITHIN 30 DAYS OF FINAL ACCEPTANCE BY ANNE ARUNDEL SOIL CONSERVATION DISTRICT AND THE OWNER.

BMP MAINTENANCE SCHEDULE (TEMPORARY CONTROLS)									
ВМР	INSPECTION SCHEDULE	SEDIMENT REMOVAL	TYPE OF MAINTENANCE						
COMPOST FILTER LOG	WEEKLY/AFTER EA. RUNOFF EVENT	1/2 HEIGHT	CLEANOUT/CHECK STAKES						
VEG/ECMB	WEEKLY/AFTER EA. RUNOFF EVENT	N/A	CHECK FOR STABIL./ADD STAPLES						
SEEDED AND MULCHED AREAS	AFTER EACH RUNOFF EVENT	N/A	CHECK FOR WASH-OUTS						
STABILIZED CONSTRUCTION ENTRANCE	WEEKLY/AFTER EA. RUNOFF EVENT	AS NEEDED	CLEANOUT AND/OR REPLACEMENT						
FILTER BAG	WEEKLY/AFTER EA. RUNOFF EVENT	FULL	CLEANOUT AND/OR REPLACEMENT						
SEE BMP MAINTENANCE NOTES ABOVE FOR ADDITIONAL INFORMATION									

SOIL LIMITATIONS & RESOLUTIONS:

- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS AND CODES.
- ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS
- FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO
- 6. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED.
- WHEREVER POSSIBLE, FILLS SHOULD NOT BE CONSTRUCTED FROM OR BUILT UPON SOILS KNOWN TO HAVE LOW SHEAR STRENGTH OR THAT HAVE BEEN IDENTIFIED AS "LANDSLIDE PRONE" UNLESS IT CAN BE SHOWN THAT IT CAN BE DONE WITH AN ACCEPTABLE SAFETY FACTOR
- WHEREVER FILLS ARE TO BE CONSTRUCTED OUT OF OR ONTO SOILS IDENTIFIED AS HAVING LOW SHEAR STRENGTH OR ARE "LANDSLIDE PRONE", A REPORT SHOULD BE PREPARED BY A PROFESSIONAL GEOTECHNICAL ENGINEER OR PROFESSIONAL GEOLOGIST WHICH ADDRESSES THE FOLLOWING:
- 10.1. THE CHARACTER OF THE BEDROCK AND ANY ADVERSE GEOLOGIC CONDITION IN THE AREA OF THE FILLS INCLUDING PREVIOUS SLOPE FAILURES.
- 10.2. A SURVEY OF ALL SPRINGS, SEEPS, AND GROUNDWATER FLOW OBSERVED OR ANTICIPATED DURING WET PERIODS IN THE AREAS OF THE FILLS.
- 10.3. THE MAXIMUM STEEPNESS OF SLOPE AND HEIGHT OF FILL TO BE CONSTRUCTED ON THE SITE.
- 10.4. A STABILITY ANALYSIS INCLUDING, BUT NOT LIMITED TO, STRENGTH PARAMETERS, PORE PRESSURES, AND LONG-TERM SEEPAGE CONDITIONS. THESE DATA SHOULD BE ACCOMPANIED BY A DESCRIPTION OF ALL ENGINEERING DESIGN ASSUMPTIONS AND CALCULATIONS AS WELL AS THE ALTERNATIVES CONSIDERED IN SELECTING THE DESIGN SPECIFICATIONS AND TESTING METHODS.
- 10.5. THE ESTIMATED FACTOR OF SAFETY USED TO DESIGN THE SLOPES, AT A MINIMUM, THE LONG-TERM SAFETY FACTOR SHOULD BE 1.5 FOR CUTS OR FILLS WITHIN 50 FEET OF PUBLIC HIGHWAYS, RAILROADS, SURFACE WATERS, OR WHERE FAILURE COULD ENDANGER PUBLIC SAFETY. THE SAFETY FACTOR SHOULD BE A MINIMUM OF 1.25 FOR ALL OTHER FILLS
- TO AVOID ENDANGERING REGULATED WATERS OR PUBLIC TRANSPORTATION FACILITIES, A MINIMUM SETBACK SHOULD BE MAINTAINED ACCORDING TO TABLE 16.1.

TABLE 16.1

RECOMMENDED MINIMUM SETBACKS FOR FILL PLACEMENT IN THE VICINITY OF REGULATED WATERS, HIGHWAYS, RAILROADS, AND OTHER PUBLIC TRANSPORTATION FACILITIES*

HEIGHT OF FILL (FT)	MINIMUM SETBACK (FT)							
<10	10							
10-25	25							
25-60	50							
>50	1 FT OF SETBACK PER FT OF HEIGHT							
* GREATER SETBACK DISTANCES MIGHT BE NEEDED IF SOIL/BEDROCK, RUNOFF, OR GROUNDWATER CONDITIONS ARE SUCH THAT A SIGNIFICANT THREAT TO PUBLIC HEALTH AND SAFETY IS POSED OR IN								

SPECIAL PROTECTION WATERSHEDS. LESSER SETBACKS MAY BE CONSIDERED BY THE DEPARTMENT IN CASES WHERE SPECIAL SLOPE STABILITY MEASURES ARE UNDERTAKEN OR IT CAN BE SHOWN THAT THE DESIRED LONG-TERM SAFETY FACTOR IS PROVIDED.

SOIL TYPES OF THE PROJECT

ACCORDING TO THE NRCS WEB SOIL SURVEY, THE FOLLOWING SOILS HAVE BEEN MAPPED IN THE AREA OF THE PROJECT

GLENELG LOAM	8% TO 15% SLOPES
GLENVILLE SILT LOAM	3% TO 8% SLOPES
URBAN LAND - UDORTHENTS	0% TO 8% SLOPES
	GLENVILLE SILT LOAM

ACCORDING TO NRCS WEB SOIL SURVEY, GLENELG LOAM AND GLENVILLE SILT LOAM ARE CLASSIFIED AS HYDROLOGIC SOIL GROUP (HSG) B AND C/D RESPECTIVELY. HOWEVER, DUE TO THE PRESENCE OF FILL MATERIALS ON-SITE THE HYDROLOGIC SOIL GROUP FOR GLENELG LOAM IS NOW CONSIDERED HSG D. IN ADDITION, THE HYDROLOGIC SOIL GROUP FOR GLENVILLE SILT LOAM IN THE AREAS OUTSIDE THE EXISTING FORESTED AREAS LOCATED IN THE REAR OF THE SITE ARE NOW CONSIDERED HSG D. THE EXISTING FORESTED AREAS WITHIN THE GLENVILLE SILT LOAM ARE HSG C.

SUITABILITY OF MATERIAL

SUITABILITY OF MATERIAL FOR: GLENELG LOAM

FAIR POOR GRAVEL TOPSOIL FAIR

ROADFILL POOR POOR

SUITABILITY OF MATERIAL FOR: GLENVILLE SILT LOAM

POOR

FAIR **TOPSOIL SOILS LIMITATIONS**

GRAVEI

THE GLENELG LOAM LIMITATIONS BY USE HAVE BEEN IDENTIFIED BELOW:

SHALLOW EXCAVATIONS SOMEWHAT LIMITED - DUE TO SLOPE, DUSTY, UNSTABLE EXCAVATION WALLS CORROSION OF CONCRETE MODERATE CORROSION OF STEEL

THE GLENVILLE SILT LOAM LIMITATIONS BY USE HAVE BEEN IDENTIFIED BELOW:

SHALLOW EXCAVATIONS VERY LIMITED - DUE TO SATURATION ZONE, DUSTY, UNSTABLE EXCAVATION WALLS CORROSION OF CONCRETE MODERATE CORROSION OF STEEL HIGH

SOILS RESOLUTIONS

TOPSOIL MAY BE REQUIRED TO BE IMPORTED.

USE TRENCH BOXES TO SUPPORT EXCAVATIONS CUT AND FILL SLOPES SHALL BE A MAXIMUM OF 3:1 AND SHALL BE MATTED IMMEDIATELY AMEND SOIL WITH LIME AS NECESSARY AND FACILITATE VEGETATIVE GROWTH.

DEWATER TRENCHES / FOUNDATIONS AS NECESSARY WITH A PUMPED WATER FILTER BAG.

TEMPORARY IRRIGATION MAY BE REQUIRED DURING VEGETATION ESTABLISHMENT. SOIL TESTS ARE RECOMMENDED TO DETERMINE PROPER APPLICATION OF SOIL AMENDMENTS TO PROMOTE GROWTH OF DESIRED VEGETATION.

STAGING OF EARTH MOVING ACTIVITIES

- PLANNING. COORDINATION. OF CONSTRUCTION AND MINIMIZING THE AREA OF DISTURBANCE ARE KEY FACTORS IN REDUCING SEDIMENT POLLUTION. THE CONTRACTOR SHALL CONTACT THE ANNE ARUNDEL COUNTY SOIL CONSERVATION DISTRICT AT LEAST 10 DAYS PRIOR TO ANY CONSTRUCTION.
- MINIMIZE THE DURATION OF EXPOSURE OF READILY ERODIBLE SOILS. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED SO THAT EXCAVATION CAN, TO THE GREATEST EXTENT POSSIBLE, BE BACKFILLED AT THE CLOSE OF EACH WORKING DAY; WHEREBY ONLY A MINIMUM QUANTITY OF EXCAVATED MATERIAL WILL BE STOCKPILED AND SUBJECT TO LOSS.
- RESTORATION WORK SHALL BE DONE AS THE PROJECT PROGRESSES AND NOT BE LEFT UNTIL THE END OF THE PROJECT. NO AREAS SHALL BE LEFT UNPROTECTED FOR A PERIOD OF MORE THAN 72 HOURS.
- ALL AREAS ON WHICH FINAL GRADING IS COMPLETED AFTER OCTOBER 15TH MUST BE PROTECTED BY A WELL ANCHORED MULCH UNTIL SPRING WHEN EFFECTIVE SODDING CAN BE UNDERTAKEN.

AFTER PERMANENT SITE STABILIZATION HAS BEEN ACHIEVED. TEMPORARY EROSION AND SEDIMENTATION

ESTABLISHED TO THE POINT WHERE THE SURFACE SOIL IS CAPABLE OF RESISTING EROSION DURING RUNOFF

- CONTROLS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS MUST BE STABILIZED IMMEDIATELY. PERMANENT SITE STABILIZATION IS DEFINED AS A UNIFORM EROSION RESISTANT PERENNIAL VEGETATION
- ALL "CONSTRUCTED" ITEMS LISTED IN THE CONSTRUCTION SEQUENCE ARE TO BE COMPLETED PRIOR TO MOVING ON TO THE NEXT ITEM IN THE SECUENCE LINEESS OTHERWISE NOTED

EVENTS AND HAS UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE ENTIRE AREA.

INSPECTIONS

- AUTHORIZED REPRESENTATIVES OF THE COUNTY MAY ENTER PROPERTIES SUBJECT TO A GRADING PERMIT FOR THE PURPOSE OF INSPECTION AND ENFORCEMENT OF THE PROVISIONS OF
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A SCHEDULE SHOWN ON THE APPROVED PLAN OR A REVISED SCHEDULE APPROVED BY THE DISTRICT.
 - THE PERMITTEE SHALL NOTIFY THE COUNTY TWO WORKING DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE COUNTY, SHALL HOLD A PRECONSTRUCTION MEETING WITH THE COUNTY.
- A COPY OF THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN AND THE GRADING PERMIT SHALL BE AVAILABLE ON SITE FOR INSPECTION BY THE COUNTY.
- IF THERE IS A FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS CHAPTER, THE COUNTY SHALL INSPECT THE WORK AND NOTIFY THE PERMITTEE OR THE REPRESENTATIVE OF THE PERMITTEE IN WRITING OF THE VIOLATIONS. THE NOTICE SHALL STATE THE NATURE OF THE VIOLATION, ANY PRACTICE OR PLAN DEFICIENCIES, REQUIRED CORRECTIVE ACTION, AND DEADLINE FOR COMPLIANCE. ANY PORTION OF THE WORK THAT DOES NOT COMPLY SHALL BE PROMPTLY CORRECTED BY THE PERMITTEE. THE COUNTY MAY MAKE ADDITIONAL INSPECTIONS AS NECESSARY, AND MAY WAIVE INSPECTIONS, EXCLUDING THE FINAL INSPECTION AS PROVIDED IN § 152.113. THE COUNTY SHALL MAINTAIN A RECORD OF EACH INSPECTION INCLUDING THE DATE, LOCATION OR PROJECT IDENTIFICATION, WHETHER OR NOT THE APPROVED PLAN HAS BEEN IMPLEMENTED AND MEASURES MAINTAINED AND, IF A VIOLATION EXISTS, THE TYPE OF ENFORCEMENT ACTION TAKEN.
- IF, UPON INSPECTION, IT IS DETERMINED BY THE COUNTY THAT A SAFETY DEVICE IS NECESSARY ALONG THE TOP OF A SLOPE STEEPER THAN 3:1 OR AROUND A SEDIMENT CONTROL FACILITY, IT IS THE RESPONSIBILITY OF THE PERMITTEE TO INSTALL SAID DEVICE. THIS DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH AND MEET REQUIREMENTS OF CHAPTER 170, CONSTRUCTION CODES. THIS DEVICE MAY NOT BE REMOVED WITHOUT APPROVAL OF THE COUNTY.

SEDIMENT CONTROL INSPECTIONS

A SITE WITH AN APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN SHALL BE INSPECTED BY THE COUNTY TO ENSURE THAT SEDIMENT CONTROL MEASURES ARE INSTALLED AND EFFECTIVELY MAINTAINED IN COMPLIANCE WITH THE APPROVED PLAN AND PERMIT REQUIREMENTS. AT A MINIMUM, THE PERMITTEE SHALL OBTAIN INSPECTION BY THE COUNTY AT THE FOLLOWING STAGES:

- PRECONSTRUCTION MEETING AT SITE PRIOR TO INSTALLATION OF CONTROL MEASURES;
- AFTER THE INSTALLATION OF SEDIMENT CONTROL MEASURES OR PRACTICES AND PRIOR TO ANY OTHER LAND DISTURBANCE;
- 3. DURING THE CONSTRUCTION OF SEDIMENT BASINS OR SWM STRUCTURES;
- 5. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL MEASURE OR PRACTICE; AND

PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER

UPON COMPLETION OF FINAL GRADING, INCLUDING ESTABLISHED GROUND COVER AND PLANTING, INSTALLATION OF ALL VEGETATIVE MEASURES, AND ALL OTHER WORK IN ACCORDANCE WITH THE APPROVED PLANS.

FINAL INSPECTION

- UPON COMPLETION OF THE WORK PURSUANT TO THE GRADING PERMIT, THE PERMITTEE SHALL REQUEST A FINAL INSPECTION BY THE COUNTY ALL DISTURBED AREAS SHALL BE FINE GRADED. AND LEFT IN A MAINTAINABLE STATE, SEEDED, AND MULCHED, AND HAVE AT LEAST 95% OF VEGETATIVE COVER. THE COUNTY SHALL VERIFY THAT ALL WORK SUBJECT TO INSPECTION HAS BEEN SATISFACTORILY COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS
- THE COUNTY MAY RELEASE THE GUARANTY UPON COMPLETION OF THE FINAL INSPECTION. A COMPLETION CERTIFICATE COVERING THE WORK SHALL BE ISSUED TO THE PERMITTEE BY THE COUNTY AND A COPY SENT TO THE DISTRICT.

TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE ^{1/}		SEED ING DEPT H ^{2/}	RECOMMENDED SEEDING DATES BY HARDINESS ZONE ^{3/}		DING DATES BY HARDINESS ZONE ^{3/}		LIME RATE
	LB/A C	LB/1 000F T ²	(INC HES)	5b and 6a	6b	7a and 7b	RATE (10-20-20)	
COOL-SEASON GRA	SSES		•					
ANNUAL RYEGRASS (LOLIUM PERENNE	40	1.00	0.50	MARCH 15 TO MAY 31; AUG 1 TO	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30		

0002 02/10014 010/1	JOLO							
ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MULTIFLORUM)	40	1.00	0.50	MARCH 15 TO MAY 31; AUG 1 TO SEPT 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30		
BARLEY (HORDEUM VALGARE)	96	2.20	1.00	MARCH 15 TO MAY 31; AUG 1 TO SEPT 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30		
OATS (AVENA SATIVA)	72	1.70	1.00	MARCH 15 TO MAY 31; AUG 1 TO SEPT 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30	436 LB/AC (10LB/1000SF)	2 TONS/AC (90 LB / 1000 SF)
WHEAT (TRITICUM AESTIVUM)	120	2.80	1.00	MARCH 15 TO MAY 31; AUG 1 TO SEPT 30	MAR 1 TO MAY 15; AUG 1 TO OCT 15	FEB 15 TO APR 30; AUG 15 TO NOV 30		
CEREAL RYE (SECALE CEREALE)	112	2.80	1.00	MARCH 15 TO MAY 31; AUG 1 TO OCT 31	MAR 1 TO MAY 15; AUG 1 TO NOV 15	FEB 15 TO APR 30; AUG 15 TO DEC 30		

OCT 31

WARM-SEASON GRASSES

CEREALE)

WARW-SEASON GRA	SSES						_		l
FOXTAIL MILLET (SETARIA ITALICA)	30	0.70	0.50	JUNE 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14	436 LB/AC (10LB/1000SF)	2 TONS/AC (90 LB / 1000 SF)	
PEARL MILLET (PENNISETUM	20	0.50	0.50	JUNE 1 TO JUL 31	MAY 16 TO JUL 31	MAY 1 TO AUG 14			

1/ SEEDING RATES FOR THE WARM-SEASON GRASSES ARE IN POUNDS OF PURE LIVE SEED (PLS). ACTUAL PLANTING RATES SHALL BE ADJUSTED TO REFLECT PERCENT SEED GERMINATION AND PURITY, AS TESTED. ADJSUTMENTS ARE USUALLY NOT NEEDED FOR THE COOL-SEASON GRASSES.

SEEDING FOR BARLEY, OATS, AND WHEAT. FOR SMALLER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5% (BY WEIGHT) OF THE OVERALL PERMANENT RATES LISTED ABOVE ARE FOR TEMPORARY SEEDINGS, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE 1/3 OF THE SEEDING RATE LISTED ABOVE SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN VERY LATE FALL BEYOND THE SEEDING DATES FOR OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS

OATS ARE THE RECOMMENDED NURSE CROP FOR WARM-SEASON GRASSES.

2/ FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

A NURSE CROP, SEED AT 1/3 OF THE RATE LISTED ABOVE.

3/ THE PLANTING DATES LISTED ARE AVERAGES FOR EACH ZONE AND MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF THE ZONE.

			PERMANENT S	SEEDING SU	MMARY				
HARDINESS ZONE (FROM FIGURE B.3): 6b					FERTILIZER RATES (10-20-20)				
	SEED MIXTURE (FROM TABLE B.3): 8							LIME RATE	
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	N	P2O5	K20	LIMIL NATE	
	TALL FESCUE	262	FEB 1 to APRIL 30; AUG 15 to OCT 31	1/4-1/2 IN					
8					45 POUNDS PER ACRE (1.0 LB/1000 SF)	90 LB/AC (2 LB/1000 SF)	90 LB/AC (90 LB/1000 SF)	2 TONS/AC (90 LB/1000 SF)	
				C	OUNT	Y FILE	NO. S	-23-002	20

seal / stamp

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drawing set

EROSION & SEDIMENTATION **CONTROL PLAN**

08/22/2023 project no. **2023.0102.00** project mgr. MS

drawn by SMS

description 11/22/23 REVISED PER CARROLL C

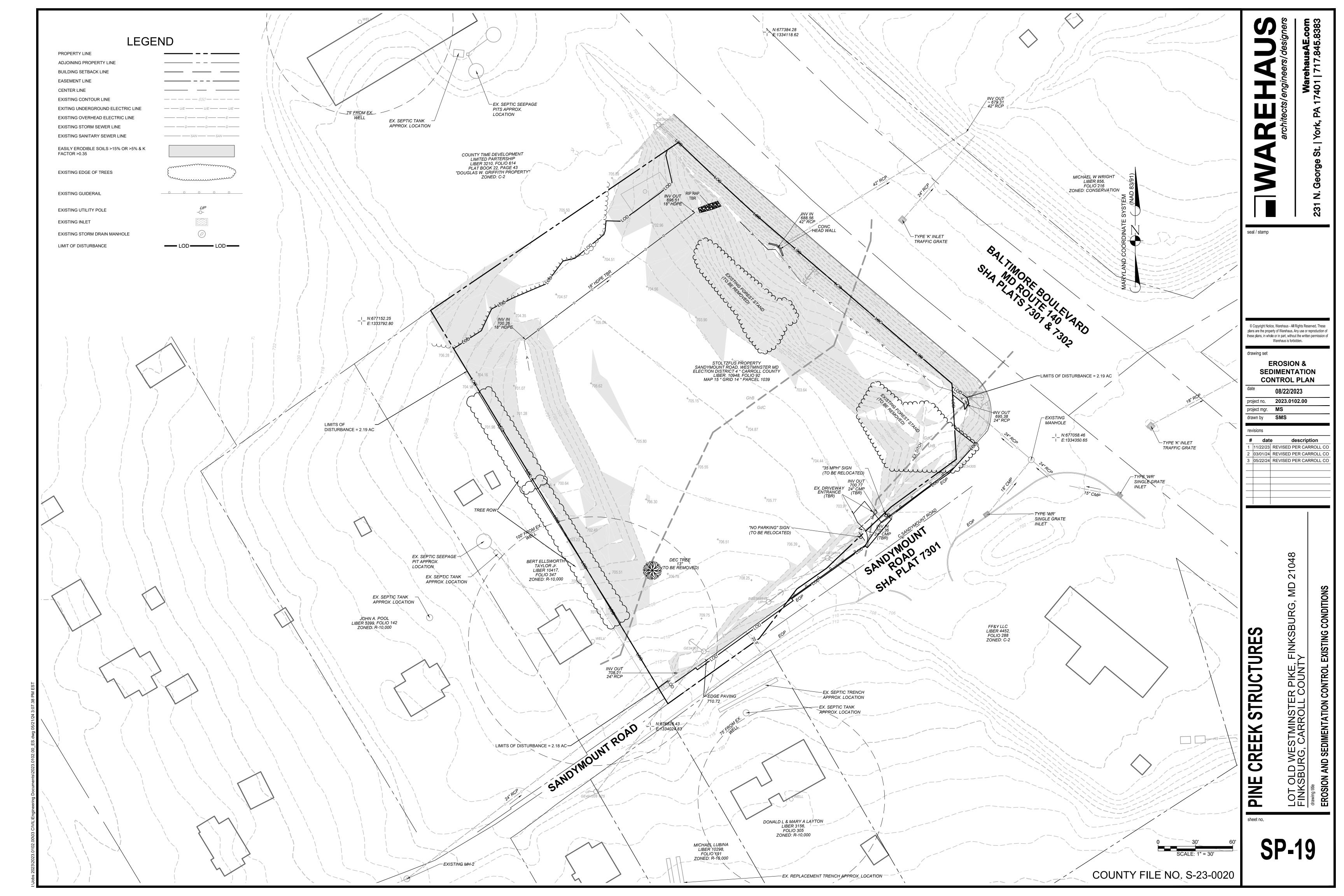
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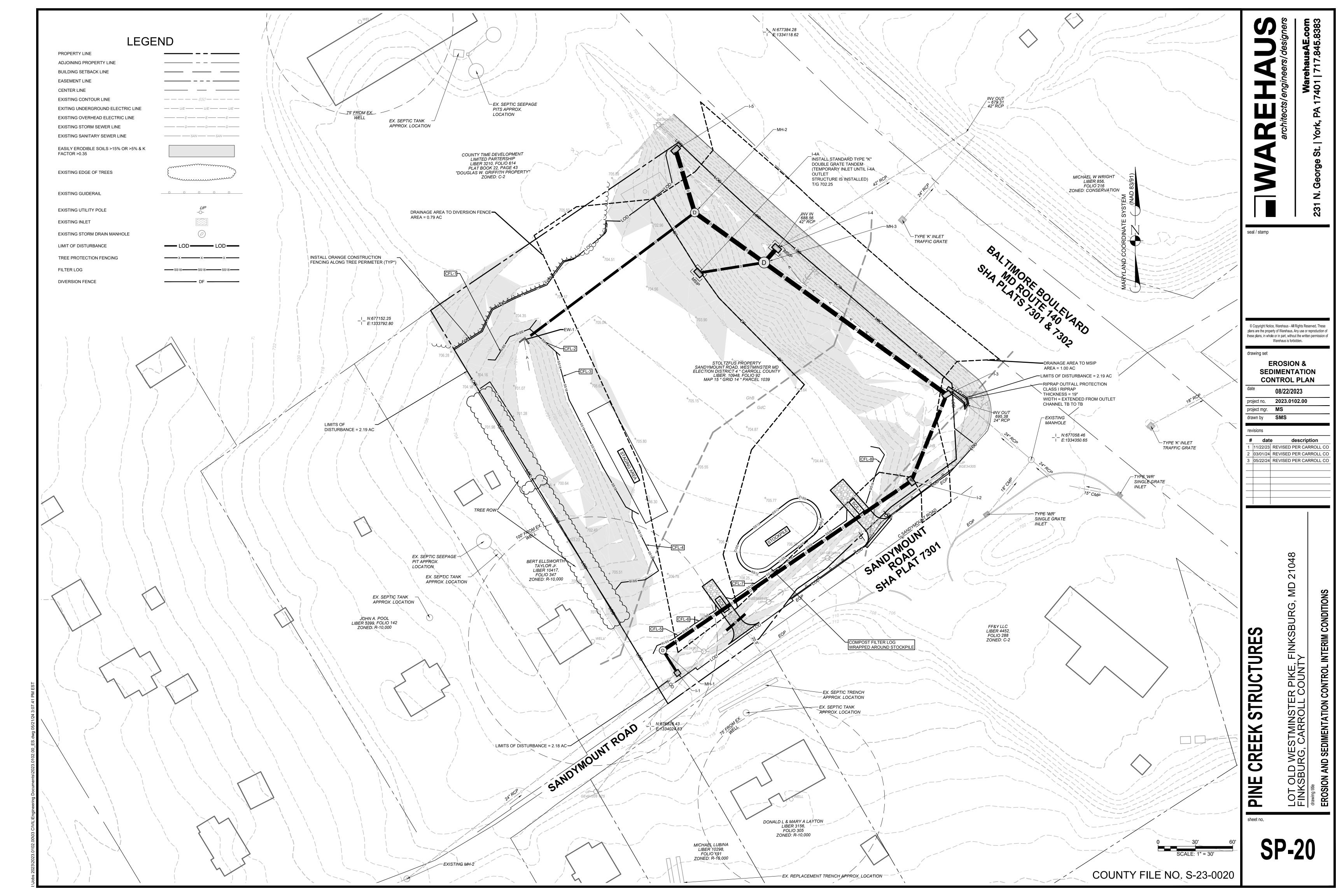
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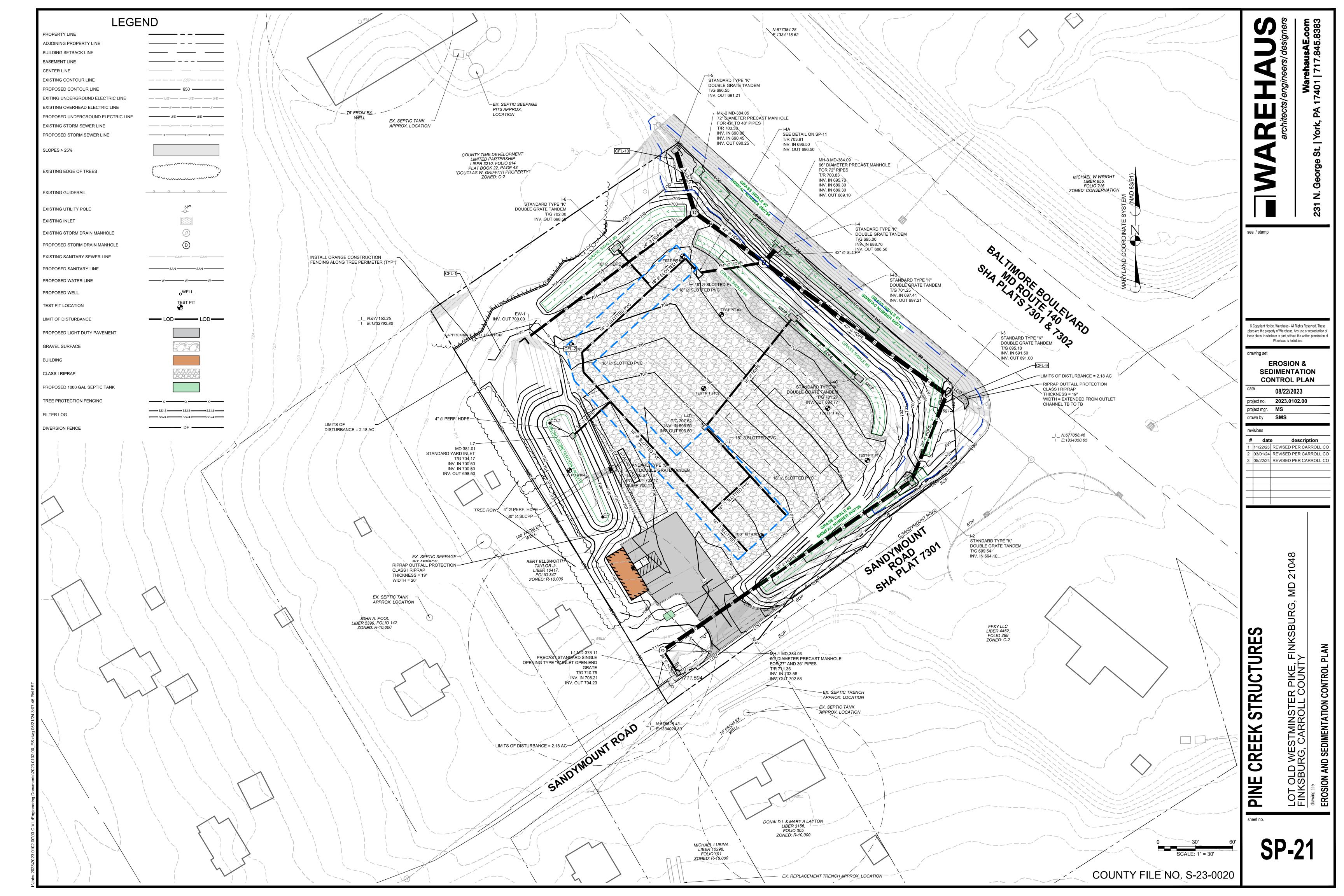
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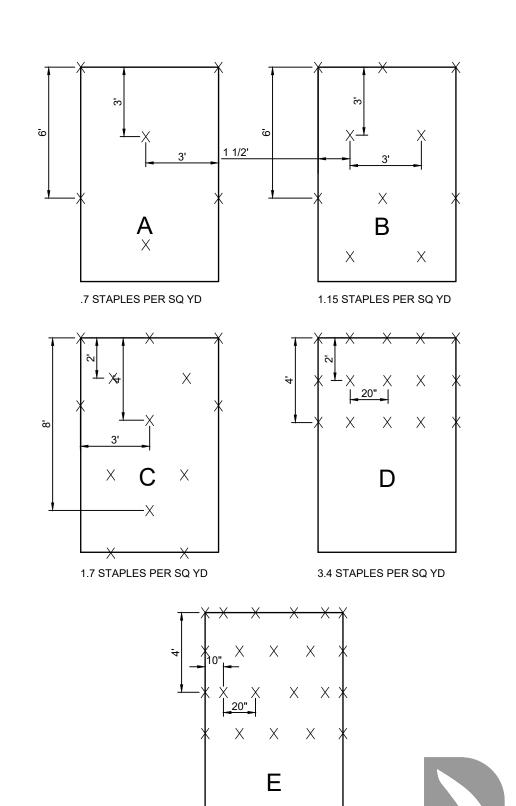


CONSTRUCTION SPECIFICATIONS

- 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.
- 2. 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 STONE 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.
- 3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
- 4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
- 5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS IMMEDIATELY REMOVE STONE AND/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.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE



3.75 STAPLES PER SQ YD **STAPLE PATTERN GUIDE**

14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47711 USA 1-800-772-2040 CANADA 1-800-448-2040

NORTH **AMERICAN** GREEN

F-4 STANDARDS AND SPECIFICATIONS

FILTER BAG

<u>Definition</u>

A geotextile bag through which sediment-laden water is pumped

To filter sediment-laden water prior to discharge.

Conditions Where Practice Applies

<u>Purpose</u>

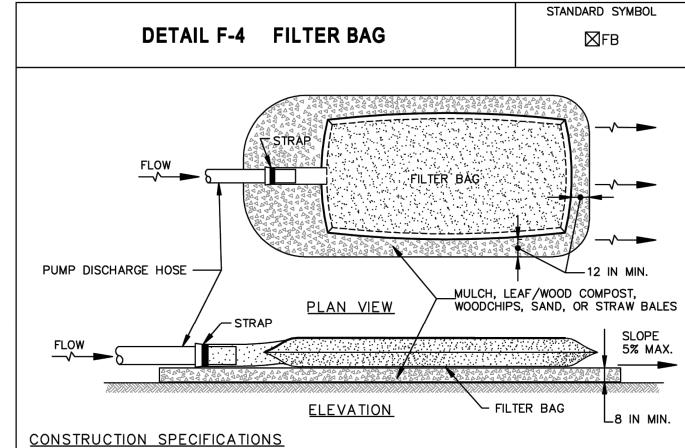
When dewatering is needed in association with excavations, trenches, cofferdams, sediment traps or basins.

Design Criteria

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

Maintenance

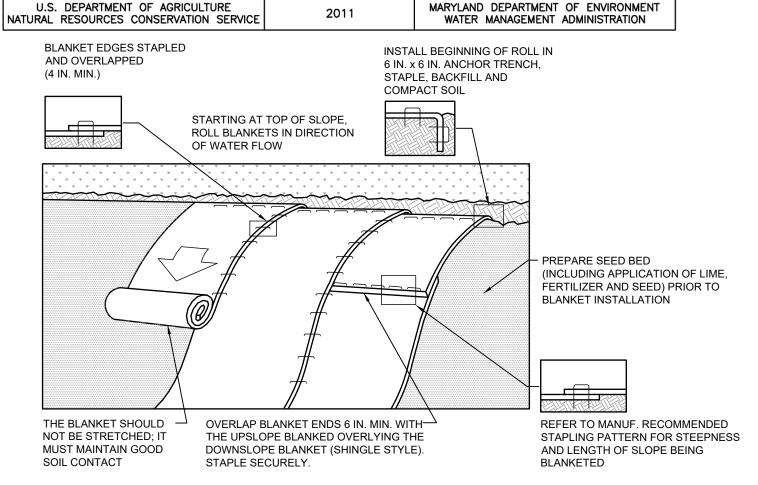
If the filter bag clogs, it needs to be replaced. Rips, tears, and punctures also necessitate replacement of the filter bag. The connection between the pump hose and the filter bag needs to be kept water tight during operation. If the bedding becomes displaced, it must be replaced.



- TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
- 2. 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.
- 3. 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
- 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
- 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-4632
PUNCTURE FLOW RATE	150 LB 70 GAL/MIN/FT²	ASTM D-4833 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) SEAM STRENGTH	0.15-0.18 MM 90%	ASTM D-4751 ASTM D-4632
SEAM SIKENGIH	90%	ASIM D=4632
	OR HAS RIPS, TEARS, OR PUNCTURES.	
CONNECTION BETWEEN PUMP HOSE /	AND FILTER BAG WATER TIGHT. REPLACE	E BEDDING IF IT BECOMES

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL



NOTES:

SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING

PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH, LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

> STANDARD CONSTRUCTION DETAIL #11-1 **EROSION CONTROL BLANKET INSTALLATION**

> > NOT TO SCALE

E-6 STANDARDS AND SPECIFICATIONS

FILTER LOG <u>Definition</u>

<u>FOR</u>

A temporary, tubular casing filled with compost filter media.

<u>Purpose</u>

To intercept sheet flow, retain sediment, and filter runoff through the log media.

Conditions Where Practice Applies

Filter logs are an alternative to silt fence and can be used in hard to reach areas, on frozen ground and pavement, and near tree roots.

Note: fiber rolls are not interchangeable with filter logs. Although similar in appearance, fiber rolls are filled with rice or wheat straw, flax, coconut fiber, or wood excelsior, and are used when stabilizing and revegetating slopes because they slow and spread overland flow, thereby minimizing erosion, rills, and gullies.

Design Criteria

Table E.6: Filter Log Design Constraints

Log Diameter	8 to 15 inches	>15 to 24 inches			
Average Slope	Maximum S	Maximum Slope Length (ft)			
Flatter than 50:1 (<2%)	125	250			
50:1 to 10:1 (2 – 10%)	65	125			
<10:1 to 5:1 (>10 – 20%)	50	100			
<5:1 to 2:1 (>20 – 50%)	N/A	50			

- 1. Filter logs must be placed on the contour with the ends turned upgrade to prevent bypass.
- 2. Filter logs can only be used with sheet flow.
- 3. Filter logs must be used in accordance with the design constraints in Table E.6.
- 4. The filter media must be compost in accordance with Table H.3 or other approved biodegradable
- 5. Filter logs must either be staked every 4 feet maximum, or trenched a minimum of 4 inches into the ground and staked every 8 feet maximum.

<u>Maintenance</u>

Sediment and debris must be removed and mulch replaced when sediment has accumulated to a depth of one half the exposed height of the log. The filter log must be replaced if clogged or torn. The filter log needs to be reinstalled if undermined or dislodged. For permanent applications, vegetation must be established and maintained so that the requirements for Adequate Vegetative Establishment are met in accordance with Section B-4 Vegetative Stabilization.

STANDARD SYMBOL -----FL−18-------**FILTER LOG DETAIL E-6** DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG. AREA TO BE AREA TO BE FLOW -PROTECTED PROTECTED TRENCH INTO-GROUND 4 IN MIN. STAKES STAKES **SECTION** TRENCH INTO GROUND 4 IN MIN. —WOOD MULCH OR COMPOST TO ½ HEIGHT OF LOG UNTRENCHED INSTALLATION ENTRENCHED INSTALLATION* *THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN. ISOMETRIC VIEW MULCH OR COMPOST FOR UNTRENCHED LOGS AREA TO BE PROTECTED SHEET FLOW -FILTER LOG WORK AREA 1 OF 2 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE

NATURAL RESOURCES CONSERVATION SERVICE

B-4-8 STANDARDS AND SPECIFICATIONS

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

<u>Purpose</u>

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

<u>Criteria</u>

- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- 3. Runoff from the stockpile area must drain to a suitable sediment control practice.
- 4. Access the stockpile area from the upgrade side.
- 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
- 6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
- 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

B-4-8 STANDARDS AND SPECIFICATIONS

FOR

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

<u>Purpose</u>

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
- 2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
- 3. Runoff from the stockpile area must drain to a suitable sediment control practice.
- 4. Access the stockpile area from the upgrade side.
- 5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner
- control practice must be used to intercept the discharge.

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment

- 7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
- 8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

seal / stamp

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drawing set

EROSION & SEDIMENTATION CONTROL PLAN

08/22/2023 project no. **2023.0102.00** project mgr. MS drawn by SMS

revisions

date description 11/22/23 REVISED PER CARROLL CO 2 03/01/24 REVISED PER CARROLL CO 3 05/22/24 REVISED PER CARROLL CO

2 MD

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STRUCTURES

CREEK

Purpose

To provide timely vegetative cover on cut and fill slopes as work progresses

Conditions Where Practice Applies

Any cut or fill slope greater than 15 feet in height. This practice also applies to stockpiles.

<u>Criteria</u>

Incremental Stabilization - Cut Slopes

1. Excavate and stabilize cut slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all cut slopes as the work progresses.

2. Construction sequence example (Refer to Figure B.1):

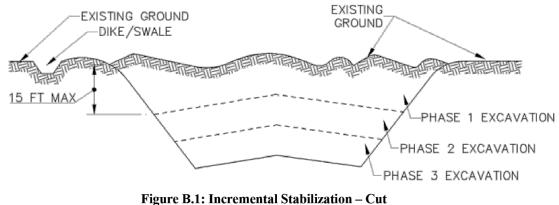
a. Construct and stabilize all temporary swales or dikes that will be used to convey runoff around the excavation.

b. Perform Phase 1 excavation, prepare seedbed, and stabilize.

c. Perform Phase 2 excavation, prepare seedbed, and stabilize. Overseed Phase 1 areas as necessary. d. Perform final phase excavation, prepare seedbed, and stabilize. Overseed previously seeded

Note: Once excavation has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any

interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization. **EXISTING**



Incremental Stabilization - Fill Slopes

1. Construct and stabilize fill slopes in increments not to exceed 15 feet in height. Prepare seedbed and apply seed and mulch on all slopes as the work progresses. 2. Stabilize slopes immediately when the vertical height of a lift reaches 15 feet, or when the grading

operation ceases as prescribed in the plans. 3. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept

surface runoff and convey it down the slope in a non-erosive manner.

4. Construction sequence example (Refer to Figure B.2):

a. Construct and stabilize all temporary swales or dikes that will be used to divert runoff around the fill. Construct silt fence on low side of fill unless other methods shown on the plans address this area.

b. At the end of each day, install temporary water conveyance practice(s), as necessary, to intercept surface runoff and convey it down the slope in a non-erosive manner.

c. Place Phase 1 fill, prepare seedbed, and stabilize.

d. Place Phase 2 fill, prepare seedbed, and stabilize

e. Place final phase fill, prepare seedbed, and stabilize. Overseed previously seeded areas as

Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation or completing the operation out of the seeding season will necessitate the application of temporary stabilization.

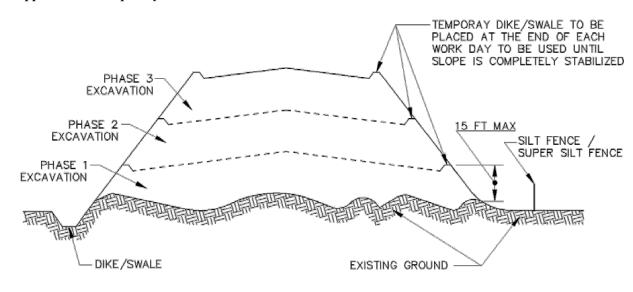


Figure B.2: Incremental Stabilization – Fill

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

<u>Purpose</u>

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

<u>Criteria</u>

1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardiness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.

2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.

3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

B-4-2 STANDARDS AND SPECIFICATIONS

<u>FOR</u>

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization

<u>Purpose</u>

To provide a suitable soil medium for vegetative growth

Conditions Where Practice Applies

Where vegetative stabilization is to be established

<u>Criteria</u>

A. Soil Preparation

1. Temporary Stabilization

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.

b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable

2. Permanent Stabilization

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

i. Soil pH between 6.0 and 7.0.

ii. Soluble salts less than 500 parts per million (ppm).

iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if lovegrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.

iv. Soil contains 1.5 percent minimum organic matter by weight.

v. Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on-site soils do not meet the above

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.

3. Topsoiling is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth.

d. The soil is so acidic that treatment with limestone is not feasible

4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria: a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments,

gravel, sticks, roots, trash, or other materials larger than 1½ inches in diameter. b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.

c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

a. Erosion and sediment control practices must be maintained when applying topsoil.

b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.

c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.

2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.

3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.

4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means. 5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the

rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS

SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

<u>Purpose</u>

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

<u>Criteria</u>

1. Specifications

Seeding

a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory. All seed used must have been tested within the 6 months immediately preceding the date of sowing such material on any project. Refer to Table B.4 regarding the quality of seed. Seed tags must be available upon request to the inspector to verify type of seed and seeding rate.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen. The appropriate seeding mixture must be applied when the ground thaws.

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species. Inoculants must not be used later than the date indicated on the container. Add fresh inoculants as directed on the package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 to 80 degrees Fahrenheit can weaken bacteria and make the inoculant less effective.

d. Sod or seed must not be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

a. Dry Seeding: This includes use of conventional drop or broadcast spreaders.

i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

i. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P₂O₅ (phosphorous), 200 pounds per acre; K₂O (potassium), 200 pounds per acre.

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.

iii. Mix seed and fertilizer on site and seed immediately and without interruption. iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching

areas where one species of grass is desired.

1. Mulch Materials (in order of preference) a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty. Note: Use only sterile straw mulch in

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.

i. WCFM is to be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

ii. WCFM, including dye, must contain no germination or growth inhibiting factors.

iii. WCFM materials are to be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material must form a blotter-like ground cover, on application, having moisture absorption and percolation properties and must cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.

iv. WCFM material must not contain elements or compounds at concentration levels that will

be phyto-toxic. v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5,

ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

a. Apply mulch to all seeded areas immediately after seeding.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed. When using a mulch anchoring tool, increase the application rate to 2.5 tons per acre.

c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

3. Anchoring

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should follow the contour.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre. Mix the wood cellulose fiber with water at a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water. iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the

manufacturer. Application of liquid binders needs to be heavier at the edges where wind

catches mulch, such as in valleys and on crests of banks. Use of asphalt binders is strictly

prohibited. iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

B-4-5 STANDARDS AND SPECIFICATIONS

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

<u>Purpose</u>

Exposed soils where ground cover is needed for 6 months or more

shown in the Permanent Seeding Summary.

<u>Criteria</u>

Seed Mixtures

General Use

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ pounds per

1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments

2. Turfgrass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where

rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight. iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or

1000 square feet. One or more cultivars may be blended. iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1½ to 3 pounds per 1000 square feet.

for areas receiving low to medium management in full sun to medium shade.

Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent,

Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per

Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section provides a reliable means of consumer protection and assures a pure genetic line

(Hardiness Zones: 7a, 7b)

c. Ideal Times of Seeding for Turf Grass Mixtures Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

<u>Central MD</u>: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15

pose no difficulty. e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot

seasons, or on adverse sites. B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

adversely affect its survival.

1. General Specifications a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to

the job foreman and inspector. b. Sod must be machine cut at a uniform soil thickness of $\frac{3}{4}$ inch, plus or minus $\frac{1}{4}$ inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.

size and shape when suspended vertically with a firm grasp on the upper 10 percent of the d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may

e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period must be approved by an agronomist or soil scientist prior to its

c. Standard size sections of sod must be strong enough to support their own weight and retain their

2. Sod Installation a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.

b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly

Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots. c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure

wedged against each other. Stagger lateral joints to promote more uniform growth and strength.

d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

solid contact exists between sod roots and the underlying soil surface.

3. Sod Maintenance

otherwise specified.

a. In the absence of adequate rainfall, water daily during the first week or as often and sufficiently as necessary to maintain moist soil to a depth of 4 inches. Water sod during the heat of the day to prevent wilting.

b. After the first week, sod watering is required as necessary to maintain adequate moisture

c. Do not mow until the sod is firmly rooted. No more than ½ of the grass leaf must be removed by the initial cutting or subsequent cuttings. Maintain a grass height of at least 3 inches unless

COUNTY FILE NO. S-23-0020

23

seal / stamp

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drawing set **EROSION &**

project mgr. MS

SEDIMENTATION CONTROL PLAN 08/22/2023

project no. **2023.0102.00**

drawn by SMS

revisions description 11/22/23 REVISED PER CARROLL CO 2 03/01/24 REVISED PER CARROLL CO 05/22/24 REVISED PER CARROLL CO

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DIVERSION FENCE

Definition

A temporary barrier of impermeable sheeting over chain link fence located in such a manner as to direct water to a desired location.

<u>Purpose</u>

To direct sediment-laden runoff to a sediment trapping practice, or to intercept and divert clear water away from

Conditions Where Practice Applies

Constructed along the limit of disturbance (LOD) or across disturbed areas, a diversion fence is used when there is insufficient space to construct an earth dike, temporary swale, or perimeter dike swale.

Appropriate uses of diversion fences include the following:

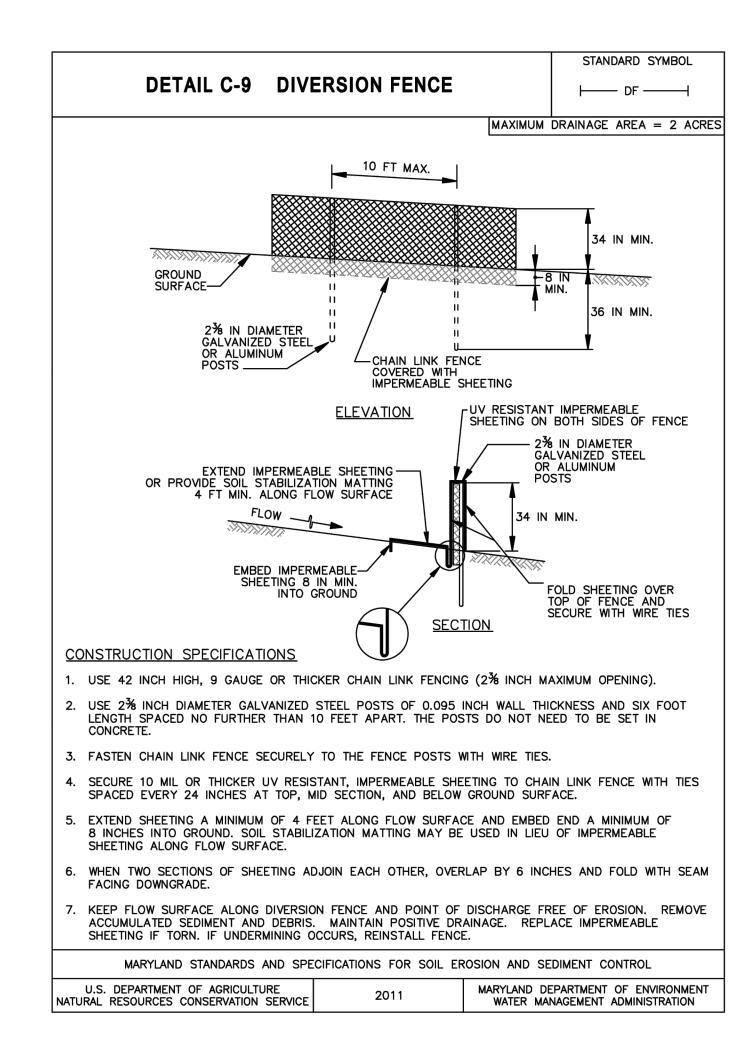
- 1. To divert sediment-laden runoff from a disturbed area to a sediment trapping practice.
- 2. To segment drainage areas for reducing acreage to sediment control practices.
- 3. To divert clear water from an undisturbed area to a stable outlet at non-erosive velocities.

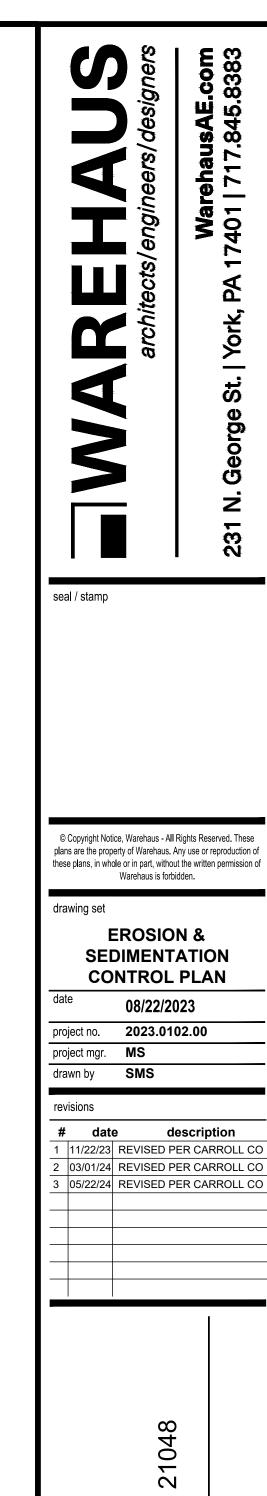
Design Criteria

- 1. The maximum slope along fence is 10 percent.
- 2. The maximum drainage area is 2 acres.
- 3. For drainage areas larger than 2 acres, an engineering design may be used based on the 2-year frequency storm with NRCS methodologies (i.e., TR-55, TR-20), assuming the worst soil cover conditions to prevail in the contributing drainage area over the life of the diversion fence.
- 4. Maintain positive drainage along the entire length of the diversion fence. Spot elevations must be provided for diversion fence having longitudinal slopes flatter than 1%.
- 5. Discharge velocities from diversion fence must be non-erosive.
- 6. Where diversion fence is used to convey runoff from disturbed areas, the discharge must be to a sediment control practice suitable for concentrated flow. Silt fence and super silt fence are unacceptable for receiving discharges from diversion fence.
- 7. Where diversion fence is used to convey clear water runoff, the discharge must be to an undisturbed, stable area at a non-erosive velocity (4 fps); otherwise, provide outlet protection.
- 8. When diversion fence is used in conjunction with a sediment trapping device, sequence construction so that the diversion fence installation follows completion of the sediment trapping device(s).

<u>Maintenance</u>

The flow surface along the diversion fence and at the point of discharge must be kept free of erosion. Accumulated sediment and debris must be removed and positive drainage maintained. Impermeable sheeting must be replaced if torn. If undermining occurs, reinstall fence.





description

2

STRUCTURE CREEK PINE

LOT OLD WES

sheet no.

