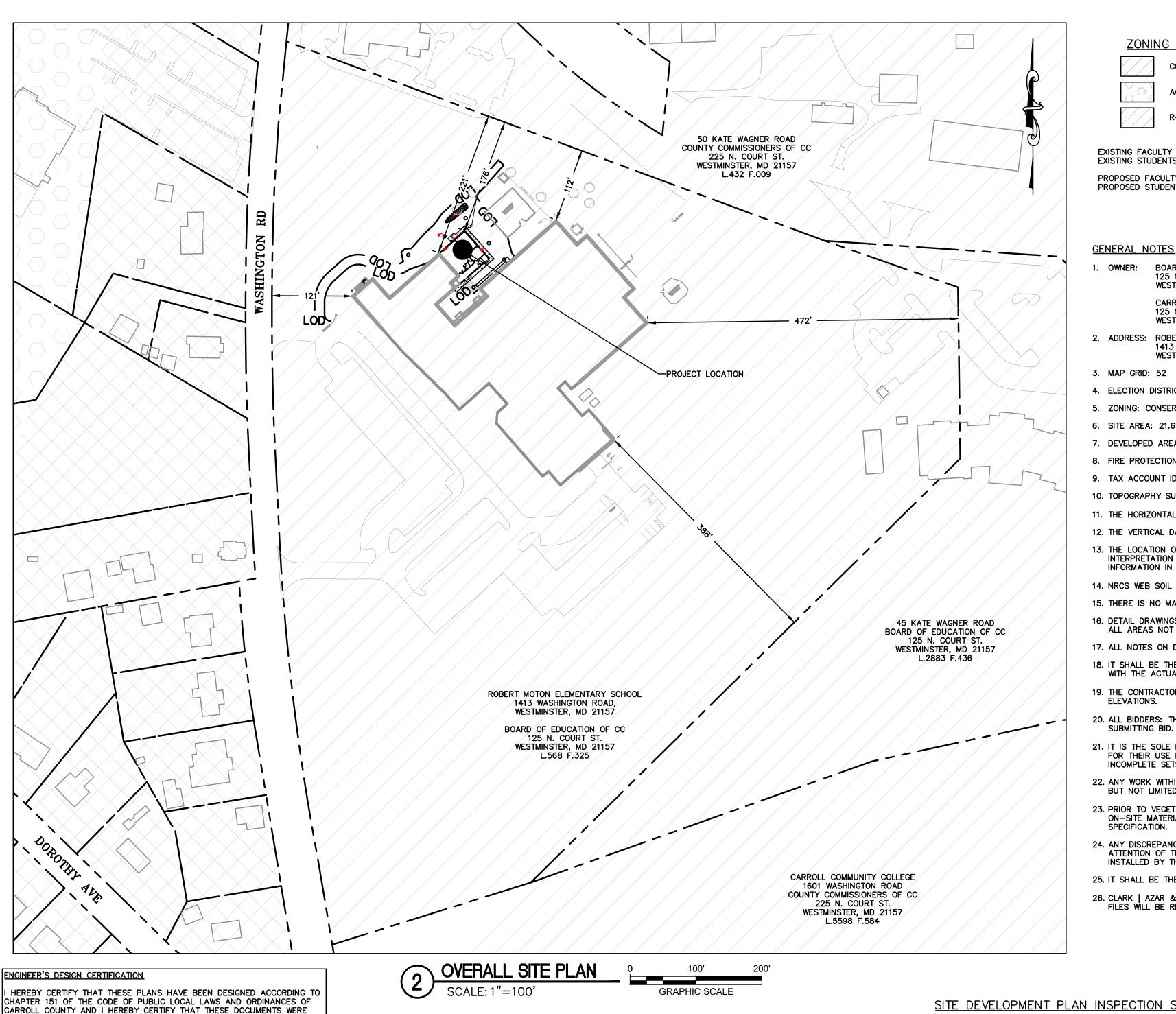
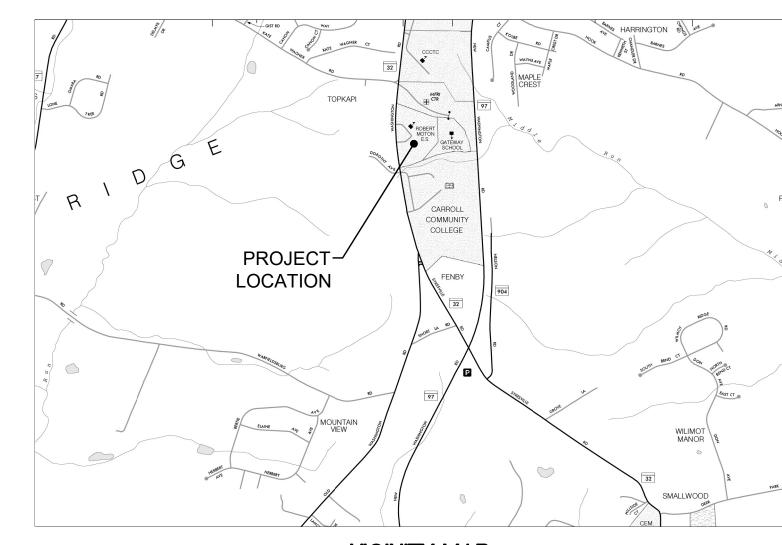
# ROBERT MOTON ELEMENTARY SCHOOL

# 20501 Seneca Meadows Parkway, St 230 Germantown, MD. 20876 T(301) 528-2010 www.clarkazar.com

# PRE-KINDERGARTEN ADDITION CARROLL COUNTY PUBLIC SCHOOLS







WESTMINSTER, MD 21157 2. ADDRESS: ROBERT MOTON ELEMENTARY SCHOOL

125 N. COURT ST

WESTMINSTER, MD 21157

1413 WASHINGTON RD

CARROLL COUNTY PUBLIC SCHOOLS

4. ELECTION DISTRICT: 3

5. ZONING: CONSERVATION

6. SITE AREA: 21.61 AC

**ZONING LEGEND** 

PROPOSED FACULTY AND STAFF: 155

**CONSERVATION** 

**AGRICULTURE** 

7. DEVELOPED AREA: 17.032 SF

8. FIRE PROTECTION WATER SUPPLY: EXISTING FIRE HYDRANT ON-SIT

BOARD OF EDUCATION OF CARROLL COUNTY 125 N. COURT ST

12. THE VERTICAL DATUM OF THIS SURVEY IS NAVD 88

13. THE LOCATION OF UNDERGROUND UTILITIES IS BASED ON UTILITY LOCATING PROVIDED BY AI DATA DATED NOVEMBER 2024. ALL UTILITIES REPRESENT A PROFESSIONAL OPINION AND INTERPRETATION BASED ON RECORD INDICATIONS AND FIELD EVIDENCE INCLUDING THE USE OF ELECTRONIC UTILITY DETECTION EQUIPMENT. CONTRACTOR TO CONFIRM ALL UTILITY INFORMATION IN THE FIELD PRIOR TO EXCAVATION.

14. NRCS WEB SOIL SURVEY IDENTIFIES SOILS AT THIS SITE AS URBAN LAND-UDORTHENTS COMPLEX (HSG "D").

15. THERE IS NO MAPPED FLOODPLAIN ASSOCIATED WITH THIS SITE PER FEMA FLOOD INSURANCE RATE MAP NUMBER 24013C0215D, DATED OCT. 2, 2015.

16. DETAIL DRAWINGS AND SCHEDULES DESCRIBE CONSTRUCTION AT GIVEN AREAS. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL UTILIZE EQUIVALENT CONSTRUCTION METHODS IN

17. ALL NOTES ON DRAWINGS SHALL BE ASSUMED AS TYPICAL, UNLESS OTHERWISE SHOWN OR NOTED ON THE DRAWINGS.

18. IT SHALL BE THE DUTY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS GIVEN ON THE DRAWINGS AND TO REPORT TO THE ENGINEER ANY ERROR OR INCONSISTENCY WITH THE ACTUAL CIRCUMSTANCES IN THE FIELD BEFORE COMMENCING WORK.

19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL ITEMS REQUIRED TO PROVIDE A SITE CLEAR OF OBSTRUCTIONS (ABOVE & BELOW GRADE) AND GRADED TO SPECIFIED

20. ALL BIDDERS: THE CONTRACTOR SHALL VISIT THE SITE TO FAMILIARIZE HIM/HERSELF WITH THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED PRIOR TO

21. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL SITE SUB-CONTRACTORS/BIDDERS WITH FULL AND COMPLETE SETS OF ALL CIVIL DRAWINGS AND SPECIFICATIONS FOR THEIR USE IN PREPARING BIDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DELAYS AND COSTS ARISING DURING CONSTRUCTION FROM BIDS BASED UPON

22. ANY WORK WITHIN THE PUBLIC RIGHT-OF-WAY, SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST CARROLL COUNTY STANDARDS AND SPECIFICATIONS. THIS WORK INCLUDES, BUT NOT LIMITED TO: REPAIRING; RESTORING; AND OBTAINING FINAL INSPECTION APPROVALS.

23. PRIOR TO VEGETATIVE STABILIZATION, ALL DISTURBED AREAS MUST BE TOPSOILED PER THE SPECIFICATION FOR TOPSOIL (SEE SHEET C-XXX) AND TECHNICAL SPECIFICATIONS. IF ON-SITE MATERIALS DO NOT MEET REQUIREMENTS OF TOPSOIL, COORDINATE WITH CCPS REGARDING TILLING-IN OF CERTIFIED COMPOST TO ON-SITE SOILS IN ORDER TO MEET

24. ANY DISCREPANCIES, OMISSIONS, AMBIGUITIES, OR CONFLICTS IN AND AMONG THE CONSTRUCTION DOCUMENTS OR DOUBT ABOUT THEIR MEANING, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER FOR DIRECTION BEFORE PROCEEDING WITH WORK. IF AMBIGUITIES EXIST, THE BETTER QUALITY AND GREATER QUANTITY OF WORK SHALL BE BID UPON AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE INDICATED BY THE OWNER IN WRITING.

25. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL TRADE PERMITS AND PAY FEES ASSOCIATED WITH SAID PERMITS.

26. CLARK | AZAR & ASSOCIATES WILL RELEASE CAD BASE FILES OF THE SITE CIVIL DRAWINGS TO THE SUCCESSFUL CONTRACTOR WITHOUT FEE AFTER A RELEASE IS SIGNED. NO CAD

## 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
- (A) PROPOSED STRUCTURES STAKED OUT IN PROPER LOCATIONS AS SHOWN ON THESE APPROVED PLANS.
- (B) PROPOSED FOUNDATIONS INSTALLED FOR ALL BUILDINGS SHOWN ON THESE APPROVED
- (C) SUB-GRADES ESTABLISHED FOR ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING. COMPLETION OF ALL DRIVES, PARKING LOTS, AND SURROUNDING GRADING. (E) 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. 3. 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
- 4. 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
- 5. THE CONTRACTOR SHALL NOT PROCEED TO THE NEXT PHASE OF CONSTRUCTION UNTIL GIVEN APPROVAL OF PRIOR PHASES.

	CARROLL COUNTY PLANNING AND ZONING COMMISSION
OWNER'S CERTIFICATION	BYDATE
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	CARROLL COUNTY DEPARTMENT OF PUBLIC WORKS BUREAU OF UTILITIES
and approved by the Carroll County Planning and	BY DATE
Zoning Commission before any change in the work is made.	CARROLL COUNTY HEALTH DEPARTME
Name(s) Printed/Date	BYDATE
Signed/Date	

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 31168

EXPIRATION DATE: 01/12/2027

PROFESSIONAL CERTIFICATION:

COUNTY FILE: S-24-0030

WESTMINSTER, MD 2115 C/O BILL CAINE WECAINE@CARROLLK12.ORG

PROJECT NO: 641449 AUGUST 29, 2025 **REVISIONS** DESCRIPTION 04/08/25 DD SUBMISSION

**CIVIL COVER** 

SHEET <u>1</u> OF <u>18</u>.

#### MY RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE FACILITY WAS INSPECTED IN ACCORDANCE WITH SECTIONS § 151.095 AND § 151.096 OF THE CODE OF SUBMITTAL OF "AS-BUILT" PLANS CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEERING OR PUBLIC LOCAL LAWS AND ORDINANCES OF CARROLL COUNTY AND I HEREBY CERTIFY THAT THESE PROFESSIONAL LAND SURVEYOR. AS APPROPRIATE, WITHIN THIRTY (30) DAYS OF COMPLETION DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED PROFESSIONAL ENGINEER OF WORK ON THE STORMWATER MANAGEMENT FACILITY, I ALSO CERTIFY THAT THESE OR PROFESSIONAL LAND SURVEYOR, AS APPROPRIATE, UNDER THE LAWS OF THE STATE OF MARYLAND. STORMWATER MANAGEMENT FACILITIES WILL BE INSPECTED DURING CONSTRUCTION BY A REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR, AS APPROPRIATE, IN ACCORDANCE WITH SECTIONS § 151.095 AND § 151.096 OF THE CODE OF PUBLIC LOCAL LAWS SIGNATURE EXPIRATION DATE LICENSE NO.

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THESE PLANS WERE CONSTRUCTED AS SHOWN ON THE

"AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS. I ALSO CERTIFY THAT THIS

ENGINEER'S "AS-BUILT" CERTIFICATION

PREPARED OR APPROVED BY ME, AND I AM A DULY LICENSED

PROFESSIONAL ENGINEER OR PROFESSIONAL LAND SURVEYOR, AS

07/02/2025

01/12/2027

HEREBY CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWINGS WILL

BE CONDUCTED IN STRICT ACCORDANCE WITH THESE PLANS. I ALSO UNDERSTAND THAT IT IS

PPROPRIATE, UNDER THE LAWS OF THE STATE OF MARYLAND.

DEVELOPER'S CERTIFICATION

AND ORDINANCES OF CARROLL COUNTY.

EXISTING OBJECT TBR

SOIL BORING/TEST PIT

EXISTING CONTOUR

 $\equiv \equiv \equiv \equiv$  Existing curb and gutter

EXISTING SANITARY SEWER LINE

EXISTING SANITARY SEWER MANHOLE

EXISTING FIRE HYDRANT

**BOARD OF ED OF CARROLL COUNTY CARROLL COUNTY PUBLIC SCHOOLS** 125 N. COURT ST. WESTMINSTER, MD 21157 C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

PROJECT NO: 641449 AUGUST 29, 2025 REVISIONS DESCRIPTION 04/08/25 DD SUBMISSION

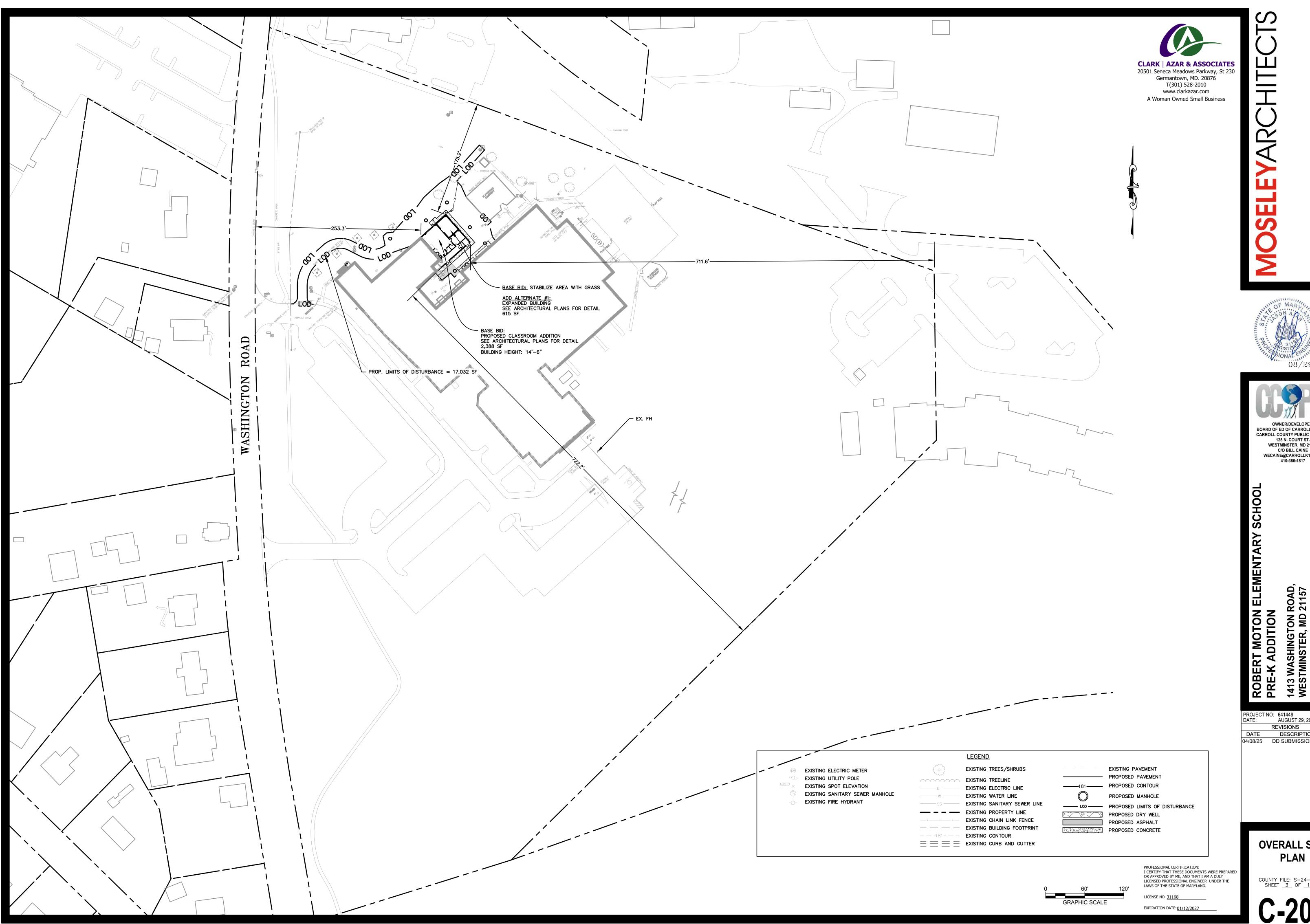
> **EXISTING CONDITIONS & DEMOLITION PLAN**

COUNTY FILE: S-24-0030 SHEET <u>2</u> OF <u>18</u>.

LAWS OF THE STATE OF MARYLAND.

EXPIRATION DATE: 01/12/2027

LICENSE NO. 31168

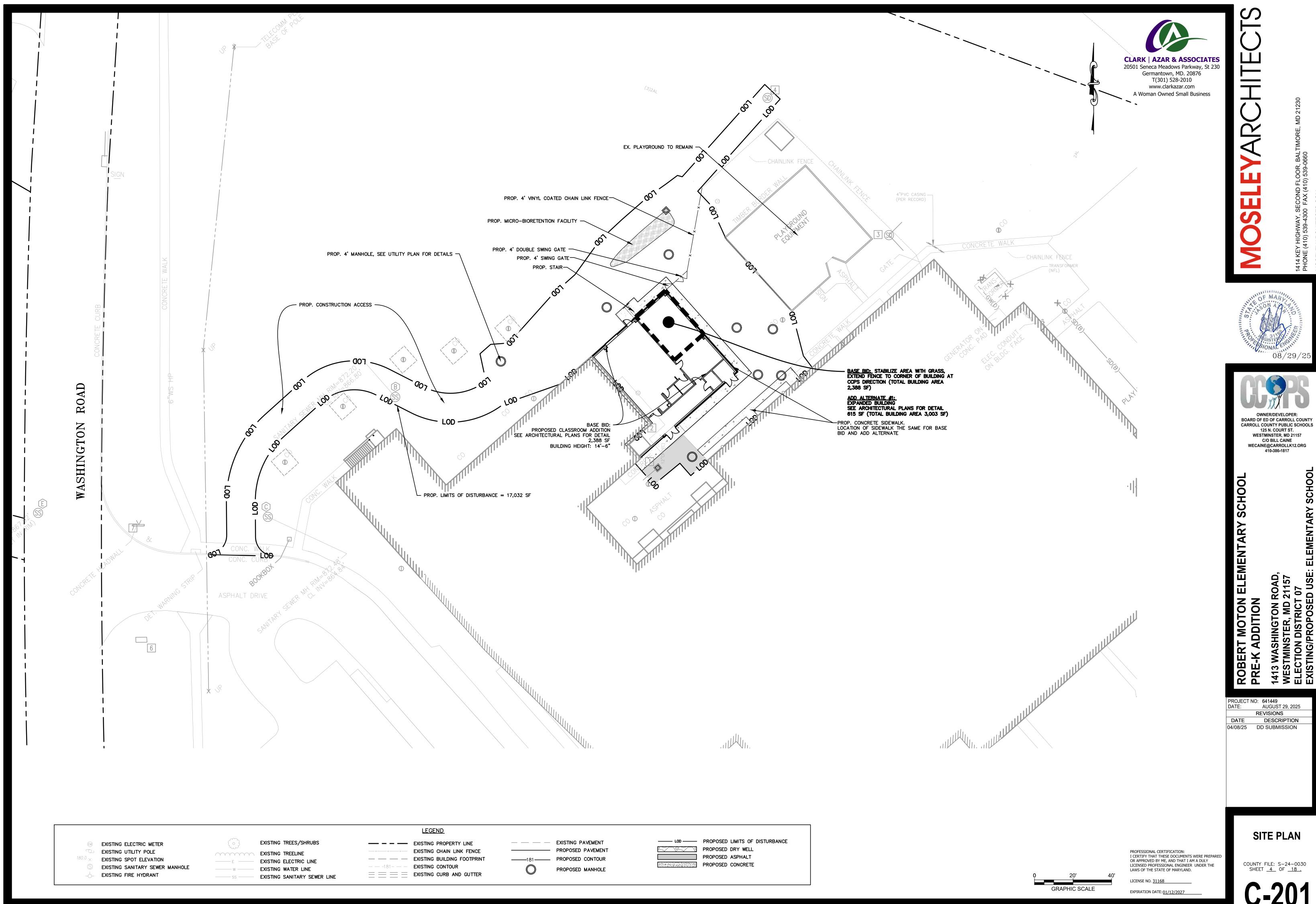


OWNER/DEVELOPER:
BOARD OF ED OF CARROLL COUNTY
CARROLL COUNTY PUBLIC SCHOOLS
125 N. COURT ST.
WESTMINSTER, MD 21157
C/O BILL CAINE
WECAINE@CARROLLK12.ORG
410-386-1817

PROJECT NO: 641449 DATE: AUGUST 29, 2025 REVISIONS DATE DESCRIPTION
04/08/25 DD SUBMISSION

**OVERALL SITE** 

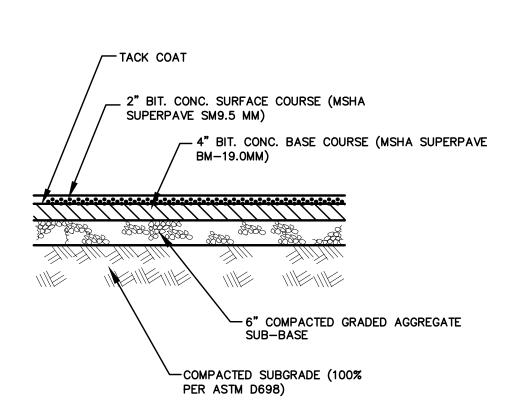
COUNTY FILE: S-24-0030 SHEET <u>3</u> OF <u>18</u>.



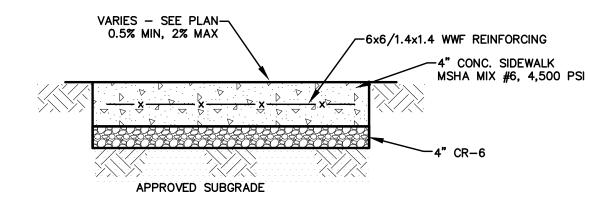
OWNER/DEVELOPER:

PROJECT NO: 641449 DATE: AUGUST 29, 2025 REVISIONS DESCRIPTION 04/08/25 DD SUBMISSION

COUNTY FILE: S-24-0030 SHEET <u>4</u> OF <u>18</u>.



STANDARD ASPHALT PAVING SECTION



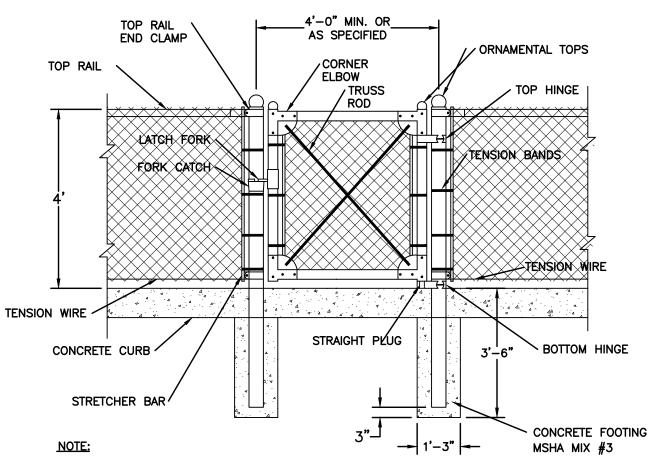
1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS.

2. EXPANSION JOINT MATERIAL SHALL BE PLACED AROUND POLES, HYDRANTS, ETC. AND ALONG THE PROPERTY LINE WHEN THE SIDEWALK ABUTS ANY RIGID PAVEMENT, SIDEWALK OR

3. EXPANSION JOINT MATERIAL SHALL HAVE A MAXIMUM LONGITUDINAL SPACING OF 100 FEET. THE MATERIAL SHALL BE 1/2-INCH PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING, TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FS TT-S-00227.

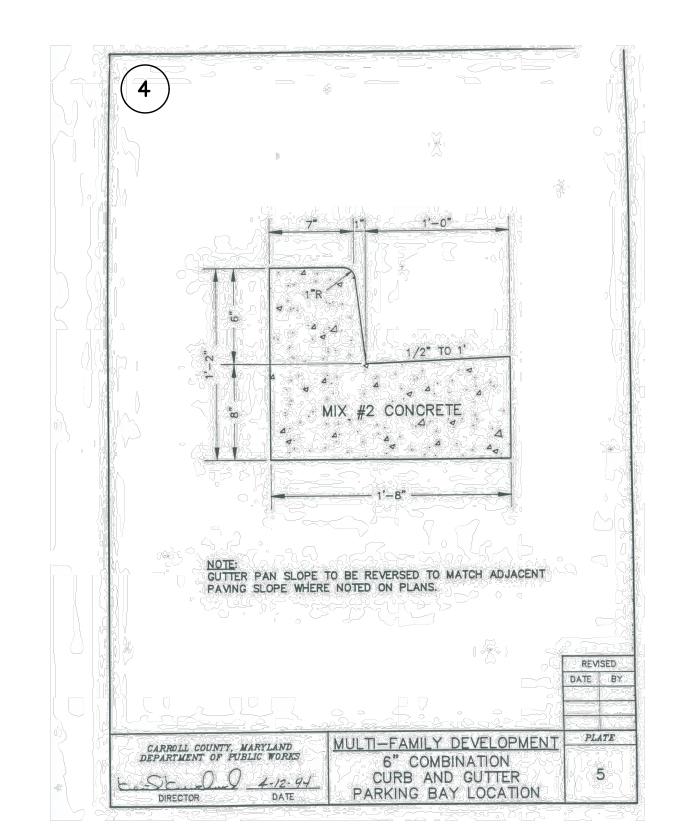
4. SCORE THE CONCRETE TO A DEPTH OF 1/3 THE SLAB THICKNESS TO PROVIDE WEAKENED PLANE TRAVERSE JOINTS AT 5'-0" INTERVALS, PARALLEL WITH AND PERPENDICULAR TO THE CURBING OR AS INDICATED ON THE SCORING PLAN.

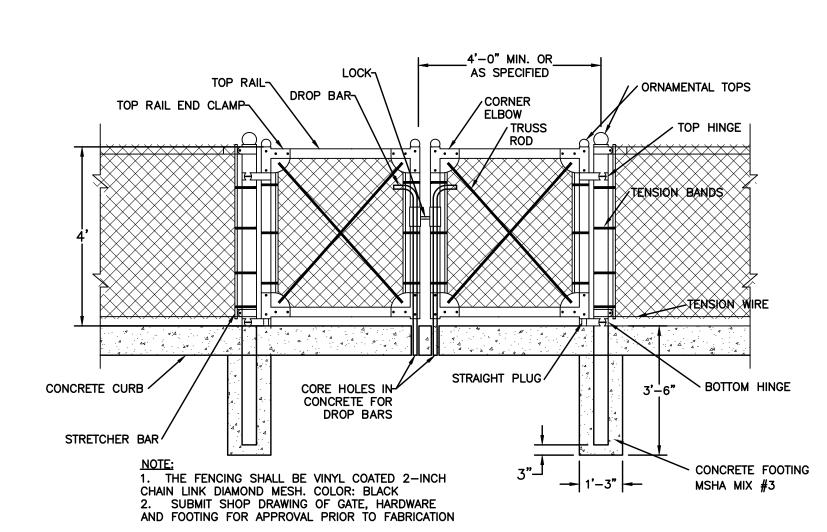
TYPICAL CONCRETE SIDEWALK SECTION

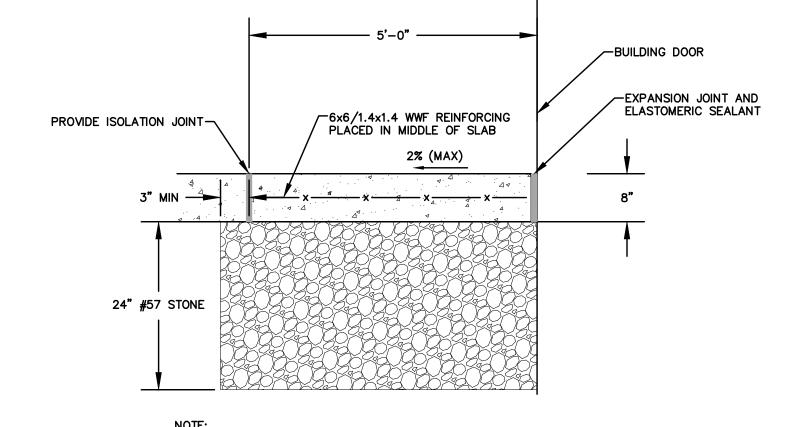


1. THE FENCING SHALL BE VINYL COATED 2-INCH CHAIN LINK DIAMOND MESH. COLOR: BLACK 2. FENCE FABRIC SHALL BE INSTALLED ON POST ON OUTSIDE OF PLAY AREAS.

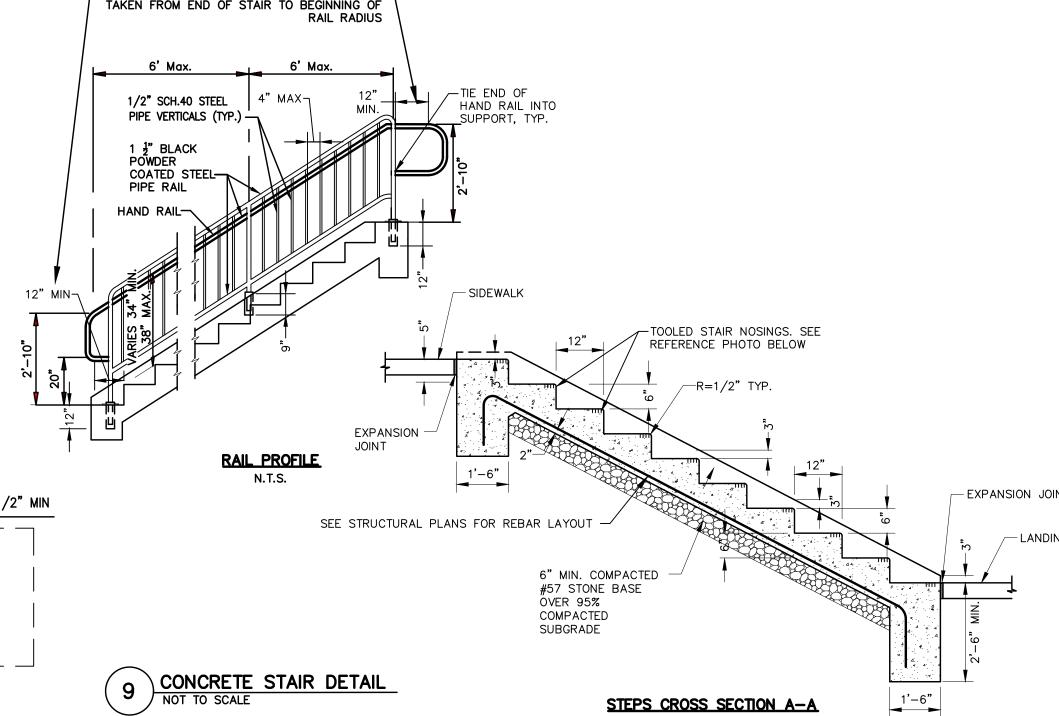
CHAIN LINK SWING GATE DETAIL







# 4' DOUBLE SWING GATE DETAIL



OWNER/DEVELOPER: **BOARD OF ED OF CARROLL COUNTY** CARROLL COUNTY PUBLIC SCHOOLS

125 N. COURT ST. WESTMINSTER, MD 21157 C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

PROJECT NO: 641449 AUGUST 29, 2025 REVISIONS DESCRIPTION 04/08/25 DD SUBMISSION

SITE DETAILS

COUNTY FILE: S-24-0030 SHEET <u>5</u> OF <u>18</u>.

NOTE:

1. THIS DETAIL TYPICAL FOR 5' CLEAR OUTSIDE ALL DOORWAYS

1. THIS DETAIL TYPICAL FOR 5' CLEAR OUTSIDE ALL DOORWAYS 2. INSTALL 1/2" EXPANSION JOINT WHERE SUPPORT MEETS ADJACENT SURFACE AND BUILDING. EXPANSION JOINT MATERIAL SHALL BE 1/2" PREFORMED CORK, TRIMMED AND SEALED WITH NON-STAINING POLY-URETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH ASTM C 920 (NON-EXTRUDING). 3. THE SLOPE OF THE SIDEWALK AT THE DOOR SHALL NOT EXCEED 2% IN ANY DOORWAY LANDING DETAIL NOTE: 12" MIN RAIL EXTENSION MEASUREMENT TAKEN FROM END OF STAIR TO BEGINNING OF EXTEND HANDRAILS PAST EDGE OF CHEEK WALL TO BE WHOLLY ABOVE WALKING SURFACE, TYP. -HANDRAIL,--SEE SITE PLAN FOR WIDTH-SEE STRUCTURAL PLANS TOR REBAR LAYOUT └95% COMPACTED SUBGRADE STEPS CROSS SECTION B-B -EXPANSION JOINT - LANDING

STEP NOTES:

1) ALL MATERIALS AND METHODS SHALL COMPLY WITH MSHA SPECIFICATIONS. 2) ALL PIPE TO BE SHOP POWDER COATED

3) RAILING SUPPORTS SHALL BE CORED INTO CHEEK WALLS AND GROUTED IN PLACE. ALL CORES SHALL BE SEALED UPON SETTING OF RAILING SUPPORTS

4) THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THE SUPPORTS FOR THE HANDRAIL.

6) ALL TUBE JOINTS TO BE WELDED AND GROUND SMOOTH 7) RAILING SHALL BE LOCATED ALONG BOTH SIDES OF THE STEPS. CENTER RAIL SHALL

BE ADDED ONLY IF CLEAR STEP WIDTH EXCEEDS 72" 8) CONTRACTOR SHALL SUBMIT SHOP DRAWINGS

PRIOR TO FABRICATION 9) CONCRETE TO BE 4,500 PSI 10) STAIR NOSINGS TO CONTINUE ACROSS ENTIRE WIDTH OF STEP. SEE REFERENCE IMAGE FOR

LAYOUT DETAIL

STEPS 3D VIEW N.T.S.

STAIR NOSING REFERENCE N.T.S.

-CHEEK WALL

RAIL SECTION

STEPS CROSS SECTION A-A N.T.S.

LICENSE NO. 31168 EXPIRATION DATE: 01/12/2027

PROFESSIONAL CERTIFICATION:

LAWS OF THE STATE OF MARYLAND.

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED

OR APPROVED BY ME, AND THAT I AM A DULY

LICENSED PROFESSIONAL ENGINEER UNDER THE



ADA GRADING NOTE:
ALL ADA GRADING WILL BE STRICTLY ENFORCED.
ANY VARIANCE OUTSIDE THE LIMITS NOTED BELOW FOR ALL ADA AREAS NOTED ON THIS SHEET WILL NOT BE ACCEPTED BY CCPS. EACH PANEL WILL BE MEASURED WITH A 2' SMART LEVEL PER DOJ REQUIREMENTS

ADA SIDEWALK: 5% MAX LONGITUDINAL SLOPE AND 2% MAX CROSS SLOPE

ADA LANDING: 2% MAX SLOPE IN ANY DIRECTION

ADA RAMP: 8.3% MAX LONGITUDINAL SLOPE AND 2% MAX CROSS SLOPE.

MINIMUM SLOPES;
CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ACROSS SITE. ALL SITE GRADING SHALL PROVIDE A MINIMUM SLOPE IN AT LEAST ONE DIRECTION UNLESS OTHERWISE NOTED. BELOW ARE THE MINIMUM SLOPE REQUIREMENTS:

0.7% ASPHALT: CONCRETE: 0.5%

PONDING OF WATER SHALL BE RESTRICTED OUTSIDE OF STORMWATER MANAGEMENT **PRACTICES** 

### **COMPACTION NOTE:**

GEOTECHNICAL ENGINEER SHALL CONFIRM PROPER COMPACTION IN ALL AREAS OF FILL TO PREVENT UNEVEN SETTLEMENT BETWEEN AREAS OF FILL AND AREAS OF CUT ACROSS SITE, TYP.

ADA GRADING LEGEND

ADA LANDING. 1.75% MAX DESIGN SLOPE IN ANY DIRECTION

ADA SIDEWALK. 4.5% MAX DESIGN LONGITUDINAL SLOPE AND 1.5% MAX DESIGN CROSS SLOPE

ADA RAMP. 8.0% MAX DESIGN LONGITUDINAL SLOPE AND 1.5% MAX DESIGN CROSS SLOPE

### UNSATISFACTORY SOIL NOTE:

- MINIMUM SUBGRADE ELEVATION OF 880.0 BELOW EXISTING GRADES WITHIN THE BUILDING ADDITION FOOTPRINT AND DISPOSE OF UNSATISFACTORY SOILS OFF SITE. THIS EXCAVATION SHALL ALSO EXTEND FIVE FEET (5') OUTWARD FROM THE PERIMETER OF THE
- 2. TRANSPORTING AND DISPOSING OF UNSATISFACTORY SOILS, AND ROCK IF ENCOUNTERED, SHALL BE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLANS FOR THIS PROJECT, AS APPROVED IN THE FIELD BY THE GRADING AND SEDIMENT CONTROL
- 3. THE GEOTECHNICAL ENGINEER SHALL MONITOR THE PROGRESS OF THE EXCAVATION, AND SHOULD EXCAVATION OPERATIONS ENCOUNTER SATISFACTORY SOILS, THE GEOTECHNICAL ENGINEER MAY TERMINATE
- SUBSTANTIATING THE QUANTITY IN CUBIC YARDS (C.Y.) OF UNSATISFACTORY SOILS REMOVED AND DISPOSED ON-SITE, AND THE QUANTITY IN CUBIC YARDS (C.Y.) OF SATISFACTORY SOILS IMPORTED
- TO THE PROJECT SITE USED TO REPLACE UNSATISFACTORY SOILS. 5. IF SATISFACTORY SOILS ARE ENCOUNTERED IN THE AREA DESIGNATED IN NOTE #1 ABOVE FOR THE BASE BID, THE OWNER SHALL BE CREDITED, BASED UPON THE BID FORM UNIT PRICES, FOR THE TOTAL VOLUME OF EXCAVATION NOT PERFORMED FOR THE REMOVAL AND

ON-SITE DISPOSAL OF UNSATISFACTORY SOILS.

EXISTING ELECTRIC METER

EXISTING UTILITY POLE

EXISTING SPOT ELEVATION EXISTING SANITARY SEWER MANHOLE EXISTING FIRE HYDRANT

EXISTING TREES/SHRUBS **EXISTING TREELINE** EXISTING ELECTRIC LINE EXISTING WATER LINE EXISTING SANITARY SEWER LINE

PROP. CLASSROOM ADDITION. SEE—ARCHITECTURAL PLANS FOR DETAIL FFE=883.30

BUILDING HEIGHT = 14'-6"

<u>LEGEND</u> — — — EXISTING PROPERTY LINE EXISTING CHAIN LINK FENCE — — — EXISTING BUILDING FOOTPRINT EXISTING CONTOUR EXISTING CURB AND GUTTER

SINGLE WR INLET RIM: 876.75 INV OUT: 872.75

EXISTING PAVEMENT ----- PROPOSED PAVEMENT -----181 PROPOSED CONTOUR PROPOSED STORM DRAIN LINE 

EX. STORM DRAIN INLET TO REMAIN.
PROVIDE POSITIVE DRAINAGE TOWARDS INLET

PROPOSED CONCRETE

PROPOSED MANHOLE ----- LOD ------ PROPOSED LIMITS OF DISTURBANCE PROPOSED DRY WELL PROPOSED ASPHALT

EXISTING SIDEWALK TO BE REPLACED IN KIND.
 MATCH EXISTING GRADES AND ELEVATIONS

PROJECT NO: 641449

AUGUST 29, 2025

DESCRIPTION

REVISIONS

04/08/25 DD SUBMISSION

OWNER/DEVELOPER: **BOARD OF ED OF CARROLL COUNTY CARROLL COUNTY PUBLIC SCHOOLS** 125 N. COURT ST. WESTMINSTER, MD 21157 C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

**GRADING PLAN** PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY COUNTY FILE: S-24-0030 SHEET <u>6</u> OF <u>18</u>. LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 31168

EXPIRATION DATE: 01/12/2027



- 1. AS PART OF THE BASE BID, THE CONTRACTOR SHALL EXCAVATE TO
- BUILDING ADDITION.
- EXCAVATION IN THOSE APPLICABLE AREAS. 4. THE CONTRACTOR SHALL PREPARE AND SUBMIT WRITTEN RECORDS





OWNER/DEVELOPER: **BOARD OF ED OF CARROLL COUNTY** CARROLL COUNTY PUBLIC SCHOOLS 125 N. COURT ST. WESTMINSTER, MD 21157

C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

REVISIONS DESCRIPTION

**ESDv Reqd** 

542

PROFESSIONAL CERTIFICATION:

EXPIRATION DATE: 01/12/2027

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

1.6

1.2

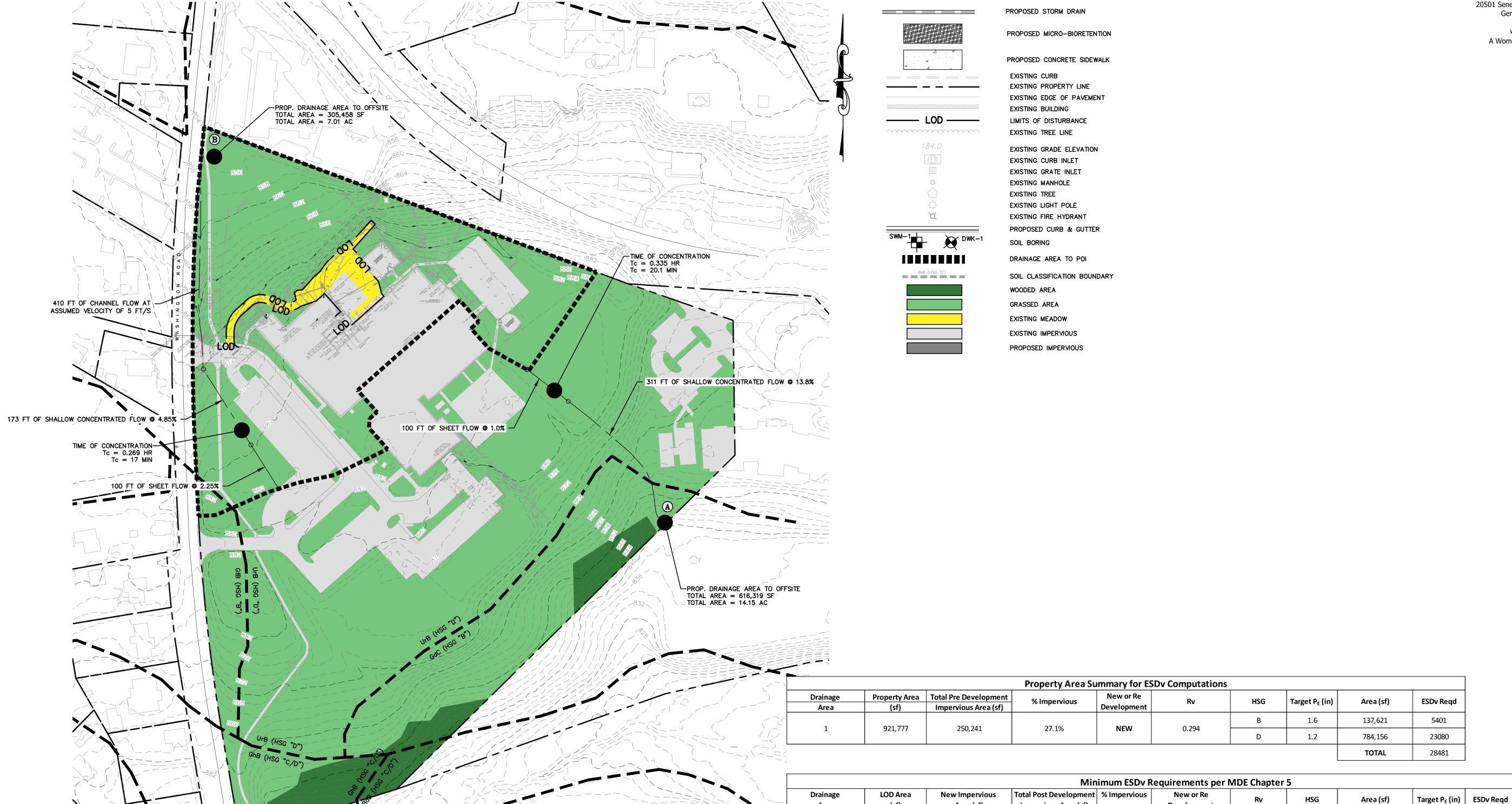
542

17,032

PROJECT NO: 641449 DATE: AUGUST 29, 2025 04/08/25 DD SUBMISSION

**SWM EXISTING** CONDITIONS

**PLAN** COUNTY FILE: S-24-0030 SHEET <u>7</u> OF <u>18</u>.



Area

17,032

Area (sf)

3,533

Impervious Area (sf)

5,081

Development

NEW

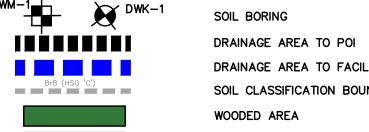
0.318

29.8%

# PROPOSED STORM DRAIN

\_\_\_\_ LOD \_\_\_\_ 184.0

EXISTING CURB INLET EXISTING GRATE INLET EXISTING MANHOLE EXISTING TREE EXISTING LIGHT POLE



OWNER/DEVELOPER: BOARD OF ED OF CARROLL COUNTY
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C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

PROJECT NO: 641449 DATE: AUGUST 29, 2025 REVISIONS DESCRIPTION 04/08/25 DD SUBMISSION

SWM PROPOSED CONDITIONS

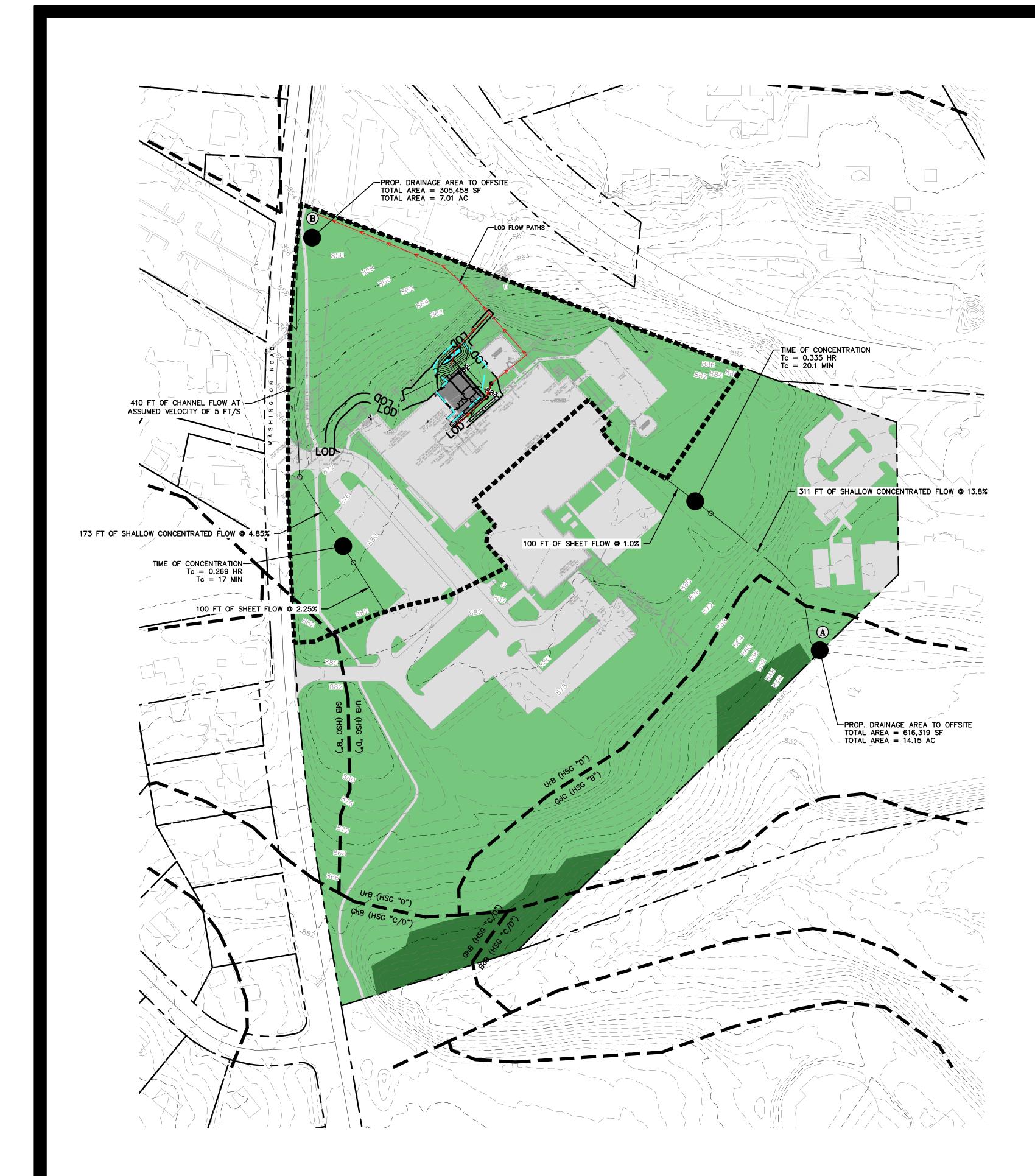
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LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 31168 EXPIRATION DATE: 01/12/2027

**GRAPHIC SCALE** 

**PLAN** COUNTY FILE: S-24-0030 SHEET <u>8</u> OF <u>18</u>.



# <u>LEGEND</u>

# PROPOSED MICRO-BIORETENTION

PROPOSED CONCRETE SIDEWALK

EXISTING CURB

EXISTING PROPERTY LINE EXISTING EDGE OF PAVEMENT EXISTING BUILDING LIMITS OF DISTURBANCE

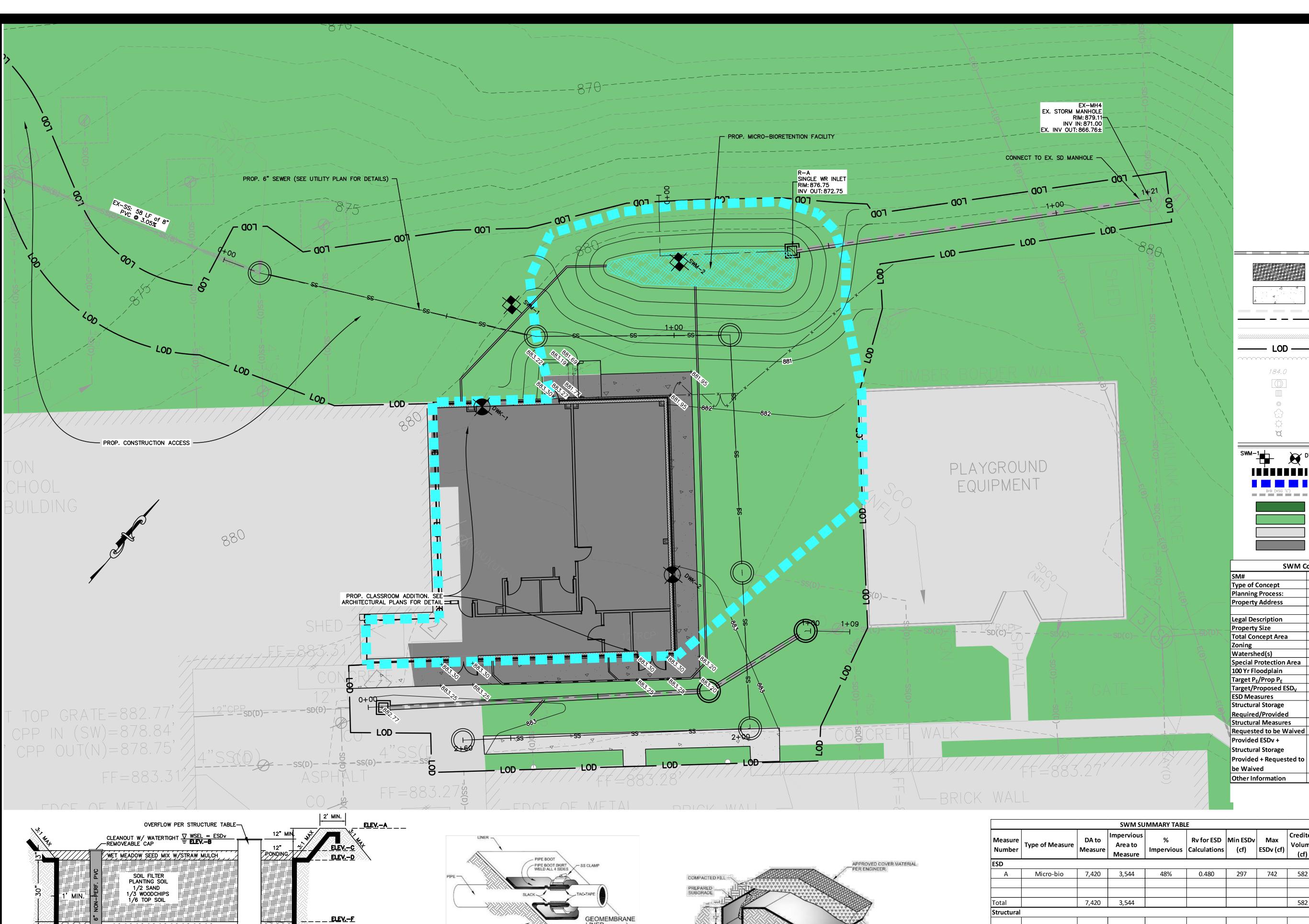
EXISTING TREE LINE EXISTING GRADE ELEVATION

EXISTING FIRE HYDRANT PROPOSED CURB & GUTTER

DRAINAGE AREA TO FACILITY

SOIL CLASSIFICATION BOUNDARY GRASSED AREA

EXISTING IMPERVIOUS PROPOSED IMPERVIOUS



PREPARED SUBGRADE -

boot installation procedure.

PIPE BOOT DETAIL\*

\*Must be a manufactured (not field fabricated) pipe boot. Follow manufacturer's pipe

\_\_\_\_<u>ELEV.—</u>G

PROP. 60 MIL
IMPERMEABLE LINER,
CONTINUOUS ON ALL
SIDES AND BOTTOM

\_\_\_<u>ELEV.—H</u>

27" GRAVEL - AASHTO M-43 #8 STONE

UNCOMPACTED SUBGRADE

UNDERDRAIN PIPE SHALL BE SLOTTED WITH 3/8". SLOTS, 4" O.C., EVERY 60 DEGREES AROUND THE PIPE.
 PERFORATED PIPE MUST BE AT LEAST 12" INSIDE THE FILTER MEDIA.
 FILTER FABRIC MUST NOT BE WRAPPED AROUND THE UNDERDRAIN PIPE. FILTER FABRIC SHALL NOT BE PLACED AT THE BOTTOM OF THE FACILITY.

SEE THIS SHEET FOR SAND SPECIFICATIONS.
 ALL METHODS AND MATERIALS TO COMPLY WITH THE LATEST CARROLL COUNTY MICRO—BIORETENTION DESIGN SPECIFICATIONS.

MICRO-BIORETENTION SECTION

6. DO NOT PLACE GEOTEXTILE ALONG BOTTOM.

6", SCH. 40 SLOTTED PVC @ 0,00%

<u>LEGEND</u>

20501 Seneca Meadows Parkway, St 230 Germantown, MD. 20876 T(301) 528-2010

www.clarkazar.com

A Woman Owned Small Business

PROPOSED STORM DRAIN

PROPOSED MICRO-BIORETENTION PROPOSED CONCRETE SIDEWALK

> EXISTING CURB EXISTING PROPERTY LINE

EXISTING EDGE OF PAVEMENT EXISTING BUILDING LIMITS OF DISTURBANCE

EXISTING TREE LINE EXISTING GRADE ELEVATION EXISTING CURB INLET

EXISTING GRATE INLET EXISTING MANHOLE EXISTING TREE EXISTING LIGHT POLE

EXISTING FIRE HYDRANT

PROPOSED CURB & GUTTER SOIL BORING DRAINAGE AREA TO POI

DRAINAGE AREA TO FACILITY SOIL CLASSIFICATION BOUNDARY WOODED AREA

GRASSED AREA

EXISTING IMPERVIOUS PROPOSED IMPERVIOUS

SWM Concept Summary					
<b>√</b> 1#					
pe of Concept	SWM Concept/Site Development				
anning Process:	Planning Board				
operty Address	1413 Washington Road				
	Westminster, MD 21157				
gal Description	Parcel 477				
operty Size	21.61 ac				
otal Concept Area	0.384 ac				
oning	Conservation				
atershed(s)	Liberty Reservoir				
ecial Protection Area N/A					
00 Yr Floodplain	N/A				
rget P <sub>E</sub> /Prop P <sub>E</sub>	1.20/1.29				
rget/Proposed ESD <sub>V</sub>	541 / 582				
SD Measures	(1) Micro-Bioretention				
ructural Storage	N/A				
equired/Provided	147.6				
ructural Measures	N/A				
equested to be Waived	N/A				
ovided ESDv +					
ructural Storage	E00				
ovided + Requested to	590				
e Waived					
ther Information	N/A				

Volume 297 742 582 582 Total Does not Drain to a SWM Measure QN Waiver acres and % Impervious QL Waiver acres and % Impervious Project 582 7,420 3,544 0.480 48% ESDv Required 541 ESDv Provided 582 Structural Required

GEOMEMBRANE

Structural Provided

LINER

PREPARED SUBGRADE

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

EXPIRATION DATE: 01/12/2027

LICENSE NO. 31168

**STORMWATER MANAGEMENT PLAN** 

PROJECT NO: 641449

AUGUST 29, 2025

DESCRIPTION

REVISIONS

04/08/25 DD SUBMISSION

OWNER/DEVELOPER:

BOARD OF ED OF CARROLL COUNTY
CARROLL COUNTY PUBLIC SCHOOLS

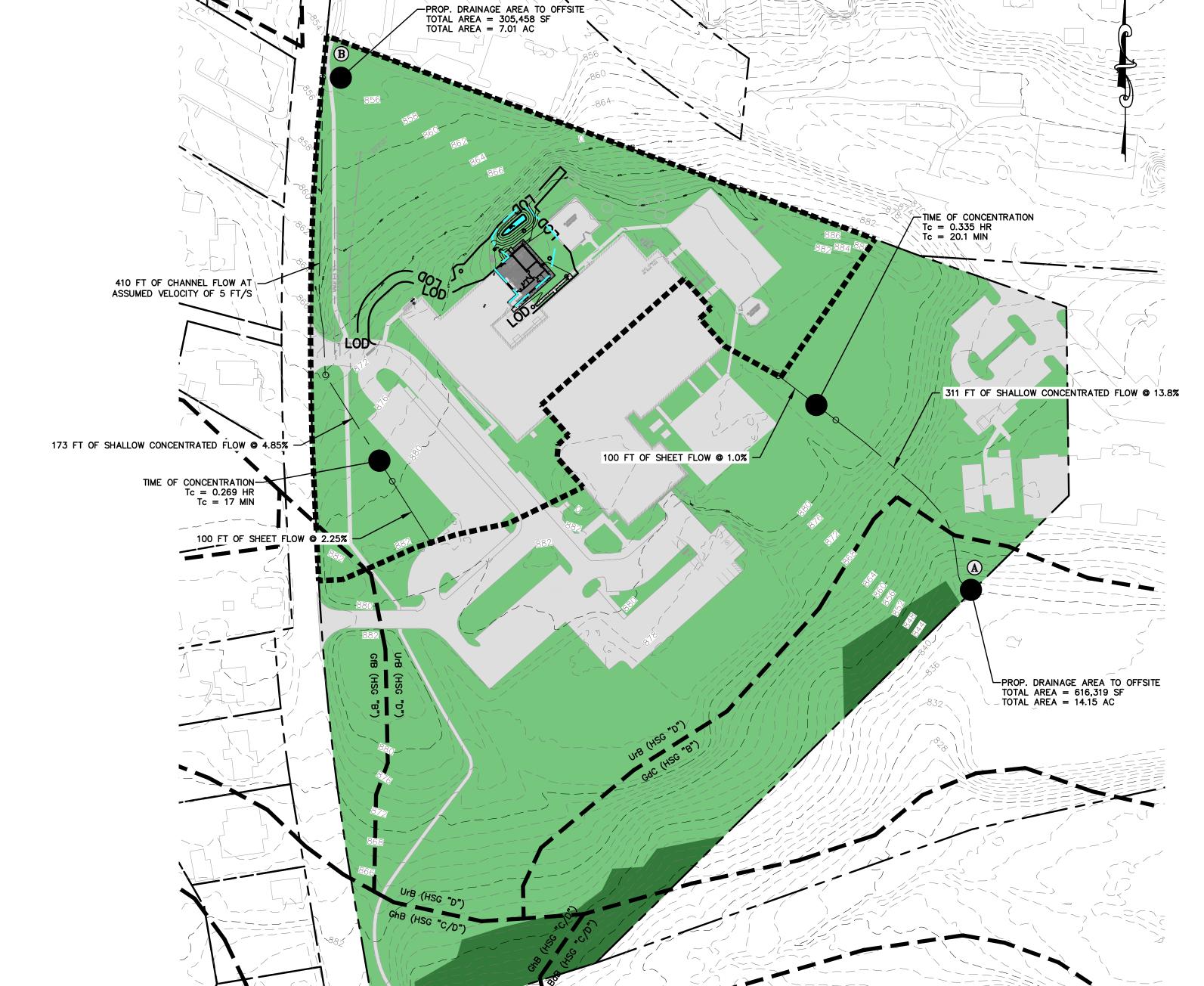
125 N. COURT ST. WESTMINSTER, MD 21157

C/O BILL CAINE WECAINE@CARROLLK12.ORG

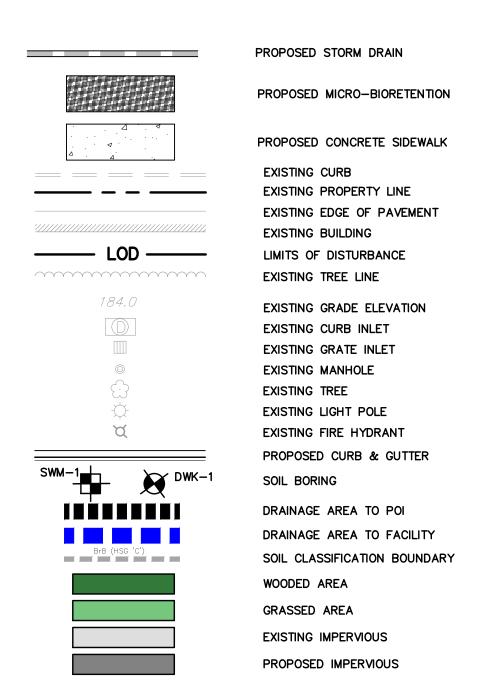
410-386-1817

COUNTY FILE: S-24-0030 SHEET <u>9</u> OF <u>18</u>.





# <u>LEGEND</u>



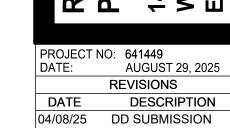
		Pre-Developme	nt Drainage Area Summar	1	
Number	Point	Drainage Area (ac)	Impervious Area (ac)	Q2	Q10
Α	SOUTHERN PL	14.15	3.416	16.55	33.22
В	NORTHERN PL	7.01	2.418	11.49	21.00
TOTAL SITE		21.16	5.834	27.66	53.58
		Post-Developme	nt Drainage Area Summar	у	
Number	Point	Drainage Area (ac)	Impervious Area (ac)	Q2	Q10
А	SOUTHERN PL	14.15	3.416	16.55	33.22
	SOUTHERN PL NORTHERN PL	14.15 7.01	3.416 2.454	16.55 11.49	33.22 21.00



OWNER/DEVELOPER: BOARD OF ED OF CARROLL COUNTY CARROLL COUNTY PUBLIC SCHOOLS

125 N. COURT ST.

WESTMINSTER, MD 21157 C/O BILL CAINE
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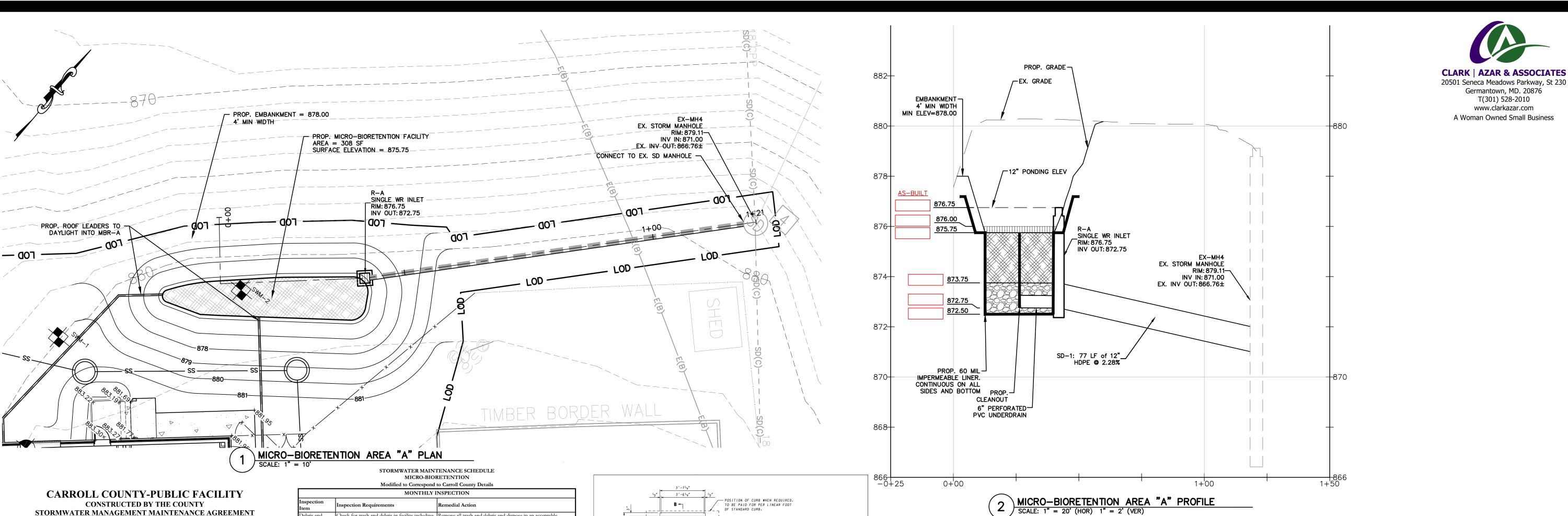
PROFESSIONAL CERTIFICATION:
I CERTIFY THAT THESE DOCUMENTS WERE PREPARED
OR APPROVED BY ME, AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE
LAWS OF THE STATE OF MARYLAND.

COUNTY FILE: S-24-0030 SHEET <u>10</u> OF <u>18</u>.

**DOWNSTREAM** 

**ANALYSIS** 

**GRAPHIC SCALE** LICENSE NO. 31168 EXPIRATION DATE: 01/12/2027



STORMWATER MANAGEMENT MAINTENANCE AGREEMENT **SCHEDULE** 

The Stormwater Management Facility/Facilities shown on these plans shall be constructed by Carroll County.

The County or its heirs or assigns shall be responsible for continuing maintenance of the facility/facilities which shall include such items as mowing, cleaning, removing sediment, trees, shrubs, and debris and repairing any structural damage. Requirements and schedules for specific types of facilities and practices as listed on the plans are

The County or its heirs or assigns shall be responsible for any structural damage or failure which may occur as a result of negligence, accident or misuse. In the event of structural damage, the County or its heirs or assigns is responsible to make repairs as quickly as possible (30 day maximum).

After completion of the facility the Carroll County Bureau of Resource Management shall certify that the facility is in proper working condition. "After completion of the facility" is construed to mean that all contributory drainage areas are paved or supporting a 2" stand of dense grass and that all buildings are constructed and that the Carroll County Bureau of Resource Management has inspected construction and a registered professional engineer has certified that the "As-Built" plans meet the plans and specifications for construction.

5. If this facility is ever transferred to private ownership, the County's heirs or assigns are responsible for the agreement. In such a case, if after notice by the County to correct a violation requiring maintenance work, satisfactory corrections are not made by the owner(s) within (30) days the County may perform all necessary work to place the facility in proper working condition. The owners of the facility shall be assessed the cost of the work and any penalties. The monies may be collected by placing a lien on the property, or by including the costs and penalties in the property tax bill and collecting them as ordinary taxes by the County.

Owner(s) shall grant right of entry to authorized County/Town/City personnel for purposes of inspection monitoring and/or repair. Site visits for inspection and/or monitoring shall be conducted only during normal County working hours (8:00 a.m. to 5:00 p.m. Monday – Friday).

Specification

Filter Bed Mix – Use Wet Meadow Mix per MD

Standards and Specifications §707. See Table 3

MD Standards and Specifications §920.04.01. (200 lb.

Class "C" – Apparent opening size (ASTM-D-4751), Grab Tensile Strength (ASTM-D-4632), Puncture

Solid: Scheduled 40 PVC or HDPE Type "S"

ASTM-C-33 (3 parts to 6 within Filter Media)

Engineer approved loam with 20% or less clay.

that fill material shall conform to Unified Soil

be compacted to a density of not less than 95% of maximum dry density. Woody vegetation is prohibited

Shall be in accordance with MD 378 Code, except that

Soils used for embankments and trench backfill shall be uniform and in accordance with MD 378 Code, except

(1 lb. minimum/micro-bioretention)

minimum/micro-bioretention)

Resistance (ASTM-D-4833)

Underdrain and Observation Slotted PVC or Slotted HDPE Type "SP" Pipes

AASHTO M-43 No. 8 Stone

1 part to 6 within Filter Media)

(2 parts to 6 within Filter Media)

Untreated "Green"

Carroll County Supplemental Materials Specifications for Bio-Swale, Bioretention, Micro-Bioretention & Rain Gardens

Comprised of 3 parts sand, 2 parts wood chips, 1 part N/A See individual material specifications

Principal Spillway Pipe (non- all pipe joints are to be gasketed and completely See See Pipe Conduits, Carroll County Construction Specifications

watertight. Pipes connected to risers (inlets) shall be a Plan | Carroll County SWM Supplement, Page 131

N/A Plantings are site specific and per approved landscape plan

Incorporate seed evenly in top 1/2" of filter media

1" Straw mulch over seed bed (facility bottom)

See Refer to the Carroll County SWM Supplement Pg. 87

Plan All pipes must be double walled (smooth core) and slotted (no circular holes) 0.02" Sand substitutions such as Diabase and Graystone #10 are not acceptable.

No calcium carbonate or dolomitic sand substitutions are acceptable.

may be used for filters. Manufactured sand may not be used in dams.

N/A | Not on bottom unless specified on the plans

Stone must be clean and washed

N/A Untreated "green" wood chips

that fill material shall conform to Unitied Soil
Classification, GC, SC, SM, MH, ML, CH, or CL and
be compacted to a density of not less than 95% of
Carroll County SWM Supplement, Page 130

N/A Aged 6 months, minimum

N/A Used with straw mulch in place of shredded hardwood mulch

7. This agreement including right of entry for inspection/maintenance and repair shall be recorded in the Land Records of the County.

Effective Date: November 15, 2018

Material

Inderdrain and Reservoir

Plantings

Seed Mix

Straw Mulch

Well Piping

Wood Chips

Filter/Planting Media

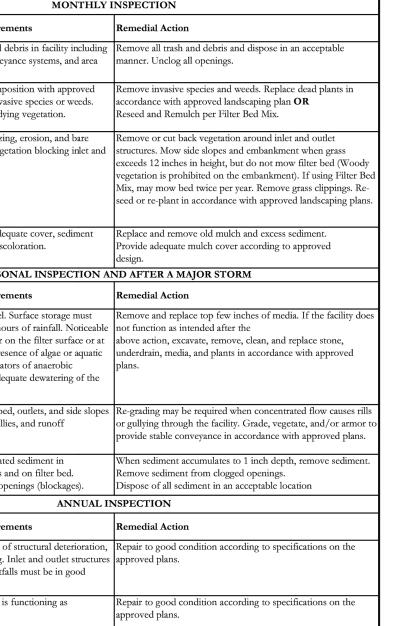
Backfill (non-378)

Distributed for comments at the Carroll County Surveyor's Meeting October 15, 2018 12 Amended

See Landscape Plan

	MONTHLY I	INSPECTION
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 <b>OR</b> 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. Reseed 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 AT	ND 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 t 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
	ANNUAL I	NSPECTION
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 as designed.	Repair to good condition according to specifications on the approved plans.

Carroll County Stormwater Management Pro Revised Decer



	1/2" 3'-61/4" 1/2"
	POSITION OF CURB WHEN REQUIRED.  TO BE PAID FOR PER LINEAR FOOT OF STANDARD CURB.
ceptable	UF STANDARD CURB.
d plants in	STANDARD WR SINGLE FRAME & GRATE FOR DETAILS SEE STANDARDS MD-374.03
outlet	5%" Ø ANCHOR BOLTS, 4 PER FRAME
en grass	B → / (FOR DETAILS SEE STANDARD MD-374.02)
r bed (Woody using Filter Bed	LADDER RUNGS (IF USED) SEE NOTE 7————————————————————————————————————
clippings. Re-	
dscaping plans.	
1	
ent.	100 VV STICAL WALLS)
oved	AX. STATE OF THE PROPERTY OF T
	WEAL THOU
	W S S S S S S S S S S S S S S S S S S S
	(WALLS MAY TAPER "2" PER FOOT)
he facility does	INVERT TO BE CONCRETE OR BRICK. SLOPE 2"  PER FOOT TOWARD OUTLET OR AS DIRECTED.  (TO BE PROVIDED IN FIELD)
e stone,	SEE NOTE 2
approved	LAP SPLICE MAKE REINFORCING CONTINUOUS AROUND OUTSIDE CORNER— GENERAL NOTES
	SECTION A-A  1. CONCRETE TO BE MIX NO. 6 (4500 PSI).
- 71	TOP OF PAVEMENT 7 2. REINFORCING: WALLS - 2 LAYERS OF 4X4-W4.0 X W4.0 WELDED WIRE FABRIC WITH 11#2" COVER FROM EACH SIDE: BASE - 2 LAYERS OF 4X4 - W5.0 X W5.0 WELDED WIRE FABRIC WITH 11/2" COVER
ow causes rills nd/or armor to	SEE NOTE 2  3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.  JOINT SEALER AASH 6" 2'-9'8" 4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO. 6.
proved plans.	JOINT SEALER AASH 6" 2'-9'/8" 4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
11	(APPLIED TO INSIDE TO SERVICE OF THE CONSTRUCTION PLANS.
ove sediment.	ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
	(TPF) AND MD 383.22 OR AS DIRECTED BY THE ENGINEER.
	8. MINIMUM DEPTH PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 3'-6". VERTICAL DEPTH PAYMENT PER LINEAR FOOT FOR DEPTHS
	IN EXCESS OF 3'-6".  9. FROM CURB LINE, INLET HAS BEEN DESIGNED FOR HS-25
ons on the	PROVIDE 6" MIN. BEDDING — LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN OF NO.57 ACCREGATE ON SPECIFICATIONS. FIRM SUBGRADE (BY OTHERS)
	SECTION B-B
ons on the	SPECIFICATION CATEGORY CODE ITEMS  Maryland Department of Transportation
	STATE HIGHWAY ADMINISTRATION
vington, III, P.E.	APPROVED STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
rogram Engineer	APPROVAL • SHA APPROVAL • FEDERAL HIGHWAY ADMINISTRATION PRECAST SINGLE WR INLET
August 2021 ecember 20, 2022	APPROVAL 6-4-84 APPROVAL 8-1-84 REVISED 10-1-01 REVISED 3-30-87
20, 2022	State High way REVISED 10-7-14 REVISED 9-29-14 REVISED PRINTED REVISED
	Participation   Participation

MBR-1 ENGINEER'S CONSTRUCTION INSPECTION CHECK-OFF LIST FOR MICRO BIORETENTION FACILITY APPROVAL INITIALS DATE Excavation for Micro Bioretention facility conforms to approved plans 2. Placement of stone backfill and underdrain system conforms to approved Placement of filter media conforms to approved plans Connecting pipes and/or grading conveyance to the facility constructed per the approved plans

TOTAL NUMBER OF MICRO BIORETENTION FACILITIES INSTALLED PER THIS PERMIT: APPROVED \_1\_ CONSTRUCTED \_\_\_\_\_

5. Final grading and permanent stabilization conforms to approved plans

	CERTIFYING ENGINEER'S APPROVAL			
STAGE		MBR-A		
	INITIALS	DATE		
A. LINER MATERIAL: USE POLYVINYL CHOLORIDE (PVC) OR APPROVED EQUAL (30MIL MINIMUM THICKNESS)				
B. CUSHION: PLACE A CUSHION LAYER ABOVE AND BELOW THE LINER IF REQUIRED. THE CUSHION MAY BE AN 10-OUNCE PER SQUARE YARD OR HEAVIER NONWOVEN GEOTEXTILE. IF SUBGRADE OR COVER SOIL  CONTAINS ANY SHARP ANGULAR STONES OR PARTICLES GREATER THAN 3/8 IN. OR ANY OTHER OBJECTS THAT COULD DAMAGE THE LINER, CUSHION LAYERS ABOVE AND BELOW ARE REQUIRED.				
C. SUBGRADE PREPARATION: PREPARE THE SUBGRADE TO CONFORM TO MANUFACTURER'S RECOMMENDATIONS. THE SUBGRADE MATERIALS MUST BE FREE FROM SHARP, ANGULAR STONES, AND THE SURFACE FREE FROM OVERSIZED PARTICLES, OR ANY OBJECTS THAT COULD DAMAGE THE LINER. THE SUBGRADE SURFACE MUST PROVIDE A SMOOTH, FLAT, AND UNYEILDING FOUNDATION FOR THE LINER.				
D. COMPACT/PREPARE THE BOTTOM SURFACE WITH A VIBRATORY PLATE OR A SMOOTH DRUM ROLLER.				
E. NO STANDING WATER, MUD, VEGETATION, SNOW, FROZEN SUBGRADE, OR EXCESSIVE MOISTURE MAY BE PRESENT AT THE TIME OF PLACEMENT.				
F. IF GROUNDWATER OR ANGULAR PARTICLES ARE PRESENT AT SUBGRADE, 6 INCHES OF #57 STONE IS REQUIRED BELOW THE LINER CUSHION COMPACTED WITH A VIBRATORY PLATE OR SMOOTH DRUM ROLLER.				
G. INSTALLATION: ENSURE LINER IS INSTALLED IN A RELAXED STATE, FREE OF TENSION AND STRESS IN ANY DIRECTION. NO BRIDGING OR TRAMPOLINING OF THE GEOMEMBRANE IS ALLOWED.				
LINER PROTECTION: PROTECT LINERS FROM MECHANICAL DAMAGE BY PLACING THE LINER FROM THE BOTTOM OF THE SLOPE TO THE TOP OF THE LINED SLOPE. ONE FOOT OF EARTH IS REQUIRED ON TOP OF THE LINER PRIOR TO TRACKING BY ANY HEAVY MACHINERY.				
I. ANCHORAGE: ANCHOR THE LINER TO PREVENT UPLIFT DUE TO WIND OR SLIPPAGE DOWN THE SIDE SLOPE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.				
J. PENETRATIONS: INSTALL PENETRATIONS THROUGH THE LINER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PENETRATIONS MUST BE WATERTIGHT (SEE DETAILS ON THIS SHEET).				

**GRAPHIC SCALE** 

K. COVER SOIL: COVER GEOMEMBRANE LINERS WITH A MINIMUM OF 12 INCHES OF

SOIL MEASURED PERPENDICULAR TO THE FINISHED SURFACE. DO NOT USE COVER SOIL THAT CONTAINS SHARP, ANGULAR STONES, OVERSIZED PARTICLES, OR ANY OBJECT THAT COULD DAMAGE THE LINER. PLACE COVER SOIL WITHIN 24 HOURS

AFTER PLACEMENT OF THE LINER TO MINIMIZE THE POTENTIAL FOR DAMAGE AND

SLIPPAGE.

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

PROJECT NO: 641449

AUGUST 29, 2025

DESCRIPTION

REVISIONS

04/08/25 DD SUBMISSION

LICENSE NO. 31168 EXPIRATION DATE: 01/12/2027

**SWM DETAILS** COUNTY FILE: S-24-0030

SHEET <u>11</u> OF <u>18</u>.

**BOARD OF ED OF CARROLL COUNTY** 

125 N. COURT ST.

WESTMINSTER, MD 21157

C/O BILL CAINE

WECAINE@CARROLLK12.ORG

410-386-1817

7

CARROLL COUNTY PUBLIC SCHOOLS

single piece 20-feet long with no joints.

R:\Forms\SWM Forms\Updated Forms\Carroll County Supplemental Materials Specifications For Bio-Swale, Bioretention, Micro-Bioretention and Rain Gardens Revised 11.20.23.do Chad N. Wasileski, PE, CFM Carroll County Stormwarer Management Program Engineer
March 20, 2020; Dec. 20, 2022, Jan. 6, 2023; Revised July 25, 2023; Revised Nov. 20, 2023

T(301) 528-2010 www.clarkazar.com

**BOARD OF ED OF CARROLL COUNTY** CARROLL COUNTY PUBLIC SCHOOLS 125 N. COURT ST. **WESTMINSTER, MD 21157** 

C/O BILL CAINE

WECAINE@CARROLLK12.ORG

0 7

AUGUST 29, 2025

DESCRIPTION

**REVISIONS** 

04/08/25 DD SUBMISSION

0

I certify that this plan of Soil Erosion & Sediment all structures will be installed to the design and project will have a certification of attendance at a Department of the Environment approved training on-site evaluation by the Carroll Soil Conservation District personnel and cooperating agencies.

Printed Name of Developer Developer Company Name

I certify that this plan of Sediment Control is designed

**EROSION AND** Engineer/Date **SEDIMENT CONTROL PLAN** PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED COUNTY FILE: S-24-0030

RO PR

PROJECT NO: 641449

SHEET <u>12</u> OF <u>18</u>.

The Development Plan is approved for Soil Erosion and Sediment Control by the Carroll Soil Conservation

Carroll S.C.D./Date

## OWNER/DEVELOPER

Control will be implemented to the fullest extent, and specifications as spelled out in this plan and that any responsible personnel involved in construction of this program for the control of soil erosion and sediment before beginning the project. I also authorize periodic

### **ENGINEER**

with my personal knowledge of the site condition and has been designed to the Standards and Specifications adopted by the Carroll Soil Conservation District.

OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 31168 **GRAPHIC SCALE** EXPIRATION DATE: 01/12/2027

PROCESS USING PER DAILY STABILIZATION NOTE ON THIS SHEET.

11. PROVIDE REMAINING LANDSCAPING INSTALLATION FOR THE SITE. 12. UPON COMPLETION AND STABILIZATION OF SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE REMAINING SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS

### PROPOSED LIMITS OF DISTURBANCE PROPOSED CONSTRUCTION FENCE PROPOSED SILT FENCE

PROPOSED SUPER SILT FENCE

SCE SCE MATERIAL STOCKPILE

PROPOSED STABILIZED CONSTRUCTION ENTRANCE

\_\_\_\_\_ LOD \_\_\_\_\_

\_\_\_\_\_\_SF \_\_\_\_\_

\_\_\_\_\_SSF \_\_\_\_\_

**LEGEND** 

EXISTING CONTOUR

EXISTING CHAIN LINK FENCE

— — — EXISTING PROPERTY LINE

\_ \_ -181- \_ \_

**LANGE TO SET UP:**LINE STATES AND THE STATES AND

 $\equiv \equiv \equiv \equiv$  Existing curb and gutter

**EXISTING TREES/SHRUBS** 

EXISTING ELECTRIC LINE

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

EXISTING TREELINE

EXISTING ELECTRIC METER

EXISTING SPOT ELEVATION

EXISTING FIRE HYDRANT

EXISTING SANITARY SEWER MANHOLE

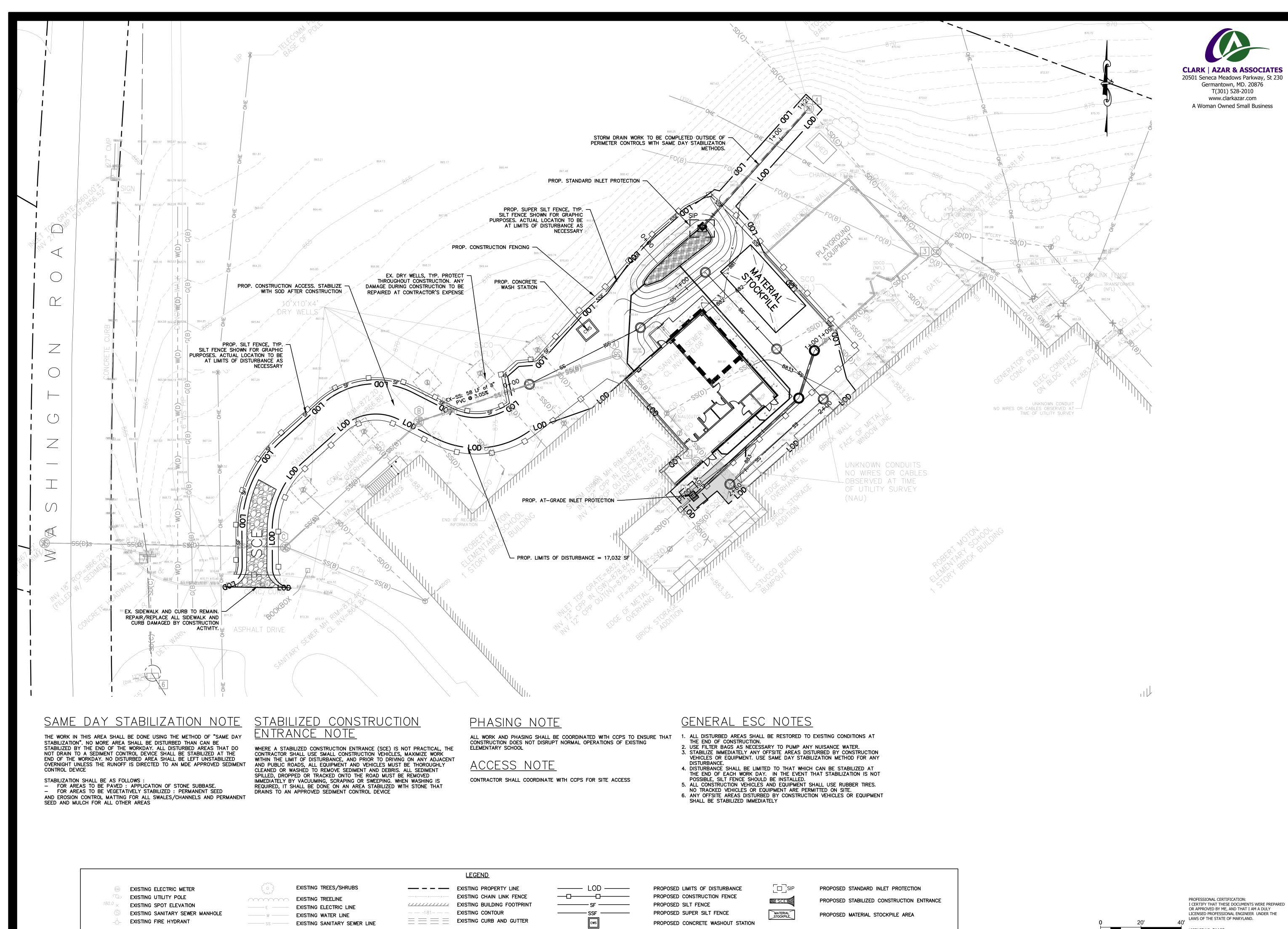
EXISTING UTILITY POLE

PROPOSED CONCRETE WASHOUT STATION

[D]SIP

PROPOSED MATERIAL STOCKPILE AREA

PROPOSED STANDARD INLET PROTECTION



EROSION AND
SEDIMENT
CONTROL PLAN

BOARD OF ED OF CARROLL COUNTY CARROLL COUNTY PUBLIC SCHOOLS 125 N. COURT ST. WESTMINSTER. MD 21157

C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

COUNTY FILE: S-24-0030 SHEET <u>13</u> OF <u>18</u>.

GRAPHIC SCALE

EXPIRATION DATE: 01/12/2027

PROJECT NO: 641449

AUGUST 29, 2025

DESCRIPTION

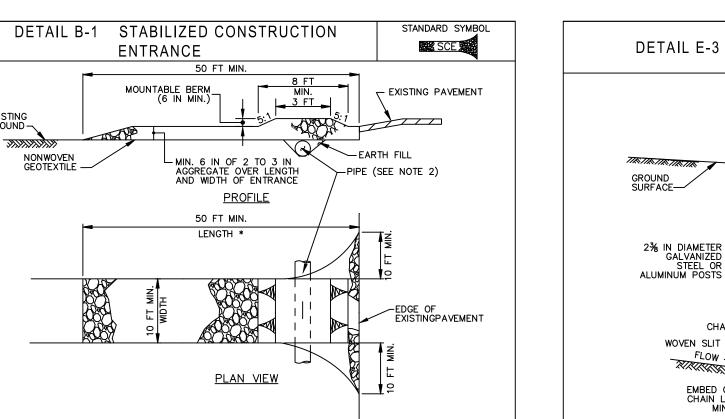
REVISIONS

04/08/25 DD SUBMISSION

C-401



# **CLARK | AZAR & ASSOCIATES** 20501 Seneca Meadows Parkway, St 230



CONSTRUCTION SPECIFICATIONS

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE

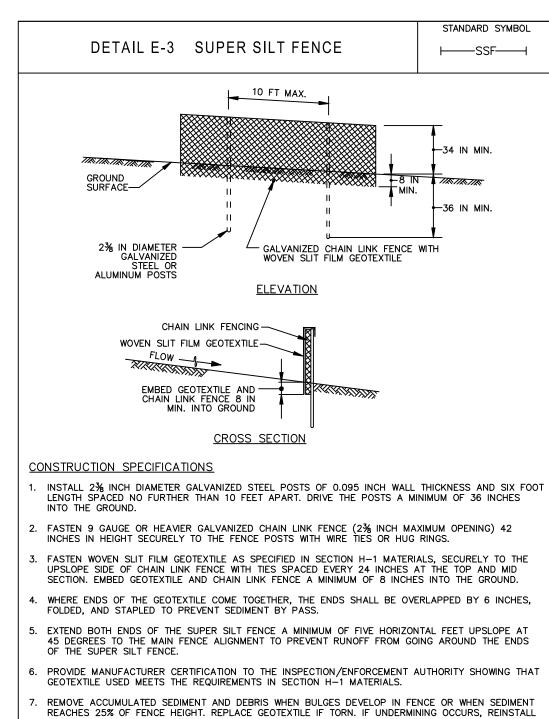
PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (\*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE,

SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE O CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT. . PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.

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

- 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. 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.

MARYLAND STANDARDS AND SPE	CIFICATIONS FOR SOIL ER	ROSION AND SEDIMENT CONTROL
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



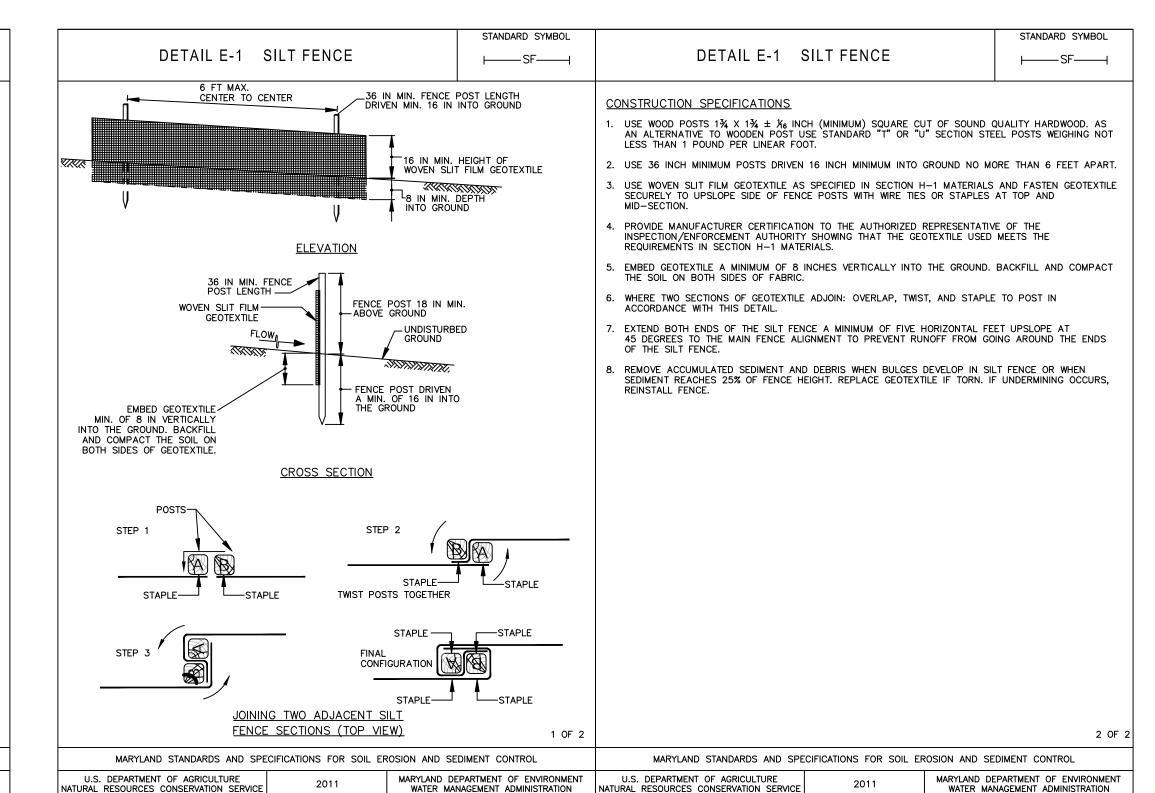
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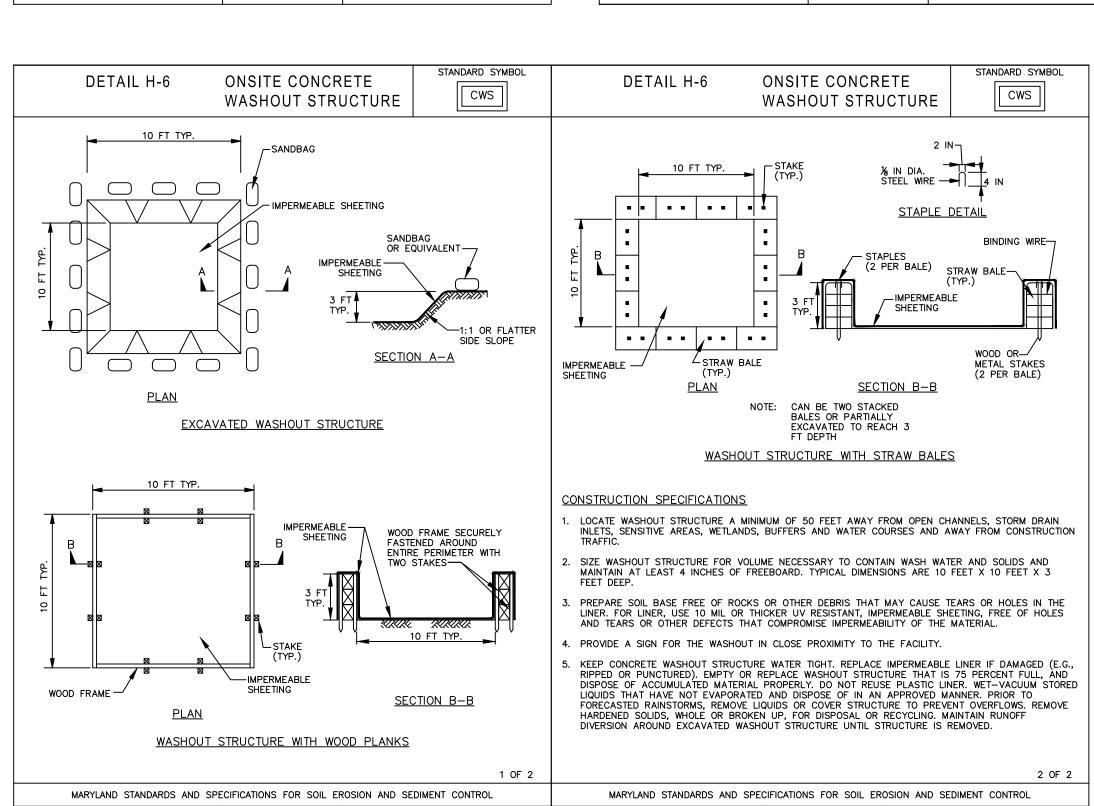
MARYLAND DEPARTMENT OF ENVIRONMENT

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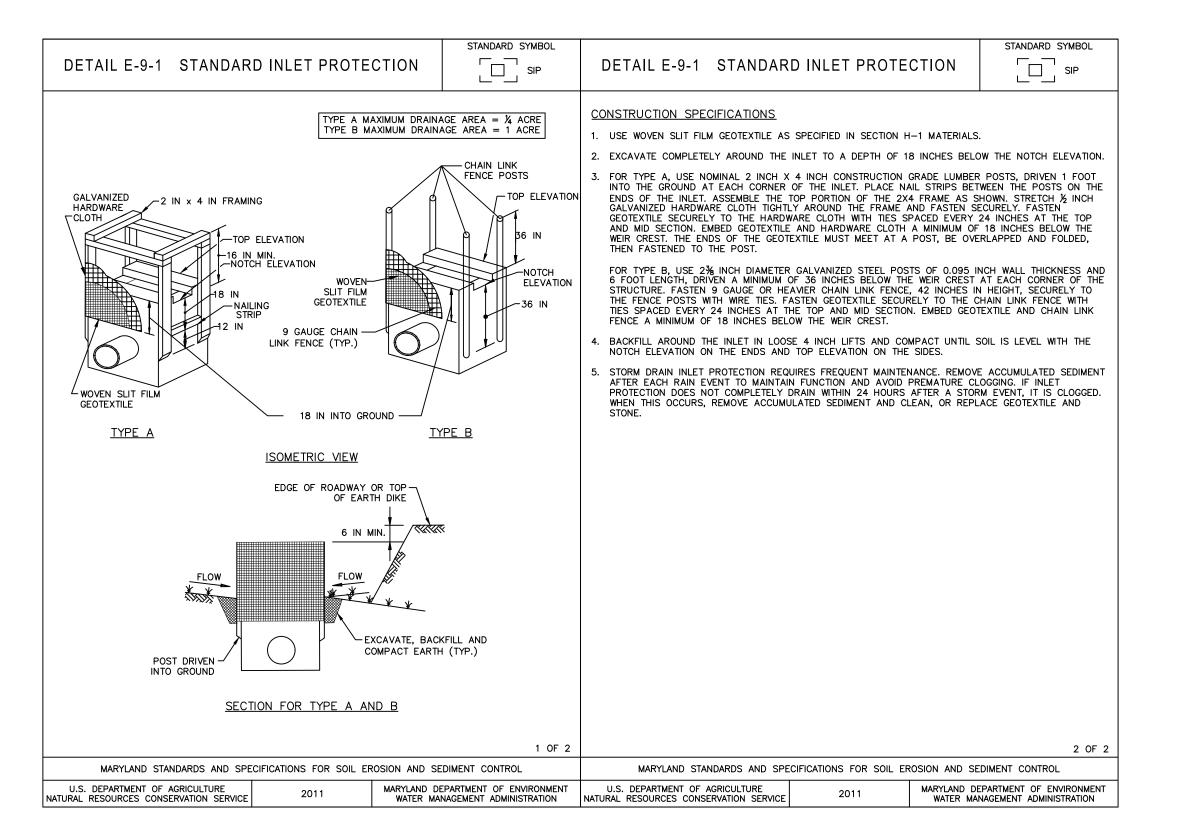
CHAIN LINK FENCING AND GEOTEXTILE.

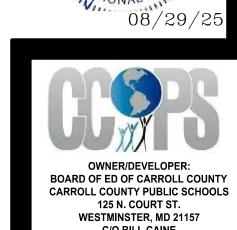
U.S. DEPARTMENT OF AGRICULTURE





MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE





C/O BILL CAINE WECAINE@CARROLLK12.ORG 410-386-1817

PROJECT NO: 641449 AUGUST 29, 2025 REVISIONS DESCRIPTION

04/08/25 DD SUBMISSION

**EROSION AND SEDIMENT** 

PROFESSIONAL CERTIFICATION: I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY COUNTY FILE: S-24-0030 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO. 31168

EXPIRATION DATE: 01/12/2027

SHEET <u>14</u> OF <u>18</u>.

AND / OR SEQUENCE OF CONSTRUCTION.

THE WATER MANAGEMENT ADMINISTRATION REQUIRES THAT THESE NOTES, IN THEIR ENTIRETY, BE INCLUDED ON THE EROSION AND SEDIMENT CONTROL PLAN. IT IS RECOGNIZED THAT EVERY NOTE MAY NOT APPLY TO ALL PROJECTS. THE REQUIREMENT OF ANY INDIVIDUAL NOTE NOT APPLICABLE TO THE SUBJECT PROJECT IS NOT BINDING UPON THE APPLICANT OR THE APPLICANT'S CONTRACTOR.

- 1. THE CONTRACTOR SHALL NOTIFY THE ADMINISTRATION (WMA) AT (410) 537-3510 SEVEN (7) DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AND, UNLESS WAIVED BY THE ADMINISTRATION, SHALL BE REQUIRED TO HOLD A PRE-CONSTRUCTION MEETING BETWEEN PROJECT REPRESENTATIVES AND A REPRESENTATIVE OF WMA.
- 2. THE CONTRACTOR MUST NOTIFY WMA IN WRITING AND BY TELEPHONE AT THE FOLLOWING
- A. THE REQUIRED PRE-CONSTRUCTION MEETING. B. FOLLOWING INSTALLATION OF SEDIMENT CONTROL MEASURES.
- C. DURING THE INSTALLATION OF SEDIMENT BASINS (TO BE CONVERTED INTO PERMANENT STORMWATER MANAGEMENT STRUCTURES) AT THE REQUIRED INSPECTION POINTS (SEE INSPECTION CHECKLIST ON PLAN). NOTIFICATION PRIOR TO COMMENCING CONSTRUCTION OF EACH STEP IS MANDATORY.
- D. PRIOR TO REMOVAL OR MODIFICATION OF ANY SEDIMENT CONTROL STRUCTURE(S). PRIOR TO REMOVAL OF ALL SEDIMENT CONTROL DEVICES. F. PRIOR TO FINAL ACCEPTANCE.
- 3. THE CONTRACTOR SHALL CONSTRUCT ALL EROSION AND SEDIMENT CONTROL MEASURES PER THE APPROVED PLAN AND CONSTRUCTION SEQUENCE AND SHALL HAVE THEM INSPECTED AND APPROVED BY THE AGENCY INSPECTOR OR WMA INSPECTOR PRIOR TO BEGINNING ANY OTHER LAND DISTURBANCES. MINOR SEDIMENT CONTROL DEVICE LOCATION ADJUSTMENTS MAY BE MADE IN THE FIELD WITH THE APPROVAL OF THE WMA INSPECTOR. THE CONTRACTOR SHALL ENSURE THAT ALL RUNOFF FROM DISTURBED AREAS IS DIRECTED TO THE SEDIMENT CONTROL DEVICES AND SHALL NOT REMOVE ANY EROSION OR SEDIMENT CONTROL MEASURE WITHOUT

PRIOR PERMISSION FROM WMA INSPECTOR AND AGENCY INSPECTOR. THE CONTRACTOR MUST

OBTAIN PRIOR AGENCY AND WMA APPROVAL FOR CHANGES TO THE SEDIMENT CONTROL PLAN

- 4. 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.
- THE CONTRACTOR SHALL INSPECT DAILY AND MAINTAIN CONTINUOUSLY IN AN EFFECTIVE OPERATING CONDITION ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL SUCH TIMES AS THEY ARE REMOVED WITH PRIOR PERMISSION FROM WMA INSPECTOR AND AGENCY INSPECTOR.
- 6. ALL SEDIMENT BASINS, TRAP EMBANKMENTS AND SLOPES, PERIMETER DIKES, SWALES AND ALL DISTURBED SLOPES STEEPER OR EQUAL TO 3:1 SHALL BE STABILIZED WITH SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES, AS SOON AS POSSIBLE BUT NO LATER THAN THREE (3) CALENDAR DAYS AFTER ESTABLISHMENT. ALL AREAS DISTURBED OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST BE MINIMIZED. MAINTENANCE MUST BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
- THE CONTRACTOR SHALL APPLY SOD OR SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES TO ALL DISTURBED AREAS AND STOCKPILES WITHIN SEVEN (7) CALENDAR DAYS AFTER STRIPPING AND GRADING ACTIVITIES HAVE CEASED IN THE AREA. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE CONTINUED STABILIZATION.
- 8. PRIOR TO REMOVAL OF SEDIMENT CONTROL MEASURES, THE CONTRACTOR SHALL STABILIZE AND HAVE ESTABLISHED PERMANENT STABILIZATION FOR ALL CONTRIBUTORY DISTURBED AREAS USING SOD OR AN APPROVED PERMANENT SEED MIXTURE WITH REQUIRED SOIL AMENDMENTS AND AN APPROVED ANCHORED MULCH. WOOD FIBER MULCH MAY ONLY BE USED IN SEEDING SEASON WHERE THE SLOPE DOES NOT EXCEED 10% AND GRADING HAS BEEN DONE TO PROMOTE SHEET FLOW DRAINAGE. AREAS BROUGHT TO FINISHED GRADE DURING THE SEEDING SEASON SHALL BE PERMANENTLY STABILIZED AS SOON AS POSSIBLE, BUT NOT LATER THAN SEVEN (7) CALENDAR DAYS AFTER ESTABLISHMENT. WHEN PROPERTY IS BROUGHT TO FINISHED GRADE DURING THE MONTHS OF NOVEMBER THROUGH FEBRUARY, AND PERMANENT STABILIZATION IS FOUND TO BE IMPRACTICAL, TEMPORARY SEED AND ANCHORED STRAW MULCH SHALL BE APPLIED TO DISTURBED AREAS. THE FINAL PERMANENT STABILIZATION OF SUCH PROPERTY SHALL BE APPLIED BY MARCH 15 OR EARLIER IF GROUND AND WEATHER CONDITIONS ALLOW.
- 9. THE SITE'S APPROVAL LETTER. APPROVED EROSION AND SEDIMENT CONTROL PLANS. DAILY LOG BOOKS, AND TEST REPORTS SHALL BE AVAILABLE AT THE SITE FOR INSPECTION BY DULY AUTHORIZED OFFICIALS OF WMA AND THE AGENCY RESPONSIBLE FOR PROJECT.
- 10. SURFACE DRAINAGE FLOWS OVER UNSTABILIZED CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER PREVENTING DRAINAGE FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING PROTECTIVE DEVICES TO LOWER THE WATER DOWNSLOPE WITHOUT CAUSING FROSION DIKES SHALL BE INSTALLED AND MAINTAINED AT THE TOP OF A CUT OR FILL SLOPE UNTIL THE SLOPE AND DRAINAGE AREA TO IT ARE FULLY STABILIZED, AT WHICH TIME THEY MUST BE REMOVED AND FINAL GRADING DONE TO PROMOTE SHEET FLOW DRAINAGE. PROTECTIVE METHODS MUST BE PROVIDED AT POINTS OF CONCENTRATED FLOW WHERE EROSION IS LIKELY TO OCCUR.
- 11. PERMANENT SWALES OR OTHER POINTS OF CONCENTRATED WATER FLOW SHALL BE STABILIZED WITH SOD OR SEED WITH AN APPROVED EROSION CONTROL MATTING, RIP-RAP, OR BY OTHER APPROVED STABILIZATION MEASURES.
- 12. TEMPORARY SEDIMENT CONTROL DEVICES MAY BE REMOVED, WITH PERMISSION OF WMA INSPECTOR AND AGENCY INSPECTORS, WITHIN THIRTY (30) CALENDAR DAYS FOLLOWING ESTABLISHMENT OF PERMANENT STABILIZATION IN ALL CONTRIBUTORY DRAINAGE AREAS. STORMWATER MANAGEMENT STRUCTURES USED TEMPORARILY FOR SEDIMENT CONTROL SHALL BE CONVERTED TO THE PERMANENT CONFIGURATION WITHIN THIS TIME PERIOD AS WELL.
- 13. NO PERMANENT CUT OR FILL SLOPE WITH A GRADIENT STEEPER THAN 3:1 WILL BE PERMITTED IN LAWN MAINTENANCE AREAS. A SLOPE GRADIENT OF UP TO 2:1 WILL BE PERMITTED IN NONMAINTENANCE AREAS PROVIDED THAT THOSE AREAS ARE INDICATED ON THE EROSION AND SEDIMENT CONTROL PLAN WITH A LOW-MAINTENANCE GROUND COVER SPECIFIED FOR PERMANENT STABILIZATION. SLOPE GRADIENT STEEPER THAN 2:1 WILL NOT BE PERMITTED WITH VEGETATIVE STABILIZATION.
- 14. FOR FINISHED GRADING, THE CONTRACTOR SHALL PROVIDE ADEQUATE GRADIENTS TO PREVENT WATER FROM PONDING FOR MORE THAN TWENTY FOUR (24) HOURS AFTER THE END OF A RAINFALL EVENT. DRAINAGE COURSES AND SWALE FLOW AREAS MAY TAKE AS LONG AS FORTY-EIGHT (48) HOURS AFTER THE END OF A RAINFALL EVENT TO DRAIN. AREAS DESIGNED TO HAVE STANDING WATER SHALL NOT BE REQUIRED TO MEET THIS REQUIREMENT.
- 15. SEDIMENT TRAPS OR BASINS ARE NOT PERMITTED WITHIN 20 FEET OF A FOUNDATION THAT EXISTS OR IS UNDER CONSTRUCTION. NO STRUCTURE MAY BE CONSTRUCTED WITHIN 20 FEET OF AN ACTIVE SEDIMENT TRAP OR BASIN.
- 16. THE WMA INSPECTOR HAS THE OPTION OF REQUIRING ADDITIONAL SAFETY OR SEDIMENT CONTROL MEASURES, IF DEEMED NECESSARY.
- 17. ALL TRAP DEPTH DIMENSIONS ARE RELATIVE TO THE OUTLET ELEVATION. ALL TRAPS MUST HAVE A STABLE OUTFALL. ALL TRAPS AND BASINS SHALL HAVE STABLE INFLOW POINTS.
- 18. VEGETATIVE STABILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. REFER TO APPROPRIATE SPECIFICATIONS FOR TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, SODDING, AND GROUND COVERS.
- 19. SEDIMENT SHALL BE REMOVED AND THE TRAP OR BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE QUARTER OF THE TOTAL DEPTH OF THE TRAP OR BASIN. TOTAL DEPTH SHALL BE MEASURED FROM THE TRAP OR BASIN BOTTOM TO THE CREST OF THE OUTLET.
- 20. SEDIMENT REMOVED FROM TRAPS (AND BASINS) SHALL BE PLACED AND STABILIZED IN APPROVED AREAS, BUT NOT WITHIN A FLOODPLAIN, WETLAND OR TREE-SAVE AREA. WHEN PUMPING SEDIMENT LADEN WATER, THE DISCHARGE MUST BE DIRECTED TO A SEDIMENT TRAPPING DEVICE PRIOR TO RELEASE FROM THE SITE. A SUMP PIT MAY BE USED IF SEDIMENT TRAPS THEMSELVES ARE BEING PUMPED OUT.
- 21. ALL WATER REMOVED FROM EXCAVATED AREAS (E.G. UTILITY TRENCHES) SHALL BE PASSED THROUGH AN APPROVED DEWATERING PRACTICE OR PUMPED TO A SEDIMENT TRAP OR BASIN PRIOR TO DISCHARGE FROM THE SITE (I.E. VIA FUNCTIONAL STORM DRAIN SYSTEM OR TO STABLE GROUND SURFACE).
- 22. SEDIMENT CONTROL FOR UTILITY CONSTRUCTION FOR AREAS OUTSIDE OF DESIGNED CONTROLS OR AS DIRECTED BY ENGINEER OR WMA INSPECTOR: A. CALL "MISS UTILITY" AT 1-800-257-7777 48 HOURS PRIOR TO THE START OF WORK.
- 3. EXCAVATED TRENCH MATERIAL SHALL BE PLACED ON THE HIGH SIDE OF THE TRENCH. TRENCHES FOR UTILITY INSTALLATION SHALL BE BACKFILLED, COMPACTED, AND STABILIZED AT THE END OF EACH WORKING DAY. NO MORE TRENCH SHALL BE OPENED THAN CAN BE COMPLETED THE SAME DAY, UNLESS;
- D. TEMPORARY SILT FENCE SHALL BE PLACED IMMEDIATELY DOWNSTREAM OF ANY DISTURBED AREA INTENDED TO REMAIN DISTURBED FOR MORE THAN ONE DAY.

STANDARD EROSION AND SEDIMENT CONTROL NOTES (CONTINUED)

- 23. WHERE DEEMED APPROPRIATE BY THE ENGINEER OR INSPECTOR, SEDIMENT BASINS AND TRAPS MAY NEED TO BE SURROUNDED WITH AN APPROVED SAFETY FENCE. THE FENCE MUST CONFORM TO LOCAL ORDINANCES AND REGULATIONS. THE DEVELOPER OR OWNER SHALL CHECK WITH LOCAL BUILDING OFFICIALS ON APPLICABLE SAFETY REQUIREMENTS. WHERE SAFETY FENCE IS DEEMED APPROPRIATE AND LOCAL ORDINANCES DO NOT SPECIFY FENCING SIZES AND TYPES, THE FOLLOWING SHALL BE USED AS A MINIMUM STANDARD: THE SAFETY FENCE MUST BE MADE OF WELDED WIRE AND AT LEAST 42 INCHES HIGH. HAVE POSTS SPACED NO FARTHER APART THAN 8 FEET, HAVE MESH OPENINGS NO GREATER THAN 2 INCHES IN WIDTH AND 4 INCHES IN HEIGHT WITH A MINIMUM OF 14 GAUGE WIRE. SAFETY FENCE MUST BE MAINTAINED AND IN GOOD CONDITION AT ALL TIMES.
- 24. OFF-SITE SPOIL OR BORROW AREAS ON STATE OR FEDERAL PROPERTY MUST HAVE PRIOR APPROVAL BY WMA AND OTHER APPLICABLE STATE, FEDERAL, AND LOCAL AGENCIES; OTHERWISE APPROVAL MUST BE GRANTED BY THE LOCAL AUTHORITIES. ALL WASTE AND BORROW AREAS OFF-SITE MUST BE PROTECTED BY SEDIMENT CONTROL MEASURES AND STABILIZED.
- 25. SITES WHERE INFILTRATION DEVICES ARE USED FOR THE CONTROL OF STORMWATER, EXTREME CARE MUST BE TAKEN TO PREVENT RUNOFF FROM UNSTABILIZED AREAS FROM ENTERING THE STRUCTURE DURING CONSTRUCTION. SEDIMENT CONTROL DEVICES PLACED IN INFILTRATION AREAS MUST HAVE BOTTOM ELEVATIONS AT LEAST TWO (2) FEET HIGHER THAN THE FINISH GRADE BOTTOM ELEVATION OF THE INFILTRATION PRACTICE, WHEN CONVERTING A SEDIMENT TRAP TO AN INFILTRATION DEVICE, ALL ACCUMULATED SEDIMENT MUST BE REMOVED AND DISPOSED OF PRIOR TO FINAL GRADING OF INFILTRATION
- 26. WHEN A STORM DRAIN SYSTEM OUTFALL IS DIRECTED TO A SEDIMENT TRAP OR SEDIMENT BASIN AND THE SYSTEM IS TO BE USED FOR TEMPORARILY CONVEYING SEDIMENT LADEN WATER, ALL STORM DRAIN INLETS IN NON-SUMP AREAS SHALL HAVE TEMPORARY ASPHALT BERMS CONSTRUCTED AT THE TIME OF BASE PAVING TO DIRECT GUTTER FLOW INTO THE INLETS TO AVOID SURCHARGING AND OVERFLOW OF INLETS IN SUMP AREAS.

#### SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS

#### A. SITE PREPARATION

- I. INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS. II. PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE. FINAL GRADING AND SHAPING IS NOT USUALLY NECESSARY FOR TEMPORARY SEEDING. III. SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREA OVER 5 ACRES.
- SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS) I. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES. II. FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION BY APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE STATE FERTILIZER LAWS AND SHALL BEAR THE NAME, TRADE NAME OR TRADEMARK AND WARRANTEE OF THE PRODUCER. III. LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A # 100 MESH SIEVE AND 98 - 100 % WILL PASS THROUGH A #20 MESH SIEVE. IV. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3" - 5" OF SOIL BY DISKING OR OTHER SUITABLE
- SEEDBED PREPARATION I. TEMPORARY SEEDING
  - A. SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 5" 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 SHOULD NOT BE ROLLED OR DRAGGED SMOOTH BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER THAN 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN IRREGULAR CONDITION 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" 5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS. II. PERMANENT SEEDING
  - A. MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENTS 1. SOIL PH SHALL BE BETWEEN 6.0 AND 7.0
    - 2. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM). 3. THE SOIL SHALL CONTAIN LESS THAN 40% CLAY BUT ENOUGH FINE GRAINED MATERIAL (> 30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS IF LOVEGRASS OR SERECIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (< 30% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
  - 4. SOIL SHALL CONTAIN 1.5 % MINIMUM ORGANIC MATTER BY WEIGHT 5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. 6. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATION FOR TOPSOIL B. AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A
  - PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE. C. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS. . MIX SOIL AMENDMENTS INTO THE TOP 3-5" OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE, REMOVE, LARGE OBJECTS LIKE STONES AND BRANCHES. AND READY THE AREA FOR SEED APPLICATION. WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE. STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE. THE TOP 1 - 3" OF SOIL SHOULD BE LOOSE

TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 - 5" TO

I. ALL SEED MUST MEET THE REQUIREMENTS OF THE MARYLAND STATE SEED LAW. ALL SEED SHALL BE SUBJECT TO RE-TESTING BY A RECOGNIZED SEED LABORATORY. ALL SEED USED SHALL HAVE BEEN TESTED WITHIN THE 6 MONTHS IMMEDIATELY PRECEDING THE DATE OF SOWING SUCH MATERIAL ON THIS NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF II. INOCULANT - THE INOCULANT FOR TREATING LEGUME SEED IN THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS

AND FRIABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON NEWLY DISTURBED AREAS.

75-80° F. CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE. METHODS OF SEEDING I. HYDROSEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR A CULTIPACKER SEEDER. A. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATION RATES AMOUNTS

DIRECTED ON 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

WILL NOT EXCEED THE FOLLOWING: NITROGEN; MAXIMUM OF 100 LBS. PER ACRE TOTAL OF SOLUBLE NITROGEN; P205 (PHOSPHOROUS): 200 LBS/AC; K20 (POTASSIUM): 200 LBS/AC. B. 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 C. SEED AND FERTILIZER SHALL BE MIXED ON SITE AND SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

- II. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS A. SEED SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 25 OR 26. THE SEEDED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT. B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH
- OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION. III. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL. A. 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. B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH
- F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)
- BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED IN THE MARYLAND SEED LAW.
- FIBROUS PHYSICAL STATE. B. WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE
- D. WCFM MATERIALS SHALL 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 SHALL FORM A BLOTTER—LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL
- THE GRASS SEEDLINGS. E. WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT
- F. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH TO APPROXIMATELY 10 MM., DIAMETER APPROXIMATELY 1 MM., PH RANGE OF 4.0 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM AND WATER HOLDING CAPACITY OF 90% MINIMUM. NOTE: ONLY STERILE STRAW MULCH SHOULD BE USED IN AREAS WHERE ONE SPECIES OF
- G. MULCHING SEEDED AREAS MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER I. IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS
- CAN BE PERFORMED IN ACCORDANCE WITH THESE SPECIFICATIONS. II. WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1" AND 2"
- III. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,500 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER, AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER. H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF
- I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR INTO THE SOIL SURFACE A MINIMUM OF TWO (2) INCHES. THIS PRACTICE IS MOST EFFECTIVE LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF
- WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER
- III. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF AREA SHOULD BE APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS - SUCH AS ACRYLIC DLR (AGRO-TACK), DCA-70. PETROSET. TERRA TAX II, TERRA TACK AR OR OTHER APPROVED EQUAL MAY BE USED AT
- INCREMENTAL STABILIZATION CUT SLOPES I. ALL CUT SLOPES SHALL BE DRESSED, PREPARED, SEEDED AND MULCHED AS THE WORK PROGRESSES. SLOPES SHALL BE EXCAVATED AND STABILIZED IN EQUAL INCREMENTS NOT TO EXCEED 15'.
  - A. EXCAVATE AND STABILIZE ALL TEMPORARY SWALES, SIDE DITCHES, OR BERMS THAT WILL BE USED TO CONVEY RUNOFF FROM THE EXCAVATION.
  - C. PERFORM PHASE 2 EXCAVATION, DRESS, AND STABILIZE. OVERSEED PHASE I AREAS AS NFCFSSARY.
- D. PERFORM FINAL PHASE EXCAVATION, DRESS, AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS AS NECESSARY. NOTE: ONCE EXCAVATION HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM

**GRUBBING** MULCH. ANY SEASON WILL NECESSITATE THE APPLICATION OF TEMPORARY STABILIZATION. SEEDING I INCREMENTAL STARILIZATION OF EMBANKMENTS - FILL SLOPES

- I. EMBANKMENTS SHALL BE CONSTRUCTED IN LIFTS AS PRESCRIBED ON THE PLANS. II. SLOPES SHALL BE STABILIZED IMMEDIATELY WHEN THE VERTICAL HEIGHT OF THE MULTIPLE LIFTS
- A. EXCAVATE AND STABILIZE ALL TEMPORARY SWALES, SIDE DITCHES, OR BERMS THAT WILL BE USED TO DIVERT RUNOFF AROUND THE FILL. CONSTRUCT SLOPE SILT FENCE ON LOW SIDE OF FILL AS SHOWN IN FIGURE 5, UNLESS OTHER METHODS SHOWN ON THE PLANS ADDRESS THIS AREA.
- B. PLACE PHASE I EMBANKMENT, DRESS AND STABILIZE. C. PLACE PHASE 2 EMBANKMENT. DRESS AND STABILIZE.
- AS NECESSARY. NOTE: ONCE THE PLACEMENT OF FILL HAS BEGUN, THE OPERATION SHOULD BE CONTINUOUS FROM GRUBBING THROUGH THE COMPLETION OF GRADING (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

### <u>SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS (CONTINUED)</u>

- OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
- I. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE OR OAT STRAW, REASONABLY BRIGHT COLOR, AND SHALL NOT BE MUSTY, MOLDY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL
- II. WOOD CELLULOSE FIBER MULCH (WCFM) A. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM
- APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY. WCFM. INCLUDING DYE. SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
- COVER AND HOLD GRASS SEED IN CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF
- WILL BE PHYTO-TOXIC.
- GRASS IS DESIRED.
- PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE SEEDING SEASON RETURNS AND SEEDING
- MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL SURFACE NOT EXPOSED. IF A MULCH ANCHORING TOO] IS TO BE USED, THE RATE SHOULD BE INCREASED TO
- 2.5 TONS/ACRE
- THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING UPON SIZE OF AREA AND EROSION
- USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE. II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH PER 100 GALLONS OF WATER.
- RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.
- IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4' TO 15' FEET WIDE AND 300 TO
- II. CONSTRUCTION SEQUENCE (REFER TO FIGURE 3 BELOW):
- B. PER-FORM PHASE I EXCAVATION, DRESS, AND STABILIZE.
- THROUGH THE COMPLETION OF TOPSOIL (IF REQUIRED) AND PERMANENT SEED AND INTERRUPTIONS IN THE OPERATION OR COMPLETING THE OPERATION OUT OF THE
- REACHES 15', OR WHEN THE GRADING OPERATION CEASES AS PRESCRIBED IN THE PLANS. III. AT THE END OF EACH DAY, TEMPORARY BERMS AND PIPE SLOPE DRAINS SHOULD BE CONSTRUCTED ALONG THE TOP EDGE OF THE EMBANKMENT TO INTERCEPT SURFACE RUNOFF AND CONVEY IT DOWN THE SLOPE IN A NON-EROSIVE MANNER TO A SEDIMENT TRAPPING DEVICE.
- IV. CONSTRUCTION SEQUENCE: REFER TO FIGURE 4 (BELOW).
- D. PLACE FINAL PHASE EMBANKMENT, DRESS AND STABILIZE. OVERSEED PREVIOUSLY SEEDED AREAS



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#### SEDIMENT AND EROSION CONTROL NOTES

- ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION IN ASSOCIATION WITH THE NATURAL RESOURCES CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS (REFERENCED AS THE 2011 STANDARDS AND SPECS).
- AREAS THAT HAVE BEEN CLEARED AND/OR GRADED, BUT WILL NOT BE CONSTRUCTED ON OR PERMANENTLY VEGETATED FOR MORE THAN 7 DAYS (3 DAYS FOR SEDIMENT CONTROL MEASURES AND FOR STEEP 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.
- 3. FOR SPECIFICATIONS ON PERMANENT OR TEMPORARY STABILIZATION, SEE B-4-4 AND B-4-5.
- MULCHING ONLY IS RESTRICTED TO USE ON DISTURBED AREAS AS A TEMPORARY COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING GERMINATION CANNOT BE COMPLETED BECAUSE OF WEATHER CONDITIONS. FOR SPECIFICATIONS SEE B-4-3, A.1.B
- 5. FOR SPECIFICATIONS ON THE STABILIZATION OF CUT AND FILL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL, SEE INCREMENTAL STABILIZATION B-4-1
- 6. THE EXISTING TOPSOIL FROM ON OR OFF SITE THAT IS USED MUST MEET THE MINIMUM SPECIFICATION IN
- 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
- 8. 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 DISTRICT FOR APPROVAL. 9. 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
- 10. 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 N THE 2011 STANDARDS AND SPECS.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL SEDIMENT AND EROSION CONTROL MEASURES UNTIL THE DISTURBED AREAS ARE PERMANENTLY STABILIZED.
- 12. THE DISTRICT APPROVAL FOR THIS SEDIMENT CONTROL PLAN IS GOOD FOR 2 YEARS. AT THE END OF 2 YEARS, IF CONSTRUCTION OF THE PLAN HAS NOT STARTED, THE PLAN WILL NEED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT FOR REVIEW AND RE-APPROVAL. ANY PLANS THAT ARE CURRENTLY UNDER CONSTRUCTION AFTER 2 YEARS MAY BE REQUIRED TO BE RESUBMITTED TO THE SOIL CONSERVATION DISTRICT BY THE SEDIMENT CONTROL INSPECTOR

### PERMANENT SEEDING NOTES

- SCOPE: PLANTING PERMANENT, LONG LIVED VEGETATIVE COVER ON GRADED AND/OR CLEARED AREAS AND AREAS THAT HAVE BEEN IN TEMPORARY VEGETATION FOR MORE THAN 6 MONTHS.

- STANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT - WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION DISTRICTS.
- THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2.
- FOR SITES OVER 5 AC. SOIL TESTS WILL BE PERFORMED. SOIL TESTS WILL BE CONDUCTED BY THE UNIVERSITY OF MARYLAND OR A RECOGNIZED COMMERCIAL LABORATORY. MINIMUM SOIL CONDITIONS SHALL MEET THE REQUIREMENTS OF SECTION B-4-2-A. OTHERWISE SOIL AMENDMENTS OR TOPSOIL WILL NEED STATED IN SECTION B-4-2-B. SOIL AMENDMENTS MUST MEET THE REQUIREMENTS AS SET FORTH IN SECTION B-4-2-C AND MUST BE APPLIED AS INDICATED BY THE SOILS TESTS.
- FOR SITES OF 5 AC. OR LESS OF DISTURBANCE, THE FOLLOWING FERTILIZER AND LIME RATES SHALL APPLY. FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT THE FOLLOWING RATES: \* N = 45 LB. PER ACRE (1 LB. PER 1000 SQ.FT.) P205 = 90 LB. PER ACRE (2 LB. PER 1000
- \* K20 = 90 LB. PER ACRE (2 LB. PER 1000 SQ.FT.) LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER 1000 SQ.FT.)
- SEED TYPE, TURFGRASS OR SOD APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-5. SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND APPLICATION RATE OF SEED USED. MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C, AND WILL BE APPLIED ALONG WITH SEED OR IMMEDIATELY AFTER SEEDING

## TEMPORARY SEEDING NOTES

- SCOPE: PLANTING SHORT TERM (NO MORE THAN 6 MONTHS) VEGETATION TO TEMPORARILY STABILIZE ANY AREAS WHERE SOIL DISTURBANCE HAS OCCURRED, UNTIL THE AREA CAN BE PERMANENTLY STABILIZED WITH VEGETATIVE OR NON-VEGETATIVE PRACTICES.
- TANDARDS: THE FOLLOWING NOTES SHALL CONFORM TO SECTION B-4 OF THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" PUBLISHED JOINTLY BY THE MARYLAND DEPARTMENT OF ENVIRONMENT — WATER MANAGEMENT ADMINISTRATION, THE NATIONAL RESOURCE CONSERVATION SERVICE AND THE MARYLAND ASSOCIATION OF SOIL CONSERVATION
- FOR TEMPORARY STABILIZATION, FERTILIZER SHALL CONSIST OF A MIXTURE OF 10-20-20 AND BE APPLIED AT A RATE OF 436 LB. PER ACRE (10 LB. PER 1000 SQ. FT.) AND WILL MEET THE REQUIREMENTS IN SECTION B-4-2.
- LIME SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE (90 LB. PER SQ. FT.) AND SHALL MEET THE REQUIREMENTS IN SECTION B-4-2 AND B-4-4- SEED TYPE AND APPLICATION SHALL MEET THE REQUIREMENTS IN SECTION B-4-3. SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY THE TYPE AND RATE OF SEED USED. MULCH TYPE AND ITS APPLICATION WILL MEET THE REQUIREMENTS IN SECTION B-4-3 A, B AND C AND WILL BE APPLIED ALONG WITH THE SEED OR IMMEDIATELY AFTER SEEDING.

THE SEED BED SHALL BE PREPARED BY LOOSENING THE SOIL TO A DEPTH OF 3 TO 5 INCHES AND INCORPORATING THE LIME AND FERTILIZER INTO THIS LOOSENED LAYER OF SOIL. SEE SECTION B-4-2

PROJECT NO: 641449 AUGUST 29, 2025 **REVISIONS** 04/08/25 DD SUBMISSION

 $\mathbf{m}$ 

 $\mathbf{C}$ 

DESCRIPTION

OWNER/DEVELOPER

**BOARD OF ED OF CARROLL COUNTY** 

CARROLL COUNTY PUBLIC SCHOOLS

125 N. COURT ST

WESTMINSTER, MD 21157

C/O BILL CAINE

WECAINE@CARROLLK12.ORG

410-386-1817

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MD MD RICT

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**EROSION AND SEDIMENT** CONTROL NOTES

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

LICENSE NO. 31168 EXPIRATION DATE: 01/12/2027

COUNTY FILE: S-24-0030

SHEET <u>15</u> OF <u>18</u>.

DEDMANIENT SEEDING (EDOM TABLE D. 7)

		<u>PERM.</u>	<u>aneni see</u>	<u>:DING (F</u>	ROM TABLE	<u>B.3)</u>		
HARDINESS ZONE: 7A (FROM TABLE B.3 MDE MANUAL)					FERTILIZER RATE (10-20-20)			
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES*	SEEDING DEPTHS	N	P205	K20	LIME RATE
TALL FESCUE	60				/	Ib/ac   90   Ib/ac		2 tons/ac (90 lb/1000 sf)
9	KENTUCKY BLUEGRASS	40	3/1-5/15; 8/15-10/15	1/4-1/2 IN	45 lb/ac (1.0 lb/1000 sf)		90 lb/ac (2 lb/1000 sf)	
	PERENNIAL RYEGRASS	20			,	,	,	,

# TEMPORARY SEEDING (FROM TABLE B.1)

	Plant M	Mixture (Hardine	ss Zone: 7A)		Fertilizer Rate	
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths	(10-20-20)	Lime Rate
		Cool-Seas				
	Annual Ryegrass	40	3/1-5/15; 8/15-10/15	0.5"		
	Barley	96	3/1-5/15; 8/15-10/15	1.0"		
	Oats	72	3/1-5/15; 8/15-10/15	1.0"		
	Wheat	120	3/1-5/15; 8/15-10/15	1.0"	436 lb/ac (10 lb/1000 sf)	2 tons/ac (90 lb/1000 s
	Cearal Rye	112	3/1-5/15; 8/15-10/15	1.0"		
		Warm-Seas	son Grasses			
	Foxtail Millet	30	5/16-7/31	0.5"		
	Pearl Millet	20	5/16-7/31	0.5"		

-----181 PROPOSED CONTOUR

PROPOSED STORM DRAIN LINE

— — — EXISTING BUILDING FOOTPRINT

 $\equiv \equiv \equiv \equiv$  Existing curb and gutter

EXISTING CONTOUR

PROPOSED DRY WELL

PROPOSED ASPHALT

PROPOSED CONCRETE

EXISTING ELECTRIC LINE

EXISTING SANITARY SEWER LINE

EXISTING WATER LINE

EXISTING SPOT ELEVATION

EXISTING FIRE HYDRANT

EXISTING SANITARY SEWER MANHOLE

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PROJECT NO: 641449 AUGUST 29, 2025 REVISIONS DESCRIPTION

04/08/25 DD SUBMISSION

COUNTY FILE: S-24-0030 SHEET <u>16</u> OF <u>18</u>.

**UTILITY PLAN** I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY

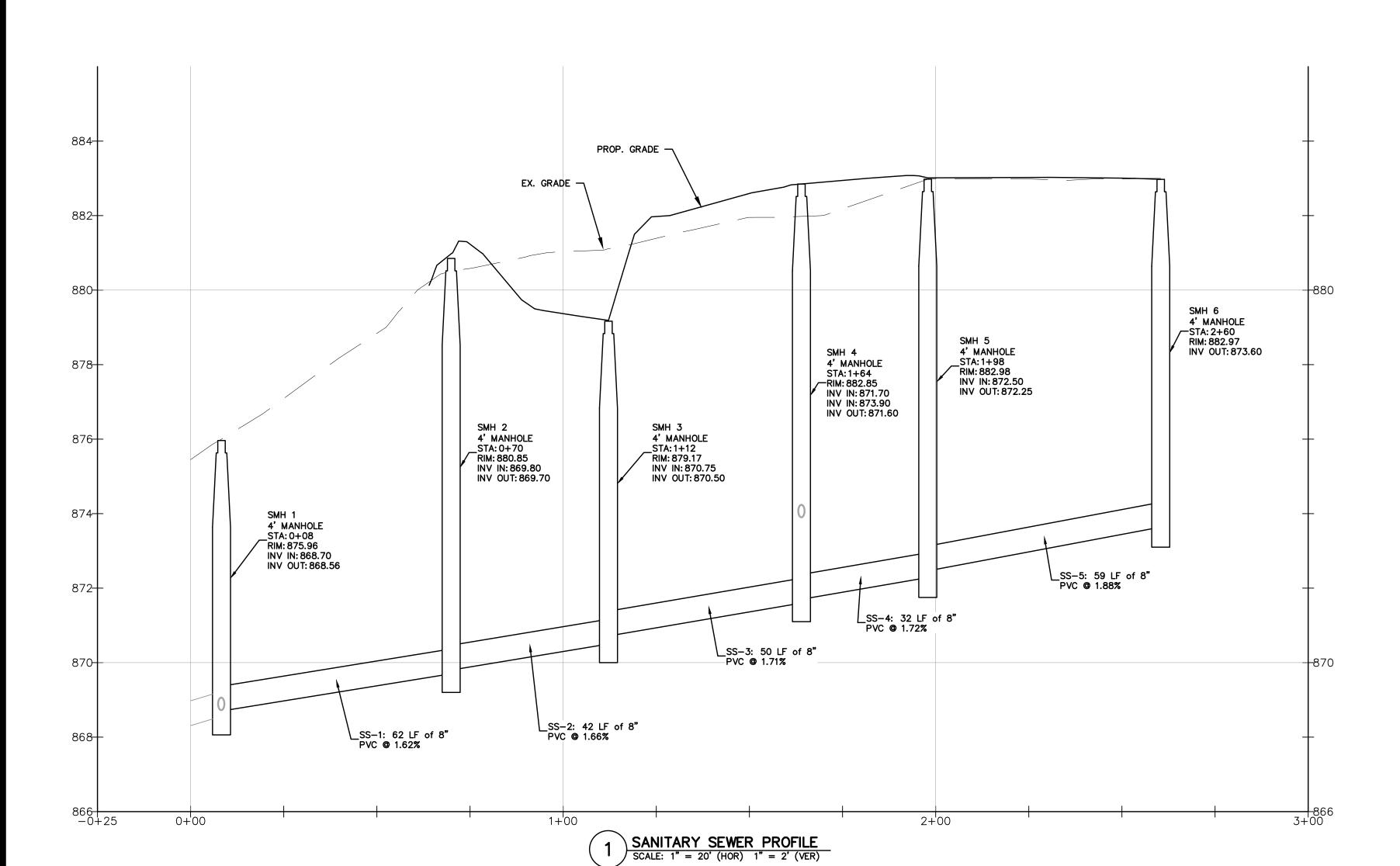
PROFESSIONAL CERTIFICATION:

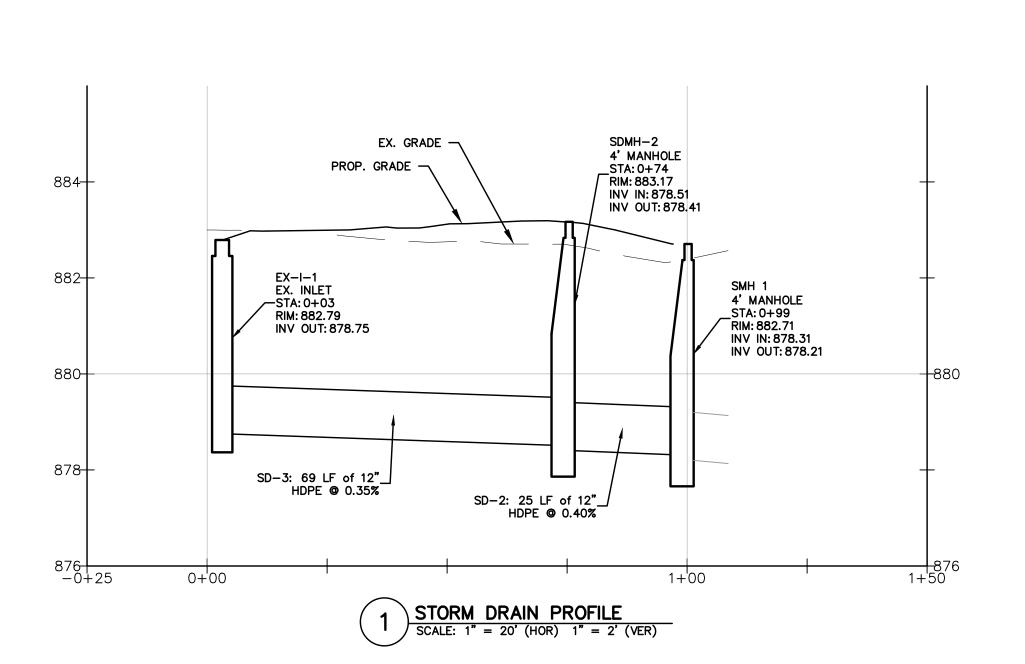
LICENSE NO. 31168

GRAPHIC SCALE

LICENSED PROFESSIONAL ENGINEER UNDER THE

LAWS OF THE STATE OF MARYLAND. EXPIRATION DATE: 01/12/2027









SCHOOL

REVISIONS

PROJECT NO: 641449 DATE: AUGUST 29, 2025 DESCRIPTION 04/08/25 DD SUBMISSION

UTILITY PROFILES

COUNTY FILE: S-24-0030 SHEET <u>17</u> OF <u>18</u>.

PROFESSIONAL CERTIFICATION:

EXPIRATION DATE: 01/12/2027

**GRAPHIC SCALE** 

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



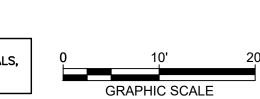
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REVISIONS

PROJECT NO: 641449 DATE: AUGUST 29, 2025 DESCRIPTION 04/08/25 DD SUBMISSION

> STORMWATER **PLANTING PLAN**

COUNTY FILE: S-24-0030 SHEET <u>18</u> OF <u>18</u>.

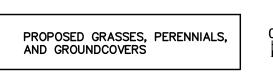


PROFESSIONAL CERTIFICATION:

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EXPIRATION DATE: 01/12/2027

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INV OUT: 872.75

PLANT SCHEDULE A							
KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	FORM	SPACING	NOTES
SHRUBS							
IVW	8	llex verticillata "Winter Red"	WINTER RED WINTERBERRY	5 GAL.	CONT.	AS SHOWN	
VDM	10	Viburnum dentatum	SOUTHERN ARROWOOD	5 GAL.	CONT.	AS SHOWN	
PERENNIALS	3						
CVA	84	Carex vulpinoidea	FOX SEDGE	1 GAL.	CONT.	12" O.C.	
IVR	112	Iris versicolor	BLUE FLAG IRIS	1 GAL.	CONT.	12" O.C.	

MICRO-BIORETENTION A

SCALE: 1"=10'

NOTES: 1. MEET REQUIREMENTS OF ANSI Z60.1, LATEST ADDITION, FOR ALL PLANT MATERIAL. 2. ALL PLANTS SHALL BE HEALTHY, FULL, BALANCED, AND EXCEPTIONALLY HEAVY.

SUBGRADE— TILLED SUBGRADE **GROUNDCOVER PLANTING DETAIL** N.T.S. 1 GROUNDCOVER PLANTING DETAIL SCHOOL

SPACE PLANTING IN ACCORDANCE WITH PLANT

— EXCAVATE HOLE 1-1/2 BY 1-1/2 TIMES
THE WIDTH AND DEPTH OF THE ROOT
MASS OR CONTAINER SIZE

3" DOUBLE SHREDDED MULCH

SCHEDULE

- PRUNE OUT ANY DEAD OR BROKEN BRANCHES. REMOVE ALL TAGS, LABELS, WIRE, STRING ETC. \_SPACING VARIES; SEE PLANS B&B SHRUBS: CUT AND REMOVE BURLAP, ROPES AND WIRES FROM TOP THIRD OF ROOT BALL AND REMOVE FROM SITE. <u>CONTAINER PLANTS:</u> MAKE 4 TO 5 VERTICAL CUTS TO THE ROOT BALL BEFORE SETTING IN PLACE

PREPARE PLANTING BED TO 12" DEPTH - UNDISTURBED SUBGRADE

2 SHRUB PLANTING DETAIL
NTS

Shrub Planting Detail
NOT TO SCALE

PLANTING DETAILS

EDGE OF PLANTING BED (CONDITIONS VARY)

TAMP SOIL EXCAVATED FROM HOLE OVER TOP ROOT MASS FILLING ALL

BACKFILL/PLANTING SOIL——

VOIDS AND AIR POCKETS.