

CHECK LIST FOR SUBMISSION OF
"COMBINED SWM DEVELOPMENT
AND IMPROVEMENT PLAN"

- Plan title shall be "Stormwater Management Development and Improvement Plan"
- All of the information provided in SWM concept plan
- Comments received by review agencies during the concept plan
- Determination of final site layout and acreage of total impervious area onsite.
- Proposed topography
- Proposed drainage areas at all points of discharge from the site.
- Proposed SWM volume requirements for ESD targets and quantity control.
- The location and size of ESD practices used to the MEP and all nonstructural, alternative surfaces, and micro-scale practices used.
- Proposed hydrology analysis for runoff rates, storage volumes, and discharge velocities.
- SWM design details and specifications.
- Discharge calculations demonstrating stable conveyance of runoff off site.
- Preliminary erosion and sediment control plans showing LOD, sensitive areas, buffers, and forest preservation, proposed phasing, construction sequencing, proposed practices, and stabilization techniques.
- An overlay plan showing the location of SWM ESD practices and proposed erosion and sediment controls.
- A narrative to support the site development design and demonstrate that ESD will be achieved to MEP.

- Development detail and site data including site area, disturbed area, new impervious area, and total impervious area.
- Existing and proposed topography.
- Existing and proposed drainage areas.
- Representative Cross sections and details (existing and proposed structure elevations and water surface elevations).
 - --The locations of existing and proposed structures.
 - Construction specifications.
 - Operation and maintenance plans.
 - As-Built design certification block.
 - Inspection schedule.
 - Easements and right of way.
 - Certification by the owner/developer that all construction will be done according to the plan.
 - Final erosion and sediment control plans.
 - SWM Facility sizing table.

Stormwater management design report including:

- A narrative to support the final design and demonstrate that ESD will be achieved to MEP.
- Table showing ESD and Unified Sizing Criteria.
- Hydrology and hydraulic analysis of the stormwater management system for applicable sizing criteria. -
- Final sizing calculations for stormwater controls including drainage area, storage, discharge points and Final analysis of stable conveyance to downstream discharge points.
- Geotechnical investigations report including soil maps, borings, and site-specific recommendations.

APPLICATION TYPE

BATCH STAMP AREA

NAME OF PROJECT

Reviewed in accordance with local County requirements. Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before approval expiration to be considered active. Otherwise, resubmittal of plans, including applicable fees, must be made to Development Review for reapproval. Fees for resubmittal cannot be waived.

GENERAL CONSTRUCTION NOTES: GENERAL CONSTRUCTION NOTES

1. All construction on these plans shall be performed in accordance with Frederick County Specifications and Standards. Secondary, construction shall meet the Book of Standards, Highway and Incident Structures and Standard Specifications for Construction and Materials by Maryland Department of Transportation State Highway Administration; 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control by Maryland Department of the Environment (Water Management Administration); Natural Resources Conservation Service, and Maryland Association of Soil Conservation Districts; 2007 Stormwater Management Act and 2000 Maryland Stormwater Design Manual Volumes I & II, per Maryland Department of the Environment (Water Management Administration), unless otherwise specified.

2. The location of existing utilities shown is approximate only. Contractor shall verify the existence, location and depth of any utilities and shall notify the engineer of any discrepancy prior to beginning work.

3. Contractor shall be responsible for notifying the engineering office of Terra Solutions Engineering, LLC at 301-378-9842 in the event of any discrepancies in the plans or in the relationships of finished grades to existing grade prior to beginning work.

4. Contractor shall be responsible for maintenance of traffic on any existing roads and installation of proposed signs and pavement markings along proposed roads in accordance with Maryland State Highway Administration (Maryland Manual on Uniform Traffic Control Devices).

5. The contractor shall note that in case of a discrepancy between the scaled and figured dimensions shown on these plans, the figured dimensions shall govern.

6. It shall be distinctly understood that the failure to mention specifically any work which would normally be required to complete the project, shall not relieve the contractor of his responsibility to perform such work.

7. The contractor shall notify the following at least two working days before starting any construction:

Potomac Edison.....301-695-5700
Verizon(telephone).....301-275-2355
Frederick Gas.....301-662-2151
Frederick County Environmental Compliance Section (ECS).....301-600-3507
Comcast(cable).....301-662-6822, ext. 133
Miss Utility.....1-800-257-7777

8. All existing paving disturbed by the contractor shall be replaced to the same thickness according to Frederick County specifications.

9. All rip-rap shall be loose-laid stone. Rip-rap placed at storm drain outfalls in existing swales shall be placed so as to completely line the existing swale with only the minimum possible grading or shaping of the swale.

10. Inlets in sumps shall be constructed level at the elevation given in the structure schedule or profile. Inlets on grade shall be adjusted so the grade on the top slab matches the grade of the curb.

11. Terra Solutions Engineering, LLC is not responsible for the contractor's means or methods for construction, including but not limited to the contractor's utilization of men, materials, equipment or safety measures. In the performance of any work for this construction, the contractor assumes all responsibility for performing the work correctly, safely and in conformance with all federal, state and local code and/or regulatory requirements.

12. Certain areas of Frederick County are located within the Monocacy Valley region which is historically considered to contain subsurface limestone formations with inherent solution cavities commonly referred to as sinkholes. Terra Solutions Engineering, LLC recommends the party responsible for construction of this development retain the services of a professional geotechnical engineer to investigate the site's suitability for construction and make recommendations for site development and corrective measures if subsurface conditions affecting the site are discovered.

13. Any attempts to estimate costs associated with rock handling/removal and/or subsurface conditions must be based on geotechnical reports and recommendations. Geotechnical reports may include information pertinent to the development of the site which is not included on the plans. The contractor must consult any existing geotechnical and other consultant's reports in conjunction with this set of plans.

14. All construction shall conform to the State of Maryland Handicapped Code and the Americans with Disabilities Act (ADA).

15. Placement of any work such as curb, gutter, sidewalk, driveway aprons, etc. shall be commenced only after the installation of all utilities including gas lines, electrical lines, street light conduits, television cable, water and sewer lines and roof drains, etc., are in place.

16. These plans are for civil site construction only. See A.S.M.E.P. plans for all other elements. Building services (gas, CATV, electric, telephone) and roof drains are not part of these plans.

17. Safe and legal disposal of demolished items is the contractor's responsibility.

BASIC STORM DRAIN NOTES:
EFFECTIVE DATE: JANUARY 1, 2002

1. Unless otherwise noted, the following stormdrain materials may be used as substitutes for one another:

A. Aluminized, Type 2 coated spiral-ribbed corrugated metal pipe (3/4" x 3/4" x 7-1/2" corrugations) and labeled as "ALOMP-SR" on the plans with Gage identified.

B. Reinforced Concrete Pipe - labeled as "RCP" on plans with Class identified.

C. Smoothbore, high-density polyethylene pipe meeting the specifications of AASHTO M294, Type S (Examples include Hancor HI-Q, ADS N-12 or an approved equivalent) and labeled as "HDPE, Type S" on plans.

2. All backfill to be per the pipe manufacturer's specifications at a minimum. Typical backfill shall be suitable material, such as free-draining sands and gravel conforming to ASTM D2321 Class I, II, or III material and be placed in lifts as necessary and compacted to 95 percent minimum dry density according to AASHTO-199 minimum (per AASHTO T-180 in road right-of-way areas).

3. In areas of known karst (limestone formations), all stormdrain connections shall be watertight. Storm-drain connection examples are as follows:

A. Watertight Aluminized, Type 2 corrugated metal pipe shall use rubber O-ring gaskets, rubber sleeve gaskets, strip gasket or geotextile wrap in conjunction with an appropriate band connector.

B. Reinforced concrete pipe shall utilize rubber O-rings, rubber strip gaskets or other acceptable watertight practice.

C. Smoothbore, high-density polyethylene pipe shall utilize watertight sleeves and rubber gaskets. Examples include: Hancor Titeline, ADS ProLink-WT or an approved equivalent.

4. Basic pipe materials allowed are as follows:

A. All corrugated metal pipe shall be Aluminized, Type 2 coated and labeled as "ALOMP" Type 2 on the plan views and profiles.

B. High density pipe shall be smoothbore meeting the specifications of AASHTO M252, Type "S" for 4" to 10" pipe & meeting the specification of AASHTO M294, Type "S" for 12" pipe and larger, and shall all be labeled as HDPE on plan views and profiles.

DETAILED PROJECT LOCATION

ATTACHMENT "E"
PRECAST/PRESTRESSED MATERIAL ACCEPTANCE POLICY
EFFECTIVE DATE: JANUARY 1, 2002
REVISED FEBRUARY 6, 2003 AND SEPTEMBER 23, 2003

1. All pre-cast storm drainage structures, manhole frames and covers, and inlet grates to be installed in conjunction with storm drain systems within public street rights of way intended to be dedicated and accepted into the Frederick County public street system shall comply with SHA specifications as stated on the approved plans.

The County shall require separate certifications for the pre-cast concrete storm drainage structures, the manhole frames and covers, and the inlet grates.

The certifications shall be in accordance with all the provisions of the Maryland State Highway (SHA) Administration's Standard Specifications for Construction and Materials dated January 2001, as they may be revised, including but not limited to: Sections 305.03.06, 909.00, and 909.04 except as indicated below:

Unless the improvement plans or contract documents expressly indicate the use of Federal or State funds for the project, the Certification for metal products is not required to include a statement that "the material was melted and manufactured in the United States" (see TC-1.02, Section 909.00), and:

- a) Be manufactured or produced by entities listed on the Maryland State Highway (SHA) Office of Materials and Technology list of approved suppliers at the time of manufacture;
- b) Be accompanied by a certification from the producer, signed and sealed by a Professional Engineer currently licensed and registered in the State of Maryland, that the materials supplied comply with the contract documents and SHA specifications; and
- c) Certification documents must be provided to the County inspector prior to installation, and the materials must pass a visual inspection by the County's inspector for defects, prior to installation.

2. Frederick County shall have the right to obtain independent verification of any and/or all of the materials utilized in the precast/prestressed manufacturing process to ensure that they comply with current SHA specifications. The verification shall be from an SHA approved Independent Testing Laboratory. All costs for the testing and verification process shall be borne by the other party to the executed developer Public Works Agreement with Frederick County.

ATTACHMENT "D"
SUBDIVISION CONSTRUCTION INSPECTION
GENERAL NOTES
REVISED OCTOBER 2014

1. A pre-construction meeting shall be required with the Department of Engineering and Construction Management (DECM) to discuss construction phasing, unusual site conditions, special requirements, etc. Please call 301-600-3508, five (5) days in advance and between the hours of 7:30 A.M. and 3:30 P.M.
2. All sidewalks shall be installed in accordance with current Americans with Disabilities Act (ADA) standards and laws.
3. Progress meetings among representatives of DECM, the Contractor, and the Developer may be scheduled on an agreed time period to monitor construction progress.
4. An inspection of the construction status is required by DECM.
5. All work, construction methods and materials shall be in accordance with the Maryland State Highway Administration (MD SHA) Standard Specifications for Construction and Materials dated July 2008, herein referred to as the SHA Gray Book, and all current revisions and supplements. These specifications and standards for items such as inlet and manhole structures are available on line from the SHA website:
<http://jppa.roads.maryland.gov/BusinessWithSHA/bizStdSpecs/desManualStdPubPublicationsonline/OneAtATime/Index.asp>

6. The contractor shall contact DECM 24 hours in advance of placing controlled fill within the proposed road right-of-way. Moisture/density testing is required in accordance with the approved specifications and Section 204 of the SHA Gray Book, and all current revisions and supplements. All moisture/density testing for fill areas, subgrade, culvert and structure backfill is to be performed and approved by the developer's geotechnical engineer and monitored by DECM. Any failing tests shall be documented so that the area may be re-tested in order to obtain final approval.
7. If wet areas are determined present in the proposed road right-of-way, under drain and under drain outlets shall be installed to alleviate potential subgrade failure.
8. Provide for drain curtains and outlets behind all curb and gutter monumental islands in the roadway median.
9. All required roadway signs, barricades, striping and pavement markings shall be in accordance with the latest Maryland version of the Federal Highway Administration's, (FHWA) Manual on Uniform Traffic Control Devices (MUTCD). The installation of all required roadway signs, including street name signs, shall commence the next business day after the placement of the base course asphalt.

10. If required, a Maintenance of Traffic (MOT) plan shall be submitted to the Frederick County Community Development Division for written approval prior to commencement of the work. The contact number is 301-600-1138. Any anticipated road closures shall be requested in writing and require an approved MOT/Outlet plan. All road closure requests shall be approved in writing by the County prior to implementation.
11. Benchmarks shall be established and maintained until acceptance of the roadway improvements.
12. The contractor shall be required to contact DECM at least 24 hours in advance of installing storm drains, storm drainage appurtenances and curb and gutter. A proof roll is required prior to placing curb and gutter.

13. Provide for wet gutters in an inlet throat opening to allow water in the gutter pan to enter into inlets after placing base paving.
14. The contractor shall schedule proof roll inspections with DECM a minimum of 24 hours in advance, prior to placement of base asphalt course, and after final satisfactory completion of subgrade/drainage/moisture testing. SHA Gray Book Specifications Section 204.03.04 shall apply.
15. Prior to placing the surface asphalt course, the base course shall be inspected by DECM. The contractor is required to contact DECM a minimum of 24 hours in advance of placing the surface asphalt course.

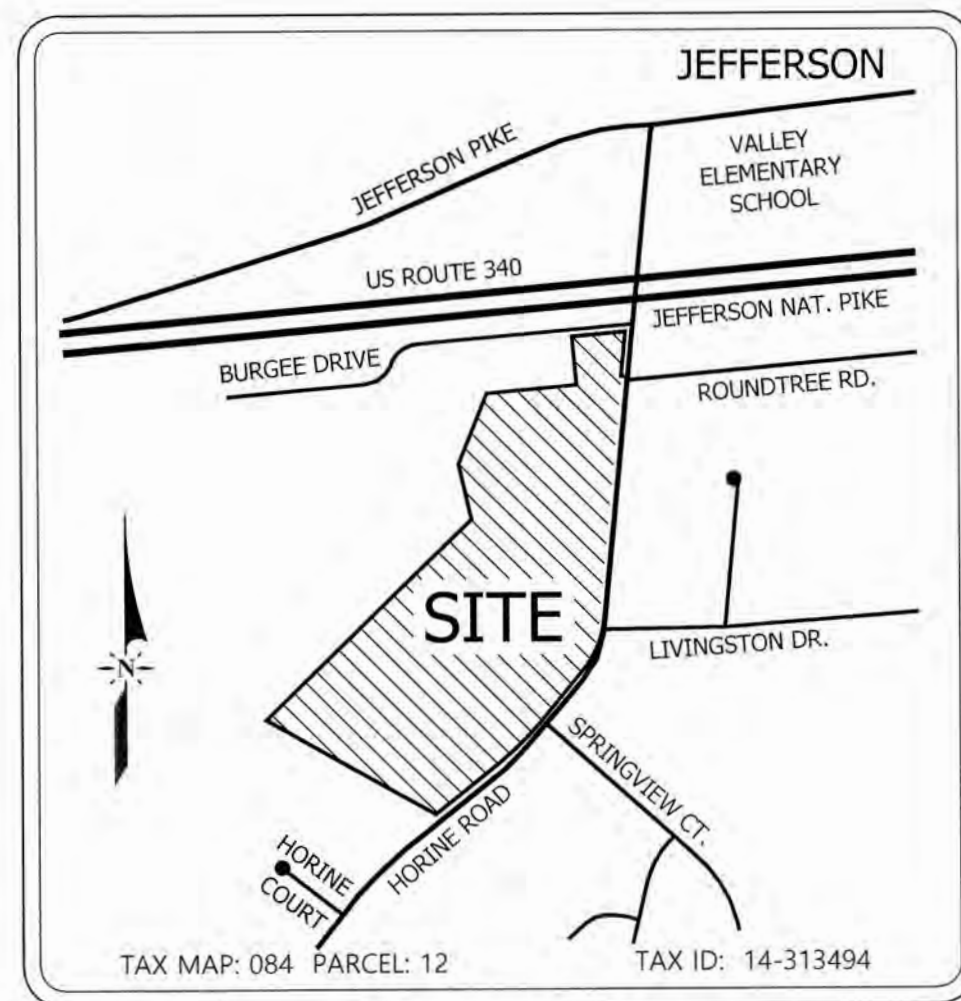
The following shall be done prior to application placement of the final surface asphalt course:

- a. All existing base pavement shall be examined for any defective areas. Examples include, and are not limited to, subgrade failures, asphalt slippage, broken curb and gutter, settlement of paved areas and inlet and manhole structures, etc.
- b. Review existing base asphalt for a smooth polished surface caused by construction and/or existing traffic. For example, during the home building process.
- c. All areas and items as described in paragraphs a) and b) above shall be repaired or replaced in accordance with the original approved drawings to the satisfaction of DECM.
- d. Polished surfaces shall be "skim milled" with a milling machine to roughen the base asphalt layer, and then tack coated, to enhance adhesion of the final surface asphalt course.
- e. Check curb and gutter for damage and replace or repair:
 - 1) Replace curb that has damage greater than 3" depth and 6" length/diameter.
 - 2) Replace curb that has been cracked completely through and has settlement in excess of 1/8"
 - 3) Replace curb at inlets if there are gaps greater than the 1/2" preformed expansion material.
 - 4) When replacing curb, any joint spacing shall not be less than four (4) feet in length.
 - 5) Repair any minor cracks and chips in curb.
 - 6) Seal any cracks in gutter pan. Apply sealer to the entire gutter portion and 1" up the face of all joints, as per Section 602.03.01g of the SHA Standard Specifications.

16. All work shall be completed in accordance with the approved plans and specifications prior to DECM recommending acceptance of the street(s) by the Board of County Commissioners (BOCC). All proposed streets to be accepted must pass a final walk-through inspection by DECM and the Frederick County Office of Highway Operations (CHO).
17. Please contact the DECM inspection staff or supervisor with any questions.

IMPROVEMENT AND SWM DEVELOPMENT PLANS FOR FREDERICK BAPTIST CHURCH TAX MAP 084, PARCEL 12 SITUATED ALONG HORINE ROAD, JEFFERSON FREDERICK COUNTY, MARYLAND

VICINITY MAP



VICINITY MAP
SCALE: 1" = 1000'

Sheet Index

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SWM SUMMARY TABLE

Drainage Area Number:	N/A
Post RCN:	65
Post Tc:	N/A
Pe Required:	1.0
Pe Addressed:	1.0
Impervious Area Treated:	162,831 S.F.
Storage:	19,814 C.F.

Purpose Statement **PURPOSE OF PROJECT**

The purpose of this Improvement Plan is to obtain grading permits to construct a Place of Worship facility with an accessory use of a Private School. The proposal includes a two-story 33,002 sq ft multipurpose building featuring a gymnasium, classrooms and offices, a 14,400 sq ft Sanctuary and a two-story 20,000 sq ft Educational Building.

General Notes **PROJECT SPECIFIC GENERAL NOTES**

1. The subject property is 50.2314 Acres± per survey completed by J. F. Brown III & Assoc., Inc. The Property is Zoned Agriculture. Comprehensive Plan designation is Low Density Residential.
2. Existing Topographic information taken from available Frederick County GIS data and field run by J. F. Brown III & Assoc., Inc.
3. Forest Resource Ordinance (FRO) requirements will be met by retaining forest onsite in a Forest Conservation Easement per the approved Combined Preliminary/Final Forest Conservation Plan (AP 18587).
4. Phasing- All parking and infrastructure, as well as building #1 will be built in the first phase. Building #2 will be built in a later phase, followed by Building #3.
5. The parking Lot and Buildings will have exterior lighting. Light pole height is 18'. Lighting shall be designed and installed to be fully shielded. Lighting shall be directed downward to prevent glare and light trespass onto adjacent properties, roadways, and the nighttime sky. There will be 18, 18' tall light posts with LED lights. There will 21 proposed box lights attached to the building. Please see the Lighting Plan within the approved Site Plan.
6. All traffic control signage shall meet Maryland MUTCD.
7. Please see Sheet 7 for landscaping notes.
8. Flooding soils are present onsite. No development activity is proposed within the limits of the floodplain soils or their buffers.
9. The site is not located within any 100-Year regulated floodplains, being located wholly in Flood Zone "X" (areas of 0.2% annual chance of flood) as shown on FEMA FIRM Map No. 24021C0410D (Effective Date: September 19, 2007)
10. The site is bisected by a stream (unnamed tributary), classified by DNR as a riverine wetland, as indicated by MD Merlin. A 25' wetland buffer has been applied. No other wetland, floodplain or their buffers were observed on the property.
11. Water and Sewer Classification are No Planned Service. Both septic systems are approved for a low pressure dose septic system which require a pump for the dosing. The existing well was recently installed.
12. Soils information taken from Soils Map 84.

Soils types which lie within the onsite limit of disturbance:

SeB Spoolsville Silt Loam, 3% - 8% slopes	HSG: B	k-factor: 0.12
SdC Spoolsville-Catoctin Complex, 15% - 25% slopes	HSG: B	k-factor: 0.02
MmB Mt Zion Gragely Silt Loam *, 3% - 8% slopes	HSG: C	k-factor: 0.37
RoB Rohersville-Lantz Silt Loam **, 3% - 8% slopes	HSG: C/D	k-factor: 0.37

*Restricted Soils can only be tested during the "restricted" season - Feb. 1, 2018 to April 16, 2018.

**Floodings Soils require a 25' setback and mitigation for encroachment with the soils themselves themselves

IMPROVEMENT PLAN NOTES

1. Stormwater Management (SWM) is provided in accordance with the 2000 MD SWM Design Manual and the SWM Act of 2007 using Disconnection of Rooftop Runoff (N-1), Disconnection of Non-Rooftop Runoff (N-2), Sheetflow to Conservation Areas (N-3), Micro-Bioretenation (M-6), and Grass Swales (M-8). Existing and proposed roadside grassed areas will provide much of the treatment for the adjacent pavement. The proposed conditions will provide a decrease in runoff from the existing conditions. SWM quantity for the 10-year storm will be provided through curve number reduction. The SWM Concept has been reviewed and approved under A/P #18590. Please see Sheet 5 for SWM Summary Table.
2. The project shall comply with all applicable provisions of the Maryland Accessibility Code (MAC), the American Disabilities Act of 2010 (ADA) and ANSI 117.1.
3. See Site Plan for lighting plan.

PRIVATE UTILITY PERMIT NOTE: **PRIVATE UTILITY NOTE**

Upon approval of the improvement plans and prior to issuance of grading permit, a plumbing permit that covers onsite private utilities, must be applied for. The application must be approved prior to the start of the construction for all proposed private portions of utilities including storm drain, water & sewer lines, monitoring manholes, hydrants, and any other on-site private utility work. Applications can be submitted by the Frederick County Licensed Utility Contractor via the citizen portal, PLANNINGANDPERMITTING.FREDERICKCOUNTY.GOV

LIFE & SAFETY NOTES

1. Fire Department access roads shall be accessible during all types of weather and at all times.
2. Fire Department roads must be capable of supporting fire apparatus at all times and be a minimum of 20-feet wide.
3. Fire Department access shall be provided and maintained to all structures undergoing construction, alteration, or demolition.
4. The access roadways shall provide a minimum turning radii of 40 to 45 feet.
5. The Fire Department connection shall be located in a location approved by the County Fire Marshal's Office.
6. Fire Lane (FL) signs shall be indicated on the plans and accepted by the County Fire Marshal prior to final construction plan approval. All perimeter drive aisles less than 27-feet wide shall be marked as Fire Lanes with no parking. Curb along Fire Lanes shall be painted traffic yellow.
7. Fire lane signs shall be located a maximum of 75-feet O.C. as approved by the County Fire Marshal.
8. The property address shall be incorporated into the site sign and shall be posted on each building in accordance with the Frederick County Premise Identification Ordinance #05-01-362. A detail of the site sign with the address shall be reflected on the appropriate drawings, but no later than the Improvement Plans. A copy of the Ordinance is available from the County Fire Marshal's Office by contacting 301-694-1479 or at www.co.fredrick.md.us
9. The building shall have an access box (Knox Box) for Fire Department use installed at the main entrance in accordance with the provisions of NFPA1, the Fire Code Section 18.2.2. Additional Knox Boxes shall be provided at the approved locations in the rear of the building, as required. If the site is gated, a Knox pad lock or electronic Knox key switch must be provided for the responder's use.

REQUIRED SIGNATURE BLOCKS

ENGINEER'S DESIGN CERTIFICATION	
I hereby certify, to the best of my professional knowledge, information and belief, that this plan has been prepared in accordance with local ordinances, Comar 26.17.01.00, and the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" as adopted by the State of Maryland - Maryland Department of the Environment Water Resource Administration, and the hydraulic design criteria for Highways as adopted by the Maryland State Highway Administration (revised Jan. 1, 2001), and the grading, storm drainage, sediment control and stormwater management requirements of Frederick County and Frederick Soil Conservation District.	
<i>Michael L. Swanson</i>	6/21/21
Michael L. Swanson, P.E. MD Reg. No. 30736	Date

CERTIFICATION OF QUANTITIES OF EXCAVATION & FILL

I hereby certify, to the best of my Professional knowledge, information, and belief that the estimated total amount of excavation and fill as shown on these plans has been computed to be 20,500 cubic yards of excavation and 10,250 cubic yards of fill, and that the total area to be disturbed as shown on these plans has been determined to be 327,600 square feet in the Public Right-of-way and square feet on Private Land.	
<i>Michael L. Swanson</i>	6/21/21
Michael L. Swanson, P.E. MD Reg. No. 30736	Date
Note: The estimated quantities shown above are for permit purposes only and are not to be used for construction bidding purposes.	

OWNER'S/DEVELOPER'S CERTIFICATION	
I/We hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan, and that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project.	
I/We further certify that "As-Built" plans will be submitted and approved following construction of any stormwater management facility and that construction will be supervised by a registered professional engineer.	
Date: 6/21/21	Signature: <i>John V. Seay</i>
Printed name & title: John V. Seay, Pastor	
Firm: Frederick Baptist Church Phone No. 301-473-8900	
Address: 5305 Mt. Zion Rd., Frederick, MD 21703	

REQUIRED BLOCKS

FREDERICK COUNTY, MARYLAND DEVELOPMENT REVIEW, ENGINEERING				
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REV. #	DATE	REVISION DESCRIPTION *FILL IN THESE BLOCKS FOR REVISIONS ONLY	ENGINEER/CONSULTANT DATE AND INITIAL	DEV. REVIEW DATE AND INITIAL

File#:	SP18-09
A/P #:	PW265100
Due Date:	

FREDERICK SOIL CONSERVATION DISTRICT	
APPROVED BY: <i>Dennis Remaling</i>	
DISTRICT MANAGER	
DATE: 6/21/21	
SCD approval for sediment and erosion control is contingent upon issuance of all applicable regulatory permits	

PROFESSIONAL ENGINEER'S CERTIFICATION	
SIGNED BY: <i>Michael L. Swanson</i>	
MICHAEL LEE SWANSON, PE DATE: 6/21/21	
MD LICENSE No.: 30736, P.E. EXPIRATION DATE: 08-03-22	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.	

CALL "MISS UTILITY" AT 1-800-257-7777
FOR UTILITY LOCATIONS AT LEAST 48 HOURS
PRIOR TO BEGINNING CONSTRUCTION.

FREDERICK BAPTIST CHURCH

Situated along the North and West Side of Horine Road
Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

Terra Solutions Engineering, LLC

Commercial & Residential Land Planning and Engineering
5216 Chairmans Court, Suite 105
Frederick, MD 21703
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com

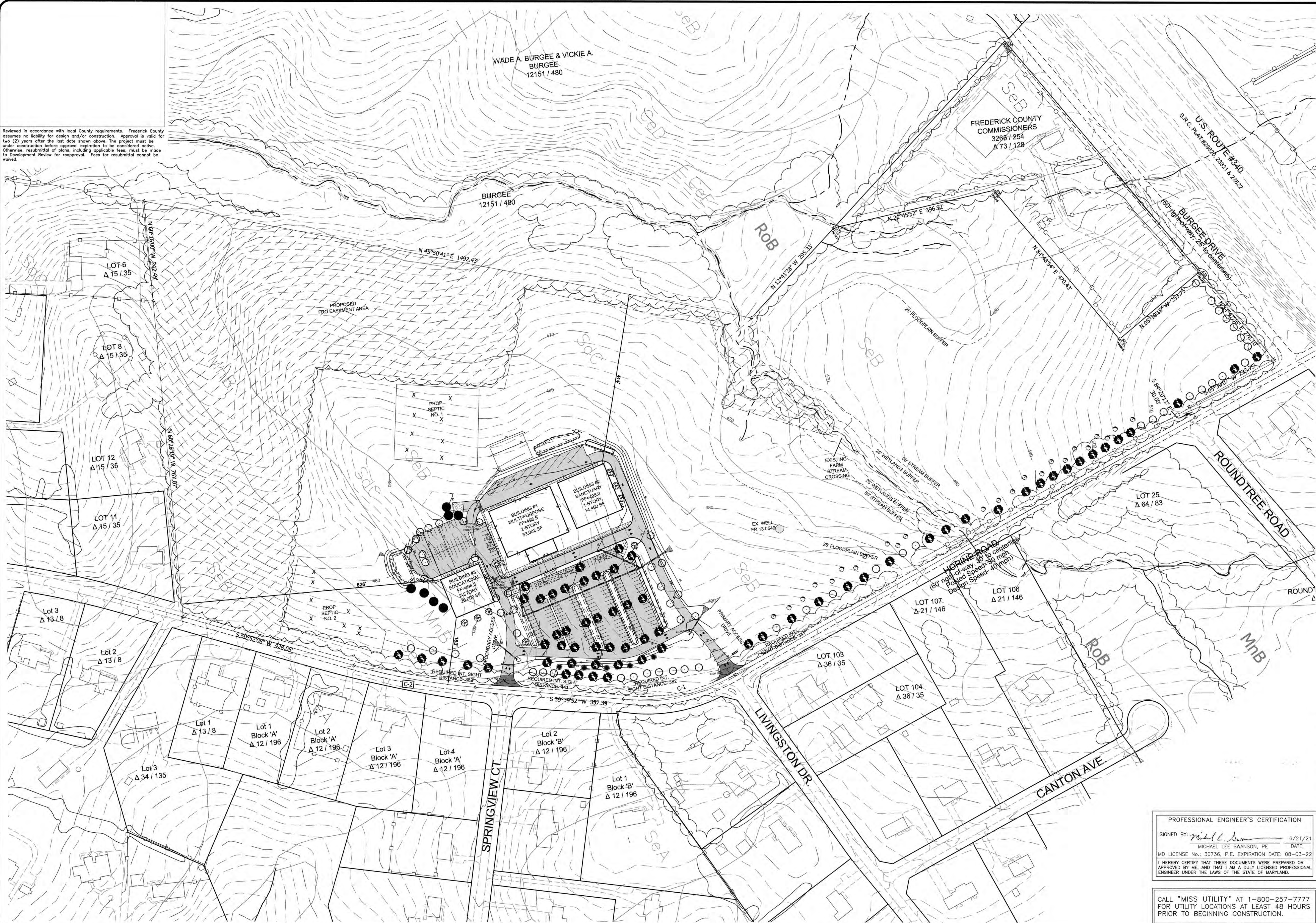
Owner/Developer

Frederick Baptist Church
5305 Mt. Zion Rd.
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-8900



PROJECT No. 176
DATE: JUNE 2021
SCALE: AS SHOWN
SHEET No. 1 of 9

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PROFESSIONAL ENGINEER'S CERTIFICATION
SIGNED BY: *Michael Lee Swanson* 6/21/21
MICHAEL LEE SWANSON, PE DATE
MD LICENSE No.: 30736, P.E. EXPIRATION DATE: 08-03-22
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

CALL "MISS UTILITY" AT 1-800-257-7777
FOR UTILITY LOCATIONS AT LEAST 48 HOURS
PRIOR TO BEGINNING CONSTRUCTION.

FREDERICK BAPTIST CHURCH

Situated along the North and West Side of Horine Road
Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

IMPROVEMENT AND SWM DEVELOPMENT PLANS - OVERALL PLAN

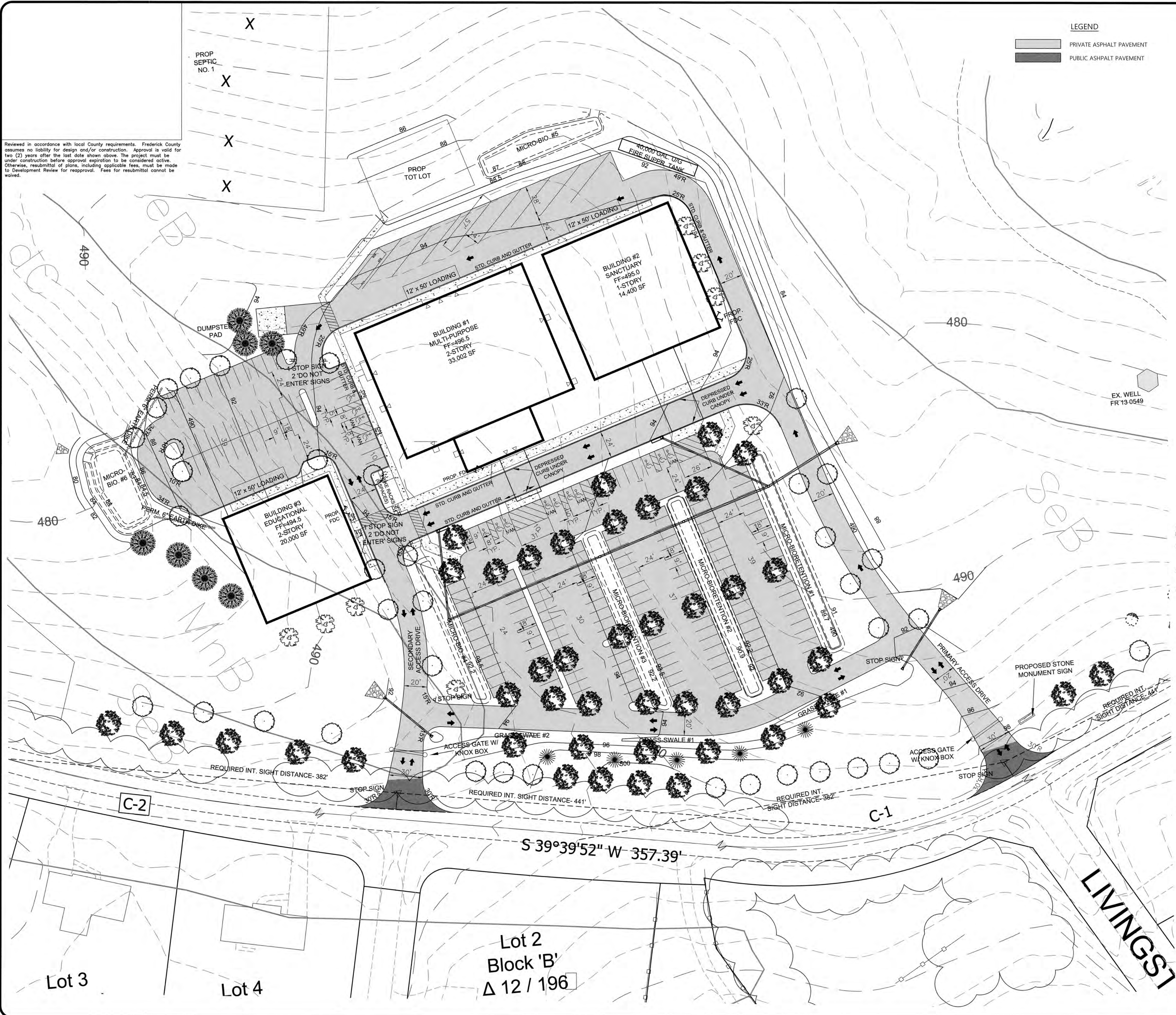
Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5305 Mount Zion Road, Suite 105
Frederick, MD 21703
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com

Owner/Developer
Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-8900



Seal & Signature
PROJECT No.: 176
DATE: JUNE 2021
SCALE: 1" = 100'
SHEET No. 2 of 9

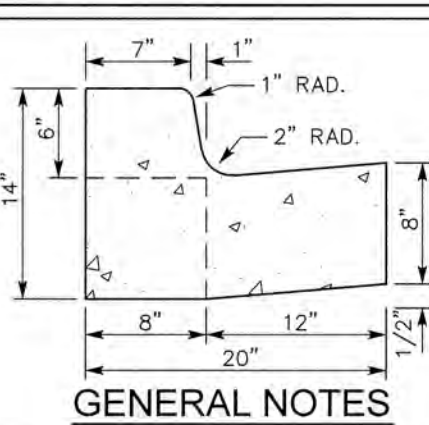
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LEGEND

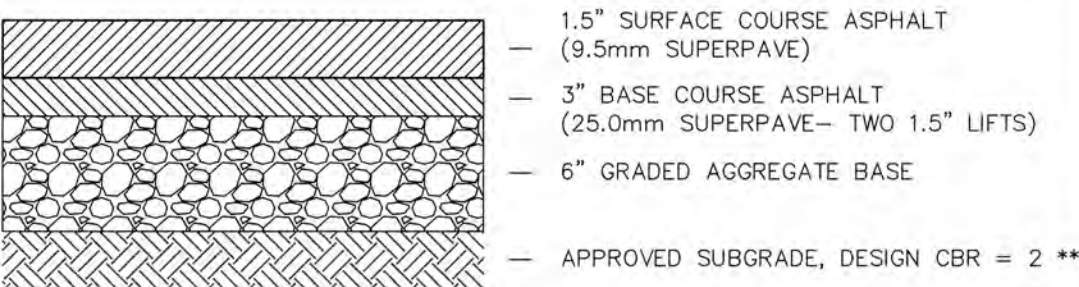
PRIVATE ASPHALT PAVEMENT

PUBLIC ASPHALT PAVEMENT

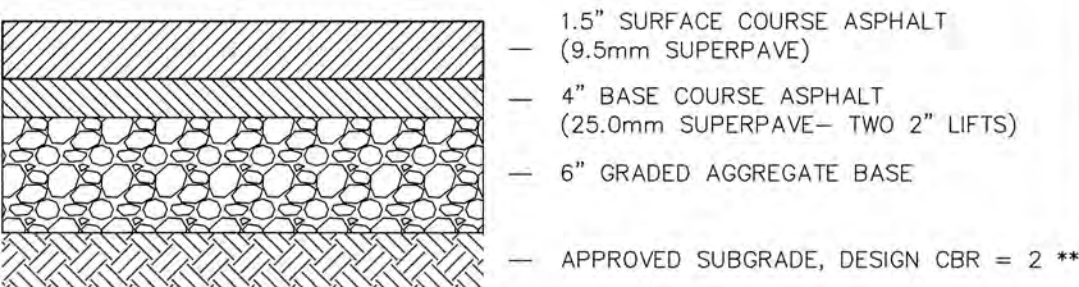


- GENERAL NOTES**
1. REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) STANDARDS AND SPECIFICATIONS FOR MATERIALS & METHODS OF CONSTRUCTION.
 2. THIS STANDARD SHALL BE USED ON PRIMARY RESIDENTIAL, ARTERIAL AND BUSINESS DISTRICT ROADS AS WELL AS CURB RETURNS AND INLET THROATS. NOT APPROVED FOR MSHA ROADWAYS.
 3. THE STANDARD DISTANCE BETWEEN JOINTS SHALL BE TEN FEET (MAXIMUM AND MINIMUM DISTANCE SHALL BE THIRTEEN FEET AND FIVE FEET RESPECTIVELY).
 4. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PRE FORMED CORK, TRIMMED AND SEALED WITH NON-STAINING TWO-COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH MSHA SPECIFICATIONS.

**FREDERICK COUNTY
CONCRETE CURB & GUTTER DETAIL**
N.T.S.



PRIVATE PAVEMENT SECTION



PUBLIC PAVEMENT SECTION

- N.T.S.
- ** THE PAVEMENT SECTION ABOVE IS BASED ON A FREDERICK COUNTY RESIDENTIAL LOCAL ACCESS ROAD SECTION WITH A MINIMUM CBR OF 2.
1. THE SECTION MAY BE REDUCED IF DETERMINED BY A GEOTECHNICAL ENGINEER BASED ON CBR'S OF IN-SITU SUB-GRADE MATERIAL, CONSTRUCTION TRAFFIC LOADS, TRAFFIC VOLUME AND COMPOSITION, ETC. SEE FREDERICK COUNTY STREETS AND ROADS DESIGN MANUAL SECTION 3.04.01 FOR DESIGN REQUIREMENTS.
 2. ASPHALT AND BASE PER SHA SPECIFICATIONS, BINDER FOR SURFACE MIX SHALL BE PG64S-22, A TACK COAT SHALL BE APPLIED PER MSHA SPECIFICATION SECTION 504.03.
 3. IF STAGING CONSTRUCTION, PRIOR TO PLACEMENT OF THE SURFACE MIX:
A) SWEEP THE SURFACE TO REMOVE ANY ACCUMULATED DEBRIS.
B) THE EXISTING PAVEMENT SHALL THEN BE INSPECTED BY THE COUNTY OR THEIR REPRESENTATIVE AND ANY DISTRESSES SHALL BE REPAIRED.
C) IF THE HMA BASE IS POLISHED AS DETERMINED BY THE COUNTY, THE SURFACE SHALL BE ROUGHENED PRIOR TO APPLICATION OF THE SURFACE LAYER.
D) APPLY TACK COAT PER MSHA SPECIFICATION SECTION 504.03.
 4. AGGREGATE BASE COURSE SHALL BE PLACED WITHIN 48 HOURS OF ACCEPTANCE OF SUBGRADE MATERIALS BY THE COUNTY INSPECTOR UNLESS DELAY IS APPROVED BY COUNTY. IF A PRECIPITATION EVENT OCCURS DURING THIS TIME FRAME, THE COUNTY INSPECTOR SHALL REINSPECT THE SUBGRADE PRIOR TO PLACEMENT OF THE AGGREGATE BASE COURSE.
 5. PRIME COAT SHOULD BE APPLIED TO AGGREGATE BASE MATERIAL PRIOR TO PLACEMENT OF ANY HMA.
 6. COMPACT THE MATERIAL THAT IS 1 FT BELOW THE TOP OF SUBGRADE TO AT LEAST 92 PERCENT OF THE MAXIMUM DRY DENSITY PER AASHTO T 180 MODIFIED PROCTOR. COMPACT THE TOP 1 FT TO AT LEAST 97 PERCENT OF THE MAXIMUM DRY DENSITY PER AASHTO T 180 MODIFIED PROCTOR. DETERMINE IN-PLACE DENSITY PER MSMT 350 OR 352. WHEN NECESSARY, ADD WATER OR DRY THE LAYER IN ORDER TO COMPACT TO THE REQUIRED DENSITY. WHEN FINALLY COMPACTED TO THE REQUIRED DENSITY, THE RESULTANT MOISTURE CONTENT OF EMBANKMENT MATERIAL SHALL BE WITHIN TWO PERCENTAGE POINTS OF OPTIMUM.
 7. COMPACTION OF GRADED AGGREGATE BASE COURSES SHALL BE TO AT LEAST 97% OF MAXIMUM DRY DENSITY PER MODIFIED PROCTOR (AASHTO T180 MODIFIED PROCTOR).
 8. CHEMICALLY STABILIZED AGGREGATE BASE SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY PER MODIFIED PROCTOR (AASHTO T180 MODIFIED PROCTOR).
 9. DURING CONSTRUCTION THE DENSITY OF HMA SHALL BE EVALUATED PER MSHA SPECIFICATION 504.03.11. TARGET DENSITY OF PLACED MATERIAL SHOULD BE BETWEEN 92% AND 97%.
 10. SUBGRADE DRAINAGE IS TO BE PLACED IN ACCORDANCE WITH MSHA STANDARD 387.51.
 11. LONGITUDINAL UNDERDRAINS SHALL BE PLACED, AS NEEDED, IN ACCORDANCE WITH MSHA STANDARD 387.11 OR 387.11A, AS APPROPRIATE.
 12. PROVIDE FOR 1-INCH WEEPS IN INLETS FOR STAGED CONSTRUCTION OF CURB AND GUTTER SECTIONS.
 13. THE GUTTER PAN SHOULD REST ON TOP OF THE AGGREGATE BASE MATERIAL OR A MINIMUM OF 4 INCHES OF GRANULAR AGGREGATE BASE WHERE A BOUND BASE MATERIAL (EITHER HMA BASE OR CHEMICALLY STABILIZED AGGREGATE BASE) IS USED.
 14. A CROSS SLOPE OF UP TO 3% IS ACCEPTABLE WITH APPROVAL FROM THE COUNTY. THIS CROSS SLOPE SHOULD RECEIVE ADDITIONAL CONSIDERATION WITH RESPECT TO ADA STANDARDS FOR FREDERICK COUNTY RIGHT-OF-WAY WHERE SIDEWALKS ARE PLANNED ADJACENT TO THE ROADWAY. THE 3% CROSS SLOPE MAY BE HELPFUL IN AREAS WHERE DRAINAGE MAY BE A CONCERN DUE TO THE EXISTING TERRAIN, SUCH AS WHERE A DESIGNED ROAD IS RELATIVELY FLAT.

PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: *Michael L. Swanson* 6/21/21
MICHAEL LEE SWANSON, PE DATE
MD LICENSE No.: 30736, P.E. EXPIRATION DATE: 08-03-22
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

CALL "MISS UTILITY" AT 1-800-257-7777 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

FREDERICK BAPTIST CHURCH

Situated along the North and West Side of Horine Road
Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
Frederick, MD 21703
Suite 105
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com

Owner/Developer
Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-8900

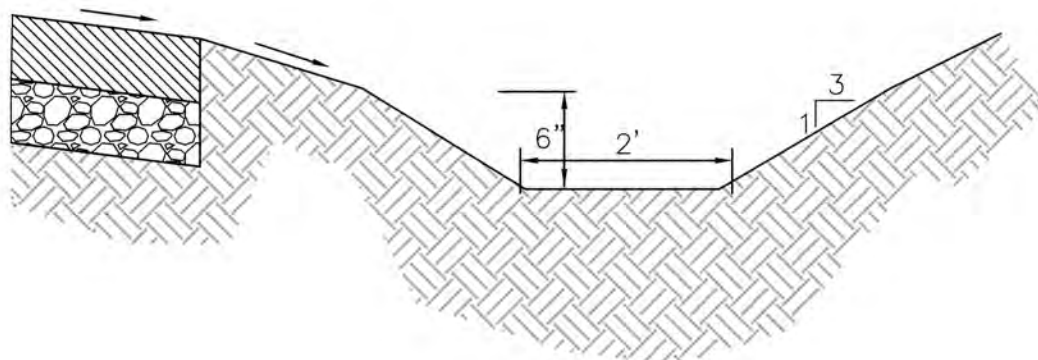


Seal & Signature
PROJECT No.: 176
DATE: JUNE 2021
SCALE: 1" = 40'
SHEET No. 3 of 9

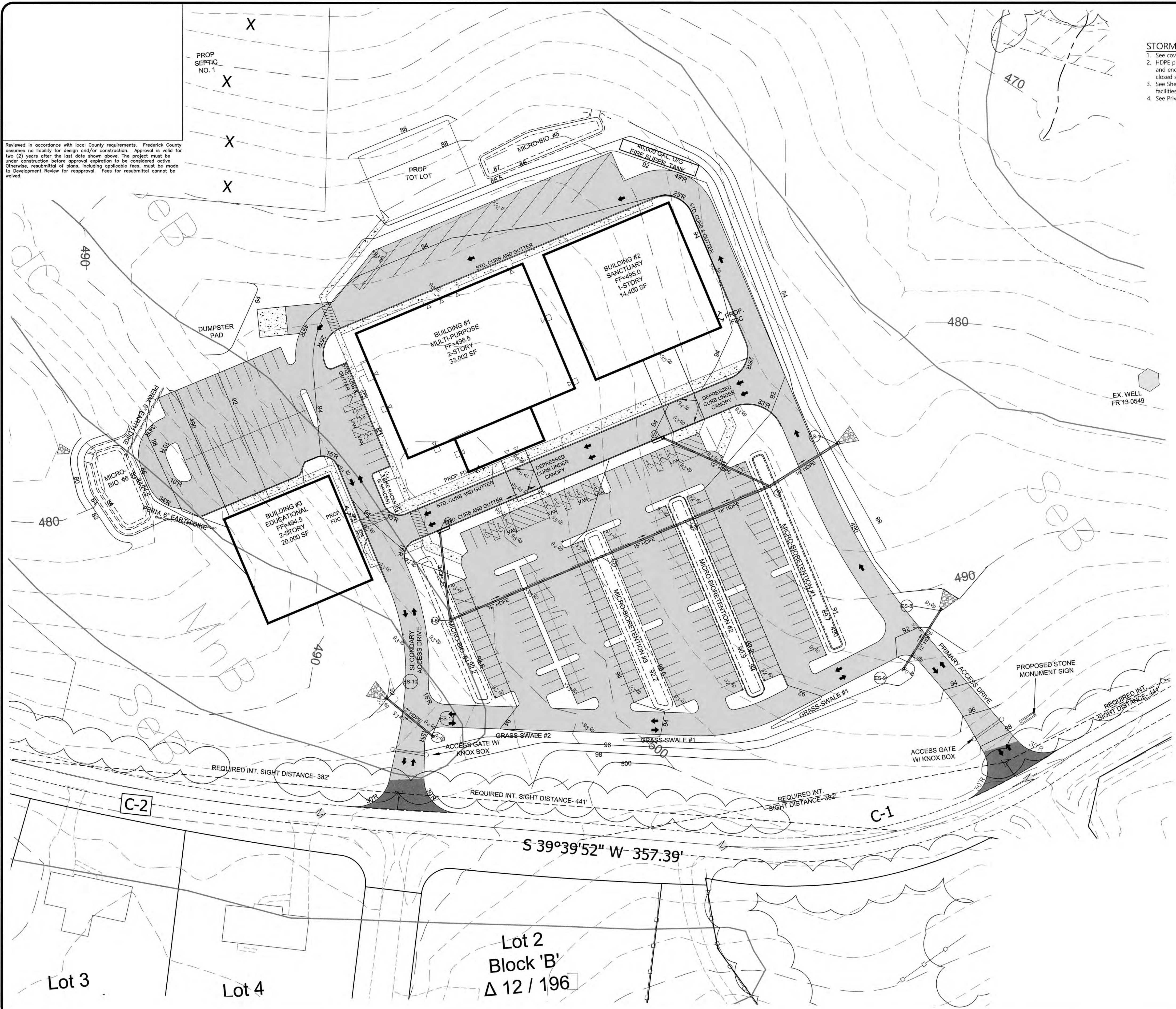
Reviewed in accordance with local County requirements. Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before approval expiration to be considered active. Otherwise, resubmittal of plans, including applicable fees, must be made to Development Review for resubmission. Fees for resubmission cannot be waived.

STORM DRAIN NOTES

- See cover sheet for more notes about storm drain.
- HDPE pipe is shown for all culverts on this plan, however ALCMP pipe and end sections can be substituted. ALCMP shall not be used for the closed storm drain system.
- See Sheet 6 for info on pipes to be used in Micro-bioretentation facilities.
- See Private Utility Permit note on the Cover Sheet.



GRASS SWALE DETAIL
NOT TO SCALE



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Frederick County, Maryland

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5200 Mount Zion Road, Suite 105
Frederick, MD 21703
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com

Owner/Developer

Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-8900



Seal & Signature

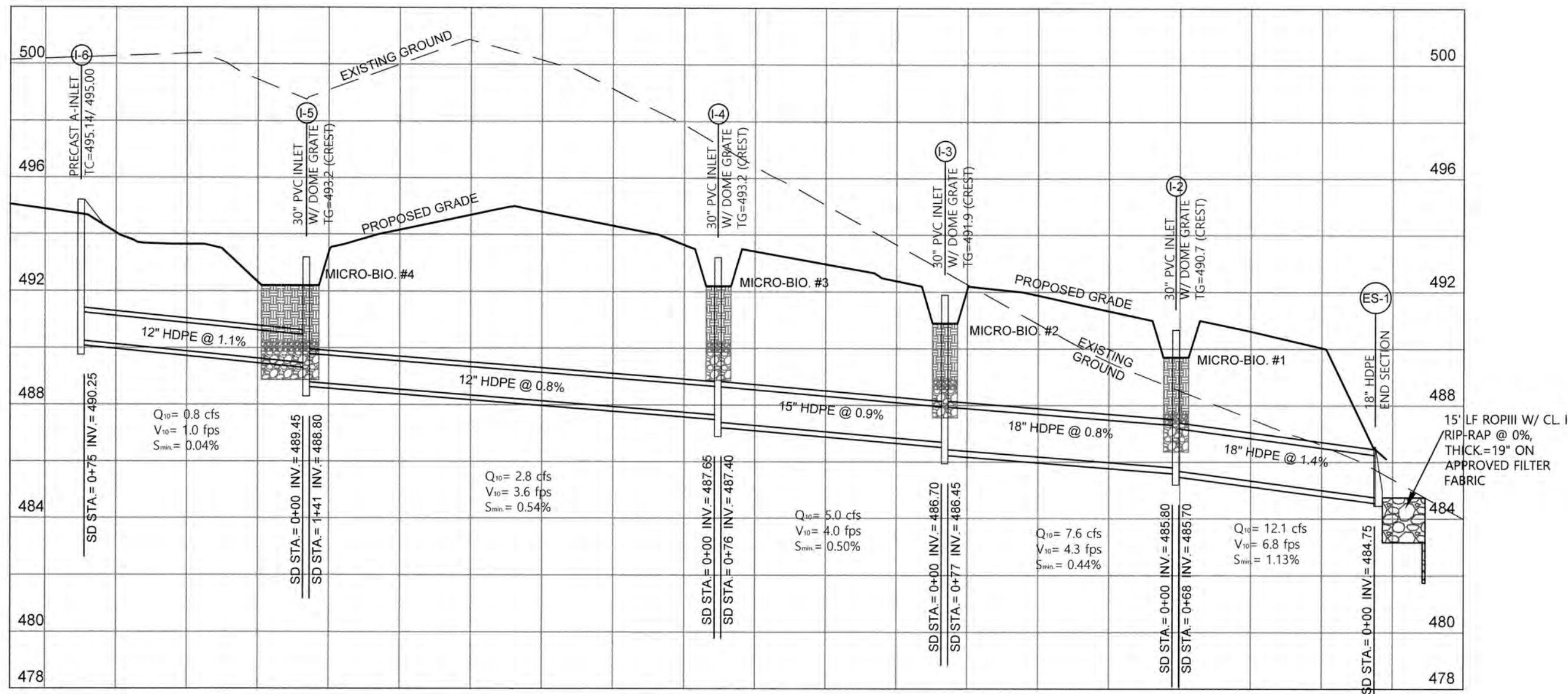
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DATE: JUNE 2021

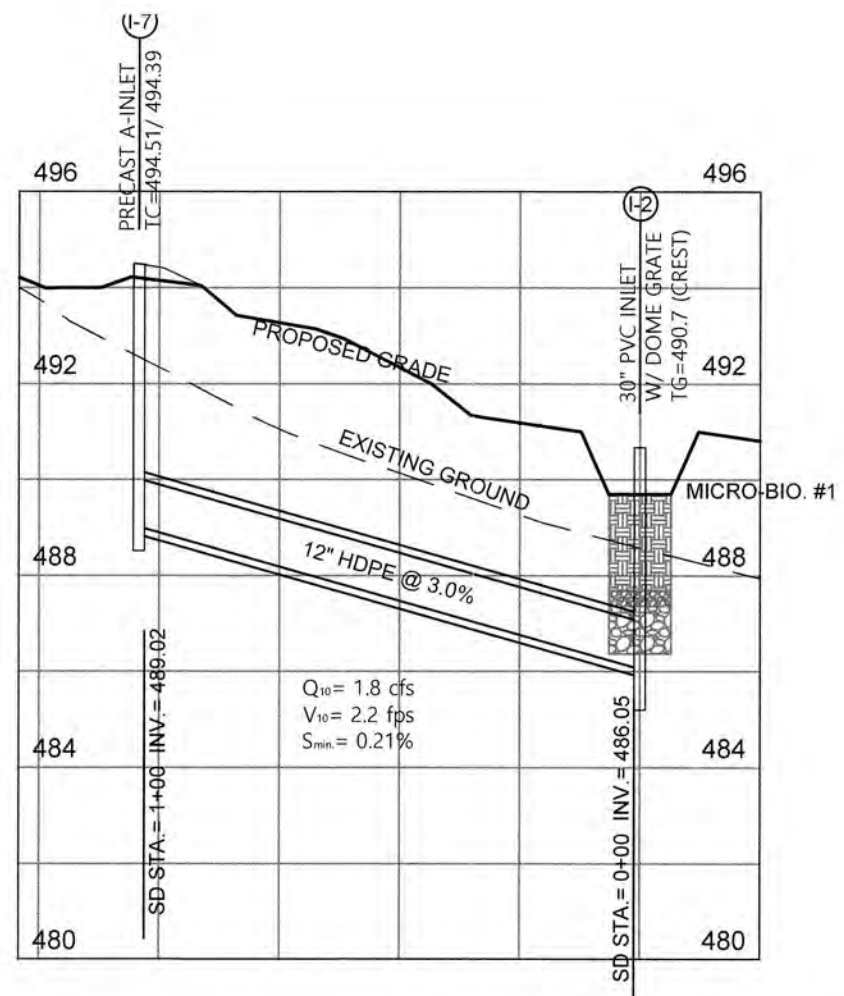
SCALE: 1" = 40'

SHEET No. 4 of 9

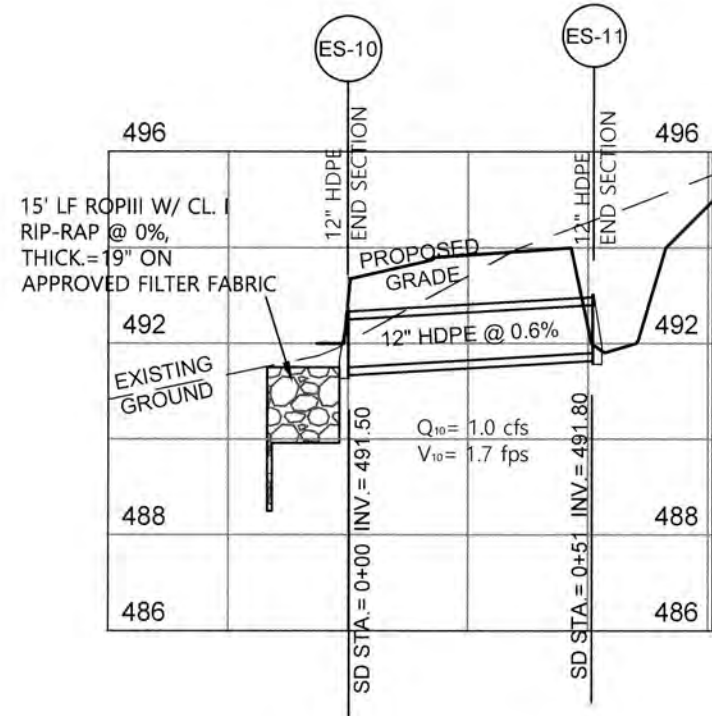
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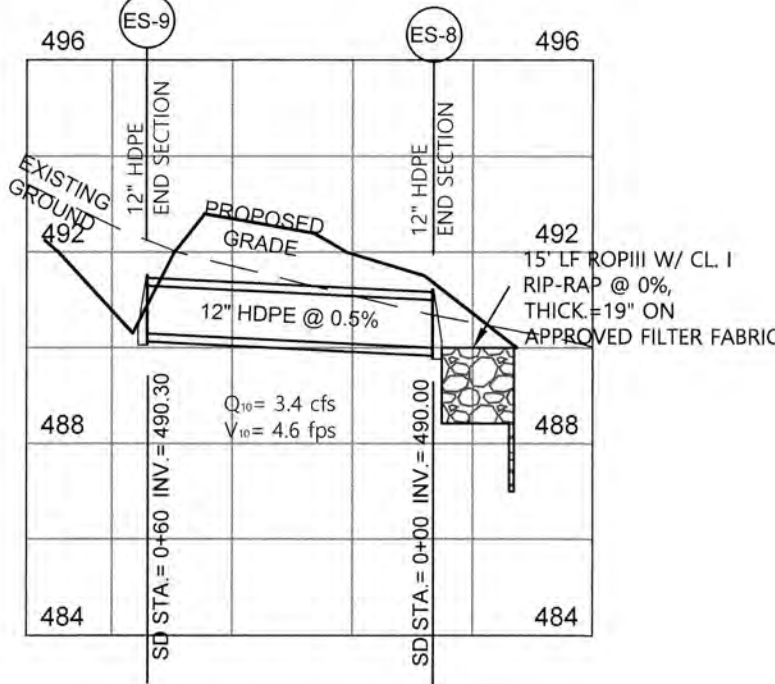
STORM DRAIN PROFILE- ES-1 THROUGH I-6
SCALE- HORI. = 1"=40'
VERT. = 1"=4'



STORM DRAIN PROFILE- I-2 THROUGH I-7
SCALE- HORI. = 1"=40'
VERT. = 1"=4'



CULVERT PROFILE- ES-10 THROUGH ES-11
SCALE- HORI. = 1"=40'
VERT. = 1"=4'



CULVERT PROFILE- ES-8 THROUGH ES-9
SCALE- HORI. = 1"=40'
VERT. = 1"=4'

Figure 1

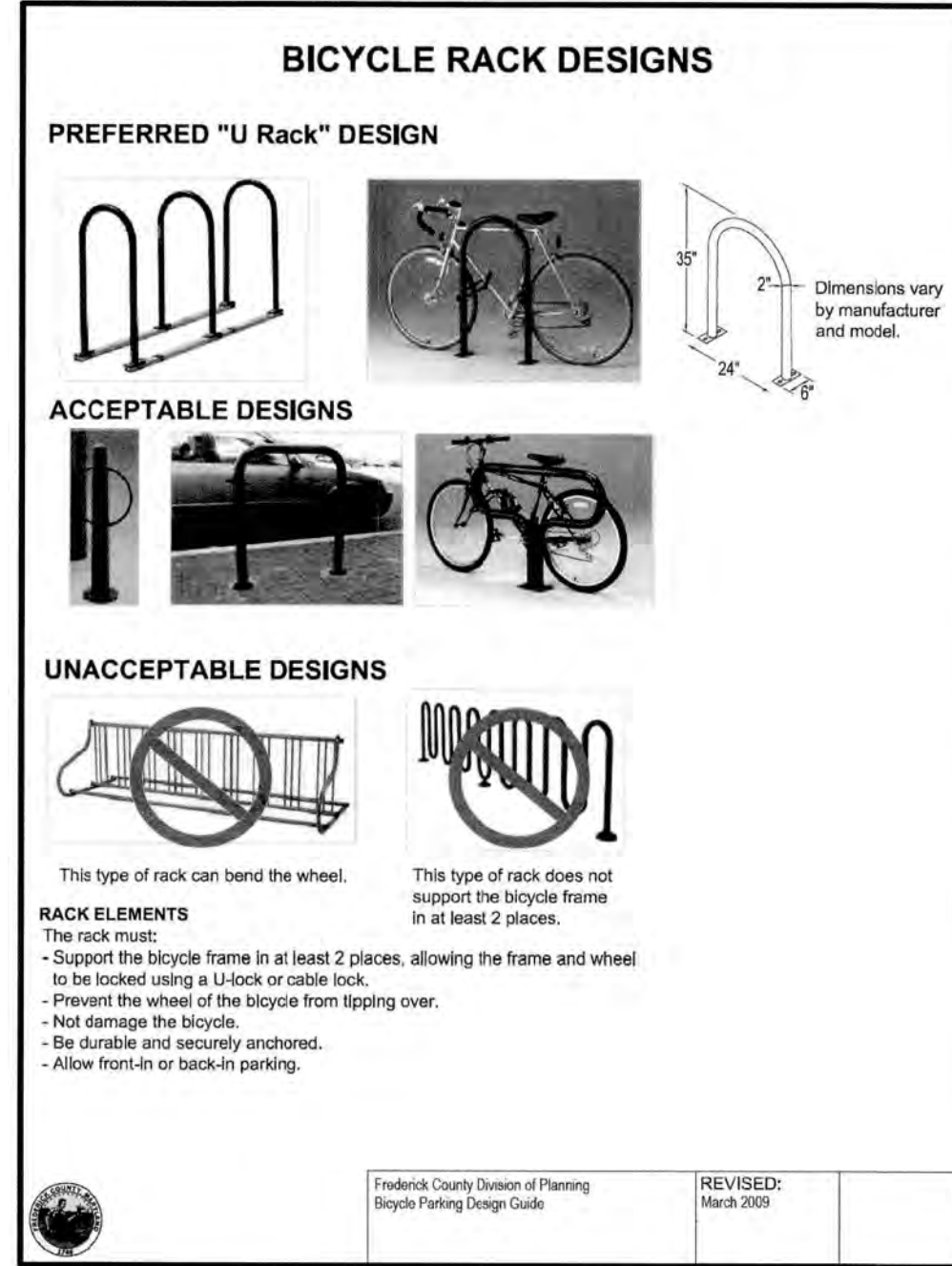
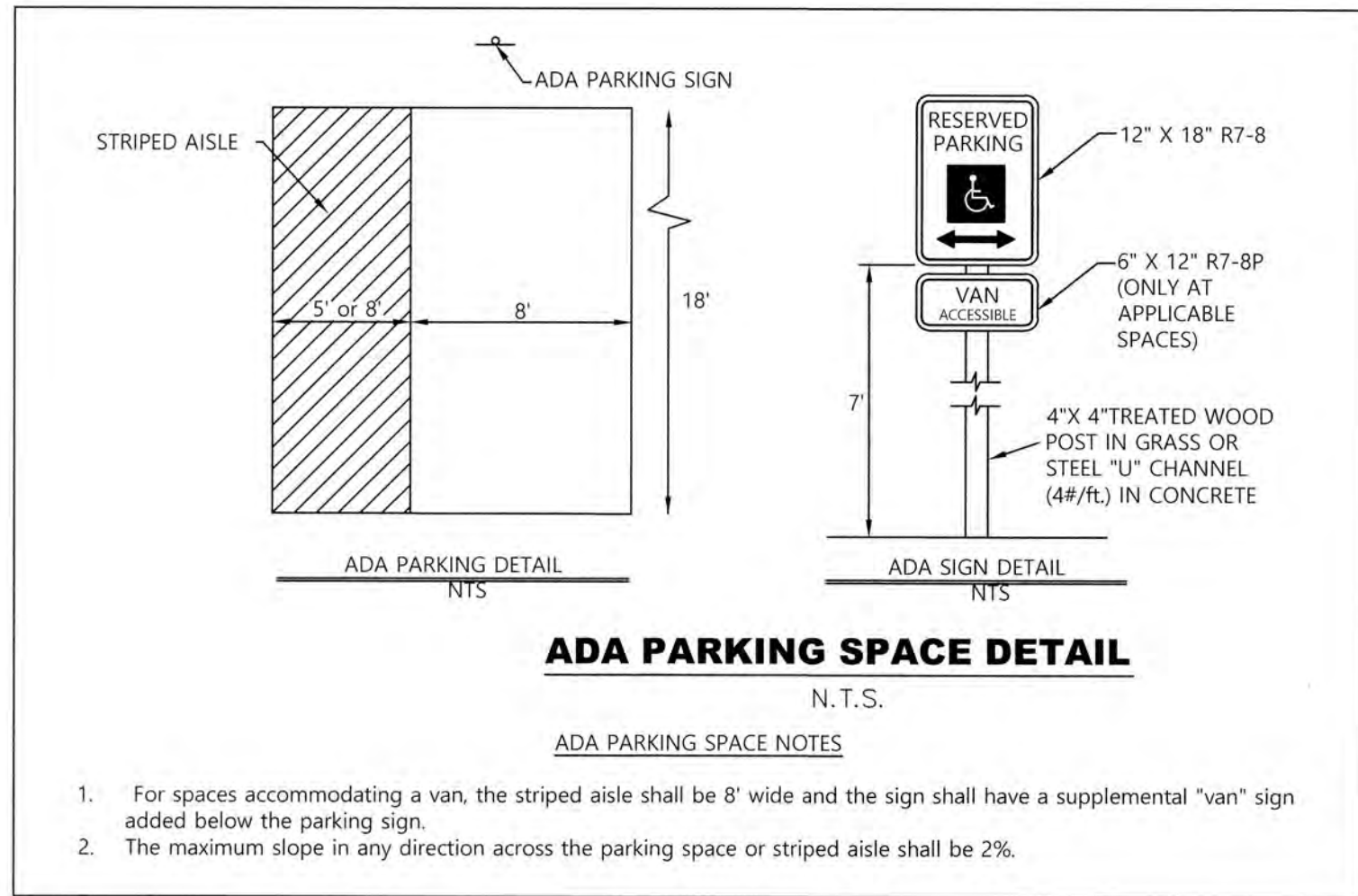
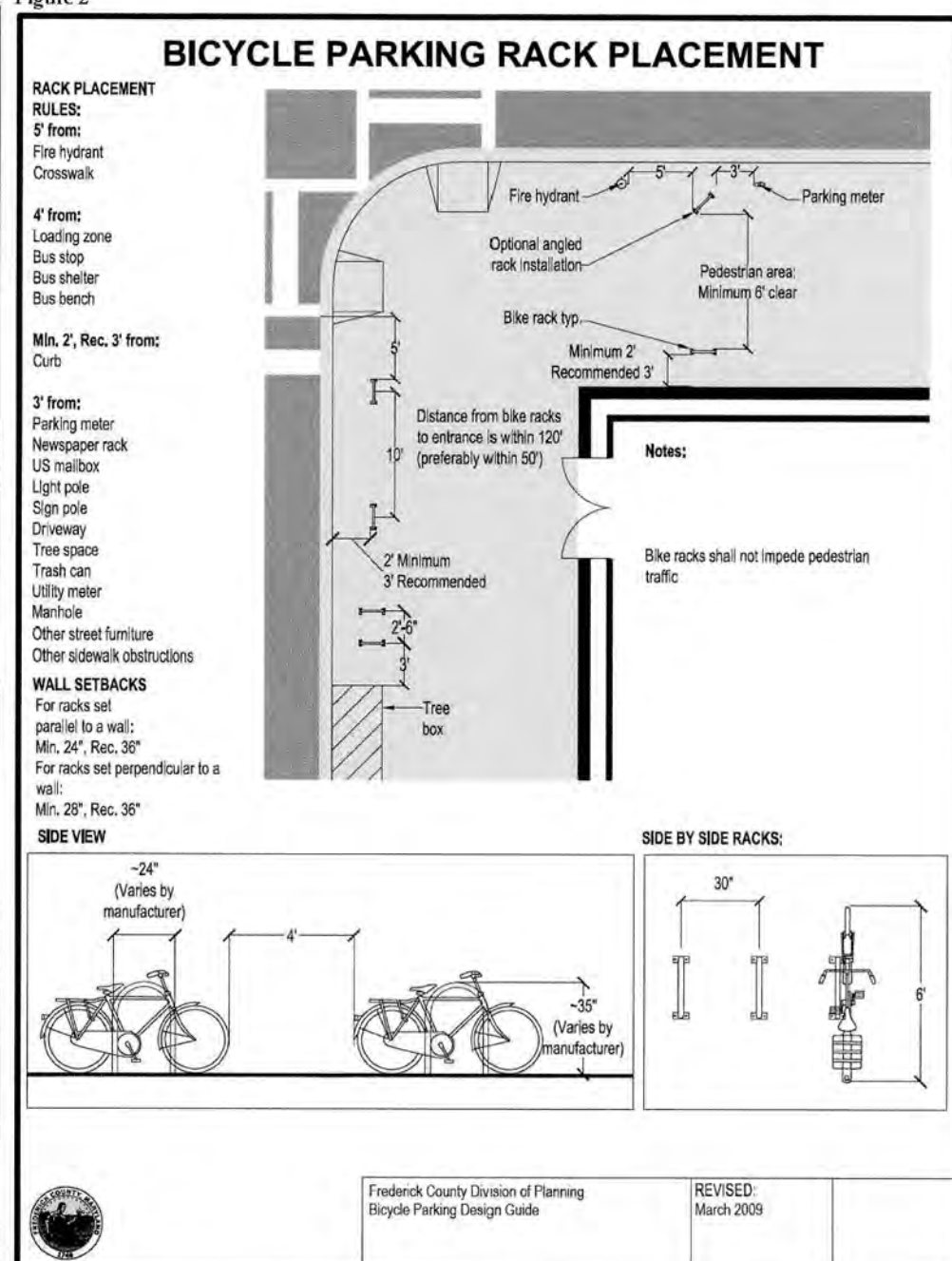


Figure 2



PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: *Michael Lee Swanson* 6/21/21
MICHAEL LEE SWANSON, PE DATE
MD LICENSE No.: 30736, P.E. EXPIRATION DATE: 08-03-22

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FREDERICK BAPTIST CHURCH

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Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

IMPROV. AND SWM DEV. PLANS - STORM DRAIN PROFILES AND SITE DETAILS

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5700 Greenleaf Lane, Suite 105
Frederick, MD 21703
Phone: 301-378-5842 Email: TerraSolutionsEngineering@gmail.com

Owner/Developer

Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
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Seal & Signature

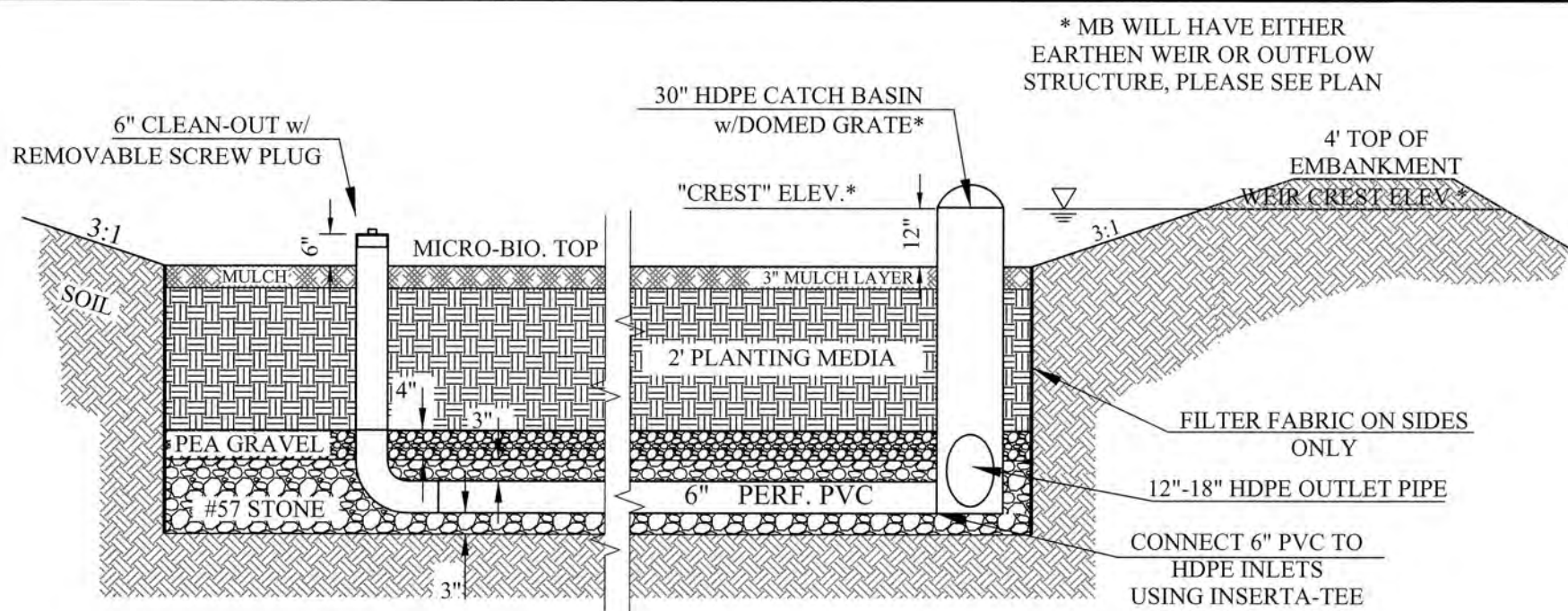
PROJECT No.: 176

DATE: JUNE 2021

SCALE: AS SHOWN

SHEET No. 5 of 9

Reviewed in accordance with local County requirements. Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before approval expiration to be considered active. Otherwise, resubmittal of plans, including applicable fees, must be made to Development Review for resapproval. Fees for resubmittal cannot be waived.



MICRO-BIORETENTION DETAIL
NOT TO SCALE

ESD FACILITY	MB TOP ELEV. * (ft)	BIO-MEDIA (SOIL) DEPTH (inches)	OUTLET CREST ELEV. (ft) **	BERM/ TOP ELEV. (ft) ***	FILTER BED SURFACE AREA (sf)	NUMBER OF COLUMN A (SHRUBS) ~ 1 PER 50 sf ***	NUMBER OF COLUMN B (HERB.) ~ 1 PER 25 sf ***
MICRO-BIO. #1	489.7	24	490.7	491.0	1,611	32	64
MICRO-BIO. #2	490.9	24	491.9	492.2	1,611	32	64
MICRO-BIO. #3	492.2	24	493.2	493.5	1,425	29	57
MICRO-BIO. #4	492.2	24	493.2	492.5	1,157	23	46
MICRO-BIO. #5	487.0	24	488.0	488.5	1,521	30	61
MICROBIO #6	483.0	24	484.0	484.5	1,631	33	65

* THE TOP OF THE MICRO-BIO. IS THE TOP OF THE 3" MULCH LAYER

** MICRO-BIOS #1-#4, OUTLET CREST IS THE TOP OF STAND PIPE OR BOTTOM OF DOME GRATE, SEE DETAIL ABOVE. MICRO-BIO. #5 & #6 HAVE THE CREST AS A EARTHEN WEIR THROUGH THE BERM.

*** THE MINIMUM TOP OF BERM, FILL, OR TOP OF EXCAVATION, HIGH ENOUGH TO ALLOW FREEBOARD FOR LARGER STORMS.

**** THREE VARIETIES OF EACH TYPE (A AND B) SHALL BE CHOSEN. (SO EACH MICRO-BIO. SHALL HAVE SIX DIFFERENT VARIETIES OF PLANTINGS), SEE THIS SHEET FOR LIST OF ACCEPTABLE PLANTINGS

NOTE: SEE APPENDIX A IN THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, FOR MORE INFORMATION. EACH MICRO-BIO. SHALL HAVE SIX DIFFERENT VARIETIES, THREE FROM EACH COLUMN. SUBSTITUTIONS MAY BE ALLOWED AFTER ENGINEER REVIEW.

COLUMN A- SHRUB OPTIONS IN No. 3 (3 GALLON) CONTAINER:

BOTTLEBRUSH BUCKEYE
BUTONBUSH
HIGHBUSH BLUEBERRY
INKBERRY

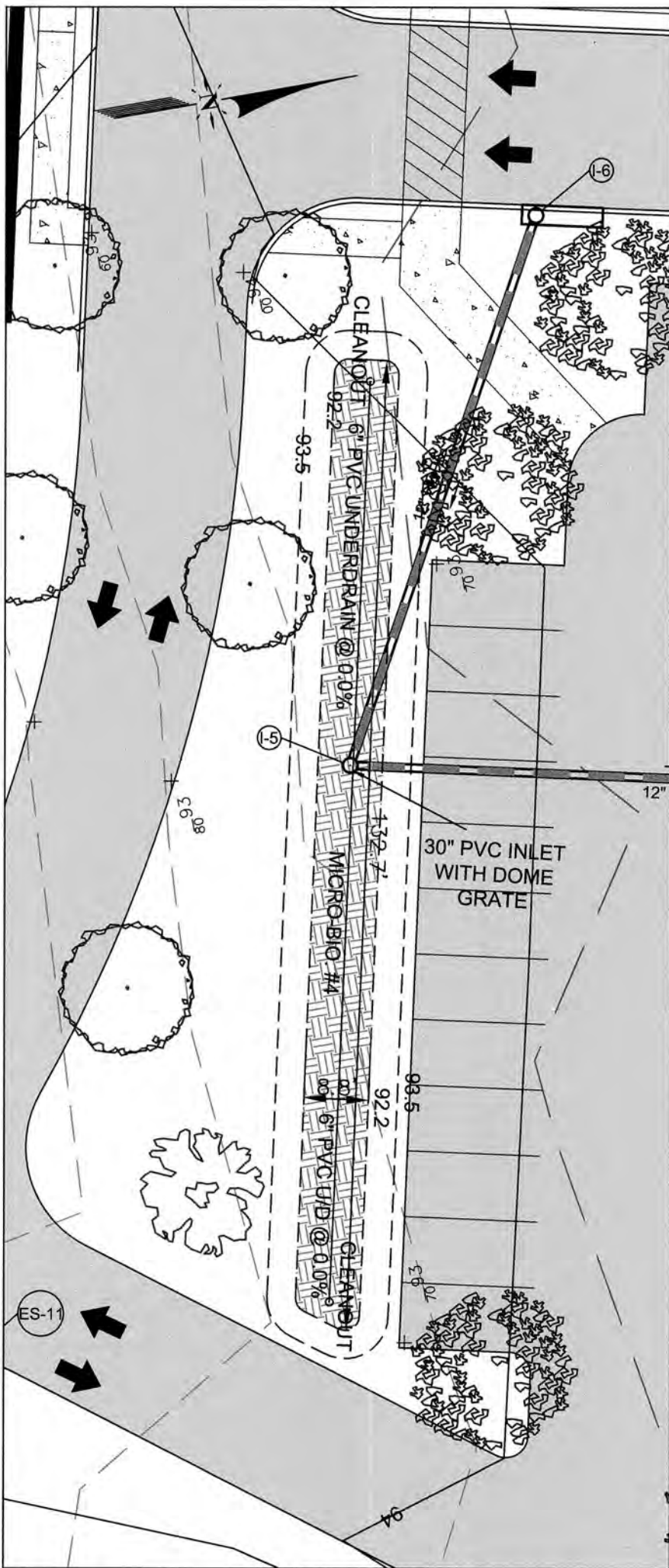
WINTERBERRY
ARROWWOOD
SPICEBUSH
BAYBERRY

COLUMN B- HERBACEOUS OPTIONS IN No. 1 (1 GALLON) CONTAINER:

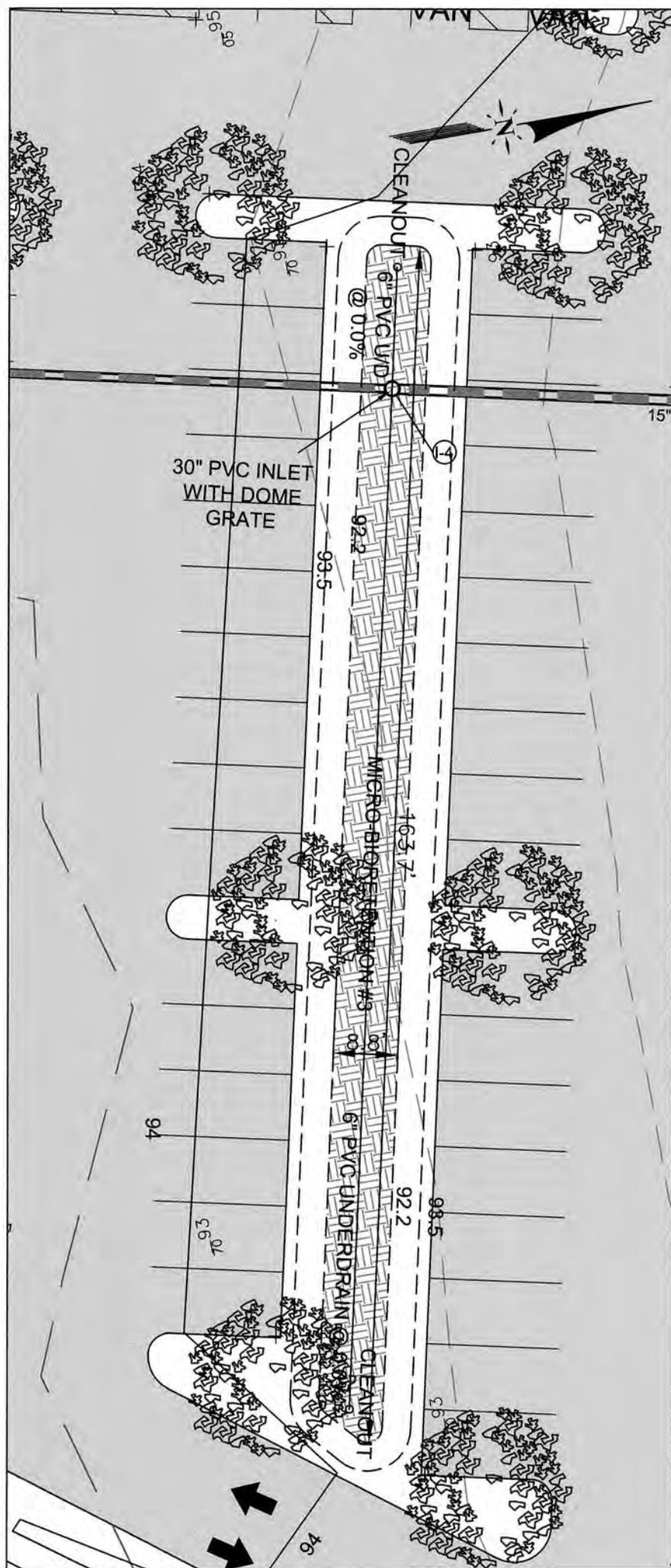
BROOMSEDGE
JOE PYE WEED
THREE SQUARE BULRUSH
BLUE FLAG
CARDINAL FLOWER

SWITCHGRASS
BROOM PANIC GRASS
TALL CONEFLOWER
WOOLGRASS
NEW YORK IRONWEED

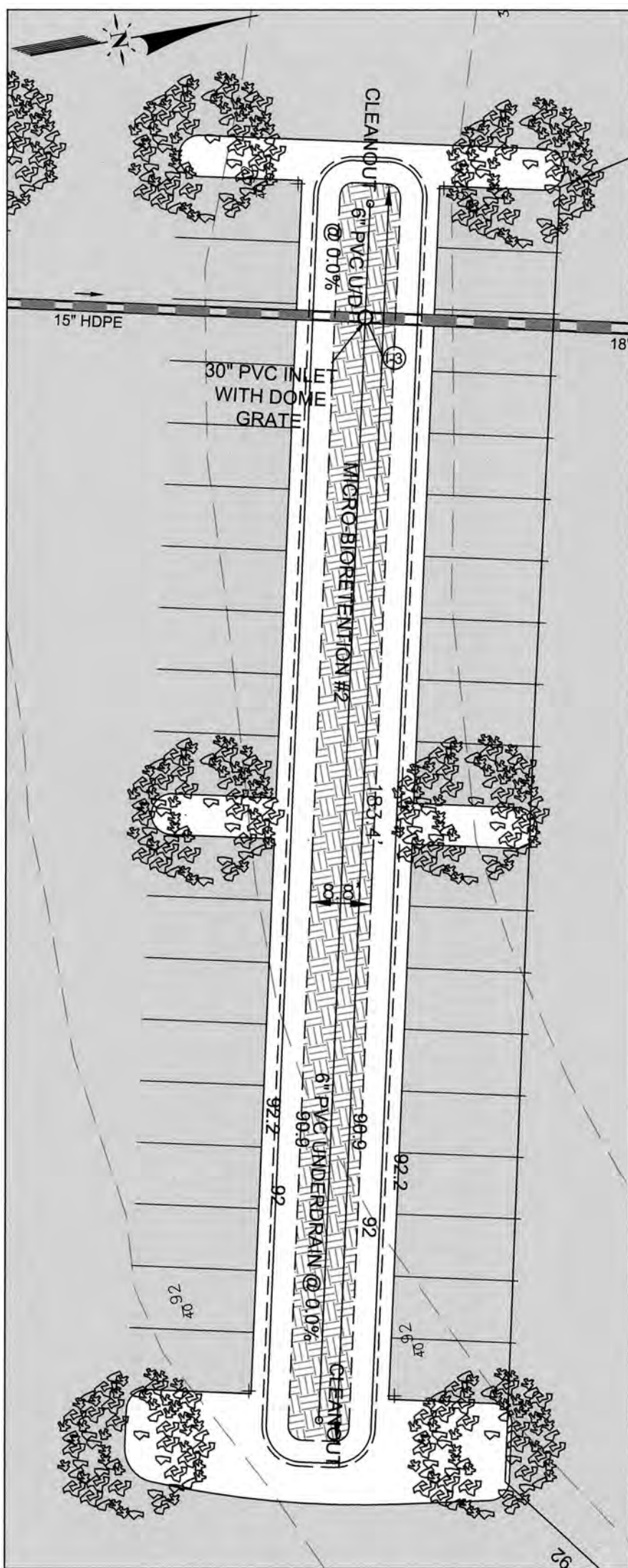
MICRO-BIORETENTION LANDSCAPING LIST



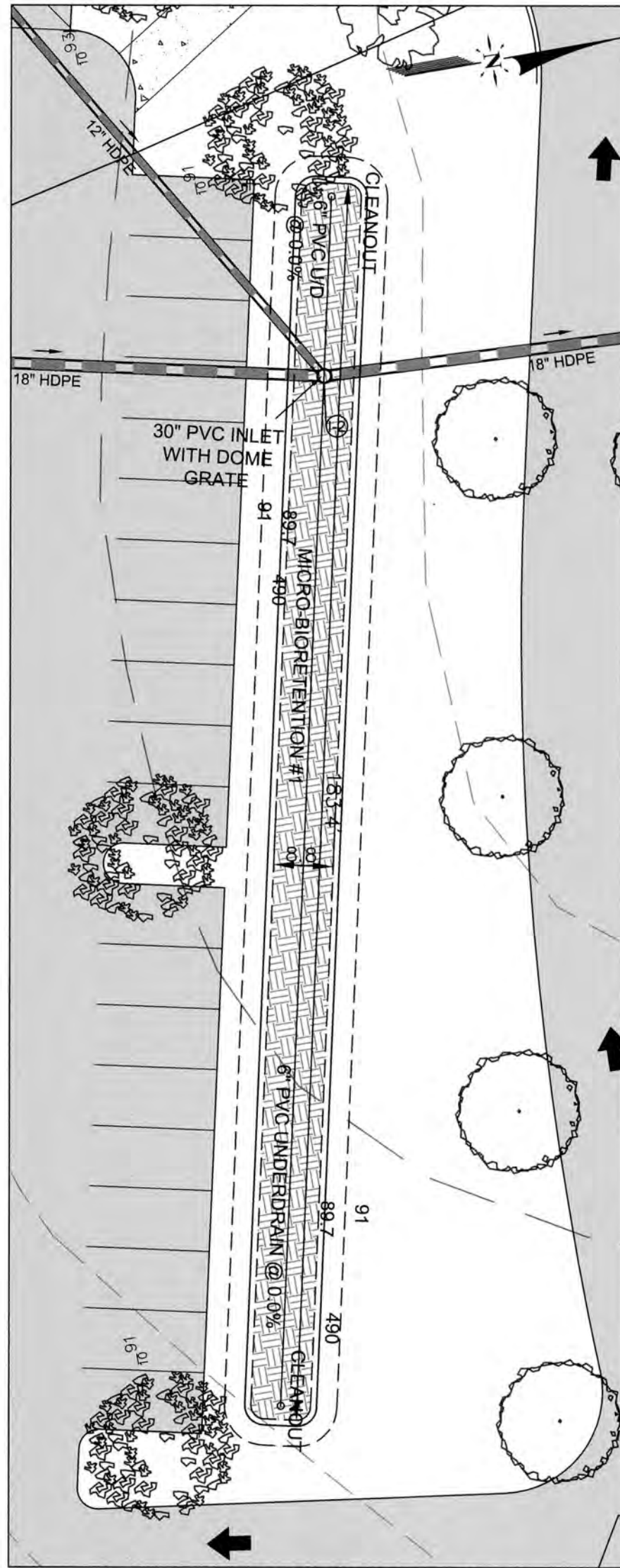
MICRO-BIORETENTION #4 PLAN
SCALE- 1"=20'



MICRO-BIORETENTION #3 PLAN
SCALE- 1"=20'



MICRO-BIORETENTION #2 PLAN
SCALE- 1"=20'



MICRO-BIORETENTION #1 PLAN
SCALE- 1"=20'

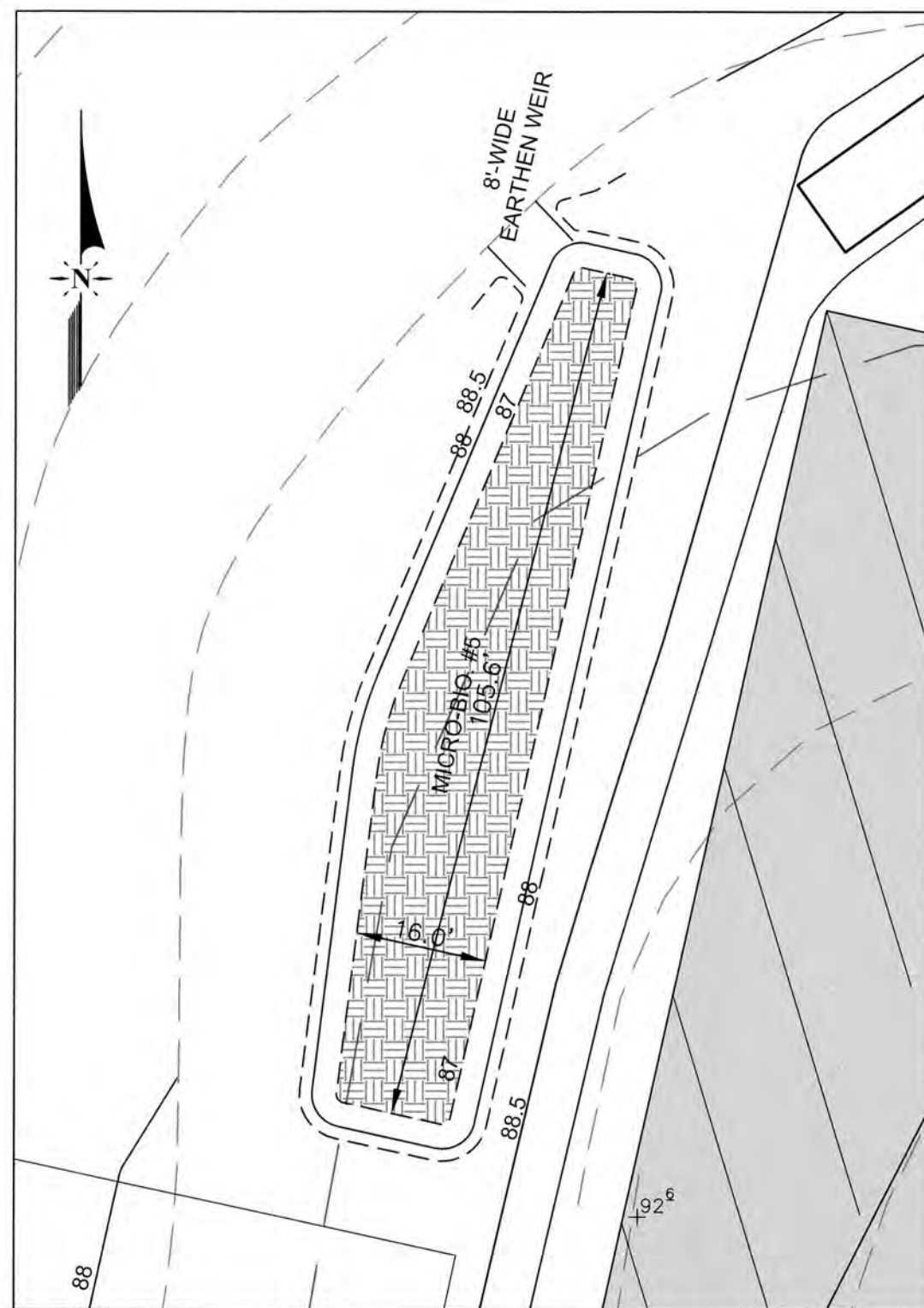
Facility Name and Number:	Rooftop Disconn. (Bldg #1)	Rooftop Disconn. (Bldg #2)	Rooftop Disconn. (Bldg #3)	Non-Rooftop Disconn. (Main Entr.)	Non-Rooftop Disconn. (Sec. Entr.)	Non-Rooftop Disconn. (Bus Park)	Non-Rooftop Disconn. (North Drive)	Non-Rooftop Disconn. (Ex. Horine Rd.)	Grass Swale #1	Grass Swale #2	Micro-Bio. #1	Micro-Bio. #2	Micro-Bio. #3	Micro-Bio. #4	Micro-Bio. #5	Micro-Bio. #6
Drainage Area to Facility:	0.22 acres	0.17 acres	0.17 acres	0.18 acres	0.13 acres	0.29 acres	0.78 acres	0.08 acres	0.74 acres	0.19 acres	0.53 acres	0.49 acres	0.40 acres	0.40 acres	0.64 acres	0.80 acres
Drainage Area Number:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Post RCN:	98	98	98	91	98	94	72	98	63	63	85	87	91	83	87	87
Post I.C.:	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.	5 min.
Pe Target:	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches
Pe Provided:	0.4 inches	0.4 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	1.0 inches	2.4 inches	2.3 inches	2.3 inches	2.3 inches	1.6 inches	1.3 inches
Impervious Area Treated:	9,600 sf	7,200 sf	7,500 sf	6,714 sf	5,612 sf	12,619 sf	34,139 sf	3,647 sf	3,009 sf	638 sf	14,939 sf	15,693 sf	17,219 sf	17,297 sf	19,727 sf	23,908 sf
ESDy Provided:	304 cf	228 cf	594 cf	537 cf	444 cf	904 cf	916 cf	289 cf	63 cf	23 cf	2,929 cf	2,929 cf	2,598 cf	2,118 cf	2,511 cf	2,533 cf

Appendix B.4. Construction Specifications for Environmental Site Design Practices

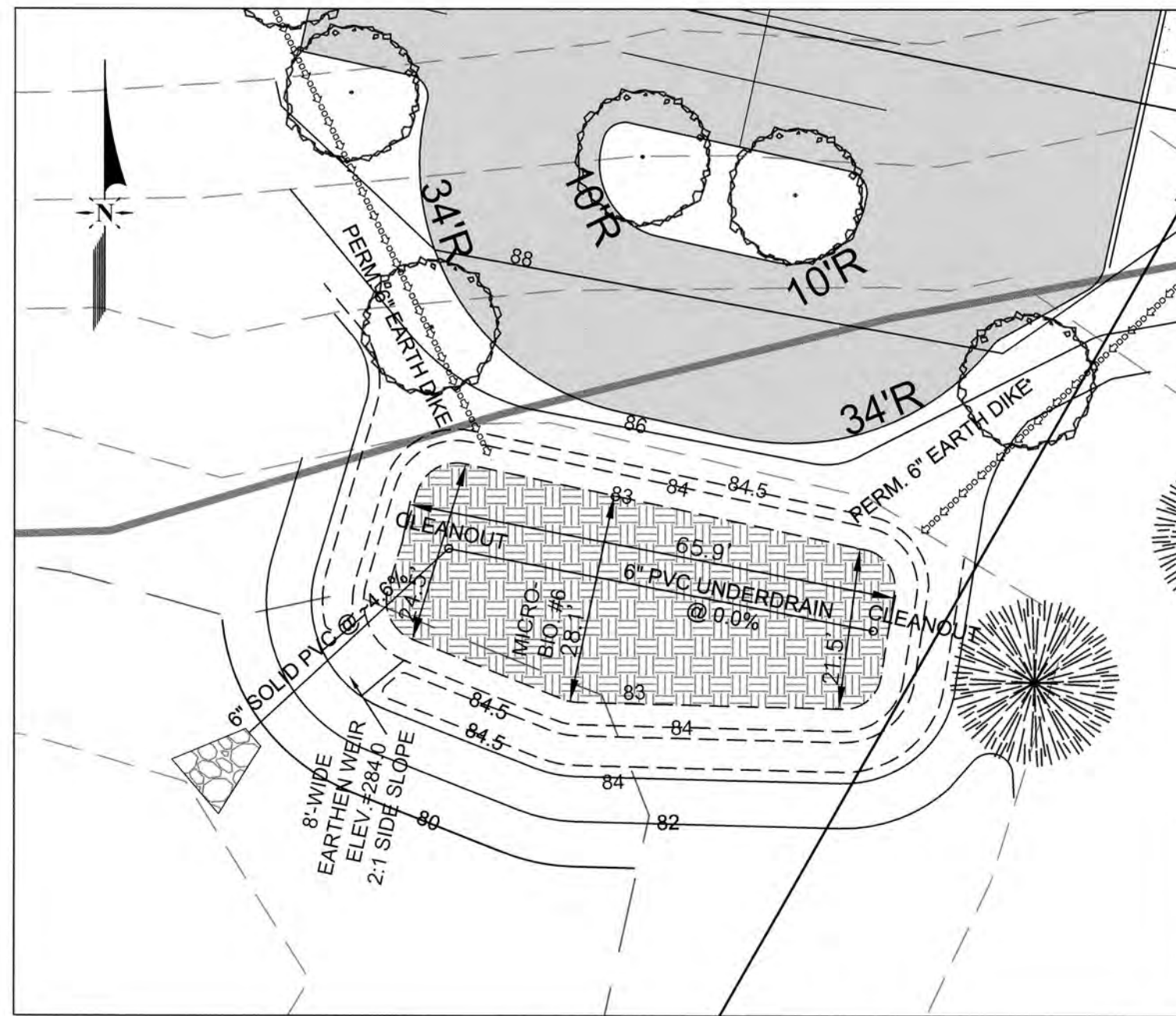
Table B.4.1 Materials Specifications for Micro-Bioretenion, Rain Gardens & Landscape Infiltration-

Material	Specification	Size	Notes
Plantings	see Appendix A, Table A.4	n/a	plantings are site-specific
Planting soil [2' to 4' deep]	loamy sand (60 - 65%) & compost (35 - 40%) or sandy loam (30%), coarse sand (30%) & compost (40%)	n/a	USDA soil types loamy sand or sandy loam; clay content < 5%
Organic content	Min. 10% by dry weight (ASTM D 2974)		
Mulch	shredded hardwood		aged 6 months, minimum; no pine or wood chips
Pea gravel diaphragm	pea gravel: ASTM-D-448	NO. 8 OR NO. 9 (1/8" TO 3/8")	
Curtain drain	ornamental stone: washed cobbles	stone: 2" to 5"	
Geotextile	AASHTO M-43	n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)		NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes; not necessary underneath pipes. Perforated pipe shall be wrapped with 1/4-inch galvanized hardware cloth
Poured in place concrete (if required)	MSHA Mix No. 3; f'c = 3500 psi @ 28 days, normal weight, air-entrained, reinforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-in-place or pre-cast) not using previously approved State or local standards requires design drawings sealed and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACT Code 350.R/89; vertical loading [H-10 or H-20]; allowable horizontal loading (based on soil pressures), and analysis of potential cracking
Sand	AASHTO-M-6 or ASTM-C-33	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone (AASHTO) #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.

MICRO-BIO. SPECIFICATIONS

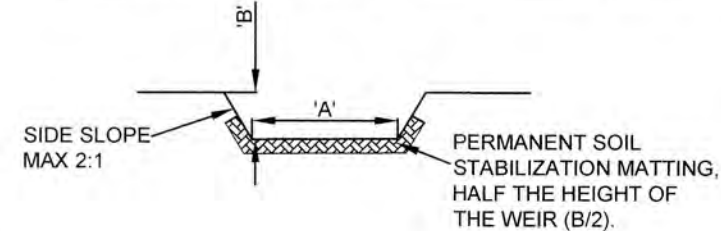


MICRO-BIORETENTION #5 PLAN
SCALE- 1"=20'



MICRO-BIORETENTION #6 PLAN
SCALE- 1"=20'

SWM FACILITY	WEIR WIDTH 'A' (ft)	WEIR DEPTH 'B' (inches)
MICRO-BIO. #5 & #6	8	6



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Owner/Developer

Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-5900



Seal & Signature

PROJECT No.: 176

DATE: JUNE 2021

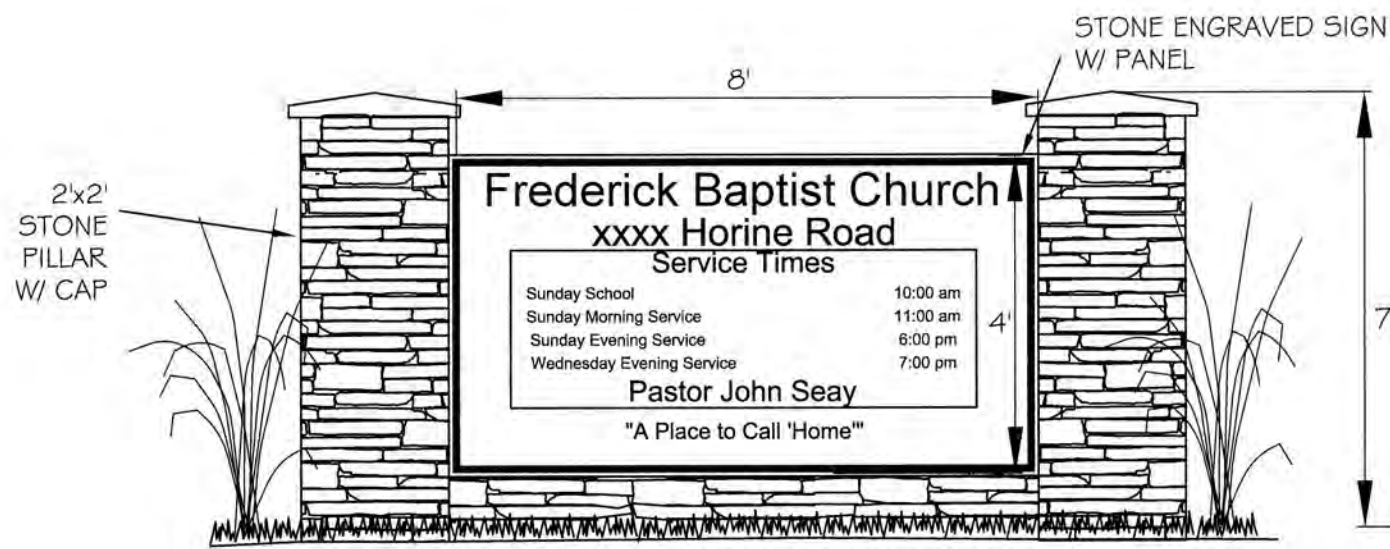
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SHEET No. 6 of 9

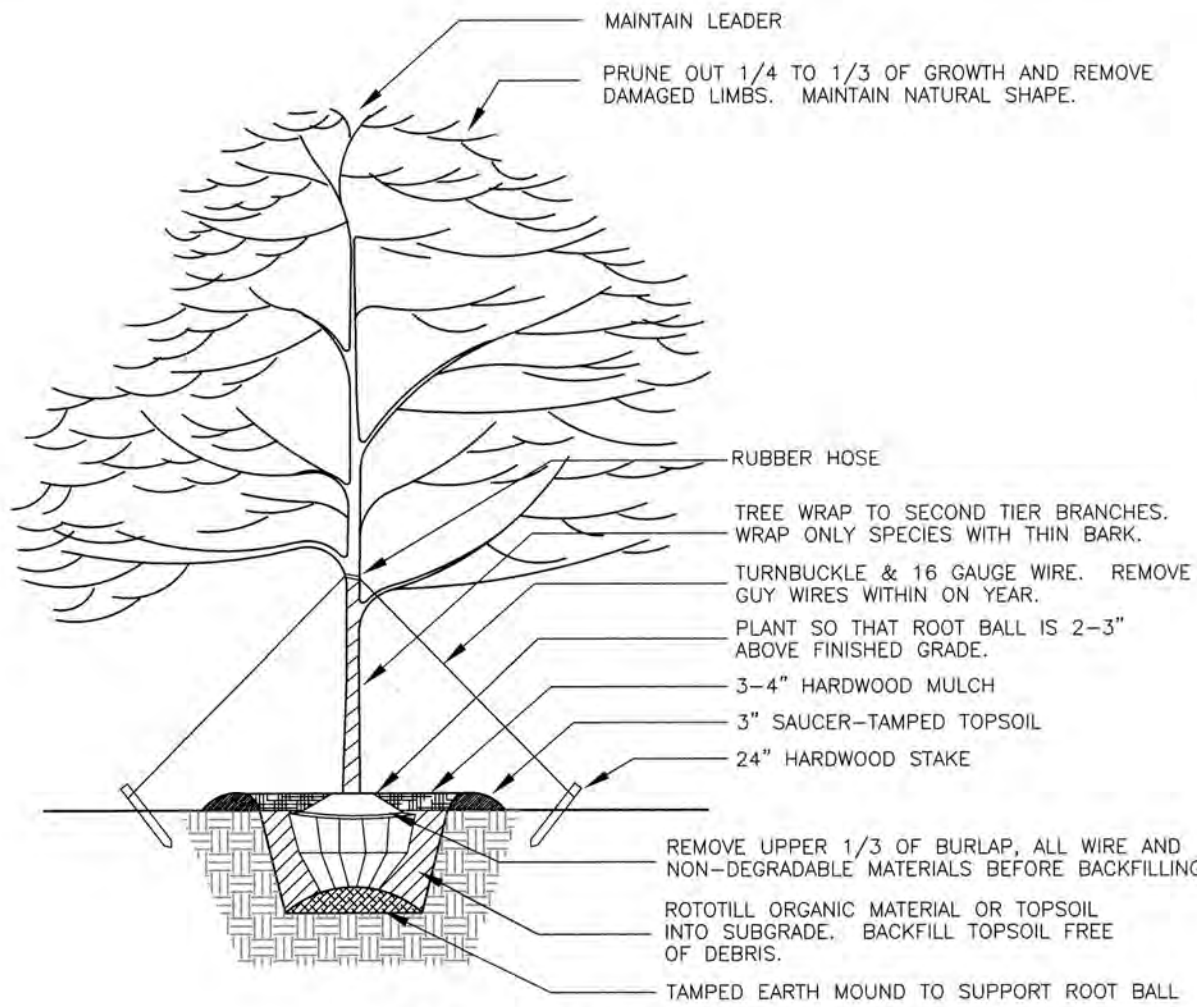
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SOILS & PLANTING SPECIFICATIONS

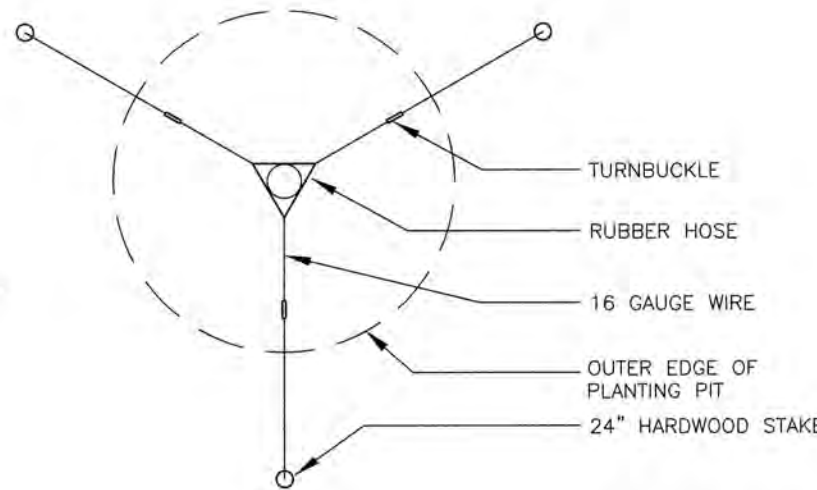
- The Contractor shall provide all necessary materials, labor and equipment required for the completion of the work shown herein. The Contractor will be responsible for obtaining a source of supply for all materials listed at the specified size and variety. If the Contractor is unable to locate a source for the specified material, then proof must be submitted in writing that it is not obtainable. The proposed plant material must fall within the same general functional characteristics for plants (i.e. shade tree, ornamental tree, etc.) and have the same design characteristics such as height and spread, as the plant material being replaced. No significant change in size or location of plant material is permitted, nor a reduction in plant quantities.
- Unless otherwise specified, the Contractor shall comply with all standards set forth in the "Landscape Specification Guidelines", Current Edition, by the Landscape Contractors Association. All plant materials shall be well established, well branched, full sized and shall conform to the Specifications of the latest edition of American Standard for Nursery Stock, sponsored by the American Association of Nurserymen, Inc. (AAN).
- Soil Preparation:** In the areas to be planted or seeded/sodded, the Contractor shall spread 6" of topsoil. The topsoil is to be worked into the existing soil, then raked, leaving the surface uniform and free of depressions. All stones over 1" in diameter and debris over 1 1/2" in diameter shall be removed prior to seeding, sodding or planting. The Contractor will provide topsoil meeting the following requirements: (a) It shall be fertile, friable, free of rocks, roots and foreign debris, representative of local soils and capable of sustaining vigorous plant growth. It shall also be free of plants, plant parts or weedy material. (b) Acidity range of between pH 5.0 and 6.5. Organic content not less than 5% and not greater than 30%. Clay content not to exceed 20%. Soluble salts not to exceed 900 ppm (in soil). Once complete, a 3" layer of Compro (or other organic material) shall be worked into the topsoil, prior to planting.
- Turf areas are to be seeded or sodded, at the owner's direction. If turf areas are to be seeded, then it shall be of the following mix: Fescue Mix: 90% (Georgetown, Suffolk, Loft, Princeton, Apache, Rebel 2 Arid, Bonanza or equivalent) and Vantage Bluegrass: 10% (or equivalent). Apply 10/10/10 fertilizer at rate of 1,000 lbs./acre. Seed by dry application or through the hydrosed method. Apply according to the "Landscape Specification Guidelines", Current Edition, by the Landscape Contractors Association. After seeding apply straw mulch @ 60-80 bales/acre (1/2" - 1" thick). Stabilize the mulch using a mulch anchoring tool, cellulose fiber or liquid mulch binders.
- If the Owner elects turf areas to be sodded: Prior to laying sod apply 10/10/10 fertilizer @ 1,000 lbs./acre. Work thoroughly into the top 2" of soil. Sod to be State Certified, turf type tall fescue: Apache, 30% Monarch 30% Bonanza 30% and Bluegrass 10% or equivalent. Sod to be machine cut, uniform thickness of 3/4" excluding top growth. Sod to be harvested and installed within 36 hours. Lightly irrigate prior to laying sod. Lay straight, butt rows tightly and stagger lateral joints. Tamp or roll with approved equipment. A true or even surface shall be provided. Pin/lock slopes > 3:1. Filled area greater than 1 square foot shall be re-sodded.
- Plants shall be nursery grown and shall have grown under the same climatic conditions as the location of the subject site for at least two years before planting. All plants shall conform to the measurement specified in the plant tabulation. All plant sizes specified in the plans shall generally be the median for the size ranges indicated in the AAN standards. Plants are to be installed, barked and fertilized as specified in the "Landscape Specification Guidelines", Current Edition, by the Landscape Contractors Association. Installation is to be per the attached Details.
- ACCEPTANCE:** Upon completion of all work under this Contract and upon written notice of same, the Landscape Architect or the Owner, a site inspection will be conducted by all concerned parties. All discrepancies will be noted and it will be the Contractor's obligation to remedy same, prior to the final acceptance of these areas. Upon final acceptance, the Plant Replacement Guarantee period shall commence.



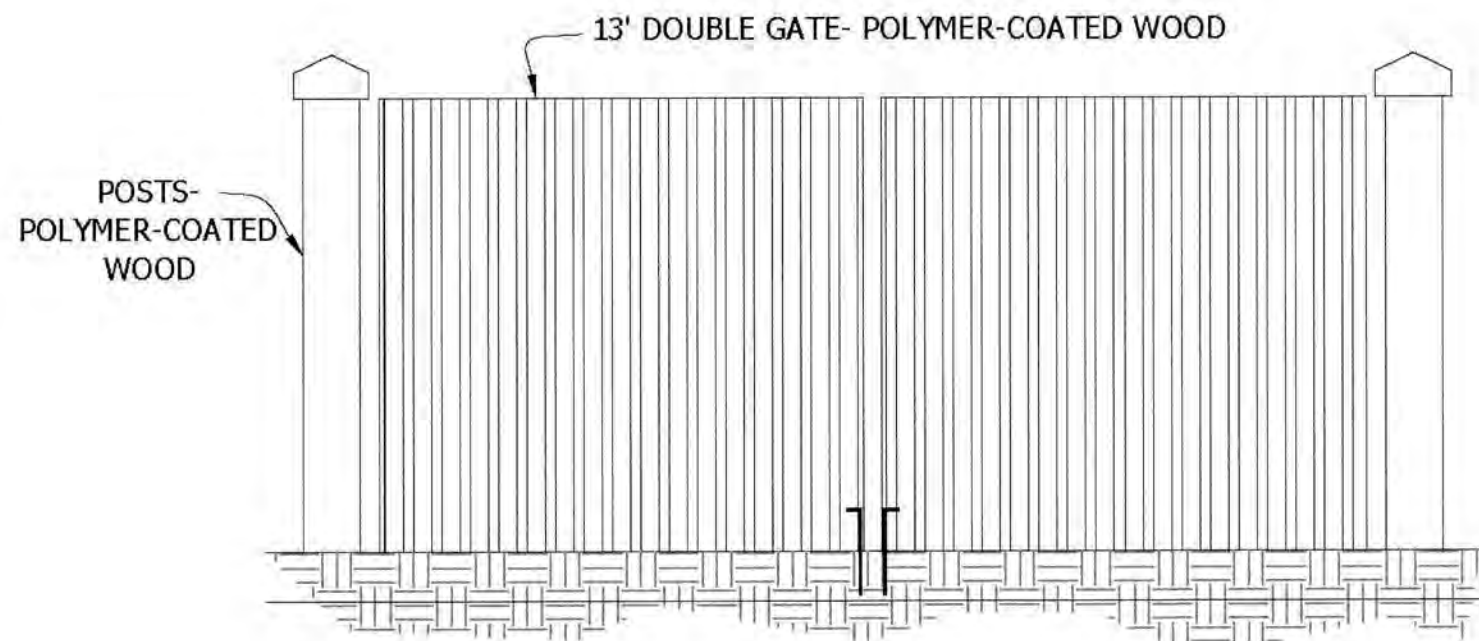
CONCEPTUAL MONUMENT SIGN DETAIL
N.T.S.



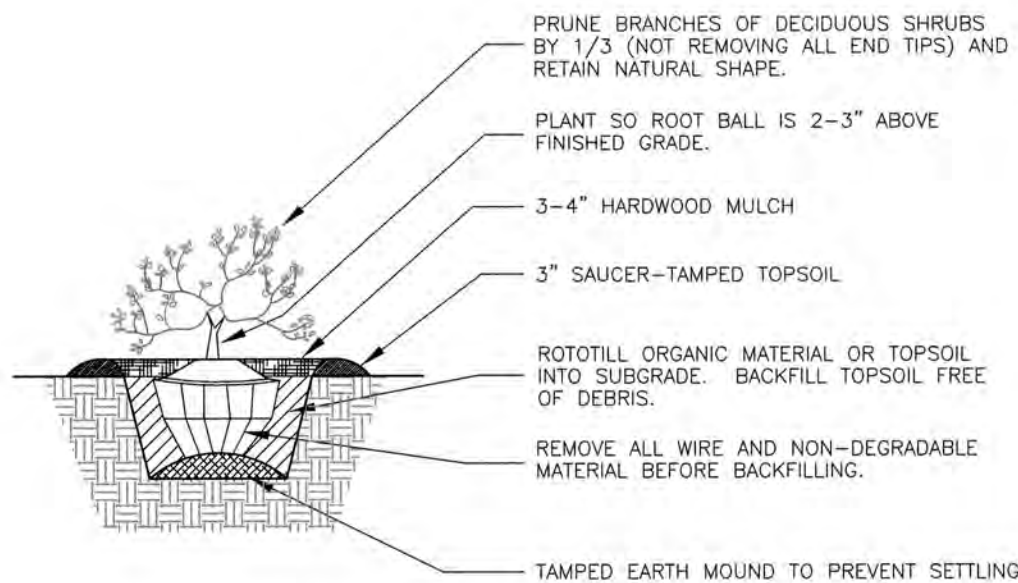
TYPICAL TREE STAKING
N.T.S.



TYPICAL STAKING LAYOUT
N.T.S.



CONCEPTUAL DUMPSTER ENCLOSURE DETAIL
N.T.S.

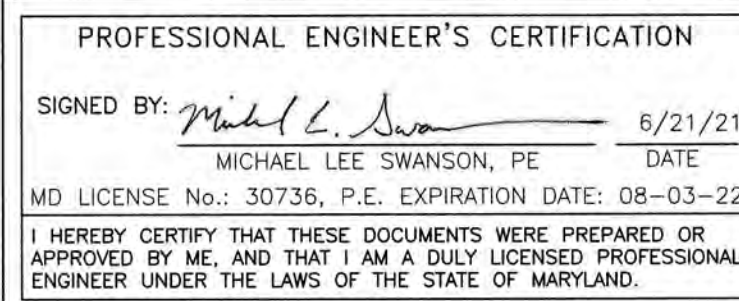
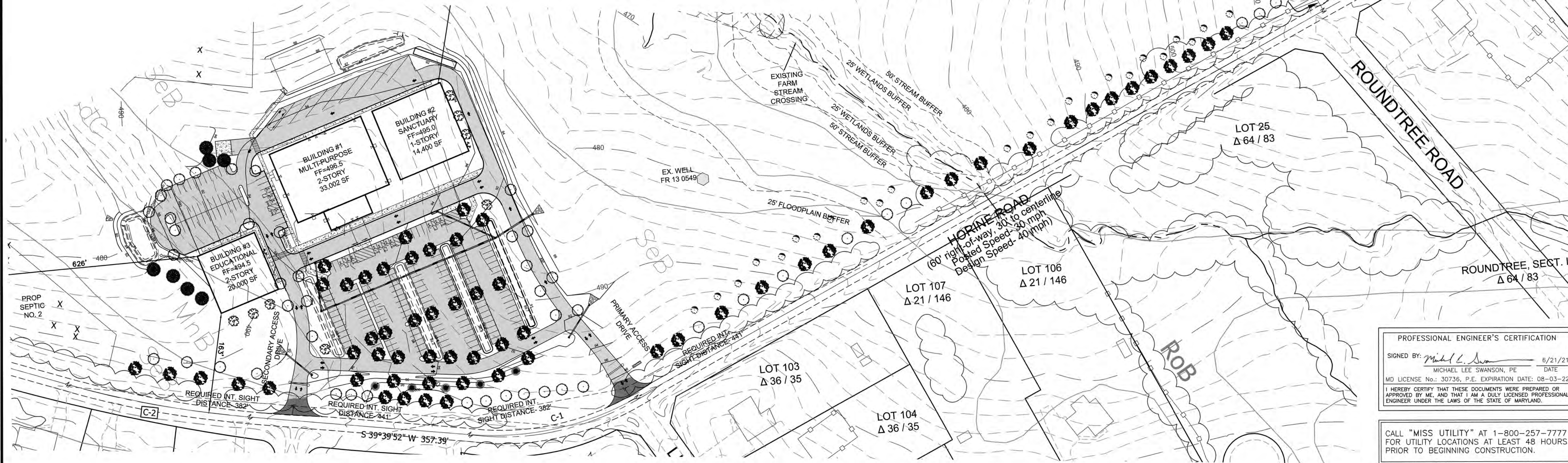


TYPICAL SHRUB PLANTING DETAIL
N.T.S.

PLANTING SCHEDULE					
SYMBOL	SCIENTIFIC NAME	COMMON NAME	SIZE/ CALIPER	QUANTITY	REMARKS
	Acer rubrum	Red Maple	2.5-3" min.	60	B&B
	Quercus alba	White Oak	2.5-3" min.	64	B&B
	Amelanchier	Service Berry	2.5-3" min	24	B&B
	Cercis canadensis	Forest Pansy Redbud	2.5-3" min	8	B&B
	Chamaecyparis thyoides	Atlantic White Cedar	2.5-3" min	5	B&B
	Juniperus virginiana	Eastern Red Cedar	6-8 ft	7	B&B

Landscape Notes

- In accordance with Section 1-19-6.400, Landscape and Screening:
 - Street trees will be provided in part along the property line adjacent to Horine Road in a planting area no less than 7 feet. Tree must be at least 6' tall at the time of planting and provided one per 35' of frontage.
 - Parking areas shall be buffered and screened from roadways with predominantly evergreen shrubs or trees spaced at intervals which may be expected to form effective buffering at least 30 inches high at time of planting.
 - Parking area landscaping shall be provided between or at the end of each bay of parking at least 5' in width. Each planting shall contain at least 1 tree 6 feet in height at the time of planting and ground cover containing at least 2 shrubs for every 100 feet of landscape area.
- Landscape stakes and wires shall be removed no later than 12 months after installation.



CALL "MISS UTILITY" AT 1-800-257-7777 FOR UTILITY LOCATIONS AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.

FREDERICK BAPTIST CHURCH

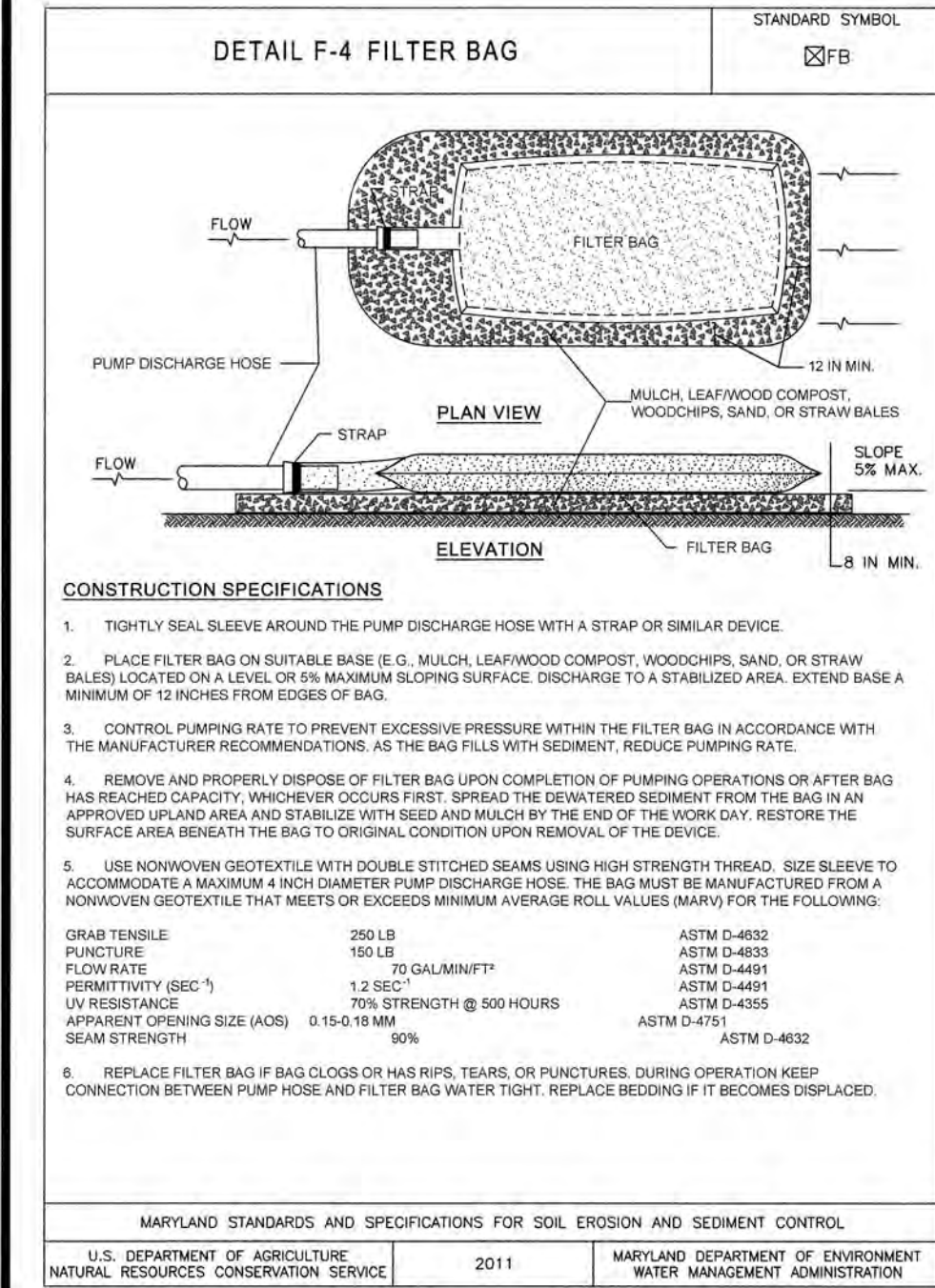
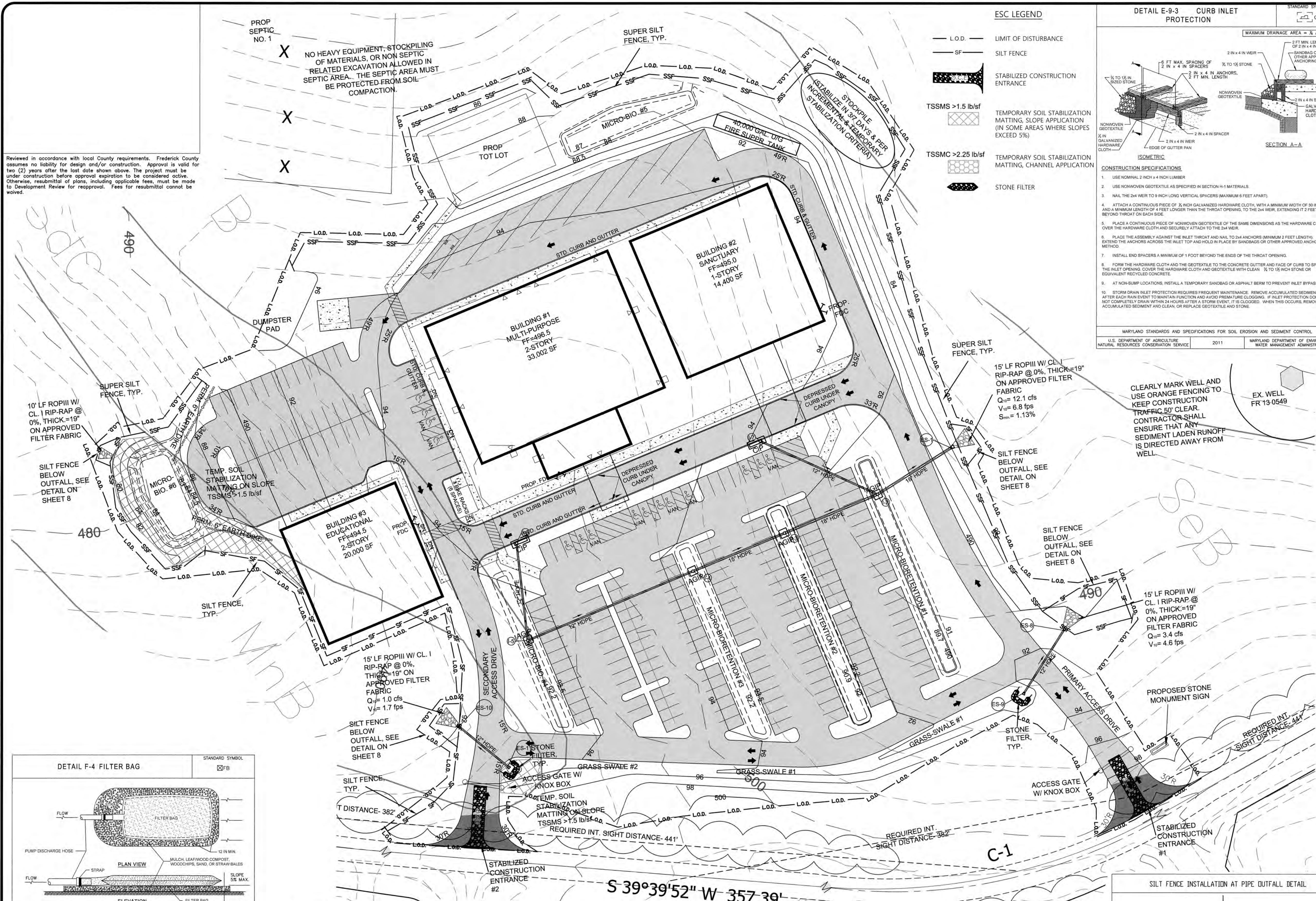
Situated along the North and West Side of Horine Road
Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5216 Chairmans Court, Suite 105
Frederick, MD 21703
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com



PROJECT No.: 176
DATE: JUNE 2021
SCALE: 1" = 80'
SHEET No. 7 of 9

Reviewed in accordance with local County requirements, Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before approval expiration to be considered active. Otherwise, resubmission of plans, including applicable fees, must be made to Development Review for resubmission. Fees for resubmission cannot be waived.



SEQUENCE OF CONSTRUCTION:

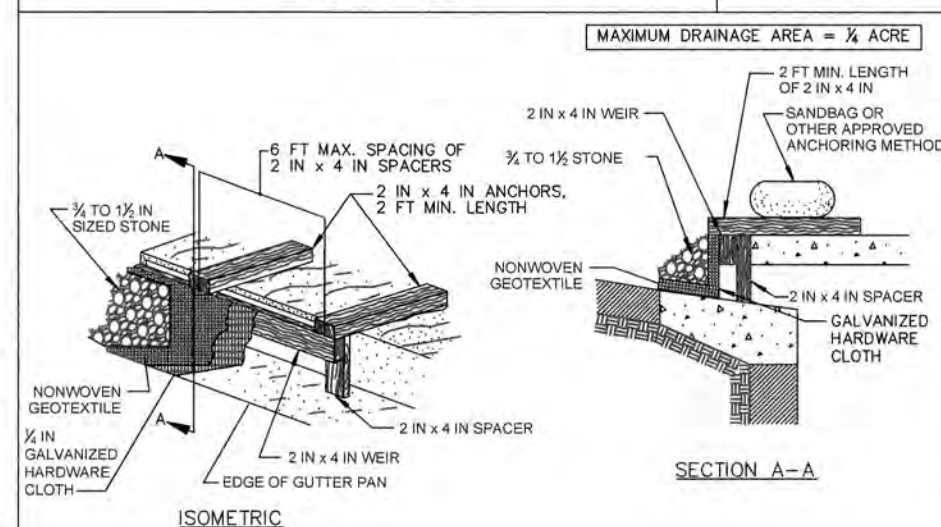
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AT LEAST 3 WORKING DAYS BEFORE PERFORMING ANY WORK.
- CONTACT THE FREDERICK COUNTY ENVIRONMENTAL COMPLIANCE SECTION (ECS) AT 301-600-3507 TO SCHEDULE A PRE-CONSTRUCTION MEETING AT LEAST 24 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. THE LIMITS-OF-DISTURBANCE (LOD) IDEALLY SHOULD BE STAKED-OUT PRIOR TO THE PRE-CONSTRUCTION MEETING. PROTECT THE WELL AS INDICATED ON THE PLAN.
- THE NPDES/NOI PERMIT SHALL BE RECEIVED FROM MDE AND A COPY PROVIDED TO SCD AT THE PRE-CONSTRUCTION MEETING.
- CONTRACTOR SHALL DISCUSS THE STABILIZED CONSTRUCTION ENTRANCE OPTIONS WITH THE INSPECTOR TO DETERMINE WHICH LOCATION MAY BE BEST OR IF BOTH SHOULD BE INSTALLED. UPON INSPECTOR APPROVAL, CLEAR, GRUB, AND INSTALL THE STABILIZED CONSTRUCTION ENTRANCES (S.C.E.) AS INDICATED ON THE APPROVED SEDIMENT CONTROL PLAN (SCP).
- UPON INSPECTOR APPROVAL, COMMENCE WITH SITE IMPROVEMENTS. SOME SOILS ON THIS SITE ARE HIGHLY ERODIBLE. ALL SLOPES OVER 5% THAT ARE NOT IMMEDIATELY STABILIZED MAY NEED TEMPORARY SOIL STABILIZATION MATTING TO ESTABLISH VEGETATIVE GROWTH. INSTALL OTHER SEDIMENT EROSION CONTROL MEASURES, AS SHOWN ON THE SCP AND IN THIS ORDER, AS IMPROVEMENTS COMMENCE:
 - TEMPORARY SOIL STABILIZATION MATTING- SLOPE
 - STONE FILTERS (GRADE SWALES FROM DOWNSTREAM TO UPSTREAM)

- IDEALLY, MICRO-BIO. EXCAVATIONS SHOULD NOT BE INSTALLED UNTIL AFTER UPHILL AREAS ARE COMPLETELY STABILIZED. IF EXCAVATION AND UNDERDRAIN ARE INSTALLED, USE DIVERSION FENCE TO DIVERT RUNOFF AWAY FROM THE EXCAVATIONS. THE CONTRACTOR SHALL NOT INSTALL BALANCE OF STONE AND MICRO-MEDIA UNTIL ALL UP-HILL AREAS ARE COMPLETELY STABILIZED. USE FILTER BAG FOR DEWATERING EXCAVATION, AS NECESSARY.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
 - A. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND
 - B. SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON PROJECT SITE NOT UNDER ACTIVE GRADING.
- ESTABLISH STOCKPILE AREAS, AS NECESSARY, SURROUNDED BY SILT FENCE. TEMPORARILY SEED AND MULCH ALL STOCKPILES WITHIN THE 3/7 DAY REQUIREMENT. SEE ALSO, THE INCREMENTAL STABILIZATION CRITERIA. THE CONTRACTOR MAY BE ALLOWED TO RELOCATE THE STOCKPILE LOCATION WITH INSPECTOR APPROVAL TO BETTER ACCOMMODATE CONSTRUCTION SEQUENCING.
- ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED, AND WITH THE INSPECTOR'S APPROVAL, REMOVE EROSION AND SEDIMENT CONTROL DEVICES. INSTALL STONE AND MICRO-BIO. MEDIA IN MICRO-BIORETENTION FACILITIES.
- STABILIZE ANY REMAINING DISTURBED AREAS WITH PERMANENT STABILIZATION.
- THE CONTRACTOR SHALL BE ALLOWED TO MAKE MINOR ADJUSTMENTS TO THIS SEQUENCE UPON ENGINEER AND INSPECTOR APPROVAL.
- THE CONTRACTOR SHALL KEEP MATERIAL TICKETS, CALL FOR GEOTECHNICAL INSPECTIONS, AND KEEP LOGS (WITH PHOTOS) OF CONSTRUCTION OF STORMWATER FACILITIES FOR USE IN AS-BUILT CERTIFICATION.

ESC LEGEND

- L.O.D. — LIMIT OF DISTURBANCE
- SF — SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- TSSMS >1.5 lb/sf
- TEMPORARY SOIL STABILIZATION MATTING, SLOPE APPLICATION (IN SOME AREAS WHERE SLOPES EXCEED 5%)
- TSSMC >2.25 lb/sf
- TEMPORARY SOIL STABILIZATION MATTING, CHANNEL APPLICATION
- STONE FILTER

DETAIL E-9-3 CURB INLET PROTECTION



CONSTRUCTION SPECIFICATIONS

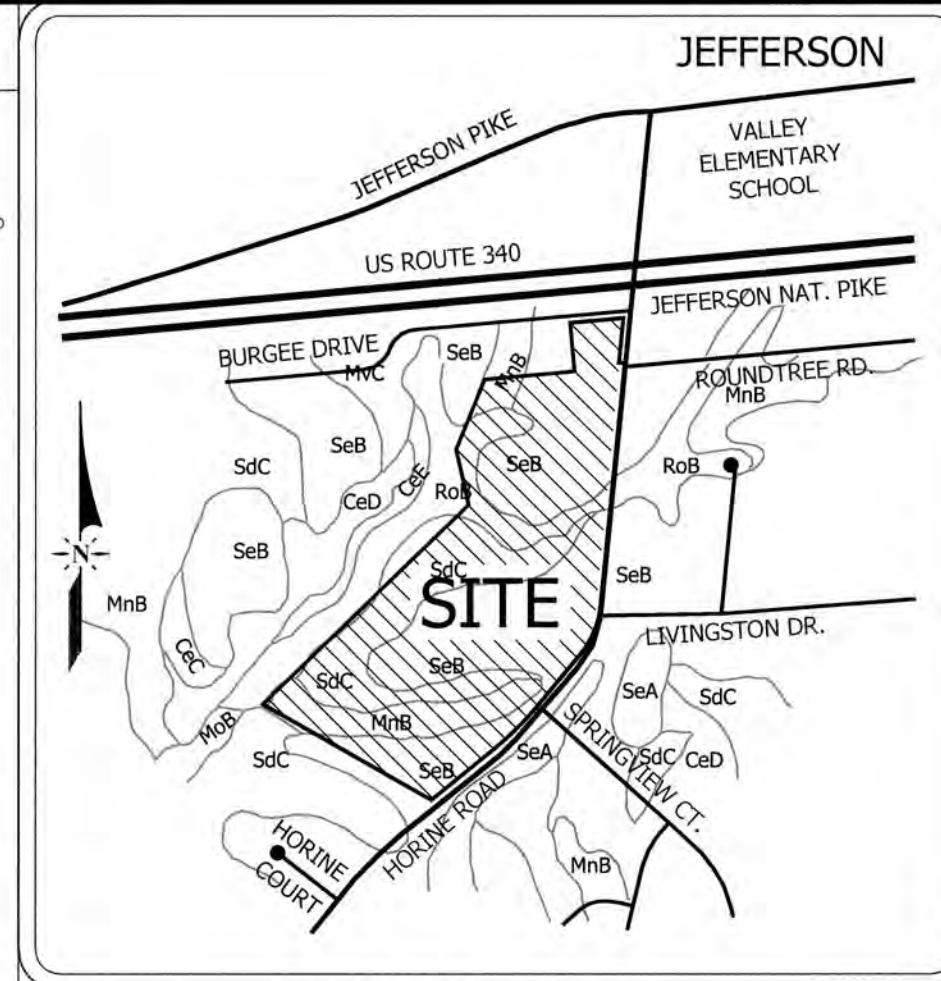
- USE NOMINAL 2 INCH X 4 INCH LUMBER.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
- NAIL THE 2x4 WEIR TO 8 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
- ATTACH A CONTINUOUS PIECE OF 3/4 INCH GALVANIZED HARDWARE CLOTH WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
- PLACE A CONTINUOUS PIECE OF NONWOVEN GEOTEXTILE OF THE SAME DIMENSIONS AS THE HARDWARE CLOTH OVER THE HARDWARE CLOTH AND SECURELY ATTACH TO THE 2x4 WEIR.
- PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH) EXTENDING THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
- INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
- FORM THE HARDWARE CLOTH AND THE GEOTEXTILE TO THE CONCRETE GUTTER AND FACE OF CURB TO SPAN THE INLET OPENING. COVER THE HARDWARE CLOTH AND GEOTEXTILE WITH CLEAN 3/4 TO 1 1/2 INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
- AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
- STORM DRAIN INLET PROTECTION REQUIRES FREQUENT MAINTENANCE. REMOVE ACCUMULATED SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE GEOTEXTILE AND STONE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

2011

MARYLAND DEPARTMENT OF ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION



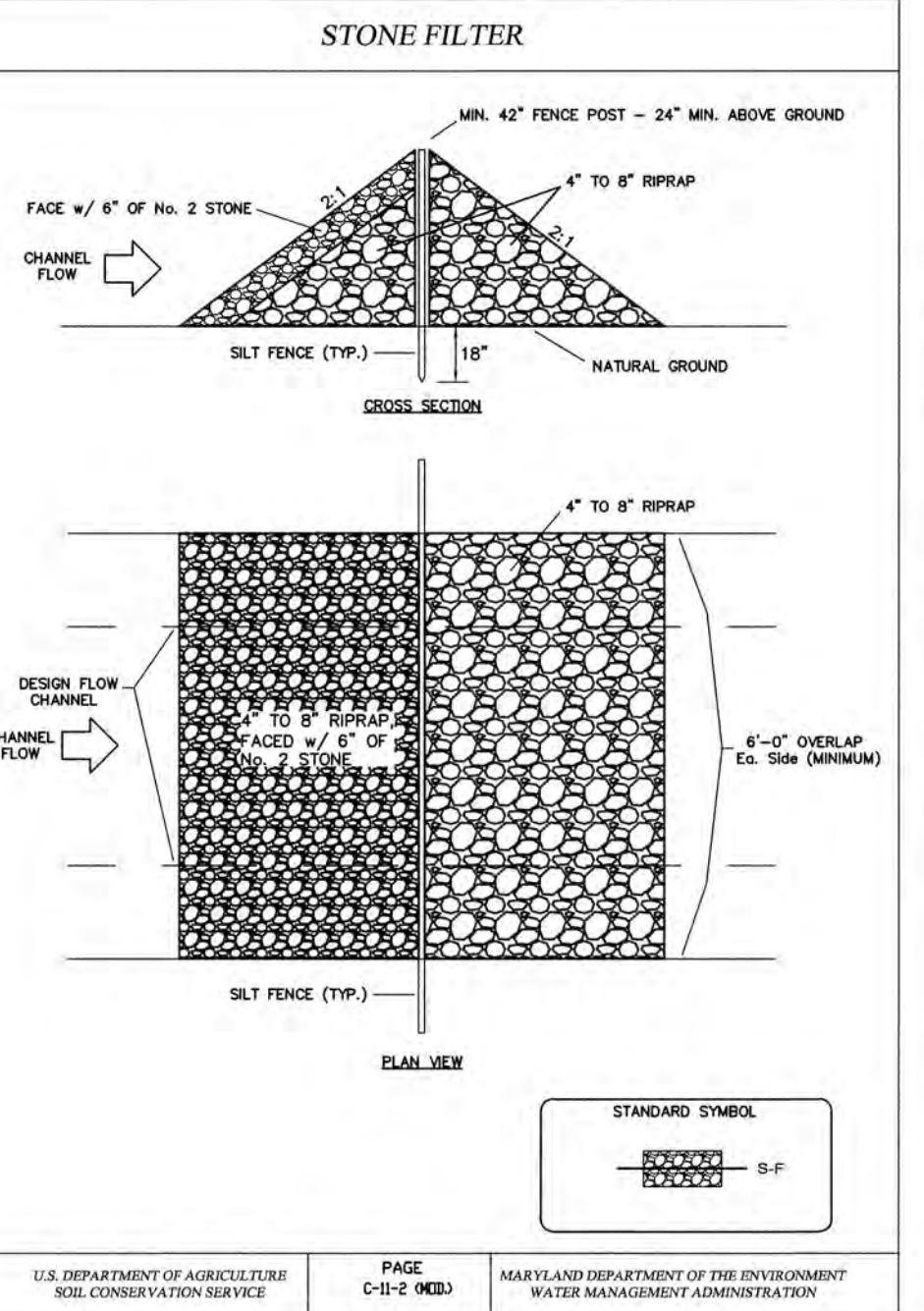
SOILS MAP

SCALE: 1" = 100'

Soils information taken from Soils Map 84.
Soils types which lie within the onsite limit of disturbance:

Soil Type	Soil Description	Soil Slope	Soil Factor
SeB	Spoolsville Silt Loam	3% - 8% slopes	HSG: B
SdC	Spoolsville-Catoctin Complex, 15% - 25% slopes	HSG: B	k-factor: 0.12
MmB	Mt Zion Gragely Silt Loam	3% - 8% slopes	HSG: C
RoB	Rohrersville-Lantz Silt Loam	3% - 8% slopes	HSG: C/D

*Restricted Soils can only be tested during the "restricted" season - Feb. 1, 2018 to April 16, 2018.
**Flooded Soils require a 25' setback and mitigation for encroachment with the soils themselves



FREDERICK BAPTIST CHURCH

Situated along the North and West Side of Horne Road
Jefferson Election District No. 14
Brunswick Planning Region
Frederick County, Maryland

Terra Solutions Engineering, LLC
Commercial & Residential Land Planning and Engineering
5305 Mount Zion Road, Suite 105
Frederick, MD 21703
Phone: 301-378-9842 Email: TerraSolutionsEngineering@gmail.com

Owner/Developer
Frederick Baptist Church
5305 Mount Zion Road
Frederick, MD 21703
Attn: Pastor John Seay
Phone: (301) 473-8900



FREDERICK SOIL CONSERVATION DISTRICT

APPROVED BY: *[Signature]*
DISTRICT MANAGER
DATE: 4/24/21

PROFESSIONAL ENGINEER'S CERTIFICATION

SIGNED BY: *[Signature]* 6/21/21
MICHAEL LEE SWANSON, PE DATE
MD LICENSE No.: 30736, P.E. EXPIRATION DATE: 08-03-22
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

CALL "MISS UTILITY" AT 1-800-257-7777
FOR UTILITY LOCATIONS AT LEAST 48 HOURS
PRIOR TO BEGINNING CONSTRUCTION.

PROJECT No.: 176
DATE: JUNE 2021
SCALE: 1" = 40'
SHEET No. 8 of 9

Reviewed in accordance with local County requirements. Frederick County assumes no liability for design and/or construction. Approval is valid for two (2) years after the last date shown above. The project must be under construction before approval expiration to be considered active. Otherwise, resubmittal of plans, including applicable fees, must be made to Development Review for resapproval. Fees for resubmittal cannot be waived.

Temporary Seeding Notes

- General**
- Scope: Planting short-term vegetation to stabilized, cleared or graded areas subject to erosion for a period of seven (7) days or more.
 - Standards: Temporary seeding shall conform to all requirements of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" published jointly by the Maryland Department of the Environment, Water Management Administration in association with Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts.
 - Sediment and Erosion Control: All silt erector controls must be stabilized in three (3) days. All interior controls must be stabilized within seven (7) days.
- Specifications**
- Site Preparation**
- A. Prior to seeding, install all required sediment and erosion control measures.
 - Final grading not required for temporary seeding.
- Soil Amendments**
- Fertilizer shall be applied at the rate of 435 lbs./acre using 10-20-20 or equivalent.
 - Acid soils shall be limed at a time rate of 2 tons/acre.
- Seeded Preparation**
- A. Soil shall be loosened to a depth of 2 to 4 inches by raking, discing, or other acceptable means prior to seeding.
- Seeding**
- A. Select a mixture from table B.1 in the standard specifications.
 - B. Apply seed uniformly with a cyclone seeder, drill, cultipacker, or hydrosower.
- Mulching**
- A. Mulch shall be applied immediately after seeding. Mulch materials and applications shall conform to the standard specifications.

Permanent Seeding & Sodding Notes

- General**
- Scope: Planting permanent, long-lived vegetative cover on graded or cleared areas.
 - Standards: Permanent seeding shall conform to all requirements of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" by the Maryland Department of the Environment (Water Management Administration), Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts.
- Specifications**
- Site Preparation**
- A. Prior to seeding, install all required sediment and erosion control measures.
 - B. Final grading required for permanent seeding.
- Soil Amendments**
- Fertilizer shall be applied at the rate of N (45 lbs/acre), P (90 lbs/acre) and K (90 lbs/acre) using 10-20-20 or equivalent.
 - Acid soils shall be limed at a time rate of 2 tons/acre.
- Seeded Preparation**
- A. Soil shall be loosened to a depth of 2 to 4 inches by raking, discing, or other acceptable means prior to seeding.
- Seeding**
- A. Select a mixture from tables B.2 and B.3 in the standard specifications.
 - B. Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder or hydrosower (slurry includes seed and fertilizer on a firm, moist seedbed). Maximum seeding depth should be 1/4 inch on clayey soils and 3/8 inch on sandy soils, when using other than hydrosower method of application. Note: If hydrosowing is used and the seed and fertilizer is mixed, they will be mixed on site and the seeding shall be immediate without interruption.
- Mulching**
- A. Mulch shall be applied immediately after seeding. Mulch materials and applications shall conform to the standard specifications.

Permanent Stabilization with Sod

- All specifications, site preparation, installation and maintenance of sod for permanent, long-lived vegetative cover shall conform to Section B-4 of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" by the Maryland Department of the Environment (Water Management Administration), Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts.

For Utility Work Only or For Off-Site Utility Work

- Can not exceed 5,000 square feet.
- Place all excavated material on the high side of the trench.
- Only do as much work as can be completed in one day so backfilling, final grading, seeding and mulching can occur at the same place as construction.
- Any sediment control measures disturbed by construction will be repaired the same day.

Secondary Utility Work (August 7, 2006)

- All disturbance from secondary utility's such as phone cable, electric cable, TV cable, etc. will be the subcontractor's responsibility to bring work area back to grade level that was existing and seed much any disturbance from installation of lines or conduit.
- Sub contractors will be responsible for re-installing or repairing any silt fence of sediment controls that were existing to maintain proper sediment control that might have been damaged.

Stockpile Notes

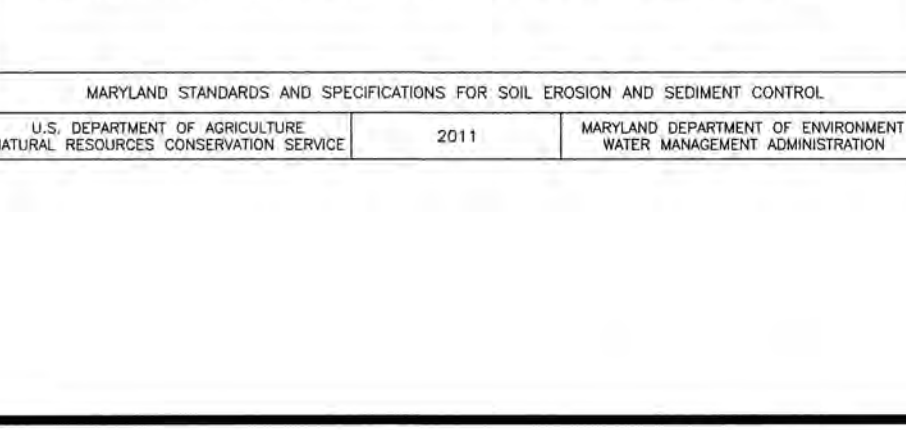
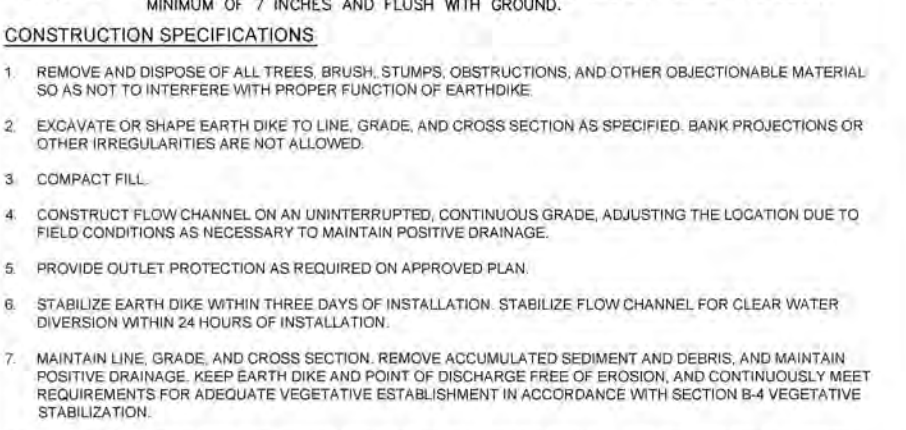
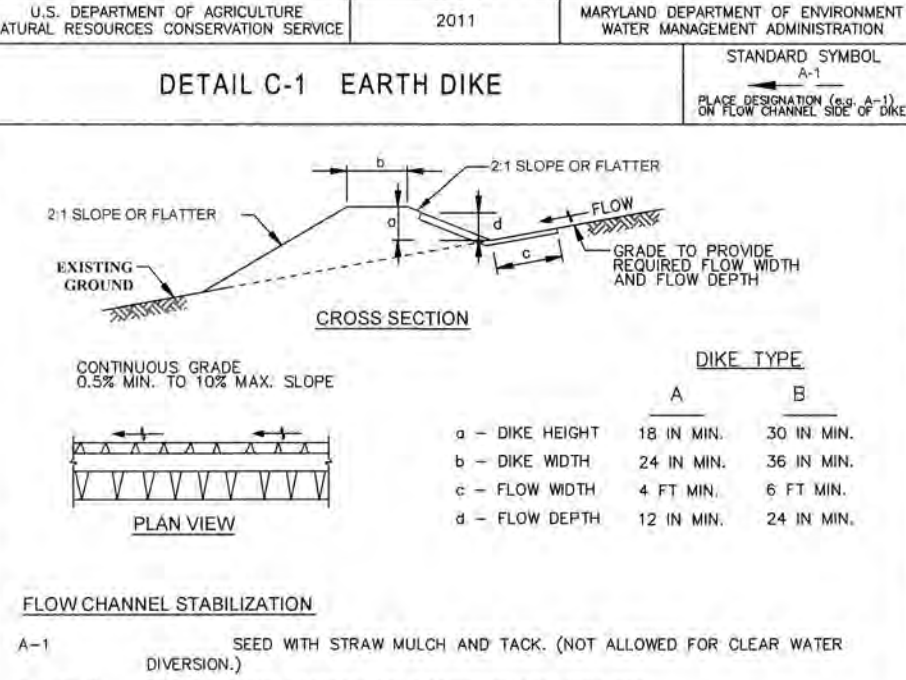
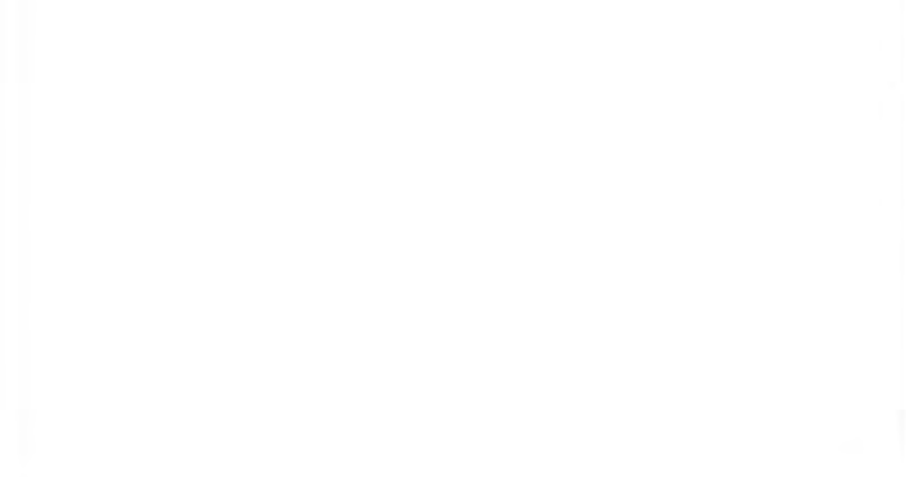
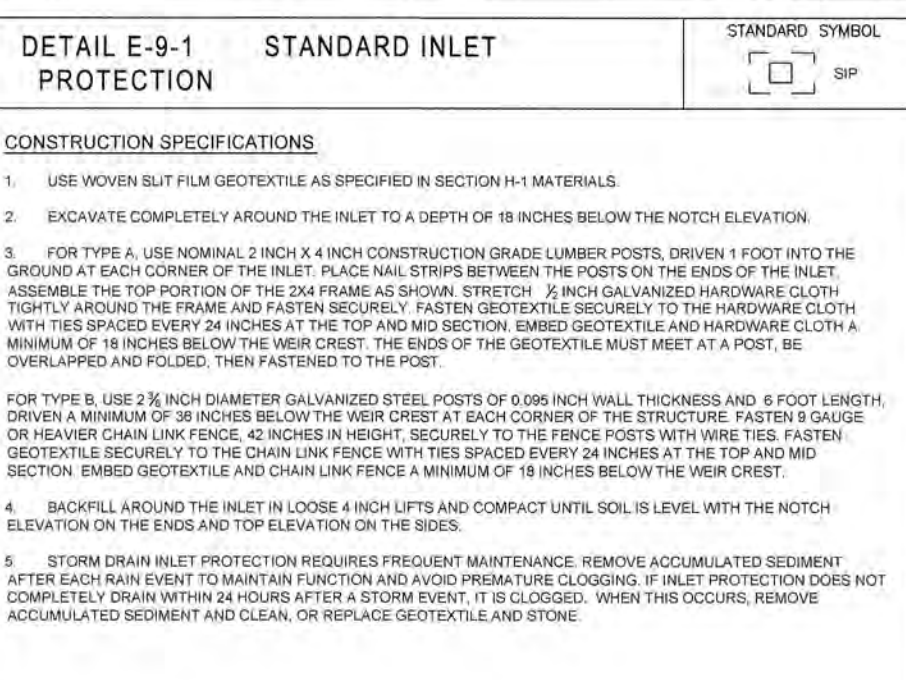
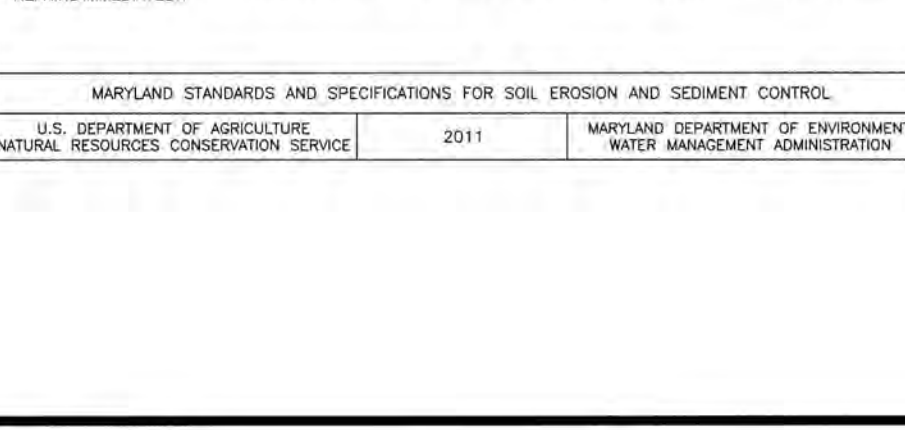
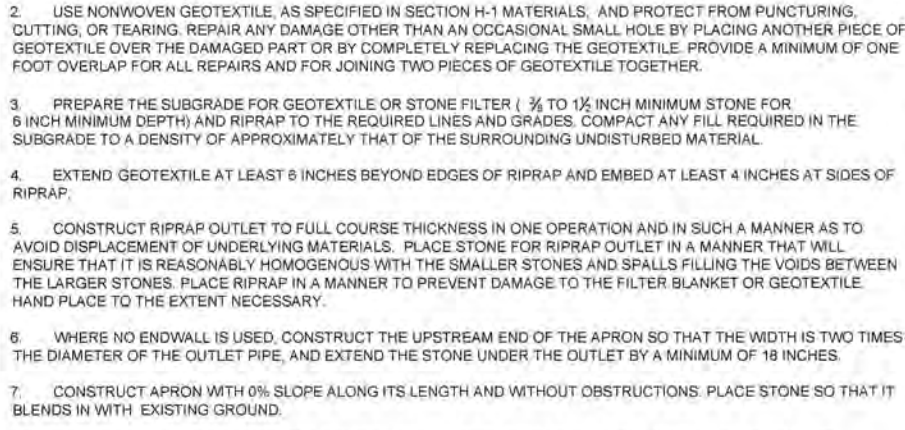
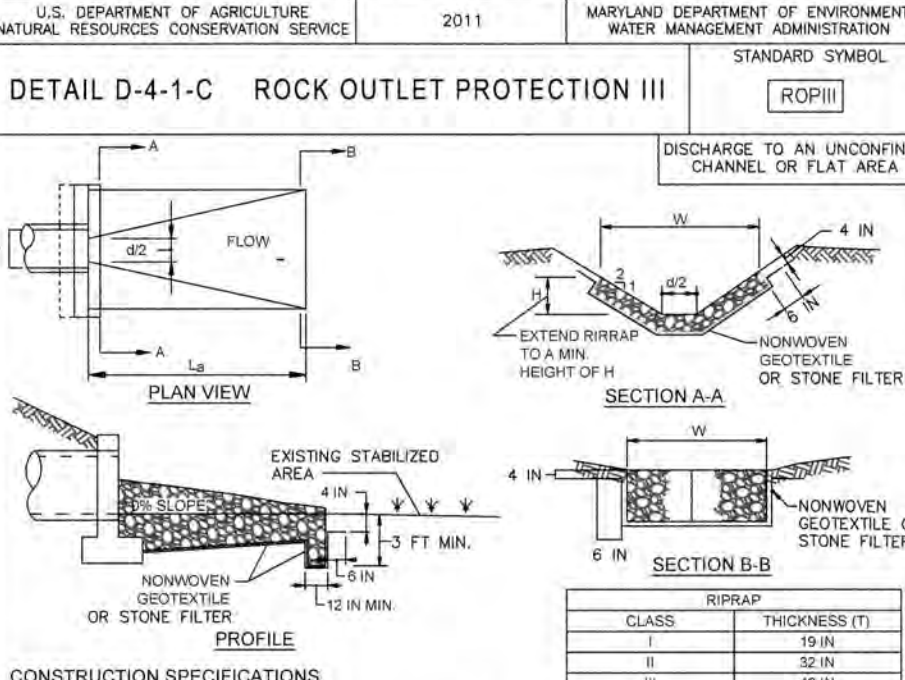
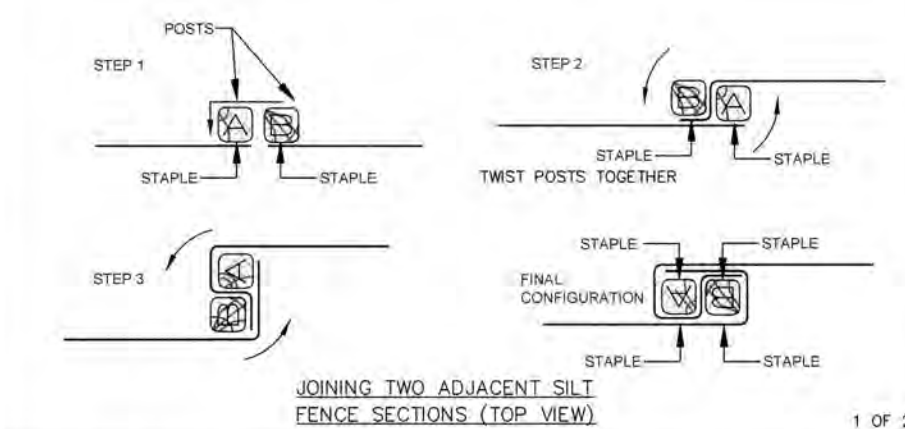
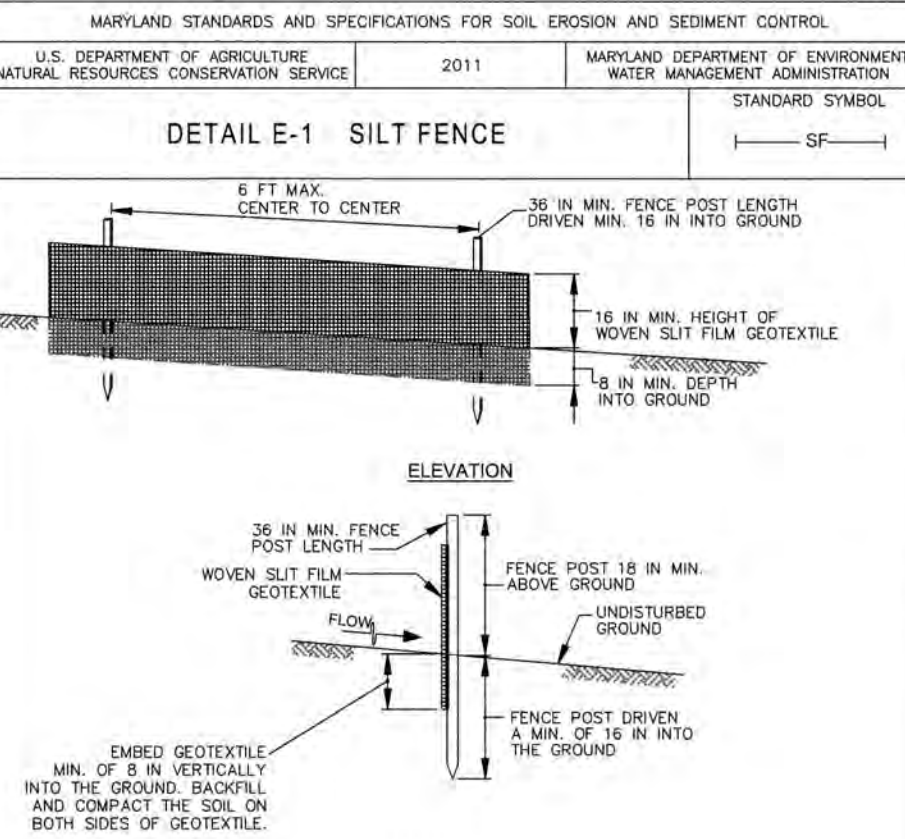
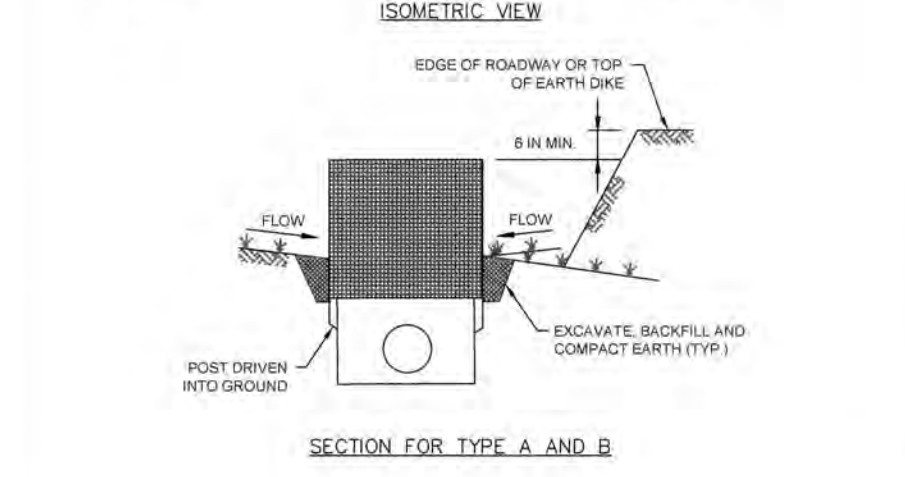
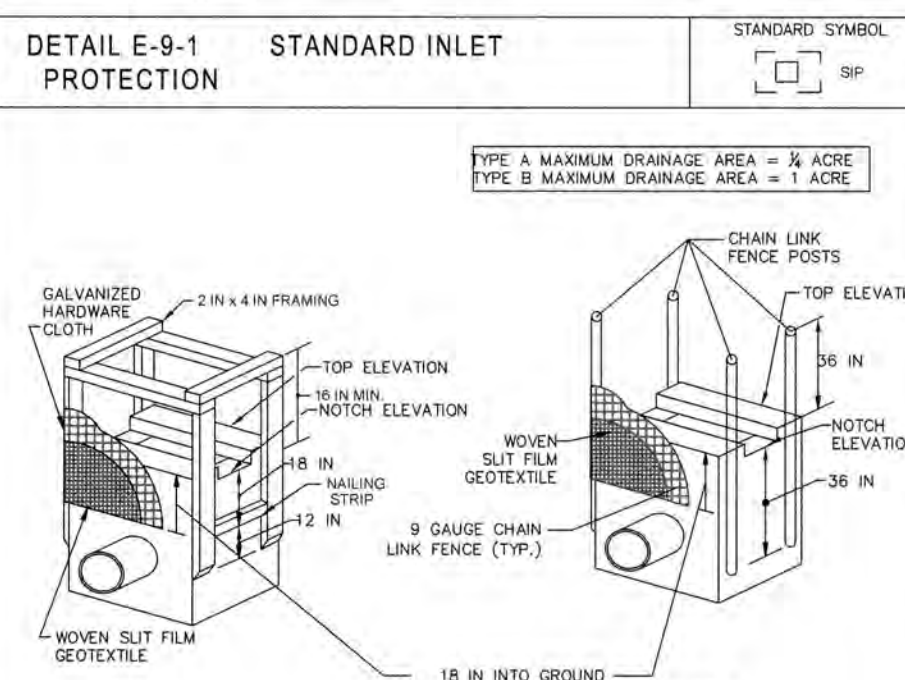
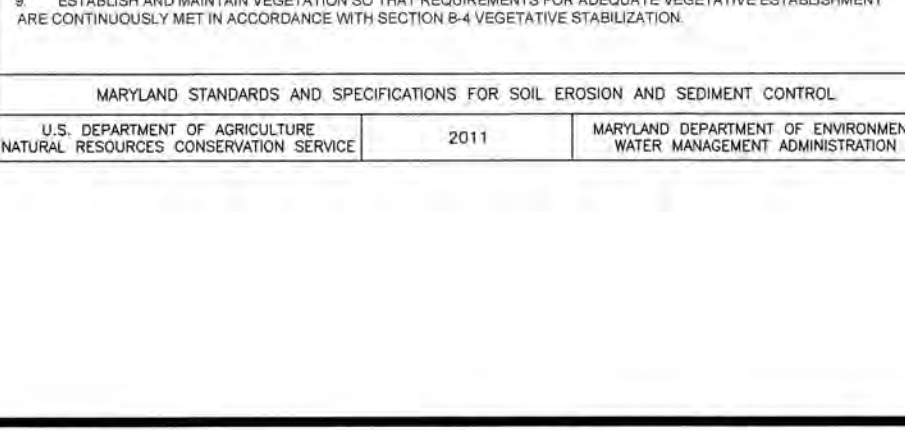
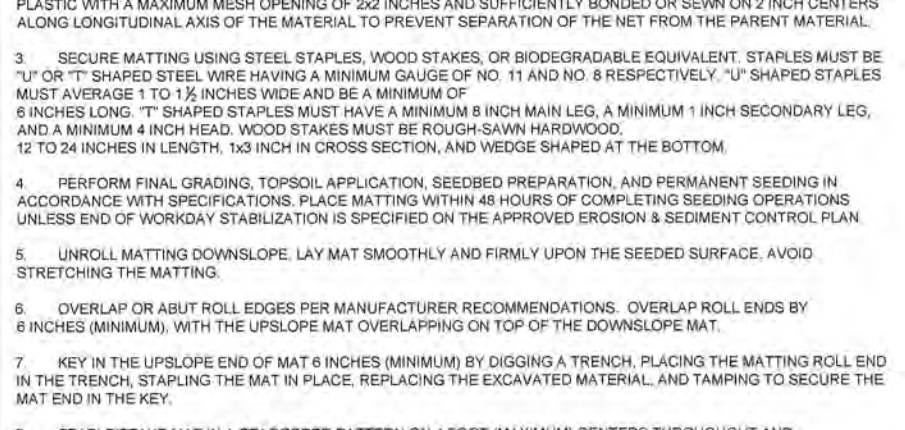
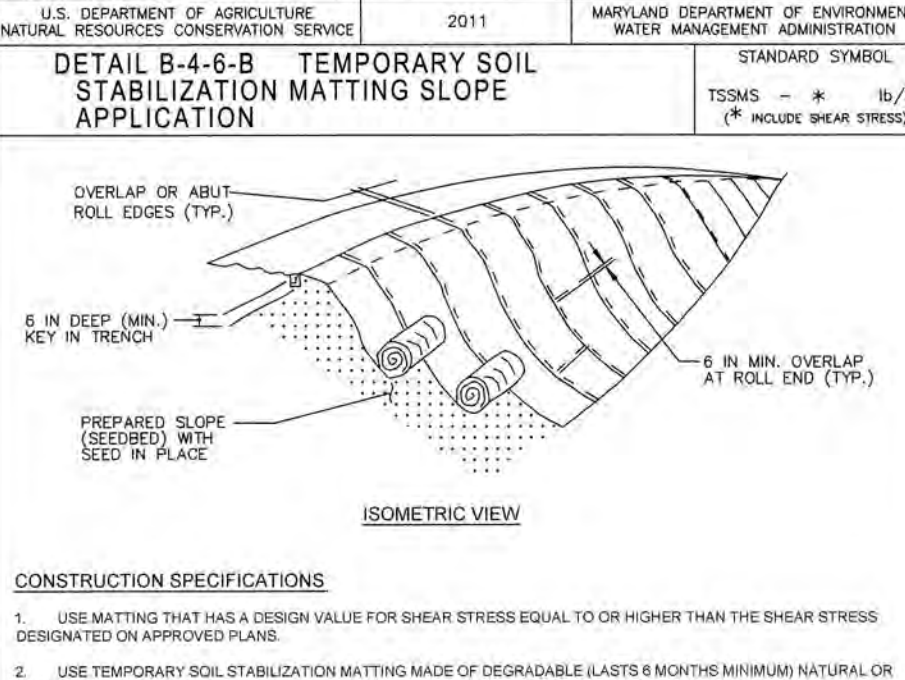
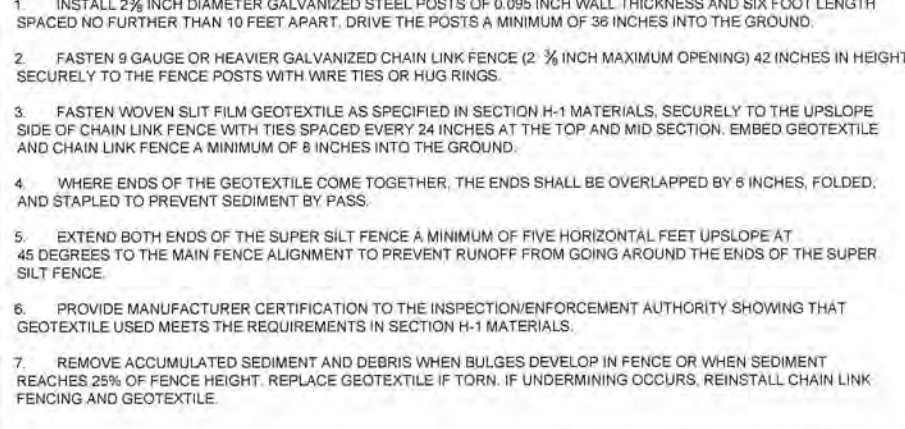
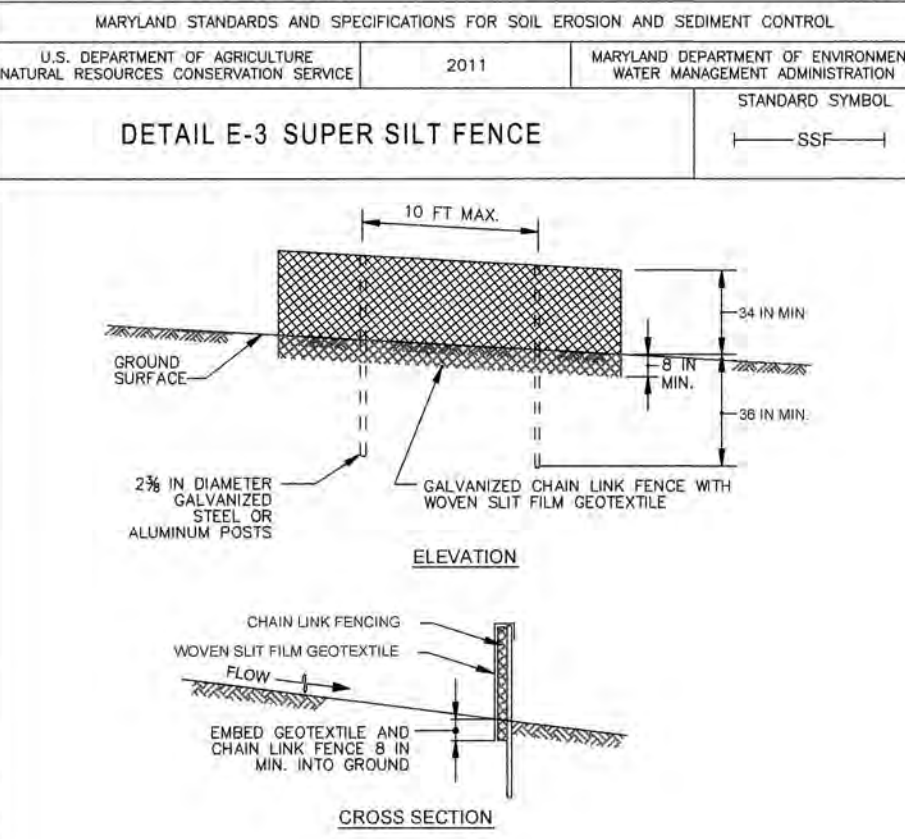
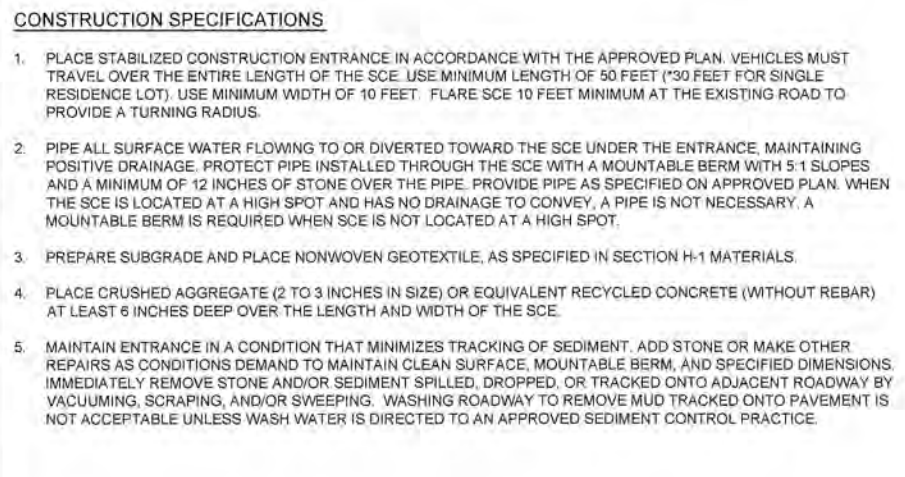
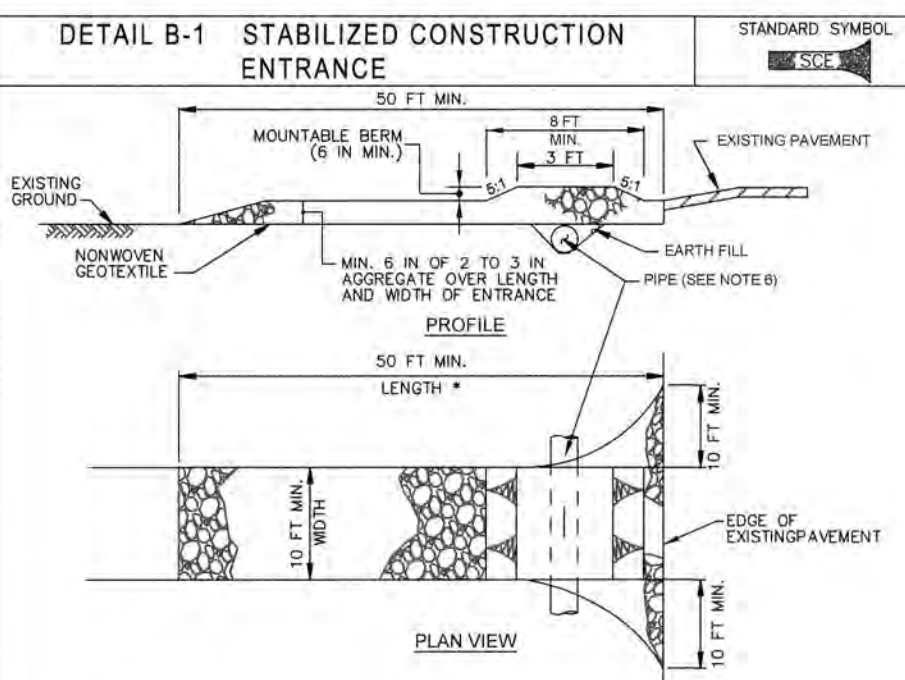
- No stockpile allowed on asphalt.
- All stockpile left at the end of the day needs to be stabilized until the next re-disturbance.

Stream Closure Statement

As of June 1, 1992, All sediment and erosion control plans and/or stormwater management plans that include in-stream work must have a stream closure date(s) shown in the sequence of construction.

Frederick S.C.D. Sediment & Erosion Control Notes

- All erosion and sediment control measures shall be installed and maintained in continuous compliance with the latest version of the "Maryland Standards and Specifications for Soil Erosion and Sediment Control".
- All disturbed areas are to be seeded within seven (7) days of initial grading. For stabilization methods, see Section B-4, of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" by the Maryland Department of the Environment (Water Management Administration), Natural Resources Conservation Service and Maryland Association of Soil Conservation Districts.
- All erosion and sediment control measures are to be placed prior to, or at the initiation of grading.
- All utilities, such as: storm drain, public water, sanitary sewer, electric power, telephone, cable and gas lines, that are not in paved areas and are not undergoing active grading shall be temporarily or permanently stabilized within three (3) days of initial disturbance.
- All earth berm/dikes and sediment trap dams are to be mulched and seeded (see Section B-4 of the above referenced standard) within three (3) days after grading. All soil stockpiles are to be mulched and seeded within seven (7) days.
- The owner/developer or their designee is responsible for conducting routine inspections and required maintenance. The site and controls should be inspected weekly and the next day after each rain event. Maintenance shall be performed as necessary to ensure that stabilized areas continuously meet the appropriate requirements of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control".
- This does not apply to those areas that are shown on the plan and are currently being used for material storage or for those areas on which actual construction activities are currently being performed. Maintenance shall be performed as necessary to ensure that stabilized areas continuously meet the appropriate requirements of the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control".
- For finished grading, the permittee shall provide adequate gradients so as to: (1) prevent water from standing on the surface of lawns more than twenty-four (24) hours after the end of a rainfall, except in designated drainage courses and swale flow areas which may drain as long as forty-eight (48) hours after the end of a rainfall, and (2) provide positive drainage away from all building foundations or openings.
- Sediment traps or basins are not permitted within 20 feet of a building that exists or is under construction. Any building may be constructed within 20 feet of a sediment trap or basin.
- All inlets in non-sump areas shall have asphalt berms installed at the time of base paving establishment.
- The sediment control inspector has the option of requiring additional sediment control measures, if deemed necessary.
- All trap elevations are relative to the outlet elevation, which must be on existing, undisturbed ground.
- Vegetative stabilization shall be performed in accordance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control. Refer to Section B-4 for the following when applying: temporary seeding, permanent seeding, mulching, sodding, and ground covers.
- Temporary sediment trap(s) shall be cleaned out and restored to the original dimensions when sediment has accumulated to a point one-half (1/2) the depth between outlet crest and the bottom of the trap, or as directed by the inspector.
- Sediment removed from traps shall be placed and stabilized in approved areas, but not within a floodplain.
- All sediment basins and traps must be surrounded with a welded wire, or approved equal, safety fence. The fence must be at least 42 inches high, have posts spaced no further apart than eight (8) feet, have mesh openings no greater than 2 inches in width and 4 inches in height with a minimum of 14 gauge wire or equal. Safety fence must be maintained in good condition at all times.
- No excavation in the area of existing utilities is permitted unless their location has been determined. Call "Miss Utility" at 1-800-257-7777 forty-eight (48) hours prior to the start of work.
- Off site spoil or borrow areas must have prior approval from SCS.



SEDIMENT CONTROL/STORMWATER MANAGEMENT REQUIRED INSPECTIONS	
YOU MUST NOTIFY THE COUNTY SEDIMENT CONTROL AND STORMWATER MANAGEMENT OFFICE AT 301-600-3507 BEFORE 9:00 AM 24 HOURS PRIOR TO THE REQUIRED INSPECTION. FAILURE TO NOTIFY THIS OFFICE WILL RESULT IN A STOP WORK ORDER OR OTHER PENALTIES AS OUTLINED IN FREDERICK COUNTY CODES.	
***** NOTICE *****	
THIS LIST IS FOR SEQUENCE OF CONSTRUCTION ONLY. THIS OFFICE ASSUMES NO RESPONSIBILITY OF LIABILITY FOR IMPROPER INSTALLATION OR ANY ITEMS ON THIS CHECKLIST. THIS OFFICE RECOMMENDS THAT A PROFESSIONAL ENGINEER BE PRESENT FOR EACH OF THE REQUIRED INSPECTIONS.	

TYPE OF INSPECTIONS:	COMMENTS/INITIALS
1) PRE-CONSTRUCTION MEETING	
2) COMPLETION OF SEDIMENT CONTROL INSTALLATION (IF USING A BASIN SEE #6 BELOW)	
3) PRIOR TO MODIFICATION OR REMOVAL OF SED. CONTROL	
4) INFILTRATION SYSTEMS	
5) OPEN CHANNEL FLOW ATTENUATION	
6) SITE READINESS PER SEQUENCE OF CONSTRUCTION	
7) INFILTRATION AREA PROTECTION FROM SEDIMENTATION	
8. CLOSURE (PRIOR TO FILLER INSTALLATION)	
9. FILTERING MATERIAL (TYPE/DEPTH)	
10. PLACEMENT OF FILTER MATERIAL	
11. SIZE, PLACEMENT, TYPE OF PIPING (IF APPLICABLE)	
12. OBSERVATION WELL	
13. COVER/STABILIZATION	
14. CHANNEL FLOW ATTENUATION	
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