AGENDA
WASHINGTON COUNTY PLANNING COMMISSION
100 W Washington Street, Room 2000
June 2, 2025, 6:00 PM

CALL TO ORDER AND ROLL CALL

NEW BUSINESS

MINUTES

1. May 5, 2025 Planning Commission regular meeting * ***Discussion/Action***

PRELIMINARY CONSULTATION

1. **Chaberton Solar Hearthstone LLC [PC-25-002]** – Misty Wagner-Grillo * ***Information/Discussion***
   Proposed 2-megawatt community solar energy degenerating station; Location: 16615 Lappans Road; Zoning: A(R) Agricultural Rural

ORDINANCE MODIFICATIONS

1. **Carol L. Gregory [OM-25-004]** – Scott Stotelmyer * ***Discussion/Action***
   Proposed ordinance modification from Section 405.11.G.5 of the Subdivision Ordinance to allow two panhandle lots in excess of 400 feet; Location: 7660 Fairplay Road; Zoning: A(R) – Agricultural Rural

SITE PLANS

1. **St. James School – Turner Athletic Center [SP-23-016]** – Scott Stotelmyer * ***Discussion/Action***
   Proposed revisions to the previously approved site plan; Location: 17525 Kellett Drive; Zoning: A(R) – Agricultural Rural
2. **Fed Ex #219 Hagerstown [SP-24-026]** – Scott Stotelmyer * ***Discussion/Action***
   Proposed security upgrades including the installation of automated overhead trust gate, security fence, site lighting and new pavement; Location: Halfway Boulevard; Zoning: HI – Highway Interchange
3. **Cedar Springs Business Park Lots 1 and 2 [PSP-24-001]** – Scott Stotelmyer * ***Discussion/Action***
   Proposed partial development for an existing grass meadow and qualified forest into two mixed-use buildings (27,000 sq. ft. and 45,000 sq. ft.) and associated parking lots and a new county road.; Location: 12000 Greencastle Pike; Zoning: HI – Highway Interchange
4. **Sheetz #184 – Huyetts [SP-25-001]** – Misty Wagner-Grillo * ***Discussion/Action***
   Proposed redevelopment of a Sheetz convenience store into a 6,139 sq. ft. Sheetz convenience store and gas station; Location: 12404 Lager Drive; Zoning: BL – Business Local
5. **Bowman Lightner Phase 4 [SP-25-002]** – Misty Wagner-Grillo * ***Discussion/Action***
   Proposed addition to an existing gravel trailer storage lot; Location: 15935 Spielman Road; Zoning: HI (Highway Interchange), EC (Environmental Conservation), and P (Preservation)
6. **17165 Black Stallion Lane-Heritage Manor [SP-25-003]** - Misty Wagner-Grillo * ***Discussion/Action***
   Proposed 45-bed assisted living facility within an existing building; Location; 17165 Black Stallion Lane; Zoning: A(R) – Agricultural Rural with RB – Rural Business overlay
7. **Hard Rock Excavation [SP-24-033]** - Misty Wagner-Grillo * ***Discussion/Action***
   Proposal to establish a contractor excavating business with office; Location 17022 Broadfording Road; Zoning: A(R) Agricultural Rural
8. **Fulton Properties, Inc. [SP-24-023]** - Misty Wagner-Grillo * ***Discussion/Action***
   Proposed gravel parking lot for trailers; Location: 14557 Industry Drive; Zoning: PI – Planned Industrial

FOREST CONSERVATION

1. **Overdale Estates, Phase 2, Lot 1 [S-25-005]** – Travis Allen * ***Discussion/Action***
   Request to use the payment-in-lieu option to satisfy the 2.6-acre planting requirement; Location: 21604 Jefferson Boulevard; Zoning: A(R) – Agricultural Rural

OTHER BUSINESS Information/Discussion

1. **Trinity Nursing Academy** – Travis Allen * ***Discussion/Action***
   Request to change the permitted land use in an existing Rural Business zoning district from a former HVAC repair shop to a Maryland licensed training school for nursing students; Location: 20142 National Pike;
2. **Annual Report** – Jennifer Kinzer * ***Discussion/Action***
3. **Update of Projects Initialized** – Jennifer Kinzer * ***Information/Discussion***
4. **Determination of CIP consistency with adopted Comprehensive Plan** – Jill Baker * ***Discussion/Action***
5. **Black Rock PUD Remand** – Jill Baker ***Information/Discussion/Action***

ADJOURNMENT

UPCOMING MEETINGS

1. July 7, 2025, 6:00 p.m. – Washington County Planning Commission regular meeting

*attachments

Disclaimer: Copies of plans contained in this packet do not necessarily reflect the complete plan submission received by our office. The number of pages per plan may be reduced to accommodate size limitations of our website. Complete plans may be viewed in our offices by calling for an appointment.

The Planning Commission reserves the right to vary the order in which the cases are called. Individuals requiring special accommodations are required to contact the Washington County Planning Department at 240-313-2430 to make arrangements no later than 10 working days prior to the meeting. Notice is given that the Planning Commission agenda may be amended at any time up to and including the Planning Commission meeting.

WASHINGTON COUNTY PLANNING COMMISSION
REGULAR MEETING
May 5, 2025

The Washington County Planning Commission held its regular monthly meeting on Monday, May 5, 2025 at 6:00 p.m. at the Washington County Administrative Complex, 100 W. Washington Street, Room 2000, Hagerstown, MD.

CALL TO ORDER AND ROLL CALL

The Vice-Chairman called meeting to order at 6:00 p.m.

Planning Commission members present were: Jeff Semler, Vice-Chairman, Denny Reeder, Jay Miller, Terrie Shank, and Ex-officio County Commissioner Randy Wagner. Staff members present were: Washington County Department of Planning & Zoning: Jill Baker, Director; Jennifer Kinzer, Deputy Director; Travis Allen, Senior Planner; Kyla Shingleton, Comprehensive Planner; and Debra Eckard, Office Manager.

OLD BUSINESS

Halfway Houses and Group Homes Text Amendment [RZ-25-002]

Ms. Shingleton presented a proposed text amendment regarding halfway houses and group homes. She reminded members that during the last meeting, there was a discussion regarding the inclusion of foster homes and women's shelters in this text amendment. The proposed definition of a group home will state specifically that minor foster homes are not included and the proposed definition of halfway houses will state specifically that women's shelters are not included. This is because women's shelters and foster care homes are organized by different agencies and have no zoning associated with them per Maryland state law. Both foster care homes and women's shelters are pre-empted by the State law.

Ms. Baker noted that a public input meeting was held on April 7th. Staff has made the proposed changes and is now seeking a recommendation to take to the Board of County Commissioners for a public hearing.

Ms. Shingleton presented the proposed definition language as follows: Group Home – "a residence that provides for the care, supervision, and protection of persons with mental or developmental disabilities on a 24/7 hour/day basis and does not include assisted living facilities, comprehensive care facilities or minor foster care homes". Halfway Houses – "also includes temporary residences for formerly institutionalized individuals that is designed to facilitate the readjustment to private lives but does not include women's shelters."

Motion and Vote: Mr. Miller made a motion to support the proposed language as presented and to recommend approval to the Board of County Commissioners. The motion was seconded by Ms. Shank and unanimously approved with Commissioner Wagner abstaining from the vote.

Accessory Dwelling Units Text Amendment [RZ-25-005]

Mr. Allen presented a proposed text amendment to amend several sections of the Zoning Ordinance to allow a new housing type - accessory dwelling units (ADUs). Accessory dwelling units would be permitted in both the rural and urban areas of the County. Ms. Baker noted that during the public input meeting, staff proposed a limitation of 75% of the gross floor area of the principal structure or a maximum of 1,000 sq. ft., whichever is less. Members discussed a larger maximum square footage limitation. Staff expressed concern with the larger square footage limitation, especially in the commercial areas. These limitations would also serve to provide smaller and more affordable housing options. The units are proposed to be exempt from excise tax.

Discussion and Comments: Members discussed various size limitations ranging from 1,000 sq. ft. to 1500 sq. ft. Staff highly encouraged members to put a maximum square footage limitation on ADUs to ensure these units remain affordable. Ms. Baker explained that the amendment would not prevent homeowners from creating a two-family or duplex unit; however, they would be required to pay excise tax. Mr. Allen noted that the two-family or duplex unit could be subdivided in the future; however, the ADU cannot be subdivided from the principal dwelling unit.

Ms. Baker stated the proposed changes to the text amendment as follows: An accessory dwelling unit is defined as a new dwelling unit that must be subordinate to the existing home, cannot be sold separately in the future, and is a maximum size of 75% of the existing home or 1,500 sq. feet, whichever is less. ADUs would be exempt from excise tax.

DRAFT

Motion and Vote: Ms. Shank made a motion to recommend approval of the text amendment including changes as stated above to the Board of County Commissioners. The motion was seconded by Mr. Miller and unanimously approved with Commissioner Wagner abstaining from the vote.

NEW BUSINESS

MINUTES

Motion and Vote: Ms. Shank made a motion to approve the minutes of the April 7, 2025 Planning Commission public input meeting and regular meeting as presented. The motion was seconded by Mr. Miller and unanimously approved.

OTHER BUSINESS

Forest Conservation Ordinance Annual Report

Mr. Allen presented a summary of the FY 2024 Forest Conservation Ordinance Annual Report. The State requires specific data that must be reported each year. He noted that development review for the forest conservation program decreased slightly in 2024 as compared to 2023. There were no new forest banks created during FY 2024 and 3.82 acres were debited from existing forest banks during the same period. Mr. Allen stated there was no levying of non-compliance and/or violation fees during this reporting period.

Proposed Outpatient Substance Abuse Center Text Amendment

Ms. Baker explained there was a recent Board of Zoning Appeals case that dealt with the location of a medical clinic in a somewhat residential area. As part of the hearing, the question was raised as to whether there would be the dispensing of addiction treatment drugs. The decision by the BZA stipulated that there would not be the dispensing of addiction treatment drugs. The BZA requested that their concerns be forwarded to the Planning Commission to potentially address the issue in the Zoning Ordinance as a specialized use. Currently, the Zoning Ordinance treats these types of facilities as a medical clinic.

Ms. Shingleton introduced potential changes to the Ordinance regarding the outpatient substance abuse centers. She reviewed the definition of an outpatient substance abuse center. These facilities are Federally licensed and certified by the Substance Abuse Mental Health Administration and Behavorial Health Administration of Maryland. The certification and licensing are for daily operations; there is no applicable zoning regulations. Outpatient Substance Abuse Centers would be permitted in the Rural Business and Special Economic Development districts, special exception uses in the residential zoning districts and would not be permitted in any other zoning district in the County.

Discussion and Comments: Ms. Baker explained that a special exception is a permitted use, that by zoning standards, is not permitted if there is something unique about the location that is different than any other parcel in the same zoning district. She further explained that a special exception cannot be denied on the basis of public testimony that the use is not wanted in the neighborhood.

Consensus: The Outpatient Substance Abuse Centers would be a special exception use in all residential zoning districts, a permitted use in the RB, SED, ORI and ORT zoning districts, and would not be permitted in the BL, BG, HI, IR, PI, IG, PB, and AP zoning districts.

Proposed Backyard Fowl Text Amendment

Ms. Shingleton introduced a proposed text amendment regarding backyard fowl in a low intensity operation that includes raising or providing care for 24 or less fowl; no roosters would be permitted. Limitations would include the following: the first ½ acre or less a maximum of six hens would be allowed; an additional six hens would be permitted for each ½ acre up to a total of 24 hens. More than 24 hens will be considered a high-intensity operation and must meet all standards and regulations set forth by the Animal Husbandry Ordinance. Structures for a low-intensity operation must be set back a minimum of 25 feet from any neighboring dwelling, school, church or institution for human care and at no time shall a structure be located closer than 10 feet from any side or rear property lines. Structures shall not be permitted in front yards, drainage swales or mapped floodplain (sensitive) areas. There will be no selling of products for commercial uses. Free range hens will not be permitted; all structures and roaming areas must be fenced. Structures must be properly constructed, maintained and cleaned on a regular basis to prevent odors and waste from building up. Feed must be stored in contained areas and must be cleaned regularly to prevent scavengers, insects and parasites that may harm humans. Manure may be composted and added to gardens or yards if done so without creating malicious smells or other hazards. Waste that is not

composted must be collected in a sealed dry container and must be stored at a minimum of 10 feet from all side and rear yard property lines. A Waste Management Plan and Nutrient Management Plan will be required when housing more than 24 fowl. Outdoor slaughtering or butchering is prohibited. A zoning permit will be required for any structures housing chickens.

Staff will finalize the proposed text amendment and bring it back to the Commission at a future date.

Update of Projects Initialized

Ms. Kinzer provided a written report for land development plan review projects initialized during the month of March including four minor preliminary/final plats.

Director's Report

Solar Energy Generating Systems [SEGS]

Ms. Baker briefly discussed new solar energy generating systems legislation that was recently adopted by the State of Maryland. She noted that any SEGS that is one megawatt or greater, will be permitted without County approvals in accordance with State law.

Black Rock PUD

Ms. Baker explained that she will be sending Commission members a copy of the 84-page Circuit Court opinion for the Black Rock PUD. This case has been remanded back to the Planning Commission for review. She briefly reviewed the history of the Black Rock PUD clustering plan whereby the Planning Commission determined that the clustering plan was a minor change which would not have to go through the public hearing process. The Black Rock HOA appealed the decision to the Board of Zoning Appeals that upheld the Planning Commission's decision. The HOA then appealed that decision to the Circuit Court where it was remanded back to the Board of Zoning Appeals. In the meantime, the Circuit Court decision was appealed to the Maryland Court of Appeals. Late last year, the court case was voluntarily dismissed; therefore, the Circuit Court's decision remains in force. In April, the case was again looked at by the Board of Zoning Appeals, at which time it was remanded back to the Planning Commission. Four questions were posed by the Black Rock HOA that need to be addressed:

1. Has the Black Rock PUD expired?
2. Is the Black Rock PUD valid or invalid?
3. Was there a violation of the Zoning Ordinance dealing with the wait period in between applications for rezonings?
4. Is the Black Rock third proposal to the approved PUD a minor change?

Ms. Baker strongly encourages members to read the documents in order to be able to respond to the questions above. She noted that the Court's opinion [on question #2] is that the PUD should have been invalidated because it did not follow all of the criteria in terms of procedures of steps outlined in the County's Zoning Ordinance.

Comprehensive Plan Update

Ms. Baker announced that the Board of County Commissioners will hold a public hearing on Tuesday, June 3rd at 6 pm at the Public Safety Training Center. Staff will be available beginning at 5:30 pm to answer questions.

UPCOMING MEETINGS

1. June 2, 2025, 6:00 p.m. – Washington County Planning Commission regular meeting

ADJOURNMENT

Mr. Reeder made a motion to adjourn the meeting at 7:30 p.m. The motion was seconded by Ms. Shank and so ordered by the Vice-Chairman.

Respectfully submitted,

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Jeff Semler, Vice-Chairman

DRAFT

PRELIMINARY CONSULTATION
PC-25-002– Chaberton Solar Hearthstone LLC

A preliminary consultation was held on April 10, 2025 at 2:00 p.m. at the Washington County Administrative Annex, 747 Northern Avenue, Conference Room 124, Hagerstown, MD. A concept plan was presented for a proposed 2-megawatt community solar energy degenerating station at 16615 Lappans Road in Williamsport. The property is 37.15 acres in size and is currently zoned A(R) – Agricultural Rural.

The following were in attendance: Washington County Department of Planning & Zoning: Misty Wagner-Grillo, Planner; Logan Daytner, GIS Technician; John Baker, GIS Analyst; Katie Rathvon, Zoning Coordinator; and Debra Eckard, Office Manager; Washington County Division of Engineering: Rebecca Calimer, Chief of Plan Review; Kimmy Armstrong, Washington County Health Department; and Amee Brearne, Tyler Richards, and Mark Mezzanotte, Chaberton Solar Hearthstone LLC.

Department of Planning & Zoning

Ms. Wagner-Grillo began by explaining that Solar Energy Generating Systems (SEGS) are a special exception use in the A(R) zoning district; therefore, approval from the Board of Zoning Appeals will be required prior to submission of the site plan. The site plan and the permit applications can be submitted and reviewed concurrently; however, no permits will be issued prior to site plan approval.

General site plan requirements can be found in Section 4.11 of the County's Zoning Ordinance while Section 4.26 will address the requirements for the SEGS. Checklists for both the Planning & Zoning Department and the Engineering Department can be found on the County's website. Security fencing will be required as well as decommissioning documentation.

Chaberton Presentation

Mr. Tyler Richards gave a brief presentation discussing the types of projects that Chaberton develops and a brief history of the company. He discussed why a community solar project was chosen for this specific location. Chaberton is waiting for the environmental impact reviews from MDE, MHT, MD DNR and US Fish and Wildlife; however, they believe there will be a minimal environmental impact. Based on recent site surveys performed on the property, a forest conservation easement has been identified on site; however, it was not shown on the concept plan. This easement will be indicated on the site plan as well as the septic reserve area. Mr. Richards noted there is gentle sloping on the site; therefore, no topsoil will need to be removed. The existing vegetation will not be removed along the roadway and added landscape screening will be provided to minimize the impact to neighbors as well as motorists.

Mr. Richards stated that a community meeting will be held on May 6th at the United Methodist Church in close proximity to the site. Ms. Brearne will conduct the meeting in which they will present the project to the neighbors and get feedback from them on any concerns they may have regarding this project. Letters will be mailed two weeks prior to the meeting at which time they will also inform neighbors that Chaberton representatives will be visiting their homes to answer questions or take any comments if they are unable to attend the community meeting.

Mr. Richards noted that SEGS requirements as stated in the Zoning Ordinance will be met as follows: the 50-foot setback from a principal permitted use, 20-acre minimum lot size, height requirements for the A(R) zoning district, lighting considerations, signage, 25-foot landscape buffer to the east and north, security fencing, and 55-decibels noise maximum from the property line. A decommissioning plan and bond will also be provided.

Mr. Richards explained the benefits of a community solar project to private citizens and the County government alike.

Division of Engineering

Ms. Calimer provided the following comments:

- This project will have a disturbance of more than 5,000 sq. ft., therefore, this project will be subject to all requirements of the Washington County Stormwater Management, Grading and Soil Erosion and Sediment Control Ordinance. Prior to submission of the site plan, a Stormwater Concept Plan must be submitted and approved.
- The Maryland Department of the Environment has a design guidance document specific to solar projects. In addition to the ESD component, Washington County's Ordinance has two- and ten-year quantity management requirements.
- Calculations relating to the impervious surface of the project may include only the foundation or base supporting the solar panel, not the panel itself.
- This project is located on a MDOT SHA controlled roadway; questions should be directed to their office regarding access, maintenance of traffic, etc.

State Highway Administration

Mr. Chris Reed was not present at the meeting; however, he provided the following comment. There is no work being done within the SHA right-of-way; there are no further comments at this time.

Board of Zoning Appeals [BZA]

Ms. Rathvon reiterated that a special exception will be required for this project. A decision will be made the evening of the BZA's public hearing for approval or denial. The official opinion will be provided within 30 days of the date of the public hearing. After the official opinion has been delivered, there is a 30-day period for an appeal to be filed with the Circuit Court. If the special exception is approved, the developer may continue through the permitting and site plan processes at their own risk. If an appeal is filed in Circuit Court and the BZA ruling is overturned, fees may not be refunded to the developer. Ms. Rathvon noted that the developer should avoid placing SEGS on Class I and II prime agricultural soils.

Ms. Rathvon stated that a $500 fee is due at the time the Special Exception application is filed. The application must be filed in person either by the property owner or a representative of Chaberton. A sign will be provided and must be posted on the property. Staff will notify neighboring property owners with a courtesy letter and will place a legal notice in the local paper advertising the public hearing.

Addressing

Mr. Baker stated that an address will be assigned to the transformer as 16615 Lappans Road.

Washington County Health Department

Ms. Kimmy Armstrong stated she has reviewed the previous plan and septic permit for this site. The proposed gravel lane and perimeter fence appear to go over the existing septic system and septic reserve area. These will need to be moved and must be 10-feet from the existing septic system. The existing well and existing septic reserve area must be shown on the site plan.

Mr. Richards stated that both the fence and gravel lane will be moved.

Forest Conservation

Mr. Travis Allen was not present at the meeting; however, he provided the following comments. A permanent forest conservation easement wraps around the western and southern boundaries of the parcel, including the area proposed for the southernmost block of panels. These panels will need to be relocated elsewhere on the parcel because encroachment into the easement is prohibited. As long as the panels stay out of the easement, forest conservation has been previously satisfied for the parcel by the prior subdivision, including the clearing of all forest outside of the easement.

Soil Conservation District

Ms. Dee Price was not present at the meeting; however, she provided the following comments. A copy of the soils map must be provided with boundaries clearly delineated. An evaluation of streams and/or drainage ways, sinkholes, steep slopes, etc. must be provided. If buffers are required, they must be incorporated into the design of the site plan. Required buffers are required on the Soil Erosion and Sediment Control Plan, particularly if affected by the proposed project and/or within close proximity to the project area. This is particularly important during the Preliminary Concept/Concept Plan phase due to the possibility of design changes to accommodate identified sensitive areas.

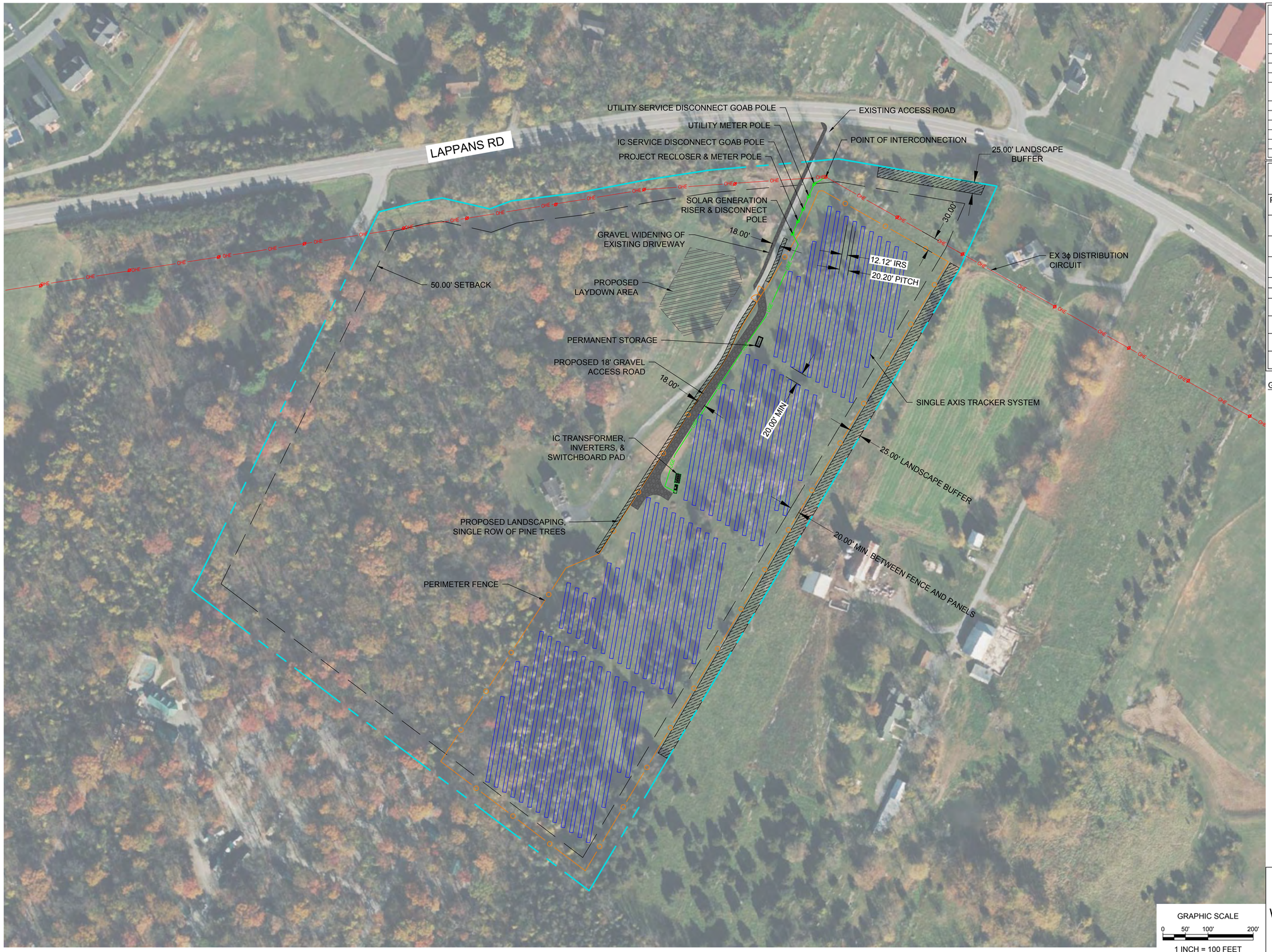
Closing Comments

All reviewing agencies will receive a copy of the written summary. If there are any discrepancies in the written summary, the Department of Planning & Zoning should be notified immediately. The summary will also be submitted to the Planning Commission for its review and comment. Planning Commission comments will be made a part of the record and should be addressed by the developer as the plan moves through the approval process.

Respectfully submitted,

Misty Wagner-Grillo, Planner
Washington County Department of Planning & Zoning

MAWG/dse



SYSTEM SUMMARY

DC SYSTEM SIZE	2,767.68 kWdc
AC SYSTEM SIZE	2,000.00 kWac
DC/AC RATIO	1.384
MODULES	QCELLS Q.TRON XL-G2 620 (620Wp) OR EQUIV.
MODULE QUANTITY	4,464
INVERTERS	CHINT CPS SCH275KTL-DO/US-800-36 V2 (250kW, 800V) OR EQUIV.
INVERTER QUANTITY	8
AZIMUTH	190°
TILT	0°
RACKING	SINGLE AXIS TRACKER
PITCH	20.20 FT
INTERROW SPACE	12.12 FT

LAYER LEGEND

PROP. UNDERGROUND ELECTRIC	UGE		
PROP. OVERHEAD ELECTRIC	OHE		
EX. UNDERGROUND ELECTRIC	UGE		
EX. OVERHEAD ELECTRIC	OHE		
PROP. FENCE			
PROPERTY LINE			
SOLAR PV MODULES		LANDSCAPE BUFFER	
ROAD		WETLANDS	
CONCRETE		FLOODPLAINS	
LAYDOWN AREA		WATER	

GENERAL NOTES:

1. DRAWING FOR INTERCONNECTION APPROVAL AND EPC BID ONLY. NOT FOR CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE UL LISTED FOR USE IN SYSTEM CONFIGURATION.
3. INSTALLATION SHALL COMPLY WITH THE LATEST STATE ADOPTED NEC.
4. EQUIPMENT LOCATIONS FOR PRELIMINARY DESIGN ONLY. EQUIPMENT LOCATION MAY BE SUBSTITUTED BY THE EPC AS APPROVED BY CEH.
5. SEE CIVIL ENGINEERING DRAWINGS FOR CIVIL SITE DETAILS.
6. PROPOSED INTERCONNECTION PATH AND POINT MAY BE SUBSTITUTED BY THE EPC AS APPROVED BY CEH.
7. INVERTER AC OUTPUT SHALL BE FACTORY LIMITED TO VALUES SHOWN IN THE INVERTER SUMMARY TABLE ON E-100.
8. MODULE AND FENCE LAYOUT ON E-001 SUPERSEDES THOSE SHOWN ON CIVIL DRAWINGS.
9. CONTRACTOR TO LOCATE TRANSFORMER PAD ON CREST OF HILL AND TO ENSURE PROPER DRAINAGE AWAY FROM PAD.

N W E S

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN 12/05/2024

PROJECT

CHABERTON SOLAR HEARTHSTONE LLC
2.77 MWdc / 2.00 MWac SINGLE AXIS TRACKER AT
16621 LAPPANS ROAD
WILLIAMSPORT, WASHINGTON COUNTY, MD 21795
39.5801°, -77.7925°

DEVELOPER

CHABERTON ENERGY
1700 Rockville Pike, Suite 305
Rockville, MD 20852

chaberton ENERGY

REV.	DESCRIPTION	DATE
-	-	-
-	-	-
A	REVISE FOR 2MWac DESIGN	3/11/2025

APPROVED BY: PMG
CHECKED BY: EJA
DESIGNED BY: JLA

DRAWING TITLE
ELECTRICAL SITE PLAN

REVISION A
DRAWING NO. E-001

\\emi Anderson\CEHTeam - Documents\4. Active Projects\4. MD\Hearthstone\6. Engineering\01 CAD\E-001 Hearthstone SP.dwg

ELECTRICAL NOTES:

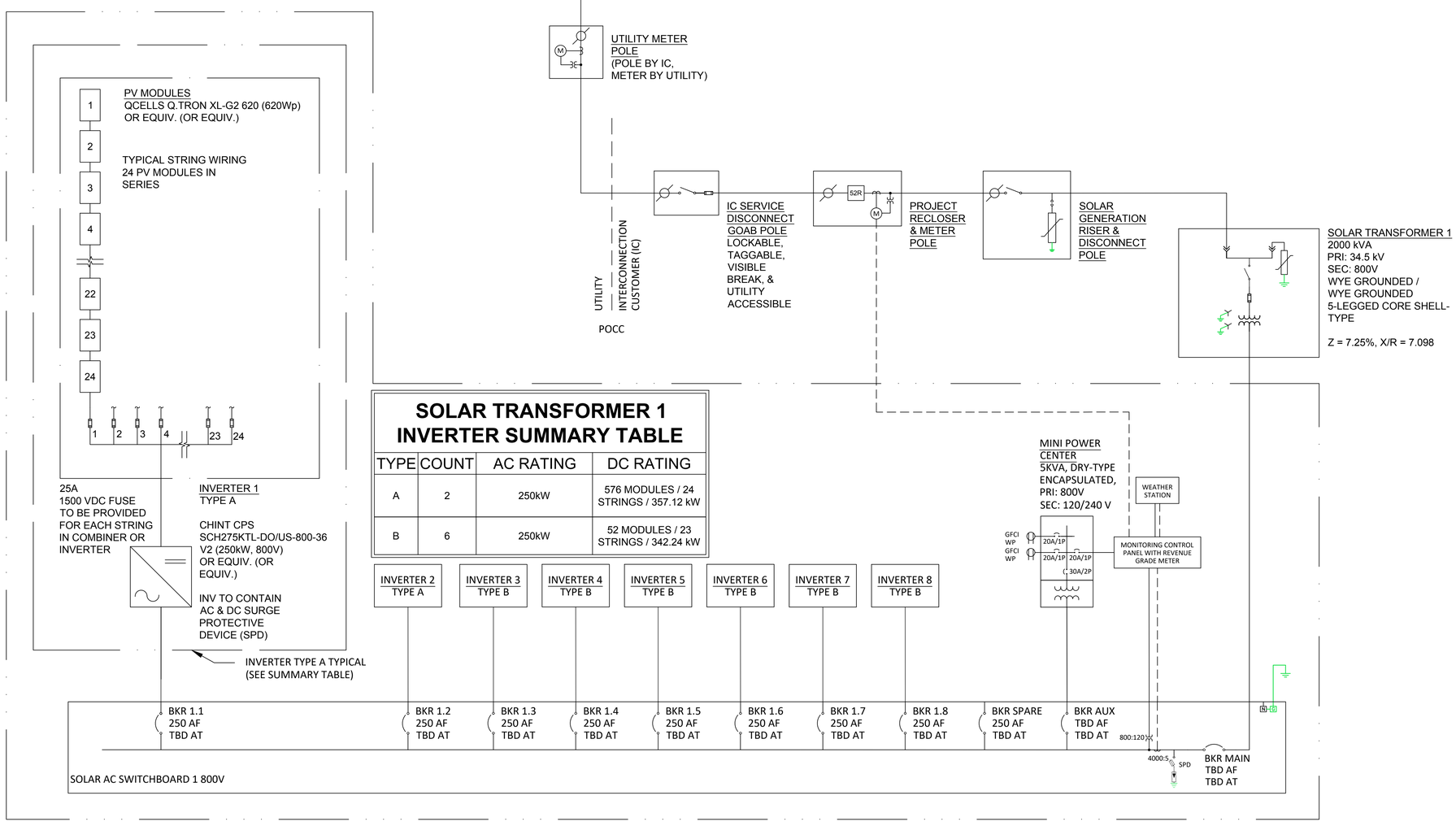
1. DRAWINGS FOR INTERCONNECTION APPROVAL ONLY - NOT FOR CONSTRUCTION.
2. ALL EQUIPMENT SHALL BE UL LISTED FOR USE IN SYSTEM CONFIGURATION.
3. INSTALLATION SHALL COMPLY WITH LATEST ADOPTED NEC.
4. RELAY PROTECTION SETTINGS PROVIDED ARE PRELIMINARY AND SUBJECT TO COORDINATION WITH LOCAL UTILITY.
5. MAXIMUM FACILITY OUTPUT (MFO) IS 2.00 MWac. GRID CONTROLLER AND PROTECTION SETTINGS SHALL NOT ALLOW MORE THAN MFO RATING. GRID CONTROLLER SHALL ALSO LIMIT POWER THROUGH EACH TRANSFORMER TO MAXIMUM RATING OF TRANSFORMER.
6. UPDATED INVERTER AT DERATED AC OUTPUT OR EQUIVALENT INVERTER SHALL BE PROVIDED IN FINAL DESIGN. DESIGN AC OUTPUT NOT TO EXCEED TRANSFORMER CAPACITY OR COMMUNITY SOLAR PROGRAM LIMITS.
7. SYSTEM SHALL BE CONFIGURED TO SHUTDOWN VIA ALL OF THE FOLLOWING MEANS:
   - -RECEPTION OF A REMOTE SIGNAL
   - -UPON LOSS OF UTILITY POWER
   - -LOCAL EMERGENCY POWER-OFF (EPO) INITIATING
   - -DEVICE-OPERATION OF DISCONNECTING MEANS

INVERTER TRIP SETTINGS

FUNCTION	SETTING VOLTAGE (P.U. OF NOMINAL VOLTAGE) / FREQUENCY (Hz)	CLEARING TIME (s)
UNDERVOLTAGE UV1	0.70	10.0
UNDERVOLTAGE UV2	0.45	0.16
OVERVOLTAGE OV1	1.1	2
OVERVOLTAGE OV2	1.2	0.16
UNDERFREQUENCY UF1	58.5	300
UNDERFREQUENCY UF2	56.5	0.16
OVERFREQUENCY OF1	61.2	300
OVERFREQUENCY OF2	62	0.16
OVERCURRENT SETTINGS TO BE DETERMINED		

SYSTEM SUMMARY

DC SYSTEM SIZE	2,767.68 kWdc
AC SYSTEM SIZE	2,000.00 kWac
DC/AC RATIO	1.384
MODULES	QCELLS Q.TRON XL-G2 620 (620Wp) OR EQUIV.
MODULE QUANTITY	4,464
INVERTERS	CHINT CPS SCH275KTL-DO/US-800-36 V2 (250kW, 800V) OR EQUIV.
INVERTER QUANTITY	8
AZIMUTH	190°
TILT	0°
RACKING	SINGLE AXIS TRACKER
PITCH	20.20 FT
INTERROW SPACE	12.12 FT



SOLAR TRANSFORMER 1 INVERTER SUMMARY TABLE

TYPE	COUNT	AC RATING	DC RATING
A	2	250kW	576 MODULES / 24 STRINGS / 357.12 kW
B	6	250kW	52 MODULES / 23 STRINGS / 342.24 kW

NOT FOR CONSTRUCTION

CONCEPTUAL DESIGN 12/05/2024

PROJECT

CHABERTON SOLAR HEARTHSTONE LLC
2.77 MWdc / 2.00 MWac SINGLE AXIS TRACKER AT
16621 LAPPANS ROAD
WILLIAMSPORT, WASHINGTON COUNTY, MD 21795
39.5801°, -77.7925°

DEVELOPER

CHABERTON ENERGY
1700 Rockville Pike, Suite 305
Rockville, MD 20852

chaberton ENERGY

REV.	DESCRIPTION	DATE
-	-	-
-	-	-
A	REVISE FOR 2MWac DESIGN	3/11/2025

APPROVED BY: PMG
CHECKED BY: EJA
DESIGNED BY: JLA

DRAWING TITLE
ELECTRICAL SINGLE LINE DIAGRAM

REVISION A

DRAWING NO. E-100

\\Jenni Anderson\CEI\Team - Documents\4. Active Projects\4. MD\Hearthstone\6. Engineering\01 CAD\E-100 Hearthstone SLD.dwg

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

ORDINANCE MODIFICATION STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Carol L. Gregory
NUMBER.....:	OM-25-004
OWNER.....:	GREGORY BRIAN S & CAROL L
LOCATION.....:	7660 FAIRPLAY Road Boonsboro, MD 21713
DESCRIPTION.....:	Ordinance Modification
ZONING.....:	RV; A(R) Refer to Map
COMP PLAN LU.....:	Agriculture
PARCEL.....:	12005709
PLANNING SECTOR.....:	2
ELECTION DISTRICT.....:	12
TYPE.....:	
GROSS ACRES.....:	
DWELLING UNITS.....:	
TOTAL LOTS.....:	
DENSITY.....:	N/L Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	FOX & ASSOCIATES INC
RECEIVED.....:	May 2, 2025

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	No
WETLANDS.....:	None
WATERSHED.....:	Marsh Run
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	No Resources Present
EASEMENTS PRESENT.....:	None

SCHOOL INFORMATION

Staff Comments:
Not Applicable

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Fountain Rock	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	
AMBULANCE DISTRICT.....:	

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	No Provider	No Provider

SERVICE AREA.....:	No Provider	No Provider
PRIORITY.....:	7-No Planned Service-Well	7-No Planned Service-Septic
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		None

Washington County
MARYLAND

DEPARTMENT OF PLANNING & ZONING
PLANNING | ZONING | LAND PRESERVATION | FOREST CONSERVATION | GIS

WASHINGTON COUNTY PLANNING COMMISSION
APPLICATION FOR SUBDIVISION ORDINANCE MODIFICATION

APPLICANT

NAME Carol L. Gregory

MAILING ADDRESS 7660 Fairplay Rd, Boonsboro, MD 21713

TELEPHONE (301) 991-0161
(home) (work) (cell)

PROPERTY OWNER

NAME Carol L. Gregory

MAILING ADDRESS 7660 Fairplay Rd, Boonsboro, MD 21713

TELEPHONE (301) 991-0161
(home) (work) (cell)

CONSULTANT

NAME Fox & Associates, Inc.

ADDRESS 981 Mt. Aetna Road, Hagerstown, MD 21740

TELEPHONE (301) 733-8503

DESCRIPTION OF PROPERTY

TAX ACCOUNT ID # (Required) 12005709

PARCEL REFERENCE: MAP 0067 GRID 0013 PARCEL 0064

PROPOSED LOT ACREAGE 4.74 & 5.21 TOTAL SITE ACREAGE 9.95

ZONING DISTRICT A(R) ROAD FRONTAGE (FT) 50'

747 Northern Avenue | Hagerstown, MD 21742 | P: 240.313.2430 | F: 240.313.2431 | TDD: 7-1-1

WWW.WASHCO-MD.NET

LOCATION / ADDRESS
7660 Fairplay Rd, Boonsboro, MD 21713

EXISTING AND PROPOSED USE OF PROPERTY
Residential

LOT TO BE CONVEYED TO IMMEDIATE FAMILY MEMBER
Yes (Daughters)

SUBDIVISION MODIFICATION INFORMATION

MODIFICATION TO SUBDIVISION ORDINANCE SECTION 405.11.G.5

MODIFICATION IS TO ALLOW
Two panhandle lots in excess of 400 feet.

STATEMENT OF JUSTIFICATION TO THE REQUESTED MODIFICATION (quantify modification – i.e. hardship resulting from irregular shape; safety hazard; topographic conditions; extraordinary hardship; other

The owner of the existing parcel/lot desires to subdivide two (2) lots, one for each of her daughters. The existing parcel/lot has two (2) points of access to Fairplay Rd. One point of access is 25 feet wide, the second point of access is 50 feet wide. The owner desires to use the second point of access to create two panhandles, each 25 feet wide as access for the proposed two lots. Each panhandle would be greater than 400 feet in length due to the existing properties which lie between the owners parcel/lot and Fairplay Rd.

(Attach additional sheets if necessary)

In addition, twelve (12) sketch plans, drawn to scale must accompany this application showing: the dimensions and shape of proposed lot with acreage; size and location of existing and/or future structures; existing/proposed roadways and associated access rights-of-way or easements; existing/proposed entrance/exit to property; natural or topographic peculiarities of the lot in question.

To the best of my knowledge, the information provided in this application and other material submitted is correct.

Applicant's Signature | Date

Carol Gregory | 4/28/25

Property Owner's Signature | Date

STAFF USE ONLY:

STAFF PLANNER: _____ DATE RECEIVED: _____

NUMBER: _____

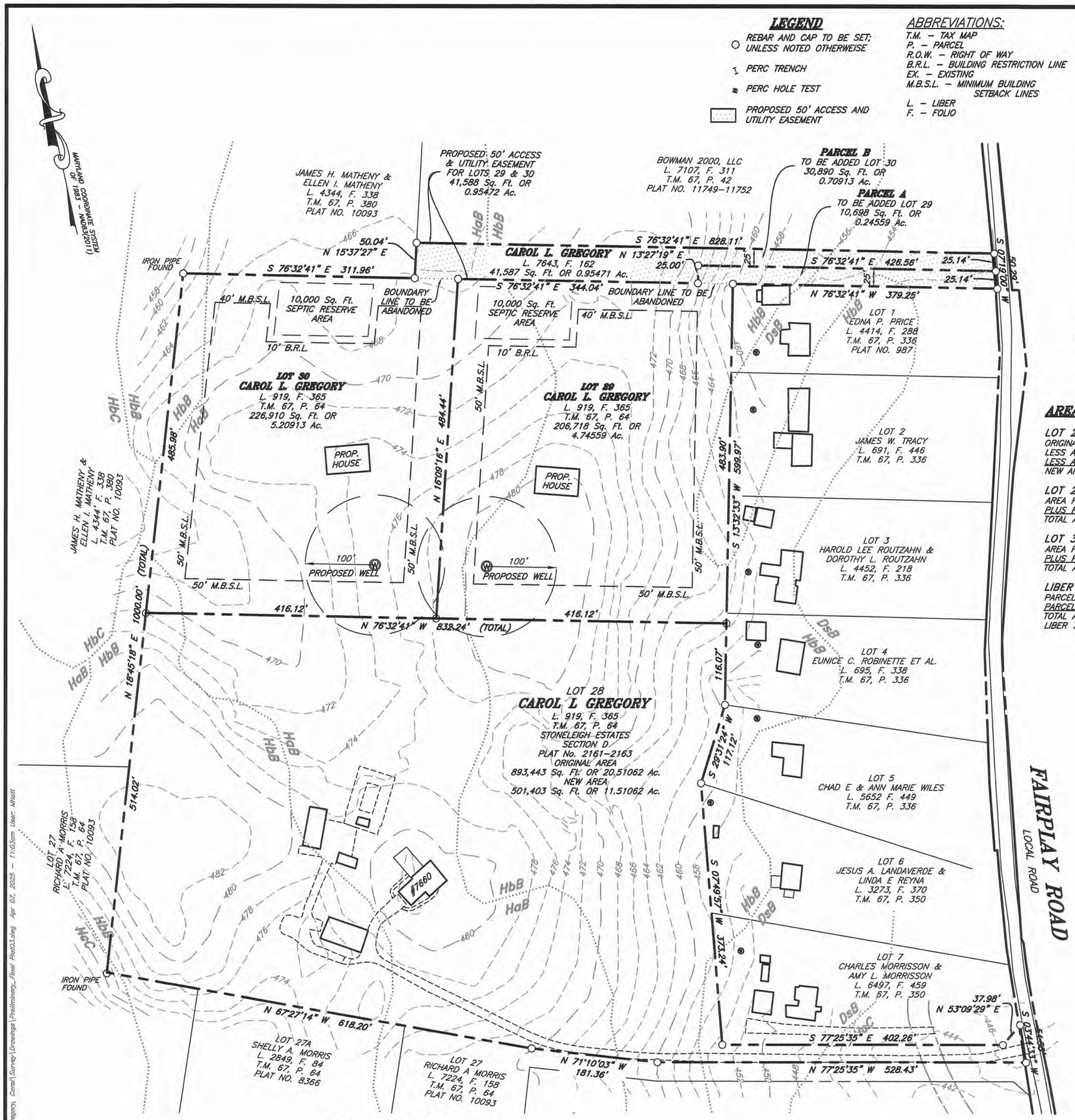
MEETING DATE: _____

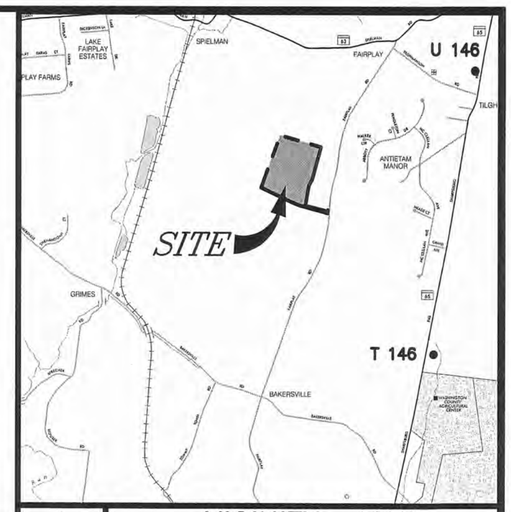
LEGEND

- REBAR AND CAP TO BE SET; UNLESS NOTED OTHERWEISE
- PERC TRENCH
- PERC HOLE TEST
- PROPOSED 50' ACCESS AND UTILITY EASEMENT

ABBREVIATIONS:

T.M. – TAX MAP
P. – PARCEL
R.O.W. – RIGHT OF WAY
B.R.L. – BUILDING RESTRICTION LINE
EX. – EXISTING
M.B.S.L. – MINIMUM BUILDING SETBACK LINES
L. – LIBER
F. – FOLIO





VICINITY MAP

SCALE: NOT TO SCALE
TAX MAP 67 PARCEL 64
COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NUMBER 21004221

AREA TABULATION TABLE

LOT 28			
ORIGINAL AREA OF LOT 28	893,443 Sq. Ft.	OR	20.51062 Ac.
LESS AREA TO LOT 29	196,020 Sq. Ft.	OR	4.50000 Ac.
LESS AREA TO LOT 30	196,020 Sq. Ft.	OR	4.50000 Ac.
NEW AREA OF LOT 28	501,403 Sq. Ft.	OR	11.51062 Ac.
LOT 29			
AREA FROM LOT 28	196,020 Sq. Ft.	OR	4.50000 Ac.
PLUS PARCEL A	10,698 Sq. Ft.	OR	0.25559 Ac.
TOTAL AREA OF LOT 29	206,718 Sq. Ft.	OR	4.74559 Ac.
LOT 30			
AREA FROM LOT 28	196,020 Sq. Ft.	OR	4.50000 Ac.
PLUS PARCEL B	30,890 Sq. Ft.	OR	0.70913 Ac.
TOTAL AREA OF LOT 30	226,910 Sq. Ft.	OR	5.20913 Ac.
LIBER 7643, FOLIO 162			
PARCEL A	10,698 Sq. Ft.	OR	0.24559 Ac.
PARCEL B	30,890 Sq. Ft.	OR	0.70913 Ac.
TOTAL AREA FROM LIBER 7643, FOLIO 162	41,588 Sq. Ft.	OR	0.95472 Ac.

PLAT No._____
DATE
WASHINGTON COUNTY

PRELIMINARY/FINAL PLAT
LANDS OF
CAROL L. GREGORY
LOTS 29 & 30, SECTION D
STONELEIGH ESTATES
SITUATE WEST OF FAIRPLAY ROAD
BOONSBORO, WASHINGTON COUNTY, MARYLAND

SHEET 1 OF 2
COUNTY FILE NO. S-25-000

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

OWNER/DEVELOPER
CAROL L. GREGORY
7660 FAIRPLAY ROAD
BOONSBORO, MD 21713
(301)991-0161

DRAWN BY: M.E.H.	DATE: 01/24/25
CHECKED BY: G.E.N.	DATE: 01/24/25
SCALE: 1"=100'	

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MARYLAND 21740
PHONE: (301)733-8503
FAX: (301)733-1853
82 WORMAN'S MILL CT. STE. 'G'
FREDERICK, MARYLAND 21701
PHONE: (301)695-0880
FAX: (301)293-6009

FOX & ASSOCIATES INC. Est. 1966
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DISTRICT 12
TAX MAP No. 67
DWG. No. C – 3914

H:\12\50620\24-51292 Gregory, Carol\Survey\Drawings\Preliminary_Final Plat\3.dwg Apr 07, 2025 – 11:03am User: MHott

SURVEYORS CERTIFICATION

I HEREBY CERTIFY, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF, THAT THE PLAN SHOWN HEREON IS CORRECT; THAT IT IS PART OF THE LANDS CONVEYED BY JOHN R. OLIVER CO., INC. UNTO BRIAN S. GREGORY & CAROL L. GREGORY, BY DEED DATED JUNE 1, 1989, RECORDED IN LIBER 919, AT FOLIO 365, AND ALL OF THE LAND CONVEYED BY BOWMAN 2000, LLC UNTO CAROL L. GREGORY BY DEED DATED MARCH 19, 2025, RECORDED IN LIBER 7643, AT FOLIO 162, BOTH DEEDS BEING FOUND AMONG THE LAND RECORDS OF WASHINGTON COUNTY, MARYLAND; AND FURTHER THAT THIS PLAN WAS PERSONALLY PREPARED BY ME, OR THAT I WAS IN RESPONSIBLE CHARGE OVER ITS PREPARATION AND THE SURVEYING WORK REFLECTED HEREON, ALL IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN COMAR 09.13.06.12 IN EFFECT AT THE TIME THIS SURVEY WAS PERFORMED.

04/07/2025
DATE

GEORGE E. NAGEL
PROFESSIONAL LAND SURVEYOR
MARYLAND REGISTRATION NO. 21052
EXPIRATION/RENEW DATE: 08/24/2026

STATE OF MARYLAND · GEORGE EDWARD NAGEL · 21052 · PROFESSIONAL LAND SURVEYOR

OWNERS DEDICATION

I HEREBY CERTIFY THAT I AM THE LEGAL AND TRUE OWNER OF THE PROPERTY SHOWN AND DESCRIBED ON THIS PLAT AND THAT THE I ADOPT THIS PLAN OF SUBDIVISION, ESTABLISH THE MINIMUM BUILDING RESTRICTION LINES, DEDICATE TO PUBLIC USE ALL UTILITY AND DRAINAGE EASEMENT AREAS AND ALL ALLEY, STREET, AND ROAD RIGHTS OF WAY DESIGNATED ON THIS PLAT, AGREE TO KEEP OPEN ALL SPACES AND RECREATION AREAS SHOWN, AND AGREE THAT THE DEDICATIONS SHALL NOT IMPOSE ANY RESPONSIBILITY ON THE BOARD OF COUNTY COMMISSIONERS OF WASHINGTON COUNTY REGARDING THE SUBJECTS OF SUCH DEDICATIONS UNTIL LEGAL ACCEPTANCE THEREOF BY SAID BOARD, AND I HEREBY RESERVE THE FEE SIMPLE TITLE TO THE LAND UNDERLYING SAID EASEMENTS, RIGHTS OF WAY, OPEN SPACES AND RECREATION AREAS AND, WITH REGARD TO THE SAID EASEMENTS AND RIGHTS OF WAY, HEREBY AGREE TO CONVEY THE SAME TO SAID BOARD, FOR THE USE OF SAID WASHINGTON COUNTY, WITHOUT CONSIDERATION, UPON THE LEGAL ACCEPTANCE OF SAID EASEMENTS AND/OR RIGHTS OF WAY BY SAID BOARD.

THIS DEED AND AGREEMENT OF DEDICATION SHALL BE BINDING UPON OUR GRANTEES, ASSIGNS, AND SUCCESSORS.

THERE ARE NO SUITS, ACTIONS AT LAW, LEASES. LIENS, MORTGAGES, TRUSTS, EASEMENTS OR RIGHTS OF WAY AFFECTING THE PROPERTY INCLUDED IN THIS PLAN OF SUBDIVISION EXCEPT THE FOLLOWING:

AND ALL PARTIES AND INTERESTS THERETO HAVE HEREUNTO AFFIXED THEIR SIGNATURES, INDICATING THEIR ASSENT TO THIS PLAN OF SUBDIVISION.

WITNESS OUR HANDS AND SEALS THIS _____ DAY OF _____, 2025.

WITNESS CAROL L. GREGORY

INTERIM FACILITIES PROVISION CERTIFICATE

IN COMPLIANCE WITH COMAR 26.03.01.05.B. (1) AND (2) THE INDIVIDUAL WATER SUPPLY AND/OR SEWER SYSTEM IS HEREBY PERMITTED ON A TEMPORARY INTERIM BASIS. FUTURE LOT OWNERS ARE ADVISED THAT THE INDIVIDUAL SYSTEMS SERVING THE LOT INDICATED ON THIS PLAT ARE OF TEMPORARY INTERIM NATURE AND THAT CONNECTION TO A FUTURE COMMUNITY SYSTEM SHALL BE MADE WITHIN ONE (1) YEAR OR LESS AFTER THE SYSTEM BECOMES AVAILABLE.

DATE CAROL L. GREGORY

SENSITIVE AREA NOTICE

THE STREAM BUFFETS SHOWN HEREON ARE ESTABLISHED PURSUANT TO THE REQUIREMENTS OF THE WASHINGTON COUNTY SUBDIVISION ORDINANCE ARTIVE IV, SECTION 409. IN AN EFFORT TO PRESERVE OR IMPROVE WATER QUALITY, THE PROPERTY OWNER IS REQUIRED TO ESTABLISH AND THEREAFTER MAINTAIN IN PERPETUITY VEGETATIVE GROUND COVER IN ACCORDANCE WITH URBAN BEST MANAGEMENT PRACTICES RECOMMENDED BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT. NO PERMANENT STRUCTURES OR CONSTRUCTION ARE PERMITTED WITHIN THE STREAM BUFFER EXCEPT THOSE DESIGNED TO IMPROVE WATER QUALITY OR FLOW AS APPROVED BY THE WASHINGTON COUNTY PLANNING COMMISSION IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS LAWS, AND POLICIES. NO SEPTIC SYSTEM SHALL BE CONSTRUCTED WITHIN THE BUFFER NOR SHALL ANY RESERVE AREA BE ESTABLISHED WITHIN THE BUFFER.

INTRAFAMILY TRANSFER DECLARATION OF INTENT

DISTRICT – 12 ACCOUNT # 005709 MAP – 67 GRID – 13 PARCEL – 064
PROPERTY OWNER(S) NAMES: CAROL L. GREGORY
PERMANENT MAILING ADDRESS: 7660 FAIRPLAY RD, BOONSBORO, MD 21713
RECIPIENTS NAME(S): JESSICA LEE LOCKE & JAMIE LYNN LOCKE
RECIPIENTS RELATIONSHIP TO OWNER(S): DAUGHTER
PROPERTY LOCATION: SITUATE WEST OF FAIRPLAY ROAD

CURRENT DEED REFERENCE(S): LIBER 919, FOLIO 365

I (WE), CAROL L. GREGORY, THE OWNER(S) OF THE REAL PROPERTY LOCATED AT 7660 FAIRPLAY ROAD, BOONSBORO, MD 21713 AND DESCRIBED IN THE ABOVE REFERENCED DEED(S) HEREBY DECLARE MY (OUR) INTENTION TO INVOKE THE INTRAFAMILY TRANSFER EXEMPTION FOR THE ABOVE REFERENCED PROPERTY, IN ACCORDANCE WITH THE PROVISIONS OF THE WASHINGTON COUNTY FOREST CONSERVATION ORDINANCE AND COMAR 08.19.01.04, FOR A PERIOD OF FIVE (5) CONSECUTIVE FULL TAXABLE YEARS FOLLOWING THE DATE OF RECORDATION OF THIS DOCUMENT.

THIS DECLARATION GRANTS AN EXEMPTION FOR THE PURPOSE OF CONSTRUCTING A DWELLING HOUSE INTENDED FOR THE USE OF THE OWNER, OR THE IMMEDIATE FAMILY MEMBER OF THE OWNER IDENTIFIED ABOVE BASED ON THE WASHINGTON COUNTY FOREST CONSERVATION ORDINANCE. IF THE LAND DOES NOT REMAIN IN THE POSSESSION OF AN IMMEDIATE FAMILY MEMBER FOR A PERIOD OF FIVE (5) YEARS THE OWNER MUST NOTIFY THE WASHINGTON COUNTY PLANING COMMISSION AND MAY LOSE THIS EXEMPTION. IF THE OWNER MAKES APPLICATION FOR AN ACTIVITY REGULATED UNDER THE FOREST CONSERVATION ORDINANCE, CLEARS MORE THAN 20,000 SQUARE FEET OR MORE OF FOREST FROM THE ABOVE REFERENCED PROPERTY, OR VIOLATES THE REQUIREMENTS OF A PREVIOUS FOREST CONSERVATION PLAN ON ALL OR PART OF THE LOT WITHIN THE FIVE (5) YEAR PERIOD COVERED BY THIS DECLARATION OF INTENT, WASHINGTON COUNTY MAY RE-EVALUATE THE EXEMPT STATUS CONFERRED BY THIS DECLARATION OF INTENT TO DETERMINE IF THE REGULATED ACTIVITY WILL REQUIRE THE OWNER TO MEET AFFORESTATION OR REFORESTATION REQUIREMENTS ESTABLISHED IN THE FOREST CONSERVATION ORDINANCE AND COMAR 08.19.03. FORESTED AREAS CUT IN VIOLATION OF THIS EXEMPTION MAY ALSO BE SUBJECT TO NONCOMPLIANCE FEES.

I (WE) DECLARE, UNDER THE PENALTIES OF LAW, THAT THIS DECLARATION, INCLUDING ANY ACCOMPANYING FORMS AND STATEMENTS, HAS BEEN EXAMINED BY ME (US) AND THE INFORMATION CONTAINED HEREIN, TO THE BEST OF MY (OUR) KNOWLEDGE, INFORMATION, AND BELIEF, IS TRUE, CORRECT, AND COMPLETE.

SIGNATURE: _____
CAROL L. GREGORY DATE

CERTIFICATE OF APPROVAL OF INDIVIDUAL SEWERAGE SYSTEMS

I HEREBY CERTIFY THAT THE MINIMUM OWNERSHIP AREA COMPLIES WITH THE MINIMUM WIDTH AND MINIMUM AREA REQUIREMENTS SPECIFIED IN COMAR 26.04.03.03. SUCH MINIMUM OWNERSHIP SHALL REMAIN EQUAL TO THE MINIMUM WIDTH AND MINIMUM AREA SET FORTH IN COMAR 26.04.03.03A. (2) UNTIL COMMUNITY SEWERAGE HAS BEEN MADE AVAILABLE, NOT MORE THAN ONE PRINCIPAL BUILDING MAY BE ERECTED OR CONSTRUCTED ON A LOT, OR LOTS, CONTAINED IN THE MINIMUM OWNERSHIP AREA AS ESTABLISHED BY COMAR 26.04.03.03A (2) UNTIL COMMUNITY SEWERAGE HAS BEEN MADE AVAILABLE.

DATE COUNTY HEALTH OFFICER

CERTIFICATE OF APPROVAL

FINAL APPROVAL GRANTED WASHINGTON COUNTY PLANNING COMMISSION

DATE FINAL APPROVAL GOOD FOR SIX MONTHS FROM ABOVE DATE

SOILS DETAILS

DsB	DUFFIELD SILT LOAM	8 TO 15 PERCENT SLOPES	4.5% OF SITE
HaB	HAGERSTOWN SILT LOAM	3 TO 8 PERCENT SLOPES	54.5% OF SITE
HbB	HAGERSTOWN SILTY CLAY LOAM	3 TO 8 PERCENT SLOPES	41.0% OF SITE

ADDRESS ASSIGNMENTS

LOT 28	XXXX FAIRPLAY ROAD
LOT 29	XXXX FAIRPLAY ROAD
LOT 30	7660 FAIRPLAY ROAD

NOTE: EACH ADDRESS IS BASED ON THE ENTRANCE AS SHOWN ON THE PLAT. IF THE DRIVEWAYS ARE CONSTRUCTED AT A DIFFERENT LOCATION, THE ADDRESS FOR THAT LOT IS VOID AND THE OWNER/DEVELOPER OF THE LOT MUST REAPPLY TO THE DEPARTMENT OF PLANNING & ZONING FOR A NEW ADDRESS ASSIGNMENT.

NOTES:

1. BEARINGS & DISTANCES ARE ARE IN AGREEMENT WITH A RECENT FIELD RUN, MONUMENTAL SURVEY BY FOX & ASSOCIATES, INC. DATED APRIL 2014.
2. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM WASHINGTON COUNTY GIS DATA. CONTOUR INTERVAL IS 2'.
3. AN EIGHT (8) FOOT WIDE EASEMENT FOR UTILITIES AND DRAINAGE IS DEDICATED ALONG THE INTERIOR OF ALL SIDES AND REAR LOT LINES. A TEN (10)FOOT WIDE EASEMENT FOR UTILITIES IS DEDICATED ALONG THE INTERIOR OF ALL FRONT LINES.
4. BY GRAPHIC PLOTTING ONLY, THE PROPERTY SHOWN HEREON LIES WITHIN "ZONE –X, OTHER FLOOD AREAS", AS SHOW ON FEMA FLOOD INSURANCE RATE MAP (FIRM), 24043C0295D, WITH AN EFFECTIVE DATE OF AUGUST 15, 2017, AND IS NOT IN A SPECIAL FLOOD HAZARD AREA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE.
5. ZONING – "A(R)" AGRICULTURAL (RURAL).
6. MINIMUM BUILDING SETBACK LINES (MBSL):
   FRONT=40'
   SIDES=15'
   REAR=50'
7. THE LOTS ARE SERVED BY INDIVIDUAL WELLS AND SEPTIC.
8. THERE ARE NO HOUSES, WELLS, OR SEPTIC WITHIN 100 FEET OF THE SUBJECT PROPERTY UNLESS SHOWN.
9. ADDRESS IS BASED ON THE ENTRANCE LOCATION. IF DRIVEWAY IS CONSTRUCTED IN A DIFFERENT LOCATION, ADDRESS IS VOID AND OWNER MUST REAPPLY TO THE WASHINGTON COUNTY PLANNING COMMISSION FOR A NEW ADDRESS ASSIGNMENT.
10. FAIRPLAY ROAD – LOCAL ROAD.
11. ACCESSORY STRUCTURES MAY BE CONSTRUCTED IN ACCORDANCE WITH SEC. 4.10 AND SEC. 23.5B.
12. THERE ARE NO FLOODPLAINS, STEEP SLOPES, STREAMS AND RELATED BUFFERS, OR HABITAT OF THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE PER 50 CFR 17 AS REQUIRED TO BE SHOWN BY SECTION 314 OF THE SUBDIVISION ORDINANCE AND SECTION 4.21 OF THE ZONING ORDINANCE.
13. THIS RESIDENTIAL SUBDIVISION PLAT IS SUBJECT TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS. ANY FURTHER POTENTIAL OF SUBDIVISION OF ANY LOTS OR REMAINING LANDS CREATED BY THIS SUBDIVISION IS SUBJECT TO THE REQUIREMENTS OF THE MARYLAND ANNOTATED CODE, ENVIRONMENT ARTICLE, SECTION 9–206 AND ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS.
14. IN ACCORDANCE WITH THE REQUIREMENTS OF THE MARYLAND ANNOTATED CODE, ENVIRONMENT ARTICLE, SECTION 9–206, UPON RECORDATION OF THIS PLAT, A TOTAL OF 2 RESIDENTIAL LOTS, PLATS, BUILDING SITES, OR OTHER DIVISION OF LAND HAVE BEEN CREATED FROM THE PARENT PARCEL OR TRACT SINCE OCTOBER 1, 2012. IN ACCORDANCE WITH MARYLAND ANNOTATED CODE, ENVIRONMENT ARTICLE, SECTION 9–206 AND SUBJECT TO ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS, THERE ARE NOT MORE THAN 5 (REMAINING) RESIDENTIAL LOTS, PLATS, BUILDING SITES, OR OTHER DIVISION OF LAND ALLOWED AS A SUBDIVISION.
15. DRAINAGE AREA IS LESS THAN 40 ACRES.

PLAT No._____
DATE
WASHINGTON COUNTY

PRELIMINARY/FINAL PLAT
LANDS OF
CAROL L. GREGORY
LOTS 29 & 30, SECTION D
STONELEIGH ESTATES
SITUATE WEST OF FAIRPLAY ROAD
BOONSBORO, WASHINGTON COUNTY, MARYLAND

SHEET 2 OF 2
COUNTY FILE NO. S-25-000

OWNER/DEVELOPER
CAROL L. GREGORY
7660 FAIRPLAY ROAD
BOONSBORO, MD 21713
(301)991-0161

DRAWN BY: M.E.H.	DATE: 01/24/25
CHECKED BY: G.E.N.	DATE: 01/24/25
SCALE: 1"=100'	

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MARYLAND 21740
PHONE: (301)733-8503
FAX: (301)733-1853
82 WORMAN'S MILL CT. STE. 'G'
FREDERICK, MARYLAND 21701
PHONE: (301)695-0880
FAX: (301)293-6009

FOX & ASSOCIATES INC. EST. 1966
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DISTRICT 12
TAX MAP No. 67
DWG. No. C - 3914

N:\12\30630\24-51282 Gregory, Carol\Survey\Drawings\Preliminary_Final Plat\CE.dwg Apr 07, 2025 - 11:02am User: MNott

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Saint James School - Turner Athletic Center
NUMBER.....:	SP-23-016
OWNER.....:	ST JAMES SCHOOL TRUSTEES OF
LOCATION.....:	17525 KELLETT Drive Hagerstown, MD 21740
DESCRIPTION.....:	Revision to Previously Approved Site Plan - County Reference No. SP-21-034
ZONING.....:	Agricultural, Rural
COMP PLAN LU.....:	Agriculture
PARCEL.....:	02021242
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	02
TYPE.....:	Institutional
GROSS ACRES.....:	133.31
DWELLING UNITS.....:	0
TOTAL LOTS.....:	0
DENSITY.....:	0 Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	TRIAD ENGINEERING
RECEIVED.....:	May 9, 2023

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	Yes
WETLANDS.....:	Yes
WATERSHED.....:	Marsh Run
ENDANGERED SPECIES.....:	State Listed
HISTORIC INVENTORY.....:	I014
EASEMENTS PRESENT.....:	None

SITE DESIGN

Impervious Area Plan	**Impervious Maximum Allowed**	**Open Space Area Planned**

Staff Comments:

Not Applicable

Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Loading Area Meets Requirements		
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
Parking Spaces - Minimum Required	**Recreational Parking Provided**	

Not Fast Track

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Fountain Rock	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

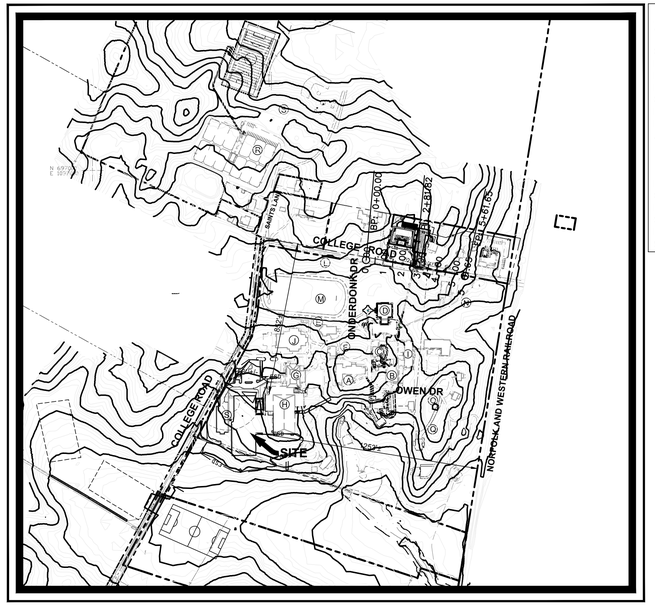
FIRE DISTRICT.....:	FAIRPLAY
AMBULANCE DISTRICT.....:	WILLIAMSPORT

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	Private	County
SERVICE AREA.....:	Private	County
PRIORITY.....:	1-Existing Service	1-Existing Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		St. James School

SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER

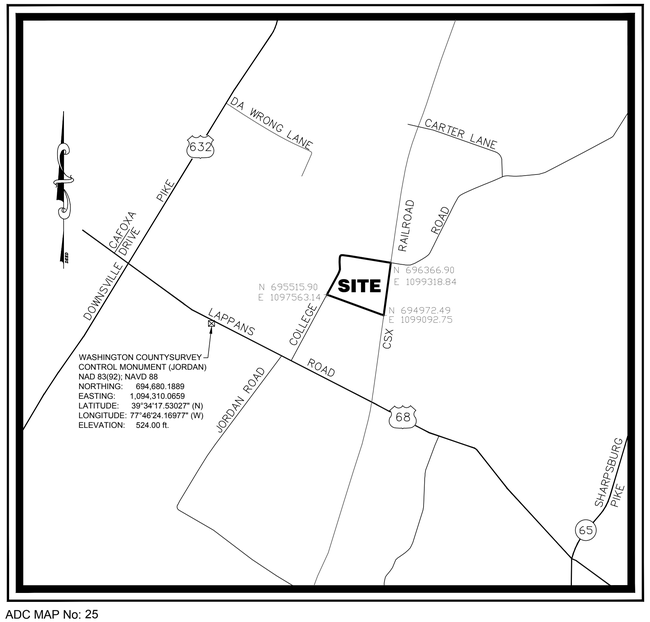
LOCATION MAP:



MAP LOCATION
- A-CLAGGETT HALL
- B-JOHN E. OWENS LIBRARY
- C-KEMP HALL
- D-POWELL HALL
- E-CHAPEL
- F-LAIDLAW INFIRMARY
- G-BOW-BYRON FINE ARTS CENTER
- H-ALUMNI HALL (FIELD HOUSE)
- I-GIRL'S DORMITORY
- J-DINING HALL
- K-TREATMENT FACILITY
- L-TRACK
- M-FOOTBALL FIELD
- N-DORMITORY
- O-STAFF HOUSING
- P-HERSHEY HALL
- Q-JOHN ROSS FULTON HOUSE
- R-EXISTING TENNIS COURTS
- S-EXISTING BASEBALL FIELD

SCALE: 1" = 400'

VICINITY MAP:



WASHINGTON COUNTYSURVEY CONTROL MONUMENT (JORDAN)
NAD 83(92); NAVD 88
NORTHING: 694,680.1889
EASTING: 1,094,310.0659
LATITUDE: 39°34'17.53027" (N)
LONGITUDE: 77°46'24.16977" (W)
ELEVATION: 524.00 ft.

ADC MAP No: 25
GRID: 4J
SCALE: 1"=2,000'

SITE DATA:

TYPE OF USAGE:	INSTITUTIONAL
ACREAGE PER DEED:	133.31 ACRES
ZONING:	A - AGRICULTURAL
PHYSICAL ADDRESS:	17836 COLLEGE ROAD HAGERSTOWN, MD. 21740
PURPOSE OF PLAN:	NEW ATHLETIC CENTER ADDITION
STORMWATER QUALITY:	5 MICRO BIORETENTION PONDS FOR ESD
STORMWATER QUANTITY:	HANDLED ON-SITE VIA BIORETENTION CONTROL
EXCISE TAX CLASSIFICATION:	N/A
DISTURBED AREA:	4.978 AC.

PROJECT CONTACTS:

OWNER:	SAINT JAMES SCHOOL, INC.
MAILING ADDRESS-	17641 COLLEGE ROAD SAINT JAMES, MD 21740
PHONE NUMBER-	301-733-9330 EXT. 3014
CONTACT-	BILL WIVELL BUSINESS MANAGER
SITE :	SAINT JAMES SCHOOL
ADDRESS-	17641 COLLEGE ROAD HAGERSTOWN, MD 21740
PHONE NUMBER-	301-733-9330 EXT. 3014
CONTACT-	BILL WIVELL BUSINESS MANAGER

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STORMWATER MANAGEMENT SUMMARY TABLE

PROJECT NAME: SAINT JAMES - ATHLETIC CENTER
COUNTY PROJECT No. (SP,PP,GP) SP-21-034

ESD PRACTICES (CHAPTER 5 -STRUCTURAL & NON-STRUCTURAL)

TYPE	No.	DA (TO STRUCTURE)	IMPERVIOUS DA (TO STRUCTURE)	RCN	ESDv REQUIRED (ac-ft)	ESDv PROVIDED (ac-ft)	TOTAL VOLUME (ac-ft)	WQv(ac-ft)	CPv(ac-ft)	CPv(cfs) (DISCHARGE)	Rev (ac-ft)	PE ADDRESSED (ESD/TOT)(IN)
MB	1 FB	0.69 AC.	0.45 AC.	55	0.073	0.090	0.106	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	2.44/2.87
MB	2 FB	0.58 AC.	0.44 AC.	55	0.078	0.088	0.110	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	2.5/3.16
MB	3 FB	0.64 AC.	0.45 AC.	55	0.080	0.085	0.101	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	2.5/3.46
MB	4 FB	0.64 AC.	0.48 AC.	55	0.084	0.096	0.117	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	2.5/3.03
MB	5 FB	0.23 AC.	0.19 AC.	55	0.030	0.037	0.045	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	2.5/2.84
WS	1 FB	0.15 AC.	0.05 AC.	55	0.008	0.011	0.013	-	PROVIDED WITH ESD	PROVIDED WITH ESD	PROVIDED WITH ESD	1.8/2.7
~~MB~~	~~1 ALT 1~~	~~0.70 AC.~~	~~0.46 AC.~~	~~55~~	~~0.074~~	~~0.091~~	~~0.106~~	~~-~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~2.42/2.87~~
~~MB~~	~~2 ALT1~~	~~0.54 AC.~~	~~0.40 AC.~~	~~55~~	~~0.071~~	~~0.088~~	~~0.110~~	~~-~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~2.5/3.45~~
~~MB~~	~~4 ALT 1~~	~~0.67 AC.~~	~~0.46 AC.~~	~~55~~	~~0.082~~	~~0.093~~	~~0.117~~	~~-~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~2.5/2.59~~
~~MB~~	~~5 ALT 1~~	~~0.25 AC.~~	~~0.20 AC.~~	~~55~~	~~0.035~~	~~0.037~~	~~0.045~~	~~-~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~2.31/2.84~~
~~WS~~	~~1 ALT 1~~	~~0.15 AC.~~	~~0.05 AC.~~	~~55~~	~~0.008~~	~~0.011~~	~~0.013~~	~~-~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~PROVIDED WITH ESD~~	~~1.8/2.7~~

CERTIFICATIONS:

OWNER/DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY AND THE POLICY ON CONSTRUCTION OF SUBDIVISION INFRASTRUCTURE FOR ACCEPTANCE AND OWNERSHIP BY WASHINGTON COUNTY (S-3).

12/15/21 — DATE
WILLIAM WIVELL — PRINTED NAME
SIGNATURE

WASHINGTON COUNTY DIVISION OF ENGINEERING
GRADING & STORMWATER MANAGEMENT APPROVAL

SIGNATURE — DATE

ENGINEER'S STORM WATER MANAGEMENT CERTIFICATION

I VERIFY AND AFFIRM THAT THE CONSTRUCTION FOR THE STORMWATER MANAGEMENT FACILITIES AS PERFORMED EITHER MEETS OR EXCEEDS THE REQUIREMENTS AND DESIGN INTENT OF THIS PLAN, INCLUDING ALL SPECIFICATIONS AND REFERENCED STANDARDS, AND HAS BEEN COMPLETED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICES. I ALSO VERIFY AND AFFIRM THAT I HAVE REVIEWED THE CONSTRUCTION INSPECTION DOCUMENTATION AND THE AS-BUILT INFORMATION; THAT IT HAS BEEN DONE IN ACCORDANCE WITH WASHINGTON COUNTY REQUIREMENTS AND AT A LEVEL DEEMED NECESSARY TO ASSURE THE VERIFICATION MADE HEREIN; AND ALL DISCREPANCIES BETWEEN THE AS-BUILT INFORMATION AND APPROVED PLANS HAVE BEEN NOTED AND ARE CONSIDERED ACCEPTABLE TO THE CONSULTANT.

SIGNATURE — DATE — SEAL

DISTURBED AREA QUANTITIES

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY **5.1 AC.** AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY **1438 C.Y.** OF EXCAVATION AND **9943 C.Y.** OF FILL.

NOTE: THE QUANTITIES SHOWN ARE APPROXIMATE AND SHOULD NOT BE USED BY THE CONTRACTOR FOR BIDDING PURPOSES.

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY ALLOCATION CERTIFICATION

THIS PLAN / PLAT HAS BEEN REVIEWED BY THE WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY FOR INCLUSION INTO THE COUNTY CAPACITY MANAGEMENT PLAN FOR THE SYSTEM THAT SERVES THIS PROJECT. ALLOCATION GRANTED FOR CONSTRUCTION SHOWN ON THIS PLAN/ PLAT SHALL BE IN ACCORDANCE WITH THE CAPACITY MANAGEMENT PLAN DEVELOPED FOR THIS SYSTEM BASED ON AVAILABILITY OF ALLOCATION REMAINING IN THE FACILITY.

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

ENGINEER/ARCHITECT DESIGN CERTIFICATION

I HEREBY CERTIFY THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL AND POND CONSTRUCTION HAS BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07, MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND MEETS THE MARYLAND POND STANDARD 378.

10-04-2021 — DATE
34688 — REG. NO.
SIGNATURE

OWNER/DEVELOPER'S CERTIFICATION

I/WE CERTIFY ALL/ANY PARTIES RESPONSIBLE FOR CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL; BE DONE PURSUANT TO THIS PLAN AND RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT.

12/15/21 — DATE
WILLIAM WIVELL — PRINTED NAME
SIGNATURE

WASHINGTON COUNTY SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL PLAN APPROVAL

BY: _____

DATE: _____

(PLAN IS VALID FOR TWO YEARS FROM DATE OF APPROVAL)

UTILITY NOTIFICATION

THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NONEXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE, SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. THE LAW REQUIRES PRIOR TO EXCAVATION THAT MISS UTILITY BE CONTACTED AT: PHONE NO. **1-800-257-7777**

STANDARD NOTES:

WASHINGTON COUNTY STANDARD GENERAL NOTES FOR SITE PLANS

A. NO PERMANENT STRUCTURES (E.G., FENCES, SHEDS) SHALL BE PERMITTED WITHIN ANY STORMWATER OR STORM DRAINAGE EASEMENT ON THIS PROPERTY.
B. ALL GRADING FOR THIS PROJECT SHALL BE THE FULL RESPONSIBILITY OF THE LOT/PARCEL OWNER.
C. DEVELOPER/CONTRACTOR MUST CONTACT THE CERTIFYING ENGINEER AND WASHINGTON COUNTY AT LEAST 5 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM TO SCHEDULE AND COORDINATE INSPECTION TIME SCHEDULES.
D. A COMPLETE SET OF APPROVED PLANS AND A COPY OF THE GRADING PERMIT MUST BE ON SITE AND AVAILABLE FOR USE BY THE INSPECTOR, OR OTHER REPRESENTATIVE OF WASHINGTON COUNTY DIVISION OF ENGINEERING & CONSTRUCTION.
E. THIS PROJECT WILL REQUIRE A THIRD-PARTY QUALIFIED PROFESSIONAL TO BE PRESENT AT THE PRECONSTRUCTION MEETING SCHEDULED WITH WASHINGTON COUNTY DIVISION OF CONSTRUCTION AND THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT. CONSTRUCTION INSPECTION WILL BE REQUIRED FOR THIS PROJECT PER THE "ROADWAY AND STORMWATER MANAGEMENT CONSTRUCTION VERIFICATION PROCEDURES" DATED OCTOBER 17, 2008.

FIRE DEPARTMENT NOTICE

1. CONSTRUCTION OCCURRING ON THIS SITE SHALL COMPLY WITH N.F.P.A. 241 STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS, AND CHAPTER 16 OF N.F.P.A. 1, UNIFORMED FIRE CODE.
- NO OPEN AIR BURNING IS PERMITTED
- A PERMIT IS REQUIRED FROM THE HAGERSTOWN FIRE MARSHALL'S OFFICE, 25 WEST CHURCH STREET, HAGERSTOWN, BEFORE PERFORMING BLASTING OPERATIONS.
- FIRE DEPARTMENT ACCESS SHALL BE MAINTAINED TO ALL BUILDINGS.
2. NEW AND EXISTING BUILDINGS SHALL HAVE THE APPROVED ADDRESS NUMBERS, PLACED IN A POSITION TO BE PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY, (N.F.P.A. 1-10.12.1.1)
3. A FIRE DEPARTMENT RAPID ENTRY ACCESS BOX (KNOX BOX) SHALL BE INSTALLED AT THE MAIN ENTRANCE OF THE FINE ARTS CENTER. KEYS TO THE NEW AREA SHALL BE PROVIDED AT THE TIME OF FINAL INSPECTION FOR INSTALLATION INTO THE KNOX BOX.
4. AN APPROVED WATER SUPPLY CAPABLE OF SUPPLYING THE REQUIRED FIRE FLOW FOR FIRE PROTECTION SHALL BE PROVIDED TO ALL PREMISES UPON WHICH FACILITIES, BUILDINGS, OR PORTIONS OF BUILDINGS ARE HEREINAFTER CONSTRUCTED OR MOVED INTO THE JURISDICTION. (N.F.P.A. 1-18.3.1)
5. IN SPRINKLERED BUILDINGS, THE FIRE DEPARTMENT CONNECTION(s) (F.D.C.) SHALL BE INSTALLED ON THE FRONT OF THE BUILDING UNLESS OTHERWISE APPROVED BY THIS DEPARTMENT. THE F.D.C. SHALL BE EQUIPPED WITH NATIONAL HOSE THREADS (N.H.T.) WITH LOCKING CAPS. THE CAPS CAN BE PURCHASED AS NOTED IN ITEM #3. A WATER SUPPLY TO SUPPORT THE AUTOMATIC SPRINKLER SYSTEM SHALL BE AVAILABLE WITHIN 100 ft. OF THE F.D.C. (NO CLOSER THAN 40 ft. FROM THE BUILDING) UNLESS OTHERWISE APPROVED.
6. WATER MAINS SUPPLYING FIRE PROTECTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH N.F.P.A. 24, "PRIVATE SERVICE MAINS AND THEIR APPURTENANCES". FIRE HYDRANTS INSTALLED ON PRIVATE MAINS SHALL MEET THE STANDARDS OF THE CITY OF HAGERSTOWN WATER DEPARTMENT. FIRE HYDRANTS SHALL BE DISTRIBUTED THROUGHOUT THE SITE IN ORDER TO PROVIDE A WATER SUPPLY TO ALL SIDES OF EACH STRUCTURE. FIRE HYDRANT PLACEMENT SHALL BE NO GREATER THAN 350 FEET SPACING WITH BUILDINGS 100,000 sq. ft. OR GREATER AND 500 FEET WITH BUILDINGS THAT ARE LESS THAN 100,000 sq. ft. WITH FIRE HYDRANTS PLACED AT INTERSECTIONS WHENEVER POSSIBLE.

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ○ PENNSYLVANIA ○ VIRGINIA ○ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
5	5/2023	VALUE ENGINEERING PROPOSAL	
4	8/11/22	PER WASHCO ENGINEERING DEPT.	
3	12-21-2021	PER WASH CO LAND DEVELOPMENT PLAN REVIEW	
2	12-10-2021	PER WASH CO SOIL CONSERVATION DISTRICT	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-1-0.dwg
CHECKED BY: B.J.S
SCALE: AS SHOWN
DRAWN BY: STAFF
DATE: 10/1/21

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 7-09-23

STATE OF MARYLAND — BILLIE JON SWARTZES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER — 10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

COVER SHEET

ZONING: A — WATERSHED CODE: 02140503 - MARSH RUN — ELEC. DIST.: 02
TAX MAP: 0052 — GRID: 0001 — PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.1.0
JOB NO.: 03-16-0733

LEGEND:

EXISTING:	PROPOSED:	
		CENTERLINE
OHE	OHE	OVERHEAD ELECTRIC LINE
EX UGE	UGE	UNDERGROUND ELECTRIC LINE
X X X X	X X X X	FENCE LINE
EX FO	FO FO	FIBER OPTIC LINE
		GUARD RAIL
UG		UNDERGROUND GAS LINE
		SANITARY SEWER
EX TEL	TEL	TELECOMMUNICATIONS LINE
	OHV	OVERHEAD WIRE
		WATER LINE
		CABLE TV LINE MARKER
		CABLE TV PEDESTAL
		TYPICAL CATCH BASINS
		DRAINAGE CLEANOUT
		DOWNSPOUT
		STORM DRAIN END SECTION
		TYPICAL INLETS
		STORM DRAIN MANHOLE
		ELECTRIC BOX
		ELECTRICAL MANHOLE
		ELECTRIC LINE MARKER
		ELECTRIC METER
		ELECTRIC TRANSFORMER
		SANITARY SEWER FORCE MAIN BLOW OFF
		SANITARY SEWER FORCE MAIN RELEASE
		SANITARY SEWER CLEANOUT
		SANITARY SEWER MANHOLE
		SEPTIC TANK
		FIBER OPTIC BOX
		FIBER OPTIC MANHOLE
		FIBER OPTIC LINE MARKER
		GAS MANHOLE
		GAS LINE MARKER
		GAS METER
		GAS REGULATOR
		GAS VALVE
		GAS VENT
		GAS WELL
		GAS WELL (ABANDONED)
		TELECOMMUNICATIONS MANHOLE
		TELECOMMUNICATIONS LINE MARKER
		TELECOMMUNICATIONS PEDESTAL
		UTILITY GUY POLE
		UTILITY GUY WIRE
		UTILITY POLE

EXISTING:	PROPOSED:	
		WATER LINE BLOW OFF
		WATER FOUNTAIN
		HOSE BIB
		HYDRANT
		WATER MANHOLE
		WATER LINE MARKER
		WATER METER
		WATER LINE PLUG
		WATER LINE REDUCER
		WATER LINE AIR RELEASE VALVE
		FIRE CONNECTION ("SIAMESE" /STORZ)
		SPRINKLER CONTROL
		SPRINKLER HEAD
		WATER VALVE
		WELL
GEO	GEO	GEOTHERMAL WELL
BBQ	BBQ	BBQ GRILL
		BOLLARD
		FLAGPOLE
		FUEL PUMP
		HANDICAP SYMBOL
HVAC	HVAC	HVAC UNIT
		LIGHT POST
		SINGLE FIXTURE OVERHEAD LIGHT POLE
		DOUBLE FIXTURE OVERHEAD LIGHT POLE
		PARKING
PT	PT	PERCOLATION TEST
RR	RR	RAILROAD BOX
RR	RR	RAILROAD SIGNAL
		RAILROAD SWITCH
		SATELITE DISH
		SEEP
		CONIFEROUS SHRUB
		DECIDUOUS SHRUB
		CONIFEROUS TREE
		DECIDUOUS TREE
		SINGLE POLE SIGN
		DOUBLE POLE SIGN
		TOE OF SLOPE
TB	TB	TRAFFIC BOX
		TRAFFIC SIGNAL
		MAILBOX

PROJECT NOTES:

1. NO SUBSURFACE INVESTIGATION HAS BEEN PERFORMED BY TRIAD ENGINEERING, INC. TO DETERMINE THE EXISTENCE OR LOCATION OF GROUND WATER, ROCK, OR OTHER NATURAL OR MAN-MADE FEATURES. EXCEPT AS SPECIFICALLY INDICATED. NO ENVIRONMENTAL STUDIES HAVE BEEN CONDUCTED BY OUR FIRM.
2. EXISTING UTILITY INFORMATION SHOWN HEREON IS FROM NUMEROUS SOURCES INCLUDING, BUT NOT LIMITED TO PROPERTY OWNER, UTILITY OWNER, PAST SITE PLANS AND DRAWINGS AND LOCATION OF SURFACE FEATURES. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BEFORE BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AND ANY OTHER UTILITY AND SUBSURFACE INVESTIGATIVE SERVICES AT (1-800-257-7777) A MINIMUM OF 48 HOURS BEFORE BEGINNING ANY WORK SHOWN ON THESE DRAWINGS.ANY DAMAGE TO UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE UTILITY OWNER. HAND PIT EXCAVATION SHALL BE PROVIDED AS NEEDED BY CONTRACTOR TO LOCATE EXISTING UNDERGROUND UTILITIES.
3. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE MUNICIPAL, COUNTY AND/OR STATE AUTHORITIES AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK WITHIN PUBLIC RIGHT (S) OF WAY.
4. THE CONTRACTOR SHALL VERIFY ALL SURFACE AND SUBSURFACE CONDITIONS (LOCATIONS AND ELEVATIONS) PRIOR TO BIDDING AND START OF CONSTRUCTION. ANY DESCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER BEFORE PROCEEDING IF THEY AFFECT THE DESIGN FEASIBILITY OF THIS PROJECT. ANY DAMAGE TO FACILITIES, STRUCTURES, PAVEMENT OR OTHER MAN-MADE ITEMS ON OR ADJACENT TO THE SITE OR NOT SPECIFICALLY INDICATED FOR DEMOLITION SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR COMPLYING WITH ALL APPLICABLE LEGAL AND REGULATORY REQUIREMENTS. CONTRACTOR SHALL OBTAIN ANY BONDS REQUIRED BY TOWN FOR WORK WITHIN TOWN RIGHT-OF-WAYS.
6. TEMPORARY EROSION CONTROL MEASURES WILL BE USED TO CORRECT CONDITIONS THAT DEVELOP DURING CONSTRUCTION THAT ARE UNFORESEEN DURING THE DESIGN STAGE OR THAT ARE NEEDED TO TEMPORARILY CONTROL EROSION THAT DEVELOPS DURING NORMAL CONSTRUCTION PRACTICES.
7. TRIAD ENGINEERING, INC. WILL NOT BE RESPONSIBLE FOR ANYTHING TO DO WITH CONSTRUCTION UNLESS CONTRACTED BY THE OWNER OR CONTRACTOR TO PERFORM A SPECIFIC SERVICE.
8. JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
9. NO TITLE REPORT HAS BEEN CONDUCTED BY THIS COMPANY OR FURNISHED TO US BY OTHERS. PROPERTY LINE INFORMATION HAS BEEN TAKEN FROM DEED (S) OF RECORD AND NOT FIELD VERIFIED.
10. IT SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER AND/OR DEVELOPER TO OBTAIN ALL NECESSARY EASEMENTS AND/OR RIGHT OF WAYS NECESSARY IN ORDER TO COMPLETE THE PROJECT SHOWN ON THESE PLANS. TRIAD ENGINEERING, INC. WILL ASSUME NO RESPONSIBILITY OR LIABILITY ASSOCIATED WITH THE ACQUIRING OF OFFSITE EASMENTS AND RIGHT OF WAYS.
11. SITE CONTRACTOR MAY HAVE TO MODIFY FINISH GRADES SHOWN NEXT TO BUILDINGS DUE TO TYPE OF WALL CONSTRUCTION PROVIDED. GENERALLY A MINIMUM FINISH GRADE 6 INCHES BELOW FINISH FLOOR FOR MASONRY CONSTRUCTION AND 12 INCHES BELOW FINISH FLOOR FOR WOOD/SIDING CONSTRUCTION SHOULD BE MAINTAINED. CONTRACTOR MUST PROVIDE POSITIVE SURFACE DRAINAGE AWAY FROM ALL UNITS.
12. IF A STORMWATER MANAGEMENT STRUCTURE IS PRESENT ON THIS SITE, CONSTRUCTION INSPECTION AND ASBUILT CERTIFICATION OF THIS STRUCTURE OR STRUCTURES BY A REGISTERED PROFESSIONAL ENGINEER WILL BE REQUIRED. IT SHALL BE THE RESPONSIBILTY OF THE CONTRACTOR TO NOTIFY THE INSPECTING ENGINEER PRIOR TO THE START OF CONSTRUCTION IN ORDER TO DETERMINE WHEN INSPECTIONS WILL BE REQUIRED. IT SHALL ALSO BE THE RESPONSIBILTY OF THE CONTRACTOR TO NOTIFY THE ENGINEER WHEN THE STRUCTURE HAS BEEN COMPLETED AND STABILIZED IN ORDER THAT THE ASBUILT SURVEY MAY BE PERFORMED. STABILIZATION IS DEFINED AS HAVING A STAND OF GRASS OR OTHER SUITABLE VEGETATIVE COVER AS SPECIFIED ON THESE PLANS.
13. FINAL APPROVAL OF A STORMWATER MANAGEMENT STRUCTURE MUST BE GRANTED BY THE APPROPRIATE GOVERNMENT AGENCY/AGENCIES. APPROVAL BY THE INSPECTING ENGINEER DOES NOT GUARANTEE THAT ADDITIONAL WORK WILL NOT HAVE TO BE PERFORMED ON A STORMWATER MANAGEMENT STRUCTURE IN ORDER FOR IT TO COMPLY WITH THE STANDARDS OF THE GOVERNMENT AGENCY OR AGENCIES THAT ARE RESPONSIBLE FOR APPROVING THE STRUCTURE. TRIAD ENGINEERING, INC., ITS PERSONNEL AND ITS SUBCONTRACTORS WILL NOT BE LIABLE FOR ANY ADDITIONAL WORK ASSOCIATED WITH A STORMWATER MANAGEMENT STRUCTURE IN ORDER TO HAVE IT CONFORM TO NECESSARY STANDARDS.
14. ALL SPECIFICATIONS SHOWN HEREIN SHALL BE USED AND LOCAL, STATE AND FEDERAL SPECIFICATIONS SHALL BE MINIMUM STANDARD.
15. IF SITE IS TO BE COVERED BY THE WASHINGTON COUNTY, MARYLAND S-3 POLICY, THEN THE INSPECTION/CERTIFYING ENGINEER SHOULD BE CONTACTED ONE (1) WEEK IN ADVANCE TO START OF WORK.

SENSITIVE AREA NOTES

1. THERE ARE NO INTERMITTENT STREAM SYMBOLS ASSOCIATED WITHIN THE PROJECT LIMITS AS SHOWN ON SHEET NUMBER 35 OF 56 OF THE SOIL SURVEY OF WASHINGTON COUNTY, MARYLAND; THERE IS AN INTERMITTENT STREAM SYMBOL TO THE SOUTH OF THIS PROJECT, BUT ANY REQUIRED STREAM BUFFERS WOULD NOT AFFECT THE PROJECT LIMITS.
2. THERE ARE NO AREAS OF STEEP SLOPES (AS DEFINED BY ARTICLE 28.631 OF THE WASHINGTON COUNTY ZONING ORDINANCE) WITHIN THE SITE.
3. THIS SITE IS NOT WITHIN THE LIMITS OF THE APPALACHIAN TRAIL CORRIDOR OR THE WATERSHEDS OF THE EDGEMONT-SMITHSBURG RESERVOIR OR THE UPPER BEAVER CREEK DRAINAGE BASIN.
4. THERE ARE NO AREAS OF KNOWN HABITATS OF THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE AS PER 50 CFR 17.
5. THE PROJECT LIMITS ARE NOT WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN ON FEMA FIRM COMMUNITY PANEL NO. 240070 0155 A, WITH AN EFFECTIVE DATE OF May 1, 1978.
6. THERE ARE NO WETLANDS WITHIN THE PROJECT LIMITS PER MAPPING BY THE U.S. DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE "WILLIAMSPORT, MD-W.VA." QUAD SHEET.

ON SITE SPRING NOTES AND PRECAUTION

1. PLEASE NOTE THAT A SPRING IS PRESENT TO THE EAST OF THE CONSTRUCTION AREA. IN SOME INSTANCES, BLASTING CAN DISRUPT GROUNDWATER FLOW PATHS AND/OR CAUSE MUDDY OR TURBID CONDITIONS IN THE SPRING FLOW DUE TO BLAST VIBRATIONS. IF THIS SPRING IS USED FOR DRINKING WATER OR OTHER PURPOSES, WE SHOULD BE ADVISED, AND THE SITE WORK CONTRACTOR SHOULD TAKE PRECAUTIONS TO LIMIT VIBRATIONS IN THIS AREA.

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-1-1.dwg
DRAWN BY: STAFF
CHECKED BY: B.J.S
DATE: 10/01/21
SCALE: AS SHOWN

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 7-09-23

STATE OF MARYLAND · BILLIE JON SWATZES · No. 34688 · REGISTERED PROFESSIONAL ENGINEER

10/01/21

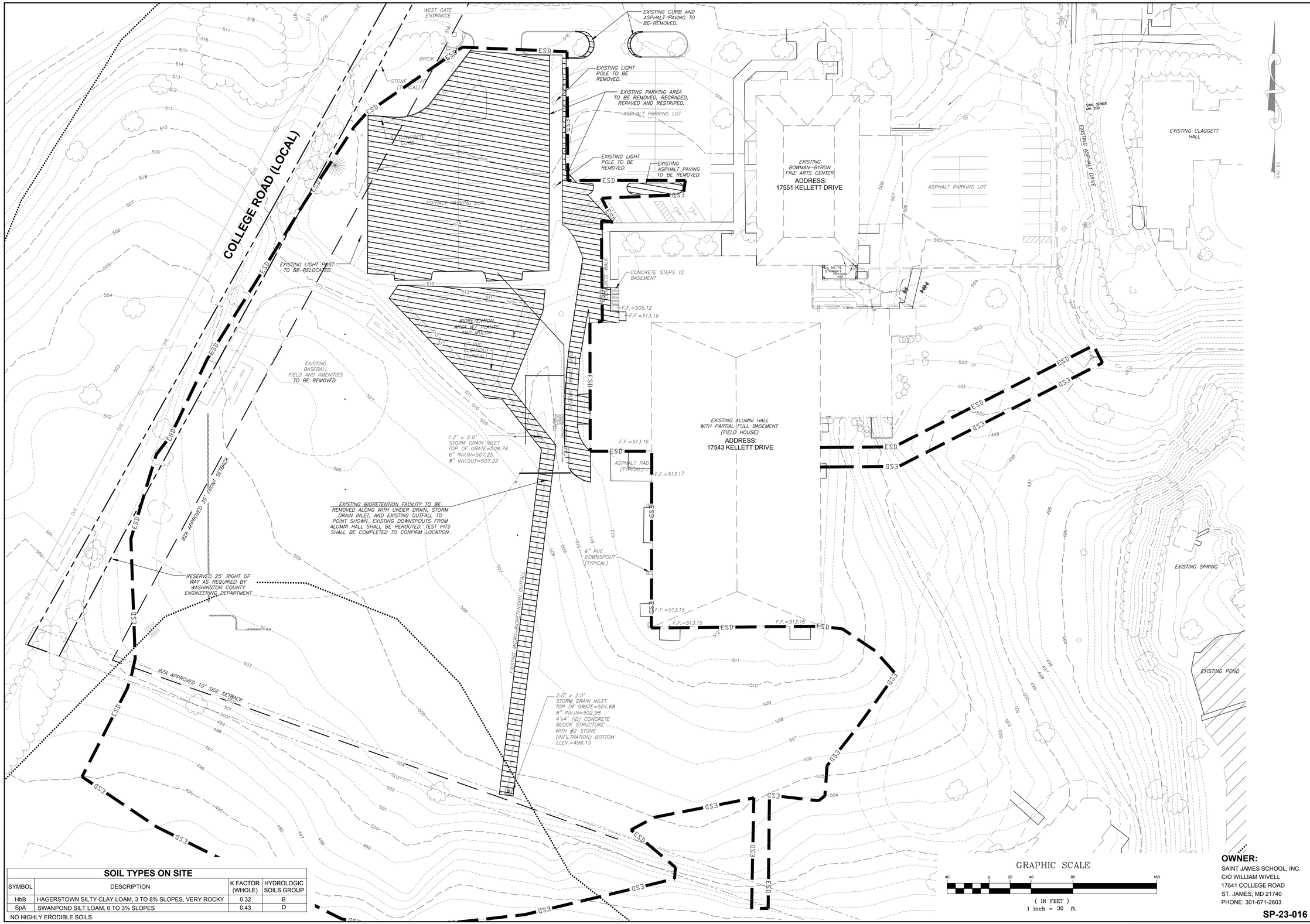
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

NOTES AND LEGENDS

ZONING: A
WATERSHED CODE: 02140503 - MARSH RUN
ELEC. DIST.: 02
TAX MAP: 0052
GRID: 0001
PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.1.1
JOB NO.: 03-16-0733



SOIL TYPES ON SITE

SYMBOL	DESCRIPTION	K FACTOR (WHOLE)	HYDROLOGIC SOILS GROUP
HbB	HAGERSTOWN SILTY CLAY LOAM, 3 TO 8% SLOPES, VERY ROCKY	0.32	B
SpA	SWANPOND SILT LOAM, 0 TO 3% SLOPES	0.43	D

NO HIGHLY ERODIBLE SOILS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)
1 inch = 30 ft.

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
2	5/3/23	VALUE ENGINEERING PROPOSAL	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-2-0
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: 1"=30'

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STATE OF MARYLAND — BILLIE JON SWATZEL — NO. 34688 — REGISTERED PROFESSIONAL ENGINEER

10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

EXISTING CONDITIONS AND DEMOLITION

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.2.0
JOB NO.: 03-16-0733

GENERAL NOTES

1. TAX MAP 0062, PARCEL 0057.
2. ELECTION DISTRICT 06.
3. TOTAL SITE AREA (PER DEEDS) = 133.31 ACRES ±.
4. DEED REFERENCE:
5. BEING ALL OF LANDS CONVEYED TO ST. JAMES SCHOOL INC. AND RECORDED AMONG THE LAND RECORDS OF WASHINGTON COUNTY AT LIBER 1436 FOLIO 271.
6. THE EXISTING PROPERTY LINES SHOWN HEREON ARE DERIVED FROM DEEDS AND /OR PLATS OF RECORD BEING OVERLAID ONTO EXISTING FIELD MONUMENTATION. BASED ON SURVEYS PERFORMED BY TRIAD ENGINEEERING.
7. TOPOGRAPHY SHOWN HEREON IS BASED ON WASHINGTON COUNTY TOPOGRAPHIC MAPPING , SUPPLEMENTED WITH FIELD RUN SURVEYS BY TRIAD ENGINEERING, INC. OF 2018 .
8. HORIZONTAL DATUM IS N.A.D. 83(2007) AND VERTICAL DATUM IS N.A.V.D. 88.
9. SITE IS ZONED "A(R)" - AGRICULTURAL (RURAL) DISTRICT.
10. USAGE - EXISTING USAGE OF THE SITE IS CURRENTLY ALUMNI HALL ATHLETIC CENTER. THE PROPOSED USAGE OF THE SITE WILL BE AN ATHLETIC CENTER ADDITION FOR USE BY STUDENTS AND STAFF.
11. DIMENSIONAL RESTRICTIONS PER ARTICLE 5A, SECTION 5A.5, OF THE WASHINGTON COUNTY ZONING ORDINANCE:
    a. LOT AREA: 15 ACRES
    b. FRONT YARD DEPTH: 150 FEET
    c. REAR YARD DEPTH: 50 FEET.
    d. MINIMUM WIDTH OF SIDE YARDS: 100 FEET.
    e. MINIMUM LOT WIDTH: 75 FEET
12. HOURS OF OPERATIONS: 8 HOURS/DAY. 8 A.M. - 10 P.M.
13. WASHINGTON COUNTY DOES NOT HAVE SPECIFIC NUMBER OF PARKING SPACES REQUIREMENTS FOR SCHOOLS. THE PARKING REQUIREMENT IS BASED ON NEED. THE CURRENT NEED FOR THE EXISTING PARKING LOT IS MINIMUM OF 81. THE NEW PARKING LOT WILL ADD 11 MORE SPACES FOR A TOTAL OF 92 SPACES INCLUDING 4 HANDICAP SPACES.
14. PARKING PROVIDED: 92 TOTAL SPACES (88 SPACES & 4 ADA ACCESSIBLE) & 1 EXISTING LOADING/UNLOADING SPACE IN REAR OF MAIN BUILDING.
15. SITE IS SERVED BY WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY FOR SEWER AND WATER IS SERVED BY A ONSITE SPRING AND CLEAN AND PURIFIED BY AN ONSITE WATER FILTRATION SYSTEM. CURRENTLY 55 EDUS ARE ALLOCATED FOR THE ENTIRE SCHOOL SITE. THERE IS NO PLAN TO INCREASE THE NUMBER OF STUDENTS AT THIS TIME THAT WOULD NECESSITATE THE NEED FOR MORE EDUS, BUT AFTER COMPLETION OF THE BUILDING ON THE FOLLOWING JULY, THE EDUS WILL BE EVALUATED TO DETERMINED IF MORE WILL BE REQUIRED.
16. THE PROPOSED SEWER LINE AND ASSOCIATED PUMP ARE OWNED BY THE PROPERTY OWNER, THUS THE OWNER IS RESPONSIBLE FOR MAINTENANCE.
17. NEW SIGN'S PROPOSED FOR THIS PROJECT WILL CONFORM TO THE MARYLAND SHA MUTCD'S STANDARDS.
18. TRASH AND RECYCLABLES ARE COLLECTED ONSITE AND REMOVED FROM SITE BY A LICENSED COMMERCIAL HAULER AND TAKEN TO AN APPROVED DISPOSAL FACILITY.
19. FREIGHT DELIVERIES: ESTIMATED 2 TO 3 SMALL DELIVERY TRUCKS PER WEEK (U.P.S., ETC.) PLUS THE MONTHLY MOBILE LIBRARY STOP. AN EXISTING LOADING AND UNLOADING ZONE IS CURRENTLY BEING USED ON THE EAST SIDE OF ALUMNI HALL.
20. SITE LIGHTING PROPOSED WILL BE POLE AND BUILDING MOUNTED AS SHOWN ON THE ARCHITECTURAL PLANS.
21. PROPOSED BUILDING AREA = 57,133 S.F.
22. PROPOSED BUILDING WILL A SINGLE STORY WITH AN EXPOSED FOUNDATION IN BACK.
23. THERE ARE NO WETLANDS WITHIN THE PROJECT SITE AS SHOWN PER U.S. FISH AND WILDLIFE SERVICE - NATIONAL WETLANDS INVENTORY MAPPING.
24. THERE ARE NO HABITATS OF THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE PER 50 CFR 17.
25. THERE ARE NO INTERMITTENT STREAM SYMBOLS ASSOCIATED WITHIN THE PROJECT SITE AS SHOWN ON SHEET NUMBER 35 OF 56 OF THE SOIL SURVEY OF WASHINGTON COUNTY, MARYLAND.
26. THERE ARE NO AREAS OF STEEP SLOPES (AS DEFINED BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT PER ARTICLE 28.631 OF THE WASHINGTON COUNTY ZONING ORDINANCE) WITHIN THE PROJECT SITE.
27. THIS PROJECT SITE IS NOT WITHIN THE LIMITS OF THE APPALACHIAN TRAIL CORRIDOR OR THE WATERSHEDS OF THE EDGEMONT-SMITHSBURG RESERVOIR OR THE UPPER BEAVER CREEK DRAINAGE BASIN.
28. THIS SITE PROJECT IS NOT AFFECTED BY THE 100 YEAR FLOOD PLAIN AS SHOWN ON FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) PANEL NO. 24043 C0284D, WITH EFFECTIVE DATE OF AUGUST 15, 2017.
29. PARTS OF THE PROJECT ARE EXEMPT FROM THE WASHINGTON COUNTY FOREST CONSERVATION ORDINANCE REQUIREMENTS PURSUANT TO SECTION 3.2.A. SEE SHEET C.7.0. A FOREST STAND DELINEATION AND FOREST CONSERVATION WILL BE SUBMITTED.
30. ON - SITE IMPERVIOUS AREA BASED ON LOD:

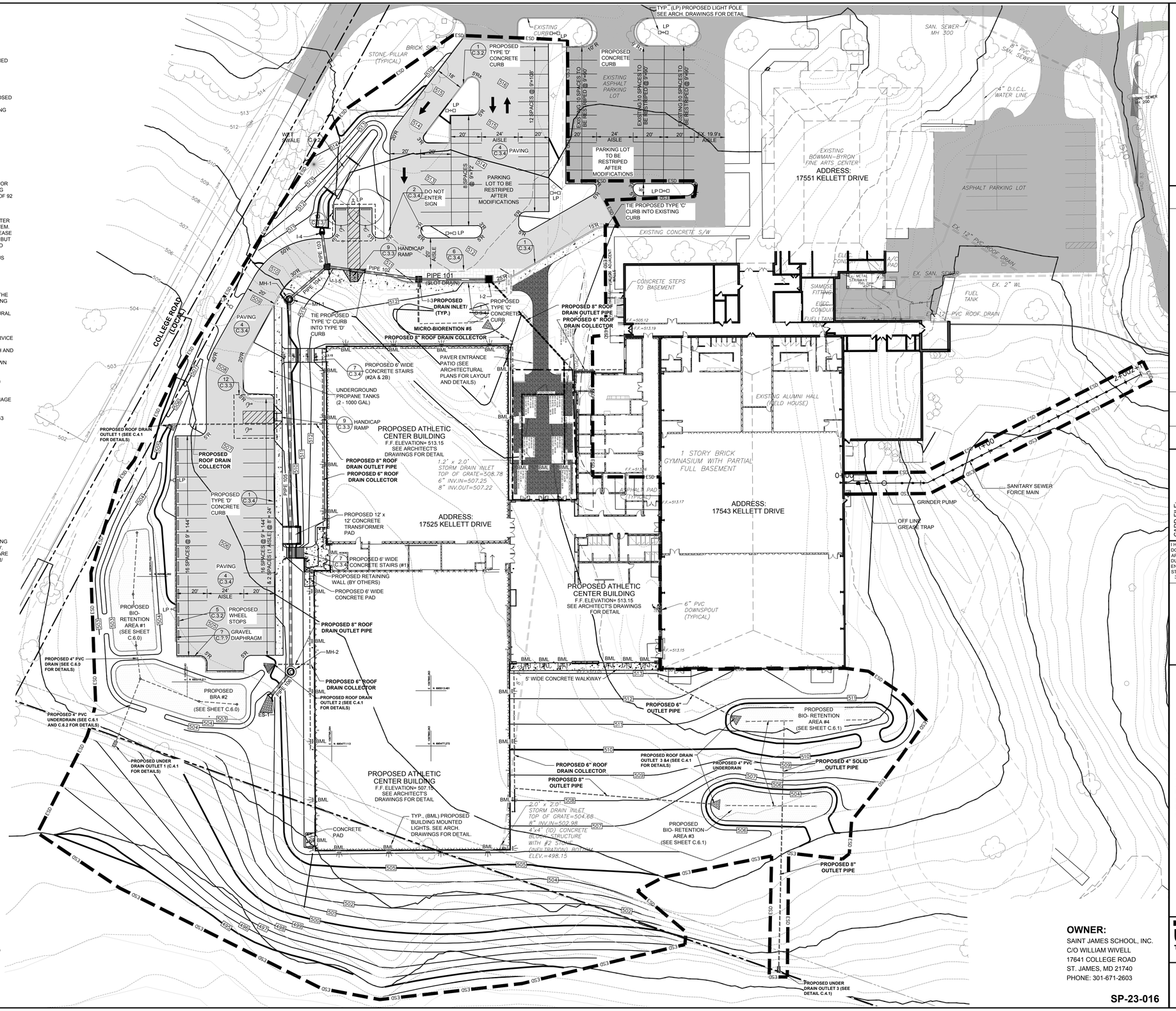
    PRE-CONSTRUCTION:

BUILDINGS	0 S.F. OR	0 AC.
PARKING, DRIVE AREAS, ETC.	5,839 S.F. OR 0.13 AC.	
TOTAL	5,839 S.F. OR 0.13 AC./4.9 AC. = 2.7% OF L.O.D.	

    POST CONSTRUCTION:

BUILDING	57,133 S.F. OR 1.31 AC.
PARKING, DRIVE AREAS, ETC.	32,068 S.F. OR 0.74 AC.
TOTAL	89,201 S.F. OR 2.05 AC./4.9 AC. = 42% OF L.O.D.

31. LANDSCAPING FOR THIS SITE IS BEING ADDRESSED VIA FOUNDATION PLANTINGS AND THROUGH PLANTINGS IN THE BIORETENTION AREAS.
32. BOARD OF ZONING APPEALS CASE NUMBER: AP2019-003. A VARIANCE REQUEST WAS MADE AND GRANTED BY THE BOARD OF ZONING APPEALS ON APRIL 17, 2019 FOR A REDUCTION OF THE EXISTING FRONT SETBACK FROM 150' TO 35' AND A REDUCTION OF THE SIDE YARD SETBACK FROM 100' TO 10'.
33. EACH ADDRESS IS BASED ON THE ENTRANCE LOCATION AS SHOWN ON THIS PLAN. IF DRIVEWAYS ARE CONSTRUCTED AT A DIFFERENT LOCATION, THE ADDRESS FOR THAT LOT IS VOID, AND THE OWNER/ DEVELOPER OF THE LOT MUST REAPPLY TO THIS OFFICE FOR A NEW ADDRESS ASSIGNMENT.



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

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REV. #	DATE	DESCRIPTION	BY
3	5/3/23	VALUE ENGINEERING PROPOSAL	
2	12-21-2021	PER WASH CO LAND DEVELOPMENT PLAN REVIEW	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-3-0.dwg		
DRAWN BY: staff	CHECKED BY: B.J.S.	
DATE: 10/01/21	SCALE: 1"=30'	

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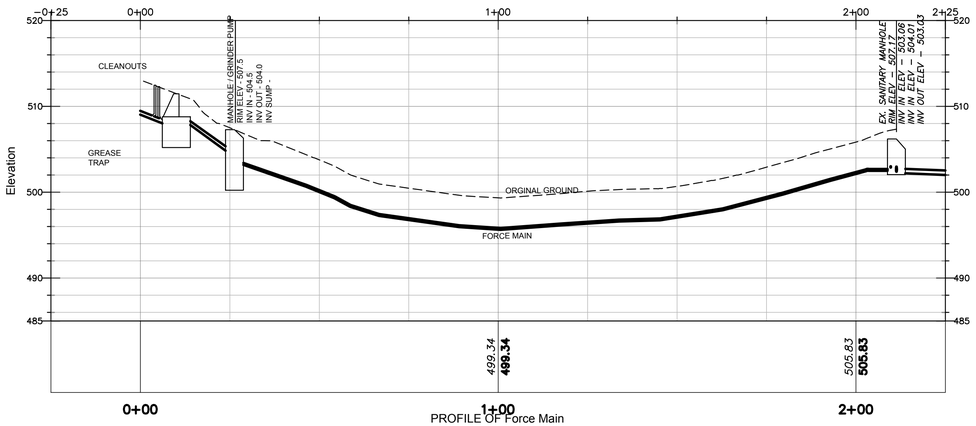
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

SITE PLAN

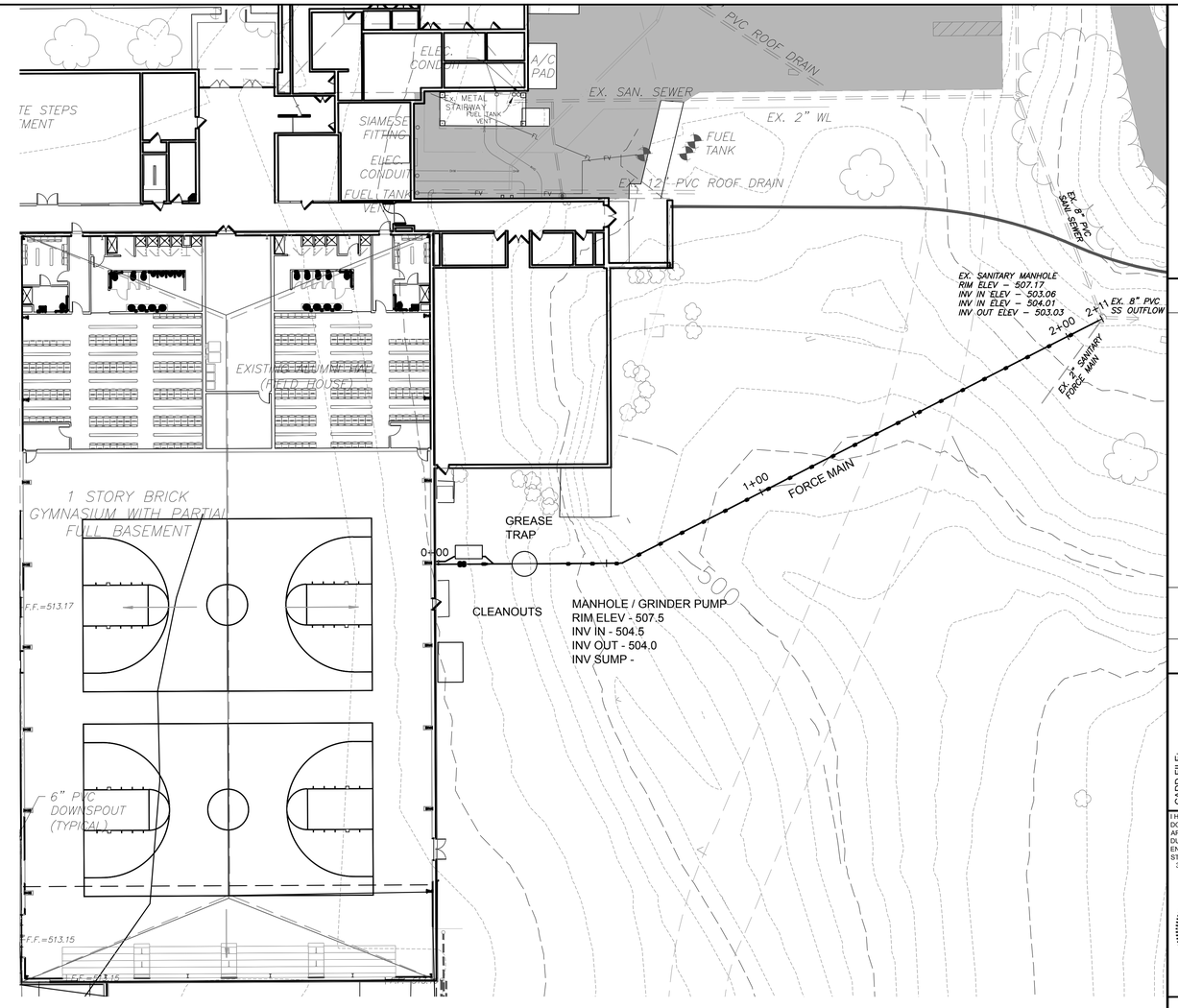
ZONING: A	WATERSHED CODE: 02140503 MARSH RUN	ELEC. DIST.: 02
TAX MAP: 0062	GRID: 0001	PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.3.0
JOB NO.: 03-16-0733



PROFILE OF Force Main
SCALE: HORZ: 1"=12'
VERT: 1"=5'



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REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 28311-2021-C-3-2.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 08/20/21
SCALE: 1"=30'

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10/01/21

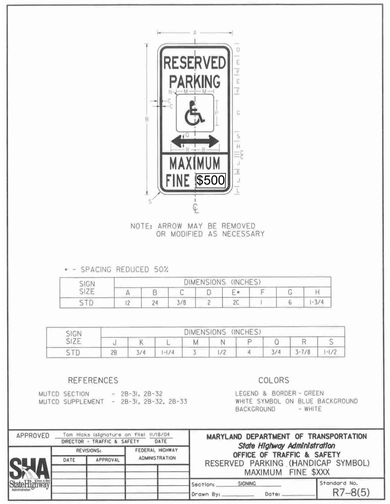
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

SITE PLAN - SANITARY SEWER

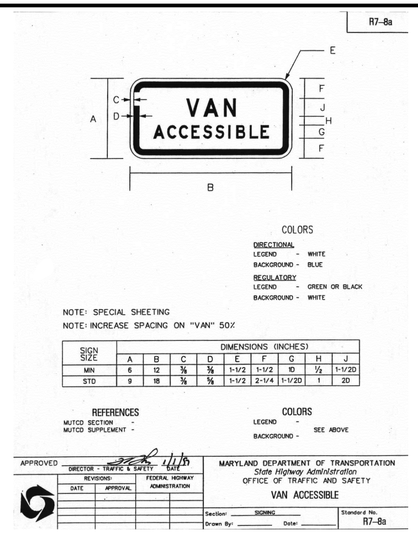
ZONING: A | WATERSHED CODE: 02140503 MARSH RUN
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057 | ELEC. DIST.: 02

TRIAD ENGINEERING, INC.
www.triadeng.com

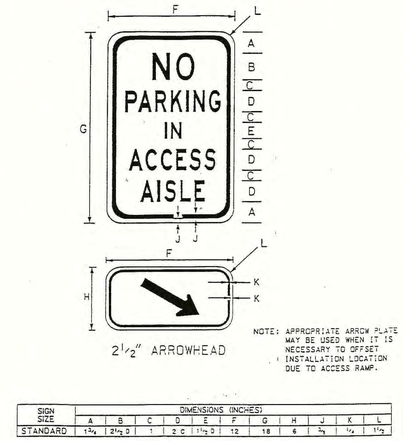
SHEET NUMBER:
C.3.2
JOB NO.: 03-16-0733



1 HANDICAP ACCESSIBLE PARKING SIGN DETAIL
SCALE: 1" = 10'



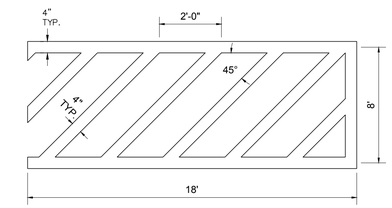
2 HANDICAP ACCESSIBLE PARKING SIGN DETAIL
SCALE: 1" = 10'



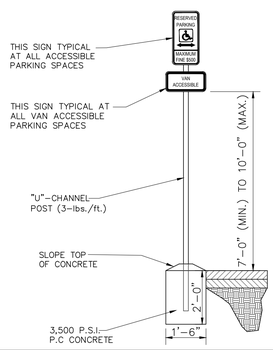
3 HANDICAP ACCESSIBLE PARKING SIGN DETAIL
SCALE: 1" = 10'

NOTES:
1) REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2) ALL ACCESSIBLE RAMPS SHALL COMPLY WITH SECTION 4.7 OF THE AMERICANS WITH DISABILITIES ACT (A.D.A.) ACCESSIBILTY GUIDLINES FOR BUILDINGS AND FACILITES (A.D.A. STANDARDS). REFER TO APPENDIX A, PART 1191 OF THE A.D.A. STANDARDS FOR CURRENT REVISIONS.
3) SIDEWALK RAMPS SHALL BE LOCATED AS SHOWN ON DRAWINGS, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
4) NO SLOPE SHALL EXCEED 12:1 ON THE RAMP.
5) RAMPS AND CURB RAMPS SHALL HAVE A MINIMUM CLEAR WIDTH OF 3'-0" EXCLUSIVE OF EDGE PROTECTION OR FLARED SIDES. (SECTIONS 4.7.3 AND 4.8.3 A.D.A. STANDARDS)
6) A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED, AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FEDERAL SPECIFICATION TT-S-00227.
7) TRANSVERSE JOINTS ARE REQUIRED AS SHOWN. SCORE THE CONCRETE AT TRANSVERSE JOINTS TO ⅓ DEPTH OF SLAB.
8) CROSS SLOPE OF RAMP SURFACES SHALL NOT EXCEED 1:50. RAMP SURFACES SHALL COMPLY SECTION 4.5 OF THE A.D.A. STANDARDS. ALL CONCRETE RAMPS SHALL RECEIVE A COARSE BROOM FINISH TO PROVIDE A NON-SKID SURFACE.
9) DETECTABLE WARNING SURFACES ARE REQUIRED AT ALL LOCATIONS WHERE THE SIDEWALK CROSSES VEHICULAR WAYS. DETECTABLE WARNING SURFACES SHALL BE INSTALLED PER MD. S.H.A. STANDARD No. 655.40. WARNING SURFACES SHALL COMPLY WITH SECTION 4.29 A.D.A. STANDARDS.

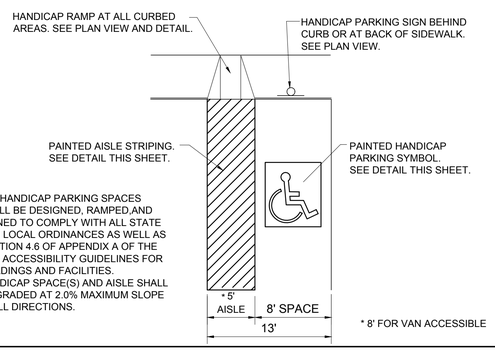
4 A.D.A. ACCESSIBLE RAMP NOTES
NOT TO SCALE



5 HANDICAP AISLE STRIPING DETAIL
NOT TO SCALE

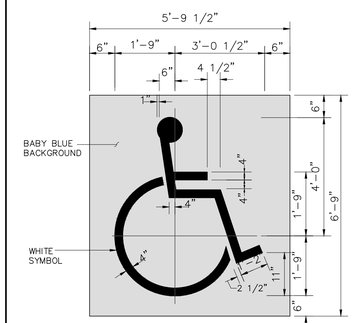


6 HANDICAP ACCESSIBLE SIGNPOST DETAIL
NOT TO SCALE



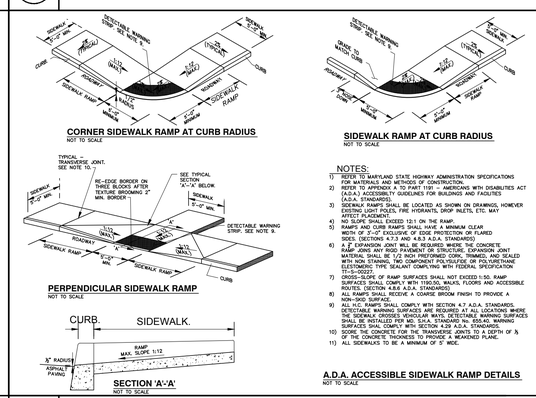
NOTES:
1. ALL HANDICAP PARKING SPACES SHALL BE DESIGNED, RAMPED,AND SIGNED TO COMPLY WITH ALL STATE AND LOCAL ORDINANCES AS WELL AS SECTION 4.6 OF APPENDIX A OF THE ADA ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES.
2. HANDICAP SPACE(S) AND AISLE SHALL BE GRADED AT 2.0% MAXIMUM SLOPE IN ALL DIRECTIONS.

7 HANDICAP ACCESSIBLE PARKING DETAIL
NOT TO SCALE



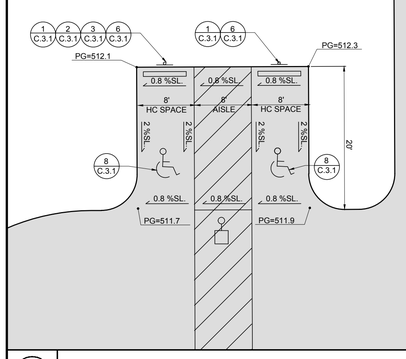
NOTES:
1. PLACE SYMBOL AT CENTERLINE OF STALL, REFER TO PARKING STRIPING DETAIL FOR DIMENSIONS.
2. THIS DETAIL PROVIDED FOR REFEERENCE ONLY! ALL DIMENSIONS, LAYOUT, BACKGROUNDS AND COLOR MUST CONFORM TO MOST CURRENT ADA GUIDELINES.

8 HANDICAP SYMBOL DETAIL
NOT TO SCALE

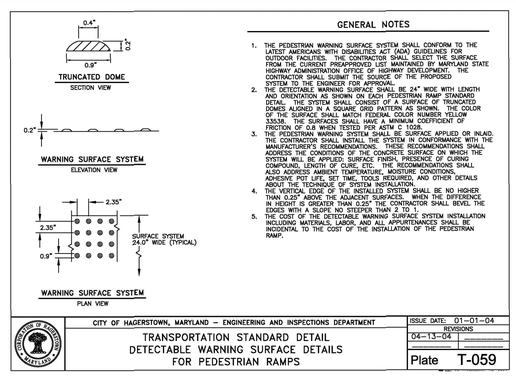


NOTES:
1) REFER TO MARYLAND STATE HIGHWAY ADMINISTRATION SPECIFICATIONS FOR MATERIALS AND METHODS OF CONSTRUCTION.
2) REFER TO APPENDIX A TO PART 1191 — AMERICANS WITH DISABILITES ACT (A.D.A.) ACCESSIBILTY GUIDELINES FOR BUILDINGS AND FACILITES (A.D.A. STANDARDS).
3) SIDEWALK RAMPS SHALL BE LOCATED AS SHOWN ON DRAWINGS, HOWEVER EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. MAY AFFECT PLACEMENT.
4) NO SLOPE SHALL EXCEED 12:1 ON THE RAMP.
5) RAMPS AND CURB RAMPS SHALL HAVE A MINIMUM CLEAR WIDTH OF 3'-0" EXCLUSIVE OF EDGE PROTECTION OR FLARED SIDES. (SECTIONS 4.7.3 AND 4.8.3 A.D.A. STANDARDS)
6) A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE CONCRETE RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE. EXPANSION JOINT MATERIAL SHALL BE 1/2 INCH PREFORMED CORK, TRIMMED, AND SEALED WITH NON-STAINING, TWO COMPONENT POLYSULFIDE OR POLYURETHANE ELASTOMERIC TYPE SEALANT COMPLYING WITH FEDERAL SPECIFICATION TT-S-00227.
7) CROSS-SLOPE OF RAMP SURFACES SHALL NOT EXCEED 1:50. RAMP SURFACES SHALL COMPLY SECTION 4.5 OF THE A.D.A. STANDARDS. ALL RAMPS, FLOORS AND ACCESSIBLE ROUTES (SECTION 4.8.6 A.D.A. STANDARDS).
8) ALL RAMPS SHALL RECEIVE A COARSE BROOM FINISH TO PROVIDE A NON-SKID SURFACE.
9) ALL H.C. RAMPS SHALL COMPLY WITH SECTION 4.7 A.D.A. STANDARDS. DETECTABLE WARNING SURFACES SHALL BE INSTALLED AT ALL LOCATIONS WHERE THE SIDEWALK CROSSES VEHICULAR WAYS. DETECTABLE WARNING SURFACES SHALL BE INSTALLED PER MD. S.H.A. STANDARD No. 655.40. WARNING SURFACES SHALL COMPLY WITH SECTION 4.29 A.D.A. STANDARDS.
10) SCORE THE CONCRETE FOR THE TRANSVERSE JOINTS TO A DEPTH OF ⅓ OF THE CONCRETE THICKNESS TO PROVIDE A REGULARED PLANE.
11) ALL SIDEWALKS TO BE A MINIMUM OF 5' WIDE.

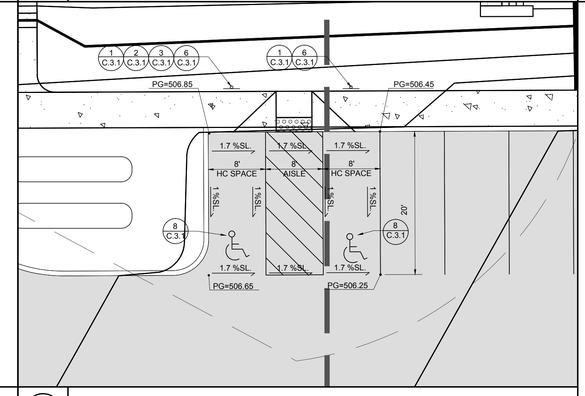
9 HANDICAP RAMP DETAIL
NOT TO SCALE



10 HANDICAP ACCESSIBLE PARKING DETAIL AT COMMERCIAL RETAIL BUILDING
SCALE: 1" = 10'



11 TRANSPORTATION STANDARD DETAIL DETECTABLE WARNING SURFACE DETAILS FOR PEDESTRIAN RAMPS (PLATE T-059)
N.T.S



12 HANDICAP ACCESSIBLE PARKING DETAIL AT COMMERCIAL RETAIL BUILDING
SCALE: 1" = 10'

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REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-3-3.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
SCALE: AS SHOWN
DATE: 10-01-2021

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND — BILLIE JON SWATZES — No. 34688 — PROFESSIONAL ENGINEER — 10/01/21

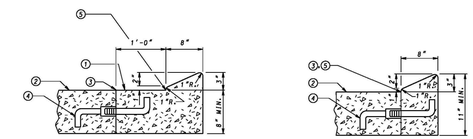
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

SITE NOTES & DETAILS

ZONING: A
TAX MAP: 0082
GRID: 0001
PARCEL: 0057
ELEC. DIST.: 02

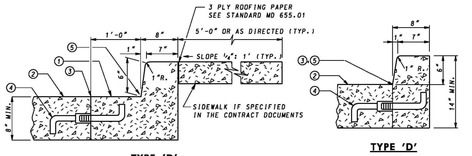
TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.3.3
JOB NO.: 03-16-0733



TYPE 'C'
COMBINATION CURB & GUTTER
TO BE USED FOR DESIGN SPEED 60 MPH

TYPE 'C'
CURB



TYPE 'D'
COMBINATION CURB & GUTTER TO BE USED
ADJACENT TO PARKING LOCATIONS DESIGNED
FOR PERSONS WITH DISABILITIES

TYPE 'D'
CURB

1. SLOPE GUTTER PAN ½" PER FOOT TOWARD FLOW LINE ON ALL ROADWAYS INCLUDING SUPERELEVATED SECTIONS, EXCEPT INTERCHANGE RAMPS.
2. ROADWAY PAVEMENT SLOPE.
3. ROADWAY PAVEMENT CONSTRUCTION JOINT.
4. PROVIDE LONGITUDINAL TIE DEVICE "J" BAR MODIFIED. REFER TO STANDARD NO MD 572.61.
5. FLOW LINE.

NOTES

A. RIGID PAVEMENT ROADWAY ADJACENT TO COMBINATION CURB AND GUTTER AND CLOSED SECTION ROADWAY USING RIGID PAVEMENT WITH COMBINATION CURB AND GUTTER SHALL BE TIED AT THE ROADWAY PAVEMENT CONSTRUCTION JOINT. REFER TO STANDARD MD 572.61 FOR METHOD OF LONGITUDINAL TIE DEVICES. SPACING OF THE TIE BARS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. RIGID PAVEMENT AND CURB SHALL BE CONSTRUCTED AS INDICATED. TIE DEVICES ARE NOT REQUIRED WHEN USING FLEXIBLE PAVEMENT FOR ROADWAY.

B. MAXIMUM JOINT SPACING FOR CONCRETE CURB AND COMBINATION CURB & GUTTER IS 10'. SEE SPECIFICATION FOR LOCATIONS AND DESCRIPTION OF TREATMENT FOR THE TYPES OF JOINTS USED.

C. TYPE C OR D COMBINATION CURB AND GUTTER SHALL BE USED FOR ALL APPLICABLE NEW CONSTRUCTION AND IN THOSE AREAS WHERE THE COMBINATION CURB AND GUTTER IS TO BE REPLACED IN KIND.

D. TYPE C OR D CURB SHALL BE USED FOR THE REPLACEMENT OF LIKE KIND OF CURB ONLY. NOT TO BE USED FOR NEW CONSTRUCTION EXCEPT WHERE INDICATED ON APPROPRIATE INLET STANDARDS.

SPECIFICATION 602	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION
APPROVED	DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT	STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
SHA State Highway Administration	APPROVAL • SHA REVISIONS / APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	STANDARD TYPES C AND D CONCRETE CURB AND COMBINATION CONCRETE CURB & GUTTER
	APPROVAL 2-10-04 / APPROVAL 3-31-04	
	REVISED 2-25-16 / REVISED 2-23-16	STANDARD NO. MD 620.02-01
	REVISED / REVISED	
	REVISED / REVISED	

1 **TYPE 'C' AND 'D' CONCRETE CURB DETAIL**
NOT TO SCALE

public safety INDUSTRIES LLC

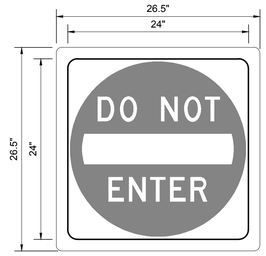
PUBLIC SAFETY INDUSTRIES LLC
1389 CALLE AVANZADO
SAN CLEMENTE, CA 92673
PHONE: (949) 366-9898
www.publicsafetyindustries.com

☐ SELECT DESIRED STYLE:
- ☐ FRAME ONLY (26.5" x 26.5") (SHOWN)
- ☐ BASIC
- ☐ RADIUS
- ☐ ARCH
- ☐ WAVE
- ☐ CUSTOM - AVAILABLE UPON REQUEST

☐ SELECT DESIRED SIZE:
- ☐ 24"W X 24"H (SHOWN)
- ☐ 30"W X 30"H

☐ SELECT DESIRED POST SIZE:
- ☐ 2" X 2"
- ☐ 4" X 4"
- ☐ CUSTOM

☐ SELECT DESIRED THICKNESS:
- ☐ 3/4"
- ☐ 1/2"



FRONT VIEW

SPECIFICATIONS:
SIGN COLOR: WHITE/RED
FRAME COLOR: AVAILABLE IN 18 COLOR COMBOS, CONTACT PUBLIC SAFETY INDUSTRES FOR INFO.

NOTES:
1. ANY REGULATORY OR CUSTOM SIGN CAN BE MANUFACTURED UPON REQUEST.
2. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
5. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
6. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 5057-042.

TRAFFIC SIGNS WITH TRIM ONLY
COMPLETE 24" OR 30" SQUARE DO NOT ENTER SIGN WITH SIGNGUARD FRAME - TRIM ONLY

5057-042 REVISION DATE 01/25/2016

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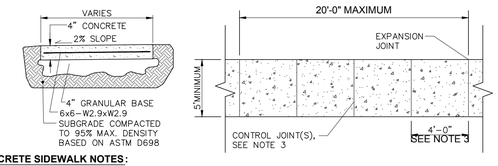
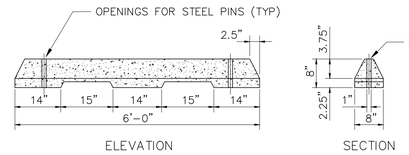
2 **DO NOT ENTER SIGN DETAIL**
NOT TO SCALE



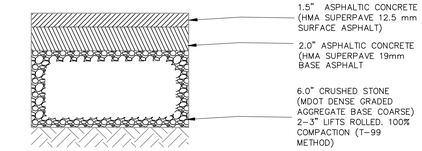
CONCRETE SIDEWALK NOTES:

1. INITIAL SITE CLEARING SHALL CONSIST OF COMPLETE REMOVAL OF TOPSOIL AND ORGANIC MATERIAL TO DEPTHS OF APPROVED AND STABLE SOILS.
2. CONCRETE MIX FOR SIDEWALK TO BE 3,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS AND MEETING SHA STD. MIX NO. 3. ALL CONCRETE PLACEMENT SHALL BE DESIGNED IN ACCORDANCE WITH A.C.I. SPECIFICATIONS.
3. PROVIDE CONTROL JOINTS EVERY 4'-0" MINIMUM. PROVIDE 1/2" EXPANSION JOINT EVERY 20' O/C MAX.
4. PROVIDE 1/2" EXPANSION JOINT FILLER WHERE SIDEWALK ABUTS CURB OR OTHER RIGID STRUCTURE(S)
5. BROOM THE SURFACE WITH A FINE-HAIR BROOM AT RIGHT ANGLES TO THE CENTERLINE, TOOL ALL EDGES, JOINTS AND MARKINGS.
6. EXPANSION JOINTS OF 1/2" (MIN.) RIGID BITUMINOUS MATERIAL SHALL BE PLACED AT 24' SPACING.
7. MARK THE WALK AT 4 FT. INTERVALS WITH A JOINTING TOOL OR AS NOTED ON DRAWINGS.
8. AFTER FINISHING APPLY AN APPROVED CURING COMPOUND. PROTECT SIDEWALK FOR 7 DAYS.

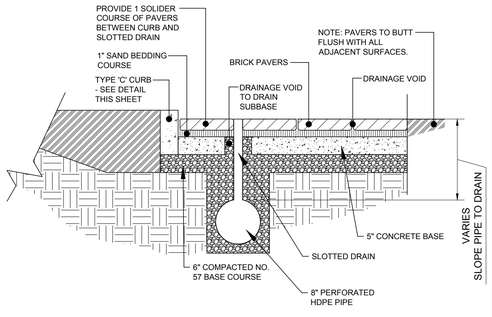
3 **CONCRETE SIDEWALK DETAIL**
NOT TO SCALE



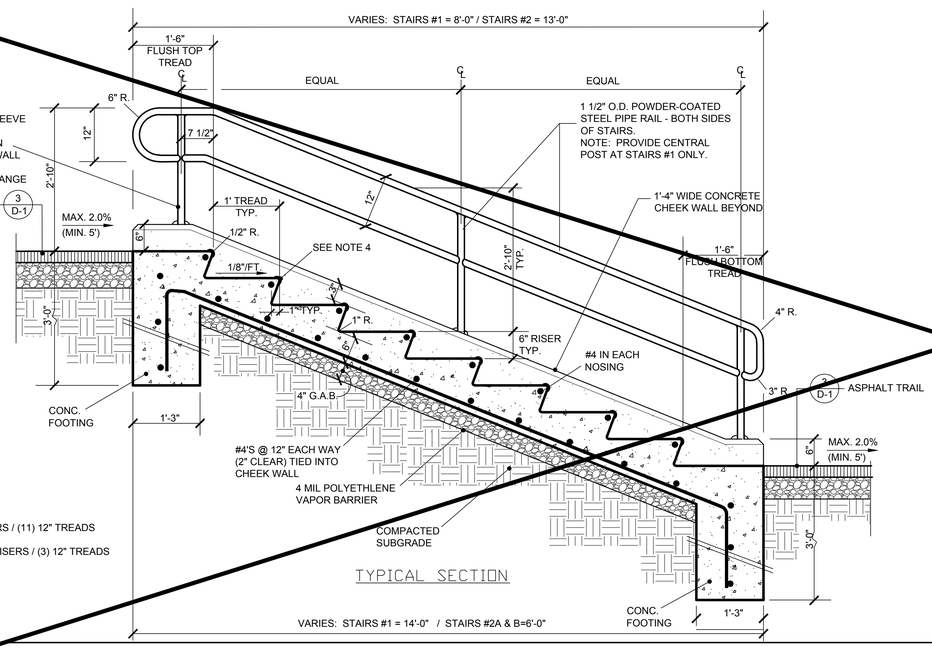
5 **PRECAST WHEEL STOPS (6" HIGH)**
NOT TO SCALE



4 **PAVING SECTION**
NOT TO SCALE



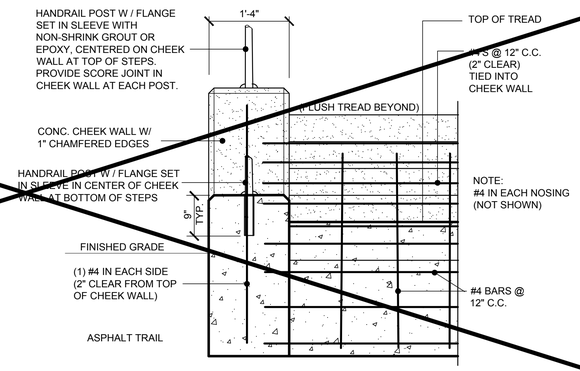
6 **BRICK PAVERS IN PARKING LOT TYPICAL SECTION**
NOT TO SCALE



STAIRS #1: (12) 6" RISERS / (11) 12" TREADS

STAIRS #2A & B: (4) 6" RISERS / (3) 12" TREADS

TYPICAL SECTION



TYPICAL SECTION - STAIRS AND CHEEKWALL

STAIRS, CHEEKWALL AND HANDRAIL NOTES:

1. CONCRETE SHALL BE 3,500 PSI WITH LIGHT BROOM FINISH FOR STAIRS AND FLUSH TREADS, TROWELED FINISH FOR CHEEK WALLS.
2. INSTALL HANDRAIL CENTERED IN CHEEK WALL ON BOTH SIDES OF THE STAIRS AND IN CENTER OF STAIRCASE, SET IN SLEEVE AND WITH FLANGE AS DETAILED.
3. ALL PAVEMENTS TO BUTT FLUSH WITH FLUSH TREADS AT TOP AND BOTTOM OF STAIRS.
4. ALL STAIR NOSINGS SHALL HAVE CAST METAL NOSE GUARD: MINIMUM 4" WIDE WITH CONCEALED INTEGRAL ANCHOR, MADE OF CAST METAL RESISTANT TO EXTERIOR CORROSIVE ENVIRONMENT WITH ANTI-SLIP PROPERTIES. NOSE GUARD SHALL BE ONE PIECE, TERMINATING NOT LESS THAN 4" FROM THE ENDS OF THE STEPS. CAST METAL NOSE GUARDS INTO STAIR NOSINGS PER THE MANUFACTURER'S INSTRUCTIONS, ENSURING NOSING IS FLUSH WITH STEP SURFACES.

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

7 **CONCRETE STAIRS W/ HANDRAIL DETAIL**
NOT TO SCALE

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-3-2.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: AS SHOWN

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STATE OF MARYLAND · BILLIE JON SWATZES · No. 34688 · REGISTERED PROFESSIONAL ENGINEER
10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

SITE NOTES & DETAILS

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

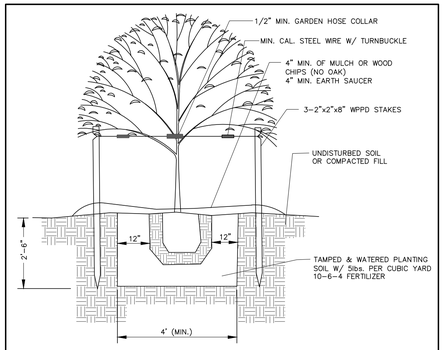
SHEET NUMBER:
C.3.4
JOB NO.: 03-16-0733

BUILDING LANDSCAPE SCHEDULE

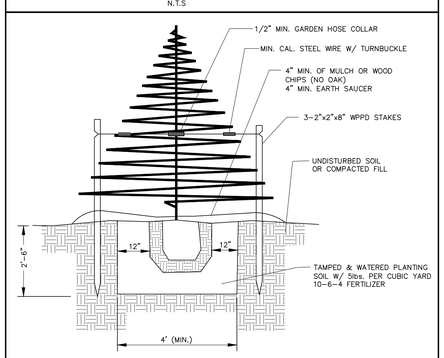
	SYMBOL	COMMON NAME	BOTANICAL NAME	QUANTITY	MIN. PLANT SIZE
TREES	BN	HERITAGE RIVER BIRCH	BETULA NIGRA "HERITAGE"	5	6'–8' CLUMP B&B
	IA	DRAGON LADY HOLLY	ILEX x AQUIPERNYI "DRAGON LADY"	2	5'–6' B&B OR CONT.
	LI	ACOMA CRAPE MYRTLE	LAGERSTROEMIA INDICA x FAURIEI 'ACOMA'	16	6'–7' B&B
	MP	PRAIRIFIRE CRABAPPLE	MALUS "PRAIRIFIRE"	6	1 2/2"–1 3/2" CAL. B&B
SHRUBS & GROUNDCOVER	BT	GOLDEN RUBY BARBERRY	BARBERRY THUNBERGII "GORUZAM"	21	18"–24" B&B OR CONT.
	HQ	PEE WEE OAK LEAF HYDRANGEA	HYDRANGEA QUERQIFOLIA "PEE WEE"	24	18"–24" B&B OR CONT.
	PL	OTTO LUYKEN ENGLISH LAUREL	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	23	18"–24" B&B OR CONT.
	VC	DAVID VIBURNUM	VIBURNUM 'DAVIDII'	8	18"–24" B&B OR CONT.
		HEMEROCALLIS "CHRISTMAS IS"	CHRISTMAS IS DAYLILY	40	1 GALLON PLANT 1.5' O.C.
		VARIEGATA LIRIOPE	LIRIOPE MUSCARI 'VARIEGATA'	80	1 GALLON PLANT 1.25' O.C.

PLANTING SEASON:
MARCH 1 TO MAY 15 AND AUGUST 15 TO NOVEMBER 15.

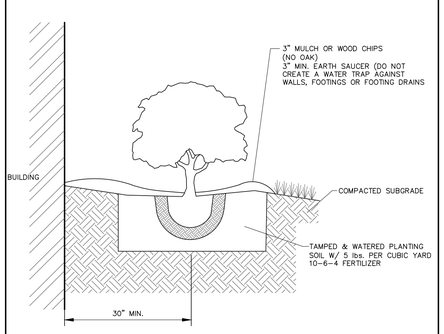
1) ALL PLANTS SHALL BE OF NURSERY STOCK QUALITY, SYMMERTICAL GROWTH AND FREE OF INSECT PESTS AND DISEASE.
2) PLANTS WHICH HAVE DIED OR BECOME DISEASED OR PEST RIDDEN SHALL BE REPLACED BY THE DEVELOPER.
3) MINIMUM SIZE. THE TRUNK DIAMETER (MEASURED AT A HEIGHT OF ONE {1} FOOT ABOVE THE FINISHED GRADE LEVEL) SHALL BE A MINIMUM OF ONE AND ONE–HALF (1–1/2) inches OR GREATER.
4) PLANTS SHALL BE PLANTED IN CONFORMANCE WITH GOOD LANDSCAPING PRACTICES.
5) PLANTS SHALL BE PROPERLY PROTECTED BY RAISED CURBS OR SIMILAR DEVICES FROM DAMAGE FROM VEHICLES.
6) PLANTS SHALL BE PROPERLY MAINTAINED AND SHALL NOT BE REMOVED WITHOUT BEING REPLACED BY ANOTHER PLANT OF THE SAME KIND OR ANOTHER PLANT APPROVED BY THE LANDSCAPE ARCHITECT.



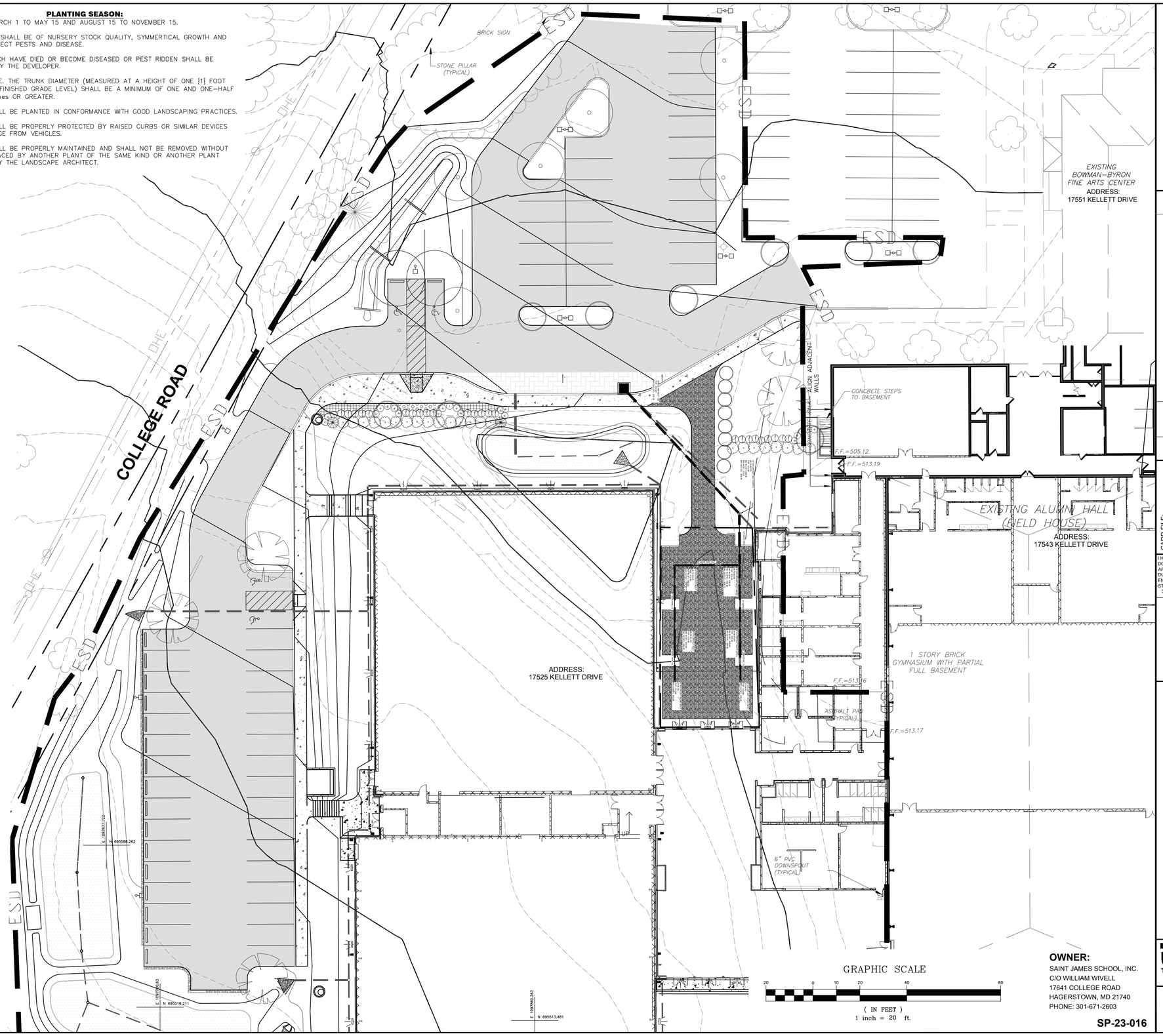
DECIDUOUS TREE DETAIL
(LESS THAN 8' HIGH)
N.T.S



CONIFEROUS TREE DETAIL
(LESS THAN 8' HIGH)
N.T.S



SHRUB PLANTING DETAIL
N.T.S



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PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
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PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2017-C-3-1.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 08/20/21
SCALE: 1"=10'

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STATE OF MARYLAND — BILLIE JON SWALTES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER — 10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

LANDSCAPE PLAN, NOTES & DETAILS (FULL BUILD)

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.3.5
JOB NO.: 03-16-0733

SOIL TYPES ON SITE

SYMBOL	DESCRIPTION	K FACTOR (WHOLE)	HYDROLOGIC SOILS GROUP
HbB	HAGERSTOWN SILTY CLAY LOAM, 3 TO 8% SLOPES, VERY ROCKY	0.32	B
SpA	SWANPOND SILT LOAM, 0 TO 3% SLOPES	0.43	D

NO HIGHLY ERODIBLE SOILS.

SEQUENCE OF CONSTRUCTION

I. NOTIFICATION

A. FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT (301) 797-6821 (EXT. 3) TO SCHEDULE A PRECONSTRUCTION MEETING.
B. NOTIFY THE WASHINGTON COUNTY DIVISION OF PUBLIC WORKS (ENGINEERING & CONSTRUCTION) 5 DAYS PRIOR TO THE START OF CONSTRUCTION AT (240) 313-2400.
C. NOTIFY TRIAD ENGINEERING, INC. OF PRE-CONSTRUCTION MEETING TIME AND DATE - (301) 797-6400.
D. CONTRACTOR SHALL NOTIFY MISS UTILITY AT (800) 257-777 A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO START OF CONSTRUCTION.

II. INITIAL STABILIZATION

A. INSTALL STABILIZED CONSTRUCTION ENTRANCE (SCE).
B. INSTALL PERIMETER CONTROLS: SILT FENCE AND SUPER SILT FENCE. SUPER SILT FENCE TO BE INSTALLED ON THE DOWNHILL SIDE OF THE PROPOSED ATHLETIC CENTER AS SHOWN.
C. CLEAR, GRUB AND STRIP TOPSOIL FROM SITE AND PLACE IN STOCKPILE AREA, INSTALL SILT FENCE ALONG DOWNHILL SLOPE OF STOCKPILE AND TEMPORARILY SEED IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS WITHIN 3 CALENDAR DAYS. NOTE: ANY SPOIL AND /OR BORROW, MUST COME FROM AND/ OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

III. ROUGH GRADING, BUILDING CONSTRUCTION AND UTILITY INSTALLATION

A. SUBGRADE SITE-PLACE EXCESS SOILS IN STOCKPILE AREA AND TEMPORARILY SEED IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS. ANY SPOIL AND/OR BORROW MUST COME FROM OR GO TO A SITE THAT HAS A CURRENT APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
B. EXCAVATE AND CONSTRUCT BUILDING FOOTERS.
C. INSTALL UTILITIES; ELECTRIC AND STORM DRAINS. BACKFILL, SEED AND MULCH IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS WITHIN 3 CALENDAR DAYS.
D. CONSTRUCT DOWNSPOUT COLLECTOR SYSTEMS AND UNDERDRAIN SYSTEM UNDER FRONT PATIO AREA.
E. PLACE INLET PROTECTION DEVICES AROUND ALL INLETS. ADJUST INLET PROTECTION AS NEEDED DURING CONSTRUCTION.
F. INSTALL REMAINING UTILITIES, ELECTRIC, GAS AND COMMUNICATION AS NECESSARY.
G. GRADE PROPOSED PARKING LOTS AND STABILIZE WITH GRAVEL SUBBASE.
H. CONSTRUCT BUILDING.
I. FINAL GRADE REMAINING AREA OF SITE AND REPLACE TOPSOIL, STABILIZE PER EROSION DETAILS AS SHOWN PER PLAN AND FINAL SEED AND MULCH AS DISTURBED ARES FOR ESTABLISHMENT OF VEGETATIVE COVER PER MDE STANDARD STABILIZATION.

IV. STORMWATER/WATER QUALITY CONSTRUCTION AND SITE CLOSEOUT

A. ONCE SITE IS STABILIZED, NOTIFY WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT (301) 797-6821 (EXT. 3) AND THE WASHINGTON COUNTY DIVISION OF PUBLIC WORKS (ENGINEERING AND CONSTRUCTION) AT (240) 313-2400 OF INTENT TO PERFORM SWM WATER QUALITY WORK 5 DAYS PRIOR TO CONSTRUCTION.
B. WITH NOTICE TO PROCEED, EXCAVATE AND CONSTRUCT SWALE #1 FROM THE DOWNSTREAM TO UPSTREAM AND STABILIZE AS SWALE CONSTRUCTION PROGRESSES.
C. ONCE STABILIZED, EXCAVATE AND CONSTRUCT MICRO BIORETENTION AREAS AS SHOWN ON PLAN. REMOVE EXCAVATED MATERIALS FROM SITE AND PLACE IN AN APPROVED SPOILS AREA.
D. INSTALL GRAVEL SUBBASE AND UNDERDRAINS, PEA GRAVEL AND FILTERING MEDIA IN ACCORDANCE WITH THE MICRO-BIORETENTION SPECIFICATIONS.
E. INSTALL ALL PLANTINGS PER PLANS, THEN MULCH.
F. FINAL GRADE ADJOINING AREA TO THE MICRO-BIORETENTION AREA, TOPSOIL, SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH STABILIZATION SPECIFICATIONS WITHIN 3 CALENDAR DAYS.

V. PAVING

A. AT COMPLETION OF SWM BMP CONSTRUCTION, INSTALL PAVING.

VI. SITE CLOSEOUT

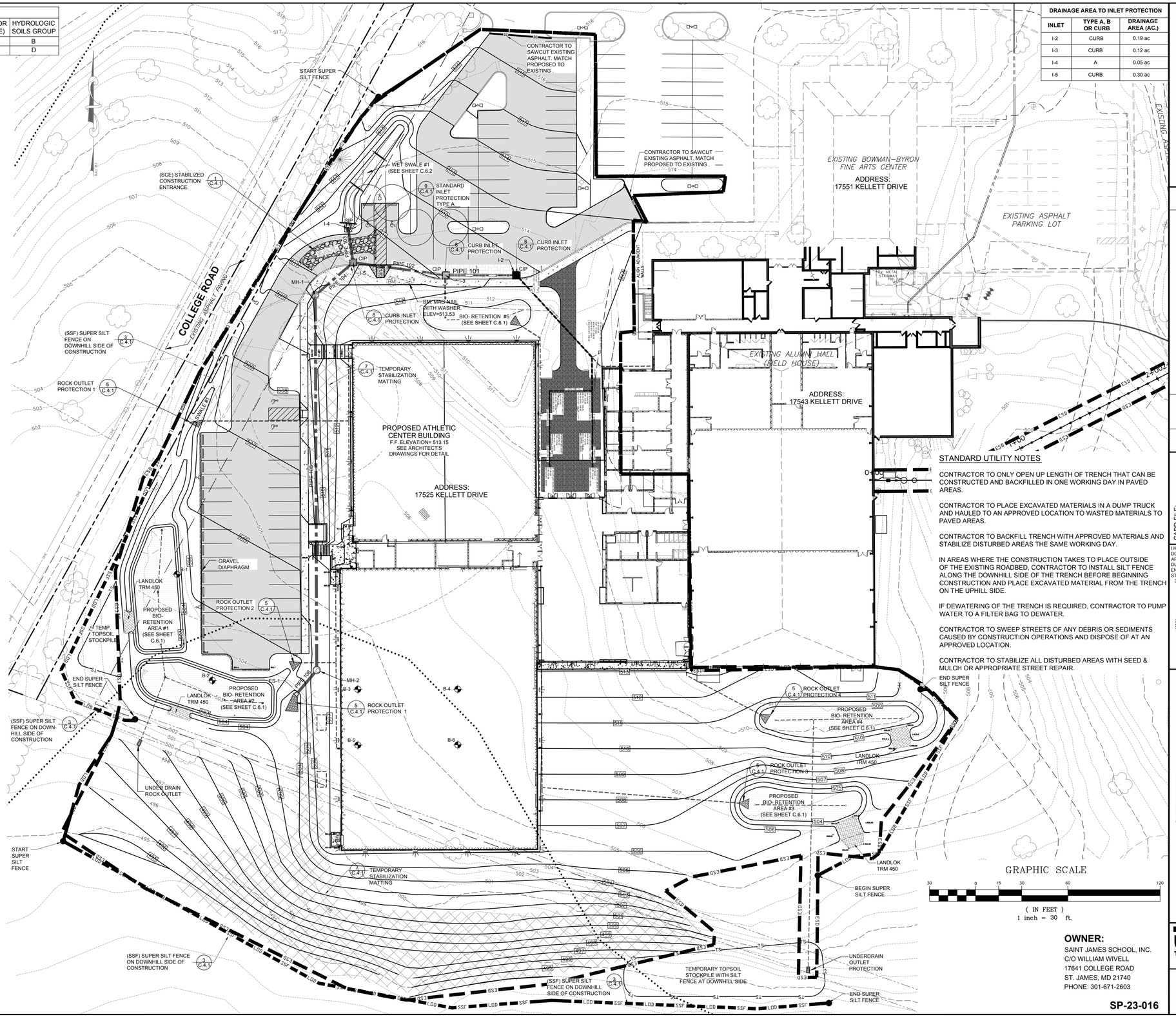
A. WITH THE ENTIRE SITE FINAL GRADED AND VEGETATIVE COVER IN PLACE, NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT (301) 797-6821 (EXT. 3) AND THE WASHINGTON COUNTY DIVISION OF PUBLIC WORKS (ENGINEERING AND CONSTRUCTION) AT (240) 313-2400 AT LEAST FIVE (5) DAYS PRIOR TO THE REMOVAL OF ANY SEDIMENT CONTROL FEATURES TO SCHEDULE A FINAL SITE CLOSEOUT REVIEW MEETING.
B. UPON APPROVAL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, REMOVE ALL SEDIMENT CONTROL DEVICES EXCLUDING THE PERMANENT ASPHALT CURB.
C. STABILIZE, SEED AND MULCH ANY AREAS DISTURBED DURING CONTROL REMOVE.

THE USDA SOIL SURVEY OF WASHINGTON COUNTY SHOWS THE HbB SOILS ON THIS SOIL SURVEY AS BEING "KARST SOILS"

CONSISTENT WITH A LANDSCAPE OF KARST TOPOGRAPHY, THERE ARE ROCK OUTCROPS AND THE POTENTIAL EXISTS FOR SINKHOLE HOWEVER NO KNOWN SINKHOLE OR CLOSED DEPRESSIONS ARE KNOWN TO EXIST ON SITE OR WITHIN THE PROJECT GRADING AREAS.

IF ANY SINKHOLES ARE FOUND ON SITE IT MUST BE EVALUATED BY A GEOTECHNICAL ENGINEER. A REMEDIATION/ REPAIR PLAN MUST BE SUBMITTED TO THE COUNTY AND W.C.S.C.D. FOR REVIEW AND APPROVAL.

VARIABLE LAYERS OF FILL WERE ENCOUNTERED THROUGHOUT THE SITE AND MAY NEED TO BE HAULED OFF SITE. ALL SPOIL OR BORROW MUST COME FROM OR GO TO A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.



DRAINAGE AREA TO INLET PROTECTION		
INLET	TYPE A, B OR CURB	DRAINAGE AREA (AC.)
I-2	CURB	0.19 ac
I-3	CURB	0.12 ac
I-4	A	0.05 ac
I-5	CURB	0.30 ac

STANDARD UTILITY NOTES

CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS.

CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAULED TO AN APPROVED LOCATION TO WASTED MATERIALS TO PAVED AREAS.

CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORKING DAY.

IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.

IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.

CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION.

CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED & MULCH OR APPROPRIATE STREET REPAIR.

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
5	5/3/23	VALUE ENGINEERING PROPOSAL	
2	12-10-2021	PER WASH CO SOIL CONSERVATION DISTRICT	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-4-0.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: 1"=30'

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND — BILLIE JO SWATZES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER

10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

EROSION/ SEDIMENT CONTROL PLAN & GRADING PLAN (FULL BUILD)

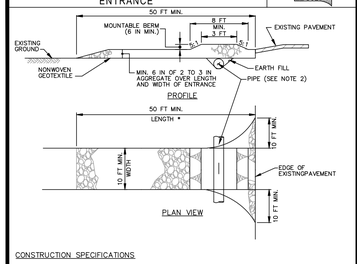
ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.4.0
JOB NO.: 03-16-0733

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

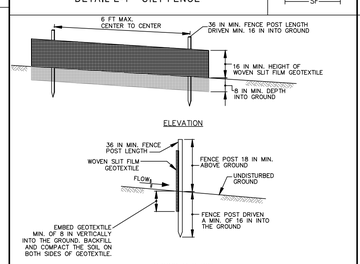
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

1 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

DETAIL E-1 SILT FENCE

STANDARD SYMBOL SF



1 OF 2

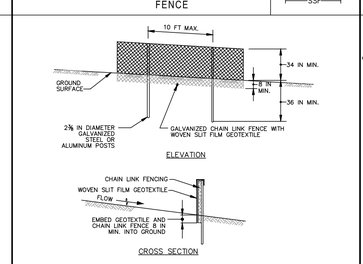
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

2 SILT FENCE
NOT TO SCALE

DETAIL E-3 SUPER SILT FENCE

STANDARD SYMBOL SSF



CONSTRUCTION SPECIFICATIONS

1. INSTALL 2⅜ INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
2. FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2⅜ INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
3. FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
4. WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
5. EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
6. PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
7. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

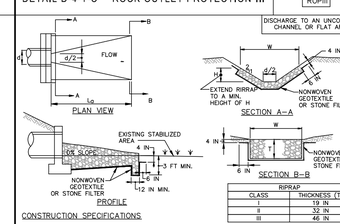
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

3 SUPER SILT FENCE
NOT TO SCALE

DETAIL D-4-1-C ROCK OUTLET PROTECTION III

STANDARD SYMBOL ROPIII



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

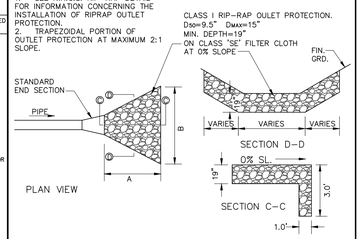
1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (⅜ TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

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

4 ROCK OUTLET PROTECTION III
NOT TO SCALE

NOTES:
1. SEE N.R.C.S. RIP-RAP DETAIL FOR INFORMATION CONCERNING THE INSTALLATION OF RIPRAP OUTLET PROTECTION.
2. TRAPEZOIDAL PORTION OF OUTLET PROTECTION AT MAXIMUM 2:1 SLOPE.



ROCK OUTLET PROTECTION CHART						
NAME	SIZE / TYPE	Q_{10} (cfs)	V_{10} (fps)	A (ft.)	B (ft.)	RIPRAP SIZE
PIPE 106	18" HDPE	8.40	4.76	8	4.45	CLASS I
RO-1	8" HDPE	1.21	3.69	6	6.66	CLASS I
RO-2	8" HDPE	2.07	5.97	6	6.66	CLASS I
RO-3	8" HDPE	1.85	5.37	6	6.66	CLASS I
RO-4	8" HDPE	1.60	4.7	6	6.66	CLASS I
RO-5	6" HDPE	1.16	3.56	2	4	CLASS I
UO-1	6" HDPE	-	-	2	4	CLASS I
UO-2	6" HDPE	-	-	2	4	CLASS I
UO-3	6" HDPE	-	-	2	4	CLASS I
	6" HDPE	-	-	2	4	CLASS I

5 ROCK OUTLET PROTECTION
NOT TO SCALE

FOR SITES 1.0 ACRE OR MORE, THE FOLLOWING ARE REQUIRED:

A. MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH A CONSTRUCTION ACTIVITY, NPDES PERMIT NUMBER MDRC, STATE DISCHARGE PERMIT NUMBER 14GP, OR AN INDIVIDUAL PERMIT.

B. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT- NOI) APPLICATION AND PERMIT SHALL BE POSTED AND/OR AVAILABLE ON-SITE AT ALL TIMES.

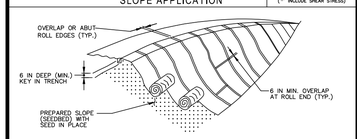
C. DURING CONSTRUCTION, ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) SHALL BE INSPECTED AND RECORDED ON THE "STANDARD INSPECTION FORM", "GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY" PER THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT - NOTICE OF INTENT - NOI).

D. FOLLOWING CONSTRUCTION AND RELEASE OF THE SIGHT FOR SOIL EROSION AND SEDIMENT CONTROL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, I.E., ALL PORTIONS OF A SITE HAVE BEEN PERMANENTLY STABILIZED, AND ALL STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT ARE ELIMINATED, THE AUTHORIZED PERMITTEE SHALL SUBMIT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL/INDIVIDUAL PERMIT - NOTICE OF TERMINATION-NOT

6 REQUIREMENTS FOR SITES 1.0 ACRE OR MORE
NOT TO SCALE

DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL
TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THICKSKIN PERENNIALS. MATTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

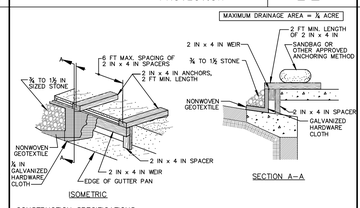
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

7 TEMP. SOIL STABILIZATION MATTING - SLOPE
NOT TO SCALE

DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL CIP



CONSTRUCTION SPECIFICATIONS

1. USE NOMINAL 2 INCH x 4 INCH LUMBER
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ¾ 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.
5. 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.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. 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 ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. 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.

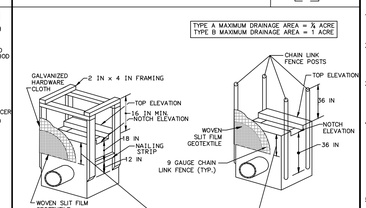
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

8 CURB INLET PROTECTION
NOT TO SCALE

DETAIL E-9-1 STANDARD INLET PROTECTION

STANDARD SYMBOL SIP



1 OF 2

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

9 STANDARD INLET PROTECTION
NOT TO SCALE

SOIL EROSION, SEDIMENT CONTROL, & SEEDING NOTES

1. ALL SOIL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.
2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", "SECTION B – GRADING AND STABILIZATION" AND THE PROVISIONS OF THE APPROVED PLAN.
3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.
4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
5. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, TEMPORARY, OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN:
   A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL 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 THE PROJECT SITE NOT UNDER ACTIVE GRADING.
6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITHIN THE 7 DAY STABILIZATION REQUIREMENT, AS WELL AS, STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION (AS APPLICABLE).
7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. AN INSTALLATION DETAIL SHALL BE SHOWN ON THE PLANS.
8. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 3 DAYS OF INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
9. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED, AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
10. NO SLOPE SHALL BE GREATER THAN 2:1.
11. AS REQUIRED BY SECTION B, OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, "ADEQUATE VEGETATIVE STABILIZATION", IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.

10 SEDIMENT AND EROSION CONTROL NOTES
NOT TO SCALE

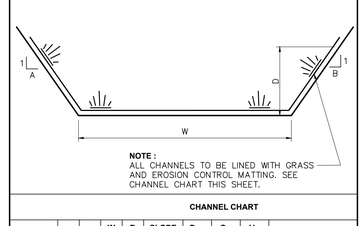
STANDARD UTILITY NOTES

1. CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS.
2. CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAUL TO AN APPROVED LOCATION.
3. CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORKING DAY.
4. IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING TRAIL OR ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.
5. IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.
6. CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION.
7. CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH OR APPROPRIATE GRAVEL/ASPHALT REPAIR.

UTILITY NOTIFICATION

THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NONEXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. THE LAW REQUIRES PRIOR TO EXCAVATION THAT MISS UTILITY BE CONTACTED AT: PHONE NO. **1-800-257-7777**

11 STANDARD UTILITY NOTES & UTILITY NOTIFICATION
NOT TO SCALE



NOTE :
ALL CHANNELS TO BE LINED WITH GRASS AND EROSION CONTROL MATTING. SEE CHANNEL CHART THIS SHEET.

CHANNEL CHART

CHANNEL	A	B	W (ft.)	D (ft.)	SLOPE (%)	D_{10} (ft.)	Q_{10} (cfs)	V_{10} (fps)	REMARKS
1	3	3	2	1	2.78	0.1	15.66	4.91	LINE W/CURLEX I

NOTE: SEE MANUFACTURER'S LINING INSTALLATION DETAIL FOR STABLE PATTERNS, VEGETATION STABILIZATION SPECIFICATIONS FOR SOIL AMENDMENTS, SEED MIXTURES, AND MULCHING INFORMATION.

12 TYPICAL CHANNEL SECTION
NOT TO SCALE

PERMANENT SEEDING SUMMARY

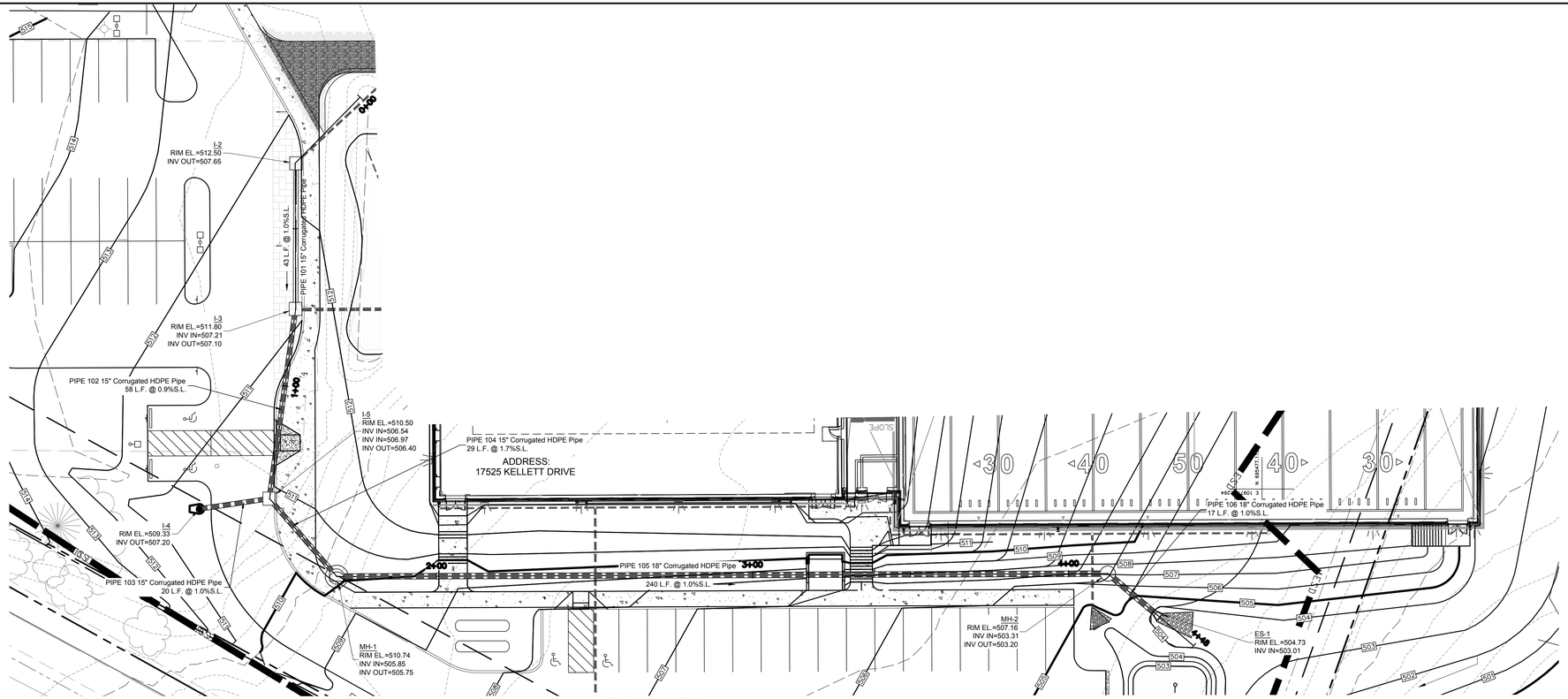
HARDINESS ZONE (FROM FIGURE B.3): 6-b
SEED MIXTURE (FROM TABLE B.3):

No.	SPECIES	APPLICATION RATE (LB. / AC.)	SEEDING DATES	SEEDING DEPTHS (inches)	FERTILIZER RATE (10-20-20) N	P205	K20	LIME RATE
6	TALL FESCUE (85%)	40	MAR. 1-MAY 15 AUG. 1-OCT. 15	¼ - ½	45 lb./ac. (1.0 lb./ 1,000 sq.ft.)	90 lb./ac. (2 lb./1,000 sq.ft.)	90 lb./ac. (2 lb./1,000 sq.ft.)	2 tons/ac. (90 lb./1,000 sq.ft.)
	PERENNIAL RYEGRASS (10%)	25	MAR. 1-MAY 15 AUG. 1-OCT. 15	¼ - ½				
	WHITE CLOVER (5%)	5	MAR. 1-MAY 15 AUG. 1-OCT. 15	¼ - ½				

TEMPORARY SEEDING SUMMARY

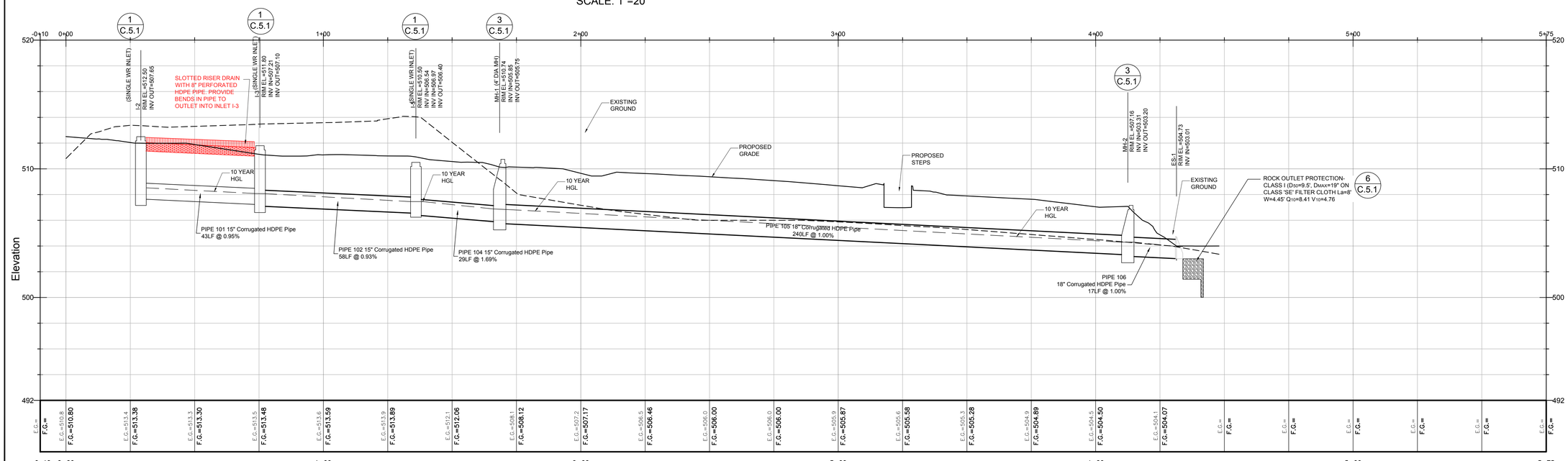
HARDINESS ZONE (FROM FIGURE B.3): 6-b
SEED MIXTURE (FROM TABLE B.1):

No.	SPECIES	APPLICATION RATE (LB. / AC.)	SEEDING DATES	SEEDING DEPTHS (inches)	FERTILIZER RATE (10-20-20)	LIME RATE
	BARLEY (HORDEUM VULGARE)	96 lb/ac. 2.2 lb/1000 s.f.	MAR. 1 - MAY 15 AUG. 1 - OCT. 15	1.0



PLAN VIEW

SCALE: 1"=20'



PROFILE OF STORM DRAIN
SCALE: HORZ: 1"=20'
VERT: 1"=4'

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-5-0.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: AS SHOWN

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND · BILLIE JON SWARTZES · No. 34688 · PROFESSIONAL ENGINEER
10/01/21

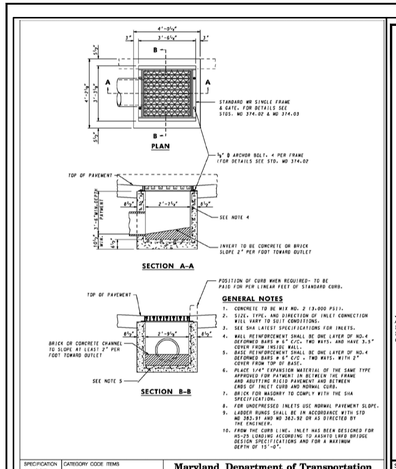
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORM DRAIN PLAN & PROFILE

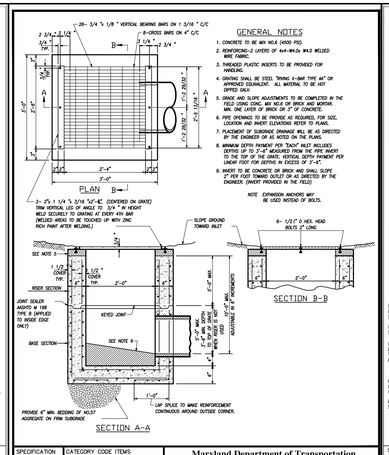
ZONING: A
WATERSHED CODE: 02140503 MARSH RUN
ELEC. DIST.: 02
TAX MAP: 0062
GRID: 0001
PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

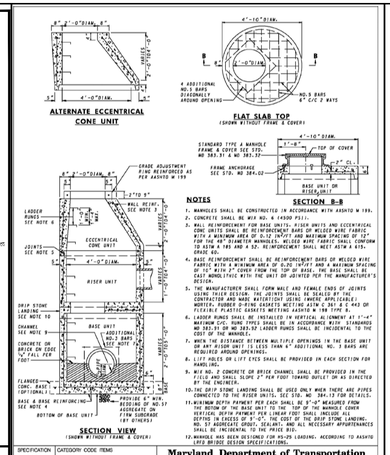
SHEET NUMBER:
C.5.0
JOB NO.: 03-16-0733



1 **PRECAST STANDARD SINGLE WR INLET**
NOT TO SCALE



2 **PRECAST YARD INLET**
NOT TO SCALE

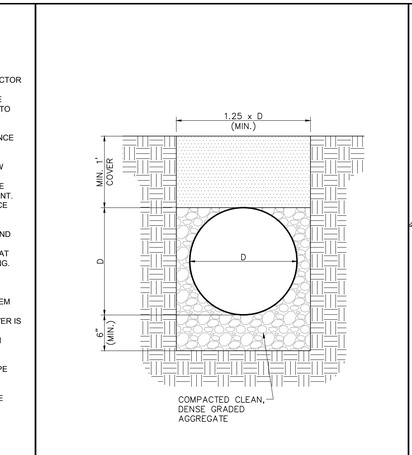


3 **48" DIAMETER PRECAST MANHOLE**
NOT TO SCALE

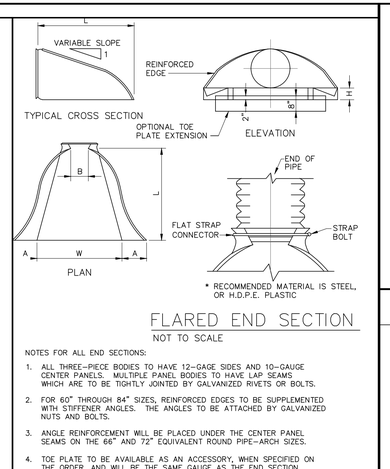
GENERAL NOTES FOR CONSTRUCTION OF , ENCLOSED STORMDRAIN SYSTEMS AND CULVERTS

1. THE ENCLOSED STORMDRAIN SYSTEM AND/OR CULVERTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLAN SHOWN HEREON. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION. IF DISCREPANCIES OR INCONSISTANCIES ARE FOUND, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR INFORMATION ON HOW TO PROCEED.
2. ALL PIPE JOINTS SHALL BE WATERTIGHT.
3. ALL PIPES SHALL HAVE BEDDING AND/OR BACKFILL PROVIDED IN ACCORDANCE WITH DETAILS SHOWN ON THESE PLANS.
4. ALL INLETS AND/OR MANHOLES SHALL HAVE A FLOW CHANNEL OF POURED CONCRETE THAT IS FLUSH WITH ALL INCOMING AND OUTGOING PIPES. FLOW CHANNEL SHALL HAVE A SMOOTH TROWELLED OR BRUSHED FINISH.
5. ALL JOINTS BETWEEN PIPES AND INLET BOXES AND/OR MANHOLES SHALL BE GROUTED WITH NONSHRINK GROUT SO AS TO PRODUCE A WATERTIGHT JOINT.
6. ALL PRECAST INLETS/MANHOLES SHALL BE MANUFACTURED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED ON THE PLANS.
7. ALL GRATE FRAMES AND/OR MANHOLE LID FRAMES SHALL BE SECURELY FASTENED TO THE TOP OF THE INLET BOX/MANHOLE WITH 1/2" DIA. BOLTS AND THREADED METAL ANCHORS.
8. ALL INLET GRATES AND MANHOLE LIDS AND THEIR RESPECTIVE FRAMES THAT ARE TO BE PLACED IN PAVED OR TRAFFIC AREAS SHALL BE TRAFFIC BEARING.
9. ALL INLET GRATES SHALL BE RETICULAR GRATES UNLESS OTHERWISE APPROVED BY THE CONSULTING ENGINEER AND THE APPROPRIATE GOVERNMENT REVIEW AGENCY
10. ALL CONCRETE USED IN CONSTRUCTION OF ENCLOSED STORMDRAIN SYSTEM SHALL HAVE MIN. fc = 3,000 PSI AT 28 DAYS OR AS MANDATED BY A SPECIFICATION FOR A PARTICULAR COMPONENT OF THE SYSTEM, WHICHEVER IS MORE STRINGENT.
11. INSTALLATION OF HIGH DENSITY POLYETHYLENE (H.D.P.E.) PIPE SHALL BE IN ACCORDANCE WITH ASTM D-2321 WITH THE EXCEPTION THAT THE MINIMUM COVER SHALL BE 1.0 FT.
12. JOINTS BETWEEN SECTIONS OF HIGH DENSITY POLYETHYLENE (H.D.P.E.) PIPE SHALL BE AS PROVIDED BY THE MANUFACTURER. ALL JOINTS SHALL BE WATERTIGHT.
13. ALL HIGH DENSITY POLYETHYLENE (H.D.P.E.) PIPES SHALL BE SMOOTHBORE H.D.P.E. AASHTO M294 TYPE 'S' OR APPROVED EQUAL .

4 **ENCLOSED STORM DRAIN NOTES**
NOT TO SCALE



5 **H.D.P.E. PIPE BEDDING DETAIL**
NOT TO SCALE

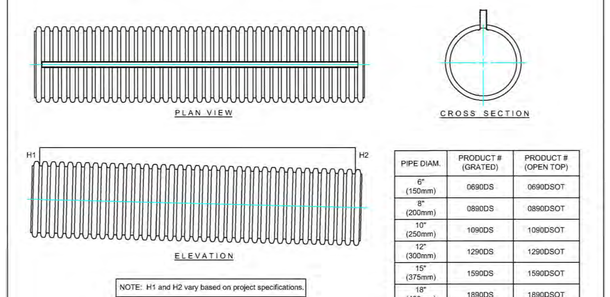


NOTES FOR ALL END SECTIONS:

1. ALL THREE-PIECE BODIES TO HAVE 12-GAGE SIDES AND 10-GAUGE CENTER PANELS. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINTED BY GALVANIZED RIVETS OR BOLTS.
2. FOR 60" THROUGH 84" SIZES, REINFORCED EDGES TO BE SUPPLEMENTED WITH STIFFENER ANGLES. THE ANGLES TO BE ATTACHED BY GALVANIZED NUTS AND BOLTS.
3. ANGLE REINFORCEMENT WILL BE PLACED UNDER THE CENTER PANEL SEAMS ON THE 66" AND 72" EQUIVALENT ROUND PIPE-ARCH SIZES.
4. TOE PLATE TO BE AVAILABLE AS AN ACCESSORY, WHEN SPECIFIED ON THE ORDER, AND WILL BE THE SAME GAUGE AS THE END SECTION.
5. STIFFENER ANGLES, ANGLE REINFORCEMENT, AND TOE PLATES ARE THE SAME BASE METAL AS THE END SECTION BODY.
6. END SECTIONS WITH 6:1 SLOPES ARE AVAILABLE IN 12" THROUGH 24" DIAMETERS.
7. ACTUAL DIMENSIONS MAY VARY SLIGHTLY.

6 **FLAERED END SECTION**
NOT TO SCALE

6"-24" DURASLOT® Pipe With Variable Slot Riser

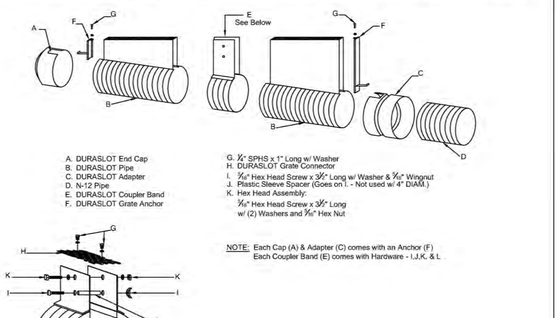


NOTE: H1 and H2 vary based on project specifications.

PIPE DIAM.	PRODUCT # (GRATED)	PRODUCT # (OPEN TOP)
6" (150mm)	0690DS	0690DSOT
8" (200mm)	0890DS	0890DSOT
10" (250mm)	1090DS	1090DSOT
12" (300mm)	1290DS	1290DSOT
15" (375mm)	1590DS	1590DSOT
18" (450mm)	1890DS	1890DSOT
24" (600mm)	2490DS	2490DSOT

7 **15" DURASLOT PIPE WITH VARIABLE SLOT RISER**
NOT TO SCALE

6"-24" DURASLOT® System Assembly With Variable Slot Riser - Grated

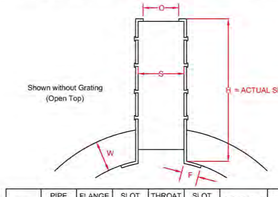


A. DURASLOT End Cap
B. DURASLOT Pipe
C. DURASLOT Adapter
D. N-12 Pipe
E. DURASLOT Coupler Band
F. DURASLOT Grate Anchor
G. ⅜" SPHS x 1" Long w/ Washer
H. DURASLOT Grate Connector
I. ⅜" Hex Head Screw x 3½" Long w/ Washer & ⅜" Wingnut
J. Plastic Sleeve Spacer (Goes on I. - Not used w/ 4" DIAM.)
K. Hex Head Assembly:
⅜" Hex Head Screw x 3½" Long w/ (2) Washers and ⅜" Hex Nut

NOTE: Each Cap (A) & Adapter (C) comes with an Anchor (F)
Each Coupler Band (E) comes with Hardware - I,J,K, & L

8 **15" DURASLOT SYSTEM WITH VARIABLE SLOT RISER - GRATED**
NOT TO SCALE

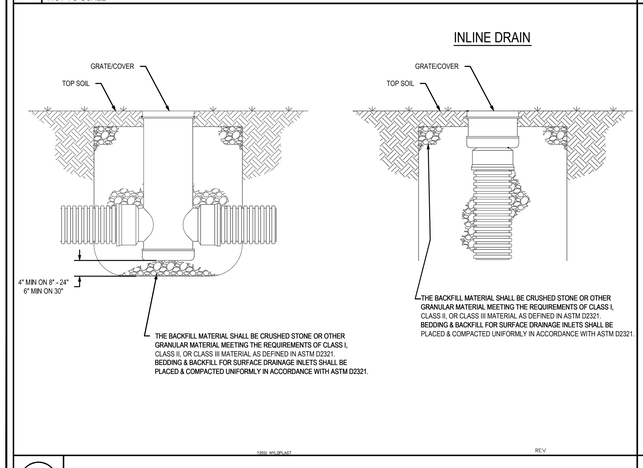
6"-24" DURASLOT® Pipe Dimensions For Variable Slot Riser



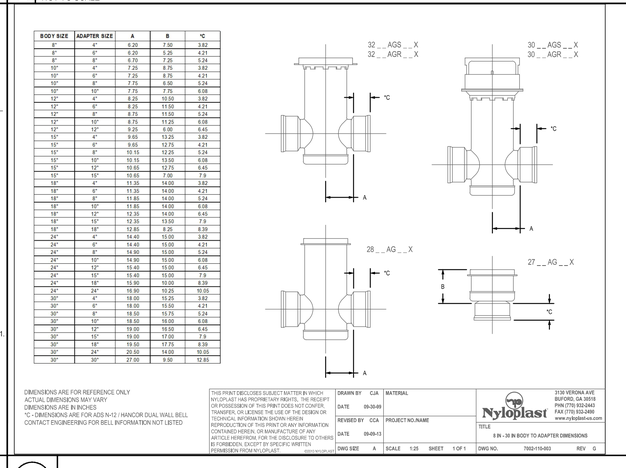
PIPE DIAM.	PIPE WALL (W)	FLANGE WIDTH (F)	SLOT OPENING (O)	THROAT SIZE (S)	SLOT HEIGHT (H)	PRODUCT # (Grated)	PRODUCT # (Open Top)
6" (150mm)	0.5" (13mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	0690DS	0690DSOT
8" (200mm)	0.625" (16mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	0890DS	0890DSOT
10" (250mm)	0.75" (19mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	1090DS	1090DSOT
12" (300mm)	1.125" (29mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	1290DS	1290DSOT
15" (375mm)	1.25" (32mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	1590DS	1590DSOT
18" (450mm)	1.25" (32mm)	0.75" (19mm)	1.75" (44mm)	2.25" (57mm)	Varies*	1890DS	1890DSOT
24" (600mm)	1.875" (48mm)	1.0" (25mm)	1.75" (44mm)	2.25" (57mm)	Varies*	2490DS	2490DSOT

NOTE: Slot Heights to conform to dimensions on project plans. 'H' at ends of each length of DURASLOT® to be detailed on Slot Dimensions Layouts for approval before production.

9 **15" DURASLOT PIPE DIMENSIONS FOR VARIABLE SLOT RISER**
NOT TO SCALE



10 **YARD INLET**
NOT TO SCALE



BODY SIZE	ADAPTER SIZE	A	B	*C
6"	4"	6.20	7.50	3.82
6"	6"	6.20	5.25	4.21
8"	6"	6.70	7.25	5.24
10"	4"	7.25	8.75	3.82
10"	6"	7.25	8.75	4.21
10"	8"	7.75	6.50	5.24
10"	10"	7.75	7.75	6.08
12"	4"	8.25	10.50	3.82
12"	6"	8.25	11.50	4.21
12"	8"	8.75	11.50	5.24
12"	10"	8.75	11.25	6.08
12"	12"	9.25	8.00	6.45
15"	4"	9.65	13.25	3.82
15"	6"	9.65	12.75	4.21
15"	8"	10.15	12.25	5.24
15"	10"	10.15	13.50	6.08
15"	12"	10.65	12.75	6.45
15"	15"	10.65	7.00	7.9
18"	4"	11.35	14.00	3.82
18"	6"	11.35	14.00	4.21
18"	8"	11.85	14.00	5.24
18"	10"	11.85	14.00	6.08
18"	12"	12.35	14.00	6.45
18"	15"	12.35	13.50	7.9
18"	18"	12.85	8.25	8.39
24"	4"	14.40	15.00	3.82
24"	6"	14.40	15.00	4.21
24"	8"	14.90	15.00	5.24
24"	10"	14.90	15.00	6.08
24"	12"	15.40	15.00	6.45
24"	15"	15.40	15.00	7.9
24"	18"	15.90	15.00	8.39
24"	24"	16.90	10.25	10.05
30"	4"	18.00	15.25	3.82
30"	6"	18.00	15.50	4.21
30"	8"	18.50	15.75	5.24
30"	10"	18.50	16.00	6.08
30"	12"	19.00	16.50	6.45
30"	15"	19.00	17.00	7.9
30"	18"	19.50	17.75	8.39
30"	24"	20.50	14.00	10.05
30"	30"	27.00	9.50	12.85

11 **YARD INLET**
NOT TO SCALE

STRUCTURE TABLE

STRUCTURE NAME	DETAILS	RIM	INV IN	INV OUT
ES-1	18 Inch Flared End Section	504.73	PIPE 106=503.01	
I-2	SINGLE WR	512.50		PIPE 101=507.65
I-3	SINGLE WR	511.80	PIPE 101=507.21	PIPE 102=507.10
I-4	18in Nyloplast Drainage Structure	509.33		PIPE 103=507.20
I-5	SINGLE WR	510.50	PIPE 102=506.54 PIPE 103=506.97	PIPE 104=506.40
MH-1	48 DIA MANHOLE	510.74	PIPE 104=505.85	PIPE 105=505.75
MH-2	Eccentric Structure 48 dia 18 frame 24 cone	507.16	PIPE 105=503.31	PIPE 106=503.20

Pipe Table

NAME	SIZE	LENGTH	SLOPE	INV. IN	INV. OUT
PIPE 101	15 inch Corrugated HDPE Pipe	43.3	0.95%	507.65	507.21
PIPE 102	15 inch Corrugated HDPE Pipe	57.8	0.93%	507.10	506.54
PIPE 103	15 inch Corrugated HDPE Pipe	20.3	1.02%	507.20	506.97
PIPE 104	15 inch Corrugated HDPE Pipe	28.6	1.69%	506.40	505.85
PIPE 105	18 inch Corrugated HDPE Pipe	240.0	1.00%	505.75	503.31
PIPE 106	18 inch Corrugated HDPE Pipe	17.3	1.00%	503.20	503.01

OWNER:
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MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

CADD FILE: 2831-2021-C-5-1.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
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SCALE: AS SHOWN

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STATE OF MARYLAND — BILLIE JON SWITZER — No. 34688 — REGISTERED PROFESSIONAL ENGINEER
10/01/21

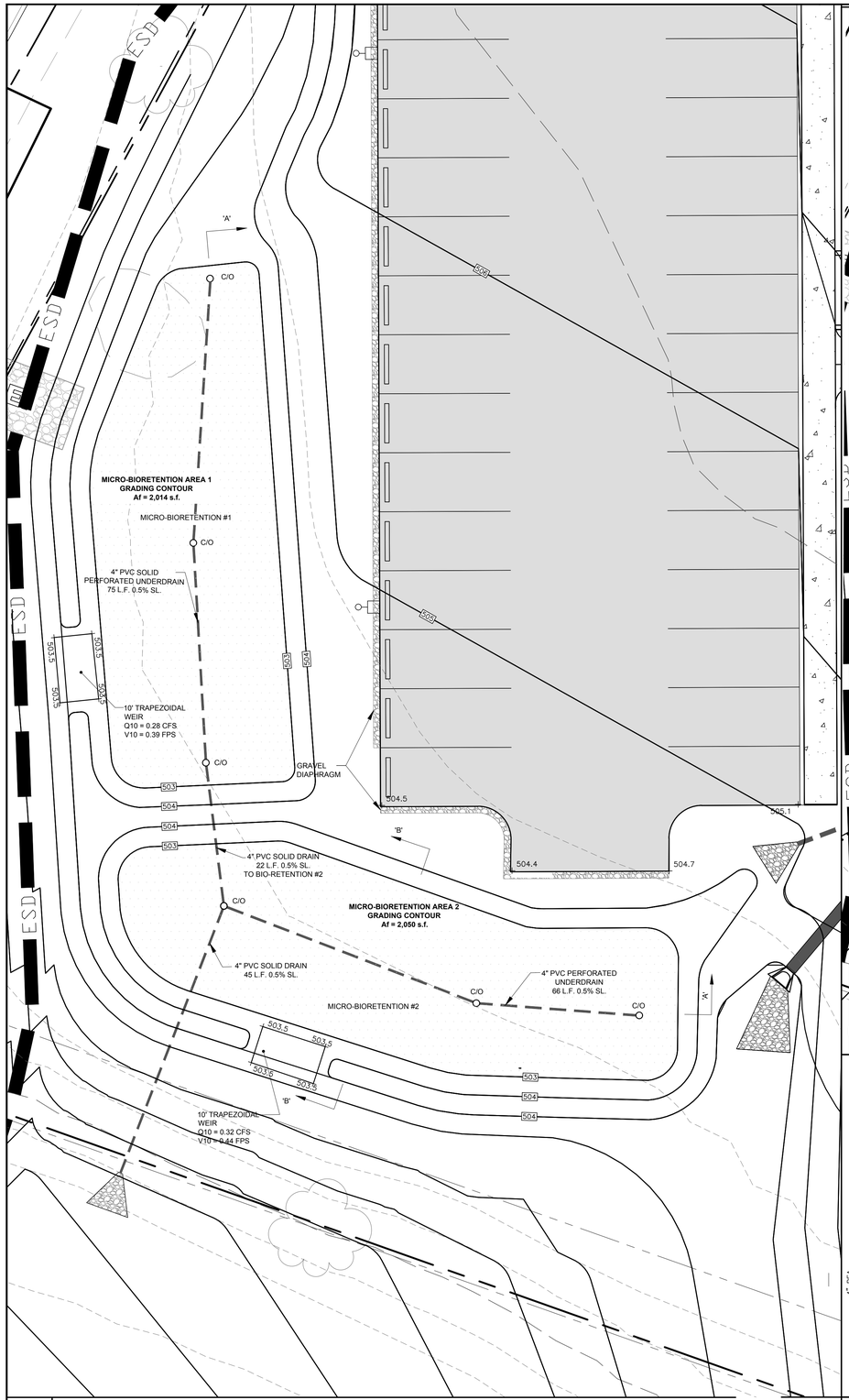
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORM DRAIN DETAILS AND NOTES

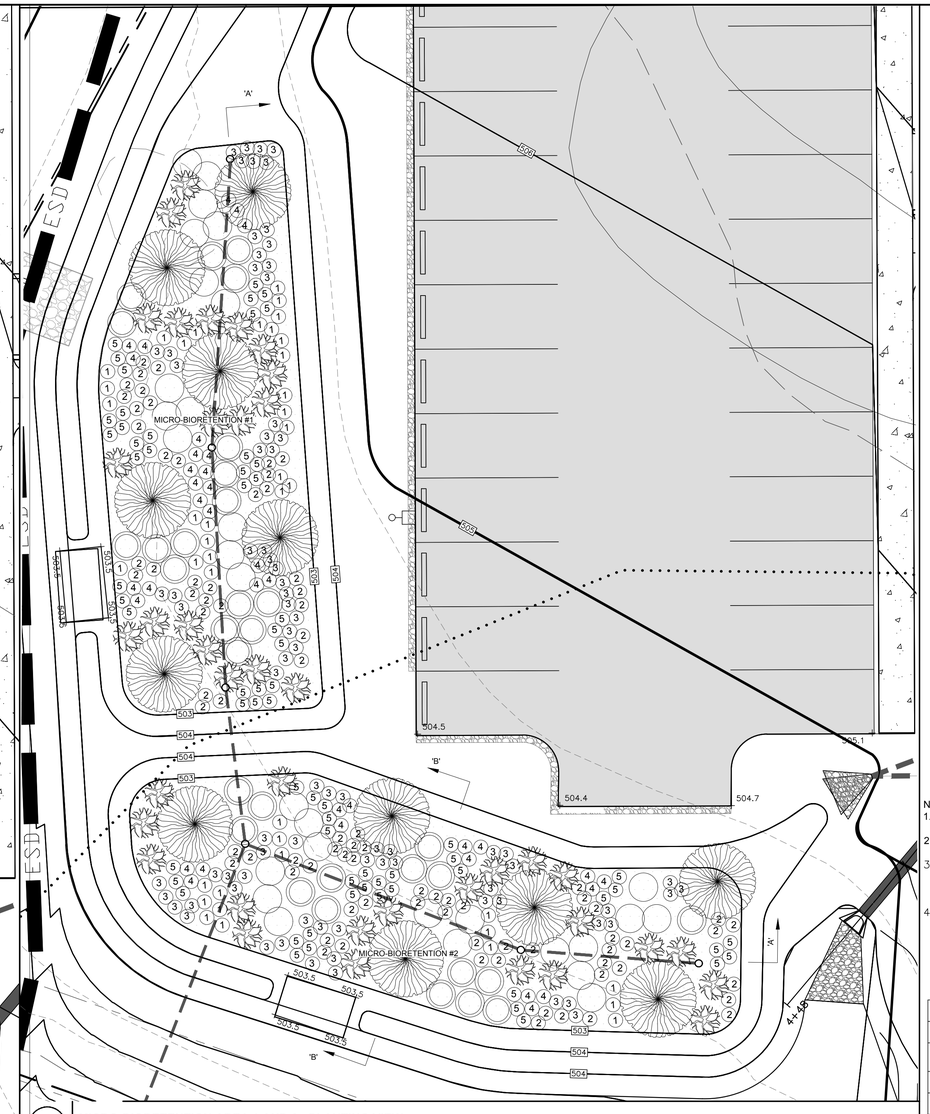
ZONING: A
TAX MAP: 0062
WATERSHED CODE: 02140503 MARSH RUN
GRID: 0001
PARCEL: 0057
ELEC. DIST.: 02

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.5.1
JOB NO.: 03-16-0733



1 MICRO-BIORETENTION AREA 1 & 2 - PLAN VIEW
SCALE: 1"=10'



2 MICRO-BIORETENTION AREA 1 AND 2 - PLANTING VIEW
SCALE: 1"=10'

LANDSCAPE SCHEDULE
MICRO-BIORETENTION AREA 1

	SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY	SPACING
TREES		FLOWERING DOGWOOD	CORNUS FLORIDA	7'-8'	6	SEE PLAN
SHRUBS		SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	#3	17	SEE PLAN
		INKBERRY HOLLY	ILEX GLABRA	#3	19	SEE PLAN.
		MAPLELEAF VIBURNUM	VIBURNUM ACERIFOLIUM	#3	18	SEE PLAN
HERBACEOUS PLANTS	1	LANCELEAF COREOPSIS	COREOPSIS LANCEOLATA	#1	23	SEE PLAN
	2	RIVER OATS	CHASMANTHIUM LATIFOLIUM	#1	33	SEE PLAN
	3	PURPLE CONEFLOWER	ECHINACEA PURPUREA	#1	38	SEE PLAN
	4	CARDINAL FLOWER	LOBELIA CARDINALIS	#1	21	SEE PLAN
	5	SWITCHGRASS	PANICUM VIRGATUM	#1	29	SEE PLAN

LANDSCAPE SCHEDULE
MICRO-BIORETENTION AREA 1

	SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY	SPACING
TREES		FLOWERING DOGWOOD	CORNUS FLORIDA	7'-8'	6	SEE PLAN
SHRUBS		SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	#3	15	SEE PLAN
		INKBERRY HOLLY	ILEX GLABRA	#3	20	SEE PLAN.
		MAPLELEAF VIBURNUM	VIBURNUM ACERIFOLIUM	#3	16	SEE PLAN
HERBACEOUS PLANTS	1	LANCELEAF COREOPSIS	COREOPSIS LANCEOLATA	#1	15	SEE PLAN
	2	RIVER OATS	CHASMANTHIUM LATIFOLIUM	#1	48	SEE PLAN
	3	PURPLE CONEFLOWER	ECHINACEA PURPUREA	#1	42	SEE PLAN
	4	CARDINAL FLOWER	LOBELIA CARDINALIS	#1	15	SEE PLAN
	5	SWITCHGRASS	PANICUM VIRGATUM	#1	34	SEE PLAN

NOTES:
1. A SEED PACKET MIX WITH EQUILVALENT QUANTITY OF HERBACEOUS PLANTS MAY BE USED INSTEAD OF PLUG/BARE ROOT.
2. SIZE COLUMN ABOVE INDICATES STANDARD LANDSCAPE TRADE CONTAINER SIZE.
3. CONTRACTOR MUST MINIMIZE COMPACTION WITHIN MICRO-BIORETENTION AREAS. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL AND TO PLACE REQUIRED MATERIAL TO CONSTRUCT MICRO-BIORETENTION AREAS.
4. ANY ROCK ENCOUNTERED AT OR ABOVE THE PLANNED POND BOTTOM AND EMBANKMENTS SHALL BE EXCAVATED AT LEAST 6 INCHES BELOW THE DESIGN ELEVATIONS AND REPLACED WITH MINIMUM 6 INCH THICK ZONE OF FINE GRAINED CLAY MATERIAL TO CONSTRUCT A CUSHIONING LAYER BETWEEN THE HARD BEDROCK AND LINER. ROOT MATTER AND ORGANIC MATERIAL SHALL BE EXCAVATED FROM AREAS THAT WILL RECEIVE THE LINER.

MICRO-BIORETENTION SIZING CHART

BMP NUMBER	STORAGE PROVIDED ESD Vol. (cf.)	Af (sf.)	POST CN	POST Tc (min.)	DA (AC.)(FB)	DA (AC.)(A1)
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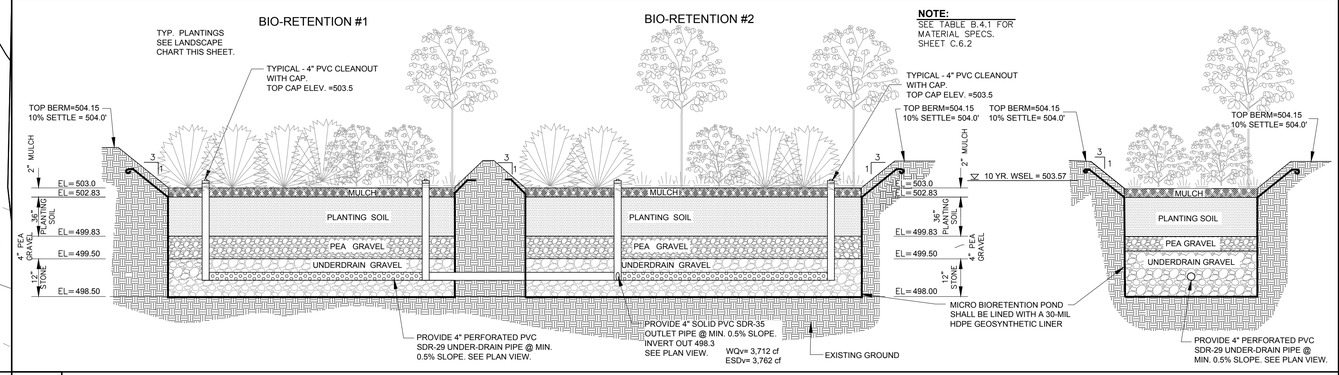
MB-2	4,080	2,050	88	5.0	0.576	0.537



3 MICRO-BIORETENTION AREA 1 AND 2 - TYPICAL SECTION DETAIL A'-A'

MICRO-BIORETENTION AREA 1 AND 2 - TYPICAL SECTION DETAIL B'-B'

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY

CADD FILE: 2831-2021-C-6-0.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
SCALE: AS SHOWN
DATE: 10/01/21

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND · BILLIE JON SWATZEL · No. 34688 · REGISTERED PROFESSIONAL ENGINEER

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORMWATER MANAGEMENT PLAN MICRO BIORETENTION AREA 1 & 2 (FULL BUILD & ALT1)

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

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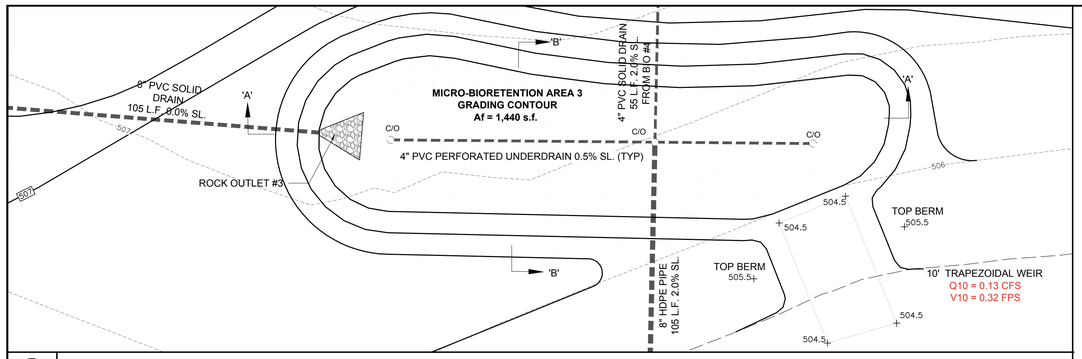
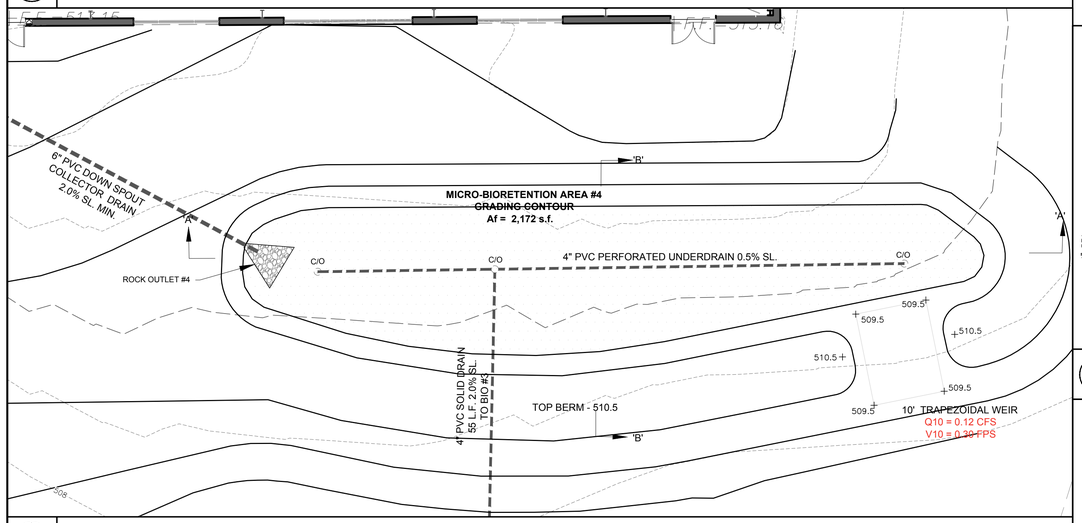
www.triadeng.com

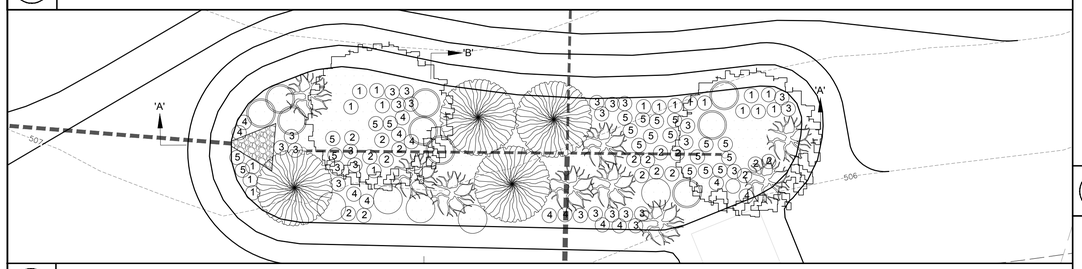
SHEET NUMBER:
C.6.0
JOB NO.: 03-16-0733



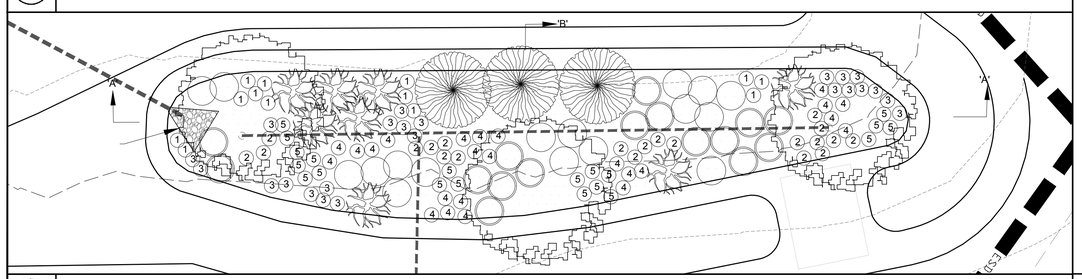
1 **MICRO-BIORETENTION AREA 3 - PLAN VIEW**
SCALE: 1"=10'



2 **MICRO-BIORETENTION AREA 4 - PLAN VIEW**
SCALE: 1"=10'



3 **MICRO-BIORETENTION AREA 3 - PLANTING VIEW**
SCALE: 1"=10'



4 **MICRO-BIORETENTION AREA 4 - PLANTING VIEW**
SCALE: 1"=10'

LANDSCAPE SCHEDULE
MICRO-BIORETENTION AREAS 3 & 4

	SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY BIO #3	QUANTITY BIO #4	SPACING
TREES		RIVER BIRCH	BETULA NIGRA	6'–8' CLUMP	2	3	SEE PLAN
		FLOWERING DOGWOOD	CORNUS FLORIDA	7'–8'	4	3	SEE PLAN
SHRUBS		SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	#3	9	16	SEE PLAN
		INKBERRY HOLLY	ILEX GLABRA	#3	9	8	SEE PLAN.
		MAPLELEAF VIBURNUM	VIBURNUM ACERIFOLIUM	#3	5	18	SEE PLAN
HERBACEOUS PLANTS	1	LANCELEAF COREOPSIS	COREOPSIS LANCEOLATA	#1	18	14	SEE PLAN
	2	RIVER OATS	CHASMANTHIUM LATIFOLIUM	#1	17	17	SEE PLAN
	3	PURPLE CONEFLOWER	ECHINACEA PURPUREA	#1	22	21	SEE PLAN
	4	CARDINAL FLOWER	LOBELIA CARDINALIS	#1	14	24	SEE PLAN
	5	SWITCHGRASS	PANICUM VIRGATUM	#1	19	19	SEE PLAN

NOTES:
1. A SEED PACKET MIX WITH EQUILVALENT QUANTITY OF HERBACEOUS PLANTS MAY BE USED INSTEAD OF PLUG/BARE ROOT.
2. SIZE COLUMN ABOVE INDICATES STANDARD LANDSCAPE TRADE CONTAINER SIZE.
3. CONTRACTOR MUST MINIMIZE COMPACTION WITHIN MICRO–BIORETENTION AREAS. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL AND TO PLACE REQUIRED MATERIAL TO CONSTRUCT MICRO–BIORETENTION AREAS.
4. ANY ROCK ENCOUNTERED AT OR ABOVE THE PLANNED POND BOTTOM AND EMBANKMENTS SHALL BE EXCAVATED AT LEAST 6 INCHES BELOW THE DESIGN ELEVATIONS AND REPLACED WITH MINIMUM 6 INCH THICK ZONE OF FINE GRAINED CLAY MATERIAL TO CONSTRUCT A CUSHIONING LAYER BETWEEN THE HARD BEDROCK AND LINER. ROOT MATTER AND ORGANIC MATERIAL SHALL BE EXCAVATED FROM AREAS THAT WILL RECEIVE THE LINER.

MICRO-BIORETENTION SIZING CHART

BMP NUMBER	STORAGE PROVIDED ESD Vol. (cf.)	Af (sf.)	POST CN	POST Tc (min.)	DRAINAGE AREA (AC.)
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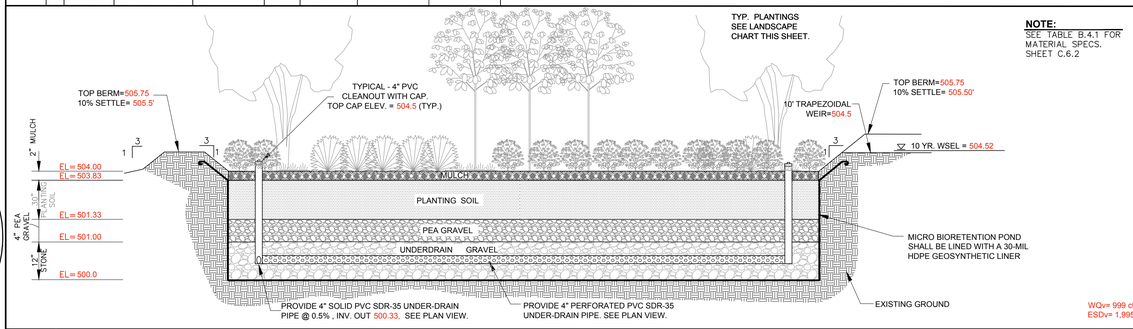
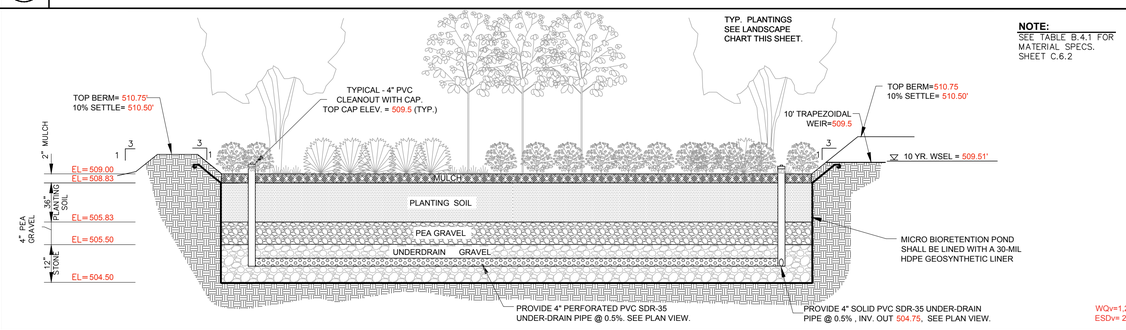
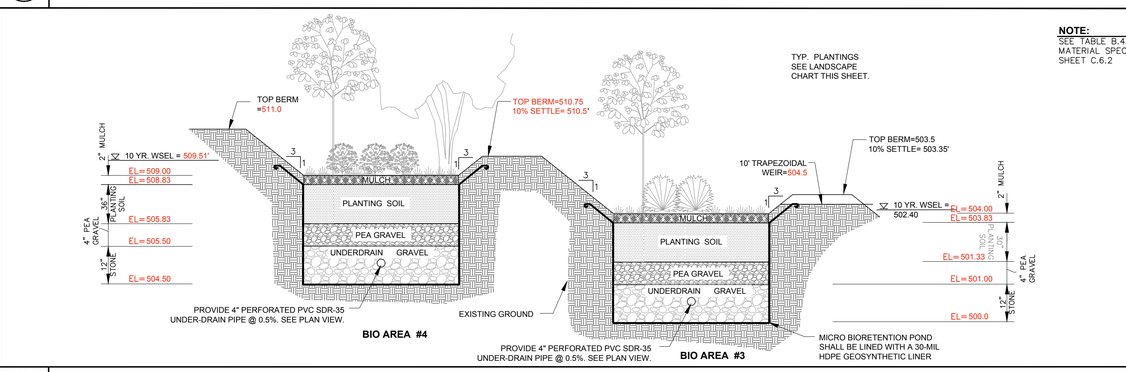
MB-4	3,006	1,718	88	5.0	0.49



5 **MICRO-BIORETENTION AREA 3 - TYPICAL SECTION DETAIL A'-A'**
SCALE: NOT TO SCALE



6 **MICRO-BIORETENTION AREA 4- TYPICAL SECTION DETAIL A'-A'**
SCALE: NOT TO SCALE



7 **MICRO-BIORETENTION AREA 3&4 - TYPICAL SECTION DETAIL B'-B'**
SCALE: NOT TO SCALE

SP-23-016

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1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
5	5/3/23	VALUE ENGINEERING PROPOSAL	
2	8/11/22	PER WASHCO ENGINEERING DEPT.	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-6.1.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: AS SHOWN

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STATE OF MARYLAND · BILLIE JON SWATZLER · No. 34688 · PROFESSIONAL ENGINEER · 10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740
STORMWATER MANAGEMENT PLAN
MICRO BIORETENTION AREA 3 AND 4 (FULL BUILD)

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
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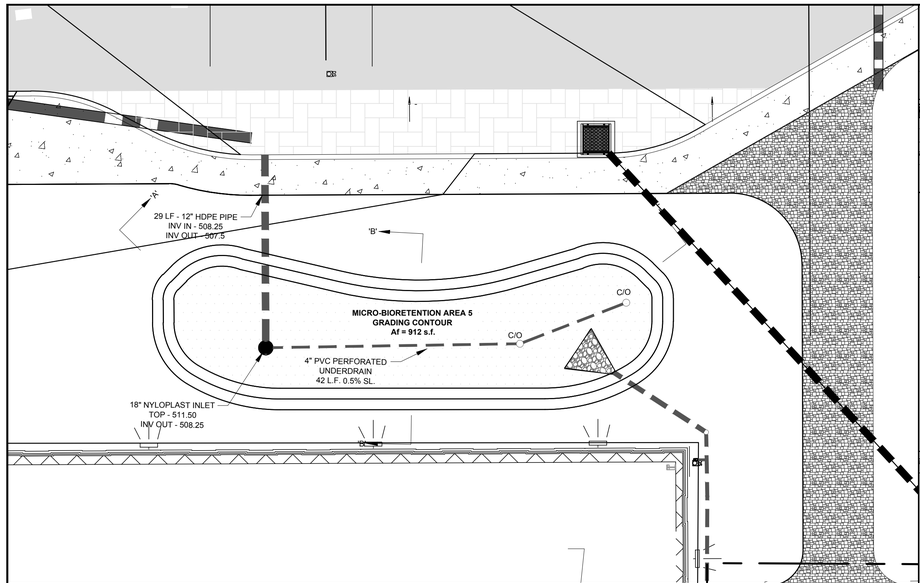
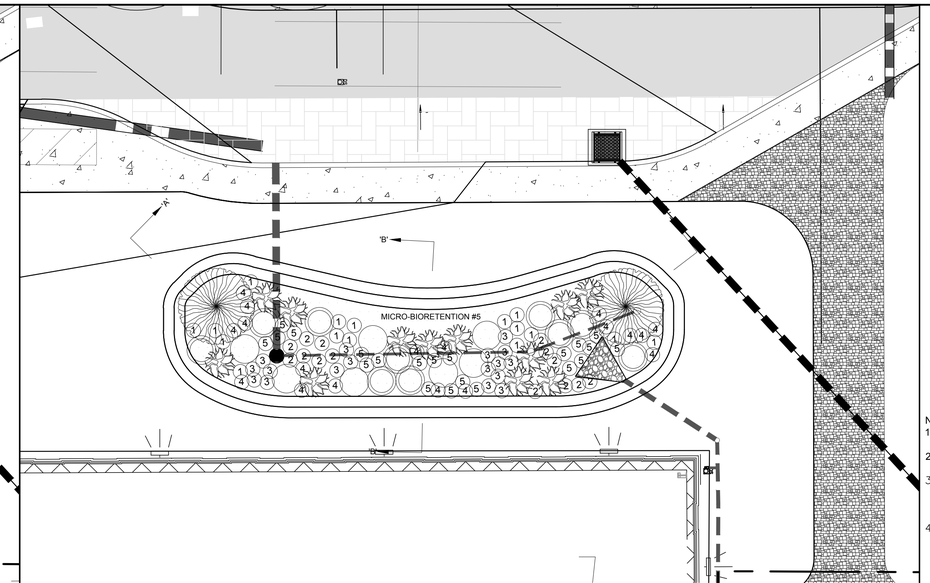
SHEET NUMBER:
C.6.1
JOB NO.: 03-16-0733



1 **MICRO-BIORETENTION AREA 5 - PLAN VIEW (FULL BUILD)**
SCALE: 1"=10'



2 **MICRO-BIORETENTION AREA 5 - PLANTING VIEW**
SCALE: 1"=10'

LANDSCAPE SCHEDULE
MICRO-BIORETENTION AREA 5

	SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUANTITY	SPACING
TREES		FLOWERING DOGWOOD	CORNUS FLORIDA	7'-8'	2	SEE PLAN
SHRUBS		SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	#3	10	SEE PLAN
		INKBERRY HOLLY	ILEX GLABRA	#3	12	SEE PLAN.
		MAPLELEAF VIBURNUM	VIBURNUM ACERIFOLIUM	#3	7	SEE PLAN
HERBACEOUS PLANTS	1	LANCELEAF COREOPSIS	COREOPSIS LANCEOLATA	#1	16	SEE PLAN
	2	RIVER OATS	CHASMANTHIUM LATIFOLIUM	#1	12	SEE PLAN
	3	PURPLE CONEFLOWER	ECHINACEA PURPUREA	#1	16	SEE PLAN
	4	CARDINAL FLOWER	LOBELIA CARDINALIS	#1	17	SEE PLAN
	5	SWITCHGRASS	PANICUM VIRGATUM	#1	20	SEE PLAN

NOTES:
1. A SEED PACKET MIX WITH EQUILVALENT QUANTITY OF HERBACEOUS PLANTS MAY BE USED INSTEAD OF PLUG/BARE ROOT.
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3. CONTRACTOR MUST MINIMIZE COMPACTION WITHIN MICRO-BIORETENTION AREAS. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL AND TO PLACE REQUIRED MATERIAL TO CONSTRUCT MICRO-BIORETENTION AREAS.
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MICRO-BIORETENTION SIZING CHART

BMP NUMBER	STORAGE PROVIDED ESD Vol. (cf.)	Af (sf.)	POST CN	POST Tc (min.)	DRAINAGE AREA (AC.)
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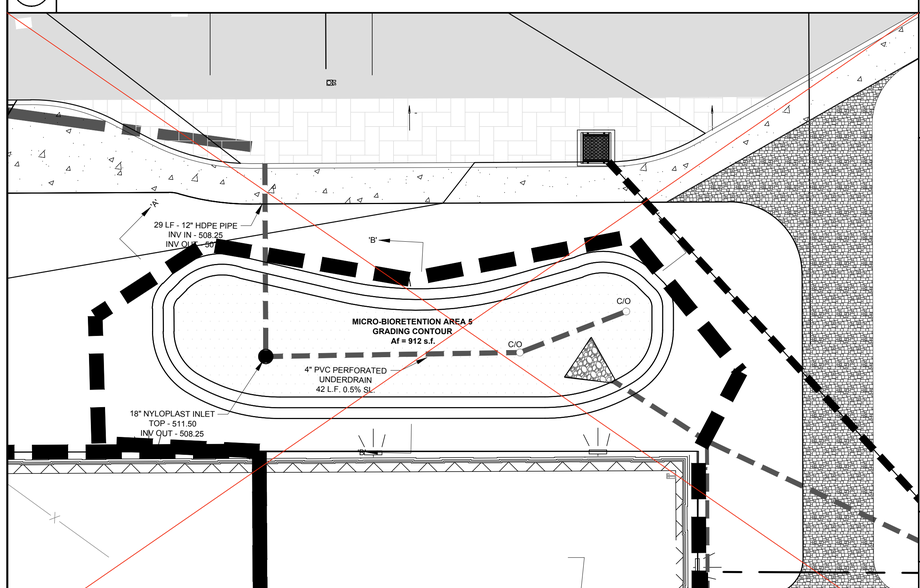
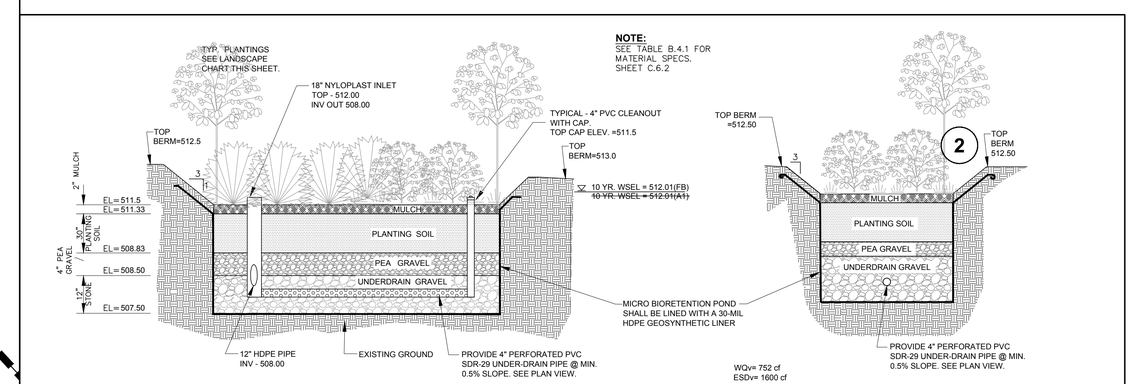


3 **MICRO-BIORETENTION AREA 5 - PLAN VIEW (ALT 1)**
SCALE: 1"=10'



4 **MICRO-BIORETENTION AREA 5 - TYPICAL SECTION DETAIL A'-A'**

MICRO-BIORETENTION AREA 5 - TYPICAL SECTION DETAIL B'-B'

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
3	5/9/23	VALUE ENGINEERING PROPOSAL	
2	8/11/22	PER WASHCO ENGINEERING DEPT.	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-C-6-1B.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
SCALE: AS SHOWN
DATE: 10/01/21

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STATE OF MARYLAND — BILLIE JO SWALES — REG. 34688 — PROFESSIONAL ENGINEER — 10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORMWATER MANAGEMENT PLAN MICRO BIORETENTION AREA 5 (BOTH)

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
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SHEET NUMBER:
C.6.1B
JOB NO.: 03-16-0733

OPERATION AND MAINTENANCE PLAN
BIORETENTION

Inspection Item	Inspection Requirements	Remedial Action
Maintenance Access		
General	Check for accessibility to facility; excessive vegetation; surface stability	Repair erosion and maintain access surface in good condition
Pretreatment		
Grass filter strip or sand layer	Check for sediment accumulation	Remove sediment as needed
Optional sand layer	Check sand for staining and sediment accumulation	If contaminated, replace first three inches of sand layer
Gravel diaphragm	Check for sediment accumulation and evidence of erosion	Remove sediment and replace gravel as needed
Mulch layer	Check for a (2-3) inch mulch layer	Remove mulch and replace as needed
Filter Bed		
Dewatering	Check for dewatering within 48 hours of rainfall; noticeable odors; water stains on the filter surface or at the outlet; presence of algae or aquatic vegetation	Remove mulch and the top (3-6) inches of soil/ sediment and replace with suitable materials per plan specifications; follow up inspections shall confirm adequate dewatering; contact the plan approval authority if the facility does not function as intended
Sediment	Check for sediment accumulation	Remove sediment as needed
Mulch layer	Check for adequate cover; sediment accumulation; discoloration	Remove and replace mulch and excess sediment as needed
Vegetation		
Plant composition and health	Check for plant composition according to approved plans; invasive species, weeds, and dead or dying vegetation	Remove and replace plants as necessary
Vegetative cover/ erosion	Check for erosion, runoff channelizing, or bare spots	Repair/ grade and stabilize as needed
Outlets		
Underdrain system	Check outlet end to ensure that discharge is not obstructed; check for erosion	Remove any flow obstructions; grade and stabilize any eroded areas to provide stable conveyance
Overflow spillway	Check for displacement of rip-rap, stable conveyance, and erosion below the outlet	Repair and replace as needed
Conveyance Systems		
General	Check for erosion, flow blockages or bypass, and stable conveyance	Repair/ replace and stabilize as needed
Flow diversion	Check flow splitter for proper functioning	Repair as necessary
Trash and Debris		
	Check for trash and debris accumulation	Trash and debris shall be disposed of in an acceptable manner
Structural Components		
	Check for structural deterioration, spalling or cracking	Repair according to specifications on the approved plans.

Field conditions may require a modification to the original approval in order to achieve the intended design function. The plan approval authority should be contacted for review and approval of all proposed modifications. Inspection and maintenance should occur after any major rain event (e.g., meeting or exceeding the design rainfall depth for the facility).

B.4.C Specifications for Micro-Bioretention. Rain Gardens, Landscape Infiltration & Infiltration Berms

1. **Material Specifications**

The allowable materials to be used in these practices are detailed in Table B.4. 1.

2. **Filtering Media or Planting Soil**

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro)bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05.

The planting soil shall be tested and shall meet the following criteria:

Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)

Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).

Clay Content - Media shall have a clay content of less than 5%.

pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

3. **Compaction**

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil. If practices are excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high-pressure tires will cause excessive compaction resulting in reduced infiltration rates and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment. Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin. Heavy equipment can be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

4. **Plant Material**

Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

5. **Plant Installation**

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch are used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

6. **Underdrains**

Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be 3/8" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a 1/4" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,0000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (1/8" to 3/8" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. **Miscellaneous**

These practices may not be constructed until all contributing drainage area has been stabilized.

APPENDIX B.4. CONSTRUCTION SPECIFICATIONS FOR ENVIRONMENTAL SITE DESIGN PRACTICES

TABLE B.4.1 MATERIALS SPECIFICATIONS FOR MICRO-BIORETENTION, 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	pea gravel: ASTM-D-448	No. 8 or No. 9 ($\frac{1}{8}$" to $\frac{1}{4}$")	
* Curtain drain/gravel slopes/diaphragm	AASHTO M-43	No. 57 or No. 6 aggregate ($\frac{3}{4}$" to $\frac{1}{2}$")	
Geotextile		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	No. 57 or No. 6 aggregate ($\frac{3}{4}$" to $\frac{1}{2}$")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4" to 6" rigid schedule 40 PVC or SDR 35	Slotted or perforated pipe $\frac{1}{8}$" 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 $\frac{1}{4}$-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-61 5-60	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 by a professional and approved by a professional structural engineer licensed in the State of Maryland - design to include meeting ACI 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.

* Revised per Washington County Land Development Engineering

MAINTENANCE SCHEDULE

ITEM	FREQUENCY
Soil	
Inspect and repair erosion damage	Once a month
Inspect and repair rodent/pest damage	Once a month
Repair, reseed, and remulch disturbed areas	As required
Structure	
Inspect outlet pipe and riser structure/weir wall	Twice Yearly
Plantings	
Water grass	Once a day for the first 14 days
Remove invasive plants/weeds/trees	As needed
Mow berm and impound area	Minimum once a month during season

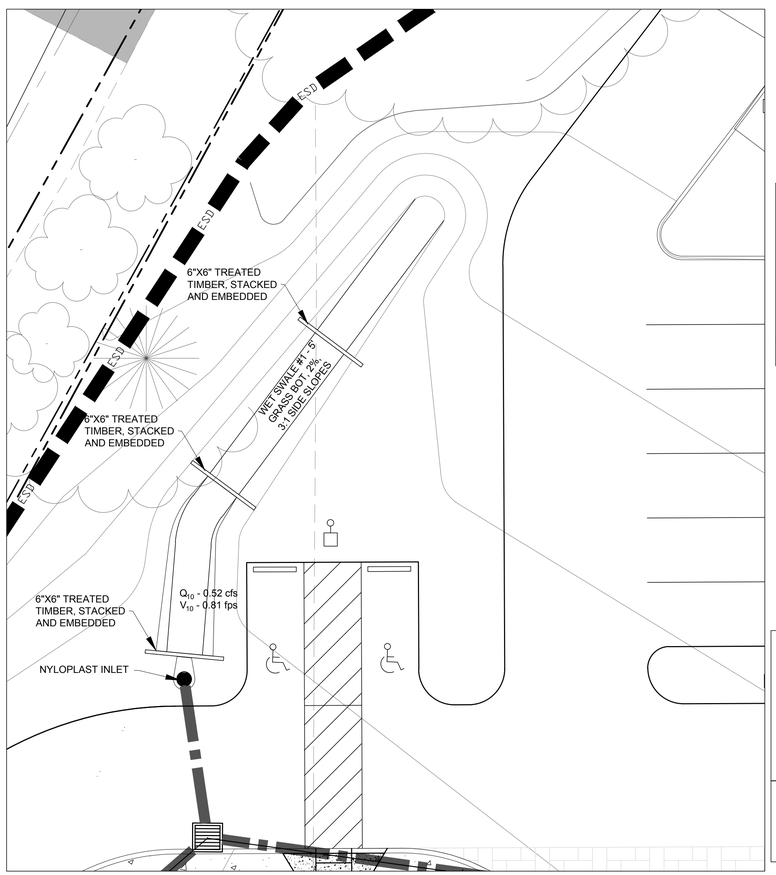
NOTICE OF REQUIRED STORMWATER MANAGEMENT INSPECTIONS SAND FILTERS, BIORETENTION AND RAIN GARDEN FACILITIES (FOR ALL BIO RETENTION AREAS AND MICRO BIO RETENTION AREAS)

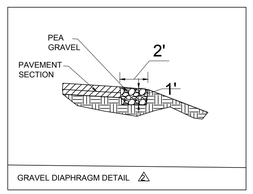
The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bio-Retention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

	MICRO-BIO RETENTION 1	MICRO-BIO RETENTION 2	MICRO-BIO RETENTION 3
EXCAVATION OF FACILITY – Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.			
PLACEMENT OF FILTER CLOTH (Trenches) – Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.			
PLACEMENT OF UNDERDRAINS AND OBSERVATION WELLS – Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover			
PLACEMENT OF FILTERING MEDIA – Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.			
PLACEMENT OF SAND FILTER LAYER OR GRAVEL DIAPHRAGM - Verify depth and width of sand and/or diaphragm layer. Verify fill material.			
STABILIZATION AND LANDSCAPING - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.			

The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

NOTE:
CONTRACTOR MUST MINIMIZE COMPACTION WITHIN MICRO–BIORETENTION AREAS. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL AND TO PLACE REQUIRED MATERIAL TO CONSTRUCT MICRO–BIORETENTION AREAS.





GRAVEL DIAPHRAGM DETAIL

PROBE LOG

Sheet 1 of 1

Project Number: 03-16-0733 | Project Name: St. James Athletic Facility Addition | Probe No.: B-5
Inspector: ARK | Probe Location: See Figure A-2
Date Started: 1/4/19 | Drill/Method: 2.25 HSA
Date Completed: 1/4/19 | Driller: Triad Engineering, Inc. | Ground Elev.: 504

Shelby Tube; Standard Split Spoon; Core Sample; Auger Probe

Depth (feet)	Sample No.	Sample Type	Blow Counts	Recovery (%)	RQD (RUN)	Strata Depth (ft)	MATERIAL DESCRIPTION	RQD (Strata)	Water Level	Graphic Log	Strata Elevation
						0.3	3.0" TOPSOIL				503.8
							Brown orange silty **CLAY**, trace gravel, moist				
5.0						5.0	- FILL -				499.0
							Tan orange silty **CLAY**, trace gravel, very moist				
15.0						14.5	- RESIDUUM - PROBE TERMINATED AT 14.5 FEET				489.5
20.0											
25.0											
30.0											

Remarks: Probe dry during and upon completion of drilling.

TRIAD ENGINEERING, INC. — 1075 D Sherman Avenue, Hagerstown, MD 21740; P: 301-797-6400; F: 301-797-2424

PROBE LOG

Sheet 1 of 1

Project Number: 03-16-0733 | Project Name: St. James Athletic Facility Addition | Probe No.: B-6
Inspector: ARK | Probe Location: See Figure A-2
Date Started: 1/4/19 | Drill/Method: 2.25 HSA
Date Completed: 1/4/19 | Driller: Triad Engineering, Inc. | Ground Elev.: 505.5

Shelby Tube; Standard Split Spoon; Core Sample; Auger Probe

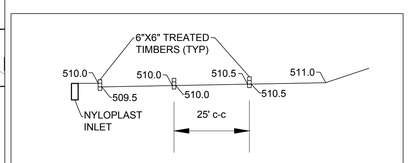
Depth (feet)	Sample No.	Sample Type	Blow Counts	Recovery (%)	RQD (RUN)	Strata Depth (ft)	MATERIAL DESCRIPTION	RQD (Strata)	Water Level	Graphic Log	Strata Elevation
						0.3	3.0" TOPSOIL				505.3
							Brown orange silty **CLAY**, trace gravel, moist				
						3.5	- FILL -				502.0
5.0							Tan brown silty **CLAY**, trace gravel, very moist				
15.0						13.3	- RESIDUUM - REFUSAL AT 13.3 FEET				492.3
20.0											
25.0											
30.0											

Remarks: Probe dry during and upon completion of drilling.

TRIAD ENGINEERING, INC. — 1075 D Sherman Avenue, Hagerstown, MD 21740; P: 301-797-6400; F: 301-797-2424

WET SWALE SIZING CHART

BMP NUMBER	STORAGE REQUIRED ESD Vol. (cf.)	STORAGE PROVIDED ESD Vol. (cf.)	Af (sf.)	POST CN	POST Tc (min.)	DRAINAGE AREA (AC.)
WS-1	349	544	725	68	5.0	0.150



WET SWALE #1 PLAN AND PROFILE

NOTICE OF REQUIRED STORMWATER MANAGEMENT INSPECTIONS SAND FILTERS, BIORETENTION AND RAIN GARDEN FACILITIES (FOR ALL BIO RETENTION AREAS AND MICRO BIO RETENTION AREAS)

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bio-Retention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

	MICRO-BIO RETENTION 4 (FULL BUILD OUT ONLY)	MICRO-BIO RETENTION 5 (ALTERNATE 1 ONLY)	
EXCAVATION OF FACILITY – Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.			
PLACEMENT OF FILTER CLOTH (Trenches) – Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.			
PLACEMENT OF UNDERDRAINS AND OBSERVATION WELLS – Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover			
PLACEMENT OF FILTERING MEDIA – Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.			
PLACEMENT OF SAND FILTER LAYER OR GRAVEL DIAPHRAGM - Verify depth and width of sand and/or diaphragm layer. Verify fill material.			
STABILIZATION AND LANDSCAPING - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.			

The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

NOTE:
CONTRACTOR MUST MINIMIZE COMPACTION WITHIN MICRO–BIORETENTION AREAS. WHEN POSSIBLE, USE EXCAVATION HOES TO REMOVE ORIGINAL SOIL AND TO PLACE REQUIRED MATERIAL TO CONSTRUCT MICRO–BIORETENTION AREAS.

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
2	07-14-22	ADENDUM	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-SITE PLAN
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: AS SHOWN

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND — BILLIE JON SWATZES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER — 10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORMWATER MANAGEMENT
MICRO-BIORETENTION NOTES

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN | ELEC. DIST.: 02
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.6.2
JOB NO.: 03-16-0733

COLLEGE ROAD

WET SWALE # 1

PROPOSED SWM ACCESS EASEMENT

EXISTING BOWMAN–BYRON FINE ARTS CENTER

ADDRESS: 17551 KELLETT DRIVE

EXISTING ASPHALT PARKING LOT

EXISTING ASPHALT DRIVE

SANI. SEWER MH 200

PROPOSED BIO-RETENTION AREA # 5

EXISTING ALUMNI HALL (FIELD HOUSE)

ADDRESS: 17543 KELLETT DRIVE

PROPOSED ATHLETIC CENTER BUILDING

ADDRESS: 17525 KELLETT DRIVE

PROPOSED BIO-RETENTION AREA # 1

PROPOSED BIO-RETENTION AREA # 2

PROPOSED BIO-RETENTION AREA # 3

PROPOSED BIO-RETENTION AREA # 4

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

OWNER:
SAINT JAMES SCHOOL, INC.
C/O WILLIAM WIVELL
17641 COLLEGE ROAD
ST. JAMES, MD 21740
PHONE: 301-671-2603

SP-23-016

TRIAD ENGINEERING, INC.
1075-D SHERMAN AVENUE
HAGERSTOWN, MD 21740
PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
2	5/9/23	VALUE ENGINEERING PROPOSAL	
1	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	

CADD FILE: 2831-2021-SITE PLAN
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/21
SCALE: 1"=30'

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND — BILLIE JON SWATZES — No. 34688 — REGISTERED PROFESSIONAL ENGINEER
10/01/21

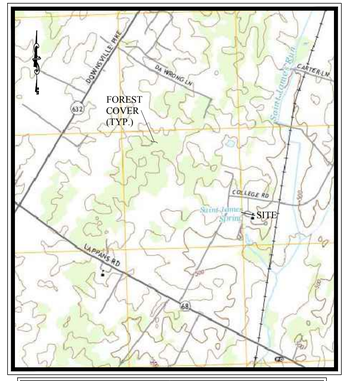
SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

STORMWATER MANAGEMENT EASEMENT (FULL)

ZONING: A | WATERSHED CODE: 02140503 MARSH RUN
TAX MAP: 0062 | GRID: 0001 | PARCEL: 0057 | ELEC. DIST.: 02

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.6.3
JOB NO.: 03-16-0733



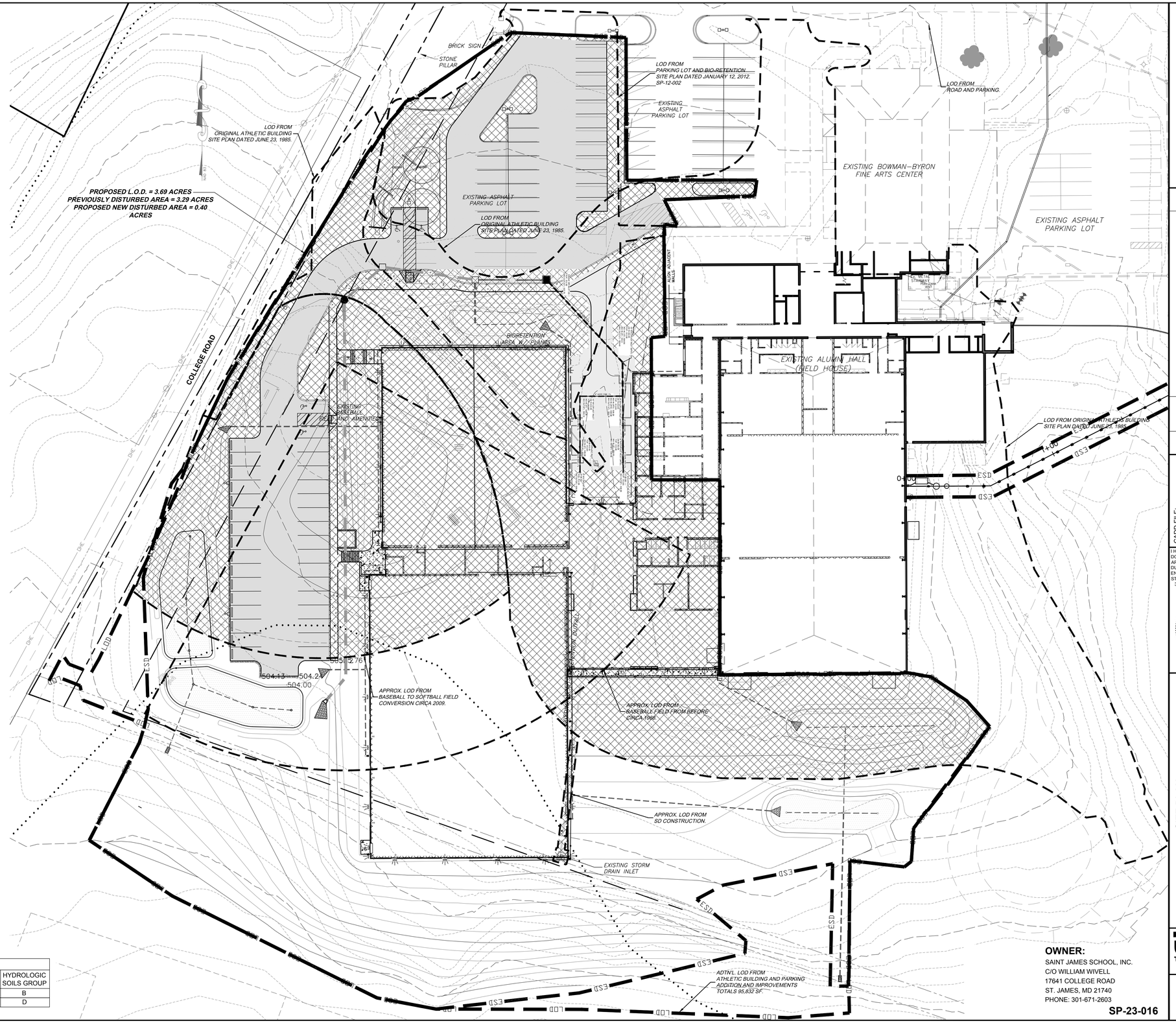
VICINITY MAP
SCALE : 1" = 2,000 ft

STATE TAX MAP No. 62
GRID 01 PARCEL No. 57
CITY UNIQUE ID No. : –

LEGEND

PREVIOUSLY DISTURBED AREA WITHIN LOD

LIMITS OF DISTURBANCE



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

TOTAL TRACT AREA	5.05	ACRE	4.91 AC
LESS DEDUCTIONS	2.83	ACRE	2.76 AC
NET TRACT AREA	2.22	ACRE	2.15 AC
NET TRACT AREA OF FOREST COVER	0.00	ACRE	
BREAK EVEN POINT	0.00	ACRE	
PROPOSED FOREST CLEARING	0.00	ACRE	
TOTAL FOREST TO BE RETAINED	0.00	ACRE	
REQUIRED PLANTING FROM WORKSHEET	0.33	ACRE	0.32 AC

TO ADDRESS THE PLANTING REQUIREMENT, THE APPLICANT PROPOSES A FEE IN LIEU OF PLANTING IN ACCORDANCE WITH ARTICLE 6A (EXPRESS PROCEDURES) OF THE WASHINGTON COUNTY FOREST CONSERVATION ORDINANCE. THE FEE IN LIEU AMOUNT IS CALCULATED BELOW

REQUIRED PLANTING IS 0.33 AC. OR 14375 SQ. FT.X $0.30/SQ. FT. = $4,312.44
PREVIOUSLY PAID UNDER APPROVED SITE PLAN (SP-19-020) = $ 914.76
TOTAL AMOUNT DUE UNDER CURRENT SITE PLAN (SP-21- 034) = $3,397.68

REQUIRED PLANTING IS 0.32 AC. OR 14375 SQ. FT.X $0.30/SQ. FT. = $4181.70
PREVIOUSLY PAID UNDER APPROVED SITE PLAN (SP-19-020) = $ 914.76
TOTAL AMOUNT DUE UNDER CURRENT SITE PLAN (SP-21-034) = $3,397.68
NET OWED - $ 130.74

SOIL TYPES ON SITE

SYMBOL	DESCRIPTION	K FACTOR (WHOLE)	HYDROLOGIC SOILS GROUP
HbB	HAGERSTOWN SILTY CLAY LOAM, 3 TO 8% SLOPES, VERY ROCKY	0.32	B
SpA	SWANPOND SILT LOAM, 0 TO 3% SLOPES	0.43	D

NO HIGHLY ERODIBLE SOILS.

OWNER:
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SP-23-016

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PH: 301.797.6400 FAX: 301.797.2424
OFFICE LOCATIONS
MARYLAND ◇ PENNSYLVANIA ◇ VIRGINIA ◇ WEST VIRGINIA

REV. #	DATE	DESCRIPTION	BY
3	12-02-2021	PER WASH CO DIVISION OF ENGINEERING	
2	10/11/19	PER ARCHITECTURAL CHANGE & COUNTY COMMENTS	
1	8/13/19	PER WASHCO ENGINEERING DEPT. & WASHCO SOIL CONSERVATION	

CADD FILE: 2831-2021-C-7-0.dwg
DRAWN BY: staff
CHECKED BY: B.J.S.
DATE: 10/01/2021
SCALE: 1"=30'

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688 EXPIRATION DATE: 07/09/23

STATE OF MARYLAND · BILLIE JON SWATTEES · No. 34688 · HAGERSTOWN · PROFESSIONAL ENGINEER

10/01/21

SITE PLAN
SAINT JAMES SCHOOL - TURNER ATHLETIC CENTER
17641 COLLEGE ROAD
HAGERSTOWN, MD. 21740

FOREST CONSERVATION EXHIBIT (FULL BUILT OUT)

ZONING: A
TAX MAP: 0062
WATERSHED CODE: 02140503 MARSH RUN
GRID: 0001
PARCEL: 0057
ELEC. DIST.: 02

TRIAD ENGINEERING, INC.
www.triadeng.com

SHEET NUMBER:
C.7.0
JOB NO.: 03-16-0733

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....:	FedEx #219 Hagerstown
NUMBER.....:	SP-24-026
OWNER.....:	2004 HALFWAY BOULEVARD LLC
LOCATION.....:	
DESCRIPTION.....:	Security Upgrades - Installation of automated overhead trust gate, security fence, site lighting, and new pavement
ZONING.....:	Highway Interchange
COMP PLAN LU.....:	Industrial/Flex
PARCEL.....:	24005429
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	24
TYPE.....:	Commercial
GROSS ACRES.....:	
DWELLING UNITS.....:	
TOTAL LOTS.....:	
DENSITY.....:	N/L Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	LARSON DESIGN GROUP
RECEIVED.....:	September 20, 2024

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	Yes
WETLANDS.....:	None
WATERSHED.....:	Conococheague Creek
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	No Resources Present
EASEMENTS PRESENT.....:	S-03-083

SITE DESIGN

Impervious Area Plan	**Impervious Maximum Allowed**	**Open Space Area Planned**

Staff Comments:

Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**

Not Applicable

Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Loading Area Meets Requirements		

Not Fast Track

Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**
Parking Spaces - Minimum Required	**Recreational Parking Provided**

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Jonathan Hager	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

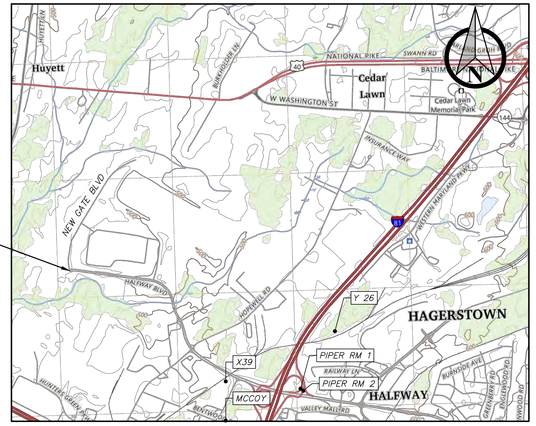
FIRE DISTRICT.....:
AMBULANCE DISTRICT.....:

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	County Line - City Treatment	County
SERVICE AREA.....:	County Line - City Treatment	County
PRIORITY.....:	1-Existing Service	3-Programmed Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

FINAL SITE PLAN
FOR
FXG HAGERSTOWN – OFF SITE PARKING LOT UPGRADE
HAGERSTOWN, WASHINGTON COUNTY, MARYLAND
PROJECT NO.: SP-24-026

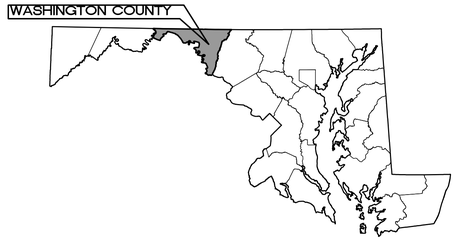
PROJECT SITE



VICINITY MAP

2000 0 2000 4000 FEET

HORIZONTAL SCALE



STATE MAP

APPLICANT/OWNER/RESPONSIBLE PARTY:
FEDEX GROUND
ATTN: ANDY GLASSER
1000 FEDEX DRIVE
MOON TOWNSHIP, PA 15108
PHONE: 412.859.7290

STORMWATER NARRATIVE STATEMENT

STORMWATER FOR THE EXISTING GRAVEL IS TREATED IN AN EXISTING BIORETENTION AREA, AS PREVIOUSLY APPROVED UNDER GP–19–008. THIS SITE PLAN INCLUDES INSTALLATION OF SECURITY GATE, LIGHTING AND FENCING AND PROPOSES NO NET INCREASE IN IMPERVIOUS AREA.

NO ADDITIONAL STORMWATER MANAGEMENT IS REQUIRED AS PART OF THIS PROJECT.

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED AND APPROVED BY ME, AND THAT I AM A DULY LICENSED PROGESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND LICENSE NO. 56444 AND EXPIRATION DATE: 9/15/26

ENGINEER/ARCHITECT DESIGN CERTIFICATION
I HEREBY CERTIFY THAT THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAS BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07, AND MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

4/23/25	56444	Christopher M. Shaffer
DATE	REG.NO.	SIGNATURE

9/15/26
SEAL EXPIRATION DATE

DISTURBED AREA QUANTITIES

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESRE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 0.69 ACRES OR 29,696 SQUARE FEET AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 59.52 CUBIC YARDS OF EXCAVATION AND 2.56 CUBIC YARDS OF FILL.

DISTURBED AREA QUANTITIES

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESRE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 0.69 ACRES OR 29,696 SQUARE FEET AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 59.52 CUBIC YARDS OF EXCAVATION AND 2.56 CUBIC YARDS OF FILL.

OWNER/DEVELOPER CERTIFICATION – WASHINGTON COUNTY

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WITHIN THE COUNTY RIGHT OF WAY WILL BE DONE PURSUANT TO THIS PLAN AND IN ACCORDANCE WITH THE STORM WATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY AND THE POLICY ON CONSTRUCTION OF SUBDIVISION INFRASTRUCTURE FOR ACCEPTANCE AND OWNERSHIP BY WASHINGTON COUNTY (S-3)

2/25/25	Brad Hufford	Brad Hufford
DATE	PRINTED NAME	SIGNATURE

OWNER/DEVELOPER CERTIFICATION
I/WE HEREBY CERTIFY THAT ALL/ANY PARTIES RESPONSIBLE FOR CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SOIL EROSION AND SEDIMENT

2/25/25	Brad Hufford	Brad Hufford
DATE	PRINTED NAME	SIGNATURE

WASHINGTON COUNTY
DIVISION OF ENGINEERING

APPROVED BY: _____

DATE: _____

SHEET INDEX

C–000	COVER SHEET
C–001	GENERAL NOTES AND LEGENDS
C–100	EXISTING CONDITIONS PLAN
C–200	SITE PLAN
C–500	DETAILS
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E0.1	LOW VOLTAGE PLAN
E0.2	LOW VOLTAGE PLAN
E1.1	ELECTRICAL SITE PLAN
E2.1	PHOTOMETRIC PLAN
E3.1	ENLARGED ELECTRICAL PLAN

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Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND · CHRISTOPHER M. SHAFFER · No. 56444 · PROFESSIONAL ENGINEER · 4/23/25

SEAL

FedEx Ground

CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

COVER SHEET

Date: 09-06-24
Project No.: 12392-010
Sheet No.: C–000

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SITE DATA

1. APPLICANT/OWNER/RESPONSIBLE PARTY:

   FEDEX GROUND
   ATTN: ANDY GLASSER
   1000 FEDEX DRIVE
   MOON TOWNSHIP, PA 15108
   PHONE: 412.859.7290

2. ENGINEER:

   LARSON DESIGN GROUP
   ATTN: CHRISTOPHER M. SHEAFFER, PE
   1780 ROUTE 522
   SELINSGROVE, PA 17870
   PHONE: 570.374.5700
   EMAIL: csheaffer@larsondesigngroup.com

3. COUNTY: WASHINGTON COUNTY

   MUNICIPALITY: HAGERSTOWN

4. PROJECT LOCATION:

   LOCATED AT THE EXISTING FEDEX GROUND HUB AT THE THE NORTHEAST CORNER OF HALFWAY BOULEVARD AND NEWGATE BOULEVARD.

5. PROJECT NARRATIVE:

   THE PURPOSE OF THIS PROJECT IS TO INCLUDE THE INSTALLATION OF AN AUTOMATED ENTRANCE GATE AND SITE LIGHTING TO SUPPORT TRAILER PARKING WHICH IS CURRENTLY SERVING THE HAGERSTOWN HUB.

6. TAX MAP: 0048–0004–0912

7. ZONING: HI (HIGHWAY INTERCHANGE)

8. ELECTION DISTRICT: 24

9. STREET ADDRESS: HALFWAY BOULEVARD, HAGERSTOWN, MD 21740

10. WATERSHED NAME: CONOCOCHEAGUE CREEK

    8 DIGIT WATERSHED #: 02–14–05–04
    FEMA PANEL NUMBER 24043C0118D, EFF. 8/15/2017

11. NO EXISTING WETLANDS WITHIN THE PROJECT SITE HAVE BEEN IDENTIFIED AS THE EXISTING PROJECT SITE IS A GRAVEL PARKING LOT.

12. ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S FLOOD INSURANCE RATE MAP (24043C0118D, EFF. 8/15/2017) THE PARCEL IS LOCATED WITHIN THE SPECIAL FLOOD HAZARD AREA, ZONE AE WITH DELINEATED FLOODWAY WHILE THE PROJECT AREA IS LOCATED OUTSIDE THAT AREA AND NOT IN THE 100–YEAR OR 500–YEAR FLOODPLAIN.

13. SITE COVERAGE:

GROSS PARCEL ACREAGE:	12.09 ACRES
EXISTING IMPERVIOUS:	2.77 ACRES
TOTAL PROPOSED IMPERVIOUS:	2.80 ACRES
PROPOSED PERCENTAGE IMPERVIOUS:	23.16%

14. FUNCTIONAL DESCRIPTION: OFF–SITE PARKING LOT
15. HOURS OF OPERATION: 24 HOURS/DAY
16. PROJECTED DAILY SITE USE: 15 TRIPS PER DAY

GENERAL SITE CONSTRUCTION NOTES

17. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE STARTING WORK. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS, SPECIFICATIONS, SITE CONDITIONS, OR ANY INCONSISTENCIES OR AMBIGUITIES IN THE DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE PROJECT'S OWNER IN WRITING. THE OWNER SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES, WITHOUT RECEIVING A RESPONSE FROM THE PROJECT'S OWNER SHALL BE DONE AT THE CONTRACTOR'S RISK.

18. THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER, IN WRITING, OF ANY SUBSURFACE OR LATENT PHYSICAL CONDITIONS AT THE SITE DIFFERING MATERIALLY FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS.

19. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY BE SUBJECT TO EASEMENTS AND OTHER RESTRICTIONS, EITHER RECORDED OR UNRECORDED. LARSON DESIGN GROUP HAS MADE NO INVESTIGATION OR INDEPENDENT SEARCH FOR EASEMENTS OF RECORD, ENCUMBRANCES, RESTRICTIVE COVENANTS, OWNERSHIP TITLE EVIDENCE OR ANY OTHER FACTS THAT AN ACCURATE AND CURRENT TITLE SEARCH MAY DISCLOSE OTHER THAN WHAT IS SHOWN ON THIS PLAN.

20. THE GENERAL CONTRACTOR SHALL COORDINATE ALL SITE/CIVIL IMPROVEMENTS WITH OTHER PRIME CONTRACTOR'S WORK. SEE ARCHITECTURAL, STRUCTURAL, PLUMBING AND ELECTRICAL SHEETS FOR ADDITIONAL REQUIREMENTS.

21. THESE CONTRACT DRAWINGS ARE PART OF THE CONTRACT DOCUMENTS FOR THE CONSTRUCTION OF ALL PROPOSED IMPROVEMENTS, COMPLETE AND IN PLACE. CONTRACTOR SHALL CAREFULLY REVIEW ALL DOCUMENTS INCLUDING BUT NOT LIMITED TO THE GENERAL CONDITIONS, AGREEMENT, GENERAL SPECIFICATIONS, TECHNICAL SPECIFICATIONS AND ALL ISSUED CORRECTIVE PLANS, INTERPRETATIONS, AND OTHER DOCUMENTATION ISSUED THROUGHOUT THE LENGTH OF THE CONTRACT.

20. THIS PLAN IS NOT TO BE CONSTRUED AS AN ENVIRONMENTAL AUDIT/ASSESSMENT PLAN. THIS SURVEY MAKES NO WARRANTY OR GUARANTEE EITHER EXPRESSED OR IMPLIED AS TO THE ENVIRONMENTAL CONDITIONS OF THE PREMISES HEREON DESCRIBED

22. THE CONTRACTOR, DURING THE PERFORMANCE OF ALL WORK ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT, IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS. THE CONTRACTOR SHALL TAKE ALL SAFETY PRECAUTIONS AS REQUIRED TO PROTECT EMPLOYEES AND OTHER PERSONS FROM INJURY.

23. WHEN ALTERATIONS OF ANY PEDESTRIAN FACILITIES ARE PROPOSED, THE CONTRACTOR SHALL CONSTRUCT ALL PROPOSED PEDESTRIAN FACILITIES ON THESE PLANS TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT, PUBLIC RIGHT–OF–WAY ACCESSIBILITY GUIDELINES (PROWAG), AND THE ADA STANDARDS, CURRENT EDITION.

24. THE CONTRACTOR IS NOTIFIED THAT OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) CLEARANCES MUST BE MAINTAINED TO OVERHEAD POWER LINES FROM ANY MATERIALS AND/OR CONSTRUCTION EQUIPMENT. EACH CONTRACTOR OR SUBCONTRACTOR IS RESPONSIBLE FOR ADHERENCE TO OSHA STANDARDS IN THIS REGARD.

25. OSHA EXCAVATION STANDARDS APPLY TO THIS CONTRACT. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE OVERALL SAFETY PROGRAM FOR THE ENTIRE SITE INCLUDING TRENCHES AND STRUCTURES.

26. IF ADJUSTMENTS TO EXISTING UTILITIES ARE REQUIRED AND INDICATED ON THE PLANS, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND WORK WITH UTILITY OWNERS FOR THE ADJUSTMENT OR RELOCATION OF UTILITY SURFACE FEATURES, I.E., VALVE BOXES, UTILITY POLES, MANHOLES, ETC. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF CONFLICTING UTILITIES WHICH ARE A RESULT OF THESE IMPROVEMENTS.

27. THE LOCATIONS OF EXISTING UTILITIES SHOWN ON THIS SITE PLAN ARE BASED ON LIMITED SURFACE EVIDENCE AND THE BEST AVAILABLE INFORMATION PROVIDED BY THE PROJECT OWNER AND SHALL BE CONSIDERED APPROXIMATE. THE CONTRACTOR, IN COMPLIANCE WITH THE LAW, IS ALSO RESPONSIBLE FOR LOCATING ALL PUBLIC OR PRIVATE UTILITIES WHICH LIE IN OR ADJACENT TO THE PROJECT SITE BEFORE STARTING WORK. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING, AT HIS EXPENSE, ALL EXISTING UTILITIES DAMAGED DURING CONSTRUCTION AS LONG AS THOSE UTILITIES WERE PROPERLY MARKED BY THE UTILITY OWNER(S).

28. THE GENERAL CONTRACTOR SHALL COMPLY WITH THE APPROVED E&S PLAN. STRIPPING OF VEGETATION, RE–GRADING, OR OTHER WORK, SHALL BE DONE IN A MANNER THAT WILL MINIMIZE EROSION. ANY EROSION AND SEDIMENT POLLUTION CONTROLS THAT ARE DEEMED NECESSARY BY THE LOCAL COUNTY SHALL BE IMPLEMENTED IMMEDIATELY BY THE CONTRACTOR. WHENEVER SEDIMENTATION IS CAUSED BY STRIPPING VEGETATION, RE–GRADING, OR OTHER DEVELOPMENT, IT SHALL BE THE RESPONSIBILITY OF THE PERSON, CORPORATION OR OTHER ENTITY CAUSING SUCH SEDIMENTATION TO REMOVE IT FROM ALL ADJOINING SURFACES, DRAINAGE SYSTEMS, AND WATERCOURSES AND TO REPAIR ANY DAMAGE. DISTURBED SOILS SHALL BE STABILIZED IMMEDIATELY. TEMPORARY VEGETATION AND/OR MULCHING SHALL BE USED TO PROTECT EXPOSED CRITICAL AREAS DURING CONSTRUCTION. MEASURES NECESSARY FOR DUST CONTROL SHALL BE EXERCISED DURING ALL CONSTRUCTION OPERATIONS.

29. THE DESIGNATION OF EXCESS WASTE DISPOSAL AND CONSTRUCTION STAGING AREAS, WHICH MAY BE REQUIRED BUT ARE NOT NOTED ON THE PLANS, ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL CONSTRUCTION DEBRIS, INCLUDING EXCESS EXCAVATED MATERIAL, ASPHALT, CONCRETE, SCRAP WOOD, ETC. SHALL BE DISPOSED OF OFF–SITE BY THE CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.

30. EROSION AND SEDIMENT POLLUTION CONTROL MEASURES SHALL BE MAINTAINED CONTINUOUSLY, RELOCATED AS NECESSARY, AND SHALL BE CHECKED AFTER EVERY RAINFALL. SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED, AND MULCHED, AS NECESSARY, TO OBTAIN A DENSE COVER OF GRASS.

31. ALL EXCAVATIONS, INCLUDING TRENCHES, SHALL BE KEPT DRY TO PROTECT THEIR INTEGRITY. IF PUMPING OF AN OPEN TRENCH IS NECESSARY DURING THE COURSE OF CONSTRUCTION, A SEDIMENT FILTER BAG OR OTHER FORM OF FILTERING IS REQUIRED BEFORE DISCHARGING INTO THE STORM SYSTEM.

32. ALL INLETS WITHIN THE PROJECT SITE SHALL BE EQUIPPED WITH STRUCTURAL STEEL BICYCLE SAFE GRATES, UNLESS SPECIFICALLY STATED OTHERWISE, AND BE SET FLUSH WITH THE ADJACENT WEARING COURSE OR FINISHED GRADE.

33. ALL INLETS IN ASPHALT PAVED AREAS SHALL BE EQUIPPED WITH STEEL INLET FRAMES AND GRATES UNLESS SPECIFICALLY STATED OTHERWISE. ALL INLETS IN GRASS OR OTHER NON–ASPHALT PAVED AREAS SHALL BE EQUIPPED WITH PRECAST CONCRETE TOP UNITS AND GRATES.

34. CONTRACTOR SHALL ENSURE THAT POSITIVE DRAINAGE ACROSS PAVEMENTS IS PROVIDED AND NO LOW SPOTS OR PUDDLING OCCUR WITHIN THE LIMITS OF WORK UNLESS NATURALLY OCCURRING.

35. ALL TRENCHING SHALL OCCUR AS DESIGNATED IN THIS PLAN SET. THE CONTRACTOR SHALL USE EQUIPMENT APPROPRIATE TO MAINTAIN A MAXIMUM PAVEMENT OPENING. IF THE CONTRACTOR PROPOSES A REVISED TRENCHING METHOD OR ALIGNMENT, ENGINEER AND OWNER SHALL BE NOTIFIED IMMEDIATELY.

36. CONTRACTOR SHALL BACKFILL ALL CURBS AND PAVEMENTS FLUSH WITH TOPSOIL AND SEED/MULCH IN ACCORDANCE WITH TECHNICAL SPECIFICATIONS UNLESS NOTED OTHERWISE.

37. ALL EXISTING SIGNS DISTURBED DURING CONSTRUCTION SHALL BE REINSTALLED IN ACCORDANCE WITH APPLICABLE LOCAL, COUNTY, STATE, AND FEDERAL REGULATIONS.

38. ALL EXISTING PAVEMENT TO BE REMOVED SHALL BE SAW CUT ALONG LIMITS OF PROPOSED PAVEMENT REMOVAL BEFORE REMOVAL OPERATIONS BEGIN. THE CONTRACTOR IS RESPONSIBLE FOR THE OFF–SITE DISPOSAL OF REMOVED PAVEMENTS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

39. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING MEASURES TO PREVENT DAMAGE TO ALL EXISTING FEATURES (TO REMAIN) WITHIN PROJECT LIMITS AND ALONG ADJACENT PROPERTIES.

40. ALL ASPHALT TO ASPHALT JOINTS, ASPHALT TO CONCRETE JOINTS, AND OTHER JOINTS AT ALL OTHER RIGID FEATURES SUCH AS UTILITY STRUCTURES SHALL BE SEALED IN ACCORDANCE WITH AASHTO SPECIFICATIONS. REMOVE EXCESS MATERIAL AT UTILITY STRUCTURES TO ENSURE THAT COVERS AND GRATES WILL STILL BE EASILY REMOVABLE AFTER THE APPLICATION.

41. CONTRACTOR SHALL MAINTAIN THE SITE IN A MANNER SO THAT THE WORKMEN AND THE PUBLIC SHALL BE PROTECTED FROM INJURY AND ADJOINING PROPERTY PROTECTED FROM DAMAGE. CONTRACTOR SHALL KEEP THE WORK AREA FREE FROM THE ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY THEIR EMPLOYEES OR WORK. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REMOVE ALL RUBBISH FROM AND ABOUT THE PREMISES AND ALL TOOLS, EQUIPMENT, APPARATUS, AND SURPLUS MATERIAL. THE CONSTRUCTION SITE SHALL BE LEFT CLEAN TO THE OWNER'S SATISFACTION.

42. THE INFORMATION SHOWN ON THESE DRAWINGS MAY HAVE ALSO BEEN RELEASED IN A DIGITAL DRAWING FORMAT. ONCE A DRAWING IS RELEASED FROM LARSON DESIGN GROUP IN DIGITAL FORMAT, LARSON DESIGN GROUP HAS NO CONTROL OVER THE MANIPULATION OR MISUSE OF THAT DATA CONTAINED IN THAT FILE. THE VIEWER IS THEREFORE CAUTIONED AND SHOULD COMPARE ANY SUBSEQUENT REPRODUCTIONS OR MANIPULATIONS OF THIS DATA WITH THE ORIGINAL HARD COPY SEALED PLAN PROVIDED BY LARSON DESIGN GROUP. THE USER OF THE DIGITAL DATA IS ALSO CAUTIONED THAT ANY USE OF THE DATA CONTAINED IN THE DIGITAL FILE, WHICH IS NOT SHOWN ON THE HARD COPY DRAWINGS, IS AT THE SOLE RISK OF THE USER.

COUNTY GENERAL NOTES

1. ALL GRADING FOR THIS PROJECT SHALL BE THE FULL RESPONSIBIILTY OF THE PROPERTY OWNER.
2. THERE IS A 10' WIDE DRAINAGE AND UTILITIES EASEMENT ALONG ALL FRONT LOT LINES AND AN 8' WIDE DRAINAGE AND UTILITIES EASEMENT ALONG ALL SIDE AND REAR LOT LINES HEREBY RESERVED UNLESS OTHERWISE SHOWN HEREON.
3. A PUBLIC WORKS AGREEMENT AND PERFORMANCE SECURITY WILL BE REQUIRED FOR ALL IMPROVEMENTS WITHIN THE COUNTY RIGHT–OF–WAY THAT ARE NOT OTHERWISE REGULATED UNDER A UTILITY PERMIT OR ENTRANCE PERMIT.
4. A UTILITY PERMIT WILL BE REQUIRED FOR ANY PROPOSED UTILITY WORK LOCATED WITHIN THE COUNTY RIGHT–OF–WAY.
5. A COMPLETE SET OF APPROVED PLANS AND A COPY OF THE GRADING PERMIT MUST BE ON SITE AND AVAILABLE FOR USE BY THE INSPECTOR, OR OTHER REPRESENTATIVE OF WASHINGTON COUNTY DIVISION OF ENGINEERING & CONSTRUCTION.
6. PLEASE BE ADVISED THAT ANY PROJECT WHICH CREATES A DISTURBANCE OF ONE (1) ACRE OR MORE WILL REQUIRE A NOTICE OF INTENT TO COMPLY WITH THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (NOI). THE NOI IS REQUIRED UNDER THE CLEAN WATER ACT AS STATED IN 40 CFR 122.26 AND CODE OF MARYLAND REGULATIONS COMAR 26.08.04.09A AND IS REGULATED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE). THE NOI IS TO BE SUBMITTED WITH THE APPROPRIATE FEES DIRECTLY TO THE MDE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. NO LAND DISTURBING ACTIVITY THAT REQUIRES A GRADING PERMIT FROM WASHINGTON COUNTY SHOULD PROCEED UNTIL THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (MDR10) HAS BEEN ISSUED BY MDE.
7. NO PERMANENT STRUCTURES (FENCES, SHEDS, PLAY EQUIPMENT, RETAINING WALLS, ETC.) SHALL BE PERMITTED WITHIN ANY STORM DRAINAGE EASEMENT EITHER SHOWN OR DESCRIBED ON THE FINAL PLAT OF SUBDIVISION.
8. DEVELOPER/CONTRACTOR MUST CONTACT THE CERTIFYING ENGINEER AND THE COUNTY AT LEAST 5 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE STORM WATER MANAGEMENT SYSTEM TO SCHEDULE AND COORDINATE INSPECTION TIME
9. IN CONFORMANCE WITH THE STORM WATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY, A PERFORMANCE SECURITY AND EXECUTED MAINTENANCE AND ACCESS AGREEMENT SHALL BE REQUIRED FROM THE DEVELOPER PRIOR TO ISSUANCE OF ANY BUILDING OR GRADING PERMIT FOR CONSTRUCTION PER THESE

LEGEND

	EXISTING	PROPOSED
FEATURES TEXT	Feature text	FEATURES TEXT
PROPERTY LINE		
RIGHT–OF–WAY LINE		
EASEMENT LINE		
CONTOUR LINE	100	100
CENTER LINE OF ROAD		
BUILDING SETBACK		
BUILDING LINE		
FENCE LINE	x	X
EDGE OF PAVEMENT		
GRAVEL		
CONCRETE CURB		
CONCRETE/SIDEWALK		
SIGN		
BENCHMARK		
DITCH/SWALE		
DRAINAGE LINE, MANHOLE & CB	MH	D
SANITARY SEWER & MANHOLE	MH S	S
WATER MAIN & VALVE	WV W	WV W
SEWER FORCE MAIN	FM	FM
GAS MAIN & VALVE	GV G	GV G
UNDERGROUND ELECTRIC	UE	E
UNDERGROUND CABLE TV	CTV	
OVERHEAD UTILITIES & POLE	OH	OH
UNDERGROUND TELEPHONE	UT	T
24" FILTER LOG		FS FS
LIMIT OF DISTURBANCE		LOD
NPDES PERMIT BOUNDARY		PERMIT
SOILS BOUNDARY		
SOIL TYPE		HhC2
STABILIZED CONSTRUCTION ENTRANCE WITH WASH RACK		SCE
INLET PROTECTION		IP
BORING LOCATION		

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Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND CHRISTOPHER M. SHEAFFER No. 56444 PROFESSIONAL ENGINEER 09/23/15
SEAL

FedEx Ground
CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

GENERAL NOTES AND LEGEND

Date: 09-06-24
Project No.: 12392-010
Sheet No.: C–001

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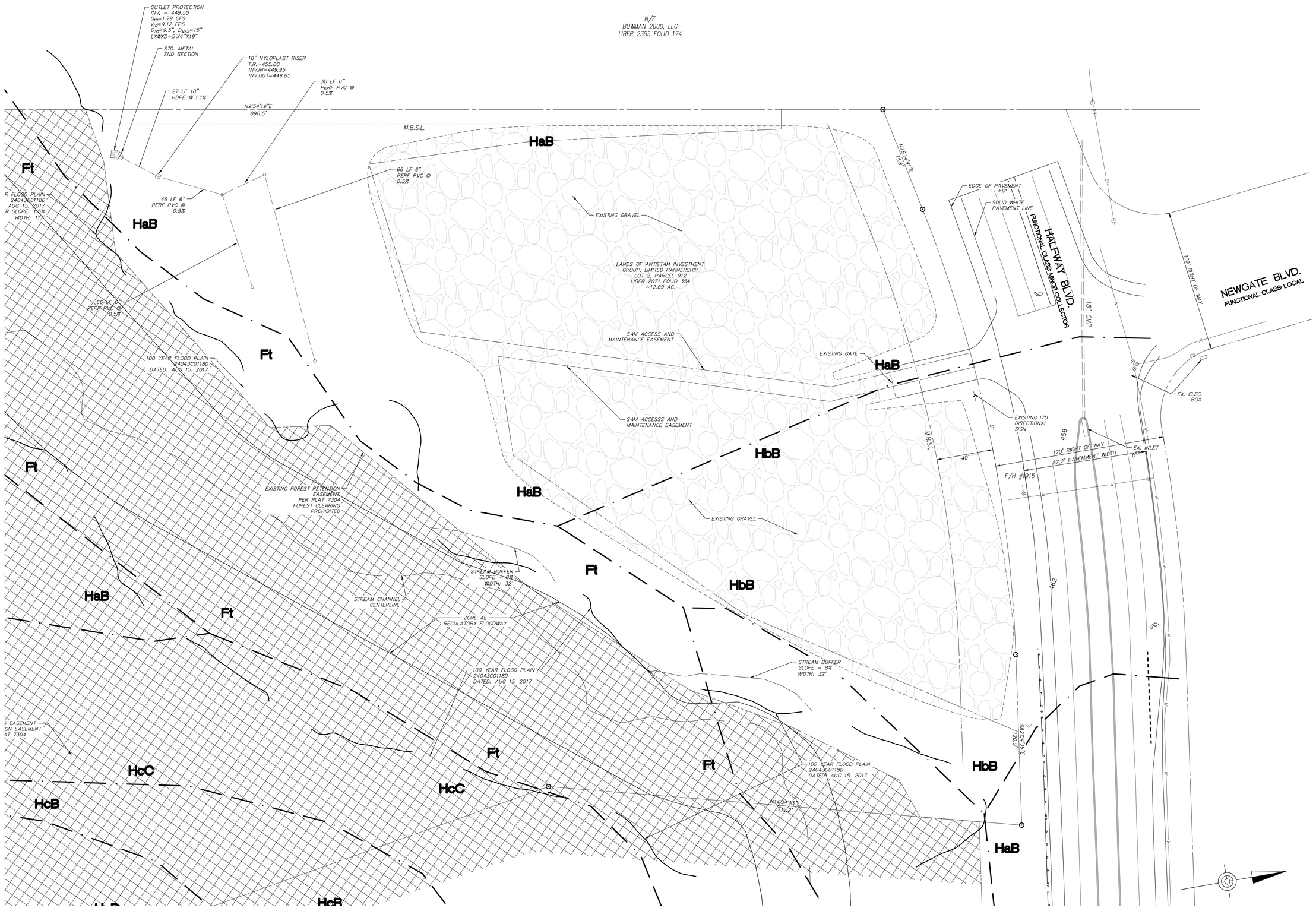

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Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
No. 56444
PROFESSIONAL ENGINEER
12/2/24

SEAL

FedEx Ground

CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

EXISTING CONDITIONS PLAN

Date: 09-06-24

Project No.: 12392-010

Sheet No.: C-100

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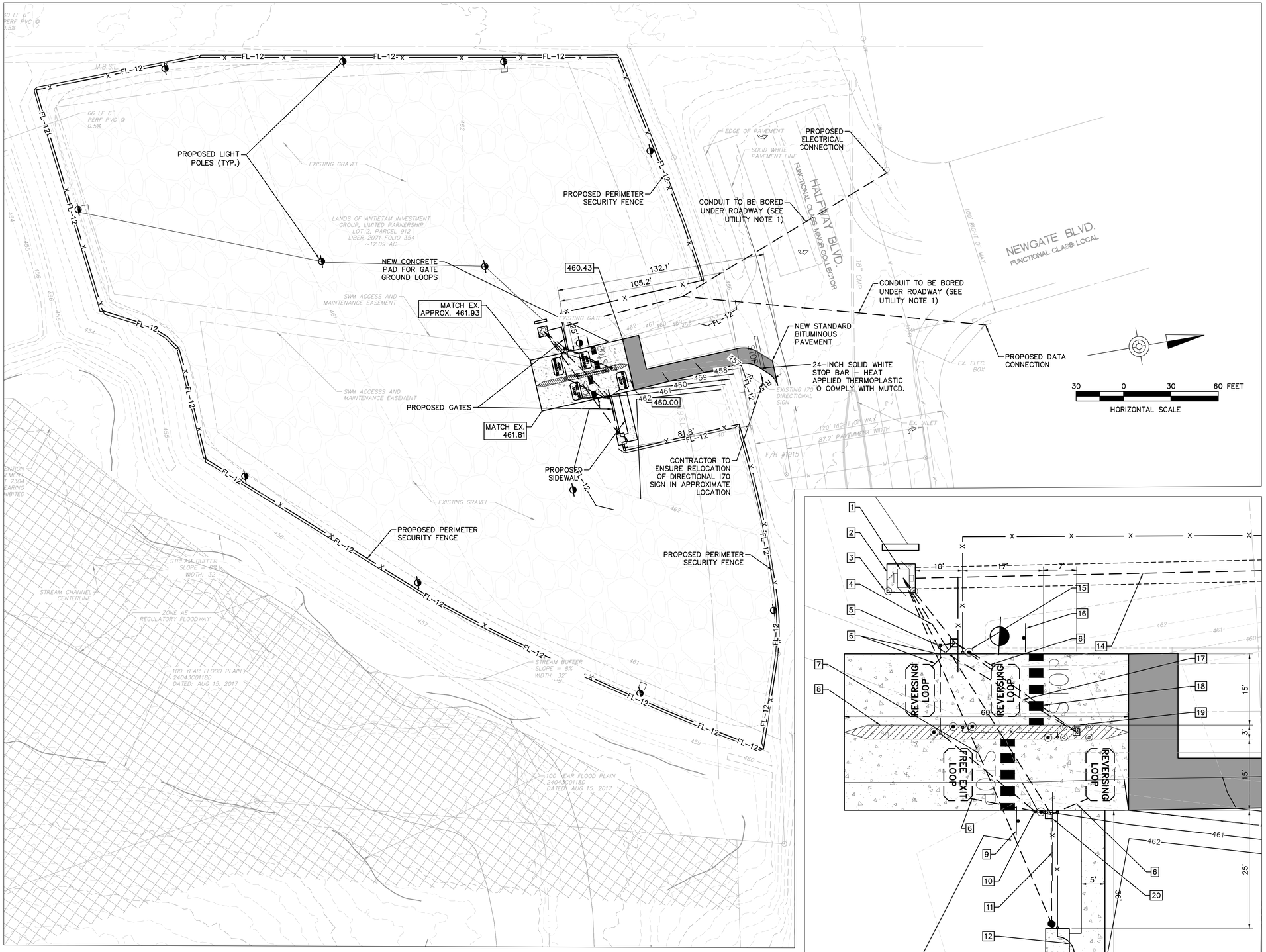

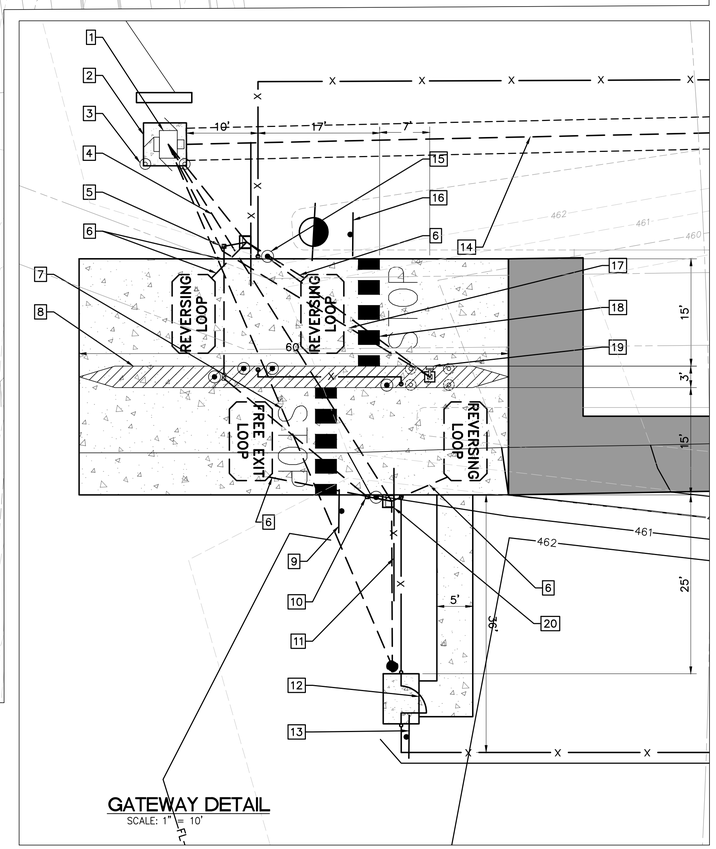

UTILITY NOTES:

1. THE ELECTRICAL AND COMMUNICATION UTILITIES SHALL BE INSTALLED VIA BORE IF AT ALL FEASIBLE. IN THE EVENT THE ROAD BORE FAILS AND IT BECOMES NECESSARY TO CUT PAVEMENT, OR SHOULD THE PAVEMENT HEAVE, ADDITIONAL PAVEMENT RESTORATION WILL BE REQUIRED. THIS SHALL INCLUDE A FULL WIDTH MILL AND OVERLAY, PERPENDICULAR ACROSS THE ROADWAY, BEGINNING 25 FT EAST OF THE PROPOSED DATA CONNECTION AND ENDING AT THE EXTENT OF THE COUNTY'S MILL AND OVERLAY FOR THE HALFWAY BOULEVARD EXTENDED PROJECT, ROUGHLY AS SHOWN ON THE PLAN. TIMING OF THE MILL/OVERLAY WILL REQUIRE FURTHER COORDINATION, IF APPLICABLE.

GATEWAY DETAIL KEYNOTES:

1. NETWORK PANEL – ARDETECH INDUSTRIES, INC. ITEM #AA589 HOFFMAN A589 – T843044FTTXDASA WITH GN280416G100 84X36X44 CONTACT: IRENE HODGES 800-821-5678 SUPPLY 120V DUPLEX RECEPTACLES INSTALLED ON 6" CENTERS INSIDE CABINET.
2. 6' X 6' CONCRETE PAD FOR NETWORK PANEL.
3. 6" DIA. BOLLARD FXG STD. (02780-001) TYP.
4. ONE-1" DIA. MIN. CONDUIT FOR POWER ONE-1" DIA. MIN. CONDUIT FOR CONTROLS TYP. FROM GATE OPERATOR TO NETWORK PANEL
5. 2" DIA. MIN. CONDUIT FROM NETWORK PANEL TO PEDESTAL
6. $\frac{1}{2}$" MIN. CONDUIT
7. 48" HIGH LETTERS PAINTED TRAFFIC YELLOW (TYP. ALL LANES)
8. 4" WIDE PAINTED YELLOW STRIPING
9. SIGN #4 AND #13
10. PHOTO EYE MIN. 18" SET BACK (TYP. ALL LANES)
11. 15' OVERHEAD TRUSS GATE REFER TO DETAIL 02830-039 TYP.
12. TYMETAL 2150 PEDESTRIAN GATE W/ DOOR CARD ACCESS (BY OTHERS) REFER STANDARD 02830-038
13. SIGN #1
14. TELECOMMUNICATION 2" MIN. CONDUIT
15. 8" DIA. BOLLARD FXG STD. (02870-002) TYP.
16. SIGN #1, #4, AND #10
17. 1" MIN. CONDUIT
18. 3" HIGH X 3" WIDE CONCRETE VEHICLE POSITIONING DEVICE PAINTED TRAFFIC YELLOW. SEE DETAIL. (TYP ALL LANES)
19. GATE ENTRY/EXIT ACCESS PEDESTAL REFER 02830-016
20. TYMETAL GATE OPERATOR TYP. SUPPLY 240V ELECTRICAL POWER
21. UNDERGROUND ELECTRICAL 4" MIN CONDUIT

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WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND – STEVEN K. MAYER – No. 56444 – PROFESSIONAL ENGINEER – 12/2/25

SEAL

FedEx Ground

CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

SITE PLAN

Date: 09-06-24

Project No.: 12392-010

Sheet No.: C-200

P:\12392\12392-010\70 - Site\dwg\DCO4\12392-010-DCO4 Hagerstown Civil.dwg, C-200, 4/22/2025 1:21:38 PM, Marchfield, Casey

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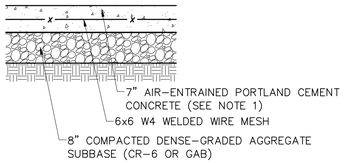
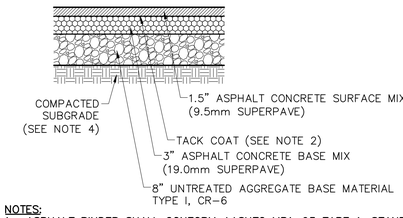


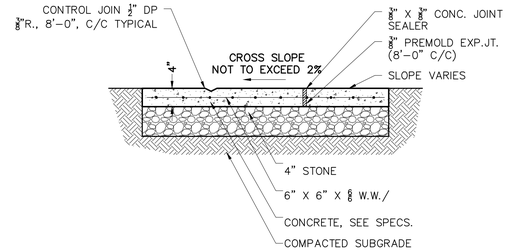
NOTES:
1. MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI
2. LOAD TRANSFER DOWELS SHOULD BE PLACED AT EXPANSION JOINTS. THE DOWELS SHOULD CONSIST OF A 12-INCH #6 REBAR (3/4 INCH DIAMETER) AND BE PLACED AT 12 INCHES ON CENTER ACROSS THE WIDTH OF THE PAVEMENT. EXPANSION JOINT SPACING SHOULD NOT EXCEED 100 FEET IN AN DIRECTION. CONTROL JOINT SPACING SHALL NOT EXCEED 15 FEET IN ANY DIRECTION.

CONCRETE PAVEMENT
SCALE: NTS



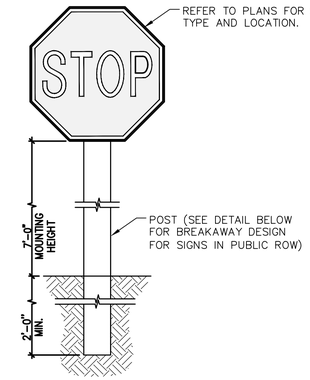
NOTES:
1. ASPHALT BINDER SHALL CONFORM AASHTO MP1-93 TABE 1, STANDARD SPECIFICATION FOR PERFORMANCE GRADE ASPHALT BINDER SUPERPAVE MIX DESIGNS SHALL BE IN CONFORMANCE WITH AASHTO-PP28-95, STANDARD PRACTICE FOR SUPERPAVE VOLUMETRIC DESIGN FOR HMA.
2. THE PERFORMANCE GRADING SHALL BE ACHIEVED BY USE OF HEAT ASPAHLT WITH POLYMER MODIFICATION WHEN NEEDED.
3. TACK COAT REQUIRED IF SURFACE IS NOT APPLIED TO BASE WITHIN 8 HOURS OF BASE COURSE CONSTRUCTION.
4. STABLE NATURAL SOILS, OR FILL SOILS COMPACTED TO A DRY DENSITY OF AT LEAST 100% OF THE SOILS STANDARD PROCTOR MAXIMUM SUBGRADE, AND 95% BELOW 18" OF FINISHED SUBGRADE. MINIMUM CBR OF 4.

STANDARD BITUMINOUS PAVEMENT
SCALE: NOT TO SCALE



NOTES:
1. CLASS P-I AIR ENTRAINED CONCRETE.
2. SIDEWALK TO HAVE 3/8" COTRACTION JOINTS SCORED AT 8'-0" INTERVALS.
3. CONSTRUCT 3/8" EXPANSION JOINTS SPACED EVERY 20' AND BETWEEN CURB AND SIDEWALK WHERE ADJACENT.
4. SIDEWALK TO BE BRUSH FINISHED.

CONCRETE SIDEWALK WITH REINFORCEMENT
SCALE: NOT TO SCALE



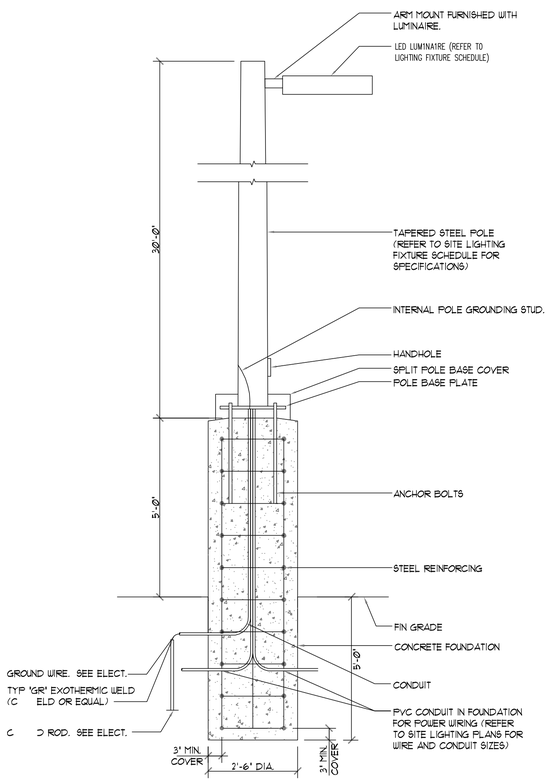
SIGN TYPE:
SIGN #1: NOTICE – NO ADMITTANCE UNAUTHORIZED (24" X 36") UNAUTHORIZED PERSON OR PRIVATE VEHICLES NOT ALLOWED BEYOND THIS POINT. VIOLATORS WILL BE PROSECUTED.
REFERENCE:
TAPCO PART No. 373-01091
IBIS SIGNS PART No. D432G (21' x 24")

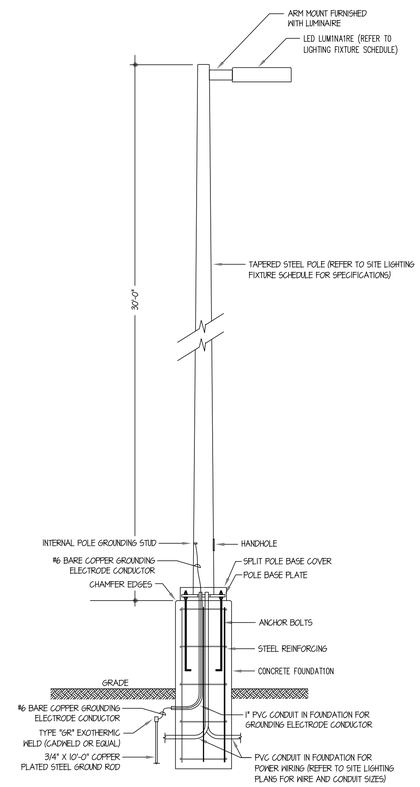
SIGN #4: STOP SIGN – STANDARD (24" x 24")
REFERENCE:
TAPCO PART No. 373-01631
IBIS SIGNS PART No. STS-SS-001

SIGN #10: NO ENGINE IDLING SIGN (20" x 24")
REFERENCE:
TAPCO PART No. 100092
IBIS SIGNS PART No. OP70EXTERIOR (21" x 24")

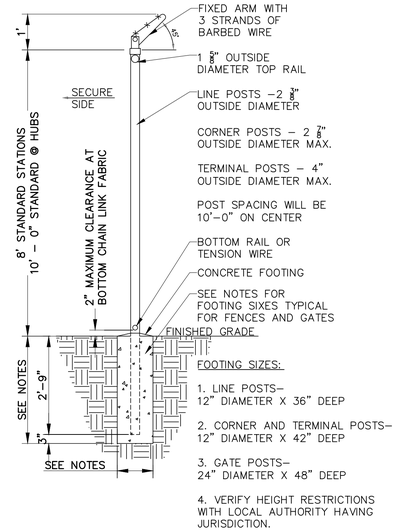
SIGN #13: HEADLIGHTS ON 24/7 (21" x 24")
REFERENCE:
TAPCO PART No. 134579
IBIS SIGNS PART No. CUSTOM-SIGN (21" x 24")

SIGN POST DETAIL
SCALE: NTS



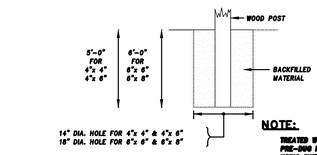


SITE LIGHTING POLE INSTALLATION DETAIL
(NOT TO SCALE)



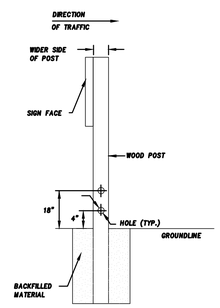
FOOTING SIZES:
1. LINE POSTS– 12" DIAMETER X 36" DEEP
2. CORNER AND TERMINAL POSTS– 12" DIAMETER X 42" DEEP
3. GATE POSTS– 24" DIAMETER X 48" DEEP
4. VERIFY HEIGHT RESTRICTIONS WITH LOCAL AUTHORITY HAVING JURISDICTION.

PERIMETER FENCE - TYPICAL SECTION
SCALE: NOT TO SCALE



NOTE:
TREATED WOODEN POST SHALL BE PLACED IN PRE-DRIL HOLE IN GROUND, BACKFILLED USING SUITABLE MATERIAL, AND TAMPED THOROUGHLY TO PROVIDE A FIRM SUB-SURFACE CONDITION AROUND THE POST.

TYPICAL FOUNDATION FOR WOOD SUPPORTS

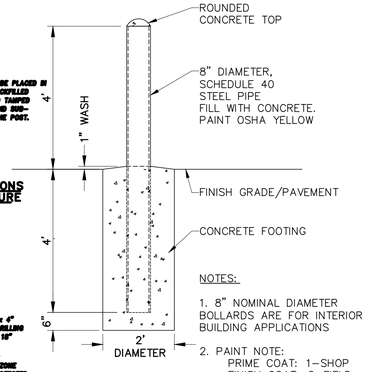


WOOD POST MODIFICATIONS FOR BREAKAWAY FEATURE

POST SIZE	HOLE DIA. (IN.)
4"x 4"	--
4"x 6"	16
6"x 6"	2
6"x 8"	3

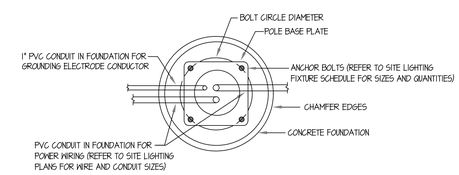
NOTES:
1. ALL WOOD POSTS LARGER THAN 4"x 4" SHALL BE MADE BREAKAWAY BY DRILLING TWO HOLES CENTERED AT 4" AND 18" ABOVE THE GROUNDLINE AND PERPENDICULAR TO THE ROADWAY.
2. ALL SUPPORTS WITHIN THE CLEAR ZONE SHALL BE BREAKAWAY UNLESS PROTECTED.

WOOD POST MODIFICATIONS FOR BREAKAWAY FEATURE

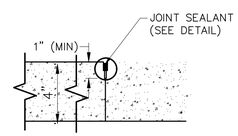


NOTES:
1. 8" NOMINAL DIAMETER BOLLARDS ARE FOR INTERIOR BUILDING APPLICATIONS
2. PAINT NOTE: PRIME COAT: 1–SHOP FINISH COAT: 2–FIELD

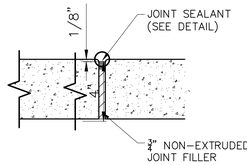
8" BOLLARD
SCALE: 1/2" = 1'-0"



SITE LIGHTING POLE FOUNDATION DETAIL
(NOT TO SCALE)
NOTE: POLE BASE DETAIL IS FOR INFORMATION ONLY. ANCHOR BOLTS MUST BE SET USING FACTORY SUPPLIED TEMPLATES.

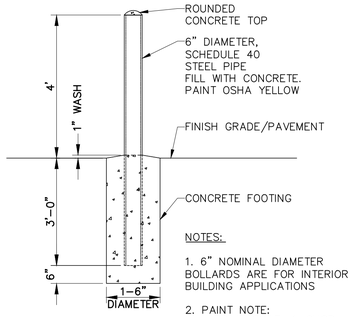


LONGITUDINAL OR TRAVERSE CONSTRUCTION JOINT



LONGITUDINAL OR TRAVERSE EXPANSION JOINT

SIDEWALK JOINT DETAIL
SCALE: NTS



NOTES:
1. 6" NOMINAL DIAMETER BOLLARDS ARE FOR INTERIOR BUILDING APPLICATIONS
2. PAINT NOTE: PRIME COAT: 1–SHOP FINISH COAT: 2–FIELD

6" BOLLARD
SCALE: 1/2" = 1'-0"

LDG
Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND JOSEPH A. KIRK JR. No. 56444 PROFESSIONAL ENGINEER 12/20/24
SEAL

FedEx Ground
CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

DETAILS

Date: 09-06-24
Project No.: 12392-010
Sheet No.: C-500

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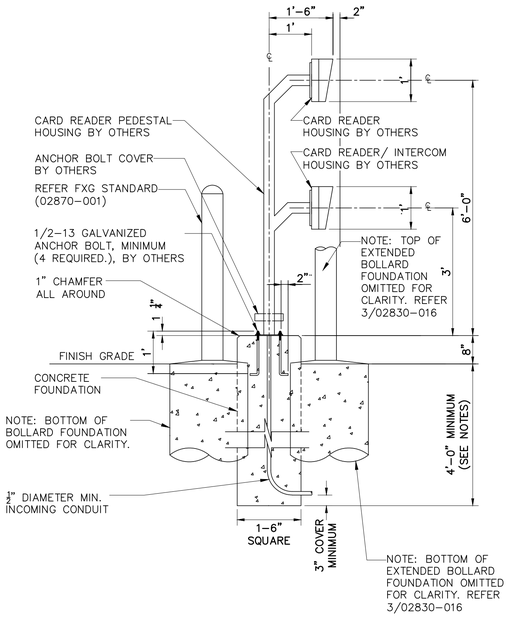
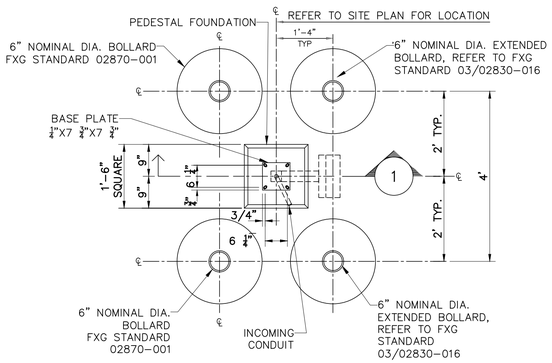


GATE ENTRY ACCESS PEDESTAL - DUAL HEIGHT - SECTION

SCALE: NOT TO SCALE



NOTES:

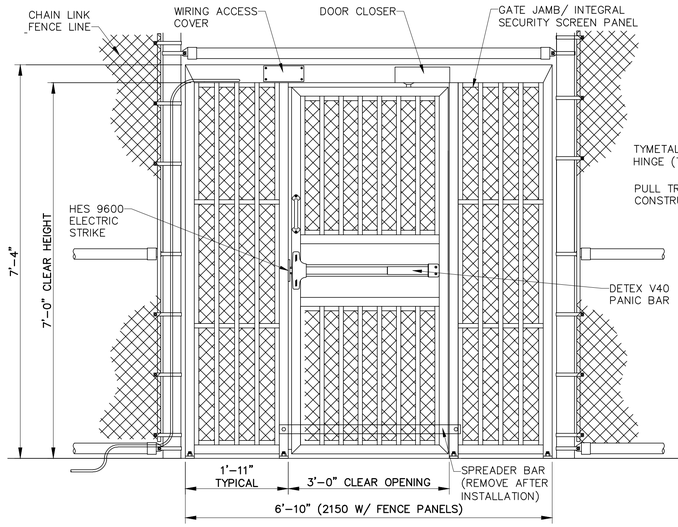
1. THE MINIMUM DEPTH FOR THE PEDESTAL FOUNDATION SHALL BE 4'-0" BELOW THE FINISHED GRADE ELEVATION, AND SHALL BE DESIGNED IN ACCORDANCE WITH THE LOCAL SOIL CONDITIONS AND LOCAL CODES. SAID DESIGN SHALL, WITHOUT EXCEPTION BE REVIEWED BY A LOCAL ENGINEER.

2. CONDUIT SHALL EXIT FOUNDATION BELOW FROST LINE.

3. PEDESTAL ARRANGEMENT FURNISHED BY FXG PPS DEPARTMENT AND TYCO-IS.

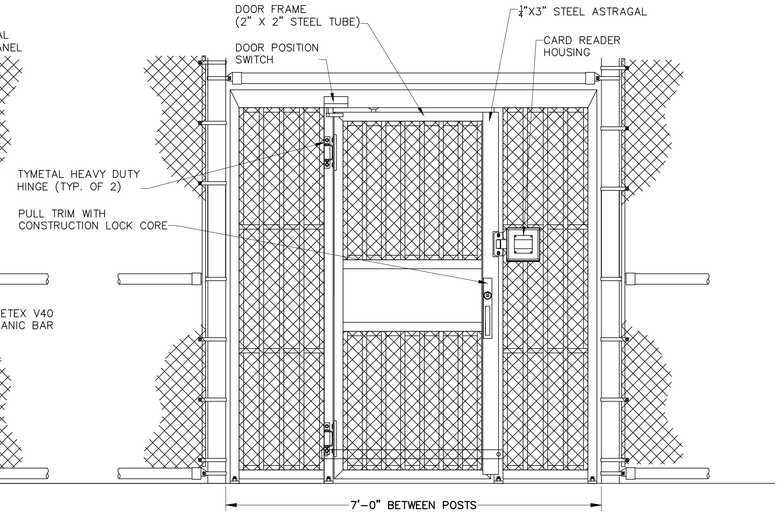
GATE ENTRY ACCESS PEDESTAL PLAN

SCALE: NOT TO SCALE



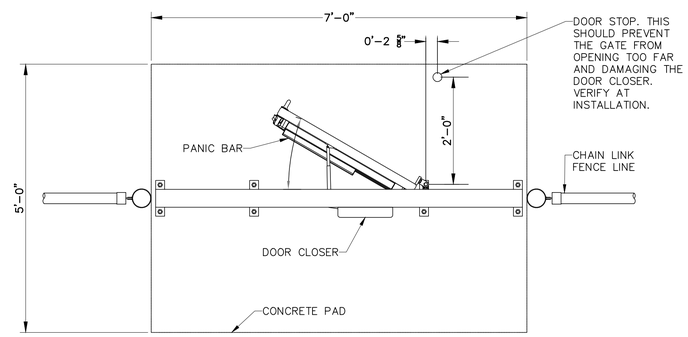
PEDESTRIAN GATE ELEVATION - SECURE SIDE

SCALE: NOT TO SCALE



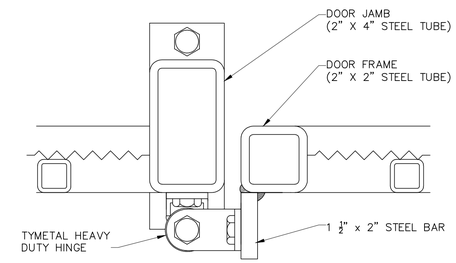
PEDESTRIAN GATE ELEVATION - UNSECURE SIDE

SCALE: NOT TO SCALE



PEDESTRIAN GATE PLAN VIEW

SCALE: NOT TO SCALE



HINGE DETAIL

SCALE: NOT TO SCALE

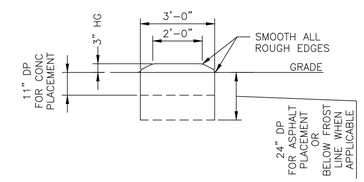
NOTES:

1. THE OPENING IN THE FENCE LINE SHALL BE BUILT TO ACCOMMODATE THE DOOR JAMB PER THE FXG SPECIFICATIONS.

2. PANIC BAR IS A DETEX MODEL V40 WITH DETEX 03AN TRIM AND HES 9600 ELECTRIC STRIKE.

3. GATE FRAME AND INTEGRAL SECURITY AND SCREEN PANELS WILL BE FILLED WITH 1" - SQ. STEEL PICKETS @ 4" O.C. AND EXPANDED METAL MESH.

4. GATE JAMB AND GATE PANEL ARE HOT DIP GALVANIZED.



VEHICLE POSITIONING DEVICE

SCALE: NTS

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1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
JOSHUA M. MAYER
No. 56444
PROFESSIONAL ENGINEER
9/23/25

SEAL

FedEx Ground

CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

DETAILS

Date: 09-06-24

Project No.: 12392-010

Sheet No.: C-501

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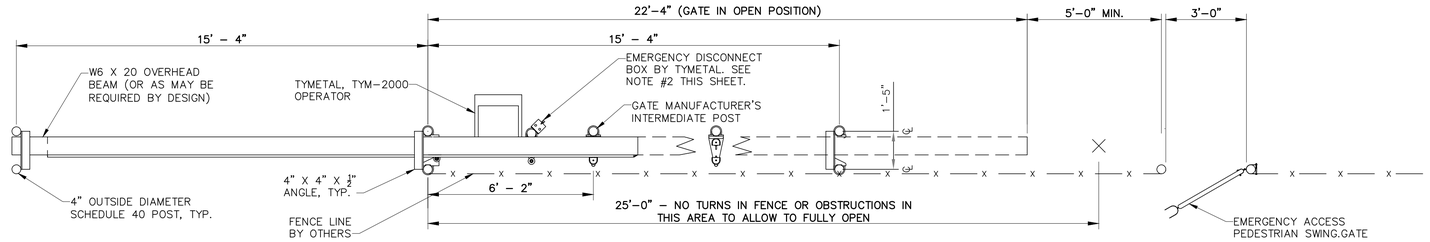
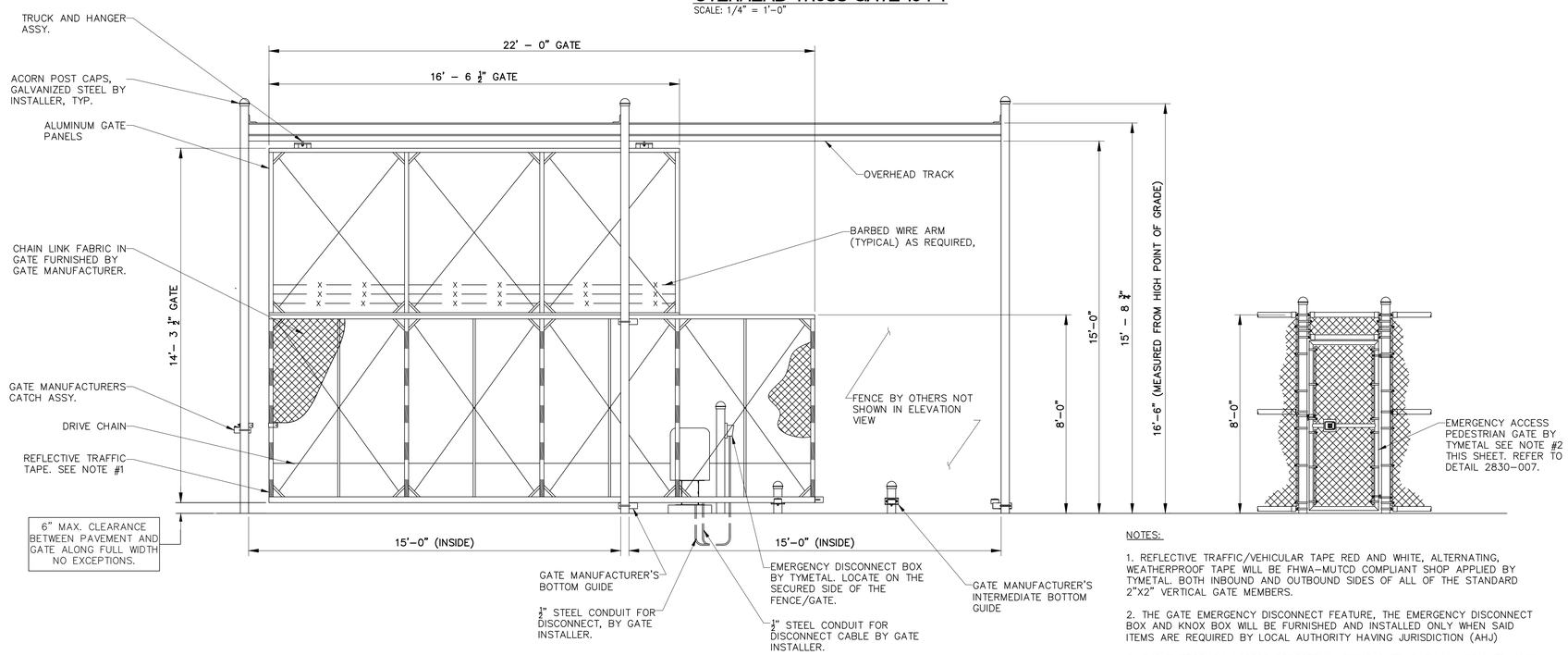


OVERHEAD TRUSS GATE 15 FT

SCALE: 1/4" = 1'-0"



NOTES:

1. REFLECTIVE TRAFFIC/VEHICULAR TAPE RED AND WHITE, ALTERNATING, WEATHERPROOF TAPE WILL BE FHWA-MUTCD COMPLIANT SHOP APPLIED BY TYMETAL. BOTH INBOUND AND OUTBOUND SIDES OF ALL OF THE STANDARD 2"X2" VERTICAL GATE MEMBERS.

2. THE GATE EMERGENCY DISCONNECT FEATURE, THE EMERGENCY DISCONNECT BOX AND KNOX BOX WILL BE FURNISHED AND INSTALLED ONLY WHEN SAID ITEMS ARE REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ)

3. THE EMERGENCY ACCESS PEDESTRIAN SWING GATE IS ONLY INSTALLED WHEN REQUIRED BY LOCAL AUTHORITY HAVING JURISDICTION (AHJ). OR WHEN SHOWN ON THE SITE SPECIFIC DRAWINGS.

ELEVATION: OVERHEAD TRUSS GATE 15 FT

SCALE: 1/4" = 1'-0"

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SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
CHRISTOPHER M. MAYER
No. 56444
PROFESSIONAL ENGINEER
12/23/25

SEAL

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MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

DETAILS

Date: 09-06-24
Project No.: 12392-010
Sheet No.: C-502

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PROFESSIONAL ENGINEER
12/2/25

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MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

EROSION + SEDIMENT CONTROL MEASURES PLAN

Date: 09-06-24

Project No.: 12392-010

Sheet No.: CE100

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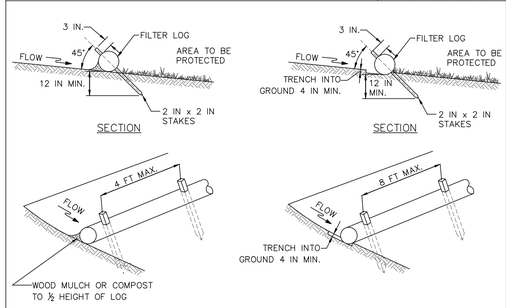
DETAIL E-6 FILTER LOG

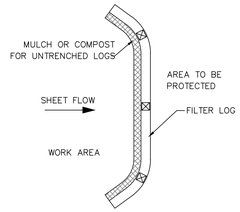
STANDARD SYMBOL
FL-18
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.



UNTRENCHED INSTALLATION OR ENTRENCHED INSTALLATION*

*THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN.

ISOMETRIC VIEW



PLAN

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-6 FILTER LOG

STANDARD SYMBOL
FL-18
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.

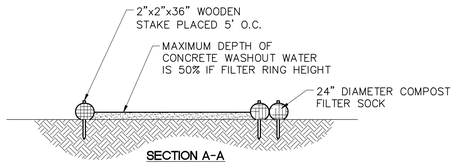
CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

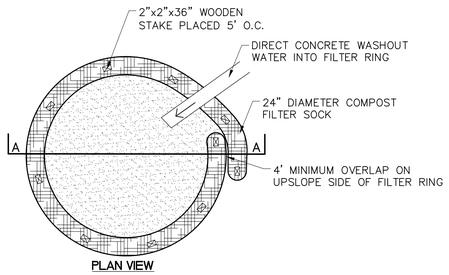
2 OF 2

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



SECTION A-A



PLAN VIEW

NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS
4. ANY CONCRETE MATERIALS IN THE COMPOST FILTER SOCK CONCRETE WASHOUT SHOULD BE DISPOSED OF PROPERLY OFF-SITE.

COMPOST SOCK CONCRETE WASHOUT

SCALE: NOT TO SCALE

LDG
Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
CASEY M. MARCHFELD
No. 56444
PROFESSIONAL ENGINEER
4/22/25

SEAL

FedEx Ground

CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

EROSION + SEDIMENT CONTROL MEASURES DETAILS

Date: 09-06-24
Project No.: 12392-010
Sheet No.: CE500

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STANDARD EROSION AND SEDIMENTATION CONTROL PLAN NOTES

1. PRE–CONSTRUCTION NOTIFICATION – CONTRACTOR SHALL NOTIFY WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (301) 797–6821) WASHINGTON COUNTY D.P.W. ENGINEERING AND CONSTRUCTION (240) 313–2400 AND THE DESIGN ENGINEER (301) 791–3650 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF ANY WORK SHOWN ON THESE PLANS TO SCHEDULE A PRE–CONSTRUCTION MEETING. THE CONTRACTOR AND/OR OWNER SHALL HAVE THE "THIRD PARTY QUALIFIED PROFESSIONAL" AT THE PRE–CONSTRUCTION MEETING IN ACCORDANCE WITH "WASH. CO. PLAN REVIEW & PERMITTING.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL."
3. ALL DISTURBED AREAS TO BE SEEDED WITHIN 14 DAYS OF INITIAL GRADING, FOR TEMPORARY SPECIFICATIONS, SEE SECTION G–20, "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
4. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE LOCAL CONSERVATION DISTRICT MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
5. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
6. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
7. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
8. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
10. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT.
11. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON–DISTURBED AREAS.
12. VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA A STABILIZED ROCK CONSTRUCTION ENTRANCE.
13. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO LEHIGH COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
14. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
15. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES. ANY CONCRETE MATERIALS IN THE COMPOST FILTER SOCK CONCRETE WASHOUT SHOULD BE DISPOSED OF PROPERLY OFF–SITE.
16. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES – 6 TO 12 INCHES ON COMPACTED SOILS – PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
17. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
18. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
19. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
20. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
21. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
22. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
23. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON–GERMINATING MONTHS, MULCH OR OTHER PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
24. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
25. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
26. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
27. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
28. FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT–LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
29. IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE LOCAL CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
30. THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
31. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
32. CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
33. ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
34. EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER, WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
35. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE(S) RECEIVING THE EXCESS HAS AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.

WASHINGTON COUNTY CONSERVATION DISTRICT SOIL EROSION, SEDIMENT CONTROL + SEEDING NOTES

1. ALL SOIL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.
2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", "SECTION B –GRADING AND STABILIZATION" AND THE PROVISIONS OF THE APPROVED PLAN.
3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.
4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
5. FOR INITIAL SOIL DISTURBANCE OR RE–DISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN: A) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL 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 THE PROJECT SITE NOT UNDER ACTIVE GRADING.
6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITHIN THE 7 DAY STABILIZATION REQUIREMENT, AS WELL AS, STANDARD B–4–1 INCREMENTAL STABILIZATION AND STANDARD B–4–4 TEMPORARY STABILIZATION (AS APPLICABLE).
7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. AN INSTALLATION DETAIL SHALL BE SHOWN ON THE PLANS.
8. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED, AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.
9. NO SLOPE SHALL BE GREATER THAN 2:1.
10. AS REQUIRED BY SECTION B, OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, "ADEQUATE VEGETATIVE STABILIZATION", IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.

EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN

THE EROSION AND SEDIMENT CONTROL PLAN HAS BEEN DEVELOPED AND INTENDED TO MINIMIZE THE EXTENT AND DURATION OF THE EARTH DISTURBANCE OCCURRING AT THE PROJECT SITE. IN ORDER TO MINIMIZE THE DURATION, THE SITE SPECIFIC CONSTRUCTION SEQUENCE SHOULD BE FOLLOWED AS APPROVED BY THE COUNTY CONSERVATION DISTRICT. EROSION CONTROL MATTING IS NOT REQUIRED AS THERE ARE NOT STEEP SLOPES ON SITE AND PORTIONS OF THE SITE ARE TO BE SODDED IN LIEU OF TYPICAL SPREADING OF SEED AND MULCHING. THE PORTIONS OF THE PROJECT SITE TO BE SODDED CAN BE SEEN ON THE PLAN. THE PLAN HAS BEEN DEVELOPED WITH THE BEST INTENTIONS TO MAXIMIZE PROTECTION OF EXISTING DRAINAGE FEATURES AND VEGETATION.

RECYCLE NOTE

PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH THIS TITLE

THE RECYCLING AND DISPOSAL OF MATERIALS SHALL BE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. COMPLY WITH AIR QUALITY, WATER QUALITY, SOLID WASTE MANAGEMENT POLICIES, ETC.
CONSTRUCTION WASTES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- EXCESS SOIL MATERIALS(1) OR SEDIMENT AS A RESULT OF EROSION RUNOFF
- TREES, SHRUBS AND BRUSH REMOVED DURING CLEARING AND GRUBBING(2)
- SANITARY WASTES(3)
- CONCRETE WASH WATER(3)
- PACKAGING MATERIALS (WOOD, PAPER, PLASTIC, STYROFOAM, ETC.)(3)
- SCRAP OR SURPLUS BUILDING MATERIALS (METALS, RUBBER, PLASTIC, GLASS, MASONRY PRODUCTS, AND OTHER SOLID WASTE MATERIALS)(3)
- PETROLEUM PRODUCTS, PAINT AND THINNERS, CLEANING SOLVENTS, CURING COMPOUNDS AND SIMILAR MATERIALS(3)
- DEMOLITION DEBRIS(3)

1. UNLESS OTHERWISE DIRECTED, EXCESS SOIL AND EXCAVATED MATERIAL MAY BE USED FOR FILL MATERIAL ON SITE OR OFF SITE. COORDINATE WITH OWNER AND AGENCIES HAVING JURISDICTION.
2. TREES, SHRUBS AND BRUSH SHALL BE CHIPPED WHEN POSSIBLE AND REUSED AS MULCH. DO NOT BURN WITHOUT PERMISSION.
3. WHERE POSSIBLE WASTES SHALL BE RECYCLED. WHERE NOT PRACTICAL, WASTES SHALL BE PROPERLY DISPOSED OF AT A PERMITTED LANDFILL FACILITY. THE CONTRACTOR IS ENCOURAGED TO CONSULT THE RECYCLING HOTLINE OR LOCAL SOLID WASTE MANAGEMENT AGENCY.

CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING, INCLUDING BUT ARE NOT LIMITED TO THE FOLLOWING:

- NEAT, ORDERLY AND CENTRALIZED STORAGE OF MATERIALS AND WASTES
- CONTROL OF LITTER PROVIDING CONTAINERS WITH LIDS IF NEEDED
- REGULAR DISPOSAL
- PROMPT CLEANUP OF ANY SPILLS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS OR IN ACCORDANCE WITH REGULATORY REQUIREMENTS. UTILIZE A SPECIALTY FIRM IF REQUIRED
- PROMPT CLEANUP OF SEDIMENTS WITHIN THE SITE AND ONTO ADJACENT ROADWAYS
- ALL SEDIMENT REMOVED FROM E&S BMPS SHALL BE DISTRIBUTED TO A TOPSOIL STOCKPILE OR SPREAD ON THE PROJECT SITE, SEEDED, AND MULCHED.
- KEEP DUST WITHIN TOLERABLE LIMITS BY USING WATER OR OTHER APPROVED DUST SUPPRESSERS

CLEAN FILL NOTE

CLEAN FILL IS UNCONTAMINATED, NONWATER–SOLUBLE, NONDECOMPOSABLE INERT SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED.

TO DETERMINE WHETHER A FILL IS CLEAN OR REGULATED, A PERSON MUST PERFORM ENVIRONMENTAL DUE DILIGENCE. ANALYTICAL ASSESSMENT, TESTING OR SAMPLING IS ONLY REQUIRED IF VISUAL INSPECTION OR REVIEWS OF HISTORIC PROPERTY USE INDICATES EVIDENCE OF THE RELEASE OF A REGULATED SUBSTANCE.

BEST MANAGEMENT PRACTICES (BMP) MUST BE FOLLOWED PRIOR TO DEMOLITION ACTIVITIES TO REMOVE MATERIALS LIKE LEAD BASED PAINT SURFACE, FRIABLE ASBESTOS AND HAZARDOUS MATERIALS SUCH AS MERCURY SWITCHES, PCB BALLASTS AND FLORESCENT LIGHT BULBS FROM A BUILDING IF THE BRICK, BLOCK OR CONCRETE IS USED AS CLEAN FILL.

CLEAN FILL MAY NOT CONTAIN ANY FREE LIQUIDS BASED ON VISUAL INSPECTION, AND SHALL NOT CREATE NUISANCES (FOR EXAMPLE OBJECTIONABLE ODORS) TO USERS OF RECEIVING PROPERTY OR ADJACENT PROPERTY OWNERS.

SPOIL/BORROW NOTE

ANY FILL MATERIAL BROUGHT INTO OR LEAVING THE SITE MUST GO, COME FROM OR GO TO A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

STANDARD UTILITY NOTES

1. CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS.
2. CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAULED TO AN APPROVED LOCATION TO WASTED MATERIALS TO PAVED AREAS.
3. CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORKING DAY.
4. IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.
5. IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER. CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION.
6. CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED & MULCH OR APPROPRIATE STREET REPAIR.

CONSTRUCTION SEQUENCE

SEQUENCE OF BMP INSTALLATION AND REMOVAL IN RELATION TO THE SCHEDULING OF EARTH DISTURBANCE ACTIVITIES, PRIOR TO, DURING AND AFTER EARTH DISTURBANCE ACTIVITIES

A. NOTIFY WCSCD AT 301–797–6821 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE–CONSTRUCTION MEETING. NOTIFY THE WASHINGTON COUNTY ENGINEERING DEPARTMENT AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A PRE–CONSTRUCTION MEETING.

B. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWING. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT PRIOR TO IMPLEMENTATION. EACH STEP OF THE SEQUENCE SHALL BE COMPLETED BEFORE PROCEEDING TO THE NEXT STEP, EXCEPT WHERE NOTED.

C. SITE SPECIFIC CONSTRUCTION SEQUENCE:

NOTE: LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT, PLUG INSTALLATION, AND BACKFILLING THAT CAN BE COMPLETED THE SAME DAY.

1. FIELD MARKINGS FOR LIMITS OF DISTURBANCE SHOULD BE INSTALLED.
2. INSTALL CONCRETE WASHOUT AND FILTER LOGS AS INDICATED ON PLANS.
3. STRIP TOPSOIL AND STOCKPILE AT THE LOCATION IDENTIFIED ON THE PLANS.
4. PERFORM EARTHWORK TO WIDEN ENTRANCE TO FINAL GRADE AND PLACE ASPHALT PAVEMENT,
5. INSTALL LIGHT POST AND ASSOCIATED ELECTRICAL CONDUIT.
6. INSTALL CHAINLINK FENCE, OVERHEAD TRUSS GATE, ACCESS PEDESTAL, AND PEDESTRIAN GATE.
7. INSTALL CONCRETE SIDEWALK
8. INSTALL UTILITY CONNECTIONS ACROSS HALFWAY BLVD.
9. IMMEDIATELY STABILIZE DISTURBED AREAS UPON TEMPORARY CESSATION OF WORK, FOUR (4) DAYS OR MORE, AS SOON AS ANY GRADED AREA REACHES FINAL GRADE. IT IS NOT ACCEPTABLE TO WAIT FOR AN ENTIRE PHASE TO BE FINAL GRADED BEFORE SEEDING AND MULCHING TAKES PLACE.
10. UPON ACHIEVING FINAL GRADES, ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH THE FINAL CONDITIONS.
11. NOTIFY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT AT 301–797–6821 AND THE COUNTY AT LEAST 5 DAYS PRIOR TO THE REMOVAL OF ANY SOIL EROSION AND SEDIMENT CONTROL FEATURES TO SCHEDULE A FINAL CLOSEOUT REVIEW MEETING (VEGETATION MUST MEET THE 95% OVERALL STABILIZATION REQUIREMENT PER THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL PRIOR TO SCHEDULING SAID MEETING).
12. ONCE THE LOCAL CONSERVATION DISTRICT AUTHORIZE, REMOVE ANY FILTER LOG, TOPSOIL STOCKPILE OR CONCRETE WASHOUT STILL REMAINING ON THE PROJECT SITE. CLEAN ANY ACCUMULATED SEDIMENT ON SITE.

LDG
Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
JAMES W. SHEFF
No. 56444
PROFESSIONAL ENGINEER
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UTILITY LINE TRENCH EXCAVATION

THE MOST IMPORTANT EROSION AND SEDIMENTATION CONTROL CONSIDERATION FOR TRENCH CONSTRUCTION IS THE LIMITING AND SCHEDULING OF WORK ACTIVITIES, AS FOLLOWS:

1. MINIMIZE AREA OF EXPOSURE. DISTURB ONLY THE AREA REQUIRED FOR CONSTRUCTION. AT THE PRESENT NATURAL VEGETATION COVERS THE AREA AND THERE IS LITTLE EROSION. DO NOT DISTURB ANY EXISTING VEGETATION BELOW THE CONSTRUCTION AREA. THIS AREA WILL ACT AS A NATURAL FILTER.
2. MINIMIZE THE TIME OF EXPOSURE. ALL DISTURBED AREAS WILL BE RE-SEEDED AND MULCHED WITHIN FOUR (4) DAYS, OR SOONER IF WORK IS COMPLETED.
3. FOR INSTALLATION IN LAWN AREAS, TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE DISTURBED AND STOCKPILED ADJACENT TO TRENCH FOR REDISTRIBUTION AT FINAL GRADING. EXCAVATED MATERIAL SUITABLE FOR BACKFILLING TRENCH SHALL LIKEWISE BE STOCKPILED ADJACENT TO TRENCH, PREFERABLY UPGRADE OF TRENCH. IF RAIN IS FORECAST PRIOR TO BACKFILLING TRENCH, INSTALL SILT BARRIER FENCE BELOW STOCKPILED MATERIAL AND PROTECT TRENCH FROM ENTRY OF SURFACE WATER.
4. FOR INSTALLATION IN PAVEMENT AND SHOULDER AREAS, EXCAVATED MATERIAL SHALL BE LOADED INTO TRUCKS, HAULED OFF SITE AND PROPERLY DISPOSED OF. BACKFILL WITH SELECT MATERIAL. WHERE EXCAVATED MATERIAL IS PERMITTED AS BACKFILL, DO NOT PLACE EXCAVATED MATERIAL IN OR ADJACENT TO CURBS, GUTTERS, OR DITCHES WHERE IT MAY COME IN CONTACT WITH STORM WATER. WHERE EXCAVATED MATERIAL MUST BE SO PLACED, PROTECT MATERIAL BY SECURELY ANCHORED SHEETING, PLASTIC, ETC.
5. INSTALL CONTROL MEASURES BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM. ALL CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION UNTIL ALL DISTURBED AREAS ARE STABILIZED. CLEAN OR CHANGE AS NEEDED.
6. INSTALL SILT BARRIER FENCE AS SHOWN AND AS REQUIRED IN ACCORDANCE WITH THE DETAIL.
7. WATER WHICH ACCUMULATES IN THE OPEN TRENCH WILL BE REMOVED BY PUMPING. NO DISCHARGE OF SILT, MUD OR OTHER POLLUTANTS DIRECTLY INTO ANY WATERCOURSE WHEN USING PUMPS DURING CONSTRUCTION WILL BE PERMITTED. CONSTRUCT SEDIMENTATION BASINS IF NECESSARY. TRENCH DE-WATERING DISCHARGES MAY BE DIRECTED THROUGH A PUMPED WATER FILTER BAG AND ONTO EXISTING VEGETATION IF ACCEPTABLE.
8. THESE MEASURES REPRESENT THE MINIMUM PRECAUTIONS REQUIRED. CONTRACTOR SHALL EVALUATE THE EFFECTIVENESS OF THE MEASURES CITED AND IMPLEMENT THEM ALONG WITH ADDITIONAL MEASURES AS NEEDED.
9. SCHEDULE OF ACTIVITIES:
   - A. INSTALL SILT BARRIER FENCE, AT LIMIT OF GRADING LINE, AND ELSEWHERE AS NEEDED.
   - B. CLEAR AND GRUB AREA OF CONSTRUCTION. TREES AND OTHER NATURAL VEGETATION ARE NOT TO BE DISTURBED OUTSIDE THE CONSTRUCTION AREA. LIMIT CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO (2) TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
   - C. EXCAVATE. LIMIT DAILY TRENCH EXCAVATION TO THE LENGTH OF PIPE PLACEMENT AND BACKFILLING THAT CAN BE COMPLETED AND TESTED THE SAME DAY.
   - D. INSTALL PIPE IN ACCORDANCE WITH RESTORATION DETAILS.
   - E. BACKFILL IN ACCORDANCE WITH RESTORATION DETAILS.
   - F. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND APPROPRIATE TEMPORARY EROSION AND SEDIMENT POLLUTION CONTROL MEASURES/FACILITIES WILL BE INSTALLED. SEEDING AND MULCHING OF ALL DISTURBED AREAS WILL BE DONE AT THE END OF EACH WEEK.
   - G. CONTRACTOR SHALL MAINTAIN ALL CONTROL MEASURES UNTIL PERMANENT STABILIZATION HAS OCCURRED. CHECK CONTROL MEASURES WEEKLY OR AFTER EVERY RAINFALL EVENT. CLEAN OR REPLACE AS NEEDED.
10. EXCEPTIONS: IN CERTAIN CASES TRENCHES CANNOT BE BACKFILLED UNTIL THE PIPE IS HYDROSTATICALLY TESTED, OR ANCHORS AND OTHER PERMANENT FEATURES ARE INSTALLED. IN THESE CASES, THE FOLLOWING EXCEPTIONS APPLY:
    - A. DAILY BACKFILLING OF THE TRENCH MAY BE DELAYED FOR SIX (6) DAYS. ALL PRESSURE TESTING AND THE COMPLETE BACKFILLING OF THE OPEN TRENCH MUST BE COMPLETED BY THE SEVENTH WORKING DAY.
    - B. IF DAILY BACKFILLING IS DELAYED, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS, APPROPRIATE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES/FACILITIES WILL BE INSTALLED, AND THE AREAS SEEDED AND MULCHED WITHIN THE NEXT TWO (2) CALENDAR DAYS.

MAINTENANCE PROGRAM

MAINTENANCE PROGRAM WHICH PROVIDES FOR INSPECTION OF BMPS ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT, INCLUDING THE REPAIR OF THE BMPS TO ENSURE EFFECTIVE AND EFFICIENT OPERATION

IT SHALL BE THE RESPONSIBILITY OF THE OWNER'S CONTRACTOR TO MAINTAIN THE TEMPORARY CONTROL DEVICES. THE DEVICES SHALL BE REGULARLY INSPECTED ON A WEEKLY BASIS AND AFTER EVERY MEASURABLE RUNOFF EVENT. SEE DETAIL SPECIFIC ITEMS FOR PROPER MAINTENANCE OF THOSE ITEMS.

THE FOLLOWING BMP'S ARE USED ON THE PROJECT SITE:

- CONCRETE WASHOUT

GENERAL MAINTENANCE
- REPAIR, RESEED, AND RE-MULCH ANY AREAS THAT ERODE PRIOR TO FINAL STABILIZATION. FINAL STABILIZATION WILL BE ACHIEVED WHEN THERE IS A UNIFORM VEGETATIVE COVER OR DENSITY OF 70% ACROSS THE DISTURBED AREA.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE MEASURES TO INSURE THAT SEDIMENT IS NOT DEPOSITED ON PUBLIC WALKS OR ROADWAYS. IF ANY SEDIMENT IS DEPOSITED ON PUBLIC WALKS OR ROADWAYS, IT SHALL BE REMOVED AND RETURNED TO THE SITE DAILY. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER OR SURFACE WATER.

SEEDING

TEMPORARY SEEDING:

GENERAL
1. SCOPE: PLANTING SHORT-TERM VEGETATION TO STABILIZED, CLEARED OR GRADED AREAS SUBJECT TO EROSION FOR A PERIOD OF 14 DAYS OR MORE.
2. STANDARDS: TEMPORARY SEEDING SHALL CONFORM TO ALL REQUIREMENTS OF THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" SECTION 20.0, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, NATURAL RESOURCES CONSERVATION SERVICE, AND THE STATE SOIL CONSERVATION COMMITTEE.
3. SEDIMENT & EROSION CONTROL: ALL PERIMETER CONTROLS MUST BE STABILIZED IN 7 DAYS. ALL INTERIOR CONTROLS MUST BE STABILIZED IN 14 DAYS

SPECIFICATIONS
1. SITE PREPARATION:
   - 1.1. PRIOR TO SEEDING INSTALL ALL REQUIRED SEDIMENT AND EROSION CONTROL MEASURES
   - 1.2. FINAL GRADING NOT REQUIRED FOR TEMPORARY SEEDING
2. SOIL AMENDMENTS:
   - 2.1. FERTILIZER SHALL BE APPLIED AT THE RATE OF 600 LBS./AC. (15 LBS./1000 SQ.FT.) USING 10-10-10 OR EQUIVALENT.
   - 2.2. LIME SHALL BE APPLIED AT A RATE OF 2 TONS/AC. (100 LBS./1000 SQ.FT.).
3. SEEDBED PREPARATION:
   - 3.1. SOIL SHALL BE LOOSENED TO A DEPTH OF 3 TO 5 INCHES BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS PRIOR TO SEEDING.
4. SEEDING:
   - 4.1. USE THE MIXTURE SPECIFIED ON THE TEMPORARY SEEDING SUMMARY.
   - 4.2. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER DRILL, CULTIPACKER, OR HYDRO SEEDER.
5. MULCHING:
   - 5.1. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. MULCH MATERIALS AND APPLICATIONS SHALL CONFORM TO THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," SECTION 20.0, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, NATURAL RESOURCES CONSERVATION SERVICE, AND THE STATE SOIL CONSERVATION COMMITTEE.

PERMANENT SEEDING & SOD NOTES:

GENERAL
1. SCOPE: PLANTING PERMANENT, LONG-LIVED VEGETATIVE COVER GRADED OR CLEARED AREAS.
2. STANDARDS: PERMANENT SEEDING SHALL CONFORM TO ALL REQUIREMENTS OF THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" SECTION 20.0, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, NATURAL RESOURCES CONSERVATION SERVICE, AND THE STATE SOIL CONSERVATION COMMITTEE.

SPECIFICATIONS
1. SOIL AMENDMENTS:
   - 1.1. FOR SITES OF 5 ACRES OR UNDER, APPLY 90 LBS./AC. (2.0 LBS. ACTUAL NITROGEN/1000 SQ.FT.) AND 175 LBS./AC. (4 LBS./AC. ACTUAL P205 AND K20/1000 SQ.FT.). A SLOW RELEASE UREAFORM FERTILIZER (46-0-0) MAY BE APPLIED TO AREAS RECEIVING LOW MAINTENANCE TO PROVIDE NITROGEN OVER A LONG PERIOD OF TIME. FOR TREATMENT, APPLY 150 LBS./AC. (3.5 LBS./1000 SQ.FT.) OF A UREAFORM FERTILIZER IN ADDITION TO THE ABOVE FERTILIZER APPLICATION AT TIME OF SEEDING.
   - 1.2. LIME SHALL BE APPLIED AT A RATE OF 2 TONS/AC. (100 LBS./1000 SQ.FT.).
   - 1.3. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF SOIL.
   - 1.4. SITE HAVING A DISTURBED AREA OVER 5 ACRES SHALL HAVE SOIL TESTS PERFORMED TO DETERMINE RATE.
2. SEEDBED PREPARATION:
   - 2.1. SOIL SHALL BE LOOSENED TO A DEPTH OF 3 TO 5 INCHES BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS PRIOR TO SEEDING.
3. SEEDING:
   - 3.1. USE THE MIXTURE SPECIFIED ON THE TEMPORARY SEEDING SUMMARY.
   - 3.2. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER DRILL, CULTIPACKER, OR HYDRO SEEDER (SLURRY INCLUDES SEED AND FERTILIZER ON A FIRM, MOIST SEEDBED). MAXIMUM SEEDING DEPTH SHOULD BE 1/4" ON CLAYEY SOILS AND 1/2" ON SANDY SOILS, WHEN USING OTHER THAN HYDROSEEDER METHOD OF APPLICATION. NOTE: IF HYDROSEEDING IS USED AND THE SEED AND FERTILIZER IS MIXED, THEY WILL BE MIXED ON SITE AND THE SEEDING SHALL BE IMMEDIATE WITHOUT INTERRUPTION.
4. MULCHING:
   - 4.1. MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING. MULCH MATERIALS AND APPLICATIONS SHALL CONFORM TO THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," SECTION 20.0, PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, NATURAL RESOURCES CONSERVATION SERVICE, AND THE STATE SOIL CONSERVATION COMMITTEE.

PERMANENT STABILIZATION WITH SOD/TURFGRASS:
1. ALL SPECIFICATIONS, SITE PREPARATION, INSTALLATION AND MAINTENANCE OF SOD/TURFGRASS FOR PERMANENT, LONG-LIVED VEGETATIVE COVER SHALL CONFORM TO SECTION G20-10&11 OF THE "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL," PUBLISHED JOINTLY BY WATER RESOURCES ADMINISTRATION, NATURAL RESOURCES CONSERVATION SERVICE, AND THE STATE SOIL CONSERVATION COMMITTEE.

TEMPORARY SEEDING FOR SITE STABILIZATION

PLANT SPECIES	SEEDING RATE [A]		SEEDING DEPTH [B[	RECOMMENDED SEEDING DATE [C]
	LB/AC	LB/1000 SQ.FT	INCHES	PLANT HARDINESS ZONE 6B
COOL-SEASON GRASSES				
ANNUAL RYEGRASS (LOLIUM PERENNE SSP. MULTIFLORUM)	40	1.0	0.5	MAR 1 TO MAY 1; AUG 2 TO OCT 15
BARLEY (HORDEUM VULGARE)	96	2.2	1.0	MAR 1 TO MAY 1; AUG 2 TO OCT 15
OATS (AVENA SATIVA)	72	1.7	1.0	MAR 1 TO MAY 1; AUG 2 TO OCT 15
WHEAT (TRITICUM AESTIVUM)	120	2.8	1.0	MAR 1 TO MAY 1; AUG 2 TO OCT 15
CEREAL RYE (SETARIA ITALICA)	30	2.8	1.0	MAR 1 TO MAY 1; AUG 2 TO NOV 15
WARM-SEASON GRASSES				
FOXTAIL MILLET (SETARIA ITALICA)	30	0.7	0.5	MAY 16 TO JUL 31
PEARL MILLET (PENNISETUM GLAUCUM)	20	0.5	0.5	MAY 16 TO JUL 31

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

SEEDING RATES LISTED ABOVE ARE FOR TEMPORARY SEEDING, WHEN PLANTED ALONE. WHEN PLANTED AS A NURSE CROP WITH PERMANENT SEED MIXES, USE ⅓ OF THE SEEDING RATE LISTED ABOVE FOR BARLEY, OATS AND WHEAT. FOR SMALER-SEEDED GRASSES (ANNUAL RYEGRASS, PEARL MILLET, FOXTAIL MILLET), DO NOT EXCEED MORE THAN 5 PERCENT BY WEIGHT OF THE OVERALL PERMANENT SEEDING MIX. CEREAL RYE GENERALLY SHOULD NOT BE USED AS A NURSE CROP, UNLESS PLANTING WILL OCCUR IN THE VERY LATE FALL BEYOND THE SEEDING FATES FOR THE OTHER TEMPORARY SEEDINGS. CEREAL RYE HAS ALLELOPATHIC PROPERTIES THAT INHIBIT THE GERMINATION AND GROWTH OF OTHER PLANTS. IF IT MUST BE USED AS A NURSE CROP, SEED AT ⅓ OF THE RATE LISTED ABOVE.

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

[B] FOR SANDY SOILS, PLANT SEEDS AT TWICE THE DEPTH LISTED ABOVE.

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

RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND [A]

TYPE OF PLANT MATERIAL	PLANT HARDINESS ZONE 6B
SEEDS - COOL-SEASON GRASSES (INCLUDES MIXES WITH FORBS AND/OR LEGUMES)	MAR 1 TO MAY 15; AUG 1 TO OCT 15
SEEDS - WARM-SEASON/COOL-SEASON GRASS MIXES (INCLUDES MIXES WITH FORBS AND/OR/LEGUMES	MAR 1 TO MAY 15 [C]; MAY 16 TO JUN 15 [D]
SOD - COOL-SEASON	MAY 1 TO MAY 15; MAY 16 TO SEP 14 [D]; SEP 15 TO NOV 15 [D][E]
UNROOTED WOOD MATERIALS; BARE-ROOT PLANTS; BULBS, RHIZOMES, CORMS AND TUBERS [B]	MAR 1 TO MAY 15; MAY 16 TO JUN 30 [D]
CONTAINERIZED STOCK; BALL-AND-BURLAPPED STOCK	MAR 1 TO MAY 15; MAY 16 TO JUN 30 [D] SEP 15 TO NOV 30 [D][E]

NOTES:
[A] THE PLANTING DATES LISTED ARE THE AVERAGES FOR EACH ZONE. THESE DATES MAY REQUIRE ADJUSTMENT TO REFLECT LOCAL CONDITIONS, ESPECIALLY NEAR THE BOUNDARIES OF ZONES. WHEN SEEDING TOWARD THE END OF LISTED PLANTING DATES, OR WHEN CONDITIONS ARE EXPECTED TO BE LESS THAN OPTIMAL, SELECT AN APPROPRIATE NURSE CROP FROM THE TABLE FOR TEMPORARY SEEDING FOR SITE STABILIZATION AND PLANT TOGETHER WITH THE PERMANENT SEEDING MIX.

[B] WHEN PLANTED DURING THE GROWING SEASON, MOST OF THESE MATERIALS MUST BE PURCHASED AND KEPT IN A DORMANT CONDITION UNTIL PLANTING. BARE-ROOT GRASSES ARE THE EXCEPTION - THEY MAY BE SUPPLIED AS GROWING (NON-DORMANT) PLANTS.

[C] WARM-SEASON GRASSES NEED A SOIL TEMPERATURE OF AT LEAST 50 DEGREES F IN ORDER TO GERMINATE. IF SOIL TEMPERATURES ARE COLDER THAN 50 DEGREES, OR MOISTURE IS NOT ADEQUATE, THE SEEDS WILL REMAIN DORMANT UNTIL CONDITIONS ARE FAVORABLE. IN GENERAL, PLANTING DURING THE LATTER PORTION OF THIS PERIOD ALLOWS MORE TIME FOR WEED EMERGENCE AND WEED CONTROL PRIOR TO PLANTING. WHEN SELECTING A PLANTING DATE, CONSIDER THE NEED FOR WEED CONTROL VS. THE LIKELIHOOD OF HAVING SUFFICIENT MOISTURE.

[D] ADDITIONAL PLANTING DATES DURING WHICH SUPPLEMENTAL WATERING MAY BE NEEDED TO ENSURE PLANT ESTABLISHMENT.

[E] FREQUENT FREEZING AND THAWING OF WET SOILS MAY RESULT IN FROST-HEAVING OF MATERIALS PLANTED IN THE LATE FALL, IF PLANTS HAVE NOT BEEN SUFFICIENTLY ROOTED IN PLACE. SOD USUALLY NEEDS 4 TO 6 WEEKS TO BECOME SUFFICIENT ROOTED. LARGER CONTAINERIZED AND BALLED-AND-BURLAPPED STOCK MAY BE PLANTED INTO THE WINTER MONTHS AS LONG AS THE GROUND IS NOT FROZEN AND SOIL MOISTURE IS ADEQUATE.

LDG
Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
Casey M. Marchfeld
No. 56444
PROFESSIONAL ENGINEER
09/23/15
SEAL

FedEx Ground
CLIENT

MARK	DATE	COMMENTS
01	12/20/2024	WASHINGTON COUNTY COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740
SP-24-026

EROSION + SEDIMENT CONTROL MEASURES NOTES

Date: 09-06-24
Project No.: 12392-010
Sheet No.: CE502

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ELECTRICAL GENERAL NOTES

A. PRIOR TO CONSTRUCTION & INSTALLATION, CONTRACTOR TO VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT/ENGINEER OF CONFLICTS OR CONDITIONS WHICH INTERFERE WITH INSTALLATION AS SET FORTH IN CONTRACT DOCUMENTS.

B. CONTRACTOR RESPONSIBLE FOR ALL FLOOR OPENINGS, EXCAVATIONS, AND PENETRATIONS, UNLESS SPECIFICALLY NOTED. UPON COMPLETION, ALL PENETRATIONS TO BE SEALED TO MAINTAIN FIRE RATING AS SPECIFIED ON ARCHITECTURAL DRAWINGS.

C. ALL CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS CLEARLY INDICATED AS PART OF ANOTHER PRIME CONTRACT.

D. ALL WORK SHOWN ON THIS DRAWING IS THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS CLEARLY INDICATED AS PART OF ANOTHER PRIME CONTRACT.

E. COORDINATE ALL NEW ROOF PENETRATIONS WITH THE OTHER CONTRACTS.

F. ALL WORK TO BE COMPLETED IN COMPLIANCE WITH CURRENT VERSION OF NEC AND ALL LOCAL CODES.

G. MINIMUM WIRE SIZE TO BE #12 AWG (FOR POWER).

H. MINIMUM CONDUIT SIZE TO BE ¾ " EMT. INSTALL & SUPPORT IN ACCORDANCE WITH CURRENT VERSION OF NEC.

I. RECEPTACLES TO BE INSTALLED WITH GROUNDING POLE TO THE TOP OR, IF MOUNTED HORIZONTALLY, TO THE LEFT.

K. PROVIDE SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR WITHIN EACH BRANCH CIRCUIT RACEWAY.

L. CONTRACTOR RESPONSIBLE FOR OBTAINING ALL PERMITS & INSPECTIONS.

M. PROVIDE SUBMITTALS FOR SUBSTITUTIONS ON ANY EQUIPMENT.

N. SUBMIT O&M MANUALS TO OWNER UPON COMPLETION OF WORK.

O. PROVIDE TRAINING SESSION FOR DESIGNATED MAINTENANCE PERSONNEL.

P. PROVIDE TEMPORARY POWER REQUIRED FOR ALL TRADES.

Q. MATCH OWNERS EXISTING STANDARD EQUIPMENT.

R. INSTALL FIRESTOPPING TO MAINTAIN ALL EXISTING FIRE SEPARATIONS.

S. GROUND ALL EQUIPMENT ACCORDING TO CURRENT VERSION OF NEC.

T. ALL RECEPTACLES DENOTED WP (WEATHERPROOF) TO BE GFI PROTECTED.

U. ALL DEVICES & FIXTURES TO BE SPECIFICATION GRADE OR BETTER.

V. SENSOR PLACEMENT AND TYPES ARE BASED ON SENSOR SWITCH. ADDITIONAL SENSORS AND TYPES OF SENSORS MAY BE REQUIRED TO PROVIDE COMPLETE COVERAGE DEPENDING ON EMS/BMS, FINAL PARTITION HEIGHT/PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT/PLACEMENT AND SHELVING HEIGHT/PLACEMENT, OR SUBSTITUTIONS. PROVIDE UNIT PRICE FOR ADDITIONAL SENSORS NEEDED DUE TO PRODUCT SUBSTITUTION ARE THE RESPONSIBILITY OF THE CONTRACTOR.

W. CONTRACTOR TO PROVIDE BONDING TO STEEL PER NEC250.50.

ELECTRICAL MOUNTING HEIGHTS

(UNLESS OTHERWISE NOTED)

LIGHTING CONTROL SWITCHES:	48" A.F.F. TO CENTER
RECEPTACLES & TELEPHONE/DATA OUTLETS:	18" A.F.F. TO CENTER
COUNTERTOP RECEPTACLES/TELEPHONE/DATA:	45" A.F.F. TO CENTER
WALL MOUNTED LIGHTING FIXTURES:	6' A.F.F. TO CENTER
DISCONNECT SWITCHES:	5' A.F.F. OR ON EQUIPMENT
PANEL BOARDS:	6' A.F.F. TO TOP BREAKER

ELECTRICAL LINETYPES

- ELECTRICAL TO BE DEMOLISHED
- EXISTING UNDERGROUND ELECTRICAL
- CABLE TV LINE
- TELEPHONE LINE
- UNDERGROUND TELEPHONE LINE
- OVERHEAD ELECTRICAL SERVICE, PRIMARY OR SECONDARY
- UNDERGROUND ELECTRICAL SERVICE, PRIMARY OR SECONDARY
- LOW VOLTAGE
- ELECTRICAL LINE
- COMMUNICATIONS LINE
- CABLE TRAY
- CONDUIT CONCEALED IN CONSTRUCTION IN FINISHED AREAS, EXPOSED IN UNFINISHED AREAS
- CONDUIT CONCEALED IN OR UNDER SLAB
- NON-RIGID RACEWAY SYSTEM
- CONDUIT TURNING UP
- CONDUIT TURNING DOWN

WIRE AND CONDUIT CHART

(WIRE SIZES INDICATED ARE FOR SINGLE PHASE (120V) BRANCH CIRCUITS LESS THAN 50' AND TWO AND THREE PHASE (208V) CIRCUITS LESS THAN 100' WHERE CIRCUIT LENGTH EXCEED THESE DISTANCES INCREASE THE CONDUCTOR BY ONE SIZE.) IF THERE IS A AMPACITY AND POLE NOT LISTED THE CONTRACTOR IS RESPONSIBLE TO CONTACT ENGINEER DURING BIDDING FOR INFORMATION

CIRCUIT	WIRE AND CONDUIT
1P 20A	2-#12 THHN CU, 1-#12 THHN CU GND 3/4" CONDUIT
1P 30A	2-#10 THHN CU, 1-#10 THHN CU GND 3/4" CONDUIT
2P 20A	3-#12 THHN CU, 1-#12 THHN CU GND 3/4" CONDUIT
2P 30A	3-#10 THHN CU, 1-#10 THHN CU GND 3/4" CONDUIT
2P 40A	3-#8 THHN CU, 1-#10 THHN CU GND 3/4" CONDUIT
2P 50A	3-#8 THHN CU, 1-#10 THHN CU GND 3/4" CONDUIT
3P 20A	4-#12 THHN CU, 1-#12 THHN CU GND 3/4" CONDUIT
3P 30A	4-#10 THHN CU, 1-#10 THHN CU GND 3/4" CONDUIT
3P 40A	4-#8 THHN CU, 1-#10 THHN CU GND 1" CONDUIT
3P 50A	4-#8 THHN CU, 1-#10 THHN CU GND 1" CONDUIT
3P 60A	4-#6 THHN CU, 1-#10 THHN CU GND 1" CONDUIT
3P 80A	4-#3 THHN CU, 1-#8 THHN CU GND 1" 1/4" CONDUIT
3P 100A	4-#3 THHN CU, 1-#8 THHN CU GND 1" 1/2" CONDUIT
3P 200A	4-3/0 THHN CU, 1-#6 THHN CU GND 2-1/2" CONDUIT
3P 225A	4-4/0 THHN CU, 1-#6 THHN CU GND 2-1/2" CONDUIT

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MFR/MODEL NO.	REMARKS
	SURFACE CEILING FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	RECESSED CEILING LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	PENDANT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	WALL MOUNTED LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	IN GROUND LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	FAN LIGHT COMBINATION	REFER TO LIGHT FIXTURE SCHEDULE	–
	1X4 SURFACE CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	2X2 SURFACE CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	2X4 SURFACE CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	1X4 RECESSED CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	2X2 RECESSED CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	2X4 RECESSED CEILING MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	SURFACE WALL MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	PENDANT/CHAIN MOUNT LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
	EXIT SIGN CEILING MOUNT	REFER TO LIGHT FIXTURE SCHEDULE	TIED TO LOCAL AREA CIRCUIT AHEAD OF ANY SWITCHING MEANS
	EXIT SIGN WALL MOUNT	REFER TO LIGHT FIXTURE SCHEDULE	TIED TO LOCAL AREA CIRCUIT AHEAD OF ANY SWITCHING MEANS
	EXIT SIGN WALL MOUNT WITH EMERGENCY HEADS	REFER TO LIGHT FIXTURE SCHEDULE	TIED TO LOCAL AREA CIRCUIT AHEAD OF ANY SWITCHING MEANS
	EMERGENCY BATTERY LIGHT	REFER TO LIGHT FIXTURE SCHEDULE	TIED TO LOCAL AREA CIRCUIT AHEAD OF ANY SWITCHING MEANS
	REMOTE EMERGENCY HEADS	REFER TO LIGHT FIXTURE SCHEDULE	TIED TO LOCAL AREA CIRCUIT AHEAD OF ANY SWITCHING MEANS
	CEILING MOUNT FIXTURE PROVIDING EMERGENCY ILLUMINATION	REFER TO LIGHT FIXTURE SCHEDULE	–
	FLUORESCENT FIXTURE PROVIDING EMERGENCY ILLUMINATION	REFER TO LIGHT FIXTURE SCHEDULE	–
	EXTERIOR AREA LIGHT FIXTURE	REFER TO LIGHT FIXTURE SCHEDULE	–
$	SINGLE POLE SWITCH	PASS AND SEYMOUR PS20AC1	–
$3	THREE WAY SWITCH	PASS AND SEYMOUR PS20AC3	–
$4	FOUR WAY SWITCH	PASS AND SEYMOUR PS20AC4	–
$T	TIMER SWITCH	WATTSTOPPER TS-400	–
$OC	OCCUPANCY SENSOR	SENSOR SWITCH WSD	WALL SWITCH DECORATOR SENSOR
$D	DIMMING SWITCH	PASS AND SEYMOUR 93844	–
	DUAL LEVEL SWITCH	–	–
	CEILING MOUNT OCCUPANCY SENSOR	–	–
	WALL MOUNT OCCUPANCY SENSOR	–	–
PC	PHOTOCELL	TORK 2000 SERIES	CONTROL FOR ALL EXTERIOR FIXTURES
	DUPLEX RECEPTACLE	PASS AND SEYMOUR PS5362	20A RATING
GFI	GFI PROTECTED RECEPTACLE	PASS AND SEYMOUR PS2094	20A RATING
C	COUNTERTOP RECEPTACLE	PASS AND SEYMOUR PS5362	20A RATING
WP	WEATHERPROOF RECEPTACLE	PASS AND SEYMOUR PS2094	GFI PROTECT., PROVIDE TAYMAC 20510 COVER
	QUADRUPLEX RECEPTACLE	PASS AND SEYMOUR PS5262	–
	DUPLEX FLOOR BOX RECEPTACLE	–	PROVIDE APPROPRIATE FLANGE FOR MOUNTING FLUSH TO FLOOR
	QUADRUPLEX FLOOR BOX RECEPTACLE	–	PROVIDE APPROPRIATE FLANGE FOR MOUNTING FLUSH TO FLOOR
	208/220V RECEPTACLE	PASS AND SEYMOUR 5851	COORDINATE AMP RATING WITH EQUIPMENT
	SPECIAL PURPOSE RECEPTACLE	–	–
	FUSED DISCONNECT	CUTLER HAMMER/SQUARE D	–
	JUNCTION BOX	–	–
	DATA/TELEPHONE NETWORK JACK	–	–
	TELEPHONE JACK	–	–
WT	WALL MOUNTED TELEPHONE	–	–
	DATA NETWORK JACK	–	–
	DATA/TELEPHONE NETWORK FLOOR JACK	WIREMOLD PFB	PROVIDE APPROPRIATE FLANGE FOR MOUNTING FLUSH TO FLOOR
	CABLE TELEVISION OUTLET	–	–
H	HEAT DETECTOR	FCI	–
S	SMOKE DETECTOR	FCI	ADDRESSABLE PHOTOELECTRIC
S D	DUCT SMOKE DETECTOR	FCI	ADDRESSABLE PHOTOELECTRIC
B R	BEAM SMOKE DETECTOR	–	S-SENDING UNIT / R-RECIEVING UNIT
	AUDIO/VISUAL FIRE ALARM DEVICE	FCI	E-SERIES
	VISUAL FIRE ALARM DEVICE	FCI	E-SERIES
B	BELL	–	–
F	MANUAL FIRE ALARM PULL STATION	FCI	DUAL ACTION
FS	FLOW SWITCH	–	–
TS	TAMPER SWITCH	–	–
FACP	FIRE ALARM CONTROL PANEL	FCI IDENTIFLEX 602 (SIEMENS)	–
FSA	FIRE ALARM ANNUNCIATOR	–	–
WP	SECURITY CAMERA	–	WP-WEATHERPROOF
CR	SECURITY ACCESS CARD READER	–	–
K	KEYPAD	–	–
DC	DOOR CONTACT	–	–
WC	WINDOW CONTACT	–	–
MS	MOTION SENSOR	–	–
ES	ELECTRONIC DOOR STRIKE	–	–
B	DOORBELL	–	–
S	CEILING MOUNTED SPEAKER	–	–
	SPEAKER HORN	–	–
S	WALL MOUNTED SPEAKER	–	–
IC	FLUSH MOUNTED INTERCOM	–	–
MI	MASTER INTERCOM	–	–
VC	VOLUME CONTROL	–	–

LDG
Larson Design Group
1000 COMMERCE PARK DRIVE
SUITE 201
WILLIAMSPORT, PA 17701
(877) 323-6603

STATE OF MARYLAND
STEVEN B. SCHAFFER
No. 53477
PROFESSIONAL ENGINEER
SEAL 10/06/2023

FedEx Ground
CLIENT

MARK	DATE	COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740

LOW VOLTAGE PLAN

Date: X-XX-2023
Project No.: 12392-010
Sheet No.: **E0.1**

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EXISTING WORK

A. PRIOR TO CONSTRUCTION & INSTALLATION, CONTRACTOR TO VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT/ENGINEER OF CONFLICTS OR CONDITIONS WHICH INTERFERE WITH INSTALLATION AS SET FORTH IN CONTRACT DOCUMENTS.
B. CONTRACTOR RESPONSIBLE FOR ALL NEW FLOOR OPENINGS, EXCAVATIONS, AND PENETRATIONS,UNLESS SPECIFICALLY NOTED. UNLESS SPECIFICALLY NOTED, UPON COMPLETION, ALL PENETRATIONS TO BE SEALED TO MAINTAIN FIRE RATING AS SPECIFIED ON ARCHITECTURAL DRAWINGS.
C. ALL CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS CLEARLY INDICATED AS PART OF ANOTHER PRIME CONTRACT.
D. COORDINATE ANY NEW ROOF PENETRATIONS WITH THE OTHER TRADES.
E. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
F. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
G. MAINTAIN ACCESS TO EXISTING BOXES AND OTHER INSTALLATIONS REMAINING ACTIVE AND REQUIRING ACCESS. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL.
H. EXTENC EXISTING RACEWAY AND BOX INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, OR AS SPECIFIED.
I. CLEAN AND REPAIR EXISTING COMPONENTS TO REMAIN OR TO BE REINSTALLED.
J. PROVIDE ACCESS TO EXISTING WIRING CONNECTIONS REMAINING ACTIVE AND REQUIRING ACCESS. MODIFY INSTALLATION OR INSTALL ACCESS PANEL.
K. EXTEND EXISTING CIRCUITS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, OR AS SPECIFIED.
L. RING OUT CIRCUITS IN EXISTING PANEL AFFECTED BY THE WORK. WHERE ADDITIONAL CIRCUITS ARE NEEDED, REUSE CIRCUITS AVAILABLE FOR REUSE. INSTALL NEW BREAKERS.
M. TAG UNUSED CIRCUITS AS SPARE AND SWITCH BREAKER TO THE "OFF" POSITION.
N. WHERE EXISTING CIRCUITS ARE INDICATED TO BE REUSED, USE SENSING MEASURING DEVICES TO VERIFY CIRCUITS FEEDING PROJECT AREA OR ARE NOT IN USE.
O. PROVIDE NEW UPDATED DIRECTORIES WHERE MORE THAN THREE CIRCUITS HAVE BEEN MODIFIED OR REWIRED.
P. IDENTIFY SALVAGE ITEMS IN COOPERATION WITH OWNER. REMOVE AND PROTECT ITEMS TO BE SALVAGED AND TURN OVER TO OWNER.
Q. CAREFULLY REMOVE EQUIPMENT, MATERIALS, OR FIXTURES WHICH ARE TO BE REUSED.

MINOR ELECTRICAL DEMOLITION

A. DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO ARCHITECT/ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
B. CEASE OPERATIONS IMMEDIATELY WHEN STRUCTURE APPEARS TO BE IN DANGER AND NOTIFY ARCHITECT/ENGINEER. DO NOT RESUME OPERATIONS UNTIL DIRECTED.
C. VERIFY WIRING AND EQUIPMENT INDICATED TO BE DEMOLISHED SERVE ONLY ABANDONED FACILITIES.
D. PROVIDE TEMPORARY EGRESS SIGNAGE AND EMERGENCY LIGHTING.
E. DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL. REMOVE CONDUIT, WIRE, BOXES, AND FASTENING DEVICES TO AVOID ANY INTERFERENCE WITH NEW INSTALLATION.
F. INSTALL TEMPORARY WIRING AND CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION.
G. REMOVE EXPOSED ABANDONED WIRE, CABLE, CONDUIT, GROUNDING AND BONDING COMPONENTS, FASTENERS AND SUPPORTS, AND ELECTRICAL IDENTIFICATION COMPONENTS, INCLUDING ABANDONED COMPONENTS ABOVE ACCESSIBLE CEILING FINISHES. CUT EMBEDDED CONDUITS AND SUPPORT ELEMENTS FLUSH WITH WALLS AND FLOORS. PATCH CONCRETE SURFACES DAMAGED BY REMOVAL OF EXISTING COMPONENTS.
H. DISCONNECT ABANDONED CIRCUITS AND OUTLETS AND REMOVE ABANDONED RACEWAY, OUTLETS, BOXES, WIRE, AND CABLE INCLUDING ABOVE ACCESSIBLE CEILING FINISHES. CUT RACEWAY FLUSH WITH WALLS AND FLOORS, AND PATCH SURFACES. REMOVE CONCEALED ABANDONED RACEWAY TO ITS SOURCE.
I. RECONNECT EQUIPMENT BEING DISTURBED BY RENOVATION WORK AND REQUIRED FOR CONTINUED SERVICE TO NEAREST AVAILABLE PANEL. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
J. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
K. CLEAN AND REPAIR EXISTING EQUIPMENT TO REMAIN (AFFECTED BY THE SCOPE OF THE PROJECT) OR TO BE REINSTALLED.
L. PROTECT AND RETAIN POWER TO EXISTING ACTIVE EQUIPMENT REMAINING.
M. CAP ABANDONED EMPTY CONDUIT AT BOTH ENDS AND MARK AS SPARE.

RACEWAY AND BOXES

A. PROVIDE RACEWAY AND BOXES LOCATED AS INDICATED, AND AT OTHER LOCATIONS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, AND COMPLIANCE WITH REGULATORY REQUIREMENTS. RACEWAY AND BOXES ARE SHOWN IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. PROVIDE RACEWAY TO COMPLETE WIRING SYSTEM.
B. UNDERGROUND MORE THAN 5 FEET OUTSIDE FOUNDATION WALL: PROVIDE SCHEDULE 80 PVC. PROVIDE CAST METAL BOXES OR NONMETALLIC HANDHOLES WHERE REQUIRED.
C. UNDERGROUND WITHIN 5 FEET FROM FOUNDATION WALL: PROVIDE RIGID STEEL CONDUIT OR THICKWALL NONMETALLIC CONDUIT (SCHEDULE 80 PVC). PROVIDE CAST METAL OR NONMETALLIC BOXES.
D. IN OR UNDER SLAB ON GRADE: PROVIDE THICK WALL NONMETALLIC CONDUIT. PROVIDE CAST OR NONMETALLIC METAL BOXES.
E. OUTDOOR LOCATIONS, ABOVE GRADE: PROVIDE RIGID STEEL CONDUIT. PROVIDE CAST METAL OR NONMETALLIC OUTLET, PULL, AND JUNCTION BOXES.
F. IN SLAB ABOVE GRADE: PROVIDE THICKWALL NONMETALLIC CONDUIT. PROVIDE CAST NONMETALLIC BOXES.
G. WET AND DAMP LOCATIONS: PROVIDE THICKWALL NONMETALLIC CONDUIT. PROVIDE CAST METAL OR NONMETALLIC OUTLET, JUNCTION, AND PULL BOXES. PROVIDE FLUSH MOUNTING OUTLET BOX IN FINISHED AREAS.
H. CONCEALED DRY LOCATIONS: PROVIDE ELECTRICAL METALLIC TUBING. PROVIDE SHEET-METAL BOXES. PROVIDE FLUSH MOUNTING OUTLET BOX IN FINISHED AREAS. PROVIDE HINGED ENCLOSURE FOR LARGE PULL BOXES.
I. MINIMUM RACEWAY SIZE: 3/4 INCH UNLESS OTHERWISE SPECIFIED.
J. ARRANGE RACEWAY AND BOXES TO MAINTAIN HEADROOM AND PRESENT NEAT APPEARANCE. GROUP RELATED RACEWAY; SUPPORT USING CONDUIT RACK; PROVIDE SPACE ON EACH FOR 25 PERCENT ADDITIONAL RACEWAYS.
K. RACEWAY ROUTING IS SHOWN IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. ROUTE TO COMPLETE WIRING SYSTEM.
L. DO NOT SUPPORT RACEWAY WITH WIRE, PERFORATED PIPE STRAPS, CEILING SUPPORT WIRES OR OTHER PIPING SYSTEMS.
M. ROUTE EXPOSED & ABOVE ACCESSIBLE CEILINGS RACEWAY PARALLEL AND PERPENDICULAR TO WALLS.
N. DO NOT CROSS CONDUITS IN SLAB.
O. INSTALL NO MORE THAN EQUIVALENT OF THREE 90 DEGREE BENDS BETWEEN BOXES. INSTALL CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION, AS AROUND BEAMS. INSTALL FACTORY ELBOWS FOR BENDS IN METAL CONDUIT LARGER THAN 2 INCH SIZE.
P. AVOID MOISTURE TRAPS; INSTALL JUNCTION BOX WITH DRAIN FITTING AT LOW POINTS IN CONDUIT SYSTEM.
Q. INSTALL FITTINGS TO ACCOMMODATE EXPANSION AND DEFLECTION WHERE RACEWAY CROSSES SEISMIC, CONTROL AND EXPANSION JOINTS.
R. INSTALL SUITABLE PULL STRING OR CORD IN EACH EMPTY RACEWAY EXCEPT SLEEVES AND NIPPLES.
S. CLOSE ENDS AND UNUSED OPENINGS IN WIREWAY.
T. INSTALL PULL BOXES AND JUNCTION BOXES ABOVE ACCESSIBLE CEILINGS AND IN UNFINISHED AREAS ONLY.
U. IN ACCESSIBLE CEILING AREAS: INSTALL OUTLET AND JUNCTION BOXES NO MORE THAN 6 INCHES FROM CEILING ACCESS PANEL OR FROM REMOVABLE RECESSED LUMINAIRE.
V. LOCATE FLUSH MOUNTING BOX IN MASONRY WALL TO REQUIRE CUTTING OF MASONRY UNIT CORNER ONLY. COORDINATE MASONRY CUTTING TO ACHIEVE NEAT OPENING.
W. DO NOT INSTALL FLUSH MOUNTING BOX BACK-TO-BACK IN WALLS; INSTALL WITH MINIMUM 6 INCHES SEPARATION. INSTALL WITH MINIMUM 24 INCHES SEPARATION IN ACOUSTIC RATED WALLS.
X. DO NOT FASTEN BOXES TO CEILING SUPPORT WIRES OR OTHER PIPING SYSTEMS.
Y. SUPPORT BOXES INDEPENDENTLY OF CONDUIT.
Z. USE FLUSH MOUNTING OUTLET BOX IN FINISHED AREAS.
AA. SET FLOOR BOXES LEVEL AND FLUSH WITH FINISH FLOORING MATERIAL
AB. INSTALL CONDUIT TO PRESERVE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENTS.
AC. ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK OR THROUGH SUITABLE ROOF JACK WITH PITCH POCKET
AD. ALIGN ADJACENT WALL MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES.

ELECTRICAL SPECIFICATIONS

A. ALL ELECTRICAL WORK TO CONFORM TO:
   1. NFPA 70 (NATIONAL ELECTRIC CODE) – CURRENT VERSION
   2. NECA (NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION) – STANDARD OF INSTALLATION
   3. NETA ATS (INTERNATIONAL ELECTRICAL TESTING ASSOCIATION) – ACCEPTANCE TESTING SPECIFICATIONS FOR ELECTRICAL POWER DISTRIBUTION EQUIPMENT AND SYSTEMS.
   4. NFPA 72 (NATIONAL FIRE PROTECTION ASSOCIATION – NATIONAL FIRE ALARM CODE).
   5. ALL APPLICABLE LOCAL CODES.
B. ALL WORK SHOWN ON THIS DRAWING IS THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS CLEARLY INDICATED AS PART OF ANOTHER PRIME CONTRACT.
C. PROVIDE TEMPORARY POWER REQUIRED FOR ALL TRADES.
D. MATCH OWNERS EXISTING STANDARD EQUIPMENT.
E. COORDINATE WORK TO MINIMIZE OUTAGE DURATION.
F. OBTAIN ALL REQUIRED PERMITS & INSPECTIONS.
G. PROVIDE FOR ELECTRICAL INSPECTIONS AND SUBMIT REPORTS TO THE OWNER.
H. SUBMIT O&M MANUALS TO OWNER UPON COMPLETION OF WORK.
I. PROVIDE TRAINING SESSION FOR DESIGNATED MAINTENANCE PERSONNEL.
J. PROVIDE SUBMITTALS FOR ALL ELECTRICAL EQUIPMENT, EXCLUDING WIRE, CONDUIT, AND FASTENERS.
   1. HANDHOLES.
   2. PANELBOARDS – SHOP DRAWINGS (INDICATE OUTLINE AND SUPPORT POINT DIMENSIONS, VOLTAGE, MAIN BUS AMPACITY, INTEGRATED SHORT CIRCUIT AMPERE RATING, CIRCUIT BREAKER AND FUSIBLE SWITCH ARRANGEMENT AND SIZES) AND CATALOG DATA SHOWING SPECIFIED FEATURES OF STANDARD PRODUCTS.
   3. ENCLOSED SWITCHES – SWITCH RATINGS AND ENCLOSURE DIMENSIONS.
   4. DEVICES – MANUFACTURER'S CATALOG INFORMATION SHOWING DIMENSIONS, COLORS, AND CONFIGURATIONS.
   5. LUMINAIRES (INCLUDING EMERGENCY & EXIT FIXTURES) – CATALOG INFORMATION SHOWING DIMENSIONS, RATINGS, AND PERFORMANCE DATA.
K. SELECT MATERIALS, SIZES, AND TYPES OF ANCHORS, FASTENERS, AND SUPPORTS TO CARRY LOADS OF EQUIPMENT AND RACEWAY, INCLUDING WEIGHT OF WIRE AND CABLE IN RACEWAY.

GROUNDING SYSTEMS

A. GROUNDING SYSTEM RESISTANCE: 25 OHMS.
B. GROUNDING SYSTEMS:
   1. MECHANICAL CONNECTORS: BRONZE CONNECTORS, SUITABLE FOR GROUNDING AND BONDING APPLICATIONS, IN CONFIGURATIONS REQUIRED FOR PARTICULAR INSTALLATION.
C. EXOTHERMIC CONNECTIONS: EXOTHERMIC MATERIALS, ACCESSORIES, AND TOOLS FOR PREPARING AND MAKING PERMANENT FIELD CONNECTIONS BETWEEN GROUNDING SYSTEM COMPONENTS.
D. WIRE: STRANDED COPPER.
E. GROUNDING ELECTRODE CONDUCTOR: SIZE TO MEET NFPA 70 AND LOCAL MUNICIPALITY REQUIREMENTS.
F. INSTALLATION:
   1. EQUIPMENT GROUNDING CONDUCTOR: INSTALL SEPARATE, INSULATED CONDUCTOR WITHIN EACH FEEDER AND BRANCH CIRCUIT RACEWAY. TERMINATE EACH END ON SUITABLE LUG, BUS, OR BUSHING.
   2. DO NOT FASTEN SUPPORTS TO PIPES, DUCTS, MECHANICAL EQUIPMENT, OR CONDUIT.
   3. OBTAIN PERMISSION FROM ARCHITECT/ENGINEER BEFORE USING POWDER-ACTUATED ANCHORS OR DRILLING OR CUTTING STRUCTURAL MEMBERS.

HANGERS AND SUPPORTS

A. ANCHORS & FASTENERS TO BE CORROSION RESISTANT.
B. ANCHOR AND FASTEN ELECTRICAL PRODUCTS TO BUILDING ELEMENTS AND FINISHES AS FOLLOWS:
   1. CONCRETE STRUCTURAL ELEMENTS: PROVIDE EXPANSION ANCHORS.
   2. STEEL STRUCTURAL ELEMENTS: PROVIDE BEAM CLAMPS AND SPRING STEEL CLIPS.
   3. CONCRETE SURFACES: PROVIDE EXPANSION ANCHORS.
   4. HOLLOW MASONRY, PLASTER, AND GYPSUM BOARD PARTITIONS: PROVIDE TOGGLE BOLTS AND HOLLOW WALL FASTENERS.
   5. SOLID MASONRY WALLS: PROVIDE EXPANSION ANCHORS.
   6. SHEET METAL: PROVIDE SHEET METAL SCREWS.
   7. WOOD ELEMENTS: PROVIDE WOOD SCREWS.
C. SUPPORTS:
   1. FABRICATE SUPPORTS FROM STRUCTURAL STEEL OR FORMED STEEL MEMBERS. RIGIDLY WELD MEMBERS OR INSTALL HEXAGON HEAD BOLTS TO PRESENT NEAT APPEARANCE WITH ADEQUATE STRENGTH AND RIGIDITY. INSTALL SPRING LOCK WASHERS UNDER NUTS.
   2. INSTALL SURFACE MOUNTED CABINETS AND PANELBOARDS WITH MINIMUM OF FOUR ANCHORS.
   3. IN WET AND DAMP LOCATIONS INSTALL STEEL CHANNEL SUPPORTS TO STAND CABINETS AND PANELBOARDS 1 INCH OFF WALL.
   4. INSTALL SHEET METAL CHANNEL TO BRIDGE STUDS ABOVE AND BELOW CABINETS AND PANELBOARDS RECESSED IN HOLLOW PARTITIONS.

BUILDING WIRE AND CABLE

A. PROVIDE PRODUCTS AS FOLLOWS:
   1. SOLID CONDUCTOR FOR FEEDERS AND BRANCH CIRCUITS 10 AWG AND SMALLER.
   2. STRANDED CONDUCTORS FOR CONTROL CIRCUITS.
   3. CONDUCTOR NOT SMALLER THAN #12 AWG FOR POWER AND LIGHTING CIRCUITS.
   4. CONDUCTOR NOT SMALLER THAN #16 AWG FOR CONTROL CIRCUITS.
   5. 10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET.
   6. 10 AWG CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET.
B. WIRING METHODS: PROVIDE THE FOLLOWING WIRING METHODS:
   1. CONCEALED DRY INTERIOR LOCATIONS: USE ONLY BUILDING WIRE, TYPE THHN/THWN INSULATION, IN RACEWAY.
   2. ABOVE ACCESSIBLE CEILINGS: USE ONLY BUILDING WIRE, TYPE THHN/THWN INSULATION, IN RACEWAY.
   3. WET OR DAMP INTERIOR LOCATIONS: USE ONLY BUILDING WIRE, TYPE THHN/THWN INSULATION, IN RACEWAY.
   4. UNDERGROUND LOCATIONS: USE ONLY BUILDING WIRE, TYPE THHN/THWN INSULATION, IN RACEWAY.
C. WIRE AND CABLE ROUTING INDICATED IS APPROXIMATE UNLESS DIMENSIONED. INCLUDE WIRE AND CABLE LENGTHS WITHIN 10 FT OF LENGTH SHOWN.
D. COMPLETELY AND THOROUGHLY SWAB RACEWAY BEFORE INSTALLING WIRE.
E. NEATLY TRAIN AND LACE WIRING INSIDE BOXES, EQUIPMENT, AND PANELBOARDS.
F. SPECIAL TECHNIQUES--BUILDING WIRE IN RACEWAY:
   1. PULL CONDUCTORS INTO RACEWAY AT SAME TIME.
   2. INSTALL BUILDING WIRE 4 AWG AND LARGER WITH PULLING EQUIPMENT.
G. SPECIAL TECHNIQUES – CABLE:
   1. PROTECT EXPOSED CABLE FROM DAMAGE.
   2. SUPPORT CABLES ABOVE ACCESSIBLE CEILING, USING SPRING METAL CLIPS OR CABLE TIES TO SUPPORT CABLES FROM STRUCTURE OR CEILING SUSPENSION SYSTEM. DO NOT REST CABLE ON CEILING PANELS.
   3. USE SUITABLE CABLE FITTINGS AND CONNECTORS.
H. SPECIAL TECHNIQUES – DIRECT BURIAL CABLE:
   1. TRENCH AND BACKFILL FOR DIRECT BURIAL CABLE INSTALLATION. INSTALL WARNING TAPE ALONG ENTIRE LENGTH OF DIRECT BURIAL CABLE, WITHIN 3 INCHES OF GRADE.
   2. USE SUITABLE DIRECT BURIAL CABLE FITTINGS AND CONNECTORS.
I. SPECIAL TECHNIQUES – WIRING CONNECTIONS:
   1. CLEAN CONDUCTOR SURFACES BEFORE INSTALLING LUGS AND CONNECTORS.
   2. MAKE SPLICES, TAPS, AND TERMINATIONS TO CARRY FULL AMPACITY OF CONDUCTORS WITH NO PERCEPTIBLE TEMPERATURE RISE.
   3. TAPE UNINSULATED CONDUCTORS AND CONNECTORS WITH ELECTRICAL TAPE TO 150 PERCENT OF INSULATION RATING OF CONDUCTOR.
   4. INSTALL SPLIT BOLT CONNECTORS OR MULTI-TAP BLOCKS FOR COPPER CONDUCTOR SPLICES AND TAPS, 6 AWG AND LARGER.
   5. INSTALL SOLDERLESS PRESSURE CONNECTORS WITH INSULATING COVERS FOR COPPER CONDUCTOR SPLICES AND TAPS, 8 AWG AND SMALLER.
   6. INSTALL INSULATED SPRING WIRE CONNECTORS WITH PLASTIC CAPS FOR COPPER CONDUCTOR SPLICES AND TAPS, 10 AWG AND SMALLER.
   7. TERMINATE EXISTING ALUMINUM CONDUCTORS WITH TIN-PLATED, ALUMINUM-BODIED COMPRESSION CONNECTORS ONLY. FILL WITH ANTI-OXIDANT COMPOUND BEFORE INSTALLING CONDUCTOR.
   8. INSTALL SUITABLE REDUCING CONNECTORS OR MECHANICAL CONNECTOR ADAPTORS FOR CONNECTING ALUMINUM CONDUCTORS TO COPPER CONDUCTORS.
J. GROUND CONDUCTORS:
   1. FOR 6 AWG AND SMALLER: GREEN.
   2. FOR 4 AWG AND LARGER: IDENTIFY WITH GREEN TAPE AT BOTH ENDS AND VISIBLE POINTS INCLUDING JUNCTION BOXES.
K. ALL WIRING SHALL BE #12 CU UNLESS SPECIFIED OTHERWISE.

IDENTIFICATION

A. IDENTIFY ELECTRICAL COMPONENTS AS FOLLOWS:
   1. ENGRAVED LAMINATED PLASTIC NAMEPLATE FOR EACH ELECTRICAL DISTRIBUTION, CONTROL EQUIPMENT ENCLOSURE, AND COMMUNICATION CABINET.
   2. CLOTH TYPE WIRE MARKER FOR EACH CONDUCTOR AT PANELBOARD GUTTERS, AND PULL BOXES.
   3. RACEWAY MARKER FOR EACH RACEWAY WHERE IT STUBS ABOVE THE CEILING OR BELOW THE FLOOR.
   4. UNDERGROUND WARNING TAPE ALONG LENGTH OF EACH UNDERGROUND RACEWAY OR CABLE, 3" BELOW FINISHED GRADE. TAPE TO BE 4-INCH WIDE PLASTIC TAPE, DETECTABLE TYPE, COLORED YELLOW WITH SUITABLE WARNING LEGEND DESCRIBING BURIED ELECTRICAL LINES.

SEALING AND FIREPROOFING

A. INSTALL FIRESTOPPING TO MAINTAIN ALL RATINGS AT ALL FIRE SEPARATIONS.
B. FIRE RATED SURFACE:
   1. SEAL OPENING AT AS FOLLOWS:
C. INSTALL 12 GAGE STEEL SLEEVE THROUGH OPENING AND EXTENDING BEYOND MINIMUM OF 1 INCH ON EACH SIDE OF BUILDING ELEMENT.
D. SIZE SLEEVE ALLOWING MINIMUM OF 1 INCH VOID BETWEEN SLEEVE AND BUILDING ELEMENT.
E. PACK VOID WITH BACKING MATERIAL.
F. SEAL ENDS OF SLEEVE WITH UL LISTED FIRE RESISTIVE SILICONE COMPOUND TO MEET FIRE RATING OF STRUCTURE PENETRATED.
   1. WHERE CABLE TRAY, BUS, CABLE BUS, CONDUIT, WIREWAY, OR TROUGH PENETRATES FIRE RATED SURFACE, INSTALL FIRESTOPPING PRODUCT IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
G. NON-RATED SURFACES:
   1. SEAL OPENING THROUGH NON-FIRE RATED ROOF OPENING AS FOLLOWS:
H. INSTALL 12 GAGE STEEL SLEEVE THROUGH OPENING AND EXTENDING BEYOND MINIMUM OF 1 INCH ON EACH SIDE OF BUILDING ELEMENT.
I. SIZE SLEEVE ALLOWING MINIMUM OF 1 INCH VOID BETWEEN SLEEVE AND BUILDING ELEMENT.
J. INSTALL TYPE OF FIRESTOPPING MATERIAL RECOMMENDED BY MANUFACTURER.
   2. EXTERIOR WALL OPENINGS BELOW GRADE: ASSEMBLE RUBBER LINKS OF MECHANICAL SEAL TO SIZE OF CONDUIT AND TIGHTEN IN PLACE, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

PANELBOARDS

A. MANUFACTURERS:
   1. EATON/CUTLER-HAMMER.
   2. GE ELECTRICAL.
   3. SIEMENS/ITE.
   4. SQUARE D MODEL.
B. BOLT-ON CIRCUIT BREAKER TYPE, DISTRIBUTION ,LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARD.
C. PANELBOARD BUS: COPPER CURRENT CARRYING COMPONENTS, RATINGS AS INDICATED ON DRAWINGS. FURNISH COPPER GROUND BUS IN EACH PANELBOARD; FURNISH INSULATED GROUND BUS AS INDICATED ON DRAWINGS.
D. MINIMUM INTEGRATED SHORT CIRCUIT RATING: 22,000 AMPERES RMS SYMMETRICAL FOR 240 VOLT PANELBOARDS; 65,000 AMPERES RMS SYMMETRICAL FOR 480 VOLT PANELBOARDS.
E. MOLDED CASE CIRCUIT BREAKERS: NEMA AB 1, BOLT-ON TYPE THERMAL MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLE FOR ALL POLES, LISTED AS TYPE SWD FOR LIGHTING CIRCUITS, TYPE HACR FOR AIR CONDITIONING EQUIPMENT CIRCUITS, CLASS A GROUND FAULT INTERRUPTER CIRCUIT BREAKERS AS INDICATED ON DRAWINGS. DO NOT USE TANDEM CIRCUIT BREAKERS.
F. ENCLOSURE: NEMA PB 1, TYPE 1
G. CABINET BOX: 6 INCHES DEEP, 20 INCHES WIDE FOR 240 VOLT AND LESS PANELBOARDS, 20 INCHES WIDE FOR 480 VOLT PANELBOARDS.
H. CABINET FRONT: SURFACE DOOR-IN-DOOR TYPE, FASTENED WITH HINGE AND LATCH, HINGED DOOR WITH FLUSH LOCK, METAL DIRECTORY FRAME, FINISHED IN MANUFACTURER'S STANDARD GRAY ENAMEL. OUTER PANELBOARD TRIMS SHALL COVER ALL LIVE PARTS. SWITCHING DEVICE HANDLES SHALL BE ACCESSIBLE.
I. SURFACE TRIM: TRIM SHALL BE SAME HEIGHT AND WIDTH AS BOX. FLUSH TRIMS SHALL OVERLAP THE BOX BY 3/4 OF AN INCH ON ALL SIDES.
J. INSTALL RECESSED PANELBOARDS FLUSH WITH WALL FINISHES.
K. HEIGHT: 6 FEET TO TOP OF PANELBOARD; INSTALL PANELBOARDS TALLER THAN 6 FEET WITH BOTTOM NO MORE THAN 4 INCHES ABOVE FLOOR.
L. INSTALL FILLER PLATES FOR UNUSED SPACES IN PANELBOARDS.
M. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD PER ARICHTECTURAL ROOM DESIGNATIONS. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES TO BALANCE PHASE LOADS.
N. MARK UNUSED CIRCUIT BREAKERS AS SPARE AND SWITCH TO OFF POSITION.
O. MEASURE STEADY STATE LOAD CURRENTS AT EACH PANELBOARD FEEDER; REARRANGE CIRCUITS IN PANELBOARD TO BALANCE PHASE LOADS TO WITHIN 20 PERCENT OF EACH OTHER. MAINTAIN PROPER PHASING FOR MULTI-WIRE BRANCH CIRCUITS.

ENCLOSED SWITCHES

A. MANUFACTURERS:
   1. CUTLER-HAMMER.
   2. SQUARE D.
   3. GE ELECTRICAL.
   4. SIEMENS.
B. PRODUCT DESCRIPTION: NEMA KS 1, TYPE HD WITH EXTERNALLY OPERABLE HANDLE INTERLOCKED TO PREVENT OPENING FRONT COVER WITH SWITCH IN ON POSITION, ENCLOSED LOAD INTERRUPTER KNIFE SWITCH. HANDLE LOCKABLE IN OFF POSITION, WITH PROVISIONS FOR THREE PADLOCKS.
C. SWITCH MECHANISM: TO BE QUICK-MAKE, QUICK-BREAK SUCH THAT, DURING NORMAL OPERATION OF THE SWITCH, THE OPERATION OF THE CONTACTS SHALL NOT BE CAPABLE OF BEING RESTRAINED BY THE OPERATING HANDLE AFTER THE CLOSING OR OPENING ACTION OF THE CONTACTS HAS STARTED.
D. FUSE CLIPS: DESIGNED TO ACCOMMODATE NEMA FU 1, CLASS R, J FUSES.
E. ENCLOSURE: NEMA CONFIGURATION TO MEET CONDITIONS
   1. INTERIOR DRY LOCATIONS: TYPE 1.
   2. EXTERIOR LOCATIONS: TYPE 3R.
   3. INDUSTRIAL LOCATIONS: TYPE 4X.
F. SERVICE ENTRANCE: SWITCHES IDENTIFIED FOR USE AS SERVICE EQUIPMENT ARE TO BE LABELED FOR THIS APPLICATION. FURNISH SOLID NEUTRAL ASSEMBLY AND EQUIPMENT GROUND BAR.
G. FURNISH SWITCHES WITH ENTIRELY COPPER CURRENT CARRYING PARTS.
H. SWITCH RATING: HORSEPOWER RATED FOR AC AS INDICATED ON DRAWINGS.
I. SHORT CIRCUIT CURRENT RATING: 200,000 RMS SYMMETRICAL AMPERES WHEN USED WITH OR PROTECTED BY CLASS R OR CLASS J FUSES (30-600 AMPERE SWITCHES EMPLOYING APPROPRIATE FUSE REJECTION SCHEMES).
J. HEIGHT: 5 FEET TO OPERATING HANDLE.
K. INSTALL FUSES FOR FUSIBLE DISCONNECT SWITCHES.

WIRING DEVICES

A. MANUFACTURERS:
   1. PASS & SEYMOUR LEGRAND.
   2. HUBBELL.
   3. LEVITON.
   4. GENERAL ELECTRIC.
B. PRODUCT DESCRIPTION: NEMA WD 1, HEAVY-DUTY, AC ONLY SPECIFICATION GRADE SWITCH/RECEPTACLE. ALL DEVICES TO BE SPECIFICATION GRADE OR BETTER.
C. BODY / HANDLE: IVORY PLASTIC WITH TOGGLE HANDLE.
D. RATINGS: MATCH BRANCH CIRCUIT AND LOAD CHARACTERISTICS, MINIMUM 20A.
E. GFCI RECEPTACLE: CONVENIENCE RECEPTACLE WITH INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER TO MEET REGULATORY REQUIREMENTS.
E. WP RECEPTACLE: (WEATHERPROOF) TO BE GFI PROTECTED.

WALL PLATES

A. MANUFACTURERS:
   1. PASS & SEYMOUR LEGRAND.
   2. TAYMAC 20510 (WEATHERPROOF-IN-USE).
   3. HUBBELL (BELL/RACO).
   4. LEVITON.
   5. GENERAL ELECTRIC.
B. INSTALL DECORATIVE PLATES ON SWITCH, RECEPTACLE, AND BLANK OUTLETS IN FINISHED AREAS. DECORATIVE COVER PLATE: NYLON.
C. INSTALL JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS. JUMBO COVER PLATE: NYLON.
D. WEATHERPROOF COVER PLATE (RECEPTACLE): IMPACT RESISTANT PLASTIC PLATE WITH HINGED AND GASKETED DEVICE COVER. COVER TO BE RATED FOR WET LOCATION WHILE IN USE, AND TO BE LOCKABLE.
E. WEATHERPROOF COVER PLATE (SWITCH): GASKETED CAST METAL PLATE WITH HINGED AND GASKETED DEVICE COVER OR LEVER SWITCH MECHANISM. (P&S CA-31G/HUBBELL/BELL/RACO 5125 OR EQUAL)
F. KITCHEN AREAS: 302/430 STAINLESS STEEL, WEATHERPROOF FOR STARTUPS.
G. INSTALL GALVANIZED (STAMPED) STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS, ABOVE ACCESSIBLE CEILINGS, AND ON SURFACE MOUNTED OUTLETS.
H. INSTALL DEVICES PLUMB AND LEVEL.
I. INSTALL SWITCHES WITH OFF POSITION DOWN.
J. INSTALL RECEPTACLES WITH GROUNDING POLE ON TOP, OR TO THE LEFT (IF MOUNTED HORIZONTALLY.
K. CONNECT WIRING DEVICE GROUNDING TERMINAL TO OUTLET BOX WITH BONDING JUMPER AND BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR
L. CONNECT WIRING DEVICES BY WRAPPING SOLID CONDUCTOR AROUND SCREW TERMINAL. INSTALL STRANDED CONDUCTOR FOR BRANCH CIRCUITS 10 AWG AND SMALLER. WHEN STRANDED CONDUCTORS ARE USED IN LIEU OF SOLID, USE CRIMP ON FORK TERMINALS FOR DEVICE TERMINATIONS. DO NOT PLACE BARE STRANDED CONDUCTORS DIRECTLY UNDER DEVICE SCREWS.
M. ADJUST DEVICES AND WALL PLATES TO BE FLUSH AND LEVEL.

INTERIOR LUMINARIES

A. ALL FIXTURES TO BE SPECIFICATION GRADE OR BETTER.
B. PERFORMANCE REQUIREMENTS: FOR AREAS OF ASSEMBLY, SUBMIT POINT-BY-POINT LIGHT LEVEL CALCULATIONS TO VERIFY COMPLIANCE WITH DESIGN LEVELS.
C. PROVIDE COMPLETE INTERIOR LUMINAIRE ASSEMBLIES, WITH FEATURES, OPTIONS, AND ACCESSORIES AS SCHEDULED.
D. INSTALL SUSPENDED LUMINAIRES USING PENDANTS SUPPORTED FROM SWIVEL HANGERS. INSTALL PENDANT LENGTH REQUIRED TO SUSPEND LUMINAIRE AT INDICATED HEIGHT.
E. SUPPORT LUMINAIRES LARGER THAN 2 X 4 FOOT SIZE INDEPENDENT OF CEILING FRAMING.
F. INSTALL SURFACE MOUNTED LUMINAIRES PLUMB AND ADJUST TO ALIGN WITH BUILDING LINES AND WITH EACH OTHER. SECURE TO PREVENT MOVEMENT.
G. EXPOSED GRID CEILINGS: SUPPORT SURFACE-MOUNTED LUMINAIRES ON

CONDUIT AND WIRING SCHEDULE

TYPE	DESCRIPTION
1	(2) #10 AWG THWN CU, (1) #12 CU GND IN 1" PVC SCHD 40 CONDUIT
2	(2) #8 AWG THWN CU, (1) #10 CU GND IN 1" PVC SCHD 40 CONDUIT

LIGHTING FIXTURE SCHEDULE

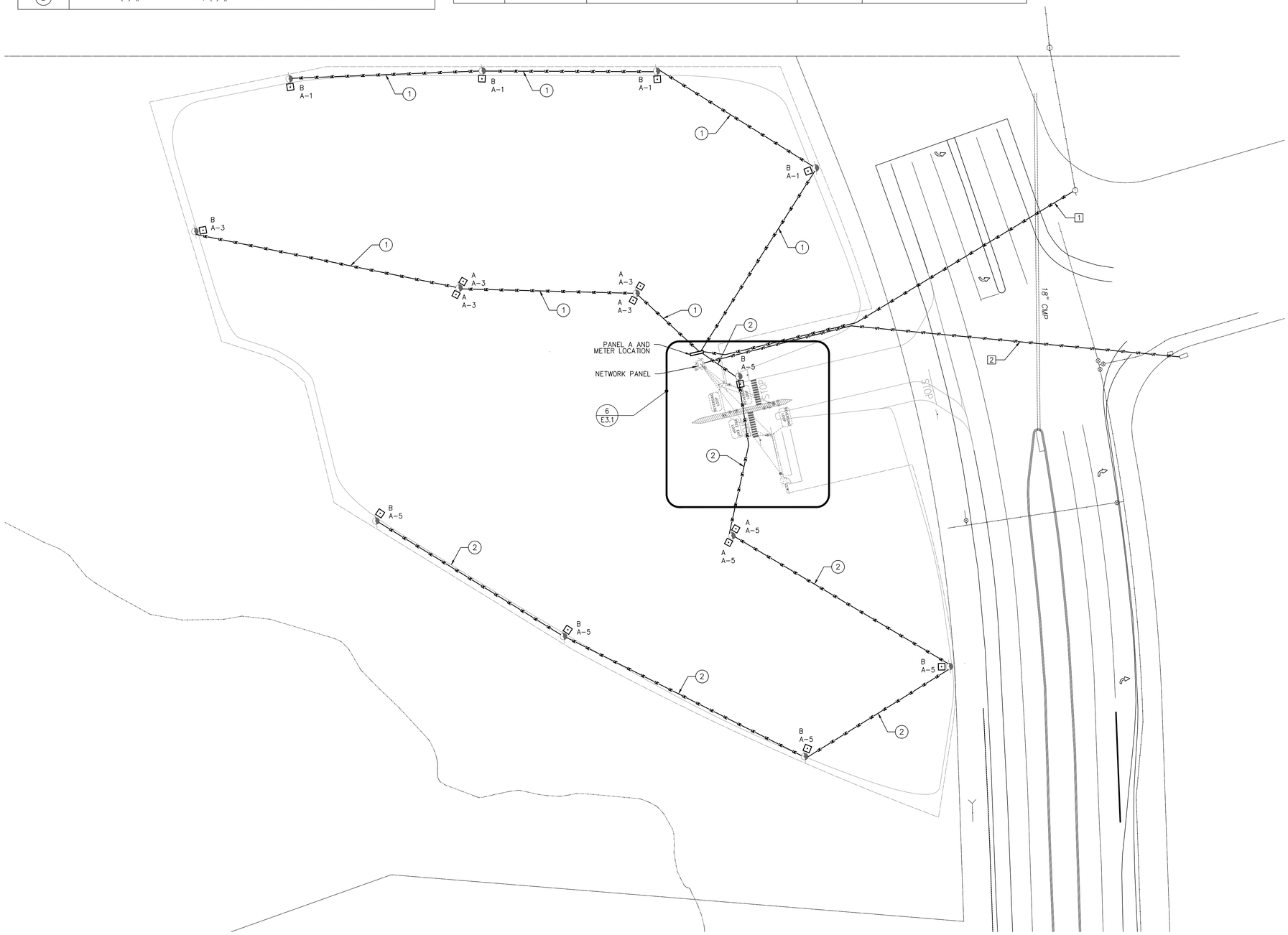
TYPE	DESCRIPTION	MANUFACTURER	WATTS	REMARKS
A	AREA LIGHT	LSI LIGHTING – MRM–LED–24L–SIL–5W–40–70CRI	160W	
B	AREA LIGHT	LSI LIGHTING – MRM–LED–24L–SIL–FT–40–70CRI–IL	160W	

ELECTRICAL GENERAL NOTES:

1. SITE ELECTRICAL CONTRACTOR TO COORDINATE CONDUIT ROUTING TO MINIMIZE INTERFERENCE WITH OTHER DISCIPLINES. KEEP ACCURATE RECORDS INDICATING THE AS–BUILT CONDUIT ROUTING FOR USE BY OTHER DISCIPLINES.
2. REFER TO LIGHTING DETAILS ON SHEET E3.1 FOR FOUNDATION AND POLE DETAILS.
3. REFER TO TRENCHING DETAILS ON SHEET E3.1.
4. ALL UNDERGROUND CONDUIT SUBJECT TO VEHICULAR TRAFFIC SHALL BE CONCRETE ENCASED.

ELECTRICAL KEYED NOTES:

1. PROVIDE (2) 4" SCH40 PVC CONDUITS FROM METER BASE TO UTILITY POLE. COORDINATE WITH UTILITY COMPANY. REFER TO DETAIL 3 ON SHEET E3.1.
2. PROVIDE (2) 4" SCH40 PVC CONDUITS FROM NETWORK PANEL TO EXISTING NETWORK CABINET. REFER TO DETAIL 3 ON SHEET E3.1.



1 E1.1 ELECTRICAL SITE PLAN
SCALE: 1" = 30'–0"

50 0 50 100 FEET
HORIZONTAL SCALE

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(877) 323-6603

STATE OF MARYLAND STEVEN B. MCCARTY No. 53477 PROFESSIONAL ENGINEER
SEAL 10/06/2023

FedEx Ground
CLIENT

MARK	DATE	COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740

LOW VOLTAGE PLAN

Date: X-XX-2023
Project No.: 12392-010
Sheet No.: **E1.1**

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1 E2.1 PHOTOMETRIC PLAN
SCALE: 1" = 30'-0"

50 0 50 100 FEET
HORIZONTAL SCALE

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STATE OF MARYLAND
STEVEN B. MCCARTY
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FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740

LOW VOLTAGE PLAN

Date: X-XX-2023
Project No.: 12392-010
Sheet No.: **E2.1**

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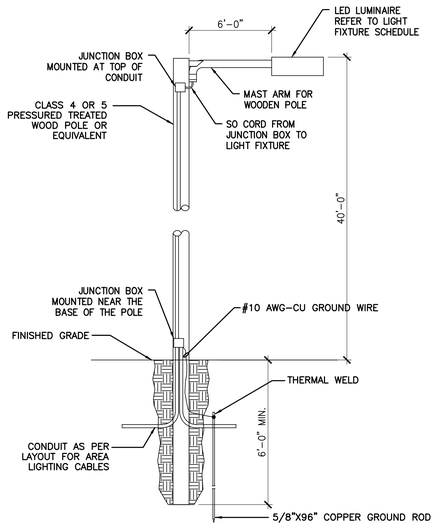
PANELBOARD A SCHEDULE

VOLTAGE: 120/240V | PHASE: 1 | WIRE: 3 | MAINS: 100A MCB | REMARKS:
BUS SIZE: 100A | BUS MATL: CU | FAULT DUTY: 22KAIC | MOUNTING: SURFACE

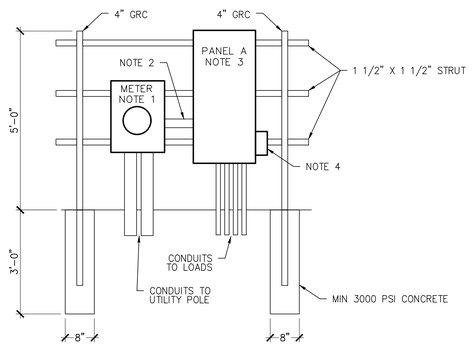
No.	SERVES	LOAD IN KVA LTG	RCPT	MTR	A/C	HTG	MISC	BRKR TRIP	P		BRKR P	TRIP	LOAD IN KVA MISC	HTG	A/C	MTR	RCPT	LTG	SERVES	No.
1	SITE LIGHTING	0.6						20	1		1	20	1.0						NETWORK CABINET	2
3	SITE LIGHTING	0.8						20	1		1	20					0.2		RECEPTACLE	4
5	SITE LIGHTING	1.1						20	1		1	20								6
7	GATE CONTROLLER						1.0	20	1		1	20								8
9	GATE CONTROLLER						1.0	20	1		1	20								10
11								20	1		1	20								12
13								20	1		1	20								14
15								20	1		1	20								16
17								20	1		1	20								18
19								20	1		1	20								20
21								20	1		1	20								22
23								20	1		1	20								24
												TOTALS	3.0	0.0	0.0	0.0	0.2	2.5	CONNECTED KVA 5.7	

ELECTRICAL KEYED NOTES:

1. PROVIDE (2) #6 AND (1) #10 THWN CU GND IN (1) 1 1/2" CONDUIT FROM THE NEW PANEL A TO THE NETWORK CABINET.
2. PROVIDE (2) #10 THWN, (1) #12 CU GND IN (1) 1" CONDUIT TO GATE MOTOR.
3. PROVIDE (1) #10 THWN, (1) #12 CU GND IN (1) 1" CONDUIT TO PEDESTRIAN GATE.
4. PROVIDE (1) 1" SCH40 PVC CONDUIT FOR GATE CONTROL WIRING.



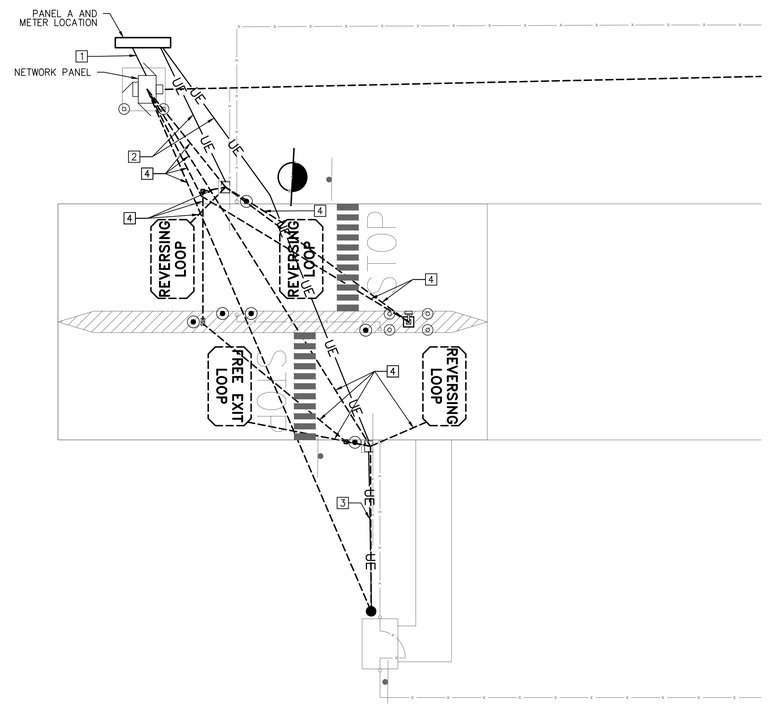
1 / E3.1 AREA LIGHTING POLE DETAIL
SCALE: NOT TO SCALE



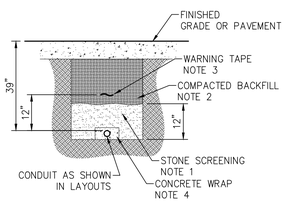
2 / E3.1 PANEL MOUNTING STRUCTURE
SCALE: NOT TO SCALE

NOTES:

1. PROVIDE UTILITY APPROVED METER BASE. COORDINATE WITH UTILITY COMPANY.
2. PROVIDE (3) #3 THWN CU IN 2" SCH40 PVC CONDUIT.
3. PROVIDE NEW 120/240V 1PH 100A PANEL A. PROVIDE (3) 10' COPPER GROUND RODS A MINIMUM OF 10' APART WITH #6 BARE COPPER BETWEEN THEM.
4. PROVIDE GFCI RECEPTACLE IN WEATHERPROOF ENCLOSURE.



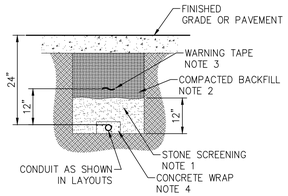
6 / E3.1 ENLARGED ELECTRICAL PLAN
SCALE: 1" = 10'-0"



3 / E3.1 UTILITY TRENCH DETAIL
SCALE: NOT TO SCALE

NOTES:

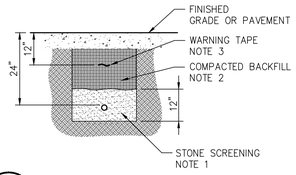
1. PROVIDE COMPACTED STONE SCREENING FREE OF STONES 1" OR LARGER IN DIAMETER OR HAVING SHARP EDGES.
2. CLEAN BACKFILL, FREE OF RUBBLE AND DEBRIS. COMPACTED IN MAXIMUN OF 4" LIFTS.
3. INSTALL ELECTRICAL CABLE WARNING TAPE, CONTINUOUS 12" ABOVE CONDUIT.
4. PROVIDE 4" CONCRETE WRAP.



4 / E-201 ROADWAY TRENCH DETAIL
SCALE: NOT TO SCALE

NOTES:

1. PROVIDE COMPACTED STONE SCREENING FREE OF STONES 1" OR LARGER IN DIAMETER OR HAVING SHARP EDGES.
2. CLEAN BACKFILL, FREE OF RUBBLE AND DEBRIS. COMPACTED IN MAXIMUM OF 4" LIFTS.
3. INSTALL ELECTRICAL CABLE WARNING TAPE, CONTINUOUS 12" ABOVE CONDUIT.
4. PROVIDE 4" CONCRETE WRAP.



5 / E3.1 TRENCH DETAIL
SCALE: NOT TO SCALE

NOTES:

1. PROVIDE COMPACTED STONE SCREENING FREE OF STONES 1" OR LARGER IN DIAMETER OR HAVING SHARP EDGES.
2. CLEAN BACKFILL, FREE OF RUBBLE AND DEBRIS. COMPACTED IN MAXIMUM OF 6" LIFTS.
3. INSTALL ELECTRICAL CABLE WARNING TAPE, CONTINUOUS 12" BELOW FINISHED GRADE.

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STATE OF MARYLAND STEVEN A. BARANCY No. 53477 PROFESSIONAL ENGINEER
SEAL 10/06/2023

FedEx Ground
CLIENT

MARK	DATE	COMMENTS

FEDEX GROUND HAGERSTOWN OFF SITE PARKING LOT UPGRADE
HALFWAY BLVD, HAGERSTOWN, MARYLAND 21740

LOW VOLTAGE PLAN

Date: X-XX-2023
Project No.: 12392-010
Sheet No.: E3.1

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WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

PRELIMINARY PLAT SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....:	Cedar Springs Business Park Lots 1 & 2
NUMBER.....:	PSP-24-001
OWNER.....:	BOWMAN 2000 LLC
LOCATION.....:	12000 GREENCASTLE Pike Hagerstown, MD 21740
DESCRIPTION.....:	This preliminary plat - site plan is for the partial development of an existing grass meadow and qualified forest into (2) mixed-use buildings (27,000 SF and 45,000 SF) and associated parking lots and a new county road. The site is situated along the east side of Greencastle Pike (MD 63) between the intersections with Heather Drive and Aberdeen Drive, within the review jurisdictions of Washington County Plan Review Department and Washington County Soil Conservation District. The site is made up of two separate properties totaling 56.81 acres. The development of the site will cause 16.1 acres of disturbance and create 7.1 acres of impervious cover.
ZONING.....:	Highway Interchange
COMP PLAN LU.....:	Industrial/Flex
PARCEL.....:	24000915
PLANNING SECTOR.....:	1
ELECTION DISTRICT.....:	24
TYPE.....:	Commercial
GROSS ACRES.....:	46.85
DWELLING UNITS.....:	0
TOTAL LOTS.....:	
DENSITY.....:	0 Units Per Acre
PLANNER.....:	Scott A Stotelmyer
ENGINEER.....:	FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....:	August 16, 2024

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....:	Yes
WETLANDS.....:	None
WATERSHED.....:	Conococheague Creek
ENDANGERED SPECIES.....:	None
HISTORIC INVENTORY.....:	No Resources Present
EASEMENTS PRESENT.....:	SP-20-016

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
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SITE DESIGN

Impervious Area Plan	**Impervious Maximum Allowed**	**Open Space Area Planned**
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Loading Area Meets Requirements		
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
Parking Spaces - Minimum Required	**Recreational Parking Provided**	

Not Fast Track

SCHOOL INFORMATION

	ELEMENTARY	**MIDDLE**	**HIGH**
SCHOOL DISTRICT	Jonathan Hager	Clear Spring	Clear Spring
PUPIL YIELD			
CURRENT ENROLLMENT	931		
MAXIMUM CAPACITY	1094		

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:
AMBULANCE DISTRICT.....:

WATER & SEWER INFORMATION

	WATER	**SEWER**
METHOD.....:	City	County
SERVICE AREA.....:	City	County
PRIORITY.....:	3-Programmed Service	3-Programmed Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

PRELIMINARY PLAT/SITE PLAN
for
Cedar Springs Business Park Lots 1 & 2

Situated along the east side of Greencastle Pike
and to the south of the intersection of US 40 and Greencastle Pike
WASHINGTON COUNTY, MARYLAND

APPROVALS

MD-ENG-6A 1/89 — USDA SCS

UTILITY NOTIFICATION
The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:

Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 17.1 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY
30,600 CU. YDS. OF EXCAVATION AND APPROXIMATELY
47,300 CU. YDS. OF FILL.

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE DATE SEAL

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

This approval is for general conformance with the County's requirements for design and layout of proposed sewer and/or water system improvements or extensions. All sewer and/or water system improvements or extensions shall be constructed in strict accordance with the County's latest addition of the Standard Specifications for Construction of Sanitary Sewers and/or Water Lines. This approval does not guarantee availability of sewer and/or water service. Sewer and/or water service availability is subject to conformance with all rules, policies and regulations established by the County and in effect at the time application for service is made, and/or the availability of allocation remaining in other jurisdictions' facilities that may be granted to the County. This approval shall be valid for a period of TWO years.

SIGNATURE DATE

CITY OF HAGERSTOWN UTILITIES DEPARTMENT WATER DIVISION

This approval is for the design and layout of the proposed water system improvements. All water system improvements shall be constructed to the standards in effect at the time of construction. This approval does not guarantee availability of water service. Water service is available subject to conformance with all policies and standards in effect at the time of application for service, payment of fees and approval of the water service application. The Water Division does not guarantee a specific water pressure or flow at any meter or fire hydrant. This approval is valid for a period of one year.

SIGNATURE DATE

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

Donald Bowman 08/02/2024
PRINTED NAME DATE
SIGNATURE

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

Donald Bowman 08/02/2024
PRINTED NAME DATE
SIGNATURE

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

DATE REG. NO. SIGNATURE

WASHINGTON COUNTY
DIVISION OF ENGINEERING

APPROVED BY: _____

DATE: _____

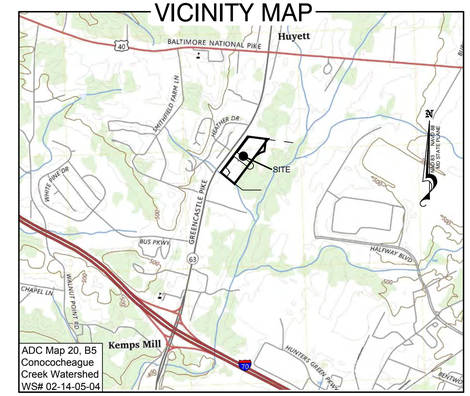
OWNER/DEVELOPER:
BOWMAN 2000, LLC
10228 GOVERNOR LANE BOULEVARD - SUITE 3002
WILLIAMSPORT, MARYLAND 21795

ATTN: JEFF TEDRICK
EMAIL: JTEDRICK@DMBOWMAN.COM
PHONE: 301.582.1555

CIVIL ENGINEER / SURVEYOR:
FSA INC.
128 SOUTH POTOMAC STREET
HAGERSTOWN, MARYLAND 21740

PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
PHONE: 301.791.3650

VICINITY MAP



Scale: 1" = 2000'

SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-002	SHEET 02	NOTES & LEGENDS
C-101	SHEET 03	EXISTING CONDITIONS
C-102	SHEET 04	PRELIMINARY PLAT
C-103	SHEET 05	INITIAL ESC & GRADING PLAN
C-104	SHEET 06	INTERIM EROSION & SEDIMENT CONTROL PLAN
C-105	SHEET 07	GRADING & DRAINAGE PLAN - OVERALL
C-106	SHEET 08	GRADING & DRAINAGE PLAN - LOT 1
C-107	SHEET 09	GRADING & DRAINAGE PLAN - LOT 2
C-108	SHEET 10	OVERALL UTILITY PLAN
C-109	SHEET 11	SITE & DIMENSION PLAN - OVERALL
C-110	SHEET 12	SITE & DIMENSION PLAN - LOT 1
C-111	SHEET 13	SITE & DIMENSION PLAN - LOT 2
C-112	SHEET 14	WORKFORCE WAY PLAN & PROFILE
C-201	SHEET 15	CONSTRUCTION PROFILES - SANITARY SEWER
C-202	SHEET 16	CONSTRUCTION PROFILES - WATER
C-203	SHEET 17	CONSTRUCTION PROFILES - STORM DRAINAGE
C-301	SHEET 18	STORMWATER MANAGEMENT PLAN & PROFILES
C-302	SHEET 19	STORMWATER MANAGEMENT PLAN, PROFILES, & DETAILS
C-303	SHEET 20	STORMWATER MANAGEMENT PLANTING PLAN
C-304	SHEET 21	STORMWATER MANAGEMENT NOTES
C-501	SHEET 22	CONSTRUCTION DETAILS & NOTES - E & S CONTROLS
C-502	SHEET 23	CONSTRUCTION DETAILS & NOTES - E & S CONTROLS
C-503	SHEET 24	CONSTRUCTION DETAILS & NOTES - STORM DRAINAGE
C-504	SHEET 25	CONSTRUCTION DETAILS & NOTES - WATER
C-505	SHEET 26	CONSTRUCTION DETAILS & NOTES - SEWER & STORM
C-506	SHEET 27	CONSTRUCTION DETAILS & NOTES - SITE
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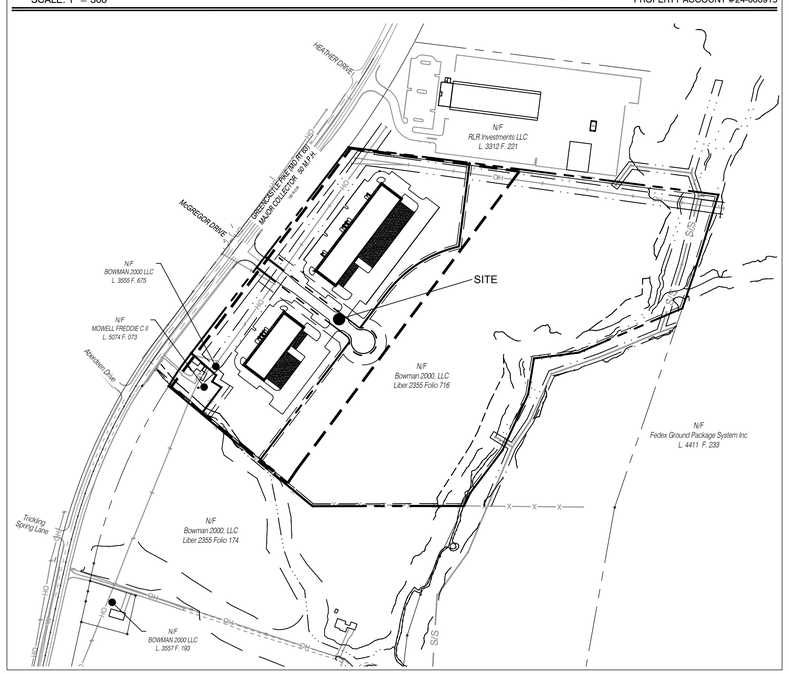
L-101	SHEET 29	LANDSCAPE PLAN
L-501	SHEET 30	LANDSCAPE DETAILS & NOTES
BY OTHERS		
P-101	SHEET 31	PHOTOMETRIC PLAN

LOCATION PLAN

SCALE: 1" = 300'

TAX MAP - GRID - PARCEL: 0036 - 0021 - 0029
PROPERTY ACCOUNT #24-000915



ESD PRACTICES SUMMARY TABLE

CONSTRUCTION TYPE (NEW, REDEVELOPMENT, RESTORATION): **NEW**

ESD PRACTICES (CHAPTER 5 - NON-STRUCTURAL & STRUCTURAL)				
TYPE	DA TO STRUCTURE (AC.)	IMPERVIOUS DA TO STRUCTURE (AC.)	ESDv (CF)	Pe ADDRESSED (IN)
SUBMERGED GRAVEL WETLANDS #1	2.76	1.20	11,765	2.60
NON-ESD PRACTICES (CHAPTER 3 - STRUCTURAL PRACTICES)				
SAND FILTER #1	4.10	2.61	31,225	2.60
SAND FILTER #2	2.27	1.67	12,497	2.60
BIORETENTION #1	1.85	1.38	16,810	2.60

SWM NARRATIVE

This stormwater management report is for the partial development of an existing grass meadow and qualified forest into (2) mixed-use buildings (27,000 SF and 45,000 SF) and associated parking lots and a new county road. The site is situated along the east side of Greencastle Pike (MD 63) between the intersections with Heather Drive and Kilarney Drive, within the review jurisdictions of Washington County Plan Review Department and Washington County Soil Conservation District. The site is made up of two separate properties totaling 56.81 acres. The development of the site will cause 16.1 acres of disturbance and create 7.1 acres of impervious cover. The stormwater runoff created by the proposed development will be treated and controlled by one (1) Bioretention ponds, and two (2) Sand Filters, and one (1) Submerged Gravel Wetland.

The existing land cover of the site includes; grass meadows, qualified forest, and a farm lane. The site has not been previously developed. The site currently has two separate watersheds. Watershed #1 drains in a westerly direction across the site and discharges into the mapped 100-year floodplain of tributary #29A. Watershed #2 drains in a southeasterly direction across the site and discharges into the 100-year floodplain of tributary #29. The 100 floodplain of tributaries no. 29 and 29A are shown on FEMA Panel #24043C0118D effective date August 15, 2017. A Letter of Map Amendment (LOMA) done by Frederick Seibert and Associates, Inc. revised the floodplain shown on the referenced FEMA Panel. The LOMA (#20-03-1003A) was completed and accepted by FEMA on 06/03/20.

This site will be developed into (2) mixed-use buildings (27,000 SF and 45,000 SF) and associated parking lots and a new county road. The runoff characteristics and drainage paths of the developed site will remain similar to the predevelopment conditions. The pre-developed site has two (2) watersheds, and the post-developed site has been modeled with two (2) watersheds that discharge to the same location(s) as the pre-developed site. Through the use of grass swales and stormdrain systems each of the watersheds will eventually discharge into a 100-year floodplain. The required ESDv for this project is 47,012 CF, per the Maryland ESD Calculations spreadsheet. The required ESDv will be met using structural practices. The chapter 5 structural practice that will be used is a Submerged Gravel Wetland. This facility will provide a total of 11,765 CF ESDv/WQv. The chapter 3 structural practices that will be used are one (1) Bioretention and (2) Sand Filters. These facilities will provide 60,532 CF ESDv The combination of non-structural and structural ESD practices will provide a grand total of 72,297 CF of ESDv which is more than the required 47,012 CF.

SENSITIVE AREA NOTICE

The stream buffers shown hereon are established pursuant to the requirements of the Washington County Subdivision Ordinance Article IV, Section 409. In an effort to preserve or improve water quality, the property owner is required to establish and thereafter maintain in perpetuity vegative ground cover in accordance with urban best management practices recommended by the Washington County Soil Conservation District. No permanent structures or construction are permitted within the stream buffer except those designed to improve water quality or flow as approved by the Washington County Planning Commission in accordance with all applicable regulations, laws, and policies. No septic systems shall be constructed within the buffer nor shall any reserve area be established within the buffer.

STATE OF MARYLAND — FREDERICK SEIBERT — REGISTERED PROFESSIONAL ENGINEER — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29848. Expiration Date: 06.23.2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-791-3650
1400 EAST MARKET STREET GREENCASTLE, PA 17225 717-597-1837
1405 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-0411
1300 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
fsa-inc.com

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	08.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN HEATHER DRIVE AND KILARNEY DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2
DWN BY KODY WARD — DATE 07-22-2024
PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 036-021-009
SCALE AS SHOWN
SHEET TITLE
COVER SHEET

C-001
SHEET 01 OF 31

PSP-24-001

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by Hillis-Carnes Engineering Associates for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Columbia Gas (Hagerstown)	(301) 733-1010
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Construction Division	(240) 313-2600
Washington County Department of Water Quality	(240) 313-2600
City of Hagerstown Utilities Department	(301) 739-8577 Ext. 650
Washington County Soil Conservation District	(301) 797-6821

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Benchmarks to be established by FSA prior to the start of construction.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by Hillis-Carnes Engineering Associates dated 03-23-2021 for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. All handicapped parking spaces shall be designed, ramped and signed to meet the minimum requirements of the Maryland code for the handicapped.
20. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in April 2020. (Contour accuracy is to plus or minus one half the contour interval).
21. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
22. Exterior lighting will consist of building mounted lights and pole mounted lights as shown on the photometrics plans and utility plan.
23. The contractor shall provide MOSH safety assistance for City Utilities Department and Washington County Depart of Water Quality..
24. This project has a projected start date of August 2025 and a completion date of October 2026.
25. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County or City of Hagerstown.
26. Proposed SWM will consist of on-site bio-retention facilities and surface sand filters.
27. This project will require a third party qualified professional to be present at the preconstruction meeting scheduled with Washington County Division of Construction and the Washington County Soil Conservation District. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
28. In fill areas, storm drain pipe shall be placed on 95% compacted fill according to AASHTO T-180A standard.
29. Developer/Contractor must contact the certifying engineer and Washington County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
30. No permanent structures (e.g. fences, sheds, play equipment, retaining wall, etc) shall be permitted within any stormwater or storm drainage easement on the property.
31. A building permit is required for any retaining wall if it is greater than three (3) feet in height and a global stability analysis if it is greater than ten (10) feet in height.
32. As is permitted by Washington County Adequate Public Facilities Ordinance, the developer and Washington County have agreed to a mitigation plan to advance the adequacy of the roads serving the development. The developer has entered into an APFO roads mitigation agreement with Washington County and paid a roads mitigation fee in the amount of $21,000 as a condition of this site plan approval.
33. A 6" soil layer shall be installed beneath all 30 mil PVC liners to protect liners from punctures.

ZONING DATA

ZONING DISTRICT	HI- HIGHWAY INTERCHANGE DISTRICT
MAX BUILDING HEIGHT	75 FT
MINIMUM YARD SETBACK:	
FRONT	40 FT.
*SIDE	10 FT.
*REAR	10 FT.

*EXCEPT WHEN ADJACENT TO RESIDENTIAL DEVELOPMENT, IT SHALL BE 25 FEET

BOARD OF ZONING APPEALS' CASE____NONE

SITE DATA

TAX MAP - GRID - PARCEL	0036-0021-0029
ELECTION DISTRICT	24
ACCOUNT NUMBER	000915
LIBER / FOLIO	02246 / 00716
PLAT NUMBER	NONE
AREA SUMMARY:	
PARCEL	55.93 AC
DISTURBED AREA	16.1 AC
EXISTING IMPERVIOUS	0.0 AC (0%)
PROPOSED TOTAL IMPERVIOUS	7.1 AC (15%)
ROAD CLASSIFICATION:	
GREENCASTLE PIKE	MAJOR COLLECTOR
WAIVER AND/OR VARIANCE	BZA CASE# AP-2021-007 DATED MARCH 31, 2021
FOREST CONSERVATION	ONSITE AND OFFSITE FOREST RETENTION PER MISC. PLAT 884-885
WATERSHED:	
NAME	CONOCOCHEAGUE CREEK
NUMBER	02-14-05-04
FEMA PANEL #	24043C0281D (LOMA #20-03-1003A DATED 06/03/20)

LOT 1

BUILDING SUMMARY:	
FOOTPRINT	27,000 SF
HEIGHT	28'
PROPOSED USE	OFFICE WAREHOUSE & SALES
HOURS OF OPERATION	8AM-5PM MON-FRI
NUMBER OF EMPLOYEES	TBD
WATER & SEWER USAGE:	
WATER PROVIDED	CITY OF HAGERSTOWN WATER DIVISION
SEWER PROVIDED	WASHINGTON COUNTY DEPT. OF WATER QUALITY
EXISTING ALLOCATION	0 GPD
PROPOSED ALLOCATION	600 GPD
WASTE & RECYCLABLES:	
SOLID WASTE REMOVAL	DUMPSTER - PRIVATE HAULER
RECYCLE REMOVAL	DUMPSTER - PRIVATE HAULER
FREIGHT & DELIVERY	TRACTOR TRAILER & BOX TRUCK DAILY
SITE LIGHTING:	
EXISTING	NONE
PROPOSED	POLE & BUILDING MOUNTED
SITE SIGNAGE:	
EXISTING	NONE
PROPOSED	TBD
ADDRESS ASSIGNMENT	TBD

LOT 2

BUILDING SUMMARY:	
FOOTPRINT	45,000 SF
HEIGHT	28'
PROPOSED USE	OFFICE WAREHOUSE & SALES
HOURS OF OPERATION	8AM-5PM MON-FRI
NUMBER OF EMPLOYEES	TBD
WATER & SEWER USAGE:	
WATER PROVIDED	CITY OF HAGERSTOWN WATER DIVISION
SEWER PROVIDED	WASHINGTON COUNTY DEPT. OF WATER QUALITY
EXISTING ALLOCATION	0 GPD
PROPOSED ALLOCATION	1,000 GPD
WASTE & RECYCLABLES:	
SOLID WASTE REMOVAL	DUMPSTER - PRIVATE HAULER
RECYCLE REMOVAL	DUMPSTER - PRIVATE HAULER
FREIGHT & DELIVERY	TRACTOR TRAILER & BOX TRUCK DAILY
SITE LIGHTING:	
EXISTING	NONE
PROPOSED	POLE & BUILDING MOUNTED
SITE SIGNAGE:	
EXISTING	NONE
PROPOSED	TBD
ADDRESS ASSIGNMENT	TBD

PARKING, LOADING & BICYCLE DATA

USE	REQUIREMENT*	CALCULATION	REQUIRED
OFFICE WAREHOUSE & SALES	1 SPACE PER 534 SF GFA	27,000 SF / 534 SF (BLDG 1)	51 SPACES
		45,000 SF / 534 SF (BLDG 1)	85 SPACES
TOTAL REQUIRED SPACES			**136 SPACES**
TOTAL PROVIDED PARKING SPACES			**215 SPACES**
HANDICAP			**9 SPACES**
TOTAL REQUIRED BICYCLE SPACES			**9 SPACES**
TOTAL PROVIDED BICYCLE SPACES			**9 SPACES**

LEGEND

EXISTING / PROPOSED

SUBJECT BOUNDARY
BUILDING SETBACK LINE
RIGHT OF WAY
EASEMENT LINE
ADJOINER BOUNDARY
FENCE (METAL)
FENCE (WOODEN)
DITCH (STREAM)
EDGE OF WATER
WETLAND
FLOODPLAIN
SOIL BOUNDARY
RAILWAY
CENTERLINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
CURB
WALL
GUARD RAIL
EDGE OF CONCRETE
BUILDING
MAIL BOX
SIGN (ROAD)
SIGN (SITE)
TRAFFIC SIGNAL

TOPOGRAPHIC FEATURES
CONTOUR (INDEX)
CONTOUR (INTERMEDIATE)
SPOTS ELEVATION

VEGETATION AREAS
TREELINE
DECIDUOUS TREES — SEE LANDSCAPE SHEET FOR LEGEND
EVERGREEN TREES — SEE LANDSCAPE SHEET FOR LEGEND

SANITARY SEWER
GRAVITY LINE
FORCE MAIN LINE
LATERAL
MANHOLE
CLEANOUT
VALVE

WATER
COLD WATER LINE
HOT WATER LINE
MANHOLE
FIRE HYDRANT
VALVE
METER
WELL

STORM DRAINAGE
STORM SEWER LINE
ROOF DRAIN LINE
MANHOLE
INLETS
CLEANOUT

UTILITIES
GAS LINE
ELECTRICAL LINE
FIBER OPTIC LINE
COMMUNICATION LINE
OVERHEAD LINES
MANHOLE
PEDS, BOX, & ETC
POLE
LIGHT POLE
GAS METER
GAS VALVE

LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	OC	ON CENTER
ADS	ADVANCED DRAINAGE SYSTEM	PC	POINT OF CURVE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL	PCC	POINT OF COMPOUND CURVE
AWWA	AMERICAN WATER WORKS ASSOCIATION	PGL	PROPOSED GRADE LINE
BLDG	BUILDING	PRC	POINT OF REVERSE CURVE
BOT	BOTTOM	PT	POINT OF TANGENT
CIP	CAST IRON PIPE	PVC	POINT OF VERTICAL CURVE
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
CMP	CORRUGATED METAL PIPE	PVT	POINT OF VERTICAL TANGENT
CO	SANITARY SEWER CLEAN-OUT	ROW	RIGHT-OF-WAY
COMM	COMMUNICATION	SAN	SANITARY
CONC	CONCRETE	SCE	STABILIZED CONSTRUCTION ENTRANCE
DA	DRAINAGE AREA	SDR	STANDARD DIMENSION RATIO
DIA	DIAMETER	SIP	SET IRON PIN
EGL	EXISTING GRADE LINE	SD	STORM DRAINAGE
EX	EXISTING	SDMH	STORM DRAIN MANHOLE
EIP	EXISTING IRON PIN	SF	SQUARE FEET
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
GV	GATE VALVE	STA	STATION
HGL	HYDRAULIC GRADE LINE	STD	STANDARD
HDPE	HIGH DENSITY POLYETHYLENE	SY	SQUARE YARDS
INV	INVERT	TAN	TYPE AS NOTED
LF	LINEAR FEET	TEMP	TEMPORARY
MAX	MAXIMUM	TS	TOP OF STRUCTURE
MB	MAIL BOX	TG	TOP OF GRATE
MIN	MINIMUM	TR	TOP OF RIM
MJ	MECHANICAL JOINT	TYP	TYPICAL
NO	NUMBER	U/P	UTILITY POLE
NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
NTS	NOT TO SCALE	WL	WATERLINE
OAC	OR APPROVED EQUAL	WM	WATER METER
		WV	WATER VALVE

STATE OF MARYLAND — KYLE A. SHAFFER — No. 22098 — REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 22098-1
Expiration Date: 06-23-2025

FSA
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WEST ALLIANCE STREET GREENCASTLE, PA 17225 717-597-1837
1406 SOUTHWOOD STREET CARLISLE, PA 17013 717-249-0411
NEW BLOOMFIELD, PA 17068 717-582-2161
FSA-INC.COM

NOT APPROVED FOR PUBLIC RELEASE

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 68) BETWEEN WEITHERSTONE DRIVE AND ALANNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.

SHEET TITLE

GENERAL NOTES

C-002
SHEET 02 OF 31

PSP-24-001

F:\SHARED FOLDERS\PROJECTS\6500\6523.2\CIVIL\SITE PLANS\6523.2 - 01-01 - C-001-005 - COVER SHEET & GENERAL NOTES.DWG 2025-04-16

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	2676.32'	47.08'	47.08'	N 36°58'29" E	1°00'28"

Soil Chart

Soils	H.S.G.	Ratio	Kw
HaB	B	4.9%	0.37
HbB	B	24.2%	0.32
HbC	B	3.5%	0.32
HcC	B	1.5%	0.32
Ln	C	1.7%	0.37
Me	B/D	8.2%	0.49
OrC	D	37.5%	0.32
SpA	D	7.6%	0.43
SpB	D	7.5%	0.43
SsA	D	3.5%	0.43

Highly Erodible Soils (Slopes>15% or Slopes>5% and K_w>0.35)

Steep Slopes (Slopes≥25% or Slopes>15% and K_w≥0.35)

Wetlands

Wetlands Buffer

Qualified Forest Per FSD #FS-20-004

Forest Conservation Area

Soils

100 Year Floodplain

Stream

Notes:

1. Part of the Parcel does lie in the 100 Year Flood Plain per FEMA FL Insurance Rate Map, Community Panel 24043C0118D Effective Date 8/15/2017
2. There is no habitat of threatened or endangered species identified by the U.S. Fish and Wildlife Service per 50 cfr17.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

STATE OF MARYLAND
DAVID A. TROSTLE
No. 29963
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 29963
Expiration Date 06-23-2025

FSA
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CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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19 WEST FRANKLIN STREET GREENCASTLE, PA 17225 717-597-1797
1005 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9311
11 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2063

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN HEATHER DRIVE AND ALANNA DRIVE

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1535

PROJECT NO. 6523.2

DWN BY KODY WARD | DATE 07-22-2024

PROJECT MANAGER: DAVID TROSTLE

EMAIL: dtrostle@fsa-inc.com

TAX MAP-GRID-PARCEL 036-021-009

SCALE 1" = 100'

SHEET TITLE

EXISTING CONDITIONS

C-101

SHEET 03 OF 31

PSP-24-001

General Notes

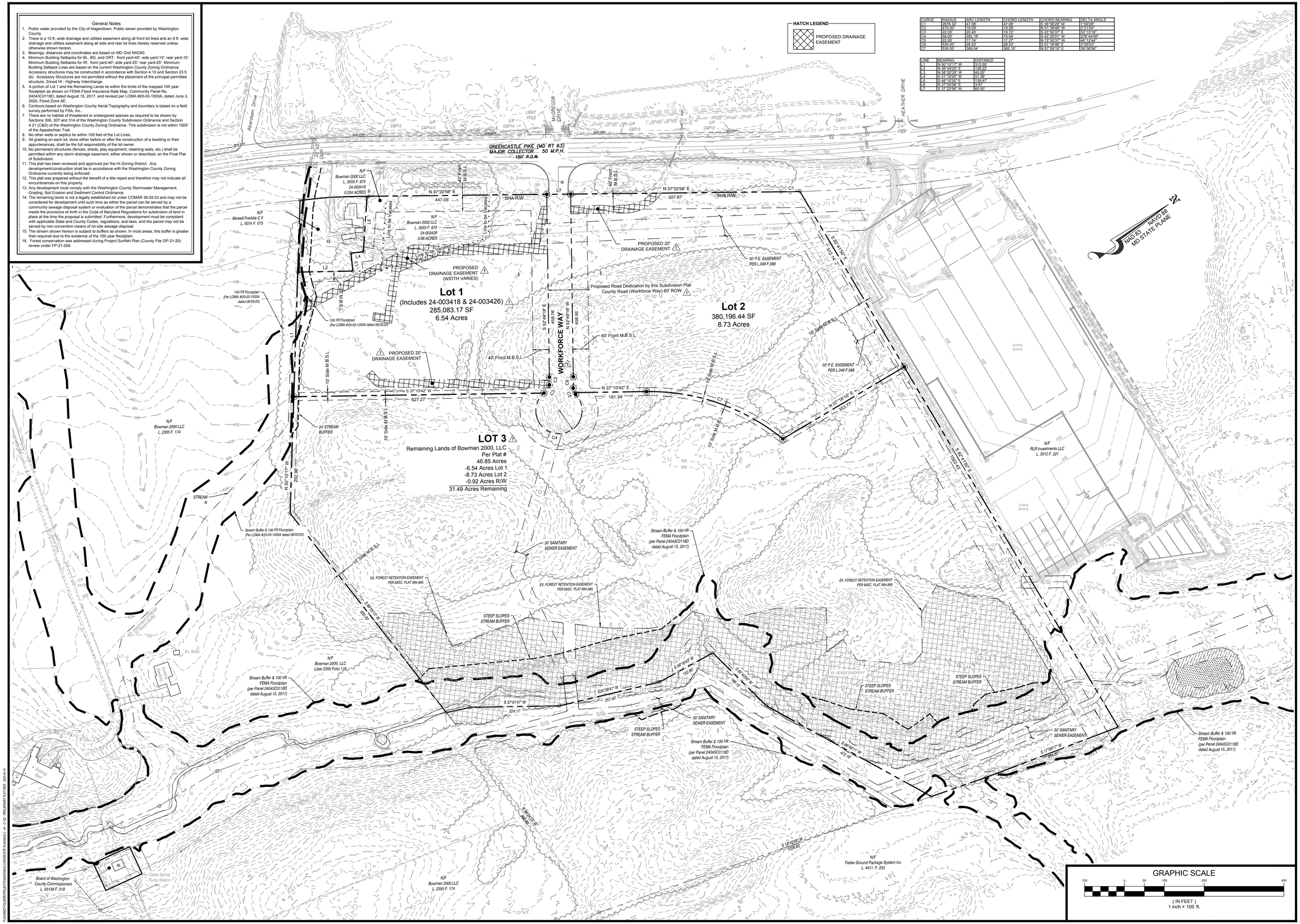
1. Public water provided by the City of Hagerstown. Public sewer provided by Washington County.
2. There is a 10 ft. wide drainage and utilities easement along all front lot lines and an 8 ft. wide drainage and utilities easement along all side and rear lot lines hereby reserved unless otherwise shown hereon.
3. Bearings, distances and coordinates are based on MD Grid NAD83.
4. Minimum Building Setbacks for BL, BG, and ORT: front yard-40'; side yard-10'; rear yard-10'. Minimum Building Setbacks for IR: front yard-40'; side yard-25'; rear yard-25'. Minimum Building Setback Lines are based on the current Washington County Zoning Ordinance. Accessory structures may be constructed in accordance with Section 4.10 and Section 23.5 (b). Accessory Structures are not permitted without the placement of the principal permitted structure. Zoned HI - Highway Interchange.
5. A portion of Lot 1 and the Remaining Lands lie within the limits of the mapped 100 year floodplain as shown on FEMA Flood Insurance Rate Map, Community Panel No. 24043C0118D, dated August 15, 2017, and revised per LOMA #20-03-1003A, dated June 3, 2020, Flood Zone AE.
6. Contours based on Washington County Aerial Topography and boundary is based on a field survey performed by FSA, Inc..
7. There are no habitat of threatened or endangered species as required to be shown by Sections 306, 307 and 314 of the Washington County Subdivision Ordinance and Section 4.21 (C&D) of the Washington County Zoning Ordinance. This subdivision is not within 1000' of the Appalachian Trail.
8. No other wells or septics lie within 100 feet of the Lot Lines.
9. All grading on each lot, done either before or after the construction of a dwelling or their appurtenances, shall be the full responsibility of the lot owner.
10. No permanent structures (fences, sheds, play equipment, retaining walls, etc.) shall be permitted within any storm drainage easement, either shown or described, on the Final Plat of Subdivision.
11. This plat has been reviewed and approved per the HI Zoning District. Any development/construction shall be in accordance with the Washington County Zoning Ordinance currently being enforced.
12. This plat was prepared without the benefit of a title report and therefore may not indicate all encumbrances on this property.
13. Any development must comply with the Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control Ordinance.
14. The remaining lands is not a legally established lot under COMAR 26.04.03 and may not be considered for development until such time as either the parcel can be served by a community sewage disposal system or evaluation of the parcel demonstrates that the parcel meets the provisions et forth in the Code of Maryland Regulations for subdivision of land in place at the time the proposal is submitted. Furthermore, development must be consistent with applicable State and County Codes, regulations, and laws, and the parcel may not be served by non-convention means of on-site sewage disposal.
15. The stream shown hereon is subject to buffers as shown. In most areas, this buffer is greater than required due to the existence of the 100 year floodplain.
16. Forest conservation was addressed during Project Sunfish Plan (County File GP-21-20) review under FP-21-005.

HATCH LEGEND

PROPOSED DRAINAGE EASEMENT

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	2876.32'	47.08'	47.08'	S 36°58'29" W	1°00'28"
C2	470.00'	19.29'	19.28'	N 51°38'48" W	2°21'04"
C3	22.00'	20.45'	19.72'	S 23°53'37" E	53°15'16"
C4	58.00'	252.16'	75.54'	S 43°23'01" W	278°44'00"
C5	22.00'	17.74'	17.27'	N 72°50'37" W	46°12'44"
C6	530.00'	28.53'	28.53'	S 51°16'48" E	3°05'03"
C7	530.00'	369.54'	362.10'	N 57°09'10" E	39°56'56"

LINE	BEARING	DISTANCE
L1	N 50°10'17" W	312.59'
L2	N 36°49'25" E	138.22'
L3	N 08°20'35" W	45.00'
L4	S 31°10'25" W	31.38'
L5	N 48°19'35" E	139.47'
L6	N 37°00'56" E	3.61'
L7	S 37°22'56" W	60.00'



Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 23948
Expiration Date 08-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866
19 WEST FRANKLIN STREET GREENCASTLE, PA 17225 717-597-1777
1005 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-0711
11 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2063

FOR PUBLIC REVIEW

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN HEATHER DRIVE AND McGREGOR DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LAYNE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 100'

SHEET TITLE

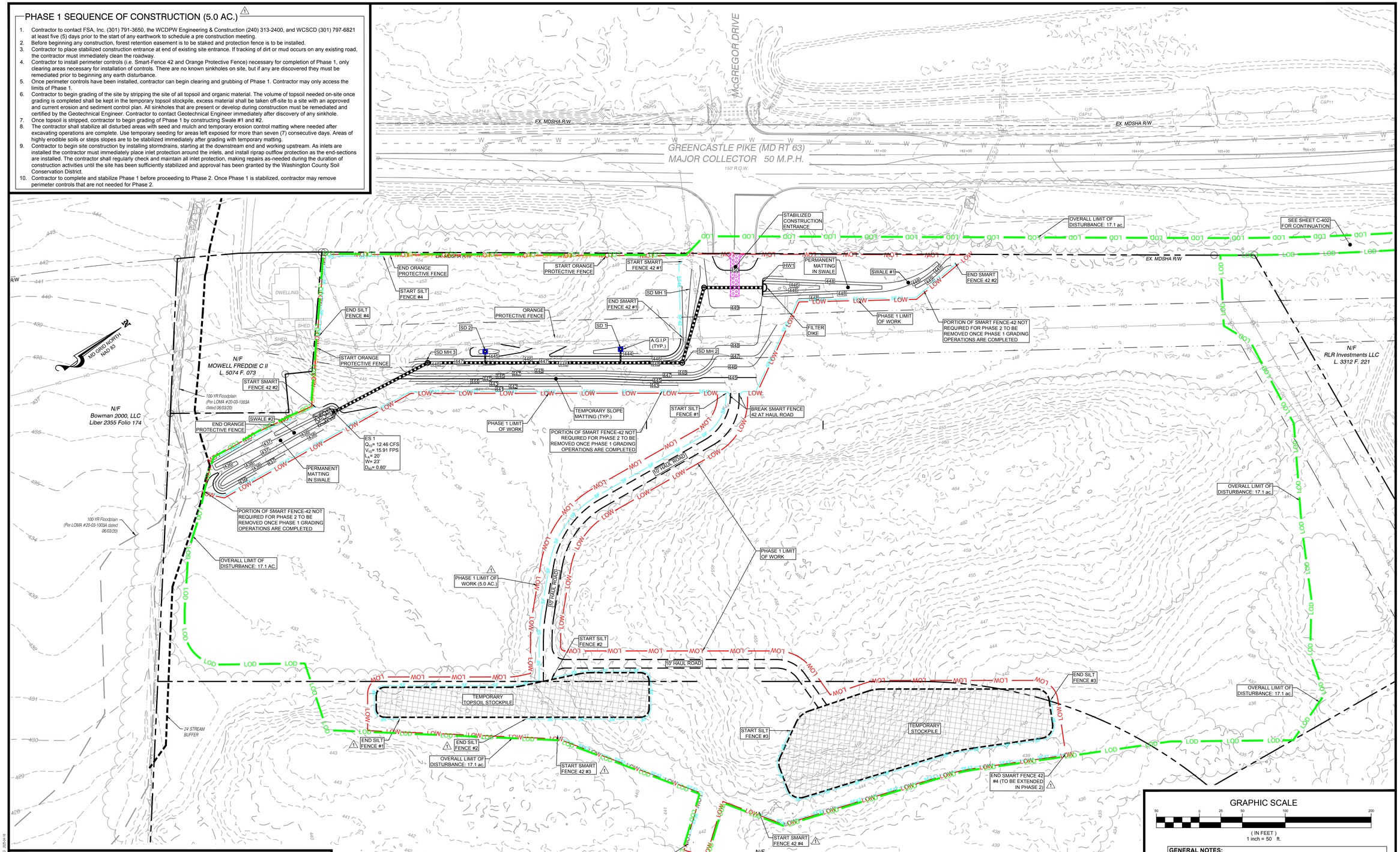
PRELIMINARY PLAT

C-102
SHEET 04 OF 31

PSP-24-001

PHASE 1 SEQUENCE OF CONSTRUCTION (5.0 AC.)

1. Contractor to contact FSA, Inc. (301) 791-3650, the WCDPW Engineering & Construction (240) 313-2400, and WCSCD (301) 797-6821 at least five (5) days prior to the start of any earthwork to schedule a pre construction meeting.
2. Before beginning any construction, forest retention easement is to be staked and protection fence is to be installed.
3. Contractor to place stabilized construction entrance at end of existing site entrance. If tracking of dirt or mud occurs on any existing road, the contractor must immediately clean the roadway.
4. Contractor to install perimeter controls (i.e. Smart-Fence 42 and Orange Protective Fence) necessary for completion of Phase 1, only clearing areas necessary for installation of controls. There are no known sinkholes on site, but if any are discovered they must be remediated prior to beginning any earth disturbance.
5. Once perimeter controls have been installed, contractor can begin clearing and grubbing of Phase 1. Contractor may only access the limits of Phase 1.
6. Contractor to begin grading of the site by stripping the site of all topsoil and organic material. The volume of topsoil needed on-site once grading is completed shall be kept in the temporary topsoil stockpile, excess material shall be taken off-site to a site with an approved and current erosion and sediment control plan. All sinkholes that are present or develop during construction must be remediated and certified by the Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after discovery of any sinkhole.
7. Once topsoil is stripped, contractor to begin grading of Phase 1 by constructing Swale #1 and #2.
8. The contractor shall stabilize all disturbed areas with seed and mulch and temporary erosion control matting where needed after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days. Areas of highly erodible soils or steps slopes are to be stabilized immediately after grading with temporary matting.
9. Contractor to begin site construction by installing stormdrains, starting at the downstream end and working upstream. As inlets are installed the contractor must immediately place inlet protection around the inlets, and install riprap outflow protection as the end-sections are installed. The contractor shall regularly check and maintain all inlet protection, making repairs as-needed during the duration of construction activities until the site has been sufficiently stabilized and approval has been granted by the Washington County Soil Conservation District.
10. Contractor to complete and stabilize Phase 1 before proceeding to Phase 2. Once Phase 1 is stabilized, contractor may remove perimeter controls that are not needed for Phase 2.



SMART-FENCE 42 TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SMART-FENCE 42	91	33.33	13	100
2	SMART-FENCE 42	1157	33.33	24	100
3	SMART-FENCE 42	245	33.33	21	100
4	SMART-FENCE 42	371	33.33	21	100

SILT FENCE TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SILT FENCE	688	N/A	N/A	N/A
2	SILT FENCE	307	N/A	N/A	N/A
3	SILT FENCE	440	N/A	N/A	N/A
4	SILT FENCE	160	N/A	N/A	N/A

SEE SHEET C-104 FOR COMPLETE INLET PROTECTION & SWALE TABLES

E&S LEGEND

- INLET PROTECTION
- SF42 - SMART FENCE-42
- SF - SILT FENCE
- LOD - LIMIT OF DISTURBANCE
- LOW - LIMIT OF WORK (PHASE 1)
- OPF - ORANGE PROTECTIVE FENCE
- A-2 - EARTH DIKE
- MATERIAL STOCKPILE
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP INFLOW/ OUTLET PROTECTION

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

GENERAL NOTES:

1. AREAS OF EXCAVATION IN STEEP SLOPES OR HIGHLY ERODIBLE SOILS SHALL BE STABILIZED IMMEDIATELY AFTER BROUGHT TO FINAL GRADE. SEED/MULCH AND MATTING SHALL BE APPLIED TO PROTECT THESE SLOPES FROM EROSION.
2. ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

General E&S Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill material should be brought from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 3:1 or greater to be stabilized with temporary matting.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

STATE OF MARYLAND
KYLE WILLIAM TROSTLE
No. 36296
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland. License # 36296
Expiration Date: 06-23-2025

FSA
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1400 SOUTH HANOVER STREET, CARLISLE, PA 17013 717.249.1611
1867 PLANK ROAD, GREENCASTLE, PA 17225 717.597.1837
126 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740 301.739.8866

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEETHER DRIVE AND KLARNE DRIVE

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER: DAVID TROSTLE	
EMAIL: dtrostle@fsa-inc.com	
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 50'

SHEET TITLE

INITIAL ESC & GRADING PLAN

C-103
SHEET 05 OF 31

PSP-24-01

PHASE 2 SEQUENCE OF CONSTRUCTION

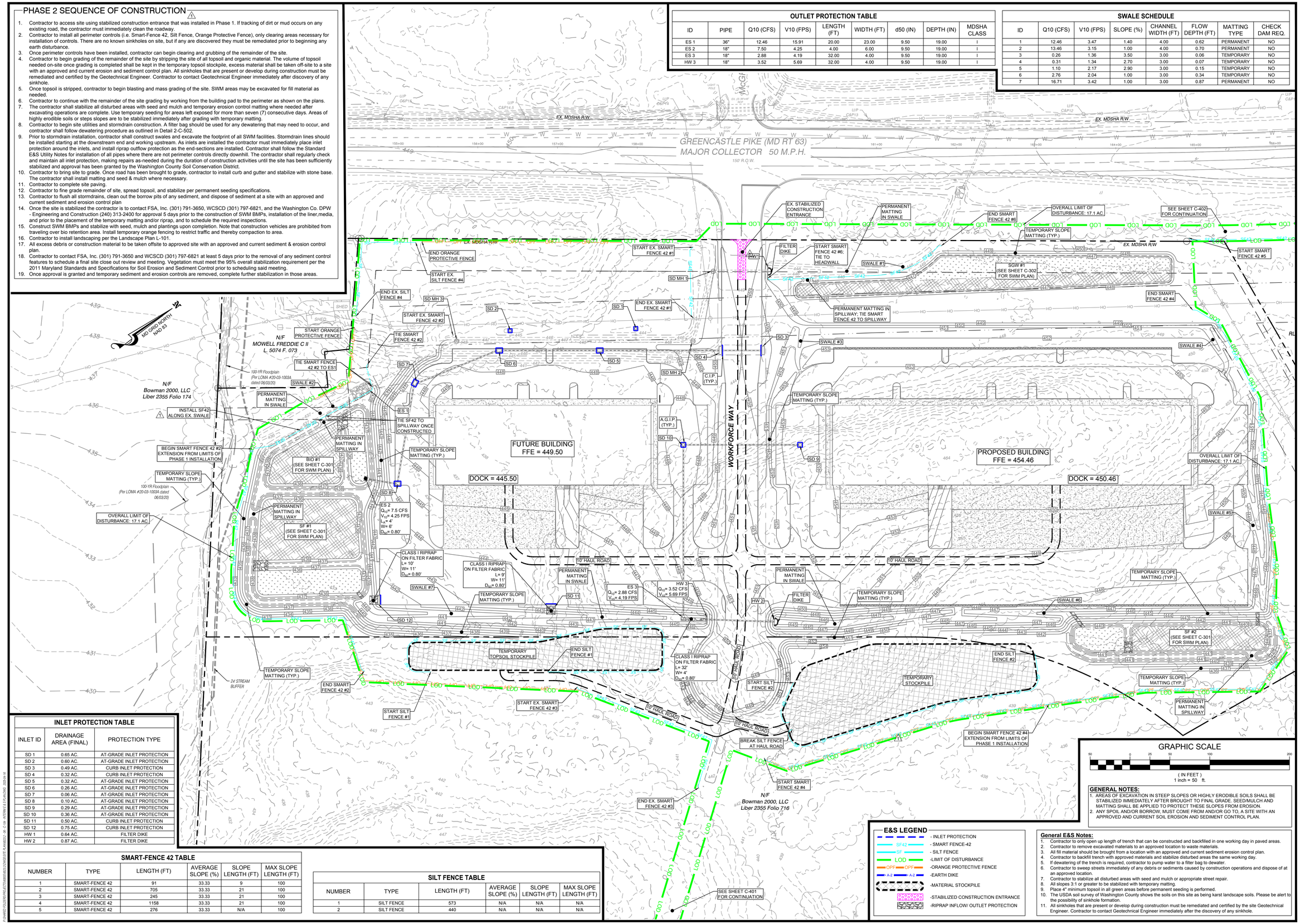
1. Contractor to access site using stabilized construction entrance that was installed in Phase 1. If tracking of dirt or mud occurs on any existing road, the contractor must immediately clean the roadway.
2. Contractor to install all perimeter controls (i.e. Smart-Fence 42, Silt Fence, Orange Protective Fence), only clearing areas necessary for installation of controls. There are no known sinkholes on site, but if any are discovered they must be remediated prior to beginning any earth disturbance.
3. Once perimeter controls have been installed, contractor can begin clearing and grubbing of the remainder of the site.
4. Contractor to begin grading of the remainder of the site by stripping the site of all topsoil and organic material. The volume of topsoil needed on-site once grading is completed shall be kept in the temporary topsoil stockpile, excess material shall be taken off-site to a site with an approved and current erosion and sediment control plan. All sinkholes that are present or develop during construction must be remediated and certified by the Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after discovery of any sinkhole.
5. Once topsoil is stripped, contractor to begin blasting and mass grading of the site. SWM areas may be excavated for fill material as needed.
6. Contractor to continue with the remainder of the site grading by working from the building pad to the perimeter as shown on the plans.
7. The contractor shall stabilize all disturbed areas with seed and mulch and temporary erosion control matting where needed after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days. Areas of highly erodible soils or steps slopes are to be stabilized immediately after grading with temporary matting.
8. Contractor to begin site utilities and stormdrain construction. A filter bag should be used for any dewatering that may need to occur, and contractor shall follow dewatering procedure as outlined in Detail 2-C-502.
9. Prior to stormdrain installation, contractor shall construct swales and excavate the footprint of all SWM facilities. Stormdrain lines should be installed starting at the downstream end and working upstream. As inlets are installed the contractor must immediately place inlet protection around the inlets, and install riprap outflow protection as the end-sections are installed. Contractor shall follow the Standard E&S Utility Notes for installation of all pipes where there are not perimeter controls directly downhill. The contractor shall regularly check and maintain all inlet protection, making repairs as-needed during the duration of construction activities until the site has been sufficiently stabilized and approval has been granted by the Washington County Soil Conservation District.
10. Contractor to bring site to grade. Once road has been brought to grade, contractor to install curb and gutter and stabilize with stone base. The contractor shall install matting and seed & mulch where necessary.
11. Contractor to complete site paving.
12. Contractor to fine grade remainder of site, spread topsoil, and stabilize per permanent seeding specifications.
13. Contractor to flush all stormdrains, clean out the borrow pits of any sediment, and dispose of sediment at a site with an approved and current sediment and erosion control plan
14. Once the site is stabilized the contractor is to contact FSA, Inc. (301) 791-3650, WCSCD (301) 797-6821, and the Washington Co. DPW - Engineering and Construction (240) 313-2400 for approval 5 days prior to the construction of SWM BMPs, installation of the liner,media, and prior to the placement of the temporary matting and/or riprap, and to schedule the required inspections.
15. Construct SWM BMPs and stabilize with seed, mulch and plantings upon completion. Note that construction vehicles are prohibited from traveling over bio retention area. Install temporary orange fencing to restrict traffic and thereby compaction to area.
16. Contractor to install landscaping per the Landscape Plan L-101.
17. All excess debris or construction material to be taken offsite to approved site with an approved and current sediment & erosion control plan.
18. Contractor to contact FSA, Inc. (301) 791-3650 and WCSCD (301) 797-6821 at least 5 days prior to the removal of any sediment control features to schedule a final site close out review and meeting. Vegetation must meet the 95% overall stabilization requirement per the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control prior to scheduling said meeting.
19. Once approval is granted and temporary sediment and erosion controls are removed, complete further stabilization in those areas.

OUTLET PROTECTION TABLE

ID	PIPE	Q10 (CFS)	V10 (FPS)	LENGTH (FT)	WIDTH (FT)	d50 (IN)	DEPTH (IN)	MDSHA CLASS
ES 1	36"	12.46	15.91	20.00	23.00	9.50	19.00	I
ES 2	18"	7.50	4.25	4.00	6.00	9.50	19.00	I
ES 3	18"	2.88	4.19	32.00	4.00	9.50	19.00	I
HW 3	18"	3.52	5.69	32.00	4.00	9.50	19.00	I

SWALE SCHEDULE

ID	Q10 (CFS)	V10 (FPS)	SLOPE (%)	CHANNEL WIDTH (FT)	FLOW DEPTH (FT)	MATTING TYPE	CHECK DAM REQ.
1	12.46	3.47	1.40	4.00	0.62	PERMANENT	NO
2	13.46	3.15	1.00	4.00	0.70	PERMANENT	NO
3	0.26	1.36	3.50	3.00	0.06	TEMPORARY	NO
4	0.31	1.34	2.70	3.00	0.07	TEMPORARY	NO
5	1.10	2.17	2.90	3.00	0.15	TEMPORARY	NO
6	2.76	2.04	1.00	3.00	0.34	TEMPORARY	NO
7	16.71	3.42	1.00	3.00	0.87	PERMANENT	NO



INLET PROTECTION TABLE

INLET ID	DRAINAGE AREA (FINAL)	PROTECTION TYPE
SD 1	0.65 AC.	AT-GRADE INLET PROTECTION
SD 2	0.60 AC.	AT-GRADE INLET PROTECTION
SD 3	0.49 AC.	CURB INLET PROTECTION
SD 4	0.32 AC.	CURB INLET PROTECTION
SD 5	0.32 AC.	AT-GRADE INLET PROTECTION
SD 6	0.26 AC.	AT-GRADE INLET PROTECTION
SD 7	0.06 AC.	AT-GRADE INLET PROTECTION
SD 8	0.10 AC.	AT-GRADE INLET PROTECTION
SD 9	0.29 AC.	AT-GRADE INLET PROTECTION
SD 10	0.36 AC.	AT-GRADE INLET PROTECTION
SD 11	0.50 AC.	CURB INLET PROTECTION
SD 12	0.75 AC.	CURB INLET PROTECTION
HW 1	0.64 AC.	FILTER DIKE
HW 2	0.87 AC.	FILTER DIKE

SMART-FENCE 42 TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SMART-FENCE 42	91	33.33	9	100
2	SMART-FENCE 42	705	33.33	21	100
3	SMART-FENCE 42	245	33.33	21	100
4	SMART-FENCE 42	1158	33.33	21	100
5	SMART-FENCE 42	276	33.33	N/A	100

SILT FENCE TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SILT FENCE	573	N/A	N/A	N/A
2	SILT FENCE	440	N/A	N/A	N/A

E&S LEGEND

- INLET PROTECTION
- SF42 — SMART FENCE-42
- SF — SILT FENCE
- LOD — LIMIT OF DISTURBANCE
- OPF — ORANGE PROTECTIVE FENCE
- A-2 — EARTH DIKE
- MATERIAL STOCKPILE
- STABILIZED CONSTRUCTION ENTRANCE
- RIPRAP INFLOW/ OUTLET PROTECTION

General E&S Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill material should be brought from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 3:1 or greater to be stabilized with temporary matting.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

GENERAL NOTES:

1. AREAS OF EXCAVATION IN STEEP SLOPES OR HIGHLY ERODIBLE SOILS SHALL BE STABILIZED IMMEDIATELY AFTER BROUGHT TO FINAL GRADE. SEED/MULCH AND MATTING SHALL BE APPLIED TO PROTECT THESE SLOPES FROM EROSION.
2. ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — 22299 — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 22299
Expiration Date: 06.30.2025

FSA
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NEW BLOOMFIELD, PA 17068 717-582-2161
FSA-INC.COM

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEITHERS DRIVE AND KLARNER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD. SUITE 300Z, WILLIAMSPORT, MD 21795
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PROJECT NO.	6523.2
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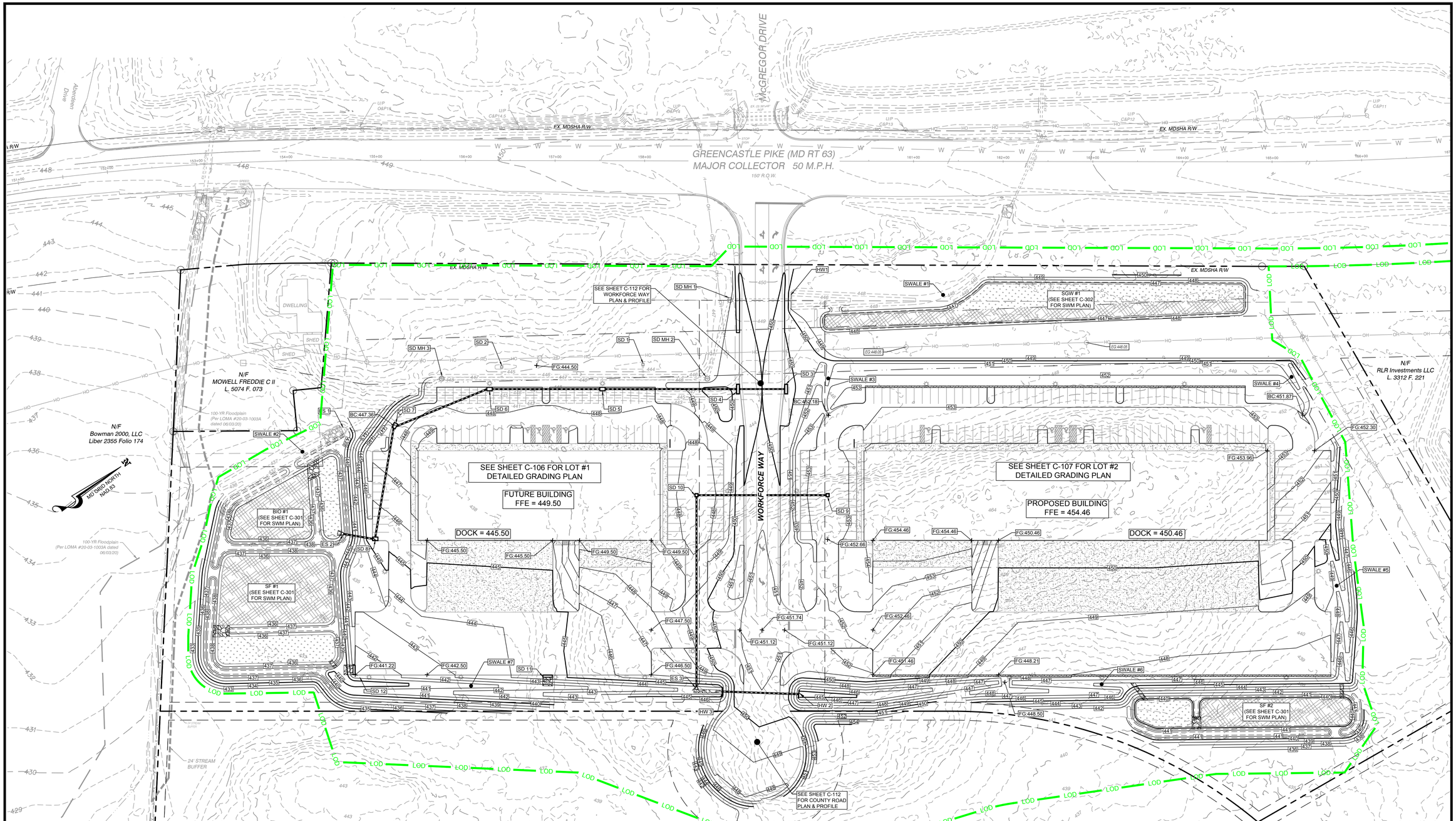
DATE	07-22-2024
PROJECT MANAGER	DAVID TROSTLE
EMAIL	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 50'

SHEET TITLE

INTERIM ESC PLAN

C-104
SHEET 06 OF 31

PSP-24-001



SUBGRADE PREPARATION

PRIOR TO THE CONSTRUCTION OF FOUNDATIONS, FLOOR SLABS, OR PAVEMENTS, OR THE PLACEMENT OF FILL IN ANY STRUCTURAL OR PAVEMENT AREAS, ALL ORGANIC MATERIALS, FROZEN, WET, SOFT OR LOOSE SOILS, AND OTHER DELETERIOUS MATERIALS SHOULD BE REMOVED AND WASTED. IF ROCK IS ENCOUNTERED IN THE SUBGRADE, REMOVE AN ADDITIONAL 6 INCHES BELOW SUBGRADE AND BACKFILL WITH COMPACTED CR-6 CRUSHED STONE CUSHION.

AFTER THE SUBGRADE IN CUTS AND FILLS HAS BEEN FINALLY SHAPED TO THE SPECIFIED CROSS SECTION, IT SHALL BE CAREFULLY AND THOROUGHLY PROOF ROLLED WITH A 20 TON ROLLER OR EQUIVALENT TO DETERMINE SOFT OR UNSUITABLE AREAS. PRIOR TO PAVING SOFT OR UNSUITABLE AREAS SHALL BE REMOVED AND BACKFILLED WITH SUITABLE MATERIAL TO THE SPECIFIED DENSITY. (OVER-EXCAVATION TO BE MONITORED AND APPROVED BY OWNER'S GEOTECHNICAL ENGINEER PRIOR TO REMOVAL).

FILL IN STRUCTURAL AND PAVEMENT AREAS SHOULD BE PLACED IN LIFTS WHICH ARE EIGHT INCHES OR LESS IN LOOSE THICKNESS. MATERIAL 1 FT. BELOW THE TOP OF SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 92% OF THE MAXIMUM DRY DENSITY AS SPECIFIED IN T 180. MATERIAL IN THE TOP 1 FT. SHALL BE COMPACTED TO NOT LESS THAN 97% OF THE MAXIMUM DRY DENSITY. IN BUILDING AREAS, THE FILL SHOULD EXTEND A MINIMUM OF TEN FEET BEYOND BUILDING LINES WHERE FLOOR SLABS ARE CONSTRUCTED ON FILL.

NOTES:

- ALL PROPOSED STORM DRAIN PIPES MUST BE PLACED ON 95% COMPACTED FILL ACCORDING TO AASHTO T180A STANDARDS.
- DUE TO KARST SOILS ON THE SITE, THERE IS INCREASED RISK OF SINKHOLE DEVELOPMENT WITHIN THE SWM FACILITY. IF ENCOUNTERED, CONTACT A GEOTECHNICAL ENGINEER TO PREPARE REMEDIATION PLAN.
- RETAINING WALLS GREATER THAN 3'-0" IN HEIGHT WILL REQUIRE A BUILDING PERMIT. IT IS ALSO REQUIRED THAT DESIGN DETAILS AND CALCULATIONS (SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND) BE SUBMITTED FOR REVIEW AND APPROVAL AT THE TIME OF BUILDING PERMIT APPLICATION.
- CLEANOUTS SHALL BE PROVIDED ON ALL ROOF DRAINS. 4" MINIMUM SIZE AND 100' MAXIMUM SPACING.

General Grading Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill brought to the site must come from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 3:1 or greater to be stabilized with temporary matting.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed. This includes HOA property.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

STATE OF MARYLAND
KYLE WILLIAM TROSTLE
No. 36291
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 36291
Expiration Date: 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 TOWNSHIP CHAC STREET HAGERSTOWN, MD 21740 301-739-8866
1 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 717-597-1837
1456 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-1411
1 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
fsa-inc.com

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN WHITEHER DRIVE AND KLARNER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 50'

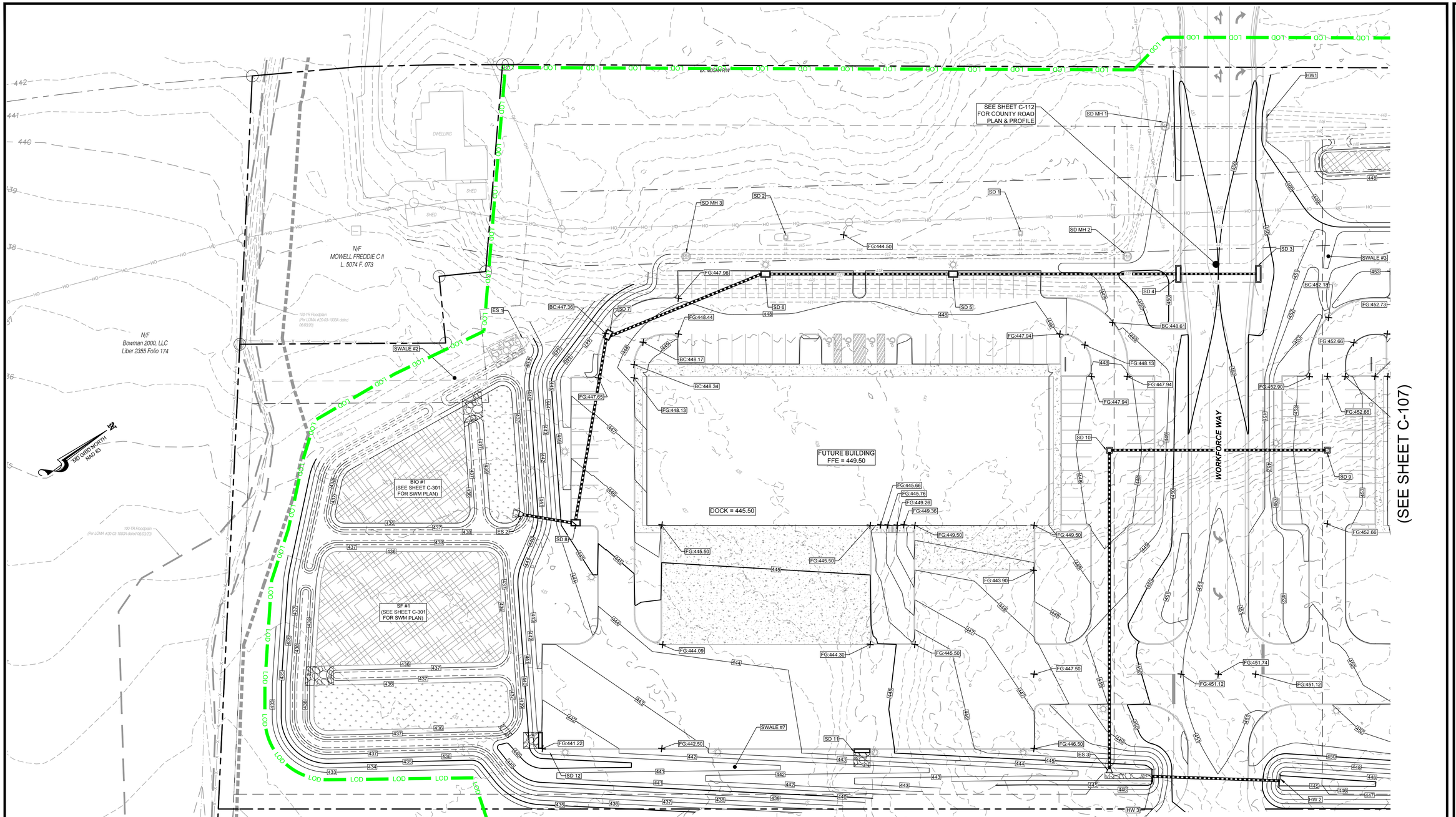
SHEET TITLE

GRADING & DRAINAGE PLAN - OVERALL

C-105

SHEET 07 OF 31

PSP-24-001



General Grading Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill brought to the site must come from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 3:1 or greater to be stabilized with temporary matting.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed. This includes HOA property.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

SUBGRADE PREPARATION

PRIOR TO THE CONSTRUCTION OF FOUNDATIONS, FLOOR SLABS, OR PAVEMENTS, OR THE PLACEMENT OF FILL IN ANY STRUCTURAL OR PAVEMENT AREAS, ALL ORGANIC MATERIALS, FROZEN, WET, SOFT OR LOOSE SOILS, AND OTHER DELETERIOUS MATERIALS SHOULD BE REMOVED AND WASTED. IF ROCK IS ENCOUNTERED IN THE SUBGRADE, REMOVE AN ADDITIONAL 6 INCHES BELOW SUBGRADE AND BACKFILL WITH COMPACTED CR-6 CRUSHED STONE CUSHION.

AFTER THE SUBGRADE IN CUTS AND FILLS HAS BEEN FINALLY SHAPED TO THE SPECIFIED CROSS SECTION, IT SHALL BE CAREFULLY AND THOROUGHLY PROOF ROLLED WITH A 20 TON ROLLER OR EQUIVALENT TO DETERMINE SOFT OR UNSUITABLE AREAS. PRIOR TO PAVING SOFT OR UNSUITABLE AREAS SHALL BE REMOVED AND BACKFILLED WITH SUITABLE MATERIAL TO THE SPECIFIED DENSITY. (OVER-EXCAVATION TO BE MONITORED AND APPROVED BY OWNER'S GEOTECHNICAL ENGINEER PRIOR TO REMOVAL).

FILL IN STRUCTURAL AND PAVEMENT AREAS SHOULD BE PLACED IN LIFTS WHICH ARE EIGHT INCHES OR LESS IN LOOSE THICKNESS. MATERIAL 1 FT. BELOW THE TOP OF SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 92% OF THE MAXIMUM DRY DENSITY AS SPECIFIED IN T 180. MATERIAL IN THE TOP 1 FT. SHALL BE COMPACTED TO NOT LESS THAN 97% OF THE MAXIMUM DRY DENSITY. IN BUILDING AREAS, THE FILL SHOULD EXTEND A MINIMUM OF TEN FEET BEYOND BUILDING LINES WHERE FLOOR SLABS ARE CONSTRUCTED ON FILL.

NOTES:

- ALL PROPOSED STORM DRAIN PIPES MUST BE PLACED ON 95% COMPACTED FILL ACCORDING TO AASHTO T180A STANDARDS.
- DUE TO KARST SOILS ON THE SITE, THERE IS INCREASED RISK OF SINKHOLE DEVELOPMENT WITHIN THE SWM FACILITY. IF ENCOUNTERED, CONTACT A GEOTECHNICAL ENGINEER TO PREPARE REMEDIATION PLAN.
- RETAINING WALLS GREATER THAN 3'-0" IN HEIGHT WILL REQUIRE A BUILDING PERMIT. IT IS ALSO REQUIRED THAT DESIGN DETAILS AND CALCULATIONS (SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND) BE SUBMITTED FOR REVIEW AND APPROVAL AT THE TIME OF BUILDING PERMIT APPLICATION.
- CLEANOUTS SHALL BE PROVIDED ON ALL ROOF DRAINS. 4" MINIMUM SIZE AND 100' MAXIMUM SPACING.

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 25948, Expiration Date: 08-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC
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NORTH HANOVER STREET, CARLISLE, PA 17013 717-243-9411
WEST PLEASANT STREET, GREENCASTLE, PA 17225 717-597-1407
CHAMBERSBURG STREET, HAGERSTOWN, MD 21740 301-739-8866

NOT APPROVED FOR CONSTRUCTION

MARK	DESCRIPTION	DATE

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEITHERS DRIVE AND ALANE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z2, WILLIAMSPORT, MD 21795
301.582.1535

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 30'

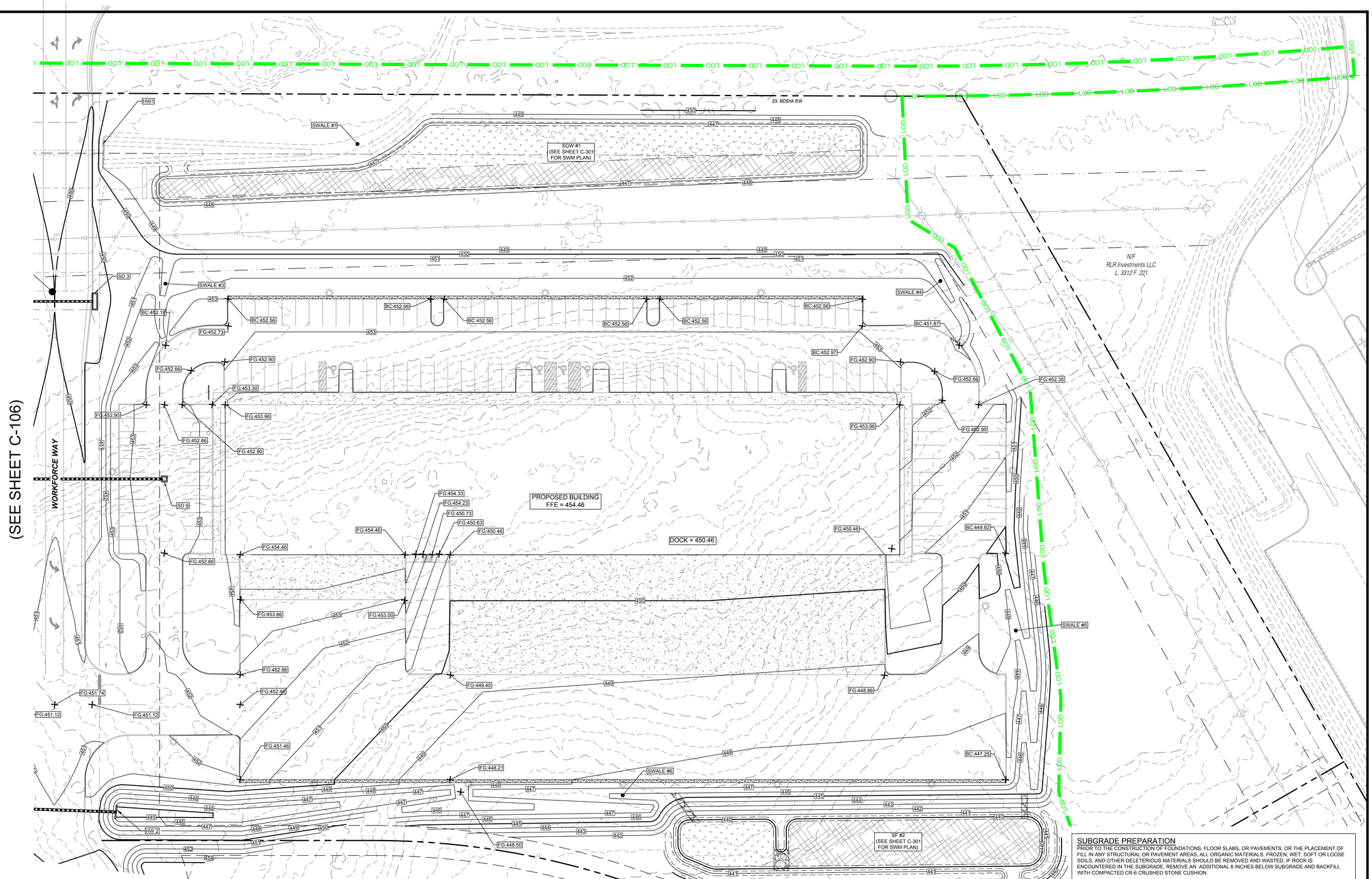
SHEET TITLE

GRADING & DRAINAGE PLAN - LOT 1

C-106

SHEET 08 OF 31

PSP-24-001



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

General Grading Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill brought to the site must come from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 3:1 or greater to be stabilized with temporary matting.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed. This includes HOA property.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

SUBGRADE PREPARATION

PRIOR TO THE CONSTRUCTION OF FOUNDATIONS, FLOOR SLABS, OR PAVEMENTS, OR THE PLACEMENT OF FILL IN ANY STRUCTURAL OR PAVEMENT AREAS, ALL ORGANIC MATERIALS, FROZEN, WET, SOFT OR LOOSE SOILS, AND OTHER DELETERIOUS MATERIALS SHOULD BE REMOVED AND WASTED. IF ROCK IS ENCOUNTERED IN THE SUBGRADE, REMOVE AN ADDITIONAL 6 INCHES BELOW SUBGRADE AND BACKFILL WITH COMPACTED CR-6 CRUSHED STONE CUSHION.

AFTER THE SUBGRADE IN CUTS AND FILLS HAS BEEN FINALLY SHAPED TO THE SPECIFIED CROSS SECTION, IT SHALL BE CAREFULLY AND THOROUGHLY PROOF ROLLED WITH A 20 TON ROLLER OR EQUIVALENT TO DETERMINE SOFT OR UNSUITABLE AREAS. PRIOR TO PAVING SOFT OR UNSUITABLE AREAS SHALL BE REMOVED AND BACKFILLED WITH SUITABLE MATERIAL TO THE SPECIFIED DENSITY. (OVER-EXCAVATION TO BE MONITORED AND APPROVED BY OWNER'S GEOTECHNICAL ENGINEER PRIOR TO REMOVAL).

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NOTES:

- ALL PROPOSED STORM DRAIN PIPES MUST BE PLACED ON 95% COMPACTED FILL ACCORDING TO AASHTO T180A STANDARDS.
- DUE TO KARST SOILS ON THE SITE, THERE IS INCREASED RISK OF SINKHOLE DEVELOPMENT WITHIN THE SWM FACILITY. IF ENCOUNTERED, CONTACT A GEOTECHNICAL ENGINEER TO PREPARE REMEDIATION PLAN.
- RETAINING WALLS GREATER THAN 3'-0" IN HEIGHT WILL REQUIRE A BUILDING PERMIT. IT IS ALSO REQUIRED THAT DESIGN DETAILS AND CALCULATIONS (SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND) BE SUBMITTED FOR REVIEW AND APPROVAL AT THE TIME OF BUILDING PERMIT APPLICATION.
- CLEANOUTS SHALL BE PROVIDED ON ALL ROOF DRAINS. 4" MINIMUM SIZE AND 100' MAXIMUM SPACING.

STATE OF MARYLAND
DAVID A. TROSTLE
No. 29994
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29994
Expiration Date: 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 TOWNSHIP COACH STREET
HAGERSTOWN, MD 21740
301 739-8866
1 WEST BALTIMORE STREET
GREENCASTLE, PA 17225
717 597-1837
1408 SOUTH HANOVER STREET
CARLISLE, PA 17013
717 249-1411
1100 CONESTOGA STREET
NEW BLOOMFIELD, PA 17068
717 582-2084
fsa-inc.com

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 68)
BETWEEN WEITHER DRIVE AND KLARNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 30'
SHEET TITLE	

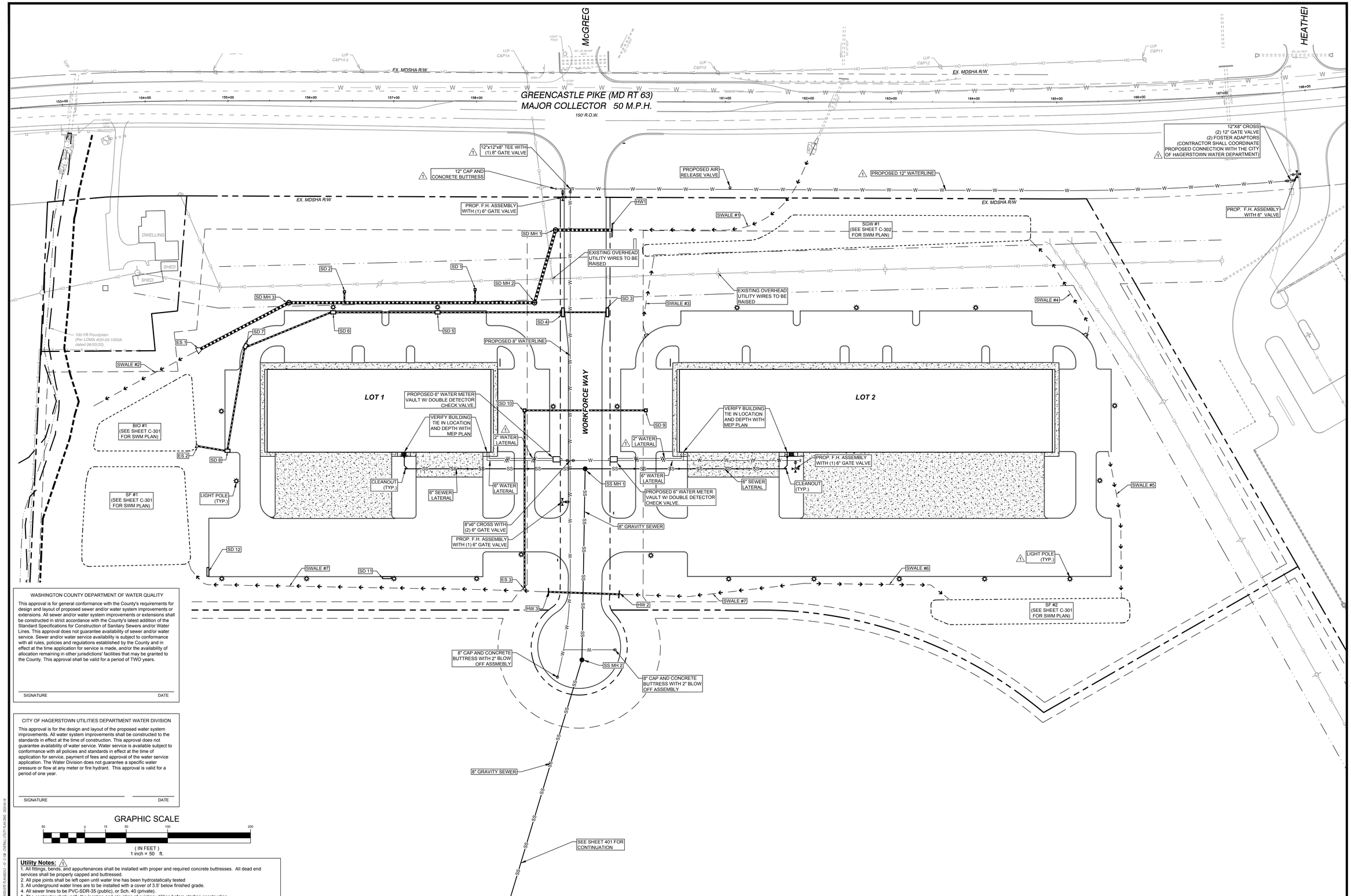
GRADING & DRAINAGE PLAN - LOT 2

C-107

SHEET 09 OF 31

PSP-24-001

P:\SHARED\FOLDERS\PROJECTS\BASIS\6523.2\DWG\SITE PLAN\6523.2 - 2-15-C-101 - GRADING & DRAINAGE PLAN.DWG 2025-04-16



WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

This approval is for general conformance with the County's requirements for design and layout of proposed sewer and/or water system improvements or extensions. All sewer and/or water system improvements or extensions shall be constructed in strict accordance with the County's latest addition of the Standard Specifications for Construction of Sanitary Sewers and/or Water Lines. This approval does not guarantee availability of sewer and/or water service. Sewer and/or water service availability is subject to conformance with all rules, policies and regulations established by the County and in effect at the time application for service is made, and/or the availability of allocation remaining in other jurisdictions' facilities that may be granted to the County. This approval shall be valid for a period of TWO years.

SIGNATURE DATE

CITY OF HAGERSTOWN UTILITIES DEPARTMENT WATER DIVISION

This approval is for the design and layout of the proposed water system improvements. All water system improvements shall be constructed to the standards in effect at the time of construction. This approval does not guarantee availability of water service. Water service is available subject to conformance with all policies and standards in effect at the time of application for service, payment of fees and approval of the water service application. The Water Division does not guarantee a specific water pressure or flow at any meter or fire hydrant. This approval is valid for a period of one year.

SIGNATURE DATE

GRAPHIC SCALE

50 0 15 30 100 200

(IN FEET)
1 inch = 50 ft.

Utility Notes: ⚠1

1. All fittings, bends, and appurtenances shall be installed with proper and required concrete buttresses. All dead end services shall be properly capped and buttressed.
2. All pipe joints shall be left open until water line has been hydrostatically tested
3. All underground water lines are to be installed with a cover of 3.5' below finished grade.
4. All sewer lines to be PVC-SDR-35 (public), or Sch. 40 (private).
5. The contractor shall verify the location and elevation of existing utilities before starting construction.
6. The Contractor shall supply all bends, fittings and buttresses as required to achieve the horizontal and vertical alignments as shown on the plans. Bends and fittings may not be shown on the plan and profile but are to be included in the Contractor's cost and their exact location is at the option of the Contractor to achieve the horizontal layout shown hereon.
7. Contractor to verify with utility companies that proposed sediment erosion control measures are located so as to avoid conflicts with their proposed utility installation before placement of sediment erosion control measures.
8. All manholes not located within a paved surface must be set 6" above the surrounding grade.
9. Contractor shall be responsible to make the pipe connection at the existing MH. Any damage done to the existing MH shall be responsibility of the contractor to repair or replace.
10. Contractor shall contact the Washington County Department of Water Quality at least 72 hours before work is to be done.

WATER & SEWER USAGE:

WATER PROVIDED	CITY OF HAGERSTOWN WATER DIVISION
SEWER PROVIDED	WASHINGTON COUNTY DEPT. OF WATER QUALITY
EXISTING ALLOCATION	0 GPD
PROPOSED ALLOCATION (LOT 1)	600 GPD
PROPOSED ALLOCATION (LOT 2)	1,000 GPD

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 22968-1
Expiration Date: 08-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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1120 TOWNSHIP DRIVE, SUITE 100 HAGERSTOWN, MD 21740 301-797-8666
1935 WEST MAIN STREET GREENCASTLE, PA 17225 717-267-1647
1406 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-1411
4307 CARLISLE PIKE, SUITE 2 NEW BLOOMFIELD, PA 17068 717-567-7064

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

FOR PUBLIC REVIEW

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN MEETHER DRIVE AND MCLANE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

NOT APPROVED

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 50'

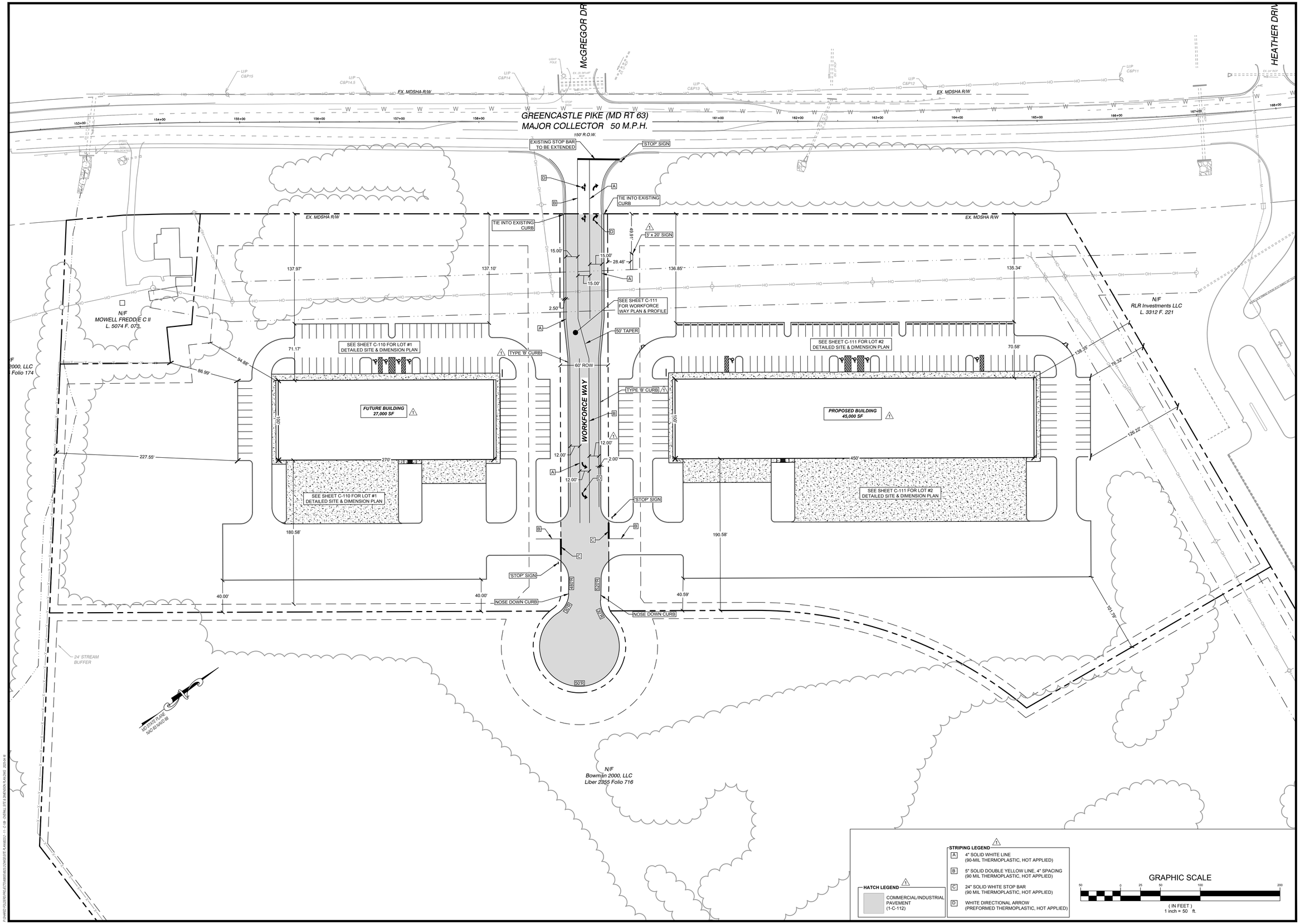
SHEET TITLE

OVERALL UTILITY PLAN

C-108

SHEET 10 OF 31

PSP-24-001



HATCH LEGEND

COMMERCIAL/INDUSTRIAL PAVEMENT (1-C-112)

STRIPING LEGEND

- A — 4" SOLID WHITE LINE (90-MIL THERMOPLASTIC, HOT APPLIED)
- B — 5" SOLID DOUBLE YELLOW LINE, 4" SPACING (90 MIL THERMOPLASTIC, HOT APPLIED)
- C — 24" SOLID WHITE STOP BAR (90 MIL THERMOPLASTIC, HOT APPLIED)
- D — WHITE DIRECTIONAL ARROW (PREFORMED THERMOPLASTIC, HOT APPLIED)

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

STATE OF MARYLAND — DAVID A. TROSTLE — No. 29994 — REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 29994
Expiration Date 06-23-2025

FSA
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1456 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9411
14 WEST MAIN STREET GREENCASTLE, PA 17225 717-597-1407
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	08.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

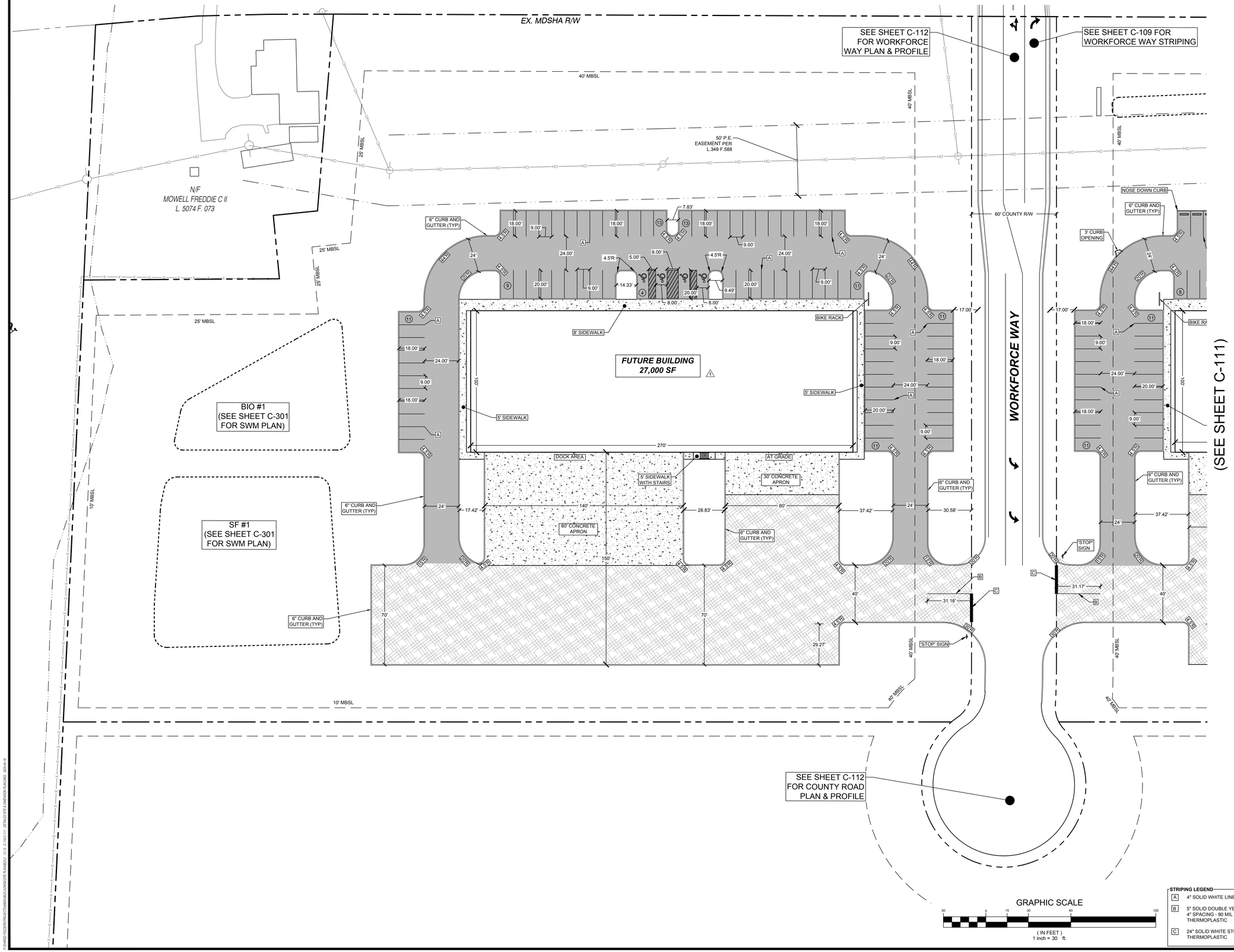
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN MEETHER DRIVE AND HEATHER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10229 GOVERNOR LANE BLVD, SUITE 8002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 50'
SHEET TITLE	SITE AND DIMENSION PLAN - OVERALL

C-109
SHEET 11 OF 31

PSP-24-001



STRIPING LEGEND

A	4" SOLID WHITE LINE
B	5" SOLID DOUBLE YELLOW LINE, 4" SPACING - 90 MIL THERMOPLASTIC
C	24" SOLID WHITE STOP BAR - 90 MIL THERMOPLASTIC

HATCH LEGEND

- PAVEMENT - SITE (1/C-506)
- PAVEMENT - TRUCK (2/C-506)
- PROPOSED CONCRETE

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 25948. Expiration Date: 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 TOWNSHIP LINE STREET HAGERSTOWN, MD 21740 301 739 8866
11 WEST MAIN STREET GREENCASTLE, PA 17225 717.597.1407
108 SOUTH HANOVER STREET CARLISLE, PA 17013 717.249.1411
1100 CENTRE AVE. NEW BLOOMFIELD, PA 17068 717.582.2184
fsa-inc.com

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	08.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN HEATHER DRIVE AND CLARNE DRIVE

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD. SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 30'

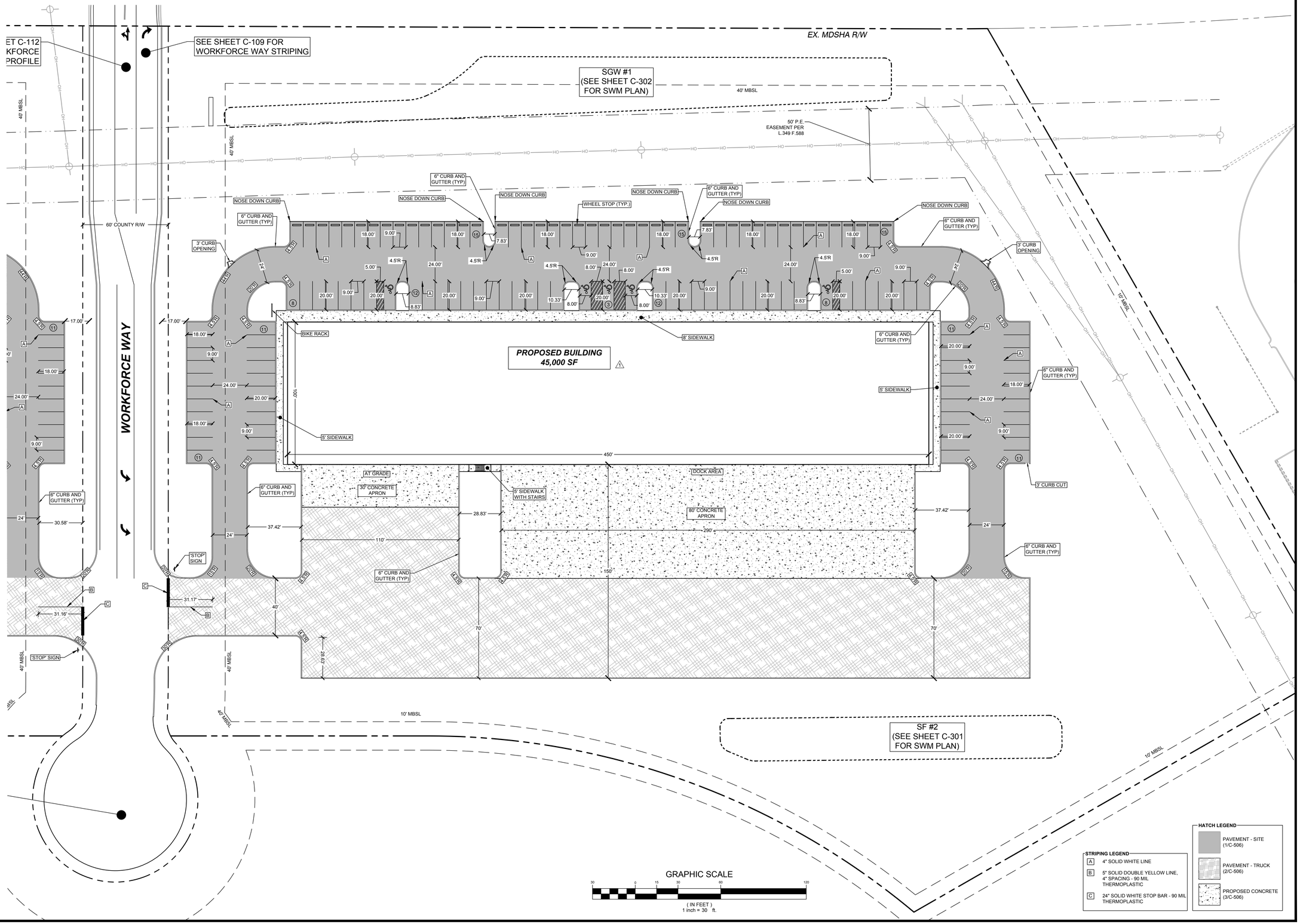
SHEET TITLE

SITE & DIMENSION PLAN - LOT 1

C-110

SHEET 12 OF 31

PSP-24-001



STRIPING LEGEND

A	4" SOLID WHITE LINE
B	5" SOLID DOUBLE YELLOW LINE, 4" SPACING - 90 MIL THERMOPLASTIC
C	24" SOLID WHITE STOP BAR - 90 MIL THERMOPLASTIC

HATCH LEGEND

	PAVEMENT - SITE (1/C-506)
	PAVEMENT - TRUCK (2/C-506)
	PROPOSED CONCRETE (3/C-506)

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — 29994
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29994
Expiration Date: 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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1400 SOUTH MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-7884
1 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 717-597-1407
4400 CARLISLE PIKE CARLISLE, PA 17013 717-249-1411

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF BRENDENCASTLE PIKE (MD 68)
BETWEEN WEITHER DRIVE AND WILLARD DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300/2, WILLIAMSPORT, MD 21795
301.582.1555

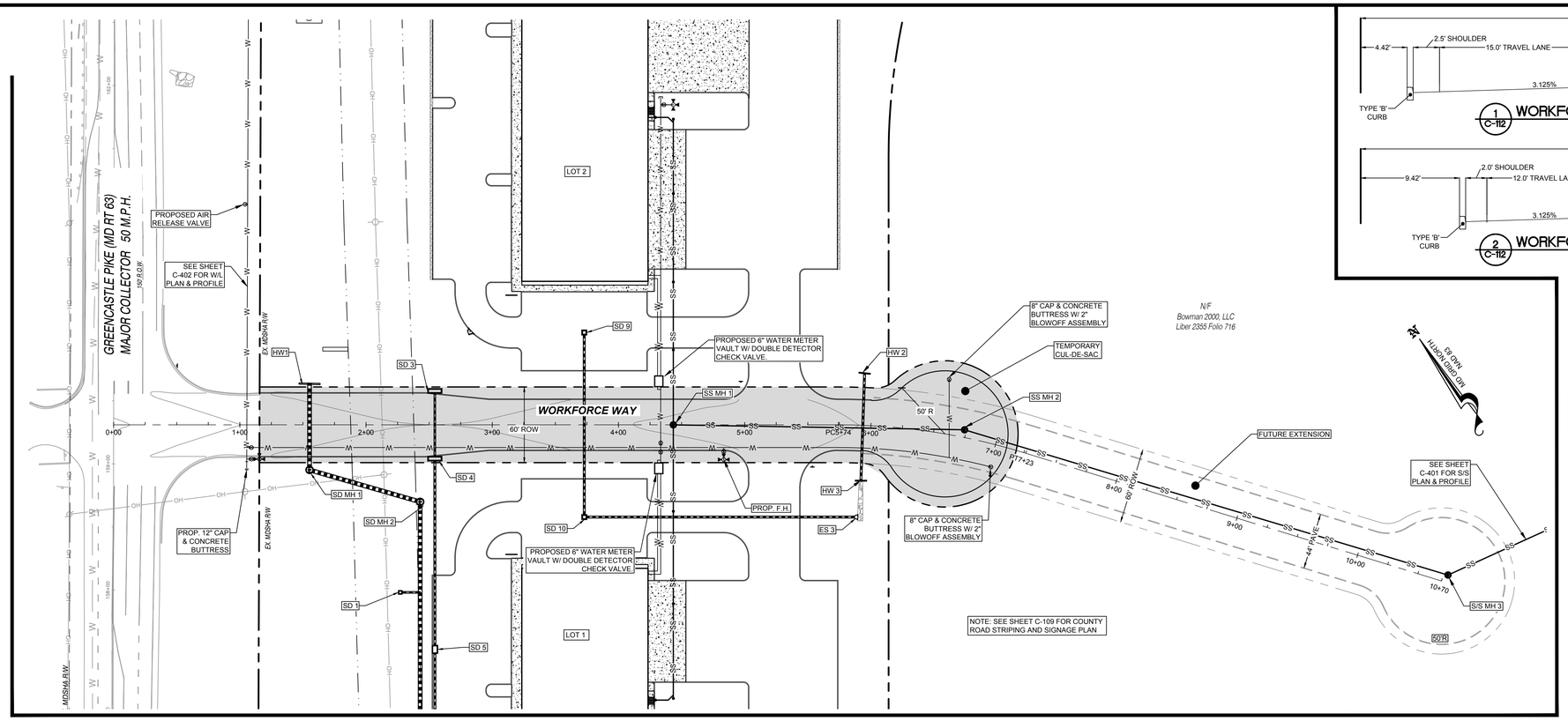
PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	1" = 30'

SHEET TITLE

SITE & DIMENSION PLAN - LOT 2

C-111
SHEET 13 OF 31

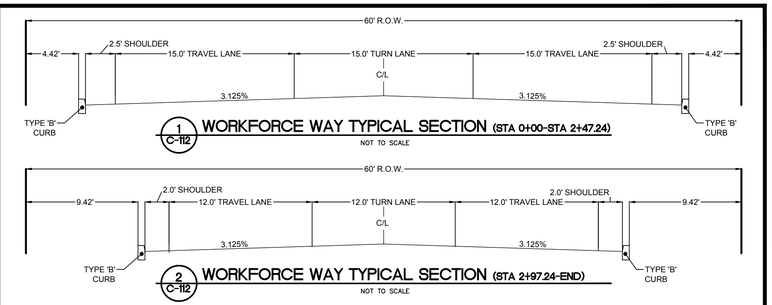
PSP-24-001



WORKFORCE WAY PLAN VIEW
STA 0+00 TO STA 10+70
SCALE: 1"=50'

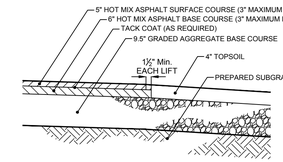
GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

HATCH LEGEND
PROPOSED R/W



1 C-112 WORKFORCE WAY TYPICAL SECTION (STA 0+00-STA 2+47.24)
NOT TO SCALE

2 C-112 WORKFORCE WAY TYPICAL SECTION (STA 2+97.24-END)
NOT TO SCALE



Notes:
All construction and materials shall be in accordance with the Maryland Department of Transportation, State Highway Administration- Standard Specifications for Construction and Materials, Oct. 1993, as follows:

Subgrade preparation- Sections 204.01 thru 204.03.08 & 208.01 thru 208.03.05
Graded Aggregate Base Course- Section 501.01 thru 501.03.03
Hot mix Asphalt- Sections 504.01 thru 504.03.13

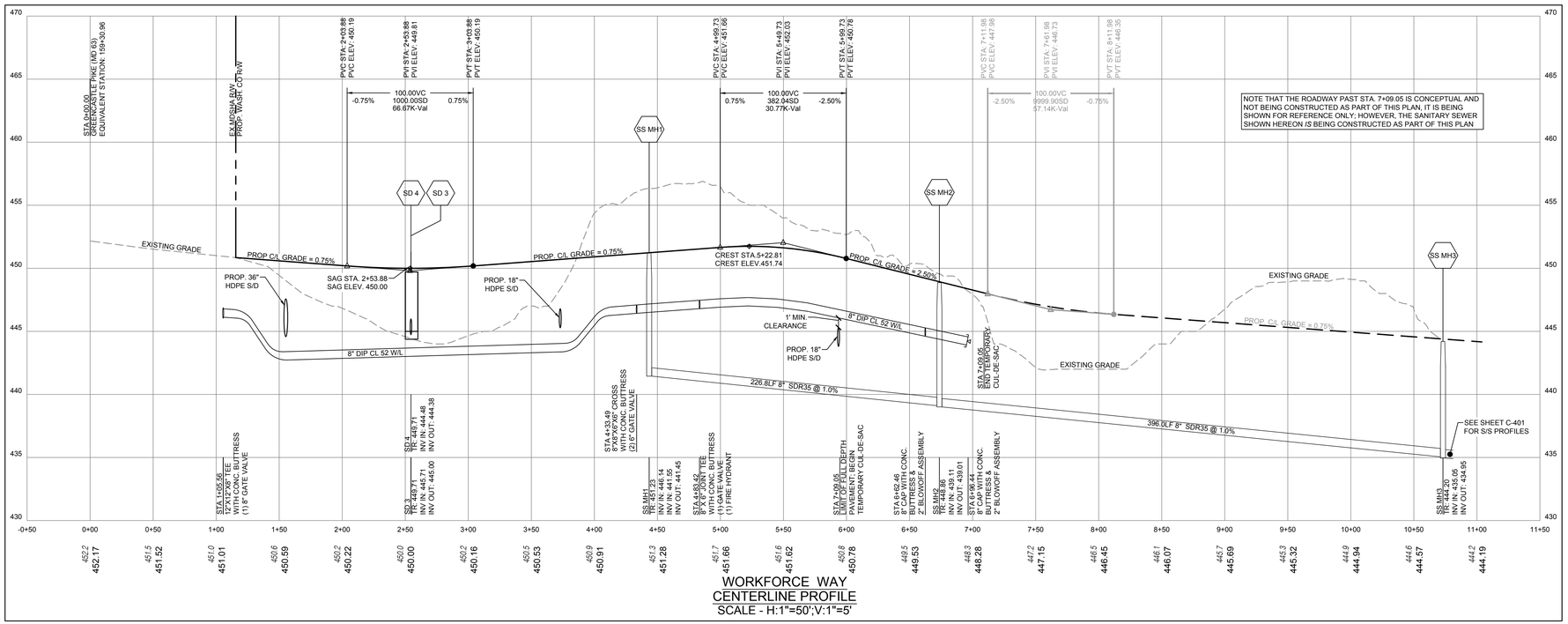
Subgrade/shoulder drains shall be installed where deemed necessary upon field inspection. Drains shall be in accordance with Sections 306.01 thru 306.03.06.

NOT TO SCALE

DIVISION OF PUBLIC WORKS
WASHINGTON COUNTY, MARYLAND
ENGINEERING DEPARTMENT

3 C-112 MAJOR & COMMERCIAL/INDUSTRIAL STREET TYPICAL PAVEMENT SECTION

(Plate DPW-E)



WORKFORCE WAY
CENTERLINE PROFILE
SCALE - H:1"=50';V:1"=5'

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 25948, Expiration Date: 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
www.fsa-inc.com
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CARLISLE, PA 17013 717-249-1411 | 845 SOUTH HANOVER STREET
GREENCASTLE, PA 17225 717-597-1407 | 11 WEST PLEASANT STREET
HAGERSTOWN, MD 21740 301-739-8866 | 126 TECHNOLOGY DRIVE, STREET

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEATHERDRIVE AND PLANKE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

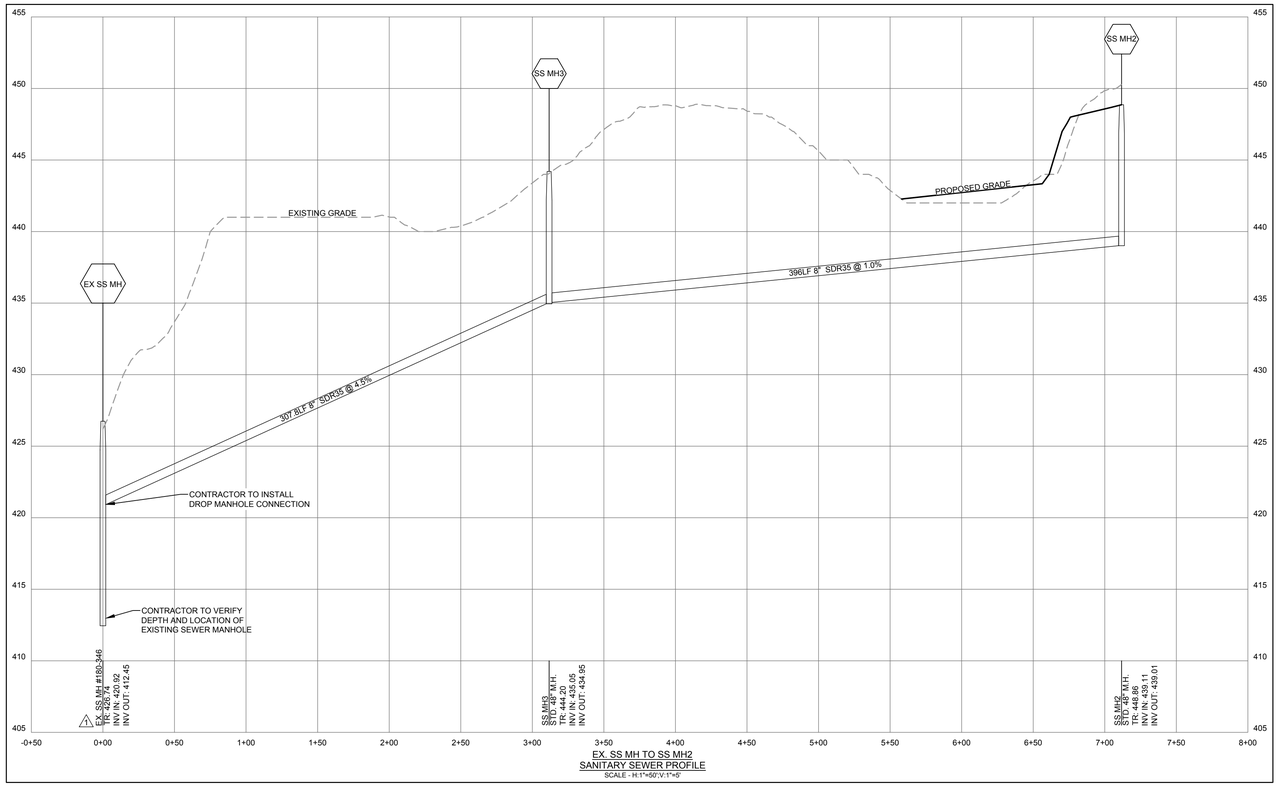
BOWMAN DEVELOPMENT CORP.
10229 GOVERNOR LANE BLVD, SUITE B302, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2
DWN BY KODY WARD | DATE 07-22-2024
PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 038-021-009
SCALE AS SHOWN

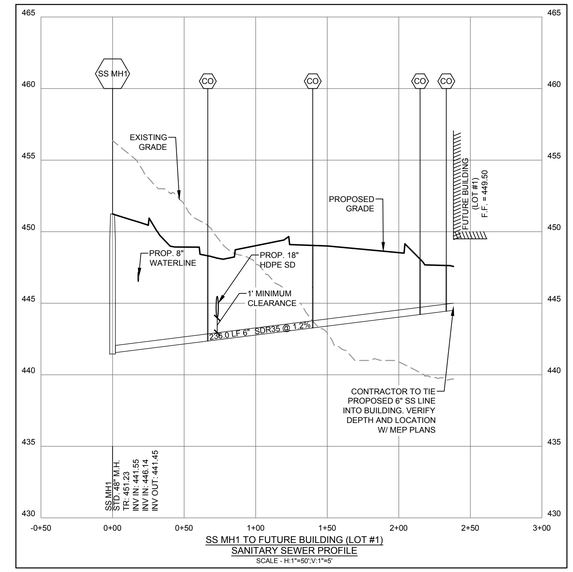
SHEET TITLE
WORKFORCE WAY PLAN & PROFILE

C-112
SHEET 14 OF 31

PSP-24-001



EX. SS MH TO SS MH2
SANITARY SEWER PROFILE
SCALE - H:1"=50';V:1"=5'

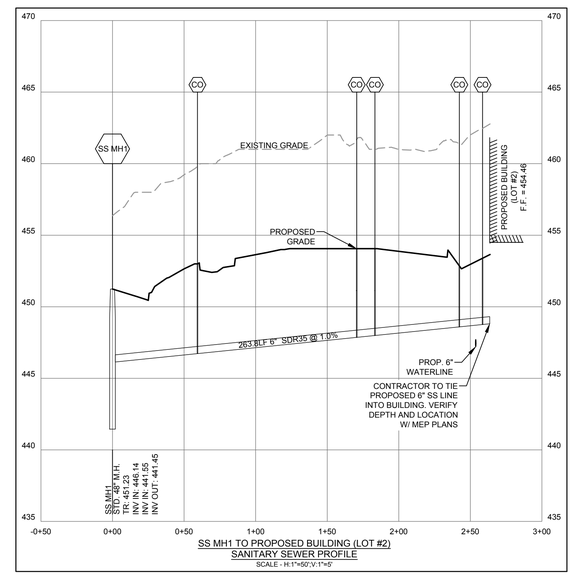


SS MH1 TO FUTURE BUILDING (LOT #1)
SANITARY SEWER PROFILE
SCALE - H:1"=50';V:1"=5'

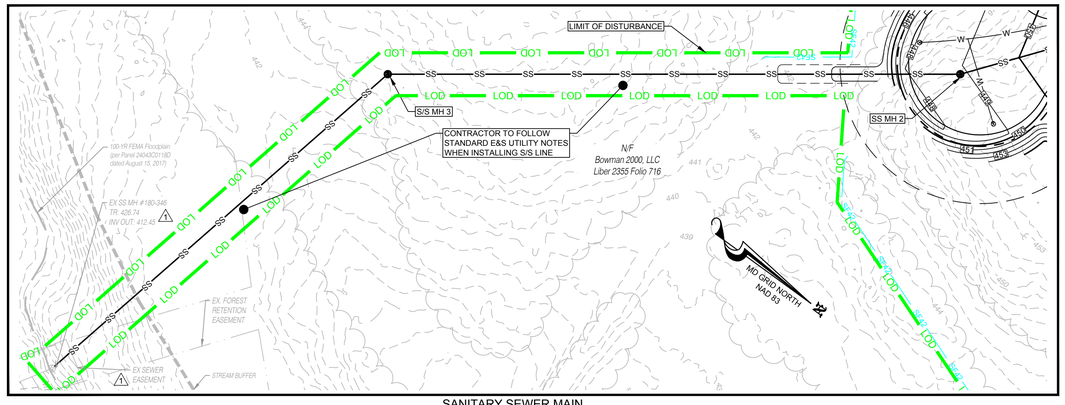
WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

This approval is for general conformance with the County's requirements for design and layout of proposed sewer and/or water system improvements or extensions. All sewer and/or water system improvements or extensions shall be constructed in strict accordance with the County's latest addition of the Standard Specifications for Construction of Sanitary Sewers and/or Water Lines. This approval does not guarantee availability of sewer and/or water service. Sewer and/or water service availability is subject to conformance with all rules, policies and regulations established by the County and in effect at the time application for service is made, and/or the availability of allocation remaining in other jurisdictions' facilities that may be granted to the County. This approval shall be valid for a period of TWO years.

SIGNATURE DATE



SS MH1 TO PROPOSED BUILDING (LOT #2)
SANITARY SEWER PROFILE
SCALE - H:1"=50';V:1"=5'



SANITARY SEWER MAIN
PLAN VIEW
SCALE: 1"=50'

Standard E&S Utility Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to place excavated materials in a dump truck and hauled to an appproved location to wasted materials to paved areas.
3. Contractor to backfill trench with approved materials and stabilize disturbed areas in the same working day.
4. In areas where the construction takes places outside of the perimeter controls (i.e Smart Fence 42), contractor to install silt fence along the downhill side of the trench before beginning construction and place excavated material from the trench on the uphill side.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets of any debris caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed & mulch or appropriate street repair.

GRAPHIC SCALE
50 0 25 50 100 200
(IN FEET)
1 inch = 50 ft.

STATE OF MARYLAND
DAVID A. TROSTLE
No. 29961
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29961
Expiration Date 06-23-2025

NOT APPROVED FOR CONSTRUCTION

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 SOUTH CHOCTAW STREET HAGERSTOWN, MD 21740 301-739-8866
14 WEST MAIN STREET GREENCASTLE, PA 17225 717-597-1837
1456 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-1411
1100 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
fsa-inc.com
c2899

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN VERTHERON DRIVE AND KLARNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

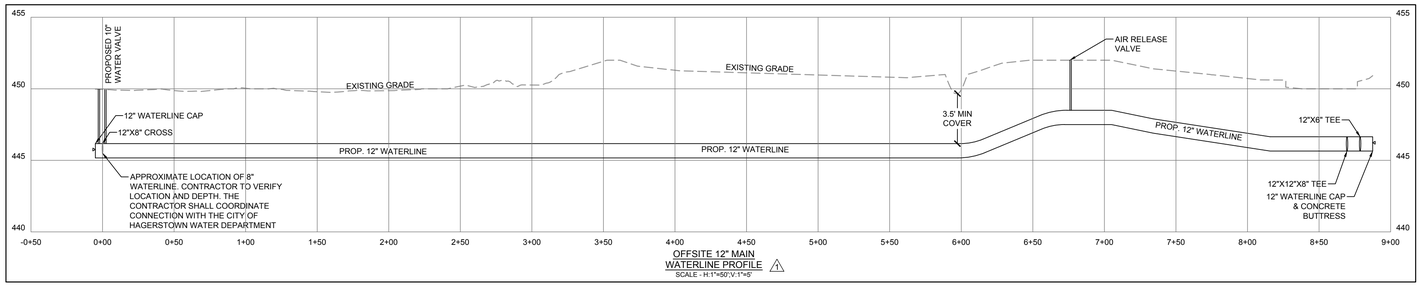
PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	AS SHOWN

SHEET TITLE

CONSTRUCTION PROFILES - SS

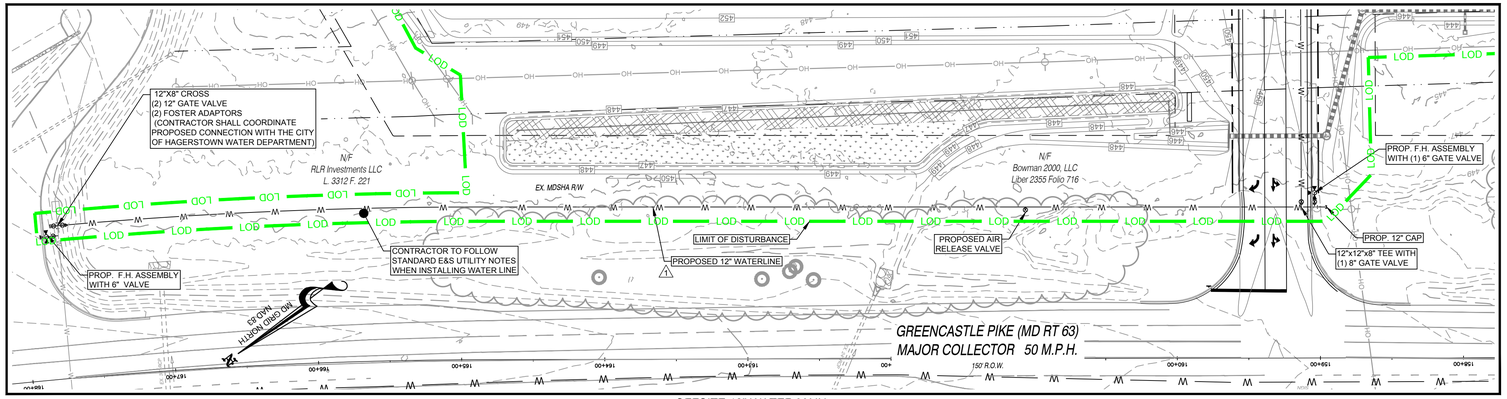
C-201
SHEET 15 OF 31

PSP-24-001



OFFSITE 12" MAIN WATERLINE PROFILE 1

SCALE - H:1"=50',V:1"=5'



OFFSITE 12" WATER MAIN PLAN VIEW

SCALE: 1"=50'

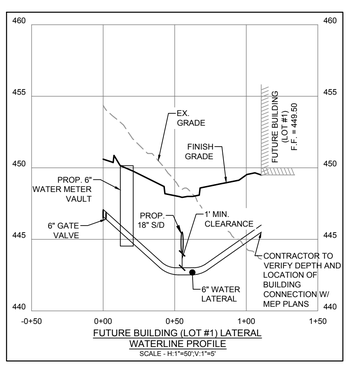
Standard E&S Utility Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to place excavated materials in a dump truck and hauled to an appproved location to wasted materials to paved areas.
3. Contractor to backfill trench with approved materials and stabilize disturbed areas in the same working day.
4. In areas where the construction takes places outside of the perimeter controls (i.e Smart Fence 42), contractor to install silt fence along the downhill side of the trench before beginning construction and place excavated material from the trench on the uphill side.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets of any debris caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed & mulch or appropriate street repair.

GRAPHIC SCALE

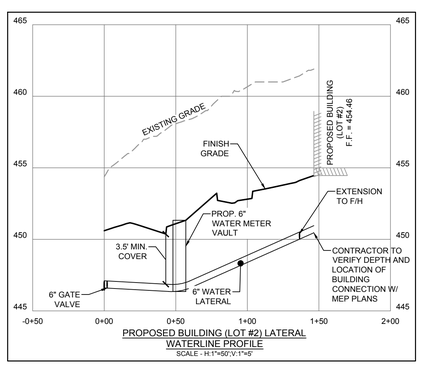
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.



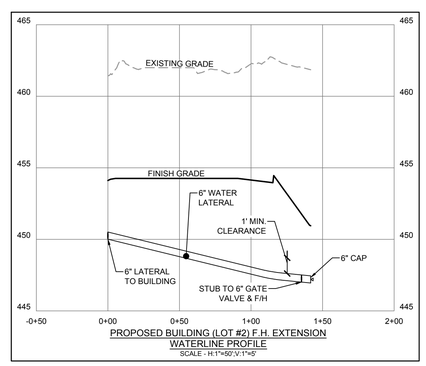
FUTURE BUILDING (LOT #1) LATERAL WATERLINE PROFILE

SCALE - H:1"=50',V:1"=5'



PROPOSED BUILDING (LOT #2) LATERAL WATERLINE PROFILE

SCALE - H:1"=50',V:1"=5'



PROPOSED BUILDING (LOT #2) F.H. EXTENSION WATERLINE PROFILE

SCALE - H:1"=50',V:1"=5'

CITY OF HAGERSTOWN UTILITIES DEPARTMENT WATER DIVISION

This approval is for the design and layout of the proposed water system improvements. All water system improvements shall be constructed to the standards in effect at the time of construction. This approval does not guarantee availability of water service. Water service is available subject to conformance with all policies and standards in effect at the time of application for service, payment of fees and approval of the water service application. The Water Division does not guarantee a specific water pressure or flow at any meter or fire hydrant. This approval is valid for a period of one year.

SIGNATURE DATE

STATE OF MARYLAND
DAVID A. TROSTLE
No. 29961
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29961
Expiration Date: 06-23-2025

FSA
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#2999
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128 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
1406 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-1811

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEATHERDRIVE AND KLARNE DRIVE

HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2

DWN BY: KODY WARD | DATE: 07-22-2024

PROJECT MANAGER: DAVID TROSTLE

EMAIL: dtrostle@fsa-inc.com

TAX MAP-GRID-PARCEL: 036-021-009

SCALE: AS SHOWN

SHEET TITLE

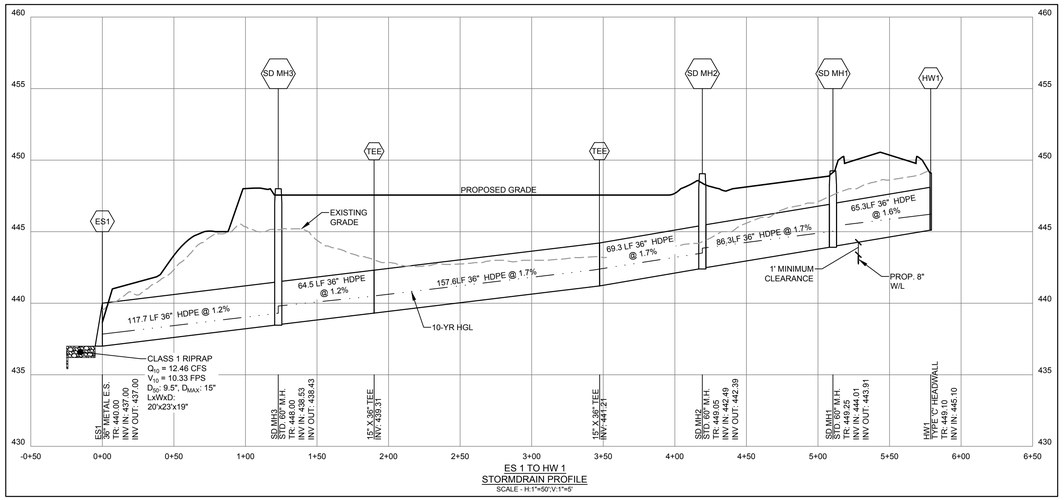
CONSTRUCTION PROFILES - WATER

C-202

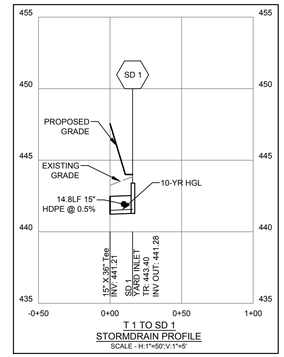
SHEET 16 OF 31

PSP-24-001

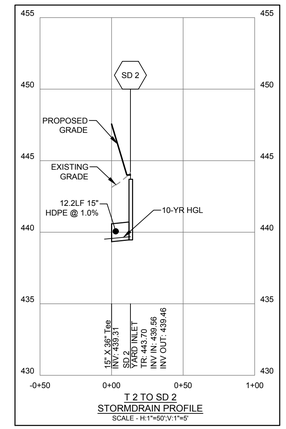
P:\SHARED FOLDERS\PROJECTS\6500\6523.2\DESIGN\ FILA\6523.2 - 16 - C-202 - CONSTRUCTION PROFILES - WATER.DWG 2025-04-16



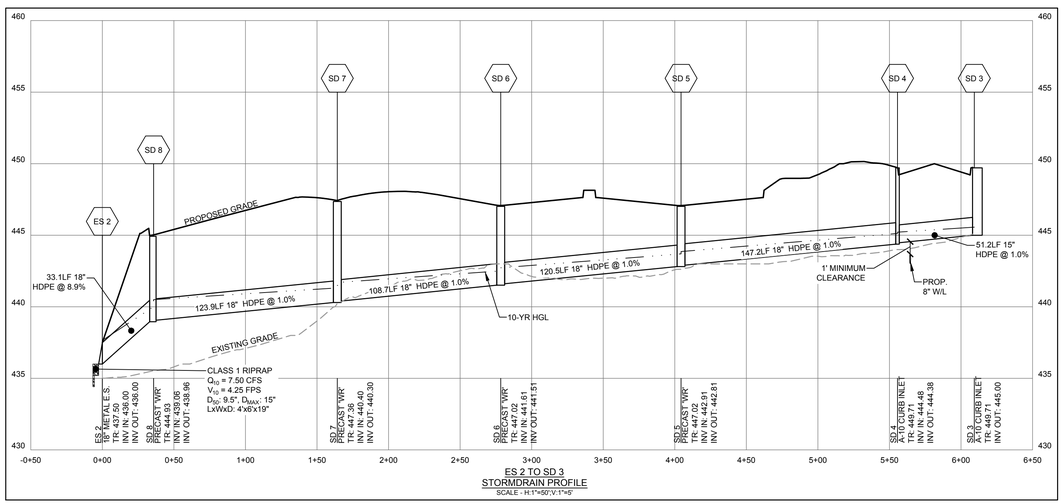
ES 1 TO HW 1
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'



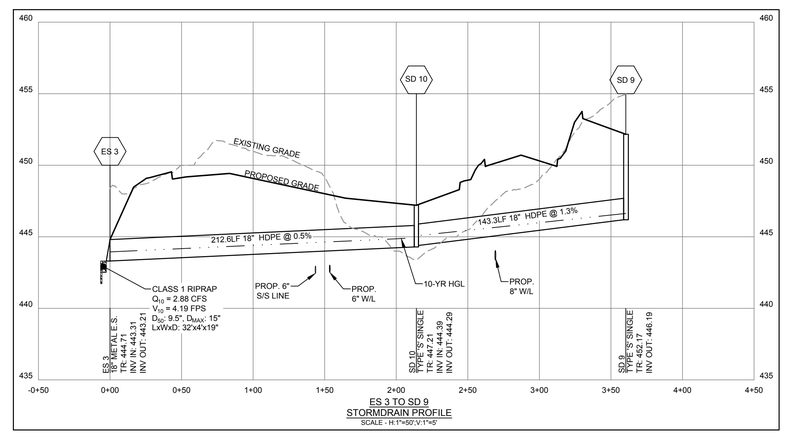
T 1 TO SD 1
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'



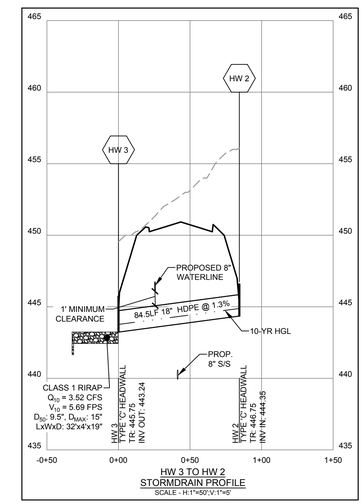
T 2 TO SD 2
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'



ES 2 TO SD 3
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'



ES 3 TO SD 9
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'



HW 3 TO HW 2
STORMDRAIN PROFILE
SCALE - H:1"=50';V:1"=5'

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 25968-1
Expiration Date: 08-23-2025

FSA
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HAGERSTOWN, MD 21740
301-739-8866
WEST GREENCASTLE STREET
GREENCASTLE, PA 17225
717-597-1407
NEW BLOOMFIELD, PA 17068
717-582-2161
1426 SOUTH HANOVER STREET
CARLISLE, PA 17013
717-249-0711

MARK	DESCRIPTION:	DATE:

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN HEATHER DRIVE AND ALARNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2
DWN BY KODY WARD
DATE 07-22-2024
PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 036-021-009
SCALE AS SHOWN
SHEET TITLE

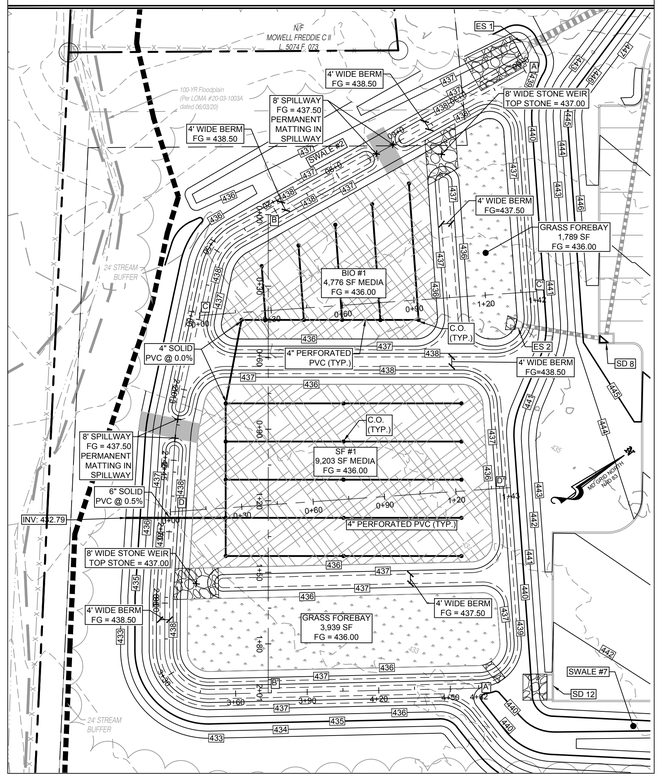
CONSTRUCTION PROFILES - SD

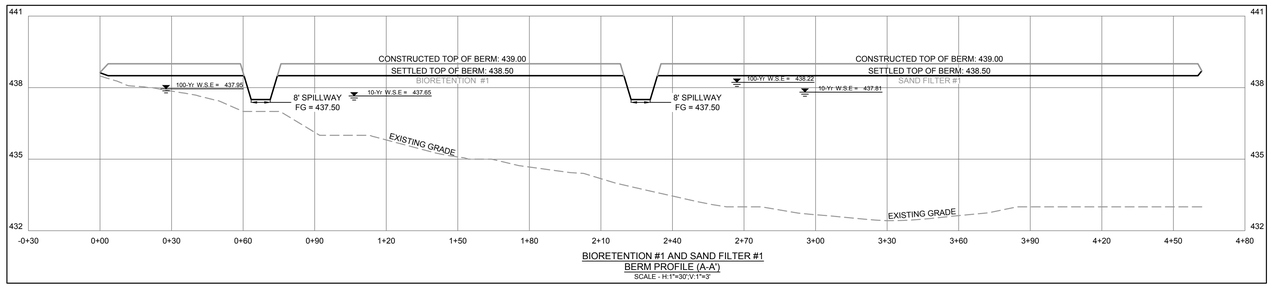
C-203
SHEET 17 OF 31

PSP-24-001

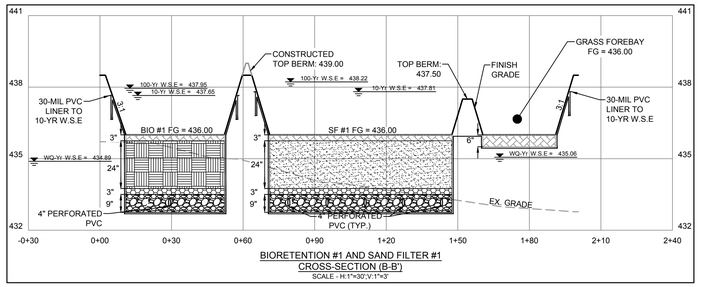
BIORETENTION #1 & SAND FILTER #1

SCALE: 1"=30'

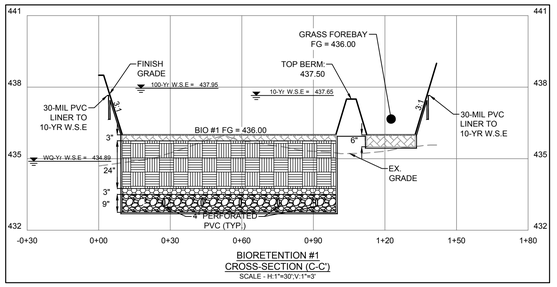




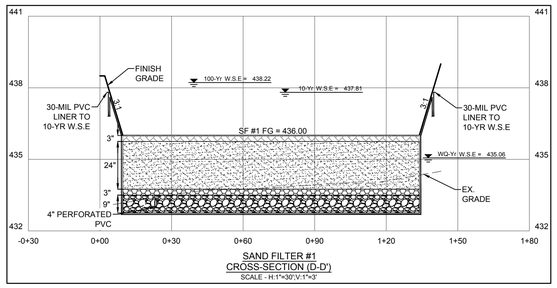
BIORETENTION #1 AND SAND FILTER #1
BERM PROFILE (A-A')
SCALE - H:1"=30',V:1"=3'



BIORETENTION #1 AND SAND FILTER #1
CROSS-SECTION (B-B')
SCALE - H:1"=30',V:1"=3'



BIORETENTION #1
CROSS-SECTION (C-C')
SCALE - H:1"=30',V:1"=3'



SAND FILTER #1
CROSS-SECTION (D-D')
SCALE - H:1"=30',V:1"=3'

PROFILE HATCH LEGEND

- Topsoil
- Planting Media
- Pea Gravel
- #57 Stone
- Stone Weir
- Sand

Bio-Retention Schedule

No.	Total Surface Area (SF)	Media Area (sf)	Ponding Depth (FT.)	Finish Grade Elev.	Bot. Stone Elev.	Bio Media	Top Berm	Berm Width	C.O.'s	Liner Required	10-Yr WSEL	100-Yr WSEL
Bio #1	6,703	4,776	1.5'	436.00	432.75	3.25'	438.50	4'	11	YES	437.65	437.95

Sand Filter Schedule

No.	Total Surface Area (SF)	Media Area (sf)	Ponding Depth (FT.)	Finish Grade Elev.	Bot. Stone Elev.	Bio Media	Top Berm	Berm Width	C.O.'s	Liner Required	10-Yr WSEL	100-Yr WSEL
SF #1	13,264	9,203	1.5	436.00	432.75	3.25'	438.50	4'	15	YES	437.81	438.22
SF #2	6,819	4,984	1	439.50	436.25	3.25'	441.50	4'	6	YES	441.03	441.26

GRAPHIC SCALE

30 0 15 30 60 120

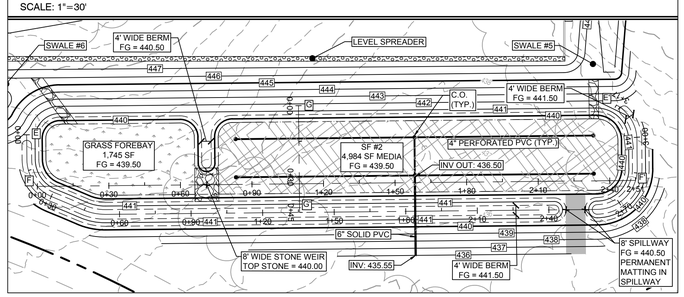
(IN FEET)
1 inch = 30 ft.

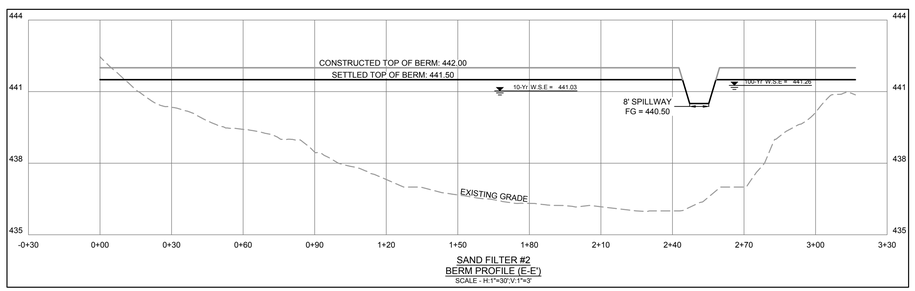
PLAN VIEW HATCH LEGEND

- Grass Forebay
- Planting Media
- Stone Weir
- Permanent Erosion Control Matting

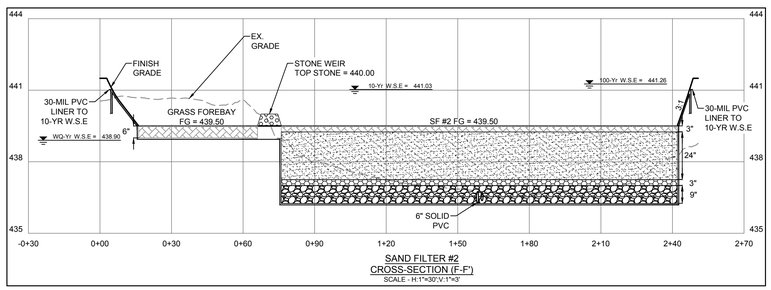
SAND FILTER #2

SCALE: 1"=30'





SAND FILTER #2
BERM PROFILE (E-E')
SCALE - H:1"=30',V:1"=3'



SAND FILTER #2
CROSS-SECTION (F-F')
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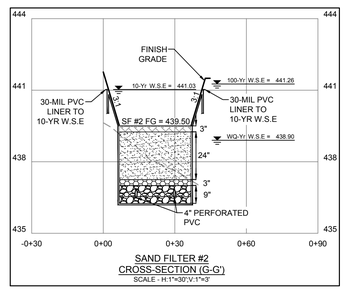

SAND FILTER #2
CROSS-SECTION (G-G')
SCALE - H:1"=30',V:1"=3'

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EAST MAIN STREET
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GREENCASTLE, PA 17225
717-597-1407
126 THOMPSONTOWN STREET
HAGERSTOWN, MD 21740
301-739-8866

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29848
Expiration Date: 08-23-2025

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF BENCASTLE PIKE (MD 63)
BETWEEN WEITHER DRIVE AND MCLANEY DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER: DAVID TROSTLE	
EMAIL: dtrostle@fsa-inc.com	
TAX MAP-GRID-PARCEL: 036-021-009	
SCALE: AS SHOWN	

SHEET TITLE

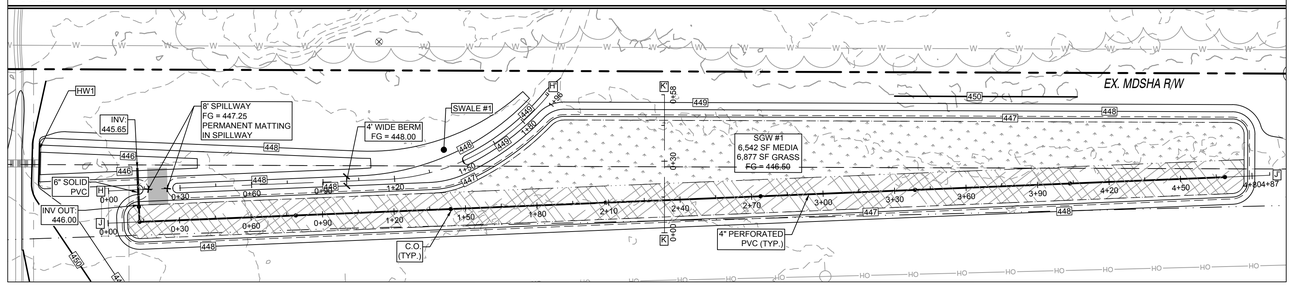
SWM PLAN
AND PROFILES

C-301
SHEET 18 OF 31

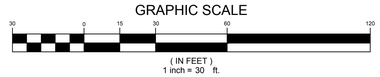
PSP-24-001

SUBMERGED GRAVEL WETLAND #1

SCALE: 1"=30'



GRAPHIC SCALE

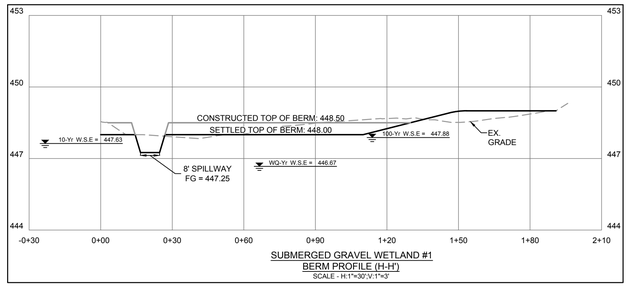


PLAN VIEW HATCH LEGEND

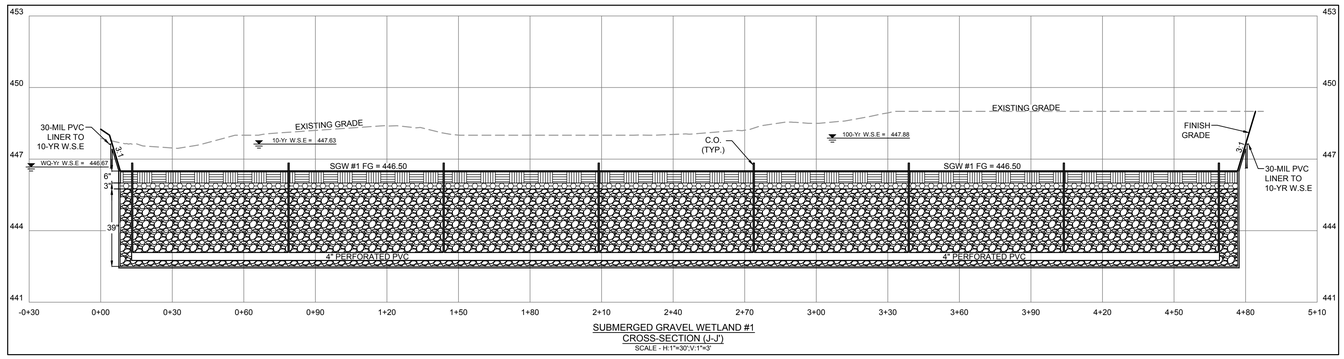
- Grass Forebay
- Planting Media
- Stone Weir
- Permanent Erosion Control Matting

PROFILE HATCH LEGEND

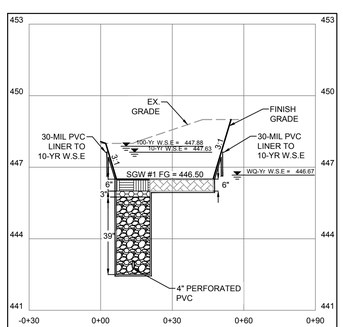
- Topsoil
- Planting Media
- Pea Gravel
- #57 Stone
- Stone Weir
- Sand



SUBMERGED GRAVEL WETLAND #1
BERM PROFILE (H-H')
SCALE - H:1"=30',V:1"=3'



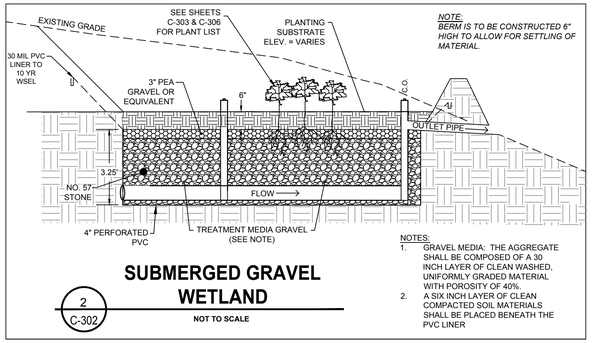
SUBMERGED GRAVEL WETLAND #1
CROSS-SECTION (J-J')
SCALE - H:1"=30',V:1"=3'



SUBMERGED GRAVEL WETLAND #1
CROSS-SECTION (K-K')
SCALE - H:1"=30',V:1"=3'

Submerged Gravel Wetland Schedule

No.	Total Surface Area (SF)	Media Area (sf)	Ponding Depth (FT.)	Finish Grade Elev.	Bot. Stone Elev.	Bio Media	Top Berm	Berm Width	C.O.'s	Liner Required	10-Yr WSEL	100-Yr WSEL
SGW #1	13,419	6,542	0.75'	446.50	442.50	4'	448.00	4'	8	YES	447.63	447.88



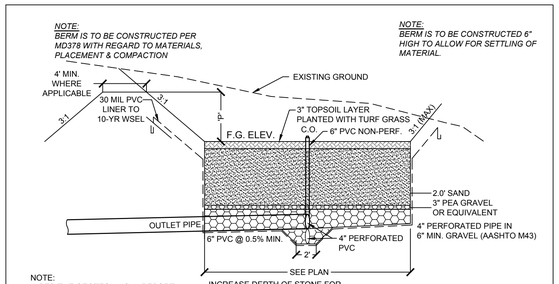
NOTE:
BERM IS TO BE CONSTRUCTED 6" HIGH TO ALLOW FOR SETTLING OF MATERIAL.

NOTES:
1. GRAVEL MEDIA: THE AGGREGATE SHALL BE COMPOSED OF A 30 INCH LAYER OF CLEAN WASHED, UNIFORMLY GRADED MATERIAL WITH POROSITY OF 40%.
2. A SIX INCH LAYER OF CLEAN COMPACTED SOIL MATERIALS SHALL BE PLACED BENEATH THE PVC LINER

SUBMERGED GRAVEL WETLAND

2 / C-302

NOT TO SCALE

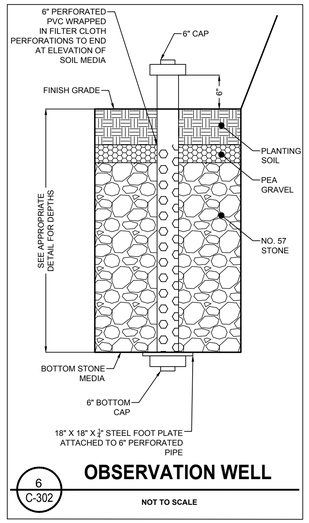


NOTE:
1. PER THE GEOTECHNICAL REPORT ALL SWM PONDS SHALL BE UNDERCUT A MINIMUM OF 6" AND BACKFILLED WITH SUITABLE FILL MATERIAL BENEATH THE PVC LINER.

SAND FILTER

3 / C-302

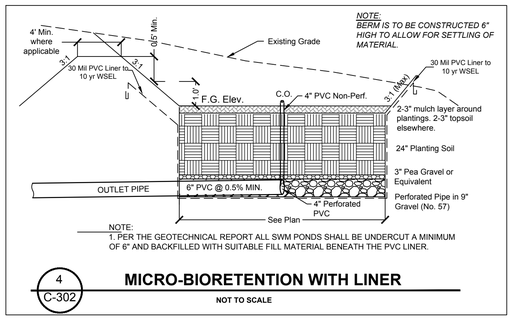
NOT TO SCALE



OBSERVATION WELL

6 / C-302

NOT TO SCALE

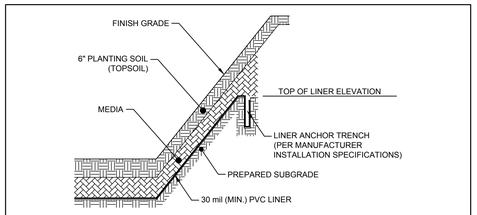


NOTE:
1. PER THE GEOTECHNICAL REPORT ALL SWM PONDS SHALL BE UNDERCUT A MINIMUM OF 6" AND BACKFILLED WITH SUITABLE FILL MATERIAL BENEATH THE PVC LINER.

MICRO-BIORETENTION WITH LINER

4 / C-302

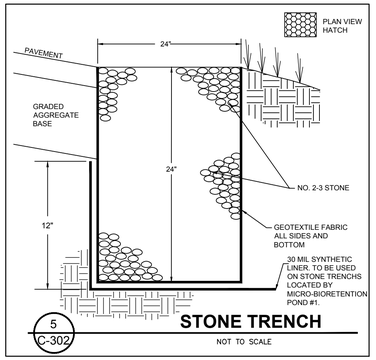
NOT TO SCALE



LINER ANCHOR TRENCH

1 / C-302

NOT TO SCALE



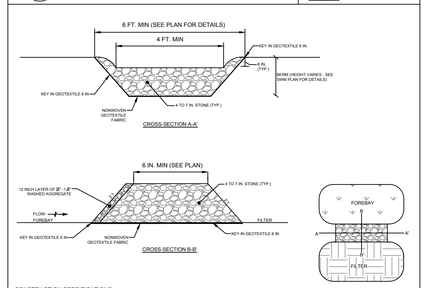
STONE TRENCH

5 / C-302

NOT TO SCALE

7 / C-302 STONE WEIR (FOREBAY STONE WINDOW)

PLAN VIEW HATCH LEGEND



CONSTRUCTION SPECIFICATIONS

1. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND SIDES OF THE WEIR PRIOR TO PLACEMENT OF STONE. CONSTRUCT THE WIER WITH WASHED 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) WITH SIDE SLOPES OF 2:1 OR FLATTER AND A MINIMUM TOP WIDTH OF 6 INCHES. PLACE THE STONE SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL AND CHANNEL BANKS. FORM THE WEIR SO THAT TOP OF THE OUTLET CREST IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES. LINE THE UPSTREAM FACE OF THE DAM WITH A 1 FOOT THICK LAYER OF WASHED AGGREGATE (6 TO 10 INCH).
2. STONE WEIR TO BE USED ON EVERY SEDIMENT FOREBAY SPILLWAY.

STATE OF MARYLAND — FREDERICK SEIBERT — REGISTERED PROFESSIONAL ENGINEER — No. 29294 — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 29294
Expiration Date: 06-23-2025

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CARLISLE, PA 17013 717-249-1411 — 1446 SOUTH HANOVER STREET
GREENCASTLE, PA 17225 717-597-1407 — 11 WEST BALTIMORE STREET
HAGERSTOWN, MD 21740 301-739-8866 — 1329 TOWNSHIP DRIVE

NOT APPROVED FOR CONSTRUCTION

MARK	DESCRIPTION	DATE

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF BRENDCASTLE PIKE (MD 68) BETWEEN WEST PIKE DRIVE AND WILLAMS DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LAYNE BLVD. SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	AS SHOWN
SHEET TITLE	SWM PLAN, PROFILES, AND DETAILS

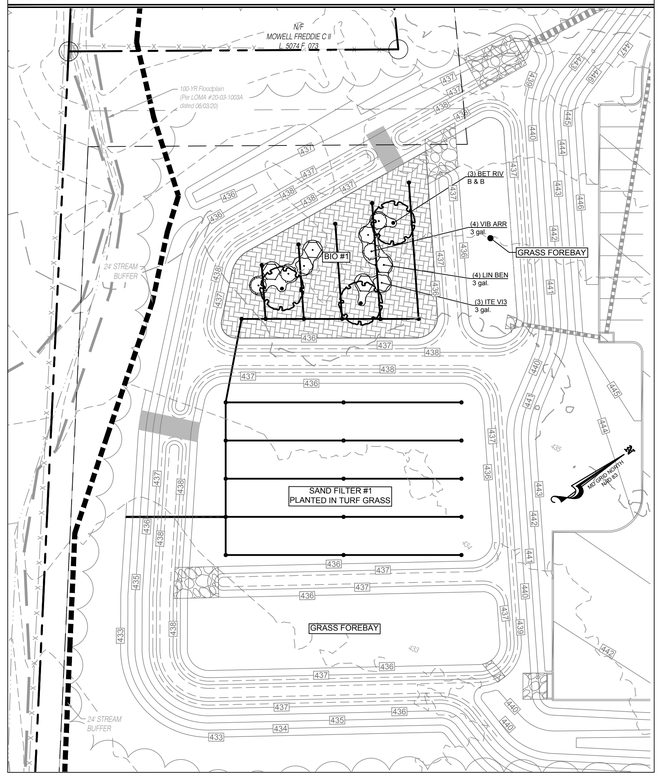
C-302

SHEET 19 OF 31

PSP-24-001

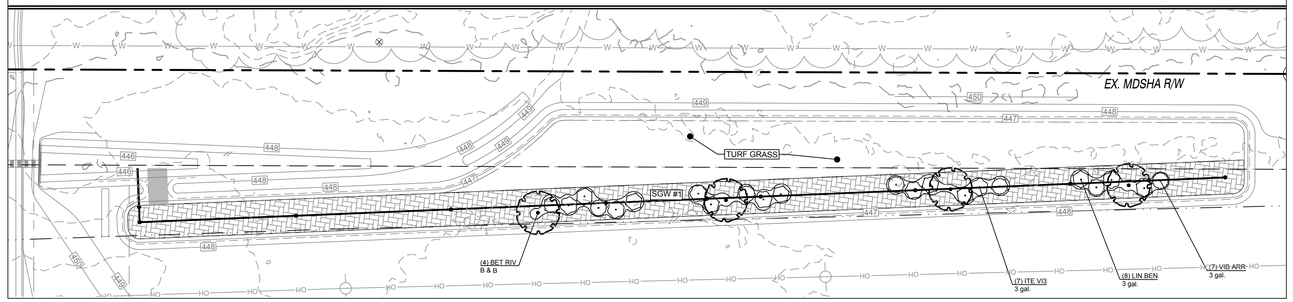
BIORETENTION #1 & SAND FILTER #1

SCALE: 1"=30'



SUBMERGED GRAVEL WETLAND #1

SCALE: 1"=30'



BMP MIXED GRASSES PLANTING SCHEDULE							
SYMBOL	QUANTITY				COMMON NAME	SIZE	REMARKS
	BIO #1	SGW #1					
	4,160 S.F.	5,310 S.F.			MIXED GRASSES	2" PLUGS	SEE DETAIL 1/L-501

PERENNIALS
MONARDA DIDYMA, BEEBALM
LOBELIA CARDINALIS, CARDINAL FLOWER
LOBELIA PUBERULA, DOWNY LOBELIA

MIXED GRASSES
CAREX TYPHINA, CAT-TAIL SEDGE
CAREX ANNECTENS, YELLOW FRUITED SEDGE

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
TREES						
	BET RIV	Betula nigra / River Birch	B & B	2"Cal	7	4/L501
SHRUBS						
	ITE VI3	Itea virginica `Virginia` / Virginia Sweetspire	3 gal.		10	2/L-501
	LIN BEN	Lindera benzoin / Spicebush	3 gal.		12	2/L-501
	VIB ARR	Viburnum dentatum / Viburnum	3 gal.		11	2/L-501

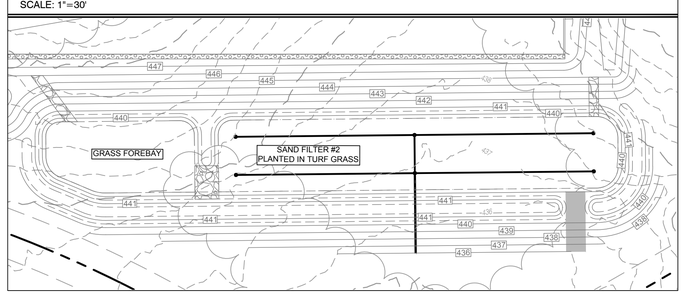
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

SAND FILTER #2

SCALE: 1"=30'



STATE OF MARYLAND
DAVID A. TROSTLE
No. 29963
REGISTERED PROFESSIONAL ENGINEER
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 29963
Expiration Date 06-23-2025

NOT APPROVED FOR CONSTRUCTION

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1 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068 (717) 582-2161
fsa-inc.com

MARK	DESCRIPTION	DATE

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF PHEASANT CASTLE PIKE (MD 68)
BETWEEN NEW PHEASANT DRIVE AND PLANET DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD., SUITE 300/2, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2
DWN BY KODY WARD
DATE 07-22-2024
PROJECT MANAGER DAVID TROSTLE
EMAIL dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 036-021-009
SCALE AS SHOWN

SHEET TITLE

SWM PLANTING PLAN AND DETAILS

C-303

SHEET 20 OF 31

PSP-24-001

Specifications for Bioretention & Sand Filter

(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications
The allowable materials to be used in bioretention areas are detailed in Table B.4.1

Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

Compaction
It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the bioretention area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Material
Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

Plant Installation
Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. the primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains
Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ⅜" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (⅛" to ⅜" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilize.

Bio-retention berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

Pond MD-378
NRCS - MARYLAND JANUARY 2000
CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the em-bankment.
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out. When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Stormwater Management Facilities Construction Inspection Requirements

1. The developer/contractor shall notify the Division of Public Works ("DPW") at least five (5) days before commencing any work in conjunction with the approved final stormwater management plan and upon completion of the project when a final inspection will be conducted.
2. Regular inspections shall be made and documented for each structural ESD planning technique and practice and structural stormwater measures every 2 weeks and at the required critical inspection stages identified in the attached checklists and the Washington County SWM, Grading, Soil Erosion and Sediment Control Ordinance.
3. All non-structural practices shall be inspected, at a minimum, upon completion of final grading, the establishment of permanent stabilization, and before issuance of use and occupancy permit.
4. Inspections shall be conducted by DPW, the MDE (as applicable), and by the Verifying Professional. Inspections performed by the DPW are not to be considered a substitute for those inspections required by the Verifying Professional. Written inspection reports shall be prepared by the Verifying Professional during construction of ESD planning techniques and practices plans. Copies of all inspection reports shall be provided to DPW by the person performing the inspection and kept on file with DPW.
5. Written inspection reports are required and shall be submitted in a manner consistent with the Public Works Agreement and this Article and in a format approved by DPW, and shall include, at a minimum:
   5.a. The date and location of the inspection;
   5.b. Work observed;
   5.c. Photos;
   5.d. Tests performed;
   5.e. Whether construction was in compliance with the approved stormwater management plan;
   5.f. Any variations from the approved construction specifications;
   5.g. Any violations that exist;
   5.h. Signature and date of Verifying Professional.
6. Failure to comply with these inspection requirements and/or obtain approval from the Verifying Professional or DPW at the required construction stages will result in disapproval of the facility, delays of final acceptance and permit release.
7. The developer, DPW, the MDE, Verifying Professional, and on-site personnel shall be notified in writing when violations are observed. Written notification shall be made by the person discovering the violation and shall describe the nature of the violation and the required corrective action. No further work affected by theviolation shall proceed until the corrective action is inspected and approved in writing by the Verifying Professional, the Division, MDE (as applicable), and the District (as applicable).
8. DPW may require adjustments to address items overlooked or inappropriately addressed by the plans. Such adjustments may be required during construction or at the final inspection.
9. The County may require a revision to the approved construction drawings or site plans be submitted and approved by the DPW, the Division of Planning and Community Development (as applicable), the MDE (as applicable) and the District prior to continuation of construction activity.
10. No work shall proceed beyond the construction stages specified in attached Checklists and the Washington County SWM, Grading, Soil Erosion and Sediment Control Ordinance until DPW and the Verifying Professional inspect and approve the work previously completed and the Verifying Professional furnishes the DPW and developer with the results of the inspection reports as soon as possible after completion of each required inspection.

STORMWATER MANAGEMENT SEED MIX NOTES

SITE PREPARATION
Invasive species, particularly those that will adapt to wet conditions, should be removed or sprayed before they become incorporated into the site. Spot spray or hand pull problem weeds. Perennial weeds not addressed before establishment will be difficult to remove later.

SEEDING AND PLANTING METHODS
Seeding and planting should begin immediately upon completion of the structure while the soil is still friable and before invasive weeds emerge. Plan seeding and planting before the basin is flooded or allow the basin to drain to a few inches before seeding. Broadcast seed evenly over each unit by hand seeding or hydroseeding. The use of native species can provide temporary vegetation to protect the soil in SWM facilities until permanent vegetation can become established. Straw mulch, or straw coconut mats are frequently used to control erosion and protect emerging seedlings from extreme temperatures and drying out. Mulch should be sparse in order to allow sunlight to reach the ground. Irrigating seeded areas is beneficial until seedlings become established.

FIRST GROWING SEASON MAINTENANCE
Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight, water and nutrients needed by slower growing, perennial natives. Mowing should not be done with a lawn mower as the mower height will be too low and native seedlings will be killed. Mowing should cease by mid-September.

SECOND AND SUBSEQUENT GROWING SEASON MAINTENANCE
Prior to new spring growth reaching a height of 2" trim any material standing from the previous year close to the ground (approximately 2"). This will allow the soil to warm more quickly which will stimulate emergence and growth of native seedlings.

SPECIAL CIRCUMSTANCES SECOND GROWING SEASON
If you notice a heavy infestation of ragweed or foxtail in the second growing season, trim the meadow to a height of 8". Trimming should cease after mid-September.

Submerged Gravel Wetlands Maintenance Schedule

1. Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
2. During the first year of operation, inspections shall be conducted after every major storm and poorly established areas revegetated.
3. Sediment accumulation in the pretreatment areas should be removed as necessary.
4. Signs of uneven flow distribution within the wetland may mean that the gravel or underdrain is clogged. The gravel and/or underdrain may need to be removed, cleaned, and replaced.
5. A dense stand of wetland vegetation should be maintained through the life of the facility with plantings replaced as needed.
6. Inlet and outlets to each submerged gravel wetland cell should be free from debris to prevent clogging.
7. Erosion at inflow points should be repaired. Flow splitters should be functional to prevent bypassing of the facility.

Notice of Required Stormwater Management Inspections
Sand Filters, Bioretention and Rain Garden Facilities

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		SF #1	SF #2	BIO #1
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**			
	Date			
	County Inspector			
	Date			
The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.				

Operation and Maintenance Plan
Bioretention & Sand Filters

Inspection Item	Inspection Requirements	Remedial Action
Maintenance Access		
General	Check for accessibility to facility; excessive vegetation; surface stability	Repair erosion and maintain access surface in good condition
Pretreatment		
Grass filter strip or sand layer	Check for sediment accumulation	Remove sediment as needed
Optional sand layer	Check sand for staining and sediment accumulation	If contaminated, replace first three inches of sand layer
Gravel diaphragm	Check for sediment accumulation and evidence of erosion	Remove sediment and replace gravel as needed
Mulch layer	Check for a 2-3 inch mulch layer	Remove mulch and replace as needed
Filter Bed		
Dewatering	Check for dewatering within 48 hours of rainfall; noticeable odors; water stains on the filter surface or at the outlet; presence of algae or aquatic vegetation	Remove mulch and the top 3-6 inches of soil/sediment and replace with suitable materials per plan specifications; follow up inspections shall confirm adequate dewatering; contact the plan approval authority if the facility does not function as intended
Sediment	Check for sediment accumulation	Remove sediment as needed
Mulch layer	Check for adequate cover; sediment accumulation; discoloration	Remove and replace mulch and excess sediment as needed
Vegetation		
Plant composition and health	Check for plant composition according to approved plans; invasive species, weeds, and dead or dying vegetation	Remove and replace plants as necessary
Vegetative cover/erosion	Check for erosion, runoff channelizing, or bare spots	Repair/grade and stabilize as needed
Outlets		
Underdrain system	Check outlet end to ensure that discharge is not obstructed; check for erosion	Remove any flow obstructions; grade and stabilize any eroded areas to provide stable conveyance
Overflow spillway	Check for displacement of rip-rap, stable conveyance, and erosion below the outlet	Repair and replace as needed
Conveyance Systems		
General	Check for erosion, flow blockages or bypass, and stable conveyance	Repair/replace and stabilize as needed
Flow diversion	Check flow splitter for proper functioning	Repair as necessary
Trash and Debris		
	Check for trash and debris accumulation	Trash and debris shall be disposed of in an acceptable manner
Structural Components		
	Check for structural deterioration, spalling or cracking	Repair according to specifications on the approved plans

Field conditions may require a modification to the original approval in order to achieve the intended design function. The plan approval authority should be contacted for review and approval of all proposed modifications. Inspection and maintenance should occur after any major rain event (e.g., meeting or exceeding the design rainfall depth for the facility).

Table B.3.1 Material Specifications for Sand Filters

Material	Specification/Test Method	Size	Notes
sand	clean AASHTO-M=6 of ASTM-C-33 concrete sand	0.02" to 0.04"	Sand substitution such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No "rock dust" can be used for sand.
peat	ash content: < 15% pH range: 5.2 to 4.9 loose bulk density: 0.12 to 0.15 g/cc	n/a	The material must be reed-sedge hemic peat, shredded, uncompacted, uniform, and clean
leaf compost		n/a	
underdrain gravel	AASHTO-M-43	0.375" to 0.75"	
geotextile fabric (if required)	ASTM-D-4833 (puncture strenght - 125 lb.) ASTM-D-4632 (Tensile Stength - 300 lb.)	0.08" thick equivalent opening size of #80 sieve	Must maintain 125 gpm per sq. ft. flow rate. Note: a 4" pea gravel layer may be substituted for geotextiles meant to "separate" sand filter layers.
impermeable liner (if required)	ASTM-D-4833) thickness) ASTM-D-412 (tensile strenght 1100 lb., elongation 200%) ASTM-D-624 (Tear resistance - 150 lb./in) ASTM-D-471 (water adsorption: +8 to -2% mass)	30 mil thickness	Liner to be ultraviolet resistant. A geotextile fabric should be used to protect the liner from puncture.
underdrain piping	F 758, Type PS 28 of AASHTO-M-278	4"-6" HDPE	⅜" perf. @ 6" on center, 4 holes per row; minumum of 3" of gravel oaver pipes; not necessary underneath pipes
concrete (cast-in-place)	MSHA Standards and Specs. Section 902, Mix No. 3, f,=3500 psi, normal weight, air-entrained; re-inforcing to meet ASTM-615-60	n/a	on-site testing of poured-in-place concrete required: 28 days strength and slump test; all concrete design (cast-in-place or precast) 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
concrete (pre-cast)	per pre-cast manufacturer	n/a	SEE ABOVE NOTE
non-rebar steel	ASTM A-36	n/a	structural steel to be hot-dipped galvanized ASTM-A-123

Table B-4.1 Material Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	see planting list	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	n/a	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		n/a	PE Type 1 nonwoven
Gravel (underdrains and infiltration berms)	AASHTO M-43	NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SDR35	Slotted or perforated pipe: 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes.
Poured in place concrete (if required)	MSHA Mix No. 3 f,= 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 engineer licensed in the State of Maryland - design to include meeting ACI 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 substitution 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.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.

Notice of Required Stormwater Management Inspections
Submerged Gravel Wetland

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		SGW #1
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.		

Table B-4.1 Material Specifications for Submerged Gravel Wetland

Material	Specification	Size	Notes
Plantings	see planting list	n/a	plantings are site-specific
Planting Substrate [6" 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)		
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Gravely Treatment Media	Clean Washed uniformly graded material with a porosity of 40%	No. 57 or No. 6 Aggregate	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SDR35	Slotted or perforated pipe: 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes.
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitution 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.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.

Specifications for Submerged Gravel Wetland

(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications
The allowable materials to be used in submerged gravel wetland areas are detailed in Table B.4.1

Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the planting area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

Compaction
It is very important to minimize compaction of both the base of the planting area and the required backfill. When possible, use excavation hoes to remove original soil. If wetland areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the wetkabd area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the wetland facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the wetland area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade wetland materials with light equipment such as a compact loader or a dozer/loader with marsh tracks

Plant Installation

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the submerged gravel wetland is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains
Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ⅜" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (⅛" to ⅜" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilize.

Wetland berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

STATE OF MARYLAND
04/17/2025
Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 25984
Expiration Date 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa@fsa-inc.com
EST. 1989
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866
WEST MAIN STREET GREENCASTLE, PA 17225 717-597-1407
1446 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-1411
2121 MAIN ST NEW BLOOMFIELD, PA 17068 717-582-7884

DATE:
MARK: DESCRIPTION:

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN WEITHER DRIVE AND KARNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY KODY WARD	DATE 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.

SHEET TITLE

SWM PLANTING NOTES

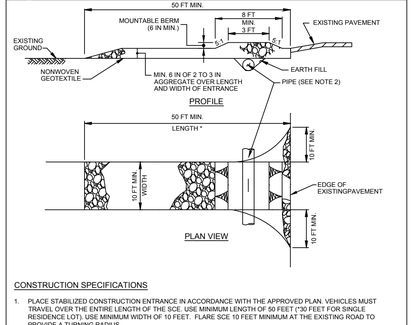
C-304
SHEET 21 OF 31

PSP-24-001

P:\SHARED\FOLDERS\PROJECTS\6523\6523.2\7\6523.2F PLAN\6523.2 - 18-21 - C-301-C-304 - SWM PLAN, PROFILES, PLANTING & DETAILS.DWG - 2025-04-18

1 / C-501 DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

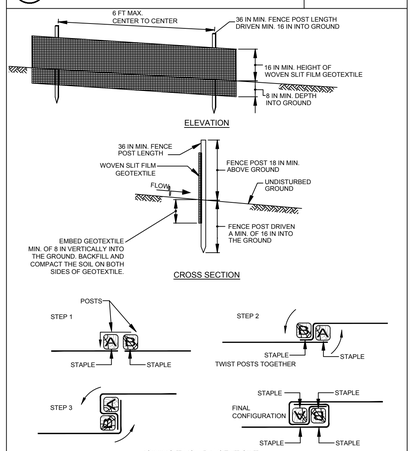
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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

2 / C-501 DETAIL E-1 SILT FENCE

STANDARD SYMBOL SF



CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1½ X 1½ x 36 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

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

TEMPORARY SEEDING SUMMARY

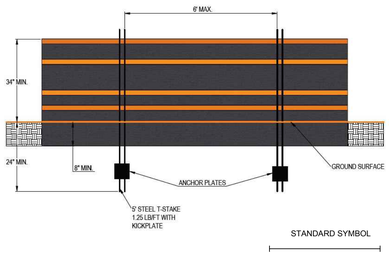
HARDINESS ZONE (FIGURE B.3): 6b SEED MIXTURE (TABLE B.1)					FERTILIZER RATE (19-20-20)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS		
1	Barley	96	Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

PERMANENT SEEDING SUMMARY

HARDINESS ZONE (FIGURE B.3): 6b SEED MIXTURE (TABLE B.1)					FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTH	N	P205	K20	
6	Tall Fescue	40	Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

LET'S GET IT DONE

SMARTfence® 42 Detail:



3 / C-501 SMARTfence 42 Detail

NOT TO SCALE

SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

ACF ENVIRONMENTAL LET'S GET IT DONE!
800.448.3636
acfenvironmental.com

SMARTFENCE 42" INSTALLATION INSTRUCTIONS

SEDIMENT & PERIMETER CONTROL

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft. maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties per Step 4.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

SMARTfence

For more information, contact our Inside Sales team at: 800.448.3636 email at: info@acfenv.com

ACF ENVIRONMENTAL

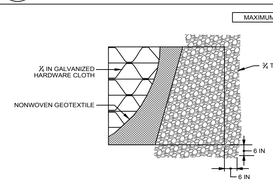
4 / C-501 SMARTfence 42 Installation Detail

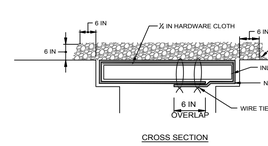
NOT TO SCALE

5 / C-501 DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE





CONSTRUCTION SPECIFICATIONS

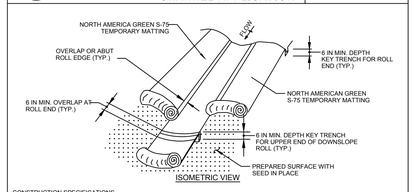
1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. STORM 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

6 / C-501 DETAIL B-4-6-A TEMPORARY SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL
TSSMC - * lb/ft²
(* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

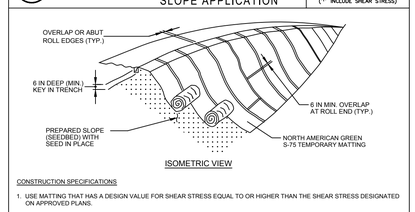
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD. 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTERLINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MAT SMOOTHLY AND FIRMLY ON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. KEY-IN UPSTREAM END OF EACH MAT ROLL BY DIGGING A 6 INCH (MINIMUM) TRENCH AT THE UPSTREAM END OF THE MATTING, PLACING THE ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END.
7. OVERLAP OR ABUT THE ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

7 / C-501 DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL
TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD. 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

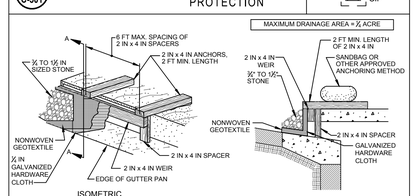
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

8 / C-501 DETAIL E-9-3 CURB INLET PROTECTION

STANDARD SYMBOL CIP

MAXIMUM DRAINAGE AREA = ¼ ACRE



CONSTRUCTION SPECIFICATIONS

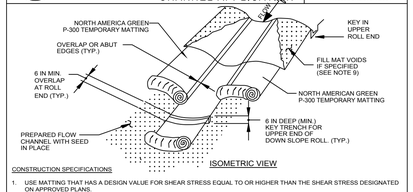
1. USE NOMINAL 2 INCH x 4 INCH LUMBER
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
3. NAIL THE 2x4 WEIR TO 9 INCH LONG VERTICAL SPACERS (MAXIMUM 6 FEET APART).
4. ATTACH A CONTINUOUS PIECE OF ½ INCH GALVANIZED HARDWARE CLOTH, WITH A MINIMUM WIDTH OF 30 INCHES AND A MINIMUM LENGTH OF 4 FEET LONGER THAN THE THROAT OPENING, TO THE 2x4 WEIR, EXTENDING IT 2 FEET BEYOND THROAT ON EACH SIDE.
5. 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.
6. PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL TO 2x4 ANCHORS (MINIMUM 2 FEET LENGTH). EXTEND THE ANCHORS ACROSS THE INLET TOP AND HOLD IN PLACE BY SANDBAGS OR OTHER APPROVED ANCHORING METHOD.
7. INSTALL END SPACERS A MINIMUM OF 1 FOOT BEYOND THE ENDS OF THE THROAT OPENING.
8. 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 ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE.
9. AT NON-SUMP LOCATIONS, INSTALL A TEMPORARY SANDBAG OR ASPHALT BERM TO PREVENT INLET BYPASS.
10. 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

9 / C-501 DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

STANDARD SYMBOL
PSSMC - * lb/ft²
(* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

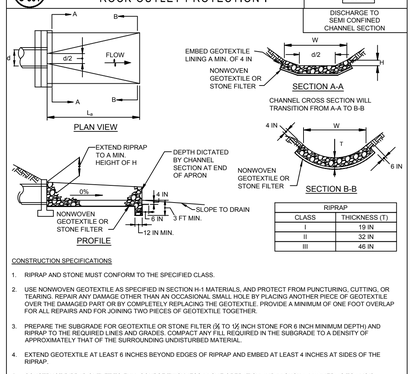
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

10 / C-501 DETAIL D-4-1-A ROCK OUTLET PROTECTION I

STANDARD SYMBOL ROP1

DISCHARGE TO SEMI CONFINED CHANNEL SECTION



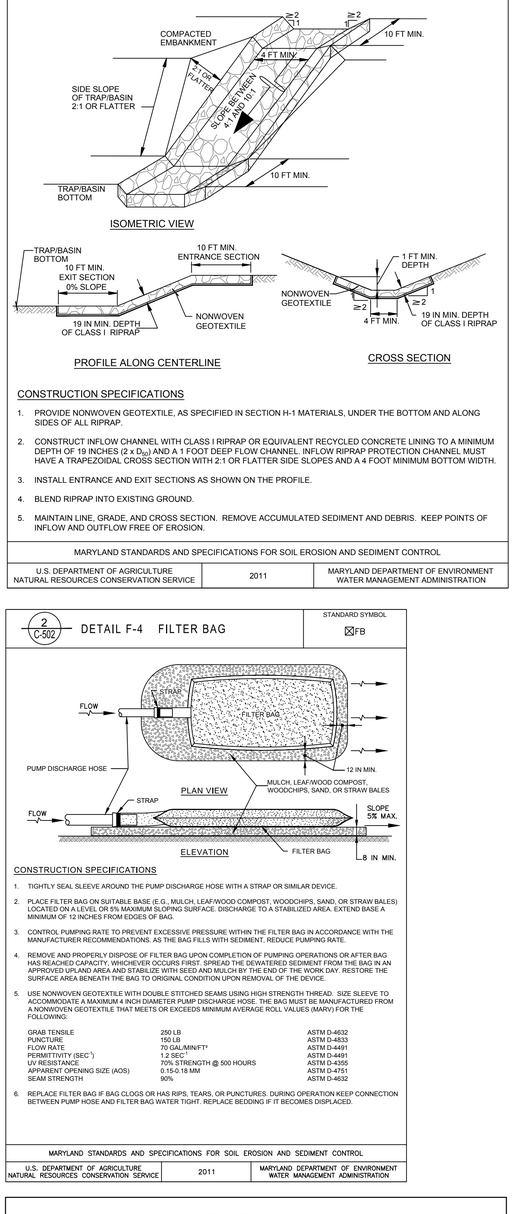
RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (½ TO 1½ INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF THE RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH TH

1 / C-502 DETAIL D-3-1 RIPRAP INFLOW PROTECTION

STANDARD SYMBOL: RRP



CONSTRUCTION SPECIFICATIONS

1. PROVIDE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND ALONG SIDES OF ALL RIPRAP.
2. CONSTRUCT INFLOW CHANNEL WITH CLASS I RIPRAP OR EQUIVALENT RECYCLED CONCRETE LINING TO A MINIMUM DEPTH OF 19 INCHES (2 x D_{50}) AND A 1 FOOT DEEP FLOW CHANNEL. INFLOW RIPRAP PROTECTION CHANNEL MUST HAVE A TRAPEZOIDAL CROSS SECTION WITH 2:1 OR FLATTER SIDE SLOPES AND A 4 FOOT MINIMUM BOTTOM WIDTH.
3. INSTALL ENTRANCE AND EXIT SECTIONS AS SHOWN ON THE PROFILE.
4. BLEND RIPRAP INTO EXISTING GROUND.
5. MAINTAIN LINE, GRADE, AND CROSS SECTION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. KEEP POINTS OF INFLOW AND OUTFLOW FREE OF EROSION.

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

2 / C-502 DETAIL F-4 FILTER BAG

STANDARD SYMBOL: FB

CONSTRUCTION SPECIFICATIONS

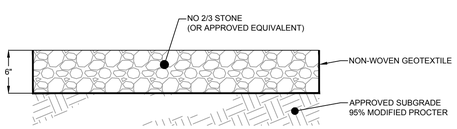
1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES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

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



SECTION

3 / C-502 HAUL ROAD

NOT TO SCALE

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must be completed within:
   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all 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 the project site not under active grading.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

⚠1 ***For sites 1.0 acre or more, the following are required:***

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.
B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — No. 29994
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 29994
Expiration Date 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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126 TRUMAN AVENUE, STREET HAGERSTOWN, MD 21740 301 739-8866
14 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2061
14 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1647
1446 SOUTHLAND CIRCLE, STREET CARLISLE, PA 17013 717-249-0411

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	03.21.25

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF BRIDGE CASTLE PIKE (MD 68) BETWEEN MEETHER DRIVE AND CLARNER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD., SUITE 300/2, WILLIAMSPORT, MD 21795
301.582.1555

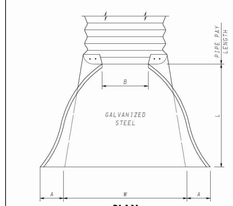
PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.
SHEET TITLE	

DETAILS & NOTES - E&S

C-502

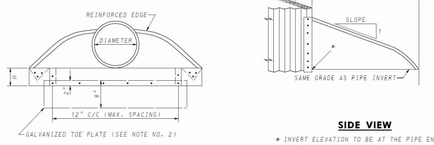
SHEET 23 OF 31

PSP-24-001



PLAN

DIMENSIONS								
PIPE DIA.	GA.	A ±1/8	B MAX.	H ±1/8	L ±1/4	W ±1/8	APPROX. SLOPE	UNIT
12"	16	6"	6"	6"	21"	24"	2½	1 PC.
15"	16	7"	8"	6"	26"	30"	2½	1 PC.
18"	16	8"	10"	6"	31"	36"	2½	1 PC.
21"	16	9"	12"	6"	36"	42"	2½	1 PC.
24"	16	10"	13"	6"	41"	48"	2½	1 PC.
30"	14	12"	16"	8"	51"	60"	2½	1 PC.
36"	14	14"	19"	9"	60"	72"	2½	2 PC.



SIDE VIEW

END VIEW

* INVERT ELEVATION TO BE AT THE PIPE END OF THE STANDARD END SECTION. ELEVATIONS TO BE NOTED ON THE CONSTRUCTION PLANS.

NOTES

1. METAL END SECTIONS SHALL BE GAGE 16 FOR PIPES RANGING FROM 15" THRU 24", AND GAGE 14 FOR PIPES RANGING FROM 30" THRU 36". MULTIPLE PANEL UNITS TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY ½" DIAMETER GALVANIZED RIVETS OR BOLTS.
2. TOE PLATES SHALL BE USED WHEN SPECIFIED ON THE PLANS. THICKNESS OF END PLATE TO BE SAME AS END SECTION. COST OF TOE PLATE TO BE INCIDENTAL TO THE BID PRICE PER EACH OF METAL END SECTION.

1 / C-503

SPECIFICATION 303 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

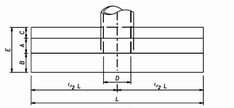
SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-28-86	APPROVAL 12-12-86
REVISED 10-1-01	REVISED 7-27-09
REVISED 7-1-09	REVISED
REVISED	REVISED

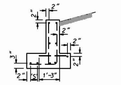
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD METAL END SECTION ROUND METAL PIPE

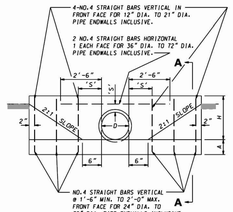
STANDARD NO. MD 370.01



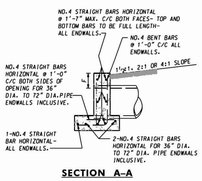
PLAN



DISPOSITION OF BARS DETAIL



ELEVATION



SECTION A–A

QUANTITIES FOR ESTIMATING PURPOSES ONLY									
OPENING								QUANTITIES	
D INCHES	AREA SQ.FT.	A	B	C	E	F	H	L	CONC. C.Y.	STEEL LBS.
12	0.79	9"	6"	6"	1'-9"	9"	1'-9"	6'-6"	0.61	41
15	1.23	9"	6"	6"	1'-9"	9"	2'-0"	7'-9"	0.77	47
18	1.77	9"	6"	6"	1'-9"	9"	2'-3"	9'-0"	0.95	54
21	2.40	9"	6"	6"	1'-9"	9"	2'-6"	10'-3"	1.14	70
24	3.14	9"	14"	6"	2'-5"	9"	2'-9"	11'-6"	1.56	80
27	3.98	9"	14"	6"	2'-5"	9"	3'-0"	12'-10"	1.82	88
30	4.91	9"	14"	6"	2'-5"	12"	3'-6"	14'-3"	2.22	98
33	5.94	9"	14"	6"	2'-5"	12"	3'-9"	15'-5"	2.48	105
36	7.07	12"	16"	10"	3'-2"	12"	4'-0"	16'-8"	4.16	182
42	9.62	12"	16"	10"	3'-2"	12"	4'-6"	19'-2"	5.01	206
48	12.57	12"	16"	10"	3'-2"	12"	5'-0"	21'-8"	6.09	244
54	15.90	12"	20"	12"	3'-8"	12"	5'-6"	24'-2"	7.62	275
60	19.64	12"	20"	12"	3'-8"	12"	6'-0"	26'-8"	8.82	304
72	28.27	12"	20"	12"	3'-8"	12"	7'-0"	31'-8"	11.46	377

'S' DISTANCES

4" FOR 12" DIA. TO 21" DIA. PIPES INCLUSIVE.
6" FOR 24" DIA. TO 36" DIA. PIPES INCLUSIVE.
8" FOR 42" DIA. TO 72" DIA. PIPES INCLUSIVE.

GENERAL NOTES

SPECIFICATIONS: LATEST S.H.A.
CONCRETE SHALL BE MIX NO.3
REINFORCING: DEFORMED STEEL BARS-NO.4
CHAMFER: ALL EXPOSED EDGES 1"x1" OR AS DIRECTED

3 / C-503

SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

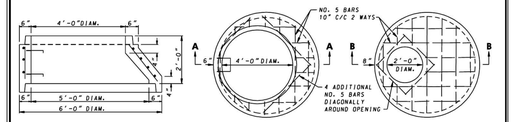
SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 8-28-86	APPROVAL 12-12-86
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD TYPE C ENDWALL METAL OR CONCRETE ROUND PIPE

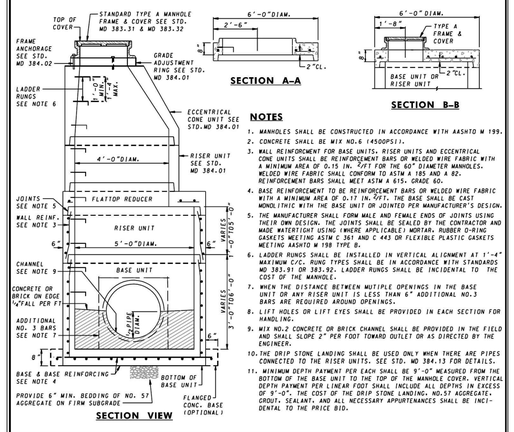
STANDARD NO. MD 354.01



ECCENTRICAL CONE REDUCER (ALTERNATE FOR FLATTOP REDUCER)

FLATTOP REDUCER

FLAT SLAB TOP (SHOWN WITHOUT FRAME & COVER)



SECTION A–A

SECTION B–B

SECTION VIEW

NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO.6 (4500PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.15 IN. ^{2}/FT FOR THE 60" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82. REINFORCEMENT BARS SHALL MEET ASTM A 615, GRADE 60.
4. BASE REINFORCEMENT TO BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.17 IN. ^{2}/FT. THE BASE SHALL BE CAST MONOLITHIC WITH THE BASE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING THEIR OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING (WHERE APPLICABLE) MORTAR, RUBBER O-RING GASKETS MEETING ASTM C 361 AND C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-4" MAXIMUM C/C. RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR 383.92. LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
7. WHEN THE DISTANCE BETWEEN MUTIPLE OPENINGS IN THE BASE UNIT OR ANY RISER UNIT IS LESS THAN 6" ADDITIONAL NO.3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. WHI NO.2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STD. MD 384.13 FOR DETAILS.
11. MINIMUM DEPTH PAVMENT PER EACH SHALL BE 9"-0" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER. VERTICAL DEPTH PAVMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 9'-0". THE COST OF THE DRIP STONE LANDING, NO.57 AGGREGATE, GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.

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SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

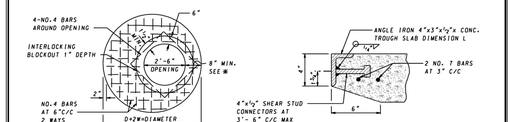
SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 2-22-91	APPROVAL 1-2-91
REVISED 10-1-01	REVISED
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

60" DIAMETER PRECAST MANHOLE FOR 27" TO 36" PIPES

STANDARD NO. MD 384.03

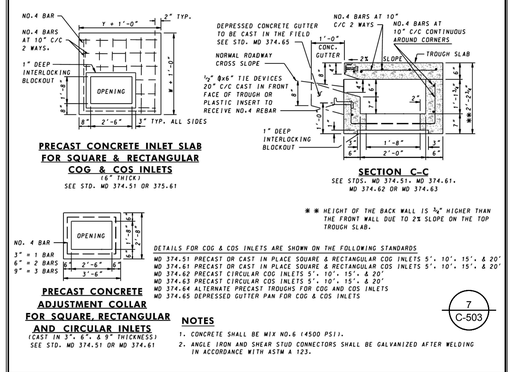


PRECAST CONCRETE INLET SLAB FOR CIRCULAR COG & COS INLETS

✱ THIS DIMENSION FOR THE 96" AND THE 108" DIAMETER INLETS SHALL BE THE SAME AS THE WALL THICKNESS. SEE STD. MD 374.62 OR MD 374.63.

SECTION D–D

SEE STDS. MD 374.51, MD 374.61, MD 374.62 OR MD 374.63



PRECAST CONCRETE INLET SLAB FOR SQUARE & RECTANGULAR COG & COS INLETS
(6" THICK)
SEE STD. MD 374.51 OR 375.61

SECTION C–C
SEE STDS. MD 374.51, MD 374.61, MD 374.62 OR MD 374.63

✱✱ HEIGHT OF THE BACK WALL IS ¾" HIGHER THAN THE FRONT WALL DUE TO 2% SLOPE ON THE TOP TROUGH SLAB.

PRECAST CONCRETE ADJUSTMENT COLLAR FOR SQUARE, RECTANGULAR AND CIRCULAR INLETS
(CAST IN 3", 6", & 9" THICKNESS)
SEE STD. MD 374.51 OR MD 374.61

DETAILS FOR COG & COS INLETS ARE SHOWN ON THE FOLLOWING STANDARDS
MD 374.51 PRECAST OR CAST IN PLACE SQUARE & RECTANGULAR COG INLETS 5', 10', 15', & 20'
MD 374.61 PRECAST OR CAST IN PLACE SQUARE & RECTANGULAR COS INLETS 5', 10', 15', & 20'
MD 374.62 PRECAST CIRCULAR COG INLETS 5', 10', 15', & 20'
MD 374.63 PRECAST CIRCULAR COS INLETS 5', 10', 15', & 20'
MD 374.64 ALTERNATE PRECAST TROUGHS FOR COG AND COS INLETS
MD 374.65 DEPRESSED GUTTER PAN FOR COG & COS INLETS

NOTES

1. CONCRETE SHALL BE MIX NO.6 (4500 PSI).
2. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123.

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SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

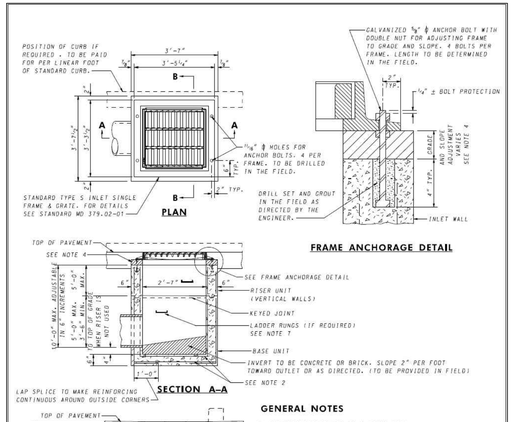
SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 2-22-91	APPROVAL 1-2-91
REVISED 10-1-01	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST CONCRETE INLET SLABS AND ADJUSTMENT COLLARS FOR COG AND COS INLETS

STANDARD NO. MD 374.55



GENERAL NOTES

1. CONCRETE TO BE MIX NO.6 (4500 PSI).
2. REINFORCING WALLS: -2 LAYERS OF 4x4-W4.0x W4.0 WELDED WIRE FABRICI BASE - 2 LAYERS OF 4X4 - W5.0 X W5.0 WELDED WIRE FABRIC
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS TO BE COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD MD 383.91 AND MD 383.92 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 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA State Highway Administration

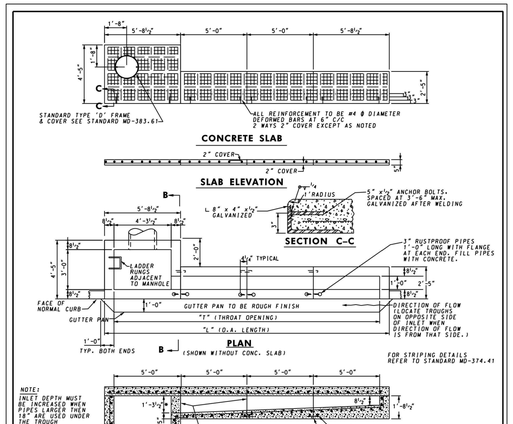
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 4-15-87	APPROVAL 6-23-87
REVISED 9-3-10	REVISED 7-26-10
REVISED 10-7-14	REVISED 9-29-14
REVISED —	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST STANDARD TYPE S INLET SINGLE GRATE

STANDARD NO. MD 374.73

2 / C-503



NOTE:
INLET DEPTH MUST BE INCREASED WHEN PIPES LARGER THEN 18" ARE USED UNDER THE TROUGH SECTIONS.

THIS STANDARD TO BE USED WITH TYPE A CURB ONLY

NOTE:
CURB OPENING SHOULD NOT ENCROACH ON CROSSWALK AREAS. IF TOO SMALL FOR CONSTRUCTION OF REINFORCED CONCRETE (MIX NO.2) ETC. TYPE A DIRECTION OF INLET CONNECTION WILL VARY TO SUIT CONDITIONS. REINFORCEMENT REQUIRED ON OUTSIDE, AS WELL AS ON INSIDE OF WALLS WHEN "A" IS GREATER THAN 8"-0". SPACING , SAME AS FOR INSIDE OF WALL. PLACE EXPANSION MATERIAL (SAME TYPE APPROVED FOR PAVEMENT) AS INDICATED. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 AND MD-383.92 OR AS DIRECTED BY THE ENGINEER. ANGLES & ANCHOR BOLTS TO BE GALVANIZED IN ACCORDANCE WITH ASTM A-123. AFTER WELDING.

INLET	"T"	"L"
C O G- 5	4'- 3½"	5'- 8½"
C O G- 10	10'- 0"	11'- 5"
C O G- 15	15'- 0"	16'- 5"
C O G- 20	20'- 0"	21'- 5"

* THIS DIMENSION TO BE MAINTAINED FOR ALL STANDARD COG INLETS

SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA State Highway Administration

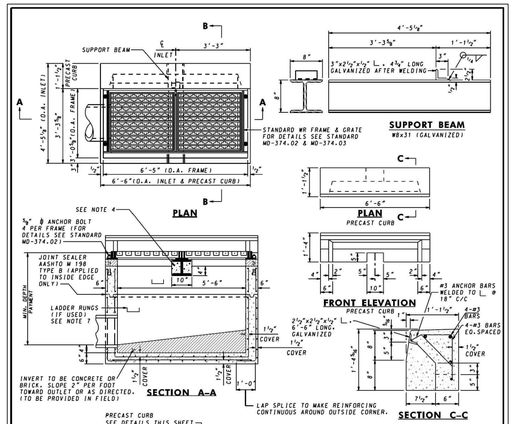
APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 3-27-81	APPROVAL 6-24-81
REVISED 11-18-04	REVISED 3-30-87
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD C O G INLETS 5', 10', 15' & 20'

STANDARD NO. MD – 374.31

4 / C-503



GENERAL NOTES

1. CONCRETE TO BE MIX NO.6 (4500PSI).
2. REINFORCING-2 LAYERS OF 4X4-W4.0 X 4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION, AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STD MD 383.91 AND MD 383.92 OR AS DIRECTED BY THE ENGINEER.
8. MINIMUM DEPTH PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 3'-6". VERTICAL DEPTH PAVEMENT PER LINEAR FOOT FOR DEPTHS IN EXCESS OF 3'-6".

SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

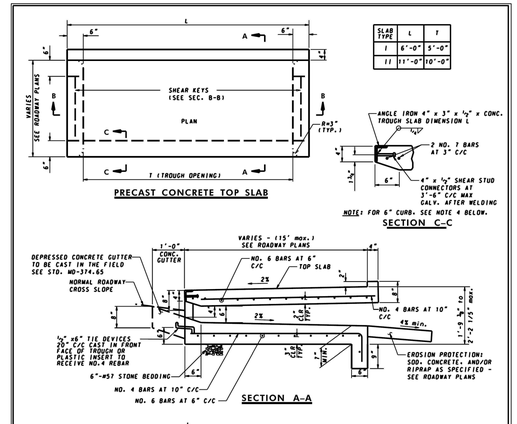
SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 6-6-84	APPROVAL 8-1-84
REVISED 10-1-01	REVISED 3-30-87
REVISED	REVISED
REVISED	REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST WR INLET

6 / C-503



SLAB TYPE	L	T
I	6'-0"	5'-0"
II	11'-0"	10'-0"

NOTES:
1. CONCRETE SHALL BE MIX # 6 (4500 PSI).
2. REINFORCEMENT STEEL SHALL MEET THE REQUIREMENTS OF ASTM A615, GRADE 60.
3. ANGLE IRON AND SHEAR STUD CONNECTORS SHALL BE GALVANIZED AFTER WELDING IN ACCORDANCE WITH ASTM A 123.
4. FOR 6" CURB, REFER TO MD 374.55-01, SECTIONS C-C AND D-D.
5. EROSION PROTECTION TO BE PAID FOR SEPARATELY.

8 / C-503

SPECIFICATION 305 | CATEGORY CODE ITEMS

APPROVED Kit G. McCall — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

SHA State Highway Administration

APPROVAL • SHA REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
APPROVAL 12-19-01	APPROVAL 7-15-02
REVISED 1-9-08	REVISED 11-26-07
REVISED	REVISED
REVISED	REVISED

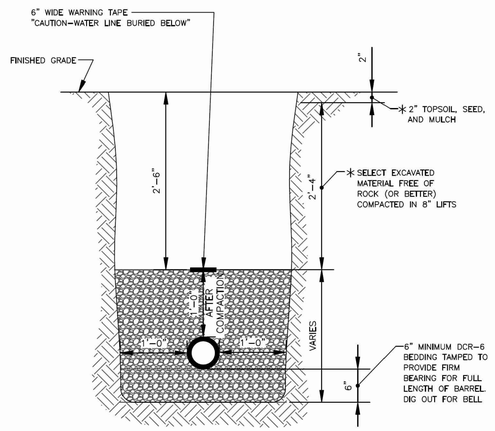
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST OR CAST-IN-PLACE COG /COS OPENING FOR 8" CURB 5' OR 10' ONLY

STANDARD NO. MD 374.68

STATE OF MARYLAND — GARY A. SHIRLEY — REGISTERED PROFESSIONAL ENGINEER — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License #



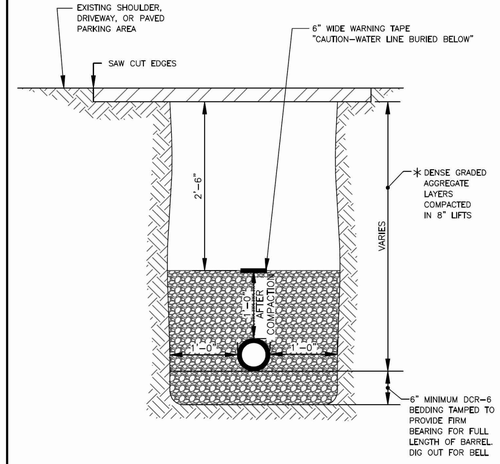
NOTES:
1. BACKFILL TO BE COMPACTED IN 8" LAYERS TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AASHTO-T-99 STANDARD PROCTOR.
2. MAINTAIN MINIMUM OF 3'-6" COVER TO TOP OF PIPE UNLESS NOTED ON PLANS OR DIRECTED BY ENGINEER.
* 3. SEE THE CITY, COUNTY OR STATE STANDARD REQUIREMENTS FOR BACKFILL.

1 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

GRASSED AREA REPAIR

Plate W-002



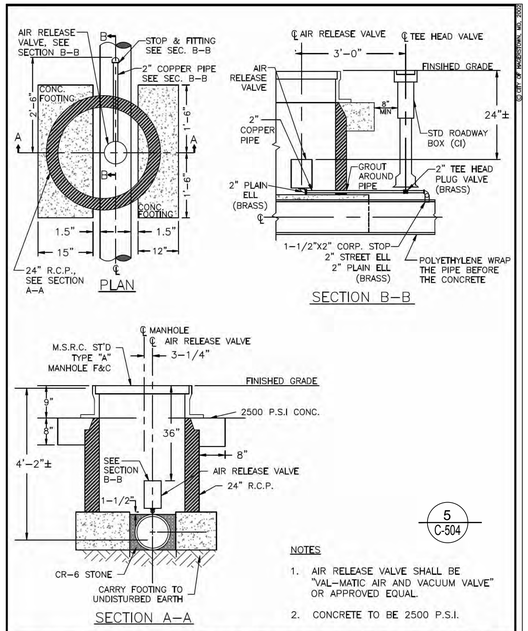
NOTES:
1. BACKFILL TO BE COMPACTED IN 8" LAYERS TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE AASHTO-T-99 STANDARD PROCTOR.
2. MAINTAIN MINIMUM OF 3'-6" COVER TO TOP OF PIPE UNLESS NOTED ON PLANS OR DIRECTED BY ENGINEER.
* 3. SEE THE CITY, COUNTY OR STATE STANDARD REQUIREMENTS FOR BACKFILL.

3 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

ROADWAY, SHOULDER AND PAVED PARKING AREA TRENCH, EXCAVATION AND BACKFILL

Plate W-001



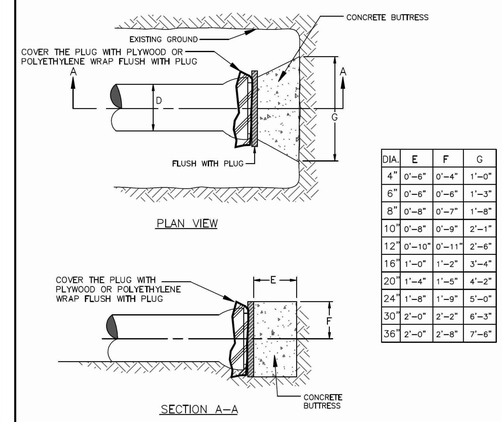
NOTES
1. AIR RELEASE VALVE SHALL BE "VAL-MATIC AIR AND VACUUM VALVE" OR APPROVED EQUAL.
2. CONCRETE TO BE 2500 P.S.I.

5 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

2 INCH AIR RELEASE VALVE

Plate W-015



DIA.	E	F	G
4"	0'-6"	0'-4"	1'-0"
6"	0'-6"	0'-6"	1'-3"
8"	0'-8"	0'-7"	1'-8"
10"	0'-8"	0'-9"	2'-1"
12"	0'-10"	0'-11"	2'-6"
16"	1'-0"	1'-2"	3'-4"
20"	1'-4"	1'-5"	4'-2"
24"	1'-8"	1'-9"	5'-0"
30"	2'-0"	2'-2"	6'-3"
36"	2'-0"	2'-8"	7'-6"

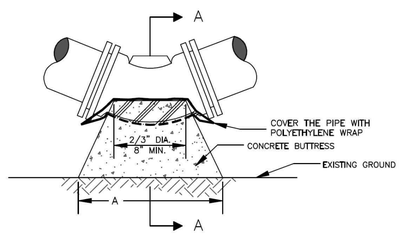
NOTES:
1. ALL CONCRETE TO BE 2,500 P.S.I.
2. CARRY CONCRETE TO UNDISTURBED EARTH.
3. ALL DIMENSIONS SHOWN ARE MINIMUM.
4. NO CONCRETE SHALL COVER FITTING HARDWARE.
5. COVER FITTING PIPE WITH POLYETHYLENE WRAP 5 MIL. OR GREATER.

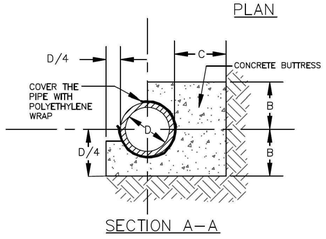
7 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

BUTTRESS FOR PUSH-ON PLUG

Plate W-014



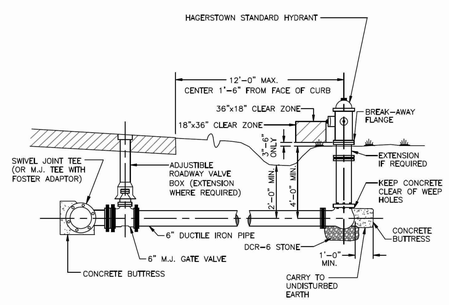


NOTES:
1. ALL CONCRETE TO BE 2,500 P.S.I.
2. CARRY CONCRETE TO UNDISTURBED EARTH.
3. ALL DIMENSIONS SHOWN ARE MINIMUM.
4. NO CONCRETE SHALL COVER FITTING HARDWARE.
5. COVER FITTING WITH POLYETHYLENE WRAP 5 MIL. OR GREATER.

	45°			22-1/2°			11-1/4°		
DIA.	A	B	C	A	B	C	A	B	C
4"	1'-0"	0'-6"	0'-9"	0'-8"	0'-6"	0'-9"	0'-8"	0'-6"	0'-9"
6"	1'-3"	0'-7"	0'-9"	0'-9"	0'-7"	0'-9"	0'-8"	0'-7"	0'-9"
8"	2'-0"	0'-8"	0'-9"	1'-0"	0'-8"	0'-9"	0'-8"	0'-8"	0'-9"
10"	2'-6"	0'-9"	0'-11"	1'-6"	0'-9"	0'-10"	0'-10"	0'-9"	0'-9"
12"	2'-11"	0'-11"	1'-2"	1'-9"	0'-10"	0'-11"	1'-0"	0'-10"	0'-9"
16"	3'-8"	1'-3"	1'-5"	2'-4"	1'-0"	1'-2"	1'-4"	1'-0"	0'-9"
20"	4'-9"	1'-6"	1'-10"	3'-2"	1'-2"	1'-4"	1'-8"	1'-2"	0'-10"
24"	6'-1"	1'-8"	1'-11"	4'-0"	1'-4"	1'-6"	2'-0"	1'-4"	1'-0"
30"	7'-9"	2'-0"	3'-1"	5'-0"	1'-7"	1'-9"	2'-6"	1'-7"	1'-1"
36"	8'-11"	2'-6"	3'-4"	5'-9"	2'-0"	2'-0"	3'-0"	1'-11"	1'-2"

2 / C-504

WATERLINE BEND DETAILS



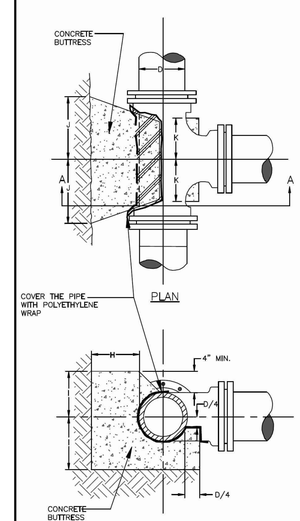
NOTE:
1. ALL PIPE MUST BE RESTRAINED FROM MAIN TO FIRE HYDRANT TO ELIMINATE CONCRETE BUTTRESS.
2. COVER FITTING WITH POLYETHYLENE WRAP 5 MIL. OR GREATER.

4 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

FIRE HYDRANT SETTING

Plate W-005



D	H	I	J	K
4"	0'-9"	0'-6"	0'-9"	0'-5"
6"	0'-9"	0'-8"	0'-9"	0'-6"
8"	0'-9"	0'-10"	1'-0"	0'-8"
10"	0'-10"	1'-0"	1'-3"	0'-8"
12"	1'-0"	1'-3"	1'-5"	0'-8"
16"	1'-2"	1'-8"	1'-10"	0'-10"
20"	1'-4"	2'-1"	2'-3"	1'-2"
24"	1'-6"	2'-6"	2'-8"	1'-4"
30"	1'-9"	3'-1"	3'-4"	1'-6"
36"	2'-0"	3'-9"	3'-11"	1'-10"

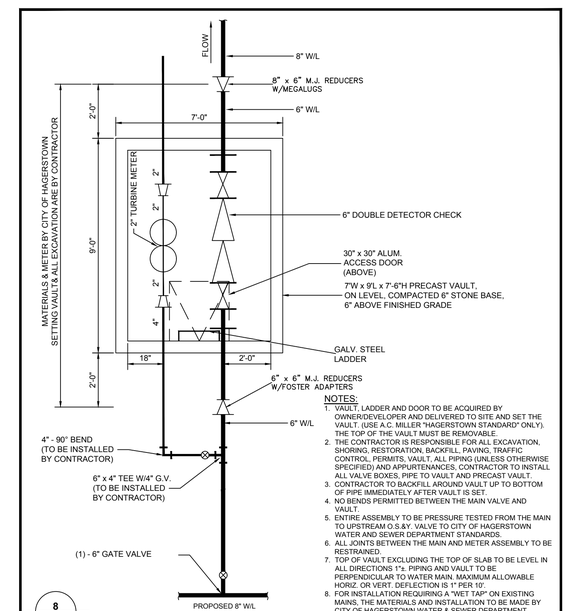
NOTES:
1. ALL CONCRETE TO BE 2,500 P.S.I.
2. CARRY CONCRETE TO UNDISTURBED EARTH.
3. ALL DIMENSIONS SHOWN ARE MINIMUM.
4. NO CONCRETE SHALL COVER FITTING HARDWARE.
5. COVER FITTING WITH POLYETHYLENE WRAP 5 MIL. OR GREATER.

6 / C-504

CITY OF HAGERSTOWN UTILITIES DEPARTMENT–WATER DIVISION | ISSUE DATE: MARCH 2009 | REVISIONS

BUTTRESS FOR MECHANICAL JOINT TEES

Plate W-010



NOTES:
1. VAULT, LADDER AND DOOR TO BE ACQUIRED BY OWNER/DEVELOPER AND DELIVERED TO SITE AND SET THE VAULT. (USE A.C. MILLER "HAGERSTOWN STANDARD" ONLY). THE TOP OF THE VAULT MUST BE REMOVABLE.
2. THE CONTRACTOR IS RESPONSIBLE FOR ALL EXCAVATION, SHORING, RESTORATION, BACKFILL, PAVING, TRAFFIC CONTROL, PERMITS, VAULT, ALL PIPING (UNLESS OTHERWISE SPECIFIED) AND APPURTENANCES, CONTRACTOR TO INSTALL ALL VALVE BOXES, PIPE TO VAULT AND PRECAST VAULT.
3. CONTRACTOR TO BACKFILL AROUND VAULT UP TO BOTTOM OF PIPE IMMEDIATELY AFTER VAULT IS SET.
4. NO BENDS PERMITTED BETWEEN THE MAIN VALVE AND VAULT.
5. ENTIRE ASSEMBLY TO BE PRESSURE TESTED FROM THE MAIN TO UPSTREAM O.S.&Y. VALVE TO CITY OF HAGERSTOWN WATER AND SEWER DEPARTMENT STANDARDS.
6. ALL JOINTS BETWEEN THE MAIN AND METER ASSEMBLY TO BE RESTRAINED.
7. TOP OF VAULT EXCLUDING THE TOP OF SLAB TO BE LEVEL IN ALL DIRECTIONS 1"± PIPING AND VAULT TO BE PERPENDICULAR TO WATER MAIN. MAXIMUM ALLOWABLE HORIZ. OR VERT. DEFLECTION IS 1" PER 10'.
8. FOR INSTALLATION REQUIRING A "WET TAP" ON EXISTING MAINS, THE MATERIALS AND INSTALLATION TO BE MADE BY CITY OF HAGERSTOWN WATER & SEWER DEPARTMENT.
9. CONTRACTOR SHALL CORE DRILL THE PIPE OPENINGS INTO AND OUT OF THE VAULT FOR THE METER INSTALLATION.
10. VAULT SHALL BE WATER TIGHT.

8 / C-504

6" FIRE LINE W/DOMESTIC SERVICE DETAIL

CITY OF HAGERSTOWN, MARYLAND
HAGERSTOWN WATER & SEWER DEPARTMENT

STANDARD WATER DETAIL

DATE: FEB. 2020
SCALE: NONE

NOTE: Meter size will be determined when the Vault Form is completed by the Fire Protection Company.

CITY OF HAGERSTOWN UTILITIES DEPARTMENT WATER DIVISION

This approval is for the design and layout of the proposed water system improvements. All water system improvements shall be constructed to the standards in effect at the time of construction. This approval does not guarantee availability of water service. Water service is available subject to conformance with all policies and standards in effect at the time of application for service, payment of fees and approval of the water service application. The Water Division does not guarantee a specific water pressure or flow at any meter or fire hydrant. This approval is valid for a period of one year.

SIGNATURE | DATE

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 22984-1
Expiration Date: 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
EST. 1988
WEST MAIN STREET, SUITE 400, NEW BLOOMFIELD, PA 17068, 717-582-2161
1426 SOUTHWEST CONNECTICUT AVENUE, CARLISLE, PA 17013, 717-249-0411
WEST CHESTNUT STREET, GREENCASTLE, PA 17225, 717-597-1457
126 TOWNSHIP LINE ROAD, HAGERSTOWN, MD 21740, 301-739-8866

MARK | DESCRIPTION | DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

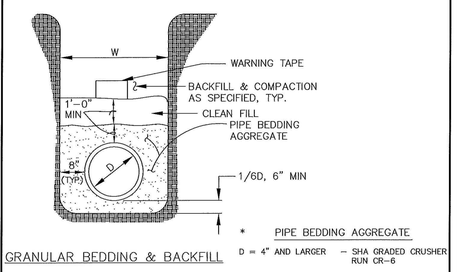
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 68) BETWEEN WEITHER DRIVE AND KLARNER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1055

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.
SHEET TITLE	DETALS & NOTES - WATER

C-504
SHEET 25 OF 31

PSP-24-001



GRANULAR BEDDING & BACKFILL

* PIPE BEDDING AGGREGATE

D = 4" AND LARGER – SHA GRADED CRUSHER RUN CR-6

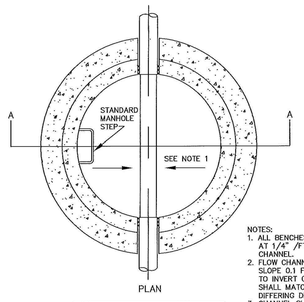
D = 1-1/2" THROUGH <4" – SHA GRADED B-10

D = LESS THAN 1-1/2" – STONE DUST

* = NOMINAL PIPE DIAMETER (INCHES)

1 / C-505

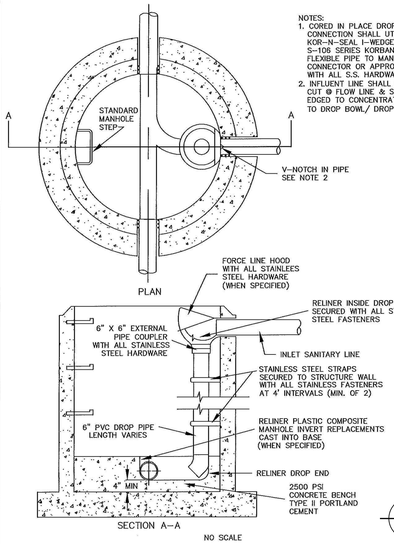
REVISED	Washington County, MD Div.of Environmental Management	STANDARD TRENCH WIDTH & STONE BEDDING	Detail
REVISED	Approved: Director of Environmental Management		SW-1.1
APPROVED			



NOTES:
1. ALL BENCHES SHALL SLOPE AT 1/4" /FT. TOWARD FLOW CHANNEL.
2. FLOW CHANNELS SHALL SLOPE 0.1 FT. FROM INVERT IN TO INVERT OUT OR PIPE CROWNS SHALL MATCH GRADE FOR DIFFERING DIAMETERS.
3. CHANNEL SHALL CONFORM TO PIPE ROUNDNESS & DIAMETER.
4. SEE DETAIL S-2.5 FOR TYPICAL CONFIGURATIONS.

3 / C-505

REVISED	Washington County, MD Div.of Environmental Management	Typical Bench and Flow Channel Section Precast Base	Detail
REVISED	Approved: Director of Environmental Management		S-2.4
APPROVED			



NOTES:
1. CORED IN PLACE DROP CONNECTION SHALL UTILIZE KOR-N-SEAL I-WEDGE S-106 SERIES KORBAND FLEXIBLE PIPE TO MANHOLE CONNECTOR OR APPROVED EQUAL, WITH ALL S.S. HARDWARE.
2. INFLUENT LINE SHALL BE "V" CUT @ FLOW LINE & SMOOTH EDGED TO CONCENTRATE FLOW TO DROP BOWL/ DROP PIPE.

5 / C-505

REVISED	Washington County, MD Div.of Environmental Management	Reliner Inside Drop Installation With Manhole Details	Detail
REVISED	Approved: Director of Environmental Management		S-2.12
APPROVED			

DUAL WALL FABRICATED TEES
30" - 60" DIAMETER

PART #	PIPE SIZE	A	B	JOINT
3068AN	30 in (750 mm)	65.9 in (1674 mm)	33.0 in (837 mm)	*
3068AN65B	30 in (750 mm)	49.4 in (1254 mm)	24.7 in (628 mm)	WT
3669AN	36 in (900 mm)	78.8 in (2,002 mm)	34.4 in (873 mm)	*
3669AN65B	36 in (900 mm)	58.0 in (1473 mm)	29.0 in (737 mm)	WT
4251AN	42 in (1050 mm)	71.9 in (1826 mm)	36.0 in (914 mm)	*
4251AN65BB	42 in (1050 mm)	62.2 in (1580 mm)	31.1 in (790 mm)	WT
4851AN	48 in (1200 mm)	78.5 in (1994 mm)	39.3 in (998 mm)	*
4851AN65BB	48 in (1200 mm)	68.2 in (1731 mm)	36.7 in (933 mm)	WT
6051AN	60 in (1500 mm)	90.0 in (2,286 mm)	45.0 in (1143 mm)	*
6051AN65BB	60 in (1500 mm)	90.0 in (2,286 mm)	45.0 in (1143 mm)	WT

* = PLAIN END
ST = SOIL TIGHT
WT = WATER TIGHT

NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

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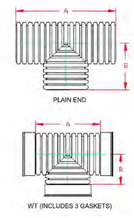

7 / C-505

DRAWN BY	KDCA
DRAWN BY	JCB 06-22-06
APPROVED BY	JCB 06-26-06
REVISIONS	LJR 9/8/2022

WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY

This approval is for general conformance with the County's requirements for design and layout of proposed sewer and/or water system improvements or extensions. All sewer and/or water system improvements or extensions shall be constructed in strict accordance with the County's latest addition of the Standard Specifications for Construction of Sanitary Sewers and/or Water Lines. This approval does not guarantee availability of sewer and/or water service. Sewer and/or water service availability is subject to conformance with all rules, policies and regulations established by the County and in effect at the time application for service is made, and/or the availability of allocation remaining in other jurisdictions' facilities that may be granted to the County. This approval shall be valid for a period of TWO years.

SIGNATURE DATE

DUAL WALL FABRICATED REDUCERS
36"x15" - 36"x30" DIAMETER

PART #	PIPE SIZE	A	B	C	JOINT
3675AN	36 x 15 in (900 x 375 mm)	28.4 in (721 mm)	15.8 in (401 mm)	12.7 in (321 mm)	*
3675AN65B	36 x 15 in (900 x 375 mm)	19.0 in (484 mm)	11.3 in (287 mm)	7.8 in (197 mm)	ST
3675AN65B	36 x 15 in (900 x 375 mm)	19.0 in (484 mm)	11.3 in (287 mm)	7.8 in (197 mm)	WT
3676AN	36 x 18 in (900 x 450 mm)	28.4 in (721 mm)	15.8 in (401 mm)	12.7 in (321 mm)	*
3676AN65B	36 x 18 in (900 x 450 mm)	20.2 in (512 mm)	11.3 in (287 mm)	8.9 in (226 mm)	ST
3676AN65B	36 x 18 in (900 x 450 mm)	20.2 in (512 mm)	11.3 in (287 mm)	8.9 in (226 mm)	WT
3677AN	36 x 24 in (900 x 600 mm)	31.3 in (795 mm)	15.8 in (401 mm)	15.6 in (396 mm)	*
3677AN65B	36 x 24 in (900 x 600 mm)	18.3 in (465 mm)	11.3 in (287 mm)	7.0 in (178 mm)	ST
3677AN65B	36 x 24 in (900 x 600 mm)	18.3 in (465 mm)	11.3 in (287 mm)	7.0 in (178 mm)	WT
3678AN	36 x 30 in (900 x 750 mm)	32.2 in (818 mm)	15.8 in (401 mm)	16.5 in (419 mm)	*
3678AN65B	36 x 30 in (900 x 750 mm)	23.0 in (585 mm)	11.3 in (287 mm)	11.8 in (298 mm)	ST
3678AN65B	36 x 30 in (900 x 750 mm)	23.0 in (585 mm)	11.3 in (287 mm)	11.8 in (298 mm)	WT

* = PLAIN END
ST = SOIL TIGHT
WT = WATER TIGHT

NOTE: ALL FITTINGS DIMENSIONS ARE FOR REFERENCE ONLY

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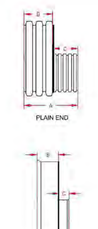
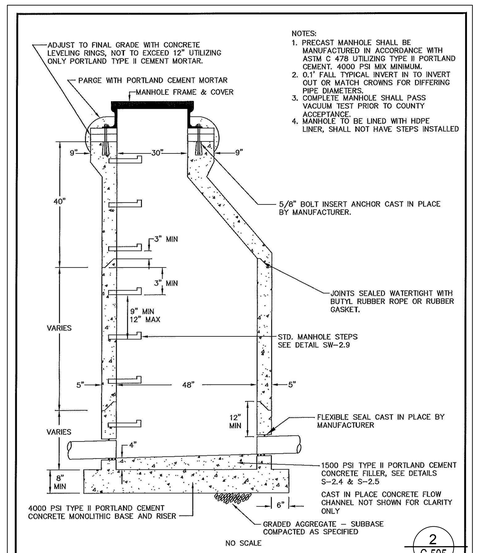


8 / C-505

DRAWN BY	KDCA
DRAWN BY	KDCA 01-05-06
APPROVED BY	JCB 06-30-06
REVISIONS	LJR 9/8/2022

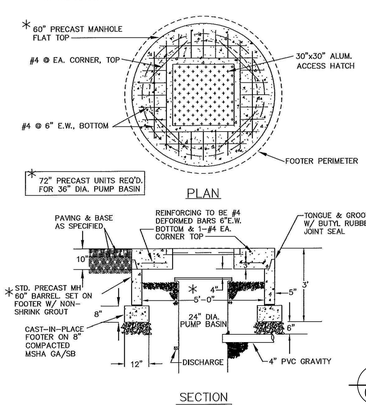


NOTES:
1. PRECAST MANHOLE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C 478 UTILIZING TYPE II PORTLAND CEMENT. 4000 PSI MIX MINIMUM.
2. 0.1" FALL TYPICAL INVERT IN TO INVERT OUT OR MATCH CROWNS FOR DIFFERING PIPE DIAMETERS.
3. COMPLETE MANHOLE SHALL PASS VACUUM TEST PRIOR TO COUNTY ACCEPTANCE
4. MANHOLE TO BE LINED WITH HDPE LINER, SHALL NOT HAVE STEPS INSTALLED

2 / C-505

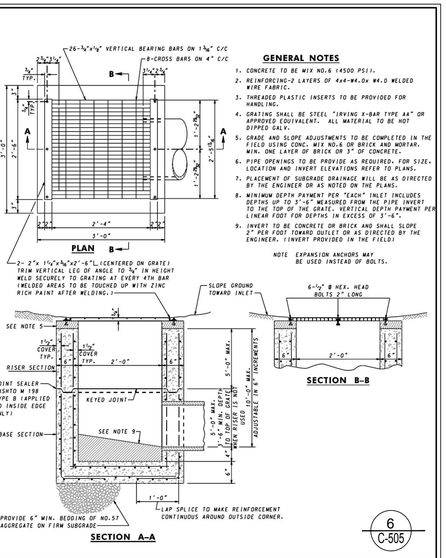
REVISED	Washington County, MD Div.of Environmental Management	Standard Through Manhole Precast Base	Detail
REVISED	Approved: Director of Environmental Management		S-2.1
APPROVED			

NOTES:
1. HATCH: BILCO TYPE "JAM." 30"x30" W/ S.S. HRDWR., H-20 TRAFFIC BEARING. BIT. COAT EXT. FRAME. CAST-IN BY MANHOLE MANUF.
2. SEE STD. S-5.1 FOR FRP GRINDER PUMP BASIN DETAILS.
3. PRECAST MH SHALL COMPLY W/ ASTM C 478.
4. ORIENTATION OF HATCH HINGE TO PUMP BASIN SHALL BE DIRECTED BY THE COUNTY.
5. RESTORATION FOR THIS INSTALLATION SHALL BE AT THE DEVELOPERS EXPENSE



4 / C-505

REVISED	Washington County, MD Div.of Environmental Management	Traffic Bearing Access Structure	Detail
REVISED	Approved: Director of Environmental Management		S-5.3
APPROVED			

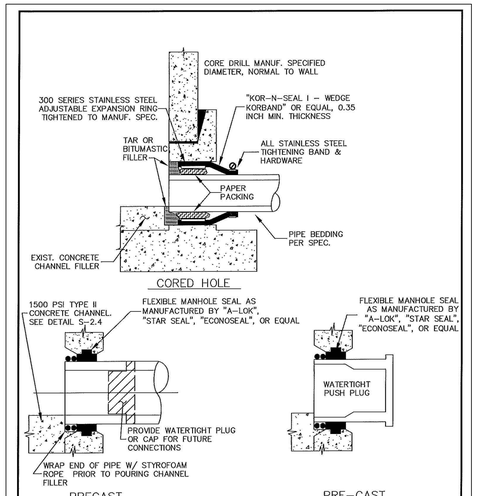


GENERAL NOTES
1. CONCRETE TO BE MIX NO.6 (4500 PSI).
2. REINFORCING-2 LAYERS OF 4x4-W4.0x W4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRATING SHALL BE STEEL "IRVING X-BAR TYPE 4A" OR APPROVED EQUIVALENT. ALL MATERIAL TO BE HOT DIPPED GALV.
5. GRADE AND SLOPE ADJUSTMENTS TO BE COMPLETED IN THE FIELD USING CONC. MIX NO.6 OR BRICK AND MORTAR. MIN. ONE LAYER OF BRICK OR 3" OF CONCRETE.
6. PIPE OPENINGS TO BE PROVIDE AS REQUIRED. FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO PLANS.
7. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE PLANS.
8. MINIMUM DEPTH PAYMENT PER "EACH" INLET INCLUDES DEPTHS UP TO 3'-6" MEASURED FROM THE PIPE INVERT TO THE TOP OF THE GRATE. VERTICAL DEPTH PAYMENT PER LINEAR FOOT FOR DEPTHS IN EXCESS OF 3'-6".
9. INVERT TO BE CONCRETE OR BRICK AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER. (INVERT PROVIDED IN THE FIELD)

NOTE EXPANSION ANCHORS MAY BE USED INSTEAD OF BOLTS.

6 / C-505

SPECIFICATION 305	CATEGORY CODE ITEMS	Maryland Department of Transportation STATE HIGHWAY ADMINISTRATION STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES	
APPROVED	DIRECTOR - OFFICE OF HIGHWAY DEVELOPMENT	PRECAST YARD INLET	
SHA State Highway Administration	APPROVAL • SHA / REVISIONS	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
	APPROVAL 4-5-87	APPROVAL 4-23-87	STANDARD NO. MD 381.02
	REVISED 10-1-01	REVISED	
	REVISED	REVISED	
	REVISED	REVISED	



9 / C-505

REVISED	Washington County, MD Div.of Environmental Management	Manhole Pipe Connections	Detail
REVISED	Approved: Director of Environmental Management		SW-2.10
APPROVED			

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — 04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 23984
Expiration Date: 06-23-2025

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	08.21.25

FOR PUBLIC REVIEW

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 TOWNSHIP CHAC STREET HAGERSTOWN, MD 21740 301-739-8866
1400 SOUTHWEST STREET GREENCASTLE, PA 17225 717-597-1407
1000 WEST MAIN STREET CARLISLE, PA 17013 717-243-1411
2000 CORPORATE CIRCLE NEW BLOOMFIELD, PA 17068 717-582-7661
fsa-inc.com

NOT APPROVED

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN NEITHER DRIVE AND MARNE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD. SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY	KODY WARD
DATE	07-22-2024
PROJECT MANAGER	DAVID TROSTLE
EMAIL	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.

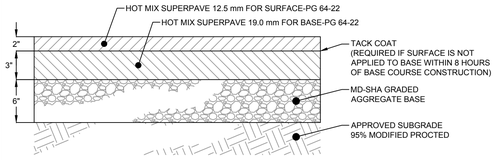
SHEET TITLE

DETAILS & NOTES - SS & SD

C-505
SHEET 26 OF 31

PSP-24-001

P:\SHARED FOLDERS\PROJECTS\6000\6523.2\CAD\SITE PLAN\6523.2 - SP - C-505 - CONSTRUCTION DETAILS & NOTES - SEWER.DWG 2025-04-16

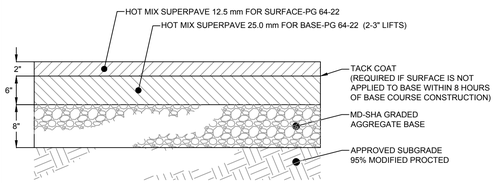


SECTION

NOTES:
The Asphalt Binder shall conform to AASHTO MP1-93 Table 1, Standard Specification for Performance Graded Asphalt Binder. Superpave mix designs shall be in conformance with AASHTO PP28-95, Standard Practice for Superpave Volumetric Design for HMA. The Performance Grading shall be achieved by the use of Neat Asphalt with polymer modification when needed.

1 / C-506 **PAVEMENT - SITE**

NOT TO SCALE

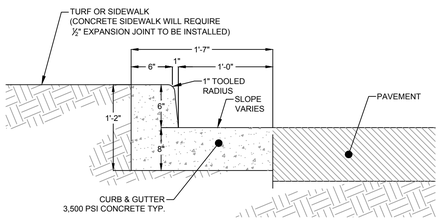


SECTION

NOTES:
The Asphalt Binder shall conform to AASHTO MP1-93 Table 1, Standard Specification for Performance Graded Asphalt Binder. Superpave mix designs shall be in conformance with AASHTO PP28-95, Standard Practice for Superpave Volumetric Design for HMA. The Performance Grading shall be achieved by the use of Neat Asphalt with polymer modification when needed.

2 / C-506 **PAVEMENT - TRUCK**

NOT TO SCALE

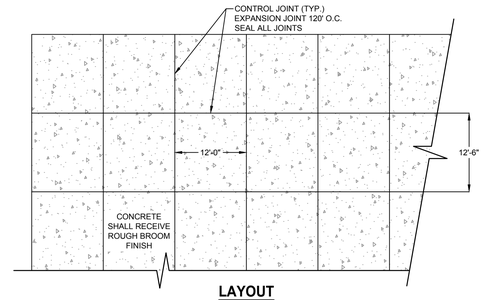


SECTION

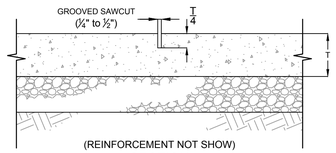
NOTES:
1. All concrete for curb & gutter shall have a 28 day compressive strength of 3500 PSI with 5-8% air & 2-5" slump. Do Not add water to surfaces for finishing. Surfaces shall have a broom finish.
2. Saw cut joints @ a minimum of 10' & 1" expansion joints @ 40' maximum intervals. (80' for extruded curb)
3. Expansion joint material to be positioned 1/2" below the concrete surface to allow space for elastomeric polysulfide sealant or equivalent. Saw cut joints to be filled as well to a depth of 3/8".
4. The gutter pan shall have a slope of 1/2" per 1' except in super-elevated sections or where streets have no crown. In shuch cases the gutter pan on the high side of the street shall slope to match the adjacent pavement. Curb and gutter pan to be placed monolithic.
5. Excavated sub-grade shall be undisturbed earth or mechanically compacted aggregate to 95% of the max dry density with an in place moisture content +/-2% of optimum moisture content. Use dry or wet soil to achieve correct percentage.
6. Concrete shall be sprayed with liquid curing compound.
7. Curb subgrade should match the street subgrade.

3 / C-506 **CURB & GUTTER - CONCRETE**

NOT TO SCALE



LAYOUT



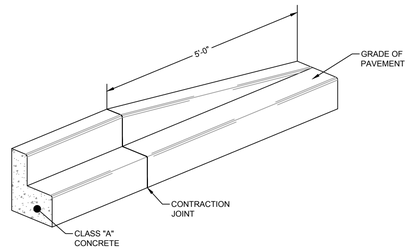
(REINFORCEMENT NOT SHOW)

SECTION

NOTES:
The provided detail is to show a typical crack control section & layout. The Geotechnical Engineer recommendation shall govern over provided detail above. Geotechnical Engineer shall specify location of expansion and control joints. Detail of expansion and control joints to be specified by site Geotechnical Engineer. FSA Inc. shall not be responsible for cracks or defects on concrete pad.

4 / C-506 **CONC. PAVEMENT - CONTROL JOINT**

NOT TO SCALE

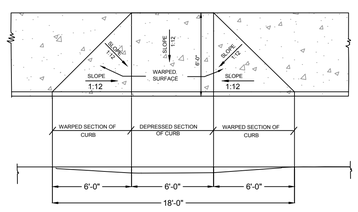


SECTION

NOTES:
1. Contractor to construct all concrete curb and gutter to specified requirements.
2. Place 20 (3/4" or 1/2") thick pre-molded expansion joint filler material at structures and at the end of the work day. Cut material to conform to the area adjacent to curb or to conform to cross sectional area of curb.

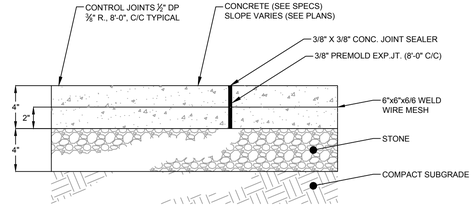
5 / C-506 **CURB - END TREATMENT**

NOT TO SCALE



6 / C-506 **HANDICAPPED - RAMP DETAIL**

NOT TO SCALE

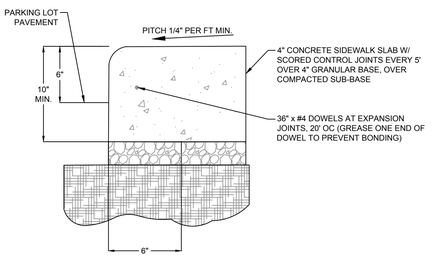


SECTION

NOTES:
1. Class P-I Air Entrained Concrete
2. Sidewalk to have 3/8" contraction joints scored at 5'-0" intervals.
3. Construct 3/8" expansion joints spaced every 20' and between curb and sidewalk where adjacent.
4. Sidewalk to be brush finished.

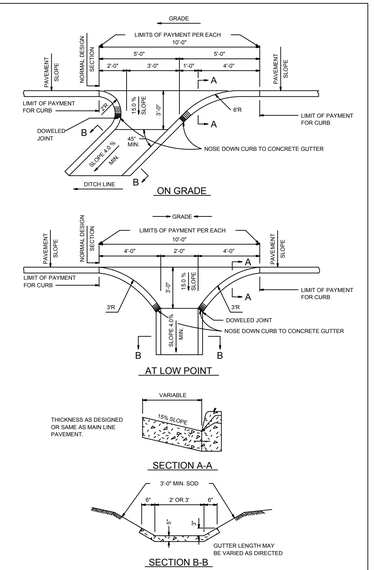
7 / C-506 **SIDEWALK - CONCRETE**

NOT TO SCALE

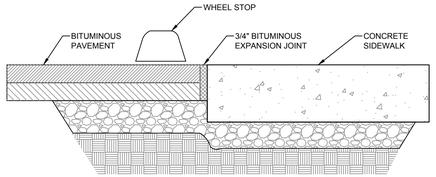


8 / C-506 **CURB - SIDEWALK - FACE DETAIL**

NOT TO SCALE



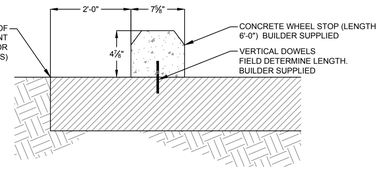
9 / C-506 STANDARD CURB OPENING FOR CONCRETE CURB



SECTION

10 / C-506 **WHEEL STOP - CONCRETE - DETAIL**

NOT TO SCALE



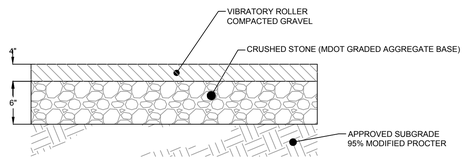
11 / C-506 **WHEEL STOP- CONCRETE - PLACEMENT**

NOT TO SCALE

R1-1
(30"x30")

12 / C-506 **STOP SIGN DETAIL**

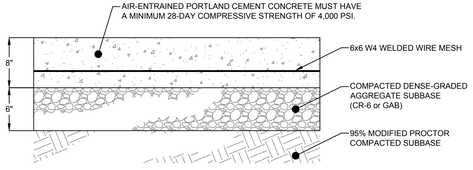
NOT TO SCALE



SECTION

13 / C-506 **Pavement - Gravel**

NOT TO SCALE



SECTION

NOTES:
Geotechnical Engineer shall specify location of expansion and control joints. Detail of expansion and control joints to be specified by site Geotechnical Engineer.

14 / C-506 **PAVEMENT - CONCRETE**

NOT TO SCALE

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — No. 29994
04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 29994
Expiration Date 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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10 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068 717-582-2161
WEST ALEXANDER STREET, GREENCASTLE, PA 17225 717-597-1777
1446 SOUTH HANOVER STREET, CARLISLE, PA 17013 717-249-1611

MARK | DESCRIPTION | DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN NEITHER DRIVE AND KLARNER DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 3002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER:	DAVID TROSTLE
EMAIL:	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.

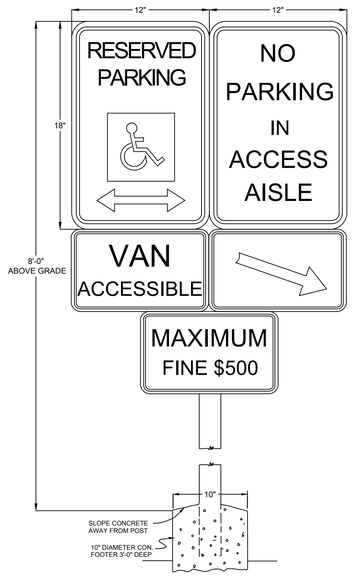
SHEET TITLE

DETAILS & NOTES - SITE

C-506
SHEET 27 OF 31

PSP-24-001

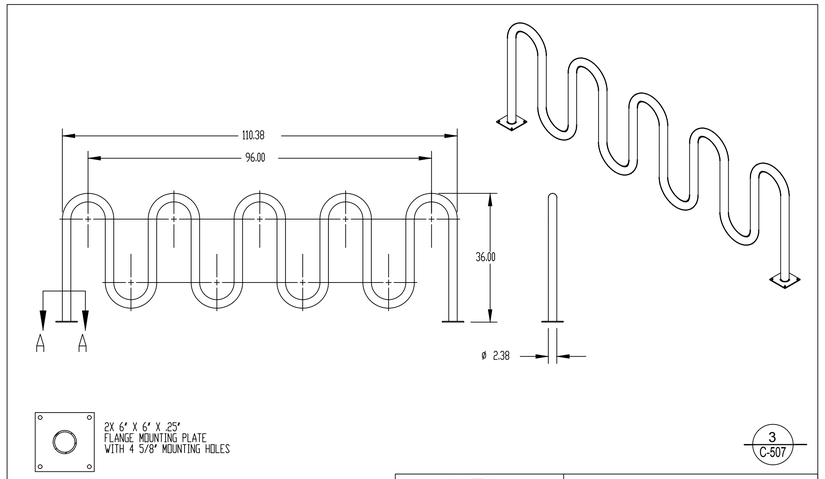
P:\SHARED FOLDERS\PROJECTS\6000\6523.2\WORK\SITE PLANS\6523.2 - 27 - C-506 - CONSTRUCTION DETAILS AND NOTES - SITE.DWG 2025-04-16



NOTES:
Use appropriate arrow plate.
Colors: Background (white), Text & Boarder (green), Symbol (white on a blue background).
Reference state of Maryland standard highway sign booklet.
Department of Transportation P.O. Box 717-707 N. Calbert St. Baltimore, Maryland 21203

1 / C-507 **HANDICAPPED - SIGNAGE - MD**

NOT TO SCALE



3 / C-507

NOTE:
1. DO NOT SCALE DRAWING.
2. INTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

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5253 VERONA RD., MADISON WI. 53711
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WWW.SARISPARKING.COM

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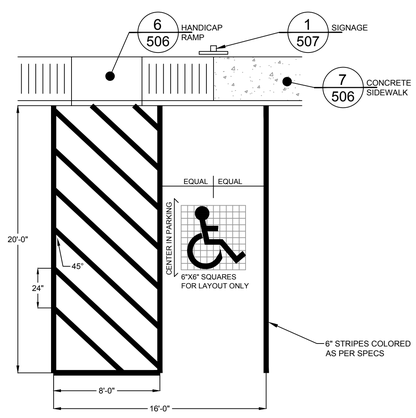
TITLE: 2169 - 11 BIKE FM WAVE RACK



2 / C-507 **PARKING - HANDICAPPED(SIDEWALK RAMP)**

NOT TO SCALE

04/17/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland. License # 25984-1
Expiration Date: 08-23-2025

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1456 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-1411
14 WEST CHURCH STREET GREENCASTLE, PA 17225 717-597-1407
1329 MERITPOINT BLVD. STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2
SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN WHETHER DRIVE AND KILARNEY DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD. SUITE 300Z, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO.	6523.2
DWN BY: KODY WARD	DATE: 07-22-2024
PROJECT MANAGER	DAVID TROSTLE
EMAIL	dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL	036-021-009
SCALE	N.T.S.

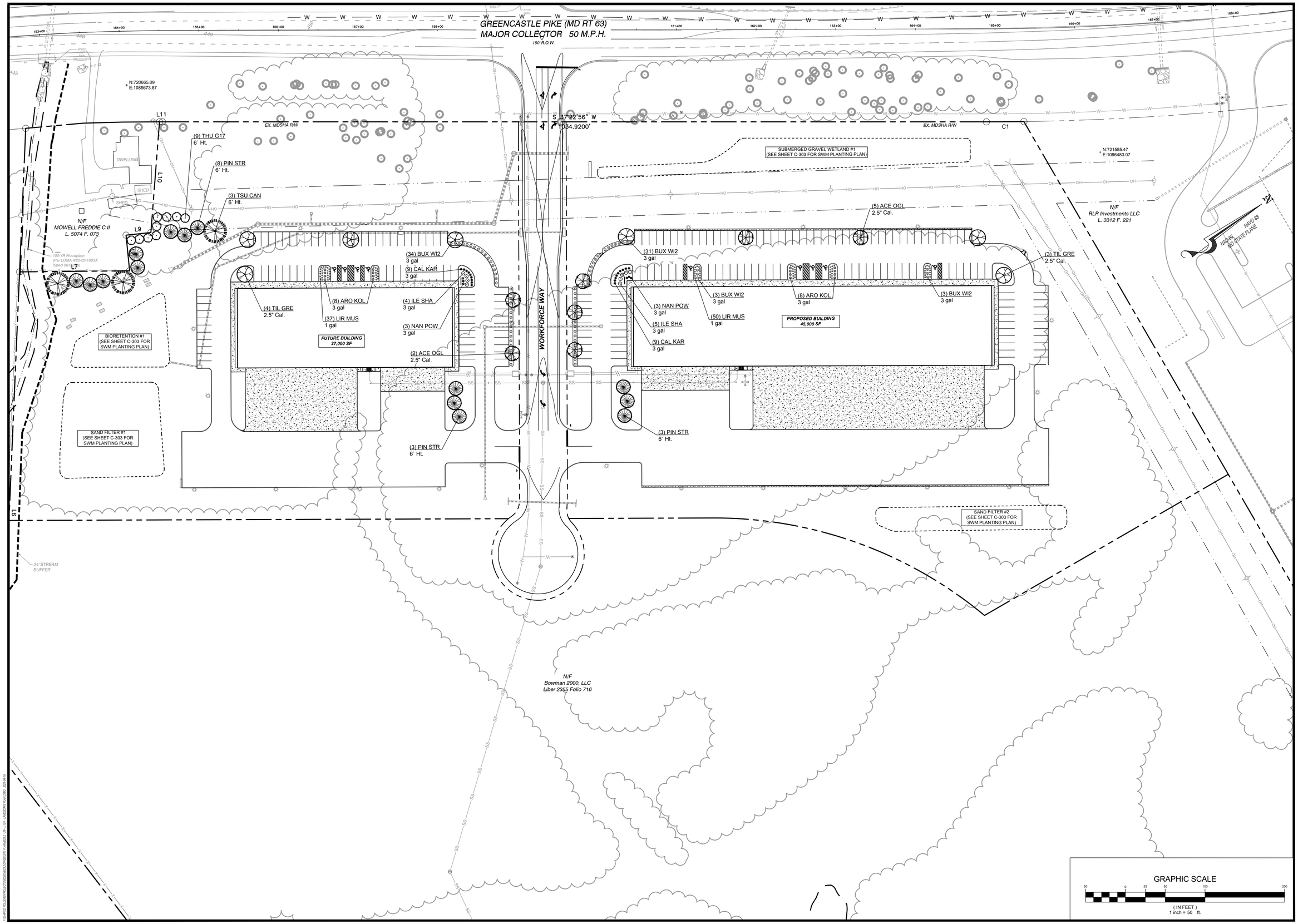
SHEET TITLE

DETAILS & NOTES - SITE

C-507
SHEET 28 OF 31

PSP-24-001

P:\SHARED FOLDERS\PROJECTS\6000\6523.2\DWG\SITE PLAN\6523.2 - 28 - C-507 - CONSTRUCTION DETAILS AND NOTES - SITE.DWG 2025-04-16



GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

STATE OF MARYLAND
Frank Wheatley
No. 16163
Registered Architect
(3/16/2025)

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 16163
Expiration Date 15-19-2026

FSA
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CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 SCHANDTOWN CHASE STREET
HAGERSTOWN, MD 21740
301-739-8866
fsa@fsa-inc.com
1 WEST NATIONAL STREET
GREENCASTLE, PA 17225
717-597-1407
126 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717-582-2161
126 SOUTH HANOVER STREET
CARLISLE, PA 17013
717-249-1411
c2899

NOT APPROVED FOR CONSTRUCTION

MARK	DESCRIPTION	DATE

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63)
BETWEEN MEETHER DRIVE AND CLARKE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD

BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD., SUITE 8002, WILLIAMSPORT, MD 21795
301.582.1555

PROJECT NO. 6523.2
DWN BY KODY WARD
DATE 07-22-2024
PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 036-021-009
SCALE 1" = 50'

SHEET TITLE

LANDSCAPE PLAN

L-101

SHEET 29 OF 31

PSP-24-001

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
TREES						
	ACE OGL	Acer rubrum `October Glory` / October Glory Red Maple	2.5" Cal.	B&B	7	3/L-501
	PIN STR	Pinus strobus / White Pine	6` Ht.	B&B	14	5/L-501
	THU G17	Thuja occidentalis `Green Giant` / Green Giant Arborvitae	6` Ht.	B&B	9	5/L-501
	TIL GRE	Tilia cordata `Greenspire` / Greenspire Littleleaf Linden	2.5" Cal.	B&B	7	3/L-501
	TSU CAN	Tsuga canadensis / Canadian Hemlock	6` Ht.	B&B	3	5/L-501
SHRUBS						
	ARO KOL	Aronia melanocarpa Low Scape Mound / Low Scape Mound Chokeberry	3 gal		16	2/L-501
	BUX WI2	Buxus microphylla japonica `Winter Gem` / Winter Gem Boxwood	3 gal		71	2/L-501
	CAL KAR	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	3 gal		18	2/L-501
	ILE SHA	Ilex glabra `Shamrock` / Inkberry	3 gal		9	2/L-501
	LIR MUS	Liriope muscari / Lily Turf	1 gal		87	2/L-501
	NAN POW	Nandina domestica 'Firepower' / Firepower Heavenly Bamboo	3 gal		6	2/L-501

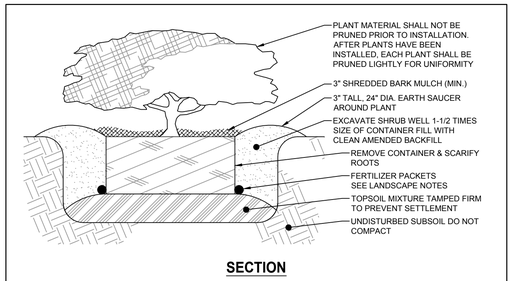
GENERAL LANDSCAPE NOTES:

1. Landscape contractor is to call Miss Utility and have all underground utilities marked prior to any digging or planting.
2. Landscape Contractor shall install all plant material in a timely fashion.
3. Landscape Contractor shall be responsible for all watering, weeding, repairs and replacements prior to final acceptance.
4. NO Substitutions of plant material without written permission of FSA. Planting plans have been proposed with plant sizes, types, and locations as important design elements.
5. Plants shall be in accordance with the current issue of American Standards for Nursery Stock published by the American Association of Nurserymen.
6. All plants shall be watered thoroughly during installation and prior to final acceptance.
7. All bark mulched areas shall be first covered with Typar Weed Barrier or approved equal.
8. All planting bed areas on the site shall be mulched with a hardwood bark mulch at a depth of approx. 3", unless noted otherwise.
9. Plant material shall be inspected yearly in order to remove and replace dead, diseased vegetation.
10. Warranted plant material that is 25% dead or more shall be considered dead and shall be replaced at no charge.
11. All plant material shall be warranted for two years. 60 days prior to the end of the warranted period, the Engineering Department shall perform an inspection. Of which there should be an 90% survival rate of all plant material. All surviving plant material shall be found in a healthy condition. The warranty shall commune on the date of initial acceptance by the owner.
12. The landscape contractor shall conduct a final inspection with the owner or owner's representative at the end of the warranty period.
13. Fertilizer Packets are to be Nutri-Pak 16-8-8 or approved equal per manufacturer's recommendations.
14. Landscape is recommended to be installed during the two growing seasons. Spring: April 15-June 15, Fall: September 1-November 1.

MAINTENANCE:

1. Owner to remove silt/sediment if the accumulation of sediment exceeds one inch over the biorentention area.
2. All trash and debris should be removed from the top of the bioretention area as necessary.
3. Areas devoid of mulch shall be re-mulched on an annual basis.

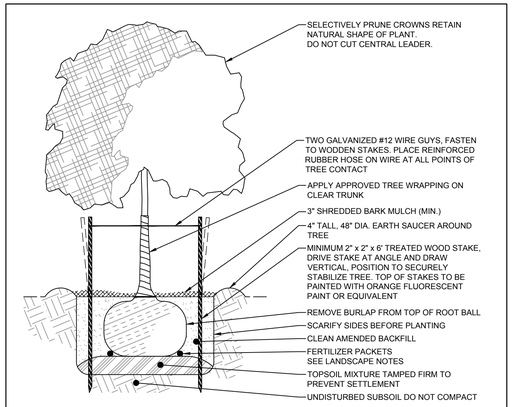
LANDSCAPE TABULATIONS		
PARKING AREA	LANDSCAPE REQUIRED	LANDSCAPE PROPOSED
73,500 SF	73,500 * 0.5= 3,675 SF REQUIRED 3,675 / 300= 13 TREES REQUIRED	4,160 SF (5.7%) 14 SHADE TREES



SECTION

2 / L-501 CONTAINER PLANTING - SHRUB

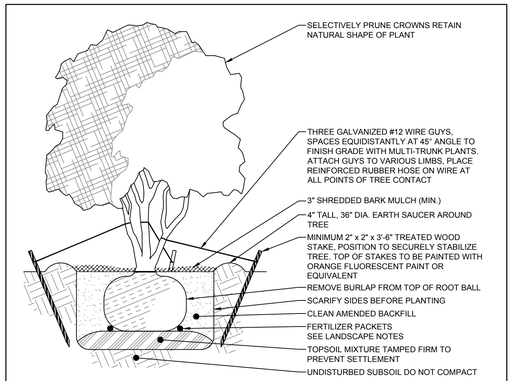
NOT TO SCALE



SECTION

3 / L-501 PLANTING - TREE (Up to 2-1/2" Cal.)

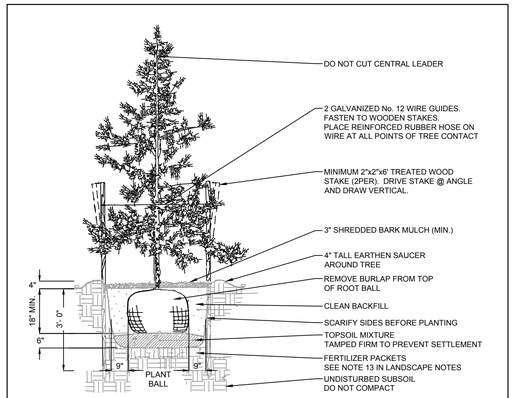
NOT TO SCALE



SECTION

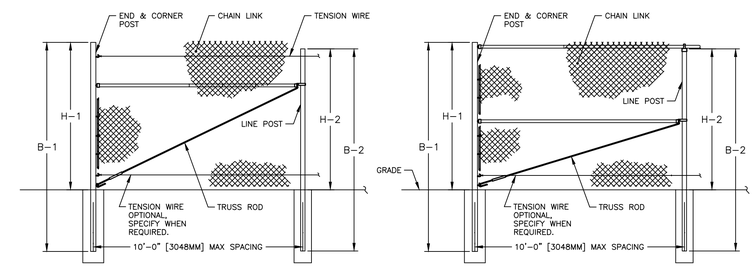
4 / L-501 PLANTING - MULTI-TRUNK TREE

NOT TO SCALE



5 / L-501 EVERGREEN TREE PLANTING

NOT TO SCALE



FENCE SECTION ELEVATION
WITHOUT TOP RAIL & WITHOUT BARBED WIRE

FENCE SECTION ELEVATION
WITH TOP RAIL & WITHOUT BARBED WIRE

FENCE HEIGHT	END & CORNER POSTS		LINE POSTS	
NOMINAL HEIGHT	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE
5'-0" [1524MM]	8'-0" [2438MM]	5'-0 5/8" [1540MM]	7'-8" [2337MM]	4'-8 7/8" [1445MM]
6'-0" [1829MM]	9'-0" [2743MM]	6'-0 5/8" [1845MM]	8'-8" [2642MM]	5'-8 7/8" [1749MM]
7'-0" [2134MM]	10'-0" [3048MM]	7'-0 5/8" [2150MM]	9'-8" [2946MM]	6'-8 7/8" [2054MM]
8'-0" [2438MM]	11'-0" [3353MM]	8'-0 5/8" [2454MM]	10'-8" [3251MM]	7'-8 7/8" [2359MM]
9'-0" [2743MM]	12'-0" [3658MM]	9'-0 5/8" [2759MM]	11'-8" [3556MM]	8'-8 7/8" [2664MM]
10'-0" [3048MM]	13'-0" [3962MM]	10'-0 5/8" [3064MM]	12'-8" [3861MM]	9'-8 7/8" [2969MM]
11'-0" [3353MM]	14'-0" [4267MM]	11'-0 5/8" [3369MM]	13'-8" [4166MM]	10'-8 7/8" [3273MM]
12'-0" [3658MM]	15'-0" [4572MM]	12'-0 5/8" [3674MM]	14'-8" [4470MM]	11'-8 7/8" [3578MM]

NOTES:
1. THIS DWG CORRESPONDS WITH DWGS 1-1110 & 1-1130.
2. SPECIFICATIONS SHOWN CAN BE CHANGED BY MASTER HALCO ONLY.

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Phone No.: 800-229-5615
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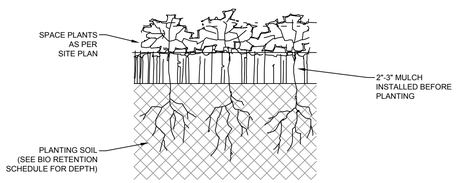
TYPICAL HIGH FENCE WITHOUT BARBED WIRED

DIMENSIONS & SPECIFICATIONS

BY:	JRR	DWG:	1-1000
DATE:	09-27-95		
REV:	C	LAYER:	1
REV DATE:	08-04-06	SCALE:	1/4" = 1'-0"



1 / L-501 BIO RETENTION PLUG PLANTING DETAIL

NOT TO SCALE

STATE OF MARYLAND
DAVID W. TROSTLE
No. 4163
PROFESSIONAL ENGINEER
OCT 18 2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of Maryland License # 4163 Expiration Date: 10-19-2026

FSA
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1406 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9411
1911 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 717-267-1407
126 TOWN STOCKTON STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

CEDAR SPRINGS BUSINESS PARK LOTS 1 & 2

SITUATED ALONG THE EAST SIDE OF GREENCASTLE PIKE (MD 63) BETWEEN WEITHER DRIVE AND VILLAGE DRIVE
HAGERSTOWN, MARYLAND
WASHINGTON COUNTY, MD
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BLVD, SUITE 300/2, WILLIAMSPORT, MD 21795
301.582.1555

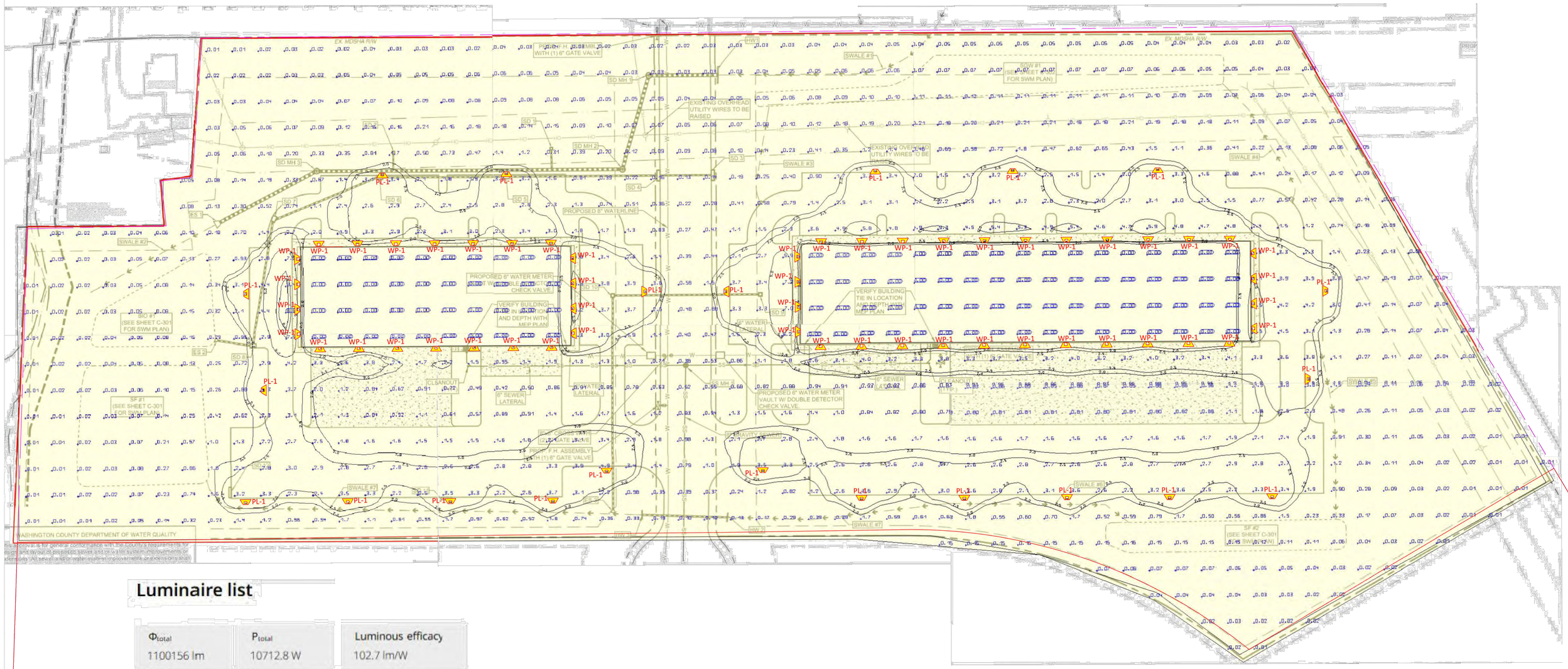
PROJECT NO. 6523.2
DWN BY KODY WARD | DATE 07-22-2024
PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
TAX MAP-GRID-PARCEL 036-021-009
SCALE AS SHOWN

SHEET TITLE
LANDSCAPE PLAN DETAILS & NOTES

L-501
SHEET 30 OF 31

PSP-24-001

P:\SHARED FOLDERS\PROJECTS\6500\6523.2\CNDD\SITE PLAN\6523.2 - 20 - L-501 - LANDSCAPE DETAILS & NOTES.DWG - 2025-10-18



Luminaire list

Φ_{total}	P_{total}	Luminous efficacy
1100156 lm	10712.8 W	102.7 lm/W

pcs.	Manufacturer	Article No.	Article name	P	Φ	Luminous efficacy	
52	Cooper Lighting	WPMLED-75-GL-UNV	LED WALL PACK	76.3 W	8682 lm	113.8 lm/W	WP-1 WALL MOUNT AT 20' HIGH
22	Cooper Lighting	VTS-F12-LED-E1-T4	VENTUS LED SITE LUMINAIRE (12) LIGHTBARS WITH AccuLED OPTICS - TYPE 4	306.6 W	29486 lm	96.2 lm/W	PL-1 POLE MOUNT AT 30' HIGH

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....: Sheetz #184 - Huyetts
NUMBER.....: SP-25-001

OWNER.....: MCRAND HUYETTS LTD PARTNERSHIP
LOCATION.....: 12404 LAGER Drive
Hagerstown, MD 21740
DESCRIPTION.....: This site plan is for the development of a previously developed Sheetz C-Store into a 6,139 sq. ft. Sheetz C-Store and gas station.

ZONING.....: Business, Local
COMP PLAN LU.....: Commercial
PARCEL.....: 23016494
PLANNING SECTOR.....: 5
ELECTION DISTRICT.....: 23

TYPE.....: Commercial
GROSS ACRES.....: 3.73
DWELLING UNITS.....:
TOTAL LOTS.....: 1
DENSITY.....: 0 Units Per Acre

PLANNER.....: Misty Wagner-Grillo
ENGINEER.....: FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....: January 21, 2025

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....: No
WETLANDS.....: No
WATERSHED.....: Conococheague Creek
ENDANGERED SPECIES.....: None
STEEP SLOPES.....: No
STREAM BUFFER.....: No
HISTORIC INVENTORY.....: No Resources Present
EASEMENTS PRESENT.....: None

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE DESIGN

Impervious Area Plan	Impervious Maximum Allowed	Open Space Area Planned
57	80	0
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
0		Onsite Dumpter
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
	Yes	Yes
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Yes		
Loading Area Meets Requirements		

Not Fast Track

Parking Spaces - Total Planned	Parking Spaces - Per Dwelling Unit
59	
Parking Spaces - Minimum Required	**Recreational Parking Provided**
31	No

ACCESS SPACING VARIANCE NEEDED: No
NUMBER OF ACCESS POINTS: 2

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Jonathan Hager	Clear Spring	Clear Spring
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	Williamsport
AMBULANCE DISTRICT.....:	Williamsport

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	City	County
SERVICE AREA.....:	City	County
PRIORITY.....:	3-Programmed Service	3-Programmed Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

SITE RENOVATION PLAN

FOR

SHEETZ #184 - HUYETTS

SITUATED AT 12404 LAGER DRIVE

WASHINGTON COUNTY, MARYLAND

APPROVALS

MD-ENG-6A 1/89 — USDA SCS

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:

Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 2.15 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 20 CU. YDS. OF EXCAVATION AND APPROXIMATELY 2,000 CU. YDS. OF FILL.

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE DATE SEAL

WASHINGTON COUNTY
DIVISION OF ENGINEERING

APPROVED BY: _____

DATE: _____

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will, be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

BRIAN DINGES, VP of STORE DEV. — PRINTED NAME — 1/14/25 — DATE — SIGNATURE

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

BRIAN DINGES, VP of STORE DEV. — PRINTED NAME — 1/14/25 — DATE — SIGNATURE

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

04/21/2025 — DATE — 20945 — REG. NO. — SIGNATURE

OWNER:
MCRAND HUYETTS LTD PARTNERSHIP
5700 6TH AVENUE
ALTOONA, PA 16602
ATTN: CHUCK STEWART
EMAIL: cstewart@sheetz.com
PHONE: 412.508.9026

CLIENT/DEVELOPER:
SHEETZ, INC
243 SHEETZ WAY
CLAYSBURG, PA 16625
ATTN: CHUCK STEWART
EMAIL: cstewart@sheetz.com
PHONE: 412.508.9026

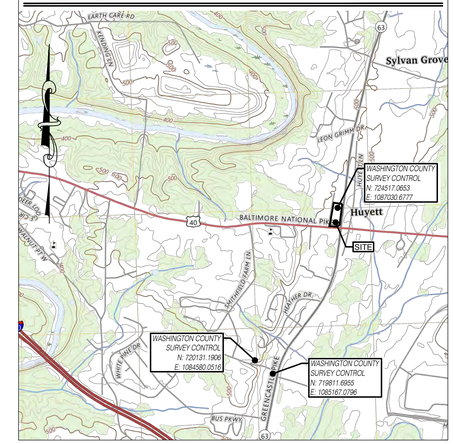
CIVIL ENGINEER / SURVEYOR:
FREDERICK SEIBERT & ASSOCIATES, INC.
128 SOUTH POTOMAC STREET
HAGERSTOWN, MD 21740

PROJECT MANAGER: DAVID TROSTLE
EMAIL: dtrostle@fsa-inc.com
PHONE: 301.791.3650

VICINITY MAP

SCALE: 1" = 2000'

ADC MAP 20, B3
USGS MAPS (HAGERSTOWN)



SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-002	SHEET 02	NOTES & LEGENDS
C-101	SHEET 03	EXISTING CONDITIONS
C-102	SHEET 04	DEMOLITION PLAN
C-103	SHEET 05	EROSION & SEDIMENT CONTROL PLAN
C-104	SHEET 06	GRADING PLAN
C-105	SHEET 07	UTILITY & DRAINAGE PLAN
C-106	SHEET 08	SITE & DIMENSION PLAN
C-401	SHEET 09	CONSTRUCTION PROFILES - UTILITY
C-501	SHEET 10	CONSTRUCTION DETAILS & NOTES - ESC
C-502	SHEET 11	CONSTRUCTION DETAILS & NOTES - STORM
C-503	SHEET 12	CONSTRUCTION DETAILS & NOTES - SITE
C-504	SHEET 13	CONSTRUCTION DETAILS & NOTES - SHEETZ
C-505	SHEET 14	CONSTRUCTION DETAILS & NOTES - SHEETZ
C-506	SHEET 15	CONSTRUCTION DETAILS & NOTES - SHEETZ
C-507	SHEET 16	CONSTRUCTION DETAILS & NOTES - SHEETZ
C-508	SHEET 17	CONSTRUCTION DETAILS & NOTES - SHEETZ
C-509	SHEET 18	CONSTRUCTION DETAILS & NOTES - SHEETZ
L-101	SHEET 19	LANDSCAPE PLAN
L-501	SHEET 20	LANDSCAPE DETAILS & NOTES
BY OTHERS		
P-101	SHEET 21	LIGHTING PLAN (BY OTHERS)
P-501	SHEET 22	LIGHTING DETAILS (BY OTHERS)
P-502	SHEET 23	LIGHTING DETAILS (BY OTHERS)
I-101	SHEET 24	IRRIGATION PLAN (BY OTHERS)

STORMWATER NARRATIVE

This stormwater management narrative is for the development of a previously graded and developed site, existing C-Store site, into a 6,139 square foot Sheetz Convenience Store and Gas Station, with associated drive aisles and parking spaces. The site is located on the northwest corner of the National Pike (US40) and Greencastle Pike (MD63) intersection. The site is located within the review jurisdiction of the Washington County Plan Review Department and Washington County Soil Conservation District. The development of the site will create 2.15 acres of soil disturbance. The site currenly has 2.11 acres of existing impervious cover, and the proposed development will increase existing impervious cover by 0.02 acres. The stormwater runoff created by the proposed development will be treated and controlled in a existing stormwater facilities, located around the perimeter of the site. A new Filterra structure will be located onsite, near the drive-thru lane, to meet WQv for the additional impervious area. The existing stormwater facility was designed and constructed to provide WQv, CPv, Qp, and Qf for all impervious coverage of the entire 3.73 acre parcel.

Chapter 5 - Structural						
Type	No.	D.A. (Acres) (To Structure)	Impervious D.A. (Acres) (To Structure)	ESDv (ac-ft)	WQv (ac-ft)	P.E. Addressed
Filterra	SD 5	0.08	0.06	0.005	0.005	N/A

Know what's below. Call before you dig.

STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — 20945 — 04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 20945 Expiration Date 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
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128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740 301-791-3650
1935 SOUTH HANOVER STREET, CARLISLE, PA 17013 717-243-7911
2121 WEST MAIN STREET, GREENCASTLE, PA 17225 717-597-1407
1100 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068 717-582-2161
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MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	03.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and National Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Clarysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD — DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE AS SHOWN

SHEET TITLE
COVER SHEET

C-001
SHEET 01 OF 20

SP-25-001

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by Hillis-Carnes Engineering Associates for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Columbia Gas (New Buisness)	1-800-440-6111
Columbia Gas (Conflicts)	(301) 964-1065
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Soil Conservation District	(301) 797-6821
Washington County Department of Water Quality	(240) 313-2600
City of Hagerstown Water Department	(301) 739-8577 Ext. 650
Washington County Division of Permits & Inspections	(240) 313-2460

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Site benchmarks shown on sheet C-101 and to be verified by FSA prior to the start of construction.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by onsite Geotechnical Firm for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. All handicapped parking spaces shall be designed, ramped and signed to meet the minimum requirements of the Maryland Accessibility Code & ADA Standards for Accessible Design.
20. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in February 2023. (Contour accuracy is to plus or minus one half the contour interval).
21. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
22. Exterior lighting will consist of building mounted lights and pole mounted lights as shown on the photometrics plans and utility plan.
23. The contractor shall provide MOSH safety assistance for City Utilities Department, Water and Wastewater Division Inspectors.
24. This project has a projected start date of May 2025 and a completion date of November 2025.
25. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County, MD.
26. Proposed SWM will consist of existing on-site bioretention facilities and a Filterra Inlet.
27. There are no parks, open space within or adjoining the tract.
28. All existing drainage culverts and drainage easements are to be maintained and unaltered.
29. There are no floodplains, wetlands, steep slopes and related buffers, or habitat of threatened or endangered species identified by the U.S. Fish and Wildlife Service per 50 CFR 17 as required to be shown by section 314 of the subdivision ordinance and section 4.21 of the Zoning Ordinance.
30. No permanent structures (e.g. fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.
31. Per AASHTO T180A standards, all proposed stormdrain pipes must be placed on 95% compacted fill.
32. All grading for this project shall be the full responsibility of the property owner.
33. There is a 10' wide drainage and utilities easement along all front lot lines and an 8' wide drainage and utilities easement along all side and rear lot lines hereby reserved unless otherwise shown hereon.
34. Please be advised that any project which creates a disturbance of one (1) acre or more will require a 'notice of intent to comply with the general permit for storm water discharges associated with construction activity' (NOI). The NOI is required under the clean water act as stated in 40 CFR 122.26 and code of Maryland regulations COMAR 26.08.04.09A and is regulated by the Maryland Department of Environment (MDE). The NOI is to be submitted with the appropriate fees directly to the MDE prior to commencement of construction activity. No land disturbing activity that requires a grading permit from Washington County should proceed until the general permit for stormwater discharges associated with construction activity (MDR10) has been issued my MDE.
35. In conformance with the Stormwater Management Ordinance of Washington County, a performance security and executed maintenance and access agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans.

DIVISION OF PLAN REVIEW & PERMITTING NOTES

1. In conformance with the Stormwater Management Ordinance of Washington County, a performance security and executed maintenance agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans."
2. This project will require a third party qualified professional to be present at the preconstruction meeting. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
3. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Public Works.
4. Developer/Contractor shall contact the certifying engineer and the County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
5. This development plan must comply with the current Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control. Ordinance.
6. All grading for this project shall be the full responsibility of the property owner.
7. No permanent structures (e.g., fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.

FIRE DEPARTMENT NOTES

1. Construction occurring on this site shall comply with NFPA 241, standard for safeguarding construction, alteration, and demolition operations, and chapter 16 of NFPA 1, uniformed fire code.
2. No open burning is permitted. Permits are required to perform blasting operations within the city of Hagerstown.
3. New buildings shall have approved address numbers placed in a position to be plainly legible and visible from the street or road fronting the property (NFPA 1-10.13.1).
4. A fire department access box (knox box) shall be installed. This box will be required to contain keys to the building, gates, fire protection system keys and other areas as requested by the fire department. Plans should reflect the location of box near the main entrance. Application information may be obtained from this office by the general contractor or online at *www.knoxbox.com*.

WASHINGTON COUNTY STANDARD NOTES

1. In conformance with the Stormwater Management Ordinance of Washington County, a Performance Security and Executed Maintenance Agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans.
2. Developer/contractor shall contact the certifying engineer and the county at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
3. This development plan must comply with the current Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control Ordinance.
4. All grading for this project shall be the full responsibility of the property owner.
5. No permanent structures (e.g., fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.

SITE DATA

EXISTING SITE ADDRESS	12404 LAGER DRIVE
TAX MAP - GRID - PARCEL	0036 - 015 - 0364
ELECTION DISTRICT	23
ACCOUNT NUMBER	016494
LIBER / FOLIO	03550/00272
PLAT NUMBER	9182
AREA SUMMARY:	
PARCEL	3.73 AC
DISTURBED AREA	2.15 AC
EXISTING IMPERVIOUS	91,912 SF (2.11 AC)
PROPOSED IMPERVIOUS	92,783 SF (2.13AC)
BUILDING SUMMARY:	
FOOTPRINT	6,139 SF
HEIGHT	20 FT
EXISTING/PROPOSED USE	CONVENIENCE STORE (GAS STATION)
HOURS OF OPERATION	24 HOURS, 7 DAYS A WEEK
EMPLOYEE SUMMARY	5-6 PER SHIFT
DELIVERS & FREIGHT	TRACTOR TRAILER, BOX TRUCK (DAILY)
WATER & SEWER USAGE:	
WATER PROVIDED	CITY OF HAGERSTOWN WATER DIVISION
SEWER PROVIDED	WASHINGTON COUNTY DEPARTMENT OF WATER QUALITY
SOLID WASTE REMOVAL	PRIVATE HAULER: ROLL OFF TRASH COMPACTOR IN BAY
RECYCLE REMOVAL	PRIVATE HAULER: ROLL OFF TRASH COMPACTOR IN BAY
SITE LIGHTING:	
EXISTING/PROPOSED	POLE & BUILDING MOUNTED
SITE SIGNAGE:	
EXISTING/PROPOSED	PYLON SIGN & BUILDING MOUNTED
FORESTATION:	PREVIOUSLY ADDRESSED PER PIL per SP-06-034

ZONING DATA

ZONING DISTRICT	BL - BUSINESS, LOCAL
MAXIMUM BUILDING HEIGHT	25 FT
MINIMUM YARD SETBACK:	
FRONT	25 FT.
SIDE	10 FT.
REAR	10 FT.
ROAD	50 FT.

PARKING, LOADING & BICYCLE DATA

USE	REQUIREMENT	CALCULATION	REQUIRED
COMMERCIAL RETAIL	5 SPACE PER 1,000 SF GFA	(6,139 SF / 1,000 SF) x 5	31 SPACES

TOTAL EXISTING PARKING SPACES	**59 SPACES TOTAL**
TOTAL REQUIRED PARKING SPACES	**31 SPACES TOTAL**
TOTAL REQUIRED HANDICAP SPACES	**2 SPACES**
TOTAL PROVIDED PARKING SPACES	**48 VEHICULAR SPACES: 46 REG & 2 HC**
TOTAL PROVIDED FUELING POSITIONS	**12 VEHICULAR**

LEGEND

EXISTING / PROPOSED

SUBJECT BOUNDARY
BUILDING SETBACK LINE
RIGHT OF WAY
EASEMENT LINE
ADJOINER BOUNDARY
FENCE (METAL)
FENCE (WOODEN)
DITCH (STREAM)
EDGE OF WATER
WETLAND
FLOODPLAIN
SOIL BOUNDARY
RAILWAY
CENTERLINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
CURB
WALL
GUARD RAIL
EDGE OF CONCRETE
BUILDING
MAIL BOX
SIGN (ROAD)
SIGN (SITE)
TRAFFIC SIGNAL

TOPOGRAPHIC FEATURES
CONTOUR (INDEX)
CONTOUR (INTERMEDIATE)
SPOTS ELEVATION

VEGETATION AREAS
TREELINE
DECIDUOUS TREES — SEE LANDSCAPE SHEET FOR LEGEND
EVERGREEN TREES — SEE LANDSCAPE SHEET FOR LEGEND

SANITARY SEWER
GRAVITY LINE
FORCE MAIN LINE
LATERAL
MANHOLE
CLEANOUT
VALVE

WATER
COLD WATER LINE
FIRE WATER LINE
HOT WATER LINE
MANHOLE
FIRE HYDRANT
VALVE
METER
WELL

STORM DRAINAGE
STORM SEWER LINE
ROOF DRAIN LINE
MANHOLE
INLETS
CLEANOUT

UTILITIES
GAS LINE
ELECTRICAL LINE
FIBER OPTIC LINE
COMMUNICATION LINE
OVERHEAD LINES
MANHOLE
PEDS, BOX, & ETC
POLE
LIGHT POLE
GAS METER
GAS VALVE

LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADS	ADVANCED DRAINAGE SYSTEM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
AWWA	AMERICAN WATER WORKS ASSOCIATION
BLDG	BUILDING
BOT	BOTTOM
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	SANITARY SEWER CLEAN-OUT
COMM	COMMUNICATION
CONC	CONCRETE
DA	DRAINAGE AREA
DIA	DIAMETER
EGL	EXISTING GRADE LINE
EX	EXISTING
EIP	EXISTING IRON PIN
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
GV	GATE VALVE
HGL	HYDRAULIC GRADE LINE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LF	LINEAR FEET
MAX	MAXIMUM
MB	MAIL BOX
MIN	MINIMUM
MJ	MECHANICAL JOINT
NO	NUMBER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OAC	OR APPROVED EQUAL
OC	ON CENTER
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PGL	PROPOSED GRADE LINE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
ROW	RIGHT-OF-WAY
SAN	SANITARY
SCE	STABILIZED CONSTRUCTION ENTRANCE
SDR	STANDARD DIMENSION RATIO
SIP	SET IRON PIN
SD	STORM DRAINAGE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SY	SQUARE YARDS
TAN	TYPE AS NOTED
TEMP	TEMPORARY
TS	TOP OF STRUCTURE
TG	TOP OF GRATE
TR	TOP OF RIM
TYP	TYPICAL
U/P	UTILITY POLE
VIF	VERIFY IN FIELD
WL	WATERLINE
WM	WATER METER
WV	WATER VALVE

STATE OF MARYLAND — KODY WARD — REGISTERED PROFESSIONAL ENGINEER — No. 36996
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 36996
Expiration Date 06-23-2025

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108 SOUTH HANOVER STREET CARLISLE, PA 17013 (717) 243-7411
1001 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-7884

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Situate on the northwest corner of the intersection of Greencastle Pike (MD63 and Maugans Pike (US 40)

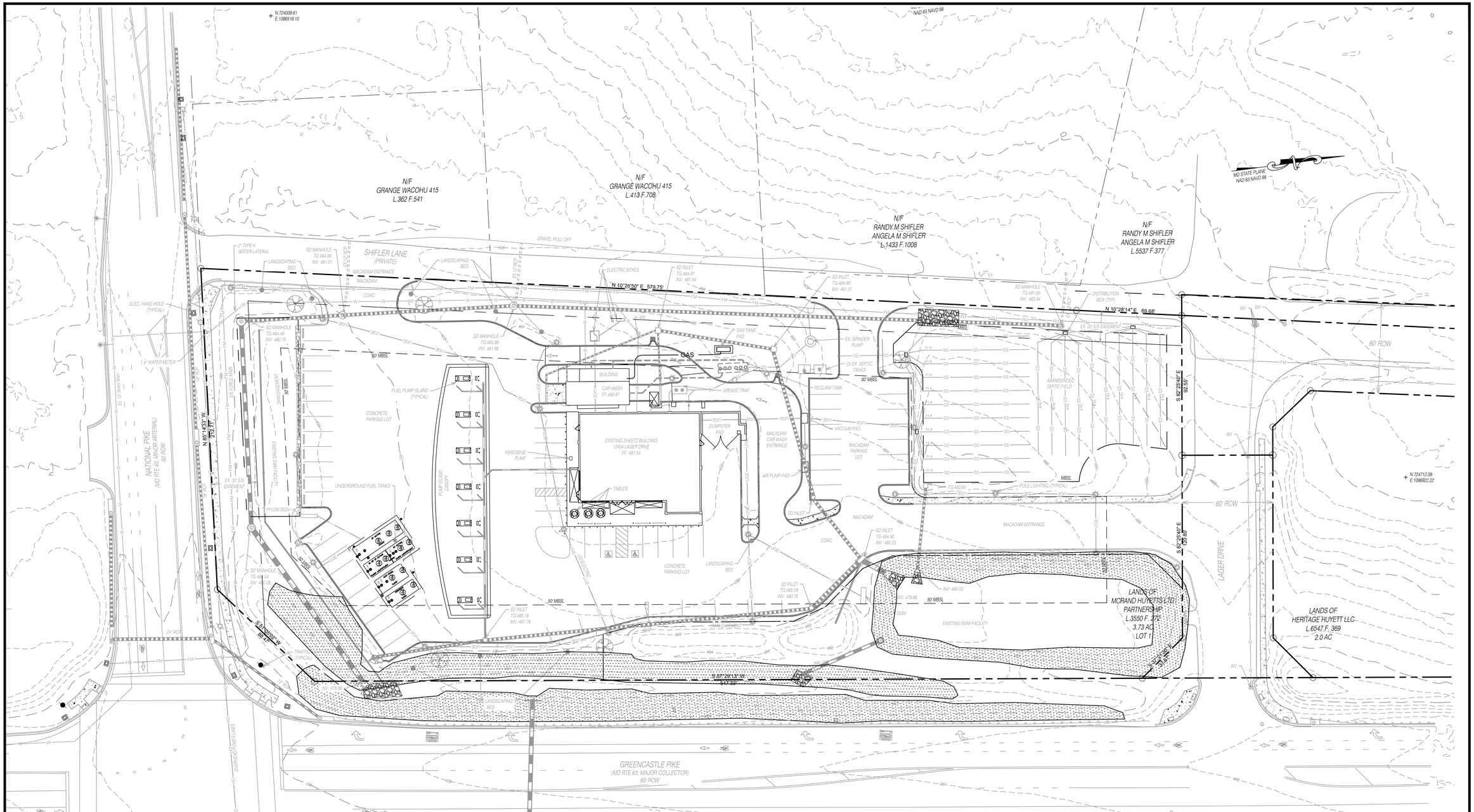
Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD — DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

NOTES & LEGENDS

C-002
SHEET 02 OF 20

SP-25-001



SOIL CHART ⚠

SOILS	H.S.G.	Ratio (%)	Kw
HaB	B	16.5%	0.37
OpB	D	24.4%	0.32
SpA	D	59.2%	0.49

Highly Erodible Soils & Steep Slopes (Slopes≥25% or Slopes>15% and K_w≥0.35)

NONE **Wetlands**

NONE **Wetlands Buffer**

Soils

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NOTES:

1. THIS PARCEL DOES NOT LIE IN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 24043C118D DATED 08-15-2017, FLOOD ZONE A.
2. THERE ARE NO WETLANDS WITHIN THIS PARCEL.
3. THERE ARE STEEP SLOPES AND HIGHLY ERODIBLE SOILS FOUND WITHIN THE PARCELS.
4. ALL EXISTING STEEP SLOPES ON THIS SITE ARE MAN MADE.

STATE OF MARYLAND
DANIEL J. SEIBERT
No. 25969
REGISTERED PROFESSIONAL ENGINEER
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 25969-1
Expiration Date 06-23-2025

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CARLISLE, PA 17013
717-249-0411
WEST ALLEGHENY STREET
GREENCASTLE, PA 17225
717-597-1407
126 TOWNSHIP CHAC STREET
HAGERSTOWN, MD 21740
301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and National Pike (US 40)

12404 LAGER DRIVE HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Clearsburg, PA 16625
Attn: Chuck Stewart (412) 508.9626

PROJECT NO. 2905
DWN BY KODY WARD
DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE 1" = 30'

SHEET TITLE

EXISTING CONDITIONS

C-101
SHEET 03 OF 20

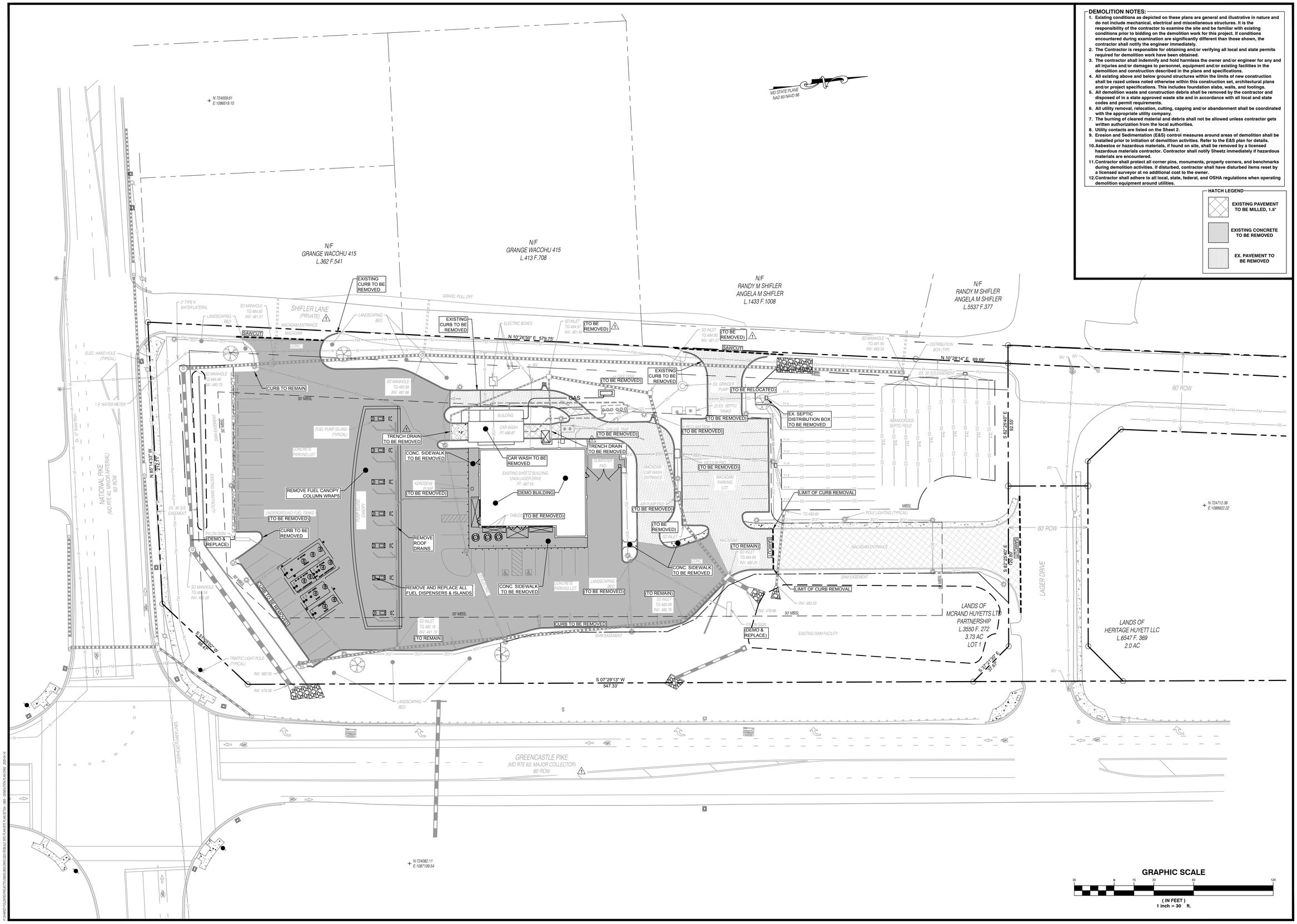
SP-25-001

DEMOLITION NOTES:

1. Existing conditions as depicted on these plans are general and illustrative in nature and do not include mechanical, electrical and miscellaneous structures. It is the responsibility of the contractor to examine the site and be familiar with existing conditions prior to bidding on the demolition work for this project. If conditions encountered during examination are significantly different than those shown, the contractor shall notify the engineer immediately.
2. The Contractor is responsible for obtaining and/or verifying all local and state permits required for demolition work have been obtained.
3. The contractor shall indemnify and hold harmless the owner and/or engineer for any and all injuries and/or damages to personnel, equipment and/or existing facilities in the demolition and construction described in the plans and specifications.
4. All existing above and below ground structures within the limits of new construction shall be razed unless noted otherwise within this construction set, architectural plans and/or project specifications. This includes foundation slabs, walls, and footings.
5. All demolition waste and construction debris shall be removed by the contractor and disposed of in a state approved waste site and in accordance with all local and state codes and permit requirements.
6. All utility removal, relocation, cutting, capping and/or abandonment shall be coordinated with the appropriate utility company.
7. The burning of cleared material and debris shall not be allowed unless contractor gets written authorization from the local authorities.
8. Utility contacts are listed on the Sheet 2.
9. Erosion and Sedimentation (E&S) control measures around areas of demolition shall be installed prior to initiation of demolition activities. Refer to the E&S plan for details.
10. Asbestos or hazardous materials, if found on site, shall be removed by a licensed hazardous materials contractor. Contractor shall notify Sheetz immediately if hazardous materials are encountered.
11. Contractor shall protect all corner pins, monuments, property corners, and benchmarks during demolition activities. If disturbed, contractor shall have disturbed items reset by a licensed surveyor at no additional cost to the owner.
12. Contractor shall adhere to all local, state, federal, and OSHA regulations when operating demolition equipment around utilities.

HATCH LEGEND

- EXISTING PAVEMENT TO BE MILLED, 1.5"
- EXISTING CONCRETE TO BE REMOVED
- EX. PAVEMENT TO BE REMOVED



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1446 SOUTH HANOVER STREET, CARLISLE, PA 17013 (717) 243-1411
1307 EAST MAIN STREET, NEW BLOOMFIELD, PA 17068 (717) 582-2161
fsa-inc.com

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 25968-1
Expiration Date: 06-23-2025

04/21/2025

FOR PUBLIC REVIEW

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and National Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Claysburg PA 16625
Attn: Chuck Stewart (412) 508.9026

NOT APPROVED

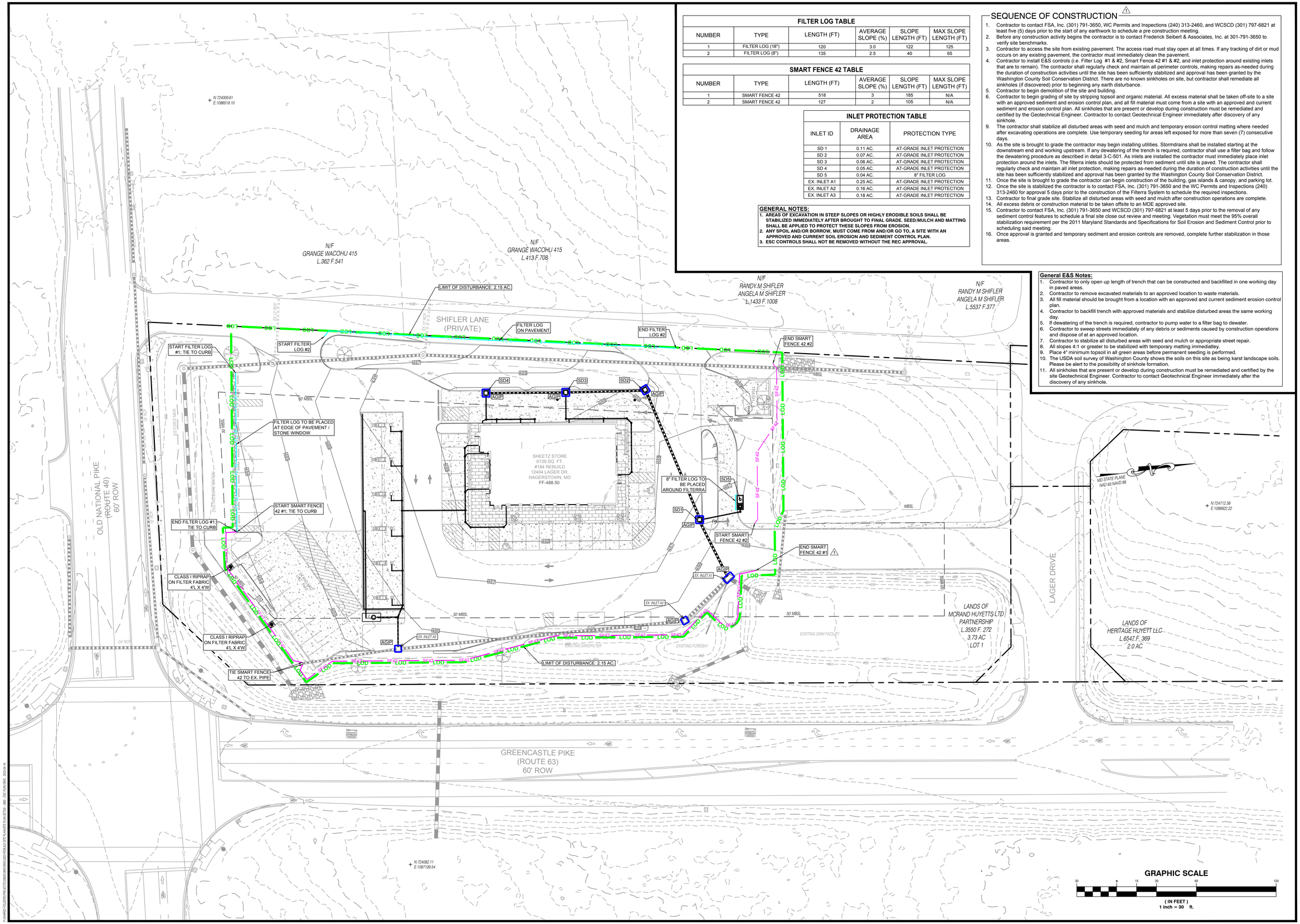
PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER	DTrostle
EMAIL	DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	1" = 30'

SHEET TITLE

DEMOLITION PLAN

C-102
SHEET 04 OF 20

SP-25-001



FILTER LOG TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	FILTER LOG (18")	120	3.0	122	125
2	FILTER LOG (8")	135	2.5	40	65

SMART FENCE 42 TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SMART FENCE 42	518	3	185	N/A
2	SMART FENCE 42	127	2	105	N/A

INLET PROTECTION TABLE

INLET ID	DRAINAGE AREA	PROTECTION TYPE
SD 1	0.11 AC.	AT-GRADE INLET PROTECTION
SD 2	0.07 AC.	AT-GRADE INLET PROTECTION
SD 3	0.06 AC.	AT-GRADE INLET PROTECTION
SD 4	0.05 AC.	AT-GRADE INLET PROTECTION
SD 5	0.04 AC.	8" FILTER LOG
EX. INLET A1	0.25 AC.	AT-GRADE INLET PROTECTION
EX. INLET A2	0.16 AC.	AT-GRADE INLET PROTECTION
EX. INLET A3	0.18 AC.	AT-GRADE INLET PROTECTION

GENERAL NOTES:

1. **AREAS OF EXCAVATION IN STEEP SLOPES OR HIGHLY ERODIBLE SOILS SHALL BE STABILIZED IMMEDIATELY AFTER BROUGHT TO FINAL GRADE. SEED/MULCH AND MATTING SHALL BE APPLIED TO PROTECT THESE SLOPES FROM EROSION.**
2. **ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.**
3. **ESC CONTROLS SHALL NOT BE REMOVED WITHOUT THE REC APPROVAL.**

SEQUENCE OF CONSTRUCTION

1. Contractor to contact FSA, Inc. (301) 791-3650, WC Permits and Inspections (240) 313-2460, and WCSCD (301) 797-6821 at least five (5) days prior to the start of any earthwork to schedule a pre construction meeting.
2. Before any construction activity begins the contractor is to contact Frederick Seibert & Associates, Inc. at 301-791-3650 to verify site benchmarks.
3. Contractor to access the site from existing pavement. The access road must stay open at all times. If any tracking of dirt or mud occurs on any existing pavement, the contractor must immediately clean the pavement.
4. Contractor to install E&S controls (i.e. Filter Log #1 & #2, Smart Fence 42 #1 & #2, and inlet protection around existing inlets that are to remain). The contractor shall regularly check and maintain all perimeter controls, making repairs as-needed during the duration of construction activities until the site has been sufficiently stabilized and approval has been granted by the Washington County Soil Conservation District. There are no known sinkholes on site, but contractor shall remediate all sinkholes (if discovered) prior to beginning any earth disturbance.
5. Contractor to begin demolition of the site and building.
6. Contractor to begin grading of site by stripping topsoil and organic material. All excess material shall be taken off-site to a site with an approved sediment and erosion control plan, and all fill material must come from a site with an approved and current sediment and erosion control plan. All sinkholes that are present or develop during construction must be remediated and certified by the Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after discovery of any sinkhole.
9. The contractor shall stabilize all disturbed areas with seed and mulch and temporary erosion control matting where needed after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days.
10. As the site is brought to grade the contractor may begin installing utilities. Stormdrains shall be installed starting at the downstream end and working upstream. If any dewatering of the trench is required, contractor shall use a filter bag and follow the dewatering procedure as described in detail 3-C-501. As inlets are installed the contractor must immediately place inlet protection around the inlets. The filterra inlets should be protected from sediment until site is paved. The contractor shall regularly check and maintain all inlet protection, making repairs as-needed during the duration of construction activities until the site has been sufficiently stabilized and approval has been granted by the Washington County Soil Conservation District.
11. Once the site is brought to grade the contractor can begin construction of the building, gas islands & canopy, and parking lot.
12. Once the site is stabilized the contractor is to contact FSA, Inc. (301) 791-3650 and the WC Permits and Inspections (240) 313-2460 for approval 5 days prior to the construction of the Filterra System to schedule the required inspections.
13. Contractor to final grade site. Stabilize all disturbed areas with seed and mulch after construction operations are complete.
14. All excess debris or construction material to be taken offsite to an MDE approved site.
15. Contractor to contact FSA, Inc. (301) 791-3650 and WCSCD (301) 797-6821 at least 5 days prior to the removal of any sediment control features to schedule a final site close out review and meeting. Vegetation must meet the 95% overall stabilization requirement per the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control prior to scheduling said meeting.
16. Once approval is granted and temporary sediment and erosion controls are removed, complete further stabilization in those areas.

General E&S Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill material should be brought from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 4:1 or greater to be stabilized with temporary matting immediatley.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.

STATE OF MARYLAND
DANIEL J. WARD
No. 29963
REGISTERED PROFESSIONAL ENGINEER
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 29963
Expiration Date 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
CORPORATE OFFICE
126 SOUTH CHAMBERS STREET
HAGERSTOWN, MD 21740
301-791-3650
WEST PENNSBORO STREET
GREENCASTLE, PA 17225
717-597-1407
148 SOUTH HANOVER STREET
CARLISLE, PA 17013
717-243-7411
EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717-582-2161
fsa-inc.com

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

FOR PUBLIC REVIEW

NOT APPROVED

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and Maryland Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Clearsburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER: DTrostle	
EMAIL: DTrostle@fsa-inc.com	
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	1" = 30'
SHEET TITLE	EROSION & SEDIMENT CONTROL PLAN

C-103
SHEET 05 OF 20

SP-25-001

HATCH LEGEND

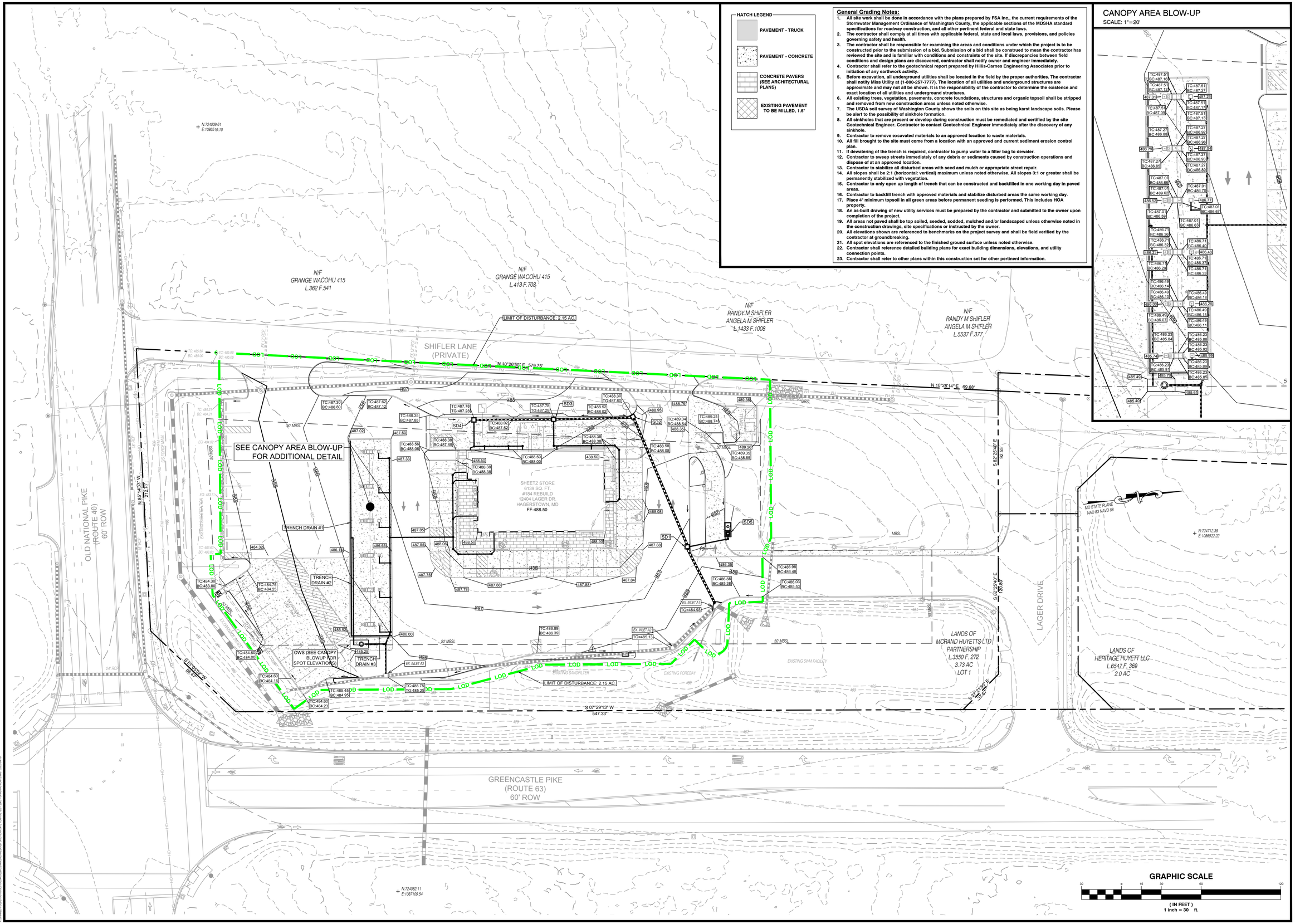
- PAVEMENT - TRUCK
- PAVEMENT - CONCRETE
- CONCRETE PAVERS (SEE ARCHITECTURAL PLANS)
- EXISTING PAVEMENT TO BE MILLED, 1.5"

General Grading Notes:

1. All site work shall be done in accordance with the plans prepared by FSA Inc., the current requirements of the Stormwater Management Ordinance of Washington County, the applicable sections of the MDSHA standard specifications for roadway construction, and all other pertinent federal and state laws.
2. The contractor shall comply at all times with applicable federal, state and local laws, provisions, and policies governing safety and health.
3. The contractor shall be responsible for examining the areas and conditions under which the project is to be constructed prior to the submission of a bid. Submission of a bid shall be construed to mean the contractor has reviewed the site and is familiar with conditions and constraints of the site. If discrepancies between field conditions and design plans are discovered, contractor shall notify owner and engineer immediately.
4. Contractor shall refer to the geotechnical report prepared by Hillis-Carnes Engineering Associates prior to initiation of any earthwork activity.
5. Before excavation, all underground utilities shall be located in the field by the proper authorities. The contractor shall notify Miss Utility at (1-800-257-7777). The location of all utilities and underground structures are approximate and may not all be shown. It is the responsibility of the contractor to determine the existence and exact location of all utilities and underground structures.
6. All existing trees, vegetation, pavements, concrete foundations, structures and organic topsoil shall be stripped and removed from new construction areas unless noted otherwise.
7. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
8. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.
9. Contractor to remove excavated materials to an approved location to waste materials.
10. All fill brought to the site must come from a location with an approved and current sediment erosion control plan.
11. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
12. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
13. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
14. All slopes shall be 2:1 (horizontal: vertical) maximum unless noted otherwise. All slopes 3:1 or greater shall be permanently stabilized with vegetation.
15. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
16. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
17. Place 4" minimum topsoil in all green areas before permanent seeding is performed. This includes HOA property.
18. An as-built drawing of new utility services must be prepared by the contractor and submitted to the owner upon completion of the project.
19. All areas not paved shall be top soiled, seeded, sodded, mulched and/or landscaped unless otherwise noted in the construction drawings, site specifications or instructed by the owner.
20. All elevations shown are referenced to benchmarks on the project survey and shall be field verified by the contractor at groundbreaking.
21. All spot elevations are referenced to the finished ground surface unless noted otherwise.
22. Contractor shall reference detailed building plans for exact building dimensions, elevations, and utility connection points.
23. Contractor shall refer to other plans within this construction set for other pertinent information.

CANOPY AREA BLOW-UP

SCALE: 1"=20'



STATE OF MARYLAND — DAVID A. TROSTLE — REGISTERED PROFESSIONAL ENGINEER — No. 28961

04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 28961
Expiration Date: 06.23.2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2061
C-2899
108 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9411
WEST PLEASANT STREET GREENCASTLE, PA 17225 717-597-1007
126 TOWNSHIP LINE ROAD HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and Marshall Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER: DTrostle	
EMAIL: DTrostle@fsa-inc.com	
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	AS SHOWN

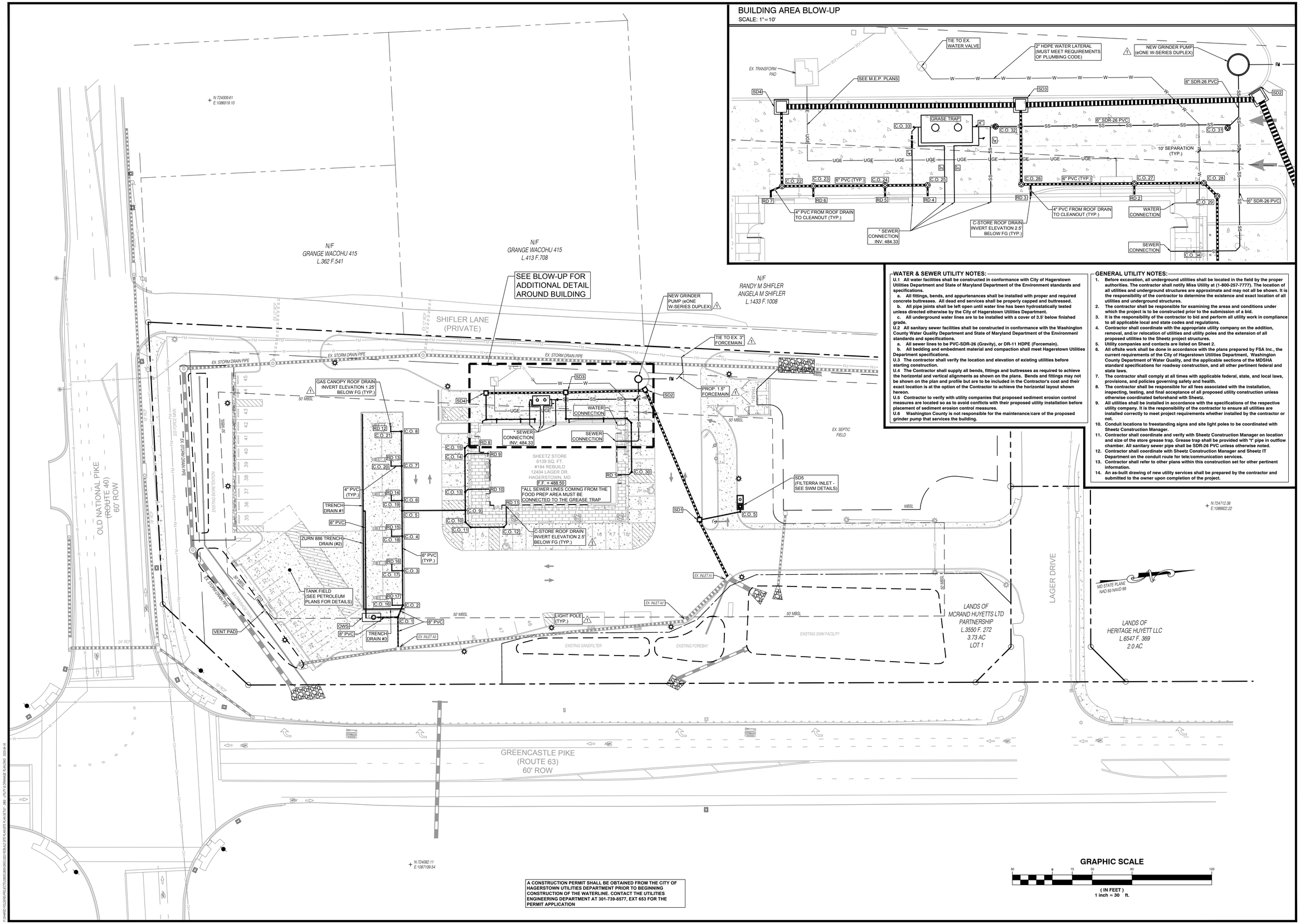
SHEET TITLE

GRADING PLAN

C-104

SHEET 06 OF 20

SP-25-001



BUILDING AREA BLOW-UP

SCALE: 1"=10'

WATER & SEWER UTILITY NOTES:

U.1 All water facilities shall be constructed in conformance with City of Hagerstown Utilities Department and State of Maryland Department of the Environment standards and specifications.

a. All fittings, bends, and appurtenances shall be installed with proper and required concrete buttresses. All dead end services shall be properly capped and buttressed.

b. All pipe joints shall be left open until water line has been hydrostatically tested unless directed otherwise by the City of Hagerstown Utilities Department.

c. All underground water lines are to be installed with a cover of 3.5' below finished grade.

U.2 All sanitary sewer facilities shall be constructed in conformance with the Washington County Water Quality Department and State of Maryland Department of the Environment standards and specifications.

a. All sewer lines to be PVC-SDR-26 (Gravity), or DR-11 HDPE (Forcemain).

b. All bedding and embedment material and compaction shall meet Hagerstown Utilities Department specifications.

U.3 The contractor shall verify the location and elevation of existing utilities before starting construction.

U.4 The Contractor shall supply all bends, fittings and buttresses as required to achieve the horizontal and vertical alignments as shown on the plans. Bends and fittings may not be shown on the plan and profile but are to be included in the Contractor's cost and their exact location is at the option of the Contractor to achieve the horizontal layout shown hereon.

U.5 Contractor to verify with utility companies that proposed sediment erosion control measures are located so as to avoid conflicts with their proposed utility installation before placement of sediment erosion control measures.

U.6 Washington County is not responsible for the maintenance/care of the proposed grinder pump that services the building.

GENERAL UTILITY NOTES:

1. **Before excavation, all underground utilities shall be located in the field by the proper authorities. The contractor shall notify Miss Utility at (1-800-257-7777). The location of all utilities and underground structures are approximate and may not all be shown. It is the responsibility of the contractor to determine the existence and exact location of all utilities and underground structures.**
2. **The contractor shall be responsible for examining the areas and conditions under which the project is to be constructed prior to the submission of a bid.**
3. **It is the responsibility of the contractor to bid and perform all utility work in compliance to all applicable local and state codes and regulations.**
4. **Contractor shall coordinate with the appropriate utility company on the addition, removal, and/or relocation of utilities and utility poles and the extension of all proposed utilities to the Sheetz project structures.**
5. **Utility companies and contacts are listed on Sheet 2.**
6. **All offsite work shall be done in accordance with the plans prepared by FSA Inc., the current requirements of the City of Hagerstown Utilities Department, Washington County Department of Water Quality, and the applicable sections of the MDSHA standard specifications for roadway construction, and all other pertinent federal and state laws.**
7. **The contractor shall comply at all times with applicable federal, state, and local laws, provisions, and policies governing safety and health.**
8. **The contractor shall be responsible for all fees associated with the installation, inspecting, testing, and final acceptance of all proposed utility construction unless otherwise coordinated beforehand with Sheetz.**
9. **All utilities shall be installed in accordance with the specifications of the respective utility company. It is the responsibility of the contractor to ensure all utilities are installed correctly to meet project requirements whether installed by the contractor or not.**
10. **Conduit locations to freestanding signs and site light poles to be coordinated with Sheetz Construction Manager.**
11. **Contractor shall coordinate and verify with Sheetz Construction Manager on location and size of the store grease trap. Grease trap shall be provided with "t" pipe in outflow chamber. All sanitary sewer pipe shall be SDR-26 PVC unless otherwise noted.**
12. **Contractor shall coordinate with Sheetz Construction Manager and Sheetz IT Department on the conduit route for tele/communication services.**
13. **Contractor shall refer to other plans within this construction set for other pertinent information.**
14. **An as-built drawing of new utility services shall be prepared by the contractor and submitted to the owner upon completion of the project.**

A CONSTRUCTION PERMIT SHALL BE OBTAINED FROM THE CITY OF HAGERSTOWN UTILITIES DEPARTMENT PRIOR TO BEGINNING CONSTRUCTION OF THE WATERLINE. CONTACT THE UTILITIES ENGINEERING DEPARTMENT AT 301-739-8577, EXT 653 FOR THE PERMIT APPLICATION

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MARYLAND
DANIEL J. TROSTLE
No. 25884
PROFESSIONAL ENGINEER
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 25884
Expiration Date 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 SOUTH CHOCTAW STREET
HAGERSTOWN, MD 21740
(410) 749-8666
fsa-inc.com

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
Situate on the Northwest corner of the intersection of Greencastle Pike (MD63) and Old National Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Clarysburg, PA 16625
Attn: Chuck Stewart (412) 208-9026

PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER: DTrostle	
EMAIL: DTrostle@fsa-inc.com	
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	AS SHOWN

SHEET TITLE

UTILITY & DRAINAGE PLAN

C-105
SHEET 07 OF 20

SP-25-001

LAYOUT NOTES:

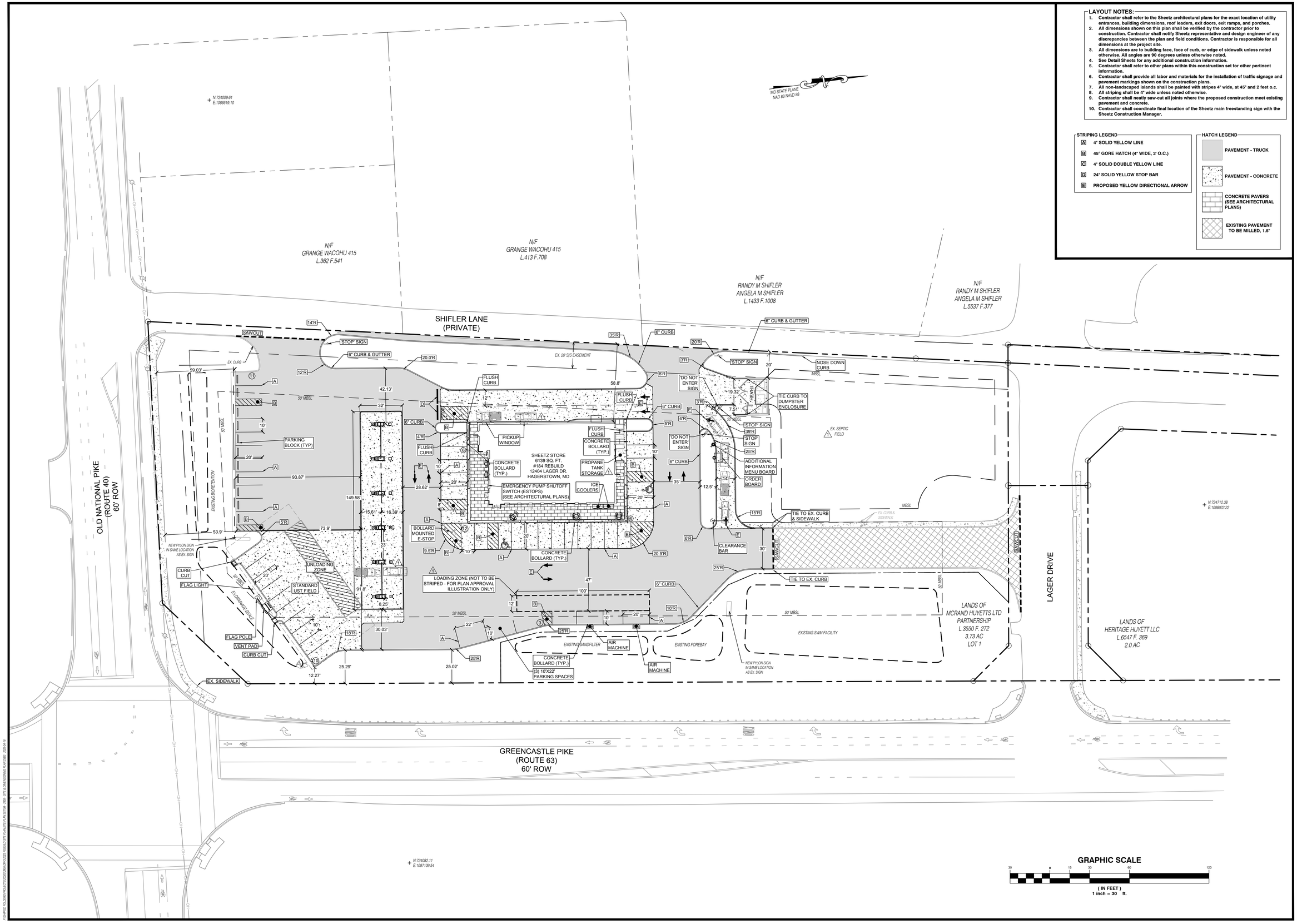
1. Contractor shall refer to the Sheetz architectural plans for the exact location of utility entrances, building dimensions, roof leaders, exit doors, exit ramps, and porches.
2. All dimensions shown on this plan shall be verified by the contractor prior to construction. Contractor shall notify Sheetz representative and design engineer of any discrepancies between the plan and field conditions. Contractor is responsible for all dimensions at the project site.
3. All dimensions are to building face, face of curb, or edge of sidewalk unless noted otherwise. All angles are 90 degrees unless otherwise noted.
4. See Detail Sheets for any additional construction information.
5. Contractor shall refer to other plans within this construction set for other pertinent information.
6. Contractor shall provide all labor and materials for the installation of traffic signage and pavement markings shown on the construction plans.
7. All non-landscaped islands shall be painted with stripes 4" wide, at 45° and 2 feet o.c.
8. All striping shall be 4" wide unless noted otherwise.
9. Contractor shall neatly saw-cut all joints where the proposed construction meet existing pavement and concrete.
10. Contractor shall coordinate final location of the Sheetz main freestanding sign with the Sheetz Construction Manager.

STRIPING LEGEND

- A — 4" SOLID YELLOW LINE
- B — 45° GORE HATCH (4" WIDE, 2' O.C.)
- C — 4" SOLID DOUBLE YELLOW LINE
- D — 24" SOLID YELLOW STOP BAR
- E — PROPOSED YELLOW DIRECTIONAL ARROW

HATCH LEGEND

- PAVEMENT - TRUCK
- PAVEMENT - CONCRETE
- CONCRETE PAVERS (SEE ARCHITECTURAL PLANS)
- EXISTING PAVEMENT TO BE MILLED, 1.5"



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CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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126 TOWNSHIP CHUAC STREET HAGERSTOWN, MD 21740 301-739-8866
14W SOUTH HANOVER STREET GREENCASTLE, PA 17225 717-597-1407
1400 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-1411
1127 MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161

STATE OF MARYLAND — PROFESSIONAL ENGINEER — 25984 — 04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND. License # 25984 Expiration Date: 06-23-2025

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

FOR PUBLIC REVIEW

NOT APPROVED

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and National Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER:	DTrostle
EMAIL:	DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL:	0036 - 0015 - 0364
SCALE	1" = 30'

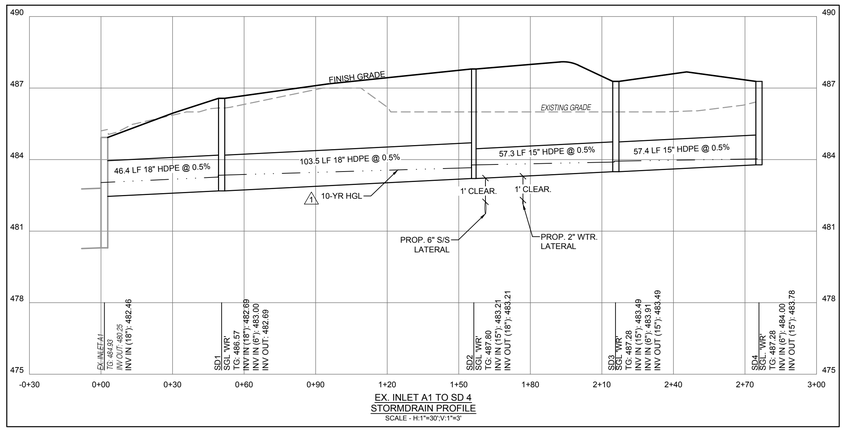
SHEET TITLE

SITE & DIMENSION PLAN

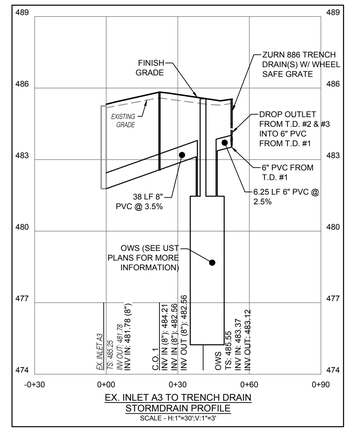
C-106

SHEET 08 OF 20

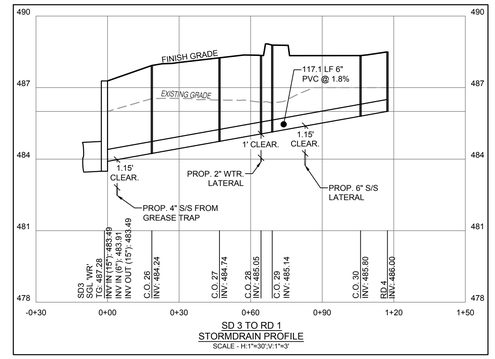
SP-25-001



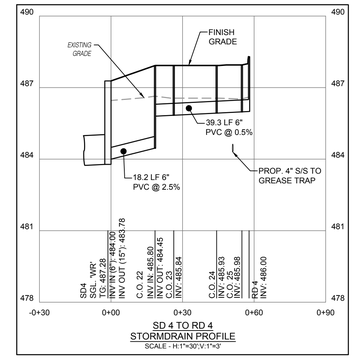
EX. INLET A1 TO SD 4
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



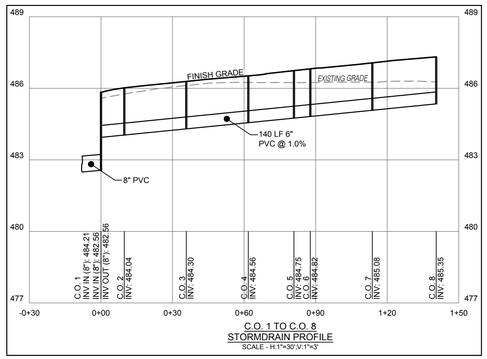
EX. INLET A3 TO TRENCH DRAIN
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



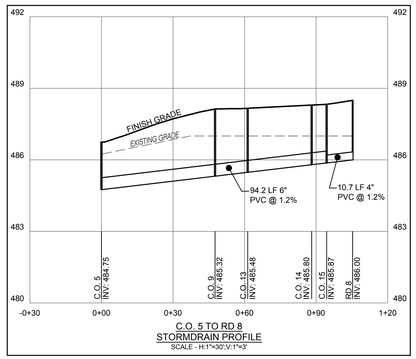
SD 3 TO RD 1
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



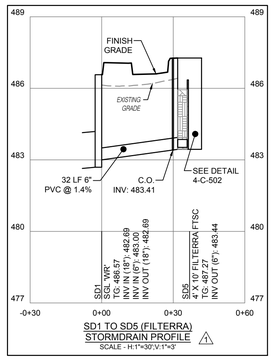
SD 4 TO RD 4
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



C.O. 1 TO C.O. 8
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



C.O. 5 TO RD 8
STORMDRAIN PROFILE
SCALE - H:1"=30';V:1"=3'



SD1 TO SD5 (FILTERRA)
STORMDRAIN PROFILE

STORM DRAIN STRUCTURE SCHEDULE

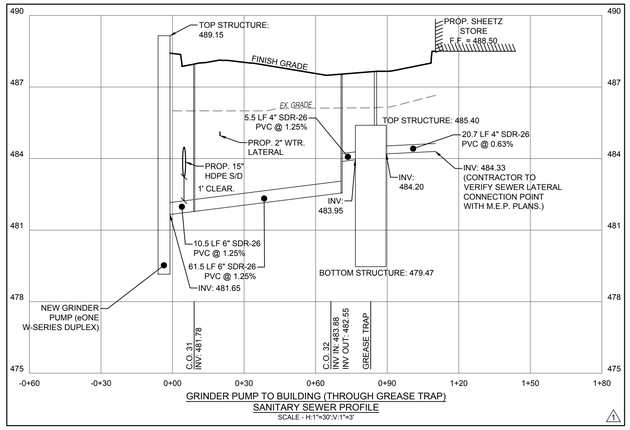
ID	RIM ELEV. (FT)	INVERT-IN ELEV. (FT)	INVERT-IN ELEV. (FT)	INVERT-OUT ELEV. (FT)	STRUCTURE ID
EX A1	EX = 484.93	EX = 480.30	PROP = 482.46	EX = 480.30	STD WR INLET
EX A3	EX = 485.25	EX = 481.78	EX = 481.78	EX = 481.78	SGL WR INLET
SD 1	486.57*	482.69 (18")	483.00 (6")	482.69 (18")	SGL WR INLET
SD 2	487.80*	483.21 (15")	N/A	483.21 (18")	SGL WR INLET
SD 3	487.28*	483.49 (15")	483.91 (6")	483.49 (15")	SGL WR INLET
SD 4	487.28*	484.00 (6")	N/A	483.78 (15")	SGL WR INLET
SD 5	487.27	N/A	N/A	483.44 (6")	4' X 10' FILTERRA FTSC**

* ALL RIM ELEVATIONS PROVIDED FOR GRATE INLET STRUCTURES ARE THE TOP OF GRATE ELEVATION *

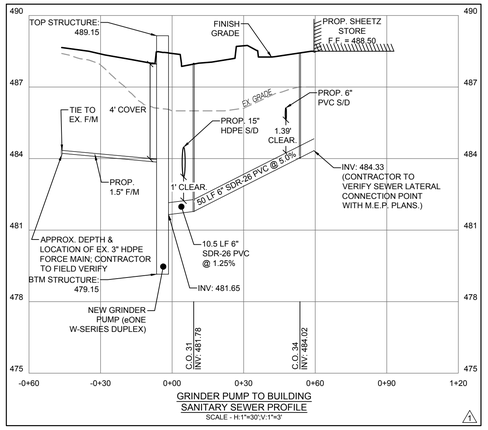
* SEE FILTERRA SEDIMENTATION CHAMBER (FTSC) INFORMATION TABLE ON C-502 FOR ADDITIONAL INFORMATION & DETAILS *

STORM DRAIN PIPE SCHEDULE

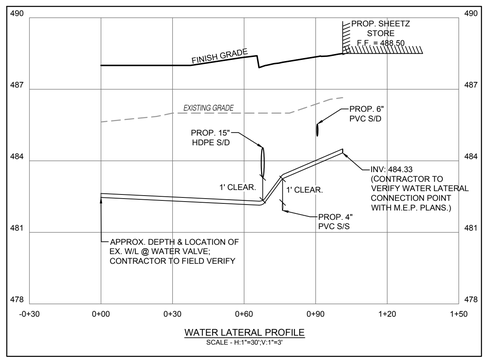
UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	LENGTH (FT)	SLOPE (%)	SIZE (IN.)	MATERIAL
SD4	SD 3	57.4	0.50	15	HDPE
SD3	SD2	57.3	0.50	15	HDPE
SD2	SD1	103.5	0.50	18	HDPE
SD1	EX. A1	46.4	0.50	18	HDPE
SD5	SD1	32.0	1.40	6	PVC
OWS	EX. A3	38.0	3.50	8	PVC



GRINDER PUMP TO BUILDING (THROUGH GREASE TRAP)
SANITARY SEWER PROFILE
SCALE - H:1"=30';V:1"=3'



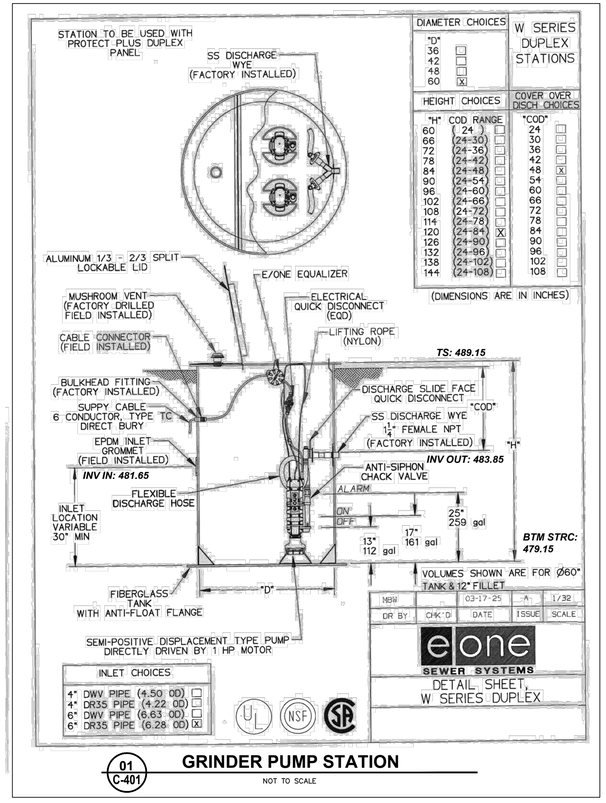
GRINDER PUMP TO BUILDING
SANITARY SEWER PROFILE
SCALE - H:1"=30';V:1"=3'



WATER LATERAL PROFILE
SCALE - H:1"=30';V:1"=3'

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.



01
C-401

GRINDER PUMP STATION

NOT TO SCALE

STATE OF MARYLAND
FREDERICK SEIBERT & ASSOCIATES, INC.
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 22984-1
Expiration Date: 06-23-2025

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
HSI-INC.COM
EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
WEST LANCASTER STREET CARLISLE, PA 17013 717-243-7411
WEST ALLEN STREET GREENCASTLE, PA 17225 717-597-1407
126 TOWNSHIP LOOP ROAD HAGERSTOWN, MD 21740 301-739-8866

DATE: 04.10.25

MARK | DESCRIPTION:
1 | REVISED PER CLIENT / AGENCY COMMENTS

NOT APPROVED
FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD63 and Maugans Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD | DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE AS SHOWN
SHEET TITLE

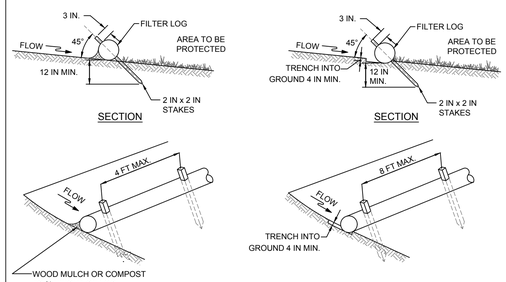
UTILITY PROFILES

C-401
SHEET 09 OF 20

SP-25-001

1 / C-501 DETAIL E-6 FILTER LOG

STANDARD SYMBOL
FL-18
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG.

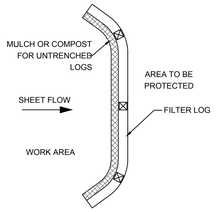


UNTRENCHED INSTALLATION OR ENTRENCHED INSTALLATION*

*THIS APPLICATION MAY NOT BE USED WITH LOGS SMALLER THAN 12 IN.

ISOMETRIC VIEW

* FILTER LOG ON PAVEMENT TO BE STAKED WITH REBAR*



PLAN

CONSTRUCTION SPECIFICATIONS

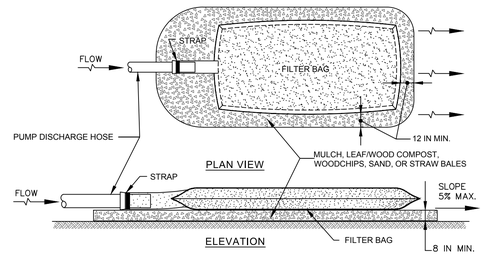
1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.
6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

3 / C-501 DETAIL F-4 FILTER BAG

STANDARD SYMBOL
⊠FB



CONSTRUCTION SPECIFICATIONS

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

GRAB TENSILE	250 LB	ASTM D-4632
PUNCTURE	150 LB	ASTM D-4833
FLOW RATE	70 GAL/MIN/FT²	ASTM D-4491
PERMITTIVITY (SEC^{-1})	1.2 SEC^{-1}	ASTM D-4491
UV RESISTANCE	70% STRENGTH @ 500 HOURS	ASTM D-4355
APPARENT OPENING SIZE (AOS)	0.15-0.18 MM	ASTM D-4751
SEAM STRENGTH	90%	ASTM D-4632

6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SMARTFENCE 42" SEDIMENT & PERIMETER CONTROL
INSTALLATION INSTRUCTIONS

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.

- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 email at info@acfenv.com

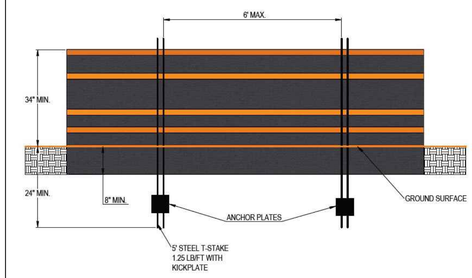
ACF ENVIRONMENTAL

5 / C-501 SMARTfence 42 Installation Detail

NOT TO SCALE

LET'S GET IT DONE

SMARTfence® 42 Detail:

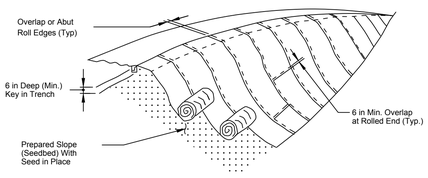


SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

ACF ENVIRONMENTAL
LET'S GET IT DONE®
800.448.3636
acfenvironmental.com

2 / C-501 Detail B-4-6-B Temporary Soil Stabilization Matting Slope Application

Standard Symbol
TSSMS – * lb/ft²
(* Include Shear Stress)



Isometric View

Construction Specifications

1. Use matting that has a design value for shear stress equal to or higher than the shear stress designated on approved plans.
2. Use temporary soil stabilization matting made of degradable (lasts 6 months minimum) natural or man-made fibers (mostly organic). Mat must have uniform thickness and distribution of fibers throughout and be smolder resistant. Chemicals used in the mat must be non-leaching and non-toxic to vegetation and seed germinating and must be non-injurious to the skin. If present, netting must be extruded plastic with a maximum mesh opening of 2x2 inches and sufficiently bonded or sewn on 2 inch centers along longitudinal axis of the material to prevent separation of the net from the parent material.
3. Secure matting using steel stakes, wood stakes, or biodegradable equivalent. staples must be "u" or "t" shaped steel wire having a minimum gauge of no. 11 and no. 8 respectively. "U" shaped staples must average 1 to 1½ inches wide and be a minimum of 6 inches long. "T" shaped staples must have a minimum 8 inch main leg, a minimum 1 inch secondary leg, and a minimum 4 inch head. Wood stakes must be rough-sawn hardwood, 12 to 24 inches in length, 1x3 inch in cross section, and wedge shaped at the bottom.
4. Perform final grading, topsoil application, seedbed preparation, and permanent seeding in accordance with specifications. Place matting within 48 hours of completing seeding operations unless end of workday stabilization is specified on the approved erosion & sediment control plan.
5. Unroll matting downslope. Lay mat smoothly and firmly upon the seeded surface. Avoid stretching the matting.
6. Overlap or abut roll edges per manufacturer recommendations. Overlap roll ends by 6 inches (minimum), with the upslope mat overlapping on top of the downslope mat.
7. Key in the upslope end of mat 6 inches (minimum) by digging a trench, placing the matting roll end in the trench, stapling the mat in place, replacing the excavated material, and tamping to secure the mat end in the key.
8. Staple/stake mat in a staggered pattern on 4 foot (maximum) centers throughout and 2 foot (maximum) centers along seams, joints, and roll ends.
9. Establish and maintain vegetation so that requirements for adequate vegetative establishment are continuously met in accordance with section b-4 vegetative stabilization.

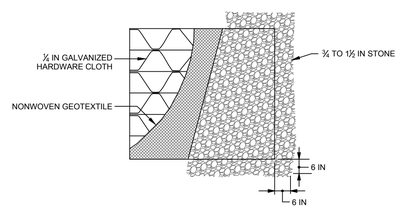
Maryland Standards and Specifications for Soil Erosion and Sediment Control

U.S. Department of Agriculture Natural Resources Conservation Service	2011	Maryland Department of Environment Water Management Administration

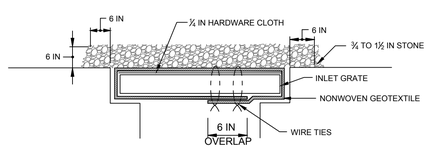
4 / C-501 DETAIL E-9-2 AT-GRADE INLET PROTECTION

STANDARD SYMBOL
AGIP

MAXIMUM DRAINAGE AREA = 1 ACRE



PLAN / CUT AWAY VIEW



CROSS SECTION

CONSTRUCTION SPECIFICATIONS

1. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS.
2. LIFT GRATE AND WRAP WITH NONWOVEN GEOTEXTILE TO COMPLETELY COVER ALL OPENINGS. SECURE WITH WIRE TIES AND SET GRATE BACK IN PLACE.
3. PLACE CLEAN ¾ TO 1½ INCH STONE OR EQUIVALENT RECYCLED CONCRETE 6 INCHES THICK ON THE GRATE.
4. 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

SHA Specifications for Temporary & Permanent Stabilization. Refer to the Table of SHA Landscape Notes in this plan set for requirements related to topsoil, seed, fertilizer, plants, and other materials. SHA Standard Specifications for Construction and Materials shall supersede all other specifications for landscape construction within property of the Maryland State Highway Administration (SHA), and all landscape construction of SHA property shall conform to the requirements of the SHA Landscape Notes and current SHA Standards and Specifications.

Temporary Seeding Summary

Hardiness Zone (Figure B.3): 6a &(6b) Seed Mixture (TABLE B.1)					Fertilizer Rate (10-20-20)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30 Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

Permanent Seeding Summary

Hardiness Zone (Figure B.3): 6a &(6b) Seed Mixture (Table B.1)					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	N	P205	K20	
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sep 30 Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must be completed within:
   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all 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 the project site not under active grading.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.

B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

FSA
FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
1260 SCHOOLHOUSE STREET HAGERSTOWN, MD 21740 (301) 739-8180
1 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-2161
1446 SOUTHLAND STREET CARLISLE, PA 17013 (717) 249-1611
1 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 (717) 597-1407

04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 23984-E Expiration Date: 06-29-2025

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT / AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (US 11) and Maugans Avenue
12404 LAGER DRIVE HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

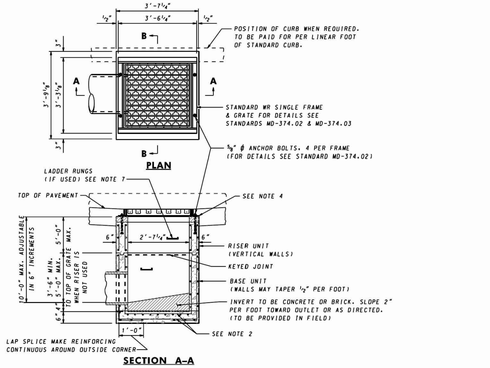
Sheetz, Inc.
243 Sheetz Way Clarsburg, PA 16625
Attn: Chuck Stewart (412) 508.9626

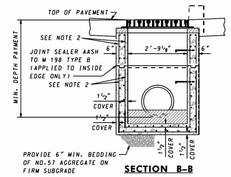
PROJECT NO. 2905
DWN BY KODY WARD | DATE 01.09.2025
PROJECT MANAGER DTrostle
EMAIL DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

CONSTRUCTION DETAILS - ESC

C-501

SP-25-001





NOTES

1. CONCRETE TO BE MIX NO. 6 (4500 PSI).
2. REINFORCING–2 LAYERS OF 4x4–W4.0xW4.0 WELDED WIRE FABRIC.
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED, FOR SIZE, LOCATION, AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD MD 383.91 AND MD 383.92 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".

SPECIFICATION 305	CATEGORY CODE ITEMS
APPROVED	DIRECTOR – OFFICE OF DEPTH DEVELOPMENT

SHA State Highway Administration	APPROVAL • REVISIONS	SHA	APPROVAL • FEDERAL HIGHWAY ADMINISTRATION
	APPROVAL	6–4–84	APPROVAL 8–1–84
	REVISED	10–1–01	REVISED 3–30–87
	REVISED		REVISED
	REVISED		REVISED

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST SINGLE WR INLET

1 / C-501

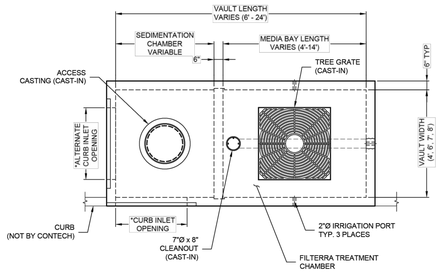
STANDARD NO. MD 374.23

Notice of Required Stormwater Management Inspections
Filterra Inlets

The following inspections are required to be performed by the Qualified Professional for the construction of any installation of any Filterra Unit. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

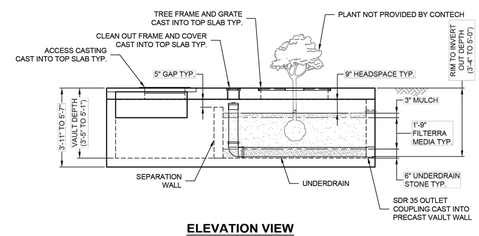
Inspection Item		Filterra #1
Delivery of Filterra - Inspection of the Filterra unit & all parts contained in or shipped outside of the unit shall be inspected at the time of delivery. Any nonconformance to approved drawings or damage to any part of the system shall be documented on the Filterra shipping ticket. Damage to the unit during & after unloading shall be corrected at the expense of the contractor.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Setting of Filterra - Unload the Filterra box and set into the prepared hole with appropriate compacted subgrade with a minimum of six inches of gravel.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Connection of Pipes - Before placement of backfill inspection to ensure all pipe connections are completed.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Activation - Activation is performed ONLY by authorized personal. Activation can occur once the project site is fully stabilized.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.		

SEE FILTERRA SEDIMENTATION CHAMBER (FTSC) INFORMATION TABLE (BELOW) FOR STRUCTURE - SPECIFIC INFORMATION



*CURB INLET OPENING LENGTH BY VAULT WIDTH:
4' VAULT WIDTH: 3'-0" CURB OPENING
6' VAULT WIDTH: 4'-0" CURB OPENING
7' VAULT WIDTH: 4'-0" CURB OPENING
8' VAULT WIDTH: 5'-0" CURB OPENING

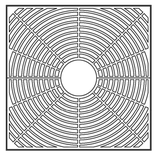
PLAN VIEW



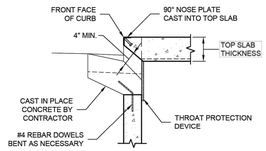
ELEVATION VIEW

filterra®
THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING: U.S. PATENT, TRADEMARK, COPYRIGHT, TUBULARS, COLORS, LABELING, RELATED FOREIGN PATENTS.

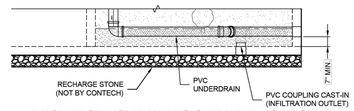
FRAME AND COVER
(DIAMETER VARIES)
NOT TO SCALE



TREE GRATE
36" x 36" OR 48" x 48"
(ACTUAL PRODUCT MAY VARY)
NOT TO SCALE



CURB INLET DETAIL
NOT TO SCALE



RECHARGE VOLUME DESIGN DETAIL (OPTIONAL)
NOT TO SCALE

NOTES:
1. REQUIRED MINIMUM FILTERRA TREATMENT SURFACE AREA IS 91 SF/20,000 SF OF THE TOTAL DRAINAGE AREA PER MDE. STORAGE CAPACITY ASSUMES NO STORAGE IN MULCH, MEDIA AND STONE.
2. VEGETATION NOT PROVIDED BY CONTECH.
3. ADA COMPLIANT FULL GRATE COVERS WITH SHADE TOLERANT PLANT SPECIES AVAILABLE UPON REQUEST.
4. ALL INFORMATION IS BASED ON STANDARD 3.83' RIM TO OUTLET INVERT DEPTH. CONTACT CONTECH FOR CUSTOM SIZING IF DEPTH IS NOT 3.83'. ACCEPTABLE DEPTH IS 3.33' MIN. TO 5.00' MAX. RIM TO INVERT OUT.
5. PLEASE CONTACT YOUR CONTECH REPRESENTATIVE FOR SIZING RECOMMENDATIONS. www.conteches.com.

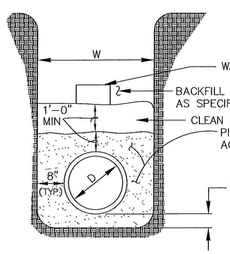
4 / C-502

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
7037 Ridge Road, Hanover, MD 21076
866-740-3318 410-796-5505 866-376-8511 FAX

FILTERRA SEDIMENTATION CHAMBER (FTSC)
CONFIGURATION DETAIL
MARYLAND

FILTERRA SEDIMENTATION CHAMBER (FTSC) INFORMATION

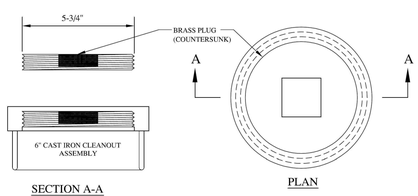
STRUCTURE NAME	VAULT SIZE (L X W)	MEDIA BAY SIZE (L X W)	MEDIA BAY AREA (SF)	OUTLET PIPE	UNDERDRAIN PIPE	TREE GRATE QTY. & SIZE
SD5	4' X 10'	4' X 4'	16	6" SDR 35 (SOLID)	4" SDR 35 (PERFORATED)	(1) 3'X3'



GRANULAR BEDDING & BACKFILL

* PIPE BEDDING AGGREGATE
D = 4" AND LARGER – SHA GRADED CRUSHER RUN CR–6
D = 1–1/2" THROUGH <4" – SHA GRADED B–10
D = LESS THAN 1–1/2" – STONE DUST
* = NOMINAL PIPE DIAMETER (INCHES)

2 / C-502 | STANDARD TRENCH WIDTH & STONE BEDDING | Detail SW-1.1



NOTES:
1. FOR DRIVEWAY, ROADWAY, GRASS STRIP, OR SIDEWALK LOCATIONS, A H-20 TRAFFIC LOADING COVER ASSEMBLY SHALL BE UTILIZED.
2. MEETS ASTM A74-98 AND ASME A112.36 CUT PIPE TO DESIRED LEVEL, LUBE GASKET AND PUSH ON PIPE, TAP WITH LEAD HAMMER TO SEAT, THEN INSTALL BRASS PLUG.

3 / C-502 | CLEANOUT DETAIL | ISSUE DATE: MARCH 2008 | REVISIONS | DETAIL WW116

FILTERRA ROUTINE MAINTENANCE GUIDELINES

Contech includes a 1-year maintenance plan with each system purchase. Annual included maintenance consists of a maximum of two scheduled visits. Additional maintenance may be necessary depending on sediment and trash loading (by owner or at additional cost). The start of the maintenance plan begins when the system is activated.

Maintenance are typically held seasonally, the spring visit aims to clean up after winter loads including salts and sands, while the fall visit helps the system by removing excessive leaf litter.

It has been found that in regions which receive between 30-50 inches of annual rainfall, two visits are generally required, regions with less annual rainfall often only require one visit per annum. Varying land uses can affect maintenance frequency, e.g. fast food restaurants require more frequent trash removal. Contributing drainage ares which are subject to new development where in the recommended erosion and sediment control measures have been implemented may require additional maintenance visits.

Some sites may be subjected to extreme sediment or trash loads, requiring more frequent maintenance visits. This is the reason for detailed notes of maintenance actions per unit, helping the supplier and owner predict future maintenance frequencies, reflecting individual site conditions.

Owners must promptly notify maintenance provided of any damage to plants, which constitute an integral part of the bio-retention technology. Owners should also advise other landscape maintenance contractors to leave all maintenance to the suppliers during the first year.

Maintenance Visit Summary:
1. Inspection of Filterra and surround area.
2. Removal of tree grate (where applicable) and erosion control stones.
3. Removal of debris, trash, and mulch.
4. Mulch replacement.
5. Plant health evaluation and pruning or replacement as needed.
6. Clean area around Filterra.
7. Completed paperwork.

MAINTENANCE CHECKLIST

DRAINAGE SYSTEM FAILURE	PROBLEM	CONDITIONS TO CHECK	CONDITION THAT SHOULD EXIST	ACTIONS
INLET	EXCESSIVE SEDIMENT OR TRASH ACCUMULATION	ACCUMULATED SEDIMENTS OR TRASH IMPAIR FREE FLOW OF WATER INTO FILTERRA	INLET SHOULD BE FREE OF OBSTRUCTIONS ALLOWING FREE DISTRIBUTED FLOW OF WATER INTO FILTERRA	SEDIMENTS AND/OR TRASH SHOULD BE REMOVED
MULCH COVER	TRASH AND FLOATABLE DEBRIS ACCUMULATION	EXCESSIVE TRASH AND/OR DEBRIS ACCUMULATION	MINIMAL TRASH OR OTHER DEBRIS ON MULCH COVER	TRASH AND DEBRIS SHOULD BE REMOVED AND MULCH COVER RAKED LEVEL. ENSURE BARK NUGGET MULCH IS NOT USED
MULCH COVER	"PONDING" OF WATER ON MULCH COVER	"PONDING" IN UNIT COULD BE INDICATIVE OF CLOGGING DUE TO EXCESSIVE FINE SEDIMENT ACCUMULATION OR SPILL OF PETROLEUM OILS	STORMWATER SHOULD DRAIN FREELY AND EVENLY THROUGH MULCH COVER	RECOMMEND CONTACT MANUFACTURER AND REPLACE MULCH AS A MINIMUM
VEGETATION	PLANTS NOT GROWING OR IN POOR CONDITION	SOIL/MULCH TOO WET, EVIDENCE OF SPILL, INCORRECT PLANT SELECTION, PEST INFESTATION, VANDALISM TO PLANTS.	PLANTS SHOULD BE HEALTHY AND PEST FREE	CONTACT MANUFACTURER FOR ADVICE
VEGETATION	PLANT GROWTH EXCESSIVE	PLANTS SHOULD BE APPROPRIATE TO THE SPECIES AND LOCATION FILTERRA		TRIM/PRUNE PLANTS IN ACCORDANCE WITH TYPICAL LANDSCAPING AND SAFETY NEEDS
STRUCTURE	STRUCTURE HAS VISIBLE CRACKS	CRACKS WIDER THAN ¼ INCH OR EVIDENCE OF SOIL PARTICLES ENTERING THE STRUCTURE THROUGH THE CRACKS.		VAULT SHOULD BE REPAIRED

STATE OF MARYLAND DAVID P. WARNER 29985 REGISTERED PROFESSIONAL ENGINEER
04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of MARYLAND License # 29985
Expiration Date: 06-23-2025

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fsa-inc.com
1 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
4445 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-0111
1 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 717-597-1407
126 TOWNSHIP LINE STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	04.10.25

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (Rt. 68) and Maugans Pike (US 40)
12404 LAGER DRIVE HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Clarksburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD | DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

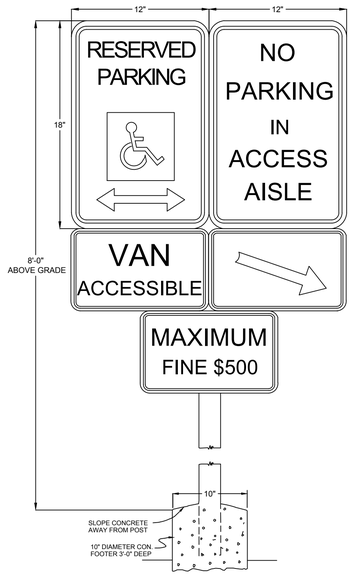
CONSTRUCTION DETAILS - SWM

C-502
SHEET 11 OF 20

SP-25-001

C:\USERS\MATTHEW\ADNEDRY\DOCUMENTS\FTSC\SDN\MD\FTSC-FILTERRA_SEDIMENT CHAMBER CONFIG STL - MD ONLY (2023 UPDATE).DWG 11/08/2023 9:25 AM

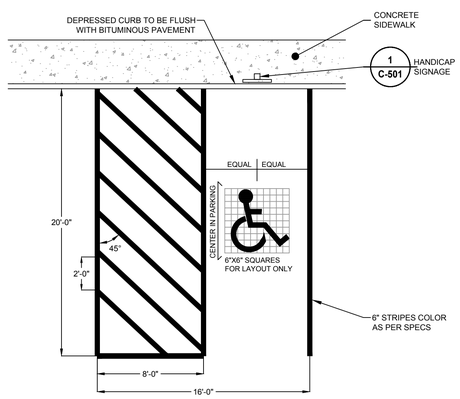
P:\SHARED FOLDERS\PROJECTS\2905\2905\DWG\2023 REBUILD SITE PLAN\SITE PLAN\SITE 11 - 2905 - CONSTRUCTION DETAILS - STORM.DWG 2025-04-04



NOTES:
Use appropriate arrow plate.
Colors: Background (white), Text & Boarder (green), Symbol (white on a blue background).
Reference state of Maryland standard highway sign booklet.
Department of Transportation P.O. Box 717-707 N. Calbert St. Baltimore, Maryland 21203

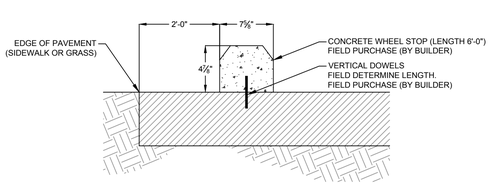
01 C-503 **HANDICAPPED - SIGNAGE - MD**

NOT TO SCALE



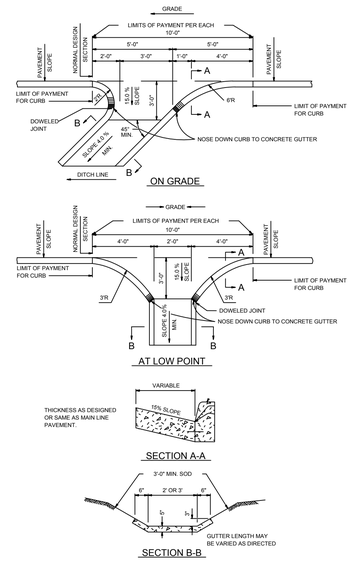
02 C-503 **HANDICAPPED PARKING LAYOUT**

NOT TO SCALE

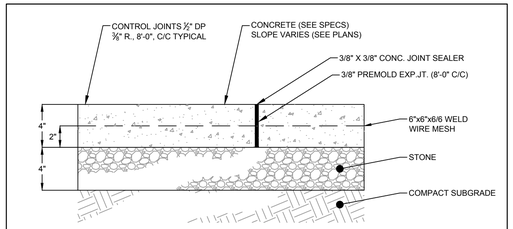


03 C-503 **WHEEL STOP - CONCRETE**

NOT TO SCALE



04 C-503 STANDARD CURB OPENING FOR CONCRETE CURB

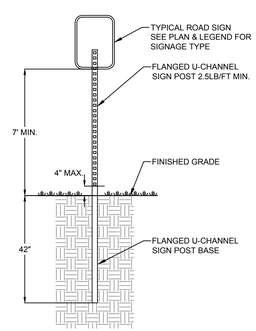


SECTION

NOTES:
1. Class P-I Air Entrained Concrete
2. Sidewalk to have 3/8" contraction joints scored at 5'-0" intervals.
3. Construct 3/8" expansion joints spaced every 20' and between curb and sidewalk where adjacent.
4. Sidewalk to be brush finished.

05 C-503 **SIDEWALK - CONCRETE**

NOT TO SCALE



NOTES:
1. Mount sign at right angle to direction of traffic flow.

06 C-503 **ROADWAY SIGN POST DETAIL**

NOT TO SCALE

R5-1
(30"x30")

07 C-503 **DO NOT ENTER SIGN**

NOT TO SCALE

R1-1
(30"x30")

08 C-503 **STOP SIGN DETAIL**

NOT TO SCALE

04/21/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 23984-1
Expiration Date: 06-23-2025

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fsa-inc.com
1250 SOUTHPOINT BLVD. STE. 200 HAGERSTOWN, MD 21740 (301) 797-4477
1405 SOUTH HANOVER STREET CARLISLE, PA 17013 (717) 243-7911
1141 WEST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-2561
2121 WEST CHESTER PIKE MAPLE GLEN, PA 19002 (215) 887-2100

MARK	DESCRIPTION	DATE

NOT APPROVED FOR CONSTRUCTION

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and Memorial Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

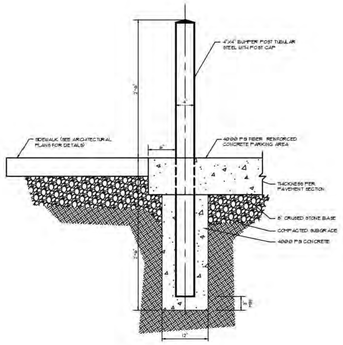
PROJECT NO. 2905
DWN BY KODY WARD
DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE

SHEET TITLE

CONSTRUCTION DETAILS - SITE

C-503
SHEET 12 OF 20

SP-25-001

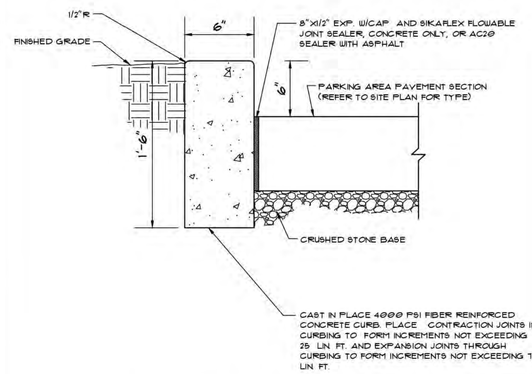


STOREFRONT BUMPER POST FLUSH SIDEWALK
SCALE: NO SCALE

01
C-504

SHEETZ	STOREFRONT BUMPER POST DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 01

DATE | BY | DESCRIPTION — REVISIONS

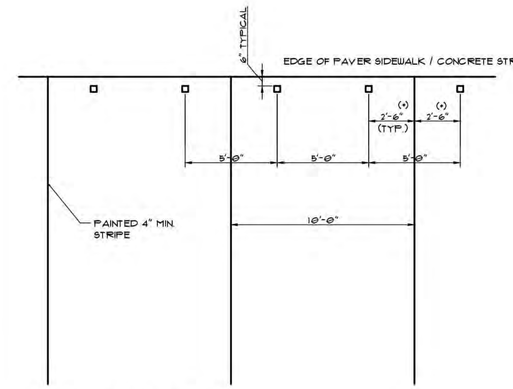


SITE AND STORE PERIMETER CURBING
SCALE: NO SCALE

03
C-504

SHEETZ	SITE AND STORE PERIMETER CURBING	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 03

DATE | BY | DESCRIPTION — REVISIONS



BUMPER POST DETAIL
SCALE: NO SCALE

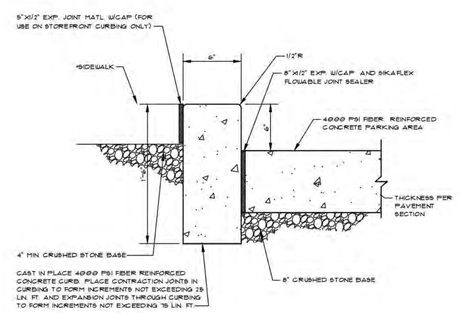
- 2'-3" FOR 9.5' WIDE PARKING SPACE
  2'-0" FOR 9.0' WIDE PARKING SPACE

USE THIS DETAIL IF PAVEMENT IS PAVED UP TO TOP OF SIDEWALK

05
C-504

SHEETZ	BUMPERPOST LAYOUT DETAIL AT PAVER SIDEWALK	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 08

DATE | BY | DESCRIPTION — REVISIONS



STOREFRONT CONCRETE CURBING
SCALE: NO SCALE

(*) SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS ON BRICK PAVER/ CONCRETE CURB CONNECTION

02
C-504

SHEETZ	STOREFRONT CONCRETE CURBING DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 02

DATE | BY | DESCRIPTION — REVISIONS

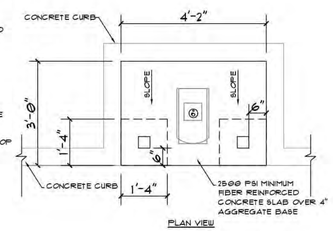
AIR MACHINE PAD NOTES:
ELECTRICAL NEEDS ARE A 120-VAC 30-AMP #10 WIRE CIRCUITS WITH GROUND

POWER CONDUIT FROM BUILDING TO AIR MACHINE IS TO BE RIGID PVC WITH FIRST AND LAST 10' IN RIGID METAL CONDUIT AND EYS FITTINGS AT BOTH ENDS. TERMINATED IN RECESSED 6" PVC SLEEVE UNDER AIR MACHINE.

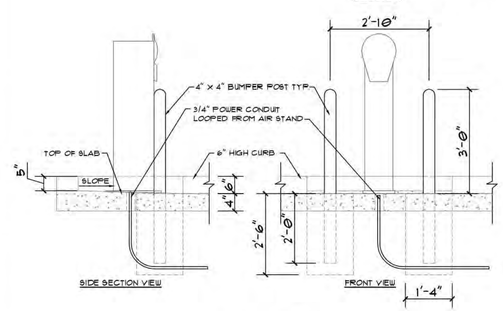
USE WEDGE ANCHOR BOLTS TO MOUNT AIR STAND.

BOLLARDS ARE 4" x 4" BUMPER POST TO BE PAINTED DARK BRONZE

MAXIMUM DISTANCE FROM FINAL GRADE TO TOP BUTTON ON AIR MACHINE TO BE 48"



PLAN VIEW

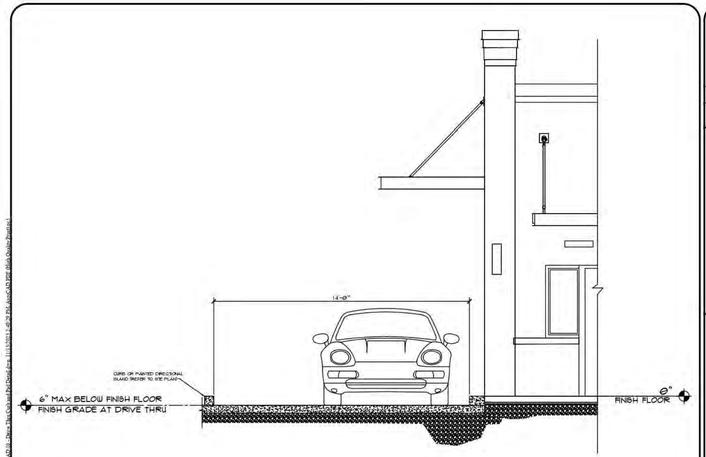


AIR MACHINE PAD
SCALE: NO SCALE

04
C-504

SHEETZ	AIR MACHINE PAD DETAILS	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 05

DATE | BY | DESCRIPTION — REVISIONS



DRIVE THRU CURB AND PAD DETAIL
SCALE: NO SCALE

06
C-504

SHEETZ	DRIVE THRU CURB AND PAD DETAIL	SCALE: N.T.S. DATE: 11/10/2023 DRAWN BY: DAH 10

DATE | BY | DESCRIPTION — REVISIONS

NOT APPROVED FOR CONSTRUCTION

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 25984
Expiration Date 06.23.2025

FSA
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1435 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9111
1 WEST MAIN STREET GREENCASTLE, PA 17225 717-597-1407
126 TRANSPORTATION STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

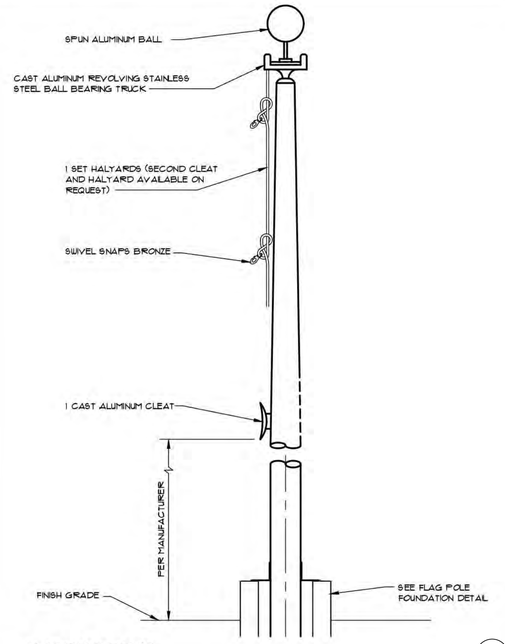
SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (Md. 63) and Maugans Pike (US 40)
12404 LAGER DRIVE HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Clarsburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD — DATE 01.09.2025
PROJECT MANAGER DTrostle
EMAIL DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

CONSTRUCTION DETAILS - SHEETZ

C-504
SHEET 13 OF 20

SP-25-001

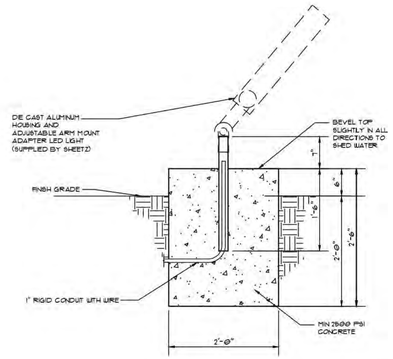


FLAGPOLE DETAIL
SCALE: NO SCALE

01 C-505

SHEETZ	FLAGPOLE DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 11

REVISIONS: DATE | BY | DESCRIPTION

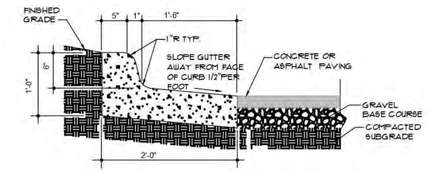


FLAGPOLE LIGHT FOUNDATION
SCALE: NO SCALE

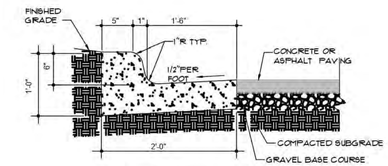
03 C-505

SHEETZ	FLAGPOLE LIGHT FOUNDATION	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 13

REVISIONS: DATE | BY | DESCRIPTION



SPILL TYPE



CATCH TYPE

CURB AND GUTTER
SCALE: NO SCALE

NOTE:
- CONTRACTION JOINTS TO BE PLACED 10' O.C.,
- EXPANSION JOINTS TO BE PLACED 75' O.C. TYP.
- 1/4" PRE-MOLDED BITUMINOUS EXPANSION JOINT WHEN ADJACENT TO CONCRETE PAVING
- CONCRETE SHALL BE 4,000 PSI FIBER MESH CONCRETE UNLESS OTHERWISE REQUIRED BY LOCAL JURISDICTION.
- AT CONTRACTOR OPTION, GUTTER THICKNESS MAY BE INCREASED AT END OF GUTTER TO MATCH THICKNESS OF ASPHALT/CONCRETE PAVEMENT SECTION.
- GUTTER PAN SLOPE TO BE ADJUSTED WITHIN ACCESSIBLE PARKING SPACES TO MATCH SLOPE BETWEEN SPOT ELEVATIONS

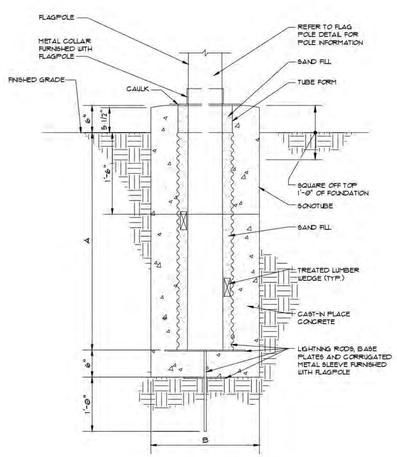
05 C-505

SHEETZ	CURB AND GUTTER DETAIL	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 15

REVISIONS: DATE | BY | DESCRIPTION

LEGEND

POLE HEIGHT	SLEEVE SIZE	A	B	COLLAR BASE SIZE
40'	12" DIA	48"	24" DIA	16" DIA
35'	10" DIA	42"	22" DIA	12" DIA

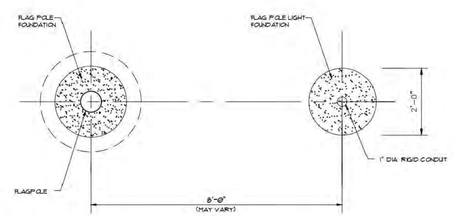


FLAGPOLE FOUNDATION
SCALE: NO SCALE

02 C-505

SHEETZ	FLAGPOLE FOUNDATION	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 12

REVISIONS: DATE | BY | DESCRIPTION



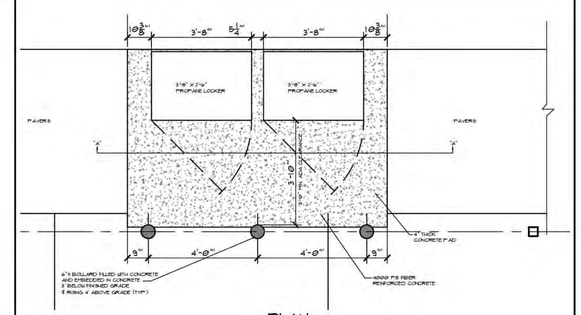
NOTE CONTRACTOR/INSTALLER SHALL LOCATE LIGHT FIXTURE SO AS TO SHINE AWAY FROM ADJACENT ROADS AND/OR PROPERTIES

FLAGPOLE LIGHT FOUNDATION PLAN
SCALE: NO SCALE

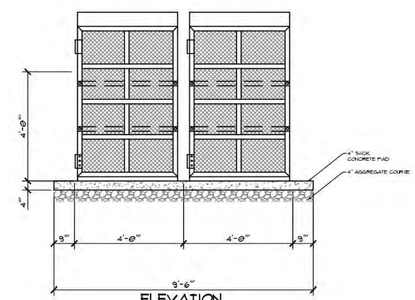
04 C-505

SHEETZ	FLAGPOLE AND LIGHT FOUNDATION LAYOUT PLAN	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 14

REVISIONS: DATE | BY | DESCRIPTION



PLAN



ELEVATION
SECTION "A-A"

06 C-505

SHEETZ	PROPANE LOCKER (AT BUILDING)	SCALE: DATE: 11/10/2023 DRAWN BY: DAH 19

REVISIONS: DATE | BY | DESCRIPTION

NOT APPROVED FOR CONSTRUCTION

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 23984-1
Expiration Date: 06-23-2025

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NORTH SECOND STREET CARLISLE, PA 17013 717-243-1411
WEST PENNSYLVANIA AVENUE GREENCASTLE, PA 17225 717-597-1647
125 TOWER OF CHAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD 68) and Marsh Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

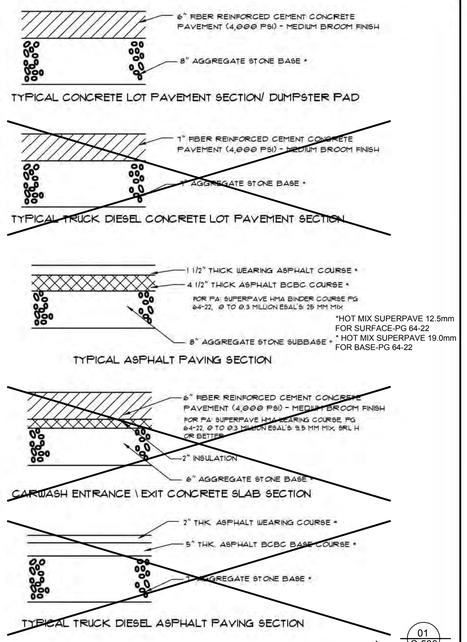
Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD | DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE

SHEET TITLE
CONSTRUCTION DETAILS - SHEETZ

C-505
SHEET 14 OF 20

SP-25-001



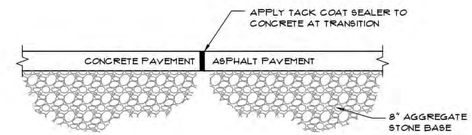
*CONSULTANT TO ADD THE LOCAL AND/OR STATE STANDARD MATERIAL SPECIFICATION TO THESE ITEMS

DATE	BY	DESCRIPTION
REVISIONS		

SHEETZ

SITE PAVEMENT DETAILS

SCALE:
DATE: 12/12/2023
DRAWN BY: DAH
20



CONCRETE / ASPHALT PAVEMENT TRANSITION DETAIL
N.T.S.

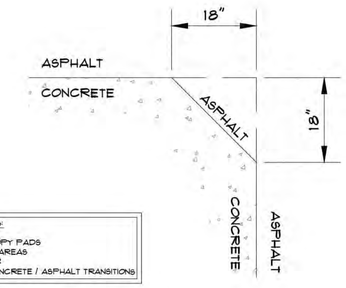
03
C-506

DATE	BY	DESCRIPTION
REVISIONS		

SHEETZ

ASPHALT PAVING DETAILS

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH
27



LOCATIONS:
UST PADS
GAS CANOPY PADS
PARKING AREAS
DUMPSTER
OTHER CONCRETE / ASPHALT TRANSITIONS

CONCRETE / ASPHALT CHAMFER
SCALE: NO SCALE

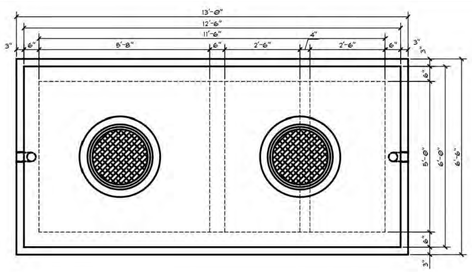
05
C-506

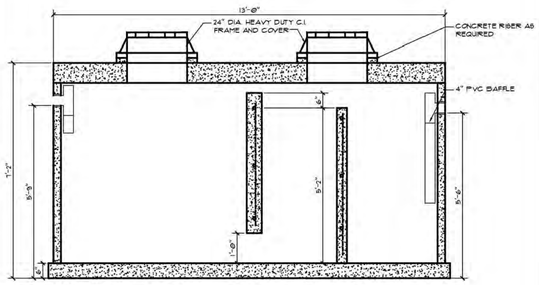
DATE	BY	DESCRIPTION
REVISIONS		

SHEETZ

CONCRETE/ASPHALT CHAMFER DETAIL

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH
28





PRECAST CONCRETE 2000 GALLON GREASE INTERCEPTOR
SCALE: NO SCALE

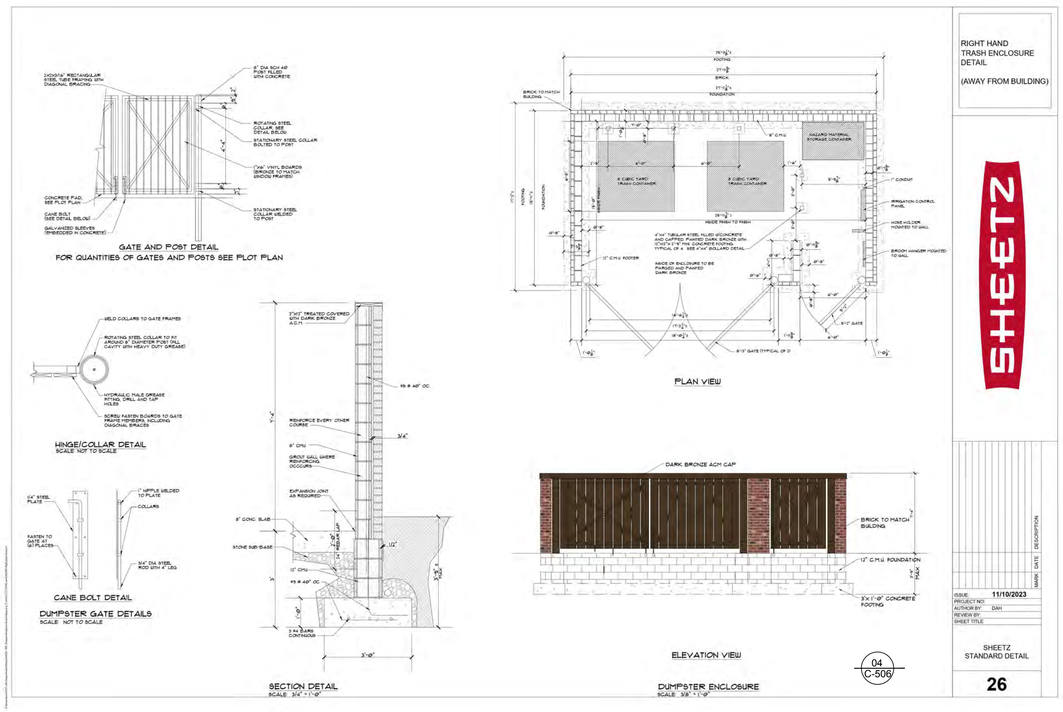
02
C-506

DATE	BY	DESCRIPTION
REVISIONS		

SHEETZ

2000 GALLON GREASE INTERCEPTOR

SCALE:
DATE: 11/10/2023
DRAWN BY: DAH
21



RIGHT HAND TRASH ENCLOSURE DETAIL

(AWAY FROM BUILDING)

SHEETZ

MARK	DATE	DESCRIPTION

ISSUE: 11/10/2023
PROJECT NO:
AUTHOR BY: DAH
REVIEW BY:
SHEET TITLE

SHEETZ STANDARD DETAIL

26

NOT APPROVED FOR CONSTRUCTION

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 25984
Expiration Date: 06-23-2025

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MUSE SOUTH MAIN STREET, CARLISLE, PA 17013 717-249-0111
WEST CHAMBERS STREET, GREENCASTLE, PA 17225 717-597-1407
126 TOWNSHIP LINE ROAD, HAGERSTOWN, MD 21740 301-739-8866

DATE:
DESCRIPTION:
MARK:

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD63) and Maugans Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

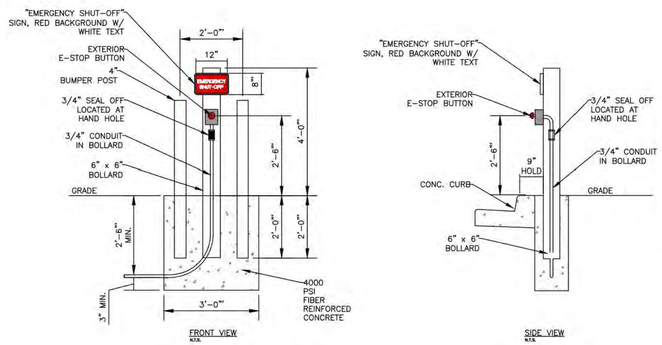
Sheetz, Inc.
243 Sheetz Way Claysburg PA 16625
Attn: Chuck Stewart (412) 508-9026

PROJECT NO. 2905
DWN BY KODY WARD
DATE 01.09.2025
PROJECT MANAGER DTrostle
EMAIL DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

CONSTRUCTION DETAILS - SHEETZ

C-506
SHEET 15 OF 20

SP-25-001



E-STOP STANDARD DETAIL

01
C-507

E-STOP STANDARD DETAIL

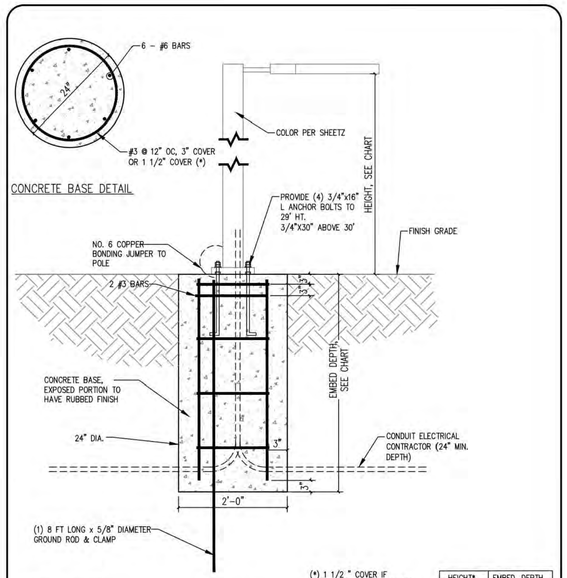
SHEETZ

SCALE:	
DATE:	11/10/2023
DRAWN BY:	DAH
REVISED BY:	Date
DESIGN BY:	
CHECK BY:	

MARK	DESCRIPTION	DATE

SHEETZ STANDARD DETAIL

29



CONCRETE BASE DETAIL

SECTION

DESIGN CRITERIA

CONCRETE f'c = 4,000 PSI
REINFORCING Fy = 60 KSI
WIND = 120 MPH
WIND FORCE = 40 PSF
LUMINAIRE EPA = 2.75 MAX COMBINED
SOIL BEARING = 2,000 PSF
SOIL LATERAL PRESSURE = 250 PSF/FT

(*) 1 1/2 " COVER IF FOUNDATION INSTALLED WITH SONATUBE. 3" COVER IF FOUNDATION CAST-IN-PLACE.

HEIGHT*	EMBED. DEPTH
UP TO 20'	3'-9"
21 TO 25'	4'-3"
26 TO 30'	4'-6"
31 TO 35'	5'-0"

HEIGHT* IS ABOVE GRADE

03
C-507

DATE	BY	DESCRIPTION

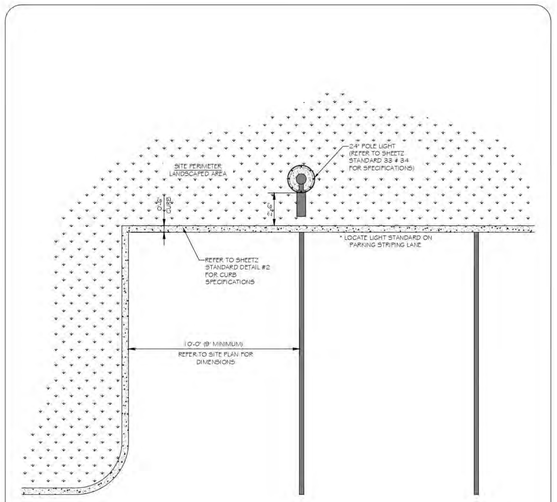
REVISIONS

SHEETZ

FLUSH LIGHT POLE DETAIL

SCALE:	
DATE:	08/22/2024
DRAWN BY:	DAH

34



LIGHTING STANDARD PLACEMENT
SCALE: 3/4" = 1' - 0"

05
C-507

DATE	BY	DESCRIPTION

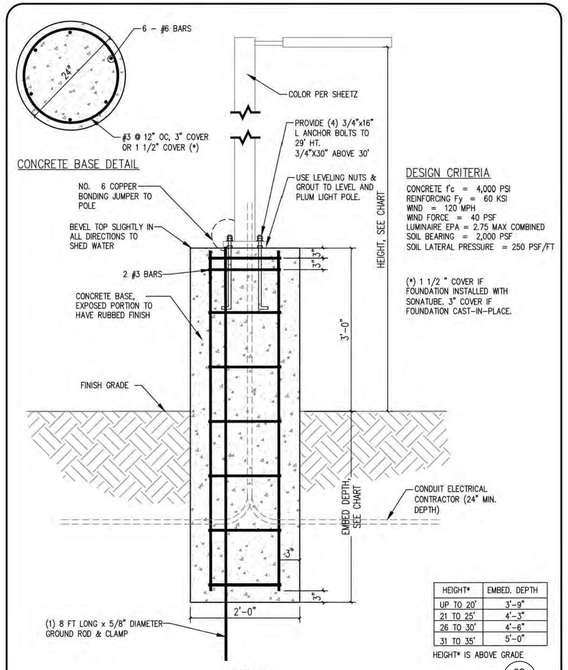
REVISIONS

SHEETZ

STANDARD POLE LIGHT PLACEMENT DETAIL

SCALE:	
DATE:	08/13/2024
DRAWN BY:	DAH

51



CONCRETE BASE DETAIL

DESIGN CRITERIA

CONCRETE f'c = 4,000 PSI
REINFORCING Fy = 60 KSI
WIND = 120 MPH
WIND FORCE = 40 PSF
LUMINAIRE EPA = 2.75 MAX COMBINED
SOIL BEARING = 2,000 PSF
SOIL LATERAL PRESSURE = 250 PSF/FT

(*) 1 1/2 " COVER IF FOUNDATION INSTALLED WITH SONATUBE. 3" COVER IF FOUNDATION CAST-IN-PLACE.

HEIGHT*	EMBED. DEPTH
UP TO 20'	3'-9"
21 TO 25'	4'-3"
26 TO 30'	4'-6"
31 TO 35'	5'-0"

HEIGHT* IS ABOVE GRADE

SECTION

02
C-507

DATE	BY	DESCRIPTION

REVISIONS

SHEETZ

POLE LIGHT DETAIL

SCALE:	
DATE:	08/22/2024
DRAWN BY:	DAH

33

WOODFORD

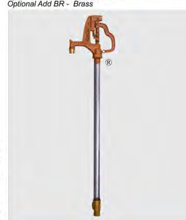
Freezeless
IOWA® Yard Hydrant
Model Y34 & Y1

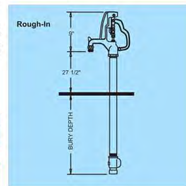
Galvanized Steel Pipe Standard
Optional Add SS - Stainless Steel
Optional Add BR - Brass

IOWA® hydrants are intended for irrigation purposes and used for filling field spray equipment, cleaning tools and equipment, lawn and garden care, watering livestock - immediate water flow even in sub zero temperatures.

Specifications:
Female Inlet: Model Y34 - ¾" NPT
Model Y1 - 1" NPT
Casing: Model Y34 - 1" Galvanized Steel Pipe
Model Y1 - 1¼" Galvanized Steel Pipe
Operating Rod: ¾" Stainless Steel Pipe
Drain Hole: Tapped - ¼" N.P.T.
Removable Nozzle: ¾" Brass Male Hose Nozzle
Optional At Additional Cost:
1" Brass Pipe Outer Casing
¾" Brass Pipe Operating Pipe
Y34 ONLY:
1" Stainless Steel Outer Casing
1" NPSH Hose Nozzle

Features:
- **Adjustable Link** - Provides easy and positive adjustment of the lever lock tension.
- **Rod Guide** - Eliminates side pull on rod, reduces wear on packing, packing nut & stem.
- **Flow Finder and Lock** - A simple cam that can be set to automatically obtain the same flow each time or lock against accidental opening.
- **Long Life Packing** - Graphite packing for lubricity and long life.
- **One Piece Variable Flow Plunger** - Large cushion type seal for longer life - is not easily damaged and assures shut-off even when foreign particles are present. Automatic drain feature - plunger opens drain to prevent freezing - closes at any flow to prevent wasting water.
- **Maintenance & Repair** - Woodford has manufactured the IOWA® hydrant since 1929, and although many improvements have been made through the years, all parts are interchangeable. All repairs can be made from top of unit without removing hydrant from the ground.
- **Maximum Working Pressure:** 125 p.s.i.
- **Maximum Temperature:** 120° F





SHIPPING WEIGHT

Bury Depth (Ft)	1	2	3	4	5	6*	7*
Model Y34 (Lbs)	15	17	19	22	24	26	28
Model Y1 (Lbs)	18	20	22	25	28	31	34

*Must ship by truck line due to length.

For Installation / Troubleshooting Instructions go to www.woodfordmfg.com or call 1-800-621-6032

When ordering, specify model and bury depth.

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Rev. 12/21 Form No. Y34.110

04
C-507

DATE	BY	DESCRIPTION

REVISIONS

SHEETZ

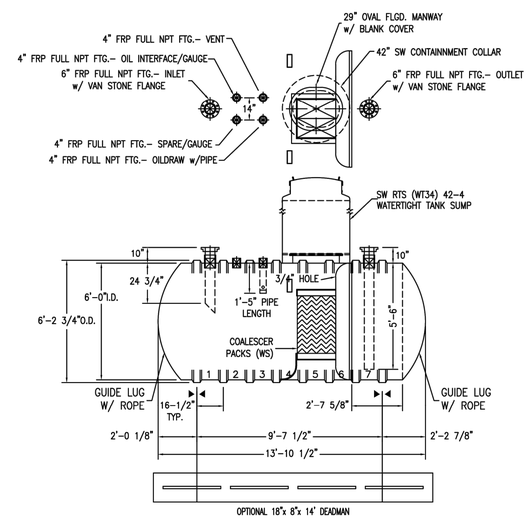
FROST FREE HYDRANT DETAIL

SCALE:	
DATE:	11/16/2023
DRAWN BY:	DAH

41

SHELL CODES: 1-E6S08SD, 1-E6SECSD

OWS-SF SPEC #PE-C22.77



06
C-507

NOTES:

- ►◄ HOLD DOWN STRAP LOCATION
- ▯ TYPE "13" LIFT LUG - SD
- ▮ TYPE "13" LIFT LUG - HD

MODEL: SWT 6-2000 OWS CSI-10			DATE-DRAWN BY: 06/04/24-BCB
CUSTOMER: SHEETZ			REVISED BY:
Fiber Glass Systems NOV	CAPACITY: GALLONS 2,689		TOTAL CAPACITY: GALLONS 2,689
	WEIGHT: LBS-DRY/WET 1,000		DWG NUMBER: 26980-000

NOT APPROVED FOR CONSTRUCTION

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 22998-1
Expiration Date: 08-23-2025

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1307 MAIN STREET NEW BLOOMFIELD, PA 17068 717 582-2161
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MARK	DESCRIPTION	DATE

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD 68) and National Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND
Sheetz, Inc.
243 Sheetz Way Claysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

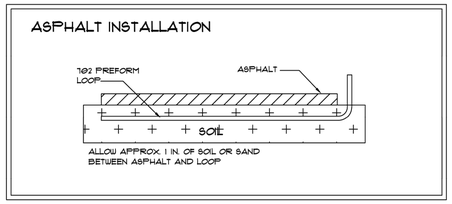
PROJECT NO.	2905
DWN BY	KODY WARD
DATE	01.09.2025
PROJECT MANAGER:	DTrostle
EMAIL:	DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	NOT TO SCALE

SHEET TITLE

CONSTRUCTION DETAILS - SHEETZ

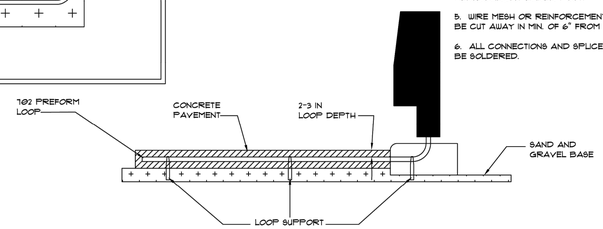
C-507
SHEET 16 OF 20

SP-25-001



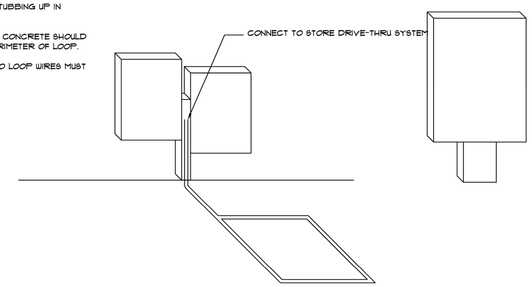
INSTRUCTIONS

1. POSITION PREFORM LOOP APPROXIMATELY 1'-3' FROM CURB, CENTERED IN FRONT OF THE MENUBOARD OR SPEAKER POST.
2. LOOP SHOULD BE INSTALLED 2" - 3" BELOW THE SURFACE OF THE PAVEMENT. (5" MAX. DEPTH)
3. IF INSTALLED IN ASPHALT, COVER LOOP WITH 1" MIN. SOIL OR SAND TO PROTECT FROM HOT ASPHALT.
4. CONNECT LOOP TO 1/2" CONDUIT STUBBING UP IN MENUBOARD/SPEAKER POST.
5. WIRE MESH OR REINFORCEMENT IN CONCRETE SHOULD BE CUT AWAY IN MIN. OF 6" FROM PERIMETER OF LOOP.
6. ALL CONNECTIONS AND SPLICES TO LOOP WIRES MUST BE SOLDERED.

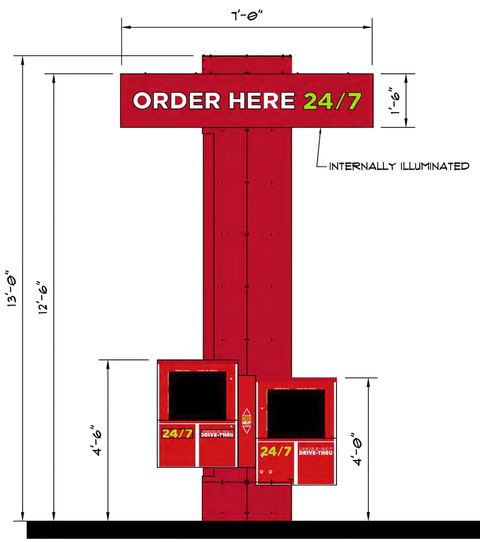


SIDE VIEW INSTALLED

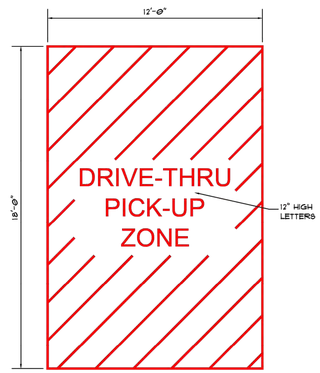
CONCRETE INSTALLATION
NO SCALE



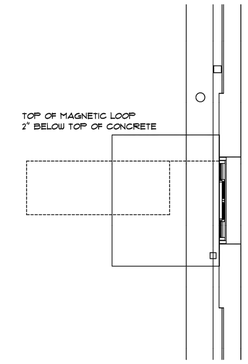
MENUBOARD W/ SPEAKER POST INSTALLATION
NO SCALE



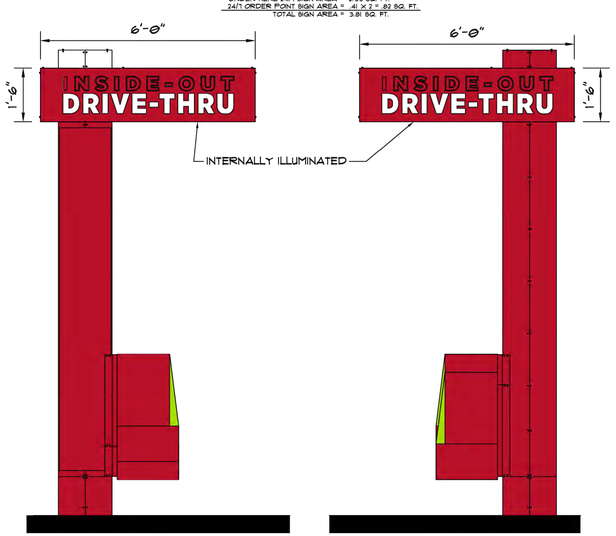
FRONT ELEVATION
ORDER HERE 24/7 SIGN AREA = 2.99 SQ. FT.
24/7 ORDER POINT SIGN AREA = .41 X 2 = .82 SQ. FT.
TOTAL SIGN AREA = 3.81 SQ. FT.



PARKING SPACE PAINTING DIAGRAM



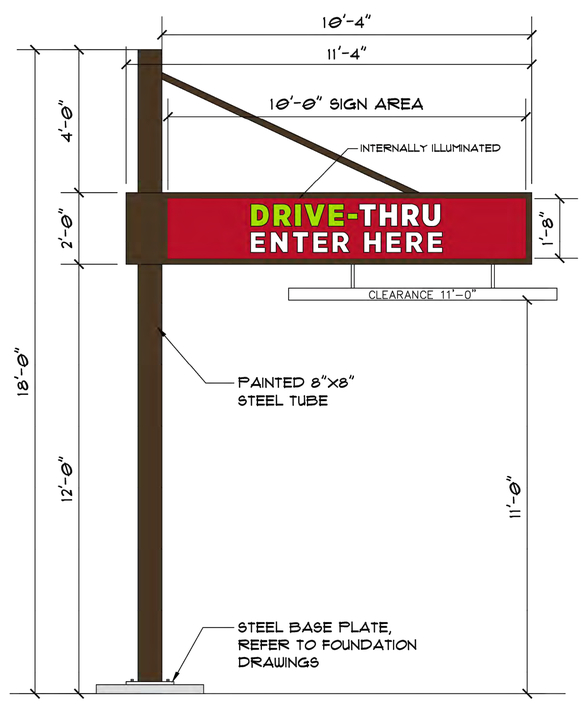
DRIVE THRU WINDOW DETAIL
SCALE: ½" = 1'-0"



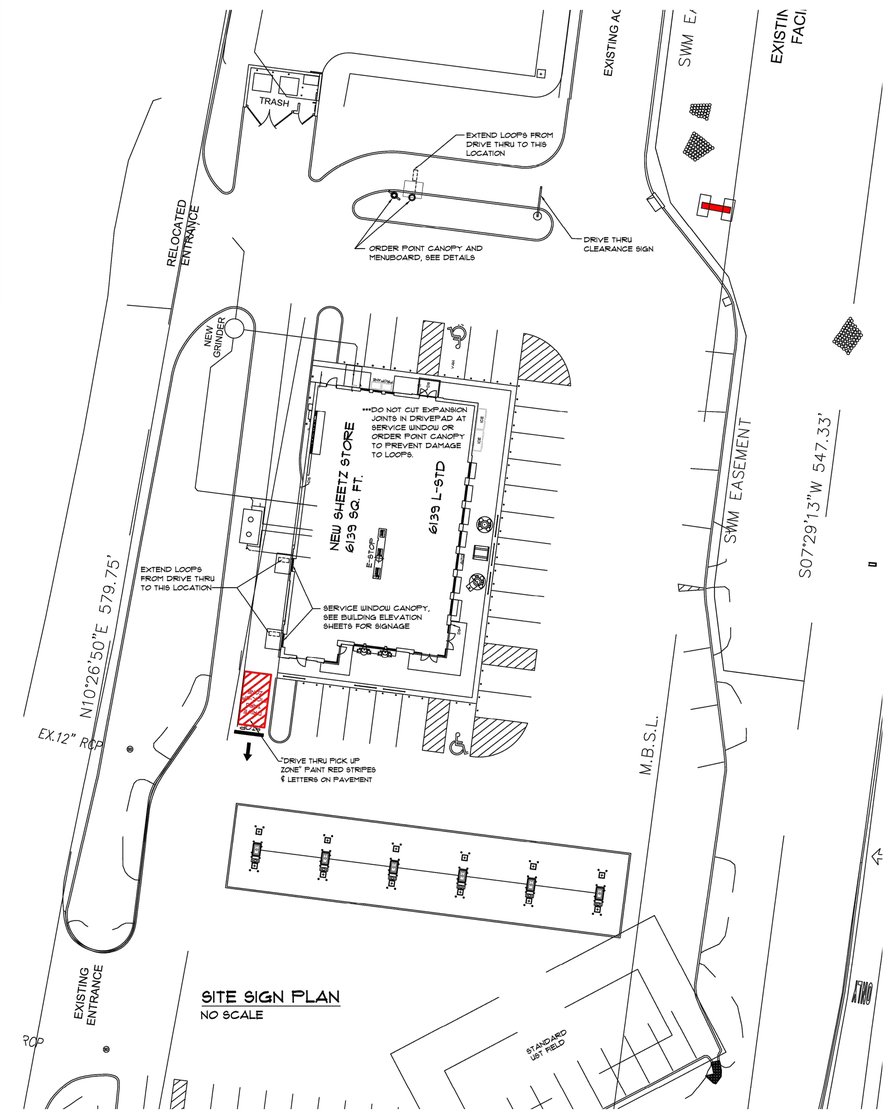
LEFT ELEVATION
SIGN AREA = 4.69 SQ. FT.

RIGHT ELEVATION
SIGN AREA = 4.69 SQ. FT.

ORDER POINT ELEVATIONS
SCALE: 3/8"=1' 0"



CANTILEVERED CLEARANCE BAR DETAILS
SIGN AREA = 6.36 SQ. FT.



SITE SIGN PLAN
NO SCALE

NOT APPROVED FOR CONSTRUCTION

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of MARYLAND License # 22984-1
Expiration Date 08-23-2025

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FREDERICK SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
126 TOWNSHIP LINE STREET HAGERSTOWN, MD 21740 301-739-8866
1911 WEST ALLEGHENY STREET GREENCASTLE, PA 17225 717-597-1407
1446 SOUTH PANDORA STREET CARLISLE, PA 17013 717-249-0111
1000 FIFTH AVENUE NEW BLOOMFIELD, PA 17068 717-582-2184
fsa-inc.com

MARK	DESCRIPTION	DATE

SHEETZ #184 - HUYETTS
Situate on the northwest corner of the intersection of Greencastle Pike (MD 60) and Marsh Pike (US 40)
12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Clarsburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905
DWN BY KODY WARD | DATE 01.09.2025
PROJECT MANAGER: DTrostle
EMAIL: DTrostle@fsa-inc.com
TAX MAP - GRID - PARCEL 0036 - 0015 - 0364
SCALE NOT TO SCALE
SHEET TITLE

CONSTRUCTION DETAILS - SHEETZ

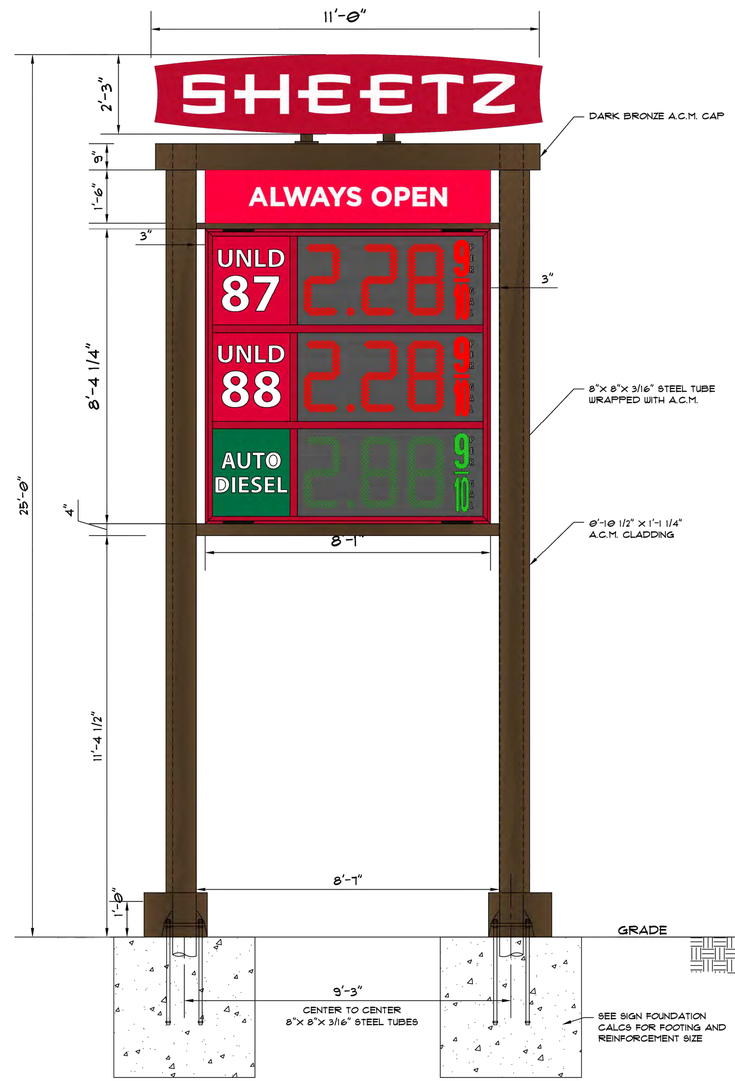
C-508
SHEET 17 OF 20

SP-25-001

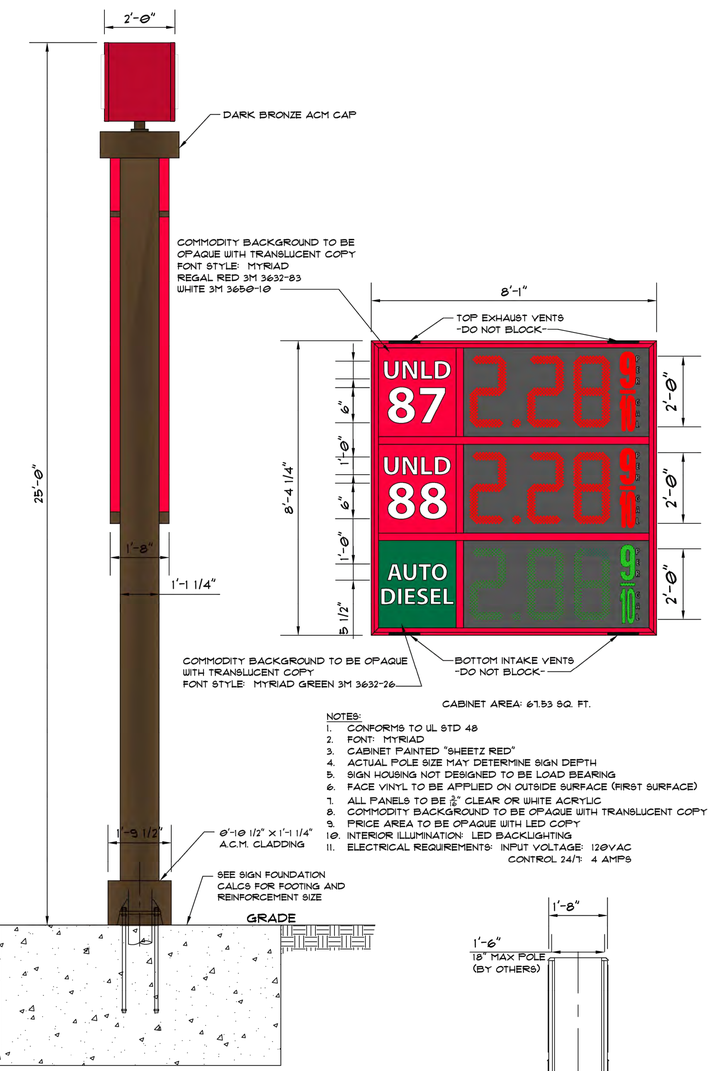
EXISTING SIGN
SCALE: 1/2"=1'-0" AREA: 145.81 S.F.

SIGN CABINET DETAILS

TOTAL SIGN AREAS: 104.41 SQ. FT.



DOUBLE-FACED GAS PRICE SIGN DETAIL - PARTIAL ELEVATION
SCALE: 1/2" = 1'-0" AREA: 104.41 SQ. FT.



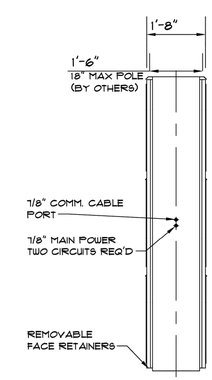
CABINET AREA: 67.53 SQ. FT.

NOTES:
1. CONFORMS TO UL STD 48
2. FONT: MYRIAD
3. CABINET PAINTED "SHEETZ RED"
4. ACTUAL POLE SIZE MAY DETERMINE SIGN DEPTH
5. SIGN HOUSING NOT DESIGNED TO BE LOAD BEARING
6. FACE VINYL TO BE APPLIED ON OUTSIDE SURFACE (FIRST SURFACE)
7. ALL PANELS TO BE $\frac{1}{8}$" CLEAR OR WHITE ACRYLIC
8. COMMODITY BACKGROUND TO BE OPAQUE WITH TRANSLUCENT COPY
9. PRICE AREA TO BE OPAQUE WITH LED COPY
10. INTERIOR ILLUMINATION: LED BACKLIGHTING
11. ELECTRICAL REQUIREMENTS: INPUT VOLTAGE: 120VAC
CONTROL 24/7: 4 AMPS

DOUBLE FACED GAS PRICE SIGN SIDE ELEVATION
SCALE: 1/2"=1'-0"

OUTLINE AREA = 22.11 SQ. FT.
SIGN BOX AREA = 24.75 SQ. FT.
PMS 200C AND PMS 440C

AREA: 12.13 SQ.FT.



TYPICAL OF 2

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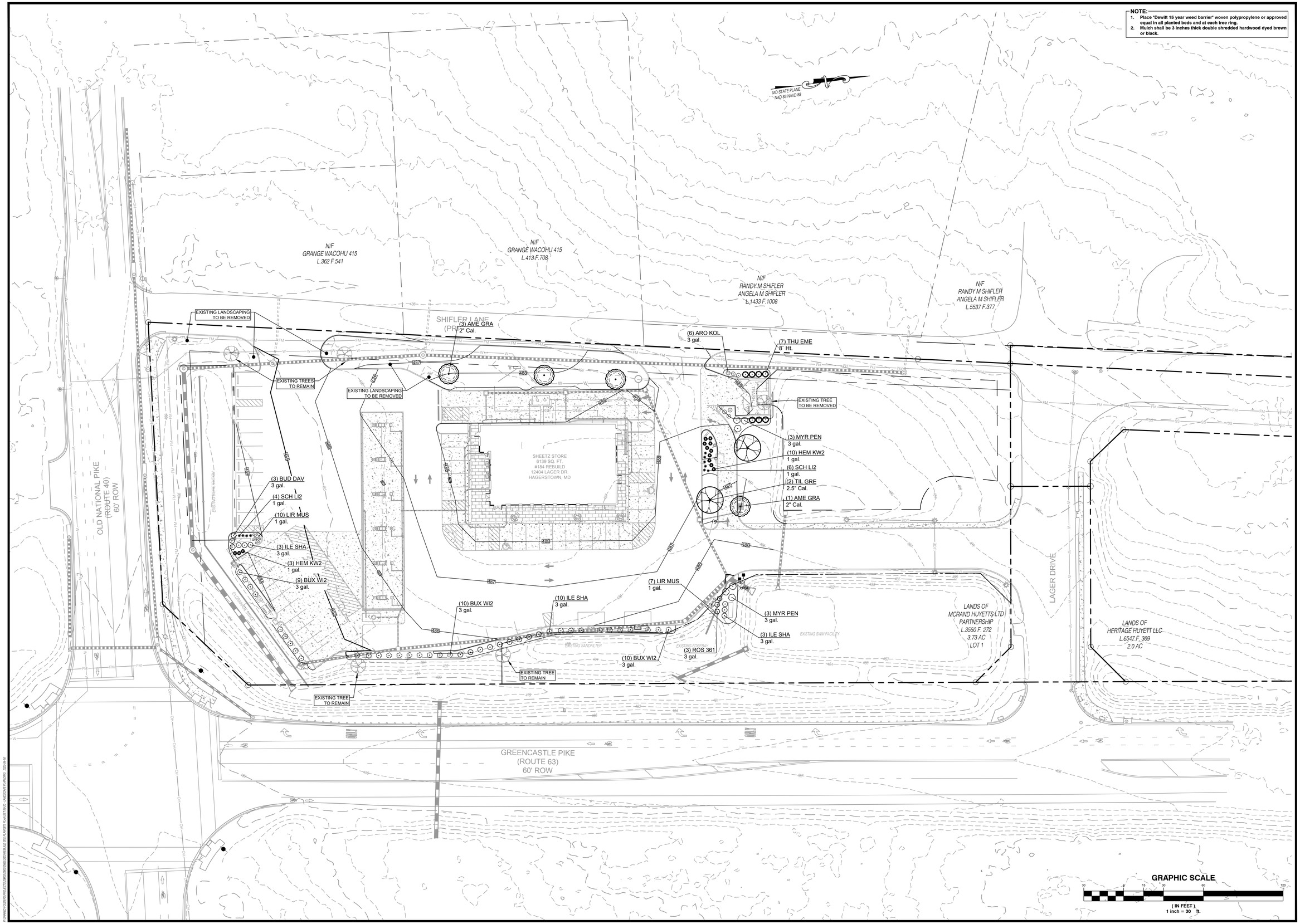
1250 SOUTHPOINTE BOULEVARD, SUITE 200 PETALUMA, CA 94954 (707) 778-1800

NOTE:

1. Place "Dewitt 15 year weed barrier" woven polypropylene or approved equal in all planted beds and at each tree ring.
2. Mulch shall be 3 inches thick double shredded hardwood dyed brown or black.



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Expiration Date 10-19-2026

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301 739-8866
30 WEST BALTIMORE STREET
GREENCASTLE, PA 17225
717 597-1837
1456 SOUTH HANOVER STREET
CARLISLE, PA 17013
717 249-1611
1127 EAST MAIN STREET
NEW BLOOMFIELD, PA 17068
717 582-7884

NOT APPROVED FOR CONSTRUCTION

MARK	DESCRIPTION	DATE

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (US 40) and Maugans Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Clarksburg, PA 16025
Attn: Chuck Stewart (412) 508.9026

PROJECT NO.	2905
DWN BY: KODY WARD	DATE: 01.09.2025
PROJECT MANAGER: DTrostle	
EMAIL: DTrostle@fsa-inc.com	
TAX MAP - GRID - PARCEL	0036 - 0015 - 0364
SCALE	1" = 30'

SHEET TITLE

LANDSCAPE PLAN

L-101

SHEET 19 OF 20

SP-25-001

PLANT SCHEDULE

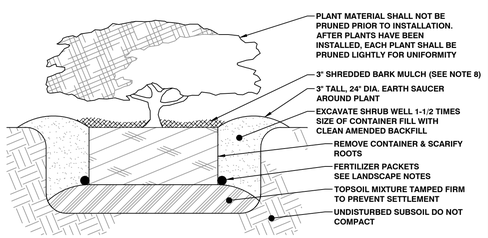
SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
TREES						
	AME GRA	Amelanchier x grandiflora `Autumn Brilliance` / `Autumn Brilliance` Serviceberry	2" Cal.	B&B	4	2/L-501
	THU EME	Thuja occidentalis `Emerald` / Emerald Arborvitae	8` Ht.	B&B	7	3/L-501
	TIL GRE	Tilia cordata `Greenspire` / Greenspire Littleleaf Linden	2.5" Cal.	B&B	2	2/L-501
SHRUBS						
	ARO KOL	Aronia melanocarpa Low Scape Mound / Low Scape Mound Chokeberry	3 gal.		6	1/L-501
	BUD DAV	Buddleja davidii / Butterfly Bush	3 gal.		3	1/L-501
	BUX WI2	Buxus microphylla japonica `Winter Gem` / Winter Gem Boxwood	3 gal.		29	1/L-501
	HEM KW2	Hemerocallis fulva 'Kwanso' / Daylily	1 gal.		13	1/L-501
	ILE SHA	Ilex glabra `Shamrock` / Inkberry	3 gal.		16	1/L-501
	LIR MUS	Liriope muscari / Lily Turf	1 gal.		17	1/L-501
	MYR PEN	Myrica pensylvanica / Northern Bayberry	3 gal.		6	1/L-501
	ROS 361	Rosa x `Radtko` / Double Knock Out Rose	3 gal.		3	1/L-501
	SCH LI2	Schizachyrium scoparium / Little Bluestem Grass	1 gal.		10	1/L-501

General Landscape Notes:

1. Landscape contractor is to call Miss Utility and have all underground utilities marked prior to any digging or planting.
2. Landscape Contractor shall install all plant material in a timely fashion.
3. Landscape Contractor shall be responsible for all watering, weeding, repairs and replacements prior to final acceptance.
4. NO Substitutions of plant material without written permission of FSA. Planting plans have been proposed with plant sizes, types, and locations as important design elements.
5. Plants shall be in accordance with the current issue of American Standards for Nursery Stock published by the American Association of Nurserymen.
6. All plants shall be watered thoroughly during installation and prior to final acceptance.
7. All bark mulched areas shall be first covered with Typar Weed Barrier or approved equal.
8. All planting bed areas on the site shall be mulched with a 3 inches of double shredded hardwood mulch, dye colored black or brown.
9. Plant material shall be inspected yearly in order to remove and replace dead, diseased vegetation.
10. Warranted plant material that is 25% dead or more shall be considered dead and shall be replaced at no charge.
11. All plant material shall be warranted for two years. 60 days prior to the end of the warranted period, the Engineering Department shall perform an inspection. Of which there should be an 90% survival rate of all plant material. All surviving plant material shall be found in a healthy condition. The warranty shall commune on the date of initial acceptance by the owner.
12. The landscape contractor shall conduct a final inspection with the owner or owner's representative at the end of the warranty period.
13. Fertilizer Packets are to be Nutri-Pak 16-8-8 or approved equal per manufacturer's recommendations.
14. Landscape is recommended to be installed during the two growing seasons. Spring: April 15-June 15, Fall: September 1-November 1.
15. Hose bibs and irrigation system for landscaping will be included with architecture plan submittal to Washington County Plan and Review Department.

LANDSCAPE TABULATIONS

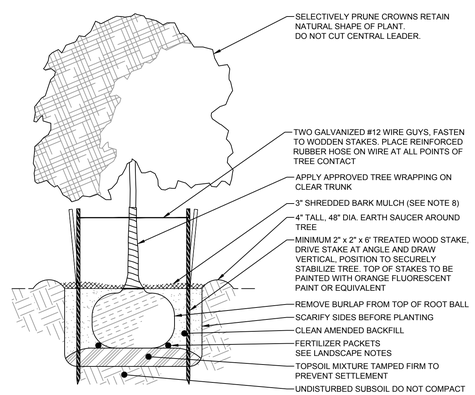
LANDSCAPE REQUIREMENT	LANDSCAPE REQUIRED	LANDSCAPE PROPOSED
PARKING AREA- 32,000 SF	32,000 * 0.5= 1,600 SF REQUIRED 1,600 / 300= 6 TREES REQUIRED	3,400 SF (10.6%) TOTAL SHADE TREES- 10 (EXISTING & PROPOSED SHADE TREES)



SECTION

1 L-501 **CONTAINER PLANTING - SHRUB**

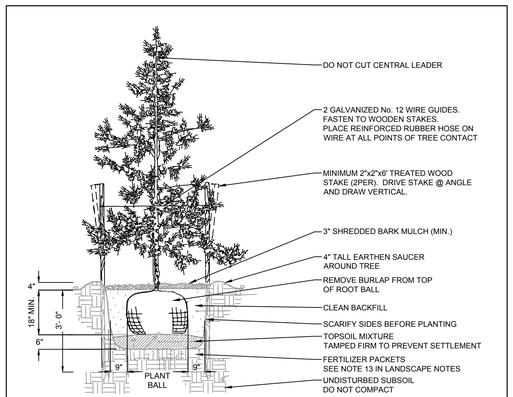
NOT TO SCALE



SECTION

2 L-501 **PLANTING - TREE (Up to 2-1/2" Cal.)**

NOT TO SCALE



3 L-501 **EVERGREEN TREE PLANTING**

NOT TO SCALE

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14 WEST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
1 WEST ALLIANCE STREET GREENCASTLE, PA 17225 717-597-1407
1500 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-1411

MARK	DESCRIPTION	DATE

SHEETZ #184 - HUYETTS

Situate on the northwest corner of the intersection of Greencastle Pike (Rt. 63) and Maugans Pike (US 40)

12404 LAGER DRIVE, HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

Sheetz, Inc.
243 Sheetz Way Clarysburg, PA 16625
Attn: Chuck Stewart (412) 508.9026

PROJECT NO. 2905

DWN BY KODY WARD | DATE 01.09.2025

PROJECT MANAGER: DTrostle

EMAIL: DTrostle@fsa-inc.com

TAX MAP - GRID - PARCEL 0036 - 0015 - 0364

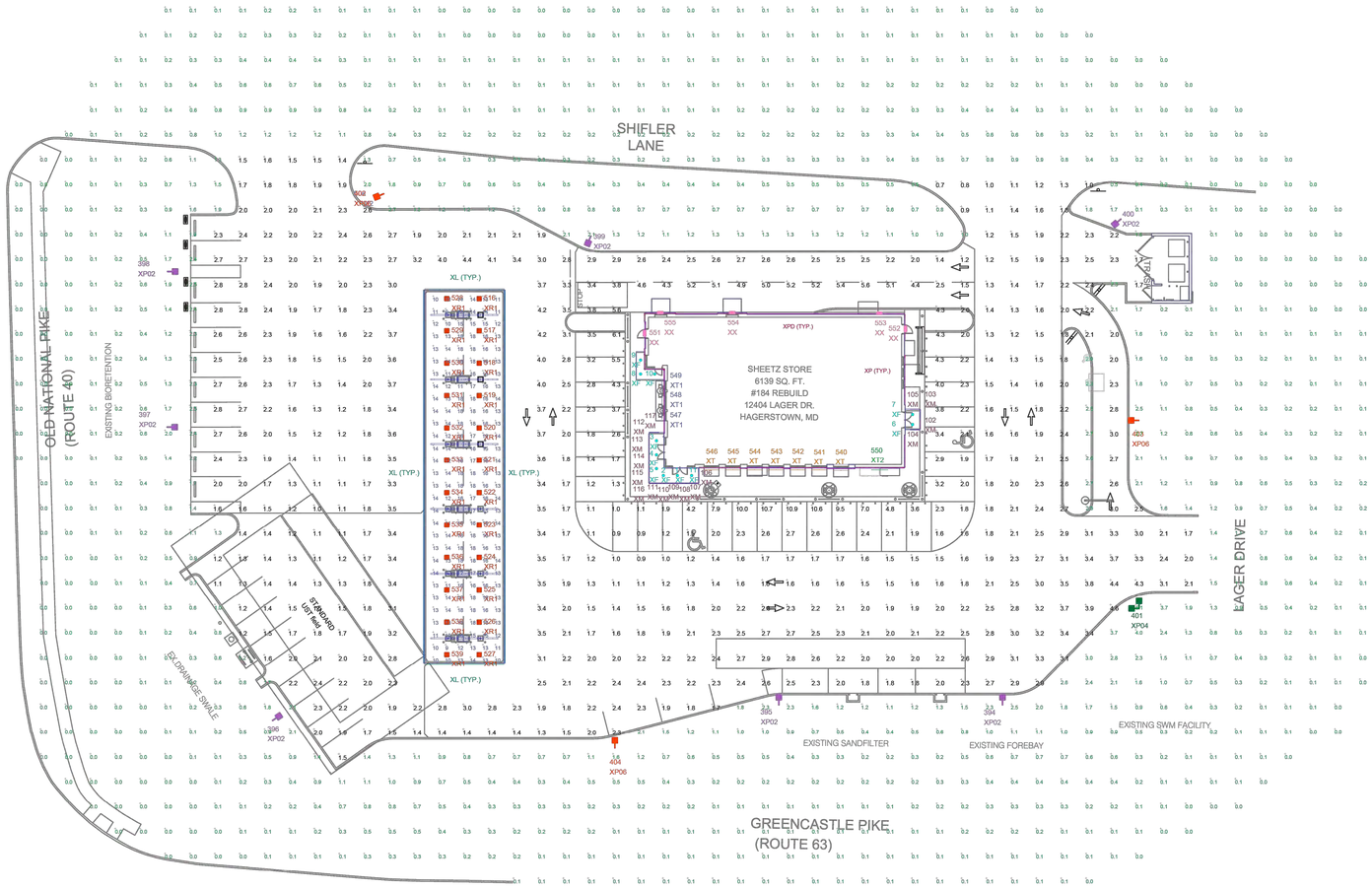
SCALE 1" = 30'

SHEET TITLE

LANDSCAPE PLAN DETAILS & NOTES

L-501

SP-25-001



ILLUMINATION LEVELS ARE THE RESULT OF CONDITIONS OR REQUESTS BY OTHERS
RED LEONARD ASSOCIATES IS NOT RESPONSIBLE
FOR INCIDENTS CAUSED BY INSUFFICIENT LIGHTING
AND DOES NOT RECOMMEND THESE LEVELS FOR
SECURITY AND SAFETY REASONS

LUMINAIRE LOCATION SUMMARY			
LUM NO.	LABEL	MTG. HT.	TILT
1 - 11	XF	11.33	0
12 - 48	XL	20.875	0
49 - 85	XL	18.06	0
86	XL	18.25	5
87	XL	18.599	5
88	XL	18.948	5
89	XL	19.297	5
90	XL	19.646	5
91	XL	19.995	5
92	XL	20.344	5
93	XL	20.693	5
94	XL	18.25	5
95	XL	18.599	5
96	XL	18.948	5
97	XL	19.297	5
98	XL	19.646	5
99	XL	19.995	5
100	XL	20.344	5
101	XL	20.693	5
102 - 117	XM	12	0
118 - 201	XP	18	0
202 - 212	XP	19	0
213 - 393	XP	18	0
394 - 400	XP02	23	0
401	XP04	23	0
402 - 404	XP06	23	0
405 - 436	XPD	18	0
437 - 439	XPD	19	0
440 - 515	XPD	18	0
516 - 527	XR1	17.71	0
528 - 539	XR1	18.83	0
540 - 546	XT	13.5	50
547 - 549	XT1	13.5	50
550	XT2	15	0
551	XX	11.33	0
552, 553	XX	15.42	0
554, 555	XX	9.33	0

FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES					
LABEL	AVG	MAX	MIN	AVG/MIN	MAX/MIN
CANOPY	14.39	18	9	1.60	2.00
PAVED AREA	2.36	10.9	0.7	3.37	15.57
UNDEFINED	0.44	5.1	0.0	N.A.	N.A.

THIS SITE IS LOCATED IN A REGION WHERE LIGHTING IS
REGULATED BY LOCAL ORDINANCES

NORTH

GRAPHIC SCALE

0 20 40 60 80

NOTE:
- ALL AREA LIGHTS ON NEW 20 FT. POLE MOUNTED ON 3 FT. CONCRETE BASE

LUMINAIRE SCHEDULE											
SYMBOL	QTY	LABEL	ARRANGEMENT	LUMENS	LLF	DIMMING FACTOR	BUG RATING	WATTS/LUMINAIRE	TOTAL WATTS	MANUFACTURER	CATALOG LOGIC
	11	XF	Single	1037	1.000	1.000	B1-U0-G0	13	143	LF Illumination LLC (Ledil)	BULLET MINI-5911-1AA-T-13C-9240-M-DMU-BLACK COLOR 90CRI
	90	XL	SINGLE	136	1.000	1.000	N.A.	4.12	370.8	BLAIR COMPANIES	4 FT. LINEAR STRIP LIGHT (BY OTHERS, SHOWN FOR CONTRIBUTION)
	16	XM	SINGLE	136	1.000	0.700	N.A.	4.12	65.92	Blair Companies	LB-110-00-XX-025-RD[1]FR4-15
	276	XP	Single	305	1.000	1.000	N.A.	3.66	1010.16	P-LED	STREET WRAP FLEX BACK BEND 4000K
	7	XP02	Single	9647	1.030	1.000	B1-U0-G3	94	658	LITHONIA LIGHTING	DSX0 LED P4 40K 70CRI T3M MVOLT SPA FAO HS DXXXX (SW. POS. 8)
	1	XP04	2 @ 90 degrees	11295	1.030	1.000	B2-U0-G3	93.04	186.08	Lithonia Lighting	DSX0 LED P4 40K 70CRI T4M MVOLT SPA FAO DXXXX (SW. POS. 8)
	3	XP06	Single	9717	1.030	1.000	B1-U0-G3	94	282	LITHONIA LIGHTING	DSX0 LED P4 40K 70CRI T4M MVOLT SPA FAO HS DXXXX (SW. POS. 8)
	111	XPD	Single	25	1.000	1.000	N.A.	0.305	33.855	P-LED	STREET WRAP FLEX BACK BEND 4000K
	24	XR1	Single	4326	1.020	1.000	B2-U1-G1	31.6865	760.476	Lithonia Lighting	RCNYLED-ALO1-50K-90CRI-SYMF-MVOLT-BZS-XX (SW. POS. 3)
	7	XT	Single	1840	1.000	1.000	N.A.	20	140	SPI Lighting Inc.	SEW12146 5FT-L20W 120-277V 4000K DF_80 DF_MCS PSE SMA
	3	XT1	Single	1472	1.000	1.000	N.A.	16	48	SPI Lighting Inc.	SEW12146 4FT-L16W 120-277V 4000K DF_80 DF_MCS PSE SMA
	1	XT2	Single	2208	1.000	1.000	N.A.	24	24	SPI Lighting Inc.	SEW12146 6FT L24W AN08 120-277V 4000K SMA PSE OAP12
	5	XX	Single	1921	1.000	1.000	B1-U0-G0	16	80	WILLIAMS OUTDOOR	VWM-H-L17/840-TL-DBZ-CGL-DIM-UNV (BRONZE COLOR 80CRI)

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

REV.	BY	DATE	DESCRIPTION
R1	JSC	02/14/25	LIGHT POLES RELOCATED TO SUGGESTED AREAS PER REQUEST
.	.	.	.
.	.	.	.
.	.	.	.

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SCALE: 1" = 30'
LAYOUT BY: JSC
DWG SIZE: D
DATE: 02/04/25

PROJECT NAME:
SHEETZ
HAGERSTOWN, MD
DRAWING NUMBER:
RL-10035-S1-R1

FRESH FOOD SHEETZ MADE TO ORDER

	QTY	LABEL	DESCRIPTION
DOWNLIGHT	11	XF	BULLET MINI-5911-1AA-T-13C-9240-M-DMU-BLACK COLOR 90CRI

	QTY	LABEL	DESCRIPTION
STREET WRAP	276	XP	STREET WRAP FLEX BACK BEND 4000K
	111	XPD	STREET WRAP FLEX BACK BEND 4000K

	QTY	LABEL	DESCRIPTION
AREA	7	XP02	DSX0 LED P4 40K 70CRI T3M MVOLT SPA FAO HS DXXXX (SW. POS. 8)
	1	XP04	DSX0 LED P4 40K 70CRI T4M MVOLT SPA FAO DXXXX (SW. POS. 8)
	3	XP06	DSX0 LED P4 40K 70CRI T4M MVOLT SPA FAO HS DXXXX (SW. POS. 8)

	QTY	LABEL	DESCRIPTION
CANOPY	24	XR1	RCNYLED-ALO1-50K-90CRI-SYMF-MVOLT-BZS-XX (SW. POS. 3)

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	7	XT	SEW12146 5FT-L20W 120-277V 4000K DF_80 DF_MCS PSE SMA

LF ILLUMINATION

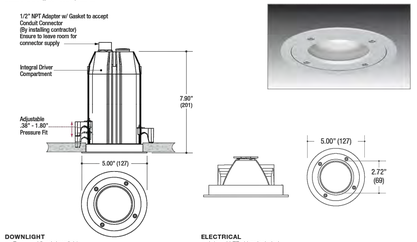
BULLET - MINI

OUTDOOR RECESSED FIXED DOWNLIGHT

WET LOCATION - IP66 **LED**

PROJECT	TYPE	CATALOG NUMBER

Measurements in ( ) are metric equivalents.



DOWNLIGHT
- Recessed fixed downlight
- Die-cast aluminum trim
- Powder coat finish

HOUSING
- Extruded aluminum central housing
- Powder coat finish
- Dust and water jet tight sealed
- **Ceiling Cut-Out - ø4.65"**

LED SOURCE
- Field-changeable optic
- **CREE**

ELECTRICAL
- Integral LED driver included
- Primary wiring compartment with power supply
- Superpure aluminum reflector
- Dimmable

MOUNTING
- Swing out pressure fit mounting clips
- Adjustable up to 1.80" max. ceiling thickness

LABELS
- Suitable for wet location
- IP66 rated

CREE — 5 YEAR WARRANTY Limited — cULus

ORDERING INFO

SERIES	WATTAGE	CRI / COLOR	BEAM	DRIVER / VOLTAGE	FINISH
5911-1AA-T **BULLET MINI** Die-Cast Aluminum Trim Fixed Downlight Trimless Fixture	**09C** 8W LED 780lm **13C** 13W LED 1200lm **19C** 19W LED 1420lm Delivered lumens @ 80CRI / 3000K Narrow Beam	**8027** 80CRI / 2700K **8030** 80CRI / 3000K **8035** 80CRI / 3500K **8040** 80CRI / 4000K **9227** 90CRI / 2700K **9230** 90CRI / 3000K **9235** 90CRI / 3500K **9240** 90CRI / 4000K	**N** Narrow 15° **M** Medium 35° **W** Wide 49° **V** Very Wide 65°	**DMU** Dimming Multiple Forward/Reverse Phase (120V only) 0-10V Wires Present (120-277V)	**SS** Silver

Ordering Example: **5911-1AA-T-19C-8030-N-DMU-SS**

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We reserve the right to change or withdraw specifications without prior notice.

HEADQUARTERS
9200 Deering Avenue
Chatsworth CA 91311

Telephone: 818-886-1335
Toll Free: 800-885-1335
Fax: 818-576-1335

www.lfillumination.com
rev 061109

Shimstone Design Studio
LIGHTING DESIGN

SHEETZ 2.0

STREET WRAP™ FLEX **BACK-BEND**

Our border solution is perfect for adding an extra punch of color to your building! No pricey customization or set-up fee. Enjoy wrapping your building quickly and easily.

SPECIFICATIONS

Certifications:	UL 94 V0, UL 8 c/US, Recognized (SMR Manual), CE, RoHs
Dimensions	24' and Custom Lengths Available
Input:	24V
Operating Temp	-40° to +45°C
Power:	3.66 W per foot
Power Supply	P-LED 24V
Protection Guide	IP67
Run Footage	Max. 24'

FEATURES
- Bends front to back
- 3.96" minimum bending radius
- Dual extrusion, diffused silicone lens and thermal conductive base
- Easy installation
- Applications: neon tube light source, building and sign outline lighting, and cove lighting, indoor/outdoor
- UV resistant
- Evenly illuminates
- Standard colors cuttable every 3.937ft"(100mm), RGB cuttable every 1.64'ft" (50mm)

PRODUCT OPTIONS

5W SPACE							
Color	Wavelength/CCT	Jacket Color	Lm./ft	Cut Section Length	Max Length/96 W PS	W/Max Length	SKU
Sage White	6500K	White	305	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-S
Natural White	5000K	White	305	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-50
Medium White	4000K	White	305	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-40
Red	623 nm	Red	62	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-RD
Blue	468 nm	Blue	20	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-BL
Green	525 nm	Green	140	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-GR
Yellow	590 nm	Yellow	158	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-YL
Orange	608 nm	Orange	116	3.937ft" (100mm)	287.401ft"	87.7	M-SM3344-OR
Cyan	N/A	White	36	2.813ft" (71.4mm)	287.7244"	87.5	M-SM3344-CN
Amber	N/A	White	41	2.813ft" (71.4mm)	287.7244"	87.5	M-SM3344-AM
Pink	N/A	White	17	2.813ft" (71.4mm)	287.7244"	87.5	M-SM3344-PK
RGB	N/A	White	n/a	2.813ft" (71.4mm)	287.7244"	87.5	M-SM3344-3C

Custom colors will utilize white LEDs behind a color matched silicone over molding and the MOQ is 656.168ft. (200 meters).

IMPORTANT WARRANTY INFO

This warranty is void if any cuts are made to the field. Any cuts must be made by Principal LED to maintain warranty.

NOTE: The LED tiers itself and all its components may not be mechanically stressed. Please ensure that the power supply is adequate to operate the tied load. Only qualified personnel should be allowed to perform installations. The design of the housing should be according to the IP standards in the application. If surge protection structure not within power supplies, a lightning protector should be needed additionally. Before cutting and welding, please read the user manual, and please ensure you have read and fully understand it. Please do not twist the product and do not bend it in wrong direction, see Figure 1 for a correct demonstration.

PRINCIPAL LED — WE SPEAK YOUR LANGUAGE

SDS PROJECT #: 0609.0 **MODEL #:** REFER TO LIGHTING FIXTURE SCHEDULE FOR MODEL NUMBER AND DESCRIPTION **TYPE: XL1**

ADDITIONAL FIXTURE INFO

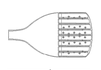
D-Series Size 0
LED Area Luminaire

Catalog Number | Notes | Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA: 0.44 ft² (0.04 m²)
Length: 26.18" (66.5 cm)
Width: 14.06" (35.7 cm)
Height H1: 2.26" (5.7 cm)
Height H2: 7.46" (18.9 cm)
Weight: 23 lbs (10.4 kg)



Introduction

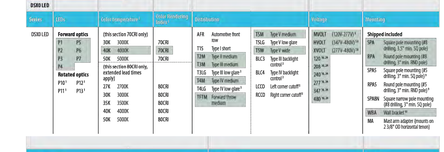
The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications, with typical energy savings of 70% and expected service life of over 100,000 hours.

Design Select options indicated by this color background.

design select
Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

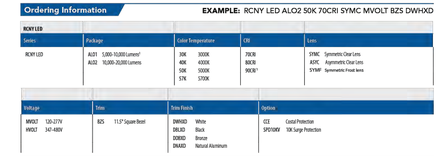
Ordering Information **EXAMPLE:** DSX0 LED P6 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD



Introduction

The RCNY LED recessed luminaire is designed to provide exceptional energy savings and versatility in one fixture. With a compact design the RCNY provides superior illumination while blending into the canopy space seamlessly. The RCNY is unique in that as a recessed canopy it can be installed in both 12" and 16" canopy decks. Features such as Adjustable Lumen Output Dial with 8 Settings and forward throw distribution (ASYC) option make the RCNY one of the most versatile gas station canopies in the market. Lumen dial and driver are both accessible from below. With up to 160 LPW the RCNY LED delivers up to 80% in energy savings when replacing metal halide luminaires. With over 100,000 hour life expectancy (12+ years of 24/7 continuous operation), the RCNY LED luminaire provides significant maintenance savings over traditional luminaires. Class 1 Division 2 also available. Wet location junction box available upon request.

Ordering Information **EXAMPLE:** RCNY LED ALO2 50K 70CRI SYMC MVOLT BZS DWHXD



Accessories
Ordered and shipped separately.

Catalog	Description	Trim	Dimensions
FFCBBK-B	RCNY Backplate for 12" Decks	Covers Existing Hole if Larger than Fixture	13.5" x 3.6" x 160A Gale Steel
FFCBBK-AL	RCNY Backplate for 16" Decks	Covers Existing Hole if Larger than Fixture	15.5" x 3.6" x 160A Gale Steel
BPSBBK-B	RCNY 18" Baseplate	Covers Existing Footprint of Existing Fixture	18" x 18" x 160A Aluminum
BPSBBK-AL	RCNY 24" Baseplate	Covers Existing Footprint of Existing Fixture	24" x 24" x 160A Aluminum

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Styk Exterior Wall - Stem

SEW12146 2.20 in

SPI LIGHTING PROJECT DETAILS

JOB NAME: SHEETZ
TYPE: 5' Awning Light
NOTES: Fixture head to be fired at a 5o degree angle down away from the building.

ORDERING CODE: SEW12146 | SFT-L20W[AN08] | 120-277V | 4000K | PSE | SMA | OAP[6.00in.]
*Please Note: Default specifications " **DF_XXX** " will not appear in the ordering code.*

DESCRIPTION

Styk was built to provide the most lumens with the smallest luminaire package, while optimizing life. Not limited to decorative lighting, effective functional lighting is provided through the optimal light control in this minimal package. It's three optical offerings enable tremendous flexibility including wall washing, wall grazing, and asymmetric lighting solutions. It is excellent at lighting signs and facades. The family features wall, ceiling, and pendant models in a variety of stylish, clean mounting options. Available in 1' to 8' lengths, Styk can be mounted individually or configured in runs.

FEATURES & BENEFITS
- Sleek 1.5" diameter housing
- A forward throw optic, for even wall wash illumination, is standard
- Symmetrical optic options are available for more volumetric illumination
- Lamp body can be rotated up to 330° and locks into position for precise fixture alignment
- Up to 1,450 lumens per foot delivered (with Forward Throw distribution)
- Up to 18" projection with no vertical support needed
- Anodized finish provides durable corrosion protection
- All visible fasteners are flush mounted, providing a clean design
- Handcrafted in USA, BABA Compliant

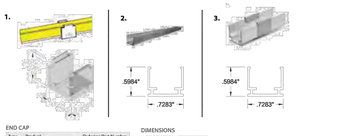
SPECIFICATIONS
- **LIGHT SOURCE:** IP66 white LED light engine
- **CRI:** 80+ or 90+
- **LUMEN MAINTENANCE:** L70 = >50,000 Hrs.
- **EFFICACY:** 102 lm/W delivered (with Forward Throw distribution)
- **CCT:** 2700K, 3000K, 3500K, 4000K, 5000K
- **VOLTAGE:** 120-277V standard
- **DRIVER:** Includes one remote damp listed Class 2 power supply and either a damp location or wet location enclosure, except 8FT-L113W which has two. Black power cord standard unless otherwise specified. Max distance to the driver (including OAP) is: #18 AWG = 50', #16 AWG = 75', #14 AWG = 100'. For extended distances, contact factory.
- **DIMMING:** 0-10V controls standard to 1%
- **CONTROLS:** Contact factory for control options (e.g., Lutron Athena, Current NX, nLight, Enlighted, Encelium, Wattstopper, WaveLinx, or Casambi).
- **EMERGENCY:** Remote battery option is provided with 10W Constant Power Battery back-up, providing 90 Minutes of Emergency operation. Contact factory for other Emergency options.
- **INTEGRATED SURGE PROTECTION:** LED components are protected against minor surge events
- **CONSTRUCTION:** Extruded aluminum construction provides durable protection for internal components and is recyclable
- **FINISH:** Housing available in anodized finishes only. End caps and mounting components painted to match.
- **MODIFICATIONS:** Consult factory for all modification requests, including RGB and static LED colors
- **APPROVALS:** ETL listed to UL standards (US and Canada) for use in wet locations

Shimstone Design Studio
LIGHTING DESIGN

SHEETZ 2.0

INSTALLATION ACCESSORIES

Type	Description	Part Number
1	Transparent RC clips	A-SXM4-CLPL
2	3.28 ft. and 8 ft. aluminum mill finish extrusions for outdoor application	A-SXM4-TRAL
3	Aluminum mill finish clips for outdoor applications - 1.9685"/pcs	A-SXM4-CLAL

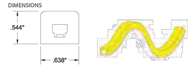


END CAP

Type	Product	Ordering Part Number
1	Silicone End Cap	A-SEW-ECS
2a	Silicone Insert Single Color	X-C-SR-SYC
2b	Silicone Insert RGB	X-C-SR-SYC
3	Silicone Clear	A-SWR-S-CA

End cap quantities are available upon request.

DIMENSIONS



WIRING

Single Color Product — VCC, GND

RGB Product — VCC, Red, Green, Blue

SDS PROJECT #: 0609.0 **MODEL #:** REFER TO LIGHTING FIXTURE SCHEDULE FOR MODEL NUMBER AND DESCRIPTION **TYPE: XL1**

Ordering Information

Accessories
Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) *
DLL347F 1.5 CL JU	Photocell - SSL twist-lock (347V) *
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) *
DSHORT SBK	Shorting cap
DSBOXS PM	Recess-can shield (enter package number P1-7, P10-13 in place of X)
DSERR1 (PIN0X)	Round pole adapter (3-8 drilling, specify finish)
DSERR2 (PIN0X)	Round pole adapter (4-10 drilling, specify finish)
DSERR3 (PIN0X)	Square pole adapter (3-8 drilling, specify finish)
DSERR4 (PIN0X) (PIN0X)	Universal pole mount (specify finish)
DSBOSS (PIN0X)	Bird spike removal bracket (specify finish)

NOTES
1. Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option LRO or RPO.
2. SQL, RCL, and SPA available in 2K,3K and 5K only available with WCR. Contact Technical Support for other possible combinations.
3. TFTM, TFTF, TFTR, TFTL, BLC, BLCA, LCCO, RCCO not available with option HS.
4. HS not available with optics AFR, AFL, AFW, AFR2, AFL2, AFW2, TFTM, TFTF, TFTR, TFTL.
5. MVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
6. HVOLT driver operates on any line voltage from 277-480V (50/60 Hz). Not available with option NLTAIR2 PIRHN or option PIR.
7. XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
8. Contact Technical Support for SPA, RPA, SQL, RCL, WCR, SPA and RPA in 5 fixture qty.
9. SPA2 and RPA2 for use with 85 drilling only (blank for use with 4X drilling).
10. WRA cannot be combined with Type 5 distributions plus photocell (PER).
11. Not available with HS. Not available with Type 5 distributions. Not available in slight dim 2.
12. NLTAIR2 PIRHN not available with other sensors including PIR, PIR9, PIR9E, PIRH1, NLO, BL30, BL30 and DMS. NLTAIR2 PIRHN not available with P1, P2 and P3 using HVOLT. NLTAIR2 PIRHN not available with P7, P8 and P10 using XVOLT. NLTAIR2 PIRHN not available with P11 using HVOLT. NLTAIR2 PIRHN not available with P12 and P13 using XVOLT. PIR not available with P7 using XVOLT.
13. PER/PER5/PER7 not available with NLTAIR2, PIR, BL30, BL30. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See Photocell ordering information.
14. DALI not available with other dimming control options NLTAIR2 PIRHN, PIR, PIR9, PIR9E, PIRH1, BL30, BL30, or DMS.
15. BL30 and BL30 are not available with NLTAIR2 PIRHN, PIR, PIR9, PIR9E, PIRH1, FAO and DMS. BL30 or BL30 must specify 120, 277 or 347V. Consult tech support for other options.
16. DMS not available with NLTAIR2 PIRHN, PIR, PIR9, PIR9E, PIRH1, BL30, BL30 and FAO.
17. Not available with HS, SPA, RPA, WRA, SQL, RCL, TFTM, TFTF, TFTR, TFTL.
18. Reference Controls Options table on page 4.
19. Not available with TFTM, TFTF, TFTR, TFTL, SQL, RCL, BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
20. CCE option not available with option BS and DSSS. Contact Technical Support for availability.
21. Option HJ8 not available with performance packages P6, P7, P10 and P13.
22. Contact factory for availability of Type 5 with P6, P7, P10 and P13. See Ordering Table on page 4.
23. Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

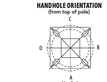
Shield Accessories

External Glare Shield (EGSR)

House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION
(from top of pole)



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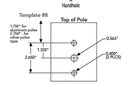

Tenon Mounting Slipfitter

Tenon O.D.	Housing	Slipfitter	A	B	C	D	E
2-3/8"	8/8	AST25-190	AST25-280	AST25-290	AST25-300	AST25-320	AST25-480
2-7/8"	8/8	AST25-190	AST25-280	AST25-290	AST25-300	AST25-320	AST25-480
4"	8/8	AST25-190	AST25-280	AST25-290	AST25-300	AST25-320	AST25-480

Knuckle Option	Extra Knuckle	Very	Very	Very	Very	Very	Very
Head Location		Side A	Side B & D	Side B & C	Side A, C & D	Beyond Pole Dim	Side A, B, C & D
Drill Nomenclature	#6	DM19AS	DM28AS	DM29AS	DM39AS	DM26AS	DM99AS
Knuckle Dimensions for Drilling Pattern							
DIN	#6	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"
DFN	#6	3"	3"	3"	3"	3"	3"
DFH	#6	3"	3"	3"	3"	3"	3"
DFV	#6	3"	3"	3"	3"	3"	3"
DFAD	#6	3"	3"	3"	3"	3"	3"

DSX0 Area Luminaire - EPA
Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Tenon Housing & Mounting Configuration	Single (SM1)	2 @ 180 (D180)	2 @ 90 (D90)	3 @ 90 (T90)	3 @ 120 (T120)	4 @ 90 (QM1)
Mounting Type						
DSX0 with DIN	0.44	0.88	0.96	1.19	---	1.16
DSX0 with DFL/DFAN	0.51	1.02	1.09	1.30	---	1.29
DSX0 with DFN, DFHS	0.51	1.02	1.06	1.26	1.24	1.29
DSX0 with NIA	0.64	1.28	1.24	1.67	1.70	1.65

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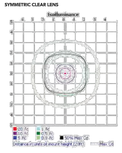
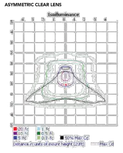
Photometric Diagrams

Full photometric data report available within 2 weeks from request. Contact Acuity Tech Support.

SYMMETRIC CLEAR LENS — footcandle



ASYMMETRIC CLEAR LENS — footcandle



Performance Data

Symmetric Frost Lens (SYMF)

Performance Package	Setting	System Watts	50K 80CRI Lumens	50K 80CRI LPW	90K 90CRI Lumens	90K 90CRI LPW
ALO2	1	26	3,879	151	3,516	137
ALO2	2	45	6,759	149	6,119	135
ALO2	3	64	9,515	149	8,610	135
ALO2	4	81	12,099	148	10,946	134
ALO2	5	99	14,631	148	13,235	134
ALO2	6	113	16,775	148	15,173	134
ALO2	7	127	18,866	148	17,063	134
ALO2	8	136	20,024	147	18,100	133

Symmetric Clear Lens (SYMC)

Performance Package	Setting	System Watts	50K 80CRI Lumens	50K 80CRI LPW	90K 90CRI Lumens	90K 90CRI LPW
ALO2	1	26	4,207	164	3,755	146
ALO2	2	45	7,337	162	6,541	145
ALO2	3	64	10,332	162	9,206	144
ALO2	4	81	13,141	161	11,706	144
ALO2	5	99	15,892	161	14,155	143
ALO2	6	113	18,223	161	16,229	143
ALO2	7	127	20,466	161	18,251	143
ALO2	8	136	21,752	160	19,368	142

Actual Lumens May Vary +/- 7%

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RED LEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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PROJECT NAME:
SHEETZ
HAGERSTOWN, MD
DRAWING NUMBER:
RL-10035-S1-R1

FRESH FOOD SHEETZ MADE TO ORDER

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	3	XT1	SEW12146 4FT-L16W 120-277V 4000K DF_80 DF_MCS PSE SMA

Styk Exterior Wall - Stem

SEW12146 2.20 in

SPI LIGHTING
PROJECT DETAILS

JOB NAME: SHEETZ
TYPE: 4' Awning Light
NOTES: Fixture head to be fixed at a 5o degree angle down away from the building.

ORDERING CODE: SEW12146 | 4FT-L16W[AN08] | 120-277V | 4000K | PSE | SMA | OAP[6.00in.]
*Please Note: Default specifications " **DF_XXX** " will not appear in the ordering code.*

DESCRIPTION

Styk was built to provide the most lumens with the smallest luminaire package, while optimizing life. Not limited to decorative lighting, effective functional lighting is provided through the optimal light control in this minimal package. It's three optical offerings enable tremendous flexibility including wall washing, wall grazing, and asymmetric lighting solutions. It is excellent at lighting signs and facades. The family features wall, ceiling, and pendant models in a variety of stylish, clean mounting options. Available in 1' to 8' lengths, Styk can be mounted individually or configured in runs.

MADE IN USA | EMR | IP66 | WET | LED

FEATURES & BENEFITS

- Sleek 1.5" diameter housing
- A forward throw optic, for even wall wash illumination, is standard
- Symmetrical optic options are available for more volumetric illumination
- Lamp body can be rotated up to 330° and locks into position for precise fixture alignment
- Up to 1,450 lumens per foot delivered (with Forward Throw distribution)
- Up to 18" projection with no vertical support needed
- Anodized finish provides durable corrosion protection
- All visible fasteners are flush mounted, providing a clean design
- Handcrafted in USA, BABA Compliant

SPECIFICATIONS

- **LIGHT SOURCE:** IP66 white LED light engine
- **CRI:** 80+ or 90+
- **LUMEN MAINTENANCE:** L70 = >50,000 Hrs.
- **EFFICACY:** 102 lm/W delivered (with Forward Throw distribution)
- **CCT:** 2700K, 3000K, 3500K, 4000K, 5000K
- **VOLTAGE:** 120-277V standard
- **DRIVER:** Includes one remote damp listed Class 2 power supply and either a damp location or wet location enclosure, except

8FT-L113W which has two. Black power cord standard unless otherwise specified. Max distance to the driver (including OAP) is: #18 AWG = 50', #16 AWG = 75', #14 AWG = 100'. For extended distances, contact factory.

- **DIMMING:** 0-10V controls standard to 1%
- **CONTROLS:** Contact factory for control options (e.g., Lutron Athena, Current NX, nLight, Enlighted, Encelium, Wattstopper, WaveLinx, or Casambi).
- **EMERGENCY:** Remote battery option is provided with 10W Constant Power Battery back-up, providing 90 Minutes of Emergency operation. Contact factory for other Emergency options.
- **INTEGRATED SURGE PROTECTION:** LED components are protected against minor surge events
- **CONSTRUCTION:** Extruded aluminum construction provides durable protection for internal components and is recyclable
- **FINISH:** Housing available in anodized finishes only. End caps and mounting components painted to match.
- **MODIFICATIONS:** Consult factory for all modification requests, including RGB and static LED colors
- **APPROVALS:** ETL listed to UL standards (US and Canada) for use in wet locations

SPI LIGHTING | P:262.242.1420 | SPIteam@spilighting.com | Last Revised: 1/24/2026 | Design Rights Reserved | SEW12146 | 2 of 8

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	1	XT2	SEW12146 6FT L24W AN08 120-277V 4000K SMA PSE OAP12

Styk Exterior Wall - Stem

SEW12146 2 in

SPI LIGHTING
PROJECT DETAILS

JOB NAME: SHEETZ
TYPE:
NOTES:

ORDERING CODE: SEW12146 | 5FT-L20W[AN08] | 120-277V | 4000K | SMA
*Please Note: Default specifications " **DF_XXX** " will not appear in the ordering code.*

DESCRIPTION

Styk was built to provide the most lumens with the smallest luminaire package, while optimizing life. Not limited to decorative lighting, effective functional lighting is provided through the optimal light control in this minimal package. It's three optical offerings enable tremendous flexibility including wall washing, wall grazing, and asymmetric lighting solutions. It is excellent at lighting signs and facades. The family features wall, ceiling, and pendant models in a variety of stylish, clean mounting options. Available in 1' to 8' lengths, Styk can be mounted individually or configured in runs.

IP66 WATER PROOF | LED | WET | EMR

FEATURES & BENEFITS

- Sleek 1.5" diameter housing
- A forward throw optic, for even wall wash illumination, is standard
- Symmetrical optic options are available for more volumetric illumination
- Lamp body can be rotated up to 330° and locks into position for precise fixture alignment
- Up to 1,450 lumens per foot delivered (with Forward Throw distribution)
- Up to 18" projection with no vertical support needed
- Anodized finish provides durable corrosion protection
- All visible fasteners are flush mounted, providing a clean design
- Handcrafted in USA

SPECIFICATIONS

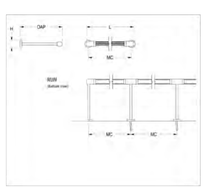
- **LIGHT SOURCE:** IP66 white LED light engine
- **CRI:** 80+ (contact factory for 90+)
- **LUMEN MAINTENANCE:** L70 = >50,000 Hrs.
- **EFFICACY:** 102 lm/W delivered (with Forward Throw distribution)
- **CCT:** 3000K, 3500K, or 4000K
- **VOLTAGE:** 120-277V standard
- **DRIVER:** Includes one remote damp listed Class 2 power supply and wet location enclosure, except 8FT-L113W which has two.

SPI LIGHTING | P:262.242.1420 | SPIteam@spilighting.com | Last Revised: 5/1/2023 | Design Rights Reserved | SEW12146 | 1 of 8

Black power cord standard unless otherwise specified. Max distance to the driver (including OAP) is: #18 AWG = 50', #16 AWG = 75', #14 AWG = 100'. For extended distances, contact factory.

- **DIMMING:** 0-10V controls standard to 1%
- **EMERGENCY:** Emergency battery remote optional
- **INTEGRATED SURGE PROTECTION:** LED components are protected against minor surge events
- **CONSTRUCTION:** Extruded aluminum construction provides durable protection for internal components and is recyclable
- **FINISH:** Housing available in anodized finishes only. End caps and mounting components painted to match.
- **MODIFICATIONS:** Consult factory for all modification requests, including RGB and static LED colors
- **APPROVALS:** ETL listed to UL standards (US and Canada) for use in wet locations

DIMENSIONS



1FT	L 17.5 in / 44.4 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 16.2 in / 41.1 cm
Mounting Weight: Approximate: 5 lb (3 kg)				
2FT	L 29.2 in / 74.2 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 28 in / 71.1 cm
Mounting Weight: Approximate: 5 lb (3 kg)				
3FT	L 41 in / 104.1 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 39.7 in / 100.8 cm
Mounting Weight: Approximate: 5 lb (3 kg)				
4FT	L 52.5 in / 133.4 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 51.2 in / 130 cm
Mounting Weight: Approximate: 5 lb (3 kg)				
5FT	L 64.5 in / 163.8 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 63.2 in / 160.5 cm
Mounting Weight: Approximate: 12 lb (5 kg)				
6FT	L 76.2 in / 198.8 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 77 in / 195.6 cm
Mounting Weight: Approximate: 10 lb (5 kg)				
8FT	L 102.2 in / 259.6 cm	H 2.2 in / 5.6 cm	OAP 12 in / 30.5 cm	MC 101 in / 256.5 cm
Mounting Weight: Approximate: 10 lb (5 kg)				

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SPI LIGHTING | P:262.242.1420 | SPIteam@spilighting.com | Last Revised: 5/1/2023 | Design Rights Reserved | SEW12146 | 2 of 8

	QTY	LABEL	DESCRIPTION
WALL MOUNTED	5	XX	VWM-H-L17/840-TL-DBZ-CGL-DIM-UNV (BRONZE COLOR 80CRI)

Shimstone Design Studio
LIGHTING DESIGN

SHEETZ 2.0

VWM LED Voltaire Mini Architectural Wall Pack

Williams

CATALOG #:
TYPE:
PROJECT:

FEATURES

- Designed to illuminate sidewalks, entryways, perimeters or facades
- Available in 3 lumen, both uplight and downlight applications
- Savings of up to 80% energy compared to 175W Mercury
- Blends seamlessly with a variety of architectural styles
- Available on QuickShip
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – Die-cast aluminum enclosure.
- THERMAL MANAGEMENT – Integral die-cast aluminum housing with fins provide passive thermal management. Operating temperature range: -30°C to 50°C (-5°C, LT3; -20°C to 40°C, LT2; -30°C, LT1).
- OPTICAL SYSTEM – General output provides full cutoff.
- LED SOURCE – 80CRI 3000K, 4000K, 5000K, 2700K (LT2 and LT3 only). Chip on circuit board design LT0 & LT1 Chip on board.
- LED DRIVER – 0-10V dimming.
- ELECTRICAL – 120-277 VAC input range; 50-60Hz; power factor >.90; THD <20% at full load. FCC Class A compliant. Static-free operation. Surge protection: Exceeds LTV +50,000 hours per EN 78-21.
- FINISH – Super durable polyester-powder coat finish over iron phosphate, multi-stage pretreated metal, meets and exceeds AAMA 2604 specs for outdoor durability.
- MOUNTING – Surface-mounting directly to a flat surface. Junction box must be anchored to adequate structure that can safely support fixture weight (8.5 Lbs).
- LISTINGS –
  - Listed/Certified as luminaire suitable for wet locations.
  - IDA Dark-Sky approved (downlight models only).
  - RoHS Compliant.
  - IP65 rated.
  - Title 24 compliant with PC option.
- WARRANTY – 5-year limited warranty, see www.williams-lighting.com/terms-and-conditions/.

ORDERING EXAMPLE: VWM H – 120/740 – T3 – DBZ – SOGL – OPTIONS – DIM – UNV

ORDERING INFO

SERIES	TYPE [1]	LUMENS [2]	CRI/CCT	DISTRIBUTION [3]
VWM	H Horizontal V Vertical	70 CRI L17 1,745Lm [4] L20 2,055Lm 80 CRI L10 1,200Lm L17 1,700Lm	70 CRI 740 3000K 740 4000K 740 5000K 80CRI 830 3000K 840 4000K	TL Lambertian distribution [5] T3 Type III [6]

FINISH OPTIONS [7]

BLK	Black (RAL #9004)
BRZ	Bronze (80CRI)
DBZ	Medium bronze
GRAY	Standard gray
SLV	Satin aluminum (RAL #9006)
WHT	White (RAL #9003)

SHIELDING

SOGL	Micro-prismatic tempered glass lens
CGL	Clear tempered glass lens

OPTIONS

PC	Button-style photocell [8]
SPD	10kA/10kV surge protection
TP	Tamper-resistant Torx head screws [9]

CONTROL

DIM	Dimming driver prewired for 0-10V low-voltage applications

VOLTAGE

120	120V
208	208V
240	240V
UNV	120-277V

ACCESSORIES

TPTX.25 TOOL Tamper-resistant tool for Torx head screws. [9]

QUICKSHIP

VWMH-L20/840-TL-DBZ-CGL-DS-DIM-UNV
VWMH-L17/840-TL-DBZ-CGL-DS-DIM-UNV

NOTES

1. See page 3 for FIXTURE DETAILS.
2. Lumen output based on 5000 CCT. Actual lumens may vary slightly from published data. See page 3 for DATA DETAILS.
3. See page 2 for DISTRIBUTION DETAILS.
4. Available in 80 CRI DIRECT only.
5. CCG LT only.
6. Type III only.
7. See page 3 for FINISH OPTIONS.
8. Factory-installed. 120V, 208V, or 277V only; must specify voltage. See page 3 for FIXTURE DETAILS. Left side when facing fixture is the standard location.
9. TP screws have silver finish only. Safety screws providing added security are standard. Tamper-resistant screwdriver (see fixture as ordered). Requires a tamper-resistant tool, see Accessories.
10. Tamper-resistant tool must be ordered separately. Please specify quantity required per project.

SDS Drafting No.: 0609.0

SDS PROJECT #: 0609.0 | **MODEL #:** REFER TO LIGHTING FIXTURE SCHEDULE FOR MODEL NUMBER AND DESCRIPTION | **TYPE: XS2**

Shimstone Design Studio LLC, 7400 1st Avenue, North Bergen, NJ 07047, Tell: 201.863.5380

Shimstone Design Studio
LIGHTING DESIGN

SHEETZ 2.0

VWM LED Voltaire Mini Architectural Wall Pack

FIXTURE PERFORMANCE DATA

	LED PACKAGE	DISTRIBUTION	WATTAGE	CCT	CLEAR GLASS (CGL) DELIVERED LUMENS	CLEAR GLASS (CGL) EFFICACY (lm/W)	SOFT GLASS (SOGL) DELIVERED LUMENS	SOFT GLASS (SOGL) EFFICACY (lm/W)	DLC NOTES
VWM	L10	TL	13	3000	1067	102	1047	100	DLc Q0-G0
				4000	1079	103	1059	101	
				5000	1024	98	1005	96	
	L17		18	3000	1624	92	1591	90	
				4000	1621	91	1607	91	
				5000	1594	90	1562	88	
	L20	T3	27	3000	2084	105	2031	101	DLc Q3-G1
				4000	2088	105	2034	101	
				5000	2020	76	2004	75	
VWMH	L10	TL	13	3000	1067	86	1065	86	DLc Q0-G0
				4000	1079	87	1076	87	
				5000	1021	103	1020	103	
	L17		18	3000	1622	102	1615	102	
				4000	1621	102	1614	102	
				5000	1588	99	1582	99	
	L20	T3	28	3000	2124	98	2105	97	DLc Q3-G1
				4000	2121	103	2092	102	
				5000	2121	104	2080	102	

- Wattage shown is average for 120V through 277V input.
- Efficacy/lumen output shown is average based on voltage input of 120V through 277V.
- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.

LUMEN MAINTENANCE

	AMBIENT TEMP.	ESTIMATED LIFE HOURS (TM-21)
VWM	25°C	>50,000
	40°C	>50,000
VWMH	40°C	>50,000
	25°C	>50,000
	30°C	>50,000
	40°C	>50,000

- Predicted lumen maintenance calculated from LED manufacturer IES LM-80 data and in-situ temperature measurements.
- Reported L70 hours in accordance with IES TM-21

DISTRIBUTION DETAILS

SDS Drafting No.: 0609.0

SDS PROJECT #: 0609.0 | **MODEL #:** REFER TO LIGHTING FIXTURE SCHEDULE FOR MODEL NUMBER AND DESCRIPTION | **TYPE: XS2**

Shimstone Design Studio LLC, 7400 1st Avenue, North Bergen, NJ 07047, Tell: 201.863.5380

REDLEONARD ASSOCIATES
1340 Kemper Meadow Dr, Forest Park, OH 45240
513-574-9500 | redleonard.com

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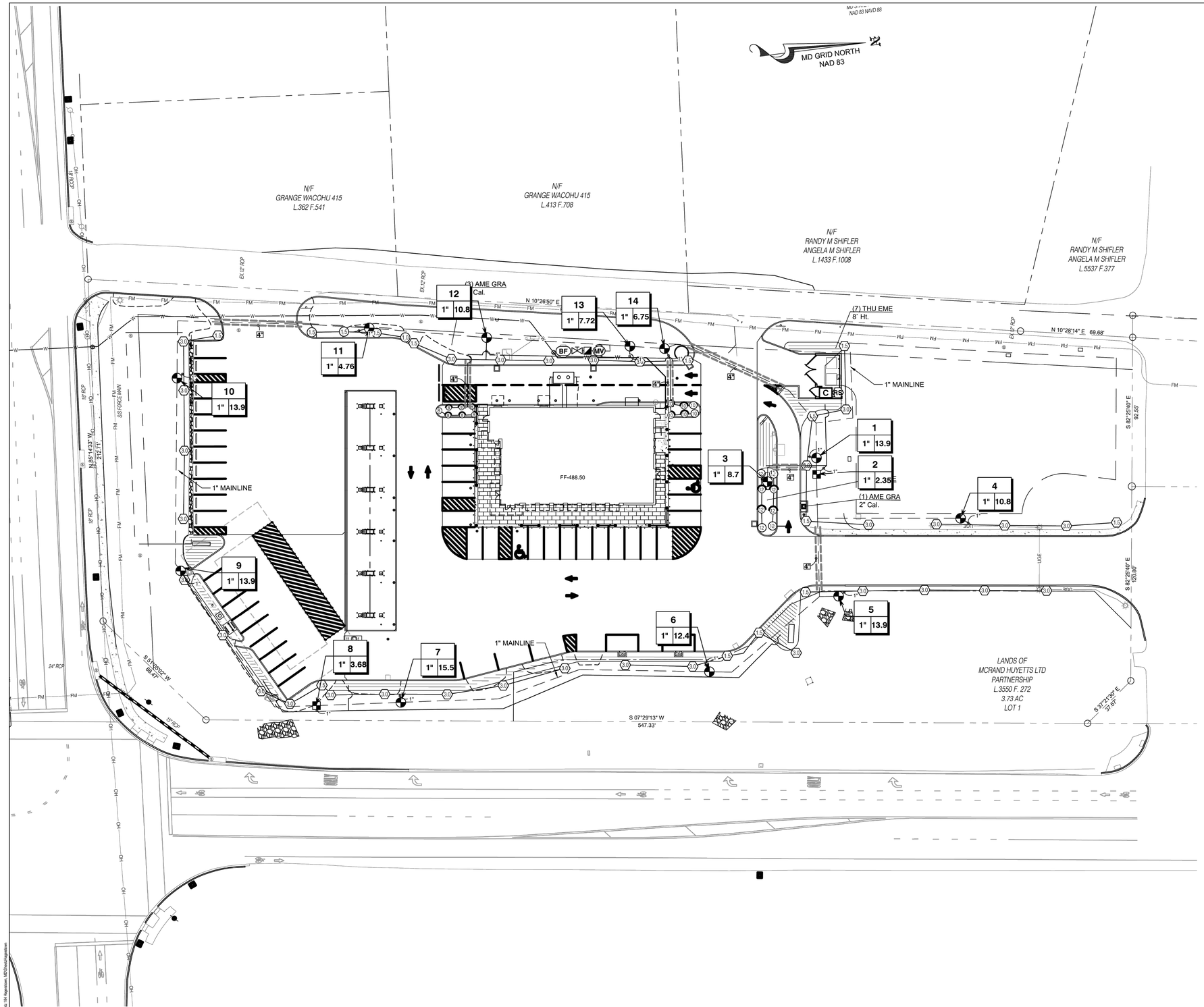
PROJECT NAME:
SHEETZ
HAGERSTOWN, MD
DRAWING NUMBER:
RL-10035-S1-R1

FRESH FOOD SHEETZ MADE TO ORDER



IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL
Q T H F	Rain Bird 1804 8 Series MPR
Q T H F	Rain Bird 1804 10 Series MPR
Q T H F	Rain Bird 1804 12 Series MPR
08HE-VAN 12HE-VAN 10HE-VAN 15HE-VAN	Rain Bird 1804 ADJ

SYMBOL	MANUFACTURER/MODEL
1.0	Rain Bird 3504-PC 1.0
1.5	Rain Bird 3504-PC 1.5
1.5	Rain Bird 5004-PC, FC 1.5
3.0	Rain Bird 5004-PC, FC 3.0

SYMBOL	MANUFACTURER/MODEL
	Rain Bird XCZPGA-100-PRF
	Area to Receive Dripline Rain Bird XFD-06-18 (22)

SYMBOL	MANUFACTURER/MODEL
	Rain Bird PGA Globe
	Rain Bird 5-RC
	Nibco T-113-K
MV	Rain Bird PGA Globe 1"
BF	Zurn 375 1"
C	Rain Bird ESPLXME2 w/ (1) ESPLXMSM12
RS	Rain Bird RSD-BEx
	Irrigation Lateral Line: PVC Class 200 SDR 21
	Irrigation Mainline: PVC Class 200 SDR 21
	Pipe Sleeve: PVC Schedule 40

Valve Callout

Valve Number
Valve Flow
Valve Size

NOTE:
- IRRIGATION HEADS ALONG STRAIGHT CURB TO BE MINIMUM 4"-6" OFF THE CURB
- HEADS AT DRIVEWAY CORNERS TO BE MINIMUM 5' OFF THE CURB
- VALVE BOXES TO BE 5' OFF CURB

North

30 0 30 60 90

SCALE: 1" = 30'

WC3 DESIGN
Irrigation Design & Consulting
www.wc3design.com
Tel: (844) 231-7042
Columbus, OH • Louisville, KY
Pittsburgh, PA

DEBRIE BEDWAY
28014
MARYLAND
COMMERCIAL

SHEETZ 184
LAGER DR
HAGERSTOWN, MD

Revisions:

Project Number:

Drawn by:
JM

Checked by:
DB

Date:
01/14/2025

Sheet Name:
IRRIGATION PLAN

Submission:

Sheet Number:
I 1.1

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WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....: Bowman Lightner - Phase 4
NUMBER.....: SP-25-002

OWNER.....: BOWMAN GROUP THE
LOCATION.....: 15935 SPIELMAN Road
Williamsport, MD 21795
DESCRIPTION.....: This project is for the addition to an existing gravel trailer storage lot. The proposed limit of disturbance is 1.9 acres.

ZONING.....: Highway Interchange
COMP PLAN LU.....: Agriculture
PARCEL.....: 02008424
PLANNING SECTOR.....: 1
ELECTION DISTRICT.....: 02

TYPE.....: Unspecified Non-Residential
GROSS ACRES.....: 63.68
DWELLING UNITS.....: 0
TOTAL LOTS.....: 1
DENSITY.....: 0 Units Per Acre

PLANNER.....: Misty Wagner-Grillo
ENGINEER.....: FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....: January 28, 2025

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....: No
WETLANDS.....: None
WATERSHED.....: Potomac River WA Cnty
ENDANGERED SPECIES.....: State Listed
STEEP SLOPES.....: No
STREAM BUFFER.....: No
HISTORIC INVENTORY.....: I377
EASEMENTS PRESENT.....: 43-100 SP-19-034

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE DESIGN

Impervious Area Plan	Impervious Maximum Allowed	Open Space Area Planned
63.2	80	
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
		N/A
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
		Yes
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Yes		
Loading Area Meets Requirements		
		Not Fast Track
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
0		
Parking Spaces - Minimum Required	**Recreational Parking Provided**	
0	No	

ACCESS SPACING VARIANCE NEEDED: No
NUMBER OF ACCESS POINTS: 1

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Fountain Rock	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	Williamsport
AMBULANCE DISTRICT.....:	Williamsport

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	County	County
SERVICE AREA.....:	County	County
PRIORITY.....:	5-Long Term Planned Service	7-No Planned Service-Septic
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Conococheague

SITE PLAN

FOR

BOWMAN LIGHTNER - PHASE 4

SITUATED AT 15937 SPIELMAN ROAD △1

WEST OF THE INTERSECTION OF MD 63 AND MD 68

WILLIAMSPORT

WASHINGTON COUNTY, MARYLAND

APPROVALS △1

MD-ENG-6A
1/89

USDA
SCS

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:
Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 1.9 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY
237 CU. YDS. OF EXCAVATION AND APPROXIMATELY
5,738 CU. YDS. OF FILL.

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE DATE SEAL

WASHINGTON COUNTY
DIVISION OF ENGINEERING

APPROVED BY: _____

DATE: _____

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

01/23/25 — DATE
Donald Bowman — PRINTED NAME
SIGNATURE

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

01/23/25 — DATE
Donald Bowman — PRINTED NAME
SIGNATURE

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

04/24/2025 — DATE
20945 — REG. NO.
SIGNATURE

OWNER:
THE BOWMAN GROUP
10228 GOVERNOR LANE BOULEVARD - SUITE 3002
WILLIAMSPORT, MARYLAND 21795

ATTN: JEFF TEDRICK
EMAIL: JTEDRICK@DMBOWMAN.COM
PHONE: 301.582.1555

DEVELOPER:
BOWMAN DEVELOPMENT CORP.
10228 GOVERNOR LANE BOULEVARD - SUITE 3002
WILLIAMSPORT, MARYLAND 21795

ATTN: JEFF TEDRICK
EMAIL: JTEDRICK@DMBOWMAN.COM
PHONE: 301.582.1555

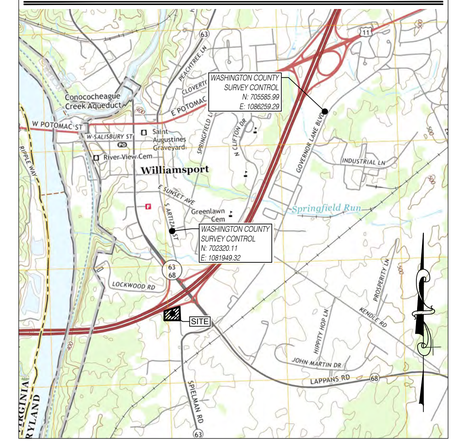
CIVIL ENGINEER / SURVEYOR:
FSA INC.
128 SOUTH POTOMAC STREET
HAGERSTOWN, MARYLAND 21740

PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
PHONE: 301.791.3650

VICINITY MAP

SCALE: 1" = 2000'

ADC MAP 24, K2
USGS MAPS (WILLIAMSPORT)



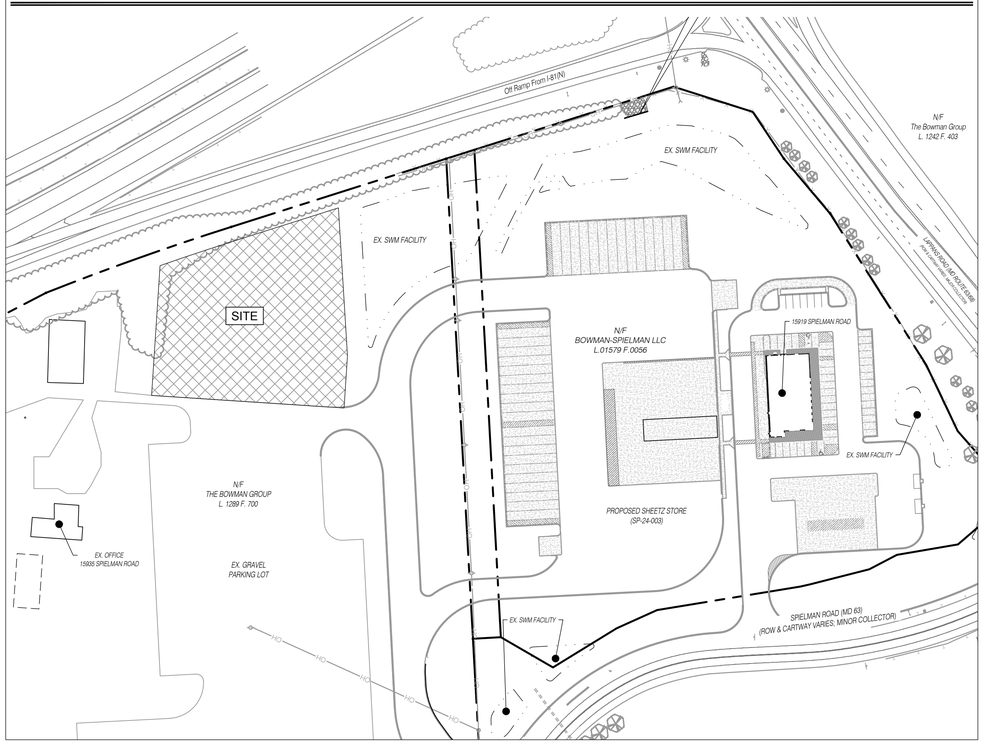
SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-002	SHEET 02	GENERAL NOTES
C-101	SHEET 03	EXISTING CONDITIONS
C-102	SHEET 04	SEDIMENT & EROSION CONTROL & GRADING PLAN
C-103	SHEET 05	SITE & DIMENSION PLAN
C-301	SHEET 06	STORMWATER MANAGEMENT PLAN, PROFILES, DETAILS, & NOTES
C-501	SHEET 07	CONSTRUCTION DETAILS - EROSION & SEDIMENT CONTROL
L-101	SHEET 08	LANDSCAPE PLAN, DETAILS, AND NOTES

LOCATION PLAN △2

SCALE: 1" = 100'

TAX MAP - GRID - PARCEL(S): 0056 - 0014 - 0149
PROPERTY ACCOUNT #02-008424



ESD PRACTICES SUMMARY TABLE				
CONSTRUCTION TYPE (NEW, REDEVELOPMENT, RESTORATION): **NEW**				
NON-ESD PRACTICES (CHAPTER 3 - STRUCTURAL PRACTICES)				
TYPE	DA TO STRUCTURE (AC.)	IMPERVIOUS DA TO STRUCTURE (DA)	ESDv (CF)	Pe ADDRESSED (IN)
BIORETENTION #1	7.11	4.40	36,335	2.32

SWM NARRATIVE

Introduction
This site plan is for the construction of a gravel trailer storage lot. The proposed site disturbed area is 1.90 acres and the proposed impervious area is 1.20 acres. The project is located north of Spielman Road, west of the intersection of Spielman Road and Lappans Road in Williamsport, Washington County, Maryland. The property is currently zoned Highway Interchange District (HI), as determined by Washington County and is identified as parcel 149 within tax map 56 of Washington County. The property is a total of 63.68 acres.

Past, Present and Proposed Land Use
The site has historically been used for agricultural purposes. The land cover currently consists of meadow and tree rows. There are areas of steep slopes and highly erodible soils within the site, but all the existing steep slopes are man-made. There are no mapped floodplains and related buffers on the property.

Site Drainage Description
The site currently drains in a northerly direction toward a swale within the MDSHA R/W, which outlets to an existing 36" reinforced concrete pipe under the exit ramp from Interstate 81 North near the intersection of the ramp and Lappans Road (MD 68).

Post-Construction Stormwater Management
The post-construction requirements were modeled to align with the proposed Bioretention #1 per the Sheetz - Spielman Road Site Plan (SP-24-003). The ESD requirement was modeled by taking the ultimate development (including this proposed gravel lot) watershed to the previously mentioned proposed Bioretention #1 as the site area, and the ultimate development impervious area as the proposed impervious area.
The reconfigured Bioretention #1 will provide **36,335 CF** of ESDv, which is greater than the ESD requirement of **31,079 CF** for this watershed. The aforementioned Bioretention #1 will be expanded to provide additional surface storage (no additional media) as part of this project in order to control the 100-year flow due to discharging to the interstate ramp.

Downstream Impact
The watershed will discharge to the same location as it currently does. There will be no adverse impact to the downstream properties, as the flows leaving the property will be controlled for the 2, 10, 25, 50 and 100-year storm events.

Know what's **below.**
Call before you dig.

STATE OF MARYLAND — DAVID A. MOORE — 20945 — PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 20945
Expiration Date 06-23-2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 (301) 791-3650
1114 PHILLIPSPORT DRIVE GREENCASTLE, PA 17225 (717) 597-1647
555 SOUTH HANOVER STREET CARLISLE, PA 17013 (717) 243-1411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-7884
fsa-inc.com
© 2023

MARK	DESCRIPTION	DATE
△1	REVISED PER AGENCY COMMENTS	04.09.25
△2	REVISED PER AGENCY COMMENTS	04.24.25

BOWMAN LIGHTNER - PHASE 4
SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND
THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD. - SUITE 3002
ATTN: JEFF TEDRICK (301-582-1555)

PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER:	DAVE TROSTLE
EMAIL:	DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0056 - 0014 - 0149
SCALE	AS SHOWN

SHEET TITLE

COVER SHEET

C-001
SHEET 01 OF 08

SP-25-002

GENERAL NOTES 1 2

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Columbia Gas (New Buisness)	1-800-440-6111
Columbia Gas (Conflicts)	(301) 964-1065
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Soil Conservation District	(301) 797-6821

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. The contractor shall contact FSA Inc. prior to construction to verify site benchmarks.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
17. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
18. The existing site contours shown hereon are LIDAR 1' contours & proposed contours per the Sheetz - Spielman Road (SP-24-003) site plan where applicable. (Contour accuracy is to plus or minus one half the contour interval).
19. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
20. No site lighting is proposed for this project.
21. Applicant to provide as built mylars at the completion of the project.
22. This project has a projected start date of May 2025 and a completion date of June 2025.
23. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County, MD.
24. There are no Board of Zoning Appeals Cases for this property.
25. Proposed SWM will consist of on-site bio-retention facility.
26. There are no parks, open space within or adjoining the tract.
27. All existing drainage culverts and drainage easements are to be maintained and unaltered.
28. There are no existing or proposed pumping stations in this development.
29. No outdoor storage of materials except for trailer parking is allowed on the site.
30. There are no floodplains, wetlands, steep slopes and related buffers, or habitat of threatened or endangered species identified by the U.S. Fish and Wildlife Service per 50 CFR 17 as required to be shown by section 314 of the subdivision ordinance and section 4.21 of the Zoning Ordinance.
31. The subject property contains historic resources documented on the Washington County Historic Sites Inventory (WA-I-377). The Design Guidelines for Historic Properties should be referenced prior to exterior work or property grading to ensure disturbance to the resources included in the inventory is limited.

DIVISION OF PLAN REVIEW & PERMITTING NOTES

1. In conformance with the Stormwater Management Ordinance of Washington County, a performance security and executed maintenance agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans."
2. This project will require a third party qualified professional to be present at the preconstruction meeting. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
3. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Public Works.
4. Developer/Contractor shall contact the certifying engineer and the County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time tables.
5. This development plan must comply with the current Washington County Stormwater Management, Grading, Soil Erosion and Sediment Control. Ordinance.
6. All grading for this project shall be the full responsibility of the property owner.
7. No permanent structures (e.g., fences, sheds, play equipment, retaining walls) shall be permitted within any stormwater or storm drainage easement on this property.

ZONING DATA

ZONING DISTRICT	HI - HIGHWAY INTERCHANGE DISTRICT
BUILDING HEIGHT	75 FT
MINIMUM YARD SETBACK:	
FRONT	40 FT.
*SIDE	25 FT.
*REAR	25 FT.

*EXCEPT WHEN ADJACENT TO RESIDENTIAL DEVELOPMENT, IT SHALL BE 50 FEET

SITE DATA 1

TAX MAP - GRID - PARCEL	0056-0019-0149
ELECTION DISTRICT	02
ACCOUNT NUMBER	008424
LIBER / FOLIO	01289 / 00700
PARCEL AREA	63.38 Ac.
AREA SUMMARY:	
DISTURBED AREA	83,000 SF / 1.90 Ac
EXISTING IMPERVIOUS	0 SF / 0.00 AC (0.0%)
PROPOSED TOTAL IMPERVIOUS	52,220 SF / 1.20 AC (63.2%)
FUNCTIONAL DESCRIPTION	TRUCK TERMINAL TO BE USED AS AN OVERFLOW EMPTY BOX TRAILER PARKING AREA
EMPLOYEE SUMMARY	0*
PARKING REQUIRED	N/A**
PARKING PROVIDED	N/A**
HOURS OF OPERATION	7:00 AM TO 6:00 PM (Monday - Saturday)
ADJACENT SITE PLANS	SP-19-034; SP-24-003
PROJECTED DAILY USE	12 TRIPS PER DAY***
WATER & SEWER USAGE:	
WATER PROVIDED	N/A
SEWER PROVIDED	N/A
EXISTING WATER ALLOCATION	0 GPD
PROPOSED WATER ALLOCATION	0 GPD
EXISTING WASTEWATER ALLOCATION	0 GPD
PROPOSED WASTEWATER ALLOCATION	0 GPD
WASTE & RECYCLABLES:	
SOLID WASTE REMOVAL	N/A
RECYCLE REMOVAL	N/A
SITE LIGHTING:	
EXISTING	NONE
PROPOSED	NONE
SITE SIGNAGE:	
EXISTING	NONE
PROPOSED	NONE
ADDRESS ASSIGNMENT	N/A
FOREST CONSERVATION	TBD
FOREST STAND DELINEATION	FS-19-026
WATERSHED:	
NAME	POTOMAC RIVER WASHINGTON COUNTY
NUMBER	02-14-05-01
FEMA PANEL #	24043C0279D

*No Employees will be on site unless they are bringing or taking away trailers from the site area. All employees are at D.M. Bowman Trucking Terminal at 10038 Governor Lane Blvd. or at Bowman Sales and Equipment, Inc. at 10233 Governor Lane Blvd.

**No Parking will be required for the trailer storage area.

***This parking area will serve as and overflow empty truck box trailer parking area. Trailers will be shifted in and out to satisfy current demand. Actual precise lengths of stay are impossible to predict therefore the numbers shown hereon represent reasonable numbers.

LEGEND

EXISTING / PROPOSED

SUBJECT BOUNDARY
BUILDING SETBACK LINE
RIGHT OF WAY
EASEMENT LINE
ADJOINER BOUNDARY
FENCE (METAL)
FENCE (WOODEN)
DITCH (STREAM)
EDGE OF WATER
WETLAND
FLOODPLAIN
SOIL BOUNDARY
RAILWAY
CENTERLINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
CURB
WALL
GUARD RAIL
EDGE OF CONCRETE
BUILDING
MAIL BOX
SIGN (ROAD)
SIGN (SITE)
TRAFFIC SIGNAL

TOPOGRAPHIC FEATURES
CONTOUR (INDEX)
CONTOUR (INTERMEDIATE)
SPOTS ELEVATION

VEGETATION AREAS
TREELINE
DECIDUOUS TREES — SEE LANDSCAPE SHEET FOR LEGEND
EVERGREEN TREES — SEE LANDSCAPE SHEET FOR LEGEND

SANITARY SEWER
GRAVITY LINE
FORCE MAIN LINE
LATERAL
MANHOLE
CLEANOUT
VALVE

WATER
COLD WATER LINE
HOT WATER LINE
MANHOLE
FIRE HYDRANT
VALVE
METER
WELL

STORM DRAINAGE
STORM SEWER LINE
ROOF DRAIN LINE
MANHOLE
INLETS
CLEANOUT

UTILITIES
GAS LINE
ELECTRICAL LINE
FIBER OPTIC LINE
COMMUNICATION LINE
OVERHEAD LINES
MANHOLE
PEDS, BOX, & ETC
POLE
LIGHT POLE
GAS METER
GAS VALVE

LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS	OC	ON CENTER
ADS	ADVANCED DRAINAGE SYSTEM	PC	POINT OF CURVE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL	PCC	POINT OF COMPOUND CURVE
AWWA	AMERICAN WATER WORKS ASSOCIATION	PGL	PROPOSED GRADE LINE
BLDG	BUILDING	PRC	POINT OF REVERSE CURVE
BOT	BOTTOM	PT	POINT OF TANGENT
CIP	CAST IRON PIPE	PVC	POINT OF VERTICAL CURVE
CL	CENTERLINE	PVI	POINT OF VERTICAL INTERSECTION
CMP	CORRUGATED METAL PIPE	PVT	POINT OF VERTICAL TANGENT
CO	SANITARY SEWER CLEAN-OUT	ROW	RIGHT-OF-WAY
COMM	COMMUNICATION	SAN	SANITARY
CONC	CONCRETE	SCE	STABILIZED CONSTRUCTION ENTRANCE
DA	DRAINAGE AREA	SDR	STANDARD DIMENSION RATIO
DIA	DIAMETER	SIP	SET IRON PIN
EGL	EXISTING GRADE LINE	SD	STORM DRAINAGE
EX	EXISTING	SDMH	STORM DRAIN MANHOLE
EIP	EXISTING IRON PIN	SF	SQUARE FEET
FFE	FINISH FLOOR ELEVATION	SS	SANITARY SEWER
FH	FIRE HYDRANT	SSMH	SANITARY SEWER MANHOLE
GV	GATE VALVE	STA	STATION
HGL	HYDRAULIC GRADE LINE	STD	STANDARD
HDPE	HIGH DENSITY POLYETHYLENE	SY	SQUARE YARDS
INV	INVERT	TAN	TYPE AS NOTED
LF	LINEAR FEET	TEMP	TEMPORARY
MAX	MAXIMUM	TS	TOP OF STRUCTURE
MB	MAIL BOX	TG	TOP OF GRATE
MIN	MINIMUM	TR	TOP OF RIM
MJ	MECHANICAL JOINT	TYP	TYPICAL
NO	NUMBER	U/P	UTILITY POLE
NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
NTS	NOT TO SCALE	WL	WATERLINE
OAC	OR APPROVED EQUAL	WM	WATER METER
		WV	WATER VALVE

STATE OF MARYLAND — MATTHEW J. MOORE — No. 20983 — PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 20983
Expiration Date 06.23.2025

FSA
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11142 WILLIAMSPORT PIKE, GREENCASTLE, PA 17225 717-597-1407
128 SOUTH POTOMAC STREET, HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	04.09.25
2	REVISED PER AGENCY COMMENTS	04.24.25

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD. - SUITE 3002
ATTN: JEFF FEDRICK (301-582-1555)

PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER:	DAVE TROSTLE
EMAIL:	DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0056 - 0014 - 0149
SCALE	N.T.S.
SHEET TITLE	GENERAL NOTES

C-002
SHEET 02 OF 08

SP-25-002

P:\SHARED FOLDERS\PROJECTS\7000-7519.2\CIVIL\SITE PLAN\7519.2 - 01-02 - CIVIL\SITE & GENERAL NOTES.DWG - 2025-04-24

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	274.91'	3925.00'	4°00'47"	N 70°23'37" E	274.85'

SOIL CHART

SOILS	H.S.G.	Ratio (%)	Kw
HaB	B	68.6%	0.37
HbC	B	23.9%	0.37
Ud	C	7.5%	0.32

Highly Erodible Soils & Steep Slopes (Slopes≥25% or Slopes>15% and K_w≥0.35)

NONE — Wetlands

NONE — Wetlands Buffer

Full Depth SWM Media (Under Construction - Per SP-24-003)

Grass SWM Area (Under Construction - Per SP-24-003)

Soils

NOTES:

1. THIS PARCEL DOES NOT LIE IN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 24043C0279D DATED 08-15-2017, FLOOD ZONE X.
2. THERE ARE NO WETLANDS WITHIN THIS PARCEL.
3. THERE ARE STEEP SLOPES AND HIGHLY ERODIBLE SOILS FOUND WITHIN THE PARCELS.
4. ALL EXISTING STEEP SLOPES ON THIS SITE ARE MAN MADE.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MARYLAND
KEITH A. MOORE
No. 20949
PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 20949
Expiration Date 06-23-2025

FSA
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11142 FILLMAN SPOT PIKE GREENCASTLE, PA 17225 717-597-1407
305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-1411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2884

MARK	DESCRIPTION	DATE
2	REVISED PER AGENCY COMMENTS	04.24.25

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD., SUITE 3002
ATTN: JEFF TEDRICK (301-582-1555)

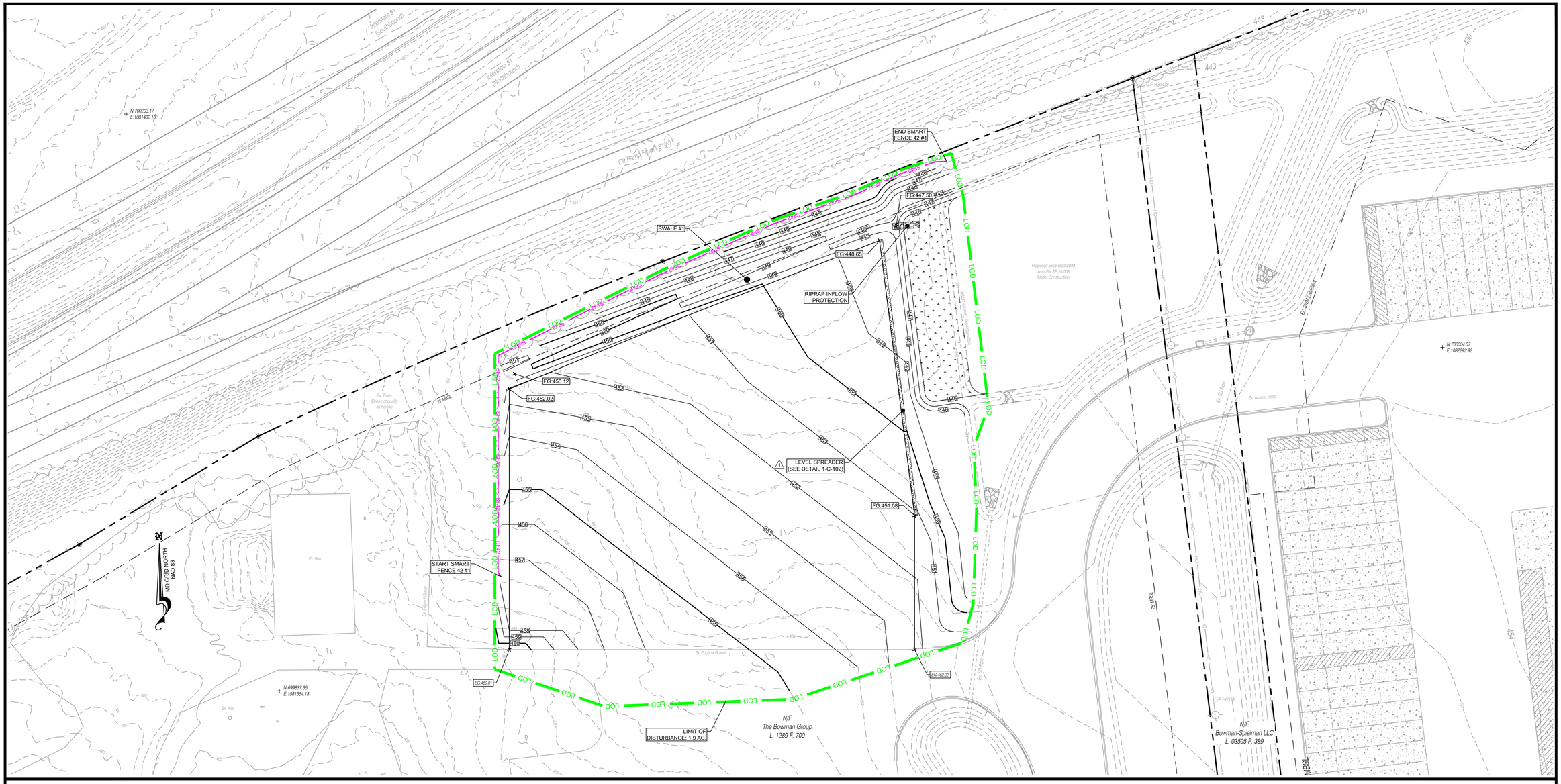
PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER: DAVE TROSTLE	
EMAIL: DTROSTLE@FSA-INC.COM	
TAX MAP - GRID - PARCEL: 0056 - 0014 - 0149	
SCALE: 1" = 30'	

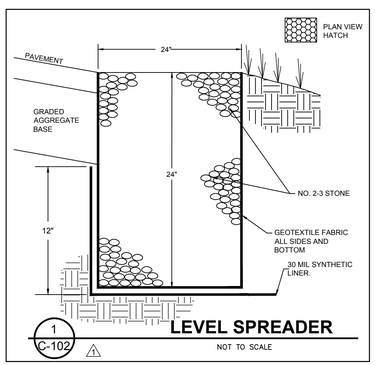
SHEET TITLE

EXISTING CONDITIONS

C-101
SHEET 03 OF 08

SP-25-002





GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

GENERAL NOTES:

1. AREAS OF EXCAVATION IN STEEP SLOPES OR HIGHLY ERODIBLE SOILS SHALL BE STABILIZED IMMEDIATELY AFTER BROUGHT TO FINAL GRADE. SEED/MULCH AND MATTING SHALL BE APPLIED TO PROTECT THESE SLOPES FROM EROSION.
2. ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

HATCH LEGEND

PROPOSED BMP EXPANSION

SWALE SCHEDULE

ID	Q10 (CFS)	V10 (FPS)	SLOPE (%)	CHANNEL WIDTH (FT)	FLOW DEPTH (FT)	MATTING TYPE	CHECK DAM REQ.
1	3.83	2.11	1.0	3.00	0.43	TEMPORARY	NO

SMART FENCE 42 TABLE

NUMBER	TYPE	LENGTH (FT)	AVERAGE SLOPE (%)	SLOPE LENGTH (FT)	MAX SLOPE LENGTH (FT)
1	SMART FENCE 42	445	33.33	18	N/A

General E&S Notes:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to remove excavated materials to an approved location to waste materials.
3. All fill material should be brought from a location with an approved and current sediment erosion control plan.
4. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
5. If dewatering of the trench is required, contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets immediately of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed and mulch or appropriate street repair.
8. All slopes 4:1 or greater to be stabilized with temporary matting immediatley.
9. Place 4" minimum topsoil in all green areas before permanent seeding is performed.
10. The USDA soil survey of Washington County shows the soils on this site as being karst landscape soils. Please be alert to the possibility of sinkhole formation.
11. All sinkholes that are present or develop during construction must be remediated and certified by the site Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.
12. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20GP, or an Individual Permit.
13. The Maryland Department of the Environment (General/Individual Permit – Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.
14. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit – Notice of Intent – NOI).
15. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit – Notice of Termination-NOT.

SEQUENCE OF CONSTRUCTION △1

1. The construction of this plan is to occur prior to the final conversion of BMPs proposed on the Sheetz - Spielman Road (SP-24-003) site plan.
2. Contractor to contact FSA, Inc. (301) 791-3650, the WCDPW Engineering & Construction (240) 313-2400, and WCSCD (301) 797-6821 at least five (5) days prior to the start of any earthwork to schedule a pre construction meeting.
3. Before any construction activity begins the contractor is to contact Frederick Seibert & Associates, Inc. at 301-791-3650 to verify site benchmarks.
4. Contractor to access site from existing gravel. If any tracking of mud or dirt occurs on a public road the contractor must immediately clean the roadway.
5. Install all perimeter controls, (i.e. Smart Fence 42) There are no known sinkholes on site, but contractor shall remediate all sinkholes (if discovered) prior to beginning any earth disturbance.
6. Contractor to begin grading by stripping site of all topsoil and organic material. Topsoil shall be taken off-site to a site with an approved sediment and erosion control plan. As stated previously, there are no known sinkholes on site, but if any are discovered and any that develop during construction must be remediated and certified by the Geotechnical Engineer. Contractor to contact Geotechnical Engineer immediately after the discovery of any sinkhole.
7. The contractor shall stabilize all disturbed areas with seed and mulch and temporary erosion control matting where needed after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days. Areas of highly erodible soils and steep slopes to be stabilized immediately after grading with temporary matting.
8. The contractor may excavate borrow pits (excavated SWM areas) for fill material.
9. Contractor to bring the site to grade & construct Swale #1. Once this portion of the site is brought to grade the contractor can begin construction of the parking lot.
10. Once the parking lot is stabilized the contractor is to contact FSA, Inc. (301) 791-3650, WCSCD (301) 797-6821, and the Washington Co. DPW - Engineering and Construction (240) 313-2400 for approval prior to the construction of Bioretention #1, installation of the liner,media, and prior to the placement of the temporary matting and/or riprap, and to schedule the required inspections. Conversion of the BMP shall be coordinated with the Sheetz (SP-24-003) construction so that the conversion of the entire facility is completed at once after the entirety of the final drainage area is stabilized.
11. Contractor to final grade site. Stabilize all disturbed areas with seed and mulch after construction operations are complete.
12. Contractor to install landscaping per the Landscape Plan (L-101).
13. All excess debris or construction material to be taken offsite to approved site with an approved and current sediment & erosion control plan.
14. Contractor to contact FSA, Inc. (301) 791-3650 and WCSCD (301) 797-6821 at least 5 days prior to the removal of any sediment control features to schedule a final site close out review and meeting. Vegetation must meet the 95% overall stabilization requirement per the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control prior to scheduling said meeting.
15. Once approval is granted and temporary sediment and erosion controls are removed, complete further stabilization in those areas.

STATE OF MARYLAND
KEITH ALAN MOORE
No. 20949
PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 20949.
Expiration Date 06.23.2025

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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11142 FULLER STREET GREENCASTLE, PA 17225 717-597-1837
305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-9411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	04.09.25

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 SOVERNOR LANE BLVD - SUITE 3002
ATTN: JEFF TEDRICK (301-582-1555)

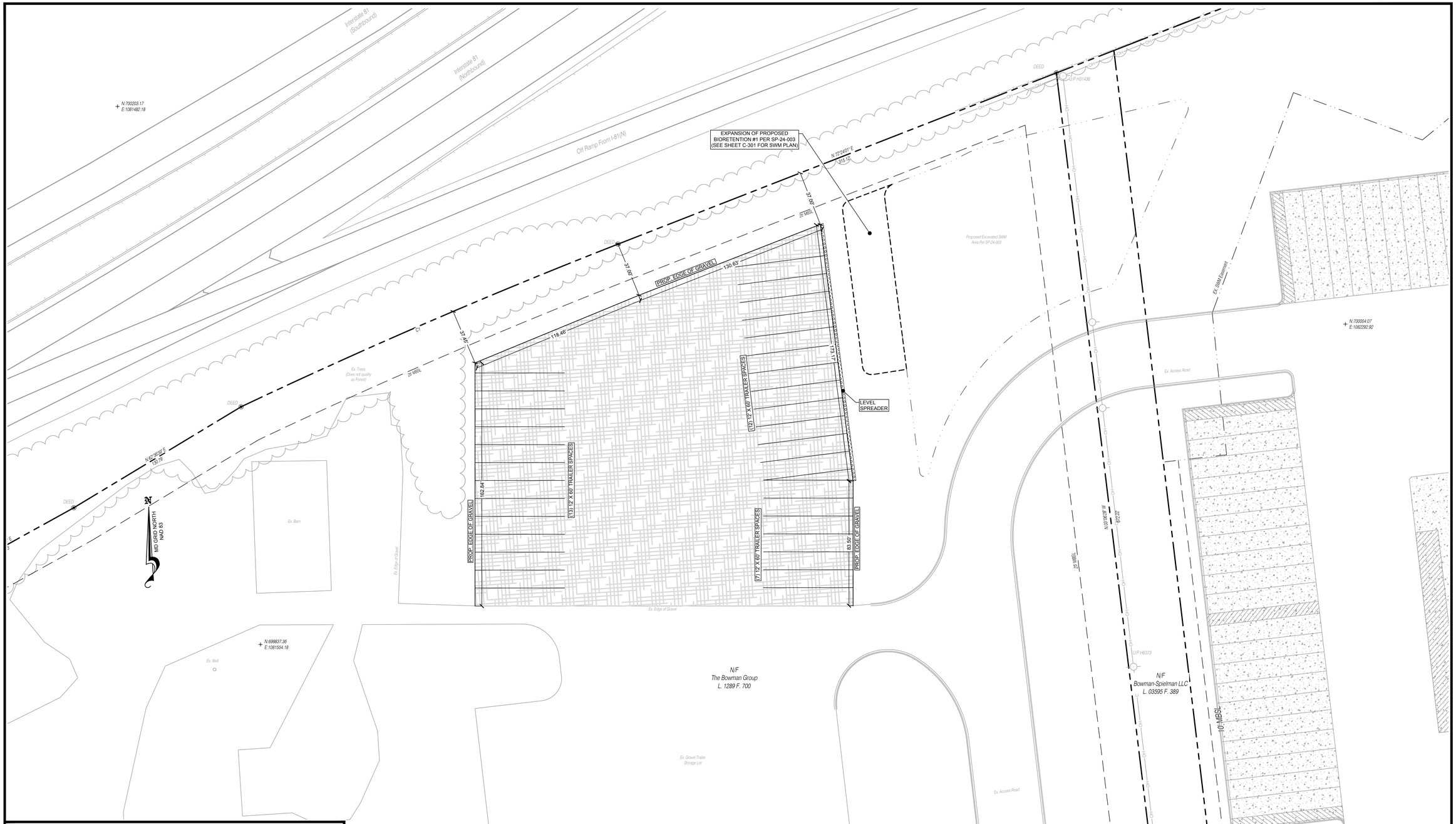
PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER:	DAVE TROSTLE
EMAIL:	DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0056 - 0014 - 0149
SCALE	1" = 30'

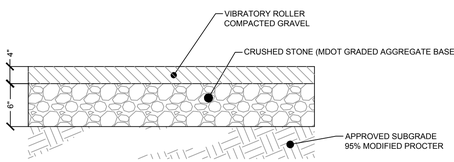
SHEET TITLE

ESC & GRADING PLAN

C-102
SHEET 04 OF 08

SP-25-002





SECTION

1
C-103

Pavement - Gravel

NOT TO SCALE

HATCH LEGEND

PROPOSED GRAVEL PAVEMENT (1-C-103)

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	274.91'	3925.00'	4°00'47"	N 70°23'37" E	274.85'

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MARYLAND
KENTON T. MOORE
No. 20949
REGISTERED
PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 20949
Expiration Date 06.23.2025

FSA
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11142 FULLER STREET GREENCASTLE, PA 17225 717.597.1407
305 SOUTH HANOVER STREET CARLISLE, PA 17013 717.249.0411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.582.2161

MARK	DESCRIPTION	DATE

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 68 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD - SUITE 3002
ATTN: JEFF TEDRICK (301-582-1555)

PROJECT NO. 7519.2
DWN BY KODY WARD
DATE 01.23.2025
PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0056 - 0014 - 0149
SCALE 1" = 30'
SHEET TITLE

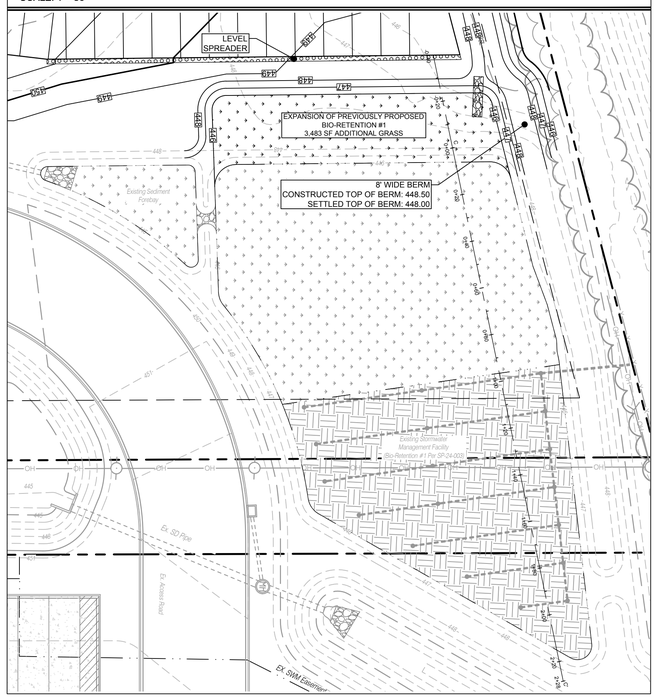
SITE AND DIMENSION PLAN

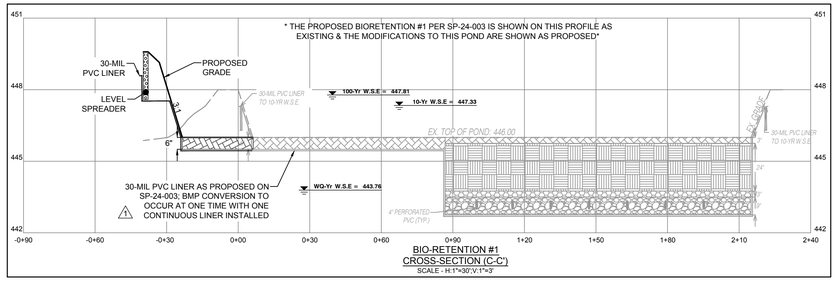
C-103
SHEET 05 OF 08

SP-25-002

BIO-RETENTION #1

SCALE: 1"=30'





BIO-RETENTION #1
CROSS-SECTION (C-C')
SCALE - H:1"=30',V:1"=2'

PROFILE HATCH LEGEND

Proposed Topsoil

Table B-4.1 Material Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration

Material	Specification	Size	Notes
Plantings	**see planting list**	**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	**minimum 10% by weight (ASTM D 2974)**		
Mulch	**shredded hardwood**	**n/a**	**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		**n/a**	**PE Type 1 nonwoven**
Gravel (underdrains and infiltration berms)	**AASHTO M-43**	**NO. 57 OR NO. 6 AGGREGATE (3/8" to 3/4")**	
Underdrain piping	**F 758, Type PS 28 or AASHTO M-278**	**4"-6" rigid sch. 40 PVC or SDR35**	**Slotted or perforated pipe; 3/8" perf. @ 6" o/c, 4 holes/row; min. 3' of gravel over pipes; not necessary underneath pipes.**
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 engineer licensed in the State of Maryland - design to include meeting ACI Code 360.R/99; 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 substitution 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.**
Compost	**MSHA Standard Specifications for Construction and Materials, July 2008 920.02.06 Compost**	**Uniform particle size of 0.5" or less**	**Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.**

Bio-Retention Schedule

No.	Expansion Area	Ponding Depth (FT.)	Finish Grade Elev.	Top Berm	Berm Width	Liner Required	10-Yr WSEL	100-Yr WSEL
Bio #1	3,483	1.00'	446.00	448.00	8'	YES	447.33	447.81

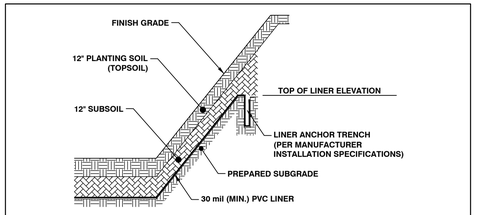
GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

PLAN VIEW HATCH LEGEND

- **Expansion to Previously Proposed Bioretention #1**
- **Previously Proposed Bioretention #1 Grass Area (Per SP-24-003; Under Construction)**
- **Previously Proposed Bioretention #1 Full-Depth Media (Per SP-24-003; Under Construction)**



1
C-301

LINER ANCHOR TRENCH

NOT TO SCALE

Notice of Required Stormwater Management Inspections
Bioretention Facilities

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		Bio #1
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	

The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

Operation and Maintenance Plan
Bioretention & Sand Filters

Inspection Item	Inspection Requirements	Remedial Action
Maintenance Access		
General	**Check for accessibility to facility; excessive vegetation; surface stability**	**Repair erosion and maintain access surface in good condition**
Pretreatment		
Grass filter strip or sand layer	**Check for sediment accumulation**	**Remove sediment as needed**
Optional sand layer	**Check sand for staining and sediment accumulation**	**If contaminated, replace first three inches of sand layer**
Gravel diaphragm	**Check for sediment accumulation and evidence of erosion**	**Remove sediment and replace gravel as needed**
Mulch layer	**Check for a 2-3 inch mulch layer**	**Remove mulch and replace as needed**
Filter Bed		
Dewatering	**Check for dewatering within 48 hours of rainfall; noticeable odors; water stains on the filter surface or at the outlet; presence of algae or aquatic vegetation**	**Remove mulch and the top 3-6 inches of soil/sediment and replace with suitable materials per plan specifications; follow up inspections shall confirm adequate dewatering; contact the plan approval authority if the facility does not function as intended**
Sediment	**Check for sediment accumulation**	**Remove sediment as needed**
Mulch layer	**Check for adequate cover; sediment accumulation; discoloration**	**Remove and replace mulch and excess sediment as needed**
Vegetation		
Plant composition and health	**Check for plant composition according to approved plans;**	**Remove and replace plants as necessary**
Vegetative cover/erosion	**invasive species, weeds, and dead or dying vegetation**	**Repair/grade and stabilize as needed**
Outlets	**Check for erosion, runoff channelizing, or bare spots**	
Underdrain system	**Check outlet end to ensure that discharge is not obstructed;**	**Remove any flow obstructions; grade and stabilize any eroded areas to provide stable conveyance**
Overflow spillway	**check for erosion Check for displacement of rip-rap, stable conveyance, and**	**Repair and replace as needed**
Conveyance Systems	**erosion below the outlet**	
General	**Check for erosion, flow blockages or bypass, and stable**	**Repair/replace and stabilize as needed**
Flow diversion	**conveyance**	**Repair as necessary**
Trash and Debris	**Check flow splitter for proper functioning**	
		Trash and debris shall be disposed of in an acceptable manner
Structural Components	**Check for trash and debris accumulation**	
		Repair according to specifications on the approved plans
	Check for structural deterioration, spalling or cracking	

Field conditions may require a modification to the original approval in order to achieve the intended design function. The plan approval authority should be contacted for review and approval of all proposed modifications. Inspection and maintenance should occur after any major rain event (e.g., meeting or exceeding the design rainfall depth for the facility).

Pond MD-378
NRCS - MARYLAND JANUARY 2000
CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

Site Preparation
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the em-bankment.
Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush, and stumps shall be cut approximately level with the ground surface. For dry stormwater management ponds, a minimum of a 25-foot radius around the inlet structure shall be cleared.
All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

Earth Fill
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment, and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer. Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of the fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble, yet not be so wet that water can be squeezed out. When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within ±2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Specifications for Bioretention

(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications
The allowable materials to be used in bioretention areas are detailed in Table B.4.1.

Berm Construction
Berms to be constructed to MD378 specifications for material, placement, and compaction.

Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
- Organic Content - Minimum 10% by dry weight (ASTM D 2974). In general, this can be met with a mixture of loamy sand (60%-65%) and compost (35% to 40%) or sandy loam (30%), coarse sand (30%), and compost (40%).
- Clay Content - Media shall have a clay content of less than 5%.
- pH Range - Should be between 5.5 - 7.0. Amendments (e.g., lime, iron sulfate plus sulfur) may be mixed into the soil to increase or decrease pH.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts. A textural analysis is required from the site stockpiled topsoil. If topsoil is imported, then a texture analysis shall be performed for each location where the topsoil was excavated.

Compaction
It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil. If bioretention areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the bioretention area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the bioretention area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade bioretention materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Material
Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

Plant Installation
Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3". Shredded or chipped hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable. Shredded mulch must be well aged (6 to 12 months) for acceptance.

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. the primary function of the bioretention structure is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains
Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ⅜" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (⅛" to ¾" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilize.

Bio-retention berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

Stormwater Management Facilities Construction Inspection Requirements

1. **The developer/contractor shall notify the Division of Public Works ("DPW") at least five (5) days before commencing any work in conjunction with the approved final stormwater management plan and upon completion of the project when a final inspection will be conducted.**
2. **Regular inspections shall be made and documented for each structural ESD planning technique and practice and structural stormwater measures every 2 weeks and at the required critical inspection stages identified in the attached checklists and the Washington County SWM, Grading, Soil Erosion and Sediment Control Ordinance.**
3. **All non-structural practices shall be inspected, at a minimum, upon completion of final grading, the establishment of permanent stabilization, and before issuance of use and occupancy permit.**
4. **Inspections shall be conducted by DPW, the MDE (as applicable), and by the Verifying Professional. Inspections performed by the DPW are not to be considered a substitute for those inspections required by the Verifying Professional. Written inspection reports shall be prepared by the Verifying Professional during construction of ESD planning techniques and practices plans. Copies of all inspection reports shall be provided to DPW by the person performing the inspection and kept on file with DPW.**
5. **Written inspection reports are required and shall be submitted in a manner consistent with the Public Works Agreement and this Article and in a format approved by DPW, and shall include, at a minimum:**
   - **5.a. The date and location of the inspection;**
   - **5.b. Work observed;**
   - **5.c. Photos;**
   - **5.d. Tests performed;**
   - **5.e. Whether construction was in compliance with the approved stormwater management plan;**
   - **5.f. Any variations from the approved construction specifications;**
   - **5.g. Any violations that exist;**
   - **5.h. Signature and date of Verifying Professional.**
6. **Failure to comply with these inspection requirements and/or obtain approval from the Verifying Professional or DPW at the required construction stages will result in disapproval of the facility, delays of final acceptance and permit release.**
7. **The developer, DPW, the MDE, Verifying Professional, and on-site personnel shall be notified in writing when violations are observed. Written notification shall be made by the person discovering the violation and shall describe the nature of the violation and the required corrective action. No further work affected by the violation shall proceed until the corrective action is inspected and approved in writing by the Verifying Professional, the Division, MDE (as applicable), and the District (as applicable).**
8. **DPW may require adjustments to address items overlooked or inappropriately addressed by the plans. Such adjustments may be required during construction or at the final inspection.**
9. **The County may require a revision to the approved construction drawings or site plans be submitted and approved by the DPW, the Division of Community Development (as applicable), the MDE (as applicable) and the District prior to continuation of construction activity.**
10. **No work shall proceed beyond the construction stages specified in attached Checklists and the Washington County SWM, Grading, Soil Erosion and Sediment Control Ordinance until DPW and the Verifying Professional inspect and approve the work previously completed and the Verifying Professional furnishes the DPW and developer with the results of the inspection reports as soon as possible after completion of each required inspection.**

STORMWATER MANAGEMENT SEED MIX NOTES

SITE PREPARATION
Invasive species, particularly those that will adapt to wet conditions, should be removed or sprayed before they become incorporated into the site. Spot spray or hand pull problem weeds. Perennial weeds not addressed before establishment will be difficult to remove later.

SEEDING AND PLANTING METHODS
Seeding and planting should begin immediately upon completion of the structure while the soil is still friable and before invasive weeds emerge. Plan seeding and planting before the basin is flooded or allow the basin to drain to a few inches before seeding. Broadcast seed evenly over each unit by hand seeding or hydroseeding. The use of native species can provide temporary vegetation to protect the soil in SWM facilities until permanent vegetation can become established. Straw mulch, or straw coconut mats are frequently used to control erosion and protect emerging seedlings from extreme temperatures and drying out. Mulch should be sparse in order to allow sunlight to reach the ground. Irrigating seeded areas is beneficial until seedlings become established.

FIRST GROWING SEASON MAINTENANCE
Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight, water and nutrients needed by slower growing, perennial natives. Mowing should not be done with a lawn mower as the mower height will be too low and native seedlings will be killed. Mowing should cease by mid-September.

SECOND AND SUBSEQUENT GROWING SEASON MAINTENANCE
Prior to new spring growth reaching a height of 2" trim any material standing from the previous year close to the ground (approximately 2"). This will allow the soil to warm more quickly which will stimulate emergence and growth of native seedlings.

SPECIAL CIRCUMSTANCES SECOND GROWING SEASON
If you notice a heavy infestation of ragweed or foxtail in the second growing season, trim the meadow to a height of 8". Trimming should cease after mid-September.

STATE OF MARYLAND
DOUGLAS MOORE
No. 20845
PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 20845
Expiration Date 06.23.2025

FSA
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11142 WILLIAMSPORT PIKE GREENCASTLE, PA 17225 (717) 597-1927
305 SOUTH HANOVER STREET CARLISLE, PA 17013 (717) 243-8011
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-7844
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MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	04.09.25

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD - SUITE 3002
ATTN: JEFF TEDRICK (301) 582-1555

PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER: DAVE TROSTLE	
EMAIL: DTROSTLE@FSA-INC.COM	
TAX MAP - GRID - PARCEL: 0056 - 0014 - 0149	
SCALE: AS SHOWN	

SHEET TITLE
SWM PLAN

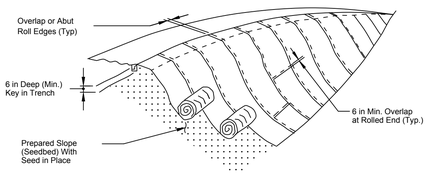
C-301
SHEET 06 OF 08

SP-25-002

1 C-501 Detail B-4-6-B Temporary Soil Stabilization Matting Slope Application

Standard Symbol

TSSMS – * lb/ft²
(* Include Shear Stress)



Isometric View

Construction Specifications

1. Use matting that has a design value for shear stress equal to or higher than the shear stress designated on approved plans.
2. Use temporary soil stabilization matting made of degradable (lasts 6 months minimum) natural or man-made fibers (mostly organic). Mat must have uniform thickness and distribution of fibers throughout and be smolder resistant. Chemicals used in the mat must be non-leaching and non-toxic to vegetation and seed germination and non-injurious to the skin. If present, netting must be extruded plastic with a maximum mesh opening of 2x2 inches and sufficiently bonded or sewn on 2 inch centers along longitudinal axis of the material to prevent separation of the net from the parent material.
3. Secure matting using steel staples, wood stakes, or biodegradable equivalent. staples must be "u" or "t" shaped steel wire having a minimum gauge of no. 11 and no. 8 respectively. "U" shaped staples must average 1 to 1½ inches wide and be a minimum of 6 inches long. "T" shaped staples must have a minimum 8 inch main leg, a minimum 1 inch secondary leg, and a minimum 4 inch head. Wood stakes must be rough-sawn hardwood, 12 to 24 inches in length, 1x3 inch in cross section, and wedge shaped at the bottom.
4. Perform final grading, topsoil application, seedbed preparation, and permanent seeding in accordance with specifications. Place matting within 48 hours of completing seeding operations unless end of workday stabilization is specified on the approved erosion & sediment control plan.
5. Unroll matting downslope. Lay mat smoothly and firmly upon the seeded surface. Avoid stretching the matting.
6. Overlap or abut roll edges per manufacturer recommendations. Overlap roll ends by 6 inches (minimum), with the upslope mat overlapping on top of the downslope mat.
7. Key in the upslope end of mat 6 inches (minimum) by digging a trench, placing the matting roll end in the trench, stapling the mat in place, replacing the excavated material, and tamping to secure the mat end in the key.
8. Staple/stake mat in a staggered pattern on 4 foot (maximum) centers throughout and 2 foot (maximum) centers along seams, joints, and roll ends.
9. Establish and maintain vegetation so that requirements for adequate vegetative establishment are continuously met in accordance with section b-4 vegetative stabilization.

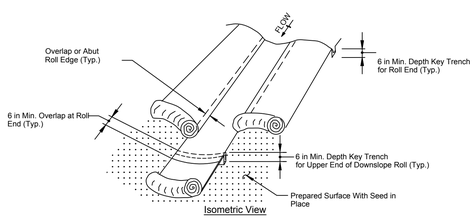
Maryland Standards and Specifications for Soil Erosion and Sediment Control

U.S. Department of Agriculture Natural Resources Conservation Service	2011	Maryland Department of Environment Water Management Administration

2 C-501 Detail B-4-6-A Temporary Soil Stabilization Matting Channel Application

Standard Symbol

TSSMC - *
(* Include Shear Stress)



Isometric View

Construction Specifications

1. Use matting that has a design value for shear stress equal to or higher than the shear stress designated on approved plans.
2. Use temporary soil stabilization matting made of degradable (lasts 6 months minimum) natural or man-made fibers (mostly organic). Mat must have uniform thickness and distribution of fibers throughout and be smolder resistant. Chemicals used in the mat must be non-leaching and non-toxic to vegetation and seed germination and non-injurious to the skin. If present, netting must be extruded plastic with a maximum mesh opening of 2x2 inches and sufficiently bonded or sewn on 2 inch centers along longitudinal axis of the material to prevent separation of the net from the parent material.
3. Secure matting using steel staples, wood stakes, or biodegradable equivalent. staples must be "U" or "T" shaped steel wire having a minimum gauge of no. 11 and no. 8 respectively. "U" shaped staples must average 1 to 1½ inches wide and be a minimum of 6 inches long. "T" shaped staples must have a minimum 8 inch main leg, a minimum 1 inch secondary leg, and a minimum 4 inch head. wood stakes must be rough-sawn hardwood, 12 to 24 inches in length, 1x3 inch in cross section, and wedge shaped at the bottom.
4. Perform final grading, topsoil application, seedbed preparation, and permanent seeding in accordance with specifications. Place matting within 48 hours of completing seeding operations unless end of workday stabilization is specified on the approved erosion and sediment control plan.
5. Unroll matting in direction of water flow, centering the first roll on the channel centerline. Work from center of channel outward when placing rolls. Lay mat smoothly and firmly on the seeded surface. Avoid stretching the matting.
6. Key-in upstream end of each mat roll by digging a 6 inch (minimum) trench at the upstream end of the matting, placing the roll end in the trench, stapling the mat in place, replacing the excavated material, and tamping to secure the mat end.
7. Overlap or abut the roll edges per manufacturer recommendations. Overlap roll ends by 6 inches (minimum), with the upstream mat overlapping on top of the next downstream mat.
8. Staple/stake mat in a staggered pattern on 4 foot (maximum) centers throughout and 2 foot (maximum) centers along seams, joints, and roll ends.
9. Establish and maintain vegetation so that requirements for adequate vegetative establishment are continuously met in accordance with section b-4 vegetative stabilization.

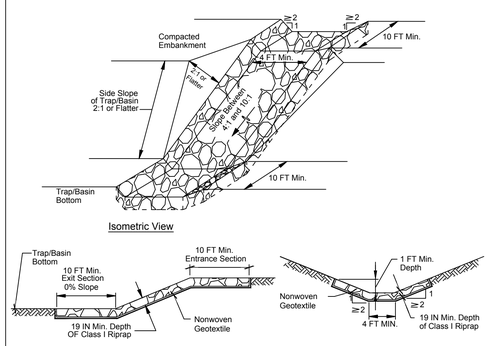
Maryland Standards and Specifications for Soil Erosion and Sediment Control

U.S. Department of Agriculture Natural Resources Conservation Service	2011	Maryland Department of Environment Water Management Administration

3 C-501 Detail D-3-1 RipRap Inflow Protection

Standard Symbol

RRP



Isometric View

Profile Along Centerline

Cross-Section

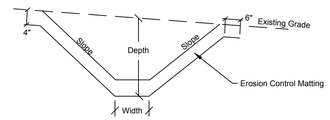
Construction Specifications

1. Provide nonwoven geotextile, as specified in Section H-1 materials, under the bottom and along sides of all riprap.
2. Construct inflow channel with class i riprap or equivalent recycled concrete lining to a minimum depth of 19 inches (2 x d_{50}) and a 1 foot deep flow channel. Inflow riprap protection channel must have a trapezoidal cross section with 2:1 or flatter side slopes and a 4 foot minimum bottom width.
3. Install entrance and exit sections as shown on the profile.
4. Blend riprap into existing ground.
5. Maintain line, grade, and cross section. remove accumulated sediment and debris. Keep points of inflow and outflow free of erosion.

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

Swale #	Q10 (cfs)	V10 (fps)	Depth	Width	Slope	Matting
1	3.83	2.11	1.0'	3.0'	3:1	Temp.



Note:
1. All swales to be lined with erosion control matting. To design flow depth
2. All dimensions labeled as min. on this detail may be superseded by greater dimensions which would be noted directly on plan, if necessary.

4 C-501 Swale Detail

Not to Scale

SMARTFENCE 42" INSTALLATION INSTRUCTIONS

SEDIMENT & PERIMETER CONTROL

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 email at info@acfenv.com

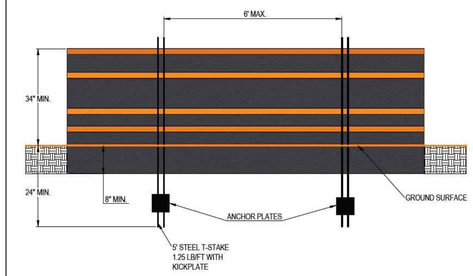
ACF ENVIRONMENTAL

5 C-501 SMARTfence 42 Installation Detail

NOT TO SCALE

LET'S GET IT DONE

SMARTfence® 42 Detail:



SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

ACF ENVIRONMENTAL
LET'S GET IT DONE™
800.448.3636
acfenvironmental.com

Temporary Seeding Summary						
Hardiness Zone (Figure B.3): 6a & 6b Seed Mixture (TABLE B.1)					Fertilizer Rate (10-20-20)	Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depths		
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30 Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

Permanent Seeding Summary								
Hardiness Zone (Figure B.3): 6a & 6b Seed Mixture (Table B.1)					Fertilizer Rate (10-20-20)			Lime Rate
No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	N	P205	K20	
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sep 30 Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must be completed within:
   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all 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 the project site not under active grading.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.

B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

STATE OF MARYLAND
DARYL MOORE
No. 20945
REGISTERED
PROFESSIONAL ENGINEER
04/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 20945
Expiration Date 06.23.2025

FSA
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11142 WILLIAMSPORT PIKE GREENCASTLE, PA 17225 717-597-1837
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 68 AND MD 68
WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10208 GOVERNOR LANE BLVD - SUITE 3/002
ATTN: JEFF TEDRICK (301-582-1555)

PROJECT NO.	7519.2
DWN BY: KODY WARD	DATE: 01.23.2025
PROJECT MANAGER:	DAVE TROSTLE
EMAIL:	DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL:	0056 - 0014 - 0149
SCALE	AS SHOWN

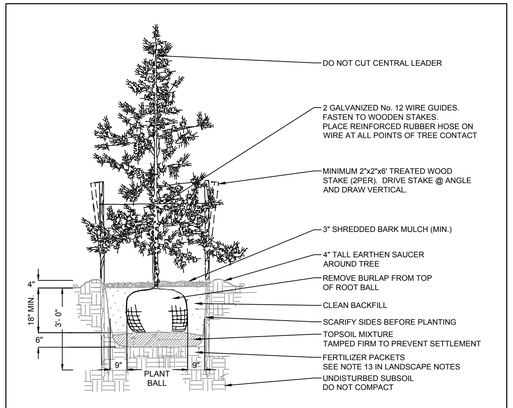
SHEET TITLE

ESC
DETAILS & NOTES

C-501
SHEET 07 OF 08

SP-25-002

P:\PROJECTS\2019\7519.2 - BOWMAN LIGHTNER PHASE 4\DWG\ESC\7519.2-ESC-DETAILS & NOTES.DWG 2025-04-24



1
L-101

EVERGREEN TREE PLANTING

NOT TO SCALE

LANDSCAPE TABULATIONS 1

TRAILER PARKING AREA	LANDSCAPE REQUIRED	LANDSCAPE PROPOSED
52,228 SF	NOT APPLICABLE DUE TO TRAILER PARKING	4 SCREEN TREES

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	QTY	DETAIL
	THU G17	Thuja occidentalis `Green Giant`	Green Giant Arborvitae	6` Ht.	B&B	2	1/L-101
	TSU CAN	Tsuga canadensis	Canadian Hemlock	6` Ht.	B&B	2	1/L-101

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

STATE OF MARYLAND
Brian Whorley
416
LICENSED LANDSCAPE ARCHITECT
01/24/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 416
Expiration Date 10-19-2026

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305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-7411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161

MARK	DESCRIPTION	DATE
1	REVISED PER AGENCY COMMENTS	04.09.25

BOWMAN LIGHTNER - PHASE 4

SITUATED NORTH OF SPIELMAN ROAD (MD 63)
WEST OF THE INTERSECTION OF MD 63 AND MD 68

WILLIAMSPORT
WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LANE BLVD - SUITE 3002
ATTN: JEFF TEDRICK (301-582-1555)

PROJECT NO. 7519.2
DWN BY KODY WARD
DATE 01.23.2025
PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
TAX MAP - GRID - PARCEL: 0056 - 0014 - 0149
SCALE 1" = 30'

SHEET TITLE
LANDSCAPE PLAN

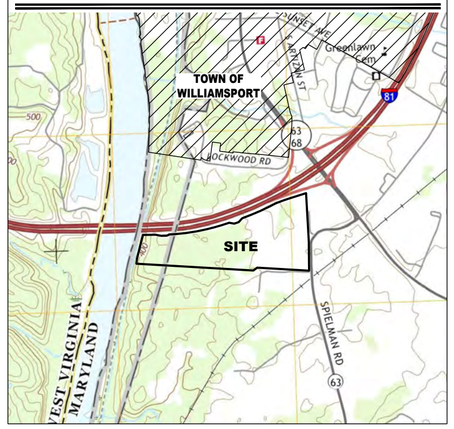
L-101
SHEET 08 OF 08

SP-25-002

VICINITY MAP

SCALE: 1" = 2,000'

ADC MAP 24, J3
WILLIAMSPORT, MARYLAND



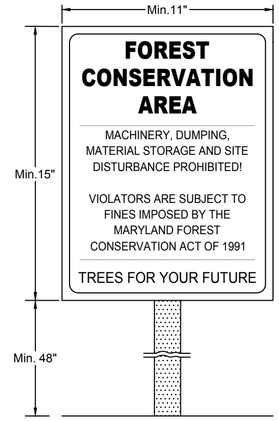
MISC PLAT NO_____
DATE
WASHINGTON COUNTY

CERTIFICATE OF APPROVAL

FINAL APPROVAL GRANTED

DATE:_____

BY:_____
WASHINGTON COUNTY PLANNING COMMISSION
FINAL APPROVAL GOOD FOR ONE HUNDRED
EIGHTY (180) DAYS FROM ABOVE DATE



Notes:
1. Bottom of signs to be higher than top of tree protection fence.
2. Signs to be placed approximately 100 feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
3. Attachment of signs to trees is prohibited.

- RETENTION AREA PROTECTIVE MEASURES SHALL BE INSTALLED WITHIN 30 DAYS OF SUBDIVISION PLAT APPROVAL
- AFTER INSTALLED NOTIFY PLANNING DEPARTMENT (240-313-2430) FOR AN INSPECTION

Source: Adapted from Forest Conservation Manual, 1991

Construction Signs and Permanent Signs — Figure C-4

FOREST CONSERVATION WORKSHEET 2.2

NET TRACT AREA
A. Total Tract Area....= 0.91 Ac.
B. Deductions....= 0.00 Ac.
C. Net Tract Area....= 0.91 Ac.

LAND USE CATEGORY CIA
D. Afforestation Threshold (Net Tract Area x 15%)....= 0.14 Ac.
E. Conservation Threshold (Net Tract Area x 15%)....= 0.14 Ac.

EXISTING FOREST COVER
F. Existing Forest Cover within the Net Tract Area....= 0.00 Ac.
G. Area of Forest Above Conservation Threshold....= 0.00 Ac.

BREAK EVEN POINT
H. Break Even Point....= 0.00 Ac.
I. Forest Clearing Permitted Without Mitigation....= 0.00 Ac.

PROPOSED FOREST CLEARING
J. Total Area of Forest to be Cleared....= 0.00 Ac.
K. Total Area of Forest to be Retained....= 0.00 Ac.

PLANTING REQUIREMENTS
L. Reforestation for Clearing Above the Conservation Threshold....= 0.00 Ac.
M. Reforestation for Clearing Below the Conservation Threshold....= 0.00 Ac.
N. Credit for Retention above the Conservation Threshold....= 0.00 Ac.
P. Total Reforestation Required....= 0.00 Ac.
Q. Total Afforestation Required....= 0.14 Ac.
R. Total Planting Requirement....= 0.14 Ac.
or 6,098.4 S.F.

QUALIFIED PROFESSIONAL

I certify that I am a qualified professional per requirements of COMAR 08.19.06.01 for qualified professional status and, therefore, am qualified to prepare the attached Forest Conservation Plan. I further certify that this plan was prepared by me or under my supervision using the methods provided by the Washington County Forest Conservation Ordinance and Forest Conservation Manual. I certify that this Forest Retention Easement Plat is accurate and complete.

Dustin Horst — Date 1-25-2025

FOREST CONSERVATION SEQUENCE OF CONSTRUCTION

1. All temporary protection devices and/or permanent devices shall be put into place.
   - Permanent signage will be place as shown on the plan around the perimeter of the entire Forest Area within 30 days of subdivision plat approval and/or completion of construction.
   - During any building or site construction, the forest retention area(s) shall be protected by highly visible, well anchored temporary fencing.
   - All temporary fencing shall be in place prior to any grading or land clearing.
   - All temporary fencing shall be maintained throughout construction and until all graded areas have been stabilized.
   - Attachment of signs or any other objects to trees is prohibited.
   - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.

2. A pre-construction meeting will be required after the boundaries of the limits of disturbance have been staked and flagged, the forest protection devices have been installed, and before any disturbance has taken place on the site. It is the owner and/or developer's responsibility to arrange for the pre-construction meeting. The owner and/or developer shall contact the Washington County Planning and Zoning Department (240-313-2430) for inspection of the installed devices prior to the start of construction with at least five (5) days notice. If the inspection reveals improperly installed protection devices, corrections will have to be made and re-inspected prior to the start of construction.

3. Once approval has been granted by the Washington County Plan Review & Permitting Department, clearing and/or grading of the site for construction of street, utility, and building areas may commence.

4. A post-construction meeting will be required after all construction has ceased and graded areas have been stabilized, all temporary protective devices shall be removed and replaced with the appropriate permanent signage. It is the owner and/or developer's responsibility to arrange for the post-construction meeting. The owner and/or developer shall contact the Washington County Department of Plan Review and Permitting (240-313-2430) for inspection of the final installed devices with at least five (5) days notice. If the inspection reveals improperly installed permanent protection devices, corrections will have to be made and re-inspected prior to the completion of site stabilization.

FORESTATION NOTES

1. Forest areas shown hereon have be reviewed and approved by the Washington County Planning Commission and are in compliance with the requirements of the Washington County Forest Conservation Ordinance. Clearing of forested areas have not been approved. Those areas noted as "Forest Retention Areas" are not to be disturbed by a regulated activity as defined in the Forest Conservation Ordinance until that regulated activity and its associated forest disturbance is reviewed and approved by the Washington County Planning Commission according to the requirements and standards of the Forest Conservation Ordinance in effect at the time.
2. Property owners are advised that there are penalties and fines associated with violation of these restrictions. Activities of a recreational or passive mature, as long as there is no forest disturbance, removal of the existing forest, or inhibition of its natural growth processes are permitted in these forest areas.
3. This note or reference to its existence on this plat shall be included in each and every deed of conveyance for any lot shown on this plat.
4. The Retention Area shown on this plat is to be retained by the respective property owners in a natural forested condition, pursuant to the Washington County Forest Conservation Ordinance of 1993. Furthermore, the use of the Retention and Planting Area shall be limited to forest conservation practices activities which are consistent with the preservation of the Retention Area as natural forest land, as stipulated by the same Ordinance.

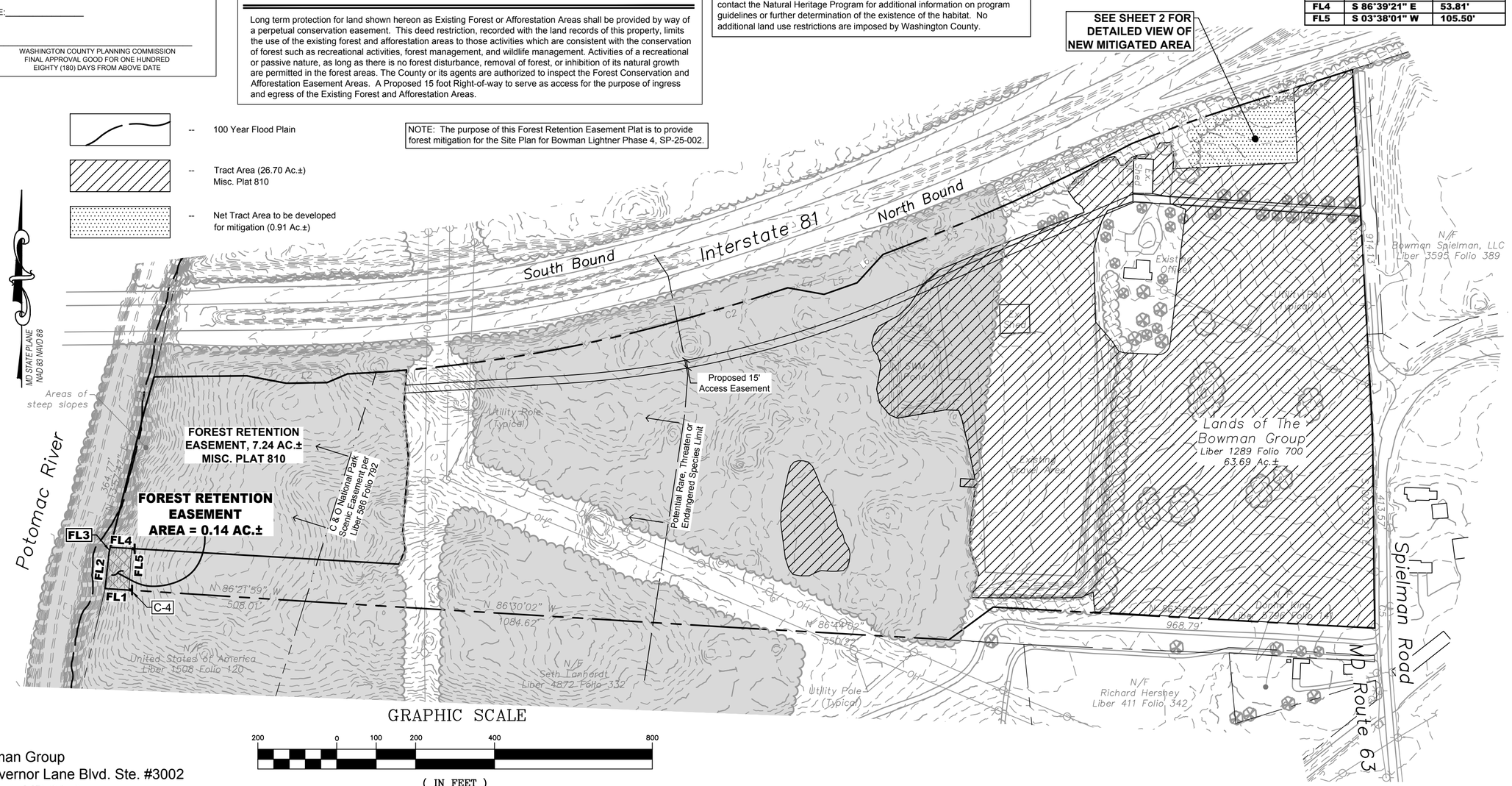
LONG TERM PROTECTION NOTES

Long term protection for land shown hereon as Existing Forest or Afforestation Areas shall be provided by way of a perpetual conservation easement. This deed restriction, recorded with the land records of this property, limits the use of the existing forest and afforestation areas to those activities which are consistent with the conservation of forest such as recreational activities, forest management, and wildlife management. Activities of a recreational or passive nature, as long as there is no forest disturbance, removal of forest, or inhibition of its natural growth are permitted in the forest areas. The County or its agents are authorized to inspect the Forest Conservation and Afforestation Easement Areas. A Proposed 15 foot Right-of-way to serve as access for the purpose of ingress and egress of the Existing Forest and Afforestation Areas.

Maryland State Endangered Species Notice
Maryland Department of Natural Resources Natural Heritage Program indicates the potential for the existence of the habitat of a Maryland designated threatened or endangered species. Current and future owners are advised to contact the Natural Heritage Program for additional information on program guidelines or further determination of the existence of the habitat. No additional land use restrictions are imposed by Washington County.

NOTE: The purpose of this Forest Retention Easement Plat is to provide forest mitigation for the Site Plan for Bowman Lightner Phase 4, SP-25-002.

LINE	BEARING	DISTANCE
FL1	N 86°21'59" W	60.47'
FL2	N 06°20'36" E	92.82'
FL3	N 13°57'47" E	12.72'
FL4	S 86°39'21" E	53.81'
FL5	S 03°38'01" W	105.50'



GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

Owner:
The Bowman Group
10228 Governor Lane Blvd. Ste. #3002
Williamsport, MD 21795

P:\SHARED FOLDERS\PROJECTS\7000\7519.2\DWG\7519.2 FCP.DWG 2025-04-10

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
fsa-inc.com
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301.791.3650
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717.597.1007
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717.701.8111
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717.275.7331

© 2025

BOWMAN LIGHTNER - PHASE 4

SITUATE LONG THE WESTERN SIDE OF SPIELMAN ROAD
SOUTH OF INTERSTATE 81, NORTH OF DANMAR DRIVE

WASHINGTON COUNTY, MARYLAND

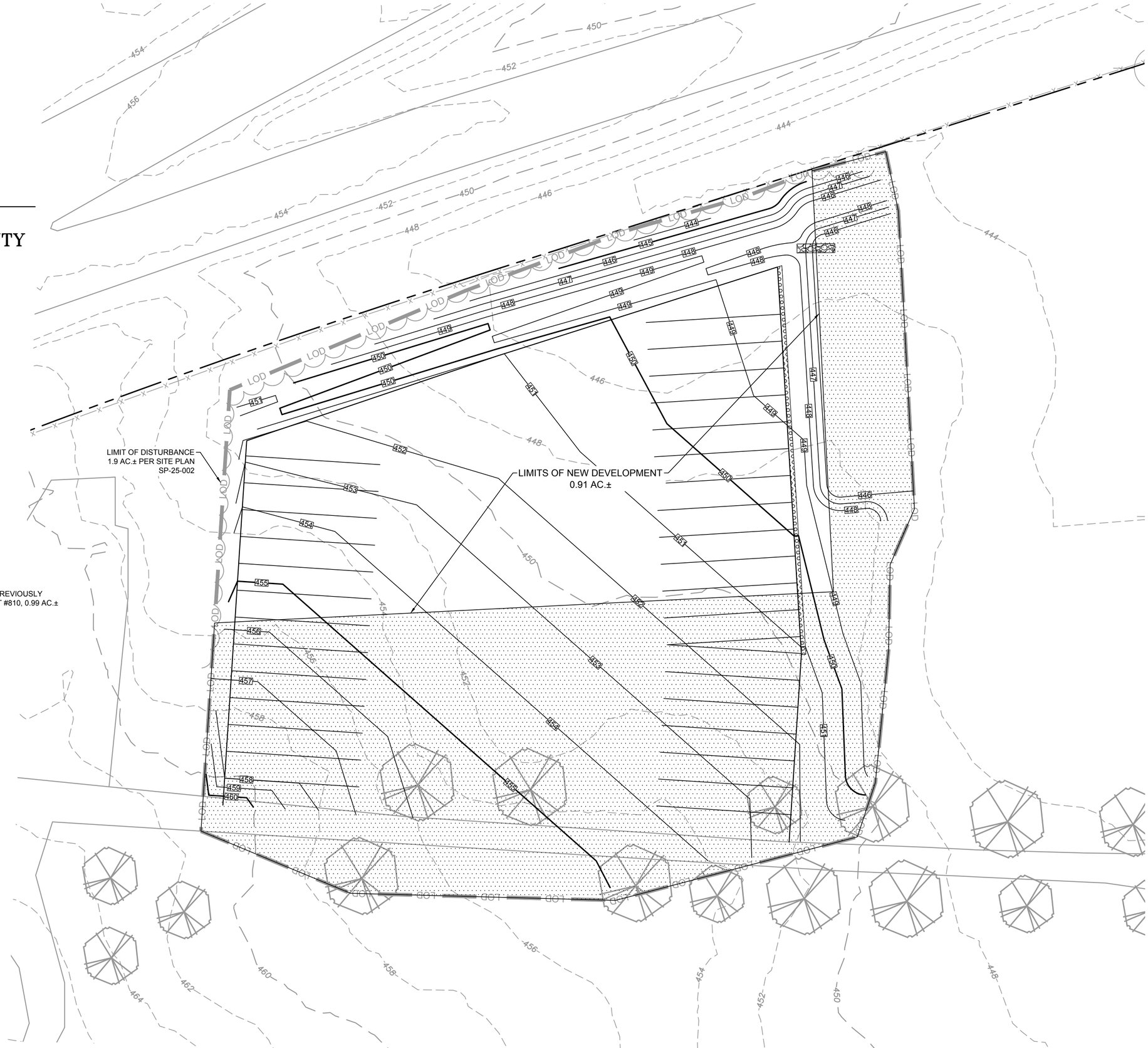
THE BOWMAN GROUP
10228 GOVERNOR LN. BLVD. SUITE 3002, WILLIAMSPORT, MD 21795
ATTN: JEFF TEDRICK (301)-582-1555

PROJECT NO. 7519.2
DWN BY DWH | DATE 01-24-2025
PROJECT MANAGER: DAVE TROSTLE
EMAIL: DTROSTLE@FSA-INC.COM
TAX MAP-GRID-PARCEL 0056-0019-0149
SCALE 1" = 200'

SHEET TITLE
FOREST RETENTION EASEMENT PLAT

C-101
SHEET 01 OF 02

MISC PLAT NO _____
DATE
WASHINGTON COUNTY



Owner:
The Bowman Group
10228 Governor Lane Blvd. Ste. #3002
Williamsport, MD 21795

P:\SHARED FOLDERS\PROJECTS\7000S\7519.2\DWG\7519.2 FCP.DWG 2025-04-10

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128 SOUTH POTOMAC STREET
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20 WEST BALTIMORE STREET
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717.275.7531

BOWMAN LIGHTNER - PHASE 4

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SOUTH OF INTERSTATE 81, NORTH OF DANMAR DRIVE

WASHINGTON COUNTY, MARYLAND

THE BOWMAN GROUP
10228 GOVERNOR LN. BLVD. SUITE 3002, WILLIAMSPORT, MD 21795
ATTN: JEFF TEDRICK (301)-582-1555

PROJECT NO. 7519.2	
DWN BY DWH	DATE 01-24-2025
PROJECT MANAGER: DAVE TROSTLE	
EMAIL: DTROSTLE@FSA-INC.COM	
TAX MAP-GRID-PARCEL 0056-0019-0149	
SCALE 1" = 200'	
SHEET TITLE	

FOREST RETENTION
EASEMENT PLAT

C-102
SHEET 02 OF 02

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....: Site Plan for 17165 Black Stallion Lane-Heritage Manor
NUMBER.....: SP-25-003

OWNER.....: BLACK STALLION LANE LLC
LOCATION.....: 17165 BLACK STALLION Lane
Hagerstown, MD 21740
DESCRIPTION.....: Site plan for a 45-bed assisted living facility located within an existing building that contained a former assisted living facility.

ZONING.....: Agricultural, Rural Rural Business
COMP PLAN LU.....: Agriculture
PARCEL.....: 02002590
PLANNING SECTOR.....: 1
ELECTION DISTRICT.....: 02

TYPE.....: Commercial
GROSS ACRES.....: 2.37
DWELLING UNITS.....: 0
TOTAL LOTS.....: 1
DENSITY.....: 0 Units Per Acre

PLANNER.....: Misty Wagner-Grillo
ENGINEER.....: FOX & ASSOCIATES INC
RECEIVED.....: February 5, 2025

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....: No
WETLANDS.....: No
WATERSHED.....: Potomac River WA Cnty
ENDANGERED SPECIES.....: None
STEEP SLOPES.....: No
STREAM BUFFER.....: No
HISTORIC INVENTORY.....: No Resources Present
EASEMENTS PRESENT.....: None

Staff Comments:

Not Applicable

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE DESIGN

Impervious Area Plan	Impervious Maximum Allowed	Open Space Area Planned
25	80	
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
		Dumpster
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
		Yes
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Yes		
Loading Area Meets Requirements		
		Not Fast Track
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
19		
Parking Spaces - Minimum Required	**Recreational Parking Provided**	
19	No	

ACCESS SPACING VARIANCE NEEDED: No

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Fountain Rock	Springfield	Williamsport
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	Williamsport
AMBULANCE DISTRICT.....:	Halfway

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	Well/Cistern	Septic Tank
SERVICE AREA.....:	Well	Septic
PRIORITY.....:	7-No Planned Service-Well	7-No Planned Service-Septic
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		None

SITE PLAN FOR
HERITAGE MANOR ASSISTED LIVING
SITE MODIFICATIONS
17165 BLACK STALLION LANE
WASHINGTON COUNTY, MARYLAND
TAX MAP 56 PARCEL 680 ELECTION DISTRICT 2

PROJECT PURPOSE

THE SUBJECT SITE WAS OPERATED AS A NURSING HOME FOR MANY YEARS. FOX WAS UNABLE TO FIND A SITE PLAN ON FILE WITH WASHINGTON COUNTY FOR THIS USE OR ANY USE ON THE SUBJECT SITE. THE CURRENT OWNER OF THE PROPERTY IS PLANNING TO OPERATE THIS FACILITY AS AN ASSISTED LIVING FACILITY. THIS SITE PLAN IS INTENDED TO DOCUMENT THE USE PROPOSED.

GENERAL NOTES

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH THE WASHINGTON COUNTY DIVISION OF PUBLIC WORKS STANDARDS AND SPECIFICATIONS, AND THE STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION BOOK OF STANDARDS.
2. INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF THE UTILITIES IN ADVANCE OF TRENCHING.
3. TOPOGRAPHY SHOWN HEREON IS FROM A TOPOGRAPHIC SURVEY PERFORMED BY FOX & ASSOCIATES INC. DATED JANUARY 2025.
4. CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-7777 AND ALL UTILITIES WITH FACILITIES WITHIN THE PROJECT AREA FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS BEFORE BEGINNING CONSTRUCTION.
6. JOB SITE SAFETY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
7. ANY CHANGES TO THE APPROVED SITE PLAN LAYOUT MUST FIRST BE APPROVED BY FOX & ASSOCIATES INC. AND THEN APPROVED BY THE WASHINGTON COUNTY DIVISION OF ENGINEERING.
8. FOX & ASSOCIATES INC. HAS NOT PERFORMED ANY SUBSURFACE INVESTIGATIONS TO DETERMINE LOCATION OF ROCK, DIFFERENT SOIL TYPES, WATER TABLES, UTILITIES, ETC.
9. SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY TO RESOLVE THE SITUATION. SHOULD THE CONTRACTOR MAKE FIELD CORRECTIONS OR ADJUSTMENTS WITHOUT NOTIFYING THE ENGINEER, THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITIES FOR THOSE CHANGES.
10. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE FACILITIES AND OTHER UTILITIES DURING CONSTRUCTION. EXCAVATION AND CONSTRUCTION SHALL BE PREFORMED WITH EXTREME CARE TO DAMAGE TO FACILITIES.
11. CONSTRUCTION OCCURRING ON THIS SITE SHALL COMPLY WITH NFPA 241, STANDARDS FOR SAFEGUARDING CONSTRUCTION, ALTERNATIVES AND DEMOLITION OPERATIONS AND CHAPTER 16 OF NFPA 1. UNIFORMED FIRE CODE.
12. A FOREST CONSERVATION EXCEPTION HAS BEEN FILED AS A PART OF THIS SITE PLAN.
13. NO OUTSIDE STORAGE OF MATERIALS IS PROPOSED UNDER THIS PROJECT.
14. NO NEW SIGNAGE IS PROPOSED BY THIS PLAN. THE EXISTING SIGN SHALL BE UPDATED WITH THE NAME OF THE PROPOSED BUSINESS. NO NEW SITE LIGHTING IS PROPOSED BY THIS PLAN, NEW BUILDING MOUNTED LIGHTING IS PROPOSED.
15. THE SUBJECT SITE LIES WITHIN ZONE X – AREA OF MINIMUM FLOOD HAZARD PER FIRM MAP 24043C0284D DATE 8-15-2017.
16. THE WATERSHED ACREAGE IMPACTING THIS SITE IS LESS THAN 400 ACRES.
17. THE SITE DOES NOT CONTAIN ANT WETLANDS PER THE US FISH AND WILDLIFE SERVICE NATIONAL WETLANDS INVENTORY MAP.

WASHINGTON COUNTY STANDARD NOTES

1. I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY AND THE POLICY ON CONSTRUCTION OF SUBDIVISION INFRASTRUCTURE FOR ACCEPTANCE AND OWNERSHIP BY WASHINGTON COUNTY. (S-3).
2. PLEASE BE ADVISED THAT ANY PROJECT WHICH CREATES A DISTURBANCE OF ONE (1) ACRE OR MORE WILL REQUIRE A "NOTICE OF INTENT TO COMPLY WITH THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" (NOI). THE NOI IS REQUIRED UNDER THE CLEAN WATER ACT AS STATED IN 40 CFR 122.26 AND CODE OF MARYLAND REGULATIONS COMAR 26.08.04.09A AND IS REGULATED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT (MDE). THE NOI IS TO BE SUBMITTED WITH THE APPROPRIATE FEES DIRECTLY TO THE MDE PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. NO LAND DISTURBING ACTIVITY THAT REQUIRES A GRADING PERMIT FROM WASHINGTON COUNTY CAN PROCEED UNTIL THE GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (MDRC) HAS BEEN ISSUED BY MDE.
3. THIS PROJECT WILL REQUIRE A THIRD PARTY QUALIFIED PROFESSIONAL TO BE PRESENT AT THE PRE-CONSTRUCTION MEETING SCHEDULED WITH WASHINGTON COUNTY DEPARTMENT OF PERMITS AND INSPECTIONS AND THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT. CONSTRUCTION INSPECTION WILL BE REQUIRED FOR THIS PROJECT PER THE "ROADWAY AND STORMWATER MANAGEMENT CONSTRUCTION VERIFICATION PROCEDURES" DATED OCTOBER 17, 2008, IF APPLICABLE.
4. PLEASE BE ADVISED THAT THE STORMWATER MANAGEMENT PLAN PROPOSED MUST MEET THE REQUIREMENTS OF THE 2000 MARYLAND STORMWATER DESIGN MANUAL SUPPLEMENT 1 IF FINAL APPROVAL FROM THE SCD FOR SOIL EROSION AND SEDIMENT CONTROL AND FINAL APPROVAL FOR STORMWATER MANAGEMENT FROM DPW HAS NOT BEEN OBTAINED BY MAY 4, 2010.
5. A COMPLETE SET OF APPROVED PLANS AND A COPY OF THE GRADING PERMIT MUST BE ON SITE AND AVAILABLE FOR USE BY THE INSPECTOR, OR OTHER REPRESENTATIVES OF WASHINGTON COUNTY DEPARTMENT OF PERMITS AND INSPECTIONS.
6. ALL GRADING ON LOT, EITHER BEFORE OR AFTER THE CONSTRUCTION OF ANY WORK, SHALL BE THE FULL RESPONSIBILITY OF THE LOT OWNER.
7. NO PERMANENT STRUCTURES (FENCES, SHEDS, PLAY EQUIPMENT, RETAINING WALLS) SHALL BE PERMITTED WITHIN ANY STORM DRAINAGE EASEMENT EITHER SHOWN OR DESCRIBED ON THE FINAL PLAT OF SUBDIVISION.

SENSITIVE AREA NOTE

THERE ARE NO FLOODPLAINS IMPACTING THIS SITE AS SHOWN ON COMMUNITY PANEL NUMBER 24043C0284D WITH AN EFFECTIVE DATE OF AUGUST 15, 2017. NO STEEP SLOPES, STREAMS AND RELATED BUFFERS, OR HABITAT OF THREATENED OR ENDANGERED SPECIES WITHIN THE DISTURBED AREA IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE PER 50 CFR 17 AS REQUIRED TO BE SHOWN BY SECTION 307 OF THE SUBDIVISION ORDINANCE AND SECTION 4.21 OF THE ZONING ORDINANCE.

UTILITY NOTIFICATION

"THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NON-EXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SHOWN ON THESE CONSTRUCTION DRAWINGS ARE THOSE UTILITIES WHICH HAVE BEEN IDENTIFIED. IT IS THE RESPONSIBILITY OF THE LANDOWNERS OR OPERATORS AND CONTRACTORS TO ASSURE THEMSELVES THAT NO HAZARD EXISTS OR DAMAGE WILL OCCUR TO UTILITIES. IT IS SUGGESTED THAT MISS UTILITY BE CONTACTED AT: PHONE NO. 1-800-257-7777.

AGENCY & UTILITY CONTACTS

WASHINGTON COUNTY DIVISION OF ENGINEERING	--------	240.313.2400
POTOMAC EDISON	MILLER IRWIN	301.582.5266
WASH. CO. SOIL CONSERVATION DISTRICT	DENISE PRICE	301.797.6821
ANTIETAM BROADBAND	LESLIE CURRY	240.420.2084
VERIZON	JULIE LUDWIG	301.790.7135
COLUMBIA GAS	VONDA GRIFFIN	800.440.6111

SCALE: 1"=200'

GRAPHIC SCALE

200 0 100 200 400 800

(IN FEET)
1 inch = 200 ft.

NOTE:
NO WASHINGTON COUNTY SURVEY CONTROL RECORD AVAILABLE WITHIN LIMITS OF VICINITY MAP VIEW

N W E S

VICINITY MAP
SCALE: 1" = 2000'
TAX MAP 56 GRID 18 PARCEL 680
COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NUMBER 21004221

ADC MAP 25 GRID F-2

DISTURBED AREA QUANTITIES

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 0.10 (4,327 SF) ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 50 C.Y. OF EXCAVATION AND 50 C.Y. OF FILL.

* THESE QUANTITIES ARE APPROXIMATE AND SHALL NOT BE USED BY THE CONTRACTOR FOR BIDDING PURPOSES.

ENGINEER PROFESSIONAL CERTIFICATION

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

Gordon Poffenberger — LICENSE No. 27053 — EXPIRATION DATE 01/26/2026
NAME

STATE OF MARYLAND — GORDON SCOTT POFFENBERGER — 27053 — PROFESSIONAL ENGINEER

ENGINEER/ARCHITECT DESIGN CERTIFICATION

I HEREBY CERTIFY THIS PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAS BEEN DESIGNED IN ACCORDANCE WITH LOCAL ORDINANCES, COMAR 26.17.01.07, MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

May 16, 2025 — 27053 — SIGNATURE
DATE — REG. NO.

OWNER/DEVELOPER CERTIFICATION – DPW

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT ORDINANCE OF WASHINGTON COUNTY AND THE POLICY ON CONSTRUCTION OF SUBDIVISION INFRASTRUCTURE FOR ACCEPTANCE AND OWNERSHIP BY WASHINGTON COUNTY (S-3)

DATE — PRINTED NAME — SIGNATURE

WASHINGTON COUNTY DIVISION OF ENGINEERING

APRROVED BY: _____

DATE: _____

INDEX OF SHEETS

01	COVER SHEET
02	EXISTING CONDITIONS PLAN
03	SITE PLAN
04	SITE NOTES & DETAILS
PP-1.1	PHOTOMETRIC PLAN
PP-1.2	LIGHTING SPECIFICATION SHEETS

05.16.2025 REVISED PER AGENCY COMMENTS
04.14.2025 REVISED PER AGENCY COMMENTS

OWNER/DEVELOPER

BLACK STALLION LANE LLC
17165 BLACK STALLION LANE
HAGERSTOWN, MD 21740
443.315.6152
ATTN: KWAME TANNER

SP-25-003 PROJECT NO. 24-32181 D-9529 SHEET 1 OF 4

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS

981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-8503
or (301)416-7250
FAX: (301)733-1853

82 WORMANS MILL COURT
SUITE 'G'
FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009

www.foxassociatesinc.com Email: foxassoc@foxassociatesinc.com

FOX & ASSOCIATES INC. Est. 1966

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R:\24\32181 Fox Investments\Engineering\Site Plan D-9529\01-CS.dwg May 16, 2025 - 3:21pm Dwg: #Hidden

SOILS

DsB	DUFFIELD SILT LOAM	3%-8% SLOPES
DuB	DUFFIELD SILT LOAM	3%-8% SLOPES
SpA	SWANIPOND SILT LOAM	0%-3% SLOPES

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

SP-25-003

FOX & ASSOCIATES INC.
Est. 1966

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ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-5033
or (301)416-7259
FAX: (301)733-1853
82 WORMANS MILL COURT
SUITE "G"
FREDERICK, MD. 21701
PHONE: (301)695-0880
FAX: (301)293-6009
www.foxassociatesinc.com
Email: foxassoc@foxassociatesinc.com

DATE	REVISION	DRAWN BY
05.16.25	REVISED PER AGENCY COMMENTS	WMH
04.14.25	REVISED PER AGENCY COMMENTS	WMH

EXISTING CONDITIONS
HERITAGE MANOR ASSISTED LIVING
SITE MODIFICATIONS

SITUATE AT 17165 BLACK STALLION LANE
HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

SCALE: 1"=20'

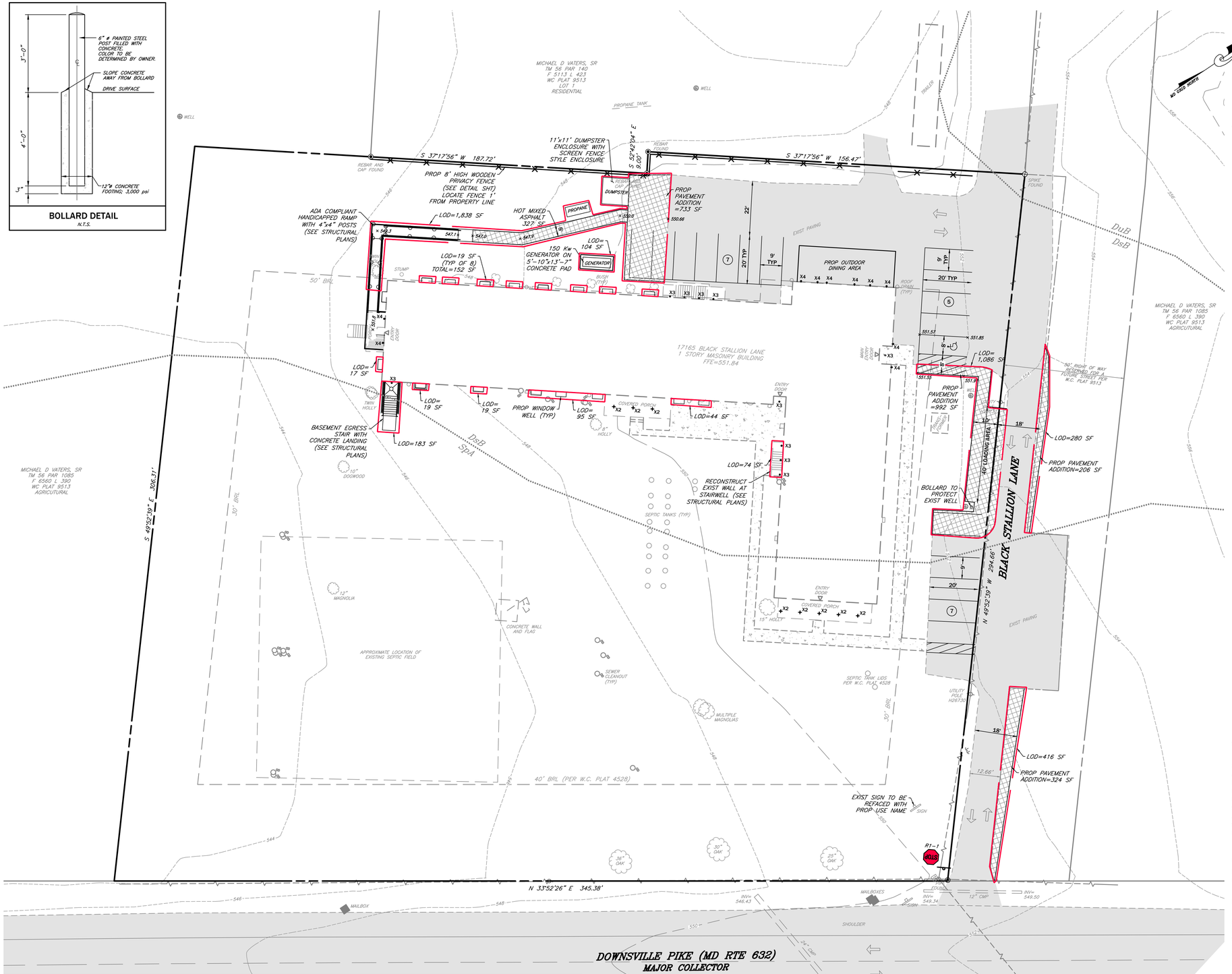
STATE OF MARYLAND
SCOTT POTTER CLEMENS
27053
PROFESSIONAL ENGINEER
May 16, 2025

LICENSE No.: 27053 EXP. DATE: 1/25/26

PROJECT NO. 24-32181
DRAWING NO. D-9529
DATE: JANUARY 2025
DRAWN BY: WMH
CHECKED BY: SCC

SHEET 2 OF 4

BOLLARD DETAIL
N.T.S.



SITE ANALYSIS

TAX DISTRICT: 02
TAX MAP: 56
GRID: 18
PARCEL: 680
PARCEL ACREAGE: 2.37 ACRES
DEED/PAGE: 7561/488
ZONING: RB RURAL BUSINESS DISTRICT
ELECTION DISTRICT: 02–001

BUILDING RESTRICTION LINES:
- FRONT: 40 FEET FROM A MINOR COLLECTOR OR LOCAL PUBLIC ROAD RIGHT OF WAY OR 50 FEET FROM A MAJOR COLLECTOR OR ARTERIAL PUBLIC ROAD RIGHT OF WAY.
- SIDE AND REAR: 50 FEET FROM A PROPERTY ZONED FOR OR OCCUPIED BY A RESIDENTIAL LAND USE OR 25 FEET FROM A PROPERTY ZONED FOR OR OCCUPIED BY A NON–RESIDENTIAL LAND USE.

FUNCTIONAL DESCRIPTION (PROPOSED USE): ASSISTED LIVING FACILITY – 45 PATIENT BEDS, 15 TOTAL STAFF AND 4 STAFF MAX ON MAIN SHIFT

EXCISE TAX USE DESIGNATION: COMMERCIAL
SIZE OF EXISTING BUILDING: 13,291 SF PER SDAT RECORDS.
SIZE OF EXISTING BUILDING EXPANSION PROPOSED: 0 SF (NOTE THAT NO BUILDING ADDITIONS ARE PROPOSED BY THIS SITE PLAN)

SQUARE FOOTAGE OF NEW CONSTRUCTION SUBJECT TO EXCISE TAX: 0 SF

PURPOSE OF PLAN: SITE PLAN FOR REOPENING OF A FORMER NURSING/CONVALESCENT HOME AS AN ASSISTED LIVING FACILITY

EXISTING BUILDING HEIGHT: 20' +/–

MAX BUILDING HEIGHT PERMITTED IN RB DISTRICT: 35'

EXISTING IMPERVIOUS SURFACE WITHIN PARCEL AREA 25,217 SF OR 0.58 +/– AC

EXISTING IMPERVIOUS SURFACE COVERAGE AS A PERCENT OF PARCEL AREA: 24.6%

PROPOSED IMPERVIOUS SURFACE WITHIN PARCEL AREA AFTER IMPROVEMENTS PROPOSED BY THIS PLAN: 28,531 SF OR 0.65 +/– ACRES

PROPOSED IMPERVIOUS SURFACE COVERAGE AS A PERCENT OF PARCEL AREA: 27.4%

PARKING REQUIRED – PER ASSISTED LIVING FACILITY, NURSING/CONVALESCENT HOMES REQUIREMENT FROM ARTICLE 22 OF ZONING ORDINANCE REQUIRED PARKING IS 1 SPACE PER 3 PATIENT BEDS PLUS 1 SPACE PER MAIN SHIFT EMPLOYEE

TOTAL PARKING REQUIRED: 45 BEDS/3 PATIENT BEDS PER 1 PARKING SPACE = 15 PARKING SPACES REQUIRED + 1 SPACE PER MAIN SHIFT EMPLOYEE TIMES 4 MAIN SHIFT EMPLOYEES = 4 SPACES REQUIRED. TOTAL PARKING REQUIRED = 19 SPACES

TOTAL PARKING PROVIDED: 19 SPACES INCLUDING 1 VAN ACCESSIBLE HANDICAPPED SPACE

SOLID WASTE DISPOSAL – DUMPSTER: PRIVATE CONTRACTOR DUMPSTER LOCATED ON SUBJECT SITE

WATER: EXISTING ONSITE WELL

SEWER: EXISTING ON–SITE SEPTIC SYSTEM

WATER USAGE: ANTICIPATED WATER USAGE FROM PROPOSED USE BASED ON 100 GPD/BED=4,500 GPD. FLOW PROJECTION TAKEN FROM MDE GUIDANCE ON WASTEWATER FLOWS FOR USE IN DESIGNING ON–SITE SYSTEMS

SEWER USAGE: ANTICIPATED SEWER USAGE FROM PROPOSED USE BASED ON 100 GPD/BED=4,500 GPD. FLOW PROJECTION TAKEN FROM MDE GUIDANCE ON WASTEWATER FLOWS FOR USE IN DESIGNING ON–SITE SYSTEMS

FREIGHT AND DELIVERY REQUIREMENTS: 3 PER DAY

AUTOMOBILE USE: 13 PER DAY BASED ON TWO TRIPS PER DAY FROM EMPLOYEES PLUS 25% FOR VISITORS.

WATER ALLOCATION INFORMATION
CURRENT SITE WATER ALLOCATION – N/A SITE SERVED BY EXISTING ON–SITE WELL

SEWER ALLOCATION INFORMATION
CURRENT SITE SEWER ALLOCATION – N/A SITE IS SERVED BY ON–SITE SEPTIC SYSTEM

NUMBER OF EMPLOYEES PROPOSED = 15 EMPLOYEES (4 EMPLOYEES ON MAIN SHIFT)

HOURS OF OPERATION: THE FACILITY IS OPERATIONAL 24 HOURS PER DAY 7 DAYS PER WEEK

ANTICIPATED PROJECT START DATE: SUMMER 2025

ANTICIPATED PROJECT FINISH DATE: FALL 2025

SITE PAVING NOTE:

THE EXISTING PAVEMENT ON THE SUBJECT SITE IS TO BE OVERLAID WITH 1 ½" OF SURFACE COURSE HOT MIXED ASPHALT. THE EXTENT OF THE PAVEMENT OVERLAY SHALL INCLUDE ALL EXISTING PAVEMENTS ON THE SUBJECT SITE AND INCLUDE THE PAVEMENTS WITHIN THE EXISTING INGRESS/EGRESS EASEMENT ORIGINATING AT DOWNSVILLE PIKE. MILL PAVEMENT AS REQUIRED AT LOCATIONS WHERE PAVEMENT TIES TO SIDEWALKS OR OTHER PAVED AREAS NOT SCHEDULED TO BE RESURFACED. AREAS OF PAVEMENT EXPANSIONS SHALL BE PAVED IN ACCORDANCE WITH THE PAVING SECTION PROVIDED ON THE PLANS. AREAS OF FAILING PAVEMENT SHALL BE SAW CUT AND REPAIRED USING THE PAVEMENT SECTION PROVIDED ON THE PLANS. UPON COMPLETION OF PAVEMENT OVERLAY INSTALL PAVEMENT MARKINGS AS PROVIDED ON THE PROJECT PLANS.

NOTE:

PROPOSED PAVEMENT WIDENING AND PAVEMENT ADDITIONS SHALL BE PLACED TO MAINTAIN PRE-CONSTRUCTION SITE ELEVATIONS.

NOTE:

THE PARKING PLAN SHOWN HEREON IS CONSIDERED INTERIM AND MAY BE REEVALUATED AS PART OF ANY FUTURE MASTER PLANNING EFFORTS AS THE SURROUNDING PROPERTIES DEVELOP. IN ADDITION, SHOULD THE ROAD BECOME PUBLIC RIGHT-OF-WAY, THE COUNTY RESERVES THE RIGHT TO RECONFIGURE THE PARKING AREAS, TO MEET THE NEEDS OF THE PUBLIC RIGHT-OF-WAY.

LIGHT FIXTURE SCHEDULE

SYM	MFGR	CATALOG NO	VOLTAGE	LAMPS			MOUNTING	REMARKS
				QTY	TYPE	WATTS		
X2	HE WILLIAMS	6DR-TL-L 15/835-EM/10W-DIM-UNV-RW-OF-WH-WET/CC-N-F1	120	SYM	LED	13.8	RECESSED LIGHTING	6" LED RECESSED LIGHT SUITABLE FOR EXTERIOR APPLICATION
X3	HE WILLIAMS	6DR-TL-L 15/835-EM/10W-DIM-UNV-RW-OF-WH-WET/CC-N-F1	120	SYM	LED	13.8	RECESSED LIGHTING	6" LED RECESSED LIGHT SUITABLE FOR EXTERIOR APPLICATION
X4	INDESSA LIGHTING	508-2LED 14-BA-DC-TC-BC-4K	120	SYM	LED	13.8	SURFACE WALL	SURFACE MOUNTED WALL PACK, ALUMINUM HOUSING, SEALED GASKETED OPTICS

GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

SP–25–003

FOX & ASSOCIATES INC.
Est. 1966

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FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733–5503
or (301)714–1259
FAX: (301)733–1853
82 WORMANS MILL COURT
SUITE "G"
FREDERICK, MD. 21701
PHONE: (301)695–0880
FAX: (301)293–6009
www.foxassociatesinc.com Email: foxassoc@foxassociatesinc.com

DATE	REVISION	DRAWN BY
05.16.25	REVISED PER AGENCY COMMENTS	WMH
04.14.25	REVISED PER AGENCY COMMENTS	WMH

SITE PLAN
HERITAGE MANOR ASSISTED LIVING
SITE MODIFICATIONS
SITUATE AT 17165 BLACK STALLION LANE
HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

SCALE: 1"=20'

STATE OF MARYLAND
SCOTT POTTER
27053
PROFESSIONAL ENGINEER
May 16, 2025

LICENSE No.: 27053 EXP. DATE: 1/25/26

PROJECT NO. 24–32181
DRAWING NO. D–9529
DATE: JANUARY 2025
DRAWN BY: WMH
CHECKED BY: SCC

SHEET 3 OF 4

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. ALL EROSION/SEDIMENT CONTROL MEASURES SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND THE PROVISIONS OF THE APPROVED PLAN.

2. ALL GRADING AND STABILIZATION SHALL COMPLY WITH THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", "SECTION B – GRADING AND STABILIZATION" AND THE PROVISIONS OF THE APPROVED PLAN.

3. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (BMP'S) ARE TO BE CONSTRUCTED AND/OR INSTALLED PRIOR TO OR AT THE INITIATION OF GRADING IN ACCORDANCE WITH "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", AND THE APPROVED PLAN.

4. A GRADING UNIT IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME AND IS LIMITED TO 20 ACRES. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE ENFORCEMENT AUTHORITY AND/OR THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT (APPROVAL AUTHORITY). UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE APPROVAL AUTHORITY, NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.

5. FOR INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, TEMPORARY OR PERMANENT STABILIZATION MUST BE COMPLETED WITHIN:

   a) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL 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 THE PROJECT SITE NOT UNDER ACTIVE GRADING.

6. STOCKPILES MUST BE STABILIZED IN ACCORDANCE WITH THE 7 DAY STABILIZATION REQUIREMENT, AS WELL AS, STANDARD B-4-1 INCREMENTAL STABILIZATION AND STANDARD B-4-4 TEMPORARY STABILIZATION. (AS APPLICABLE)

7. ALL CONSTRUCTED CHANNELS AND SWALES SHALL HAVE SPECIFIED TREATMENT INSTALLED TO THE DESIGN FLOW DEPTH COMPLETED DOWNSTREAM TO UPSTREAM AS CONSTRUCTION PROGRESSES. AN INSTALLATION DETAIL SHALL BE SHOWN ON THE PLANS.

8. ALL STORM DRAIN AND SANITARY SEWER LINES NOT IN PAVED AREAS ARE TO BE MULCHED AND SEEDED WITHIN 3 DAYS OF INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.

9. ELECTRIC POWER, TELEPHONE, AND GAS LINES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 3 DAYS AFTER INITIAL BACKFILL UNLESS OTHERWISE SPECIFIED ON PLANS.

10. NO SLOPE SHALL BE GREATER THAN 2:1.

11. AS REQUIRED BY SECTION B. OF THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, "ADEQUATE VEGETATIVE STABILIZATION", IS DEFINED AS 95 PERCENT GROUND COVER. THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT REQUIRES THE PROJECT ADHERE TO THIS FOR SCHEDULING OF THE FINAL SITE CLOSEOUT REVIEW, AND/OR THE RELEASE OF THE SITE FOR SOIL EROSION AND SEDIMENT CONTROL.

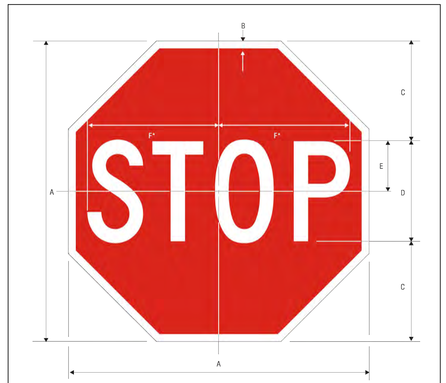
FOR SITES 1.0 ACRE OR MORE, THE FOLLOWING ARE REQUIRED:

A. MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH A CONSTRUCTION ACTIVITY, N.P.D.E.S. PERMIT NUMBER MDRC, STATE DISCHARGE PERMIT NUMBER 14GP, OR AN INDIVIDUAL PERMIT.

B. THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT – NOTICE OF INTENT – N.O.I.) APPLICATION AND PERMIT SHALL BE POSTED AND/OR AVAILABLE ON-SITE AT ALL TIMES.

C. DURING CONSTRUCTION, ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES (B.M.P.'s) SHALL BE INSPECTED AND RECORDED ON THE "STANDARD INSPECTION FORM", "GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITY" PER MARYLAND DEPARTMENT OF THE ENVIRONMENT (GENERAL/INDIVIDUAL PERMIT – NOTICE OF INTENT – N.O.I.).

D. FOLLOWING CONSTRUCTION AND RELEASE OF THE SIGHT FOR SOIL EROSION AND SEDIMENT CONTROL BY THE WASHINGTON COUNTY SOIL CONSERVATION DISTRICT, I.E., ALL PORTIONS OF A SITE HAVE BEEN PERMANENTLY STABILIZED, AND ALL STORMWATER DISCHARGES FROM THE CONSTRUCTION SITES THAT ARE AUTHORIZED BY THE PERMIT AREA ELIMINATED, THE AUTHORIZED PERMITEE SHALL SUBMIT THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, GENERAL/INDIVIDUAL PERMIT – NOTICE OF TERMINATION – N.O.T.



R1-1
STOP

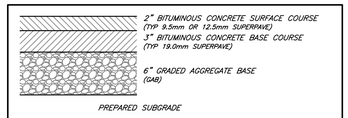
*Reduce spacing 40%

A	B	C	D	E	F
18	.375	6	6 C	3	7.75
24	.625	8	8 C	4	10
30	.75	10	10 C	5	12.5
36	.875	12	12 C	6	15
48	1.25	16	16 C	8	20

C

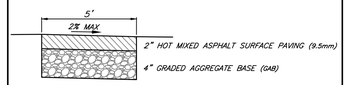
SMA REFERENCES
MdMUTCD SECTION - 2B.04, 2B.05, 2B.06, 2B.07, 2B.10, 5B.02, 5F.04, 8B.03, 8B.08, 9B.03, 10C.02, 10C.04

COLORS: LEGEND – WHITE (RETROREFLECTIVE)
BACKGROUND – RED (RETROREFLECTIVE)



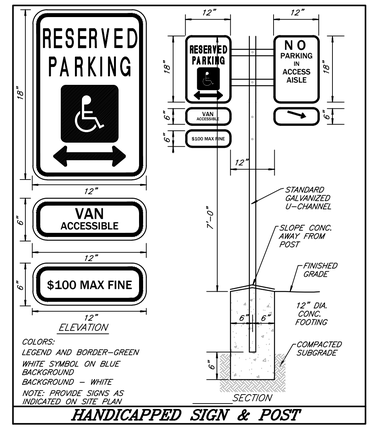
LIGHT DUTY PAVEMENT SECTION
N.T.S.

NOTE:
RUNNING SLOPE OF ASPHALT SIDEWALK SHALL NOT EXCEED 5%



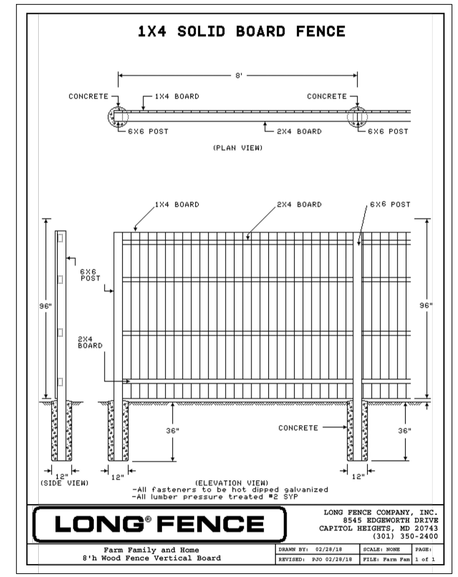
DETAIL–HOT MIXED ASPHALT SIDEWALK FROM HANDICAPPED RAMP TO PARKING FIELD
N.T.S.

NOTE:
ASPHALT SIDEWALK SHALL CONFORM TO ALL REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT



HANDICAPPED SIGN & POST

NOTE:
HANDICAPPED SIGNAGE CAN BE BUILDING MOUNTED IN LIEU OF POST MOUNTED AS AN ALTERNATIVE

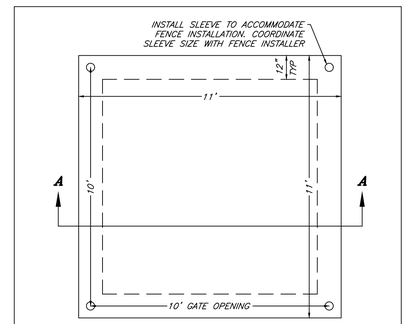


TEMPORARY SEEDING SUMMARY

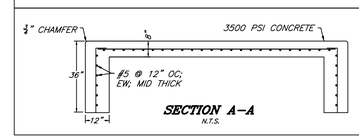
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
	SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.1					
2	BARLEY (HORDEUM VULGARE)	96	3/1 – 5/15 8/1 – 10/15	1.0"	436 LBS./AC. (10 LBS/1000 S.F.)	2 TONS/AC. (90 LBS/1000 S.F.)
	TEMPORARY SEEDING SHALL COMPLY WITH SECTION B-4-4 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL					

PERMANENT SEEDING SUMMARY

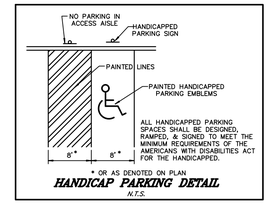
No.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20) N	P205	K20	LIME RATE
	SEED MIXTURE (HARDINESS ZONE 6B) FROM TABLE B.3							
6	TALL FESCUE WHITE CLOVER PERENNIAL RYE GRASS	40 8 25	3/1 – 6/15 8/1 – 10/15	¼ - ½	45 LB/AC (1.0 LB/ 1000 S.F.)	90 LB/AC (2 LB/ 1000 S.F.)	90 LB/AC (2 LB/ 1000 S.F.)	2 TONS/AC (90 LB/ 1000 S.F.)
	PERMANENT SEEDING SHALL COMPLY WITH SECTION B-4-5 OF THE 2011 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL							



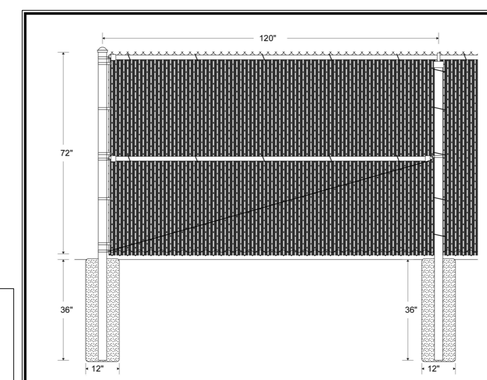
DUMPSTER PAD DETAIL
N.T.S.



SECTION A–A
N.T.S.



HANDICAP PARKING DETAIL
N.T.S.



72" tall Chainlink Fabric with Barb / Knuckle Selvage and 2" Mesh Size.

Specifications:

100" tall, 3" diameter Terminal Post with 12" post footing diameter and 36" post footing depth.

100" tall, 3" diameter Line Post with 12" post footing diameter and 36" post footing depth.

Top of Fence has 1 5/8" diameter Top Rail.

Bottom of Fence has Coil Spring Tension Wire.

Fence is braced with 1 5/8" diameter Middle Brace & Truss.

Fence contains 6ft Black Top Lock PVC Vertical Slats.

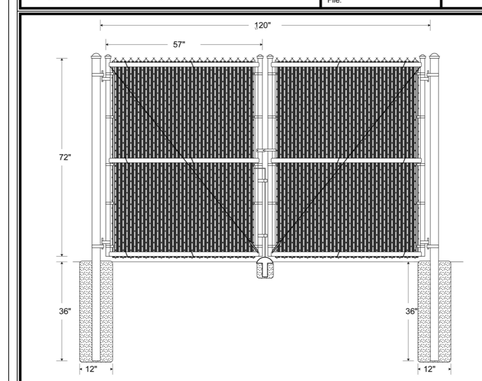
Line Post Spacing: 120"

Tie Wire Spacing is every 24" on Rails & Bracing.

ALL PIPE SS40 Black Vinyl Coated

Wire 2'x6ga Class 2b fused Black Vinyl Coated

LONG® FENCE
LONG FENCE COMPANY, INC.
8545 EDGEWORTH DRIVE
CAPITOL HEIGHTS, MD 20743
(301) 350-2400
72" Chainlink Line of Fence
Drawn: 5/13/2024
File:



72" tall Chainlink Fabric with Barb / Knuckle Selvage and 2" Mesh Size.

Specifications:

100" tall, 3" diameter Gate Posts with 12" post footing diameter and 36" post footing depth.

The opening width of the Double Gate is 10'.

The gate frame is constructed with 1 5/8" pipe.

Gate is braced with 1 5/8" diameter Horizontal Brace.

Gate is trussed with Truss Rod.

Fence contains Vertical Slats.

Gate is hung with 180° Hinges. Gate is secured with a Cane & Latch Assembly.

Tie Wire Spacing is every 24" on Rails.

LONG® FENCE
LONG FENCE COMPANY, INC.
8545 EDGEWORTH DRIVE
CAPITOL HEIGHTS, MD 20743
(301) 350-2400
72" X 10' Chainlink Double Drive Gate
Drawn: 4/14/2025
File:

SP-25-003

MANCHESTER TANK

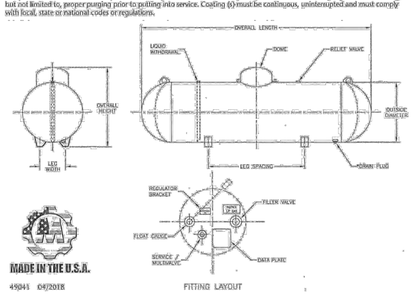
ABOVEGROUND PROPANE STORAGE TANKS
120 - 1000 Gallons

ABOVEGROUND VESSEL DIMENSIONS & SPECIFICATIONS
(All Vessel Dimensions are Approximate)

Part Number	Description	Water Capacity Gall	Outside Diameter In/mm	Head Type	Overall Length In/mm	Overall Height In/mm	Leg Width In/mm	Leg Spacing In/mm	Weight Lbs/kg	Quantity Full Load	Quantity For Stack
68268	120 Gallon Aboveground Storage Tank*	120 454.2	24" 609.6	Ellip	5' 8" 1727.2	2' 9 3/8" 847.85	10 1/8" 257.3	3' 0" 914.4	310 140.6	96	12
68270	250 Gallon Aboveground Storage Tank*	250 946.3	30" 762	Hemi	7' 10" 2387.6	3' 3 3/8" 1000.1	12 3/4" 323.9	3' 6" 1066.8	471 213.6	54	9
68272	320 Gallon Aboveground Storage Tank	320 1211.3	30" 762.0	Hemi	9' 7" 2921	3' 3 11/16" 1008.1	12 3/4" 323.9	4' 0 1/4" 1225.6	566 256.7	45	9
68274	500 Gallon Aboveground Storage Tank	500 1892.7	37.5" 952.5	Hemi	9' 10" 2997.2	3' 11 1/16" 1195.4	15" 381	5' 0" 1524	920 417.3	30	6
68276	1000 Gallon Aboveground Storage Tank	1000 3785.4	41" 1041.4	Hemi	15' 11" 4851.4	4' 2 1/2" 1282.7	16 1/4" 412.8	9' 0" 2743.2	1811 821.5	15	5

* Drain Plug Not Available

Federal, state or local regulations may contain specific applicable requirements for protective coatings and cathodic protection. The purchaser and installer are responsible for compliance with such federal, state, local and NFPA industry regulations, including, but not limited to, proper grounding prior to pulling into service. Coating (s) must be continuous, uninterrupted and must comply with local, state or national codes or regulations.

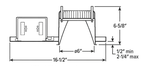


MADE IN THE U.S.A.
49041 04/2018

FITTING LAYOUT

6DR LED 6" Downlight – Round

Williams



L30 – L40 Lumens shown

CATALOG #:
TYPE:
PROJECT:

NEW CONSTRUCTION AND REMODEL

CCEA Low UGR IP65 JA8 TITLE 24 WET CC TrimLock

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV / OW - OF - CS - TRIM OPTIONS - N - P1
HOUSING / TRIM / MOUNTING

HOUSING

SERIES	LUMENS [1]	CRI	CCT	OPTIONS	CONTROL	DRIVER	VOLTAGE
6DR - TL TrimLock	L10 1,000lm [2]	8 80	27 2700K	See page 2 for EMERGENCY BATTERY OPTIONS.	See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.	See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.	347 347V [9]
	L15 1,500lm	9 90	30 3000K	SCA_ Sloped ceiling adapter [3]	None	DIM Dimming driver, 0-10V	
	L20 2,000lm		35 3500K	ATH Airtight construction	AVI-LVFA Avi-on wireless fixture control [4]	DIM1 1% Dimming driver, 0-10V	
	L30 3,000lm		40 4000K	Avail.	AWNR Lutron Athena wireless node integral fixture control, RF only [5]	DA Driver with 12V auxiliary power, without external dimming wires [6]	
	L40 4,000lm		50 5000K	P Chicago plenum (CCEA) [4]			
	L50 5,000lm			CP Shipdown transformer [7]			
	L60 6,000lm			SDT			
	L70 7,000lm						
	L80 8,000lm						

TRIM [10]

TRIM TYPE	DISTRIBUTION	FLANGE TYPE	REFLECTOR FINISH	TRIM OPTIONS
O Open reflector	See page 2 for BEAM ANGLE.	OF 1/2" standard flange	Open trim types	WHT Smooth matte white trim flange [16]
F Open reflector with frosted top diffuser [11]	W Wide	SF 1/4" mud-in flange [12]	CS Clear semi-specular anodize	IP IP65 rated trim [16]
L Flush lens	M Medium [14]		SG Satin gold anodize	AD Diffuse acrylic lens [17]
R Regressed lens	N Narrow [15]		GO Gold anodize	PD Diffuse 1/8" polycarbonate lens [18]
A Angled lens [12]	WW Wall wash [15]		CG Champagne gold anodize	WETCC Wet location, covered ceiling listed [19]
S Non-conductive flush lens for shower applications [13]			PW Pewter anodize	AM Anti-microbial [19]
			BRG Bronze gold anodize	
			RG Rose gold anodize	
			WH White texture powder coat	
			BL Black texture powder coat	
			Lens trim types	
			CS Clear semi-specular powder coat	
			WHT White texture powder coat	
			BL Black texture powder coat	
			MB Black texture spray with white flange [16]	

MOUNTING

MOUNTING TYPE [16]	MOUNTING HARDWARE [20]
N Open pan for new construction	P1 Integral 2-position fixed pan bracket, universal bar hanger included [16]
I IC-rated enclosure for new construction [21]	BAT Adjustable butterfly pan bracket, bar hanger not included [20]
R Remodel kit [16]	CA1 Adjustable caterpillar pan bracket, universal bar hanger included [20]

NOTES

1 Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2 Not available with Reflector Finish, L or S Trim Types.
3 15-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WETCC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DATA.
4 I Mounting Type required.
5 May be required for 347V, see product builder at lutron.com/product-builder.
6 DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
7 DA Driver only.
8 Avi-on and Lutron Athena Controls only.
9 Not available with EM batteries, DA or DIM1 Drivers.
10 Trim ships separately.
11 WETCC standard unless ordered with EM/RTS or SCA Options. L50 lumen package max.
12 Available with WW Distribution only.
13 Not available with CS or WH Reflector Finish only. Standard with AD, IP and WETCC Trim Options.
14 Not available with lumen stops L50 and higher when specified with L or R Trim Types.
15 Not available with lumen stops L50 and higher when specified with L or S Trim Types.
16 O and A Trim Types only.
17 For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 6 for FLANGE TYPE DETAILS. Not available with ATH or IP Options.
18 Not available with Reflector Finish, L or S Trim Types.
19 Not available with BV Reflector Finish, L or S Trim Types. L and R trim types only.
20 Not available with D or F Trim Types. W and WW Distributions only.
21 Not available with O or F Trim Types. W and WW Distributions only.
22 L50 lumen package max with O Trim Type.
23 Metal BL Reflector Finishes only. Not available with S Trim Type.
24 Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
25 Not available with emergency options available. See page 5 for MOUNTING HARDWARE DETAILS.
26 L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
27 Also used in new construction sheetrock ceilings. Pan less than 6" deep.
28 N and I Mounting Types only. I Mounting requires external brackets.
29 N Mounting Type only.
30 N Mounting Type only.

H.E. Williams, Inc. • Carthage, Missouri • www.hew.com • 417-358-4085 • Designed and Manufactured in the USA
Information contained herein is subject to change without notice. REV.070525.JL
Downlights
Page 1 of 6

508 Large Scale Classic

Project:
Location:

Catalog Number	MODEL	WATTS	FINISH	BAR CONFIG	OPTION(S)
Example: 508-1LED14-5AL-VB-40K	508	-	-	-	-

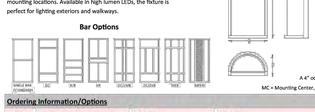
This large scale unit in the Classic series is ideal for higher mounting locations. Available in high lumen LEDs, the fixture is perfect for lighting exteriors and walkways.

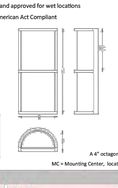
Features:
- Large solid aluminum bar fixture is ideal for larger spaces
- Solid aluminum bar stock for maximum rigidity and strength
- 1/8" extruded, opal acrylic front lens. Bottom lens standard
- Standard 0-10V dimming driver, 120-277V MVOLT, 80 CRI
- Listed and approved for wet locations
- Buy American Act Compliant

Dimensions

Width	Height	Depth
12"	26"	6.75"

Bar Options





A 4" octagonal junction box should be used for installation
MC = Mounting Center, located at center of fixture unless noted otherwise

Ordering Information/Options

Model	Watts		Finishes		Bar Config		Options	
508	1LED19	2000 Lumens	WHT	White		Standard Single Bar	TC	Top Cover
	2LED14	3100 Lumens	MVOLT	BLK	NB	No Bar	BC	Bottom Cover
	2LED19	4000 Lumens		SAL	DC	Double Cross Bar	PC	Photo Cell (TC required)
				BRZ	3CB	3 Lower Cross Bars	30K	3000 Kelvin Temperature
				BA	VB	Vertical Bar	35K	3500 Kelvin Temperature
				Brushed Aluminum	DC/1MB	Dbl Cross w/ 1 Middle Bar	40K	4000 Kelvin Temperature
					DC/2MB	Dbl Cross w/ 2 Middle Bars	IEM	Integral Emergency Pack
					DC/2VB	Dbl Cross w/ 2 Vert Bars		
					WEB	Dbl Cross w/2 Full Vert Bars		
					MPERF	Vertical Perf Center Panel		

Indessa Lighting
PHONE: 509.924.0243 www.indessa.com
Indessa Lighting reserves the right to make design revisions without prior notice.

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FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MD. 21740
PHONE: (301)733-5603
or (301)714-1259
FAX: (301)733-1853
82 WORMANS MILL COURT
SUITE "G"
FREDERICK, MD 21701
PHONE: (301)293-4080
FAX: (301)293-6009
Email: foxassoc@foxassociatesinc.com
www.foxassociatesinc.com

DATE	REVISION	DRAWN BY
05.16.25	REVISED PER AGENCY COMMENTS	WMH
04.14.25	REVISED PER AGENCY COMMENTS	WMH

SITE NOTES AND DETAILS
HERITAGE MANOR ASSISTED LIVING
SITE MODIFICATIONS
SITUATE AT 17165 BLACK STALLION LANE
HAGERSTOWN, MD 21740
WASHINGTON COUNTY, MARYLAND

SCALE: NTS

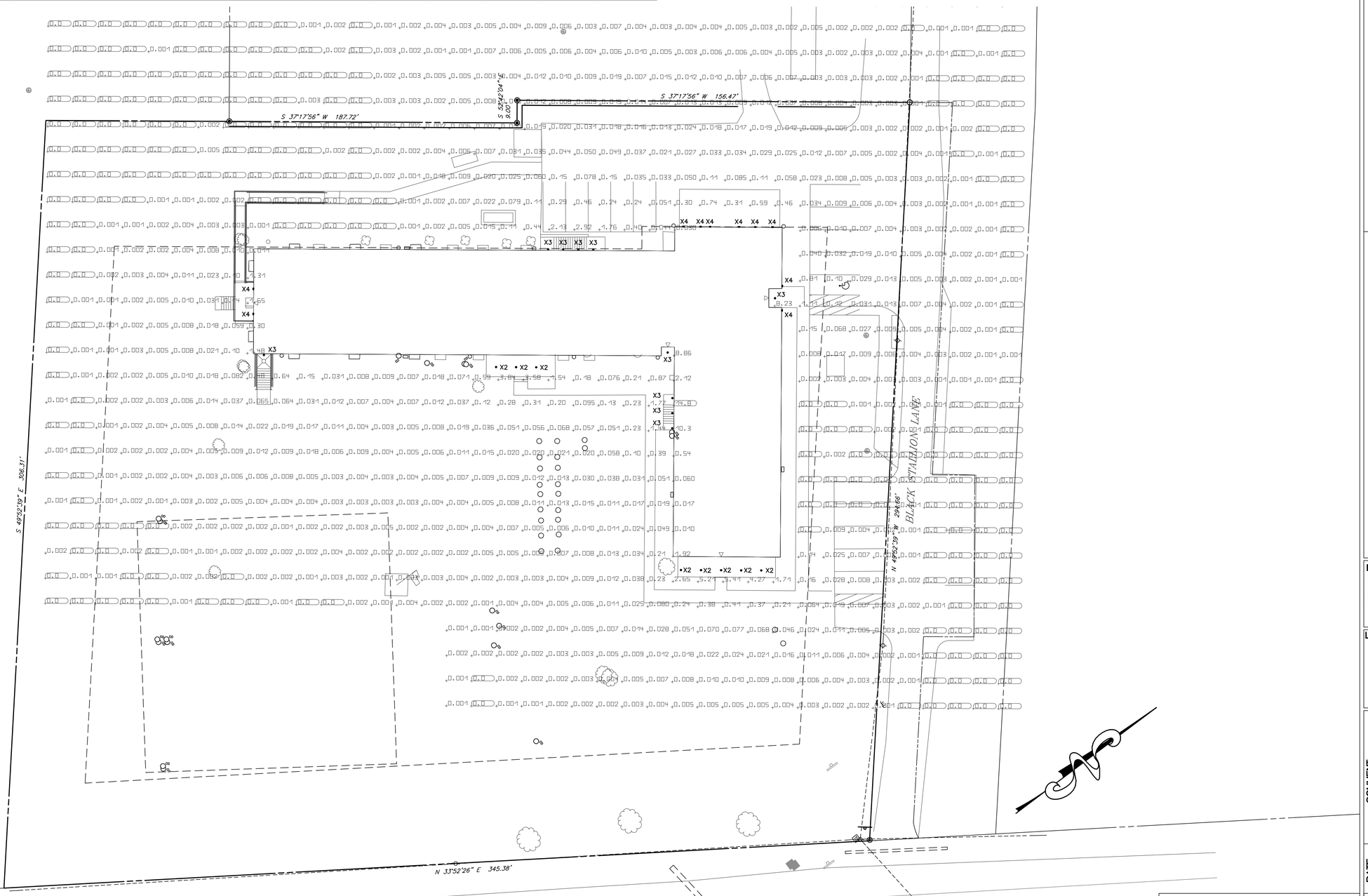
STATE OF MARYLAND SCOTT CHRISTOPHER CLAPPER 27053 PROFESSIONAL ENGINEER
May 16, 2025
LICENSE No.: 27053 EXP. DATE: 1/25/26

PROJECT NO. 24-32181
DRAWING NO. D-9529
DATE: JANUARY 2025
DRAWN BY: WMH
CHECKED BY: SCC

SHEET 4 OF 4

LUMINAIRE LIST									
INDEX	MANUFACTURER	ARTICLE NAME	ITEM NUMBER	FITTING	LUMINOUS FLUX	MAINTENANCE FACTOR	CONNECTED LOAD	MOUNTING HEIGHT	QUANTITY
X2	WILLIAMS LIGHTING	6" EXTERIOR LED DOWNLIGHT	6DR-TL-L15-835-DIM-UNV-LW-OF-WH	1X ONE WHITE LED	1178 lm	0.80	13.8 W	8'-5"	8
X3	WILLIAMS LIGHTING	6" EXTERIOR LED DOWNLIGHT	6DR-TL-L15-835-DIM-UNV-LW-OF-WH	1X ONE WHITE LED	1178 lm	0.80	13.8 W	8'-5"	10
X4	KICHLER LIGHTING	WESLEY OUTDOOR WALL LIGHT	49279PLLED	1X 56 WHITE LEDS	632 lm	0.80	15.6 W	6'-0"	10

#	NAME	PARAMETER	MIN	MAX	AVERAGE	MIN/AVERAGE	MIN/MAX
1	PROPERTY CALCULATION	PERPENDICULAR ILLUMINANCE	0.000 fc	14.8 fc	0.12 fc	0.00	0.00



PHOTOMETRIC PLAN

SCALE: 1" = 20'-0"

GRAPHIC SCALE (IN FEET)
1 INCH = 20 FOOT
20' 0 5' 10' 20' 40'

SEAL:

NOT FOR CONSTRUCTION

25-025

L.S. GRIM, INC.
Consulting Engineers
19922 JEFFERSON BLVD., HAGERSTOWN, MD 21742-4367
PHONE: 301.797.1702 FAX: 301.797.4931

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PHOTOMETRIC PLAN

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland

License Number: 14401

Expiration Date: 4/21/2027

LESLIE SCOTT GRIM, P.E.
CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE032636E
VA PROF. ENG. NO. 023240
WV PROF. ENG. NO. 10764

REV.	DATE	COMMENT
	5/5/2025	PLAN REVIEW

DRAWN BY: TMH

PP-1.1

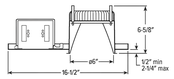
1 OF 2 SHEETS

DATE: MAY 5, 2025

6DR LED 6" Downlight – Round

Williams

NEW CONSTRUCTION AND REMODEL



L30 – L40 Lumens shown

CATALOG #:

TYPE:

PROJECT:

AMERICAN MADE · CCEA Approved · Low UGR · IP65 Rated · JA8 Compliant · TITLE 24 · WET/CC · TrimLock

ORDERING EXAMPLE: 6DR - TL - L20/835 - OPTIONS - CONTROL/DIM - UNV - OW - OF - CS - TRIM OPTIONS - N - F1
(HOUSING) (TRIM) (MOUNT)

HOUSING

SERIES	LUMENS [1]	CRI	CCT
6DR - TL TrimLock	**L10** 1,000lm [2]	**8** 80	**27** 2700K
	L15 1,500lm	**9** 90	**30** 3000K
	L20 2,000lm		**35** 3500K
	L30 3,000lm		**40** 4000K
	L40 4,000lm		**50** 5000K
	L50 5,000lm		
	L60 6,000lm		
	L70 7,000lm		
	L80 8,000lm		

OPTIONS

See page 3 for EMERGENCY BATTERY OPTIONS.

- **SCA_** Sloped ceiling adapter [3]
- **ATH** Airtight construction
- **F** Fuse
- **CP** Chicago plenum (CCEA) [4]
- **SDT** Stepdown transformer [5]

CONTROL

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

- **–** None
- **AVI-LVFA** Avi-on wireless fixture control [6]
- **AWNR** Lutron Athena wireless node integral fixture control, BF only [7]

DRIVER

See page 6 for ADDITIONAL CONTROL/DRIVER OPTIONS.

- **DIM** Dimming driver, 0-10V
- **DIM1** 1% Dimming driver, 0-10V
- **DA** Driver with 12V auxiliary power, without external dimming wires [8]

VOLTAGE

- **UNV** 120-277V
- **347** 347V [9]

TRIM [10]

TRIM TYPE

- **O** Open reflector
- **F** Open reflector with frosted top diffuser [11]
- **L** Flush lens
- **R** Regressed lens
- **A** Angled lens [12]
- **S** Non-conductive flush lens for shower applications [13]

DISTRIBUTION

See page 2 for BEAM ANGLE.

- **W** Wide
- **M** Medium [14]
- **N** Narrow [15]
- **WW** Wall wash [16]

FLANGE TYPE

- **OF** 1/2" standard flange
- **SF** 1/4" mud-in flange [17]

REFLECTOR FINISH

Open trim types

- **CS** Clear semi-specular anodize
- **SG** Satin-glow anodize
- **GD** Gold anodize
- **CG** Champagne gold anodize
- **PW** Pewter anodize
- **SPC** Clear specular anodize
- **RG** Rose gold anodize
- **WH** White texture powder coat
- **BL** Black texture powder coat

Lens trim types

- **CS** Clear semi-specular powder coat
- **WH** White texture powder coat
- **BL** Black texture powder coat
- **MB** Black texture splay with white flange [18]

TRIM OPTIONS

- **MWT** Smooth matte white trim flange [19]
- **IP** IP65 rated trim [20]
- **AD** Diffuse acrylic lens [21]
- **PD** Diffuse 1/8" polycarbonate lens [22]
- **WET/CC** Wet location, covered ceiling listed [23]
- **AM** Anti-microbial [24]

MOUNTING

MOUNTING TYPE [25]

- **N** Open pan for new construction
- **I** IC-rated enclosure for new construction [27]
- **R** Remodel kit [28]

MOUNTING HARDWARE [26]

- **F1** Integral 2-position fixed pan bracket, universal bar hanger included [29]
- **BA1** Adjustable butterfly pan bracket, bar hanger not included [30]
- **CA1** Adjustable caterpillar pan bracket, universal bar hanger included [31]

NOTES

1. Lumen output based on O Trim Type, W Distribution and CS Reflector Finish, 80 CRI/3500K CCT. Actual performance may vary +/-5%. See page 2 for FIXTURE PERFORMANCE DATA.
2. Not available with EM/10W emergency batteries.
3. 11-1/2" aperture, specify degrees of slope in 5° increments, 05°-30°. Not available with I Mounting Type, S Trim Type, ATH, IP, or WET/CC Options. Painted white. Other colors available, consult factory. See page 4 for SLOPED CEILING ADAPTOR DETAILS.
4. I Mounting Type required.
5. May be required for 347V, see product builder at hew.com/product-builder
6. DA Driver only. See page 6 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
7. DA Driver only.
8. Avi-on and Lutron Athena Controls only.
9. Not available with EM batteries, DA or DMX Drivers.
10. Trim ships separately.
11. WET/CC standard unless ordered with EM/RTS or SCA Options. L50 lumen package max.
12. Available with WW Distribution only.
13. W Distribution, OF Flange Type and WH Reflector Finish only. Standard with AD, IP and WET/CC Trim Options.
14. Not available with lumen stops L50 and higher when specified with L or R Trim Types.
15. Not available with lumen stops L50 and higher when specified with L or R Trim Types.
16. O and A Trim Types only.
17. For use with mud-in plaster construction only, supplied with mud flange installation kit. See page 4 for FLANGE TYPE DETAILS. Not available with ATH or IP Options.
18. R Trim Type only. Not available with MWT.
19. Not available with WH Reflector Finish, L or S Trim Types.
20. L and R trim types only.
21. Not available with O or F Trim Types. W and WW Distributions only.
22. Not available with O or F Trim Types. W and WW Distributions only.
23. L50 lumen package max with O Trim Type.
24. WH and BL Reflector Finishes only. Not available with S Trim Type.
25. Mounting hardware required (N and I only), ordered separately, see MOUNTING HARDWARE ordering info. See page 5 for MOUNTING TYPE DETAILS.
26. Additional mounting hardware options available. See page 5 for MOUNTING HARDWARE DETAILS.
27. L30 lumen package max. Not available with EM batteries or Lutron Athena Controls.
28. Also used in new construction sheetrock ceilings. Pan-less installation.
29. N and I Mounting Types only. I Mounting requires external brackets.
30. N Mounting Type only.
31. N Mounting Type only.

Wesley Outdoor Wall Light 2-Light | Metal Cylinder Shade — 49279AZTLED

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SPECIFICATIONS

Certifications/Qualifications

ADA Compliant	No
Prop65	No
Dark Sky Compliant	No
Location Rating	Wet
	kichler.com/warranty

Dimensions

Height	13.75"
Width	7"
Height From Center Of Wall	7"
Opening (Spec Sheet)	
Extension	4"
Weight	3.7 LBS
Canopy Height	4.25"
Canopy Width	5.5"
Canopy Depth	1"

Electrical

Input Voltage	120 V

Light Source

Light Source	Integrated LED
Lamp Included	Integrated
# Of Bulbs/LED Modules	2
Max Or Nominal Watt	20 W
Max Wattage/Range	20
Dimmable	Yes
Dimmable Notes	This LED Is Compatible With Most Standard Incandescent Dimmers, LED Dimmers, And Electronic Low Voltage Dimmers. For More Information, Go To Kichler.com/dimming.

Photometrics

Color Rendering Index	90
Color Temperature Range	3000 K
Delivered Lumens	700
Delivered Efficacy (Lumens/Watt)	90

Mounting/Installation

Interior/Exterior	Exterior Product
Mounting Style	WALL MOUNT
Mounting Weight	3.37 LBS
Modular	Yes
Lead Wire Length	6

FIXTURE ATTRIBUTES

Housing/Glass

Primary Material	Aluminum
Shade Included	Yes
Shade Description	Metal Cylinder Shade
Shade Dimensions	13.75 X7.00 X 3.00

Product/Ordering Information

Sku	49279AZTLED
Finish	Textured Architectural Bronze
UPC	783927458610

Finishes

- Black
- Platinum
- Textured Architectural Bronze

ALSO IN THIS FAMILY

49278AZTLED | 49278BKLED | 49278PLLED

49278WHLED

SEAL:

NOT FOR CONSTRUCTION

25-025

L.S. GRIM, INC.
Consulting Engineers
19922 JEFFERSON BLVD., HAGERSTOWN, MD 21742-4367
PHONE: 301.797.1702 FAX: 301.797.4931
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LIGHTING SPECIFICATION SHEETS

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland

License Number: 14401

Expiration Date: 4/21/2027

LESLIE SCOTT GRIM, P.E.

CO PROF. ENG. NO. PE00050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
HI PROF. ENG. NO. PE13943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE032836E
VA PROF. ENG. NO. 0232240
WV PROF. ENG. NO. 10764

REV.	DATE	COMMENT
	5/5/2025	PLAN REVIEW

DRAWN BY: TMH

PP-1.2

2 OF 2 SHEETS

DATE: MAY 5, 2025

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....: Site Plan for Hard Rock Excavation
NUMBER.....: SP-24-033

OWNER.....: EBY DWIGHT M EBY KRISTINE J
LOCATION.....: 17026 BROADFORDING Road
Hagerstown, MD 21740
DESCRIPTION.....: establish contractor excavating business with office

ZONING.....: Agricultural, Rural
COMP PLAN LU.....: Agriculture
PARCEL.....: 13002223
PLANNING SECTOR.....: 1
ELECTION DISTRICT.....: 13

TYPE.....: Commercial
GROSS ACRES.....: 3.78
DWELLING UNITS.....: 1
TOTAL LOTS.....: 1
DENSITY.....: 0.2646 Units Per Acre

PLANNER.....: Misty Wagner-Grillo
ENGINEER.....: FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....: December 4, 2024

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....: No
WETLANDS.....: No
WATERSHED.....: Conococheague Creek
ENDANGERED SPECIES.....: None
STEEP SLOPES.....: No
STREAM BUFFER.....: No
HISTORIC INVENTORY.....: No Resources Present
EASEMENTS PRESENT.....: None

Staff Comments:

Not Applicable

SITE DESIGN

Impervious Area Plan	Impervious Maximum Allowed	Open Space Area Planned
45	80	
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
		Dumpster
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
	Yes	Yes
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Yes		
Loading Area Meets Requirements		
		Not Fast Track
Parking Spaces - Total Planned	**Parking Spaces - Per Dwelling Unit**	
8		
Parking Spaces - Minimum Required	**Recreational Parking Provided**	
8	No	

ACCESS SPACING VARIANCE NEEDED: No
NUMBER OF ACCESS POINTS: 1

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Maugansville	Western Heights	North Hagerstown
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	Maugansville
AMBULANCE DISTRICT.....:	Maugansville

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	City	Septic Tank
SERVICE AREA.....:	City	Septic
PRIORITY.....:	1-Existing Service	7-No Planned Service-Septic
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		None

SITE PLAN

FOR

HARD ROCK EXCAVATION

SITUATED AT 17028 BROAD FORDING ROAD

WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

LEGEND

	EXISTING	PROPOSED
SUBJECT BOUNDARY		
BUILDING SETBACK LINE		
RIGHT OF WAY		
EASEMENT LINE		
ADJOINER BOUNDARY		
FENCE (METAL)	X X X X X X X	X X X X X X X
FENCE (WOODEN)		
DITCH (STREAM)		
EDGE OF WATER		
WETLAND		
FLOODPLAIN		
SOIL BOUNDARY		
RAILWAY		
CENTERLINE		
EDGE OF PAVEMENT		
EDGE OF GRAVEL		
CURB		
WALL		
GUARD RAIL		
EDGE OF CONCRETE		
BUILDING		
MAIL BOX	MB	MB
SIGN (ROAD)		
SIGN (SITE)		
TRAFFIC SIGNAL		
TOPOGRAPHIC FEATURES		
CONTOUR (INDEX)	500	500
CONTOUR (INTERMEDIATE)	501	501
SPOTS ELEVATION	x501.65	x501.65
VEGETATION AREAS		
TREELINE		
DECIDUOUS TREES		SEE LANDSCAPE SHEET FOR LEGEND
EVERGREEN TREES		SEE LANDSCAPE SHEET FOR LEGEND
SANITARY SEWER		
GRAVITY LINE	SS SS SS	SS SS SS
FORCE MAIN LINE	FM FM FM	FM FM FM
LATERAL		
MANHOLE	SS	SS
CLEANOUT		
VALVE		
WATER		
COLD WATER LINE	W W W W	W W W
HOT WATER LINE	HW HW HW	HW HW HW
MANHOLE	MH	MH
FIRE HYDRANT		
VALVE		
METER		
WELL		
STORM DRAINAGE		
STORM SEWER LINE		
ROOF DRAIN LINE		
MANHOLE	SW	
INLETS		
CLEANOUT		
UTILITIES		
GAS LINE	G G G G	G G G G
ELECTRICAL LINE	UGE UGE UGE	UGE UGE UGE
FIBER OPTIC LINE	FO FO FO	FO FO FO
COMMUNICATION LINE	COMM COMM	COMM
OVERHEAD LINES	OH OH OH	OH OH OH
MANHOLE	MH	MH
PEDS, BOX, & ETC		
POLE		
LIGHT POLE		
GAS METER		
GAS VALVE		

LEGEND - ABBREVIATIONS

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADS	ADVANCED DRAINAGE SYSTEM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIAL
AWWA	AMERICAN WATER WORKS ASSOCIATION
BLDG	BUILDING
BOT	BOTTOM
CIP	CAST IRON PIPE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	SANITARY SEWER CLEAN-OUT
COMM	COMMUNICATION
CONC	CONCRETE
DA	DRAINAGE AREA
DIA	DIAMETER
EGL	EXISTING GRADE LINE
EX	EXISTING
EIP	EXISTING IRON PIN
FFE	FINISH FLOOR ELEVATION
FH	FIRE HYDRANT
GV	GATE VALVE
HGL	HYDRAULIC GRADE LINE
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
LF	LINEAR FEET
MAX	MAXIMUM
MB	MAIL BOX
MIN	MINIMUM
MJ	MECHANICAL JOINT
NO	NUMBER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OAC	OR APPROVED EQUAL
OC	ON CENTER
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PGL	PROPOSED GRADE LINE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
ROW	RIGHT-OF-WAY
SAN	SANITARY
SCE	STABILIZED CONSTRUCTION ENTRANCE
SDR	STANDARD DIMENSION RATIO
SIP	SET IRON PIN
SD	STORM DRAINAGE
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SY	SQUARE YARDS
TAN	TYPE AS NOTED
TEMP	TEMPORARY
TS	TOP OF STRUCTURE
TG	TOP OF GRATE
TR	TOP OF RIM
TYP	TYPICAL
U/P	UTILITY POLE
VIF	VERIFY IN FIELD
WL	WATERLINE
WM	WATER METER
WV	WATER VALVE

CLIENT/OWNER/DEVELOPER:
HARD ROCK EXCAVATION
17026 BROADFORDING RD.
HAGERSTOWN, MD 21740

ATTN: DWIGHT EBY
EMAIL: EBYDWIGHT@GMAIL.COM
PHONE: (301)-991-8452

CIVIL ENGINEER / SURVEYOR:
FREDERICK, SEIBERT & ASSOC., INC.
128 S. POTOMAC ST.
HAGERSTOWN, MD 21740

PROJECT MANAGER: ADAM HAGER
EMAIL: AHAGER@FSA-INC.COM
PHONE: (301)-791-3650

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by Triad Engineering, Inc. for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Division of Engineering	(240) 313-2460
Washington County Soil Conservation District	(301) 797-6821

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Benchmarks to be established by FSA prior to the start of construction.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by Triad Engineering for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. All handicapped parking spaces shall be designed, ramped and signed to meet the minimum requirements of the Maryland Accessibility Code and ADA Standards for Accessible Design.
20. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in December 2023. (Contour accuracy is to plus or minus one half the contour interval).
21. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
22. This project has a projected start date of April 2025 and a completion date of September 2025.
23. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County.
24. On March 5, 2008 the Washington County Board of Zoning Appeals acted on and approved Case AP2008-008 which reduced the left side yard to 71' and the right side yard to 89' for a structure housing animals. This case also increased the density of 1 dwelling unit per 5 acres to 1 dwelling unit on 1.83 acres for homes that exist on the subject property shown hereon. The Washington County Board of Zoning Appeals imposed one condition that no more than 30 animals be housed in the barn. Washington County Board of Zoning Appeals has granted a special exemption to establish a contractor's equipment and storage yard with office space for an excavation business and a variance to reduce the required setback from 50 feet to 32 feet for the existing dwelling to be converted into commercial office space for the excavating business on July 25, 2024, AP2024-024.
25. Proposed SWM will consist of on-site submerged gravel wetlands and infiltration berms.
26. There are no parks, open space within or adjoining the tract.
27. All existing drainage culverts and drainage easements are to be maintained and unaltered.
28. There are no existing or proposed pumping stations in this development.
29. No permanent structures (e.g., fences, sheds) shall be permitted within any stormwater or storm drainage easement on this property.
30. All grading for this project shall be the full responsibility of the lot/parcel owner.
31. This project will require a third-party qualified professional to be present at the preconstruction meeting scheduled with Washington County Division of Construction and the Washington County Soil Conservation District. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
32. Developer/Contractor must contact the certifying engineer and Washington County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time schedules.
33. A public Works Agreement and performance security will be required for all improvements within the County right-of-way that are not otherwise regulated under a utility permit or entrance permit.
34. In conformance with the stormwater management ordinance of Washington County, a performance security and executed maintenance and access agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans.
35. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Engineering and Construction.
36. Any development or construction, including but limited to: filling, grading, erecting or installing a temporary structure, or alteration of a watercourse, which is wholly within, partially within, or in contact with any flood hazard area requires a floodplain permit from Washington County.
37. Please be advised that any project which creates a disturbance of one (1) acre or more will require a 'Notice of Intent to comply with the General Permit for Storm Water Discharges associated with Construction Activity' (NOI). The NOI is required under the Clean Water Act as stated in 40 CFR 122.26 and Code of Maryland Regulations COMAR 26.08.04.09A and is regulated by the Maryland Department of Environment (MDE). The NOI is to be submitted with the appropriate fees directly to the MDE prior to commencement of construction activity. No land disturbing activity that requires a grading permit from Washington County should proceed until the general permit for Storm Water Discharges associated with construction activity (MDR10) has been used by MDE.
38. In conformance with the Storm Water Management Ordinance of Washington County, a performance security and executed maintenance and access agreement shall be required from the Developer prior to issuance of any building or grading permit for construction per these plans.
39. There are no known floodplains, streams and related buffers, or habitat of threatened or endangered species identified by the U.S. Fish and Wildlife Service per 50 CFR 17 as required to be shown by Section 4.21 of the Washington County Zoning Ordinance. This site is not within 1,000 feet of the Appalachian Trail.
40. By Article 6A entitled "Express Procedure" of the Washington County Forest Conservation Ordinance the owner has elected to pay into the Washington County Forest Conservation Fund the amount of $3,005.64. This amount was determined by the Forest Conservation Worksheet, as shown on sheet 3, at the rate of 30 cents per square foot.
41. The water demand is expected to decrease from the current use. The EDU will remain the same at 1 EDU per meter for a period of 12-18 months. If an additional EDU is required, it will be purchased at that time.

SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-101	SHEET 02	EXISTING CONDITIONS
C-102	SHEET 03	GRADING, EROSION, & SEDIMENT CONTROL PLAN
C-103	SHEET 04	SITE & DIMENSION PLAN
C-301	SHEET 05	STORMWATER MANAGEMENT PLAN
C-302	SHEET 06	STORMWATER MANAGEMENT DETAILS & NOTES
C-501	SHEET 07	CONSTRUCTION DETAILS & NOTES

ZONING DATA

ZONING DISTRICT	AR - AGRICULTURAL RURAL DISTRICT
BUILDING HEIGHT	100 FT
MINIMUM YARD SETBACK:	
FRONT	50 FT.
SIDE	50 FT.
REAR	50 FT.

BOARD OF ZONING APPEALS' CASE____AP2008-008, AP2024-024 (SEE GENERAL NOTE 24)

SITE DATA

TAX MAP - GRID - PARCEL	0023-0023-0568
ELECTION DISTRICT	13
ACCOUNT NUMBER	002223
LIBER / FOLIO	04438 / 00183
PLAT NUMBER	9470
AREA SUMMARY:	
PARCEL	3.78 AC.
DISTURBED AREA	47,790.4 S.F. / 1.10 AC.
EXISTING IMPERVIOUS	67,082 S.F. / 1.54 AC (41%)
PROPOSED TOTAL IMPERVIOUS	73,616 S.F. / 1.69 AC (45%)
BUILDING SUMMARY:	
FOOTPRINT	3,000 S.F. & 6,000 S.F.
HEIGHT	28 FT
PROPOSED USE	EXCAVATING CONTRACTOR
HOURS OF OPERATION	MON. - FRI. 7AM - 5PM
EMPLOYEE SUMMARY	8
WATER & SEWER USAGE:	
WATER PROVIDED	CITY OF HAGERSTOWN WATER DIVISION
SEWER PROVIDED	PRIVATE SEPTIC
EXISTING ALLOCATION	200 GPD
PROPOSED ALLOCATION	200 GPD
WASTE & RECYCLABLES:	
SOLID WASTE REMOVAL	ONSITE DUMPSTER
RECYCLE REMOVAL	PRIVATE HAULER: TRASH CAN INSIDE
SITE LIGHTING:	
EXISTING	BUILDING MOUNTED
PROPOSED	NONE
SITE SIGNAGE:	
EXISTING	NONE
PROPOSED	NONE
WAIVER AND/OR VARIANCE	NONE
FOREST CONSERVATION	0.23 AC. REQUIRED, PAY-IN-LIEU - $3,005.64
WATERSHED:	
NAME	CONOCOCHEAGUE CREEK
NUMBER	02-14-05-04
FEMA PANEL #	24043C0120D
DELIVERIES	BOX TRUCK WEEKLY

PARKING, LOADING & BICYCLE DATA

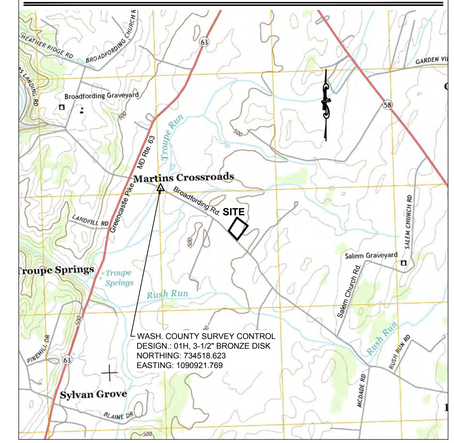
USE	REQUIREMENT	CALCULATION	REQUIRED
CONTRACTOR	1 SPACE PER EMPLOYEE	8	8 SPACES
TOTAL REQUIRED SPACES			**8 SPACES**
TOTAL PROVIDED PARKING SPACES			**8 SPACES (REGULAR)** **1 SPACE (HANDICAP)** **9 TOTAL SPACES**

*THERE WILL BE NO CUSTOMERS COMING TO THE SITE/OFFICE.

VICINITY MAP

SCALE: 1" = 2,000'

ADC MAP 9, E11
USGS MAPS (MASON DIXON, MD-PA)



APPROVALS

MD-ENG-6A
1/89

USDA
SCS

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at:

Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY
1.1 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY
105 CU. YDS. OF EXCAVATION AND APPROXIMATELY
367 CU. YDS. OF FILL.

WASHINGTON COUNTY SOIL CONSERVATION DISTRICT
SOIL EROSION AND SEDIMENT CONTROL PLAN APPROVAL

By: _____

Date: _____

(PLAN IS VALID FOR TWO YEARS FROM DATE OF APPROVAL)

WASHINGTON COUNTY
DIVISION OF ENGINEERING

APPROVED BY:_____

DATE:_____

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

2-25-25 — DATE
Dwight Eby — PRINTED NAME
SIGNATURE

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

2-25-25 — DATE
Dwight Eby — PRINTED NAME
SIGNATURE

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

DATE — REG. NO. — SIGNATURE

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

SIGNATURE — DATE — SEAL

ESD Practices (Chapter 5 - Structural & Non-Structural)

TYPE	NO.	DA (ACRES) (To Structure)	IMPERVIOUS DA (ACRES) (To Structure)	RCN	WQv (ac-ft)	ESDv (ac-ft)	Pe Addressed (In)
Submergered Gravel Wetland	1	1.74 ac.	1.01 ac.	83	0.23 acft	0.23 acft	2.00
Non Rooftop disconnection	2	0.55 ac.	0.17 ac.	89	0.010 acft	0.010 acft	2.60
Infiltration berm	3	0.31 ac.	0.21 ac.	79	0.040 acft	0.040 acft	2.55
Infiltration berm	4	0.31 ac.	0.21 ac.	79	0.040 acft	0.040acft	2.55

Know what's **below.**
Call before you dig.

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49808
Expiration Date 06-24-2026

FSA
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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-267-4007
505 SOUTHHANOVER STREET CARLISLE, PA 17013 717-243-7611
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2061
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MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY AGENCIES COMMENTS	03-05-2025
2	REVISED PER COUNTY AGENCIES COMMENTS	05-16-2025

HARD ROCK EXCAVATION
SITUATED AT 17028 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE
WASHINGTON COUNTY, MARYLAND
HARD ROCK EXCAVATION
17028 BROADFORDING RD. HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301)-991-8452

PROJECT NO. 4976.1
DWN BY DWH — DATE 11-13-2024
PROJECT MANAGER ADAM HAGER
EMAIL AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL 0023-0023-0568
SCALE NONE
SHEET TITLE

COVER SHEET

C-001
SHEET 01 OF 07

SP-24-033

P:\SHARED FOLDERS\PROJECTS\4000-4999\4976 (DWG\CONSTRUCTION SET\4976 1CC-C-001-COVER SHEET.DWG 2025-05-16

SITE RESOURCES

MAJOR WATERWAYS	NONE	
PERENNIAL STREAMS	NONE	
INTERMITTENT STREAMS	NONE	
SPRINGS & SEEPS	NONE	
WETLANDS	NONE	PER NATIONAL WETLANDS MAPPER
FLOODPLAINS	NONE	
STREAM BUFFERS	NONE	
FOREST	NONE	
NON-FOREST	NONE	
STEEP SLOPES	NONE	
GEOLOGY	TBD	
HIGHLY ERODIBLE SOILS	1.10 AC.	

SOILS	NAME	K-FACTOR	HSG
HaB	Hagerstown silt loam, 3 to 8 percent slopes	0.37	B
HdB	Hagerstown-Duffield-Urban land complex, 0 to 8 percent slopes	0.37	B
SpA	Swanpond silt loam, 0 to 3 percent slopes	0.49	D

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 44604
Expiration Date: 06-24-2026

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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1407
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

HARD ROCK EXCAVATION
17026 BROADFORDING RD. HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL: 0023-0023-0568	
SCALE: 1" = 30'	
SHEET TITLE: EXISTING CONDITIONS	

C-101
SHEET 02 OF 07

SP-24-033

HATCH LEGEND

- TEMPORARY STABILIZATION MATTING, CURLEX TYPE CL-II
- PERMANENT STABILIZATION MATTING, NORTH AMERICAN GREEN P300
- SUBMERGED GRAVEL WETLAND
- PROPOSED GRAVEL
- EXISTING CONCRETE

1 NOTE: ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

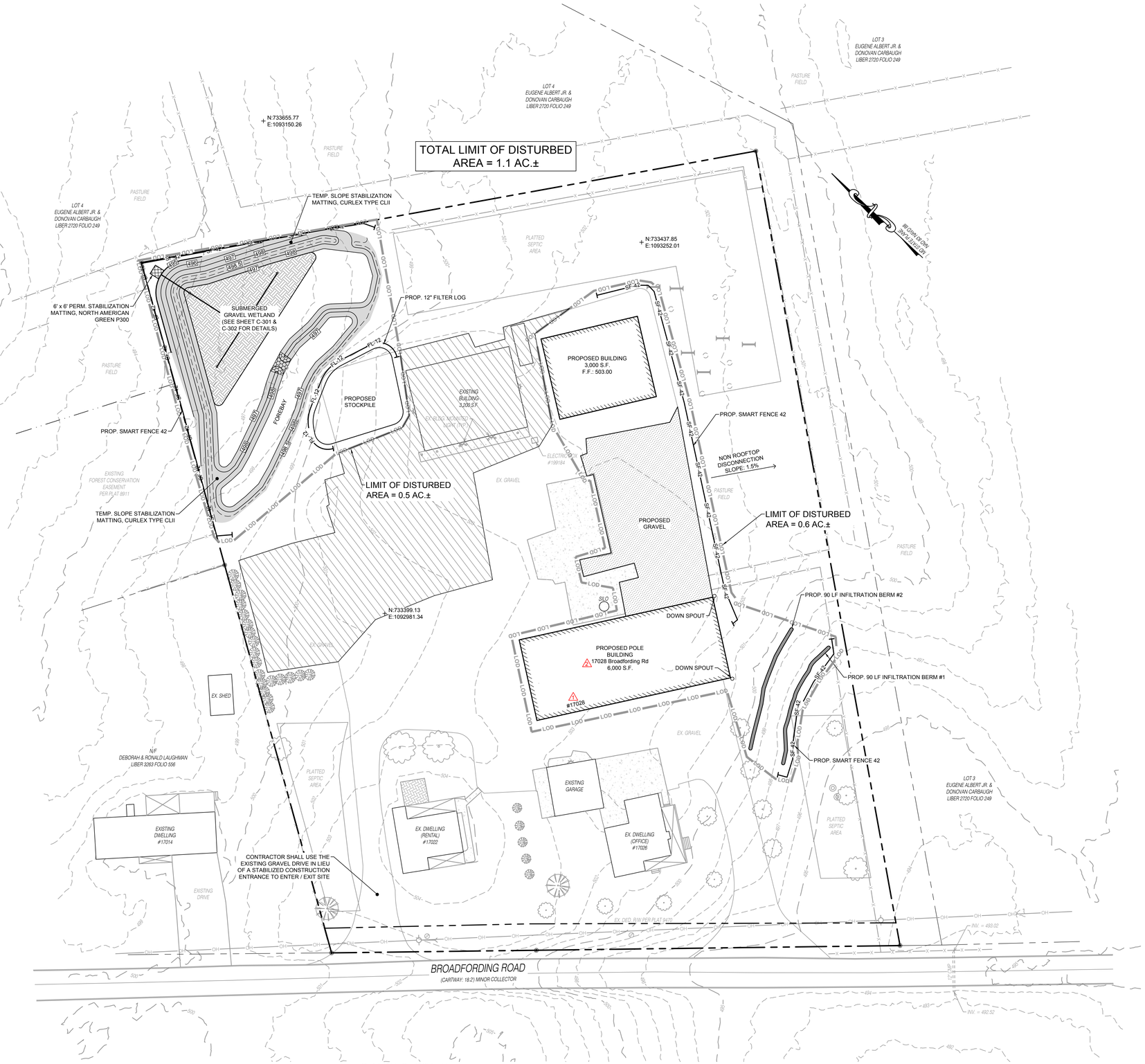
Note: By Article 6A entitled "Express Procedure" of the Washington County Forest Conservation Ordinance the owner has elected to pay into the 1 Washington County Forest Conservation Fund the amount of $3,606.77 This amount was determined by the Forest Conservation Worksheet shown below at the rate of 30 cents per square foot.

FOREST CONSERVATION WORKSHEET 2.2

NET TRACT AREA	
A. Total Tract Area	= 1.52 Ac.
B. Deductions	= 0.00 Ac.
C. Net Tract Area	= 1.52 Ac.
LAND USE CATEGORY CIA	
D. Afforestation Threshold (Net Tract Area x 15%)	= 0.23 Ac.
E. Conservation Threshold (Net Tract Area x 15%)	= 0.23 Ac.
EXISTING FOREST COVER	
F. Existing Forest Cover within the Net Tract Area	= 0.00 Ac.
G. Area of Forest Above Conservation Threshold	= 0.00 Ac.
BREAK EVEN POINT	
H. Break Even Point	= 0.00 Ac.
I. Forest Clearing Permitted Without Mitigation	= 0.00 Ac.
PROPOSED FOREST CLEARING	
J. Total Area of Forest to be Cleared	= 0.00 Ac.
K. Total Area of Forest to be Retained	= 0.00 Ac.
PLANTING REQUIREMENTS	
L. Reforestation for Clearing Above the Conservation Threshold	= 0.00 Ac.
M. Reforestation for Clearing Below the Conservation Threshold	= 0.00 Ac.
N. Credit for Retention above the Conservation Threshold	= 0.00 Ac.
P. Total Reforestation Required	= 0.00 Ac.
Q. Total Afforestation Required	= 0.23 Ac.
R. Total Planting Requirement	= 0.23 Ac.
or	10,018.8 S.F.

Note: The 'Total Tract Area' within the Forest Conservation Worksheet is larger than the Limit of Disturbance (1.1 ac.) due to the previous unpermitted development. This plan is addressing forest mitigation for the previous unpermitted and the propose site development from this site plan.

1 0.42 Ac. of previously unpermitted area



Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49808
Expiration Date: 06-24-2026

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MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY AGENCIES COMMENTS	03-05-2025
2	REVISED PER COUNTY AGENCIES COMMENTS	5/16/2025

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

HARD ROCK EXCAVATION
17026 BROADFORDING RD. HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

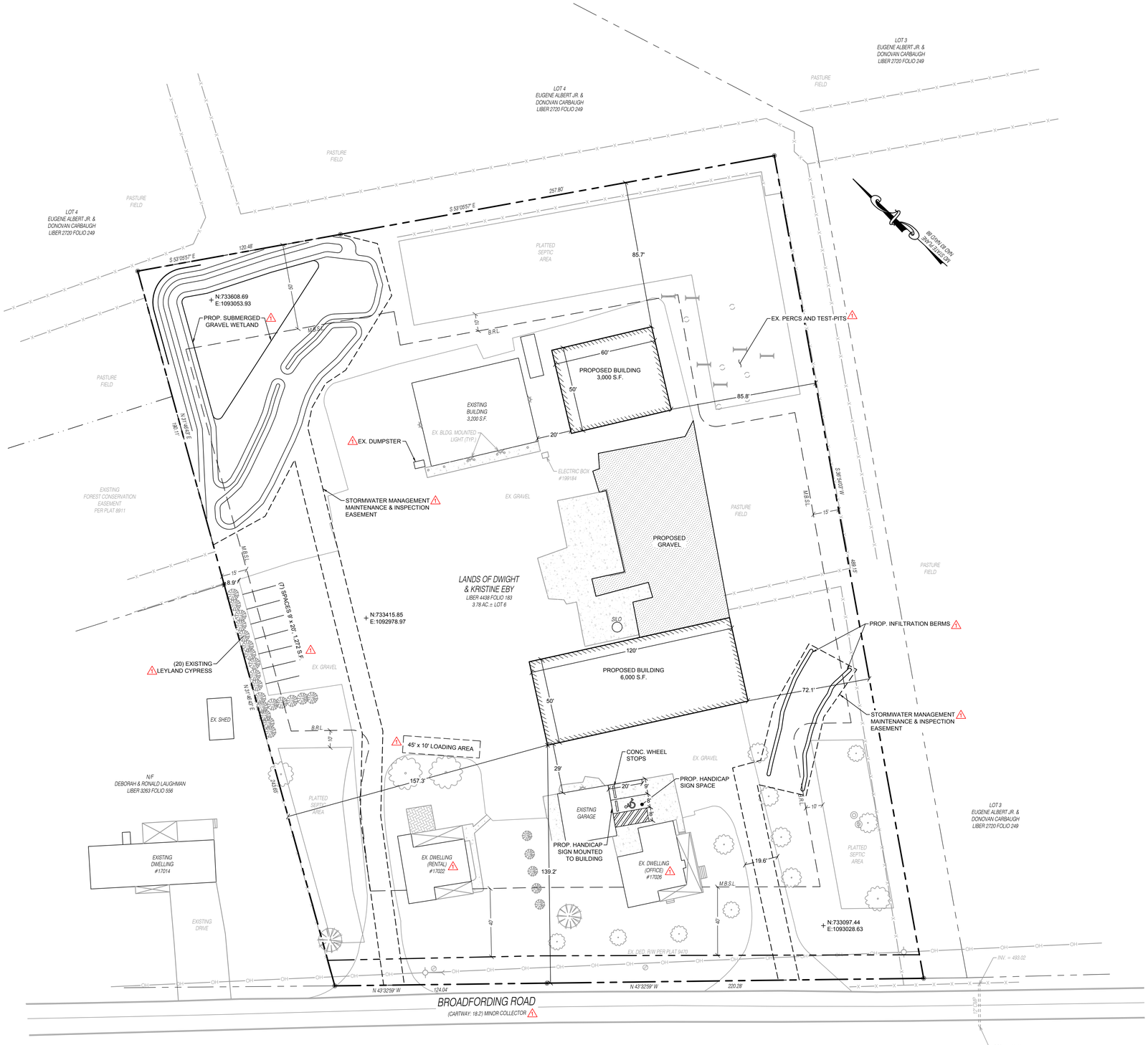
PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER:	ADAM HAGER
EMAIL:	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0023-0023-0568
SCALE	1" = 30'

SHEET TITLE

GRADING, EROSION & SEDIMENT CONTROL PLAN

C-102
SHEET 03 OF 07

SP-24-033



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of:
MARYLAND License #: 49808
Expiration Date 06-24-2026

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MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY AGENCIES COMMENTS	03-05-2025

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

HARD ROCK EXCAVATION
17026 BROADFORDING RD. HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

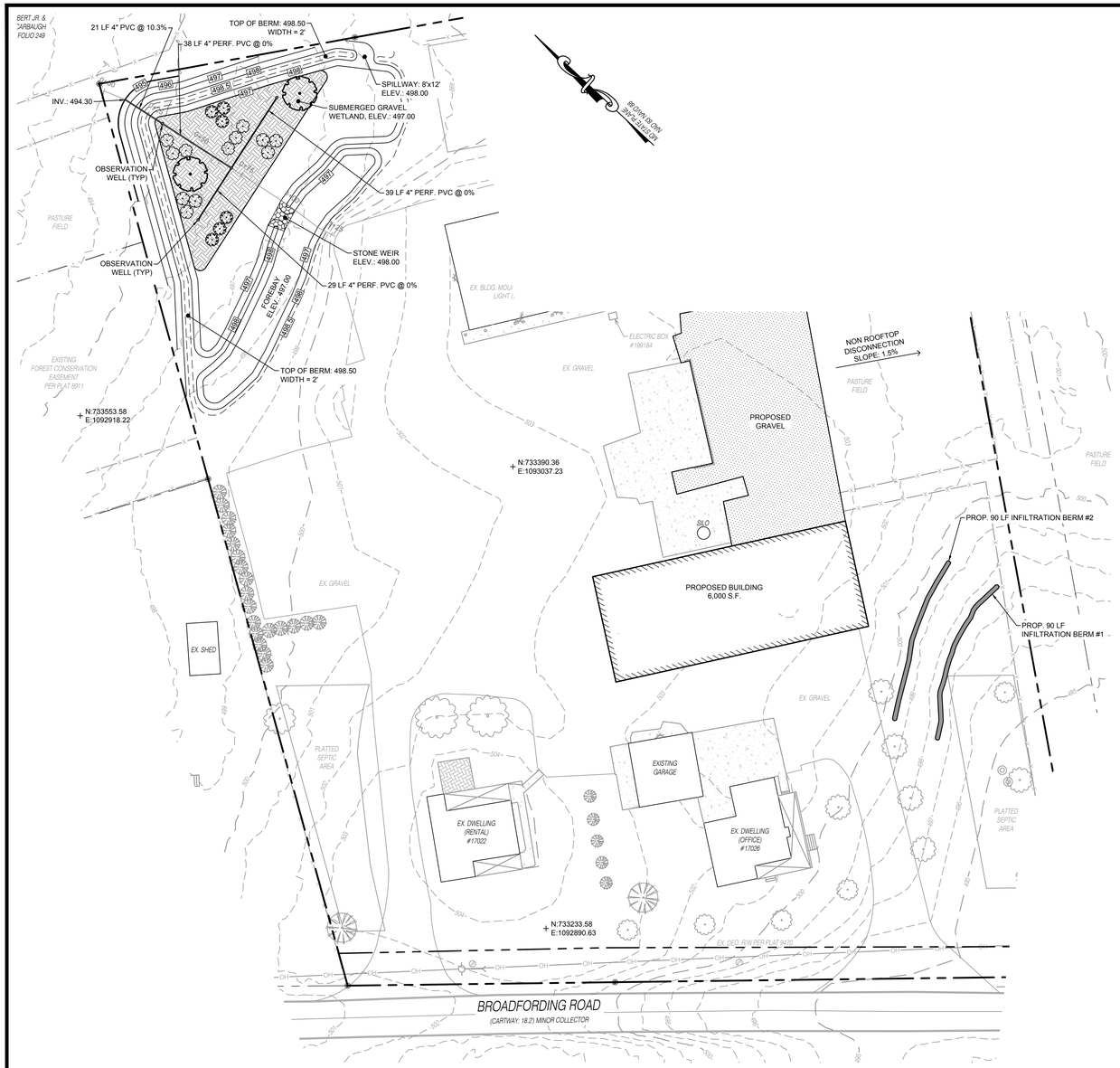
PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL: 0023-0023-0568	
SCALE: 1" = 30'	

SHEET TITLE

SITE AND DIMENSION PLAN

C-103
SHEET 04 OF 07

SP-24-033



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

Notice of Required Stormwater Management Inspections
Sand Filters, Bioretention and Rain Garden Facilities

The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		Submerged Gravel Wetland
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	

The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

NOTICE OF REQUIRED STORMWATER MANAGEMENT INSPECTIONS INFILTRATION FACILITIES

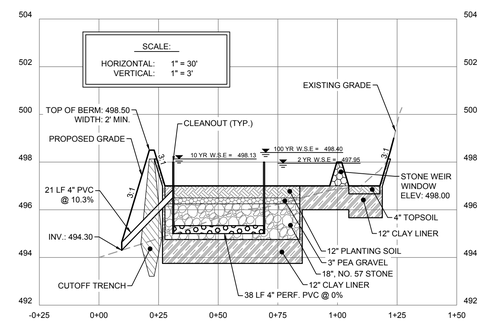
The following inspections are required to be performed by the Qualified Professional for the construction of any Infiltration Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		Infiltration Berm #1	Infiltration Berm #2
EXCAVATION OF FACILITY – Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. For infiltration ponds, the initial excavation should be carried to not less than two (2) feet above the final elevation of the facility floor. Final excavation shall occur only when area draining to facility is permanently stabilized.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		
PLACEMENT OF FILTER CLOTH (Trenches) – Ensure filter fabric is overlapped six(6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and based to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		
PLACEMENT OF FILTERING MEDIA – Verify bottom layer material and thickness. Verify stone aggregate layer material and thickness. Verify stone placement in 12 inch loose lifts. Verify top filter media layer.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		
PLACEMENT OF UNDERDRAINS AND OBSERVATION WELLS – Location, size and material of under drain and observation wells shall be verified prior to stone placement.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		
INSTALLATION OF FINAL COVER – Verify cover and capping of observation well. Verify permanent stabilization of basin floor.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		
PRETREATMENT AREA – The slope of land draining to facility shall be verified. Verify length of grass filter strip. Verify aggregate type.	**Certifying Engineer**		
	Date		
	County Inspector		
	Date		

The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

SUBMERGED GRAVEL WETLAND SCHEDULE

ID	SURFACE AREA (S.F.)	PONDING DEPTH (FT.)	FINISH GRADE ELEV.	BOT. STONE ELEV.	C.O.s	LINER REQUIRED	GRASS PRINCIPLE SPILLWAY
1	3,355	1.00	497.00	494.75	4	YES	498.00



SUBMERGED GRAVEL WETLAND

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
	BET RIV	Betula nigra	River Birch	2" Cal.	2
SHRUBS	**CODE**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**QTY**
	ITE VI3	Itea virginica `Virginia`	Virginia Sweetspire	5 gal	6
	LIN BEN	Lindera benzoin	Spicebush	3 gal	6
	VIB ARR	Viburnum dentatum	Viburnum	3 gal	6

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49808
Expiration Date: 06-24-2026

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1407
305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-7611
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
fsa-inc.com ©2024

MARK	DESCRIPTION	DATE

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

HARD ROCK EXCAVATION
17026 BROADFORDING RD. HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER:	ADAM HAGER
EMAIL:	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0023-0023-0568
SCALE	1" = 30'

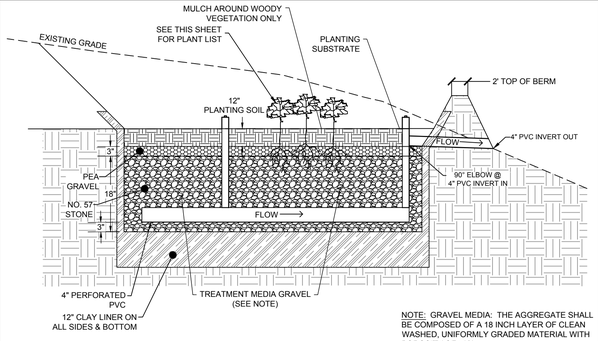
SHEET TITLE

STORMWATER MANAGEMENT PLAN

C-301

SHEET 05 OF 07

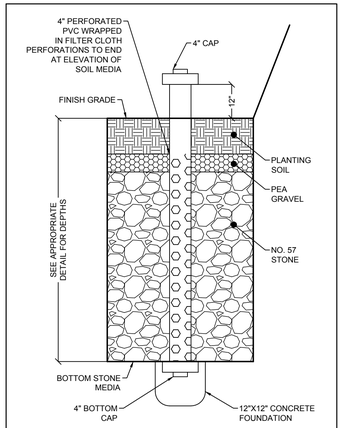
SP-24-033



NOTE: GRAVEL MEDIA: THE AGGREGATE SHALL BE COMPOSED OF A 18 INCH LAYER OF CLEAN WASHED, UNIFORMLY GRADED MATERIAL WITH POROSITY OF 40%.

1 C-302 SUBMERGED GRAVEL WETLAND

NOT TO SCALE

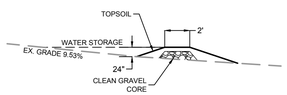


5 C-302 OBSERVATION WELL

NOT TO SCALE

INFILTRATION BERM TABLE

	INF. BERM #1	INF. BERM #2
STORAGE AREA	2,714 S.F.	2,714 S.F.
WATER STORAGE	1,781 C.F.	1,781 C.F.
Pe	2.39 in	2.39 in
BERM LENGTH	90 LF	90 LF
BERM HEIGHT	24 INCHES	24 INCHES
TOP OF BERM	499.50	499.50
BOTTOM OF BERM	497.50	499.50

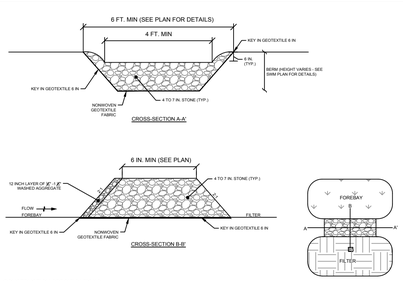


2 C-302 INFILTRATION BERM

NOT TO SCALE

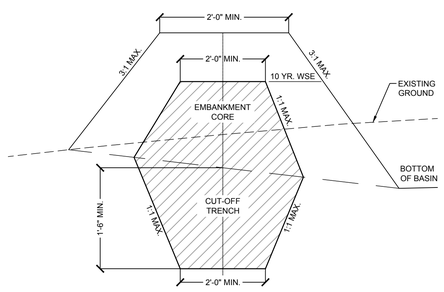
3 C-302 STONE WEIR (FOREBAY STONE WINDOW)

PLAN VIEW HATCH LEGEND



CONSTRUCTION SPECIFICATIONS

1. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND SIDES OF THE WEIR PRIOR TO PLACEMENT OF STONE. CONSTRUCT THE WEIR WITH WASHED 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) WITH SIDE SLOPES OF 2:1 OR FLATTER AND A MINIMUM TOP WIDTH OF 6 INCHES. PLACE THE STONE SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL AND CHANNEL BANKS. FORM THE WEIR SO THAT TOP OF THE OUTLET CREST IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES. LINE THE UPSTREAM FACE OF THE DAM WITH A 1 FOOT THICK LAYER OF WASHED AGGREGATE (½ TO 1½ INCH).
2. STONE WEIR TO BE USED ON EVERY SEDIMENT FOREBAY SPILLWAY.



4 C-302 CUT-OFF TRENCH - BIO-RETENTION

NOT TO SCALE

Z:\Library\BLOCKS\SWM\INFILTRATION BERM.jpg

COMMERCIAL

WETLAND AND WET POOL SEED MIX NOTES

SITE PREPARATION

Eradicate existing invasive vegetation by having a licensed spray technician apply an approved herbicide, such as glyphosate (Rodeo®), triclopyr (Garlon® 3A) or other aquatic herbicide formulation, to control undesirable vegetation, such as multiflora rose, honeysuckle and woody species.

CAUTION: Some persistent species, such as purple loosestrife, phragmites or reed canarygrass, may need multiple applications of glyphosate or triclopyr. Perennial weeds not addressed before establishment will be more difficult to remove later. The soil is often too wet to till.

Newly constructed wetlands, retention basins and wet construction sites should be seeded as soon after construction as possible. Leaving the surface rough by creating mounds and kettles for an undulating microtopography can be very beneficial in obligate wetlands.

NOTE:

It is important that the basin be drained during the first 1-2 months that seed needs to establish, otherwise there will be a high risk of seed washout.

GROWING SEASON MAINTENANCE

First Growing Season

- When feasible (the ground isn't too slippery or mucky to safely walk), post-planting maintenance will provide the best results for wet meadows and wetlands. Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight and nutrients needed by slow-growing perennial natives. Mowing should cease by mid-September.
- Problem weeds should be hand pulled or spot sprayed with an approved aquatic herbicide (such as Rodeo® or Garlon® 3A).

Second Growing Season

- Problem weeds, such as phragmites, reed canarygrass and purple loosestrife, should be hand pulled or spot sprayed with an approved aquatic herbicide (such as Rodeo® or Garlon® 3A).

Submerged Gravel Wetlands Maintenance Schedule

1. Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
2. During the first year of operation, inspections shall be conducted after every major storm and poorly established areas revegetated.
3. Sediment accumulation in the pretreatment areas should be removed as necessary.
4. Signs of uneven flow distribution within the wetland may mean that the gravel or underdrain is clogged. The gravel and/or underdrain may need to be removed, cleaned, and replaced.
5. A dense stand of wetland vegetation should be maintained through the life of the facility with plantings replaced as needed.
6. Inlet and outlets to each submerged gravel wetland cell should be free from debris to prevent clogging.
7. Erosion at inflow points should be repaired. Flow splitters should be functional to prevent bypassing of the facility.

Table B-4.1 Material Specifications for Submerged Gravel Wetland

Material	Specification	Size	Notes
Plantings	see planting list	n/a	plantings are site-specific
Planting Substrate (6" 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)		
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Gravely Treatment Media	Clean Washed uniformly graded material with a porosity of 40%	No. 57 or No. 6 Aggregate	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SDR35	Slotted or perforated pipe; 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes.
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitution 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.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B). Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.

Specifications for Submerged Gravel Wetland

(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications

The allowable materials to be used in submerged gravel wetland areas are detailed in Table B.4.1

Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the planting area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

Compaction

It is very important to minimize compaction of both the base of the planting area and the required backfill. When possible, use excavation hoes to remove original soil. If wetland areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the wetkabd area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tiling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the wetland facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the wetland area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade wetland materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Installation

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the submerged gravel wetland is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains

Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ⅜" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (¼" to ⅜" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous

These practices may not be constructed until all contributing drainage area has been stabilize.

Wetland berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

OPERATION AND MAINTENANCE PLAN INFILTRATION BERMS

INSPECTION ITEM	INSPECTION REQUIREMENTS	REMEDIAL ACTION
Maintenance Access		
General	Direct access needs to be provided to the pretreatment area and filter bed; check for excessive vegetation and surface stability	Repair erosion and maintain access surface in good condition
Filter Bed		
Dewatering	Check for dewatering within 48 hours of rainfall; noticeable odors; water stains on the filter surface or at the outlet; presence of algae or aquatic vegetation	Remove and replace the top 3 inches of filter media with suitable material per plan specifications; follow up inspections shall confirm adequate dewatering; contact the plan approval authority if the facility does not function as intended
Sediment	Check for sediment accumulation on the filter bed	Remove sediment as needed
Vegetative Surfaces		
Vegetative cover/erosion	Check for erosion, runoff channelizing, or bare spots	Repair/grade and stabilize as needed
Mowing	Grass on the filter shall be maintained in good condition and be less than 12 inches in height	Mow during the growing season to maintain the required height
Conveyance		
General	Check for erosion, flow blockages or bypass, and stable conveyance	Repair/replace and stabilize as needed
Outlets		
Overflow spillway	Check for erosion, rills or gullying	Grade and stabilize all eroded areas to provide stable conveyance
Trash and Debris		
	Check for trash and debris accumulation	Trash and debris shall be disposed of in an acceptable manner
	Check for sediment accumulation	Remove sediment at one-half of the design depth; restore to approved plan design
Overall Function		
	Check aesthetics; unpleasant odors; condition of fences; and controlled access (e.g. locks)	Contact the plan approval authority for concerns regarding pond function and performance

Field conditions may require a modification to the original approval in order to achieve the intended design function. The plan approval authority should be contacted for review and approval of all proposed modifications. Inspection and maintenance should occur after any major rain event (e.g., meeting or exceeding the design rainfall depth for the facility).

CLAY LINER NOTES:

1. Remove 12 inches of the SWM facilities subgrade.
2. Place soil materials that meet the minimum requirements.
   2.1. The materials shall have a maximum dry density of at least 100 PCF as per ASTM D-698
   2.2. Acceptable materials shall be ml, cl, mh, ch with no rock greater than 1-inch in diameter and constituting no more than 15% of the matrix
   2.3. Materials are to be placed in 6-inch lifts and properly compacted to at least 98% of the maximum dry density value as determined by ASTM D-698 (Standard Proctor) at a moisture content in the range of optimum to 3 percent above optimum moisture as determined by the same standard. A sufficient number of in-place density tests should be performed by an experienced engineering technician to verify that the proper degree of compaction is being obtained.
3. Any rock encountered within the SWM ponds shall be undercut at least 12 inches and covered and controlled and compacted clay liner soils.

BMP MAINTENANCE NOTES:

1. BMP AREAS SHALL BE INSPECTED AT A MINIMUM, BI-ANNUALLY.
2. OWNER SHALL REMOVE SILT/SEDIMENT IF THE ACCUMULATION OF SEDIMENT EXCEEDS ONE INCH WITHIN THE BMP AREA.
3. THE TOP FEW INCHES OF FILTER MEDIA SHALL BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS.
4. TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
5. MULCH SHALL BE REPLACED ON AN ANNUAL BASIS.
6. PLANT MATERIAL SHALL BE INSPECTED YEARLY AND DEAD AND/OR DISEASED VEGETATION SHALL BE REPLACED, AS NECESSARY. WATERING MAY BE REQUIRED DURING PROLONGED DRY SPELLS.

SEED MIX LEGEND

BMP PRACTICE	SIZE	SEEDING RATE	REMARKS
SUBMERGED GRAVEL WETLAND	1,782 S.F.	20 POUNDS / ACRE OR 1/2 POUND / 1,000 SF	SEE NOTES FOR SWM SEED PREPARATION AND ESTABLISHMENT.

SEED MIX DETAILS

ERNX-127 RETENTION BASIN WILDLIFE MIX
30 % Fox Sedge, PA Ecotype (Carex vulpinoidea, PA Ecotype)
22% Deertongue, 'Tioga' (Panicum clandestinum)
20% Virginia Wildrye, PA Ecotype (Elymus virginicus)
10.3% Lurid (Shallow) Sedge, PA Ecotype (Carex lurida)
4% Autumn Bentgrass, PA Ecotype (Agrostis perennans)
4% Blue Vervain, PA Ecotype (Verbena hastata)
3% Soft Rush (Juncus effusus)
3% Green Bulrush, PA Ecotype (Scirpus atrovirens)
2% Hop Sedge, PA Ecotype (Carex Lupulina)
1% Woolgrass, PA Ecotype (Scirpus cyperinus)
0.3% Flat Topped White Aster, PA Ecotype (Aster Umbellatus)
0.3% Square Stemmed Monkeyflower, PA Ecotype (Mimulus ringens)
0.1% Swamp Milkweed, PA Ecotype (Asclepias incarnata)

STORMWATER MANAGEMENT SEED MIX NOTES

SITE PREPARATION

Invasive species, particularly those that will adapt to wet conditions, should be removed or sprayed before they become incorporated into the site. Spot spray or hand pull problem weeds. Perennial weeds not addressed before establishment will be difficult to remove later.

SEEDING AND PLANTING METHODS

Seeding and planting should begin immediately upon completion of the structure while the soil is still friable and before invasive weeds emerge. Plan seeding and planting before the basin is flooded or allow the basin to drain to a few inches before seeding. Broadcast seed evenly over each unit by hand seeding or hydroseeding. The use of native species can provide temporary vegetation to protect the soil in SWM facilities until permanent vegetation can become established. Straw mulch, or straw coconut mats are frequently used to control erosion and protect emerging seedlings from extreme temperatures and drying out. Mulch should be sparse in order to allow sunlight to reach the ground. Irrigating seeded areas is beneficial until seedlings become established.

FIRST GROWING SEASON MAINTENANCE

Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight, water and nutrients needed by slower growing, perennial natives. Mowing should not be done with a lawn mower as the mower height will be too low and native seedlings will be killed. Mowing should cease by mid-September.

SECOND AND SUBSEQUENT GROWING SEASON MAINTENANCE

Prior to new spring growth reaching a height of 2" trim any material standing from the previous year close to the ground (approximately 2"). This will allow the soil to warm more quickly which will stimulate emergence and growth of native seedlings.

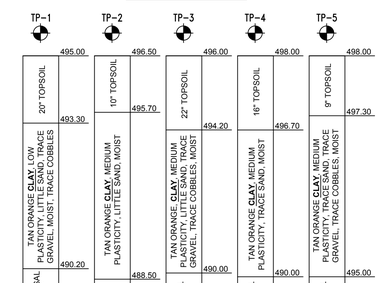
SPECIAL CIRCUMSTANCES SECOND GROWING SEASON

If you notice a heavy infestation of ragweed or foxtail in the second growing season, trim the meadow to a height of 8". Trimming should cease after mid-September.

GENERAL LANDSCAPE NOTES:

1. Landscape contractor is to call Miss Utility and have all underground utilities marked prior to any digging or planting.
2. Landscape Contractor shall install all plant material in a timely fashion.
3. Landscape Contractor shall be responsible for all watering, weeding, repairs and replacements prior to final acceptance.
4. NO Substitutions of plant material without written permission of FSA. Planting plans have been proposed with plant sizes, types, and locations as important design elements.
5. Plants shall be in accordance with the current issue of American Standards for Nursery Stock published by the American Association of Nurserymen.
6. All plants shall be watered thoroughly during installation and prior to final acceptance.
7. All bark mulched areas shall be first covered with Typar Weed Barrier or approved equal.
8. All planting bed areas on the site shall be mulched with a hardwood bark mulch at a depth of approx. 3", unless noted otherwise.
9. Plant material shall be inspected yearly in order to remove and replace dead, diseased vegetation.
10. Warranted plant material that is 25% dead or more shall be considered dead and shall be replaced at no charge.
11. All plant material shall be warranted for two years. 60 days prior to the end of the warranted period, the Engineering Department shall perform an inspection. Of which there should be an 90% survival rate of all plant material. All surviving plant material shall be found in a healthy condition. The warranty shall commune on the date of initial acceptance by the owner.
12. The landscape contractor shall conduct a final inspection with the owner or owner's representative at the end of the warranty period.
13. Fertilizer Packets are to be Nutri-Pak 16-8-8 or approved equal per manufacturer's recommendations.
14. Landscape is recommended to be installed during the two growing seasons. Spring: April 15-June 15, Fall: September 1-November 1.

SOIL LOGS



NOTE: THESE SOIL LOGS ARE BASED SOLELY ON FIELD OBSERVATION, AND ARE VALID ONLY FOR THE LOCATIONS INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED TESTING AND CLASSIFICATION TO DETERMINE THE EXTENT OF SOILS ON SITE THAT MEET THE REQUIREMENTS OF MD-378. FOR SOIL LOG DESCRIPTIONS AND RECOMMENDATIONS REFER TO THE GEOTECHNICAL REPORT.

NOTES:

1. DEVELOPER/CONTRACTOR MUST CONTACT THE CERTIFYING ENGINEER AND WASHINGTON COUNTY DIVISION OF PERMITS AND INSPECTIONS AT LEAST 5 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM TO SCHEDULE AND COORDINATE INSPECTION TIME TABLES.
2. ALL PIPE JOINTS SHALL BE WATERTIGHT. (HDPE PIPE JOINTS SHALL MEET THE 10.8 PSI WATER-TIGHT REQUIREMENTS OF ASTM D3212.)
3. ALL PROPOSED STORM DRAIN PIPES MUST BE PLACED ON 12" PREPARED SUBGRADE 95% COMPACTED FILL ACCORDING TO AASHTO T180A STANDARDS OR 12" GRAVEL OR SAND BED UNLESS OTHERWISE SPECIFIED BY MANUFACRURER OR GEOTECHNICAL ENGINEER.
4. THE CONTRACTOR IS TO CONTACT MISS UTILITY A MINIMUM OF 2 DAYS PRIOR TO ANY DIGGING ON THE SITE. (1-800-257-7777).

NOTE: ANY ROCK ENCOUNTERED WITHIN THE SWM FACILITIES SHOULD BE UNDERCUT AT LEAST 12 INCHES AND COVERED WITH CONTROLLED AND COMPACTED CLAY LINER SOILS. IF A SYNTHETIC LINER IS USED, ANY ROCK ENCOUNTERED WITHIN THE SWM FACILITIES SHOULD BE UNDERCUT AT LEAST 6 INCHES (OR DEPTHS AS RECOMMENDED BY THE MANUFACTURER) AND COVERED WITH CONTROLLED FILL.

MAINTENANCE:

1. Owner to remove silt/sediment if the accumulation of sediment exceeds one inch over the bioretentention area.
2. All trash and debris should be removed from the top of the bioretention area as necessary.
3. Areas devoid of mulch shall be re-mulched on an annual basis.

FSA
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15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2061
505 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-0411
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1457
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49808 Expiration Date 06-24-2026

MARK	DESCRIPTION	DATE

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE

WASHINGTON COUNTY, MARYLAND

HARD ROCK EXCAVATION
17026 BROADFORDING RD, HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL: 0023-0023-0568	
SCALE: 1" = 30'	

SHEET TITLE

SWM DETAILS & NOTES

C-302

SHEET 06 OF 07

SP-24-033

P:\SHARED FOLDERS\PROJECTS\4000\SERB-MFR-1\DRAWCONSTRUCTION SETS\FB 1-SC-301-SWM PLAN, DETAILS & NOTES.DWG 2025-05-16

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must be completed within:
   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all 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 the project site not under active grading.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adhere to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.

B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

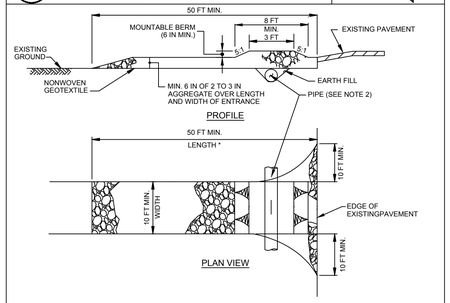
D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

Sequence of Construction

1. Contractor shall contact Frederick Seibert & Assoc., Inc. (301)-791-3650, Washington County Soil Conservation District (301)-797-6821, and the Washington County Division of Permits & Inspections (240)-313-2460 at least five (5) days prior to the start of any earthwork to schedule a pre construction meeting.
2. Contractor shall use the existing gravel drive in lieu of a stabilized construction entrance. If tracking of sediment occurs onto the road, the contractor must stop work immediately and clean up the tracked sediment before construction may resume. If tracking continues, a stabilized construction entrance shall be installed.
3. Contractor shall install perimeter controls with smart fence 42.
4. Contractor to strip topsoil, and place on stockpile on the uphill side of the 12" filter log and seed and mulch.
5. Contractor shall start the demolition of the existing barn, removal of existing fencing, and relocation of existing sea containers and fuel tanks.
6. ⚠1 Start construction of the proposed gravel and buildings.
7. Stabilize all disturbed areas with seed and mulch, and control matting as shown on the plans after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days.
8. Before construction of the submerged gravel wetland, the contractor shall ⚠1 remove the stockpile and grade the area to existing conditions. Install seed and mulch for stabilization.
9. Contact Frederick, Seibert & Assoc., Inc. (301)-791-3650, 2 days prior to construction of the submerged gravel wetland and infiltration berms for interim inspection. Contractor shall have site area stabilized and then contact WCSCD (301)-797-6821 and the Washington County Division of Permits & Inspections (240)-313-2460 for an interim inspection and approval to install the bio-material.
10. Construct the submerged gravel wetland and infiltration berms, stabilize with seed, mulch and plantings upon completion. Note that construction vehicles are prohibited from traveling over the submerged gravel wetland area.
11. Contractor shall finalize grading then seed and mulch.
12. Contractor shall contact WCSCD and the Washington County Division of Permits and Inspections at least 5 days prior to the removal of any sediment control feature to schedule a final site close out review and meeting. Contractor to gain final approval from WCSCD prior to removal of erosion and sediment controls. Vegetation must meet the 95% overall stabilization requirement per the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control prior to scheduling said meeting.
13. Remove sediment and erosion control measures, and stabilize accordingly.

1 / C-501 DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



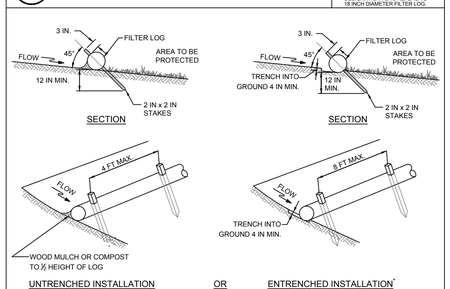
CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ONCAJENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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

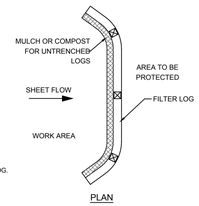
2 / C-502 DETAIL E-6 FILTER LOG

STANDARD SYMBOL — FL-18 —
DESIGNATION FL-18 REFERS TO 18 INCH DIAMETER FILTER LOG



CONSTRUCTION SPECIFICATIONS

1. PRIOR TO INSTALLATION, CLEAR ALL OBSTRUCTIONS INCLUDING ROCKS, CLODS, AND DEBRIS GREATER THAN ONE INCH THAT MAY INTERFERE WITH PROPER FUNCTION OF FILTER LOG.
2. FILL LOG NETTING UNIFORMLY WITH COMPOST (IN ACCORDANCE WITH SECTION H-1 MATERIALS), OR OTHER APPROVED BIODEGRADABLE MATERIAL TO DESIRED LENGTH SUCH THAT LOGS DO NOT DEFORM.
3. INSTALL FILTER LOGS PERPENDICULAR TO THE FLOW DIRECTION AND PARALLEL TO THE SLOPE WITH THE BEGINNING AND END OF THE INSTALLATION POINTING SLIGHTLY UP THE SLOPE CREATING A "J" SHAPE AT EACH END TO PREVENT BYPASS.
4. FOR UNTRENCHED INSTALLATION BLOW OR HAND PLACE MULCH OR COMPOST ON UPHILL SIDE OF THE SLOPE ALONG LOG.
5. STAKE FILTER LOG EVERY 4 FEET OR CLOSER ALONG ENTIRE LENGTH OF LOG OR TRENCH LOG INTO GROUND A MINIMUM OF 4 INCHES AND STAKE LOG EVERY 8 FEET OR CLOSER.



6. USE STAKES WITH A MINIMUM NOMINAL CROSS SECTION OF 2X2 INCH AND OF SUFFICIENT LENGTH TO ATTAIN A MINIMUM OF 12 INCHES INTO THE GROUND AND 3 INCHES PROTRUDING ABOVE LOG.
7. WHEN MORE THAN ONE LOG IS NEEDED, OVERLAP ENDS 12 INCHES MINIMUM AND STAKE.
8. REMOVE SEDIMENT WHEN IT HAS ACCUMULATED TO A DEPTH OF ½ THE EXPOSED HEIGHT OF LOG AND REPLACE MULCH. REPLACE FILTER LOG IF TORN. REINSTALL FILTER LOG IF UNDERMINING OR DISLODGING OCCURS. REPLACE CLOGGED FILTER LOGS. FOR PERMANENT APPLICATIONS, ESTABLISH AND CONTINUOUSLY MEET REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

SMARTfence 42" INSTALLATION INSTRUCTIONS

SEDIMENT & PERIMETER CONTROL

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored bond locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

Please contact our team at 800-448-3636 or info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

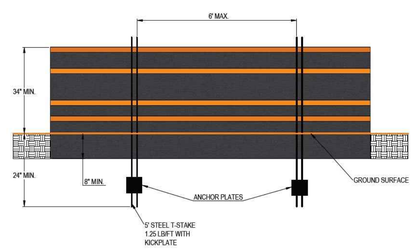
SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 email at info@acfenv.com

ACF ENVIRONMENTAL

LET'S GET IT DONE

SMARTfence® 42 Detail:



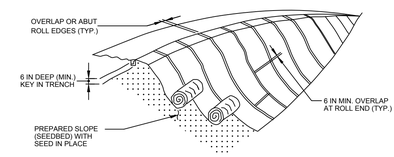
SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

3 / C-501

ACF ENVIRONMENTAL LET'S GET IT DONE™
800.448.3636
acfenvironmental.com

4 / C-501 DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL
TSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



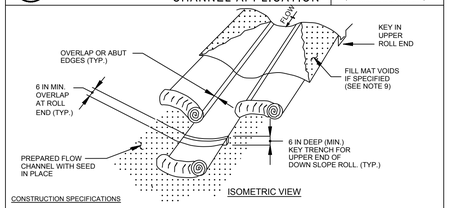
CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

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

5 / C-501 DETAIL B-4-6-C PERMANENT SOIL STABILIZATION MATTING CHANNEL APPLICATION

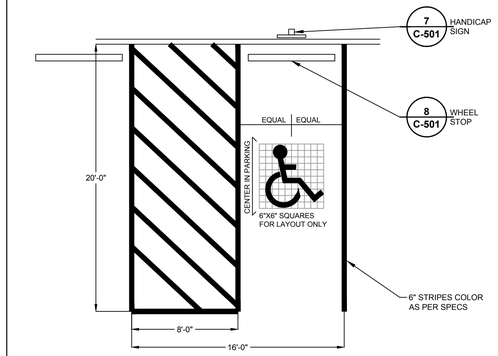
STANDARD SYMBOL
PSSMC - * lb/ft² (* INCLUDE SHEAR STRESS)



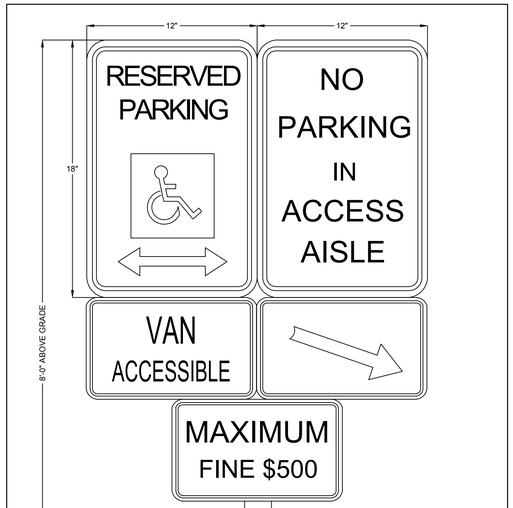
CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1 ½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING IN DIRECTION OF WATER FLOW, CENTERING THE FIRST ROLL ON THE CHANNEL CENTER LINE. WORK FROM CENTER OF CHANNEL OUTWARD WHEN PLACING ROLLS. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE NEXT DOWNSTREAM MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

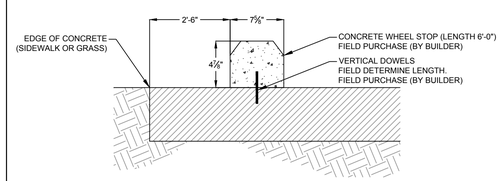
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



6 / C-501 **HANDICAP PARKING**
NOT TO SCALE



7 / C-501 **HANDICAP SIGN**
NOT TO SCALE



8 / C-501 **WHEEL STOP - CONCRETE**
NOT TO SCALE

TEMPORARY SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
HARDINESS ZONE (FIGURE B.3): 6a &~~6b~~ SEED MIXTURE (TABLE B.1)						
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30 Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTH	FERTILIZER RATE (10-20-20) N	P205	K20	LIME RATE
HARDINESS ZONE (FIGURE B.3): 6a &~~6b~~ SEED MIXTURE (TABLE B.1)								
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sept 30 Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

STANDARD UTILITY NOTES:

1. Contractor to only open up length of trench that can be constructed and backfilled in one working day in paved areas.
2. Contractor to place excavated materials in a dump truck and hauled to an approved location to wasted materials to paved areas.
3. Contractor to backfill trench with approved materials and stabilize disturbed areas the same working day.
4. In areas where the construction takes to place outside of the existing roadbed, Contractor to install silt fence along the downhill side of the trench before beginning construction and place excavated material from the trench on the uphill side.
5. If dewatering of the trench is required, Contractor to pump water to a filter bag to dewater.
6. Contractor to sweep streets of any debris or sediments caused by construction operations and dispose of at an approved location.
7. Contractor to stabilize all disturbed areas with seed & mulch or appropriate street repair.

FSA
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305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-1411
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1647
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49808
Expiration Date 06-24-2026

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY AGENCIES COMMENTS	03-05-2025

HARD ROCK EXCAVATION

SITUATED AT 17026 BROADFORDING ROAD
WEST OF SALEM CHURCH ROAD, EAST OF GREENCASTLE PIKE
WASHINGTON COUNTY, MARYLAND
HARD ROCK EXCAVATION
17026 BROADFORDING RD, HAGERSTOWN, MD 21740
ATTN: DWLIGHT EBY (301) 991-9452

PROJECT NO.	4976.1
DWN BY: DWH	DATE: 11-13-2024
PROJECT MANAGER:	ADAM HAGER
EMAIL:	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0023-0023-0568
SCALE	NTS

SHEET TITLE

CONSTRUCTION DETAILS & NOTES

C-501
SHEET 07 OF 07

SP-24-033

P:\SHARED FOLDERS\PROJECTS\4000-4999\4976 DWIGHT\CONSTRUCTION SET\4976 1-27-C-501-CONSTRUCTION DETAILS & NOTES.DWG 2025-02-19

WASHINGTON COUNTY DEPARTMENT OF PLANNING & ZONING
747 Northern Avenue | Hagerstown, MD 21742-2723 | P:240.313.2430 | F:240.313.2431 | Hearing Impaired: 7-1-1

SITE PLAN STAFF REPORT

BASE INFORMATION

SITE NAME.....: Site Plan for Fulton Properties, Inc.
NUMBER.....: SP-24-023

OWNER.....: FULTON PROPERTIES INC
LOCATION.....: 14557 INDUSTRY Drive
Hagerstown, MD 21742
DESCRIPTION.....: proposed gravel parking for trailers

ZONING.....: Planned Industrial Airport Overlay
COMP PLAN LU.....: Industrial/Flex
PARCEL.....: 27034888
PLANNING SECTOR.....: 1
ELECTION DISTRICT.....: 27

TYPE.....: Commercial
GROSS ACRES.....: 43.72
DWELLING UNITS.....: 0
TOTAL LOTS.....: 1
DENSITY.....: 0 Units Per Acre

PLANNER.....: Misty Wagner-Grillo
ENGINEER.....: FREDERICK SEIBERT & ASSOCIATES
RECEIVED.....: August 16, 2024

SITE ENGINEERING

HYDROGRAPHY, SENSITIVE & ENVIRONMENTAL INFORMATION

FLOOD ZONE.....: No
WETLANDS.....: None
WATERSHED.....: Antietam Creek
ENDANGERED SPECIES.....: None
STEEP SLOPES.....: No
STREAM BUFFER.....: No
HISTORIC INVENTORY.....: No Resources Present
EASEMENTS PRESENT.....: None

Staff Comments:

Not Applicable

SITE DESIGN

Impervious Area Plan	Impervious Maximum Allowed	Open Space Area Planned
67	80	
Open Space Minimum Required	**Residential Amenity Plans**	**Solid Waste Disposal Plans**
		N/A
Materials Stored on Site	**Buffer Design Meets Requirements**	**Landscaping Meets Requirements**
	Yes	Yes
Lighting Plan Meets Requirements	**Pedestrian Access is Adequate**	**Bus Stop is Within Walking Distance**
Yes		
Loading Area Meets Requirements		

Not Fast Track

Parking Spaces - Total Planned	Parking Spaces - Per Dwelling Unit
0	
Parking Spaces - Minimum Required	**Recreational Parking Provided**
0	No

ACCESS SPACING VARIANCE NEEDED: No
NUMBER OF ACCESS POINTS: 1

SCHOOL INFORMATION

	ELEMENTARY	MIDDLE	HIGH
SCHOOL DISTRICT	Maugansville	Northern	North Hagerstown
PUPIL YIELD			
CURRENT ENROLLMENT			
MAXIMUM CAPACITY			

PUBLIC FACILITIES INFORMATION

FIRE DISTRICT.....:	Maugansville
AMBULANCE DISTRICT.....:	Maugansville

WATER & SEWER INFORMATION

	WATER	SEWER
METHOD.....:	City	County Line - City Treatment
SERVICE AREA.....:	City	County Line - City Treatment
PRIORITY.....:	5-Long Term Planned Service	5-Long Term Planned Service
NEW HYDRANTS.....:		
GALLONS PER DAY SEWAGE...:		
PLANT INFO.....:		Hagerstown (City)

SITE PLAN

FOR

FULTON PROPERTIES, INC.

⚠FOR PROPERTIES LOCATED AT 14557 INDUSTRY DRIVE

SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD

NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11

WASHINGTON COUNTY, MARYLAND

LEGEND

EXISTING / PROPOSED

SUBJECT BOUNDARY
BUILDING SETBACK LINE
RIGHT OF WAY
EASEMENT LINE
ADJOINER BOUNDARY
FENCE (METAL)
FENCE (WOODEN)
DITCH (STREAM)
EDGE OF WATER
WETLAND
FLOODPLAIN
SOIL BOUNDARY
RAILWAY
CENTERLINE
EDGE OF PAVEMENT
EDGE OF GRAVEL
CURB
WALL
GUARD RAIL
EDGE OF CONCRETE
BUILDING
MAIL BOX
SIGN (ROAD)
SIGN (SITE)
TRAFFIC SIGNAL

TOPOGRAPHIC FEATURES
CONTOUR (INDEX)
CONTOUR (INTERMEDIATE)
SPOTS ELEVATION

VEGETATION AREAS
TREELINE
DECIDUOUS TREES — SEE LANDSCAPE SHEET FOR LEGEND
EVERGREEN TREES — SEE LANDSCAPE SHEET FOR LEGEND

SANITARY SEWER
GRAVITY LINE
FORCE MAIN LINE
LATERAL
MANHOLE
CLEANOUT
VALVE

WATER
COLD WATER LINE
HOT WATER LINE
MANHOLE
FIRE HYDRANT
VALVE
METER
WELL

STORM DRAINAGE
STORM SEWER LINE
ROOF DRAIN LINE
MANHOLE
INLETS
CLEANOUT

UTILITIES
GAS LINE
ELECTRICAL LINE
FIBER OPTIC LINE
COMMUNICATION LINE
OVERHEAD LINES
MANHOLE
PEDS, BOX, & ETC
POLE
LIGHT POLE
GAS METER
GAS VALVE

LEGEND - ABBREVIATIONS

AASHTO___AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ADS_____ADVANCED DRAINAGE SYSTEM
ASTM____AMERICAN SOCIETY FOR TESTING AND MATERIAL
AWWA____AMERICAN WATER WORKS ASSOCIATION
BLDG____BUILDING
BOT_____BOTTOM
CIP_____CAST IRON PIPE
CL_____CENTERLINE
CMP_____CORRUGATED METAL PIPE
CO_____SANITARY SEWER CLEAN-OUT
COMM____COMMUNICATION
CONC____CONCRETE
DA_____DRAINAGE AREA
DIA_____DIAMETER
EGL_____EXISTING GRADE LINE
EX_____EXISTING
EIP_____EXISTING IRON PIN
FFE_____FINISH FLOOR ELEVATION
FH_____FIRE HYDRANT
GV_____GATE VALVE
HGL_____HYDRAULIC GRADE LINE
HDPE____HIGH DENSITY POLYETHYLENE
INV_____INVERT
LF_____LINEAR FEET
MAX_____MAXIMUM
MB_____MAIL BOX
MIN_____MINIMUM
MJ_____MECHANICAL JOINT
NO_____NUMBER
NIC_____NOT IN CONTRACT
NTS_____NOT TO SCALE
OAC_____OR APPROVED EQUAL
OC_____ON CENTER
PC_____POINT OF CURVE
PCC_____POINT OF COMPOUND CURVE
PGL_____PROPOSED GRADE LINE
PRC_____POINT OF REVERSE CURVE
PT_____POINT OF TANGENT
PVC_____POINT OF VERTICAL CURVE
PVI_____POINT OF VERTICAL INTERSECTION
PVT_____POINT OF VERTICAL TANGENT
ROW_____RIGHT-OF-WAY
SAN_____SANITARY
SCE_____STABILIZED CONSTRUCTION ENTRANCE
SDR_____STANDARD DIMENSION RATIO
SIP_____SET IRON PIN
SD_____STORM DRAINAGE
SDMH____STORM DRAIN MANHOLE
SF_____SQUARE FEET
SS_____SANITARY SEWER
SSMH____SANITARY SEWER MANHOLE
STA_____STATION
STD_____STANDARD
SY_____SQUARE YARDS
TAN_____TYPE AS NOTED
TEMP____TEMPORARY
TS_____TOP OF STRUCTURE
TG_____TOP OF GRATE
TR_____TOP OF RIM
TYP_____TYPICAL
U/P_____UTILITY POLE
VIF_____VERIFY IN FIELD
WL_____WATERLINE
WM_____WATER METER
WV_____WATER VALVE

CLIENT/OWNER/DEVELOPER:
FULTON PROPERTIES, INC.
PO BOX 4217
HAGERSTOWN, MD 21741

ATTN: BRAD FULTON
EMAIL: BFULTON@ACANDT.COM
PHONE: (301)-730-6359

CIVIL ENGINEER / SURVEYOR:
FREDERICK, SEIBERT & ASSOC. INC.
128 S. POTOMAC ST.
HAGERSTOWN, MD 21740

PROJECT MANAGER: ADAM HAGER
EMAIL: AHAGER@FSA-INC.COM
PHONE: (301)-791-3650

GENERAL NOTES

1. Any damage to adjoining public roads, utilities, etc. during construction will be repaired in kind by the contractor.
2. No subsurface investigation has been performed by Frederick, Seibert and Associates, Inc. to determine ground water, rock, sinkholes or any other natural or man-made existing features. See geotech report by Triad Engineering for sub-surface findings.
3. FSA, Inc. assumes no liability for the location of any above ground and below ground utilities. Existing utilities are shown from the best available information. Contractor to field verify location and depth of all above and below ground utilities prior to construction.
4. The contractor shall locate existing utilities in advance of construction operations in the vicinity of proposed utilities.
5. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage incurred due to the contractor's operation shall be repaired immediately at the contractor's expense. Contractor to use caution in areas where low hanging wires exist.
6. All utilities shall be cleared by a minimum of 1'-0". All utility poles shall be cleared by a minimum of 2'-0" or tunneled if required.
7. The Contractor shall notify the following utilities or agencies at least five (5) days before starting work shown on these drawings:

Miss Utility	1-800-257-7777
Potomac Edison	1-800-255-3443
Verizon	(301) 790-7124
Antietam Cable	(240) 420-2082
Washington County Division of Engineering	(240) 313-2460
Washington County Soil Conservation District	(301) 797-6821

8. The contractor shall be responsible for coordination of his construction with the construction of other contractors.
9. Benchmark as shown hereon, is based on MD Grid NAVD88.
10. The contractor shall notify the Architect/Engineer, before construction, of any conflicts between the plans and actual field conditions.
11. The contractor shall protect all utilities and culvert pipes during construction by insuring proper cover, increasing cover, or constructing roadway and parking through base course before loading site with heavy vehicles.
12. Job site safety is the sole responsibility of the contractor. The Contractor shall perform all excavation in accordance with O.S.H.A. Regulations for trench safety.
13. The contractor shall perform his own field inspection and surveys (if necessary) to determine the limit of earthwork needed to complete this project. Any earthwork quantities that may be shown hereon are preliminary estimates only, and are intended for Soil Erosion Control plan review, if required. There has been no correction made to the earthwork quantities shown hereon due to the compaction of fill.
14. The contractor shall be aware that in the event of discrepancy between scaled and figured dimensions shown on the plan, the figured dimensions shall govern.
15. Sediment erosion control measures shall be installed per sediment erosion control plans, details and specifications.
16. Please refer to Geotechnical Report completed by Triad for load bearing fills, etc.
17. The entire area included within the proposed limits of cut and fill shall be stripped of all root material, trash and other organic and otherwise objectionable, non-complying and unsuitable soils and materials.
18. It shall be distinctly understood that failure to mention specifically any work which would naturally be required to complete the project shall not relieve the contractor of his responsibility to complete such work.
19. The existing site contours shown hereon are LIDAR 1' contours and field checked by FSA in January 2023. (Contour accuracy is to plus or minus one half the contour interval).
20. Limit of disturbed areas are to be the limit of property ownership, unless otherwise noted.
21. ⚠ This project has a projected start date of March 2025 and a completion date of May 2025.
22. ⚠ A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County.
23. There are no Board of Zoning Appeals Cases for this property.
24. Proposed SWM will consist of on-site a submerged gravel wetland.
25. There are no parks, open space within or adjoining the tract.
26. All existing drainage culverts and drainage easements are to be maintained and unaltered.
27. No outdoor storage of materials except for trailer parking is allowed on the site.
28. The purpose of this site plan is for the proposed construction of a gravel tractor trailer parking area.
29. No permanent structures (e.g., fences, sheds) shall be permitted within any stormwater or storm drainage easement on this property.
30. All grading for this project shall be the full responsibility of the lot/parcel owner.
31. This project will require a third-party qualified professional to be present at the preconstruction meeting scheduled with Washington County Division of Construction and the Washington County Soil Conservation District. Construction inspection will be required for this project per the "Roadway and Stormwater Management Construction Verification Procedures" dated October 17, 2008.
32. Developer/Contractor must contact the certifying engineer and Washington County at least 5 days prior to the start of construction of the stormwater management system to schedule and coordinate inspection time schedules.
33. A public Works Agreement and performance security will be required for all improvements within the County right-of-way that are not otherwise regulated under a utility permit or entrance permit.
34. In conformance with the stormwater management ordinance of Washington County, a performance security and executed maintenance and access agreement shall be required from the developer prior to issuance of any building or grading permit for construction per these plans.
35. A complete set of approved plans and a copy of the grading permit must be on site and available for use by the inspector, or other representative of Washington County Division of Engineering and Construction.
36. Any development or construction, including but limited to: filling, grading, erecting or installing a temporary structure, or alteration of a watercourse, which is wholly within, partially within, or in contact with any flood hazard area requires a floodplain permit from Washington County.
37. ⚠ Please be advised that any project which creates a disturbance of one (1) acre or more will require a 'Notice of Intent to comply with the General Permit for Storm Water Discharges associated with Construction Activity' (NOI). The NOI is required under the Clean Water Act as stated in 40 CFR 122.26 and Code of Maryland Regulations COMAR 26.08.04.09A and is regulated by the Maryland Department of Environment (MDE). The NOI is to be submitted with the appropriate fees directly to the MDE prior to commencement of construction activity. No land disturbing activity that requires a grading permit from Washington County should proceed until the general permit for Storm Water Discharges associated with construction activity (MDR10) has been used by MDE.
38. ⚠ In conformance with the Storm Water Management Ordinance of Washington County, a performance security and executed maintenance and access agreement shall be required from the Developer prior to issuance of any building or grading permit for construction per these plans.
39. ⚠ There are no known floodplains, streams and related buffers, or habitat of threatened or endangered species identified by the U.S. Fish and Wildlife Service per 50 CFR 17 as required to be shown by Section 4.21 of the Washington County Zoning Ordinance. This site is not within 1,000 feet of the Appalachian Trail.

ZONING DATA

ZONING DISTRICT_____PI - PLANNED INDUSTRIAL DISTRICT, AIRPORT OVERLAY
BUILDING HEIGHT_____100 FT
MINIMUM YARD SETBACK:
*FRONT_____50 FT.
**SIDE_____75 FT.
**REAR_____75 FT.

*ADJACENT TO AN EXPRESSWAY OR PRIMARY HIGHWAY AS SHOWN ON THE WASHINGTON COUNTY HIGHWAY PLAN SHALL BE 150'.

**ADJOINING A RESIDENTIAL DISTRICT, 150' OR 75' WHERE PROPER SCREENING AS DETERMINED BY THE PLANNING COMMISSION ALONG THE PROPERTY LINE IS PROVIDED.

BOARD OF ZONING APPEALS' CASE_____NONE

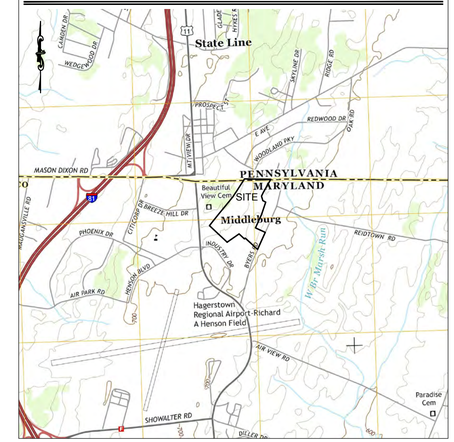
SITE DATA

TAX MAP - GRID - PARCEL_____0010-0017-0165
ELECTION DISTRICT_____27
ACCOUNT NUMBER_____034888
LIBER / FOLIO_____02239 / 00427
PLAT NUMBER_____7581
AREA SUMMARY:
PARCEL_____43.72 AC.
DISTURBED AREA_____12.70 AC.
EXISTING IMPERVIOUS_____0 SF / 0.0 AC (0%)
PROPOSED TOTAL IMPERVIOUS_____370,260 S.F. / 8.50 AC. (67%)
⚠ PROPOSED USE_____GRAVEL TRACTOR TRAILER STORAGE LOT
HOURS OF OPERATION_____8AM - 5PM, MON. - FRI.
⚠ DAILY USE_____40-50 TRUCKS PER DAY
EMPLOYEE SUMMARY:_____NONE
SITE LIGHTING:
EXISTING_____NONE
PROPOSED_____NONE
SITE SIGNAGE:
EXISTING_____NONE
PROPOSED_____NONE
WAIVER AND/OR VARIANCE_____NONE
FOREST CONSERVATION_____1.95 AC., PER MISC. PLAT #_____
WATERSHED:
NAME_____ANTIETAM CREEK
NUMBER_____02-14-05-02
FEMA PANEL #_____24043C0130D

VICINITY MAP

SCALE: 1" = 2,000'

ADC MAP 10, D4
USGS MAPS (HAGERSTOWN, MARYLAND)



SHEET INDEX

TYPE	NUMBER	TITLE
C-001	SHEET 01	COVER SHEET
C-101	SHEET 02	EXISTING CONDITIONS
C-102	SHEET 03	EROSION & SEDIMENT CONTROL PLAN
C-103	SHEET 04	GRADING PLAN
C-104	SHEET 05	SITE & DIMENSION PLAN
C-301	SHEET 06	STORMWATER MANAGEMENT PLAN
C-302	SHEET 07	STORMWATER MANAGEMENT DETAILS & NOTES
C-501	SHEET 08	CONSTRUCTION DETAILS & NOTES - E & S CONTROLS
C-502	SHEET 09	CONSTRUCTION DETAILS & NOTES - UTILITIES
L-101	SHEET 10	LANDSCAPE & FOREST PLAN

APPROVALS

MD-ENG-6A **USDA**
1/89 **SCS**

UTILITY NOTIFICATION

The Soil Conservation District makes no representation as to the existence or nonexistence of any utilities at the construction site. Shown on these construction drawings are those utilities which have been identified. It is the responsibility of the landowners or operators and contractors to assure themselves that no hazard exists or damage will occur to utilities. It is suggested that Miss Utility be contacted at: Phone No. 1-800-257-7777

DISTURBED AREA QUANTITY

THE TOTAL AREA TO BE DISTURBED SHOWN ON THESE PLANS HAS BEEN DETERMINED TO BE APPROXIMATELY 12.7 ACRES AND THE TOTAL AMOUNT OF EXCAVATION AND FILL AS SHOWN ON THESE PLANS HAS BEEN COMPUTED TO BE APPROXIMATELY 31,611 CU. YDS. OF EXCAVATION AND APPROXIMATELY 34,273 CU. YDS. OF FILL.

WASHINGTON COUNTY SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL PLAN APPROVAL

By: _____

Date: _____

(PLAN IS VALID FOR TWO YEARS FROM DATE OF APPROVAL)

⚠ **WASHINGTON COUNTY DIVISION OF ENGINEERING**

APPROVED BY:_____

DATE:_____

ENGINEER'S STORMWATER MANAGEMENT CERTIFICATION

"I verify and affirm that the Construction for the Stormwater Management Facilities as performed either meets or exceeds the requirements and design intent of this plan, including all specifications and referenced standards, and has been completed in accordance with good construction practices. I also verify and affirm that I have reviewed the construction inspection documentation and the as-built information; that it has been done in accordance with Washington County requirements and at a level deemed necessary to assure the Verification made herein; and all discrepancies between the as-built information and approved plans have been noted and are considered acceptable to the Consultant."

_____ _____ _____
SIGNATURE **DATE** **SEAL**

OWNER / DEVELOPERS CERTIFICATION

"I/We certify all/any parties responsible for clearing, grading, construction and/or development will; be done pursuant to this plan and responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Dept. of the Environment approved training program for the control of soil erosion and sediment."

11/21/24 — Brad Fulton
DATE / **PRINTED NAME** — Anthony Lee Reisen
SIGNATURE

OWNER / DEVELOPERS CERTIFICATION

"I/we hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan and in accordance with the Stormwater Management Ordinance of Washington County and the policy on construction of subdivision infrastructure for acceptance and ownership by Washington County (S-3)."

11/21/24 — Brad Fulton
DATE — **PRINTED NAME** — Anthony Lee Reisen
SIGNATURE

ENGINEER / ARCHITECT DESIGN CERTIFICATION

I hereby certify this plan for soil erosion and sediment control has been designed in accordance with local ordinances, COMAR 26.17.01.07, and Maryland Standards and Specifications for Soil Erosion and Sediment Control.

02.26.2025 — 49808
DATE — **REG. NO.** — **SIGNATURE**

Know what's below. Call before you dig.

STATE OF MARYLAND — TREIGH M. FREDERICK — 49808 — PROFESSIONAL ENGINEER — 02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49808 Expiration Date 06-24-2026

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 (717) 261-1807
555 SOUTH HANOVER STREET CARLISLE, PA 17013 (717) 243-8211
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 (717) 582-2061
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MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024

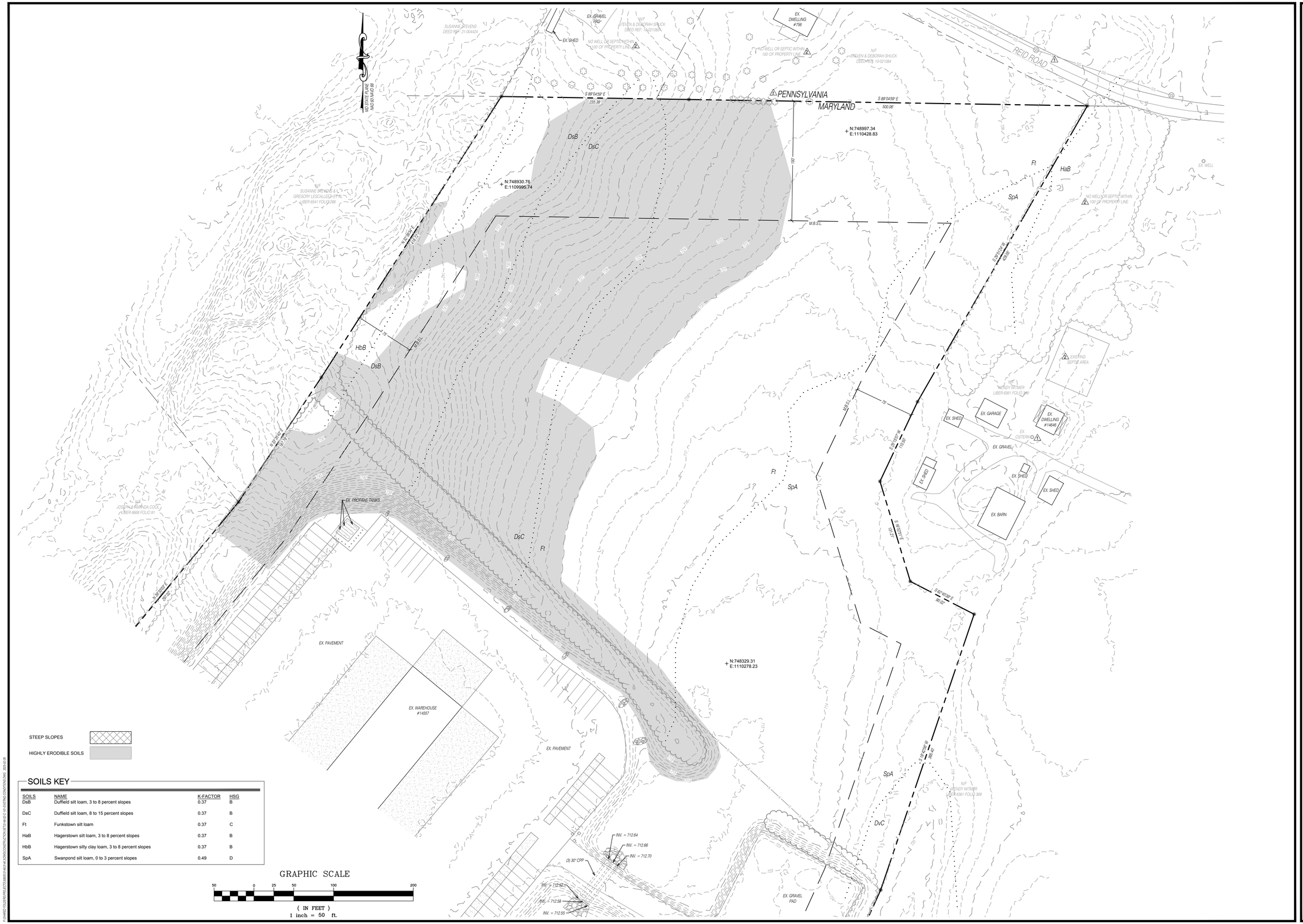
FULTON PROPERTIES, INC.
SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11
WASHINGTON COUNTY, MARYLAND
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-730-6359

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER:	ADAM HAGER
EMAIL:	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	NONE
SHEET TITLE	COVER SHEET

C-001
SHEET 01 OF 10

SP-24-023

P:\DRAWIN\21FULTON\PROJECTS\3146\3146.3\ENGINEERING\CONSTRUCTION SET\3146.3-FULTON-COVER SHEET.DWG 2025-02-26



SOILS KEY

SOILS	NAME	K-FACTOR	HSG
DsB	Duffield silt loam, 3 to 8 percent slopes	0.37	B
DsC	Duffield silt loam, 8 to 15 percent slopes	0.37	B
Ft	Funkstown silt loam	0.37	C
HaB	Hagerstown silt loam, 3 to 8 percent slopes	0.37	B
HbB	Hagerstown silty clay loam, 3 to 8 percent slopes	0.37	B
SpA	Swanpond silt loam, 0 to 3 percent slopes	0.49	D

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49808
Expiration Date: 06-24-2026

FSA
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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1687
305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-7911
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024
2	REVISED PER WASH. COUNTY HEALTH DEPARTMENT COMMENTS	12-17-2024

FULTON PROPERTIES, INC.

SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11

WASHINGTON COUNTY, MARYLAND

FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301) 739-6559

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL: 0010-0017-0165	
SCALE: 1" = 50'	

SHEET TITLE

EXISTING CONDITIONS

C-101
SHEET 02 OF 10

SP-24-023

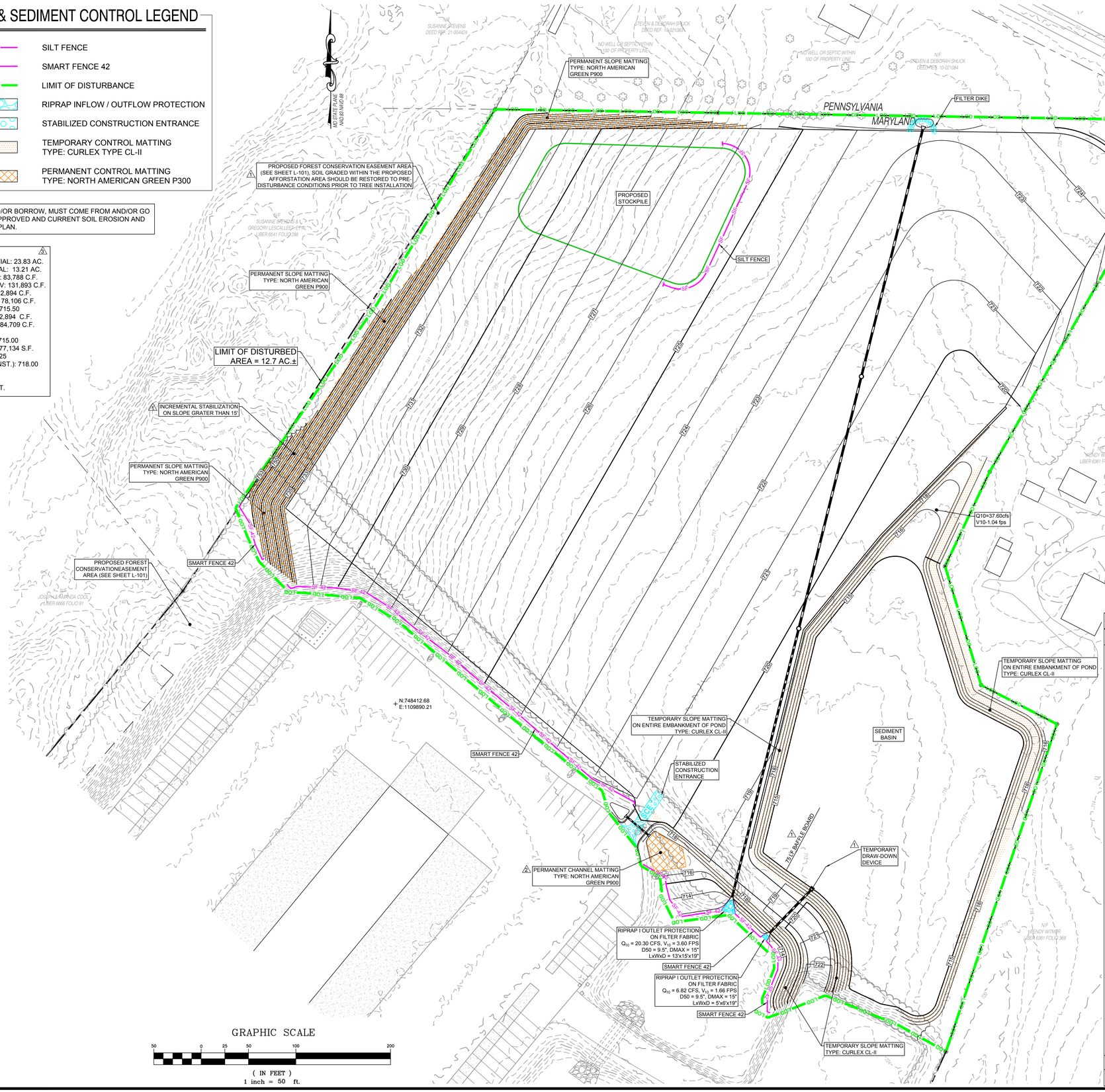
EROSION & SEDIMENT CONTROL LEGEND

- SF — SILT FENCE
- SF-42 — SMART FENCE 42
- LOD — LIMIT OF DISTURBANCE
- RIPRAP INFLOW / OUTFLOW PROTECTION
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY CONTROL MATTING TYPE: CURLEX TYPE CL-II
- PERMANENT CONTROL MATTING TYPE: NORTH AMERICAN GREEN P300

NOTE: ANY SPOIL AND/OR BORROW, MUST COME FROM AND/OR GO TO, A SITE WITH AN APPROVED AND CURRENT SOIL EROSION AND SEDIMENT CONTROL PLAN.

SEDIMENT BASIN

DRAINAGE AREA - INITIAL: 23.83 AC.
DRAINAGE AREA - FINAL: 13.21 AC.
TOTAL STORAGE REQ: 83,788 C.F.
TOTAL STORAGE PROV: 131,893 C.F.
WET STORAGE REQ: 42,894 C.F.
WET STORAGE PROV: 78,106 C.F.
WET STORAGE ELEV: 715.50
DRY STORAGE REQ: 42,894 C.F.
DRY STORAGE PROV: 84,709 C.F.
WEIR ELEV: 716.00
TRAP BOTTOM ELEV: 715.00
TRAP BOTTOM AREA: 77,134 S.F.
CLEANOUT ELEV: 715.25
TOP BERM ELEV. (CONST.): 718.00
10 YEAR WSEL: 716.64
SIDE SLOPE: 3:1
TOP BERM WIDTH: 8 FT.



GRAPHIC SCALE

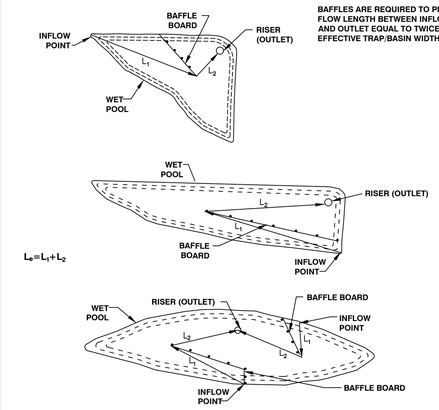
50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

1 / C-102 DETAIL G-2-4 BAFFLE BOARDS

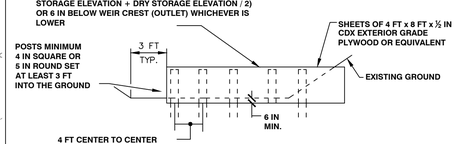
STANDARD SYMBOL — BB

BAFFLES ARE REQUIRED TO PROVIDE A FLOW LENGTH BETWEEN INFLOW POINT AND OUTLET EQUAL TO TWICE THE EFFECTIVE TRAP/BASIN WIDTH.



PLAN VIEWS

SET ELEVATION AT ½ OF THE DRY STORAGE (WET STORAGE ELEVATION + DRY STORAGE ELEVATION / 2) OR 6 IN BELOW WEIR CREST (OUTLET) WHICHEVER IS LOWER



BAFFLE DETAIL

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

STATE OF MARYLAND — TREVOR M. FREDERICK — 49809 — PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49809
Expiration Date 06-24-2026

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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1407
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024
2	REVISED PER CLIENT/OWNER REQUEST	02-04-2025
3	Revised per County Comments	2/18/2025

FULTON PROPERTIES, INC.
SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11
WASHINGTON COUNTY, MARYLAND
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-730-6559

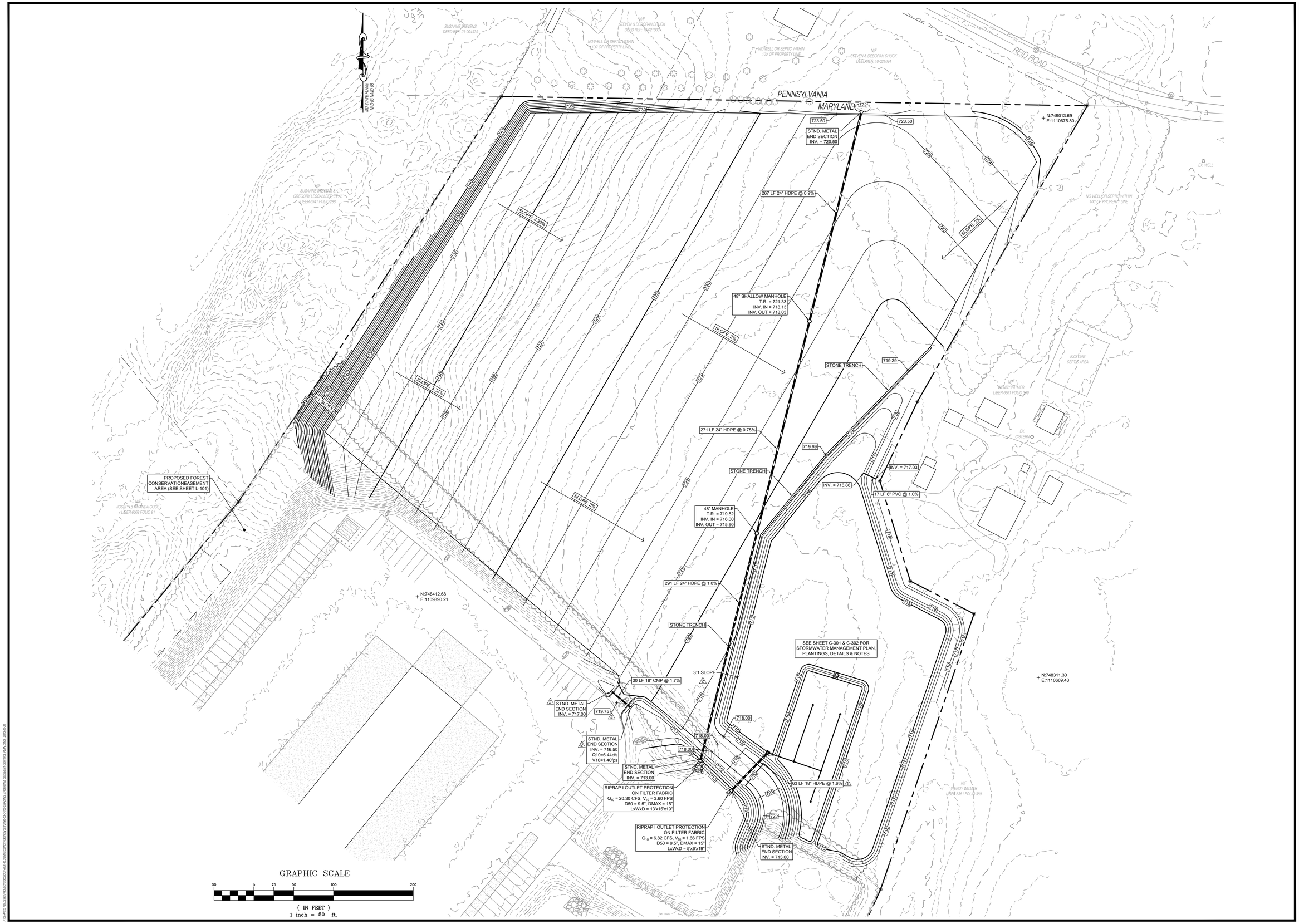
PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL: 0010-0017-0165	
SCALE: 1" = 50'	

SHEET TITLE

EROSION & SEDIMENT CONTROL PLAN

C-102
SHEET 03 OF 10

SP-24-023



STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49808
Expiration Date: 06-24-2026

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20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1407
126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024
2	REVISED PER CLIENT/OWNER REQUEST	02-03-2025

FULTON PROPERTIES, INC.

SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11

WASHINGTON COUNTY, MARYLAND

FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-739-6359

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	1" = 50'

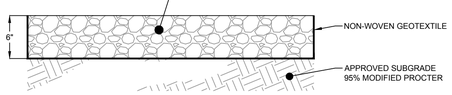
SHEET TITLE

GRADING & DRAINAGE PLAN

C-103
SHEET 04 OF 10

SP-24-023

PROPOSED GRAVEL
9.00 AC.±



SECTION

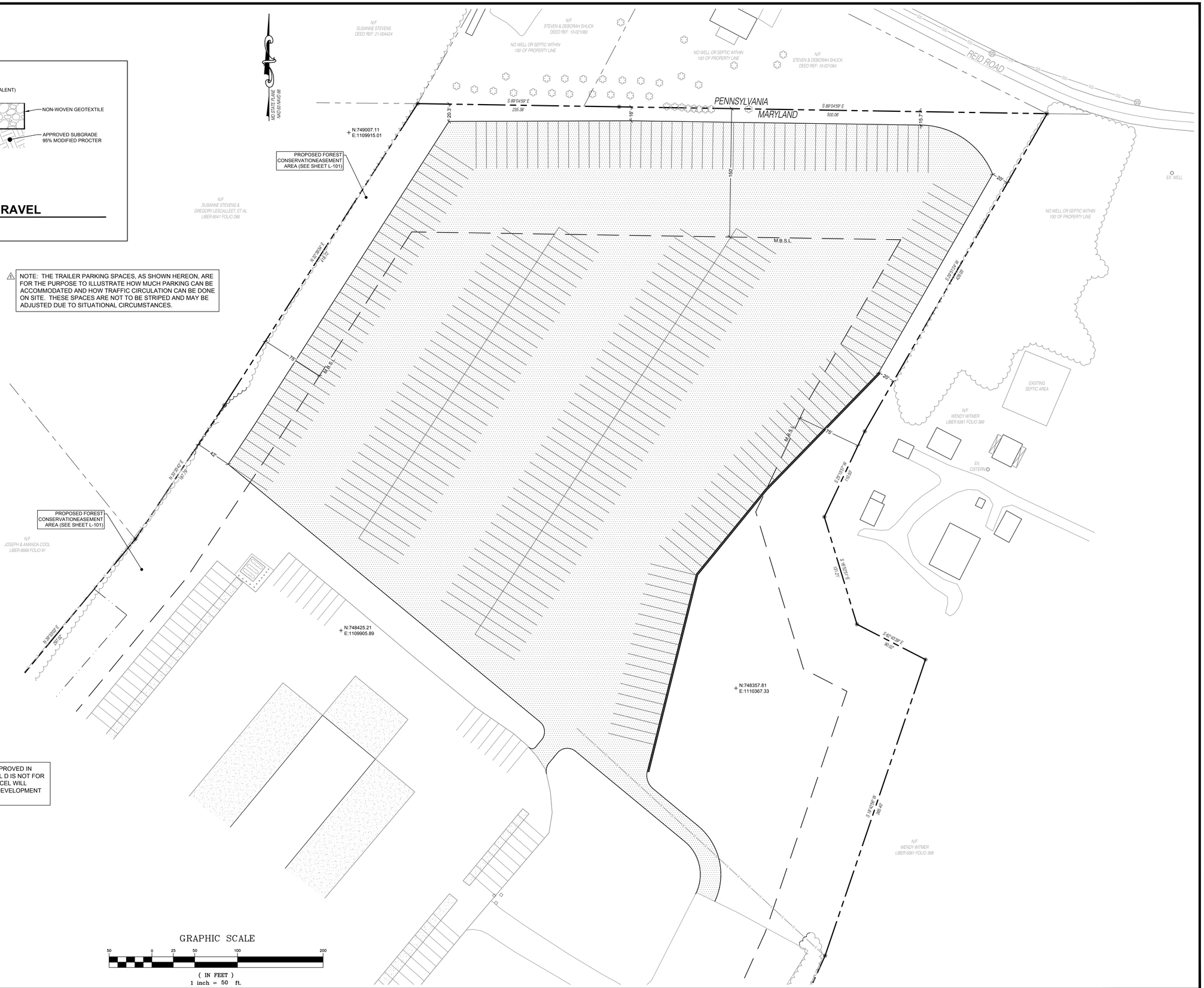
1
C-103

PAVEMENT - GRAVEL

NOT TO SCALE

NOTE: THE TRAILER PARKING SPACES, AS SHOWN HEREON, ARE FOR THE PURPOSE TO ILLUSTRATE HOW MUCH PARKING CAN BE ACCOMMODATED AND HOW TRAFFIC CIRCULATION CAN BE DONE ON SITE. THESE SPACES ARE NOT TO BE STRIPED AND MAY BE ADJUSTED DUE TO SITUATIONAL CIRCUMSTANCES.

NOTE: A SIMPLIFIED PLAT FOR PARCEL D WAS APPROVED IN 2004 AND RECORDED IN PLAT FOLIO 7581. PARCEL D IS NOT FOR DEVELOPMENT. ANY DEVELOPMENT OF THIS PARCEL WILL REQUIRE A PRELIMINARY CONSULTATION AND A DEVELOPMENT PLAT (DEED REFERENCE 02239 FOLIO 00427).



STATE OF MARYLAND
TREVOR M. FREDERICK
49806
PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49806
Expiration Date 06-24-2026

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305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-249-0211
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2884

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024
2	REVISED PER LAND DEVELOPMENT PLAN REVIEW COMMENTS	02-18-2025

FULTON PROPERTIES, INC.

SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11

WASHINGTON COUNTY, MARYLAND

FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-739-6359

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER	ADAM HAGER
EMAIL	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	1" = 50'
SHEET TITLE	SITE AND DIMENSION PLAN

C-104
SHEET 05 OF 10

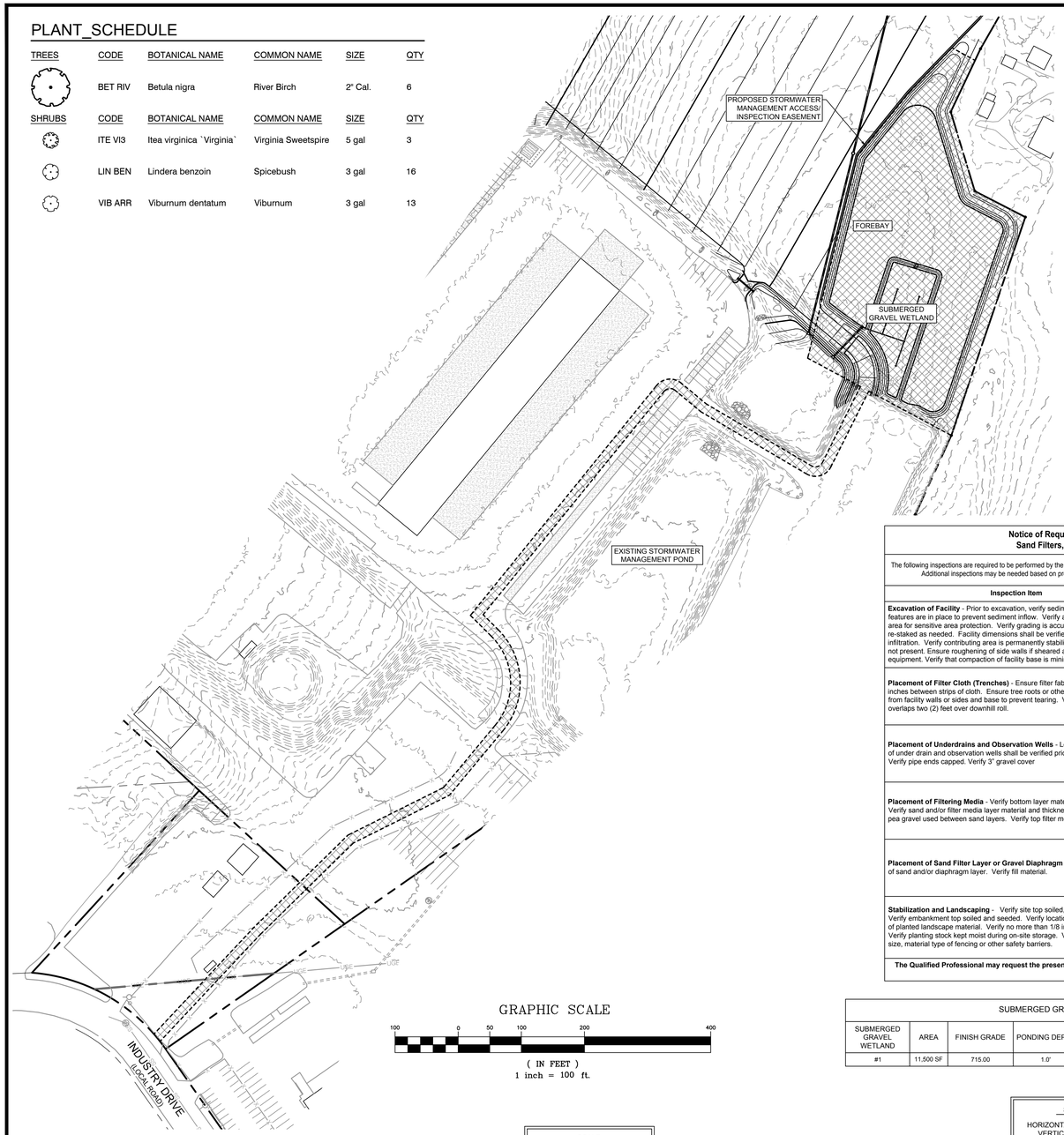
SP-24-023

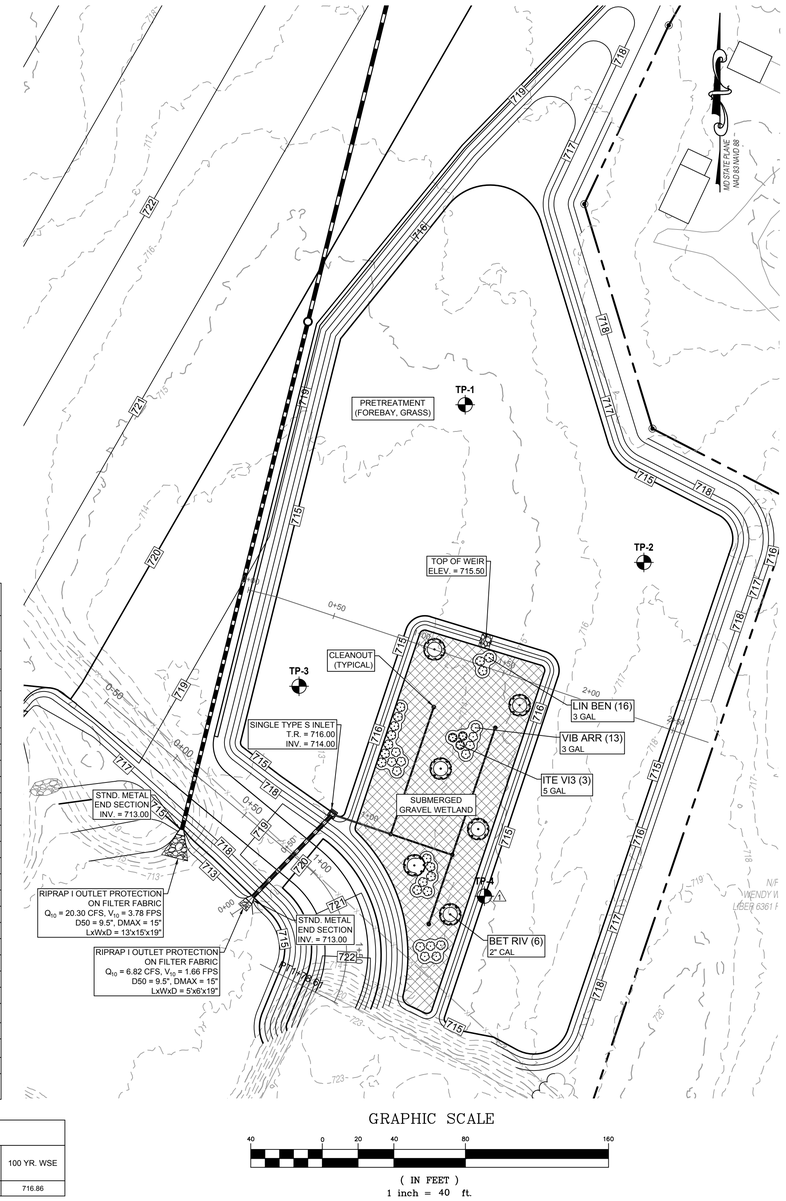
P:\SHARED\FOLDERS\PROJECTS\3000\3146\3146.3\DWG\CONSTRUCTION\SET3\146-SC-104-SITE & DIMENSION PLAN.DWG 2025-02-26

PLANT_SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
	BET RIV	Betula nigra	River Birch	2" Cal.	6

SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	QTY
	ITE VI3	Itea virginica `Virginia`	Virginia Sweetspire	5 gal	3
	LIN BEN	Lindera benzoin	Spicebush	3 gal	16
	VIB ARR	Viburnum dentatum	Viburnum	3 gal	13





Notice of Required Stormwater Management Inspections
Sand Filters, Bioretention and Rain Garden Facilities

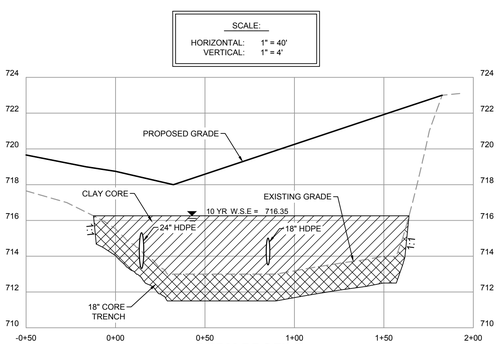
The following inspections are required to be performed by the Qualified Professional for the construction of any Sand Filter, Bioretention or Rain Garden Facility. Additional inspections may be needed based on professional engineering judgment. Each inspection is required at the start of each stage.

Inspection Item		Submerged Gravel Wetland
Excavation of Facility - Prior to excavation, verify sediment and erosion control features are in place to prevent sediment inflow. Verify all flagging required in the area for sensitive area protection. Verify grading is accurately staked-out and re-staked as needed. Facility dimensions shall be verified and soils checked for infiltration. Verify contributing area is permanently stabilized. Verify that water is not present. Ensure roughening of side walls if sheared and sealed by heavy equipment. Verify that compaction of facility base is minimized.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filter Cloth (Trenches) - Ensure filter fabric is overlapping six (6) inches between strips of cloth. Ensure tree roots or other obstacles are removed from facility walls or sides and base to prevent tearing. Verify that uphill fabric roll overlaps two (2) feet over downhill roll.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Underdrains and Observation Wells - Location, size and material of under drain and observation wells shall be verified prior to stone placement. Verify pipe ends capped. Verify 3" gravel cover	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Filtering Media - Verify bottom layer material and thickness. Verify sand and/or filter media layer material and thickness. Verify filter fabric or pea gravel used between sand layers. Verify top filter media layer.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Placement of Sand Filter Layer or Gravel Diaphragm - Verify depth and width of sand and/or diaphragm layer. Verify fill material.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	
Stabilization and Landscaping - Verify site top soiled, seeded and mulched. Verify embankment top soiled and seeded. Verify location, size, type and number of planted landscape material. Verify no more than 1/8 inch root ball exposed. Verify planting stock kept moist during on-site storage. Verify installation location, size, material type of fencing or other safety barriers.	**Certifying Engineer**	
	Date	
	County Inspector	
	Date	

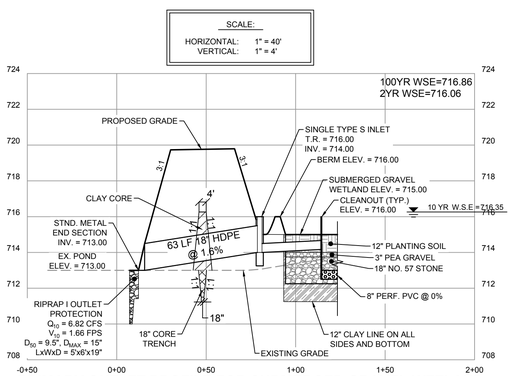
The Qualified Professional may request the presence of a County Construction Standards Inspector at least 24 hours in advance by calling 240-313-2400.

SUBMERGED GRAVEL WETLAND STRUCTURE TABLE

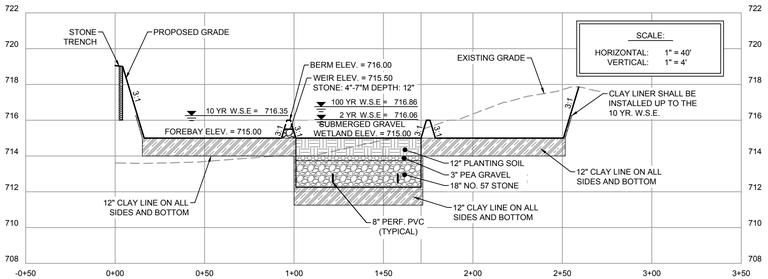
SUBMERGED GRAVEL WETLAND	AREA	FINISH GRADE	PONDING DEPTH	STONE BOTTOM	C/O	TOP BERM	2 YR. WSE	10 YR. WSE	100 YR. WSE
#1	11,500 SF	715.00	1.0'	512.25	5	717.00	716.06	716.35	716.86



BERM PROFILE



PRIMARY OUTLET PROFILE FOR SUBMERGED GRAVEL WETLAND



SUBMERGED GRAVEL WETLAND CROSS SECTION

STATE OF MARYLAND
TREVOR M. FREDERICK
49808
PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
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Expiration Date 06-24-2026

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126 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024

FULTON PROPERTIES, INC.

SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11

WASHINGTON COUNTY, MARYLAND

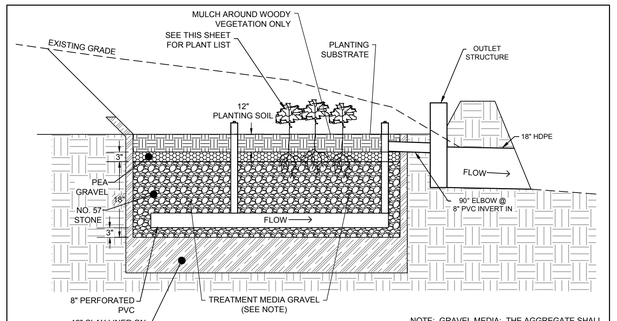
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301) 730-6359

PROJECT NO. 3146.3
DWN BY DWH | DATE 03-27-2023
PROJECT MANAGER: ADAM HAGER
EMAIL: AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL 0010-0017-0165
SCALE VARIES

SHEET TITLE
STORMWATER MANAGEMENT PLAN

C-301
SHEET 06 OF 10

SP-24-023

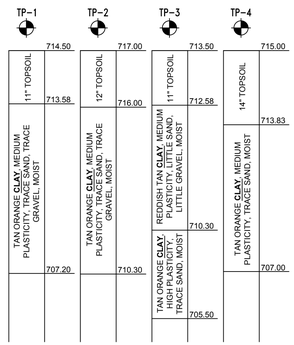


NOTE: GRAVEL MEDIA: THE AGGREGATE SHALL BE COMPOSED OF A 18 INCH LAYER OF CLEAN WASHED, UNIFORMLY GRADED MATERIAL WITH POROSITY OF 40%.

1 C-302 SUBMERGED GRAVEL WETLAND

NOT TO SCALE

SOIL LOGS



NOTE:
THESE SOIL LOGS ARE BASED SOLELY ON FIELD OBSERVATION, AND ARE VALID ONLY FOR THE LOCATIONS INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED TESTING AND CLASSIFICATION TO DETERMINE THE EXTENT OF SOILS ON SITE THAT MEET THE REQUIREMENTS OF MD-378. FOR SOIL LOG DESCRIPTIONS AND RECOMMENDATIONS REFER TO THE GEOTECHNICAL REPORT.

Specifications for Submerged Gravel Wetland

(Reference - Maryland Stormwater Design Manual, Volume Two, Appendix B.4)

Material Specifications
The allowable materials to be used in submerged gravel wetland areas are detailed in Table B.4.1

Planting Soil
The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the planting area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations. The planting soil shall be free of Bermuda grass, Quackgrass, Johnson grass, or other noxious weeds as specified under COMAR 15.08.01.05..

Compaction
It is very important to minimize compaction of both the base of the planting area and the required backfill. When possible, use excavation hoes to remove original soil. If wetland areas area excavated using a loader, the contractor should use wide track or marsh track equipment, or light equipment with turf type tires. Use of equipment with narrow tracks or narrow tires, rubber tires with large lugs, or high pressure tires will cause compaction resulting in reduced infiltration rates and storage volumes and is not acceptable. Compaction will significantly contribute to design failure.

Compaction can be alleviated at the base of the wetkabd area facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler. These tilling operations are to refracture the soil profile through the 12 inch compaction zone. Substitute methods must be approved by the engineer. Rototillers typically do not till deep enough to reduce the effects of compaction from heavy equipment.

Rototill 2 to 3 inches of sand into the base of the wetland facility before backfilling the required sand layer. Pump any ponded water before preparing (rototilling) base.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand / topsoil to create a gradation zone. Backfill the remainder of the topsoil to final grade.

When backfilling the bioretention facility, place soil in lifts of 12 inches or greater. Do not use heavy equipment within the wetland area. Heavy equipment may be used around the perimeter of the basin to supply soils and sand. Grade wetland materials with light equipment such as a compact loader or a dozer/loader with marsh tracks.

Plant Installation

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8th of the ball is above final grade surface. Root stock of the plant material shall be kept moist during transport and on-site storage. Planting pits shall follow LCA planting guidelines. The diameter of the planting pit shall be at least six inches larger than the diameter of the planting ball. Set and maintain the plant straight during the entire planting process. Thoroughly water ground bed cover after installation.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed shall be tilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the submerged gravel wetland is to improve water quality. Adding fertilizers defeats, or at a minimum, impedes this goal. Only add fertilizer if wood chips or mulch is used to amend the soil. Rototill urea fertilizer at a rate of 2 pounds per 1000 square feet.

Underdrains
Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer. The preferred material is slotted, 4" rigid pipe (e.g., PVC or HDPE).
- Perforations - If perforated pipe is used, perforations should be ¾" diameter located 6" on center with a minimum of four holes per row. Pipe shall be wrapped with a ¼" (No. 4 or 4x4) galvanized hardware cloth.
- Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.
- The main collector pipe shall be at a minimum 0.5% slope.
- A rigid, non-perforated observation well must be provided (one per every 1,000 square feet) to provide a clean-out port and monitor performance of the filter.
- A 4" layer of pea gravel (¼" to ¾" stone) shall be located between the filter media and underdrain to prevent migration of fines into the underdrain. This layer may be considered part of the filter bed when bed thickness exceeds 24".

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

Miscellaneous
These practices may not be constructed until all contributing drainage area has been stabilize.

Wetland berms are to be constructed per the MD 378 small pond standards with respect to materials, placement, and compactions.

SEED MIX LEGEND

BMP PRACTICE	SIZE	SEEDING RATE	REMARKS
SUBMERGED GRAVEL WETLAND	42,058 S.F.	20 POUNDS / ACRE OR 1/2 POUND / 1,000 SF	SEE NOTES FOR SWM SEED PREPARATION AND ESTABLISHMENT.

SEED MIX DETAILS

ERNX-127 RETENTION BASIN WILDLIFE MIX
30 % Fox Sedge, PA Ecotype (Carex vulpinoidea, PA Ecotype)
22% Deertongue, 'Tioga' (Panicum clandestinum)
20% Virginia Wildrye, PA Ecotype (Elymus virginicus)
10.3% Lurid (Shallow) Sedge, PA Ecotype (Carex lurida)
4% Autumn Bentgrass, PA Ecotype (Agrostis perennans)
4% Blue Vervain, PA Ecotype (Verbena hastata)
3% Soft Rush (Juncus effusus)
3% Green Bulrush, PA Ecotype (Scirpus atrovirens)
2% Hop Sedge, PA Ecotype (Carex Lupulina)
1% Woolgrass, PA Ecotype (Scirpus cyperinus)
0.3% Flat Topped White Aster, PA Ecotype (Aster Umbellatus)
0.3% Square Stemmed Monkeyflower, PA Ecotype (Mimulus ringens)
0.1% Swamp Milkweed, PA Ecotype (Asclepias incarnata)

STORMWATER MANAGEMENT SEED MIX NOTES

SITE PREPARATION

Invasive species, particularly those that will adapt to wet conditions, should be removed or sprayed before they become incorporated into the site. Spot spray or hand pull problem weeds. Perennial weeds not addressed before establishment will be difficult to remove later.

SEEDING AND PLANTING METHODS

Seeding and planting should begin immediately upon completion of the structure while the soil is still friable and before invasive weeds emerge. Plan seeding and planting before the basin is flooded or allow the basin to drain to a few inches before seeding. Broadcast seed evenly over each unit by hand seeding or hydroseeding. The use of native species can provide temporary vegetation to protect the soil in SWM facilities until permanent vegetation can become established. Straw mulch, or straw coconut mats are frequently used to control erosion and protect emerging seedlings from extreme temperatures and drying out. Mulch should be sparse in order to allow sunlight to reach the ground. Irrigating seeded areas is beneficial until seedlings become established.

FIRST GROWING SEASON MAINTENANCE

Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight, water and nutrients needed by slower growing, perennial natives. Mowing should not be done with a lawn mower as the mower height will be too low and native seedlings will be killed. Mowing should cease by mid-September.

SECOND AND SUBSEQUENT GROWING SEASON MAINTENANCE

Prior to new spring growth reaching a height of 2" trim any material standing from the previous year close to the ground (approximately 2"). This will allow the soil to warm more quickly which will stimulate emergence and growth of native seedlings.

SPECIAL CIRCUMSTANCES SECOND GROWING SEASON

If you notice a heavy infestation of ragweed or foxtail in the second growing season, trim the meadow to a height of 8". Trimming should cease after mid-September.

WETLAND AND WET POOL SEED MIX NOTES

SITE PREPARATION

Eradicate existing invasive vegetation by having a licensed spray technician apply an approved herbicide, such as glyphosate (Rodeo®), triclopyr (Garlon® 3A) or other aquatic herbicide formulation, to control undesirable vegetation, such as multiflora rose, honeysuckle and woody species.

CAUTION: Some persistent species, such as purple loosestrife, phragmites or reed canarygrass, may need multiple applications of glyphosate or triclopyr. Perennial weeds not addressed before establishment will be more difficult to remove later. The soil is often too wet to till.

Newly constructed wetlands, retention basins and wet construction sites should be seeded as soon after construction as possible. Leaving the surface rough by creating mounds and kettles for an undulating microtopography can be very beneficial in obligate wetlands.

NOTE:
It is important that the basin be drained during the first 1-2 months that seed needs to establish, otherwise there will be a high risk of seed washout.

GROWING SEASON MAINTENANCE
First Growing Season

- When feasible (the ground isn't too slippery or mucky to safely walk), post-planting maintenance will provide the best results for wet meadows and wetlands. Whenever canopy (overall vegetation) reaches a height of 18"-24", use a string trimmer to trim the meadow to a height of 8". This will reduce competition by fast-growing weeds for sunlight and nutrients needed by slow-growing perennial natives. Mowing should cease by mid-September.
- Problem weeds should be hand pulled or spot sprayed with an approved aquatic herbicide (such as Rodeo® or Garlon® 3A).

Second Growing Season

- Problem weeds, such as phragmites, reed canarygrass and purple loosestrife, should be hand pulled or spot sprayed with an approved aquatic herbicide (such as Rodeo® or Garlon® 3A).

Submerged Gravel Wetlands Maintenance Schedule

1. Privately owned practices shall have a maintenance plan and shall be protected by easement, deed restriction, ordinance, or other legal measures preventing its neglect, adverse alteration, and removal.
2. During the first year of operation, inspections shall be conducted after every major storm and poorly established areas revegetated.
3. Sediment accumulation in the pretreatment areas should be removed as necessary.
4. Signs of uneven flow distribution within the wetland may mean that the gravel or underdrain is clogged. The gravel and/or underdrain may need to be removed, cleaned, and replaced.
5. A dense stand of wetland vegetation should be maintained through the life of the facility with plantings replaced as needed.
6. Inlet and outlets to each submerged gravel wetland cell should be free from debris to prevent clogging.
7. Erosion at inflow points should be repaired. Flow splitters should be functional to prevent bypassing of the facility.

GENERAL LANDSCAPE NOTES:

1. Landscape contractor is to call Miss Utility and have all underground utilities marked prior to any digging or planting.
2. Landscape Contractor shall install all plant material in a timely fashion.
3. Landscape Contractor shall be responsible for all watering, weeding, repairs and replacements prior to final acceptance.
4. NO Substitutions of plant material without written permission of FSA. Planting plans have been proposed with plant sizes, types, and locations as important design elements.
5. Plants shall be in accordance with the current issue of American Standards for Nursery Stock published by the American Association of Nurserymen.
6. All plants shall be watered thoroughly during installation and prior to final acceptance.
7. All bark mulched areas shall be first covered with Typar Weed Barrier or approved equal.
8. All planting bed areas on the site shall be mulched with a hardwood bark mulch at a depth of approx. 3", unless noted otherwise.
9. Plant material shall be inspected yearly in order to remove and replace dead, diseased vegetation.
10. Warranted plant material that is 25% dead or more shall be considered dead and shall be replaced at no charge.
11. All plant material shall be warranted for two years. 60 days prior to the end of the warranted period, the Engineering Department shall perform an inspection. Of which there should be an 90% survival rate of all plant material. All surviving plant material shall be found in a healthy condition. The warranty shall commune on the date of initial acceptance by the owner.
12. The landscape contractor shall conduct a final inspection with the owner or owner's representative at the end of the warranty period.
13. Fertilizer Packets are to be Nutri-Pak 16-8-8 or approved equal per manufacturer's recommendations.
14. Landscape is recommended to be installed during the two growing seasons. Spring: April 15-June 15, Fall: September 1-November 1.

MAINTENANCE:

1. Owner to remove silt/sediment if the accumulation of sediment exceeds one inch over the bioretention area.
2. All trash and debris should be removed from the top of the bioretention area as necessary.
3. Areas devoid of mulch shall be re-mulched on an annual basis.

NOTES:

1. DEVELOPER/CONTRACTOR MUST CONTACT THE CERTIFYING ENGINEER AND WASHINGTON COUNTY DIVISION OF PERMITS AND INSPECTIONS AT LEAST 5 DAYS PRIOR TO THE START OF CONSTRUCTION OF THE STORMWATER MANAGEMENT SYSTEM TO SCHEDULE AND COORDINATE INSPECTION TIME TABLES.
2. ALL PIPE JOINTS SHALL BE WATERTIGHT. (HDPE PIPE JOINTS SHALL MEET THE 10.8 PSI WATER-TIGHT REQUIREMENTS OF ASTM D3212.)
3. ALL PROPOSED STORM DRAIN PIPES MUST BE PLACED ON 12" PREPARED SUBGRADE 95% COMPACTED FILL ACCORDING TO AASHTO T180A STANDARDS OR 12" GRAVEL OR SAND BED UNLESS OTHERWISE SPECIFIED BY MANUFACTURER OR GEOTECHNICAL ENGINEER.
4. THE CONTRACTOR IS TO CONTACT MISS UTILITY A MINIMUM OF 2 DAYS PRIOR TO ANY DIGGING ON THE SITE. (1-800-257-7777).

CLAY LINER NOTES:

1. Remove 12 inches of the SWM facilities subgrade.
2. Place soil materials that meet the minimum requirements.
   - 2.1. The materials shall have a maximum dry density of at least 100 PCF as per ASTM D-698
   - 2.2. Acceptable materials shall be ml, cl, mh, ch with no rock greater than 1-inch in diameter and constituting no more than 15% of the matrix
   - 2.3. Materials are to be placed in 6-inch lifts and properly compacted to at least 98% of the maximum dry density value as determined by ASTM D-698 (Standard Proctor) at a moisture content in the range of optimum to 3 percent above optimum moisture as determined by the same standard. A sufficient number of in-place density tests should be performed by an experienced engineering technician to verify that the proper degree of compaction is being obtained.
3. Any rock encountered within the SWM ponds shall be undercut at least 12 inches and covered and controlled and compacted clay liner soils.

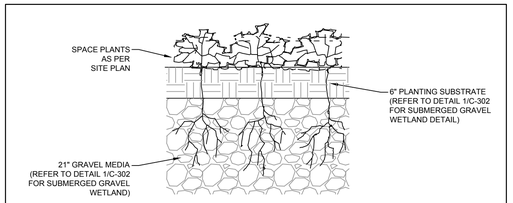
NOTE: ANY ROCK ENCOUNTERED WITHIN THE SWM FACILITIES SHOULD BE UNDERCUT AT LEAST 12 INCHES AND COVERED WITH CONTROLLED AND COMPACTED CLAY LINER SOILS. IF A SYNTHETIC LINER IS USED, ANY ROCK ENCOUNTERED WITHIN THE SWM FACILITIES SHOULD BE UNDERCUT AT LEAST 6 INCHES (OR DEPTHS AS RECOMMENDED BY THE MANUFACTURER) AND COVERED WITH CONTROLLED FILL.

BMP MAINTENANCE NOTES:

1. BMP AREAS SHALL BE INSPECTED AT A MINIMUM, BI-ANNUALLY.
2. OWNER SHALL REMOVE SILT/SEDIMENT IF THE ACCUMULATION OF SEDIMENT EXCEEDS ONE INCH WITHIN THE BMP AREA.
3. THE TOP FEW INCHES OF FILTER MEDIA SHALL BE REMOVED AND REPLACED WHEN WATER PONDS FOR MORE THAN 48 HOURS.
4. TRASH AND DEBRIS SHALL BE REMOVED AS NECESSARY.
5. MULCH SHALL BE REPLACED ON AN ANNUAL BASIS.
6. PLANT MATERIAL SHALL BE INSPECTED YEARLY AND DEAD AND/OR DISEASED VEGETATION SHALL BE REPLACED, AS NECESSARY. WATERING MAY BE REQUIRED DURING PROLONGED DRY SPELLS.

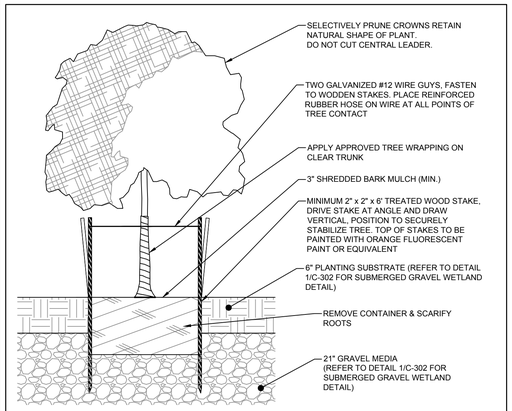
Table B-4.1 Material Specifications for Submerged Gravel Wetland

Material	Specification	Size	Notes
Plantings	see planting list	n/a	plantings are site-specific
Planting Substrate [8" 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)		
Pea gravel diaphragm	pea gravel: ASTM-D-448	No. 8 or No. 9 (1/8" to 3/8")	
Gravely Treatment Media	Clean Washed uniformly graded material with a porosity of 40%	No. 57 or No. 6 Aggregate	
Underdrain piping	F 758, Type PS 28 or AASHTO M-278	4"-6" rigid sch. 40 PVC or SCR35	Slotted or perforated pipe; 3/8" perf. @ 6" o/c, 4 holes/row; min. 3" of gravel over pipes; not necessary underneath pipes.
Sand	AASHTO M-6 or ASTM C-33	0.02" to 0.04"	Sand substitution 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.
Compost	MSHA Standard Specifications for Construction and Materials, July 2008 920.02.05 Compost	Uniform particle size of 0.5" or less	Source - Separated Compost (Type B): Type B Compost shall be tree leaf compost or non-tree leaf compost. Type B Compost produced from lawn clippings shall be tested for contaminants in conformance with Maryland law and regulations.



2 C-302 SUBMERGED GRAVEL WETLANDS PLUG PLANTING DETAIL

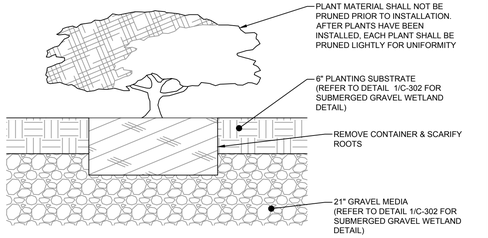
NOT TO SCALE



SECTION

3 C-302 GRAVEL WETLANDS - TREE

NOT TO SCALE



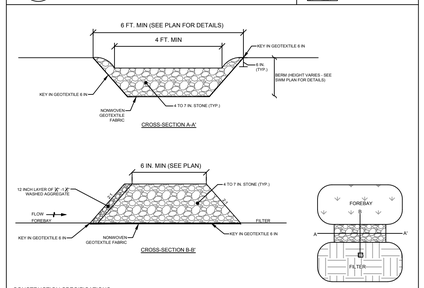
SECTION

4 C-302 GRAVEL WETLAND - SHRUB

NOT TO SCALE

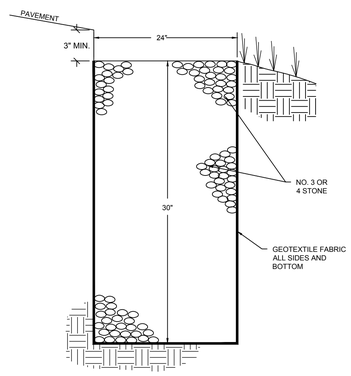
5 C-302 STONE WEIR (FOREBAY STONE WINDOW)

PLAN VIEW HATCH LEGEND



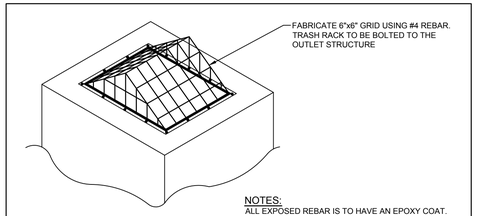
CONSTRUCTION SPECIFICATIONS

1. PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, UNDER THE BOTTOM AND SIDES OF THE WEIR PRIOR TO PLACEMENT OF STONE. CONSTRUCT THE WEIR WITH WASHED 4 TO 7 INCH STONE OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) WITH SIDE SLOPES OF 2:1 OR FLATTER AND A MINIMUM TOP WIDTH OF 6 INCHES. PLACE THE STONE SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL AND CHANNEL BANKS. FORM THE WEIR SO THAT TOP OF THE OUTLET CREST IS APPROXIMATELY 6 INCHES LOWER THAN THE OUTER EDGES. LINE THE UPSTREAM FACE OF THE DAM WITH A 1 FOOT THICK LAYER OF WASHED AGGREGATE (¾ TO 1½ INCH).
2. STONE WEIR TO BE USED ON EVERY SEDIMENT FOREBAY SPILLWAY.



6 C-302 STONE TRENCH

NOT TO SCALE



NOTES:
ALL EXPOSED REBAR IS TO HAVE AN EPOXY COAT.

7 C-302 TRASH RACK - SLANTED

NOT TO SCALE

STATE OF MARYLAND
TREVOR M. FREDERICK
49900
PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License #: 49900
Expiration Date: 06-24-2026

FSA
FREDERICK, SEIBERT & ASSOCIATES, INC.
CIVIL ENGINEERS • SURVEYORS • LANDSCAPE ARCHITECTS • LAND PLANNERS
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1837
305 SOUTHHANOVER STREET CARLISLE, PA 17013 717-249-0411
15 EAST MAIN STREET NEW BLOOMFIELD, PA 17068 717-582-2161
fsa-inc.com

MARK	DESCRIPTION	DATE

FULTON PROPERTIES, INC.
SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11
WASHINGTON COUNTY, MARYLAND
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-730-6359

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER	ADAM HAGER
EMAIL	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	NTS

SHEET TITLE

SWM DETAILS AND NOTES

C-302
SHEET 07 OF 10

SP-24-023

SOIL EROSION, SEDIMENT CONTROL & SEEDING NOTES

1. All soil erosion/sediment control measures shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control" and the provisions of the approved plan.
2. All grading and stabilization shall comply with the "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", "Section B - Grading and Stabilization" and the provisions of the approved plan.
3. All soil erosion and sediment control practices (BMP's) are to be constructed and/or installed prior to or at the initiation of grading in accordance with "2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control", and the approved plan.
4. A grading unit is the maximum contiguous area allowed to be graded at a given time and is limited to 20 acres. Work may proceed to a subsequent grading unit when at least 50 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the enforcement authority and/or the Washington County Soil Conservation District (approval authority). Unless otherwise specified and approved by the approval authority, no more than 30 acres cumulatively may be disturbed at a given time.
5. For initial soil disturbance or re-disturbance, temporary or permanent stabilization must be completed within:
   a) Three (3) calendar days as to the surface of all perimeter dikes, swales, ditches, perimeter slopes, and all 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 the project site not under active grading.
6. Stockpiles must be stabilized in accordance within the 7 day stabilization requirement, as well as, Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization (as applicable).
7. All constructed channels and swales shall have specified treatment installed to the design flow depth completed downstream to upstream as construction progresses. An installation detail shall be shown on the plans.
8. All storm drain and sanitary sewer lines not in paved areas are to be mulched and seeded within 3 days of initial backfill unless otherwise specified on plans.
9. Electric Power, telephone, and gas lines are to be compacted, seeded, and mulched within 3 days after initial backfill unless otherwise specified on plans.
10. No slope shall be greater than 2:1.
11. As required by Section B, of the Maryland Standards and Specifications for Soil Erosion and Sediment Control, "Adequate Vegetative Stabilization", is defined as 95 percent ground cover. The Washington County Soil Conservation District requires the project adherer to this for scheduling of the Final Site Closeout Review, and/or release of the site for soil erosion and sediment control.

For sites 1.0 acre or more, the following are required:

A. Maryland Department of the Environment, General Permit for Stormwater Associated with a Construction Activity, NPDES Permit Number MDRC, State Discharge Permit Number 20CP, or an Individual Permit.

B. The Maryland Department of the Environment (General/Individual Permit - Notice of Intent- NOI) application and permit shall be posted and/or available on-site at all times.

C. During construction, all soil erosion and sediment control practices (BMP's) shall be inspected and recorded on the "Standard Inspection Form", "General Permit for Stormwater Associated with Construction Activity" per the Maryland Department of the Environment (General/Individual Permit - Notice of Intent - NOI).

D. Following construction and release of the site for soil erosion and sediment control by the Washington County Soil Conservation District, i.e., all portions of a site have been permanently stabilized, and all stormwater discharges from construction sites that are authorized by the permit are eliminated, the authorized permittee shall submit the Maryland Department of the Environment, General/Individual Permit - Notice of Termination-NOT.

Sequence of Construction

1. Contractor shall contact Frederick Seibert & Assoc., Inc. (301)-791-3650, Washington County Soil Conservation District (301)-797-6821, and the Washington County Division of Permits & Inspections (240)-313-2460 at least five (5) days prior to the start of any earthwork to schedule a pre construction meeting.
2. Contractor shall first install the stabilized construction entrance. If tracking of sediment occurs onto the road, the contractor must stop work immediately and clean up the tacked sediment before construction may resume.
3. Contractor shall install perimeter controls with smart fence 42.
4. Contractor to strip topsoil, and place on stockpile on the uphill side of the silt fence and seed and mulch.
5. Contractor to clear/grub area necessary to reach the proposed berms of the basin.
6. Contractor to excavate for clay cutoff trench. With trench open, contractor to call for inspection from Washington County and design engineer.
7. Contractor to begin construction of the outlet structure. Install draw-down device as shown on this sheet as well as outlet protection on the downstream side of the structure.
8. With outlet structure in place, contractor to begin construction of berm starting with clay cutoff trench.
9. Upon reaching final grade of the berm, stabilize with seed/mulch and temporary matting as shown on the plans along with baffle boards.
10. Contractor shall start rough grading the site starting with 24" stormdrain system running through the site. Start at the invert and work uphill. Continue grading with the gravel entrance into the site and continue to work uphill.
11. Once the most uphill storm drain pipe is installed, contractor shall install the filter dike.
12. After rough grading in complete, start construction of the gravel areas.
13. Stabilize all disturbed areas with seed and mulch, and control matting as shown on the plans after excavating operations are complete. Use temporary seeding for areas left exposed for more than seven (7) consecutive days.
14. After the site has been stabilized, the contractor shall flush all storm drainage pipes prior to contacting the Washington County Soil Conservation District (301-797-6821) and Washington County D.P.W. Engineering & Construction (240-313-2400) to verify site is adequately stabilized before placing the filtering media in BMPs, removing sediment basin draw down devices, and final grading stormwater basins. Final stormwater management facilities may not be constructed until the entire upstream drainage area to each structure has been completed and stabilized.
15. Contractor to use filter bag to dewater sediment basins prior to conversion. With water removed, contractor to excavate to final grade. Draw down devices to be removed from basins.
16. Contractor shall use light-weight equipment to avoid compaction of the filtering media during construction. No equipment shall be permitted on the BMPs after the soil layer has been installed.
17. Contact the Washington County Soil Conservation District (301-797-6821, ext. 3) and Washington County D.P.W. Engineering & Construction (240-313-2400) to verify site is 95% vegetated before removing perimeter controls.
18. Remove sediment and erosion control measures, and stabilize accordingly.

TEMPORARY SEEDING SUMMARY

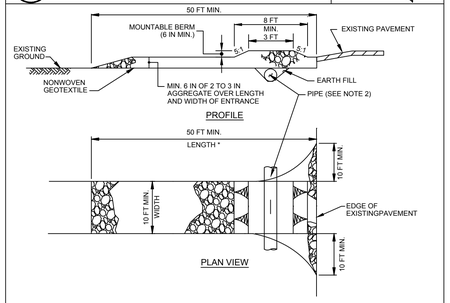
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	FERTILIZER RATE (10-20-20)	LIME RATE
	HARDINESS ZONE (FIGURE B.3): 6a & 6b; SEED MIXTURE (TABLE B.1)					
1	Barley	96	Zone 6a: Mar 15-May 31/ Aug 1-Sept 30; Zone 6b: Mar 1-May 15/ Aug 1-Oct 15	1"	436 lb/ac. (10 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)

PERMANENT SEEDING SUMMARY

NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTH	FERTILIZER RATE (10-20-20) N	P205	K20	LIME RATE
	HARDINESS ZONE (FIGURE B.3): 6a & 6b; SEED MIXTURE (TABLE B.1)							
6	Tall Fescue	40	Zone 6a: Mar 15-May 31/Aug 1-Sept 30; Zone 6b: Mar 1-May 15/Aug 1-Oct 15	1/4"-1/2"	45 lb/ac. (1 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	90 lb/ac. (2 lb/1000 s.f.)	2 tons/ac. (90 lb/1000 s.f.)
	Perennial Ryegrass	25						
	White Clover	5						

1 / C-501 DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL SCE



CONSTRUCTION SPECIFICATIONS

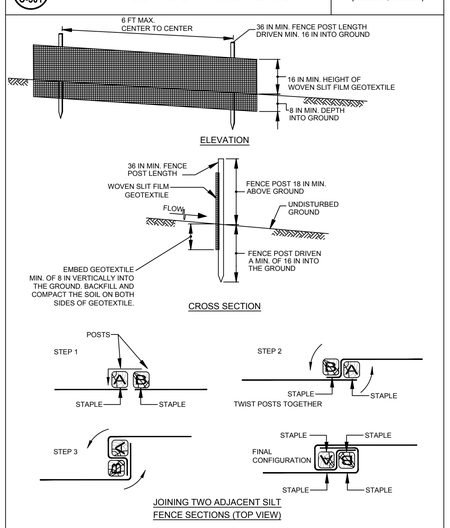
1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

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

2 / C-501 DETAIL E-1 SILT FENCE

STANDARD SYMBOL SF



CONSTRUCTION SPECIFICATIONS

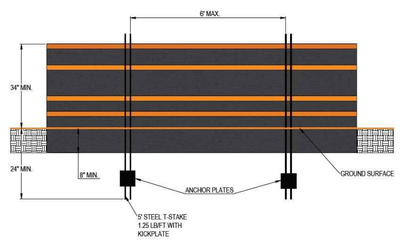
1. USE WOOD POSTS 1½ X 1½ ± 1/16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

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

LET'S GET IT DONE

SMARTfence® 42 Detail:



SMARTfence® 42 is NTPEP Compliant
GTX-2018-01-187

ACF ENVIRONMENTAL LET'S GET IT DONE!™ 800.448.3636 acfenvironmental.com

3 / C-501

SMARTFENCE 42" SEDIMENT & PERIMETER CONTROL

INSTALLATION INSTRUCTIONS

STEP 1: Excavate trench a maximum of 4" wide and 6" deep. The trench shall be hand-cleaned following excavation to remove bulky debris such as rocks, sticks, and soil clods from the trench. Drive studded metal T-posts with anchor plates having a minimum weight of 1.25 lb /ft and a minimum 5 ft length. Drive post into ground a minimum of 18" depth. Post spacing must be no greater than 6 ft maximum.

STEP 2: Layout SMARTfence® 42 along proposed fence line next to anchor trench. Locate one end of the SMARTfence® 42 and position near the initial post. Position SMARTfence® 42 vertically along the initial post.

STEP 3: For the initial post, place the end of SMARTfence® 42 along the post height and rotate the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with steel wire or nylon ties.

STEP 4: For fastening SMARTfence® 42 to studded, metal T-posts using one of following methods:

- Method I (T-Post): 16-gage wire- attach SMARTfence® 42 to metal T-posts using the 16-gage 304 SS wire with mitered ends, securing the fence to the post using safety pliers.
- Method II (T-Post): 8" nylon heavy-duty, UV-stabilized, cable ties (zip-ties) with minimum 120-lb tensile strength. Puncture two 0.25" openings, spaced at a width apart that is roughly equivalent to the post width, and secure the fence to the post.

STEP 5: Drive the initial post with the attached fence into the ground to a 18" depth.

STEP 6: Drive the interior t-posts of the fence system into the ground at least 18".

STEP 7: Move to the next t-post while pulling SMARTfence® 42 tightly. Position the SMARTfence® 42 in front of the adjacent t-post in preparation for fastening the fence to the post. Fasten fence to post at all four (4) orange-colored band locations as instructed in Step 4.

STEP 8: After the interior posts have been fastened to the SMARTfence® 42, secure the fence to the final post by pulling the final section of fencing taut, then rotating the post 360 degrees, maintaining tension on the fence system. Secure the fence to the post at all four (4) orange-colored band locations with the steel wire or nylon ties per Step 4. Drive the final post into the ground to a 18" depth.

STEP 9: Place bottom 8" of fabric into the trench. Backfill trench (overfill) with soil placed around fabric. Compact soil backfill with either manual tamping (or other manual means) or via mechanical equipment such as the front wheel of a tractor, skid steer, roller, or other device (per Note 5 of ASTM D 6462 Standard Practice for Silt Fence Installation). Do not damage the fabric during compaction (damaged fabric shall be replaced).

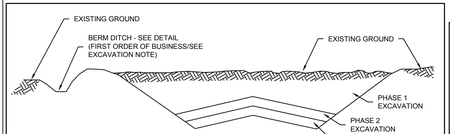
Please contact our team at 800-448-3636 info@acfenv.com with any questions regarding the installation process.

LET'S GET IT DONE!™

SMARTfence

For more information, contact our Inside Sales team at 800.448.3636 e-mail at info@acfenv.com

ACF ENVIRONMENTAL



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

Incremental Stabilization - Cut Slopes
1. All cut slopes shall be dressed, prepared, seeded and mulched as work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.

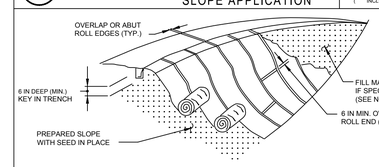
Construction Sequence
1. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
2. Perform Phase 1 excavation, dress, and stabilize.
3. Perform Phase 2 excavation, dress, and stabilize. Overseed Phase 1 area as necessary.
4. Perform Final Phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.

4 / C-501 INCREMENTAL STABILIZATION - CUT

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 20 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

5 / C-501 DETAIL B-4-6-D PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL PSSMS - ★ lb/ft² (★ INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

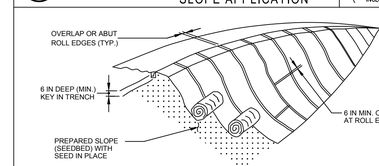
1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

6 / C-501 DETAIL B-4-6-B TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION

STANDARD SYMBOL TSSMS – ★ lb/ft² (★ INCLUDE SHEAR STRESS)

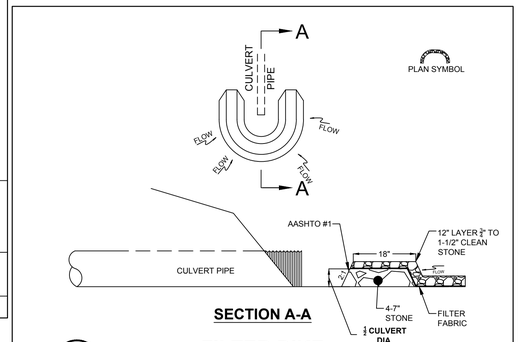


CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE TEMPORARY SOIL STABILIZATION MATTING MADE OF DEGRADABLE (LASTS 6 MONTHS MINIMUM) NATURAL OR MAN-MADE FIBERS (MOSTLY ORGANIC). MAT MUST HAVE UNIFORM THICKNESS AND DISTRIBUTION OF FIBERS THROUGHOUT AND BE SMOLDER RESISTANT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES, WOOD STAKES, OR BIODEGRADABLE EQUIVALENT. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND A MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPED AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION & SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWNSLOPE. LAY MAT SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT ROLL EDGES PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSLOPE MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE UPSLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



SECTION A-A

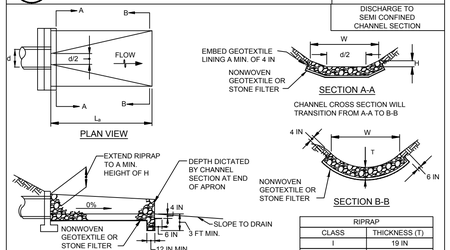
7 / C-501 FILTER DIKE

NOT TO SCALE

8 / C-501 DETAIL D-4-1-A ROCK OUTLET PROTECTION I

STANDARD SYMBOL ROP1

DISCHARGE TO SEMI CONFINED CHANNEL SECTION



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

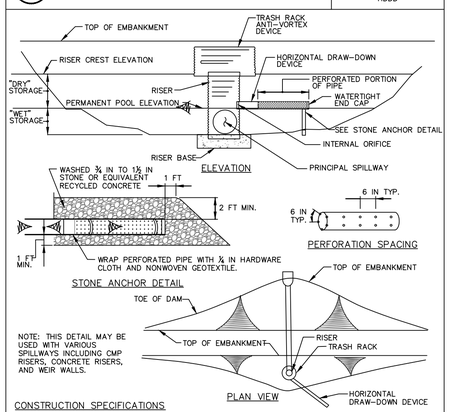
1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (⅔ TO 1½ INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF THE RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

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

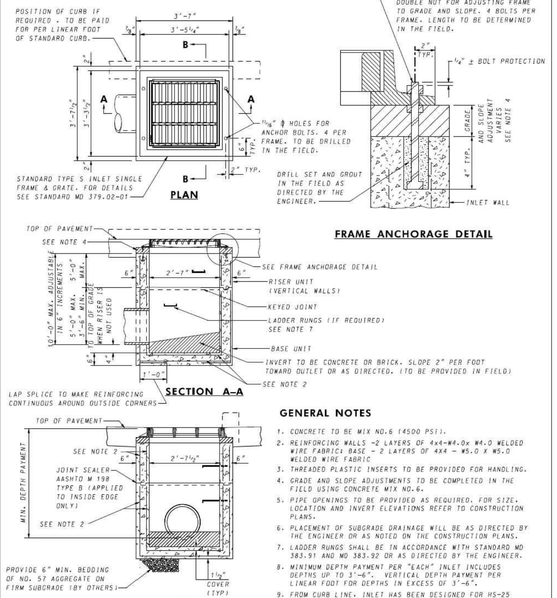
9 / C-501 DETAIL G-2-6 SEDIMENT BASIN SCHEMATIC HORIZONTAL DRAW-DOWN DEVICE

STANDARD SYMBOL HDDD



CONSTRUCTION SPECIFICATIONS

1. PERFORATE PIPE WITH 1 INCH DIAMETER PERFORATIONS SPACED 6 INCHES APART LONGITUDINALLY AND RADIALLY OR IN ACCORDANCE WITH APPROVED PLAN.
2. WRAP THE PERFORATED PORTION OF THE DRAW-DOWN DEVICE FIRST WITH ¼ INCH GALVANIZED HARDWARE CLOTH, THEN WITH NONWOVEN GEOTEXTILE. USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS. DO NOT WRAP WITH MORE THAN ONE LAYER OF GEOTEXTILE.
3. AS AN ALTERNATE TO SECURE ANCHORING, SECURE DRAW-DOWN DEVICE WITH TWO 1 INCH STEEL ANGLES SET 3 FEET MINIMUM INTO THE GROUND ATTACHED TO DRAW-DOWN DEVICE BY A 1 INCH WIDE GALVANIZED STEEL STRAP OR 12 GAUGE



GENERAL NOTES

1. CONCRETE TO BE MIX NO.6 (4500 PSI).
2. REINFORCING WALLS -2 LAYERS OF 4x4-W4.0x W4.0 WELDED WIRE FABRICS; BASE - 2 LAYERS OF 4X4 - W5.0 X W5.0 WELDED WIRE FABRIC
3. THREADED PLASTIC INSERTS TO BE PROVIDED FOR HANDLING.
4. GRADE AND SLOPE ADJUSTMENTS TO BE COMPLETED IN THE FIELD USING CONCRETE MIX NO.6.
5. PIPE OPENINGS TO BE PROVIDED AS REQUIRED. FOR SIZE, LOCATION AND INVERT ELEVATIONS REFER TO CONSTRUCTION PLANS.
6. PLACEMENT OF SUBGRADE DRAINAGE WILL BE AS DIRECTED BY THE ENGINEER OR AS NOTED ON THE CONSTRUCTION PLANS.
7. LADDER RUNGS SHALL BE IN ACCORDANCE WITH STANDARD MD 383.91 AND MD 383.92 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 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

SPECIFICATION	CATEGORY CODE ITEMS
305	

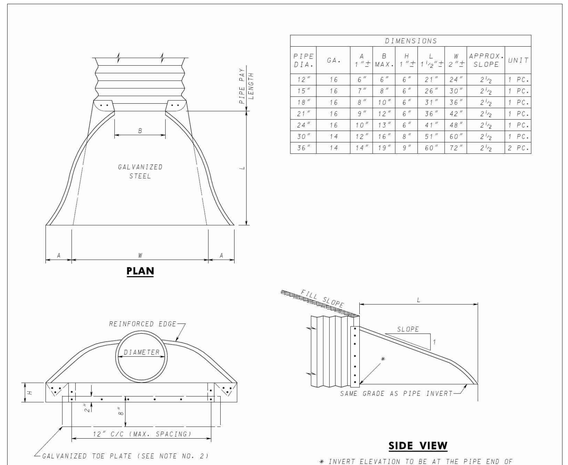
APPROVED — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	4-15-87	APPROVAL	6-23-87
REVISED	8-3-10	REVISED	7-26-10
REVISED	10-7-14	REVISED	9-29-14
REVISED	–	REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

PRECAST STANDARD TYPE S INLET SINGLE GRATE

STANDARD NO. MD 374.73



DIMENSIONS								
PIPE DIA.	GA.	A 1"±	B MAX.	H 1"±	L 1½"±	W 2"±	APPROX. SLOPE	UNIT
12"	16	6"	6"	6"	21"	24"	2½	1 PC.
15"	16	7"	8"	6"	26"	30"	2½	1 PC.
18"	16	8"	10"	6"	31"	36"	2½	1 PC.
21"	16	9"	12"	6"	36"	42"	2½	1 PC.
24"	16	10"	13"	6"	41"	48"	2½	1 PC.
30"	14	12"	16"	8"	51"	60"	2½	1 PC.
36"	14	14"	19"	9"	60"	72"	2½	2 PC.

NOTES

1. METAL END SECTIONS SHALL BE GAGE 16 FOR PIPES RANGING FROM 15" THRU 24", AND GAGE 14 FOR PIPES RANGING FROM 30" THRU 36", MULTIPLE PANEL UNITS TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY ⅝" DIAMETER GALVANIZED RIVETS OR BOLTS.
2. TOE PLATES SHALL BE USED WHEN SPECIFIED ON THE PLANS. THICKNESS OF END PLATE TO BE SAME AS END SECTION. COST OF TOE PLATE TO BE INCIDENTAL TO THE BID PRICE PER EACH OF METAL END SECTION.

SPECIFICATION	CATEGORY CODE ITEMS
303	

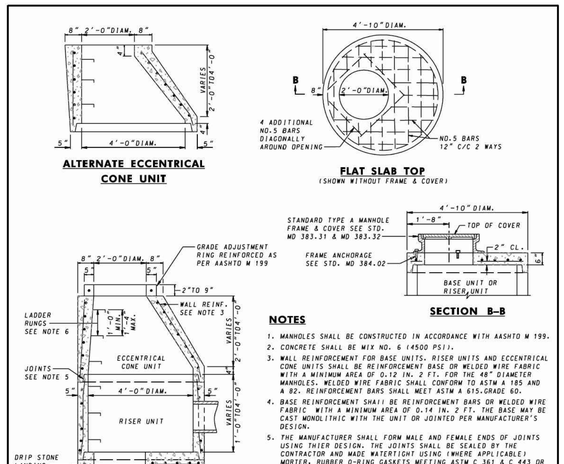
APPROVED — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	8-28-86	APPROVAL	12-12-86
REVISED	10-1-01	REVISED	7-27-09
REVISED	7-1-09	REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

STANDARD METAL END SECTION ROUND METAL PIPE

STANDARD NO. MD 370.01



NOTES

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M 199.
2. CONCRETE SHALL BE MIX NO. 6 (4500 PSI).
3. WALL REINFORCEMENT FOR BASE UNITS, RISER UNITS AND ECCENTRICAL CONE UNITS SHALL BE REINFORCEMENT BASE OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.12 IN. 2 FT. FOR THE 48" DIAMETER MANHOLES. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 AND A 82. REINFORCEMENT BARS SHALL MEET ASTM A 615.GRADE 60.
4. BASE REINFORCEMENT SHALL BE REINFORCEMENT BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF 0.14 IN. 2 FT. THE BASE MAY BE CAST MONOLITHIC WITH THE UNIT OR JOINTED PER MANUFACTURER'S DESIGN.
5. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING TNIER DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR AND MADE WATERTIGHT USING (WHERE APPLICABLE) MORTER. RUBBER O-RING GASKETS MEETING ASTM C 361 & C 443 OR FLEXIBLE PLASTIC GASKETS MEETING AASHTO M 198 TYPE B.
6. LADDER RUNGS SHALL BE INSTALLED IN VERTICAL ALIGNMENT AT 1'-4" MAXIMUM C/C. RUNG TYPES SHALL BE IN ACCORDANCE WITH STANDARDS MD 383.91 OR MD 383.92 LADDER RUNGS SHALL BE INCIDENTAL TO THE COST OF THE MANHOLE.
7. WHEN THE DISTANCE BETWEEN MULTIPLE OPENINGS IN THE BASE UNIT OR ANY RISOR UNIT IS LESS THAN 6" ADDITIONAL NO. 3 BARS ARE REQUIRED AROUND OPENINGS.
8. LIFT HOLES OR LIFT EYES SHALL BE PROVIDED IN EACH SECTION FOR HANDLING.
9. MIX NO. 2 CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD AND SHALL SLOPE 2" PER FOOT TOWARD OUTLET OR AS DIRECTED BY THE ENGINEER.
10. THE DRIP STONE LANDING SHALL BE USED ONLY WHEN THERE ARE PIPES CONNECTED TO THE RISER UNITS. SEE STD. MD 384.13 FOR DETAILS.
11. MINIMUM DEPTH PAYMENT PER EACH SHALL BE 9'-0" MEASURED FROM THE BOTTOM OF THE BASE UNIT TO THE TOP OF THE MANHOLE COVER VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF 9'-0". THE COST OF THE DRIP STONE LANDING, NO. 57 AGGREGATE GROUT, SEALANT, AND ALL NECESSARY APPURTENANCES SHALL BE INCIDENTAL TO THE PRICE BID.

SPECIFICATION	CATEGORY CODE ITEMS
305	

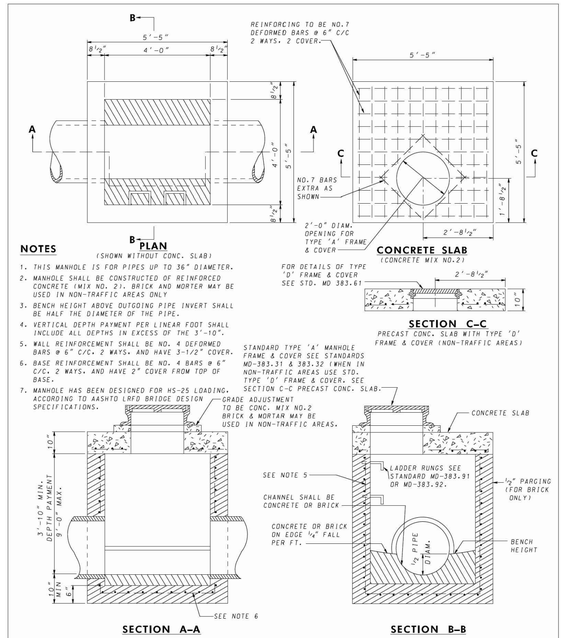
APPROVED — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	2-23-91	APPROVAL	1-2-91
REVISED	10-1-01	REVISED	
REVISED		REVISED	
REVISED		REVISED	

Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

48" DIAMETER PRECAST MANHOLE FOR 12" TO 24" PIPES

STANDARD NO. MD 384.01



NOTES

1. THIS MANHOLE IS FOR PIPES UP TO 36" DIAMETER.
2. MANHOLE SHALL BE CONSTRUCTED OF REINFORCED CONCRETE (MIX NO. 2). BRICK AND MORTER MAY BE USED IN NON-TRAFFIC AREAS ONLY
3. BENCH HEIGHT ABOVE OUTGOING PIPE INVERT SHALL BE HALF THE DIAMETER OF THE PIPE.
4. VERTICAL DEPTH PAYMENT PER LINEAR FOOT SHALL INCLUDE ALL DEPTHS IN EXCESS OF THE 3'-10".
5. WALL REINFORCEMENT SHALL BE NO. 4 DEFORMED BARS ϕ 6" C/C. 2 WAYS. AND HAVE 3-1/2" COVER.
6. BASE REINFORCEMENT SHALL BE NO. 4 BARS ϕ 6" C/C. 2 WAYS. AND HAVE 2" COVER FROM TOP OF BASE.
7. MANHOLE HAS BEEN DESIGNED FOR HS-25 LOADING, ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

SPECIFICATION	CATEGORY CODE ITEMS
305	

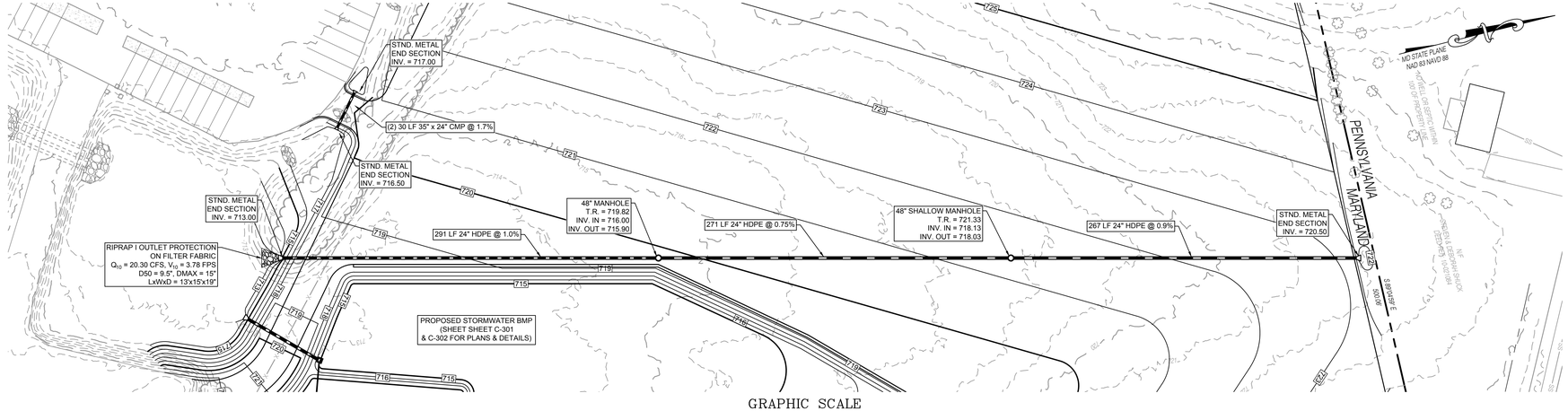
APPROVED — DIRECTOR – OFFICE OF HIGHWAY DEVELOPMENT

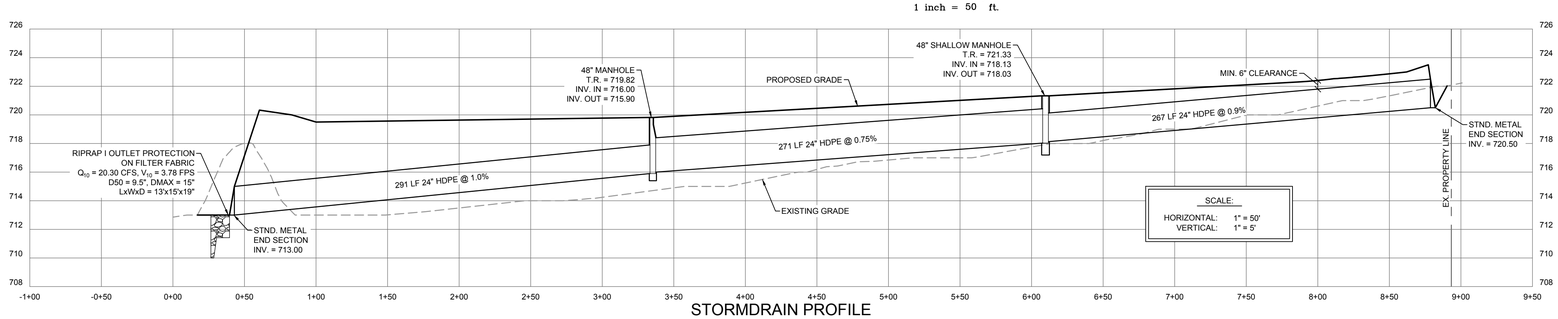
APPROVAL • SHA REVISIONS		APPROVAL • FEDERAL HIGHWAY ADMINISTRATION	
APPROVAL	10-1-01	APPROVAL	3-1-83
REVISED	10-1-01	REVISED	4-26-89
REVISED	10-7-14	REVISED	9-29-14
REVISED		REVISED	

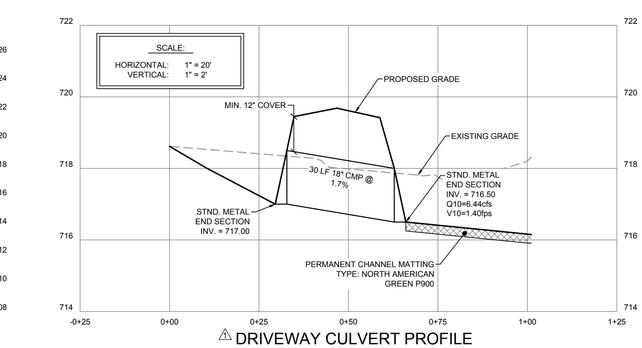
Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES

48" SQUARE STANDARD SHALLOW MANHOLE

STANDARD NO. MD 383.00







STATE OF MARYLAND — TREVOR M. FREDERICK — 49808 — PROFESSIONAL ENGINEER — 02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND License # 49808 Expiration Date 06-24-2026

FSA — FREDERICK, SEIBERT & ASSOCIATES, INC.
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305 SOUTH HANOVER STREET CARLISLE, PA 17013 (717)-243-8111
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 (717)267-4007
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 (301)739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER CLIENT/OWNER REQUEST	02-03-2025

FULTON PROPERTIES, INC.
SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11
WASHINGTON COUNTY, MARYLAND
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-739-6559

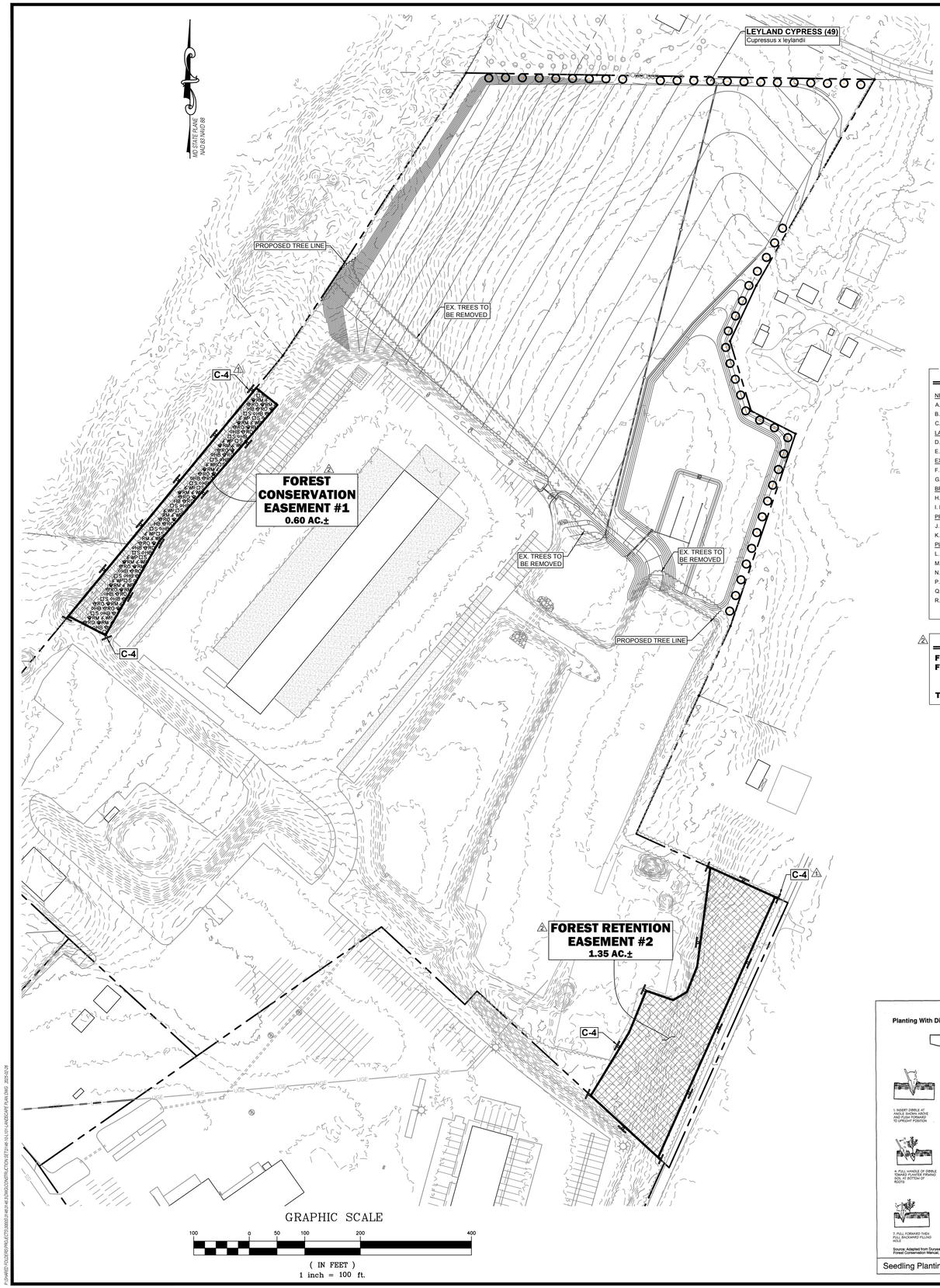
PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER:	ADAM HAGER
EMAIL:	AHAGER@FSA-INC.COM
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	VARIES

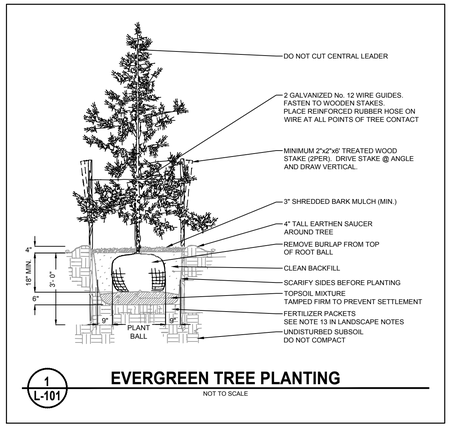
SHEET TITLE

CONSTRUCTION DETAILS & NOTES - UTILITIES

C-502
SHEET 09 OF 10

SP-24-023





1 L-101

EVERGREEN TREE PLANTING

NOT TO SCALE

Tree Planting and Maintenance Calendar

Tasks	Months											
	Jan+	Feb+	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov+	Dec+
Transplant of 2" DBH or Greater												
Planting Seedlings, Whips												
Minimum Monitoring				*			*				*	
Fertilizer (if Needed)+												
Water++												
Pruning												

Recommended, Optimal Time
Recommended With Additional Time
Recommended

* Dependent Upon Site Conditions
** Dependent Upon Site Conditions: Weekly Watering is Strongly Recommended From May Through October Unless Weekly Rainfall Equals 1"

Notes:
1. Activities during November through February depend on ground conditions.
2. Planting of oaks and pines in the fall shall be done when the soil moisture is high.
3. The planting and care of trees is most successful when coordinated with the local conditions. This calendar summarizes some of the recommended time frames for basic reforestation and stress reduction activities.

FOREST CONSERVATION WORKSHEET 2.2

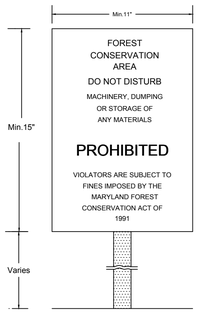
NET TRACT AREA
A. Total Tract Area.....= 13.00 Ac.
B. Deductions.....= 0.00 Ac.
C. Net Tract Area.....= 13.00 Ac.
LAND USE CATEGORY CIA
D. Afforestation Threshold (Net Tract Area x 15%).....= 1.95 Ac.
E. Conservation Threshold (Net Tract Area x 15%).....= 1.95 Ac.
EXISTING FOREST COVER
F. Existing Forest Cover within the Net Tract Area.....= 0.00 Ac.
G. Area of Forest Above Conservation Threshold.....= 0.00 Ac.
BREAK EVEN POINT
H. Break Even Point.....= 0.00 Ac.
I. Forest Clearing Permitted Without Mitigation.....= 0.00 Ac.
PROPOSED FOREST CLEARING
J. Total Area of Forest to be Cleared.....= 0.00 Ac.
K. Total Area of Forest to be Retained.....= 0.00 Ac.
PLANTING REQUIREMENTS
L. Reforestation for Clearing Above the Conservation Threshold.....= 0.00 Ac.
M. Reforestation for Clearing Below the Conservation Threshold.....= 0.00 Ac.
N. Credit for Retention above the Conservation Threshold.....= 0.00 Ac.
P. Total Reforestation Required.....= 0.00 Ac.
Q. Total Afforestation Required.....= 1.95 Ac.
R. Total Planting Requirement.....= 1.95 Ac.
or 84,942.0 S.F.

FORESTATION TABLE

FOREST REQUIRED	**1.95 AC.±**
FOREST PROVIDED	
EASEMENT #1	**0.60 AC.±**
EASEMENT #2	**1.35 AC.±**
TOTAL FOREST PROVIDED	**1.95 AC.±**

PLANTING AND MAINTENANCE NOTES

1. Owner is to complete all planting work and preparation using his own resources and equipment or qualified contractor.
2. Plant material is to be purchased by the owner from a nursery within one hundred miles of the site. A list of two potential nursery sources is:
   A. East Coast Greens, 2629 McDowell Road, Saint Thomas, PA 17252, (717) 369-4995
   B. John S. Ayton State Tree Nursery, 580 Taylor Ave., Annapolis, MD 21401, (877) 620-8367
3. The cost estimate for bonding purposes is $5,357.88; this is based on forest mitigation required (17,859.6 S.F.) at the rate of 30 cent per square foot.
4. The plantings shown hereron will be planted by the Fall of 2025. If the areas to be planted with trees are overgrown with weeds or tall grasses and invasive plants, this area will need to be brush hogged and/or an herbicide shall be applied two weeks prior to planting. Note, no clearing or mowing is allowed in wetland areas.
   A. Undisturbed sites: Disturbance of soils should be limited to the planting field for each plant. As shown in Figure C-18.
5. The trees are to be protected with "Tubex" tree shelters or approved equal when planted. "Tubex" tree shelters are to be placed on every tree (See Tree Shelter Note). Note a tree shelter will necessitate more frequent watering.
6. Owner is to water trees and to prevent spread of invasive plants throughout the "forest" planting area for the three year maintenance period. Recommended type of watering is with a soaker hose to allow water to deeply irrigate the tree.
7. It is the owner or developers responsibility to notify the Washington County Planning and Zoning Department attention Travis Allen (240)313-2432 of when the planting has been completed. The Washington County Planning Department will make an inspection and issue a report to the owner or developer. The three year maintenance period will begin when the Washington County Planning and Zoning Department determines that the planting has been completed in accordance with the Forest Conservation Ordinance requirements.
8. The owner or developer shall make an effort to maintain a 65% survival of the original planting at all times. The owner or developer can replant in order to maintain the 65% survival rate during the three year period with advance notice to the Washington County Planning Department. If the final inspection determines there is less than 65% survival it will be the owner/developer's responsibility to correct the deficiencies and possibly provide an additional maintained period.



Notes:
1. Bottom of signs to be higher than top of tree protection fence.
2. Signs to be placed approximately 50 feet apart. Conditions on site affecting visibility may warrant placing signs closer or farther apart.
2. Attachment of signs to trees is prohibited.

- RETENTION AREA PROTECTIVE MEASURES SHALL BE INSTALLED WITHIN 30 DAYS OF SUBDIVISION PLAT APPROVAL.
- AFTER INSTALLED NOTIFY PLANNING DEPARTMENT (240-313-2430) FOR AN INSPECTION

Source: Adapted from Forest Conservation Manual, 1991

Construction Signs and Permanent Signs — Figure C-4

PLANT LIST

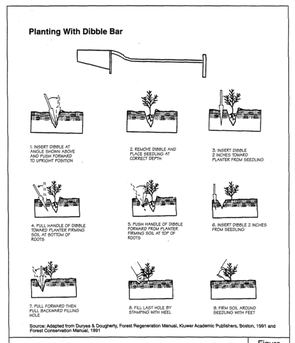
SYMBOL	PLANT		SIZE	ROOT	*PHASE QUANITY
☐S	Acer saccharinum	Silver Maple	1 1/4" to 1 1/2"	Container	40
○HB	Celtis occidentalis	Hackberry	1 1/4" to 1 1/2"	Container	40
WP	Pinus strobus	White Pine	1 1/4" to 1 1/2"	Container	40
RO	Quercus rubra	Northern Red Oak	1 1/4" to 1 1/2"	Container	40
RM	Acer rubrum	Red Maple	1 1/4" to 1 1/2"	Container	40
				Total	200

* This afforestation is for a planting of seedlings / whips within the entire 0.41 acres to be completed by the Fall of 2025.

NOTES
1. Tree location as shown on this afforestation plan are generalized to show a random planting to give a more natural look to the forest. Actual placement of trees may vary due to field conditions.
2. The minimum number of 450 trees per acre is required with approximate 10'x10' spacing and maintaining a 65% minimum survival rate. The tree selection used for this planting are species native to this physiographic region of the State of Maryland.
3. A mix of rapid growth to slow growth trees and trees with differing height at maturity are proposed to emulate natural growth patterns. Any species substitution would be allowed as long as the quantity is met. And the species are listed on the Washington County Forest Conservation Ordinance native tree and shrub list.

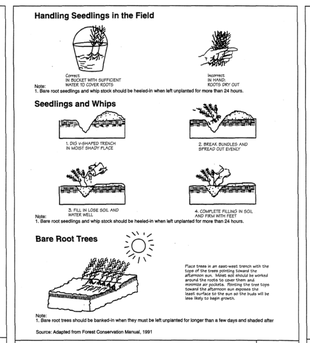
FOREST CONSERVATION SEQUENCE OF CONSTRUCTION

1. All temporary protection devices and/or permanent devices shall be put into place.
   - Permanent signage will be place as shown on the plan around the perimeter of the entire Forest Area within 30 days of subdivision plat approval and/or completion of construction.
   - During any building or site construction, the forest retention area(s) shall be protected by highly visible, well anchored temporary fencing.
   - All temporary fencing shall be in place prior to any grading or land clearing.
   - All temporary fencing shall be maintained throughout construction and until all graded areas have been stabilized.
   - Attachment of signs or any other objects to trees is prohibited.
   - No equipment, machinery, vehicles, materials or excessive pedestrian traffic shall be allowed within protected areas.
2. A pre-construction meeting will be required after the boundaries of the limits of disturbance have been staked and flagged, the forest protection devices have been installed, and before any disturbance has taken place on the site. It is the owner and/or developer's responsibility to arrange for the pre-construction meeting. The owner and/or developer shall contact the Washington County Planning and Zoning Department (240-313-2430) for inspection of the installed devices prior to the start of construction with at least five (5) days notice. If the inspection reveals improperly installed protection devices, corrections will have to be made and re-inspected prior to the start of construction.
3. Once approval has been granted by the Washington County Plan Review & Permitting Department, clearing and/or grading of the site for construction of street, utility, and building areas may commence.
4. A post-construction meeting will be required after all construction has ceased and graded areas have been stabilized, all temporary protective devices shall be removed and replaced with the appropriate permanent signage. It is the owner and/or developer's responsibility to arrange for the post-construction meeting. The owner and/or developer shall contact the Washington County Department of Plan Review and Permitting (240-313-2430) for inspection of the final installed devices with at least five (5) days notice. If the inspection reveals improperly installed permanent protection devices, corrections will have to be made and re-inspected prior to the completion of site stabilization.



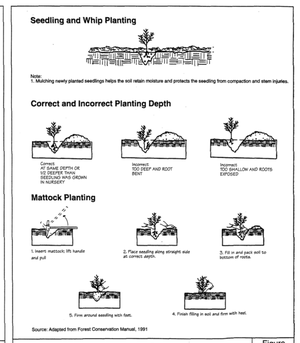
Source: Adapted from Duryea & Dougherty, Forest Regeneration Manual, Kluwer Academic Publishers, Boston, 1991 and Forest Conservation Manual, 1991

Seedling Planting Techniques — Figure C-19



Source: Adapted from Forest Conservation Manual, 1991

Handling Bare Root Stock — Figure C-17

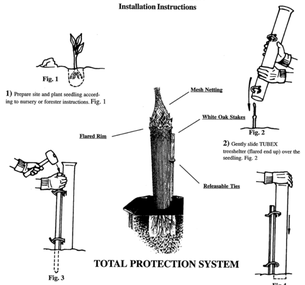


Source: Adapted from Forest Conservation Manual, 1991

Seedling and Whip Planting Techniques — Figure C-18

TREESHELTERS

Installation Instructions



Important
** Seedlings will perform better with proper weed control.*
** Check stakes at least once a year.*
** Shelters are designed to photo-degrade. Do not remove.*
** In areas where songbirds nest, be sure to cover shelter top with mesh netting. (included)*
** Remove mesh netting prior to the tree emerging from the top of the shelter.*

TREE SHELTER NOTE:
Tree protection devices such as "Tubex" tree shelters or approved equal to be used with single stem trees such as ash, oaks and etc. and not to be used with a multi stem tree. Care must be taken when using these devices as not to allow grasses to grow around them. This would attract small animals and insects that would eventually kill the tree.

STATE OF MARYLAND — TREVOR M. FREDERICK — 49906 — PROFESSIONAL ENGINEER
02/26/2025

Professional Certification:
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional under the laws of the State of: MARYLAND, License # 49906, Expiration Date 06-24-2026.

FSA
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305 SOUTH HANOVER STREET CARLISLE, PA 17013 717-243-7411
20 WEST BALTIMORE STREET GREENCASTLE, PA 17225 717-597-1647
128 SOUTH POTOMAC STREET HAGERSTOWN, MD 21740 301-739-8866

MARK	DESCRIPTION	DATE
1	REVISED PER COUNTY COMMENTS	10-31-2024
2	REVISED PER COUNTY FOREST REVIEWER	01-28-2026

FULTON PROPERTIES, INC.
SITUATED ALONG THE WESTERN SIDE OF BYERS ROAD
NORTH OF INDUSTRY DRIVE, EAST OF PENNSYLVANIA AVENUE US ROUTE 11
WASHINGTON COUNTY, MARYLAND
FULTON PROPERTIES, INC.
PO BOX 4217 HAGERSTOWN, MD 21741
ATTN: BRAD FULTON (301)-730-6359

PROJECT NO.	3146.3
DWN BY: DWH	DATE: 03-27-2023
PROJECT MANAGER: ADAM HAGER	
EMAIL: AHAGER@FSA-INC.COM	
TAX MAP-GRID-PARCEL	0010-0017-0165
SCALE	VARIES

SHEET TITLE
LANDSCAPE & FOREST PLAN

L-101
SHEET 10 OF 10

SP-24-023

Washington County
MARYLAND

DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Senior Planner

DATE: June 2, 2025

RE: Forest Conservation Mitigation Request for Overdale Estates Phase 2 Lot 1 (S-25-005)

Attached you will find supporting documentation for a request to meet forest conservation requirements for this project. The applicant is requesting to pay the fee-in-lieu to satisfy the 2.6-acre planting requirement for subdivided Lot 1 on Jefferson Boulevard near Cavetown.

Enclosed for your review are two documents in support of the applicant's request. These include the subdivision plat (which includes the forest conservation plan), and the justification letter from Qualified Professional Clint Rock that make their case for this request.

Article 10.1 of the Washington County Forest Conservation Ordinance (FCO) describes the Preferred Sequence of Techniques for Mitigation for forest conservation plans. This list describes a hierarchy of of techniques ranging from onsite retention and planting to payment of fee in lieu. The overall intent of the FCO is to preserve or create as much forest onsite as is feasible within the constraints of each development project before meeting mitigation obligations offsite.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Senior Planner
(240) 313-2432
tallen@washco-md.net

FOX & ASSOCIATES INC.
Est. 1966
ENGINEERS
SURVEYORS
PLANNERS
LANDSCAPE ARCHITECTS

981 Mt Aetna Rd
Hagerstown, MD 21740
Phone: 301-733-8503
Fax: 301-733-1853

April 18, 2025

Washington County Maryland Planning & Zoning Department
747 Northern Avenue
Hagerstown, Maryland 21742

Attention: Travis M. Allen, Senior Planner

Re: Overdale Estates, Phase 2 (S-25-005) –Payment in Lieu (PIL) Justification

Mr. Allen,

We have prepared and submitted a Preliminary/Final Plat for Phase 2 of Overdale Estates. Phase 2 is located on the north side of Jefferson Boulevard (MD 64) and is identified as parcel 30 on tax map 51. Phase 2 is a single lot subdivision, comprised of proposed Lot 1 (single-family residence) and Remaining Lands (agricultural buildings).

The parcel is currently improved by several agricultural buildings and is in joint use between agriculture and a contracting business (Ridgetop Roofing). The property contains no areas of qualified forest per the approved Forest Stand Delineation (FS-20-011).

The required mitigation associated with the subdivision of Phase 2 is 2.60 AC as calculated by the Forest Conservation Worksheet 2.2 found on the Plat. The Plat proposes that the mitigation be provided by payment in lieu (PIL) in the amount of $33,976.80.

For the sake of discussion, the Preferred Sequence of Techniques and Areas for Mitigation listed in Article 10 of the Washington County Forest Conservation Ordinance is outlined below with brief commentary on each technique as it relates to this Preliminary/Final Plat.

ARTICLE 10 PREFERRED SEQUENCE OF TECHNIQUES AND AREAS FOR MITIGATION

10.1 *PREFERRED SEQUENCE OF TECHNIQUES FOR MITIGATION*

A. *After all techniques for retaining existing forest on the site have been exhausted, the preferred sequence of techniques for afforestation and reforestation is as follows:*

(1) *Selective clearing and supplemental planting on site;* FS-20-011 identifies no areas qualified forest on the subject property. As such there are no forested areas where selective clearing or supplemental planting could take place.

(2) *Onsite afforestation or reforestation using transplanted or nursery stock that is greater than 1.5 inches diameter measured at 4.5 feet above the ground;* The subject property is currently in agricultural use. It is the intention of the owner/developer to construct a single-family dwelling on proposed Lot 1, however the remaining acreage of Lot 1 would remain in agricultural use. The owner/developer does not wish to encumber the property with Forest Conservation easements which would negatively affect their ability to continue the agricultural use of the property.

(3) *Onsite afforestation or reforestation, using whip and seedling stock;* Please refer to commentary in (2), above.

(4) *Credit from an approved Forest Mitigation Bank that created new forest cover. The credit applied to the mitigation requirement is equal to 100% of the credit secured from the Forest Mitigation Bank;* The existence of Forest Banks in Washington County is limited. The developer has not been able to secure credit in an existing Forest Mitigation Bank but is prepared to submit the payment in lieu amount of $33,976.80 to Washington County for use at offsite locations.

(5) *Offsite afforestation or reforestation, arranged by the applicant on private lands using transplanted or nursery stock that is greater than 1.5 inches diameter measured at 4.5 feet above the ground;* Phase 2 is a single lot subdivision intended for the purposes of constructing one single-family dwelling. Offsite mitigation is required to be provided at a ratio of 2:1. As such, offsite mitigation would be costly and financially unfeasible for the owner/developer.

(6) *Offsite afforestation or reforestation arranged by the applicant on public lands using transplanted or nursery stock that is greater than 1.5 Inches diameter measured at 4.5 feet above the ground;* Please refer to commentary in (5), above.

(7) *Offsite afforestation or reforestation, arranged by the applicant on private lands using whip and seedling stock;* Please refer to commentary in (5), above.

(8) *Offsite afforestation or reforestation, arranged by the applicant on public lands using whip and seedling stock;* Please refer to commentary in (5), above.

(9) *Landscaping of areas under an approved landscaping plan which establishes a forest that is at least 35 feet wide and covering 2,500 square feet or more of area;* There is no landscaping plan proposed by S-25-005.

(10) *Credit from an approved Forest Mitigation Bank that protected existing forest. The credit shall not exceed 50% of the area of existing forest protected;* The existence of Forest Banks in Washington County is limited. The developer has not been able to secure credit in an existing Forest Mitigation Bank but is prepared to submit the payment in lieu amount of $33,976.80 to Washington County for use at offsite locations.

(11) *Natural regeneration on site.* The field investigation conducted as part of FS-20-011 identified no areas qualified forest or any partially wooded areas on the subject property. As such, no opportunities for natural regeneration were observed.

(12) Off site protective easements on existing forested areas not currently protected in perpetuity as identified on an approved Forest Stand Delineation that incorporates a long-term binding protective agreement, as applicable and described in C.O.M.A.R. 08.19.05.02 that:

(a) Provides protection for areas of forest conservation, including areas of afforestation, reforestation, and retention; Phase 2 is a single lot subdivision intended for the purposes of constructing one single-family dwelling. Offsite mitigation is required to be provided at a ratio of 2:1. As such, securing 5.2 acres of offsite retention or planting areas would be costly and financially unfeasible for the owner/developer.

(b) *Limits uses in areas of forest conservation to those uses that are designated and consistent Limits uses in areas of forest conservation to those uses that are designated and consistent with forest conservation, including passive recreational activities and forest management practices that are used to preserve forest;* Please refer to commentary in (12)(a), above.

(c) *Is recorded in the Land Records of Washington County with or on the final plat of subdivision or, in cases where no subdivision occurs, as a covenant or other form of deed restriction, and, if applicable includes the signature of both parties to the agreement; and* Please refer to commentary in (12)(a), above.

(d) *Is located on a single lot of record.* Please refer to commentary in (12) (a), above.

(e) *Credit for an offsite protective easement may not exceed 50% of the area of existing forest cover protected.* Please refer to commentary in (12)(a), above.

(13) Payment of fee in lieu instead of afforestation and reforestation according to Article 11. The use of payment of a fee in lieu of afforestation is proposed for this project.

As such, we are requesting that the Washington County Planning Commission approve this request to allow the remaining Forest Conservation requirement of 2.60 AC associated with S-25-005 to be met by Payment in Lieu (PIL).

Thank you for your consideration. Please feel free to contact me with any questions.

Sincerely,

FOX & ASSOCIATES, INC.

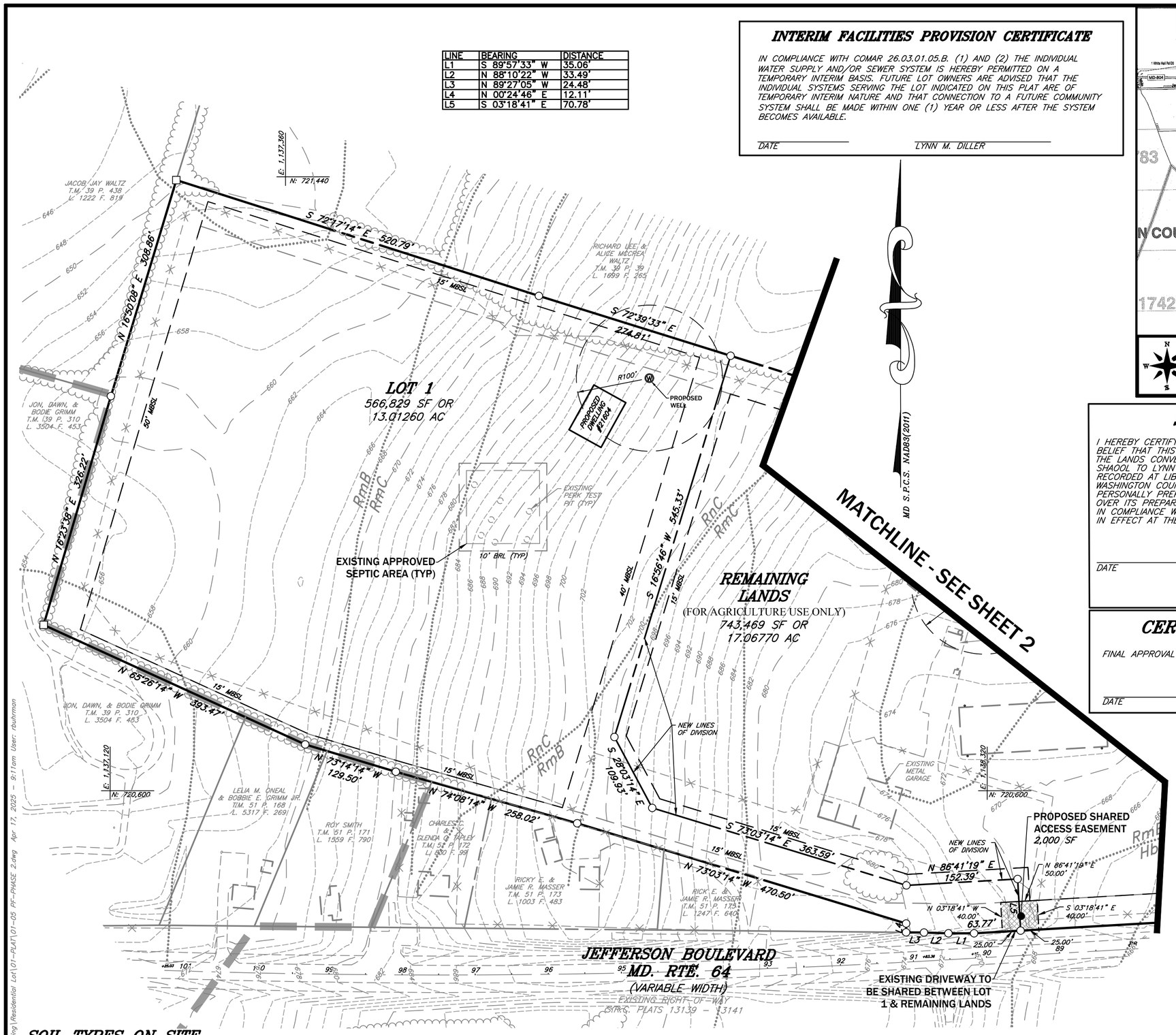
Clint Rock, RLA
Landscape Architect

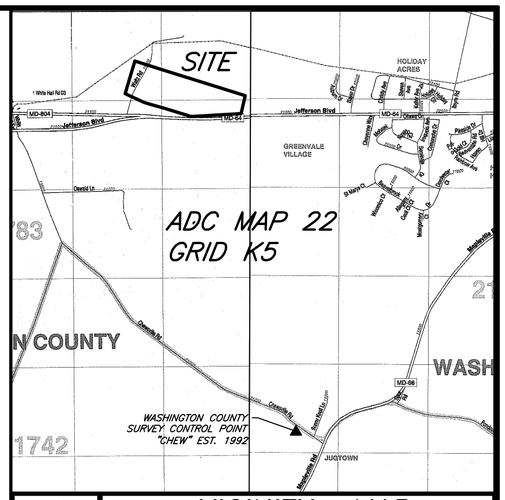
LINE	BEARING	DISTANCE
L1	S 89°57'33" W	35.06'
L2	N 88°10'22" W	33.49'
L3	N 89°27'05" W	24.48'
L4	N 00°24'46" E	12.11'
L5	S 03°18'41" E	70.78'

INTERIM FACILITIES PROVISION CERTIFICATE

IN COMPLIANCE WITH COMAR 26.03.01.05.B. (1) AND (2) THE INDIVIDUAL WATER SUPPLY AND/OR SEWER SYSTEM IS HEREBY PERMITTED ON A TEMPORARY INTERIM BASIS. FUTURE LOT OWNERS ARE ADVISED THAT THE INDIVIDUAL SYSTEMS SERVING THE LOT INDICATED ON THIS PLAT ARE OF TEMPORARY INTERIM NATURE AND THAT CONNECTION TO A FUTURE COMMUNITY SYSTEM SHALL BE MADE WITHIN ONE (1) YEAR OR LESS AFTER THE SYSTEM BECOMES AVAILABLE.

DATE LYNN M. DILLER





VICINITY MAP

SCALE: 1" = 2000'

TAX MAP 51 PARCEL 30

COPYRIGHT ADC THE MAP PEOPLE PERMIT USE NUMBER 21004221

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF THAT THIS PLAN IS CORRECT, THAT IT IS A SUBDIVISION OF ALL OF THE LANDS CONVEYED BY MANSOOR EMRAL SHAOOL AND JANET EMRAL SHAOOL TO LYNN M. DILLER BY DEED DATED SEPTEMBER 27, 2021 AND RECORDED AT LIBER 6842, AT FOLIO 284 AMONG THE LAND RECORDS OF WASHINGTON COUNTY, MARYLAND, AND FURTHER THAT THIS PLAN WAS PERSONALLY PREPARED BY ME, OR THAT I WAS IN RESPONSIBLE CHARGE OVER ITS PREPARATION AND THE SURVEYING WORK REFLECTED HEREON, ALL IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN COMAR 09.13.06.12 IN EFFECT AT THE TIME THIS SURVEY WAS PERFORMED.

DATE

GEORGE E. NAGEL
PROFESSIONAL LAND SURVEYOR
MARYLAND REGISTRATION No. 21052
EXPIRATION/RENEW DATE: 08/24/2026

CERTIFICATE OF APPROVAL

FINAL APPROVAL GRANTED WASHINGTON COUNTY PLANNING COMMISSION

DATE EXECUTIVE DIRECTOR

AREA TABULATION

L. 6842, F. 284	1,310,298 Sq. Ft.	30.08030 Ac.
– LOT 1	566,829 Sq. Ft.	13.01260 Ac.
REMAINING LANDS	743,469 Sq. Ft.	17.06770 Ac.

PLAT No._____
DATE
WASHINGTON COUNTY

SOIL TYPES ON SITE

DsA [1]	DUFFIELD SILT LOAM; 0 TO 3 PERCENT SLOPES;	0.63% TOTAL SITE
DsB [1]	DUFFIELD SILT LOAM; 3 TO 8 PERCENT SLOPES;	5.62% TOTAL SITE
Ft [1]	FUNKSTOWN SILT LOAM;	0.93% TOTAL SITE
HbC	HAGERSTOWN SILTY CLAY LOAM; 8 TO 15 PERCENT SLOPES; VERY ROCKY;	1.23% TOTAL SITE
RmB	RYDER-DUFFIELD CHANNERY SILT LOAM 3 TO 8 PERCENT SLOPES;	42.32% TOTAL SITE
RmC	RYDER-DUFFIELD CHANNERY SILT LOAM 8 TO 15 PERCENT SLOPES;	22.04% TOTAL SITE
RnC	RYDER-NOLLVILLE CHANNERY SILT LOAM 8 TO 15 PERCENT SLOPES;	15.30% TOTAL SITE
SpA [1]	SWANPOND SILT LOAM; 0 TO 3 PERCENT SLOPES;	11.93% TOTAL SITE
		100.00%

[1] PRIME FARMLAND

NOTE: PAGES 88, 96, 101, 196, 158, & 164 OF THE U.S.D.A. SOIL SURVEY OF WASHINGTON COUNTY LISTS DsA, DsB, Ft, HbC, RmB, RmC, RnC, SpA SOILS AS "KARST LANDSCAPE" SOILS. CONTRACTOR SHOULD BE ALERT FOR POSSIBLE SINKHOLES.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

OWNER
LYNN M. DILLER
446 BLOUGH ROAD
BOSWELL, PA 15531

PRELIMINARY/FINAL PLAT

LANDS OF

OVERDALE ESTATES–PHASE 2

S-25-005

SITUATE ON THE NORTH SIDE OF JEFFERSON BOULEVARD
WASHINGTON COUNTY, MARYLAND

SHEET No. 1 OF 2

DRAWN BY: D.C.M.	DATE: 9-6-2024
CHECKED BY: G.E.N.	DATE: 9-6-2024
SCALE: 1" = 100'	

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
981 MT. AETNA ROAD
HAGERSTOWN, MARYLAND 21740
PHONE: (301)733-8503
FAX: (301)733-1853
82 WORMAN'S MILL CT. STE. 'G'
FREDERICK, MARYLAND 21701
PHONE: (301)695-0880
FAX: (301)293-6009

FOX & ASSOCIATES INC. Est. 1966

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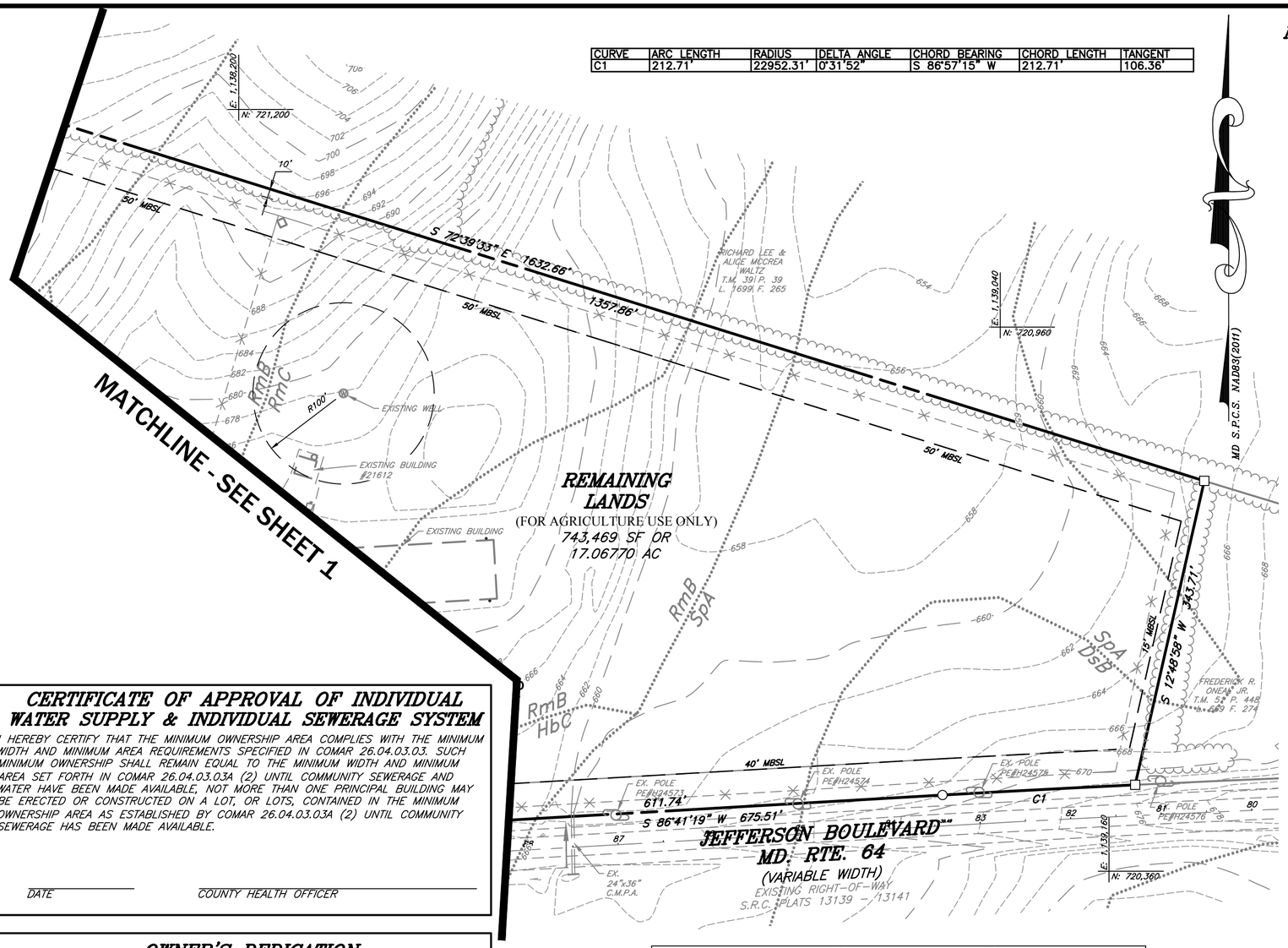
DISTRICT 18
TAX MAP No. 51
DWG. No. C-3890

H:\OTHER\OVERDALE ESTATES\23-31942 Plat Plan for Ag Building\Residential Lot\01-PLAT\01-03 PF-PHASE 2.dwg Apr 17, 2025 - 9:11am User: rbuhrman

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH	TANGENT
C1	212.71'	22952.31'	0°31'52"	S 86°57'15" W	212.71'	106.36'



NOTES:

1. BEARINGS AND DISTANCES ARE REFERENCED TO THE MARYLAND COORDINATE SYSTEM OF 1983 (NAD83(2011)).
2. CONTOURS WERE TAKEN FROM THE COUNTY GIS TOPOGRAPHY WITH 2' INTERVAL.
3. —o— INDICATES REBAR AND CAP UNLESS OTHERWISE NOTED.
4. AN EIGHT (8) FOOT WIDE EASEMENT FOR UTILITIES AND DRAINAGE IS RESERVED ALONG THE INTERIOR OF ALL SIDE AND REAR LOT LINES. A TEN (10) WIDE EASEMENT FOR UTILITIES IS RESERVED ALONG THE INTERIOR OF ALL FRONT LOT LINES.
5. RESERVED 10,000 SQUARE FOOT WASTE DISPOSAL SYSTEM AREA. NO PHYSICAL STRUCTURES PERMITTED.
6. ALL PROPOSED WELLS SHALL BE ONE HUNDRED (100) FEET FROM ALL SEPTIC RESERVE AREAS.
7. THERE ARE NO WELLS, SEPTIC SYSTEMS, OR HOUSES WITHIN SUBDIVISION BOUNDARIES UNLESS SHOWN.
8. ZONING – "A(R)" AGRICULTURAL, RURAL
9. ACCESSORY STRUCTURES MAY BE CONSTRUCTED IN ACCORDANCE WITH SEC. 4.10 AND SEC. 23.5B.
10. SETBACKS: FRONT–40'
    REAR–50'
    SIDES–15' EACH
    SEPTIC RESERVE–10'
    M.B.S.L.–MINIMUM BUILDING SETBACK LINE
    B.R.L.–BUILDING RESTRICTION LINE
11. THE SITE IS NOT AFFECTED BY THE 100 YEAR FLOODPLAIN AS PER FEMA FIRM 24043C0165D, HAVING AN EFFECTIVE DATE OF AUGUST 15, 2017.
12. THE SITE DOES NOT CONTAIN STEEP SLOPES, STREAMS, AND RELATED BUFFERS, OR HABITAT OF THREATENED OR ENDANGERED SPECIES IDENTIFIED BY THE U.S. FISH AND WILDLIFE SERVICE PER 50 CFR 17 AS REQUIRED TO BE SHOWN BY SECTION 314 OF THE SUBDIVISION ORDINANCE AND SECTION 4.21 OF THE ZONING ORDINANCE.
13. ADDRESS IS BASED ON THE ENTRANCE LOCATION. IF DRIVEWAY IS CONSTRUCTED IN A DIFFERENT LOCATION, ADDRESS IS VOID AND OWNER MUST REAPPLY TO THE WASHINGTON COUNTY PLANNING COMMISION FOR A NEW ADDRESS ASSIGNMENT.
14. THE DRAINAGE AREA IS LESS THAN 40 ACRES.
15. THIS SUBDIVISION PLAT IS SUBJECT TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. ANY FURTHER POTENTIAL SUBDIVISION OF ANY LOTS OR REMAINING LANDS CREATED BY THIS SUBDIVISION ARE SUBJECT TO THE REQUIREMENTS OF THE MARYLAND ANNOTATED CODE, ENVIRONMENT ARTICLE, SECTION 9–206 AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
16. IN ACCORDANCE WITH THE REQUIREMENTS OF THE MARYLAND ANNOTATED CODE , ENVIRONMENTAL ARTICLE, SECTION 9–206, UPON RECORDATION OF THIS PLAT, A TOTAL OF 2 RESIDENTIAL LOTS, PLATS, BUILDING SITES, OR OTHER DIVISION OF LAND HAVE BEEN CREATED FROM THE PARENT PARCEL OR TRACT SINCE OCTOBER 1, 2012. IN ACCORDANCE WITH MARYLAND ANNOTATED CODE, ENVIRONMENTAL ARTICLE, SECTION 9–206, AND ALL OTHER APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, THERE ARE NOT MORE THAN 5 (REMAINING) RESIDENTIAL LOTS, PLATS, BUILDING SITES, OR OTHER DIVISIONS OF LAND ALLOWED AS A SUBDIVISION.
17. JEFFERSON BOULEVARD (MD RTE 64) IS CLASSIFIED AS A PRINCIPAL ARTERIAL ROAD.
18. ANY DEVELOPMENT MUST COMPLY WITH THE WASHINGTON COUNTY STORMWATER MANAGEMENT, GRADING, SOIL EROSION AND SEDIMENT CONTROL ORDINANCE.
19. THE BOUNDARY ON THIS PLAT IS BASED ON FIELD RUN SURVEY PERFORMED ON OR ABOUT JUNE, 2013 BY FOX & ASSOCIATES, INC.
20. VERTICAL DATUM IS NAVD 88.
21. TAX MAP 51, GRID 3, PARCEL 30
22. DEED REFERENCE: L. 6842, F. 284

CERTIFICATE OF APPROVAL OF INDIVIDUAL WATER SUPPLY & INDIVIDUAL SEWERAGE SYSTEM

I HEREBY CERTIFY THAT THE MINIMUM OWNERSHIP AREA COMPLIES WITH THE MINIMUM WIDTH AND MINIMUM AREA REQUIREMENTS SPECIFIED IN COMAR 26.04.03.03. SUCH MINIMUM OWNERSHIP SHALL REMAIN EQUAL TO THE MINIMUM WIDTH AND MINIMUM AREA SET FORTH IN COMAR 26.04.03.03A (2) UNTIL COMMUNITY SEWERAGE AND WATER HAVE BEEN MADE AVAILABLE, NOT MORE THAN ONE PRINCIPAL BUILDING MAY BE ERECTED OR CONSTRUCTED ON A LOT, OR LOTS, CONTAINED IN THE MINIMUM OWNERSHIP AREA AS ESTABLISHED BY COMAR 26.04.03.03A (2) UNTIL COMMUNITY SEWERAGE HAS BEEN MADE AVAILABLE.

DATE _____ COUNTY HEALTH OFFICER _____

OWNER'S DEDICATION

I DO HEREBY CERTIFY, FOR MYSELVE AND MY PERSONAL REPRESENTATIVES, HEIRS AND ASSIGNS, THAT I AM THE LEGAL AND TRUE OWNER OF THE PROPERTY SHOWN AND DESCRIBED ON THIS PLAT AND THAT I HEREBY ADOPT THE PLAN OF SUBDIVISION SHOWN HEREON, HEREBY DEDICATE TO PUBLIC USE ALL UTILITY AND DRAINAGE EASEMENT AREAS AND ALL ALLEY, STREET, AND ROAD RIGHTS–OF–WAY DESIGNATED ON THIS PLAT, HEREBY AGREE TO KEEP OPEN ALL SPACES AND RECREATION AREAS SHOWN HEREON AND HEREBY AGREE THAT SAID DEDICATIONS SHALL NOT IMPOSE ANY RESPONSIBILITY ON THE BOARD OF COUNTY COMMISSIONERS OF WASHINGTON COUNTY REGARDING THE SUBJECTS OF SUCH DEDICATIONS UNTIL LEGAL ACCEPTANCE THEREOF BY SAID BOARD, AND I HEREBY RESERVE THE FEE SIMPLE TITLE TO THE LAND UNDERLYING SAID EASEMENTS, RIGHTS–OF–WAY, OPEN SPACES AND RECREATION AREAS, AND WITH REGARD TO SAID EASEMENTS AND RIGHTS–OF–WAY, HEREBY AGREE TO CONVEY THE SAME TO SAID BOARD, FOR THE USED OF SAID WASHINGTON COUNTY, WITHOUT CONSIDERATION, UPON THE LEGAL ACCEPTANCE OF SAID EASEMENTS AND/OR RIGHTS–OF–WAY BY SAID BOARD.

THIS DEED AND AGREEMENT OF DEDICATION SHALL BE BINDING UPON OUR GRANTEES, ASSIGNS, SUCCESSORS, HEIRS AND PERSONAL REPRESENTATIVES.

THERE ARE NO SUITS, ACTIONS AT LAW, LEASES, LIENS, MORTGAGES, TRUSTS, EASEMENTS OR RIGHTS–OF–WAY AFFECTING THE PROPERTY INCLUDED IN THIS PLAN OF SUBDIVISION EXCEPT THE FOLLOWING:

AND ALL PARTIES HAVING AN INTEREST THEREIN HAVE HEREUNTO AFFIXED THEIR SIGNATURES INDICATING THEIR ASSENT TO THIS PLAN OF SUBDIVISION.

I DO HEREBY ASSENT TO THIS PLAN OF SUBDIVISION.

WITNESS OUR HANDS AND SEALS THIS _____ DAY OF _____, 2024.

WITNESS _____ LYNN M. DILLER _____

I CERTIFY THAT I AM QUALIFIED TO PREPARE THIS PLAN IN ACCORDANCE WITH THE REQUIREMENTS OF THE FOREST CONSERVATION ACT PURSUANT TO COMAR 08.19.06.01A AND THAT TO THE BEST OF MY KNOWLEDGE, THE INFORMATION HEREON SATISFIES THE REQUIREMENTS OF THE WASHINGTON COUNTY FOREST CONSERVATION ORDINANCE.

CLINT E. ROCK _____

Forest Conservation Worksheet 2.2

Net Tract Area								
A.	Total Tract Area						A =	13.01
B.	Deductions						B =	0.00
C.	Net Tract Area						C =	13.01
Land Use Category								
		Input the number "1" under the apprpriate land use zoning, and limit to only one entry						
	ARA	MDR	IDA	HDR	MPD	CIA		
	0	1	0	0	0	0		
D.	Afforestation Threshold (Net Tract Area x 20%)						D =	2.60
E.	Conservation Threshold (Net Tract Area x 50%)						E =	3.25
Existing Forest Cover								
F.	Existing Forest Cover within the Net Tract Area						F =	0.00
G.	Area of Forest Above Conservation Threshold						G =	0.00
Break Even Point								
H.	Break Even Point						H =	0.00
I.	Forest Clearing Permitted Without Mitigation						I =	0.00
Proposed Forest Clearing								
J.	Total Area of Forest to be Cleared						J =	0.00
K.	Total Area of Forest to be Retained						K =	0.00
Planting Requirements								
L.	Reforestation for Clearing Above the Conservation Threshold						L =	0.00
M.	Reforestation for Clearing Below the Conservation Threshold						M =	0.00
N.	Credit for Retention above the Conservation Threshold						N =	0.00
P.	Total Reforestation Required						P =	0.00
Q.	Total Afforestation Required						Q =	2.60
R.	Total Planting Required						R =	2.60

NOTE

THE FOREST MITIGATION REQUIREMENTS FOR THIS PLAT CONSIST OF FOREST PLANTING OF 2.60 ACRES. THE PAYMENT IN LIEU OF PLANTING PROCEDURE IS BEING USED TO ADDRESS THIS PLANTING REQUIREMENT. THE FEE DUE IS $33,976.80.

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

PLAT No._____
DATE

PRELIMINARY/FINAL PLAT **WASHINGTON COUNTY**

LANDS OF

OVERDALE ESTATES–PHASE 2

S–25–005

SITUATE ON THE NORTH SIDE OF JEFFERSON BOULEVARD
WASHINGTON COUNTY, MARYLAND

SHEET No. 2 OF 2

OWNER
LYNN M. DILLER
446 BLOUGH ROAD
BOSWELL, PA 15531

DRAWN BY: D.C.M.	DATE: 9–6–2024
CHECKED BY: G.E.N.	DATE: 9–6–2024
SCALE: 1" = 100'	

FOX & ASSOCIATES, INC.
ENGINEERS • SURVEYORS • PLANNERS
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FAX: (301)293–6009

FOX & ASSOCIATES INC. Est. 1966

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DISTRICT 18
TAX MAP No. 51
DWG. No. C–3890

H:\OTHER\OVERDALE ESTATES\23-31942 Plot Plan for Ag Building\Residential Lot\01-PLAT\01-05 PF-PHASE 2.dwg Apr 17, 2025 - 9:11am User: rbuhrman

Washington County
MARYLAND

DEPARTMENT OF PLANNING & ZONING
COMPREHENSIVE PLANNING | LAND PRESERVATION | FOREST CONSERVATION | GIS

MEMORANDUM

TO: Washington County Planning Commission

FROM: Travis Allen, Senior Planner

DATE: June 2, 2025

RE: Rural Business Zoning District - Land Use Change Request

Attached you will find supporting documentation for a request to change the permitted land use in an existing Rural Business Zoning District (RB) located at 20142 National Pike. Rural Business Zoning Districts are established as floating zones which permit only the land uses specified at the time their creation through a rezoning map amendment. The property operated most recently as an HVAC repair shop. The owner is requesting to update the RB District to authorize the use of the property as a Maryland licensed training school for nursing students. Their intention is to renovate the existing building to serve their students.

Enclosed for your review are two documents in support of the applicant's request. These documents include: a letter outlining the nature of their request and the architectural drawings affiliated with their pending permit application.

The criteria for change in land use requests for RB Districts is specified in Section 5E.7 of the Washington County Zoning Ordinance. The Planning Commission must determine whether or not the proposal would constitute a significant change in the use and intensity of the property from the existing land uses that were previously authorized by the establishment of the RB District. If the requested change is not deemed significant, the applicant may proceed with the submission of a site plan and/or building permits. If the requested change is deemed significant, the applicant would first need to apply for a new rezoning to authorize the expanded land use on the property.

If you have questions or comments regarding this request, please contact me using the information provided below.

Travis Allen
Senior Planner
(240) 313-2432
tallen@washco-md.net

Travis Allen

Senior Planner

747 Northern Avenue,

Hagerstown, MD 21742

Dear Sir,

Request to change Existing Land Use for 20142 National Pike, Hagerstown, MD 21740

I am writing on behalf of Trinity Nursing Academy, the new owners of 20142 National Pike, Hagerstown, MD 21740.

We are writing to request a change of use for the property located at 20142 National Pike, Hagerstown, MD 21740.

This property was purchased as an HVAC repair shop to renovate and convert its use from an HVAC repair shop into an office building.

The intended use for this property is to occupy the property as a Maryland licensed training school for nursing students, which falls under the Educational Services section of Table 3.3 (10) Table of Land Use Regulations (Rural Area Uses).

The proposed use of 20142 National Pike will not significantly change the use from the previous land use. The New owner of the property (Trinity Nursing Academy) is allowed to have a maximum of 16 students on-site at any time. This will limit the number of daily visitors and will not require many parking spaces, nor will the change result in a significant change in the current traffic pattern for National Pike.

The hours of use for this property will be limited to 8:00 am to 7:00 pm on weekdays and 9:00 am to 1:00 pm on weekends.

The plan for the property is a complete renovation, which will significantly improve the façade of the property and bring new visitors to the area. The renovation will adhere to the current water and sewer parameters and will only seek to update water and sewer if it is deemed necessary.

We look forward to your review and hopefully an approval of our request, and stand ready to answer any questions you may have.

Thank you and Very Respectfully,

Adeniyi Talabi

For Trinity Nursing Academy

20142 National Pike, Hagerstown, MD 21740

TRINITY NURSING ACADEMY

20142 NATIONAL PIKE,
HAGERSTOWN, MD 21740

VICINITY MAP

OWNER & TENANT

CLIENT: TRINITY NURSING ACADEMY
20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

DESIGN TEAM

DESIGNER:
ADENIYI TALABI
5811 ZOE LANE,
FREDERICK, MD 21704

STRUCTURAL ENGINEER
DENABABA ENGINEERING,
11803 EDMONDS WOODS WAY,
BOWIE, MD 20720

SCOPE OF WORK & NOTES

1: NEW TENANT FIT OUT (RESTAURANT)

2: INTERIOR RENOVATION

BUILDING CODE DESIGN INFORMATION

2018 IRC INTERNATIONAL RESIDENTIAL CODE (IRC)
MECHANICAL 2018 ICC INTERNATIONAL MECHANICAL CODE (IMC)
PLUMBING 2018 ICC INTERNATIONAL PLUMBING CODE (IPC)
ELECTRICAL: 2018 ICC INTERNATIONAL ELECTRICAL CODE NFPA NEC 2005 .
FIRE: 2018 ICC INTERNATIONAL FIRE CODE (IFC).
ENERGY: 2018 ICC INTERNATIONAL ENERGY CONSERVATION CODE (IECC).
GAS: 2018 ICC INTERNATIONAL FUEL GAS CODE (IFUGC).
ACCESSIBILITY: 2011 ICC INTERNATIONAL BUILDING CODE (IBC)/
CHAPTER 11/ANSI A117.1 2015.

ZONING DATA

ZONING	
LOT AREA	
EXISTING BLDG. FOOTPRINT AREA	
PROPOSED BLDG FOOTPRINT AREA	
EXISTING LOT OCCUPANCY	
PROPOSED LOT OCCUPANCY	
ALLOWED LOT OCCUPANCY	

SYMBOLS

- NORTH ARROW
- ELEVATION
- PLAN DETAIL
- SECTION
- INTERIOR ELEVATIONS
- 01 DOOR TYPE
- PARTITION TYPE
- FINISHES
- NOTE (PLAN OR ELEVATION)
- W4 WINDOW TYPE
- REVISIONS

ABBREVIATIONS

&	AND	MAS.	MASONRY
L	ANGLE	MAX.	MAXIMUM
@	AT	MECH.	MECHANICAL
BASMT.	BASEMENT	MET.	METAL
℄	CENTERLINE	MFR.	MANUFACTURER
∅	DIAMETER OR ROUND	MIN.	MINIMUM
⊥	PERPENDICULAR	MISC.	MISCELLANEOUS
ACOUS.	ACOUSTICAL	MO.	MASONRY OPENING
A.F.F.	ABOVE FINISH FLOOR	MTD.	MOUNTED
ALUM.	ALUMINUM		
APPROX.	APPROXIMATE	N.A.	NOT APPLICABLE
ARCH.	ARCHITECTURAL	N.I.C.	NOT IN CONTRACT
		NO.#	NUMBER
BA	BATHROOM	O.A.	OVERALL
BD.	BOARD	O.C.	ON CENTER
B.H.	BULKHEAD	O.D.	OUTSIDE DIAMETER
BLDG.	BUILDING	OFF.	OFFICE
BLKG.	BLOCKING	O.H.	OVERHEAD
BOT.	BOTTOM	OPNG.	OPENING
BR	BEDROOM	O.R.	OUTSIDE RADIUS
C	CHANNEL		
CAB.	CABINET	P.L.	PROPERTY LINE
CER.	CERAMIC	PL.	PLATE
CLG.	CEILING	P. LAM.	PLASTIC LAMINATE
CLO.	CLOSET	PLYWD.	PLYWOOD
CMU	CONCRETE MASONRY UNITS	PTD.	PAINTED
COL.	COLUMN		
CONC.	CONCRETE	R	RISER
CONST.	CONSTRUCTION	RAD.	RADIUS
CONT.	CONTINUOUS	R.D.	ROOF DRAIN
CORR.	CORRIDOR	RECEP.	RECEPTACLE
		REINF.	REINFORCED
D	DEEP	REQ'D.	REQUIRED
DBL.	DOUBLE	RESIL.	RESILIENT
D.F.	DRINKING FOUNTAIN	RM.	ROOM
D.S.	DOWNSPOUT	R.O.	ROUGH OPENING
DET.	DETAIL		
DIM.	DIMENSION	S.C.	SOLID CORE
DN.	DOWN	SCHED.	SCHEDULE
D.O.	DOOR OPENING	S.D.	SOAP DISPENSER
DR	DINING ROOM	SECT.	SECTION
DWG.	DRAWING	SHT.	SHEET
		SIM.	SIMILAR
EA.	EACH	SPECS.	SPECIFICATIONS
EL.	ELEVATION	SQ.	SQUARE
ELEC.	ELECTRICAL	SST.	STAINLESS STEEL
ELEV.	ELEVATOR	STD.	STANDARD
ELWC.	ELECTRIC	STL.	STEEL
EXIST.	EXISTING	STOR.	STORAGE
EXP.	EXPANSION	SUSP.	SUSPENDED
EXT.	EXTERIOR		
		T	TREAD
F.E.	FIRE EXTINGUISHER	TEL.	TELEPHONE
F.E.C.	FIRE EXTINGUISHER CABINET	THK.	THICK
F.F.	FINISH FLOOR	T.O.	TOP OF
F.H.C.	FIRE HOSE CABINET	T.P.D.	TOILET PAPER DISPENSER
FIXT.	FIXTURE	TYP.	TYPICAL
FL.	FLOOR		
FLOUR.	FLUORESCENT	U.O.N.	UNLESS OTHERWISE NOTED
FT.	FOOT OR FEET		
GA.	GAUGE	V.C.T.	VINYL COMPOSITION TILE
GALV.	GALVANIZED	VERT.	VERTICAL
GL.	GLASS		
GYP.	GYPSUM	W.	WIDE
		W/	WITH
H.	HIGH	W.D.	WOOD
HDWD.	HARDWOOD	W/O	WITHOUT
H.M.	HOLLOW METAL	WT.	WEIGHT
HORIZ.	HORIZONTAL	W.W.F.	WELDED WIRE FABRIC
HR.	HOUR		
HT.	HEIGHT		
INSUL.	INSULATION		
INT.	INTERIOR		
JAN.	JANITOR CLOSET		
JT.	JOINT		
KIT.	KITCHEN		
LAV.	LAVATORY		

DRAWING INDEX

SHEET #	SHEET NAME
A001	COVER PAGE
A101	EXISTING FLOOR PLANS
A102	PROPOSED FLOOR PLANS
A201	FRONT ELEVATION
A202	REAR ELEVATION
A203	LEFT SIDE ELEVATION
A204	RIGHT SIDE ELEVATION
A301	BUILDING SECTION
E101	ELECTRICAL PLANS
M102	MECHANICAL PLANS
ES10	EXISTING STRUCTURAL PLANS
ES11	EXISTING ROOF FRAMING PLAN
S001	STRUCTURAL NOTES
S100	PROPOSED STRUCTURAL PLANS
S101	PROPOSED ROOF FRAMING PLAN
S102	WALL BRACING PLAN
S200	STRUCTURAL DETAILS I
S201	STRUCTURAL DETAILS II

GENERAL NOTES

CODES, STANDARDS & PROCEDURES:
1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF WASHINGTON COUNTY, MARYLAND BUILDING CODE AND AMENDMENTS, AND ALL OTHER APPLICABLE FEDERAL, AND STATE LAWS AND ORDINANCES, ACCESSIBILITY CODES, STANDARDS, AND REGULATORY AGENCIES.
2. ALL WORK SHALL BE OF THE HIGHEST QUALITY FOLLOWING THE CONTRACT DOCUMENTS, PROJECT SPECIFICATIONS, MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS, AND THE BEST ACCEPTED TRADE PRACTICES AND STANDARDS.
3. DETAILS SHOWN ARE INTENDED TO BE INDICATIVE OF THE PROFILES AND TYPES OF DETAILING REQUIRED FOR THE WORK. DETAILS NOT SHOWN ARE SIMILAR IN CHARACTER TO THOSE DETAILED.
4. EACH CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ALL WORK WHICH DIFFERS FROM CONTRACT DOCUMENTS SO THAT ACCURATE RECORD DRAWINGS AND SPECIFICATIONS CAN BE KEPT AND PROVIDED BY THE CONTRACTOR TO THE OWNER AT PROJECT CLOSEOUT.
5. EACH CONTRACTOR SHALL VISIT THE SITE AND BE KNOWLEDGEABLE OF CONDITIONS THEREOF. FAILURE TO EXAMINE THE SITE AND DETERMINE EXISTING CONDITIONS OR NATURE OF NEW CONSTRUCTION, OR NATURE AND EXTENT OF WORK TO BE PERFORMED BY OTHER TRADES WILL NOT BE CONSIDERED A BASIS FOR GRANTING OF ADDITIONAL COMPENSATION.
6. THE CONTRACTOR SHALL INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL REQUIREMENTS OF THE PROJECT AND SHALL NOTIFY THE ARCHITECT OF ANY CONDITIONS CONTRARY TO THE CONSTRUCTION DOCUMENTS THAT REQUIRE MODIFICATION BEFORE PROCEEDING WITH THE WORK.
7. THE CONTRACTOR SHALL PROTECT ALL EXISTING SITE ELEMENTS, ADJACENT BUILDINGS AND STREETS FROM DAMAGE DUE TO THE CONSTRUCTION OPERATIONS, AND REPAIR OR REPLACE ANY ELEMENTS DAMAGED DURING THE PROJECT.

DIMENSIONS:
1. DO NOT SCALE THE DRAWINGS, DIMENSIONS SHALL GOVERN. LARGE SCALE DRAWINGS SHALL GOVERN OVER SMALL SCALE. WHERE A DISCREPANCY MAY EXIST BETWEEN DRAWINGS AND SPECIFICATIONS, THE MORE RESTRICTIVE OR EXPENSIVE REQUIREMENTS SHALL GOVERN.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE, AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES, OMISSIONS AND/OR CONFLICTS BEFORE PROCEEDING WITH THE WORK.
3. ALL PARTITIONS ARE DIMENSIONED TO THE FACE, UNLESS NOTED OTHERWISE. WHERE SPECIFIC DIMENSIONS, DETAILS AND/OR DESIGN INTENT CANNOT BE DETERMINED, NOTIFY ARCHITECT IN WRITING BEFORE PROCEEDING WITH WORK IN QUESTION.
4. DOOR OPENINGS THAT ARE NOT DIMENSIONALLY LOCATED ARE TO BE CENTERED BETWEEN WALLS OR POSITIONED WITH ONE JAMB CASING TRIM AGAINST AN ADJACENT WALL OR COLUMN AS SHOWN ON THE PLANS AND/OR DETAILS.

COORDINATION:
1. REFER TO THE SPECIFICATIONS AND CIVIL, ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR FULL COORDINATION OF THE WORK.
2. THE CONTRACTOR SHALL COORDINATE ADDITIONAL SUPPORT OR CONCEALED BLOCKING REQUIRED FOR INSTALLATION OF HANDRAILS, MILLWORK, WALL PANELS, GRAB BARS, CABINETS AND ALL OTHER SURFACE MOUNTED COMPONENTS.
3. THE CONTRACTOR SHALL COORDINATE AND VERIFY THE EXACT SIZE AND LOCATION OF ALL FLOOR PENETRATIONS AND WALL OPENINGS WITH EACH OF THE RESPECTIVE MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION TRADES. CONTRACTOR SHALL PROVIDE CONCRETE SLAB PENETRATION SHOP DRAWINGS SHOWING THE LOCATION OF ALL OPENINGS.
4. THE CONTRACTOR SHALL COORDINATE LAYOUT OF CEILING MOUNTED FIXTURES, DEVICES, AND DUCTWORK, AND SHALL IDENTIFY POTENTIAL CONFLICTS INVOLVING ELEMENTS WITHIN THE CEILING CAVITY. ANY VARIATIONS OR CONFLICTS WITH LAYOUT OR CEILING HEIGHT SHOWN SHALL BE REVIEWED WITH THE ARCHITECT PRIOR TO INSTALLATION.
5. ALL CONDUIT, PIPING, DUCTWORK, AND MECHANICAL SYSTEMS SHALL BE INSTALLED WITHIN OR TIGHT TO THE UNDERSIDE OF STRUCTURE WHERE FEASIBLE, UNLESS NOTED OTHERWISE.
6. REFER TO MEPFP DRAWINGS FOR EXTENT OF CONCRETE EQUIPMENT PADS. THE CONTRACTOR SHALL COORDINATE THE SIZE AND LOCATION OF THE CONCRETE PADS WITH THE EQUIPMENT INSTALLER.

INSTALLATION:
1. PROVIDE EXPANSION AND/OR CONTROL JOINTS IN ACCORDANCE WITH SPECIFIED OR DRAWN REQUIREMENTS. IN THE ABSENCE OF SPECIFIED OR DRAWN REQUIREMENTS, PROVIDE JOINTS IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS. LOCATIONS SHALL BE REVIEWED AND ACCEPTED BY THE ARCHITECT PRIOR TO INSTALLATION.
2. ALL OPENINGS IN FIRE-RATED FLOORS AND FIRE-RATED WALLS INCLUDING SPACES BETWEEN DUCTS, PIPES, CONDUIT, ETC. SHALL BE CLOSED OFF BY APPROVED FIRE SAFING MATERIAL TO MAINTAIN FIRE RATING CONTINUITY OF RATED FLOOR AND WALL CONSTRUCTION. ALL OPENINGS AND PENETRATIONS SHALL BE SEALED TO PREVENT PASSAGE OF SMOKE AND FLAMES IN FIRE-RATED ASSEMBLIES.
3. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER IN ORDER TO AVOID GALVANIC ACTION.
4. ALL WOOD BLOCKING AND FRAMING USED IN WALL, FLOOR, OR CEILING CONSTRUCTION SHALL BE FIRE RETARDANT TREATED.

TRINITY NURSING ACADEMY
20142 NATIONAL PIKE,
HAGERSTOWN, MD 21740

PROJECT

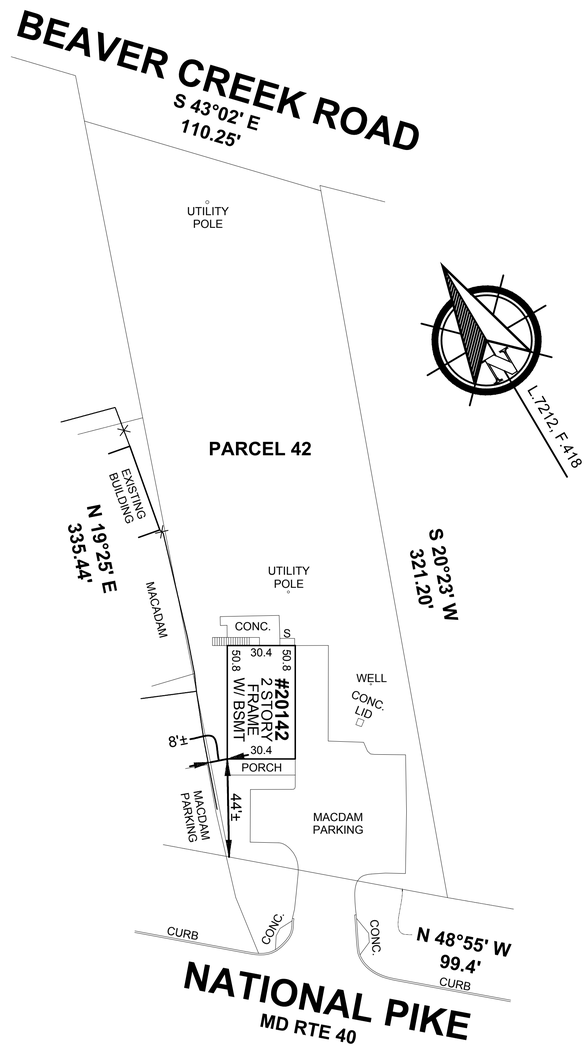
SEAL:

SHEET TITLE:
COVERSHEET

DATE:
PERMIT SET: 06-01-2014

ADENIYI TALABI
3330 TEAGARDEN CIRCLE
SILVER SPRING, MD 20904
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

SHEET NO:
A001



SITE PLAN
SCALE: 1/32" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

ISSUED		
03/14/2017	AT	BLDG. PERMIT

REVISIONS		

TRINITY NURSING ACADEMY
20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

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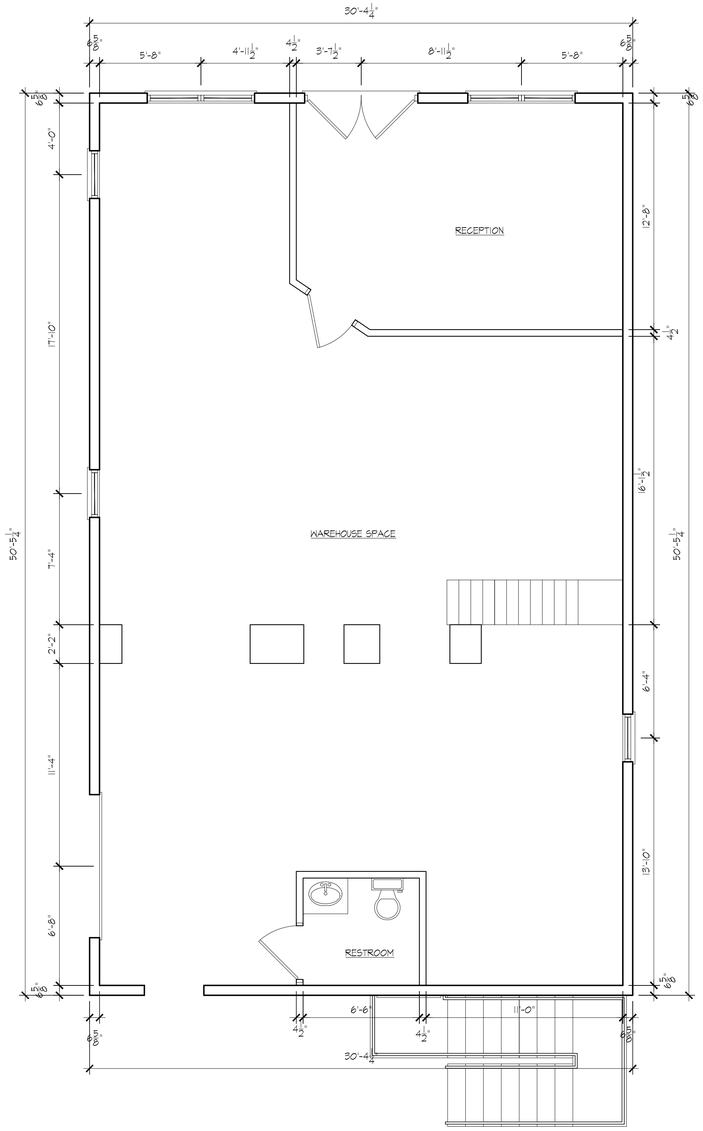
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-09-2016-01

SHEET TITLE

EXISTING FLOOR PLAN

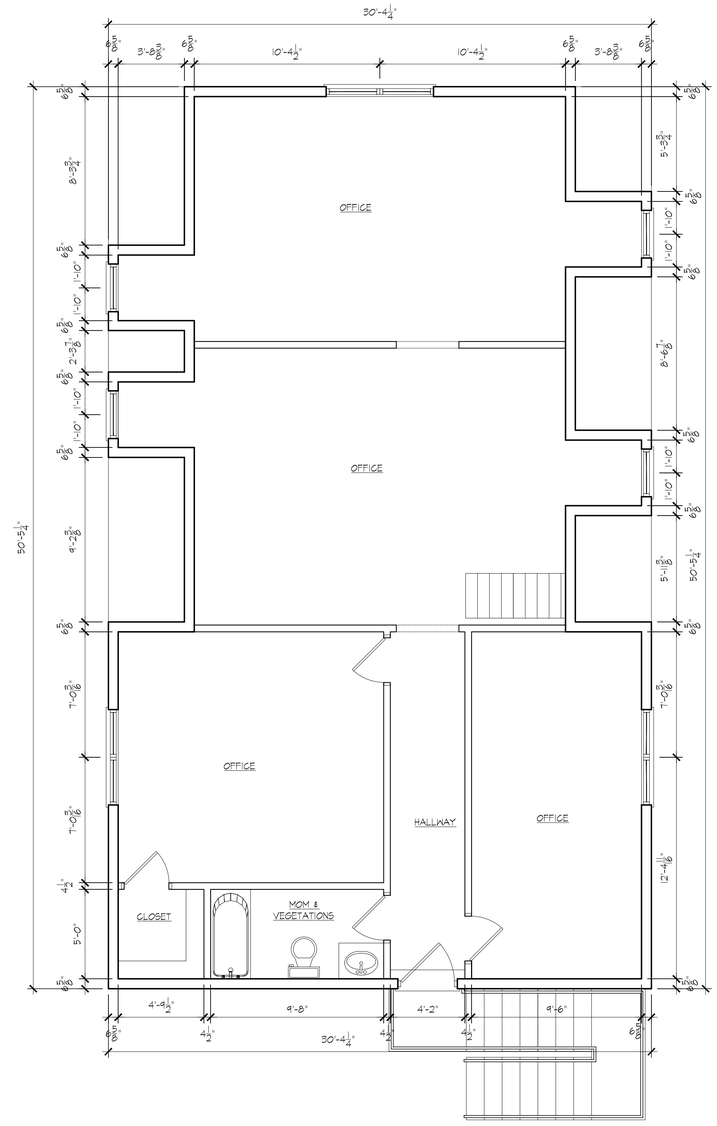
SHEET

A101



MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0"



2 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

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03/14/2017	AT	BLDG. PERMIT

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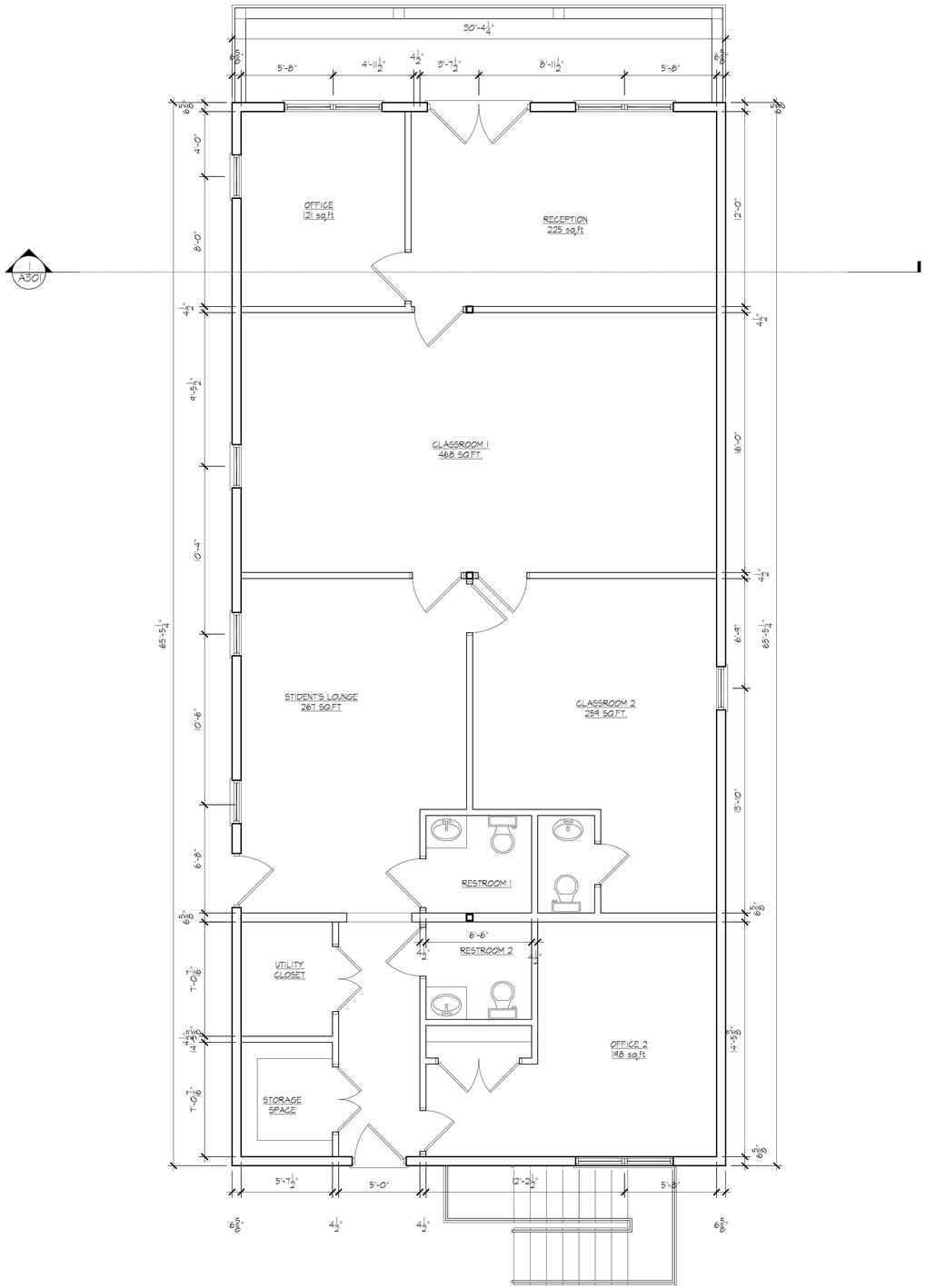
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-05-20016-01

SHEET TITLE

EXISTING FLOOR PLAN

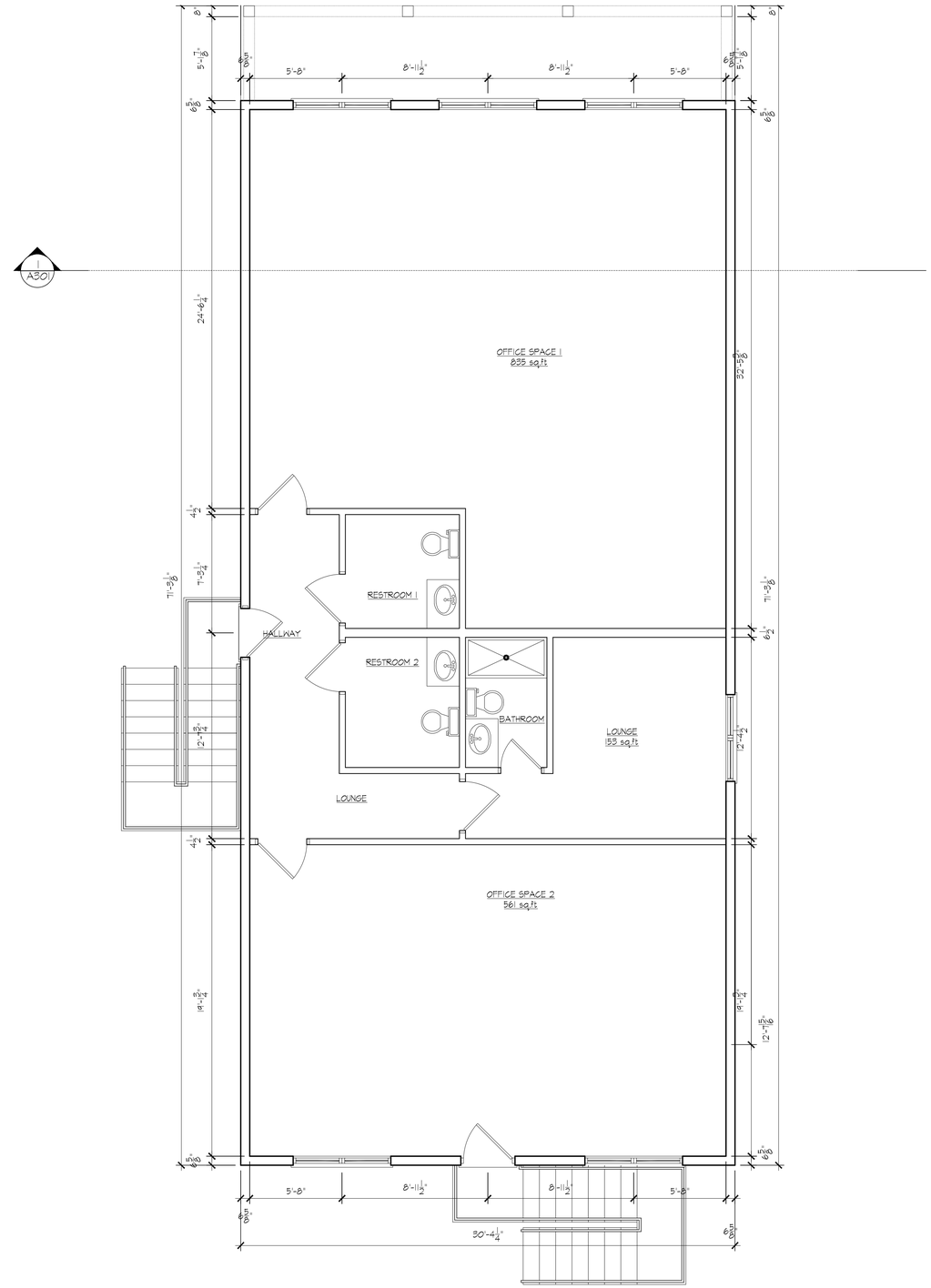
SHEET

A101



MAIN FLOOR PLAN

SCALE: 1/4" = 1'-0"



2 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

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20142 NATIONAL PIKE
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DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-09-2016-07

SHEET TITLE

PROPOSED
FLOOR PLAN

SHEET

A102

FRONT ELEVATION
SCALE: 3/8" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

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REVISIONS		

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20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

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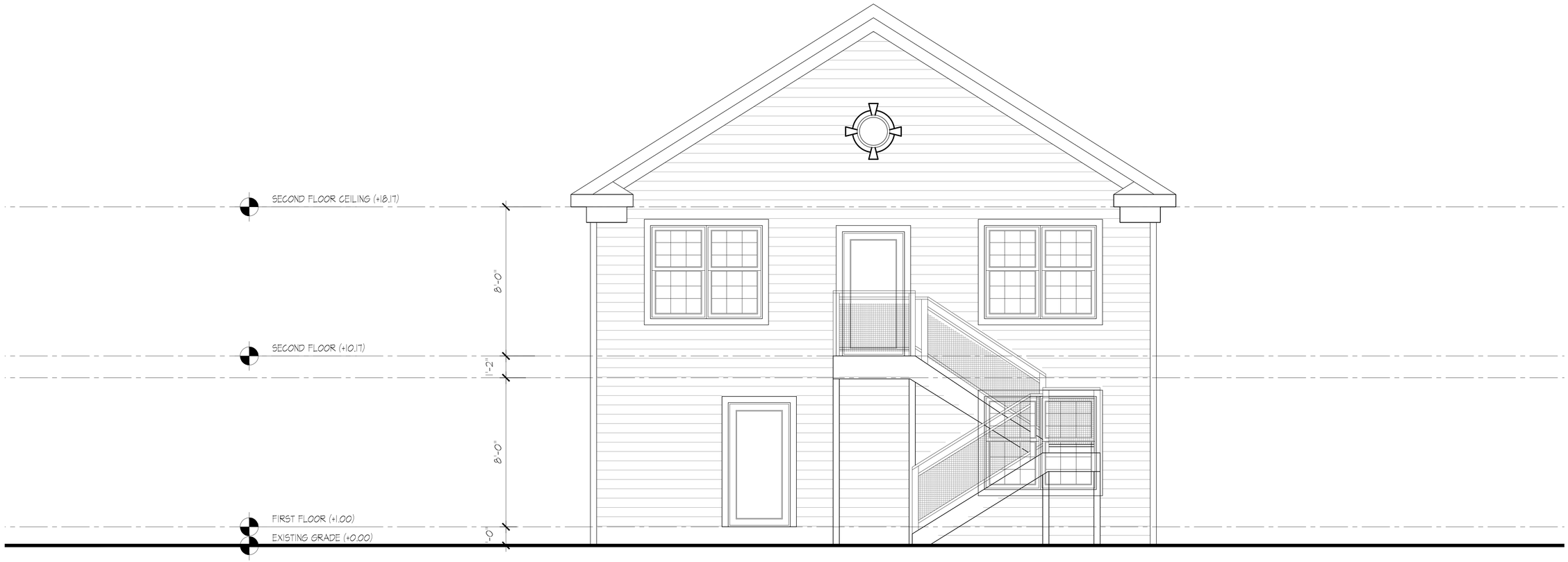
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-09-2016-01

SHEET TITLE

FRONT ELEVATION

SHEET

A201



REAR ELEVATION
SCALE:3/8" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

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20142 NATIONAL PIKE
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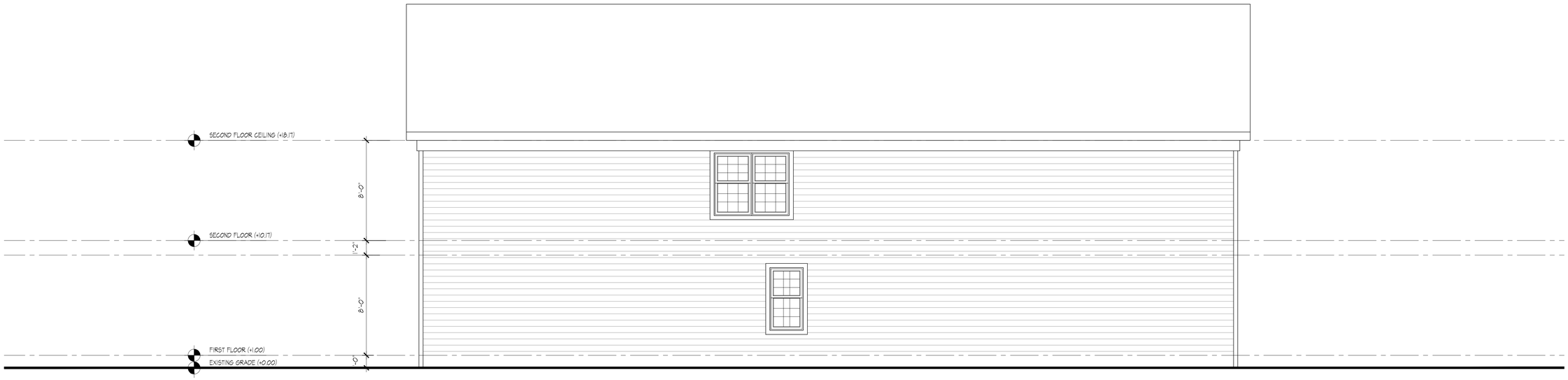
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-05-2016-01

SHEET TITLE

REAR
ELEVATION

SHEET

A202



LEFT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

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DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-09-20016-07

SHEET TITLE

LEFT SIDE ELEVATION

SHEET

A203

RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

ISSUED		
	AT	BLDG. PERMIT

REVISIONS		

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DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	AT-09-2016-01

SHEET TITLE

RIGHT SIDE ELEVATION

SHEET

A204

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

RIGHT SIDE ELEVATION
SCALE: 1/4" = 1'-0"

ISSUED		
	AT	BLDG. PERMIT

REVISIONS		

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20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

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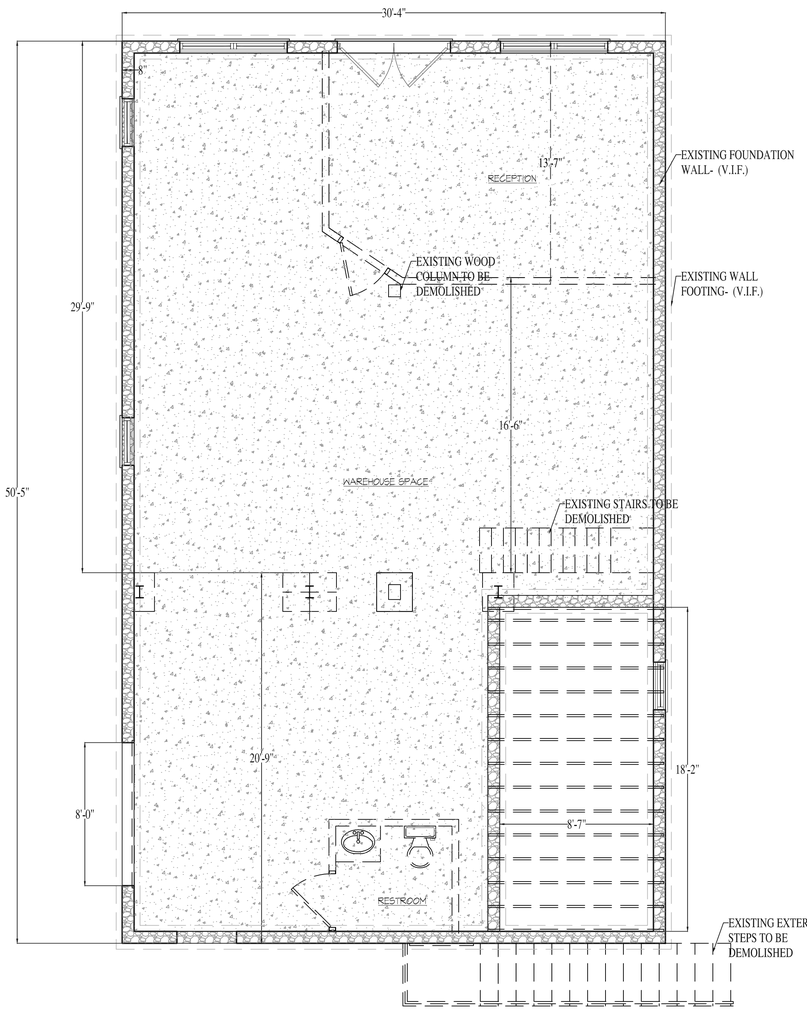
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	

SHEET TITLE
BUILDING SECTION

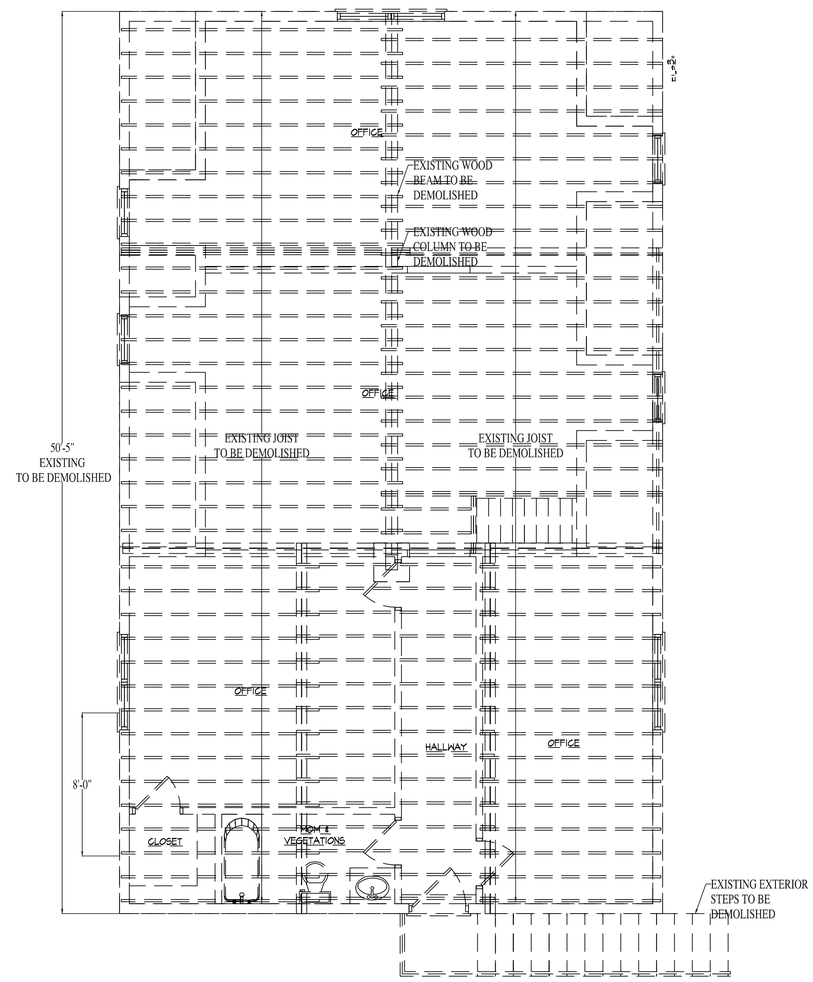
SHEET
A301



EXISTING GROUND FLOOR PLAN

SCALE: 1/4"=1'-0"

1 / ES10



EXISTING 2ND FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0"

2 / ES10

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6820

SIGNATURE & SEAL:

STATE OF MARYLAND · DENIS A. AMBAR · 30341 · PROFESSIONAL ENGINEER

Dennis Denababa Jr

07/28/2024

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

LICENSE NUMBER: 30341

EXPIRATION DATE: 06/20/2025

TRINITY NURSING ACADEMY

20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

EXISTING FLOOR PLANS

SCALE: AS NOTED

DATE: 07-25-2025

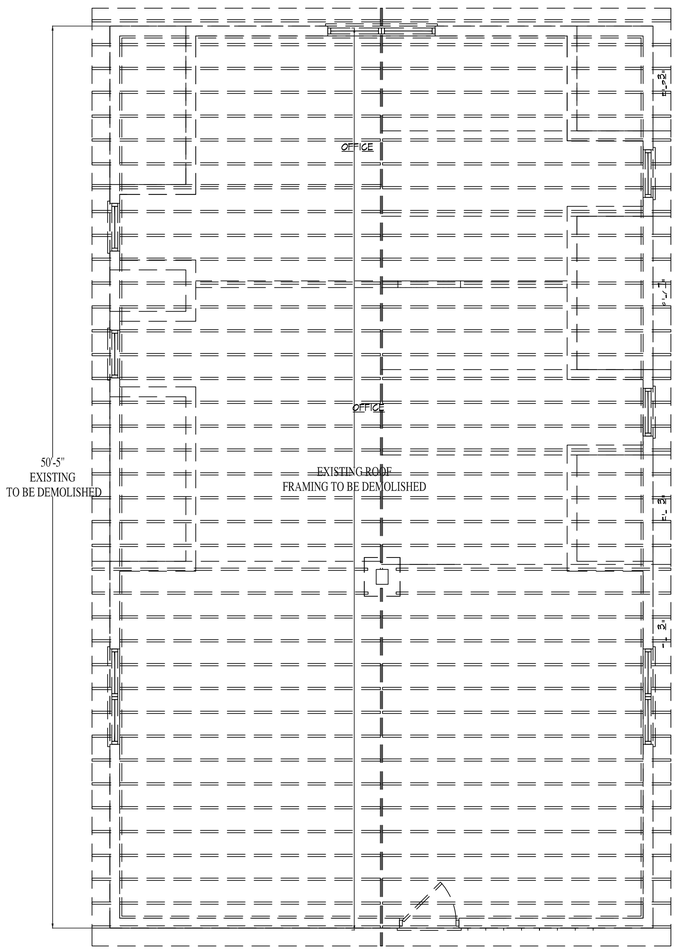
ISSUED FOR: CONSTRUCTION

DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

DRAWING NO. ES10



EXISTING ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

2
ES10

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6820

SIGNATURE & SEAL:

STATE OF MARYLAND
DENNIS A. AMBABA
30341
PROFESSIONAL ENGINEER

Dennis A. Ambaba Jr

07/28/2024

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

LICENSE NUMBER: 30341

EXPIRATION DATE: 06/20/2025

TRINITY NURSING ACADEMY

20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

EXISTING ROOF PLAN

SCALE: AS NOTED

DATE: 07-25-2025

ISSUED FOR: CONSTRUCTION

DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

DRAWING NO.

ES11

STRUCTURAL NOTES
ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF DENABABA ENGINEERING CONSULTANT, LLC ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF DENABABA ENGINEERING CONSULTANT, LLC.

GENERAL NOTES:
STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

DIMENSIONS AND EXISTING CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. NO LOAD BEARING WALL SHALL BE DEMOLISHED OR OTHERWISE ALTERED WITHOUT ENGINEER'S APPROVAL.

THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO INSURE SAFETY AND STABILITY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIE-DOWNS.
CONTRACTOR PROPOSED CHANGES AND SUBSTITUTIONS:
PROPOSED CHANGES OR SUBSTITUTIONS TO STRUCTURAL DETAILS OR PLANS NEED NOT BE SUBMITTED TO THE ENGINEER OF RECORD (EOR) FOR REVIEW AND APPROVAL, AS LONG AS ALL REQUIRED STRUCTURAL DETAILS ARE IN CONFORMANCE WITH THE LATEST EDITION OF THE AMERICAN FOREST & PAPER ASSOCIATION'S WOOD FRAME CONSTRUCTION MANUAL. THE REVIEW OF CHANGES AND SUBSTITUTIONS, RE-ANALYSIS AND/OR RE-DRAFTING TO INCORPORATE CHANGES OR SUBSTITUTIONS INTO CONTRACT DOCUMENTS ARE ADDITIONAL SERVICES FOR EOR. CONSTRUCTION COST REVISIONS ARE BETWEEN THE CONTRACTOR AND OWNER AND ARE NOT REVIEWED BY THE EOR.

DESIGN LOADS:
THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODES 2021 EDITION WITH WASHINGTON COUNTY AMENDMENTS. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:
DECK FLOOR:
LIVE LOAD = 100 psf.
DEAD LOAD =15 psf.
SNOW: GROUND SNOW LOAD (Pg)=35 psf, EXPOSURE FACTOR (Ce) =0.9
THERMAL FACTOR (Ct) = 1.0, SNOW IMPORTANCE FACTOR (Is) =1.0
FLAT ROOF SNOW LOAD (Pf)= 0.7*Ce*Ct*Is*Pg= 22.1 psf
WIND: ULTIMATE WIND SPEED= 115 MPH, WIND IMPORTANCE FACTOR (Iw): 1.0
EXPOSURE "B" TOPOGRAPHIC FACTOR (Kzt)=1.0
SIMPLIFIED DESIGN WIND PRESSURE (Ps30)= 23.7 psf (ASCE 7-16: FIG. 28.5-1)
SEISMIC DESIGN DATA
SEISMIC IMPORTANCE FACTOR (IE) : =1.0
SEISMIC OCCUPANCY CATEGORY: =1.0
MAPPED SPECTRAL RESPONSE ACCELERATION Ss =0.140g
MAPPED SPECTRAL RESPONSE ACCELERATION S1 =0.040g
SITE CLASS = D
SPECTRAL RESPONSE COEFFICIENT SDS =0.144g
SPECTRAL RESPONSE COEFFICIENT SDI =0.069g
SEISMIC DESIGN CATEGORY = B
BASIC SEISMIC FORCE RESISTING SYSTEM =LIGHT FRAME (WOOD) WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
SEISMIC RESPONSE MODIFICATION FACTOR (R) =2.0
SEISMIC RESPONSE COEFFICIENT (CS) =0.064
ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCES
BUILDING WEIGHT =36.73 KIPS
BASE SHEAR "V=CSW" =2.35 KIPS
DEFLECTION CRITERIA: FLOOR LIVE LOAD = L/360, TOTAL FLOOR LOAD=L/240
ROOF LIVE LOAD=L/240, TOTAL ROOF LOAD=L/180
DEFLECTION CRITERIA: FLOOR LIVE LOAD = ℓ/360, TOTAL FLOOR LOAD=ℓ/240
ROOF LIVE LOAD=ℓ/240, TOTAL ROOF LOAD=ℓ/180

DESCRIPTION OF WORK
THE PROPOSED PLANS IS FOR A TWO STORY WOOD FRAMED COMMERCIAL STRUCTURE TO BE UTILIZED AS AN EDUCATIONAL FACILITY.

SHOP DRAWING REVIEW:
ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF DENABABA ENGINEERING CONSULTANT, LLC. ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF DENABABA ENGINEERING CONSULTANT, LLC. USERS WILL SIGN A RELEASE AND REIMBURSE D.E.C, LLC FOR EXPENSES INCURRED IN PREPARING AND TRANSMITTING ELECTRONIC DRAWINGS AT THE RATE OF $100.00 PER ELECTRONIC DRAWING.

SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC.

THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER.

CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL.

SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ALL FRAMING SHOWN ON THESE DRAWINGS INCLUDING, BUT NOT LIMITED TO: CONCRETE MIXES, CONCRETE AND MASONRY REINFORCING, STRUCTURAL STEEL AND CONNECTIONS, STEEL DECK , LIGHT GAGE FRAMING, WOOD ROOF TRUSS FRAMING, WOOD FLOOR FRAMING, STAIR FRAMING, WALL FRAMING, E.T.C.

FOUNDATIONS:
THE CONTRACTOR SHALL RETAIN THE SERVICES OF A GEOTECHNICAL ENGINEER TO PERFORM SUBSURFACE TESTING OF THE EXISTING SITE SOIL CONDITION AND DETERMINE THE ALLOWABLE SOIL BEARING PRESSURE. SHOULD GEOTECHNICAL RECOMMENDATION DIFFER FROM THAT ASSUMED IN THE EVALUATION OF THE EXISTING FOUNDATION SYSTEM, A COMPLETE REDESIGN OF THE FOUNDATION SYSTEM SHALL BE CONDUCTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND. THIS FOUNDATION HAS BEEN DESIGNED BASED ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. THE FOUNDATION SHALL BE PLACED ON ENGINEERED CONTROLLED FILL OR NATURAL FIRM SOIL HAVING AN ALLOWABLE SOIL BEARING PRESSURE OF 1500 PSF. EXISTING EARTH SHALL BE UNDERCUT AND REPLACED WITH CONTROLLED FILL MEETING THE ALLOWABLE BEARING PRESSURE OF 1,500 psf.
THE BOTTOM OF FOOTING SHALL BE PLACED 2'-6" BELOW EXISTING OR PROPOSED GRADE AND/OR IN GENERAL COMPLIANCE WITH THE FROST DEPTH REQUIREMENT FOR THE JURISDICTION IN WHICH PROPERTY IS LOCATED.

REINFORCING STEEL:
SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION.

WELDED WIRE FABRIC:
SHALL CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES. USE OF FLAT MANUFACTURED SHEETS IS RECOMMENDED.

CONCRETE:
CONCRETE SHALL NATURAL SAND FINE AGGREGATE AND NORMAL WEIGHT COARSE AGGREGATES CONFORMING TO ASTM C33, TYPE 1 PORTLAND CEMENT CONFORMING TO ASTM C150 AND SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE THE FOLLOWING 28 DAYS COMPRESSIVE STRENGTH (Fc') :
FOOTINGS AND MATS..... 3500 PSI
COLUMNS..... 4000 PSI
SLABS ON GRADE..... 3500 PSI
ELEVATED SLABS..... 4000 PSI
FOUNDATION WALLS..... 3500 PSI
ALL CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE ACI BUILDING CODE (ACI 318), AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).
DETAILING OF CONCRETE REINFORCEMENT BARS AND ACCESSORIES SHALL CONFORM TO THE RECOMMENDATIONS OF ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" AND ACI SP -66 "DETAILING MANUAL".
CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.
THE FOLLOWING MINIMUM COVER SHALL BE PROVIDED AGAINST REINFORCEMENT:

CONCRETE EXPOSED TO EARTH	3"
CONCRETE EXPOSED TO WEATHER	2"
SLAB ON GRADE TOP	2"
STRUCTURAL SLABS	¾"
WALL BELOW GRADE (BACKFILLED SIDE)	2"
ALL OTHER CONCRETE	1½"

PROVIDE STANDARD BAR CHAIRS AND SPACERS AS REQUIRED TO MAINTAIN CONCRETE PROTECTION SPECIFIED.
CONCRETE SHALL BE TESTED IN CONFORMANCE WITH AC1 318 AND MIX BATCH DATA SHALL BE SUBMITTED FOR REVIEW BY ENGINEER OF RECORD.
PROVIDE 1 NO. 4 REINFORCEMENT BAR x 4'-0" AT RE-ENTRANT CORNERS AND AROUND RECTANGULAR HOLES IN SLABS UNLESS NOTED OTHERWISE. PLACE BAR DIAGONAL TO THE CORNER WITH 1" CLEARANCE FROM THE SLAB CORNER.
CONCRETE STRENGTH, PROPORTIONS AND TESTING SHALL MEET THE FOLLOWING REQUIREMENTS.
- CONCRETE STRENGTH SHALL NOT BE LESS 3500 PSI AT 28 DAYS.
- THE MIX DESIGN SHALL BE PREPARED BY AN INDEPENDENT TESTING LABORATORY APPROVED BY OWNER USING MATERIALS TO BE USED ON THE JOB. THE LABORATORY MIX DESIGN SHALL EXCEED THE DESIRED JOB STRENGTH BY 1,200 PSI. FOUR COPIES OF MIX DESIGN SHALL BE SUBMITTED TO THE OWNER BEFORE CONCRETE WORK BEGINS.
- SLUMP SHALL NOT EXCEED 4 INCHES.
- ALL COST OF CONCRETE TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TESTING OF CONCRETE SHALL BE ACCOMPLISHED BY TAKING FOUR STANDARD TEST CYLINDERS OF THE CONCRETE FOR EACH DAY CONCRETE IS POURED.

STRUCTURAL STEEL:
ROLLED SHAPES SHALL CONFORM TO ASTM A992 AND "THE SPECIFICATION FOR DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC. SHOP CONNECTIONS TO BE WELDED (UTILIZING E70XX ELECTRODES) AND FIELD CONNECTIONS TO BE BOLTED, UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS. STEEL SHALL RECEIVE ONE SHOP COAT AND ONE FIELD TOUCH UP COAT OF APPROVED PAINT, EXCEPT WHERE GALVANIZING IS INDICATED ON THE DRAWINGS.
STRUCTURAL PIPE SHALL CONFORM TO ASTM A-53 GRADE B, TYPE E OR S, Fy = 35 ksi.
BEAM CONNECTIONS TO TUBE COLUMNS SHALL BE A.I.S.C. THRU-PLATE TYPE UNLESS SHOWN OTHERWISE.

BOLTED CONNECTIONS SHALL CONSIST OF MINIMUM ¾ INCH DIAMETER ASTM A-325-SC HIGH STRENGTH BOLTS. BEAM CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR FOR THE REACTIONS SHOWN ON THE PLANS. IF NOT SHOWN, THE FABRICATOR SHALL DESIGN THE BEAM CONNECTIONS TO SUPPORT AN END REACTION OF W/2 KIPS FROM THE TABLES IN PART 2 "ALLOWABLE UNIFORM LOADS IN KIPS FOR BEAMS LATERALLY SUPPORTED" OF THE MANUAL OF STEEL CONSTRUCTION (9TH EDITION), BUT CONNECTIONS SHALL NOT HAVE LESS THAN 2 ROWS OF BOLTS. SUBMIT CALCULATIONS, SIGNED AND SEALED, BY AN ENGINEER LICENSED AND INSURED IN THE DISTRICT OF COLUMBIA.
ANCHOR BOLTS SHALL CONFORM TO ASTM A-307 OR A-36 (THREADED ROD).
ALL BOLTED CONNECTIONS SHALL BE VISUALLY INSPECTED. TWENTY FIVE PERCENT OF ALL BOLTED CONNECTIONS SHALL BE TESTED.
ALL STEEL ANGLES, LINTELS, BEAMS, COLUMNS, ETC. ARE TO BE SHOP PRIMED WITH RED LEAD OR RED OXIDE PRIMER OR APPROVED EQUAL.
STRUCTURAL STEEL AT OR BELOW GRADE SHALL BE PAINTED WITH TWO COATS OF AN ASPHALTIC BASE PAINT AND PROTECTED WITH A MINIMUM OF 2".

WMASONRY
1. BRICK SHALL CONFORM TO ASTM C-62. MORTAR SHALL CONFORM TO FEDERAL SPECIFICATIONS SS-C-181E-TYPE II. LAY BRICK ONLY WHEN OUTSIDE TEMPERATURE IS 45 DEGREES (F) AND RISING. PROTECT ALL WORK FROM COLD AND FROST AND ENSURE THAT MORTAR WILL CURE WITHOUT FREEZING. CALCIUM CHLORIDE AND ANTIFREEZE ADMIXTURE WILL NOT BE ACCEPTABLE.
2. BEARING STEEL AND WOOD BEAMS SHALL BE SUPPORTED ON SOLID MASONRY PIERS AS INDICATED. OTHER STRUCTURAL MEMBERS (LINTELS ETC.) SHALL BE SUPPORTED ON 8" OF SOLID MASONRY PIERS AS INDICATED. OTHER STRUCTURAL MEMBER.
FOR ALL OPENINGS OR RECESSES IN BRICK OR BRICK-FACED MASONRY WALLS NOT SPECIFICALLY DETAILED, PROVIDE ONE STEEL ANGLE FOR EACH 4" OF WALL THICKNESS. PROVIDE LINTELS ACCORDING TO THE SCHEDULE BELOW:

LINTEL SIZE	SIZE OF OPENING	MINIMUM BEARING
L 3 1/2 X 3-1/2 X 5/16	UP TO 3'-0"	6"
L 3-1/2 X 3-1/2 X 3/8	3'-1" TO 4'-0"	6"
L 4 X 3-1/2 X 5/16	4'-1" TO 5'-0"	6"
L 4 X 3-1/2 X 3/8	5'-1" TO 6'-0"	6"
L 5 X 3-1/2 X 3/8	6'-1" TO 7'-0"	8"
L 6 X 4 X 3/8	7'-1" TO 8'-0"	8"

NOTE: FOR OPENINGS GREATER THAN 8'-0"; CONSULT WITH ARCHITECT AND ENGINEER.

3. ANCHOR BOLTS: SET ANCHOR BOLTS OR APPROVED ANCHOR STRAPS AS REQUIRED. BOLTS FOR WOOD SILL PLATES SHALL BE ½" DIAMETER AND PROJECT 16" INTO MASONRY. SET BOLTS OR STRAPS 12" MAX. FROM END OF ANY PLATE.
4. PROVIDE 4" SOLID MASONRY ON ALL SIDES OF JOISTS OR BEAMS ENTERING MASONRY PARTY WALLS.
5. C.M.U.'S TO HAVE WATER REPELLENT BLOCK ADMIXTURE; DRY-BLOCK' BY W.R. GRACE RECOMMENDED.
7. EXTERIOR MORTAR TO HAVE WATER REPELLENT ADMIXTURE. UNLESS NOTED OTHERWISE, TOOL ALL JOINTS CONCAVE.
8. FULLY BED IN MORTAR FACE SHELLS AND WEBS OF FIRST COURSE OF CMU.
9. ALL MASONRY JOINTS SHALL BE FULLY FILLED WITH MORTAR, INCLUDING HEAD JOINTS.

WOOD & CARPENTRY
1. UNLESS OTHERWISE NOTED DRAWINGS, ALL STRUCTURAL WOOD MEMBERS SHALL BE TRUS JOIST MICROLAM LVL AND TJI JOIST WITH THE FOLLOWING COMBINATION OF UNIT STRESSES:
A. EXTREME FIBER STRESS IN BENDING: 2,600 PSI
B. COMPRESSION PARALLEL TO GRAIN: 2,510 PSI
C. COMPRESSION PERPENDICULAR TO GRAIN: 750 PSI
D. MODULUS OF ELASTICITY : 2,000,000 PSI
E. HORIZONTAL SHEAR PARALLEL TO GRAIN: 285 PSI
2. ROOF RAFTERS AND/OR TRUSSES SHALL BE CONNECTED AT EACH BEARING POINT WITH ONE PREFAB-90 PSI GALVANIZED RAFTER TIE (HURRICANE CLIP) BY SIMPSON OR APPROVED EQUAL. SIMILARLY, FLOOR JOISTS AND TRUSSES SHALL BE CONNECTED WITH ONE PREFABRICATED JOIST HANGER. EACH ANCHOR SHALL BE 18 GA MINIMUM THICK.
3. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS, AT JOIST THAT SUPPORT HEADERS, AND AT HEADERS THAT SUPPORT JOISTS. USE JOIST HANGERS WHERE APPLICABLE.
4. ALL JOISTS AND RAFTERS SHALL BE RIGIDLY BRACED AT INTERVALS NOT EXCEEDING 8'-0".
5. DOUBLE STUDS AT HEADER BEARING DOUBLE JOISTS AND RAFTERS AT ALL OPENINGS ACCORDING TO SCHEDULE BELOW: (UNLESS NOTED OTHERWISE ON DRAWINGS):

DOUBLE 2 X 4	UP TO 3'-0"
DOUBLE 2 X 6	UP TO 4'-0"
DOUBLE 2 X 8	UP TO 5'-0"
DOUBLE 2 X 10	UP TO 7'-0"
DOUBLE 2 X 12	UP TO 8'-0"

ALL DOUBLE HEADERS AND JOISTS SHALL BE JOINED WITH A MINIMUM OF TWO ROWS OF 16 D NAILS 12" ON CENTER.
6. PROVIDE BLOCKING BONDING CRUSH BLOCKS, STIFFENERS, OR RIM JOISTS, AS REQUIRED AT JOIST ENDS.
7. FLOOR JOISTS SHALL HAVE A MINIMUM BEARING OF 2" ON FRAMED WALLS. ALL BEAMS SHALL HAVE MINIMUM BEARING OF 4" BEARING ON ALL SUPPORTS. PROVIDE MOISTURE PROTECTION TO END OF BEAMS POCKETED INTO MASONRY WALLS.
8. WOOD JOISTS, STUDS, AND BEAMS SHALL NOT BE CUT OR NOTCHED UNLESS AUTHORIZED BY THE ENGINEER.. DRILLED HOLES SHALL BE CENTERED AT MID-DEPTH OF THE MEMBERS AND THE HOLE DIAMETER SHALL NOT EXCEED 1/3 THE ACTUAL DEPTH OF THE MEMBER. NO HOLES SHALL BE DRILLED WITHIN 2' FROM THE ENDS OR WITHIN THE MIDDLE ⅓ OF THE SPAN. PROVIDE 4" CLEAR BETWEEN HOLES.
9. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS. ANY EXISTING DAMAGED WOOD MEMBERS SHALL BE IDENTIFIED AND REPLACED BY THE CONTRACTOR.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING NECESSARY BRACING AND SHARING OF EXISTING MEMBERS AND WALLS WHILE ALTERING THE STRUCTURE.
11. ALL PLYWOOD SHALL BE APA SPAN RATED. USE EXTERIOR GRADE PLYWOOD WHEREVER EDGE OF FACE WILL BE EXPOSED TO WEATHER. INTERIOR PLYWOOD EXPOSED TO WEATHER DURING CONSTRUCTION SHALL BE EXPOSURE 1 MIN.
A. EXTERIOR WALL SHEATHING SHALL BE ½" PLYWOOD UNLESS NOTED OTHERWISE.
B. SUBFLOORING SHALL BE ¾ " TONGUE & GROOVE PLYWOOD, GLUED AND SCREWED TO THE FLOOR JOISTS AS PER B. APA RECOMMENDATIONS.
C. WHERE SPACING OF ROOF STRUCTURAL MEMBERS IS 16" O.C., ROOF SHEATHING SHALL BE ½" PLYWOOD (⅜" WHERE C. ROOFING IS SLATE OR TILE). WHERE SPACING OF ROOF STRUCTURE MEMBERS IS 24" O.C., ROOF SHEATHING SHALL BE ⅝" PLYWOOD (¾" WHERE ROOFING IS SLATE OR TILE). PROVIDE "H" CLIPS AT BUTT JOINTS OF ROOF SHEATHING.
12. THE FOLLOWING WOOD ELEMENTS ARE TO BE PRESSURE TREATED WITH PRESERVATIVE:
A. SILL PLATES RESTING ON CONCRETE OR MASONRY WALLS.
B. SILL PLATES RESTING ON CONCRETE SLABS ON GRADE.
C. JOISTS WHICH ENTER CONCRETE OR MASONRY WALLS AND HAVE LESS THAN ½" CLEARANCE ON TOPS, SIDES, AND ENDS.
D. SLEEPERS RESTING DIRECTLY ON CONCRETE SLABS.
E. EXTERIOR PORCH AND DECK FRAMING, DECKING AND STAIRS.
13. FASTENERS, HANGERS AND METAL ACCESSORIES USED IN PRESSURE TREATED WOOD CONSTRUCTION SHALL BE TYPE 304 OR 316 STAINLESS STEEL. TREATED LUMBER SHALL NOT BE PLACED IN CONTACT WITH ALUMINUM FLASHING'S OR OTHER ALUMINUM COMPONENTS.

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6020

SIGNATURE & SEAL:
STATE OF MARYLAND · DENNIS A. AMBABA · 30341 · PROFESSIONAL ENGINEER
Dennis Ambaba Jr
07/28/2024

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 30341
EXPIRATION DATE: 06/20/2025

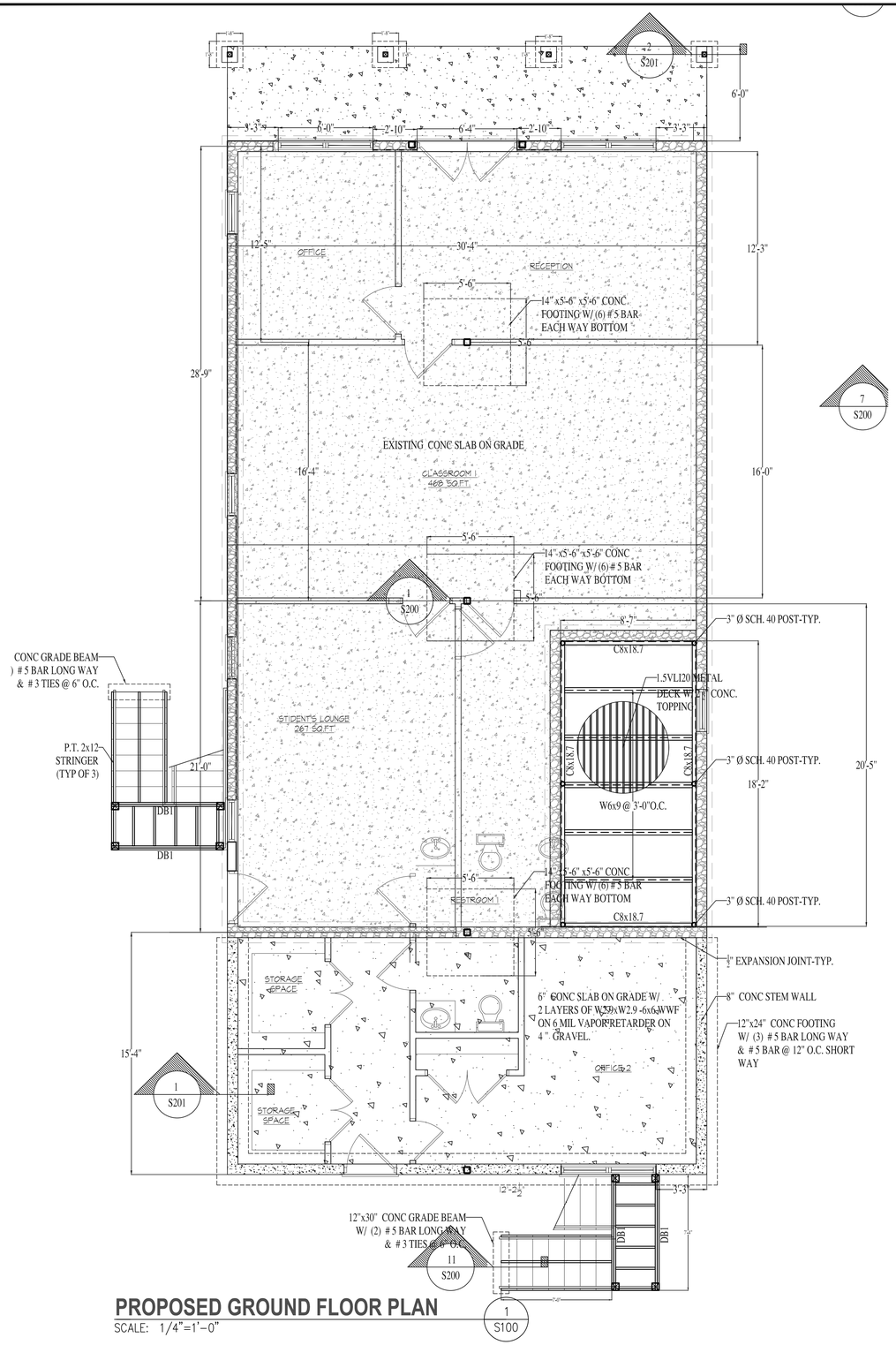
TRINITY NURSING ACADEMY
20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

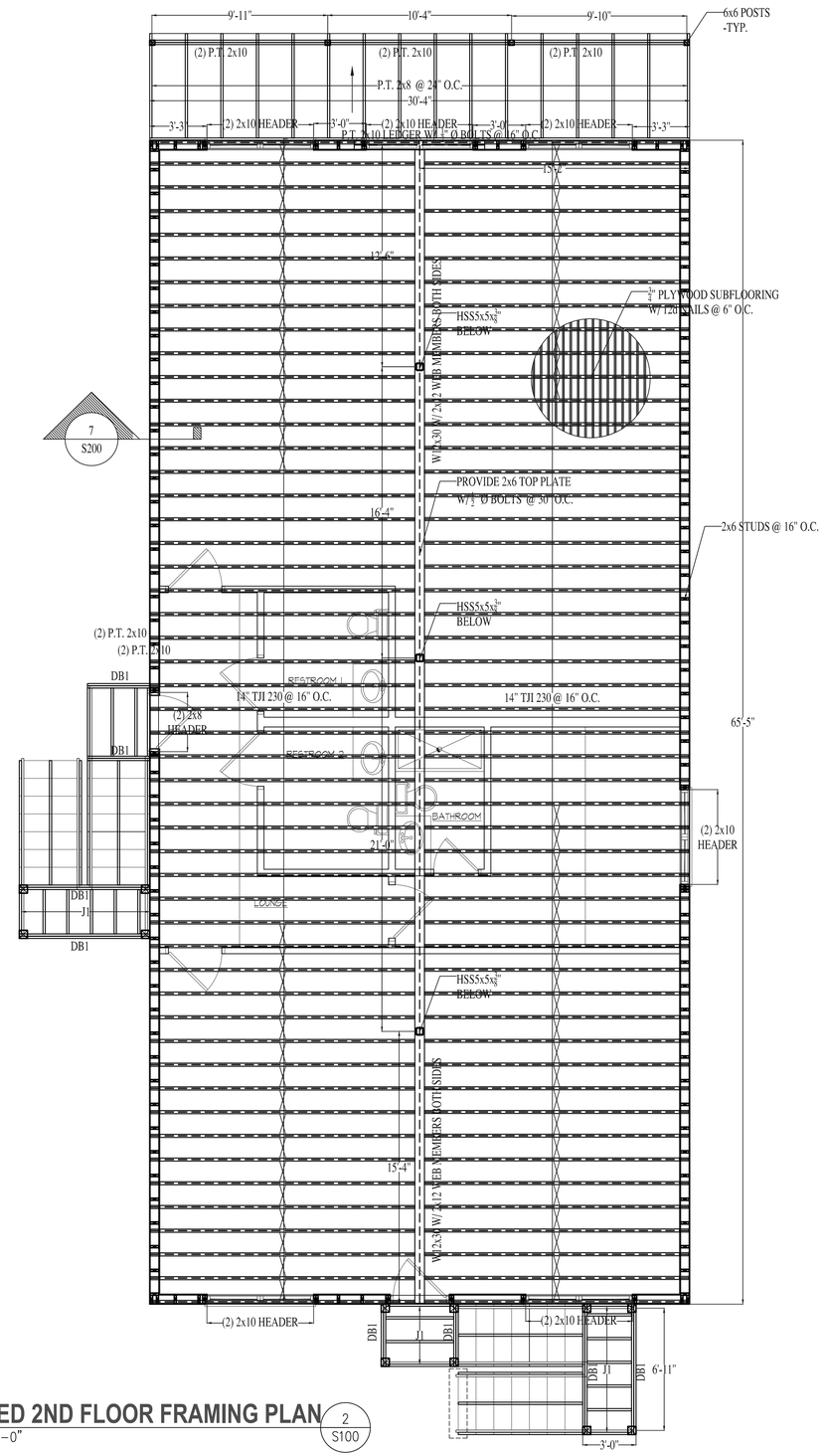
SHEET TITLE:
STRUCTURAL NOTES

SCALE: AS NOTED
DATE: 07-25-2025
ISSUED FOR: CONSTRUCTION
DRAWN BY: A.K.
CHECKED BY: D.A.A.
QC BY: D.A.A.
DRAWING NO. S001



PROPOSED GROUND FLOOR PLAN

SCALE: 1/4"=1'-0"



PROPOSED 2ND FLOOR FRAMING PLAN

SCALE: 1/4"=1'-0"

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
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0	07-25-2024	PERMITS

SHEET TITLE:

PROPOSED FLOOR PLANS

SCALE: AS NOTED

DATE: 07-25-2025

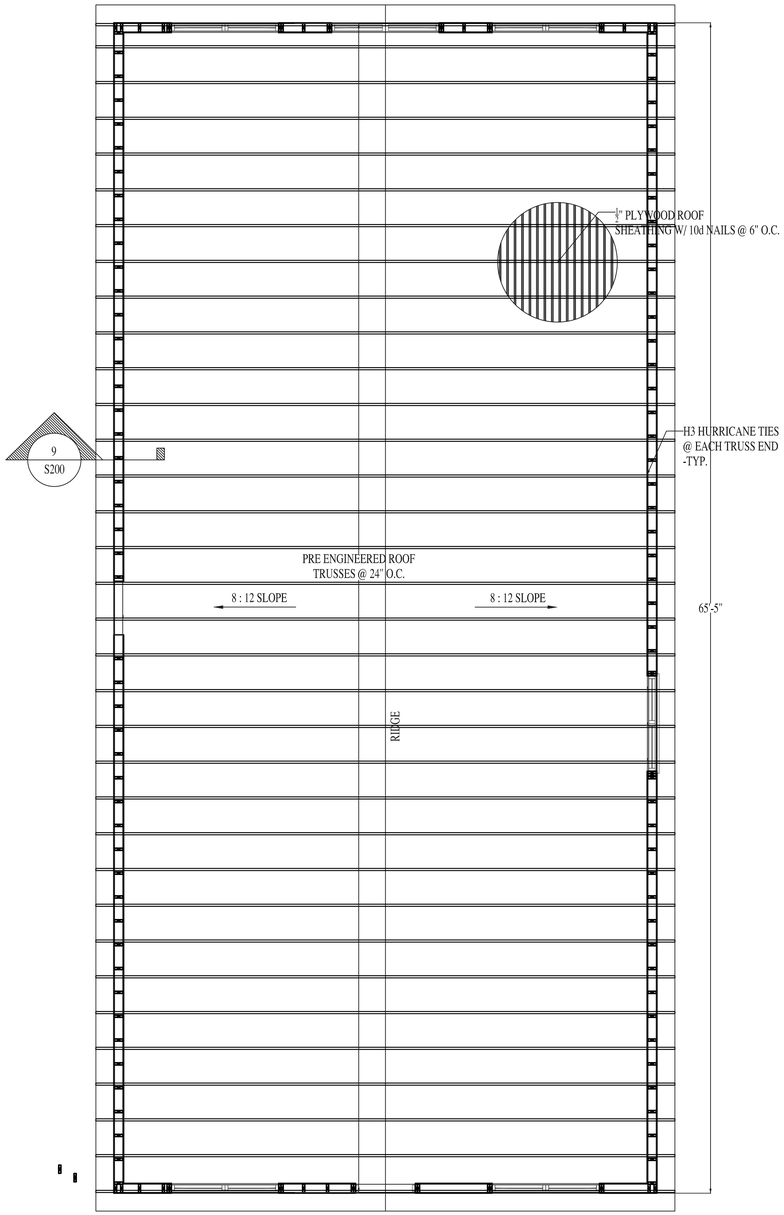
ISSUED FOR: CONSTRUCTION

DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

DRAWING NO. **S100**



PROPOSED ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"

1
S101

WALL BRACING SCHEDULE							
MARK	SHEATHING EXTERIOR	SHEATHING INTERIOR	NAILING PATERN		STUDS	END STUDS	HOLD DOWN
CS WSP	19/ 32" OSB	5/8" GYPSUM BOARD W/ 5d COOLER SCREWS @ 7"O.C.	10d NAILS @ 4" O.C. EDGES	10d NAILS @ 10" O.C. FIELD	2x6 @ 16" O.C.	(2) 2x6	HDU5-SDS
SW1	19/ 32" PLYWOOD	5/8" GYPSUM BOARD W/ 5d COOLER SCREWS @ 7"O.C.	10d NAILS @ 4" O.C. EDGES	10d NAILS @ 10" O.C. FIELD	2x6 @ 16" O.C.	(2) 2x6	HDU5-SDS
SW2	19/ 32" PLYWOOD	5/8" GYPSUM BOARD W/ 5d COOLER SCREWS @ 7"O.C.	10d NAILS @ 3" O.C. EDGES	10d NAILS @ 8" O.C. FIELD	2x6 @ 16" O.C.	(3) 2x6	HHDQ11-SDS
SW3	19/ 32" PLYWOOD	5/8" GYPSUM BOARD W/ 5d COOLER SCREWS @ 7"O.C.	10d NAILS @ 3" O.C. EDGES	10d NAILS @ 8" O.C. FIELD	2x6 @ 12" O.C.	(6) 2x6	(2) HHDQ14-SDS

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CONSULTANTS, LLC
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REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

PROPOSED ROOF FRAMING PLAN

SCALE: AS NOTED

DATE: 07-25-2025

ISSUED FOR: CONSTRUCTION

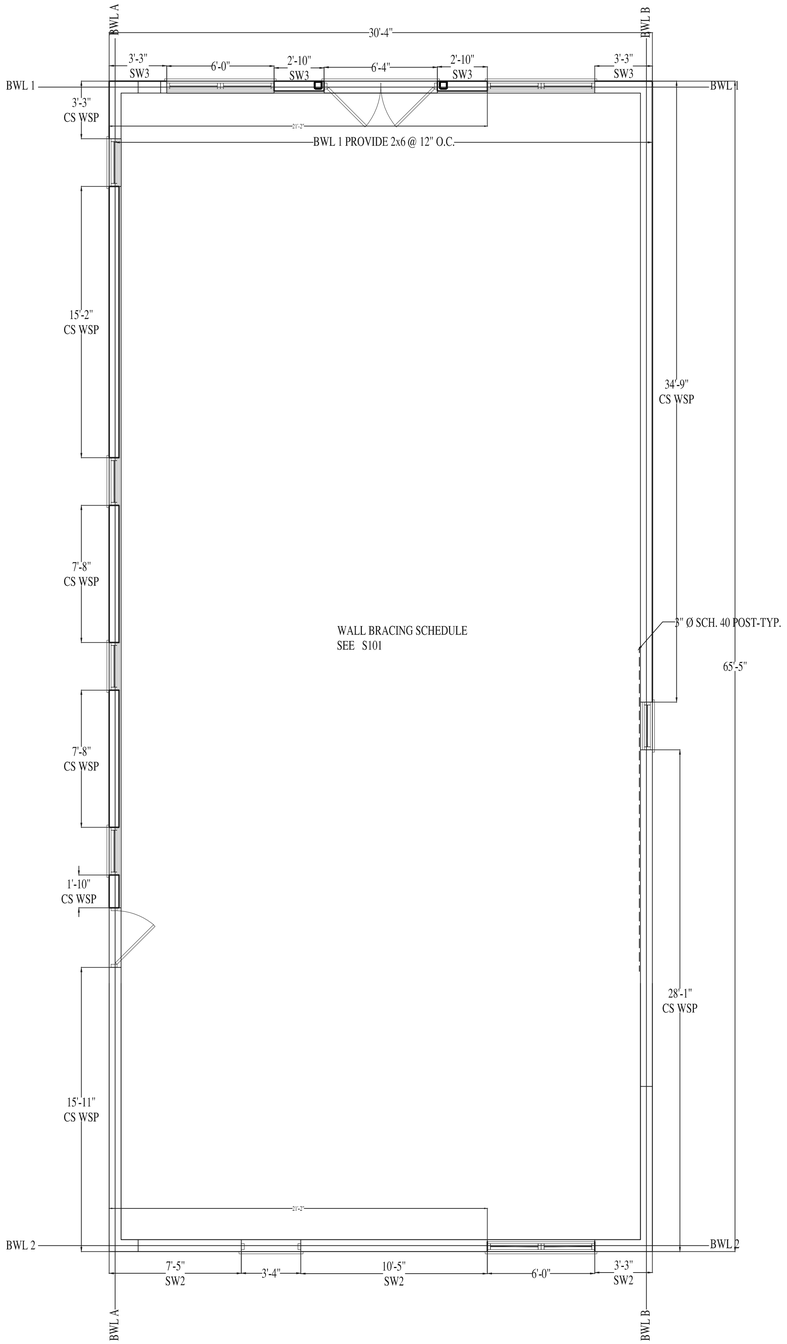
DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

DRAWING NO.

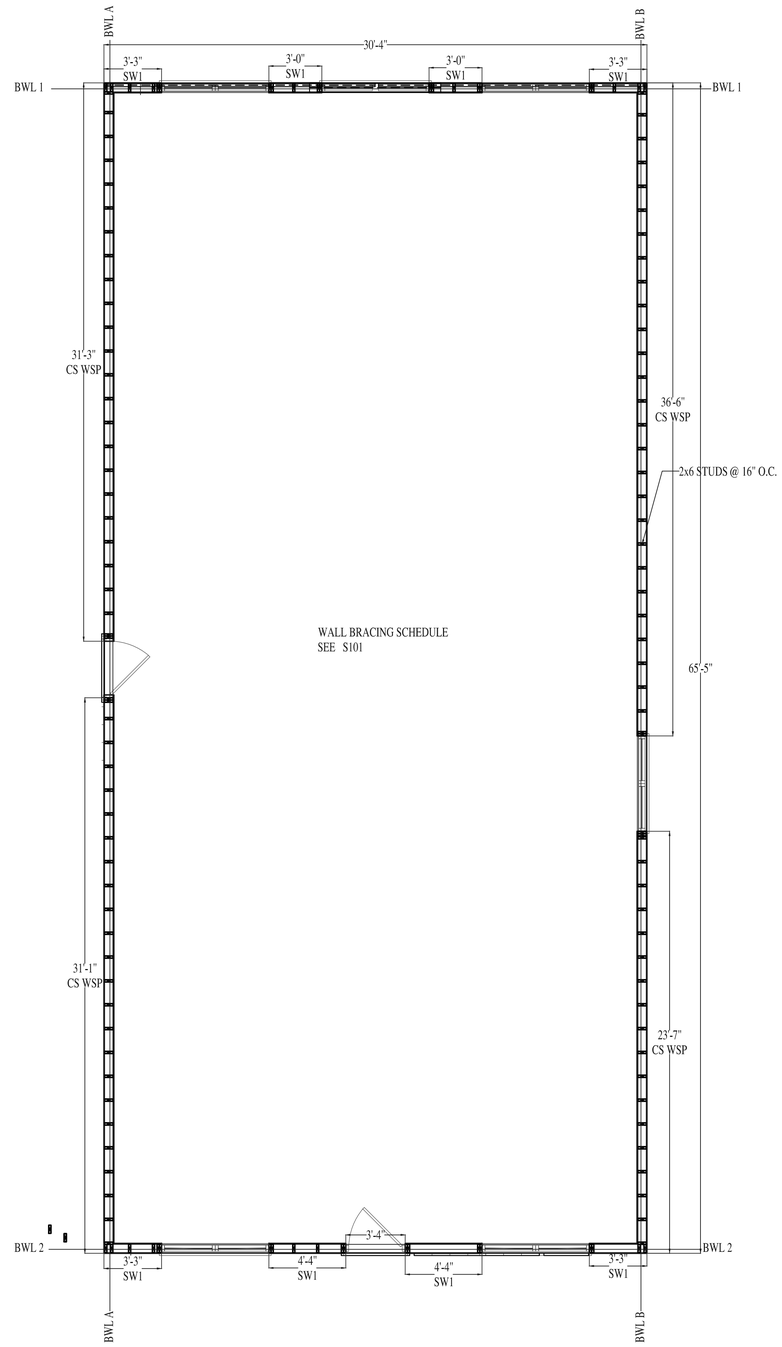
S101



GROUND FLOOR WALL BRACING PLAN

SCALE: 1/4"=1'-0"

1 / S102



SECOND FLOOR WALL BRACING PLAN

SCALE: 1/4"=1'-0"

2 / S102

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6820

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REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

WALL BRACING PLAN

SCALE: AS NOTED

DATE: 07-25-2025

ISSUED FOR: CONSTRUCTION

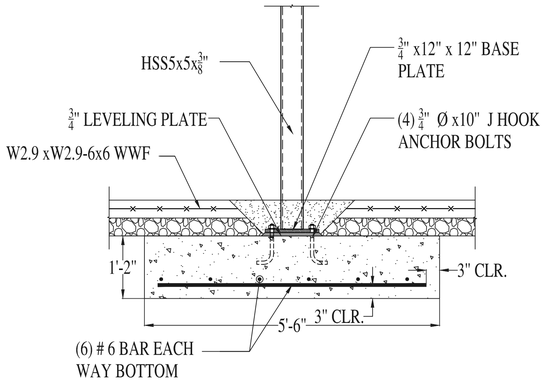
DRAWN BY: A.K.

CHECKED BY: D.A.A.

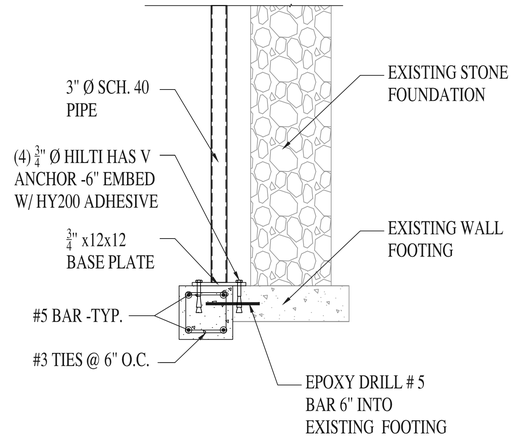
QC BY: D.A.A.

DRAWING NO.

S102



COLUMN FOOTING DETAIL (1 / S200)
SCALE: N.T.S



COLUMN FOOTING DETAIL (2 / S200)
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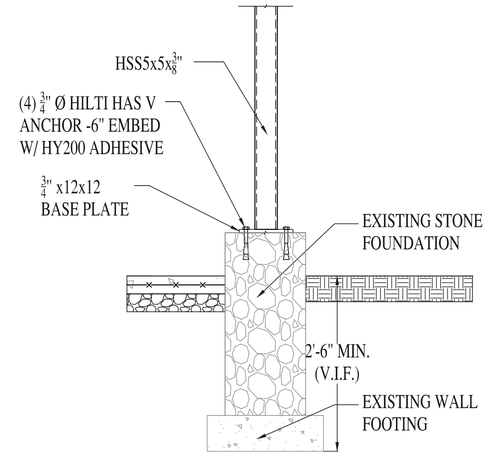

COLUMN BEARING DETAIL (3 / S200)
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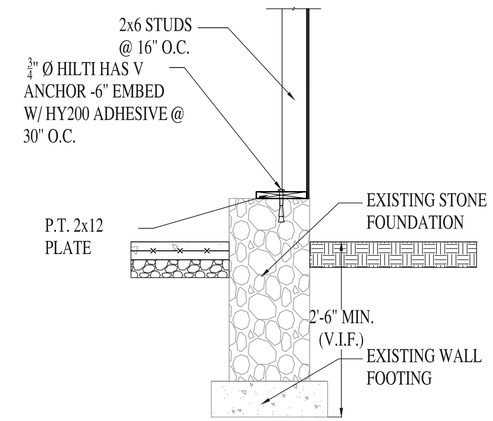

COLUMN FOOTING DETAIL (4 / S200)
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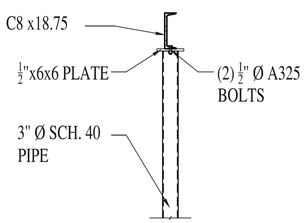

COLUMN DETAIL (5 / S200)
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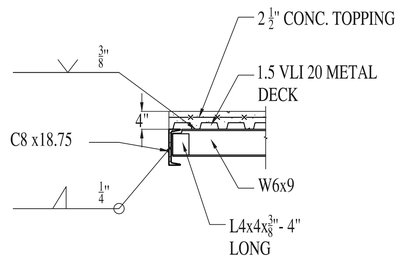
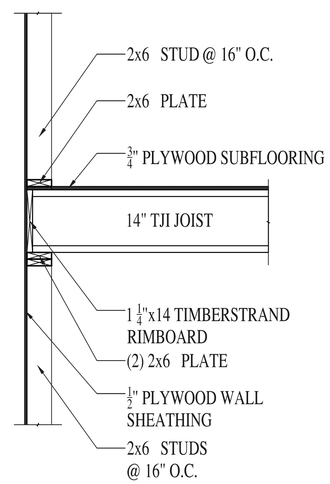
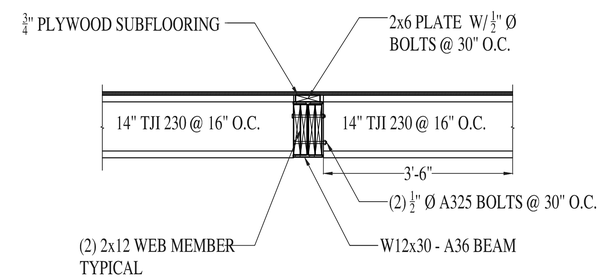


BEAM DETAIL (6 / S200)
SCALE: N.T.S



JOIST TO WALL DETAIL (7 / S200)
SCALE: N.T.S



JOIST-BEAM DETAIL (8 / S200)
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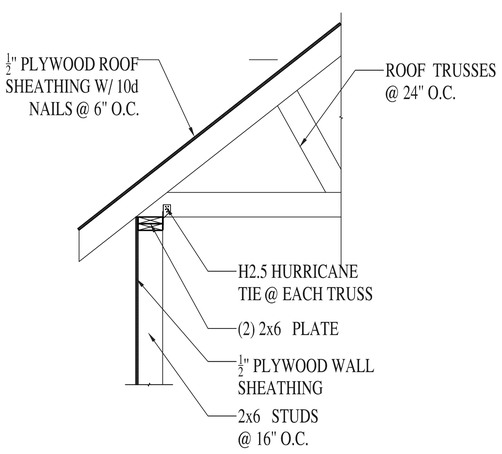

TRUSS TIE DOWN DETAIL (9 / S200)
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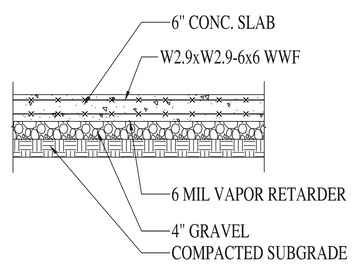

SLAB ON GRADE DETAIL (10 / S200)
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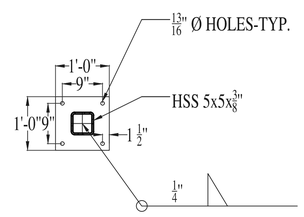
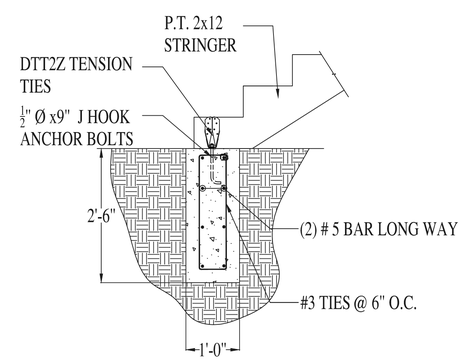


BASE PLATE DETAIL (12 / S200)
SCALE: N.T.S



GRADE BEAM DETAIL (11 / S200)
SCALE: N.T.S

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6820

SIGNATURE & SEAL:

STATE OF MARYLAND — DENNIS A. AMBABA — 30341 — PROFESSIONAL ENGINEER

Dennis Ambaba Jr

07/28/2024

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

LICENSE NUMBER: 30341

EXPIRATION DATE: 06/20/2025

TRINITY NURSING ACADEMY

20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

STRUCTURAL DETAILS

SCALE: AS NOTED

DATE: 07-25-2025

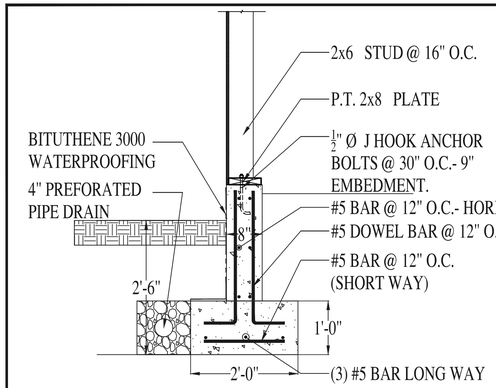
ISSUED FOR: CONSTRUCTION

DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

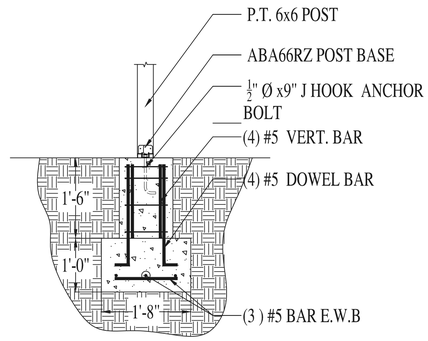
DRAWING NO. **S200**



WALL FOOTING DETAIL

SCALE: N.T.S

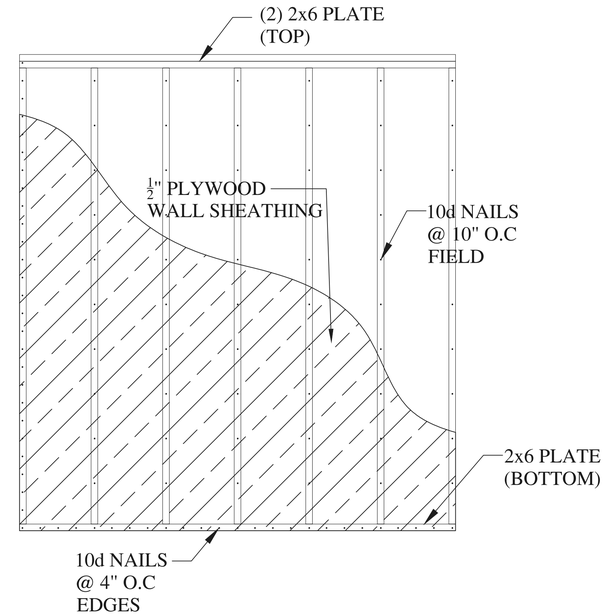
1 / S201



PORCH POST FOOTING DETAIL

SCALE: N.T.S

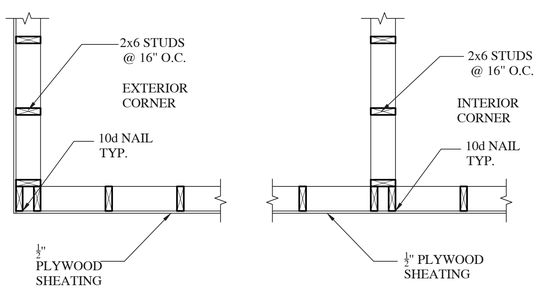
11 / S200



BRACE WALL PANEL

SCALE: 1/2" = 1'-0"

3 / S201



WALL CORNER DETAILS

SCALE: 3/4"=1'-0"

4 / S201

DENABABA ENGINEERING
CONSULTANTS, LLC
11803 EDMOND WOODS WAY
BOWIE, MARYLAND 20721
(301) 262 6820

SIGNATURE & SEAL:

STATE OF MARYLAND — DENNIS A. AMBABA — 30341 — PROFESSIONAL ENGINEER

Dennis Ambaba Jr

07/28/2024

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

LICENSE NUMBER: 30341

EXPIRATION DATE: 06/20/2025

TRINITY NURSING ACADEMY

20142 NATIONAL PIKE HAGERSTOWN, MD 21740

REVISIONS:

NO.	DATE	DESCRIPTION
0	07-25-2024	PERMITS

SHEET TITLE:

STRUCTURAL DETAILS II

SCALE: AS NOTED

DATE: 07-25-2025

ISSUED FOR: CONSTRUCTION

DRAWN BY: A.K.

CHECKED BY: D.A.A.

QC BY: D.A.A.

DRAWING NO.

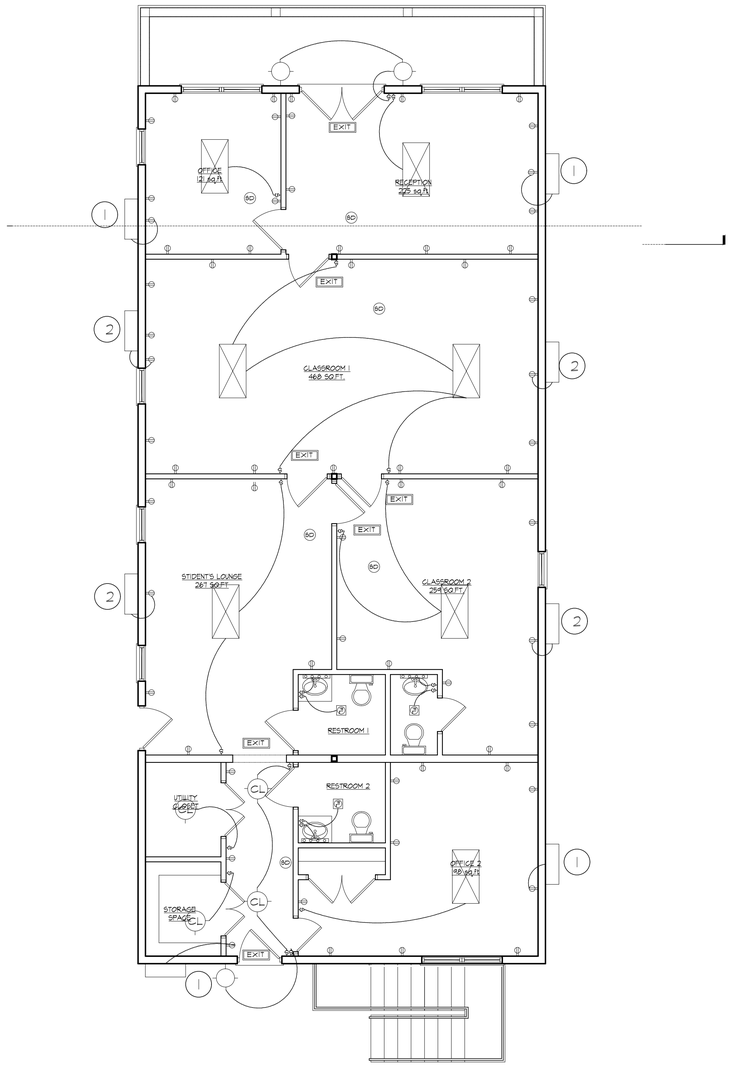
S201

ELECTRICAL LEGEND

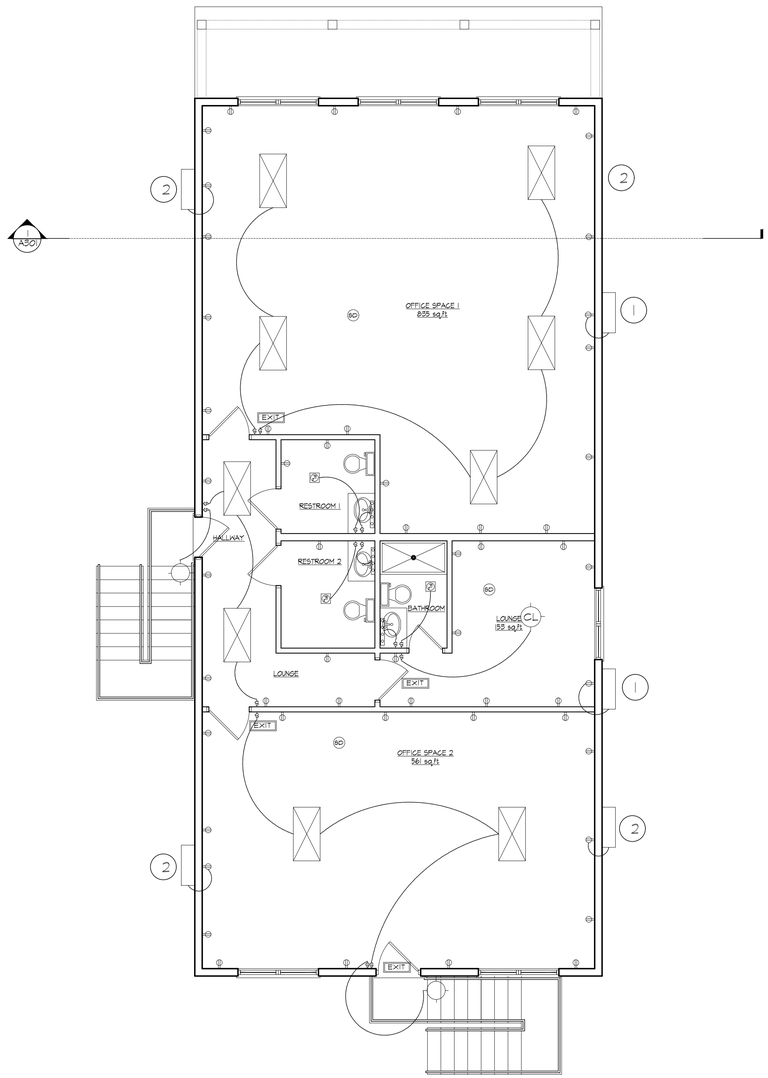
	WALL MOUNTED LIGHT FIXTURE	SD	SMOKE DETECTOR HARDWIRED WITHIN UNIT
	CLNG. MOUNTED 4" RECESSED LIGHT FIXTURE	HD	HEAT DETECTOR
	BATHROOM WALL LIGHT		GARBAGE DISPOSAL
	PENDANT LIGHT	DW	DISHWASHER
EF	BATH FAN/EXHAUST FAN	RH	RANGE HOOD
	WALL MOUNTED CEILING LIGHT	C BB	DOOR CHIME / BELL BUTTON
	ARC FAULT CIRCUIT INTERRUPTOR RECEPTACLE 18" A.F.F.		ELECTRIC PANEL
	120 V DUPLEX RECEPTACLE 48" A.F.F.	T	DIGITAL PROGRAMMABLE THERMOSTAT
GFI	GROUND FAULT INTERRUPTOR RECEPTACLE	AH	AIR HANDLER
GFI	WATER PROOF GFI	HP + GFI CU	CONDENSING UNIT / DISCONNECT
	WATER HEATER DISCONNECT	G	GAS METER
	TELEPHONE OUTLET, SINGLE/DUPLEX		ELECTRIC METER
	CABLE TV	MW	120 V DUPLEX RECEPTACLE IN CABINET FOR MICROWAVE OVEN
3	3 WAY SWITCH	WH	WATER HEATER
S SD	SWITCH/ SWITCH WITH DIMMER		FLOURESCENT LIGHT FIXTURE
EXIT	FLOURESCENT LIGHT FIXTURE	OS	OCCUPANCY SENSOR

HVAC APPLIANCE SCHEDULE

TAG	MAKE	MODEL NUMBER	BTU HEAT	BTU COOLING	WATTAGE (KW)
1	PIONEER	WYT009ALF1MRL	9000	9000	0.84
2	PIONEER	WYT018GLF1MRL	18000	18000	1.88



MAIN FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"



2 SECOND FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

ISSUED		
	AT	BLDG. PERMIT

REVISIONS		

TRINITY NURSING ACADEMY
20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

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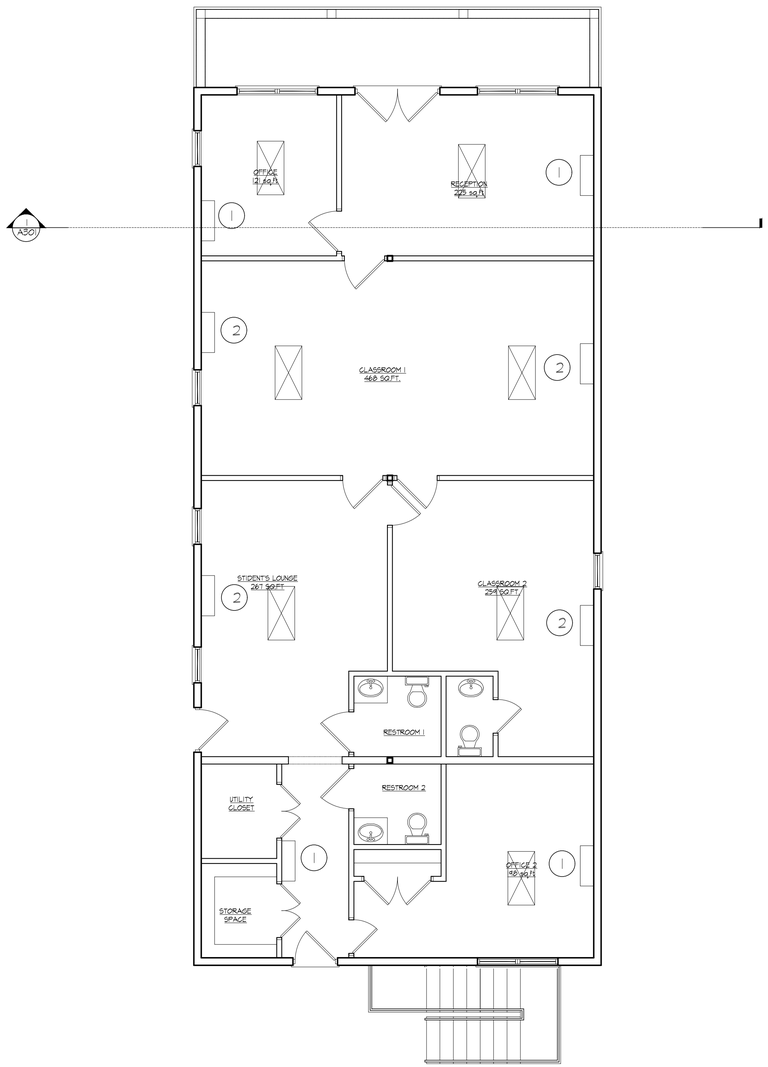
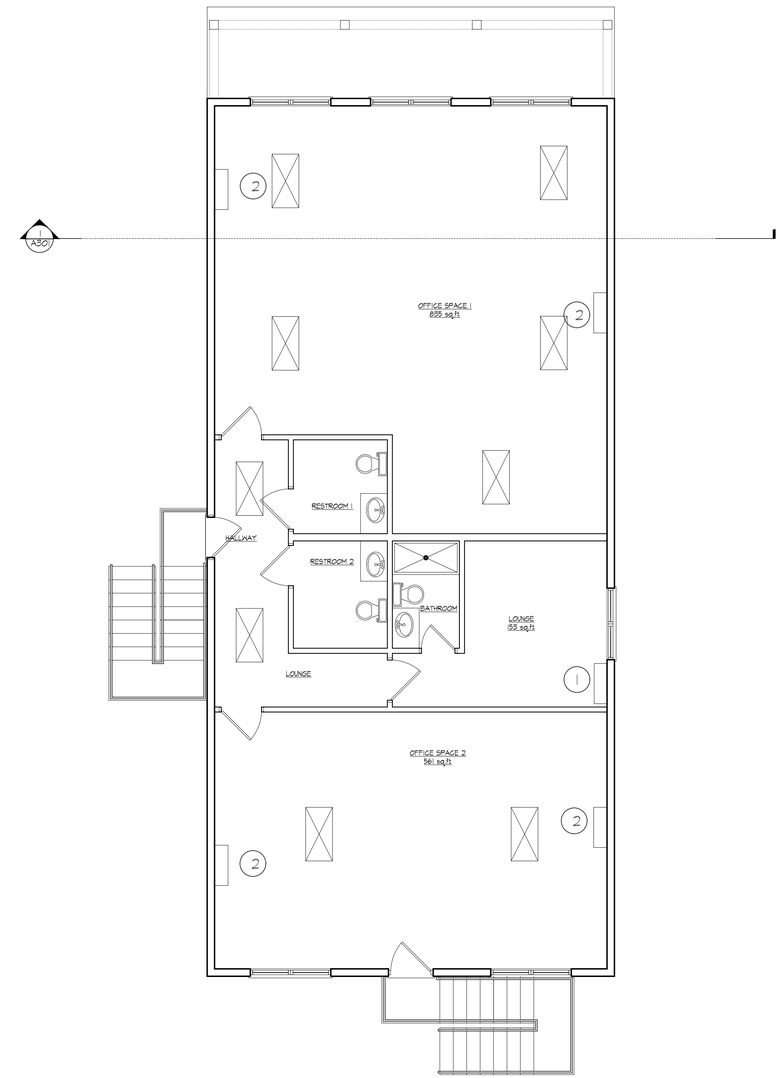
DRAWN	AT
CHECKED	AT
SCALE	1/4"=1'-0"
PROJECT NO.	

SHEET TITLE
ELECTRICAL PLANS

SHEET
E101



MAIN FLOOR ELECTRICAL PLAN
SCALE: 3/16" = 1'-0"



2 SECOND FLOOR ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

HVAC APPLIANCE SCHEDULE

TAG	MAKE	MODEL NUMBER	BTU HEAT	BTU COOLING	WATTAGE (KW)
1	PIONEER	WYT009ALF119RL	9000	9000	0.84
2	PIONEER	WYT018GLF119RL	18000	18000	1.88

ADENIYI TALABI
3017 BUTTON BUSH LANE
LAUREL, MD 20724
(T) 240 460 2233
(E) ATALABI@GMAIL.COM

ISSUED		
	AT	BLDG. PERMIT

REVISIONS		

TRINITY NURSING ACADEMY
20142 NATIONAL PIKE
HAGERSTOWN, MD 21740

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DRAWN	AT
CHECKED	AT
SCALE	3/16"=1'-0"
PROJECT NO.	

SHEET TITLE
MECHANICAL PLANS

SHEET
M101

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

INSTRUCTIONS

Each Planning Commission/Board must approve an Annual Report for the reporting calendar year 2024 (January 1, 2024 - December 31, 2024, as required under **§1-207(b)** of the Land Use Article. In addition, the Annual Report shall be filed with the local legislative body and the Maryland Department of Planning (MDP), via email to david.dahlstrom@maryland.gov and cc: to mdp.planreview@maryland.gov. Hardcopy will no longer be accepted.

A jurisdiction may use the attached template form, or any of the previous Annual Report forms. The Land Use Article requirements have not changed for calendar year 2024, however, the templates have been modified to address the new reporting requirements for local jurisdictions with at least 150,000 residents. These changes are generally limited to Section V, Part A, and the new Section V, Part B, to address the provisions of HB131 and Land Use Article §7–105.

Section I- **New Residential Permits**, and **Section II- Amendments and Growth-Related Changes**, are required by all local jurisdictions.

Section III- **Development Capacity Analysis**, is required every three years.

Section IV- Locally Funded Agriculture Preservation, is required for counties only.

Section V – Measures and Indicators, is required for jurisdictions reporting more than 50 new residential permits in Section I. If new permit data is not available, MDP will accept new occupancy data, provided the jurisdiction describes this deviation in its submission.

Section B is new for CY2024 and applies only to a local jurisdiction with at least 150,000 residents.

Section VI- Adequate Public Facility Ordinances, is required every two years for jurisdictions with adopted Adequate Public Facility Ordinances (APFOs). Jurisdictions may delete this Section from their report if they have not adopted an APFO.

Section VII – **Planning Survey Questions** is optional.

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Section I: New Residential Permits Issued (Inside and Outside the PFA) (§1-208(c)(1)(i) and (c)(3)(ii))

(A) In *Table 1*, *New Residential Permits Issued (Inside and Outside the PFA*) below, enter the number of new residential building permits issued in calendar year (2024). Enter 0 if no new residential building permits were issued in 2024.

Table 1: New Residential Permits Issued
Inside and Outside the Priority Funding Area (PFA)

Residential – Calendar Year 2024	PFA	Non - PFA	Total
New Residential Permits Issued	121	61	182

Note: If new residential permit data is not available or tracked, jurisdictions are encouraged to begin a process to track the number of new residential permits approved. MDP will accept new residential occupancy permits as a substitute for new residential permits, provided that the jurisdiction represents the data as new occupancy permits, rather than new residential permits, in this template or other reporting form submitted to MDP. Similarly, if permitting data that specifies within and without of the PFA is not available, and the jurisdiction submits data related to a locally defined growth area, instead of PFAs, then the jurisdiction should consider a future process to track permits within the PFA. MDP will accept permit or occupancy data specific to a locally defined growth area, provided that the jurisdiction represents the data as such in this template or other reporting form submitted to MDP, rather than as PFA.

Section II: Amendments and Growth Related Changes In Development Patterns (§1-207(c)(1) through (c)(4))

Note: Growth related changes in development patterns are changes in land use, zoning, transportation capacity improvements, new subdivisions, new schools or school additions, or changes to water and sewer service areas.

(A) Were any new comprehensive plan or plan elements adopted? If yes, briefly summarize what was adopted. Y ☐ N ☒

No new comprehensive plan or plan elements were formally adopted during 2024. The second draft of the 2040 Washington County Comprehensive Plan was released for ninety (90) day public comment in July 2024. Staff reviewed comments and revised the document. The Washington County Planning Commission held a public hearing in January 2025 and further revised the Plan before recommending approval of the Plan to the Board of County Commissioners. The BOCC public hearing is scheduled for June 3, 2025.

(B) Were there any amendments to zoning regulations or zoning map? If yes, briefly summarize each amendment, include an updated zoning map, and/or GIS shapefile, if available.

Y ☒ N ☐

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Case Number	Name	Location	Total Acres	From Zone	To Zone	Decision Date
RZ-23-006	Ralph E & Leah A Martin (Map)	19815 Reidtown Road	2.0	A(R)	RB (AR)	2/13/2024
RZ-23-007	Jeffrey & Laura Unsworth (Map)	13215 Smithsburg Pike	2.46	A(R)	A(R) HP	1/9/2024
RZ-23-008	Williamsport Storage Bins, Inc.	429/431 S. Artizan Street	0.74	HI	RT	3/12/2024
RZ-24-001	Washington County Planning Commission (Text)	Section 23.4 (Warehouse height limitations)	n/a	n/a	n/a	5/7/2024
RZ-24-002	John Halteman	12635 Flying Duck Lane	6.82	A(R)	RB (AR)	11/19/2024
RZ-24-003	Washington County Planning Commission (Text)	Sections 3, 7A, 8, 9, 10, 11, 12, 13, 14, 19C & 28A (Cannabis)	n/a	n/a	n/a	10/15/2024

RZ-23-006

- Piecemeal application – Zoning Ordinance map amendment to create a Rural Business floating zone over 2.0 acres, located on the south side of Reidtown Road, west of Marsh Pike. The property, located at 19815 Reidtown Road, will be used for an Auto Body Repair Shop. The underlying zoning is Rural Village.

RZ-23-007

- Piecemeal application – Zoning Ordinance map amendment to create a Historic Preservation District overlay on part of a parcel located on the east side of Smithsburg Pike. The request is for 2.46 acres, located at 13215 Smithsburg Pike. The underlying zoning is Agricultural Rural.

RZ-23-008

- Piecemeal application – Zoning Ordinance map amendment to rezone two parcels located on the east side of South Artizan Street, south of Kenilworth Avenue from Highway Interchange to Rural Transition. The properties, located at 429 and 431 South Artizan Street, are 0.47 and 0.27 acres in size, respectively, and will be used for residential purposes.

RZ-24-001

- Text application - Zoning Ordinance text amendment to Section 23.4 pertaining to removing high-density warehouses from the list of uses exempt from height limitations.

RZ-24-002

- Piecemeal application – Zoning Ordinance map amendment to create a Rural Business floating zone over 6.82 acres (of the 50.28-acre parcel), located on a private lane on the north side of National Pike, east of Saint Paul Road. The property, located at 12635 Flying Duck Lane, will be used for a wood planner shop, agricultural equipment rental, produce sales, woodstove sales and cemetery monument sales. The underlying zoning is Agricultural Rural.

RZ-24-003

- Text application - Zoning Ordinance text amendment to Sections 3, 7A, 8, 9, 10, 11, 12, 13, 14, 19C & 28A to address the State legalization of adult-use cannabis and where the dispensaries, processing facilities and growing facilities can be located.

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

(C) Were there growth-related changes, including land use, annexations, zoning ordinance changes, new schools, changes in water or sewer service areas, municipal annexations that changed municipal or unincorporated area boundaries? If yes, describe or attach a map of the changes and/or GIS shapefile, and describe how they are consistent with internal, state, or adjoining jurisdiction plans.

Y ☒ N ☐

Hagerstown Annexation: A-2024-01

- The '55 West Oak Ridge' annexation is located along the south side of West Oak Ridge Drive, east of Downsville Pike, consists of 74.14 acres, and was effective on 5/17/2024. County Zoning was Highway Interchange; new City Zoning is Industrial – Mixed Use.

Hagerstown Annexation: A-2024-003

- The '45 West Oak Ridge' annexation is located along the south side of West Oak Ridge Drive, east of Downsville Pike, consists of 52.0 acres, and was effective on 8/23/2024. County Zoning was Highway Interchange, new City Zoning is Industrial - Mixed Use.

Hagerstown Annexation: A-2024-004

- The 'Heavens Heights Homes' annexation is located along the north side of Southern Boulevard, east of Villa Ridge Drive, consists of 12.08 acres, and was effective on 7/12/2024. County Zoning was Residential Suburban, new City Zoning is Residential – Moderate Density.

WS-24-001

- Property owner request to change both Water and Sewer designations on a 24.11-acre piece of property located in the southeast quadrant of MD-340 and Keep Tryst Road. A seven (7) lot subdivision is planned for the parcel with current designation W-3/S-3. The request is to change the designation to W-1/S-1. Administrative Amendment due to mapping error was effective 6/10/2024.

WS-24-002

- Property owner request to change the Sewer designation on five (5) parcels (8.95 acres) located in the northeast quadrant of MD-64 and MD-77. A multi-lot subdivision is planned for the area with current sewer designation S-5. The request is to change the sewer designation to S-3. Administrative Amendment due to mapping error was effective 7/23/2024.

WS-24-003

- Property owner request to change both Water and Sewer designations on a 9.73-acre piece of property located at 15919 Spielman Road. Commercial development is planned for the parcel with current designation W-5/S-5. The request is to change the designation to W-3/S-3. Administrative Amendment due to mapping error was effective 11/5/2024.

WS-24-004

- Property owner request to change both Water and Sewer designations on a 99.24-acre piece of property located at 16545 Cargo Drive. Industrial development is planned for the parcel with current designation W-5/S-5. The request is to change the designation to W-3/S-3. Administrative Amendment due to mapping error was effective 11/5/2024.

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

(D) If yes to municipal annexations, have copies of each adopted resolution been submitted to: Georgeanne Carter, Legislative Counsel Municipal Resolution Reposition Department of Legislative Services, 90 State Circle, Annapolis MD, 21401-1991? Y ☒ N ☐

(E) Did your jurisdiction identify and/or implement recommendations, related to the following general planning topics, to improve the local planning and/or development process? Please select all that apply.

Y ☐ N ☒

☐ Green Infrastructure	☐ Revitalization and Infill
☐ Zoning Reform	☐ Bike/Ped Planning
☐ Climate Change	☐ Commercial Redevelopment
☐ Affordable/Workforce Housing	☐ Sustainable Growth
☐ Equity	☐ Placemaking
☐ Resilience	☐ Aging Population
☐ Water/Air Quality	☐ Sensitive Area Preservation
☐ Water/Sewer Capacity	☐ Expedited Review for Preferred Projects
☐ Brownfield Remediation	

Please describe any other planning improvements identified or implemented in 2024.

(F) Have all Planning (Commission/Board) and Board of Appeals members completed the Maryland Planning Commissioners Association (MPCA) training course?

Y ☒ N ☐

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Section III: Development Capacity Analysis (DCA)(§1-208(c)(1)(iii))

Note: MDP provides technical assistance to local governments in completing development capacity analyses. Please contact your MDP regional planner for more information.

(A) Has an updated DCA been submitted with your annual report or to MDP within the last three years? Y ☐ N ☒

1. If no, explain why not, such as, no substantial growth changes.

   The County's development capacity analysis continues to be analyzed as part of the draft of Washington County's 2040 Comprehensive Plan which is scheduled for a Washington County Board of County Commissioners public hearing on June 3, 2025. Once the 2040 Comprehensive Plan is adopted, a DCA will be submitted with that year's annual report.

2. If yes, when was the last DCA submitted? Identify month and year:

   Note: A DCA is not due if a comprehensive plan was updated in the past three years (2021-2024). MDP recommends that jurisdictions share DCAs with local school boards.

   Was the DCA shared with the local school board facilities planner? Y ☐ N ☐

(B) Using the most current DCA available, provide the following data on capacity inside and outside the PFA in *Table 2, Residential Development Capacity (Inside and Outside the PFA)*:

Table 2: Residential Development Capacity (Inside and Outside the PFA)

Parcels & Lots w/ Residential Capacity	PFA	Non – PFA	Total
Residentially Zoned Acres w/ Capacity			
Residential Parcel & Lots w/Capacity			
Residential Capacity (Units)			

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Section IV: (Locally) Funded Agricultural Land Preservation & Local Land Use Goal (Counties Only) (§1-208(C)(1)(iv and v))

(A) How many acres were preserved using **local** agricultural land preservation funding? Enter 0 if no land was preserved using **local** funds. Enter the value of local program funds, if available.

Table 3: Locally Funded Agricultural Land Preservation*

Local Preservation Program Type	Acres	Value ($)
MALPF Easements (6)	929.95	$4,545,507
Rural Legacy Easements (5)	544.13	$2,093,352
MARBIDCO (3)	501.02	$1,366,657
Total	1,975.10	$8,005,516

*State funded agricultural land preservation acres and values are not required to be reported as state funding is documented.

(B) What is the county's established local land use percentage goal? This percentage should include land uses within PFAs, not including PFA comment areas

Washington County does not have a percentage goal for land preservation efforts. We have had a long-established acreage goal of 50,000 acres.

(C) What is the timeframe for achieving the local land use percentage goal? 20-30 Years.

(D) Has there been any progress in achieving the local land use percentage goal?

Yes, more than 41,000 acres of land has been permanently preserved across all programs since the start of the County's participation in agricultural land preservation over 40 years ago.

(E) What are the resources necessary (e.g. legislative actions (programs incentives), functional planning, and capital funding) for infrastructure inside the PFAs?

Additional growth-related funding for water and sewer infrastructure projects, transportation facilities, workforce housing, business development and neighborhood revitalization would advance local needs within the community. Streamlining regulations that have similar goals but require dedicated infrastructure to accomplish required mandates (i.e., programs that address water quality) would also be beneficial.

(F) What are the resources necessary (e.g. legislative actions (program incentives and zoning changes), preservation planning, and easement funding) for land preservation outside the PFAs?

a. Promote the Agricultural Preservation program(s) as a method to incentivize farmers to preserve their land until funds become available for permanent easements.
b. Seek out permanent funding sources that can sustain agricultural easements and development rights acquisition.
c. Place an emphasis on preserving large contiguous blocks of permanent farmland in excess of 1,000 acres by factoring this variable more heavily in the priority ranking system.
d. Implement strategies that deter land uses that would remove large blocks of prime agricultural land from active farm production.
e. Promote start up assistance and provide educational awareness to inspire a new generation of young farmers.
f. Provide and highlight additional agritourism opportunities for farmers to expand operations with value added products and agricultural industry type uses.

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Section V, Part A: Measures and Indicators (§1-208(c)(1))

Note: Measures and Indicators, Section VII, is only required for jurisdictions issuing more than 50 new residential building permits in the reporting year, as reported in Table 1.

Table 4A: Amount of Residential Growth (Inside and Outside the PFA)

Residential – Calendar Year 2024	PFA	Non - PFA	Total
1.Total Units Approved on an Existing Lot	3	7	10
2.Gross Acres of Existing Lots in Row 1	1.45	175.26	176.71
3.Net Acres of Existing Lots in Row 1	1.45	175.22	176.67
4.Total Minor Subdivisions Approved	5	11	16
5.Total Minor Subdivision Lots Approved	10	11	21
6.Total Residential Units Approved in Minor Subdivisions*	10	11	21
7.Gross Acres of All Approved Minor Subdivisions	51.96	123.20	175.16
8.Net Lot Area in Acres of All Approved Minor Subdivisions**	14.22	62.50	76.72
9.Total Major Subdivisions Approved	4	1	5
10.Total Major Subdivision Lots Approved	46	1	47
11.Total Residential Units Approved in Major Subdivisions	397	36	433
12.Gross Acres of All Approved Major Subdivisions	69.77	86.8	156.57
13.Net Lot Area in Acres of All Approved Major Subdivisions**	54.59	8.10	62.69
14.Total Residential Units Approved (Minor + Major Subdivisions + Existing Lots)	410	54	464
15.Total Residential Units Constructed (CofO)	128	48	176
16.Total Residential Units Demolished***	10	6	16
17.Total Residential Units Reconstructed/Replaced***	3	4	7

* Residential units may be greater than lots if they include duplexes, triplexes. or multifamily

**Net lot area is the sum of all developed lots, minus open spaces and right-of-way, other publicly dedicated land.

****Not required.*

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Table 4B: Net Density of Residential Growth (Inside and Outside PFAs)

Residential – Calendar Year 2024	PFA	Non – PFA	Total
1.Total Units Approved on an Existing Lot	3	7	10
2.Total Gross Acres of Existing Lots in Row 1	1.45	175.26	176.71
3.Total Net Acres of Existing Lots in Row 1	1.45	175.22	176.67
4.Total Residential Units Approved (Major + Minor Subdivisions + Existing Lots)	410	54	464
5.Total Approved Net Lot Area* (Major + Minor Subdivisions + Existing Lots)	70.26	245.82	316.08

*Net lot area is the sum of all developed lots, minus open spaces and right-of-way, other publicly dedicated land.

Table 4C: Share of Residential Growth (Inside and Outside the PFA)

Residential – Calendar Year 2024	PFA	Non – PFA	Total
1.Total Units Approved on an Existing Lot	3	7	10
2.Gross Acres of Existing Lots in Row 1	1.45	175.26	176.71
3.Net Acres of Existing Lots in Row 1	1.45	175.22	176.67
4.Total Units Approved (Major + Minor Subdivisions + Existing Lots + Units in Commercial Site Plans)	410	54	464
5. % of Total Units (Approved Residential Units)	88.4%	11.6%	100%

Table 4D: Amount of Commercial Growth (Inside and Outside the PFA)

Commercial – Calendar Year 2024	PFA	Non - PFA	Total
Site Plans			
1.Total # of Commercial Site Plans Approved	17	6	23
2.Gross Acres of All Approved Commercial Site Plans	45.3	11.26	56.56
3.Gross Building Area Approved in Square Feet for Commercial Site Plans	241,103	113,910	355,013
Building Permits			
5.Total Commercial Building Permits Issued	35	13	48
6.Gross Building Area Constructed in Square Feet for issued Building Permits	388,711	79,542	468,253
7.Number of residential units approved as part of a commercial site plan (mixed-use), if any. *Only applies to jurisdictions with at least 150,000 residents	342	36	378

Annual Report Worksheet
Reporting (Calendar) Year 2024
For counties or municipalities issuing 50 or more residential permits

Section VI: Adequate Public Facility Ordinance (APFO) Restrictions (§7-104)
(Section VI is only required by jurisdictions with adopted APFOs)

Note: Jurisdictions with adopted APFOs must submit a biennial APFO report. The APFO report is due by July 1 of each even year and covers the reporting period for the previous two calendar years. APFO reports for 2023 and 2024 are due July 1, 2025. However, jurisdictions are encouraged to submit an APFO report on an annual basis.

(A) Does your jurisdiction have an adopted APFO? Y/N YES

If No, skip this Section.

If Yes, continue to (B).

(B) What type of infrastructure is monitored and may trigger development approval restrictions or require a developer to address deficiencies? (List each for schools, roads, water, sewer, stormwater, health care, fire, police or solid waste.)

The Washington County Adequate Public Facilities Ordinance applies to infrastructure including: Roads, Schools, Sewage Disposal Systems, Water Supply and Distribution Systems and Fire Protection.

(C) Has APFO impacted development approvals within the PFA? Y/N YES, the County's current APFO has impacted one (1) residential subdivision approval during the 2024 reporting period.

(D) If APFO has delayed, limited, or denied development, defined here as a "restriction":

a. Are there infrastructure or service facility deficiencies that have triggered denials of development requests, or held up development approvals? Y/N Yes, the state rated capacity of the elementary school serving this residential development exceeds 140%

   Note: This does not include APFO required developer-funded projects, or phased development approvals due to APFO limitations, or APFO required study areas for approval.

b. Can the impact area of facility deficiencies/ development restrictions, which temporarily delay development approvals, be mapped? Y/N n/a

(E) If yes for (C)(b), where is each restriction located? (Identify on a map, including PFA boundary.)

(F) Describe what is causing each restriction.
The following restrictions, due to the County's APFO could be identified in the future.

• Schools: Many of the County's school districts are over the designated school rated capacity due to population growth and there are limited funds for new school construction.
• Roads: Many restrictions are in the rural areas where some roads are not considered adequate by today's standards.
• Sewer: Collection systems are aging and need upgrades. Availability of treatment capacity is limited by water quality regulations.

• Water: Distribution systems are aging and need upgrades. Availability of water is limited by permitting and water quality regulations.
• Fire: There are no restrictions currently.

(G) If applicable, what is the proposed resolution of each restriction?
The following are proposed resolutions to future restrictions:

• Schools: The County has adopted an Alternative Mitigation Contribution option for development that pushes a school district over state rated capacity (up to 120%). Developers can opt to pay a fee to help mitigate the impact of new development on school districts. Changes to current Excise Tax regulations are being explored as a more equitably distributed alternative to the AMC. Funds collected go towards expanding capacity in the educational system.
• Roads: Restrictions are mitigated on a case-by-case basis.
• Sewer: Developers are required to install and/or upgrade infrastructure to service their development. There is no local control that can resolve the issue of diminishing availability due to State and Federal water quality regulations.
• Water: Same as Sewer
• Fire: No restrictions currently.

(H) If applicable, what is the estimated date to resolve each restriction?

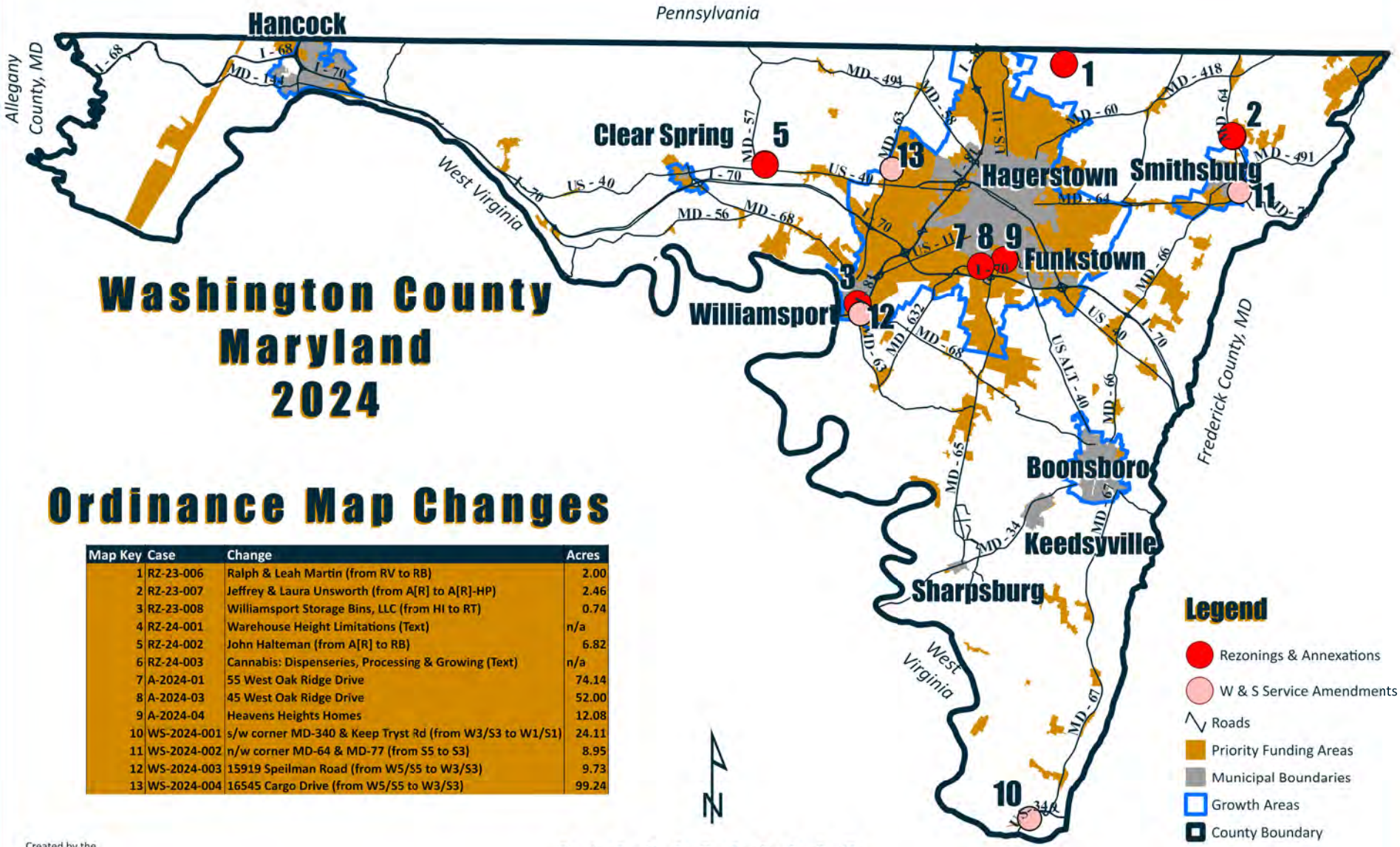
All categories are mitigated on a case-by-case basis and have no established timeline for resolution.

(I) If a development restriction has been addressed, what was the resolution that lifted each restriction? n/a

(J) If a development restriction has been addressed, when was each restriction lifted? n/a

Washington County

Maryland



Washington County Maryland 2024

Ordinance Map Changes

Map Key	Case	Change	Acres
1	RZ-23-006	Ralph & Leah Martin (from RV to RB)	2.00
2	RZ-23-007	Jeffrey & Laura Unsworth (from A[R] to A[R]-HP)	2.46
3	RZ-23-008	Williamsport Storage Bins, LLC (from HI to RT)	0.74
4	RZ-24-001	Warehouse Height Limitations (Text)	n/a
5	RZ-24-002	John Halteman (from A[R] to RB)	6.82
6	RZ-24-003	Cannabis: Dispenseries, Processing & Growing (Text)	n/a
7	A-2024-01	55 West Oak Ridge Drive	74.14
8	A-2024-03	45 West Oak Ridge Drive	52.00
9	A-2024-04	Heavens Heights Homes	12.08
10	WS-2024-001	s/w corner MD-340 & Keep Tryst Rd (from W3/S3 to W1/S1)	24.11
11	WS-2024-002	n/w corner MD-64 & MD-77 (from S5 to S3)	8.95
12	WS-2024-003	15919 Speilman Road (from W5/S5 to W3/S3)	9.73
13	WS-2024-004	16545 Cargo Drive (from W5/S5 to W3/S3)	99.24

Created by the Washington County Planning Department GIS May 2025

Document Path: U:\Views\MRH\Annual Reports\2024 WC Annual Report Map.aprx

Plan Review Projects Initialized - April 01, 2025 - April 30, 2025

Land Development Reviews								
Record #	**Type**	**Status**	**Opened Date**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
S-25-014	Final Plat	In Review	04/08/2025	4/25/2025	ELMWOOD SECTION 5D FINAL PLAT	9902 HIPPITY HOP COURT WILLIAMSPORT, MD 21795	FOX & ASSOCIATES INC	
FS-25-008	Forest Stand Delineation	Approved	04/08/2025	4/9/2025	SIMPLIFIED FOREST STAND DELINEATION PLAN FOR JAMES HOUSER	7207 DAM NUMBER 4 ROAD SHARPSBURG, MD 21782	APEX LAND SOLUTIONS LLC	HOUSER JAMES CALVIN JR HOUSER LISA IRENE
FS-25-009	Forest Stand Delineation	Revisions Required	04/08/2025	4/9/2025	FOREST STAND DELINEATION FOR ANTIETAM DRIVE WATER TRAIL PARK	DRIVE	FREDERICK SEIBERT & ASSOCIATES	WASH CO COMMISSIONERS BOARD OF
FS-25-010	Forest Stand Delineation	In Review	04/24/2025	4/24/2025	FOREST STAND DELINEATION FOR WOODSBORO, LLC	20432 LANDIS ROAD HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	
SIM25-020	IMA	Active	04/02/2025		11828 PARTRIDGE TRAIL HN	11828 PARTRIDGE TRAIL HAGERSTOWN, MD 21742	FOX & ASSOCIATES INC	BOLLINGER JOSEPH IRVING BOLLINGER LARA MICHELLE
SIM25-021	IMA	Active	04/02/2025		8842 SHARPSBURG PIKE FP	8842 SHARPSBURG PIKE FAIRPLAY, MD 21733	FREDERICK SEIBERT & ASSOCIATES	HAMBURG DEAN F HAMBURG SHERYL L
SIM25-022	IMA	Active	04/02/2025		2219 KAETZEL ROAD KN	2219 KAETZEL ROAD KNOXVILLE, MD 21758	COREY'S CONSTRUCTION	CAREY AUSTEN D
SIM25-023	IMA	Active	04/04/2025		8414 COUNTRY HOME LANE BO	8414 COUNTRY HOME LANE BOONSBORO, MD 21713	FREDERICK SEIBERT & ASSOCIATES	PETTYJOHN MARK E PETTYJOHN LORI S
SIM25-024	IMA	Requested	04/04/2025		17324 & 17326 LEXINGTON AVENUE HN	17324 LEXINGTON AVENUE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	RAB RENTALS LLC
SIM25-025	IMA	Requested	04/10/2025		18218 SUMMERLIN DRIVE HN	18218 SUMMERLIN DRIVE HAGERSTOWN, MD 21740	KENNY GARDNER	HUNNISETT RICHARD A TRUSTEE HUNNISETT PATRICIA L TRUSTEE
SIM25-026	IMA	Active	04/17/2025		12545 LICKING CREEK ROAD BP	12545 LICKING CREEK ROAD BIG POOL, MD 21711	APEX LAND SOLUTIONS LLC	MILLS JAMES LEE MILLS CORINA SUE
SIM25-027	IMA	Active	04/22/2025		3833 MILLS ROAD SH	3833 MILLS ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	INGRAM SHARON M MILLS EARL E TRUSTEES
SIM25-028	IMA	Active	04/28/2025		10417 FERGUSSON LANE WILLIAMSPORT SWM	10417 FERGUSSON LANE WILLIAMSPORT, MD 21795	FOX & ASSOCIATES INC	BOWMAN DONALD M JR BOWMAN JONE L
SIM25-029	IMA	Active	04/28/2025		ROWLAND ON HOLDINGS LLC		FREDERICK SEIBERT & ASSOCIATES	2019 FRENCH LANE LLC
SIM25-030	IMA	Active	04/30/2025		14512 ROUND HOUSE FARM LANE SM	14512 ROUND HOUSE FARM LANE SMITHSBURG, MD 21783	FREDERICK SEIBERT & ASSOCIATES	PETTYJOHN EVAN MARK
SIM25-031	IMA	Active	04/30/2025		18947 GEETING ROAD KE	18947 GEETING ROAD KEEDYSVILLE, MD 21756	FREDERICK SEIBERT & ASSOCIATES	RINEBOLT MICHAEL E RINEBOLT AMY L
SIM25-032	IMA	Active	04/30/2025		14928 GREEN LANE ROAD HK	14928 GREEN LANE ROAD HANCOCK, MD 21750	FREDERICK SEIBERT & ASSOCIATES	WILLIAMS NAJEE U LAUTURE WILLIAMS PATRICE B
OM-25-004	Ordinance Modification	In Review	04/30/2025	5/2/2025	CAROL L. GREGORY	7660 FAIRPLAY ROAD BOONSBORO, MD 21713	FOX & ASSOCIATES INC	GREGORY BRIAN S & CAROL L
PP-25-001	Preliminary Plat	In Review	04/07/2025	4/8/2025	ARBORVIEW PHASE 1	11009 SASHA BOULEV HAGERSTOWN, MD 21742	FOX & ASSOCIATES INC	DRB GROUP MID-ATLANTIC LLC

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Land Development Reviews								
Record #	**Type**	**Status**	**Opened Date**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
S-25-013	Preliminary-Final Plat	Pending	04/07/2025		PRELIMINARY/FINAL PLAT - LANDS OF CAROL L. GREGORY	7660 FAIRPLAY ROAD BOONSBORO, MD 21713	FOX & ASSOCIATES INC	GREGORY BRIAN S & CAROL L
PWA2025-002	PWA	Active	04/02/2025		SILVERMAN COMPANIES LLC SECTION II PHASE III - ROSEBANK WAY	20019 ROSEBANK WAY HAGERSTOWN, MD 21742	FREDERICK SEIBERT & ASSOCIATES	GHATTAS HOLDINGS LLC
SP-23-029.R01	Redline Revision	Approved	04/28/2025	4/28/2025	REDLINE REVISION TO CHANGE USE OF BLDG 1 AND ADD LOADING DOCKS.	132 OLD NATIONAL PIKE HAGERSTOWN, MD 21740	FREDERICK SEIBERT & ASSOCIATES	CM INVESTMENTS AND HOLDINGS LLC
SI-25-005	Simplified Plat	Approval Letter Issued	04/08/2025	4/8/2025	TAMMANY MANOR, SECT II, PARCEL A LOTS 206&207	16707 MOUNT WILLIAMS CIRCLE WILLIAMSPORT, MD 21795	FREDERICK SEIBERT & ASSOCIATES	KERNS STEVEN R & JENNIFER K
SI-25-006	Simplified Plat	In Review	04/30/2025	4/30/2025	MINER, PARCEL A	17123 MINER AVENUE WILLIAMSPORT, MD 21795	FREDERICK SEIBERT & ASSOCIATES	MINER HAROLD CLAUDE III
SP-25-009	Site Plan	Pending	04/07/2025		SITE PLAN FOR ANTIETAM DRIVE WATER TRAIL PARK	DRIVE	FREDERICK SEIBERT & ASSOCIATES	WASH CO COMMISSIONERS BOARD OF
SP-25-010	Site Plan	In Review	04/08/2025	4/8/2025	CNB BANK	13527 PENNSYLVANIA AVENUE HAGERSTOWN, MD 21742		NATIONAL RETAIL PROPERTIES LP
SP-25-011	Site Plan	In Review	04/09/2025	4/15/2025	SHEETZ - SMITHSBURG	11840 MAPLEVILLE ROAD SMITHSBURG, MD 21783	FREDERICK SEIBERT & ASSOCIATES	BOWMAN CAVETOWN LLC
SP-25-012	Site Plan	In Review	04/15/2025	4/17/2025	LEITERSBURG VOLUNTEER FIRE CO. PUBLIC ADMINISTRATION FACILITY	21425 LEITER STREET HAGERSTOWN, MD 21742	TRIAD ENGINEERING	FIRE CO LEITERSBURG VOLUNTEER
SP-25-013	Site Plan	In Review	04/17/2025	4/28/2025	SITE PLAN FOR HOPE VALLEY FARM	1055 VALLEY ROAD KNOXVILLE, MD 21758	FREDERICK SEIBERT & ASSOCIATES	SMITH CINDY ANNE WILLIAMS MARGARET ELIZABETH
SP-25-014	Site Plan	Pending	04/21/2025		CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS	1253 MOUNT AETNA ROAD HAGERSTOWN, MD 21742		CHURCH JESUS CHRIST OF LATTER DAY SAINTS
GP-25-008	Site Specific Grading Plan	In Review	04/11/2025	4/14/2025	BOWMAN - CAVETOWN WATERLINE	11840 MAPLEVILLE ROAD SMITHSBURG, MD 21783		BOWMAN CAVETOWN LLC
GP-25-009	Site Specific Grading Plan	In Review	04/24/2025	4/25/2025	HAGERSTOWN MASON RE LLC - REVISED	18410 ANYTIME CORNER HAGERSTOWN, MD 21742		HAGERSTOWN MASON RE LLC
SGP-25-029	Standard Grading Plan	Approved	04/01/2025	4/4/2025	TYLER LASSEN	2437 CHESTNUT GROVE ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	LASSEN TYLER
SGP-25-030	Standard Grading Plan	Approved	04/02/2025	4/8/2025	PRICE, CADE AND MEGAN	17326 BAKERSVILLE ROAD BOONSBORO, MD 21713	FREDERICK SEIBERT & ASSOCIATES	PRICE DALE A & PRICE WENDY SUE
SGP-25-031	Standard Grading Plan	Final Approvals	04/03/2025	4/8/2025	SARAH SALVATORE	11107 MAPLEVILLE ROAD HAGERSTOWN, MD 21742	FREDERICK SEIBERT & ASSOCIATES	SALVATORE SARAH HOSE SANDRA W
SGP-25-033	Standard Grading Plan	In Review	04/08/2025	4/14/2025	HARTLE - JORDAN RD	8851 JORDAN ROAD FAIRPLAY, MD 21733		HARTLE KIERSTIN HARTLE DRU

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Land Development Reviews								
Record #	**Type**	**Status**	**Opened Date**	**Accepted Date**	**Title**	**Location**	**Consultant**	**Owner**
SGP-25-034	Standard Grading Plan	Approved	04/15/2025	4/15/2025	AGRICULTURE EDUCATION CENTER - POLE BARN BUILDING	7303 SHARPSBURG PIKE BOONSBORO, MD 21713	FREDERICK SEIBERT & ASSOCIATES	WASH CO COMMISSIONERS BOARD OF
SGP-25-035	Standard Grading Plan	Pending	04/16/2025		GARAGE CONSTRUCTION/BED/BATH EXTENSION	13751 KRETSINGER ROAD SMITHSBURG, MD 21783		DELAUTER KEVIN M & DELAUTER MELISSA F
SGP-25-036	Standard Grading Plan	In Review	04/28/2025	5/12/2025	STUDENT TRADES FOUNDATION - 1510 SHERMAN AVENUE	1510 SHERMAN AVENUE HAGERSTOWN, MD 21740		WARREN MELISSA D
SGP-25-037	Standard Grading Plan	Final Approvals	04/29/2025	5/1/2025	PAM THOMPSON	13329 EDGEMONT ROAD SMITHSBURG, MD 21783	FREDERICK SEIBERT & ASSOCIATES	THOMPSON FRANKLIN E THOMPSON PAM A
SGP-25-038	Standard Grading Plan	In Review	04/30/2025	5/1/2025	BRADY DOYLE	4930 CHURCHEY ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	DOYLE BRADY A RYAN MOLLY K
SWCP25-006	Stormwater Concept Plan	In Review	04/10/2025	4/11/2025	SWEENEY BROS PROPERTIES, LLC	16619 HUNTERS GREEN PARKWA HAGERSTOWN, MD 21740		SWEENEY BROS PROPERTIES LLC
SWCP25-007	Stormwater Concept Plan	In Review	04/17/2025	4/23/2025	KEILY CATTLE	21312 CHEWSVILLE ROAD SMITHSBURG, MD 21783		MARTIN KEITH MARTIN BEVERLY
SSWP25-027	Stormwater Standard Plan	Approved	04/01/2025	4/4/2025	TYLER LASSEN	2437 CHESTNUT GROVE ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	LASSEN TYLER
SSWP25-028	Stormwater Standard Plan	Approved	04/02/2025	4/8/2025	PRICE, CADE AND MEGAN	17326 BAKERSVILLE ROAD BOONSBORO, MD 21713	FREDERICK SEIBERT & ASSOCIATES	PRICE DALE A & PRICE WENDY SUE
SSWP25-029	Stormwater Standard Plan	In Review	04/03/2025	4/8/2025	SARAH SALVATORE	11107 MAPLEVILLE ROAD HAGERSTOWN, MD 21742	FREDERICK SEIBERT & ASSOCIATES	SALVATORE SARAH HOSE SANDRA W
SSWP25-031	Stormwater Standard Plan	In Review	04/08/2025	4/14/2025	HARTLE - JORDAN RD	8851 JORDAN ROAD FAIRPLAY, MD 21733		HARTLE KIERSTIN HARTLE DRU
SSWP25-032	Stormwater Standard Plan	Approved	04/15/2025	4/15/2025	AGRICULTURE EDUCATION CENTER - POLE BARN BUILDING	7303 SHARPSBURG PIKE BOONSBORO, MD 21713	FREDERICK SEIBERT & ASSOCIATES	WASH CO COMMISSIONERS BOARD OF
SSWP25-033	Stormwater Standard Plan	In Review	04/29/2025	5/1/2025	PAM THOMPSON	13329 EDGEMONT ROAD SMITHSBURG, MD 21783	FREDERICK SEIBERT & ASSOCIATES	THOMPSON FRANKLIN E THOMPSON PAM A
SSWP25-034	Stormwater Standard Plan	In Review	04/30/2025	5/1/2025	BRADY DOYLE	4930 CHURCHEY ROAD SHARPSBURG, MD 21782	FREDERICK SEIBERT & ASSOCIATES	DOYLE BRADY A RYAN MOLLY K
TIS-25-002	Traffic Impact Study	Pending	04/02/2025		ARBORVIEW HOUSING DEVELOPMENT (FORMERLY BLACK ROCK PUD)	11013 SASHA BOULEV HAGERSTOWN, MD 21742	LENHART TRAFFIC CONSULTING INC.	
TIS-25-003	Traffic Impact Study	Pending	04/09/2025		LABEL LANE MANUFACTURING		STREET TRAFFIC STUDIES, LTD	DFLP SPE LLC
TYU-25-010	Two Year Update	In Review	04/24/2025	4/24/2025	REDLAND BRICK INC. CUSHWA PLANT	NORTHSIDE OF CLEAR SPRING ROAD	FREDERICK SEIBERT & ASSOCIATES	BRICKWORKS EDDIE ACQUISITION CORP

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Permits Reviews							
Record #	Type	Status	Opened Date	Title	Location	Consultant	Owner
2025-01436	Entrance Permit	In Progress	04/01/2025	STICK BUILT HOME	S-03-049 20406 TROUT DRIVE, LOT D13		Kellgard General Contracting LLC
2025-01464	Entrance Permit	Approved	04/02/2025	STICK BUILT HOME	S-25-004, 17326 BAKERSVILLE ROAD, LOT 1		PRICE DALE A & PRICE WENDY SUE
2025-01475	Entrance Permit	Approved	04/03/2025	STICK BUILT HOME	S-04-077 5621 AMOS REEDER ROAD, LOT 2		STANG RICHARD STANG MAUREEN
2025-01492	Entrance Permit	Pending	04/04/2025	STICK BUILT HOME	LOR 2437 CHESTNUT GROVE	KNJ CONSTRUCTION, LLC	LASSEN TYLER
2025-01616	Entrance Permit	Approved	04/11/2025	FOREST HARVEST	7836 NECK ROAD	MILLER BROTHERS FOREST PRODUCTS	POFFENBERGER THERESA
2025-01649	Entrance Permit	In Progress	04/14/2025	MODULAR HOME	S-13-030 8851 JORAN CIRCLE, LOT 2	COREY'S CONSTRUCTION	HARTLE KIERSTIN HARTLE DRU
2025-01968	Entrance Permit	In Progress	04/30/2025	STICK BUILT HOME	S-23-063 13329 EDGEMONT ROAD	EVERGREEN RIDGE ENTERPRISES, LLC	THOMPSON FRANKLIN E THOMPSON PAM A
2025-01627	Entrance Permit	Review	04/11/2025	COMMERCIAL	22637 CAVETOWN CHURCH ROAD		MARTIN RONALD B
2025-01534	Entrance Permit	Review	04/08/2025	PUBLIC	115 EMMERT ROAD		115 EMMERT LLC
2025-01540	Entrance Permit	Review	04/08/2025	COMMERCIAL	SP-21-036 FRENCH LANE		2019 FRENCH LANE LLC
2025-01724	Floodplain Permit	Pending Information	04/17/2025	FLOODPLAIN	LOR 2620 ROHRERSVILLE ROAD		JMMR PROPERTIES LLC
2025-01965	Floodplain Permit	Review	04/30/2025	RESIDENTIAL ADDITION	S-15-009 10835 HERSHEY DRIVE, LOT 570	DECK AND SHED PROS LLC	BAKER WAYMAN EUGENE BAKER JANETTE ELAINE
2025-01437	Grading Permit	In Progress	04/01/2025	STICK BUILT HOME	S-03-049 20406 TROUT DRIVE, LOT D13		Kellgard General Contracting LLC
2025-01494	Grading Permit	Pending	04/04/2025	STICK BUILT HOME	LOR 2437 CHESTNUT GROVE	KNJ CONSTRUCTION, LLC	LASSEN TYLER
2025-01514	Grading Permit	Approved	04/07/2025	STICK BUILT HOME	S-25-004, 17326 BAKERSVILLE ROAD, LOT 1	OLIVER HOMES	PRICE DALE A & PRICE WENDY SUE
2025-01590	Grading Permit	Approved	04/10/2025	LYLES DEVELOPMENT	S-99-098 20019 ROSEBANK WAY, LOT 2		DAVID C LYLES DEVELOPERS LLC 19638 LEITERSBURG PIKE
2025-01605	Grading Permit	In Progress	04/10/2025	STICK BUILT HOME	S-00-071 13818 PENNSYLVANIA AVENUE, LOT C	FOUNTAINHEAD PROPERTIES MANAGEMENT, INC.	FOUNTAINHEAD PROPERTIES MNGT INC
2025-01650	Grading Permit	In Progress	04/14/2025	MODULAR HOME	S-13-030 8851 JORAN CIRCLE, LOT 2	COREY'S CONSTRUCTION	HARTLE KIERSTIN HARTLE DRU
2025-01661	Grading Permit	Pending Information	04/14/2025	AGRICULTURE EDUCATION CENTER - POLE BARN BUILDING	7303 SHARPSBURG PIKE BOONSBORO, MD 21713		WASH CO COMMISSIONERS BOARD OF
2025-01722	Grading Permit	In Progress	04/17/2025	STICK BUILT HOME	S-04-77 5621 AMOS REEDER ROAD, LOT 1		STANG RICHARD STANG RICHARD
2025-01873	Grading Permit	In Progress	04/25/2025	RECREATIONAL	TWN-23-005 20 WEST POPULAR STREET, LOTS 40 & 42		FUNKSTOWN TOWN OF
2025-01969	Grading Permit	In Progress	04/30/2025	STICK BUILT HOME	S-23-063 13329 EDGEMONT ROAD	EVERGREEN RIDGE ENTERPRISES, LLC	THOMPSON FRANKLIN E THOMPSON PAM A
2025-01558	Grading Permit	Approved	04/09/2025	10417 FERGUSSON LANE	SP-24-025 10417 FERGUSSON LANE		BOWMAN DONALD M JR BOWMAN JONE L
2025-01522	Grading Permit	Review	04/07/2025	FRENCH LANE/ROLAND ON HOLDINGS	SP-21-036 FRENCH LANE		2019 FRENCH LANE LLC
2025-01566	Utility Permit	Review	04/09/2025	HAGERSTOWN WATER DEPARTMENT	20856 EMERALD DRIVE	CITY OF HAGERSTOWN (WATER DEPT)	DAVIS STEVEN W & DAVIS LAURA S
2025-01567	Utility Permit	Review	04/09/2025	HAGERSTOWN WATER DEPARTMENT	INTERSECTION NEAR WEST OAK RIDGE DRIVE AND SOUTH POTOMAC STREET	CITY OF HAGERSTOWN (WATER DEPT)	MANGOLD ROBIN ET AL
2025-01621	Utility Permit	Approved	04/11/2025	POTOMAC EDISON	20133 TROVINGER MILL ROAD	POTOMAC EDISON	BOWERS WILLA KAY

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Permits Reviews							
Record #	Type	Status	Opened Date	Title	Location	Consultant	Owner
2025-01623	Utility Permit	Approved	04/11/2025	POTOMAC EDISON	20139 TROVINGER MILL ROAD	POTOMAC EDISON	CLEVENGER CRAIG & CLEVENGER MICHELLE
2025-01824	Utility Permit	Review	04/23/2025	ANTIETAM BROADBAND	9620 CAFOXA DRIVE	ANTIETAM CABLE TELEVISION INC	HOOD CRAIG MORGAN HOOD MARY
2025-01922	Utility Permit	Approved	04/29/2025	POTOMAC EDISON	20410 TROUT DRIVE	POTOMAC EDISON	KELLGARD GENERAL CONTRACTING LLC
2025-01430	Utility Permit	Approved	04/01/2025	COMCAST	NORTHRIDGE DRIVE, NORTH MEADOW ROAD, NORTHVALLEY DRIVE, NORTHCREST ROAD, MERILEW COURT, SWEET VALE DRIVE, MESA TERRACE, DILLER DRIVE AND WAVY HILL AVENUE.	COMCAST	MILLER RODNEY L MILLER SUSAN R
2025-01435	Utility Permit	Review	04/01/2025	COMCAST	18620 MAUGANS AVENUE, ROYAL ROAD, PETMAR CIRCLE, SPRIGGS ROAD, AND CRAYTON BOULEVARD.	COMCAST	CRUZ JORGE E CRUZ ODICELA S
2025-01560	Utility Permit	Review	04/09/2025	HAGERSTOWN WATER DEPARTMENT	11209 MARBERN ROAD	CITY OF HAGERSTOWN (WATER DEPT)	JIANG TONGHANG ZHANG YUN
2025-01614	Utility Permit	Review	04/11/2025	COMCAST	11008 HICKORY SCHOOL ROAD AND GROSH AVENUE	COMCAST	MELBY KENNETH J JR & KERRI L
2025-01615	Utility Permit	Review	04/11/2025	COMCAST	11023 HICKORY SCHOOL ROAD	COMCAST	DAGENHART TINA LORAINE
2025-01674	Utility Permit	Approved	04/15/2025	ANTIETAM BROADBAND	18706 DOVER DRIVE	ANTIETAM CABLE TELEVISION INC	MCCLURE SANDRA
2025-01684	Utility Permit	Approved	04/15/2025	ANTIETAM BROADBAND	19246 SHARON DRIVE	ANTIETAM CABLE TELEVISION INC	PABALAN ERICKSON LA SALLE PABALAN ANNIE A
2025-01697	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	SERENITY DRIVE, AND MATTLEY DRIVE	ANTIETAM CABLE TELEVISION INC	KEYSER CHARLES S
2025-01698	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	11800 INDIAN LANE, JEFFERY DRIVE, CLEARVIEW COURT, TRENGAIL AND CLAY ROAD.	ANTIETAM CABLE TELEVISION INC	ABRAHAM AUSTIN
2025-01700	Utility Permit	Review	04/16/2025	ANTIETAM BROADBAND	BAYER DRIVE AND AUBURN DRIVE	ANTIETAM CABLE TELEVISION INC	DRAGNICH DAVID SENNING ANNE
2025-01703	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	21208 CHEWSVILLE ROAD	ANTIETAM CABLE TELEVISION INC	ONEAL JOSHUA LEE ONEAL MORGAN
2025-01704	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	ORIOLE DRIVE, WREN LANE, MEADOWLARK AVENUE, BLUEBIRD AVENUE, PARTRIDGE TRAIL, CARDINAL AVENUE.	ANTIETAM CABLE TELEVISION INC	FRITTS WILLIAM F II & FRITTS REBECCA R
2025-01705	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	PIONEER DRIVE, CIVIC CIRCLE, AND BERRY CIRCLE.	ANTIETAM CABLE TELEVISION INC	ARC OF WASHINGTON COUNTY INC
2025-01706	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	BREEZEWOOD DRIVE, LEBECK ROAD, SYCAMORE DRIVE AND TROVINGER MILL ROAD NEAR HOPSCOTCH LANE.	ANTIETAM CABLE TELEVISION INC	WILES MATTHEW AUSTIN & WILES TRACEY MARIE
2025-01707	Utility Permit	Approved	04/16/2025	ANTIETAM BROADBAND	BEAVERBROOK DRIVE, CECIL COURT, ALLEGANY COURT, MONTGOMERY COURT, ST. MARYS COURT, WICOMICO COURT.	ANTIETAM CABLE TELEVISION INC	GLEASON JAMES B JR
2025-01729	Utility Permit	Approved	04/17/2025	COMCAST	7759 - 7325 FAIRPLAY ROAD	COMCAST	READ LISA D THOMAS READ DENNIS K
2025-01732	Utility Permit	Approved	04/17/2025	COMCAST	8547 COUNTRY HOME LANE	COMCAST	KIBLER JACOLYN KIBLER MICHAEL

Plan Review Projects Initialized - April 01, 2025 - April 30, 2025

Permits Reviews							
Record #	**Type**	**Status**	**Opened Date**	**Title**	**Location**	**Consultant**	**Owner**
2025-01878	Utility Permit	Review	04/25/2025	COMCAST	3 ATLANTIC DRIVE AND 111 EASTVIEW DRIVE	COMCAST	BROWN FLOYD B BROWN MARIA T

Plan Review Projects Initialized - April 01, 2025 - April 30, 2025

	Type	Total
LandDev Total by Group: 53	Final Plat	1
	Forest Stand Delineation	3
	IMA	13
	Ordinance Modification	1
	Preliminary Plat	1
	Preliminary-Final Plat	1
	PWA	1
	Redline Revision	1
	Simplified Plat	2
	Site Plan	6
	Site Specific Grading Plan	2
	Standard Grading Plan	9
	Stormwater Concept Plan	2
	Stormwater Standard Plan	7
	Traffic Impact Study	2
	Two Year Update	1
Permits Total by Group: 48	Entrance Permit	10
	Floodplain Permit	2
	Grading Permit	12
	Utility Permit	24
Total		**101**

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	Total	Prior Appr.	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Airport												
Air Traffic Control Tower	13,000,000	778,000	12,222,000	0	0	0	0	0	0	0	0	0
Airport Systemic Improvement Projects	3,104,559	1,541,559	288,000	205,000	100,000	100,000	100,000	166,000	156,000	160,000	123,000	165,000
Terminal Building - East Expansion	7,803,000	722,000	7,081,000	0	0	0	0	0	0	0	0	0
Capital Equipment - Airport	6,986,620	1,016,620	634,000	40,000	3,717,000	261,000	55,000	300,000	145,000	18,000	800,000	0
Runway 2/20 Rehabilitation and Lighting	3,921,000	3,847,000	74,000	0	0	0	0	0	0	0	0	0
T-Hangar Taxi Lanes Rehabilitation	2,756,000	1,512,000	1,244,000	0	0	0	0	0	0	0	0	0
Taxiway A Rehabilitation	4,184,000	335,000	168,000	3,681,000	0	0	0	0	0	0	0	0
Taxiway H Rehabilitation	1,318,000	108,000	1,210,000	0	0	0	0	0	0	0	0	0
Land Acquisition-Airport	9,430,000	5,430,000	0	4,000,000	0	0	0	0	0	0	0	0
Terminal Parking Lot/Access Road Improvements	1,275,000	0	275,000	400,000	600,000	0	0	0	0	0	0	0
Fuel Farm Relocation/Replacement	5,000,000	0	0	500,000	4,500,000	0	0	0	0	0	0	0
Airport Master Plan Update	2,000,000	0	0	0	2,000,000	0	0	0	0	0	0	0
Runway 9 MALSR	1,800,000	0	0	0	180,000	1,620,000	0	0	0	0	0	0
Salt and Material Storage Facility	250,000	0	0	0	250,000	0	0	0	0	0	0	0
Snow Removal Equipment Storage Building Expansion	4,800,000	0	0	0	0	480,000	4,320,000	0	0	0	0	0
Taxiway G Rehabilitation	3,130,000	0	0	0	0	0	0	313,000	2,817,000	0	0	0
Airport	**70,758,179**	**15,290,179**	**23,196,000**	**8,826,000**	**11,347,000**	**2,461,000**	**4,475,000**	**779,000**	**3,118,000**	**178,000**	**923,000**	**165,000**
Bridges												
Bridge Inspection and Inventory	840,682	186,682	24,000	0	150,000	200,000	25,000	0	225,000	0	30,000	0
Keedysville Road Bridge W5651	3,764,600	3,014,600	750,000	0	0	0	0	0	0	0	0	0
Bridge Scour Repairs	78,330	28,330	0	0	50,000	0	0	0	0	0	0	0
Cleaning & Painting of Steel Bridges	264,717	114,717	0	0	0	0	150,000	0	0	0	0	0
Halfway Boulevard Bridges W0912	6,434,000	5,684,000	750,000	0	0	0	0	0	0	0	0	0
Gardenhour Road Bridge W2431	3,695,000	775,000	1,920,000	1,000,000	0	0	0	0	0	0	0	0
Stone Masonry Bridge Repairs	100,000	50,000	0	0	50,000	0	0	0	0	0	0	0
Swope Road Culvert 16/07	150,000	0	150,000	0	0	0	0	0	0	0	0	0
High Germany Road Bridge W0011	2,109,000	0	738,000	989,000	382,000	0	0	0	0	0	0	0
Appletown Road Bridge W2184	979,000	0	0	0	0	407,000	572,000	0	0	0	0	0
Ashton Road Culvert 04/06	559,000	0	0	0	0	0	42,000	517,000	0	0	0	0
Bowie Road Culvert	150,000	0	150,000	0	0	0	0	0	0	0	0	0
Burnside Bridge Road Culvert 01/03	484,000	0	0	0	0	0	0	16,000	468,000	0	0	0
Draper Road Culvert 04/07	589,000	0	0	0	0	37,000	552,000	0	0	0	0	0
Draper Road Culvert 04/08	530,000	0	0	0	0	0	0	50,000	480,000	0	0	0
Greenbrier Road Culvert 16/14	268,000	0	0	0	0	0	0	268,000	0	0	0	0
Gruber Road Bridge 04/10	396,000	0	0	0	0	0	10,000	386,000	0	0	0	0
Harpers Ferry Road Culvert 11/02	1,043,000	0	0	0	434,000	609,000	0	0	0	0	0	0
Henline Road Culvert 05/05	200,000	0	0	0	200,000	0	0	0	0	0	0	0
Hoffman's Inn Road Culvert 05/06	150,000	0	0	0	0	150,000	0	0	0	0	0	0
Long Hollow Road Culvert 05/07	100,000	0	0	0	100,000	0	0	0	0	0	0	0
Mercersburg Road Culvert 04/16	771,000	0	0	0	340,000	431,000	0	0	0	0	0	0
Poplar Grove Road Bridge W2432	1,955,000	0	0	0	0	0	0	100,000	1,855,000	0	0	0
Prices Mill Bridge	1,150,000	0	0	0	1,150,000	0	0	0	0	0	0	0
Remsburg Road Culvert	150,000	0	150,000	0	0	0	0	0	0	0	0	0
Rinehart Road Culvert 14/03	200,000	0	0	200,000	0	0	0	0	0	0	0	0
Taylors Landing Road Bridge W7101	1,379,000	0	0	0	0	0	0	35,000	510,000	834,000	0	0
Yarrowsburg Road Bridge W6191	2,102,000	0	0	0	0	620,000	1,482,000	0	0	0	0	0
Bridges Total	**30,591,329**	**9,853,329**	**4,632,000**	**2,189,000**	**2,856,000**	**2,454,000**	**2,833,000**	**1,372,000**	**3,538,000**	**834,000**	**30,000**	**0**

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	Total	Prior Appr.	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Drainage												
Stream Restoration at Various Locations	1,891,466	891,466	0	250,000	0	0	0	350,000	0	400,000	0	0
Stormwater Retrofits	15,399,330	6,049,330	900,000	900,000	900,000	900,000	900,000	900,000	950,000	1,000,000	1,000,000	1,000,000
Drainage Improvements at Various Locations	862,026	262,026	50,000	50,000	50,000	50,000	50,000	50,000	75,000	75,000	75,000	75,000
Fort Ritchie Dam Repairs	250,000	100,000	150,000	0	0	0	0	0	0	0	0	0
Broadfording Church Road Culvert	231,000	0	57,000	174,000	0	0	0	0	0	0	0	0
Harpers Ferry Road Drainage, 3600 Block	525,000	0	75,000	450,000	0	0	0	0	0	0	0	0
Shank Road Drainage	214,000	0	0	214,000	0	0	0	0	0	0	0	0
Draper Road Drainage Improvements	609,000	0	0	0	0	259,000	350,000	0	0	0	0	0
Trego Mountain Road Drainage	415,000	0	0	0	0	0	0	0	0	415,000	0	0
Drainage Total	**20,396,822**	**7,302,822**	**1,232,000**	**2,038,000**	**950,000**	**1,209,000**	**1,300,000**	**1,300,000**	**1,025,000**	**1,890,000**	**1,075,000**	**1,075,000**
Education												
Board of Education												
Capital Maintenance - BOE	102,635,298	23,603,298	6,670,000	11,394,000	3,436,000	9,184,000	3,468,000	6,048,000	2,689,000	2,912,000	15,113,000	18,118,000
Downsville Pike Elementary School	51,141,000	1,500,000	23,170,000	23,169,000	3,302,000	0	0	0	0	0	0	0
Elementary School 2	51,664,000	0	0	0	3,455,000	19,286,000	19,470,000	9,453,000	0	0	0	0
Elementary School 3	100,000	0	0	0	0	0	0	0	0	0	0	100,000
Jonathan Hager Elementary School Addition	23,586,000	0	0	0	0	0	500,000	500,000	11,032,000	10,642,000	912,000	0
Board of Education	**229,126,298**	**25,103,298**	**29,840,000**	**34,563,000**	**10,193,000**	**28,470,000**	**23,438,000**	**16,001,000**	**13,721,000**	**13,554,000**	**16,025,000**	**18,218,000**
Hagerstown Community College												
ARCC Renovation	16,925,000	0	200,000	100,000	0	0	0	1,738,000	9,756,000	1,702,000	3,429,000	0
ASA Renovation	17,562,000	0	125,000	0	0	0	0	0	0	1,233,000	12,717,000	3,487,000
ATC Renovation	13,613,000	0	9,883,000	1,200,000	1,200,000	1,330,000	0	0	0	0	0	0
Career Programs Roof Replacement	4,953,000	0	0	150,000	0	0	4,379,000	424,000	0	0	0	0
Multi-Roof Project	2,000,000	1,000,000	0	500,000	0	500,000	0	0	0	0	0	0
Wellness Center	11,100,000	0	0	750,000	10,350,000	0	0	0	0	0	0	0
Hagerstown Community College	**66,153,000**	**1,000,000**	**10,208,000**	**2,700,000**	**11,550,000**	**1,830,000**	**4,379,000**	**2,162,000**	**9,756,000**	**2,935,000**	**16,146,000**	**3,487,000**
Public Libraries												
Systemic Projects - Library	570,000	60,000	60,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Williamsport Library Replacement	17,444,060	7,060	761,000	402,000	1,581,000	10,867,000	3,826,000	0	0	0	0	0
Public Libraries	**18,014,060**	**67,060**	**821,000**	**452,000**	**1,631,000**	**10,917,000**	**3,876,000**	**50,000**	**50,000**	**50,000**	**50,000**	**50,000**
Education Total	**313,293,358**	**26,170,358**	**40,869,000**	**37,715,000**	**23,374,000**	**41,217,000**	**31,693,000**	**18,213,000**	**23,527,000**	**16,539,000**	**32,221,000**	**21,755,000**
General Government												
Cost of Bond Issuance	1,430,000	90,000	125,000	127,000	129,000	131,000	133,000	135,000	137,000	139,000	141,000	143,000
Contingency - General Fund	4,697,562	2,354,562	750,000	0	0	0	0	0	129,000	0	0	1,464,000
Systemic Improvements - Building	16,772,761	2,272,761	1,000,000	1,250,000	1,500,000	1,250,000	1,000,000	1,000,000	1,500,000	2,000,000	2,000,000	2,000,000
Facilities Roof Repairs	1,634,317	534,317	200,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Stormwater Management and Watershed Services Office Building	200,000	200,000	0	0	0	0	0	0	0	0	0	0
Circuit Courthouse	106,000,000	2,000,000	0	4,000,000	4,000,000	0	0	49,000,000	47,000,000	0	0	0
Information Systems Replacement Program	3,022,349	647,349	350,000	250,000	250,000	250,000	150,000	150,000	175,000	250,000	275,000	275,000
Financial System Management & Upgrades	709,297	559,297	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
County Wireless Infrastructure	2,736,000	1,235,000	420,000	266,000	441,000	374,000	0	0	0	0	0	0
Property Management & Demo of Various County Properties	42,575	17,575	25,000	0	0	0	0	0	0	0	0	0
General - Equipment and Vehicle Replacement Program	1,789,338	789,338	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
General Government Total	**139,034,199**	**10,700,199**	**2,985,000**	**6,108,000**	**6,535,000**	**2,220,000**	**1,498,000**	**50,500,000**	**49,156,000**	**2,604,000**	**2,631,000**	**4,097,000**
Parks and Recreation												
Black Rock Capital Equipment Program	573,176	119,176	100,000	37,000	37,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000

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	Total	Prior Appr.	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Black Rock Bunker Rehabilitation	100,000	0	100,000	0	0	0	0	0	0	0	0	0
Hardcourt Playing Surfaces	3,050,000	50,000	1,500,000	500,000	500,000	50,000	50,000	75,000	75,000	75,000	75,000	100,000
North Central County Park	15,043,000	2,642,000	81,000	500,000	800,000	3,420,000	3,600,000	800,000	800,000	800,000	800,000	800,000
Park Equipment/Surfacing Replacement, Various Locations	1,935,156	421,156	1,339,000	0	0	0	0	0	0	0	175,000	0
Parking Lot Repair/Overlay, Various Locations	718,289	68,289	50,000	200,000	0	100,000	0	100,000	0	100,000	0	100,000
Antietam Creek Water Trail	537,793	387,793	50,000	100,000	0	0	0	0	0	0	0	0
MLK Gymnasium Upgrade	3,075,000	1,950,000	1,125,000	0	0	0	0	0	0	0	0	0
Regional Park Walking/Hiking Trail	1,011,100	811,100	200,000	0	0	0	0	0	0	0	0	0
Marty Snook Park Pool Renovation and Accessible Entrance	1,200,000	125,000	800,000	275,000	0	0	0	0	0	0	0	0
Clear Spring Park Walking Trail	375,000	0	0	0	0	0	0	0	375,000	0	0	0
Conococheague Creek Water Trail	300,000	0	0	0	0	180,000	120,000	0	0	0	0	0
Doubs Woods Disc Golf	50,000	0	0	0	0	0	0	50,000	0	0	0	0
Kemps Mill Park Trails	100,000	0	0	0	100,000	0	0	0	0	0	0	0
Marty Snook Park Multimodal Trail and Parking	700,000	0	0	100,000	300,000	300,000	0	0	0	0	0	0
Mt. Briar Wetland Preserve Trails and Conservation Area	150,000	0	150,000	0	0	0	0	0	0	0	0	0
Park Entrances and Security Upgrades	300,000	0	100,000	100,000	100,000	0	0	0	0	0	0	0
Pen Mar Interpretive Center/Vending Machine Kiosk	40,000	0	40,000	0	0	0	0	0	0	0	0	0
Pen Mar-Fort Ritchie-Cascade Trail Connection	290,000	0	0	50,000	120,000	0	120,000	0	0	0	0	0
Pen Mar Park Hotel Sites Redevelopment	650,000	0	0	0	0	0	0	0	99,000	51,000	200,000	300,000
Regional Park Dog Park	80,000	0	0	0	0	0	0	0	0	80,000	0	0
Parks and Recreation	**30,278,514**	**6,574,514**	**5,635,000**	**1,862,000**	**1,957,000**	**4,090,000**	**3,930,000**	**1,065,000**	**1,389,000**	**1,146,000**	**1,290,000**	**1,340,000**
Public Safety												
Detention Center - Systemic Projects	7,060,230	1,340,230	1,100,000	1,200,000	500,000	500,000	500,000	550,000	560,000	250,000	560,000	0
Patrol Services Relocation Renovation	28,215,452	20,215,452	3,500,000	4,500,000	0	0	0	0	0	0	0	0
Public Safety CAD System Replacement	1,320,765	120,765	1,200,000	0	0	0	0	0	0	0	0	0
Communication Tower(s) Various	686,806	466,806	0	110,000	0	110,000	0	0	0	0	0	0
Portable Radio Replacement Program - Sheriff	2,647,944	278,944	118,000	200,000	300,000	400,000	500,000	169,000	169,000	171,000	171,000	171,000
Portable Radio Replacement Program - Emergency Services	9,835,600	3,335,600	300,000	400,000	500,000	600,000	700,000	800,000	800,000	800,000	800,000	800,000
PSTC Tactical Village / Simulation Training Area	24,034,550	5,584,550	200,000	3,750,000	0	0	1,960,000	4,043,000	4,143,000	4,354,000	0	0
Law Enforcement - Vehicle & Equipment Replacement Program	18,578,317	1,998,317	1,520,000	1,160,000	1,200,000	1,240,000	1,280,000	1,320,000	1,960,000	2,100,000	2,300,000	2,500,000
Emergency Services Equipment & Vehicle Program	8,708,030	4,348,030	550,000	550,000	550,000	550,000	355,000	360,000	365,000	375,000	350,000	355,000
Canteen/Rehab Unit Replacement	708,000	186,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	62,000	62,000	62,000
Incident Safety Officer Vehicle Replacement Program	214,000	48,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	18,000	18,000	18,000
Detention Center Renovation - Women's Facility	21,000,000	0	0	0	5,000,000	5,000,000	3,000,000	2,000,000	2,000,000	2,000,000	2,000,000	0
Emergency Services Air Unit Station Expansion	5,050,000	0	350,000	0	0	0	0	500,000	0	100,000	2,000,000	2,100,000
Police Indoor Firing Range	8,250,000	0	0	0	0	0	0	250,000	250,000	250,000	3,500,000	4,000,000
Public Safety	**136,309,694**	**37,922,694**	**8,902,000**	**11,934,000**	**8,114,000**	**8,464,000**	**8,359,000**	**10,056,000**	**10,311,000**	**10,480,000**	**11,761,000**	**10,006,000**
Railroad												
Railroad Crossing Improvements	2,490,450	936,450	0	200,000	0	250,000	0	300,000	0	396,000	0	408,000
Railroad	**2,490,450**	**936,450**	**0**	**200,000**	**0**	**250,000**	**0**	**300,000**	**0**	**396,000**	**0**	**408,000**
Road Improvement												
Intersection & Signal Improvements	2,405,611	905,611	0	0	750,000	0	0	750,000	0	0	0	0
Transportation ADA	2,111,123	611,123	100,000	100,000	100,000	100,000	100,000	100,000	600,000	100,000	100,000	100,000
Pavement Maintenance and Rehab Program	80,877,416	9,467,416	5,660,000	6,000,000	6,000,000	6,000,000	3,723,000	8,277,000	8,500,000	9,000,000	9,000,000	9,250,000
Longmeadow Road	2,855,000	0	310,000	432,000	518,000	845,000	750,000	0	0	0	0	0
Eastern Boulevard Extended	10,603,000	0	300,000	1,000,000	1,200,000	1,324,000	6,779,000	0	0	0	0	0
Eastern Boulevard Widening Phase II	7,672,300	3,250,300	775,000	647,000	1,000,000	2,000,000	0	0	0	0	0	0

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	Total	Prior Appr.	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Eastern Blvd at Antietam Drive Improvements	5,506,000	4,506,000	1,000,000	0	0	0	0	0	0	0	0	0
Wright Road	4,768,000	2,798,000	500,000	799,000	671,000	0	0	0	0	0	0	0
Burnside Bridge Road Spot Improvements	544,000	0	0	0	0	0	0	0	0	544,000	0	0
E. Oak Ridge Drive/South Pointe Signal	461,000	0	0	0	0	0	0	0	0	0	461,000	0
Mt Aetna Road Spot Improvements	2,422,000	0	0	0	0	0	935,000	1,487,000	0	0	0	0
Robinwood Drive Sidewalk Extension	750,000	0	0	250,000	500,000	0	0	0	0	0	0	0
Rockdale Road and Independence Road Spot Improvements	1,025,000	0	0	0	0	0	0	450,000	575,000	0	0	0
Sandstone Drive Spot Improvements	500,000	0	0	0	0	0	500,000	0	0	0	0	0
Highway Maintenance Shop - Western Section	600,000	374,000	226,000	0	0	0	0	0	0	0	0	0
Highway - Vehicle & Equipment Replacement Program	19,580,461	2,242,461	1,321,000	1,424,000	1,502,000	1,585,000	1,672,000	1,764,000	1,861,000	1,963,000	2,071,000	2,175,000
Highway Western Section - Fuel Tank Replacement	1,151,000	847,000	304,000	0	0	0	0	0	0	0	0	0
Road Improvement	**143,831,911**	**25,001,911**	**10,496,000**	**10,652,000**	**12,241,000**	**11,854,000**	**14,459,000**	**12,828,000**	**11,536,000**	**11,607,000**	**11,632,000**	**11,525,000**
Solid Waste												
Contingency - Solid Waste	699,080	89,080	35,000	60,000	60,000	62,000	63,000	64,000	65,000	66,000	67,000	68,000
40 West Landfill - Cell 5 Construction	11,190,000	4,412,000	6,778,000	0	0	0	0	0	0	0	0	0
40 West Landfill Pretreatment Facility	11,120,000	0	0	520,000	5,300,000	5,300,000	0	0	0	0	0	0
SW Equipment & Vehicle Replacement	1,402,022	242,022	200,000	205,000	205,000	100,000	75,000	75,000	75,000	75,000	75,000	75,000
Asphalt Repairs - 40 West	1,756,000	0	0	1,136,000	620,000	0	0	0	0	0	0	0
Transfer Station Upgrades	2,000,000	0	0	2,000,000	0	0	0	0	0	0	0	0
40 West Landfill - Cell 8 Construction	13,724,000	0	0	0	0	0	6,404,000	7,320,000	0	0	0	0
40 West Partial Capping	29,814,000	0	0	0	0	0	0	0	0	0	15,129,000	14,685,000
Solid Waste	**71,705,102**	**4,743,102**	**7,013,000**	**3,921,000**	**6,185,000**	**5,462,000**	**6,542,000**	**7,459,000**	**140,000**	**141,000**	**15,271,000**	**14,828,000**
Transit												
Vehicle Preventive Maintenance	4,495,307	495,307	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000
Transportation Development Plan	225,000	125,000	0	0	0	100,000	0	0	0	0	0	0
Fixed Route Bus Replacement Program	7,268,111	1,418,111	900,000	0	0	0	0	0	0	2,700,000	0	2,250,000
ADA Bus Replacement	632,305	2,305	105,000	0	210,000	0	0	105,000	0	210,000	0	0
1000 W. Washington St. Renovation/Expansion	23,340,000	0	2,823,000	20,517,000	0	0	0	0	0	0	0	0
Transit	**35,960,723**	**2,040,723**	**4,228,000**	**20,917,000**	**610,000**	**500,000**	**400,000**	**505,000**	**400,000**	**3,310,000**	**400,000**	**2,650,000**
Water Quality												
Utility Administration												
Contingency - Utility Admin	225,400	29,400	0	0	0	0	31,000	32,000	32,000	33,000	34,000	34,000
General Building Improvements	1,014,000	564,000	200,000	0	0	250,000	0	0	0	0	0	0
Security Updates	170,000	35,000	50,000	85,000	0	0	0	0	0	0	0	0
Lab Equipment Replacement	413,898	149,898	40,000	24,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Local Limits Study	70,000	0	70,000	0	0	0	0	0	0	0	0	0
WQ Equip/Vehicle Replacement Program	1,498,883	198,883	125,000	125,000	125,000	130,000	130,000	130,000	130,000	135,000	135,000	135,000
Water & Sewer Plan	75,000	0	75,000	0	0	0	0	0	0	0	0	0
Utility Administration	**3,467,181**	**977,181**	**560,000**	**234,000**	**150,000**	**405,000**	**186,000**	**187,000**	**187,000**	**193,000**	**194,000**	**194,000**
Sewer												
Contingency - Sewer	461,939	11,939	0	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
Replace Grinder Pumps	1,201,069	151,069	125,000	125,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Pump Station Upgrades - Various Stations	4,259,012	374,012	885,000	0	750,000	0	750,000	0	750,000	0	750,000	0
Collection System Rehabilitation Project	4,326,121	426,121	0	900,000	0	750,000	0	750,000	0	750,000	0	750,000
Smithsburg WWTP ENR Upgrade	28,087,469	12,587,469	0	0	0	0	0	0	0	5,500,000	5,000,000	5,000,000

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	Total	Prior Appr.	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
General WwTP Improvements	1,391,410	491,410	300,000	300,000	0	0	0	0	0	0	0	300,000
Heavy Sewer EQP and VEH Replacement	1,528,416	333,416	600,000	250,000	35,000	35,000	40,000	40,000	40,000	40,000	40,000	75,000
Potomac Edison Pump Station & Force Main	100,000	0	100,000	0	0	0	0	0	0	0	0	0
Sewer Fund	**41,355,436**	**14,375,436**	**2,010,000**	**1,625,000**	**935,000**	**935,000**	**940,000**	**940,000**	**940,000**	**6,440,000**	**5,940,000**	**6,275,000**
Water												
Water Meter Replacement	385,009	165,009	50,000	50,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
WQ Main Replacement	2,366,000	766,000	0	0	100,000	0	500,000	500,000	500,000	0	0	0
Sharpsburg Water Treatment Plant	668,856	73,856	25,000	570,000	0	0	0	0	0	0	0	0
General WTP Improvements	1,358,440	268,440	0	290,000	0	0	250,000	250,000	0	100,000	100,000	100,000
Highfield/Sharpsburg Water Storage Tank	336,000	0	0	0	0	0	336,000	0	0	0	0	0
Water Fund	**5,114,305**	**1,273,305**	**75,000**	**910,000**	**115,000**	**15,000**	**1,101,000**	**765,000**	**515,000**	**115,000**	**115,000**	**115,000**
Water Quality	**49,936,922**	**16,625,922**	**2,645,000**	**2,769,000**	**1,200,000**	**1,355,000**	**2,227,000**	**1,892,000**	**1,642,000**	**6,748,000**	**6,249,000**	**6,584,000**
TOTAL	**1,044,587,203**	**163,162,203**	**111,833,000**	**109,131,000**	**75,369,000**	**81,536,000**	**77,716,000**	**106,269,000**	**105,782,000**	**55,873,000**	**83,483,000**	**74,433,000**
Funding Sources												
General Fund	189,458,974	47,610,974	7,598,000	10,250,000	12,250,000	13,250,000	14,250,000	15,250,000	16,250,000	17,250,000	17,750,000	17,750,000
Highway Fund	6,237,000	1,237,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Cascade Fund	12,342	12,342	0	0	0	0	0	0	0	0	0	0
Solid Waste Fund	2,067,805	297,805	235,000	265,000	265,000	162,000	138,000	139,000	140,000	141,000	142,000	143,000
Utility Admin Fund	2,398,781	383,781	335,000	234,000	150,000	155,000	186,000	187,000	187,000	193,000	194,000	194,000
Water Fund	385,009	165,009	50,000	50,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Sewer Fund	4,245,723	1,550,723	725,000	425,000	185,000	185,000	190,000	190,000	190,000	190,000	190,000	225,000
Airport Fund	4,886,804	1,362,804	475,000	699,000	891,000	290,000	319,000	181,000	163,000	178,000	163,000	165,000
Golf Course Fund	100,000	0	100,000	0	0	0	0	0	0	0	0	0
Interest	9,000,000	0	3,500,000	1,500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Tax-Supported Bond	166,136,548	26,136,548	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000	14,000,000
Self-Supported Bond	104,856,115	11,308,115	8,288,000	5,401,000	7,345,000	6,040,000	8,240,000	8,820,000	1,250,000	6,350,000	20,979,000	20,835,000
State Loan	4,488,552	4,488,552	0	0	0	0	0	0	0	0	0	0
Loan	102,000,000	0	0	4,000,000	4,000,000	0	0	47,000,000	47,000,000	0	0	0
Transfer Tax	29,981,724	7,481,724	3,000,000	2,000,000	2,000,000	2,000,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000	2,250,000
Excise Tax - Schools	2,977,031	567,031	385,000	385,000	385,000	385,000	385,000	385,000	0	0	0	100,000
Excise Tax - Roads	1,530,320	270,320	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000	126,000
Excise Tax - Other	319,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000	29,000
Excise Tax - Library	110,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Excise Tax - Non-Residential	623,812	123,812	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
PFC Fees - Airport	172,000	0	0	0	0	0	0	31,000	141,000	0	0	0
Capital Reserve - General	43,179,000	8,484,000	12,386,000	8,019,000	4,684,000	6,952,000	1,148,000	1,506,000	0	0	0	0
Capital Reserve - Airport	1,075,000	0	275,000	400,000	200,000	200,000	0	0	0	0	0	0
Capital Reserve - Transfer Tax	6,278,000	0	0	917,000	0	0	2,798,000	0	0	0	2,563,000	0
Capital Reserve - Excise Tax - Schools	1,770,000	0	770,000	1,000,000	0	0	0	0	0	0	0	0
Capital Reserve - Excise Tax - Roads	300,000	0	0	300,000	0	0	0	0	0	0	0	0
Capital Reserve - Excise Tax - Non-Residential	7,700,000	0	2,200,000	3,000,000	0	0	2,500,000	0	0	0	0	0
Capital Reserve - APFO Fees - Schools	1,000,000	0	0	1,000,000	0	0	0	0	0	0	0	0
Federal Grant	108,117,898	34,534,898	13,294,000	29,900,000	9,995,000	3,206,000	5,849,000	956,000	4,425,000	2,648,000	1,040,000	2,270,000
State Grant	219,117,027	17,080,027	42,748,000	23,543,000	7,258,000	30,115,000	23,733,000	11,909,000	18,166,000	9,741,000	19,553,000	15,271,000
Contributions	24,062,738	27,738	754,000	1,128,000	10,531,000	3,366,000	500,000	2,235,000	390,000	1,702,000	3,429,000	0
TOTAL	**1,044,587,203**	**163,162,203**	**111,833,000**	**109,131,000**	**75,369,000**	**81,536,000**	**77,716,000**	**106,269,000**	**105,782,000**	**55,873,000**	**83,483,000**	**74,433,000**

BEFORE THE BOARD OF APPEALS
FOR WASHINGTON COUNTY, MARYLAND

MT. AETNA ADVOCACY GROUP	*	**Appeal No.: AP2022-021**
Appellant	*	
	*	
	*	

* * * * * * * * * * * * *

REMAND OPINION

This appeal was originally heard on July 20, 2022, and August 17, 2022, and the Board issued its written decision on September 6, 2022. The Board affirmed the decision of the Planning Commission finding that the proposed change was minor and did not require a public hearing. Appellant filed a Petition for Judicial Review in the Circuit Court for Washington County on October 6, 2022. Following oral argument on May 17, 2023, the Circuit Court issued its Memorandum Opinion and Order on April 1, 2024. There were no appeals taken from the Circuit Court's decision on Judicial Review.

After considering the evidence, the record and the arguments of the parties, the Circuit Court reversed the Board's decision and remanded the case to the Board for further remand to the Planning Commission for a public hearing. The Board did not take any further action because of a change in ownership for the subject property.[1] The Board held a hearing in this matter on March 19, 2025.

In accordance with the Circuit Court's Memorandum Opinion and Order dated April 1, 2024, the Board hereby REVERSES AND REMANDS this matter to the Planning Commission to conduct a public hearing on the request to amend the PUD final

[1] Following the Circuit Court's decision, the subject property was sold to a different developer which abandoned the proposed plans and proceeded with a different development plan. This appeared to render any further action regarding the appeal as moot. However, Appellant requested in writing that the Board consider the matter in light of the reversal and remand.

development plan in accordance with the requirements of the Zoning Ordinance.

BOARD OF APPEALS

By: Tracie Felker, Chair

Date Issued: April 16, 2025

Notice of Appeal Rights

Any party aggrieved by a final order of the Authority in a contested case, whether such decision is affirmative or negative in form, is entitled to file a petition for judicial review of that order to the Circuit Court for Washington County within thirty (30) days of the date of the order.

IN THE CIRCUIT COURT FOR WASHINGTON COUNTY, MARYLAND

IN THE MATTER OF THE MT. AETNA
ADVOCACY GROUP, ET AL.
PETITION FOR THE JUDICIAL REVIEW
OF THE DECISION OF: Case No. C-21-CV-22-00424
The Board of Appeals of Washington County
Appeal Number: AP2022-021
Appeal of Mt. Aetna Advocacy Group

MEMORANDUM OPINION

On September 6, 2022, the Washington County Board of Appeals [hereinafter the "Board of Appeals"] affirmed the Planning Commission's approval of Black Rock Holdings II, LLC's [hereinafter "Black Rock" or the "Developer"] March 7, 2022 Third Proposed Amendment to the 2002 approved Black Rock Planned Unit Development [hereinafter the "Third Proposed Amendment"].

Petitioners Mt. Aetna Advocacy Group, Dr. Carlos Cutler, and others [hereinafter "Petitioners"], timely filed their Petition for Judicial Review. Petitioners raise multiple issues on appeal which are listed below. Respondent Black Rock requests that this Court affirm the Board of Appeals.

ISSUES ON APPEAL

The issues on appeal are as follows:

1. Has the Black Rock PUD expired because the March 2, 2020 Planning Commission Development Plan Approval was expressly "effective for a period of two years," thereby expiring on March 2, 2022?

   Thus, did the Board of Appeals err as a matter of law in affirming the Planning Commission's approval of Black Rock's March 7, 2022, Third Proposed Amendment to the 2002 PUD?

Entered: Clerk, Circuit Court for
Washington County, MD
April 1, 2024

2. Is the Black Rock PUD valid or invalid?; did Black Rock fail to comply with the Washington County Zoning Ordinance sections:
    a. Section 16A. says that a PUD [such as Black Rock PUD] "shall maintain [it's] validity in accordance with this Article." [emphasis added].
    b. Section 16A.6.e. says that "Submission and Approval Timeframes" must be followed for the PUD "to maintain [it's] validity."
    c. Section 16A.6.e.3. requires that "[f]ollowing approval of the Final Development Plan, the applicant shall submit a Site Plan or Subdivision within six (6) months for the entire PUD or for any phase for Planning Commission review." [emphasis added].
    d. Section 16A.6.e.3. also requires that after the submission of the site plan or subdivision within 6 months of approval for Planning Commission review that "construction shall begin within one (1) year of Site Plan or Subdivision Approval." [emphasis added].
    e. Section 16A.6.e.3. conditions extensions of the specified time frames by stating that "[r]equests for extension may be granted by the Planning Commission for good cause."

    Is the Black Rock PUD invalid such that the Board of Appeals erred as a matter of law in affirming the Planning Commission's approval of Black Rock's 2022 Third Proposed Amendment to the previously approved PUD?

3. Was there a violation of Zoning Ordinance Section 24.4(b) which says "[a]n application for site and/or development plan approval for [a PUD district] shall not be accepted for filing by the Commission if the application is for approval of the whole or part of any land, the approval of which has been denied by the Commission, within twelve (12) months from the date of the Commission's decision."?
    a. Was there a violation of 24.4(b) when the Planning Commission accepted/addressed the following:
        i. a February 16, 2021 First Proposed Amendment to the concept plan [which was deemed a major change and denied after a public hearing];
        ii. a December 30, 2021 Second Proposed Amendment [which was deemed a major change and then withdrawn by Black Rock before the public hearing]; and
        iii. the March 7, 2022 Third Proposed Amendment [deemed a minor change and the subject of this appeal]?

4. Is the Black Rock March 7, 2022, Third Proposed Amendment to the 2002 approved PUD a minor change as found by the Planning Commission and affirmed by the Board of Appeals or is it a major change such that there was error in affirming the Planning Commission's determination that the Third Proposed Amendment was a minor change?

STANDARD OF REVIEW

The scope of review is narrow, and the reviewing court's role is generally limited to "determining if there is substantial evidence in the record as a whole to support the agency's findings and conclusions, and to determine if the administrative decision is premised upon an erroneous conclusion of law." *United Parcel Serv., Inc. v. People's Counsel for Baltimore Cty.*, 336 Md. 569, 576-77 (1994).

The agency's fact finding is based on substantial evidence when it is "supported by such evidence as a reasonable mind might accept as adequate to support a conclusion." *Ware*, 223 Md. App. at 681 (citation omitted).

The court's task on review is not to substitute its judgment for the expertise of those persons who constitute the administrative agency ...." *United Parcel Serv., Inc. v. People's Counsel for Balt. County,* 336 Md. 569, 576–77 (1994) (quotation omitted). In this review, "[a reviewing court inquires] whether the zoning body's determination was supported by 'such evidence as a reasonable mind might accept as adequate to support a conclusion....' " *Surina,* 400 Md. at 681 (quoting *Mayor of Annapolis v. Annapolis Waterfront Co.,* 284 Md. 383, 398, (1979)). "As we have frequently indicated, the order of an administrative agency, such as a county zoning agency, must be upheld on review if it is not premised upon an error of law and if the agency's conclusions reasonably may be based upon the facts proven." *Ad. Soil, Inc. v. County Comm'rs of Queen Anne's County,* 307 Md. 307, 338 (1986) (internal quotation omitted).

For "legal questions or the agency's conclusions of law[,]" review is de novo. *Grant v. City Council of Prince Georges County*, 465 Md. 496, 509 [2019].

Certain agency decisions regard matters that are committed to the agency's discretion and expertise. On appeal, the reviewing court will only reverse when the reviewing court determines that the decision is "arbitrary and capricious" because "the courts owe a higher level of deference to functions specifically committed to the agency's discretion[.]" *Cty. Council of Prince George's Cty. v. Zimmer Dev. Co.*, 444 Md. 490, 574, (2015) (citation omitted). The "arbitrary and capricious" standard is "highly contextual, but generally the question is whether the agency exercised its discretion 'unreasonably or without a rational basis.'" *Maryland Dep't of the Env't v. Cty. Comm'rs of Carroll Cty.*, 465 Md. 169, 202, (2019), *cert denied sub nom. Cty. Comm'rs of Carroll Cty., Maryland v. Maryland Dep't of Env't*, —— U.S. ——, 140 S. Ct. 1265, 206 L.Ed.2d 255 (2020) (citing *Harvey v. Marshall*, 389 Md. 243, 297 (2005)).

Correspondingly, the reviewing court gives "considerable weight" to an agency's interpretation and application of a statute which the agency administers. *Baltimore Police Dep't v. Brooks*, 247 Md. App. 193, 233 A.3d 288 (2020) (citation omitted). "The level of deference the reviewing court provides an administrative agency's interpretation of a statute, however, 'depends on several factors,' including 'the duration and consistency of the administrative practice' and 'the degree to which the agency's construction was made known to the public.'" *Id.* (quoting *Marriott Emps. Fed. Credit Union v. Motor Vehicle Admin.*, 346 Md. 437, 445 (1997)).

However, "[g]enerally, a decision of an administrative agency, including a local zoning board, is owed no deference when its conclusions are based upon an error of law." *Belvoir Farms Homeowners Ass'n, Inc. v. North,* 355 Md. 259, 267–68 (1999). Thus, a Board of Appeals' legal conclusions, if erroneous, are entitled to no deference.

FACTS AND PROCEDURAL HISTORY/FINDINGS

A chronology of facts and relevant procedural history is set forth below.

2002 Black Rock PUD Approval by the County Commissioners

In 2002, Black Rock applied to build a Planned Unit Development [hereinafter the "Black Rock PUD"]. The Washington County Board of County Commissioners [hereinafter the "County Commissioners" or "BOCC"], approved the Black Rock PUD. The PUD includes two parcels totaling about 220.11 acres north of Mt. Aetna Road [Tax Map 50; Parcel 309, and Tax Map 50; Parcel 321].

In 2002, the approved Black Rock PUD included construction of 595 residential dwelling units. The maximum density of dwelling units per acre [hereinafter "DUA"] for the Black Rock PUD was 2.7 DUA, and the cumulative density for each phase was no more than 2.7 DUA. The build out of the PUD was spread over a ten [10] year period.

> The Black Rock PUD's development plan was in three phases:
> 2004-2006 – Phase 1
> Phase 1 included 155 dwellings with a cumulative DUA of 1.4;
>
> 2007-2009 – Phase 2
> Phase 2 included 210 dwellings with a cumulative DUA of 2.4;
>
> 2010-2013 – Phase 3
> Phase 3 included 230 dwellings with a cumulative DUA of 2.7.

[See Endnote 1. For a list of many relevant particulars about the 2002 approved PUD.]

Along with the homes, the 2002 Black Rock PUD included about 8 acres of recreational facilities and amenities for the community such as a large clubhouse, a large swimming pool,

multiple tennis courts, a basketball court, and several playgrounds, and an additional five [5] smaller playgrounds "tot lots" in the higher density sections.

For the Twenty [20] Years from 2002 – March 7, 2022 There Was No Action to Construct the 2002 Approved Black Rock PUD

It is undisputed that from 2002 until 2022, about twenty [20] years, aside from engaging in litigation until 2006, and also filing a number of proposed amendments to the previously approved development plan, Black Rock took no action to implement development or to begin construction of the approved PUD.

The February 16, 2021, Black Rock Proposed PUD Amendment That Was Not Approved

On February 16, 2021, Black Rock applied for a change to the 2002 approved Black Rock PUD Plan. In significant part, this application almost doubled the number of residential dwellings [from 595 to 1,148] and also redistributed the dwellings across the entire property. The proposed amendment also increased the maximum density from 2.7 DUA to 5.2 DUA. As the proposed amendment sought a "major" change, the Board of County Commissioners held a public hearing on November 2, 2021.

On February 1, 2022, the County Commissioners voted to deny Black Rock's request to amend the PUD development plan. The County Commissioners issued a written decision entitled "Decision Rezoning Case RZ-21-003." One reason for the denial was the significant development in the properties surrounding the PUD between 2002 and 2021. This pre-2021 development around the PUD site created existing problems with adequacy of public

services/infrastructure as of February 2021, even before considering the additional infrastructure/services burden that would result from the 2002 Black Rock PUD being developed. This inadequacy of existing services/infrastructure, before any new construction, was a concern even when the County Commissioners took into account a few proposed road improvements that were part of the 2002 approved plan and the later proposals.

See Endnote 2 for relevant portions of the Board of County Commissioners Decision that supported the February 1, 2022, vote to deny Black Rock's requested plan amendment.

December 30, 2021, Second Proposed Amendment to the PUD

Between the date of the public hearing and the County Commissioners' February 1, 2022, denial of the "major" plan amendment, Black Rock filed a second proposed amendment with the Planning Commission. This second proposed amendment reduced the total dwelling units to 585. However, the dwellings were concentrated on the southeast portion of the site. Additionally, the amendment concentrated all dwellings on about 50% of the acreage and left about 50% of the acreage as open space. At their February 2022 meeting, the Planning Commission noted that the December 30, 2021, proposal was also a "major" change subject to the public hearing process. Black Rock then withdrew the second proposed amendment prior to the public hearing.

The Subject of this Appeal - Black Rock's March 7, 2022, Third Proposed Amendment to the PUD entitled the "Black Rock Conceptual Site Plan – PUD Minor Amendments" [dated March 3, 2022]

On March 7, 2022, Black Rock filed with the Planning Commission its Third Proposed Amendment to the Black Rock PUD [labeled as the "BLACK ROCK CONCEPTUAL SITE PLAN – PUD MINOR AMENDMENTS" and dated March 3, 2022]. [hereinafter "Third Proposed Amendment," R. at 179 [capitals in original]. This March 7, 2022 Third Proposed Amendment is the subject of this appeal.

As compared to the 2002 approved PUD, this Third Proposed Amendment included 585 dwelling units (ten [10] less than the 2002 plan). At the end of the construction, the final cumulative dwelling units per acre of 2.7 DUA remained the same as in the 2002 PUD plan.

The Planning Commission considered the Third Proposed Amendment in their April 4, 2022, meeting. In their decision, the Planning Commission detailed the similarities between the 2002 and the 2022 Black Rock PUD plan. However, there was not a significant focus on the differences between the 2002 and the 2022 PUD plan. There was a brief discussion regarding the difference in the "configuration," as well as the possible need for a water tower. The Planning Commission voted to "deem the [third] revised plan as a minor change" to the 2002 approved PUD development plan.

Petitioners argue that there was clear evidence before the Planning Commission that there were "significant differences and changes" in the Third Proposed Amendment.[i]

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[i] See Petitioners' Memorandum, which also charted a comparison between the 2002 approved PUD and the March 7, 2022, Third Proposed Amendment, Petitioners' Memorandum Exhibits B and F.

A more detailed recitation of Petitioners' arguments as to the differences between the 2002 approved plan and the March 7, 2022, Third Proposed Amendment is included in Endnote 3.

In summary, Petitioners' Memorandum details changes in the heights of townhomes [17% increase in height] and multi-family buildings [27% percent increase in height]. Petitioners also discuss differences in the configuration, including "concentrating all zero lot line/townhomes and semi-detached/duplex houses in the southeastern corner of the Property, as opposed to throughout the entire Property." Petitioners' Memorandum, also notes other changes such as:

a. clustering 485 dwellings on less than half of the Property as opposed to spreading throughout.
b. reducing estimated average daily water consumption and sewage flow from 300 gallons a dwelling to 200 gallons per dwelling, with no rationale as to the decrease.
c. reducing stormwater management areas.
d. as to recreational amenities, an over 50% reduction in space, reducing the 2002 phase 1 amenities construction of almost 8 acres of recreational amenities, to 3.5 acres of recreational amenities to be built at an unspecified later time [only the "public park" is scheduled to be built in phase 2], as well as changes to the location on the property.

Differences in the Amenities Shown on the 2002 PUD plan and the March 7, 2022 Third Proposed Amendment

Aside from the reduction in amenities space from 8 acres to 3.5 acres. In 2002, the amenities were to be built in phase 1. The 2002 amenities shown on the "preliminary development plan" gave a "country club" impression and included the following:

a. 8 "enclosed" and "covered" tennis courts and one grass outdoor tennis court;
b. A large club house that appeared to be of sufficient size to accommodate large community events;
c. A large swimming pool and a kiddie pool;
d. A gazebo;

e. A “tot lot”;
f. A basketball court;
g. Significant Landscaping/grounds beautification surrounding the amenities;
h. 161 parking spaces at the clubhouse and covered tennis court areas; and
i. Five [5] tot lots in the gated portion of the PUD.

In the March 7, 2022 Third Proposed Amendment “conceptual site plan” Black Rock strips down the 2002 amenities. In fact, many of the amenities from the 2002 plan were simply eliminated. The 2022 Third Proposed Amendment plan provides specifically for:

Community Amenity
*Flexible Open Play Area
*Playground with Equipment
*Multi-purpose Court
*Pool and Restrooms.

Gone in 2022 are the following 2002 amenities:

1. 8 “enclosed” and “covered” tennis courts and one grass outdoor tennis court;
2. A large club house that appeared to be of sufficient size to accommodate large community events;
3. 161 parking spaces at the clubhouse and covered tennis court areas;
4. A gazebo;
5. A “tot lot”;
6. Significant Landscaping/grounds beautification surrounding the amenities; and
7. Five [5] tot lots in the gated portion of the PUD.

Another significant detail is that in 2022, the construction of the amenities is moved from phase 1 [in 2002] to an unspecified time in the future, except that there will be a “park” built in phase 2. The 2022 “site amenity schedule” says “Phase 2: Public Park (specific amenities to be determined).”

Black Rock's Significant Change in Their Presentation of the Phase Implementation and Other Facts Obscures Important Details Needed to Analyze and Understand the Significance [Minor or Major] of Changes from the 2002 Approved PUD to the 2022 Third Proposed Amendment

In Black Rock's 2022 Third Proposed Amendment, the structure showing many of the key facts changed vastly from the 2002 plan. In the March 7, 2022 Third Proposed Amendment "CONCEPTUAL SITE PLAN- PUD MINOR AMENDMENTS" conceptual site plan including the "Site Data," the "Notes," the "Development Schedule," and the "Site Amenity Schedule" Black Rock, either intentionally or unintentionally, hides differences between the 2002 approved plan and the March 7, 2022 Third Proposed Amendment. As a result, Planning Commission did not meaningfully explore these differences.

Specifically, as to phase implementation details, in 2022 Black Rock completely changes its manner of presenting the facts for each phase. Therefore, on some key issues, the 2002 and the 2022 descriptions are proverbial apples versus oranges, making it difficult to discern whether the phases and their implementations [2002 versus 2022] are more similar or different.

Black Rock's Elimination of Some Details of the Phase Implementation Also Creates Unnecessary Difficulty in Evaluation of the Significance [Minor or Major] of the Change from the 2002 Approved PUD to the 2022 Third Proposed Amendment

Aside from the different presentation [between 2002 and 2022] of the facts of the phase implementation, Black Rock's 2022 Third Proposed Amendment creates additional confusion as there are 2002 key details regarding DUA density in each phase and the cumulative DUA that are conspicuously absent from the 2022 Third Proposed Amendment. The 2022 plan does not give the number of units to be constructed during each phase. It also eliminates the following details which were part of the 2002 plan for each phase: total acreage, open space, right-of-way,

lot acreage, and stormwater mgmt. One could infer that Black Rock and the Planning Commission did not consider the missing information and DUA numbers, both for each phase and cumulatively, to be sufficiently important to be included in the 2022 Third Proposed Amendment. However, the Ordinance makes clear that the missing information should be considered. The Ordinance requires an analysis of the DUA for each phase and the cumulative DUA. The zoning ordinance Section l6A.4(j) provides:

> Phasing: In order to ensure that the PUD develops uniformly, each phase shall independently conform to the density established by the Planning Commission for the PUD tract.

In eliminating the DUA per phase and cumulative information in 2022, the differences in the phase implementation are not clear without the reviewer having to count and calculate to understand that information.

The 2002 Approved PUD Phase Implementation Detail

To compare and contrast the 2002 and the 2022 plans, a review of the 2002 specifics is necessary, including the phase implementation details.

In 2002, Black Rock presented the phase implementation detail through two charts, which included density of units per acre DUA for each phase, as well as the cumulative density of units per acre for each phase.

That 2002 detail is:

DEVELOPMENT SCHEDULE

PHASE I (155 DWELLINGS), ACTIVE RECREATION FACILITIES.....2004–2006 (3 YEARS)

PHASE 2 (210 DWELLINGS).....2007–2009 (3 YEARS)

PHASE 3 (230 DWELLINGS).....2010–2013 (4 YEARS)

AREA TABULATION

	PHASE I (155 UNITS)	PHASE II (210 UNITS)	PHASE III (230 UNITS)	TOTAL (595 UNITS)
TOTAL ACREAGE	110.29	44.76	66.19	221.24
OPEN SPACE	39.71	11.59	9.75	61.05
RIGHT-OF-WAY	12.66	7.19	10.91	30.76
LOT ACREAGE	50.89	23.01	44.02	117.92
WATER TOWER LOT			1.51	1.51
STORMWATER MGMT.	7.03	2.97		10.00
DENSITY (UNIT/Ac.)	1.4	4.7	3.5	2.7
CUMULATIVE DENSITY (UNIT/Ac.)	1.4	2.4	2.7	

In the 2002 phase implementation, the cumulative density of the DUA for each phase never exceeds 2.7 DUA. Petitioners characterize this as "the maximum allowable DUA of 2.7" in the 2002 approved PUD plan. Respondent disputes that characterization.

Black Rock's 2022 Third Proposed Amendment Phase Implementation Detail

Black Rock's March 7, 2022, Third Proposed Amendment description offers sparse detail explaining the implementation of the phases.

The Third Proposed Amendment phase information follows:

DEVELOPMENT SCHEDULE:

NEIGHBORHOODS A, B, C	2022–2024
NEIGHBORHOODS D, E, G	2024–2026
NEIGHBORHOODS F	2026–2028

Because of Black Rock's 2022 missing detail, to even start a comparison of 2002 and 2022, one must first review the 2022 building footprints and then count dwelling units in each "neighborhood." Then one must do the math/calculate the dwelling units that will be built in each phase per acre and the cumulative DUA for each phase.

Petitioners tried to make the practical effect of the phase implementation clearer by submitting color-coded copies of the 2022 conceptual site plan. Although even those color demonstrations do not eliminate the need for looking at the microscopic numbers on each dwelling unit footprint in each neighborhood and doing some tabulations to figure out the numbers of dwelling units to be constructed in each phase.

To allow a meaningful comparison, Petitioners did the counting, tabulations, and other math to figure out the missing details from the 2022 Third Proposed Amendment phase implementation. Petitioners' Memorandum said of the 2022 plan phase 2022-2024 [comparable to phase 1 from the 2002 plan]:

> Neighborhoods A, B, and C involve the construction of 183 dwellings on approximately 39 acres of the Property. Id.; see also September 6, 2022, Opinion of the Board of Appeals, Rec. 135- 140, attached as Exhibit G. Accordingly its DUA (units/acres) is 4.7 – 2 dwelling units per acre in excess of the maximum allowed.

Petitioners' Memorandum, page 9.

Petitioners' Memorandum also noted that from the 2022 plan 2024-2026 [comparable to phase 2 from the 2002 approved plan]:

> Neighborhoods D, E, and G involves the construction of 302 dwellings on approximately 49 acres. Id. Therefore, phase 2's DUA will be even higher with approximately 6.1 dwellings per acre and its cumulative density will be more than 5.5 DUA – also in excess of the permitted maximum of 2.7.

Petitioners' Memorandum, page 9.

Petitioners' Memorandum said of the 2022 plan 2026-2028 [comparable to phase 3 from the 2002 approved plan]:

> Neighborhood F involves the construction of 100 dwellings on the remaining 132 acres. Id. With a phase DUA of 0.7 – it is only after phase 3 is constructed (if it ever is constructed) that the cumulative DUA no longer exceeds the maximum permitted by the approved Black Rock PUD.

Petitioners' Memorandum, page 9.

The Planning Commission's Approval of the March 7, 2022 Black Rock Third Proposed Amendment to the Approved 2002 PUD

On April 4, 2022, in its regular meeting, the Planning Commission considered Black Rock's March 7, 2022 Third Proposed Amendment to the 2002 approved PUD. Similarities between the proposed plan and the approved plan were addressed. Differences in the two plans were not considered in any depth. However, as noted above, the differences between the two plans were obscured by Black Rock's choices about how some information was presented. Without a focus on differences and without an analysis comparing the phase implementation from 2002 to 2022, the Planning Commission unanimously approved the Black Rock March 7, 2022, Third Proposed Amendment as a minor change to the 2002 PUD. As a minor change, no public hearing was required.

Petitioners' Appeal to the Board of Appeals

Petitioners appealed the April 4, 2022, Planning Commission decision to the Board of Appeals. The Board of Appeals conducted a hearing on July 20, 2022. There was also an August 17, 2022, portion of the hearing during which the parties presented summaries of their arguments and there were deliberations. During deliberations, there was discussion regarding the issues that are now on appeal to this Court.

The issue of validity of the Black Rock PUD, was raised, however in their discussions, the Board of Appeals declined to address that issue indicating that it would be addressed in a "court case" and it did not directly vote on the matter.

On September 6, 2022, the Board of Appeals issued its written Opinion. In addressing the issue about whether the Black Rock PUD was invalid, the Board of Appeals Opinion referenced Jill Baker's written explanation about the Planning Commission's May 29, 2020, Development Plan Approval decision. Ms. Baker's letter said that the statement that the 2020 development plan was "effective for a period of two [2] years" was "an error." The Board of Appeals Opinion concluded that:

> The PUD does not expire and therefore its validity is not in question. In its review of the Zoning Ordinance, the Board does not find a provision for expiration of a PUD. Therefore, the approved PUD Development Plan was valid and active at the time the proposed changes were requested. Similarly, Ms. Baker explained that the denial of the map amendment request in February 2022 was separate and apart from the request for proposed changes now at issue.

The Board of Appeals' deliberations did include a brief discussion [raised by two individuals] about the significance, or not, of changes in the phases of development, the density

in each phase, and the cumulative density. However, those issues were not discussed in detail, as other Board members did not appear to agree that the issues were important.

The Board of Appeals voted 4 to 1 to affirm the Planning Commission's decision to categorize Black Rock's 2022 Third Proposed Amendment as "minor." Petitioners timely appealed.

The Board of Appeals' Opinion detailed its findings of fact and their application to the law. It discussed the issue of minor versus major change and noted as follows:

> Although the Zoning Ordinance makes a clear distinction between processes for minor and major changes, it does not clearly define a minor change or a major change. The Board is left to apply the common meaning and understanding of each term to the facts and circumstances presented herein. Appellants argued that the proposed changes were major in nature based primarily on the increase of units in Phase 2 of the plan, the increase in height for the proposed residential buildings and the relocation of certain dwellings on the property. Appellants' view appears to be an all or nothing approach, requiring a public hearing for any change to the Black Rock PUD. This is not what the County Commissioners intended and is not what is provided for in Section 16A.5 of the Zoning Ordinance.
>
> The Board recognizes the importance of Appellants' concerns as it relates to overall site design and the effect on existing homes and neighborhoods. The plain language of Section 16A.5 seeks to strike a balance between having a definitive plan for the orderly growth of planned developments, and the allowing of flexibility to adapt to changing conditions.3 *[(Footnote 3) "3 'It is the intent of this Article that the original establishment of the PUD not be a speculative device. However, it is also the intent that an approved PUD may need to change in response to changing community needs and conditions . . . . . " "Recognizing that flexibility in the site design is inherent in the PUD process and that the long-term development of such a project may prompt the need for changes in the approved Development Plan for the property, the following procedures are established to accommodate a requested change."]* In the instant case, the proposed changes were intended to accommodate a shift in market demand and community trends. As a result, there were proposed changes to certain site elements like access and stormwater management, as well as to overall height and the location of the buildings.

> There was no proposal to increase the number of dwelling units or to change the overall density of the PUD. In addition, the concept remained the same from the original plan. The changes are subtle, affecting that which they propose to change without altering the final product.
>
> For the reasons stated above, the Board finds that Black Rock Holdings' submission constituted a minor change or changes to the approved PUD Development Plan and therefore, the Planning Commission had the authority to approve said changes without the need for a public hearing. Accordingly, the Appellant's appeal is DENIED, and the decision of the Planning Commission is AFFIRMED, by a vote of 4 to 1.

Board of Appeals Opinion, page 5-6.

This Petition for Judicial Review followed.

ANALYSIS/FINDINGS

1. **Has the Black Rock PUD expired because the March 2, 2020 Planning Commission Development Plan Approval was expressly "effective for a period of two years," thereby expiring on March 2, 2022?**

   Thus, did the Board of Appeals err as a matter of law in affirming the Planning Commission's approval of Black Rock's March 7, 2022 Third Proposed Amendment to the 2002 PUD?

Petitioners argue that the Black Rock PUD expired on March 2, 2022, pursuant to the Planning Commission's Development Plan Approval dated May 29, 2020, which said that the:

> Development Plan referenced above ["DEVELOPMENT PLAN NAME: Black Rock PUD"] was acted on by the Washington County Planning Commission on March 2, 2020 and was approved with the conditions stated at the bottom of this letter [CONDITIONS: Not Applicable]. The Development Plan is effective for a period of two (2) years.

Planning Commission May 29, 2020, Development Plan Approval.

Black Rock argues that there is no express provision in the zoning code for a PUD to expire. The Planning Commission and the Board of Appeals decision both rejected Petitioners' arguments on appeal that the phrase "is effective for a period of two (2) years" created an expiration for the Black Rock PUD.

Because the phase "is effective for a period of two (2) years" was part of a Planning Commission action, a review of the authority given to the Planning Commission from the ordinance is instructive. The ordinance gives the Planning Commission authority to set "[s]pecific terms and conditions agreed to by the developer and the Planning Commission." Ordinance Section 16A.6(b)(3).

When the May 29, 2020 Development Plan Approval came out, Black Rock did not question that the March 2, 2020 development plan was "effective for a period of two (2) years." There was no objection from Black Rock. There was no request for clarification or a request for reconsideration by Black Rock. Further evidence of Black Rock's agreement was its 2022 letter seeking extension of that "effective for a period of two (2) years" timeframe. Black Rock clearly believed that there was a deadline imposed or else they would not have sought an extension of time. These facts support that Black Rock agreed to the condition when the Planning Commission issued the condition on May 29, 2020.

In light of subsequent circumstances, Black Rock now takes the position that essentially the development plan "expiration" in two years or "effective for a period of two (2) years" was meaningless. However, setting the term "effective for a period of two (2) years" was, in fact, an action of the Planning Commission taken under its' authority pursuant to Ordinance Section 16A.6(b)(3) to impose that deadline.

Only later, in 2022, in response to Black Rock's 2022 request for extension of time for the development plan approval, Director Baker authored her March 28, 2022, letter opining that the condition of "effective for a period of two (2) years" was in error and "[t]he development plan will not expire and no extension for approval is necessary."

Petitioners assert that "Director Baker does not have the authority to unilaterally deem the condition created by the Planning Commission an error and remove its existence." That, in fact, is correct. The Development Plan Approval with the term "effective for a period of two (2) years" was an official action of the Planning Commission itself. Director Baker's March 28, 2022 opinion letter was not an action of the Planning Commission and cannot render their imposed deadline meaningless or change its effect.

Ultimately, however, this issue does not have the end result for which Petitioners advocate. Even the "effective for a period of two (2) years" does not expressly purport to create an expiration of the 2002 PUD existence, it instead expressly states that the DP-20-001 "Development Plan approval" "is effective for a period of two (2) years." This does not create an expiration of the PUD which was approved in 2002 by the County Commissioners.

So, what is or was the effect of the language, the express language did in fact create an expiration of the DP-20-001 Development Plan approval. That development plan is not part of this record, so the practical effect of that expiration is not clear.

However, just as the ordinance permits the Planning Commission to set terms, there seems to be no prohibition against the Planning Commission changing those terms. While Director Baker does not have the authority herself to change an action of the Planning Commission, the Planning Commission can change terms that it has created; and it apparently

did [indirectly] change its decision through approval of the Third Proposed Amendment as a minor change.

As noted above, a reviewing court gives "considerable weight" to an agency's interpretation and application of a statute which the agency administers. *Baltimore Police Dep't v. Brooks*, 247 Md. App. 193, 233 A.3d 288 (2020) (citation omitted).

Ultimately, in the Planning Commission's approval of Black Rock's March 7, 2022 Third Proposed Amendment, the Planning Commission appears to have adopted Director Baker's perspective and determined that their prior "effective for a period of two (2) years language" was not a deadline that had any meaning. Or it is also possible that the Planning Commission simply "changed its mind." It is not entirely clear whether the Planning Commission deems the DP-20-001 Development Plan as being effective indefinitely, or not. One can only discern from the Planning Commission's decision on the Third Proposed Amendment that whatever the Planning Commission thinks of the status of DP-20-001 development plan, it still granted Black Rock's request as to the Third Proposed Amendment.

No matter the past confusion created by the Planning Commission in setting a specific time frame for effectiveness of a development plan approval and then later changing its tune, or later eliminating their prior imposed time frame, or even ignoring their own prior decision without officially making a different decision; these apparently contradictory actions by the Planning Commission do not form a basis for relief in this appeal. As to this specific issue, the Board of Appeals decision is affirmed.

2. Is the Black Rock PUD invalid? Did Black Rock fail to comply with the following Washington County Zoning Ordinance sections:

a. Section 16A. says that a PUD [such as Black Rock PUD] "shall maintain [it's] validity in accordance with this Article." [emphasis added].
b. Section 16A.6.e. says that "Submission and Approval Timeframes" must be followed for the PUD "to maintain [it's] validity."
c. Section 16A.6.e.3. requires that "[f]ollowing approval of the Final Development Plan, the applicant shall submit a Site Plan or Subdivision within six (6) months for the entire PUD or for any phase for Planning Commission review." [emphasis added].
d. Section 16A.6.e.3. also requires that after the submission of the site plan or subdivision within 6 months of approval for Planning Commission review that "construction shall begin within one (1) year of Site Plan or Subdivision Approval." [emphasis added].
e. Section 16A.6.e.3. also, conditions extensions of the specified time frames by stating that "[r]equests for extension may be granted by the Planning Commission for good cause."

Is the PUD invalid such that the Board of Appeals erred as a matter of law in affirming the Planning Commission's approval of Black Rock's Third Proposed Amendment to the 2002 approved PUD?

The analysis and legal conclusions on this issue are dictated by the language in the zoning ordinance itself.[ii] The Washington County Zoning Ordinance states that PUDs, "approved by the Board of County Commissioners prior to July 1, 2012" [Black Rock PUD was approved in 2002], "**shall** maintain their validity in accordance with this Article." [Emphasis added]. Zoning Ordinance Section 16A.0. Black Rock's way to "maintain [it's] validity" is to follow the "Submission and Approval Timeframes" dictated by the zoning ordinance Section

[ii] This is unlike issue 1., where the Planning Commission had the authority to set terms, and then later change those terms.

16A.6.e. Zoning ordinance Section 16A.6.e.3. requires that "[f]ollowing approval of the Final Development Plan, the applicant **shall** submit a Site Plan or Subdivision within six (6) months for the entire PUD or for any phase for Planning Commission review." [Emphasis added.] Zoning ordinance Section 16A.6.e.3. also requires that after the submission of the site plan or subdivision within 6 months of approval for Planning Commission review that "construction **shall** begin within one (1) year of Site Plan or Subdivision Approval." [Emphasis added.] Zoning code section16A.6.e.3. also provides that "[r]equests for extension may be granted by the Planning Commission for good cause."

For this analysis, clearly one needs to discern what is meant in the zoning ordinance by the word "shall."

What does "shall" mean?

The Zoning Ordinance for Washington County, Maryland, Article 28A Definitions in Section 28A.0 specifically states that "[t]he word "shall" is mandatory; the word "may" is permissive." Thus, the word "shall" in each of the PUD ordinance sections under discussion is mandatory.

Black Rock argues that the Planning Commission [as affirmed by the Board of Appeals] can interpret the ordinance language and, in effect, decide what these ordinance sections mean. However, interpretation of ordinances only arises when there is a lack of clarity in the ordinance language. Moreover, an interpretation of ordinance language by an agency that is contrary to the clear language of an ordinance is not permitted.

Is there ambiguity in the zoning ordinance language?

The parties disagree as to whether the ordinance language is ambiguous, which could give rise to interpretation by the Planning Commission. Black Rock supports the proposition that the Planning Commission [as affirmed by the Board of Appeals] can interpret the statutory language, and upon review this Court must defer to the Planning Commission's interpretation of the ordinance.

The principles of statutory construction provide the necessary guidance on this issue. Generally, if ordinance language is clear as written, there is no need for interpretation. Only if there is ambiguity in the ordinance language, would one look to the principles of statutory construction to interpret the language.

Statutory construction of ordinance language is explained under *Howard Research and Development Corp. v. Concerned Citizens*, 297 Md. 357 (1983), which said that:

> [A]n ordinance generally is read and construed in the same manner as a statute. *See Pickett v. Prince George's County,* 291 Md. 648, 660–61, 436 A.2d 449, 456 (1981); *Clarke v. County Comm'rs for Carroll County,* 270 Md. 343, 349, 311 A.2d 417, 421 (1973); *Prince George's County v. Beard,* 266 Md. 83, 91, 291 A.2d 636, 640 (1972); (1981); *see also* 2 E. McQuillin, *The Law of Municipal Corporations* section 9.22 (3d ed. 1979). Thus, the cardinal rule of construction is to ascertain and effectuate the actual intent of those who either framed and adopted the charter or enacted the ordinance. *Board of Supervisors of Elections of Prince George's County v. Goodsell,* 284 Md. 279, 284, 396 A.2d 1033, 1036 (1979); *see Clarke,* 270 Md. at 349, 311 A.2d at 421. In determining this intent a court must read the language of the . . . ordinance in context and in relation to all of its provisions and additionally must consider its purpose. *Smith v. Edwards,* 292 Md. 60, 70, 437 A.2d 221, 226 (1981); *Department of State Planning v. Mayor of Hagerstown,* 288 Md. 9, 14, 415 A.2d 296, 299 (1980); *Beard,* 266 Md. at 91, 291 A.2d at 640. **Where the language of a charter or ordinance is unambiguous, ordinarily there is no need to look elsewhere to ascertain intent. Instead, the language should be given effect in accordance with the clear meaning of the words.** *Blum v. Blum,* 295 Md. 135, 140, 453 A.2d 824, 827 (1983); *John McShain, Inc. of Maryland v. State,* 287 Md. 297, 301, 411 A.2d 1048, 1050 (1980); *Clarke,* 270 Md. at 349, 311 A.2d at 421.

Id. at 364. [Emphasis added.]

The Court finds that the following ordinance sections are clear and unambiguous as written:

a. The Washington County Zoning Ordinance states that PUDs, "approved by the Board of County Commissioners prior to July 1, 2012" [Black Rock PUD was approved in 2002], "**shall** maintain their validity in accordance with this Article." [Emphasis added].

b. Zoning Ordinance Section 16A.0. Black Rock's way to "maintain [it's] validity" is to follow the "Submission and Approval Timeframes" dictated by the zoning ordinance Section 16A.6.e.

c. Zoning ordinance Section 16A.6.e.3. requires that "[f]ollowing approval of the Final Development Plan, the applicant **shall** submit a Site Plan or Subdivision within six (6) months for the entire PUD or for any phase for Planning Commission review." [Emphasis added.]

d. Zoning ordinance Section 16A.6.e.3. also requires that after the submission of the site plan or subdivision within 6 months of approval for Planning Commission review that "construction **shall** begin within one (1) year of Site Plan or Subdivision Approval." [Emphasis added.]

e. Zoning code section16A.6.e.3. also provides that "[r]equests for extension may be granted by the Planning Commission for good cause."

With this clear language, there is no need for interpretation. Therefore, under Maryland law, the language of these ordinance in the Washington County Zoning Code section will be "be given effect in accordance with the clear meaning of the words." *Blum v. Blum,* 295 Md. 135, 140, 453 A.2d 824, 827 (1983); *John McShain, Inc. of Maryland v. State,* 287 Md. 297, 301, 411 A.2d 1048, 1050 (1980); *Clarke,* 270 Md. at 349, 311 A.2d at 421. *Id.* at 364.

When the Board of Appeals deliberated the issue of PUD validity [under Sections 16A, et seq.], the Board of Appeals merely said that issue would be addressed in a "court case." Then the Board of Appeals' Opinion referenced Jill Baker's explanation that the Planning

Commission's May 29, 2020, Development Plan Approval that was "effective for a period of two [2] years" was "an error." There was no specific analysis regarding the mandatory language of Section 16A. et seq. Instead, the Board of Appeals concluded that:

> The PUD does not expire and therefore its validity is not in question. In its review of the Zoning Ordinance, the Board does not find a provision for expiration of a PUD. Therefore, the approved PUD Development Plan was valid and active at the time the proposed changes were requested. Similarly, Ms. Baker explained that the denial of the map amendment request in February 2022 was separate and apart from the request for proposed changes now at issue.

Board of Appeals Opinion, September 6, 2022, pages 4-5.

Under the applicable standard of review, for this issue, this reviewing Court gives no deference to the decision below. Under *Belvoir Farms,* "a decision of an administrative agency, including a local zoning board, is owed no deference when its conclusions are based upon an error of law." *Belvoir Farms Homeowners Ass'n, Inc. v. North,* 355 Md. 259, 267–68 (1999).

Under the Above Ordinance Language, Can a PUD Become Invalid, and if So, What Does that Mean?

Words matter.

Before the agency below and on appeal, there was much focus and disagreement about whether a PUD can expire, or not. Black Rock, the Planning Commission, and the Board of Appeals in their written Opinion focused on this word "expire." Not finding the word "expire" in the ordinance, all three conclude that the Black Rock PUD did not and cannot expire. They also conclude that because the Black Rock PUD did not expire, therefore it must also be valid

under the ordinance. These determinations were reached without specific analysis about the ordinance sections that address PUD validity.

Counsel for Black Rock further argues that viewing any language in the ordinance as akin to an expiration of the PUD is draconian, extreme, and clearly is not intended under the Ordinance. Black Rock asserts that the lack of "use it or lose it" language [which is present in a different and more recent statutory scheme] is how the Board of County Commissioners would have expressed themselves if they intended an eventual expiration of the PUD. Black Rock concludes that the lack of "use it or lose it" and the lack of the word "expire" are clear evidence that the PUD remains valid today and will remain valid in the future. Black Rock's arguments do not grapple with the mandatory language of 16A.

Petitioners likewise have their perspective as to the language under 16A. They argue that 16A. requires Black Rock to comply with specified timeframes to maintain "validity." Petitioners assert that the Ordinance language [and thus the Board of County Commissioners' intent] does not contemplate permitting a developer to sit in perpetuity [theoretically forever] with a PUD undeveloped, and still maintain validity under 16A. They point out that this PUD approval was in place for twenty [20] years before this 2022 Third Proposed Amendment. While there has been some activity in the meantime, Petitioners note that the timeframes in the ordinance have not been followed and they conclude that the Black Rock PUD is invalid. They argue that the mandatory language of the ordinance dictates this outcome.

Petitioners assert that the ordinance timeframes and validity requirements are designed to prevent the very situation that now exists with a long delay in PUD construction, intervening neighborhood development and over-taxed public facilities before the start of PUD construction.

To weed through the parties' differing perspectives, one merely needs to read the ordinance language. First, a look at the stated intent of the PUD ordinance Section 16A. is helpful. Section 16A. says:

> 16A. The intent of this Article is to manage the implementation of regulations for existing approved PUD Developments within the framework of the Urban Growth Area Rezoning of 2012. **All PUD Floating Zones approved by the Board of County Commissioners prior to July 1, 2012 shall maintain their validity in accordance with this Article.** This Zoning District is not available for new application on any property within the jurisdiction of Washington County. [emphasis added].

The Board of Appeals' Opinion reached its legal conclusion that the Black Rock PUD is "valid" under 16A. without specific factual findings that would apply to the mandatory language of 16A. Moreover, the Board of Appeals' conclusion that this PUD remains valid merely because the ordinance does not use the word "expire," seems to be at odds with the requirement in the ordinance that a PUD maintain its "validity" by conforming to mandatory timeframes for "submission and approval."

What does this requirement of maintaining PUD validity mean?

Specifically, in the context of zoning ordinance 16A. what does "valid,""validity," or "invalid" mean?

Neither "valid" or "validity" is defined by the Washington County zoning ordinance. Interestingly, the words "valid" and "validity" are ubiquitous in the law, including Maryland cases, Maryland statutes and legal secondary sources. In Westlaw [an on-line legal research service used by many courts and lawyers], a search in the State of Maryland for the words

"valid" or "validity" gives over 10,000 results [beyond which they do not count] in appellate cases and over 10,000 results in Maryland statutes.

While the words "valid," "validity," and "invalid" are frequently seen in all manner of Maryland legal writings, there is no obvious definition found in the common law. Thus, to discern the ordinary meaning as used in a legal context, we turn to Black's Law Dictionary.

Black's Law Dictionary, fifth edition 1979, [on the shelf at the Washington County courthouse] has the following definitions:

> **Valid** Having legal strength or force, executed with proper formalities, incapable of being rightfully overthrown or set aside. Of binding force; legally sufficient or efficacious; authorized by law.
> Good or sufficient in point of law; sustainable and effective in law, as distinguished from that which exists or took place in appearance but has not the requisites to enable it to be recognized and enforced by law.
> **Invalid** Inadequate to its purpose; not of binding force or legal sufficiency; lacking in authority or obligation.
> Illegal; Void; Voidable.

These definitions of "valid," "validity," and "invalid," are entirely consistent with a newer printed copy of Black's Law Dictionary and the online version of Black's as well, and they are similar to both the online and a printed copy of the Merriam Webster Dictionary as well. See Endnote 4. Thus, the meanings of "valid," "validity," and "invalid" respectively are consistent from each source.

A focus on the definitions also reflects that each of these words, "valid," "validity, and "invalid" carries significant legal importance.

Maryland Appellate cases routinely use the word "valid" or "validity" to address the legal sufficiency of contracts and statutory sections. They also include an occasional constitutional analysis of whether a statute is "valid," or in other words, whether a statute is constitutional and

has legal force and effect. An example of the use of the word "valid" is found in *Burress v. County Commissioners for Frederick County*, 437 Md. 231 (2012). This case said that "[t]here is a strong presumption of constitutionality enjoyed by State statutes; thus, a party challenging the facial **validity** of a statute must establish that no set of circumstances exists under which the Act would be **valid**." [emphasis added].

Considering the meaning of "valid" and "validity," one cannot simply ignore the express language in PUD ordinance 16A. regarding validity of the PUD. Likewise, the express ordinance language that dictates how a developer maintains validity of a PUD cannot be ignored.

There were not specific findings of fact below that were applied to and that addressed the mandatory language of 16A regarding PUD validity. Therefore, on this issue, this matter is remanded for specific factual findings, application of those facts to the zoning ordinance Section 16A. et seq., and for legal conclusions to be reached as to the following:

a. Under zoning code Section16A.6.e.3. has Black Rock PUD complied with this provision: "**[f]ollowing approval of the Final Development Plan, the applicant <u>shall</u> submit a Site Plan or Subdivision within six (6) months for the entire PUD or for any phase for Planning Commission review**." [emphasis added].

b. Under zoning code Section16A.6.e.3. has Black Rock PUD complied with the following: after the submission of the site plan or subdivision within 6 months of approval for Planning Commission review that **"construction <u>shall</u> begin within one (1) year of Site Plan or Subdivision Approval."**

c. Under zoning code Section16A.6.e.3., to the extent that Black Rock did not specifically meet the deadlines in Section 16A.6.e.3:

    1] Did Black Rock PUD timely requested extensions of the specified times; and

    2] were there Black Rock PUD "[r]equests for extension [may be] granted by the Planning Commission for good cause" in a timely manner.

d. Under zoning code Section16A.6.e. did Black Rock PUD:
   1] follow "Submission and Approval Timeframes," and
   2] "maintain [it's] validity" by following "Submission and Approval Timeframes."

e. Additionally, under zoning code Section16A. did Black Rock PUD comply with the following: Black Rock "**shall** maintain [it's] validity in accordance with this Article."

Upon remand, after fact finding related to these sections, the facts shall be applied to the clear and unambiguous language of the zoning ordinance as specified herein. That analysis must lead to the conclusions dictated by the express language of the PUD ordinance, without regard to either party's arguments that may be intended to evoke sympathy.

As explained above, the intent of the County Commissioners could only be relevant if the ordinance language is ambiguous. Only if that language is not clear, do we try to discern the intent of the framers of the language. In this particular case, the ordinance language is clear and unambiguous, therefore, with all due respect to the County Commissioners, there is no need to worry about, think about, or try to discern what the County Commissioner's intended when they passed or amended the PUD ordinance language including the mandatory language regarding maintaining the validity of the PUD.

Thus, with no offense intended to either party, neither party's arguments about extreme results are a sound basis for a decision below. This would include Petitioners' dire warning that ignoring the ordinance language creates a PUD in perpetuity [possibly forever] which they argue could not have been intended. This also includes Black Rock's argument that if the facts show "invalidity" such that the PUD ultimately cannot be developed in the future, that it would

produce a "draconian" or "extreme" result that could not possibly have been intended by the County Commissioners.

The ordinance language in 16A. says that it says. Everyone who is impacted by the ordinance was, is and remains on notice about the clear language of the ordinance and each party has made their past decisions with full knowledge of the ordinance language.

This discussion concludes where it started. Words matter. This issue is remanded for specific factual findings and legal analysis as detailed above.

3. Was there a violation of Zoning Ordinance Section 24.4(b) which says: "An application for site and/or development plan approval for [a PUD district] shall not be accepted for filing by the Commission if the application is for approval of the whole or part of any land, the approval of which has been denied by the Commission, within twelve (12) months from the date of the Commission's decision."?
    a. Was there a violation of 24.4(b) when the Planning Commission accepted/addressed the following:
        i. a February 16, 2021 First Proposed Amendment to the concept plan [which was deemed a major change and denied after a public hearing];
        ii. a December 30, 2021 Second Proposed Amendment [which was deemed a major change and then withdrawn by Black Rock before the public hearing]; and
        iii. the March 7, 2022 Third Proposed Amendment [deemed a minor change and the subject of this appeal]?

Petitioners assert that that the Planning Commission violated zoning ordinance Section 24.4(b) by accepting a second application for an amendment to the Black Rock PUD within the same twelve (12) month period in which the Application for a major amendment to the Black Rock PUD was denied.

Under zoning ordinance Section 24.4(b):

> An application for site and/or development plan approval for PB, PI, PUD and HI Districts shall not be accepted for filing by the Commission if the application is for approval of the whole or part of any land, the approval of which has been denied by the Commission, within twelve (12) months from the date of the Commission's decision.

Petitioners assert that there were three applications to the Planning Commission for amendments to the Black Rock PUD within a short period of time.

Petitioners argue that the three Black Rock requests for amendments to the PUD included:

1. February 16, 2021, Black Rock applied to the Planning Commission for a major change which related to the entire property, then on July 19, 2021 the Planning Commission denied the request. Later, on February 1, 2022, the Board of County Commissioners denied the request.

2. December 30, 2021 Second Proposed Amendment to the PUD.
   This proposed amendment was filed before the County Commissioners denied the February 16, 2021 first proposed amendment. This second proposed amendment reduced the total dwelling units to 585 and concentrated them on the southeast half of the site leaving the other half as open space. At the February 2022 meeting, the Planning Commission noted that the December 30, 2021, proposal was also a "major" change subject to the public hearing process. Black Rock then withdrew the second proposed amendment.

3. March 7, 2022 Black Rock's Third Proposed Amendment was filed with the Planning Commission, which amendment is now on appeal.

Petitioners argue that pursuant to ordinance Section 24.4(b) that the March 7, 2022 Third Proposed Amendment "for site and/or development plan approval for . . . PUD" was "for approval of the whole or part of any land" and that the Planning Commission accepted it "within twelve (12) months from the Commission's [prior decision]" which the ordinance dictates that the Planning Commission "shall not" accept the request for filing.

An application for site and/or development plan approval for PB, PI, PUD and HI Districts shall not be accepted for filing by the Commission if the application is for approval of the whole or part of any land, the approval of which has been denied by the Commission, within twelve (12) months from the date of the Commission's decision.

The Board of Appeals' Opinion stated that:

> Ms. Baker explained that the denial of the map amendment request in February 2022 was separate and apart from the request for the proposed changes now at issue. That request called for double the number of dwelling units and a substantial increase in the density per acre, resulting in a denial by the Board of County Commissioners.

The statement from Ms. Baker implies that Black Rock could file unlimited requests for amendments as the Planning Commission was merely determining if the change was minor or major, and Black Rock was just "getting guidance." Furthermore, the Board of Appeals Opinion stated that "the denial of the map amendment request in February 2022 was separate and apart from the request for the proposed changes now at issue." Presumably all requests are "separate and apart from each other." This perspective adopts Ms. Baker's words and analysis which was confusing and did not provide a meaningful response on that issue. This statement also does not seem to answer the question specifically about whether the statute has been violated.

This issue is remanded for specific findings of fact, and analysis under Section 24.4(b) including whether:

a. Whether the March 7, 2022, Third Proposed Amendment was "An application for site and/or development plan approval for [PUD] Districts" and, if so

b. Whether the March 7, 2022, Third Proposed Amendment application "was accepted for filing by the Commission"

c. Whether "the application is for approval of the whole or part of any land, the approval

of which has been denied by the Commission, within twelve (12) months from the date of the Commission's decision."

4. Is the Black Rock March 7, 2022, Third Proposed Amendment to the 2002 approved PUD a minor change as found by the Planning Commission and affirmed by the Board of Appeals or is it a major change such that there was error in affirming the Planning Commission's determination that the Third Proposed Amendment was a minor change.

The Planning Commission and the Board of Appeals both deemed the March 7, 2022, Third Proposed Amendment of the 2002 approved PUD a "minor" change, which does not require a public hearing process.

Petitioners argue that there was insufficient evidence to support the conclusion that the changes are minor. Black Rock argued that there was sufficient evidence to support the findings of a minor change by the Planning Commission and the Board of Appeals.

September 6, 2022, Board of Appeals Opinion

On September 6, 2022, the Board of Appeals issued its Opinion. The findings related to the issue of minor versus major change were as follows:

> Although the Zoning Ordinance makes a clear distinction between processes for minor and major changes, it does not clearly define a minor change or a major change. The Board is left to apply the common meaning and understanding of each term to the facts and circumstances presented herein. Appellants argued that the proposed changes were major in nature based primarily on the increase of units in Phase 2 of the plan, the increase in height for the proposed residential buildings and the relocation of certain dwellings on the property. Appellants' view appears to be an all or nothing approach, requiring a public hearing for any change to the Black Rock PUD. This is not what the

> County Commissioners intended and is not what is provided for in Section 16A.5 of the Zoning Ordinance.
>
> The Board recognizes the importance of Appellants' concerns as it relates to overall site design and the effect on existing homes and neighborhoods. The plain language of Section 16A.5 seeks to strike a balance between having a definitive plan for the orderly growth of planned developments, and the allowing flexibility to adapt to changing conditions. In the instant case, the proposed changes were intended to accommodate a shift in market demand and community trends. As a result, there were proposed changes to certain site elements like access and stormwater management, as well as to overall height and the location of the buildings. There was no proposal to increase the number of dwelling units or to change the overall density of the PUD. In addition, the concept remained the same from the original plan. The changes are subtle, affecting that which they propose to change without altering the final product.
>
> For the reasons stated above, the Board finds that Black Rock Holdings' submission constituted a minor change or changes to the approved PUD Development Plan and therefore, the Planning Commission had the authority to approve said changes without the need for a public hearing. Accordingly, the Appellant's appeal is DENIED, and the decision of the Planning Commission is AFFIRMED, by a vote of 4 to 1.

Board of Appeals Opinion, page 5-6.

To consider whether the March 7, 2022 Third Proposed Amendment constituted a minor or a major change, as the Board of Appeals Opinion recited, one must consider the PUD ordinance language regarding changes to the approved PUD.

Washington County Zoning Ordinance Process for Considering Proposed PUD Changes

As to changes to the PUD such as Black Rock's March 7, 2022 Third Proposed Amendment to the 2002 approved PUD, the Washington County Zoning Ordinance dictates the process and factors that must be considered. Zoning Code Section 16A.5 states in relevant part [Endnote 5 contains the entire text of 16A.5]:

Section 16A.5 Changes to an Approved PUD

. . . Subsequent plan reviews and approvals, re-approvals or changes to concept plans, development plans, subdivision plats, and site plans shall comply with the requirements of this Article.

. . . it is also the intent that **an approved PUD may need to change in response to <u>changing community needs and conditions</u>, and that change must follow an appropriate public review process similar to that which occurred prior to the PUD approval and as set forth herein.**

Recognizing that flexibility in the site design is inherent in the PUD process and that the long-term development of such a project may prompt the need for changes in the approved Development Plan for the property, the following procedures are established to accommodate a requested change.

(a) Upon a request from a developer for a change to the approved PUD Development Plan the Planning Commission shall determine if the requested change is a major or minor change to the [previously approved concept plan]. . . .. **The Planning Commission shall make the determination that a change is major or minor through evaluation of whether or not the change is in accordance with the latest Concept Plan on file as reviewed by the Board of County Commissioners.**

1. Minor changes to the approved PUD Development Plan (Preliminary or Final) may be approved by the Planning Commission without the need for an additional public hearing. . . . . **Cumulative "minor" change requests may result in the determination by the Planning Commission that there has been a major change to the Concept Plan on file and require the developer to follow the process established for major changes in a PUD Development Plan.**

2. Major changes to the approved PUD Development Plan (Preliminary or Final) as determined by the Planning Commission shall also require a change to the Concept Plan and therefore require a new public hearing.

i. The public hearing shall be conducted in accordance with established rezoning practices and schedules in effect at the time of the request. **The concept plan that illustrates the proposed change to the PUD shall include the information, as applicable to the change, listed below.**

1. A clear delineation of the area of the approved PUD that is the subject of the change request, indicating the approved land use and the requested land use.
8. The location of areas within the tract proposed for single- family, two-family, and multi-family residential uses; . . . **tabulation for each area of the number of dwelling units,** the maximum building heights, ...

3. **Such major changes shall be reviewed by the Planning Commission for compatibility with this Article.** The Commissioners shall hold a public hearing on the matter to determine whether or not the change meets the intent and requirements of this Article and establish findings of fact that consider:

i. The purpose of the PUD District;
ii. The applicable policies of the adopted Comprehensive Plan;
iii. The compatibility of the proposed changes of the PUD District with neighboring properties;
iv. **The effect of the proposed changes to the PUD District on community infrastructure; and**
v. **Consistency with the intent and purpose for the establishment of the PUD which is to permit flexibility and creativity in the design of residential areas, promote economical and efficient use of the land, provide for a harmonious variety of housing choices, a varied level of community amenities and the promotion of adequate recreation, open space and scenic**

attractiveness.

In no event shall a major change result in the removal of a PUD zone. A denial of the requested major change shall require adherence to the previously approved Development Plan.

Additionally, the PUD design standards are instructive. Section 16A.4 Design Standards had several relevant sections. They state as follows:

These standards are intended to ensure that the PUD is compatible with neighboring properties and that it provides a quality living environment for its residents. The standards established for any PUD are considered *prima facie* to be acceptable to the developer and may not be the subject of appeal for a variance to the Board of Zoning Appeals.

(a) Density: The maximum gross density for a PUD is 12 DU/A. **In determining the specific density for a particular PUD or for any particular phase of a PUD, the Planning Commission shall give consideration to and shall make findings of fact concerning, at a minimum, the impact of the proposed development on adjacent properties, the availability of public facilities, the impact of the proposed development on public roadways, the impact on public schools, fire and police protection, and the availability of adequate open space.**

. . .

(b) Traffic Circulation and Parking

1. **Existing and planned streets and highways shall be of sufficient capacity to serve existing traffic and all new traffic when fully developed.**

2. **The capacity of existing streets and highways serving a PUD shall be considered by the Planning Commission in determining density. Density resulting in traffic capacity being exceeded on streets and highways shall not be permitted.**

(c) **Phasing: In order to ensure that the PUD develops uniformly, each phase shall independently conform to the density established by the Planning Commission for the PUD tract.**

[Emphasis added.]

Major Changes or Minor Changes

The September 6, 2022, the Board of Appeals Opinion states that:

> Although the Zoning Ordinance makes a clear distinction between processes for minor and major changes, it does not clearly define a minor change or a major change. The Board is left to apply the common meaning and understanding of each term to the facts and circumstances presented herein.

Board of Appeals Opinion, page 5.

While the meaning of such commonly used words such as "major" and "minor" may seem to be too obvious for us to leap to the dictionary, in fact, that leap is instructive. The Merriam-Webster Dictionary online gives the following definitions of "major" and "minor":

Major
1: greater in . . . importance, or interest
2: greater in size, scope, . . . extent
3: notable or conspicuous in effect or scope
4: prominent or significant in . . . degree
Minor
1: inferior in importance, size, or degree
2: not serious

The Board of Appeals found specifically that Black Rock's proposed changes "are subtle" and that they "affect[ed] that which they propose to change without altering the final product." Board of Appeals Opinion, page 5.

Black Rock's Arguments that the Third Proposed Amendment is a Minor Change

Black Rock's argument as to the Third Proposed Amendment being a minor change included the following:

> Therefore, as part of the April 2022 Planning Commission agenda packet, members were given copies of the existing approved development plan along withthe proposed revision for comparison. Staff also produced a memo to the members noting the similarities between the plans and recommending that this revision be deemed a minor change. To provide further clarification on what criteria were being compared, the chart and narrative below summarize the changes being proposed.

	2002 BoCC approved Concept Plan	April 2022 Revised Plan
Total Acrage of Development	220.77	220.11
Density of Overall Development	2.7 du/ac	2.7 du/ac
Number of Phases	3	3
Open Space Provided	60.58 ac	62.55 ac
Types of Housing		
Single Family	186	197
Zero lot line/Townhouse	179	160
Semi-detached/Duplex	50	68
Condo/Apartment	180	160
Total Units	595	585

> In addition to the similarity in bulk requirements, the two plans also have thefollowing similarities:
>
> 1. Both plans show the same two primary access points to the developmentusing Sasha Boulevard and Mount Aetna Road.
>
> 2. Because both plans show similar types and mixture of development, traffic count data is similar. The 2002 plan estimates the gross number of vehicle t rips per day as 4,592 while the 2022 plan estimates 4,408.
>
> 3. Water and sewer consumption/flow is similar between

the two plans.

4. Both plans show about the same size and types of community amenities.

5. Both plans make some attempt to keep single family residential uses along the shared boundary of the existing Black Rock subdivision to provide more compatibility between the properties.

6. Both plans show the same basic mixtures and phasing. On the 2002 plan, Phase I was comprised of single family and zero lot line (functionally the same as townhouses), Phase II contained single family, semi-detached, condominiums and townhouses. Phase Ill consisted entirely of single family. The 2022 proposed revision shows the same basic pattern of phasing with Phase 1 including single family, semi-detached and townhouses, Phase 2 containing single family, townhouse and apartments, and Phase 3 being entirely single family.

This concludes our clarification statement regarding the subject appeal."

Undoubtedly, there is substantial evidence in the record to support the BOA's decision toaffirm the Planning Commission's determination.

Respondent's Answering Memorandum, pages 15-16.

Petitioners' Arguments that Black Rock's Third Proposed Amendment Constitutes a Major Change

Petitioners argue that the following changes, individually and collectively, are major changes from the 2002 Black Rock PUD concept plan:

1. Differences in the configuration, including "concentrating all zero lot line/townhomes and semi-detached/duplex houses in the southeastern corner of the Property, as opposed to throughout the entire Property." Petitioners' Memorandum, page 6;

2. Clustering 485 dwellings on less than half of the Property as opposed to spreading Throughout;

3. Reducing estimated average daily water/sewer use from 300 gallons to 200 gallons per dwelling with no rationale;

4. Reducing stormwater management areas;

5. An over 50% reduction in space for recreational amenities [the 2002 phase 1 amenities construction of almost 8 acres of recreational amenities, is reduced to 3.5 acres of recreational amenities to be built at an unspecified later time, with only the "public park" scheduled to be built in phase 2];

6. Changes in the heights of townhomes [17% increase in height] and multi-family buildings [27% percent increase in height];

7. The difference in the phase implementation from 2002 to 2022, which Petitioners assert significantly exceeds the dwelling units per acre in the first two phases.

These assertions will be addressed below.

Petitioners' Assertions 1 and 2: The 2022 Third Proposed Amendment Concentrating the Development Such That There is More Density in a smaller Area.

Petitioners allege a major change due to differences in the configuration, including "concentrating all zero lot line/townhomes and semi-detached/duplex houses in the southeastern corner of the Property, as opposed to throughout the entire Property." Petitioners' Memorandum, page 6; and Clustering 485 dwellings on less than half of the Property as opposed to spreading throughout.

Section 16A.4 Design Standards includes several relevant sections. They state as follows:

> These standards are intended to ensure that the PUD is compatible with neighboring properties and that it **provides a quality living environment for its residents**. The standards established for any PUD are considered *prima facie* to be acceptable to the developer and may not be the subject of appeal for a variance to the Board of

Zoning Appeals.

Concentrating the density of the residences in ½ of the property creates a much different aesthetic and a different experience of living for the PUD residents than if the residences were spread out as they were in 2002. More concentrated residences means more people and more cars in a significantly smaller area. This means a more crowded experience for PUD residents. More people in a smaller area can also contribute to increases in petty crime. These issues and other impact are discussed more in future sections.

Petitioners' Assertion 3: 2022 Plan Reducing Estimated Average Daily Water/Sewer Use From 300 Gallons To 200 Gallons Per Dwelling

There was no rationale provided by Black Rock to justify the assumption that water usage per dwelling unit would be 100 gallons less each day than that estimated in 2002. In light of the adequacy of public facilities to be considered in the PUD ordinance and the testimony about inadequacy of existing water capacity for resident usage and for firefighting, this would seem to be more than a minor issue. Without some reasonable data in the record to support their conclusion, the concept that these homes would use 100 gallons of water less each day than projected in 2002 is simply not credible and defies common sense.

100 gallons a day adds up. In fact, Black Rock's "guesstimate" of this reduction seems likely to understate the PUD daily water usage by about 58,000 gallons per day [100 gallons a day multiplied by 585 units.] The evidence before the Planning Commission was that the existing water system is inadequate to serve the existing needs in the area such that water for fire suppression is questionable. This 2022 change by Black Rock is significant and clearly the county needs evidence to support this allegation that these units would use

only 200 gallons daily rather than 300 gallons daily.

Petitioners' Assertion 4: Reducing the Storm Water Management Areas.

There was not much evidence presented on this issue, and on sufficiency of the storm water management plan. These details likely will be dealt with at a later stage of the development process.

Petitioners' Assertion 5. Petitioners note an over 50% reduction in space for recreational amenities [the 2002 phase 1 amenities construction of almost 8 acres of recreational amenities, is reduced to 3.5 acres of recreational amenities to be built at an unspecified later time, with only the "public park" scheduled to be built in phase 2].

The changes to the amenities planned from 2002 to 2022 are significant.

As noted by Petitioners, there is a reduction in amenity space from 8 acres to 3.5 acres. Additionally, in 2002, the amenities were to be built in phase 1. Delving in more deeply on the comparison between the 2002 and the 2022 amenities shows not only great change, but also removal of most of the 2002 amenities.

The 2002 amenities shown on the "preliminary development plan" create a county club atmosphere including the following:

a. 8 "enclosed" and "covered" tennis courts and one grass outdoor tennis court;
b. A large club house that would have significant space for community events;
c. 161 parking spaces at the clubhouse.
d. A large swimming pool and a kiddie pool;
e. A gazebo;
f. A "tot lot";
g. Five [5] additional "tot lots" that were to have been in the "gated portion" of the community
h. A basketball court; and
i. Landscaping/beautification surrounding the amenities.

In the March 7, 2022, Third Proposed Amendment, the "conceptual site plan" stripped down version of the community amenities includes:

Community Amenity
*Flexible Open Play Area
*Playground with Equipment
*Multi-purpose Court
*Pool and Restrooms.

Also, the construction of the amenities in 2022 is moved from phase 1 [2002] to in 2022 an unspecified time in the future, except that there will be a "park" built in phase 2. The "site amenity schedule" says "Phase 2: Public Park (specific amenities to be determined).

The 2002 amenities give a luxurious, country club like impression, with 8 covered tennis courts, a large club house and pool, a kids pool and "tot lot" the dedicated parking and the landscaping. On the other hand, the March 7, 2022 Third Proposed Amendment amenities seem both sparse in comparison. Losing many of the 2002 amenities is a detriment to the PUD residents and will negatively impact the values of those properties. The delay in the amenity built out also presents a detriment to the residents that would purchase the phase 1 and phase 2 units.

The Court will not go so far as to say that the delayed and diminished amenities in 2022 alone, without other significant changes, would create a "major" change in the PUD plan requiring a public hearing. However, these changes, along with the other changes detailed, unquestionably amount to a major change.

Petitioners' Assertion 6: Changes in the heights of townhomes and multi-family buildings.

The record shows that in the March 7, 2022, Third Proposed Amendment, Black Rock proposes to increase the height of the 160 Multi-family unit buildings and the 160 townhomes. Below, there was not discussion or analysis as to whether this height change was significant or not. There seemed to be an assumption that the height increases were minor. The Planning Commission and the Board of Appeals both concluded that the increased height of the 160 townhomes [2022] to 42' and the increase in height to the apt/Multi-family buildings [160 units] to 55' was a minor change. The Court, however, cannot agree.

The zoning ordinance does discuss heights of the PUD buildings, in Section 16A.4(g) provides that:

> Section 16A.4 Design Standards
>
> These standards are intended to ensure that the PUD is compatible with neighboring properties and **that it provides a quality living environment for its residents.** The standards established for any PUD are considered *prima facie* to be acceptable to the developer and may not be the subject of appeal for a variance to the Board of Zoning Appeals.
>
> (g) Building Spacing and Height Requirements: Building spacing and height requirements shall be the same as those for the different types of development provided for in the districts where PUDs are permitted.
>
> **In review of a Planned Unit Development, the Planning Commission may waive or modify the area, yard, height and other design requirements for the different types of development <u>only</u> if such modification will increase the amenities of the development.**

Does the 2022 request for an increase in height accompany an "increase the amenities of the development?" Clearly, the answer is no. As discussed above, the 2002 luxurious amenities are stripped out of the 2022 plan. However, aside from the clear violation of the ordinance, it is

helpful to look at whether the height increases in and of themselves are minor. For an example, if there were a request to increase a height by 2 feet, one could argue regardless of the loss of amenities that 2 foot increase is a minor matter. However, the 2022 proposed increases in height are not minimal.

Specifically, the proposed changes are as follows:

2002		Increase	March 7, 2022	
100 townhomes	35' high	7'	160 townhomes	42' high
180 condos	40' high	15'	160 Multi-family/apts	55' high

From 2002 to March 7, 2022, are there are 60 additional townhomes from the number in 2002. There are 10 less Multi-family/apt units than there were in 2002.

How big a difference in the 2002 PUD concept plan will it be to have 160 townhomes that are 42' high rather than 35' high? Similarly, how big a difference in the PUD is it to have 160 Multi-family/apt units in buildings that are 55' high rather than 40' high?

To really understand the significance of this difference one must consider step by step, how the increase in building heights impacts the residents of the PUD and the community generally.

It is common knowledge and thus the Court can take judicial notice that generally in construction 11 feet is the height of one [1] story/living level in average residential construction.

The record does not include specifics in terms of the design of the units at this preliminary stage of development. So, there are certain unknowns. For an example, we don't know the height of the roof in the ultimate design or whether these buildings will have flat roofs. We also don't know whether all of, or half of, a living space floor will be below ground level.

So, when considering the heights of buildings, with the facts provided, one must consider the proposed heights with the maximum potential living space possible from those heights.

In other words, the concept change must be evaluated from a perspective that a developer will design within the parameters allowed to maximize their profits. Considering this, there are two issues that make the height increases a major change from 2002.

First, generally with an increase in height for each townhome and each multi-family/apt building, this will mean additional square footage of living space in each townhome and in each top apartment in the multi-family buildings. Thus, there is high likelihood that there will be more people living in those dwelling units. The likely increase in people is a natural consequence of adding an additional level(s)/stor(ies) of living space. An additional level/story of living space in a townhouse or a Multi-family/apt, would likely add an additional two [2], or perhaps depending upon the horizontal square footage, an additional three [3] bedrooms. Also, there would likely be another bathroom to accommodate the people living in those additional bedrooms.

Generally, more living space and more people means, at the very least, more water/sewer use. More people also means more traffic volume/trips, either from additional driving adults, with additional cars to be parked, or additional children that their parents are carting around to school and sports, and also additional kids in the schools. The increase in height, additional bedrooms, and more people in the same amount of neighborhood space creates a busier neighborhood, with either more children or with more cars to accommodate more adult residents.

The second issue created by the increase in heights in the townhomes and the apt/multi-family buildings is less quantifiable, but it still matters. The “concept plan” for a residential

community, refers not only to certain objective specifications like acreage, road design, dwelling unit numbers, building height, etc. But it also refers to the general concept [the atmosphere and aesthetic of a residential neighborhood]; think of the aesthetic and atmosphere differences between a neighborhood of single family homes versus townhouses, versus high-rise apartment buildings. Each different type of neighborhood concept has a different vibe and a different living experience and living conditions for the residents and for their neighbors. Putting larger numbers of people into smaller spaces also creates some challenges that don't exist in areas where there are less people.

When one takes this issue of townhouse, apt/multi-family building height increase to its logical conclusion, the significance of the March 7, 2022 Third Proposed Amendment comes into clear focus.

Think about the significant difference in aesthetic, atmosphere and living experience in a townhouse development with townhomes that are two [2] stories in height versus townhomes that are four [4] stories in height. Similarly, consider the difference in atmosphere, aesthetic and living experience between an apartment building that is two [2] stories in height versus [5] five stories in height. The higher the apartment building in a neighborhood, the more the neighborhood seems urban and built-up. As another example, consider the more urban living experience for residents in a series of five [5] story apt/multi-family buildings on a small street. On the other hand, consider the same small street with a series of two [2] story apartment buildings where the living experience is less urban for residents and neighbors.

As applied to Black Rock, with the 2002 PUD plan, the townhouses were a maximum height of 35 feet, which means no more than three [3] stories above ground. With the March 7,

2022, Third Proposed Amendment, the town houses are a maximum height of 42 feet. This means that that under the proposed change, the townhouses could have four [4] stories above ground [if the roofs are flat].

As to the Black Rock apt/multi-family buildings, with the 2002 PUD plan, the condo units were a maximum height of 40 feet which means no more than three and a half [3.5] possible stories above ground. With the March 7, 2022, Third Proposed Amendment the apt/multi-family buildings are a maximum height of 55 feet. This means that that under the proposed change, the Black Rock apt/Multi-family buildings could be five [5] stories above ground if the roofs are flat.

There is a major difference in the concept plan, community aesthetic and living experience of an apartment/multi-family building neighborhood of 160 units with three and a half [3.5] stories above ground [2002], versus a possible five [5] stories above ground [2022]. Likewise, the concept plan, community aesthetic and living experience is quite different between 160 townhouses that would have been a possible three [3] stories above ground [2002] increased to a potential four [4] stories [2022] above ground.

Under Section 16A.4 Design Standards, the design including height are "intended to ensure that the PUD . . . provides a quality living environment for its residents. . .." Also, under Section 16A.4.(g) "[i]n review of a Planned Unit Development, the Planning Commission may waive or modify the . . ., height and other design requirements . . . **only if such modification will increase the amenities of the development."** For the Black Rock PUD, the increase in building height is not part of a plan that increases amenities in the PUD, in fact, quite the opposite. As noted in other sections of this Memorandum Opinion, the Third Proposed

Amendment brings a significant degradation of and also elimination of amenities. The space, the quality, and the quantity of the amenities in 2022 is gutted to a significant extent. [iii]

Thus, the approval of the 2022 Third Proposed Amendment building height increases clearly violates the clear language of 16A.4(g).

Additionally, the increases in height constitute a major change from the 2002 concept plan considering the differences in the aesthetic/atmosphere/resident living experience [less quantifiable, but still relevant] and considering the increase in living space [additional bedrooms] and the resulting increased numbers of residents [this is quantifiable and predictable] and the resulting additional burden on public facilities/infrastructure. These changes in height are a major change from the 2002 PUD concept plan.

[iii] As noted in other sections of this opinion, the Third Proposed Amendment brings a reduction in amenities space from 8 acres to 3.5 acres. In 2002, the amenities were to be built in phase 1. The 2002 amenities shown on the "preliminary development plan" included the following:

a. 8 "enclosed" and "covered" tennis courts and one grass outdoor tennis court;
b. A large club house;
c. A large swimming pool and a kiddie pool;
d. A gazebo;
e. A "tot lot";
f. A basketball court;
g. Landscaping surrounding the amenities; and
h. 161 parking spaces.

In the March 7, 2022, Third Proposed Amendment, the "conceptual site plan" Black Rock shows stripped down version of the amenities. Eliminating most of those amenities. That 2022 plan provides specifically for:

Community Amenity
*Flexible Open Play Area
*Playground with Equipment
*Multi-purpose Court
*Pool and Restrooms.

Also, the construction of the amenities in 2022 is moved from phase 1 [2002] to in 2022 an unspecified time in the future, except that there will be a park built in phase 2. The "site amenity schedule" says "Phase 2: Public Park (specific amenities to be determined).

Petitioners' Assertion 7: The Black Rock March 7, 2022, Third Proposed Amendment Changes the Phases of Development [Number of and Type of Units Built in Each Phase], and As a Result There is a Change to the DUA For Each Phase and a Change to the Cumulative density of the DUA for Each Phase.

Does Black Rock's 2022 Third Proposed Amendment Plan Comply With PUD Ordinance Section 16A.4(j) Such That the PUD is Developing Uniformly Because Each Phase Independently Conforms To the Density Established in the 2002 Approved PUD Plan.

As mentioned above, Black Rock's 2022 Third Proposed Amendment plan obscures the how many residences are built during each phase. Along with Black Rock's 2022 plan eliminating the numbers of dwelling units constructed during each phase, the 2022 Third Proposed Amendment also left out the density per phase and the cumulative density per phase.

This lack of key detail made it difficult for the Planning Commission to properly analyze the similarity or differences in the building/construction during each phase. The Ordinance, however, does require that the Planning Commission consider the density for each phase.

Section 16A.5 Changes to an Approved PUD

> . . .. Subsequent plan reviews and approvals, re-approvals or changes to concept plans, development plans, subdivision plats, and site plans shall comply with the requirements of this Article.

The word Article encompasses the entire PUD ordinance.

Additionally, the ordinance Section 16A.4 Design Standards says:

> . . .. The standards established for any PUD are considered *prima facie* to be acceptable to the developer . . ...
>
> (a) Density: . . ... **In determining the specific density for a particular PUD or for any particular phase of a PUD, the Planning Commission shall give consideration to and shall make findings of fact concerning, at a minimum,** the impact of the proposed development on adjacent properties, the availability of public facilities, the impact of the proposed development on public

> roadways, the impact on public schools, fire and police protection, and the availability of adequate open space.

[emphasis added].

Further, Section l6A.4(j) provides:

> Phasing: In order **to ensure that the PUD develops uniformly**, **each phase shall independently conform to the density established by the Planning Commission for the PUD tract**.

[Emphasis added.]

Black Rock's arguments do not address this requirement that each phase must independently conform to the "density established by the Planning Commission for the PUD tract." Black Rock contends that so long as the cumulative density at the end of phase 3 is 2.7 then, adjusting the development schedule so that the vast majority of the density emerges during phases 1 and 2, is perfectly acceptable.

Alternatively, Black Rock also argues that in 2002 the DUA in phase 2 was 4.7, [although the cumulative DUA was still only 2.7] and therefore the 2022 DUA exceeding 2.7 DUA is no big deal. That overly simplistic perspective ignores the language of the Ordinance that requires that "to ensure that the PUD develops uniformly, each phase shall independently conform to the density established by the Planning Commission for the PUD tract."

Can the Planning Commission and Black Rock simply ignore the language in Section l6A.4(j)? The answer is no.

The Supreme Court of Maryland [formerly the Court of Appeals] notes that that statutory construction principles do apply to ordinances and that all provisions in an Ordinance are to be considered when it explained:

> . . ., a statute is to be read so that no word, clause, sentence or phrase is rendered surplusage, superfluous, meaningless, or nugatory.

Montgomery County v. Buckman, 333 Md. 516, 524 (1994).

One must delve into the details for each phase as was presented by Petitioners. The 2022 Third Proposed Amendment does shift the number of units constructed during each phase from the number of units constructed in each phase from 2002. The 2002 approved density for the Black Rock PUD is 2.7 DUA. In fact, for the 2002 plan, the cumulative density [DUA] for each phase did not exceed 2.7 DUA. In 2002, the DUA in phase 1 was 1.4 DUA, cumulative DUA in phase 2 was 2.5 DUA and cumulative DUA in phase 3 was 2.7 DUA. Clearly, the 2002 PUD plan cumulative DUA did comply with zoning ordinance Section 16A.4(j) that, "each phase shall independently conform to the density established by the Planning Commission for the PUD tract." The fact that the DUA for phase 2 [4.7] exceeded 2.7 DUA could be an argument that the 2002 approved PUD violated the Ordinance language, but it certainly cannot be used now to ignore the language of 16A.4(j).

The 2022 Third Proposed Amendment will exceed the Planning Commission's maximum DUA and cumulative density until the third phase in violation of zoning ordinance Section 16A.4(j). The approximate numbers are:

1st phase - A, B, C	183/units	39 acres	DUA = 4.7	cumulative density	4.7 DUA
2nd phase -D, E, G	302/units	49 acres	DUA = 6.1	cumulative density	5.5 DUA
3rd phase - F	100/units	132 acres.	DUA = 0.7	cumulative density	2.7 DUA

To find that the 2022 phase plan does not violate the ordinance requirements, one must completely ignore the express language of Ordinance Section 16A.4(j).

Black Rock argues that the zoning ordinance Section 16A.4(j) does not mean, and the Commissioners did not intend, what the language actually says. However, the words are clear and unambiguous. Black Rock implies that even if the 2022 DUA and the cumulative density in phases 1 and 2 each exceed 2.7 DUA, the Planning Commission is charged with ensuring that overall density is appropriate. Black Rock concludes that because the Planning Commission found this 2022 change is "minor," it must comply with the Ordinance language. From Black Rock's view, the 2022 Third Proposed Amendment violating zoning ordinance Section 16A.4(j) really is no big deal because the total cumulative density at the conclusion of the project complies with the Commissioner's 2002 approved 2.7 cumulative DUA.

The Court does not agree. There is a clear violation of 16A.4(j).

Should the Adequacy, or the Lack of Adequacy, of Public Facilities/Infrastructure Be Considered, Including Adequacy of: Schools, Water Generally, Water for Fire Suppression, Sewer, Roads, And Emergency Services?

The parties have a clear disagreement about whether adequacy of public facilities/infrastructure may be considered before the Planning Commission, and beyond, as part of review of a developer requested amendment to a previously approved PUD plan. The public facilities/infrastructure that may or may not be adequate includes the roads, sewer, water generally, water for fire suppression, schools, emergency services, and others.

Petitioners argue that adequacy of public facilities is an important factor that supports a conclusion that a proposed change is either minor or major. The implication is that if construction of an amended PUD plan puts an unreasonable strain on public

facilities/infrastructure, the stress on citizens from inadequate public facilities and the high cost to taxpayers of playing catch up, should inform the county's decision making.

Before the Planning Commission, Petitioners presented abundant evidence that existing public facilities/infrastructure are inadequate for the current people/homes/traffic in the general Black Rock PUD region. They note that this inadequacy will be worse after construction of the previously approved 2002 Black Rock PUD. Petitioners assert that approval of 2022 the Third Proposed Amendment to the PUD will put a much greater strain on public facilities/infrastructure than the 2002 approved plan.

Before the Planning Commission and before the Board of Appeals, Black Rock repeatedly argued that adequacy of public facilities/infrastructure cannot be considered at this stage in the development process. Black Rock's consistent response to the voluminous testimony as to inadequacy of public facilities and infrastructure was that the only time that public facilities/infrastructure should come into the discussion is later when the Adequate Public Facilities Ordinance [hereinafter the "APFO"] is triggered. Black Rock's view seems to be that the existence of the APFO ordinance divests authority to consider public facilities/infrastructure adequacy earlier in the process.

The PUD ordinance answers the question of whether the Planning Commission [and later the Board of Appeals and the County Commissioners] may or should be considering the adequacy of public facilities/infrastructure when reviewing an amendment to a previously approved PUD plan. As always, we turn to the clear language of the PUD ordinance. The PUD ordinance Section 16A.5 regarding evaluation of proposed PUD changes says:

> Section 16A.5 Changes to an Approved PUD
> . . .. **Subsequent plan reviews and approvals, re-approvals or changes to**

concept plans, development plans, subdivision plats, **and site plans shall comply with the requirements of this Article.**

[emphasis added]. The "Article" refers to the entire PUD ordinance.

Additionally, the ordinance Section 16A.4 Design Standards says:

> . . .. The standards established for any PUD are considered *prima facie* to be acceptable to the developer . . ...
>
> (b) Density: The maximum gross density for a PUD is 12 DU/A. **In determining the specific density** for a particular PUD **or for any particular phase of a PUD, the Planning Commission shall give consideration to and shall make findings of fact concerning, at a minimum, the impact of the proposed development** on adjacent properties**, the availability of public facilities, the impact of the proposed development on public roadways, the impact on public schools, fire and police protection,** and the availability of adequate open space.
>
> . . .
>
> (i)Traffic Circulation and Parking
>
> 1. **Existing and planned streets and highways shall be of sufficient capacity to serve existing traffic and all new traffic when fully developed.**
>
> 2. **The capacity of existing streets and highways serving a PUD shall be considered by the Planning Commission in determining density. Density resulting in traffic capacity being exceeded on streets and highways shall not be permitted.**

The plain language of the ordinance does not support Black Rock's theory that adequacy of public facilities/infrastructure may not be considered until later in the process when the APFO is triggered. Furthermore, it does not seem fair to have a developer invest significant time, money and resources into implementing a revised PUD development plan only to be stopped cold later because the APFO review shows a clear lack of adequate public

facilities/infrastructure. It is particularly unfair when that inadequacy was clear from the start of the PUD amendment review.

As noted above, Section 16A.5 "Changes to an Approved PUD" provides that this 2022 Third Proposed Amendment, which is a subsequent plan review and approval and a change to a concept/development plan shall comply with the PUD Ordinance including the design standards section 16A.4. Section 16A.4 "Design Standards" mandates that "[i]n determining the specific density for a particular PUD **or for any particular phase of a PUD**, the Planning Commission shall give consideration to and shall make findings of fact concerning, at a minimum, the impact of the proposed development on adjacent properties, the availability of public facilities, the impact of the proposed development on public roadways, the impact on public schools, fire and police protection, and the availability of adequate open space." [emphasis added].

The Ordinance also requires that the roads be adequate to " serve existing traffic and all new traffic when fully developed" and the "capacity of existing streets and highways serving a PUD shall be considered by the Planning Commission in determining density. Density resulting in traffic capacity being exceeded on streets and highways shall not be permitted."

Aside from the evidence presented by Petitioners regarding the inadequate public facilities/infrastructure that currently exists in the area of the proposed Black Rock PUD, there is other compelling evidence that heightens the concern. The Board of County Commissioners did an extensive analysis of the adequacy of the current public facilities/infrastructure in the PUD area in their February 1, 2022 Decision denying a previously requested PUD amendment. See Endnote 2 for a more complete review of the County Commissioner's comprehensive findings as to the proposed PUD amendment.

Of course, the County Commissioners were denying a Black Rock request that doubled the proposed number of dwelling units during this review. However, the Commissioners did a thorough assessment of the adequacy of existing infrastructure and public facilities which is instructive as to the severity of the concern.

As to the lack of adequacy of public facilities/ infrastructure in the area as of February 2022, the County Commissioners said:

> **The effect of the proposed changes to the PUD on community infrastructure.**
>
> The subject property is in an area that is well-known to have water service issues. The City of Hagerstown Water Department confirms that water quantity and pressure in this service zone impacts daily usage and fire suppression efforts. The City Fire Chief confirms the fire suppression inadequacy.
>
> . . ..
>
> We find that a grant of the requested major change would exacerbate an existing water pressure and water capacity deficit. Accordingly, it would be imprudent to grant the requested major change given the existing deficiency in the water service infrastructure.
>
> . . ..
>
> The requested major change would increase residential density in the neighborhood, which would increase fire and emergency medical service demands to the Funkstown Fire Company, the Smithsburg Volunteer Fire Company, the City of Hagerstown Fire Department, and Community Rescue Service. There are known fire suppression water pressure issues in this neighborhood which, as a result of increased density, would be heightened if the requested major change were granted. Fire suppression concerns are additionally problematic because the proposed major change would result in more apartment and townhouse units, and any potential fire creates greater potential for loss of life and property when units are clustered in close proximity.
>
> The subject property is in the Ruth Ann Monroe/Eastern Elementary/Smithsburg Middle/High and Greenbrier Elementary/Boonsboro Middle/High school districts. The proposed major change to the existing PUD would result in projected inadequacy, as defined by the Adequate Public Facilities Ordinance, at the elementary school level in both districts. The requested major change is projected to also result in over-capacity in the middle and high school levels. The middle and high school level capacity issues may be able to be

mitigated, but the elementary level capacity issues appear highly unsolvable, as there are no plans for redistricting, capital construction, or other methods to alleviate school overcrowding. We find that this school capacity issue compels denial of the requested major change.

The subject property will use Mt. Aetna Road as access for the PUD. Mt. Aetna Road is a County-owned and maintained highway segment. The most recent traffic count data collected in this area was in 2016 and is shown in the chart below. The data shown in the chart is expressed in annual average daily trip traffic volumes.

Table 2: Traffic Volumes at Select Locations

Mt. Aetna Rd. @ Sasha Blvd.	557
Mt. Aetna Rd. @ White Hall Rd.	1622
Mt. Aetna Rd. @ Edgewood Dr.	5553

Source: Washington County Division of Engineering and Construction

A traffic impact analysis was completed by the property owner in 2002 to evaluate the impacts of applying a PUD overlay on the property with a density of 595 units (2.7 units per acre). It was estimated that the gross number of vehicle trips per day would be 4,592 trips. The analysis indicated that the additional traffic generated from the development would increase delays to the signalized intersections along U.S. Route 40 and Robinwood Drive. Furthermore, the development would increase traffic volumes along White Hall Road to its intersection with Md. Route 66. The analysis showed that several road improvements would need to be completed to offset the traffic generation from the development.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 6-7.

The Board of County Commissioners concluded as to the road infrastructure adequacy that:

Testimony was received at the public hearing on this requested major change, and its weight was overwhelming that the road infrastructure in the neighborhood was frequently at capacity and, at times, clearly overburdened when there was any disruption to the standard traffic flow in the area. This condition exists presently. We find that granting the proposed major change would strain

> current roadway capacity and would materially exacerbate inadequacy issues when there was any disruption to standard traffic flow patterns.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 8.

After considering all evidence and the Ordinance, and with their main focus on adequacy of infrastructure in the area, the Board of County Commissioners denied the Black Rock proposed amendment with following explanation:

> **Conclusion**
>
> The requested major change, if granted, would result in increased density in a neighborhood whose water, traffic, and school infrastructure is already experiencing significant and material adequacy issues. That infrastructure is struggling–at best–to meet current capacity demands. Granting the requested major change and its density increase of nearly 193% would overwhelm that infrastructure to the detriment of the public's health, safety, and welfare. We cannot conclude that the grant of the requested major change would, in any way, benefit public safety, the purpose of the PUD district, or the general welfare. We cannot conclude that a grant of the requested major change to the existing PUD would not result in an incompatibility with the surrounding neighborhood.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 8. The Board of County Commissioners findings as to adequacy of public facilities/infrastructure is instructive.

Black Rock argued below that Ordinance does not contemplate analysis of public facilities/infrastructure if the Planning Commission deems a change to be minor. However, part of the reason that a change may be deemed major rather than minor is if there is a significant impact on public facilities/infrastructure. All changes must still comply with the ordinance language which requires a consideration of public facilities/infrastructure, and it would be absurd to conclude that public facilities should not be considered under this 2022 Third Proposed

Amendment which clearly provides [through significant building height increases] for a substantial increase in the number of people that may live in the PUD.

The Planning Commission did not make the required findings of fact or perform the required analysis as to adequacy of public facilities/infrastructure as required under 16A.5 and 16A.4. Upon remand the Planning Commission must make those findings of fact and perform the analysis required under the Ordinance.

Black Rock's 2022 Third Proposed Amendment Frontloads Most of the high-density Building Into Phases 1 and 2, in Other Words, the 2022 Third Proposed Amendment Includes a Significant Increase in the Dwelling Units Per Acre [DUA] for Phases 1 and 2 from the 2002 Approved Plan

The concept of frontloading was not discussed below, but the concept does apply to the 2022 Third Proposed Amendment. "Frontload" is defined by the Oxford Dictionary as "distributing or allocating unevenly, with the greater proportion at the beginning of the enterprise or process."

Black Rock's 2022 Third Proposed Amendment significantly increases the number of dwelling units constructed in phase 2. Thus, the 2022 plan frontloads the construction of most of the high density dwellings into phases 1 and 2.

	Phase 1	Phase 2	TOTAL[1&2] Units	CumDUA	Phase 3	TOTAL
2002	155 Units	210 Units	365 Units	2.4 DUA	230 Units	595 Units
2022	183 Units	302 Units	485 Units	5.5 DUA	100 Units	585 Units

Under the 2022 Third Proposed Amendment, by the end of phase 2, there are 120 more units constructed than the number of units at the end of phase 2 in 2002. Expressed in a different way, the 2002 plan had 61% [less than 2/3] of the dwelling units constructed by the end of phase 2.

However, the 2022 plan has 82% [over ¾] of the dwelling units constructed by the end of phase 2. Also, that 82% of the homes constructed in phases 1 and 2 include all of the town homes and apartment/multi-family, and all are stuffed into a much smaller space than was contemplated in 2002. In 2022, the phase 3 units are all single family homes which are spread over a larger space.

The 2022 plan phase implementation [including the analysis from Petitioners] detail includes:

1st phase - A, B, C	183/units	39 acres	DUA = 4.7	cumulative density	4.7 DUA
2nd phase -D, E, G	302/units	49 acres	DUA = 6.1	cumulative density	5.5 DUA
3rd phase - F	100/units	132 acres.	DUA = 0.7	cumulative density	2.7 DUA

Whereas the 2002 approved plan was:

> The Black Rock PUD's development plan was in three phases:
> 2004-2006 – Phase 1
> Phase 1 included 155 dwellings with a cumulative DUA of 1.4;
> 2007-2009 – Phase 2
> Phase 2 included 210 dwellings with a cumulative DUA of 2.4;
> 2010-2013 – Phase 3
> Phase 3 included 230 dwellings with a cumulative DUA of 2.7.

One could legitimately wonder why it matters in a practical sense if Black Rock frontloads the high-density construction into phases 1 and 2.

Actually, the frontloading of higher-density construction matters quite a lot. There are two results from the frontloading and building 82% of the units in phases 1 and 2. First, the

PUD implementation is not "uniformly" spread out the development as is contemplated in the PUD Ordinance. Thus, as discussed above, the 2022 Third Proposed Amendment clearly violates Section l6A.4(j) which provides:

> Phasing: In order **to ensure that the PUD develops uniformly**, **each phase shall independently conform to the density established by the Planning Commission for the PUD tract**.

[Emphasis added.]

Second, frontloading the building of the high-density units intensifies the demand on public facilities/infrastructure much earlier; in a shorter period of time. Under the 2022 plan, phases 1 and 2 [82% of the units] are to be completed in a four [4] year time frame. This early burden on public facilities is in sharp contrast to the more evenly spread construction and the resulting gradual impact on public facilities such as water generally, water for fire suppression, schools, roads, sewer and others.

The change from a 10 year build out plan [2002] to a 6 year build out plan [2022] is significant in its concentrated impact on public facilities/infrastructure.

Another change from 2002 to 2022, is that the 2002 plan was to be constructed over a period of ten [10] years, which permitted additional time for the county addressing the adequacy of public facilities/infrastructure in the area. The 2022 Third Proposed Amendment is scheduled to be built over a six [6] years, which concentrates the impact on public facilities/infrastructure.

The change from the 2002 condominiums and townhomes as a "gated community" to a community that is not-gated is a major concept plan change.

The 2002 County Commissioners approved PUD plan noted that: "Notes: 12. The Condominium and Townhouse portion of this project will be a gated community with private streets maintained by the HOA."

However, the March 7, 2022 Third Proposed Amendment eliminates the concept of the condominiums and townhouses being "gated" with private streets.

The Court can take judicial notice that a gated community is a residential community that generally has controlled entrances for automobiles and pedestrians. They are often characterized by a closed perimeter of walls or fences. It is common knowledge in our society that generally gated communities are believed to have advantages which increase property values in the gated community and the residential areas around it. Those advantages that can increase property values can include a belief that gated communities are:

a. Exclusive;
b. Secured and therefore safe;
c. Closed and therefore private and quiet; and
d. Some amenities may be reserved for residents.

The 2022 Third Proposed Amendment elimination of the more high-density dwellings being in a "gated community" to an open and not-gated structure is a significant change in the experience of those living in and around the PUD community.

The Change from the 2002 "Condominiums" to the 2022 "multi-family" is a Major Change.

A close look at the language used on the 2002 "Preliminary Development Plan" shows that the category of residential dwelling units which were highest in density were "condominiums." The words "multi-family" do not appear on that 2002 "preliminary

development plan." These condominiums appear in the "gated" portion of the PUD in which there are also five (5) additional "tot lots" [children's play areas] for those residents in the "gated" area.

A condominium is generally defined as "a building or complex of buildings containing a number of individually owned apartments or houses." Oxford Dictionary, 2003.

However, the Third Proposed Amendment March 7, 2022 "Conceptual Site Plan," completely eliminates the word "condominium." Thus, in this Third Proposed Amendment, condominiums no longer are part of the Black Rock 2022 PUD. Rather, for the highest density areas in the 2022 Third Proposed Amendment, Black Rock exclusively uses the word "multi-family." The Court can take judicial notice that generally, "multi-family" refers to one owner that rents units to multiple families. This shifts the highest density portions of the PUD from home ownership to rental units. If Black Rock still intended to build condominiums, they would not have changed the language used in the 2002 "preliminary development plan" from "condominiums" to "multi-family."

Homeownership, including in condominiums, in a neighborhood promotes stability and can encourage residents to expend more energy and resources on the intangibles in the community including building positive relationships with neighbors and a greater focus on taking care of their homes and neighborhood.

On the other hand, residents who live in rental/multi-family buildings are likely to be more transient. This can diminish stability in the neighborhood. People who are more transient are less likely to invest extra time and energy forming neighborhood relationships or spending time on community projects. It is common knowledge that rental units in multi-family

buildings, can have a negative impact on property values of the residences surrounding the rental buildings. Additionally, the greater the number of people living in multi-family rentals can correspond to a lower rental rates, and this can attract a more economically challenged group of residents. This can negatively impact property values and the atmosphere of the PUD community for PUD residents and the surrounding communities.

The 2022 Third Proposed Amendment which changes 160 dwelling units from owned condominiums to multi-family rentals, is a major change to the 2002 approved plan.

In addition, the 2002 five (5) tot lots [smaller playgrounds for those in the gated community] are eliminated in the 2022 Third Proposed Amendment.

The Ordinance Dictates that Changes to the Approved PUD Be In Response to Community Needs and Conditions, There is No Evidence in the Record That the Proposed Changes Are Responsive to Community Needs or Conditions.

One important consideration with proposed changes to the PUD includes community needs and community conditions. Specifically, the ordinance Section 16A.5 Changes to an Approved PUD:

> . . . it is also the intent that **an approved PUD may need to change in response to changing community needs and conditions**, **and that change must follow an appropriate public review process similar to that which occurred prior to the PUD approval and as set forth herein.**

Grammatically, the ordinance phrase "in response to **changing community needs and conditions,"** [emphasis added] in its component parts means in response to changing community needs and changing community conditions.

The Board of Appeals Opinion referenced instead that "the proposed changes were intended to accommodate a shift in market demand and community trends." However, there were no specific factual findings about a "shift in market demand" or "community trends." The

Court could not find what evidence was presented to support those conclusions beyond the unsupported assertions of Black Rock. The Opinion concludes that "[a]s a result" of the shift and market demand and community trends," there were proposed changes to "certain site elements like access and stormwater management, as well as to overall height and the location of the buildings."

It is certainly possible that an "access" change was responsive to general traffic burden and thus, a community need or condition. The reduction in storm water management space logically could not be responding to a community need.

The major problem with the Board of Appeals' decision on this point is that there was no evidence, data, or information underlying this conclusion that the "proposed changes [which] were intended to accommodate a shift in market demand and community trends." If there were data to support that the 2022 changes were designed to fulfil a "market demand" and therefore benefit the community, that would be relevant. However, one would be speculating to find that the "market demand" trend that these changes in the Black Rock PUD could serve would be a demand for apartment/rental units rather than owned condos. Also, it would be guessing to say that perhaps there could be a market demand for housing prices below what would have been charged for the 2002 "gated" community of condominiums with country club-like amenities. It was not clear what evidence supported this conclusion of the 2022 amendment responding to market demands and community trends.

In fact, 2022 Third Proposed Amendment changes do appear to reduce the cost to Black Rock of building the PUD, while also degrading the living experience and property values of the PUD residents and the neighborhoods surrounding the PUD based upon the following:

a. stripping away most of the luxurious 2002 PUD amenities,
b. increasing the building heights with more living space and therefore additional residents,
c. turning condominiums into apartment rentals;
d. concentrating more units on fewer acres [increasing density]; and
e. eliminating the "gated" aspect of the higher-density portions of the neighborhood.

While Black Rock is a "for profit" business and no one could fault them for trying to maximize their profits, the BOCC's approval of this PUD in 2002 was based partially upon benefit to PUD residents and to the community generally. Those benefits to PUD residents are significantly eroded in the 2022 Third Proposed Amendment. The Third Proposed Amendment changes from the 2002 planned PUD neighborhood will make the residences less appealing to the market with the amenities going from luxurious to sparse, and with higher density of people living there [increased building heights and more people residing there] in smaller spaces [creating more crowded streets and common areas] and the elimination of the owned condominiums and no "gated" community. Also, the 2022 plan has a very different aesthetic and atmosphere resulting from the 2002 plan. For all of these reasons, the 2022 planned neighborhood will have diminished property values and fair market rental values [which would not have existed with the 2002 condos] than would have been possible under the 2002 plan. This degradation in property values from what was planned will impact not only the PUD residents, but it may also degrade property values of other established neighborhoods in the immediate vicinity of the PUD.

Cumulatively, the changes from the 2022 Third Proposed Amendment amount to a major change from the 2002 approved PUD

The PUD Ordinance Section 16A.5(a)1. states that:

> Cumulative "minor" change requests may result in the determination by the Planning Commission that there has been a major change to the Concept Plan on file and require the developer to follow the process established for major changes in a PUD Development Plan.

Some of the changes discussed above are clearly major. Some may individually be minor changes. However, without a shadow of a doubt, the cumulative changes in the 2022 Third Proposed Amendment from the 2002 concept plan are major. The Court finds that there was insufficient evidence below from which a reasoning mind could have concluded that the Third Proposed Amendment was a minor change from the 2002 approved PUD plan. Thus, on this issue the decision of the Board of Appeals is reversed and remanded for further action in accordance with this decision and the zoning ordinance.

Conclusion

This case is remanded for further proceedings consistent with this Court's findings and the Memorandum Opinion.

Date: April 1, 2024

/s/ *Dana Moylan Wright*
Dana Moylan Wright, Associate Judge
Circuit Court for Washington County, Maryland

cc:
Gregory L. Waterworth
Saul Ewing LLP
1001 Fleet Street, 9th Floor
Baltimore, MD 21202
Attorneys for Petitioners

William E. Erskine, Esq.
Offit Kurman, PA
8850 Stanford Boulevard, Suite 2900
Columbia, MD 21045
Attorneys for Respondent Black Rock Holdings II, LLC

Zachary J. Kieffer, Esquire, Washington County Attorney
Washington County Administration Complex
100 West Washington Street, Suite 1101
Hagerstown, MD 21740
Attorney for Washington County Board of Appeals

IN THE MATTER OF THE MT. AETNA
ADVOCACY GROUP, ET AL.
PETITION FOR THE JUDICIAL REVIEW
OF THE DECISION OF: Case No. C-21-CV-22-00424

The Board of Appeals of Washington County
Appeal Number: AP2022-021
Appeal of Mt. Aetna Advocacy Group

ENDNOTES TO THE COURT'S MEMORANDUM OPINION

Endnote 1. Particulars about the 2002 approved Black Rock PUD taken from the "Preliminary Development Plan, Black Rock P.U.D., Rezoning Case No. RZ-02-006, Approved on November 19, 2002" prepared for Black Rock which was accepted and entered by the Washington County Planning Commission on July 22, 2004.

2002 Black Rock PUD Approved by Board of County Commissioners	
Total Acres	220.77
Density Overall	2.7 DUA
Total Residential Units	595
	Units / (Cumulative Density)
- Phase 1 Units – Density 2004-2006 [3 years]	155 (1.4 DUA)
- Phase 2 Units – Density 2007-2009 [3 years]	210 (2.4 DUA)
- Phase 3 Units – Density 2010-2013 [4 years]	230 (2.7 DUA)
Types of Housing	
- Single Family	186
- Zero LL	79
- Semi-detached	50
-Townhomes	100
- Multi-family /Apartment	180
- Total Units	595
Heights	
- Single Family	32

- Zero LL	32
- Semi/Duplex	32
-Townhomes	35
- Multi-family /Apartment	40
Water	300 Gal / Unit
Sewage	300 Gal / Unit
Traffic / Day	4,592 trips
Open Space	60.58 Acres
Amenities	7.9 Acre – Phase 1

Endnote 2.

Below are relevant portions of the Decision of the Board of County Commissioners [hereinafter "BOCC February 1, 2022, Decision"] that supported the February 1, 2022, vote to deny Black Rock's requested plan amendment.

In their BOCC February 1, 2022, Decision, the Board of County Commissioners of Washington County explained the scope of what they considered by tracking the language of the PUD ordinance. They said:

> Pursuant to Washington County Zoning Ordinance section 16A.5(a)3, The Board of County Commissioners of Washington County makes findings of fact with respect to the following matters: (1) The purpose of the PUD district; (2) The applicable policies of the adopted Comprehensive Plan; (3) The compatibility of the proposed changes to the PUD district with neighboring properties; (4) The effect of the proposed changes to the PUD district on community infrastructure; and (5) Consistency with the intent and purpose for the establishment of the PUD which is to permit flexibility and creativity in the design of residential areas, promote economical and efficient use of the land, provide for a harmonious variety of housing choices, a varied level of community amenities [,] and the promotion of adequate recreation, open space [,] and scenic attractiveness.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 1.

The BOCC noted that the 2006 zoning map amendment (RZ-02-006 "assigned a PUD floating zone, *tentatively* [**emphasis added**] approved up to 595 residential dwelling units, for a density of 2.7 per acre." They also noted that the request under consideration included 1,148 residential dwelling units with a density of 5.2 per acre. BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 1.

There were many BOCC findings in its February 1, 2022, Decision that were required considerations under the ordinance and that are relevant to the issues in this appeal.

One such important issue as to population in the PUD area was explained in the BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, as follows:

> **Population trends in the neighborhood.**
>
> The subject property is in the Chewsville Election District No. 18. That election district has experienced large increases in population between 1980-2010. Population growth within this district has far outpaced the County's average during the same period. This district has increased approximately 122.1% (4.1% per year), while the County has seen increased population by 30.37% (1.01% per year) during the same period.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 2.

To set the context for their findings, the BOCC reviewed the ordinance purpose section and stated that:

The purpose of the PUD District.

Section 16A.0 of the Zoning Ordinance sets forth the purpose of the PUD zoning district:

> The intent of this Article is to manage the implementation of regulations for existing approved PUD Developments within the framework of the Urban Growth Area Rezoning of 2012. All PUD Floating Zones approved by the Board of County Commissioners prior to July 1, 2012[,] shall maintain their validity in accordance with this Article. This Zoning District is not available for new application on any property within the jurisdiction of Washington County.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 3.

The BOCC also found that:

> The PUD district permits residential uses as principal permitted uses. The applicant proposes a substantial and material increase in the density of the proposed residential uses in the PUD. While the proposed residential uses are not in conflict with the purpose of the PUD district, the amount of the proposed 193% density increase creates discordance with other guiding standards governing a major change to an approved PUD.

The BOCC also noted the that under the Ordinance that the goal is to support growth in "urban locations where the required infrastructure to support intensive development is in existence or planned." As noted by the BOCC, the Comprehensive Plan, at Chapter 12, Section C.1 states:

> The purpose for establishing growth areas is to identify areas within the County where development is to be encouraged. These areas surround urban locations where the required infrastructure to support intensive development is in existence or planned. They contain the centers of gravity for human activity with future investments in public utilities, facilities and transportation linkages being the most cost effective in these areas. The proposed Urban and Town Growth areas total approximately 45,452 acres....

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Page 3-4.

In addressing whether the Black Rock 2021 proposal was compatible with neighboring properties, the BOCC said:

> **The Compatibility of the proposed changes of the PUD with neighboring properties.**
>
> The subject property is located in a neighborhood of residential and agricultural uses. Residential development bordering the west of the property is comprised of moderate to high density residential uses, including single family, townhouse, and apartment units. To the south of the subject property is Black Rock Estates, a high-end residential subdivision. The northern and eastern boundaries of the subject property abut large areas of active agriculture uses, which form the westernmost boundary of the Urban Growth Area.
>
> The following historic sites listed on the Washington County Historical Sites Survey are located within a half-mile radius of the subject property:

WA-I-063 – Snavely (Warvel) Farm, early 19th century stone house, located on subject parcel #1; structure has been demolished.

WA-I-075 – Snavely Farm (Michael Hamilton Farm), late 18th century log and brick house, located on subject parcel #1; structure has been demolished.

WA-I-032 – Melrose Manor (Samuel McCauley Farm), constructed in 1850, located approximately 0.75 miles west of subject parcel #2 along Mt. Aetna Road.

WA-I-441 – Melrose Manor secondary dwelling; Early 20th century brick house, located approximately 800' from the subject property; structure has been demolished.

WA-II-137 – Price Farm; Early 20th century wood frame and stone house, located approximately 450' west of subject parcel #2.

WA-I-184 – 19th century stone house, located approximately 1,200' from subject parcel #2.

WA-I-033 – Par of Carr's Quesy, (Query, White Hall); Early 19th century stone house covered in stucco, located approximately 1,700' from subject parcel #2.

The proposed major change, if granted, would result in a material and substantial increase in density of residential dwelling units in the vicinity of the subject property. The existing PUD already provides for enhanced residential density in the area, which now consists predominantly of single-family homes and agricultural uses. We find that the increased density that would result from the requested major change would result in a discordant residential development when compared to existing uses in the neighborhood. In short, the requested density increase is too much for the neighborhood and would, if granted, result in major incompatibility with surrounding uses.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 4-5.

An important consideration as noted by the BOCC is the impact of the proposed change on infrastructure. While this 2021 proposed change was a significant increase in density, the BOCC's findings as to adequacy of existing infrastructure are important for any proposed change to the existing PUD. As to the state of infrastructure in the area as of February 2022, the BOCC said:

The effect of the proposed changes to the PUD on community infrastructure.

The subject property is in an area that is well-known to have water service issues. The City of Hagerstown Water Department confirms that water quantity and pressure in this service zone impacts daily usage and fire suppression efforts. The City Fire Chief confirms the fire suppression inadequacy.

The City of Hagerstown's service model predicts that the additional allocation occasioned by the requested major change will create a deficit in the overall Medium Range Growth Area water capacity.

We find that a grant of the requested major change would exacerbate an existing water pressure and water capacity deficit. Accordingly, it would be imprudent to grant the requested major change given the existing deficiency in the water service infrastructure.

The requested major change would not have a material impact on wastewater infrastructure, so this factor neither compels nor disqualifies the requested major change.

The requested major change would increase residential density in the neighborhood, which would increase fire and emergency medical service demands to the Funkstown Fire Company, the Smithsburg Volunteer Fire Company, the City of Hagerstown Fire Department, and Community Rescue Service. There are known fire suppression water pressure issues in this neighborhood which, as a result of increased density, would be heightened if the requested major change were granted. Fire suppression concerns are additionally problematic because the proposed major change would result in more apartment and townhouse units, and any potential fire creates greater potential for loss of life and property when units are clustered in close proximity.

The subject property is in the Ruth Ann Monroe/Eastern Elementary/Smithsburg Middle/High and Greenbrier Elementary/Boonsboro Middle/High school districts. The proposed major change to the existing PUD would result in projected inadequacy, as defined by the Adequate Public Facilities Ordinance, at the elementary school level in both districts. The requested major change is projected to also result in over-capacity in the middle and high school levels. The middle and high school level capacity issues may be able to be mitigated, but the elementary level capacity issues appear highly unsolvable, as there are no plans for redistricting, capital construction, or other methods to alleviate school overcrowding. We find that this school capacity issue compels denial of the requested major change.

The subject property will use Mt. Aetna Road as access for the PUD. Mt. Aetna Road is a County-owned and maintained highway segment. The most recent traffic count data collected in this area was in 2016 and is shown in the chart below.

The data shown in the chart is expressed in annual average daily trip traffic volumes.

Table 2: Traffic Volumes at Select Locations

Mt. Aetna Rd. @ Sasha Blvd.	557
Mt. Aetna Rd. @ White Hall Rd.	1622
Mt. Aetna Rd. @ Edgewood Dr.	5553

Source: Washington County Division of Engineering and Construction

A traffic impact analysis was completed by the property owner in 2002 to evaluate the impacts of applying a PUD overlay on the property with a density of 595 units (2.7 units per acre). It was estimated that the gross number of vehicle trips per day would be 4,592 trips. The analysis indicated that the additional traffic generated from the development would increase delays to the signalized intersections along U.S. Route 40 and Robinwood Drive. Furthermore, the development would increase traffic volumes along White Hall Road to its intersection with Md. Route 66. The analysis showed that several road improvements would need to be completed to offset the traffic generation from the development.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 6-7.

The Board of County Commissioners concluded as to the road infrastructure adequacy that:

Testimony was received at the public hearing on this requested major change, and its weight was overwhelming that the road infrastructure in the neighborhood was frequently at capacity and, at times, clearly overburdened when there was any disruption to the standard traffic flow in the area. This condition exists presently. We find that granting the proposed major change would strain current roadway capacity and would materially exacerbate inadequacy issues when there was any disruption to standard traffic flow patterns.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 8.

One of the significant considerations for the Board of County Commissioners was whether the proposed amendment was consistent with the purpose and intent for PUD establishment. Thus, the Board of County Commissioners stated:

Consistency with the intent and purpose for the establishment of the PUD[,] which is to permit flexibility and creativity in the design of residential areas, promote economical and efficient use of the land, provide for a harmonious variety of housing choices, a varied level of community amenities[,] and the promotion of adequate recreation, open space[,] and scenic attractiveness.

The subject property is already benefited by a PUD floating zone, which allows for increased density and greater flexibility in design and layout than would otherwise be allowed by its base Residential Transition zoning designation.

There has not been a convincing demonstration by the applicant that a grant of the requested major change to the density of the approved PUD would further consistency and purpose of the PUD, promote flexibility and creativity in the design of residential areas, promote economical and efficient use of the land, provide for a harmonious variety of housing choices, a varied level of community amenities[,] and the compatibility with surrounding, existing uses. The request would simply provide for increased density and a greater number of mixed residential uses as is currently allowed by the existing PUD. There would be no increase in community amenities, housing choices, or recreational or open space uses. The request, as proposed, fails to increase the level of community amenities or the promotion of adequate recreation, open space[,] and scenic attractiveness, as it merely seeks to increase the density of residential uses on the subject property.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 8.

After considering all evidence and the Ordinance, and with their main focus on adequacy of infrastructure in the area, the Board of County Commissioners denied the Black Rock proposed amendment with following explanation:

Conclusion

The requested major change, if granted, would result in increased density in a neighborhood whose water, traffic, and school infrastructure is already experiencing significant and material adequacy issues. That infrastructure is struggling–at best–to meet current capacity demands. Granting the requested major change and its density increase of nearly 193% would overwhelm that infrastructure to the detriment of the public's health, safety, and welfare. We cannot conclude that the grant of the requested major change would, in any way, benefit public safety, the purpose of the PUD district, or the general welfare. We cannot conclude that a grant of the requested major change to the existing PUD would not result in an incompatibility with the surrounding neighborhood.

BOCC February 1, 2022, Decision denying the 2021 Black Rock proposal, Pages 8.

Endnote 3. Below is Petitioners' recitation of the differences between the phases detailed in the County Commissioner's 2002 approved PUD plan and Black Rock's Third Proposed Amendment. Petitioners' Memorandum notes these differences as:

> An 17% increase to the heights of townhomes and a 27% increase in height of multi-family structures. Id. Clustering multi-family structures in the center of the Property, as opposed to the Southeastern corner of the Property as originally approved. Id. Concentrating all zero lot line/townhomes and semi-detached/duplex houses in the southeastern comer of the Property, as opposed to throughout the entire Property. Id. Clustering 485 dwellings on less than half of the Property as opposed to spreading throughout. Id. Reducing estimated average daily water consumption and sewage flow from 300 gallons a dwelling to 200 gallons a dwelling. Id. Reducing stormwater management areas. Id. And, reducing the nearly 8 acres of recreational amenities scheduled to be built during phase 1 to approximately 3.5 acres of recreational enmities to be built at an unspecified time in a different location on the property. Id.
>
> Perhaps the most significant change is not to the final form of Black Rock PUD- but the manner in which it is to be developed.
>
> The Phasing Under the Third Proposed Amendment is Major and Illegal
>
> Under the Zoning Code, the development of a PUD can be phased - that is constructed in incremental steps. See Zoning Code Section 16A.4 (j). The Black Rock PUD was originally approved as a phased development and development plan dated 11/19/2002 details the phasing schedule as:

DEVELOPMENT SCHEDULE

PHASE 1 (155 DWELLINGS), ACTIVE RECREATION FACILITIES.....2004-2006 (3 YEARS)

PHASE 2 (210 DWELLINGS).....2007-2009 (3 YEARS)

PHASE 3 (230 DWELLINGS).....2010-2013 (4 YEARS)

> Ex. B. That is, phase 1 would consist of 155 dwellings being constructed between 2004 and 2006. Id. Phase 2 would consist of 210 dwellings being constructed between 2007 and 2009. Id. And phase 3 would consist of 230 dwellings constructed between 2010 and 2013. Id. The November 19, 2002, development plan further provided the DUA (or

Units/Acre) of each phase:

AREA TABULATION

	PHASE I (155 UNITS)	PHASE II (210 UNITS)	PHASE III (230 UNITS)	TOTAL (595 UNITS)
TOTAL ACREAGE	110.29	44.76	66.19	221.24
OPEN SPACE	39.71	11.59	9.75	61.05
RIGHT-OF-WAY	12.66	7.19	10.91	30.76
LOT ACREAGE	50.89	23.01	44.02	117.92
WATER TOWER LOT			1.51	1.51
STORMWATER MGMT.	7.03	2.97		10.00
DENSITY (UNIT/Ac.)	1.4	4.7	3.5	2.7
CUMULATIVE DENSITY (UNIT/Ac.)	1.4	2.4	2.7	

Id. As noted in the last column, the cumulative density or DUA of the Black Rock PUD never exceeds the maximum allowable DUA of 2.7. Id.

The [Third proposed amended labeled as a "minor"] change does not include dwellings units per phase or calculations of DUA. Ex. F. Rather it only provides the following phased development schedule:

DEVELOPMENT SCHEDULE:

NEIGHBORHOODS A, B, C 2022–2024
NEIGHBORHOODS D, E, G 2024–2026
NEIGHBORHOODS F 2026–2028

Id. Neighborhoods A, B, and C involve the construction of 183 dwellings on approximately 39 acres of the Property. Id.; see also September 6, 2022, Opinion of the Board of Appeals, Rec. 135- 140, attached as Exhibit G. Accordingly its DUA (units/acres) is 4.7 - 2 dwelling units per acre in excess of the maximum allowed. Neighborhoods D, E, and G involves the construction of 302 dwellings on approximately 49 acres. Id. Therefore, phase 2's DUA will be even higher with approximately 6.1 dwellings per acre and its cumulative density will be more than 5.5 DUA - also in excess of the permitted maximum of 2.7. Neighborhood F involves the construction of 100 dwellings on the remaining 132 acres. Id. With a phase DUA of 0.7 - it is only after phase 3 is constructed (if it ever is constructed) that the cumulative DUA no longer exceeds the maximum permitted by the approved Black Rock PUD.

Endnote 4.

Both the legal and non-legal definitions of "valid," "validity," and "invalid" are consistent. Black's Law Dictionary (11th ed. 2019), a more recent version, states that "valid" and "invalidity" mean:

> Valid 1. Legally sufficient; binding <a valid contract. 2. Meritorious <that is a valid conclusion based on the facts presented in this case>. – validate, vb. – validation, validity, n.

Id. at 1164.

> Invalidity, n. 1. The quality, state, or condition of being legally or officially unacceptable; lacking legal support.

Id at 987.

Black's Law Dictionary [on-line] defines "valid" and "validity":

> VALID
> Of binding force. A deed, will, or other instrument, which has received all the formalities required by law, is said to be valid.
> VALIDITY
> This term Is used to signify legal sufficiency, as opposed to mere regularity.

Black's Law Dictionary [on-line] defines "invalid" as:

> INVALID
> Adequate to its purpose; not of binding force or legal efficacy; lacking in authority or obligation.

Merriam-Webster dictionary [on-line] explains the meaning of "validity" with examples of its common usage:

> Validity
> -the quality or state of being valid, such as:
> a. the state of being acceptable according to the law.
> i. The validity of the contract is being questioned.
> ii. What the federal courts have ruled … is that renunciations made behind barbed wire were essentially under duress, and thus of no legal validity.
> b. legally binding due to having been in compliance with the law; legally or officially acceptable.
> c. the quality of being well-grounded, sound, or correct; the validity of an argument/theory.
> i. Other researchers have questioned the validity of the test results.

ii. Later he acknowledged that there was no validity to his report.

Opposite: invalid, illegal, void.

Merriam-Webster dictionary [on-line] explains the meaning of "invalid" with examples of its common usage:

Not valid:

a. being without foundation or force in fact, truth, or law
an invalid assumption

b. logically inconsequent.

Endnote 5.

As to changes to the PUD such as Black Rock's March 7, 2022, Third Proposed Amendment to the 2002 PUD, the Washington County Zoning Ordinance dictates the process and considerations. Zoning Code Section 16A.5 states in relevant part:

> Section 16A.5 Changes to an Approved PUD
>
> PUD Floating Zones approved by the Board of County Commissioners prior to July 1, 2012 and shown on the official zoning map shall maintain their validity in accordance with this Article. **Subsequent plan reviews and approvals, re-approvals or changes to concept plans, development plans, subdivision plats, and site plans shall comply with the requirements of this Article.**
>
> It is the intent of this Article that the original establishment of the PUD not be a speculative device. However, it is also the intent that **an approved <u>PUD may need to change in response to changing community needs and conditions</u>, and that change must follow an appropriate public review process similar to that which occurred prior to the PUD approval and as set forth herein**.
>
> Recognizing that flexibility in the site design is inherent in the PUD process and that the long-term development of such a project may prompt the need for changes in the approved Development Plan for the property, the following procedures are established to accommodate a requested change.
>
> (a) Upon a request from a developer for a change to the approved PUD Development Plan the Planning Commission shall determine if the requested change is a major or minor change to the Concept Plan reviewed by the Board of County Commissioners as part of the establishment of the PUD District or as part of subsequent changes to the PUD Concept Plan. The establishment and subsequent approved changes to the PUD District by the Board of County Commissioners is considered a tentative approval of density and design features as shown on the Concept Plan. **The**

Planning Commission shall make the determination that a change is major or minor through evaluation of whether or not the change is in accordance with the latest Concept Plan on file as reviewed by the Board of County Commissioners.

1. Minor changes to the approved PUD Development Plan (Preliminary or Final) may be approved by the Planning Commission without the need for an additional public hearing. As a result of the requested change the Planning Commission may establish other requirements deemed necessary to satisfy the purpose of this Article. **Cumulative "minor" change requests may result in the determination by the Planning Commission that there has been a major change to the Concept Plan on file and require the developer to follow the process established for major changes in a PUD Development Plan.**

2. Major changes to the approved PUD Development Plan (Preliminary or Final) as determined by the Planning Commission shall also require a change to the Concept Plan and therefore require a new public hearing.

   i. The public hearing shall be conducted in accordance with established rezoning practices and schedules in effect at the time of the request. **The concept plan that illustrates the proposed change to the PUD shall include the information, as applicable to the change, listed below.**

      1. **A clear delineation of the area of the approved PUD that is the subject of the change request, indicating the approved land use and the requested land use.**
      2. All existing development in the PUD.
      3. A vicinity map at 1″=2,000 ft. showing the location of the proposed PUD in relation to its surroundings and to the applicable Urban or Town Growth Area as designated in the County Comprehensive Plan.
      4. The boundary, acreage and current zoning of the

tract.

5. Minimum topographic information sufficient to determine surface drainage patterns and principal drainage areas.
6. Adjacent land uses and zoning and the location of adjacent dwellings within 100 ft. of the common property line.
7. Buffer yards required by Section 16A.4(e) and the general location of fencing or screen planting as required by Section 16A.4(e)4.
8. The location of areas within the tract proposed for single- family, two-family, and multi-family residential uses; commercial and other non-residential uses, **tabulation for each area of the number of dwelling units,** the maximum building heights, the gross acreage, the gross residential density, and the gross area devoted to commercial uses; and a summary of the total dwelling units and the gross residential density for the tract.
9. General alignment of principal streets and highways within the development, including major points of access; their relationship to proposed streets within adjacent approved subdivisions and to proposed highways in the Washington County Highway Plan; and the estimated average daily traffic volumes and the traffic circulation patterns from the development onto existing and proposed public streets and highways that may change as a result of the requested land use changes.
10. The estimated average daily water consumption and sewage flow.
11. The applicant shall submit twelve (12) copies of the Concept Plan and accompanying data to the Planning Commission unless an alternative number of copies is specified by the Planning Commission.

3. Such major changes shall be reviewed by the Planning Commission for compatibility with this Article. The Planning Commission shall conduct a public information meeting to receive comments from interested parties to assist in the evaluation of

the proposed major change. Following the public information meeting the Planning Commission shall forward a recommendation to the Board of County Commissioners. The Commissioners shall hold a public hearing on the matter to determine whether or not the change meets the intent and requirements of this Article and establish findings of fact that consider:

i. The purpose of the PUD District;
ii. The applicable policies of the adopted Comprehensive Plan;
iii. The compatibility of the proposed changes of the PUD District with neighboring properties;
iv. **The effect of the proposed changes to the PUD District on community infrastructure; and**
v. **Consistency with the intent and purpose for the establishment of the PUD which is to permit flexibility and creativity in the design of residential areas, promote economical and efficient use of the land, provide for a harmonious variety of housing choices, a varied level of community amenities and the promotion of adequate recreation, open space and scenic attractiveness.**

In no event shall a major change result in the removal of a PUD zone. A denial of the requested major change shall require adherence to the previously approved Development Plan.