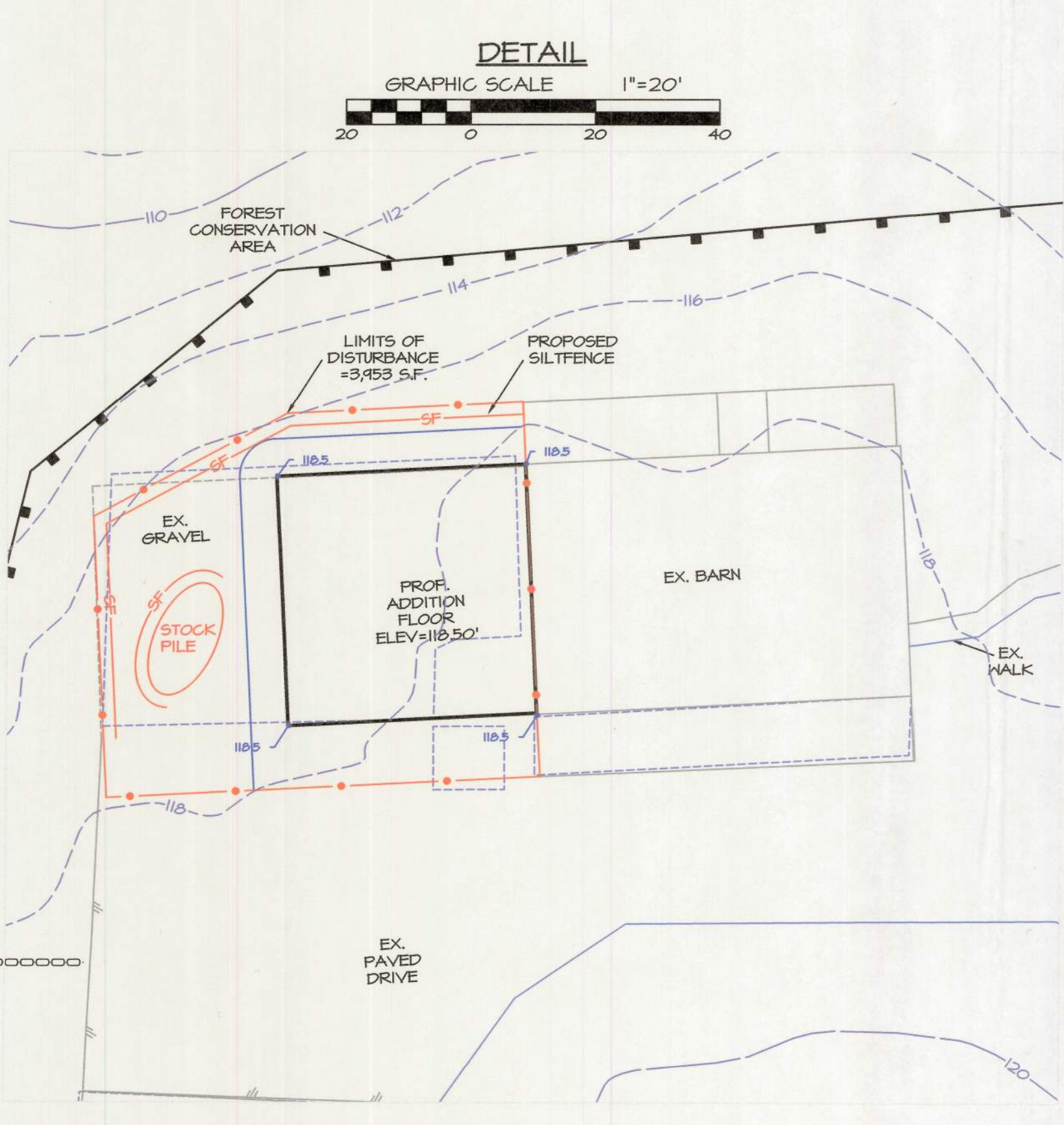


MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011
 MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES WATER MANAGEMENT ADMINISTRATION



LEGEND

—	PROPERTY LINE	— SF —	SILT FENCE
- - -	PROPERTY LINE ADJOINING	—	LIMIT OF DISTURBANCE
- - -	ACCESS/UTILITY EASMT.	—	PROP. 2' CONTOUR
- - -	INTERMITTENT STREAM	—	PROP. 10' CONTOUR
- - -	50' STREAM BUFFER	—	ROOF DRAIN LEADER
- - -	EXISTING SRA	—	OVERLAND FLOW
- - -	SOILS TYPE DIVISION LINE		
- - -	EXISTING 2' CONTOUR		
- - -	EXISTING 10' CONTOUR		

HEALTH DEPARTMENT GENERAL NOTES

1. Tax Map 04, Grid 17, Parcel 454, Lot 500-2C.
2. The property owner shall maintain and operate all new and existing BAI systems for the life of the system.
3. There shall be a 10 foot Utility Easement along all lot lines. These easements are to include use by the St. Mary's County Metropolitan Commission, its successors or assigns, for construction, maintenance, repair, inspection and operation of public water and sewer facilities, should such facilities ever be installed.
4. This approval by the St. Mary's County Health Department certifies that the lots shown herein are in compliance with current Maryland laws and regulations concerning sewage disposal as of the approval date; however, this approval may be voided in the event of future changes in such laws and regulations. The designated sewage disposal areas are the only areas approved by the St. Mary's County Health Department for sewage disposal purposes. Each approved lot includes an approved area of at least 10,000 square feet reserved exclusively for sewage disposal purposes as required by current Maryland laws and regulations. Improvements of any nature including but not limited to, the installation of other utility lines or structures in this area may render the lots undeveloped. Changes in topography may void this approval. To determine the exact areas of the lots approved for sewage disposal purposes or to establish a different area for such purposes contact the St. Mary's County Health Department, Division of Environmental Health.
5. This Site Plan is in compliance with the St. Mary's County Comprehensive Water and Sewer Plan.
6. There are no existing wells or sewage easements within 100 feet of the proposed wells or sewage easements, unless otherwise shown.
7. Water supply shall be from an individual deep drilled well that is drilled to an approved confined aquifer.
8. Sewage flow shall be to an individual septic system.
9. Minimum Ownership Statement: These lots contain at least a 20,000 square foot area which does not include rights-of-way (existing or proposed), 50 year flood plains and 2% or greater grades.
10. Water Category = NFS = Sewer Category = NFS.

SOURCE NOTES

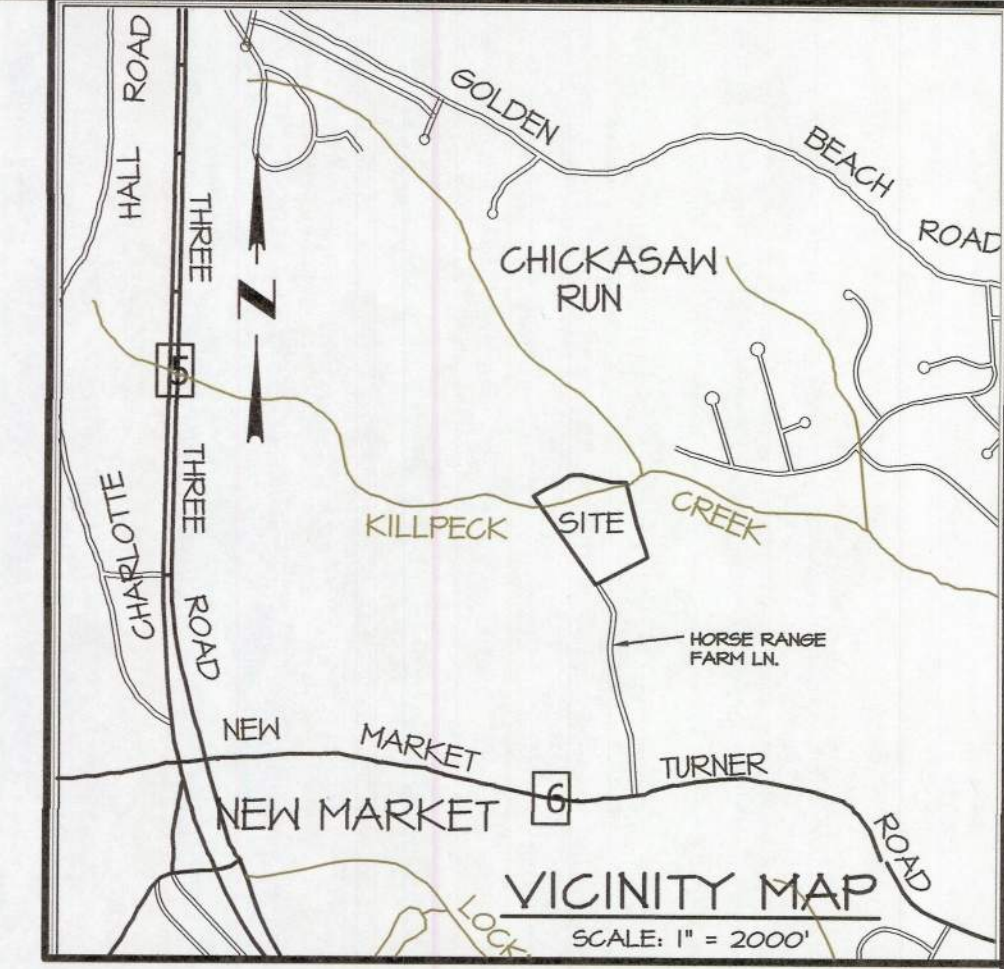
1. Bearings and coordinates shown hereon are referenced to the Maryland State Plane Datum of 1983, 2011 revision (MAD 83/2011). Contours and spot elevations are referenced to the North American Vertical Datum of 1988 (NAVD88). Both datums were established by a global positioning system survey performed by LSR, Inc. in January of 2025.
2. The subject property shown hereon appears to be located in Flood Hazard Zone(s) X & AE as delineated on Flood Insurance Rate Maps for St. Mary's County, Maryland, as distributed by the Federal Emergency Management Agency, Community Panel Number 2405100007E, Effective Date October 14th, 2004.
3. Non-Tidal Wetlands information was derived from the "National Wetlands Inventory" Maps distributed by the U.S. Department of the Interior, and Maryland DNR maps.
4. Soils information shown hereon was taken from the "Web Soil Survey" as prepared by the U.S. Department of Agriculture, Natural Resource Conservation Service and may not accurately reflect existing soil conditions. No soils testing has been performed by this firm, LSR, Inc., in conjunction with this plan. Contractor to verify in the field that existing soils are suitable for the purposes shown hereon including but not limited to, foundation support and stormwater management infiltration practices. If Contractor discovers unsuitable soils on site, Contractor shall notify this firm, LSR, Inc., of existing conditions and then discuss the need for implementation of alternative design options.
5. Utility locations shown hereon are based upon visual evidence and may not accurately reflect underground locations or all existing utilities. All utility locations are to be verified by Contractor in the field prior to construction.
6. Topographic information shown hereon was taken from digital maps obtained from the St. Mary's County Government, using photogrammetric and light imaging (LIDAR) methods.

GENERAL NOTES

1. Subject property appears to lie within the RPD zoning district.
2. This plan was prepared under the benefit of a Title Report which may show additional conveyances, easements, covenants, rights-of-way or building restriction lines not shown hereon.
3. Unless otherwise shown, property lines, topography and perc tests were taken from deeds and plats of record and do not represent a survey by this firm.
4. Subject property will be graded so as to drain surface water away from foundation walls. The grade away from foundation walls will fall a minimum of six inches (6") within the first ten feet (10').

UTILITY INSTALLATION NOTE:

All trenches or holes created for utility installation shall be backfilled, compacted, and stabilized at the end of each work day. Excavated trench material shall be placed on the high side of the trench or hole. No more trenchholes shall be opened than can be stabilized the same day. If an area must be left unstabilized overnight, silt fence will be placed immediately downstream of all disturbed areas and stockpiles, and appropriate safety measures will be installed as required or as shown hereon.



SOIL CONSERVATION GENERAL NOTES

1. The Contractor shall notify MDE, Environment Division at telephone number 410-537-3510 at least 48 hours after pre-construction meeting has been held and sediment controls have been installed. The Contractor may mail notice to MDE, Sediment and Stormwater Administration, 1500 Washington Blvd, Suite 440, Baltimore, MD 21203-1108.
2. Approval of the Inspection Agency shall be requested upon completion for installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
3. Approval shall be requested upon final stabilization of all sites before removal of sediment controls.
4. Specifications for erosion control practices shall be the "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" by the Maryland Department of the Environment.
5. Site is subject to a Forest Conservation Plan on file at the St. Mary's Co. Department of Land Use & Growth Management.
6. Site is subject to the Environmental Site Design (3 step process) for Stormwater Management and Erosion and Sediment Control hereon.

TEMPORARY & PERMANENT STABILIZATION

1. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within:
 1. Three (3) calendar days for all perimeter controls, dikes, swales, ditches, perimeter slopes and all slopes greater than 3 horizontal to 1 vertical (3:1) and
 2. Seven (7) days as to all disturbed or graded areas in the project site.
2. Temporary Seeding Schedule:

Species*	lb/acre	lb/1,000 sf	Depth (in)	2/1	5/1	8/1-10/30
Barley	122	2.80	1/4-1/2	X	-	by 10/15
Corn	140	3.22	1/4-1/2	X	-	-
Rye	140	3.22	1/4-1/2	X	-	-
Barley/Rye +	150	3.45	1/4-1/2	X	X	X

 * 10-10-10 fertilizer shall be applied at 600 lbs per acre.
 ** Lime shall be applied at 2 tons per acre or 100 lbs/1,000 s.f.
3. Permanent Seeding Schedule:

Recommended Species*	lb/acre	lb/1,000 sf	Depth (in)	application dates	Tall Fescue 15% 10% 10%
OB/01 - 05/15	Canada bluegrass 10%	3.40	1/4-1/2	03/01 - 05/15	
OB/15 - 11/15	KY bluegrass 10%	0.46	1/4-1/2	02/16 - 02/16	
red top 5%		3.40	1/4-1/2		
Keeping lovegrass 17%	4	0.46	1/4-1/2	03/01 - 05/15	
Sericea lespedeza 25%	20	0.46	1/4-1/2	02/16 - 02/16	

 Fertilizer application rates: 10-20-20, N 90 lbs/ac or 2.0 lbs/1,000 s.f.
 12-24-12, 175 lbs/ac or 4.0 lbs/1,000 s.f.
 Lime application rate: 2 tons/ac. or 100 lbs/1,000 s.f.

SEQUENCE OF CONSTRUCTION

1. Contractor shall arrange a Pre-Construction Meeting with the St. Mary's Soil Conservation District (301-475-8402; ext. 3) at least 5 days in advance of disturbances of any land on site. - 1 to 2 days
2. Clear and grub those areas necessary for the installation of the perimeter control devices. Install perimeter control devices concurrently with clearing and grubbing. - 1 to 2 days
3. Request approval of perimeter control devices by MDE prior to other land disturbance or grading. - 2 days +/-
4. Clear, grub and rough grade the remainder of the site. Surround areas to be used for stormwater management structures with blaze orange fence to protect it from machinery during construction. - 2 to 3 days
5. Construct Barn Addition. For appointments outside of perimeter controls, no more area shall be disturbed than can be stabilized the same day (See Utility Installation Note). - 3 to 6 mo's
6. Final grading, landscaping & permanent stabilization of site with a minimum 4 inches topsoil, seed, and mulch. - 1 to 2 days
7. Install Stormwater Management devices once all contributing areas have been stabilized. - 2 days +/-
8. Remove sediment control devices upon MDE Inspector's approval. - 5 to 5 days

<p>ST. MARY'S COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH</p> <p>APPROVED: _____</p> <p>ENVIRONMENTAL HEALTH DIRECTOR</p>	<p>ST. MARY'S COUNTY DEPT. OF LAND USE & GROWTH MANAGEMENT (LUGM)</p> <p>APPROVED: _____</p> <p>DIRECTOR</p>
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CONSULTANT'S CERTIFICATION

I hereby certify that this Erosion and Sediment Control and Stormwater Management Plan represents all significant natural resources based on my personal knowledge of the site, and that this plan was prepared in accordance with the review agencies. I have reviewed this Concept Plan with the Owner.

St. M. Vol 3/21/2025
 Steven M. Vaughan Date
 Prof. Land Surveyor, MD #21546
 Expires January 11, 2025

SCD INFORMATION

Lot / Parcel Area: 18.50 Acres	OWNER: JAMES WILLIAMS
Total Disturbed Area: 0.09 Acres	29450 HORSE RANGE FARM LN, MECHANICSVILLE, MD 20654
Site Impervious Area: 0.04 Acres	PHONE: _____
Area to be Vegetatively Stabilized: 0.05 Acres	DEVELOPER: JAMES WILLIAMS
Earthwork Quantities: Cut = 250 cu Fill = 250 cu	29450 HORSE RANGE FARM LN, MECHANICSVILLE, MD 20654
	PHONE: 301-475-2236

LUGM No.: RESSADD24-1643

OWNER'S/DEVELOPER'S CERTIFICATION

Any clearing, grading, construction, development, stormwater management construction, or all of these, will be done pursuant to this plan, and that all responsible personnel involved in the construction project will have a "Certificate of Training" from a Maryland Department of the Environment approved training program before beginning the Project.

Owner/Developer _____ Date _____
 Authorized Representative _____

LSR LAND SURVEYING PLANNING

ENGINEERING * PERMITS ENVIRONMENTAL SERVICES
 LITTLE SILENCES REST, INC.

41650 COURTHOUSE DRIVE ~ SUITE 101 - P.O. BOX 2340 LEONARDTOWN, MD 20650
 (301) 475-2236 ~ WWW.LSRCORP.COM

BUILDING PERMIT PLAT

LOT 500-2C
 TAX MAP 04 GRID 17 PARCEL 454
 HORSE RANGE FARMSTEAD SUBDIVISION
 PLAT REF: 46@97
 5th ELECTION DISTRICT - ST. MARY'S COUNTY, MARYLAND
 FOR: JAMES WILLIAMS

SHEET: 1 OF 2

STORMWATER MANAGEMENT NARRATIVE

The Stormwater Management Plan for 500-2C consists of the following:

- EXISTING CONDITIONS:**
- 18.50 acre Site consists of approximately 4.81 acres of forested areas (53.0% of Site) on predominantly "B" soils.
 - The Site does not lie within the Chesapeake Bay Critical Area.
 - The Site has existing features totaling 1.02 acres of Impervious area.
 - There are hydric but no highly erodible soils on Site per the USDA Web Soil Survey for St. Mary's County as shown hereon.
 - There are slopes greater than 15% on Site.
 - There are no wetlands on Site as shown on DNR # Hill Wetland Maps.
 - There are no intermittent or perennial streams, per USGS quadrangle maps, running through the Site.
 - There are no 1% annual chance (100 year) Flood plains on Site per FEMA Flood Maps.
 - No wetlands, springs or seeps were observed in the area proposed to be developed on subject site.

- PROPOSED DEVELOPMENT:**
- Site is being developed in such a manner as to allow the proper use and enjoyment of the land with minimal impacts to sensitive areas.
 - Proposed development will be limited to an envelope of 0.04 acres, which will impact to Resource Protection areas.
 - Proposed development will include an 1600 square foot Barn Addition.
 - Total proposed Impervious area is 1600 square feet, or 0.04 acres, which is 44.4% of the Site area and 0.2% of the Lot area.

ENVIRONMENTAL SITE DESIGN:

- Site development will divert upstream flows around subject property to allow proper disconnection of proposed improvements.
- Non rooftop runoff (diversion) shall be disconnected by directing impervious runoff to vegetated areas equal in length to the contributing impervious length and with a grade of less than 5%.
- Disconnects shall be directed away from buildings and shall be located at least 10 feet away from other impervious areas.
- Care shall be taken to limit compaction of soils in vegetated areas to be used for disconnects.
- Areas to be used for disconnection shall be re-tilled prior to establishing vegetation to increase soil permeability.

OUTFALL CONDITIONS:

- Site will discharge to an existing channel which appears to be stable and able to withstand anticipated flows from development.

EROSION AND SEDIMENT CONTROL DESIGN:

- Runoff from disturbed areas within non-erosive soil types and on slopes less than 2% grade (and on slopes less than 10% grade which are less than 125 feet long) shall be controlled with Silt Fence (Detail E-1).

NON-ROOFTOP DISCONNECT (N-2) NOTES

DESIGN & INSTALLATION:

- Erosion and sediment control devices (e.g., sediment traps) shall not be located in vegetated areas receiving disconnected runoff.
- Runoff from impervious areas shall drain in a safe and non-erosive manner through vegetated areas to the property line or down stream BMP.
- Non-rooftop impervious areas shall be disconnected as follows:
 - GRASS FILTER STRIPS:** Where impervious areas intersect the topographic contours at a maximum of 45 degrees, an unlimited area may drain from the impervious area in sheet flow provided the average slope is 5% or less for a distance equivalent to the longest drainage distance over the impervious area. Flow concentrations must be avoided for this practice to work effectively.
 - VEGETATED CHANNELS:** Where impervious areas intersect the topographic contours at an angle which exceeds 45 degrees, up to 1,000 square feet of impervious area may discharge in concentrated flow provided that the average slope is 5% or less for a distance equivalent to the longest drainage distance over the impervious area.
 - ALL PRACTICES:** The flow path or "disconnection" through vegetated areas shall be a minimum length of 10 feet; shall not exceed 15 feet in length; shall be located on an average slope of 5% or less; and shall be at least 10 feet from the nearest impervious surface of similar or lower elevation to prevent reconnection. The maximum contributing flow path shall be 150 feet.
- If areas to be used for disconnection are disturbed during construction, they shall be re-tilled to a depth of 4" - 6" prior to establishing vegetation to increase soil permeability.
- A final inspection shall be conducted before use and occupancy approval to ensure that adequate treatment areas and permanent stabilization have been established.
- Maintenance of areas receiving disconnected runoff is no different than that required for lawn or landscaped areas.
- Areas receiving disconnected runoff should be protected from compaction, such as vehicle traffic.

NON-ROOFTOP DISCONNECTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING:

N-2 NON-ROOFTOP DISCONNECTS							
No.	IMP. AREA	IMP. DIST.	BUFFER	Pe	Rev (% Area)	ESDv Prov.	SLOPE
N2-1	750 s.f.	10.0 ft.	10.0 ft.	1.00 in.	750 s.f.	59.4 c.f.	< 5%
N2-2	1,000 s.f.	10.0 ft.	10.0 ft.	1.00 in.	1,000 s.f.	79.2 c.f.	< 5%
N2-3	1,000 s.f.	10.0 ft.	10.0 ft.	1.00 in.	1,000 s.f.	79.2 c.f.	< 5%
N2-4	500 s.f.	10.0 ft.	10.0 ft.	1.00 in.	500 s.f.	39.6 c.f.	< 5%

SITE DATA:

SOIL TYPE	A	B	C	D	TOTALS
Drainage Area (A) =	s.f.	3,953 s.f.	s.f.	s.f.	3,953 s.f.
Impervious Area =	s.f.	1,600 s.f.	s.f.	s.f.	1,600 s.f.
Pervious Area =	0 s.f.	0 s.f.	0 s.f.	0 s.f.	0 s.f.
% Impervious (I) =					40 %
Pre-Devel. RCN =	38	55	70	77	55
Target Pe =	0	1.80	0	0	1.80

DEVELOPMENT CRITERIA:

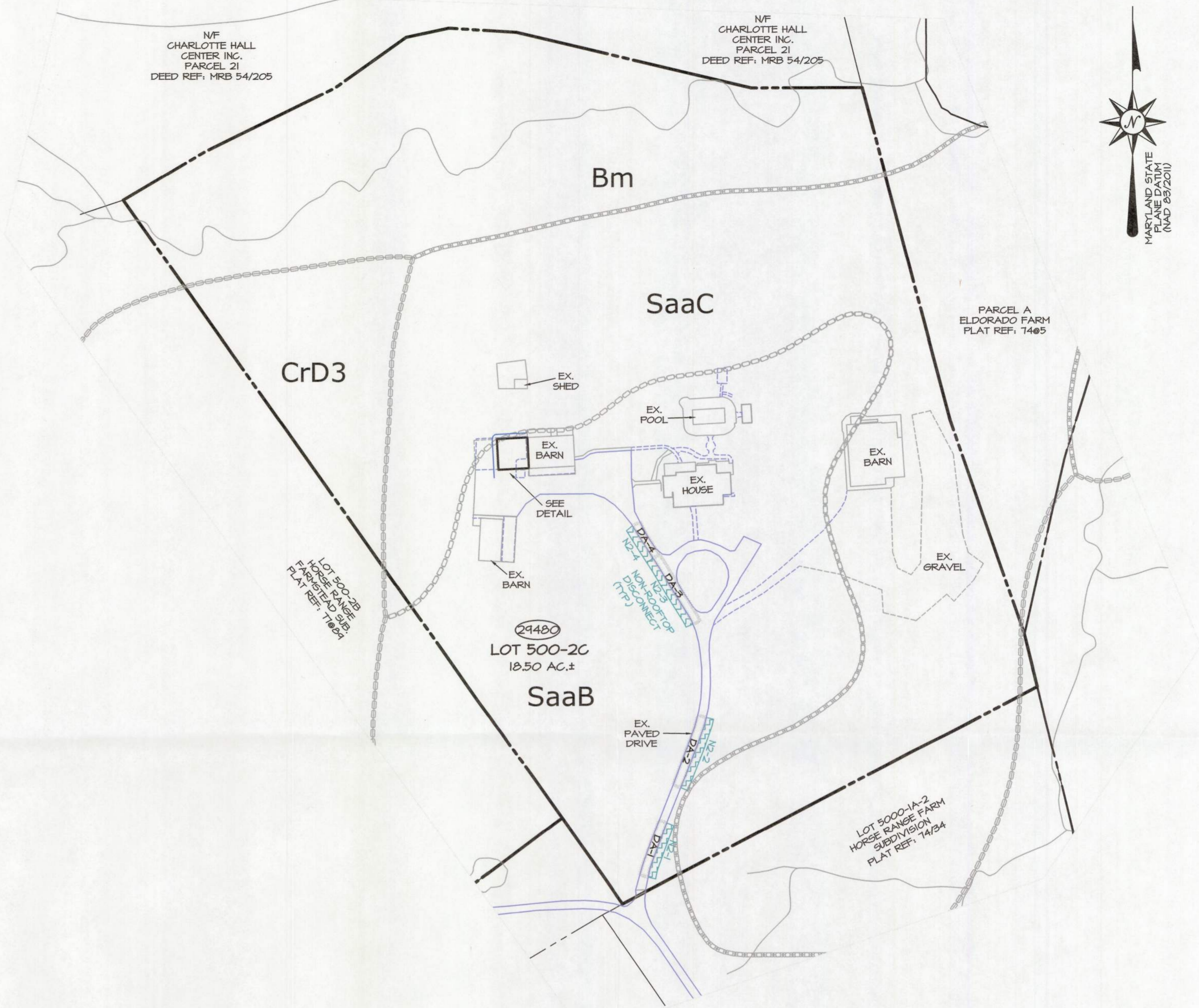
Direct Tidal Discharge?	NO	If YES, Pe = 1.0
Redevelopment Project?	NO	If YES, Pe = 1.0 for impervious areas
Proposed Impervious Area =	1,600 s.f.	I = 100%
Existing Impervious Area =	0 s.f.	
Existing Impervious TBR =	0 s.f.	
Exist. Imp. to be treated with ESD =	0 s.f. * 50% =	0 s.f.

DESIGN REQUIREMENTS:

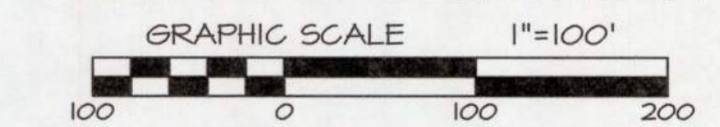
	PROPOSED DEVELOPMENT	RE-DEVELOPMENT
Rv =	0.05 + 0.009 * I = 0.41	0.00
Qe =	Pe * Rv = 0.75 in.	0.00 in.
ESDv =	(Pe * Rv * A) / 12 = 246 c.f.	0 c.f.
WQv =	(1" * Rv * A) / 12 = 136 c.f.	0 c.f.
S =	Weighted Recharge Factor = 0.26	0.00
Rev =	(S * Rv * A) / 12 = 0.0008 ac.ft.	0.0000 ac.ft.
(% Volume) =	35 c.f.	0 c.f.
Rev =	(S * A) = 0.0096 ac.	0.0000 ac.
(%Area) =	416 s.f.	0 s.f.

DESIGN PROVISIONS:

ESDv Required =	246 c.f.	ESDv Provided =	257 c.f.
(12"ESDv/Rv*A)		ESDv Untreated =	-11.6 c.f.
		Pe Provided =	1.89
Rev Required =	416 s.f. (% Area)	Rev Provided =	3,250 s.f.
		Rev Untreated =	-2,834 s.f.



POST DRAINING AREA MAP



STORMWATER MANAGEMENT SUMMARY TABLE

No.	AREA	IMP. AREA	PERVIOUS AREA	% IMPRV.	% OF SITE	TARGET ESDv	MAXIMUM ESDv	ACTUAL ESDv	ACTUAL L Pe	ACTUAL Rev (% AREA)	STRUCTURE No.	PRACTICE DESCRIPTION
DA-1	750 s.f.	750 s.f.	0 s.f.	100%	19.0%	106.9 c.f.	166.3 c.f.	59.4 c.f.	1.00	750 s.f.	N2-1	10' NON-ROOFTOP DISC.
DA-2	1,000 s.f.	1,000 s.f.	0 s.f.	100%	25.3%	142.5 c.f.	221.7 c.f.	79.2 c.f.	1.00	1,000 s.f.	N2-2	10' NON-ROOFTOP DISC.
DA-3	1,000 s.f.	1,000 s.f.	0 s.f.	100%	25.3%	142.5 c.f.	221.7 c.f.	79.2 c.f.	1.00	1,000 s.f.	N2-3	10' NON-ROOFTOP DISC.
DA-4	500 s.f.	500 s.f.	0 s.f.	100%	12.6%	71.3 c.f.	110.8 c.f.	39.6 c.f.	1.00	500 s.f.	N2-4	10' NON-ROOFTOP DISC.
SUB	3,250 s.f.	3,250 s.f.	0 s.f.	100%	82.2%	463.1 c.f.	720.5 c.f.	257.3 c.f.	1.00	3,250 s.f.	-	-
DA-5	703 s.f.	-1,650 s.f.	2,353 s.f.	-235%	17.8%	-61.3 c.f.	-95.3 c.f.	0.0 c.f.	0.00	0 s.f.	-	UNTREATED
TOTAL	3,953 s.f.	1,600 s.f.	2,353 s.f.	40%	100.0%	245.6 c.f.	382.1 c.f.	257.3 c.f.	1.89	3,250 s.f.	-	-

REVISIONS

LSR LAND SURVEYING PLANNING
 ENGINEERING * PERMITS
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 LEONARDTOWN, MD 20650
 (301) 475-2236 - WWW.LSRCORP.COM

DATE	3/18/2025
JOB#	0159-24
FOLDER	MO4BIT
SCALE	1" = 100'
DRAWN	MS/MD
CHECKED	SV
DATE PLOTTED	3/21/2025

LUGM No.: RESSADD24-1643
BUILDING PERMIT PLAT
LOT 500-2C
 TAX MAP 04 GRID 17 PARCEL 459
 HORSE RANGE FARMSTEAD SUBDIVISION
 PLAT REF: 46@97
 5th ELECTION DISTRICT - ST. MARY'S COUNTY, MARYLAND
 FOR: JAMES WILLIAMS
 SHEET: 2 OF 2