

LAND PRESERVATION PROGRAM STORMWATER MANAGEMENT SEDIMENT AND EROSION CONTROL SHORELINE CONSTRUCTION AGRICULTURAL PRESERVATION ADVISORY BOARD

Worcester County GOVERNMENT CENTER

ONE WEST MARKET STREET, ROOM 1306 **SNOW HILL, MARYLAND 21863** 

TEL:410.632.1220 / FAX: 410.632.2012

**WELL & SEPTIC WATER & SEWER PLANNING** PLUMBING & GAS CRITICAL AREAS/FORESTRY **COMMUNITY HYGIENE** 

September 20, 2024

This notification is to advise you that the Department has received and is presently reviewing the following request for a shoreline construction project:

Scott Stark-Request No. 2024-081 - Request to restore and enhance tidal wetlands within approximately 35 acres of low and high marsh by creating 2320 linear feet, with a maximum width of 3'x1' deep of first new order channels; clean out 233 ft of existing tidal ditch; fill 3039 linear feet of existing ditch with approx. 1013 cubic yard of excavated material and restore approx. 125,855 sq ft of tidal wetlands by thin layering approx. 5431 cubic yds of excavated material to a max elevation of 1.5 ft NAVD88 in area of previous vegetated tidal marsh that have concerted to open soil and plan with tidal marsh vegetation. The purpose of project is to provide drainage of ponded water within the marsh that is leading to marsh inundation and fragmentation and to provide tidal exchange. This project is located at 9344 Langmaid Rd, Newark, also known as Tax Map 49, Parcel 28, Fourth Tax District of Worcester County, Maryland.

The Department in considering this application will make specific findings of fact with regard to the environmental impact, navigational impact, recreational potential, commercial benefit to Worcester County, impact of the proposed construction upon the surrounding neighborhood and upon property values therein, and any other pertinent issues. Approval from the Department does not guarantee approval from any other applicable regulatory agencies.

If you have an interest which may be adversely affected by the issuance of this permit, you are requested to notify this Department in writing within fifteen (15) calendar days which will end on October 5, 2024.

Sincerely,

Brandy Whitlock Environmental Inspector

**Interested Parties** cc: David Bradford, Deputy Director



#### WORCESTER COUNTY SHORELINE CONSTRUCTION APPLICATION

Request No.: 20 24 - 081 Submission Date: 9-2024

Major Construction (\$300.00)  Minor Construction (\$150.00)
Written Description of Proposed Improvement (include channelward distance): The goal is to restore and enhance tidal wetlands within approximately 35 acres of low and high marsh by creating 2,320 linear feet, with a maximum width of 3 feet by 1 foot deep, of new first order channels; clean out 233 feet of existing tidal ditch; fill 3,039 linear feet of existing ditch with approximately 1,013 cubic yards of excavated material; and restore approximately 125,855 square feet of tidal wetlands by thin-layering approximately 5,431 cubic yards of excavated material to a maximum elevation of 1.5 feet NAVD88 in area of previous vegetated tidal marsh that have converted to open soil, and plant with tidal marsh vegetation. The purpose of the project is to provide drainage of ponded water within the marsh that is leading to marsh inundation and fragmentation and to provide tidal exchange.
Property Description:  Map:0049
Contractor:tbd Phone No.: Mailing Address: E-Mail Address:  Recorded Adjacent Property Owner:COUNTY COMMISSIONERS OF WORCESTER COUNTY_
Property Address: 1 WEST MARKET ST SNOW HILL MD 21863  Tax Map: 0049 Parcel:0116 Lot: Block:
Recorded Adjacent Property Owner: HARRISON HALE & JOHN H HARRISON  Property Address: 8937 LANGMAID RD NEWARK 21841-0000 PO Boy 160 OC, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Section: Block: Block: Description: Block: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Section: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Lot: Policy Oc, MD 2 Mark Map: 0049 Parcel: 0116 Parc
As the applicant, I attest that the information presented on this application, site plan and any written documentation attached hereto is known to be accurate. I understand that the proposed shoreline improvement will be constructed to meet or exceed minimum design standards adopted by the <u>Department</u> . Any deviation from these standards will require construction plans sealed by an engineer registere interest Special Mar Signaturack nowledge that any falsification of information presented may result in revocation of this approval and of the subsequent Shoreline Construction Permit.  ***********************************
DEPT. USE ONLY: 8-21-23
Notification Distribution Date: 4-20-24 Public Comment Deadline: 10 5-2415 calendar days)

Revised 7/1/19

Department Approval Date: \_\_\_\_\_Expiration: \_\_\_\_\_

# UNITED STATES FISH AND WILDLIFE SERVICE

# SALT MARSH RESTORATIONS AT STARKS LANGMAID RD

WORCESTER COUNTY, MD

### GENERAL NOTES

- THE US FISH AND WILDLIFE SERVICE. CHESAPEAKE BAY FIELD OFFICE, ORTITS DESIGNEE, WILL BE THE POINT OF CONTRACT FOR CONSTRUCTION LAYOUT AND PRECONSTRUCTION MEETING.
- CONSTRUCTION MUST BE SUPERVISED BY A MEMBER OF US FISH AND WILDLIFE SERVICE OR ITS DESIGNEE.
- THREE WORKING DAYS PRIOR TO CONSTRUCTION BEGINS CONTACT MISS UTILITY AT 1-800-441-8355.
- ALL EXCAVATION AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MARY LAND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MOSHA) STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE CODE OF MARY LAND REGULATIONS.
- NO CHANGES SHALL BE MADE TO THE PLANS WITHOUT PRIOR APPROVAL FROM THE PERSON RESPONSIBLE FOR THE DESIGN.
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO STANDARDS AND SPECIFICATIONS IN THE DESIGN.
- TO PREVENT THE SPREAD OF NOXIOUS AND INVASIVE PLANTS, EQUIPMENT (INCLUDING BUCKS, SHOVELS, TRACKS, AND TIRES) SHALL BE REASONABLY CLEAN AND FREE OF SOIL AND PLANT MATERIALS PRIOR TO MOBILIZATION AND DEMOBILIZATION.
- THE DRAWINGS ARE PREPARED COOPERATIVELY BY THE UNITED STATES FISH AND WILDLIFE SERVICE FOR THE MARED LANDOWWERS. CONSTRUCTION FOUND NOT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS SHALL VIOLATE THE COOPERATIVE AGREEMENT AND ALL DRAWINGS. SPECIFICATIONS, AND OLD MITTIES ESTIMATE SHALL MINIOLATELY BE RETURNED TO THE UNITED STATES FISH AND WILDLIFE SERVICE CHESSPEAKE BAY FIELD OFFICE.
- BASED UPON THE PROPOSED DESIGN. THE BREAKDOWN BETWEEN THE LOW MARSH DRAINAGE IMPROVEMENTS AND THE HIGH MARSH. IN MOURISHMENTS IS 48.50% LOW MARSH AND 51.50% HIGH MARSH. IN PHASE A, THE BREAKDOWN IS 68.20% HIGH MARSH NOURISHMENT AND 31.80% LOW MARSH NOURISHMENT IN PHASE B. THE BREAKDOWN IS 27.80% HIGH MARSH NOURISHMENT IN PHASE B. THE DREAKDOWN IS 27.80% HIGH MARSH NOURISHMENT AND 72.2% LOW MARSH NOURISHMENT IN PHASE D. NOURISHMENT IN PHASE D. THE BREAKDOWN IS 49.50% HIGH MARSH NOURISHMENT AND 100.00% LOW MARSH NOURISHMENT AND 50.50% HIGH MARSH NOURISHMENT AND 50.50% LOW MARSH NOURISHMENT



90% SUBMITTAL







#### SHEET INDEX

TITLE SHEET

EXISTING (EX.) CONDITIONS KEY N

PROPOSED (PR.) CONDITIONS KEY

PROPOSED CONDITIONS PLAN

PROPOSED CONDITIONS PLAN

PROPOSED CONDITIONS PLAN

PROPOSED CONDITIONS PLAN

DETAIL SHEET SHEET TITLE PLANTING DETAIL SHEET

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RECOSION AND SEDIMENT CONTROL CERTIFICATIO

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MAY 16, 2024



U.S. FISH AND WILDLIFE SERVICE CHESAPEAKE BAY FIELD OFFICE PARTNERS FOR FISH AND WILDLIFE 177 ADMIRAL COCHRANE DRIVE ANNAPOLIS, MD 21401

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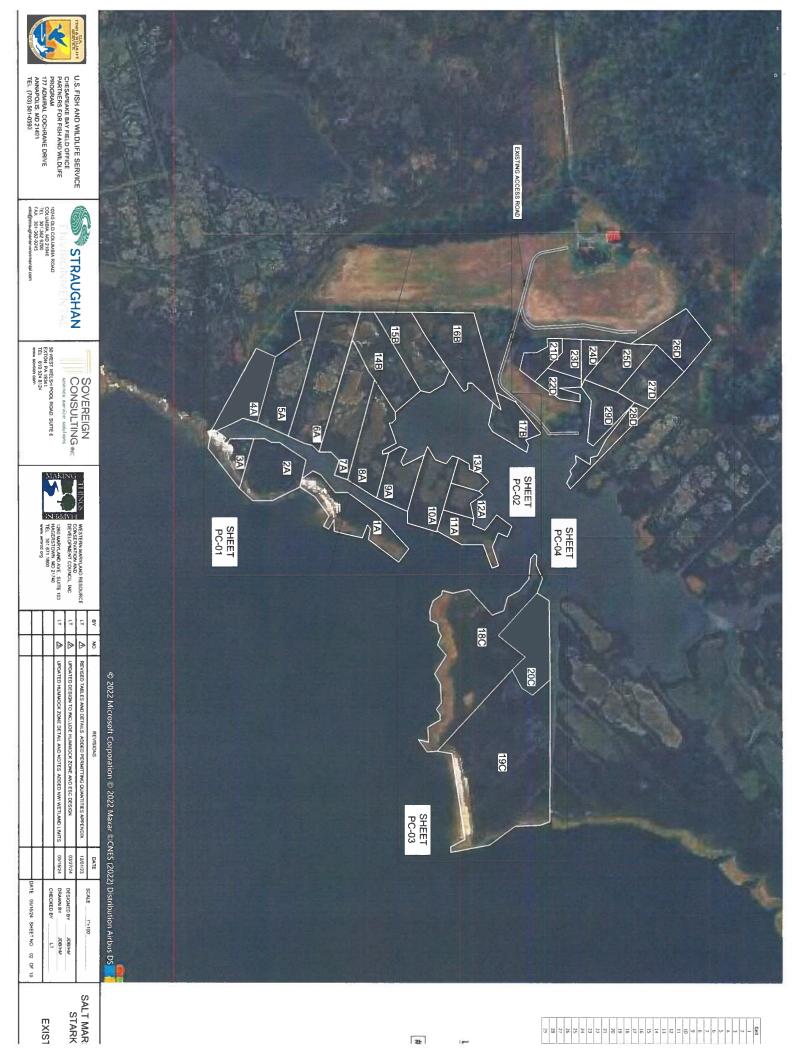




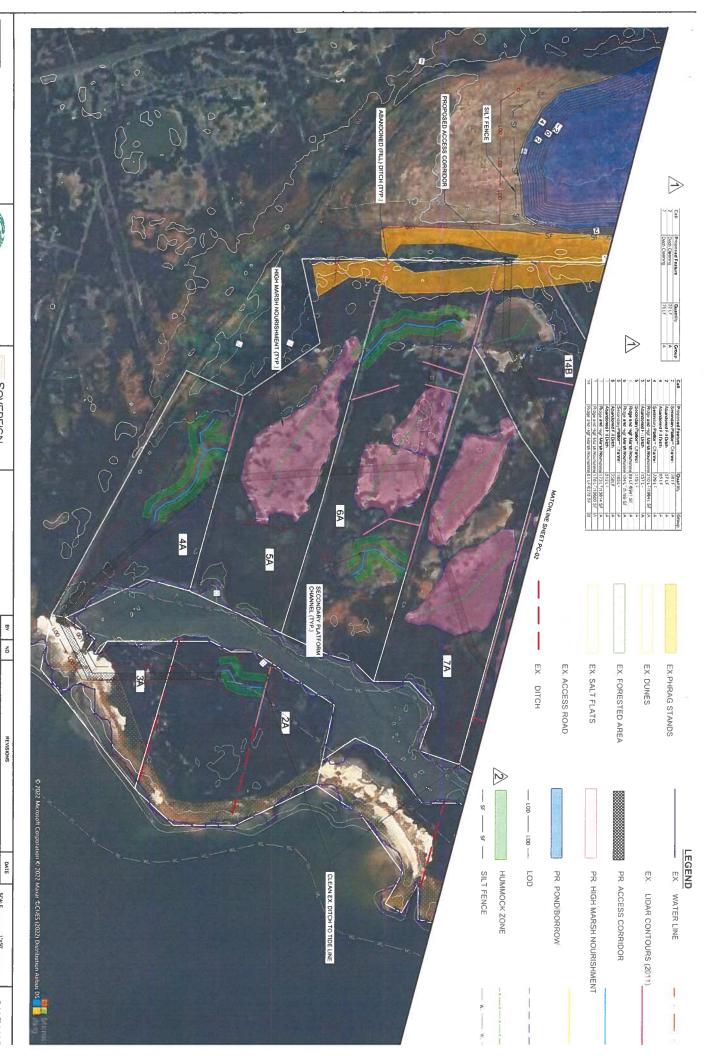
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			05/16/24	72722E	12/01/23	DATE
DATE (OF 1872) SHEET NO. OT O		CHECKED BY LT	DRAWN BY JDB/HM	DESIGNED BY JDB/HM		SCALE 1 = 5000.

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10245 OLD COLUMBIA ROAD COLUMBIA, MD 21986 TEL 301 362 9200 FAX 301-362-9245 arlo@straughtanenwommental cov





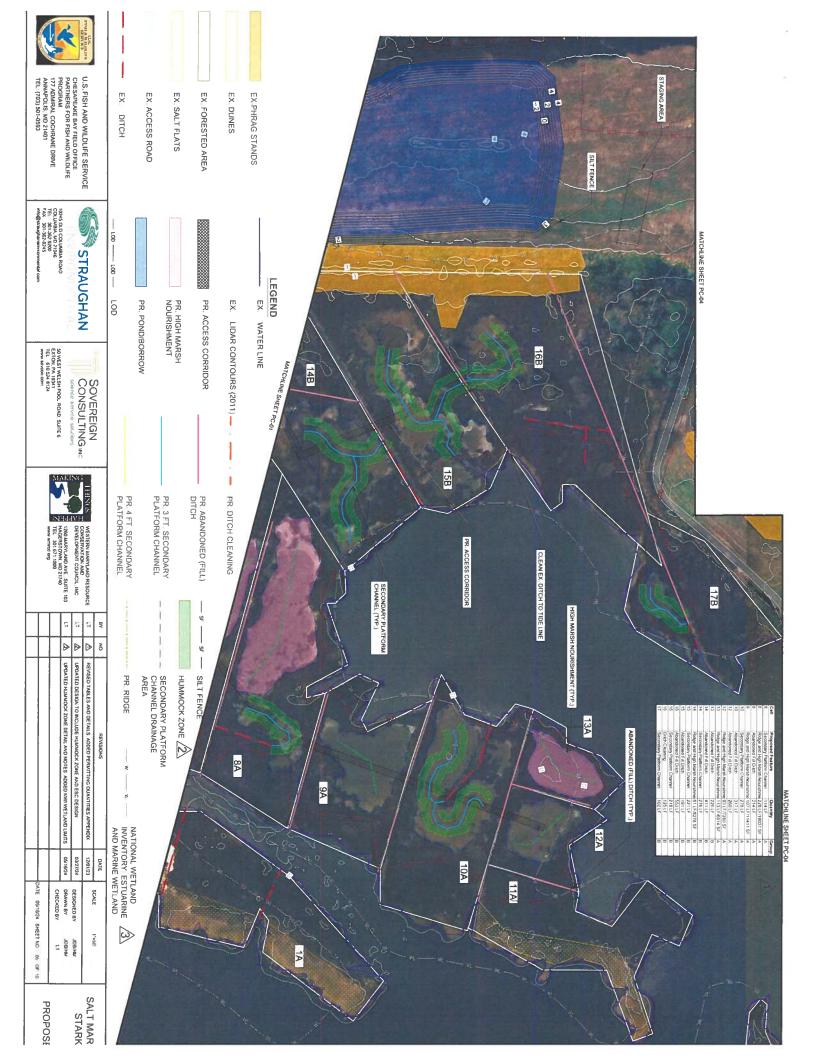
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1260 MARYLAND AVE SUITE 103 HAGERSTOWN: MD 21740 TE 301 671 1800 www.wmircd.org	WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC.

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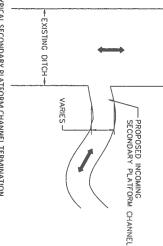
## CONSTRUCTION NOTES:

#### UPLANDS:

- THE SELECTED CONTRACTOR WILL ACCESS THE SITE GENERALLY FOLLOWING THE FOOTPRINT SHOWN ON THE APPROVED PLANS.
- MINOR VARIATION IS PERMITTED DUE TO MICROTOPOGRAPHY, MATURE WOODY PLANT AND LARGE TREE AVOIDANCE, OR SIMILAR.
- THE FINAL ACCESS CORRIDOR WILL BE FLAGGED IN THE FIELD AND VERIFIED BY THE USFWS PRIOR TO ANY DISTURBANCE. MINOR GRADING AND THE USE OF MATTING IS PERMITTED.
- CLEARING OF HERBACEOUS AND SHRUB GROWTH IS PERMITTED FOR ACCESS CORRIDOR.
- LOW SPOTS MAY BE FILLED WITH MULCH AND/OR SAND AND SOFT SPOTS CAN BE TEMPORARILY BRIDGED WITH LIGHT-WEIGHT MATTING TO BE LEFT IN PLACE.
- AT THE COMPLETION OF THE WORK, ALL DISTURBANCES WILL BE RESTORED, INCLUDING BUT NOT LIMITED TO: A. REVEGETATION WITH NATIVE GRASSES, HERBACEOUS RELATIVE TO THE SURROUNDING HABITAT. PLANTS, AND WOODY PLANTS AS APPROPRIATE
- MARSHES/NON-TIDAL WETLANDS/WATERS: ACCESS CORRIDOR MAY REMAIN TO FACILITATE ACCESS FOR SUBSEQUENT ACTIVITIES SUCH AS MONITORING.
- THE SELECTED CONTRACTOR WILL ACCESS THE SITE GENERALLY FOLLOWING THE FOOTPRINT SHOWN ON THE
- MICROTOPOGRAPHY, DITCH AVOIDANCE, AND LOW SOFT
- THE FINAL ACCESS CORRIDOR WILL BE FLAGGED IN THE FIELD AND VERIFIED BY THE USFWS PRIOR TO ANY DISTURBANCE.
- THE CONTRACTOR MAY USE MATTING
- THE CONTRACTOR IS TO WORK FROM THE CHANNELWARD EDGE OF THE ACCESS CORRIDOR BACK TO THE UPLANDS.

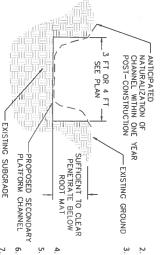
  B. AS AN AREA IS COMPLETED AND THE ACCESS CORRIDOR NO MATERIAL IS TO BE BROUGHT ON-SITE FOR ACCESS CORRIDOR CONSTRUCTION.
- ONCE A MARSH CELL IS COMPLETED, NO FUNCTIONAL ELEMENTS OF THE ACCESS CORRIDOR WILL REMAIN IN THE MARSH CELL. REMOVED.

IS NO LONGER REQUIRED, THE MATTING WILL BE



TYPICAL SECONDARY PLATFORM CHANNEL TERMINATION

#### PLAN VIEW



TYPICAL SECONDARY PLATFORM CHANNEL TERMINATION CROSS SECTION

# SECONDARY PLATFORM CHANNEL TERMINATION NOTES:

- CELL TERMINUS OF SECONDARY PLATFORM CHANNEL ELEVATION TO BE EQUAL OR HIGHER THAN CHANNEL CONFLUENCE END.
- SPECIFIC CHANNEL SHAPE WILL BE DETERMINED BY THE HYDROLOGY CHANNEL CONFIGURATION WHICH IS REALISTIC AND EFFICIENT TO CONSTRUCT USING MOST EXCAVATION EQUIPMENT. HOWEVER, THE SLOPE WILL BE DETERMINED BY INDIVIDUAL CELL TOPOGRAPHY. PASSING IN THE CHANNEL A SHAPE MORE REPRESENTATIVE OF THE DASHED LINE. THE FINAL THE SQUARE CUT CHANNELS DEPICTED IN THE DETAIL REPRESENTS A ANGULAR EDGES OF THE CHANNEL WILL NATURALLY SOFTEN TOWARDS
- IN THE ENHANCED LOW MARSH AREAS. A SECONDARY BENEFIT AND ONE OF THE DESIGN GOALS IS TO REINTRODUCE A PROPER TIDAL FLUSH PROPOSED WORK FISH INTO AND OUT OF THE MARSH. UNLESS NOTED ELSEWHERE IN THESE PLANS, MUDFLAT AREAS WILL NOT BE IMPACTED BY THE TARGET OF THE MODIFIED CHANNELIZATION IS TO PROMOTE ACCESS OF

# EXISTING GROUND EXISTING SUBGRADE -

SECONDARY PLATFORM CHANNEL PLACEMENT AND WIDTHS WERE DESIGNED BASE SECONDARY PLATFOLOGED CELLS, TIDAL RANGES, TIDAL LETVATIONS, AND CELL PLATFORM ELEVATIONS FOR THE PURPOSE OF IMPROVING MARSH PLATFORM TIDAL PLATFORM ELEVATIONS FOR THE PURPOSE OF IMPROVING MARSH PLATFORM TIDAL

SECONDARY PLATFORM CHANNEL EXCAVATION AND REUSE OF MATERIAL:

PRIOR TO EXCAVATION: CHANNEL CONFIGURATIONS ARE DEPICTED ON SHEET 3. DETAIL TYPICALS ARE PROVIDED ON SHEET 4.

B. CENTERLINE OF SECONDARY PLATFORM CHANNELS WILL BE STAKED; AND A. THE PRIMARY ACCESS ROUTE(S) INTO THE MARSH WILL BE FINALIZED IN THE

C. THE ORDER OF CELL SECONDARY PLATFORM CHANNEL EXCAVATION WILL BE

IDENTIFIED IN THE FIELD RELATIVE TO THE ORDER NOTED ON THE PLANS.

SECONDARY PLATFORM CHANNEL EXCAVATION WILL BEGIN AT THE INTERIOR TERMINUS OF THE SECONDARY PLATFORM CHANNEL AND WORK OUT TOWARD THE CHANNEL CONFLUENCE. THE USFWS WILL APPROVE THE FINAL STAKE OUT AND MAKE ADJUSTMENTS AS NECESSARY BASED ON SITE CONDITIONS.

ALL EXCAVATION MUST EXTEND 3 TO 6 INCHES BELOW ANY LIVE ROOT MAT. PEAT LAYERS ARE NOT TO BE ASSUMED TO BE LIVE ROOT MATS.

THE INTERIOR TERMINUS END OF THE SECONDARY PLATFORM CHANNEL MUST BE AT LEAST 6 INCHES DEEP +/- 2 INCHES.

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CHANNEL WIDTHS ARE DENOTED ON THE PLAN VIEW.
EXCAVATED MATERIAL WILL BE EITHER:
A.PLACED IN AN EXISTING DITCH IDENTIFIED TO BE FILLED; OR

B. USED FOR HUMMOCK CREATION (TYPICAL HEIGHT = 17 INCHES ABOVE MHW & MINIMUM ELEVATION = 1 8' NAVDBOL

11. ANY EXISTING DITCH IDENTIFIED TO REMAIN AND IS PART OF A SECONDARY PLATFORM CHANNEL FLUSH CONHIGURATION IS TO BE INSPECTED AND CLEANED OUT AS NECESSARY TO NOT MORE THAN 3 INCHES BELOW THE MILW ELEVATION.

12. HISTORIC AND READILY OBSERVABLE (VIA AERIAL PHOTOGRAPHY) DITCHES HAVE BEEN DENOTED ON THE PLAN AS RED DASHED LINES. THE RED DASHED LINE OF STANDIAGE THE LEVEL OF FLOW/FUNCTION WITHIN THE BD DASHED LINE DOES NOT INDICATE THE LEVEL OF FLOW/FUNCTION WITHIN THE DITCHES. CERTAIN DITCHES DENTIFIED MAY BE FULLY FUNCTIONAL, PARTIALLY FUNCTIONAL, OR COMPLETELY DYSELVANCHOMAL, THE DITCHES WERE FURTHER EVALUATED VIA ADDITIONAL AERIAL PHOTOGRAPHIC REVIEW AND/OR ON-SITE INSPECTIONS. IDENTIFIED DITCHES WERE EITHER LEFT UNDISTURBED, CLEANED OUT, OR PLUGGED.

14. 13 DURING SECONDARY PLATFORM CHANNEL EXCAVATION, A SPOTTER WILL BE PRESENT WITH A ROD AND LASER LEVEL TO ASSIST THE OPERATOR WITH DITCH ELEVATIONS. USFWS PERSONNEL WILL MONITOR CONSTRUCTION AND COLLECT AS-BUILT SURVEY DOCUMENTATION TO CONFIRM AND DOCUMENT FINAL DITCH CONFIGURATIONS.

15. POST CONSTRUCTION, CERTAIN SECONDARY PLATFORM CHANNIELS MAY NATURALLY FILL OR SCOUR WHILE REACHING A STABLE CONDITION, THIS IS TO BE ALLOWED TO OCCUR. HOWEVER, CHANGES TO CHANNEL MORPHOLOGY ASSOCIATED WITH SIGNIFICANT STORM EVENTS OR NUISANCE FLOODING EVENTS, MAY REQUIRE MAINTENANCE DURING VERA I POST CONSTRUCTION.

TYPICAL SECONDARY PLATFORM CHANNEL TERMINATION SECONDARY PLATFORM
CHANNEL TERMINUS
MAXIMUM DEPTH: 12 IN.
DEPTH DETERMINED BY
EXCAVATING 3 IN. TO 6
IN. BELOW EXISTING ROOT t PROFILE VIEW EXTEND SECONDARY PLATFORM CHANNEL CUT PATH AS NOTED ON PLAN NEW FOR EACH CELL - PROPOSED INCOMING
SECONDARY
PLATFORM CHANNEL
VARIABLE DEPTH CHANNEL TERMINUS END AND EXCAVATE

CHANNEL CUT AT THE INTERIOR BEGIN SECONDAR PLATFORM

**CROSS SECTION** HUMMOCK

LOW MARSH/ MUD FLAT WATER-LOGGED SECONDARY PLATFORM

HUMMOCK

LOW MARSH/ MUD FLAT WATER-LOGGED

05/16/24 12/01/23 DATE SCALE CHECKED BY DRAWN BY PLAN VIEW STN AP/BQf Ξ

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5 Þ D UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED MM WETLAND LIMITS UPDATED DESIGN TO INCLUDE HUMMOCK ZONE AND ESC DESIGN REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX DATE 05/16/24 SHEET NO



U.S. FISH AND WILDLIFE SERVICE PARTNERS FOR FISH AND WILDLIFE NNAPOLIS, MD 21401 ADMIRAL COCHRANE DRIVE





50 WEST WELSH POOL ROAD, SUITE 6
EXTON. PA 19341
TEL 610 524 8124
www.sovcon.com

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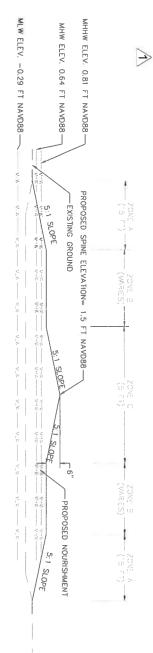


1260 MARYLAND AVE... SUITE 103 HAGERSTOWN, MD 21740 TEL 301 671 1600 WWW. WITWCG OFG WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC.

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CONSULTING



## TYPICAL CELL NOURISHMENT (HIGH MARSH) **CROSS SECTION**

## LOW MARSH PLANTING CLUSTERS PLAN VIEW

PLANTING CLUMP

PLANTING CLUMP -

# LOW MARSH PLANTING:

ALL PLANTS IN LOW MARSH CLUSTERS WILL BE SPARTINA ALTERNIFLORA.

# PLACE FILL MATERIALS PER DETAIL. SEE SECONDARY PLATFORM NOT EXCEED 1' BEYOND CHANNEL EXCAVATION NOTES FOR INSTALLATION. CELLS RECEIVING FILL WILL TARGET ELEVATION 1.20 FT NAVD88 GRADED AT A 5:1 SLOPE. FINAL ELEVATION AFTER SETTLEMENT WILL BE 1.00 FT NAVD88 SPINE IS TO PROVIDE POSITIVE SUFFACE DRAINAGE OFF OF THE PLATFORM AND PROVIDE SECONDARY BENEFIT OF ADDITIONAL MARSH VIGETATION ELEVATION BASED UPON SURVEY OF EXISTING MARSH, DATED 4/29/22. DITCH PLUG SHALL TOP OF DITCH PLUG SHALL NOT EXCEED 6" ABOVE EXISTING LOW BANK NOT EXCEED 1' BEYOND EXISTING BANK DITCH PLUG SHALL BOTTOM OF DITCH EXISTING BANK

# ZONE A REPRESENTS A 15 FT BAND AROUND THE OUTER EDGE OF THE NOURISHED PORTION OF THE CELL. ZONE C REPRESENTS THE AREA WITHIN THE BASE OF THE TOE OF THE ABANDONED (FILL) DITCH CROSS SECTION

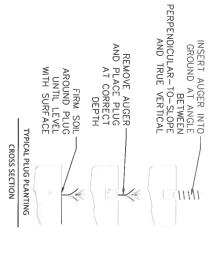
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ZONE B REPRESENTS THE REMAINDER OF THE AREA.

CELL NOURISHMENT PLANTING

CELL NOURISHMENT AND FILL:

	С		В	>		ZONE	
DISTICHLIS SPICATA	SPARTINA PATENS	DISTICHLIS SPICATA	SPARTINA PATENS	DISTICHLIS SPICATA	SPARTINA PATENS	SCIENTIFIC NAME	CELL NOORIST
SEAGRASS	SALTMEADOW HAY	SEAGRASS	SALTMEADOW HAY	SEAGRASS	SALTMEADOW HAY	COMMON NAME	CELL NOURISHMENT PLANTING PLAN (HIGH MARSH)
25%	75%	25%	75%	25%	75%	BREAKDOWN	HIGH MAKSH)
3 FT O.C.	3 FT O.C	3 FT O.C	3 FT O.C.	2 FT O.C.	2 FT O.C	SPACING	



#### PLANTING NOTES:

- INSTALL PLANTINGS PER DETAIL. SINK AUGER INTO THE GROUND 2 INCHES DEEPER THAN PLUG ROOT LENGTH.

- PROVIDED PLUG HOLE IS NOT INUNDATED } TEASPOON OF SLOW RELEASE FERTILIZER MAY BE PLACED AT BOTTOM OF HOLE BEFORE PLUG PLACEMENT. PLANT SUPPLIER MAY RECOMMEND OR SUPPLY FERTILIZER, PLUGS ARE TO BE PLANTED WITH TOP OF ROOT PLUG EVEN WITH OR SUIGHTLY BELOW SUBSTRATE SURFACE. IN SOFTER SEDIMENTS OR IN HIGHER ELREFY AREAS, ROOT PLUG SHOULD I OR 2 INCHES BELOW SUBSTRATE SURFACE. WEVER EXTENDING ABOVE SUBSTRATE SURFACE. LOW MARSH PLANT CLUSTERS ARE TO BE SPACED AS SHOWN IN THE DETAIL.
- CELL NOURISHMENT PLUGS ARE TO BE PLANTED IN CLUSTERS OF FIVE AT SPACING SPECIFIED IN TABLE.
- CELLS WITH SECONDARY PLATFORM CHANNEL CREATION WILL BE PLANTED AS LOW MARSH AND CELLS WITH NOURISHMENT WILL BE PLANTED AS HIGH MARSH.

	OAIE GOIDZA SHEEL NO US OF TO	ONIE WYOLKS		
PLANT	17	CHECKED BY		
!	JDB/HAA	DRAWN BY	0516/24	UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED NW WETLAND LIMITS
STARK	JDB/H94	DESIGNED BY	03/27/24	UPDATED DESIGN TO INCLUDE HUMMOCK ZONE AND ESCIDESIGN
SALT MAR	10		12/01/23	REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX
	SEN	SCALE	DATE	REVISIONS

U.S. FISH AND WILDLIFE SERVICE CHESAPEAKE BAY FIELD OFFICE PARTNERS FOR FISH AND WILDLIFE 177 ADMIRAL COCHRANE DRIVE ANNAPOLIS, MD 21401 TEL (703) 501-0593



10245 OLD COLUNBIA ROAD COLUMBIA, MD 21046 TEL 301-362-9200 FAX 301-362-9245 info@straughan-en-wronmental.com

50 WEST WELSH POOL ROAD, SUITE 6
EXTON, PA 19341
TEL 610 524.8124
WWW.30VCOR.COM SOVEREIGN CONSULTING:

WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC 1260 MARYLAND AVE., SUITE 103 HAGERSTOWN, MD 21740 TEL 301 671 1800 WWW WITHOUT OF

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# B-4-4 STANDARDS AND SPECIFICATIONS

## TEMPORARY STABILIZATION

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Conditions Where Practice Applies

needed for a period of 6 mostly or less

- For sites having onlitests performed, use and show the recommendates are not required for Temporary Seeding. Select one or more of the species at seed mixtures laured in Table #1. Hardness Zoon (from Figure #3.1 and onest them in the Temporary Seeds with application rates, seeding dates and wording depths. If this Summars completed, then Table #1 plus ferrolizes and time rates must be put on the ended rates by the resting agree?
- When stabilization is required outside of a seeding season, apply seed and makin or stress alone to presembed in Section B-4-3, v.1.b and maintain until the next seeding season.

*perter	Rate (lb/ac)			Depths
STATE OF A STATE OF THE STATE O	4	X 60 20 20 X		
STATE TOTAL	N.	070 04 - 17A	_	3.9

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# and orabilishment to necessary and when nerf will receive medium to intensive manyment, femified Pereriali Ryegras Cultin are Crofifed Nemacky Bliegrass Seeding at a 2 punds menture per 100 i sparse, feet, Choose a mannam of three Nemacky at a 2 punds menture per 100 i sparse, feet, Choose a mannam of three Nemacky are 2 punds menture by weight the pererial of the soul menture by weight

U.S. DEPARTMENT OF ASSOCIATION STRACE 2011

AND SPECIFICATIONS FOR SOL DROSON

OSON AND SEDMENT CONTROL

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WATCH WANGENERY ADMINISTRATION

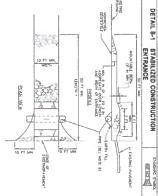
PERMANENT STABILIZATION

B-45 STANDARDS AND SPECIFICATIONS

2

Conditions Where Practice Applies

- a Select one or more of the species or matures lotted in Hardiness Jone (from lighter H.3) and based on the sate B.2. Finer excluded maturely in policioner native and see Summary. The Summary is to be placed on the plan
- Additional planting specifications for ecoporatal acts such as sheetings, stream banks, or dones or for special purposes such as widelife or activities treatment may be found in USDA-NRCS Technocal Field Office Guade Section 142 of risted Area Planting.
- For sales having disturbed area over 4 acres, use and show the rates re-testing agency.
- acce apply urea form terrilizer
- Areas where tarigrass may be desired include lawns, parks, playgrounds, and commercial stars which will receive a medium to high level of maintenance.
- i one or more of the species or measures hated below based on the site conditions as. Linear selected michaeys), application macs, and soccing dates in the Permanent ng Summary. The nammary is so by placed on the plan
- Nemack). Hippinas Hall Som Minner. For use in men that never network management implation required on the areas of creats. Map had and Linaters Some Rocummockel (emitted Nemack). Biopinas Guiton Souther Souther Line 19 publish per 1000 square from Choose at managem of their Souther S
- centucky Bluegrass Percentaal Ryc. End! Sun Virtuary. For use in full aun areas when



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DETAIL E-1 SILT FENCE

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were the sections of occurrent above overlap, twist, and start to post  $\sigma$  accombance with thes octal. DHED CROTECT A MANAGE OF B HORS VEHICLELY WID THE DROAD BACKELL AND COMPASS FOR ON BOTH SICKS OF FABRIC PROVIDE MAKE ACTION OF THE PROMISE THAT THE GEORGIAL VISION WETTS THE RESPECTION (AND ACTIONS ALTERNATE SHOWN THAT THE GEORGIAL VISION WETTS THE RECOMMENTS AS SECTION OF THE MEDIUM THAT THE GEORGIAL VISION WETS THE RECOMMENTS AS SECTION OF THE MEDIUM THAT THE GEORGIAL VISION WETS AS

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- Tall from Kreack, lillagens. Fall Sa Munter, for our in dength prior was and will see a medium dade for areas revenus for to medium anagement in fall as a medium dade incorrected mutter metides; Certified Fall Foots Calman % to 160 percent certified (hemos) flangens (talman 6) to 5 percent Sording Rast 5 in p. pouch per 1000 square tern Our or mere cultim any sey behinded.
- ktendedy Brogmus I me Frecox. Skade Misture: For use in area with doubt in Bhogmas laws. For exabilishment in high quality, intensit ely managed tard area. Misture inchedes, (entified hemisch) Biograpa Chibrary 30 to 40 percent and Centified End Focus and 60 in 70 percent. Scoding Rate. 1/5 to 3 pounds per 1000 square feet.

tarfgrass varieties from those listed in the most current University of Maryland edion, Agronomy Memo 977, "Turfgrass Cultivar Recommendations for Maryland"

(I home criffed material. Certified material is the best guarantee of cathius party. The certifieds as of the Nary Land Department of Agricultur, I set and New Nection, provides a reliable meate of cassinger protection and success party practic file.

Western MD March 15 to June 1. August 1 to (Newber 1 (Harduness Zones 5h, 6a)

Southern MILL Lastern Shorr March Lto May 15, August 15 to Chieber 15 (Hardiness Zones, 7a, 7b) ('entral MI) March Li May 15, August 15 in October 15 (Hardness Zone 16)

- Till areas to receive each in defaulting or other approved methods to a depth of 2 to 4 marks, to will be and after the areas or prepare a protect worker. I many the the areas to appropriate a protect worker. I many the the areas to approve a protect worker to describe what the areas to great a protect with the areas to approve the above the areas to approve the a

- Species Application Rate (lb'ac) Per acre (1 0 lb 1600) sf) P10. K<sub>2</sub>0 Lime Rate
- Sud. To provide quick cover on disturbed areas (2.1) grade or flatter)

- Need treats by machine cut at a uniform wall thickness of "county plot or mans," in sub, at the trive of catting. Measurement for thickness must exclude top prowth and thatch. Broken pash and form or one con crub, will have be acceptable.
- Standard size actions of sid must be enough enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upport 10 percent of the section.
- Sed must be have exed, delivered, and initialited within a period of 36 hours. Sed not transplainted within this period must be approved by an agreement or soft executed provides to
- During periods of excessively high temperature or in areas having dry subsoid, lightly irrigate the subsoil irramediately prior to laying the soil
- Ly, the first cro- of soul as a straight late with subsequents now, placed parallel to at and spitch, we object places each other "Augert lateral joints to premier more and each other object and straight. Limiter that sock is not sureshold or orderinged and that all joints are build spitch in order to premier stanks which we did cause, as always of the most-
- ver provide lay sed will the long odges parallel to the contour and with staggering Roll and tamp, pag or otherwise sectors the sed to prevent shippage on slopes. I near-rotated exist between sed near and the invertising and surface
- Whate the old immediately following "illing and tumping until the underside of the new set paid and see, surface belows the cold are thoroughly next (complete the operations of laying, tumping and impainting for any porce of seels within right hours.

- IGUINEL DE CONSTRUCTOR: DESON MON SEMINITE CONTRO, STUP STACE CUT I FUNTS OF DISTURBANCE (2) DE ACT AND STRUCTURE LOCATIONS, PER LOCATIONS, DESON PAULY I COLONNAIS CONSTRUCTORIS CONTROL THE MANAGEMENT.
- 2. COLOMANG LOO STARLOUT, CONTACT THE WORLESTER COUNT DEPARTMENT OF ENVIRONMENTAL PER (ENDOS). TO COMMENT WERE WITH THE PROPERTY OF COMMENT WAS WITH THE PROPERTY OF COMMENT AND AND COMMENT AND COMME
- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERIM ALL SLOPES STEEPER THAIN 3 HORIZONTAL TO 2 VERTICAL [3-2], AND IRBED OR GRADED AREAS ON THE PROJECT SITE NOT
- WORK FROM THE CHANNELWARD EDGE OF THE ACCESS CORRIDOR BACK TO TH DARV PLATFORM CHANNELS, ABANDON/FILL DITCH, RIDGES, AND HIGH MARSH
- , D) SCOMPLETED AND THE ACCESS CORRIDOR IS NO LONGER REQUIRED, THE COR S AND FILL TO PREEXISTING GRADE, NO FUNCTIONAL ELEMENTS OF THE ACCESS R 1 CELL.
- WITH APPROVAL OF ENGINEER AND COUNTY INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, STAG PROVIDE STABILIZATION MEASURES FOR AREAS IMPACTED BY REMOVAL OF DEVICES OR ROAD BORROW PONDS, AS SHOWN ON PLANS, UNTIL TIE IN WITH EXISTING GRADE , PLANTING, AND PERMANENT SEEDING, AS SHOWN ON PLAN
- GEMERAL MOTE.

  1 THE CONTRACTOR SHALL ONLY DISTURB AN AREA HAIT CAN BE CONFRETED AND STARLEDED FACE DAY.

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SOVEREIGN CONSULTING:



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STRAUGHAN



WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC. 1280 MARYLAND AVE., SUITE 103 HAGERSTOWN, MD 21740 TEL 301 671 1800 www.wmrod.org 5

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⊳ D REVISED TABLES AND DETAILS, ADDED PERMITTING QUANTITIES APPENDIX UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED NWI WETLAND LIMITS UPDATED DESIGN TO INCLUDE HUMMDCK ZONE AND ESC DESIGN 05/16/24 12/01/23 03/27/24 ATE 05/16/24 SHEET NO 10 OF 10

DATE SCALE CHECKED BY DESIGNED BY SIN L1 MH:80f SALT MAR

**EROSION A** STARK

258		Secondary Platform Channel	TOTAL
13	0	Secondary Platform Channel	27
10	0	Secondary Platform Channel	23
19	C	Secondary Platform Channel	20
14	C	Secondary Platform Channel	20
11	В	Secondary Platform Channel	17
24	B	Secondary Platform Channel	16
25	0	Secondary Platform Channel	15
31	В	Secondary Platform Channel	14
31	Þ	Secondary Platform Channel	10
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25	Þ	Secondary Platform Channel	4
9	Þ	Secondary Platform Channel	2
Phase Cut Volume (CY)	Phase	Proposed Feature	Cell

Cell	Proposed Feature	Phase Fill Volume (CY	me (CY)
2	Plug	A	
4	Plug	Þ	21
5	Plug	A	39
6	Plug	Α	188
7	Plug	Þ	77
80	Plug	Þ	53
14	Plug	В	102
10	Plug	Þ	78
12	Plug	A	64
13	Plug	8	56
15	Plug	60	47
16	Plug	8	137
18	Plug	C	48
23	Plug	Đ	35
24	Plug	D	54
TOTAL	Piug		1013

Cell	Proposed Feature	Phase Fill (CY)
Ch	Nounshment	Þ
68	Nounshment	>
60	Nourishment	Þ
7A	Nounshment	Þ
7B	Nounshment	A
148	Nourishment	B
88	Nounshment	➤
9	Nourishment	A
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TOTAL	Nourishment	

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CONSERVATION AND RESOURCE DEVELOPMENT COUNCIL. INC CONSERVATION AND RESOURCE.								
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			LT A UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED NYI WETLAND LIMITS 05/16/24 DRAWN BY	LT 🛕 UPDATED DESIGN TO WCLUDE HUMMOCK ZONE AND ESC DESIGN	WESTERN MARYLAND RESOURCE LT A REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX	REVISIONS		
			05/16/24	03/27/24	12/01/23	DATE		
DATE 05/16/24 SHEET NO 01 OF 01		CHECKED BY LT	DESIGNED BY JDB/HM DRAWN BY JDB/HM		SCALE NTS			
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