

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:

The Nest Inc-Request No. 2024-082 - Request to restore and enhance tidal wetlands within approximately 25 acres of low and high marsh by creating 2060 linear feet, with a maximum width of 3'x1' deep and 419 linear feet with a maximum width of 4' x 1' deep of first new order channels; clean out 104 linear feet of existing tidal ditch; fill 119 linear feet of existing ditch with approx. 35 cubic yard of excavated material and restore approx. 15,516 sq ft of tidal wetlands by thin layering approx. 663 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 plant 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 12112 Bliss Happens Lane, Berlin, also known as Tax Map 33, Parcel 343, Lot B, Tenth 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



Major Construction (\$300.00)

### WORCESTER COUNTY SHORELINE CONSTRUCTION APPLICATION

Request No.:  $\frac{2024 - 082}{24}$ Submission Date:  $\frac{9-20-24}{24}$ 

Minor Construction (\$150.00)

Written Description of Proposed Improvement (include channelward distance): Restore and enhance tidal wetlands within approximately 25 acres of low and high marsh by creating 2,060 linear feet, with a maximum width of 3 feet by 1 foot deep, and 419 linear feet, with maximum width of 4 feet by 1 foot deep of new first order channels; clean out 104 linear feet of existing tidal ditch; fill 119 linear feet of existing ditch with approximately 35 cubic yards of excavated material; and restore approximately 15,516 square feet of tidal wetlands by thin-layering approximately 663 cubic yards of excavated material to a maximum elevation of 1.5 feet NAVD88 in areas of previously 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 to is leading to marsh inundation and fragmentation and to provide tidal exchange.
Property Description: Map:0033 Parcel: _0343Lot:B_ Section: Block: Tax District:
Street Address: 12112 BLISS HAPPENS LN BERLIN 21811-0000
Subdivision: 75T0  Dwelling on lot: y Dwelling under construction: Vacant: Commercial:
on ion Swelling and constitution vacant Commercial
Owner:THENESTINCPhoneNo.443-336-3662MailingAddress:9344LANGMAIDROADNEWARKMD21841
Mailing Address: 9344 LANGMAID ROAD NEWARK MD 21841
E-Mail Address:blackwaternest@aol.com
Contractor:TBD Phone No.:
Mailing Address:
E-Mail Address:
Decorded Adipoint Bromenty Owners CIDI TDC EDONITIED LLC
Recorded Adjacent Property Owner: SUN TRS FRONTIER LLC Property Address: 27777 FRANKLIN RD STE 200 SOUTHFIELD MI 48034-0000
Γax Map: _0033 _ Parcel: _0094 _ Lot: Section: Block:
Recorded Adjacent Property Owner: STUART THOMAS D & ANTOINETTE
Property Address: 11923 GRAYS CREEK DR BERLIN MD 21811-2500
Tax Map:0033 Parcel:0348 Lot:12 Section: Block:
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 Dependant's Scientific on these statisticals will require construction plans sealed by an engineer registered in the State of Maryland. I acknowledge that any alsification of information presented may result in revocation of this approval and of the subsequent Shoreline Construction of the subsequent Shoreline Construc
DEPT. USE ONLY:
Notification Distribution Date: 9-20-24 Public Comment Deadline: 10-5-24 (15 calendar days)
Department Approval Date: Freingtion:
Department Approval Date:Expiration:
Revised 7/1/19

# UNITED STATES FISH AND WILDLIFE SERVICE

# SALT MARSH RESTORATIONS AT STARKS BLISS HAPPENS LN

WORCESTER COUNTY, MD

### GENERAL NOTES

- CONSTRUCTION MUST BE SUPERVISED BY A MEMBER OF US FISH AND WILDLIFE SERVICE OR ITS DESIGNEE. THE US FISH AND WILDLIFE SERVICE, CHESAPEAKE BAY FIELD OFFICE, OR ITS DESIGNEE, WILL BE THE POINT OF CONTROT FOR CONSTRUCTION LAYOUT AND PRECONSTRUCTION MEETING.
- THREE WORKING DAYS PRIOR TO CONSTRUCTION BEGINS CONTACT MISS UTILITY AT 1-800-441-8355.
- ALL EXCAVATION AND METHODS OF CONSTRUCTION SHALL BEIN ACCORDANCE WITH THE MARYLAND OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (MOSHA) STANDARDS AS SET FORTH IN THE LATEST VERSION OF THE CODE OF MARYLAND 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 NAMED LANDOWNERS, CONSTRUCTION FOUND NOT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS SHALL VIOLATE THE COOPERATIVE AGREEMENT AND ALL DRAWINGS, SPECIFICATIONS, AND QUANTITIES ESTIMATE SHALL IMMEDIATELY BE RETURNED TO THE UNITED TATES FISH AND WILDLIFE SERVICE CHESAPEAKE BAY FIELD OFFICE.
- 9 BASED UPON THE PROPOSED DESIGN, THE BREAKDOWN BETWEEN THE LOW MARSH DRAINAGE IMPROVEMENTS AND THE HIGH MARSH NOURISHMENT IS 90.20% LOW MARSH AND 9.80% HIGH MARSH.



### SHEET INDEX

SHEET TITLE

TITLE SHEET

EXISTING (EX.) CONDITIONS KEY A
PROPOSED (PR.) CONDITIONS PLAN
PROPOSED (CONDITIONS PLAN
DETAIL SHEET
EXS DETAIL SHEET
EXS DETAIL SHEET

FEROSION AND SEDIMENT CONTROL CERTIFICATIO
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90% SUBMITTAL

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 TEL (703) 501-0593

245 OLD COLUNIBIA ROAD XLUMBIA, MD 21046 IL 301,362,9200 IX 301-362-9245 o@straughanenwronmental o



SOVEREIGN CONSULTING INC

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

MA	SIZE SIZE	SOMEH
HAGERSTOWN, MD 21740 TEL 301: 871 1800 www.wrrrod.org	DEVELOPMENT COUNCIL INC	ž

DATE 05/1					
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200	03/27/24	UPDATED DESIGN TO INCLUDE HUMMOCK ZONE AND ESC DESIGN	△	נז	
	12/01/23	REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX	Δ	נז	RCE

16/24 SHEET NO 01 OF 07

MH/BQF

1" = 5000

SALT MAR! STARKS E



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SALT MAR! STARKS E

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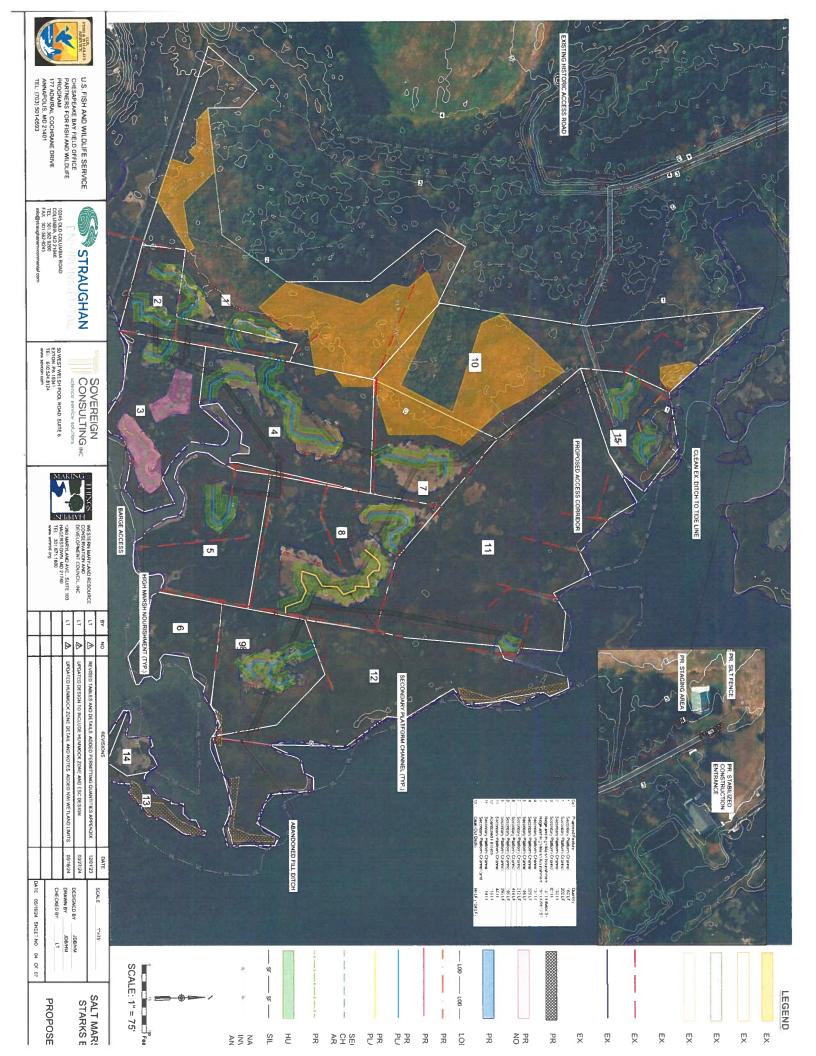


10245 OLD COLUMBIA ROAD COLUMBIA, MD 21046
TEL 301-362-9245
efo@straughanemyronmental con

SALT MAR: STARKS E

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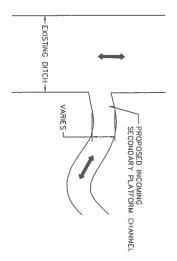


### CONSTRUCTION NOTES:

### 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
- THE FINAL ACCESS CORRIDOR WILL BE FLAGGED IN THE FIELD AND VERIFIED BY THE USFWS PRIOR TO ANY DISTURBANCE.
- CLEARING OF HERBACEOUS AND SHRUB GROWTH IS PERMITTED FOR ACCESS CORRIDOR. MINOR GRADING AND THE USE OF MATTING IS PERMITTED.
- 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 APPROVED PLANS
- MINOR VARIATION IS PERMITTED DUE TO MICROTOPOGRAPHY, DITCH AVOIDANCE, AND LOW SOFT AREA AVOIDANCE.
- THE FINAL ACCESS CORRIDOR WILL BE FLAGGED IN THE FIELD AND VERIFIED BY THE USFWS PRIOR TO ANY DISTURBANCE. THE CONTRACTOR MAY USE MATTING
- NO MATERIAL IS TO BE BROUGHT ON-SITE FOR ACCESS CORRIDOR CONSTRUCTION.
- 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. REMOVED IS NO LONGER REQUIRED, THE MATTING WILL BE
- ONCE A MARSH CELL IS COMPLETED, NO FUNCTIONAL ELEMENTS OF THE ACCESS CORRIDOR WILL REMAIN IN THE MARSH CELL.



EXISTING GROUND

MAXIMUM DEPTH: 12 IN.

- DEPTH DETERMINED BY
EXCAVATING 3 IN. TO 6
IN. BELOW EXISTING ROOT SECONDARY PLATFORM CHANNEL TERMINUS

CHANNEL CUT AT THE INTERIOR TERMINUS END AND EXCAVATE TOWARDS THE

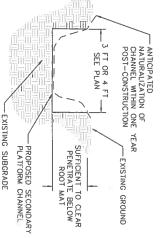
BEGIN SECONDARY PLATFORM

SECONDARY
PLATFORM CHANNEL
-VARIABLE DEPTH PROPOSED INCOMING

CHANNEL

# TYPICAL SECONDARY PLATFORM CHANNEL TERMINATION

### PLAN VIEW

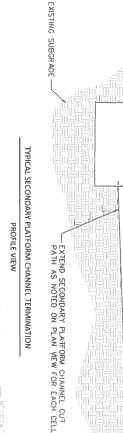


TYPICAL SECONDARY PLATFORM CHANNEL TERMINATION

CELL TERMINUS OF SECONDARY PLATFORM CHANNEL ELEVATION TO BE EQUAL OR HIGHER THAN CHANNEL CONFLUENCE END.

SECONDARY PLATFORM CHANNEL TERMINATION NOTES:

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



# SECONDARY PLATFORM CHANNEL EXCAVATION AND REUSE OF MATERIAL:

- SECONDARY PLATFORM CHANNEL PLACEMENT AND WIDTHS WERE DESIGNED BASES SECONDARY PLATFORM CHANNEL PLACEMENT AND WIDTHS WERE DESIGNED AND CELL ON ACREAGE OF WATERLOGGED CELLS, TIDAL RANGES, TIDAL ELEVATIONS, AND CELL PLATFORM ELEVATIONS FOR THE PURPOSE OF INPROVING MARSH PLATFORM TIDAL
- CHANNEL CONFIGURATIONS ARE DEPICTED ON SHEET 3. DETAIL TYPICALS ARE PROVIDED ON SHEET 4.
- PRIOR TO EXCAVATION:
- A. THE PRIMARY ACCESS ROUTE(S) INTO THE MARSH WILL BE FINALIZED IN THE FIELD;
- B. CENTERLINE OF SECONDARY PLATFORM CHANNELS WILL BE STAKED; AND C. THE ORDER OF CELL SECONDARY PLATFORM CHANNEL EXCAVATION WILL BE IDENTIFIED IN THE FIELD RELATIVE TO THE ORDER NOTED ON THE PLANS.
- THE USFWS WILL APPROVE THE FINAL STAKE OUT AND MAKE ADJUSTMENTS AS NECESSARY BASED ON SITE CONDITIONS.
- SECONDARY PLATFORM CHANNEL EXCAVATION WILL BEGIN AT THE INTERIOR TERMINUS OF THE SECONDARY PLATFORM CHANNEL AND WORK OUT TOWARD THE CHANNEL CONFILENCE.
- 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 +/- ZINCHES. 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' NAVD88)
- 11. ANY EXISTING DITCH IDENTIFIED TO REMAIN AND IS PART OF A SECONDARY PLATFORM CHANNEL FLUSH CONFIGURATION 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 DOES NOT INDICATE THE LEVEL OF FLOW/FLUCTION WITHIN THE DITCHES. CERTAIN DITCHES INDICATE THE LEVEL OF FLOW/FLUCTION WITHIN THE DITCHES. CERTAIN DITCHES DENTIFIED MAY BE FULLY FLUCTIONAL, PARTIALLY FLUCTIONAL, OR COMPLETELY DYSFLUCTIONAL ALL THE DITCHES WERE THETHER EVALUATED VIA ADDITIONAL AERIAL PHOTOGRAPHIC REVIEW AND/OR ON-SITE INSPECTIONS. IDENTIFIED DITCHES WERE ETHER LEFT UNDISTURBED, CLEANED OUT, OR PLUGGED.
- 14

13,

15. DURING SECONDARY PLATFORM CHANNEL EXCAVATION, A SPOTTER WILL BE PRESENT WITH A FOD AND LASER LEVEL TO ASSIST THE OPERATION WITH DITCH ELEVATIONS. USFWS PERSONNEL WILL MONITOR CONSTRUCTION AND COLLECT AS-BUILT SURVEY DOCUMENTATION TO CONFIRM AND DOCLUMENT FINAL DITCH CONFIGURATIONS. POST CONSTRUCTION, CERTAIN SECONDARY PLATFORM CHANNELS MAY NATURALLY FILL OR SCOUL WHILL REACHING A STABLE CONDITION. THIS IS TO BE ALLOWED TO OCCUR. HOWEVER, CHANGES TO CHANNEL MORPHOLOGY ASSOCIATED WITH SIGNIFICANT STORM EVENTS OR NUISANCE FLODODING EVENTS, MAY REQUIRE MAINTENANCE DODDING DENTS.



SECONDARY PLATFORM

WATER-LOGGED

LOW MARSH/ MUD FLAT LOW MARSH/ MUD FLAT WATER-LOGGED

		PLAN	PLAN VIEW	
ISIONS	DATE	SCALE	NTS	
DOED PERMITTING QUANTITIES APPENDIX	12/01/23			SALI MARK
MMOCK ZONE AND ESC DESIGN	03/27/24	No control of	DR.	STARKS B
AND NOTES ADDED NWI WETLAND LIMITS	05/16/24	DRAWN BY	JDB/HM	
		CHECKED BY	G	

HUMMOCK

REVISED TABLES AND DETAILS AD DATE 05/16/24 SHEET NO 05 OF 07



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

10245 OLD COLUMBIA ROAD COLUMBIA, MD 21046 TEL 301-362 9200 FAX 301-382-9245 info@straughanenvironmental.co STRAUGHAN

SOVEREIGN

50 WEST WELSH POOL ROAD, SUITE 6
EXTON PA 19341
TEL 610 524 8124
WWW-BOYCON COM

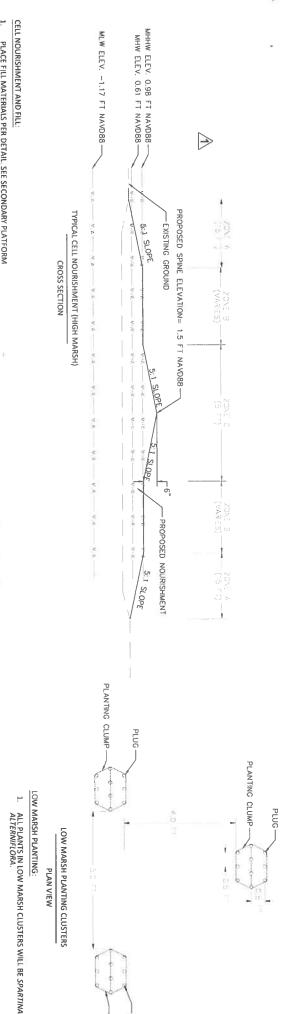
1260 MARYLAND AVE SUITE 103 HAGERSTOWN MD 21740 TEL 301 671 1800 WWW WMYCOLOGY

WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL, INC

D UPDATED DESIGN TO INCLUDE HUI UPDATED HUMMOCK ZONE DETAIL

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- PLACE FILL MATERIALS PER DETAIL, SEE SECONDARY PLATFORM CHANNEL EXCAVATION NOTES FOR INSTALLATION.

  CHANNEL EXCAVATION NOTES FOR INSTALLATION.

  CELLS RECEIVING FILL WILL TARGET ELEVATION 1.20 FT NAVD88 GENERAL STORE FILL TARGET ELEVATION AFTER SETTLEMENT WILL BE 1.00 FT NAVD88.

  SPINE IS TO PROVIDE POSITIVE SUFFACE DRAINAGE OF 0F THE PLATFORM AND PROVIDE SECONDARY BENEFIT OF ADDITIONAL NICROHABITAT.

  MARSH VEGETATION ELEVATION BASED UPON SURVEY OF EXISTING MARSH, DATED 4/29/22.

- TOP OF DITCH PLUG SHALL NOT EXCEED 6" ABOVE EXISTING LOW BANK

- -CELL NOURISHMENT PLANTING:
- ZONE A REPRESENTS A 15 FT BAND AROUND THE OUTER EDGE OF THE MOURISHED PORTION OF THE CELL.
  ZONE C REPRESENTS THE AREA WITHIN THE BASE OF THE TOE OF THE ZONE.
- ZONE B REPRESENTS THE REMAINDER OF THE AREA

ZONE

SPARTINA PATENS SCIENTIFIC NAME

SALTMEADOW HAY

COMMON NAME

BREAKDOWN

75%

2 FT O.C.

SPACING

ABANDONED (FILL) DITCH **CROSS SECTION** 

CELL NOURISHMENT PLANTING PLAN (HIGH MARSH)

0

SPARTINA PATENS

SALTMEADOW HAY

DISTICHLIS SPICATA

SEAGRASS

DISTICHLIS SPICATA

SEAGRASS

25% 75% 25% 75%

3 FT O.C. 3 FT O.C. w

SPARTINA PATENS

SALTMEADOW HAY

3 FT O.C. 2 FT O.C.

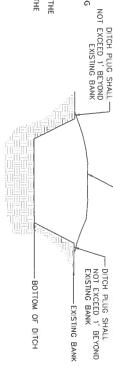
3 FT O.C.

D

DISTICHLIS SPICATA

SEAGRASS

25%



BETWEEN
PERPENDICULAR-TO-SLOPE
AND TRUE VERTICAL REMOVE AUGER-AND PLACE PLUG AT CORRECT GROUND AT ANGLE AROUND PLUG UNTIL LEVEL WITH SURFACE FIRM SOI DEPTH

CROSS SECTION	TYPICAL PLUG PLANTING
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### PLANTING NOTES:

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

- PROVIDED PLUG HOLE IS NOT INUNDATED, I 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 SLIGHTLY BELOW SUBSTRATE SURFACE. IN SOFTER SEDIMENTS OR IN HIGHER EVERGY AREAS, ROOT PLUG SHOULD 1 OR JICHES BELOW SUBSTRATE SURFACE.
- CELL NOURISHMENT PLUGS ARE TO BE PLANTED IN CLUSTERS OF FIVE AT SPACING SPECIFIED IN TABLE. LOW MARSH PLANT CLUSTERS ARE TO BE SPACED AS SHOWN IN THE
- CELLS WITH SECONDARY PLATFORM CHANNEL CREATION WILL BE PLANTED AS LOW MARSH AND CELLS WITH NOURISHMENT WILL BE PLANTED AS HIGH MARSH.
- UPDATED DESIGN TO INCLUDE HUMMOCK ZONE AND ESC DESIGN UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED NWI WETLAND LIMITS REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX 03/27/24 12/01/23 DATE DATE 05/16/24 SHEET NO SCALE CHECKED BY NIS TT MAVROL 06 OF 07 SALT MARS

STARKS

U.S. FISH AND WILDLIFE SERVICE

CHESAPEAKE BAY FIELD OFFICE PARTNERS FOR FISH AND WILDLIFE PROGRAM 177 ADMIRAL COCHRANE DRIVE ANNAPOLIS, MD 21401 TEL (703) 50 1-0593

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STRAUGHAN

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WESTERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL INC 1260 MARYLAND AVE SUITE 103 HAGERSTOWN MD 21740 TEL 301 671 1800 www.wmrod org 5

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PLANTI

## B44 STANDARDS AND SPECIFICATIONS

### TEMPORARY STABILIZATION

Condition Where Practice Asplica

# needed for a period of 6 months or the Fire langer required

Select one or mart of the specim or seed mitures listed in Table B. Hardness Zone (from Figure B.), and enter them in the Temporary Seeds with application rates seeding dates and seeding depths. If this Summars completed, them Table B. Pale firm liter and time rates mant be put on the insted on Table B | for the appropriate Plant the Temporary Seeding Summary below when the If this Summary is and put on the plant and a mass be put on the plant.

- For sites having tool tests performed, use and show the recommended rates by the testing agrees. Soil tests are not required for Temporary Seeding
- When stabilization is required outside of a reeding season, apply seed and multihor straw inside the exprescribed in Section B-b 3.A.l b and maintain until the next seeding season.

1005	4.36 lb ac Tions ac	*	4.5-4.5.4	8	STATE OF THE PARTY OF
		11	100000000000000000000000000000000000000	÷	With a fine
	(19-20-20)	Depthy	Dates	Application State (lb/sc)	Species
Lime Rate	Rate		Ī	e (from Table B	Seed Missure

### Ownows Sec. Sec.3 DETAIL 8-1 STABILIZED CONSTRUCTION OCHRICADA AGAMACADA 5,345 ENTRANCE ROUNT MATERIA THE OW OF THE PROPERTY OF THE (8 NON JES) JAGO-EKSTING PAYENDA DOG OF SIMONS SHOWS

DETAIL E-1 SILT FENCE

CHOUGH OTHE HE WAS HOUSE

CONSTRUCTION\_SPECIFICATIONS

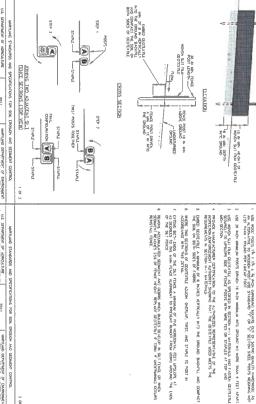
DETAIL E-1 SILT FENCE

CORNS CONTONUES

- FALCE STABLEDD CONSTRUCTION EDITINAÇÃ ON ACCORDANCE, SITA DE APPROPRIO PLAN, NEACLES, MARTÍ TRANAL CHORT AND ELEMBLE, DICHIN OF DRE SEC. LOSS, LORGAMA LUCRÂNIO ON DESTE (NA VERZI PLANE) SEC. DE ALESSANDA LOS PROPRIOS DE ALESSANDA DE ON LOS PROPRIOS PARAMETRAS.
- THE LA SHAPPLE HATE SCAME OF DISCIPLING SHAPE IN A SEC SHAPE IN CONTROL FOR A SHAPE AND CONTROL FOR A
- PROPARE SUBORADE AND PLACE MONTONION OCCITETILE, AS SPECIFICO AL SECTION HI-1 MATERIALS
- PLACE ONUSHED ACCRECATE (2: TO 3 WOMES IN SUZE) OF EQUIVALUAL RECYCLED CONCRETE (IN RESIDEN) AT LEAST 6 MONES OFFE ONLY FOR LEAST'S AND WORN OF THE SIZE DIDN THAT MEMBERS TRACKING OF SECONDARY AND STOM OR HA

DIRECTED TO AN APPROPRIED SECUNDATION DISCOURTED PRACTICAL	FOADWAY	CDOVE.	SPECIFED CHARGES BENEFITATELY RELIEVE STONE AND/OF SEDNACHT SPILLED, DROPPED, OR	On United
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MALESHING LIGHTENAM ALIVER AND	CONTROL	



US DEPARTMENT OF ADMICALITYSE SERVICE	MARTHAG STAIDARDS AND SPECIFICATIONS FOR SOIL (2005/04 AND SEDIMBRE CONTROL	SONES	E 4MS	Povis Travis	
2011	DISCASSION FOR SOL D	CENCE SECTIONS (TOP MEM)	COMPL		
MALINE DEPARTMENT OF EMARCHMENT	HOSION AND SEDIMENT CONTROL	6		SID ?	
NATURAL RESOURCES CONSERVATION SERVICE	MATRIAND STANDARDS AND SPECIFICATIONS FOR SOIL DIGSON AND SEDIMENT CONTROL				
2011	STEATIONS FOR SOIL I				
MATCH MANAGENEYS AGMINISTRATION	BOSON AND SEDMENT CONTROL	201			

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U.S. DEPARTMENT OF ADMICULTURE 2011 WARRAND STRAFFIEDY OF ERANGUACHT	WARTHARD STANDARDS AND SPECIALIZATIONS FOR SOIL DROSION AND SEDIMENT CONTROL	CAST SCHONE (OF WER)	Ments r Ports		There are starts
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		D STANDARDS AND SPECIFICATIONS FOR SOIL EPISSON AND SERVICE CONTROL	
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### CHRYSTEL STABILIZATION 101

B-45 STANDARDS AND SPECIFICATIONS

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Purpos

Conditions Where Practice Applies

( manu

- select one or ment of the species or mattures based in Table 18 is not the appropriate Plans Hardness / over (from 1-grapt 18 i) and based on the out condition or purpose fround on Table B. I. Finer selected numerates application rates, and seeding dates in the Pormanya Seeding various.) The Sammans is to be placed on the plan
- Additional planting sponferances for enorgonal state such as decisions, organ hashs, or done or for special purposes such as width for a sedient teatment may be found it SSLN.NRCN Technical I tell Office (sode: Section 34. (insed Area Planting)
- For areas receiving loss municipance, apply uses form fertilizer (46-64), at 3 %, pounds per 1803) square fred 150 pounds per acret at the time of seeding in addition to the soil amendments show it in the Permanent Seeding Summary.
- where ranfgrass may be desired metade lawns, parks, plays will receive a medium to high level of maintenance
- orn or more of the species or matures based befow based on the size condition we Enter selected mixturers), application nates, and seeding dates in the Permanent is Summary. The summary is to be placed on the plan
- andaly, Bhegrass Hill Son Mittner. For use an area that receive internet superment implained necessary on the areas of creamin Monthesia and Estam-Stone momented Certified Kennach; Bhegrass Cuthisus Seeding Rate. 1.5 to 20 pounds per baparts of Chooke a minimum of three Kennach; Bhegrass Gulvan with each upper to the Chooke a minimum of three Kennach; Bhegrass Gulvan with each upper to the Chooke a minimum by weight.
- tacky Bluegrass Perential Rye. Full Sun Vivaire. For use in full san areas when

- establishment is necessary, and when narf will reserve medium to infection german, Certified Petershial Rysgensa Cultivary Certified Kennachy, Bhargensa Seeding german, Levilided mittainer per 1004 square feet. Choose a manamam of their Kennachy, 2 peache mittainer per 1004 square feet. Choose a manamam of their Kennachy, 2 raiss relations with mach manging from 10 to 35 percent of the total massume by weight.
- Tall Sease Kenaky Blograss Pall San Motter For see alregate more seen active for see moving to no notion makes generate to full on on no notion the forecast of the forecast for the control of the forecast, blograss (e.) ve (90) percent (ordinal Amena), blograss (e.) ve (90) ve 0 5 percent Secting Fale 5 to 1 percent (500 pages For Case of more cubins on my 6 believe).
- Kennach, Höngmas Fac Freuer. Stude Mittum: For use in arrass at the dack in Binograss, brant. For establishment in high quality, intendively managed turf area. Misture includes, Centified Kennach, Binograss (Vilnicars) for a 40 percent and Centified East Frecus and 60 to 70 percent Scotling Bute. 11: to 3 pounds per 1000 square feet.

turfgrass varieties from those fixted in the most current University of Maryland asion, Agronomy Memo 977, "Turfgrass Cultivar Recommendations for Maryland"

(Ibasse crefifed material, Crefifed material is the fort guarantee of estima parts). The criffication program of the Varyland Department of Agricultur, Turf and Need Nexton, provider a reliable means of consumer production and nature a part great it line.

Western MD Narch 15 to base 1, August 1 to October 1 (Hard Zanes: St. No.

('engal MD | March 1 to May 15, August 15 to October 15 (Hardaness Zone

Southern MD, Lastern Shore March Fto May 15, August 15 to October 15 (Harduness Zones 7a, 7b)

- Iil acus to receive seed by dealings or other appears of methods to a depth of 2 to 4 and text, here and rade the area to prepare a proper seedbed. Remove scaes and defen on or 1% inche is dancies. The residing seedbed must be in such condition that those through of grasses sufpose no difficulty.
- If our maisture is deficient, supply new seedings with adequate water for plant growth [c] to I much every. In a days depending on soil tertaine) until they are friendly catalehard. This is operable that we show exceeding are made late in the planting season, on abcornally dry on has senson or on advirus sites.

Hardiness / Seed Vilvius	Hardiness Zone (from Egure 8-3) 2: Seed Mixture (from Table 8-3)	Hardiness Zone (from Egure B3) 2: Seed Wisture (from Table B3)	1		FertSher Rate (19-29-20)		B
Species	Application Rate (lb/oc)	Seeding	Seeding	,	P <sub>2</sub> O <sub>4</sub>	K-20	i
Ver 15155	а	18	31.7.15	15 pounds		3,0	í
M Svelike	e.	28 4 " 5 " 15 " 10 " 10 " 10 " 10 " 10 " 10	1 - 1 H. H.	per acre	(2 P a)	17 B	(9) (B)
134 35 2,117		X -ev 2: 5, 13,		1000 sf)	1000 (1)	3000 (1)	1000 st

- To provide qualit cover in disturbed areas (2.1 grade or flatter)

- S, d mask to machine out at a conform wall the lives of ", inch, plue or mann", such, at the time of catting. Measurement for the lives result exclude top growth and thruch. Broken pash and term or une currently will not be acceptable. Standard sare sections of sed must be strong croough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the
- Sed mass be harvested, definitively, and untiable within a period of  $\mathcal H$  hours. Sed transplanted within this period must be approved by an agreemental or soil scientist prior is Sid must not be have exted or transplanted when moniture adversely affect its survival.

- Dang periods of excessively high temperature or in areas the subsoil immediately prior to laying the soil having day subsoil highly
- Lay the first row of soil as straight line with subsequent rows placed parallel to a and a wedgod Jaanet each other Nagger Bateral points to promote more uniform grown and she Linear Bais soil is not straighted or of scripped and that all points are builded that in prevent would which would cauch air drying of the rows.
- ever possible lay said with the long edges parallel to the cru Roll and tamp, peg or otherwise secure the sod to present it contact exists between sod more and the underlying and surface the creatour and with staggering
- Water the old simulations of following rolling and tumping urall the underside of the new scipal and we until ac below the so due throughly wet if complete the operations of laying, tumping and implanting for any proce of sed within right hours.

- SEQUENCE O CONTINUEDE:

  STATE OF THE THEORY OF THE THEORY
- HARLE DI CALERDAM DAYS AS TO THE SUBSECT OF ALL REBURTER DOES, SWALES, DITCHES, PERB AND ALL SLOPES STEFER THAN 8 HORIZONTAL TO 1 YETRCAL[3,1], AND SLYPH PJF CALIFORMS DAYS AS TO ALL DIHER DISTURBED ON GAUGED AREAS ON THE PROJECT ST
- ACTIVE GRADIN
- THE CONTRACTOR WAIL WORK FROM THE CHANNETWING DOSE OF THE ACCESS CORRIDOR BACK TO THE CONTRACTOR WAIL WORK FROM THE CHANTORM CHANNELS, ABANDON/FILL DITCH, RUDGES, AND HIGH HAM KOUDESHAMER AS SHOWN ON THE PLANS
- AS EACH AREA IS COMPRETED AND THE ACCESS CORRIDOR IS NOT IDWIGH REQUIRED. THE CONTPACTOR IS THE ANALYSIS OF THE ACCESS CORRIDOR IN THE ANALYSIS OF THE ACCESS CORRIDOR IN THE ANALYSIS CREATED FUNCTION AND PERMANENT SECTIONS, AS SHOWN ON PLAN.
- ODAPETE LANDSCAPNIS, DEAL'RING, AND PEREAMENT SEEDING, AS SHOWNS ON DEALS, WITH APPROVAL OF ENGINEER AND EQUINTY INSPECTOR, REMOVES EXPANIENT CORTION, DEVICES, STAGIN ROYDIG STABILIZATION MEASURES UIX, ABREAS IMPACTED DE REMOVAL OF DEVICES OR ROAD.





U.S. FISH AND WILDLIFE SERVICE





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MAN MINCOTON	TEL 30: 671,1800	1260 MARYLAND AVE SUITE 103	DEVELOPMENT COUNCIL INC	WESTERN MARYLAND RESOURCE
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		<b>UPDATED Н</b> ИММОСК 3	UPDATED DESIGN TO	REVISED TABLES AND

BY NO

			NTED HUMMOCK ZONE DETAIL AND NOTES. ADDED NWI WETLAND LIMITS	NTED DESIGN TO INCLUDE HUMMOCK ZONE AND ESC DESIGN.	SEO TABLES AND DETAILS. ADDED PERMITTING QUANTITIES APPENDIX	
			05/16/24	12/12/00	12/01/23	
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SHEET NO		-	JDBA			MIG

DATE MHM 07 OF 07

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13	Secondary Platform Channel	15
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သ	Secondary Platform Channel	Q
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15	Secondary Platform Channel	4
9	Secondary Platform Channel	ω
14	Secondary Platform Channel	2
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Cut Volume (CY)	Proposed Feature	Cell

TOTAL	12	Cell
Plus	Plug	Proposed I
		Feature
		===
w	3	Volume (CY)
35	35	7

663	Nourishment	TOTAL
466	Nourishment	3C
197	Nourishment	3B
FIII Volume (CY)	Proposed Feature	Cell

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TEL, 301 671 1800 9 9 9

	DATE 05/16/24 SHEET NO 01 OF 01	DATE: 05/16/24			
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THE	JDB/HIV	DRAWN BY			
)	MH/BOL	DESIGNED BY	05/16/24	UPDATED HUMMOCK ZONE DETAIL AND NOTES ADDED NWI WETLAND LIMITS	₽
	NTS	SCALE	03/27/24	UPDATED DESIGN TO INCLUDE HUMMOCK ZONE AND ESC DESIGN	₽
USFWSBI	CONTRACT NO X-XX-XXX		12/01/23	REVISED TABLES AND DETAILS ADDED PERMITTING QUANTITIES APPENDIX	A
	ADVERTISED DATE XXXXXXX	ADVERTISED	DATE	REVISIONS	ð