

1'' = 40'

5980.PD

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How revision Checked BY: CHECKED BY: TAT JFC

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Consultants in the Geosciences S400 LINESTONE ROAD WILLINGTON, DE 19808-1232

HACK (302)239-6435

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N OF THE ELEUTHERIAN
ND ADJACENT MILLRACE

DATE: 19 FEBRUARY 2009
SCALE: 1" = 20'
PROJECT NO. 5980.PD



ORATION OF THE ELEUTHERIAL S DAM AND ADJACENT MILLRAC

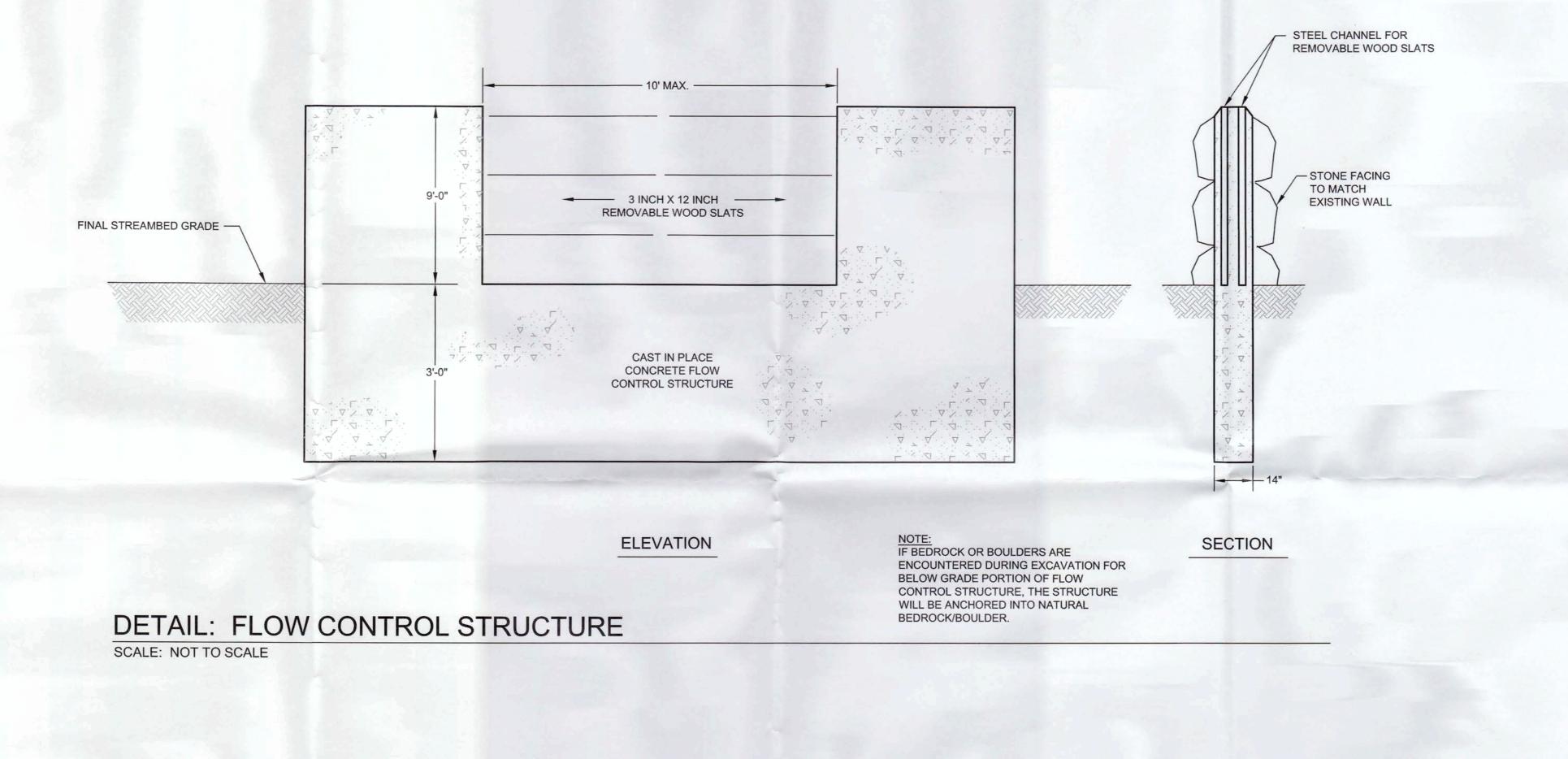
DATE: 19 FEBRUARY 2009

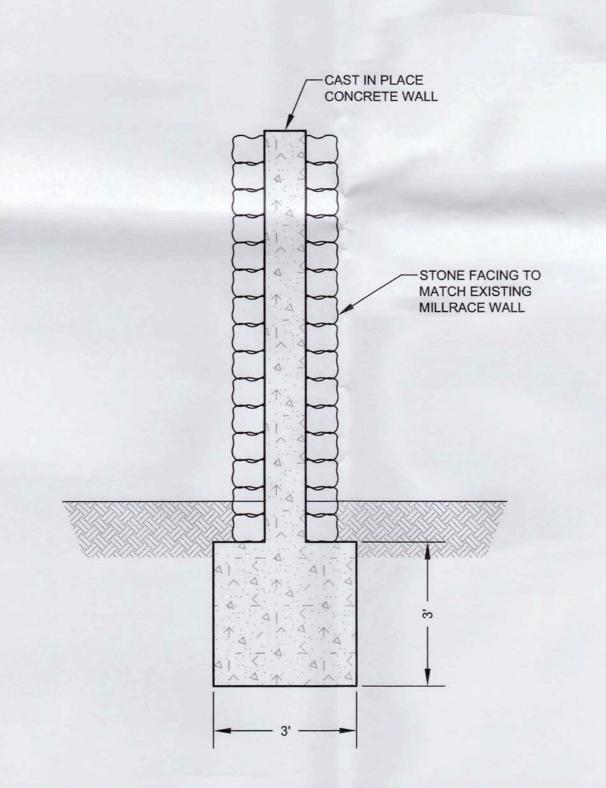
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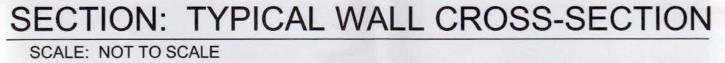
PROJECT NO. 5980.PD

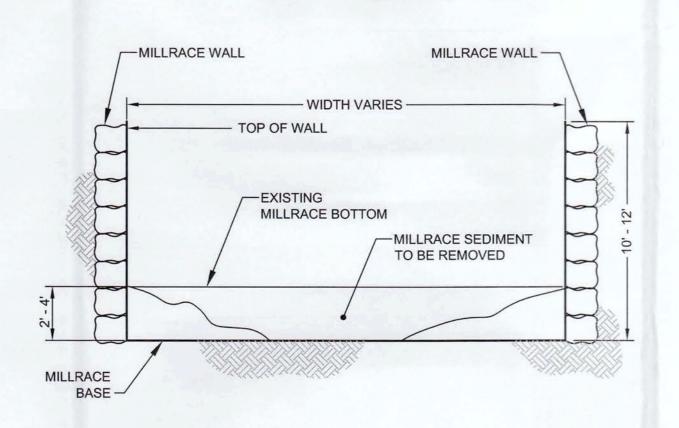
SHEET: 5 OF 6

- TIP OF VANE









SECTION: TYPICAL MILLRACE CROSS-SECTION
SCALE: NOT TO SCALE

ATTON OF THE ELEUTHERIAN
AM AND ADJACENT MILLRACE

DATE: 19 FEBRUARY 2009
SCALE: AS SHOWN
PROJECT NO. 5980.PD
SHEET: 6 OF 6

THIS SKETCH IS ADAPTED FROM A DRAWING TITLED "LINES AND GRADES PLAN, ELEUTHERIAN MILLS, HAGLEY FOUNDATION" PREPARED BY VANDEMARK & LYNCH, INC. AND DATED AUGUST 24, 1998.

PART OF THIS SITE LIES WITHIN A FLOODPLAIN, PER FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY MAP NO. 10003C0065J, REVISED JANUARY 17, 2007. NO DISTURBANCE IN OR WITHIN 100 FEET OF THE FLOODPLAIN IS PROPOSED BY THIS APPLICATION.

4. NO WETLANDS WERE OBSERVED IN THE AREA OF DISTURBANCE, PER A LETTER OF NO FINDINGS DATED AUGUST 21, 2008 BY DUFFIELD ASSOCIATES, INC.

NO PART OF THIS SITE LIES WITHIN A WATER RESOURCE PROTECTION AREA (WRPA), PER "WATER RESOURCE PROTECTION AREAS FOR CITY OF NEWARK, CITY OF WILMINGTON, NEW CASTLE COUNTY, DELAWARE," MAP 1 OF 3, REVISED FEBRUARY 2006.

CRITICAL NATURAL RESOUCE AREAS EXIST ON THE SITE IN THE FORM OF EXISTING FOREST. NO CRITICAL NATURAL AREAS ARE PROPOSED TO BE DISTURBED BY THIS APPLICATION.

CONTRACTOR SHALL PRESERVE ALL TREES ON SITE EXCEPT WHERE NECESSARY TO CONSTRUCT SEDIMENT AND EROSION CONTROLS AND TO PERFORM PROPOSED GRADING.

STORMWATER MANAGEMENT REQUIREMENTS ARE REQUESTED TO BE WAIVED IN ACCORDANCE WITH DELAWARE SEDIMENT AND STORMWATER REGULATIONS SECTION 3.2.1.1.

- EXISTING GROUND TEMPORARY BERM RACEWAY SEDIMENT BACKFILL

- PROPERTY LINE

**EXISTING TREELINE** EXISTING BUILDING — LIMIT OF CONSTRUCTION

BUILDING RESTRICTION LINE EXISTING CONTOUR LINE - PROPOSED CONTOUR LINE

DETAIL: SEDIMENT DISPOSAL PIT AND TOPSOIL BERM (TYPICAL) SCALE: NOT TO SCALE

— LOC—— LOC—

—— SF —— SILT FENCE

## STANDARD PLAN NOTES

1. DRAINAGE, EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT SHALL BE IN ACCORDANCE WITH THE DELAWARE SEDIMENT AND STORMWATER REGULATIONS, AS AMENDED, AND THE NEW CASTLE COUNTY DRAINAGE CODE.

2. REVIEW AND APPROVAL OF THE STANDARD PLAN SUBMISSION SHALL NOT RELIEVE THE CONTRACTOR/PROPERTY OWNER FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE SEDIMENT AND STORMWATER REGULATIONS, AS AMENDED, NOR SHALL IT RELIEVE THE CONTRACTOR/PROPERTY OWNER FROM ERRORS OR OMISSIONS ON THE APPROVED PLAN.

3. THE APPLICANT SHALL NOTIFY NEW CASTLE COUNTY AT LEAST 48 HOURS PRIOR TO BEGINNING

4. ACREAGE OF DISTURBED AREA: 0.60 ACRES. LIMITS OF DISTURBANCE MUST BE DELINEATED IN

5. INITIAL EARTH DISTURBANCE SHALL BE LIMITED TO THOSE AREAS NECESSARY TO INSTALL SEDIMENT AND EROSION CONTROL MEASURES.

6. OWNER/DEVELOPER IS NOT THE SAME OWNER/DEVELOPER OF TWO OR MORE CONTIGUOUS LOTS BEING DEVELOPED.

GRADING SHALL NOT IMPAIR SURFACE DRAINAGE, CREATE AND EROSION HAZARD OR CREATE A SOURCE OF SEDIMENT TO ANY ADJACENT WATERCOURSE OR PROPERTY OWNER.

ANY SEDIMENT TRANSPORTED OFF-SITE TO ROADS OR RIGHTS OF WAY INCLUDING DITCHES SHALL BE REMOVED IMMEDIATELY. ANY DAMAGE TO ROADS OR DITCHES SHALL BE REPAIRED AND STABILIZED TO ORIGINAL CONDITION.

9. ALL DISTURBED SOIL SURFACES, INCLUDING STOCKPILES AND PERIMETER SEDIMENT CONTROLS ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY WITHIN FOURTEEN (14) DAYS OF INACTIVITY.

10. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAINFALL. MAINTENANCE MUST BE PERFORMED AFTER EACH INSPECTION AS NECESSARY

11. EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE MOST RECENT COPY OF THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK.

12. IF THE APPROVED PLAN IS NOT SUFFICIENT TO ADDRESS EROSION AND SEDIMENT CONTROL, ADDITIONAL SEDIMENT AND STORMWATER MANAGEMENT PRACTICES MAY BE REQUIRED AND THE PLAN REQUIRED TO BE MODIFIED, AS DEEMED NECESSARY BY THE NEW CASTLE COUNTY DEPARTMENT OF LAND USE.

## SEQUENCE OF CONSTRUCTION FOR DISPOSAL & STAGING AREAS:

### PHASE 1

1. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS. A GEOTEXTILE DEWATERING BAG SHALL BE ON SITE TO DEWATER SUMP AREAS AFTER STORM EVENTS, IF NECESSARY.

STRIP AND STOCKPILE TOPSOIL FOR REUSE.

3. EXCAVATESEDIMENT DISPOSAL PIT AND PLACE EXCAVATED MATERIAL IN TEMPORARY SOIL STOCKPILE. CONSTRUCT TEMPORARY BERM.

4. INSTALL TEMPORARY STABILIZATION AND MULCHING TO TEMPORARY SOIL STOCKPILES AND BERMS WITHIN 14 CALENDARY DAYS OF DISTURBANCE. PERFORM SLOPE TREATMENT BY TRACKINGEQUIPMENT UP AND DOWN STOCKPILE SLOPES.

INSTALL TEMPORARY STABILIZATION AND MULCHING TO DISTURBED AREAS WITHIN 14 CALENDARY DAYS OF DISTURBANCE. PERFORM SLOPE TREATMENT BY TRACKING

### PHASE 2

7. STRIP ANESTOCKPILE TOPSOIL FOR REUSE.

8. EXCAVATESEDIMENT DISPOSAL PIT AND PLACE EXCAVATED MATERIAL IN TEMPORARY SOIL

### FINAL GRADING

11. PLACE MIMUM 4 INCHES OF TOPSOIL OVER PREVIOUSLY DISTURBED AREAS. GRADE TO DRAIN. MAIMUM SLOPES SHALL BE 5:1 SLOPE. MINIMUM SLOPES SHALL BE 20:1 SLOPE.

12. INSTALL PRMANENT VEGETATIVE STABILIZATION AND MULCHING. ANCHOR MULCHING BY TRACKING)R APPROVED MULCH BINDERS.

PERIMETE EROSION AND SEDIMENT CONTROLS.

5. BACKFILL SEDIMENT DISPOSAL PIT WITH SEDIMENTS FROM RACEWAY SEDIMENT REMOVAL.

6. PLACE TEMPORARY SOIL STOCKPILE MATERIAL OVER TOP OF BACKFILLED SEDIMENTS. EQUIPMENT UP AND DOWN SLOPES.

STOCKPILIOVER TOP OF PHASE 1 MATERIAL. CONSTRUCT TEMPORARY BERM.

REPEAT SEPS 4 THROUGH 6 FOR PHASE 2 AREAS.

## PHASE 3

10. REPEAT SEPS 7 THROUGH 9 FOR PHASE 3 AREAS, PLACING MATERIAL OVER TOP OF PHASE 2 SDIMENTS.

13. AFTER PEMANENT VEGETATION ACHIEVES A DENSE AND VIGOROUS COVER, REMOVE

# DATA COLUMN:

NCC APPLICATION NO.:

TAX PARCEL NO.: 07-024.00-028

OWNER: **ELEUTHERIAN MILLS - HAGLEY FOUNDATION** 

 $0.60 \pm AC$ 

BARLEY MILL ROAD WILMINGTON, DE 19807

4. SOURCE OF TITLE: DEED BOOK: F97 PAGE: 91

ZONING DISTRICT: SUBURBAN ESTATE (SE)

6. MICROFILM NUMBER: 013776

7. SITE GROSS AREA: 21.8 ± AC

DISTURBED AREA:

NET VOLUME: NET CUT: 0 ± CY

## CERTIFICATION OF ACCURACY

I, COLIN M KRAUCUNAS, HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER WITH A BACKGROUND IN CIVIL ENGINEERING IN THE STATE OF DELAWARE AND THAT THE INFORMATION ON THIS PLAN IS TRUE AND CORRECT TO THE ACCURACY REQUIRED BY ACCEPTED SURVEYING STANDARDS AND PRACTICES AND BY THE NEW CASTLE COUNTY UNIFIED DEVELOPMENT CODE.

NET FILL: 1300 ± CY

COLIN M. KRAUCUNAS, P.E. DELAWARE #14308

## CERTIFICATION OF OWNERSHIP

HEREBY CERTIFY THAT LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE PURSUANT TO THE APPROVED PLAN; THAT RESPONSIBLE PERSONNEL INVOLVED WILL HAVE A CERTIFICATE OF TRAINING FROM DNREC (BLUE CARD HOLDER); AND THAT DNREC AND NEW CASTLE COUNTY PERSONNEL SHALL HAVE THE RIGHT TO CONDUCT ON-SITE INSPECTIONS. LAND DISTURBING ACTIVITIES WILL BE IN COMPLIANCE WITH APPLICABLE CODES AND REGULATIONS GOVERNING LAND DISTURBING ACTIVITIES IN NEW CASTLE COUNTY.

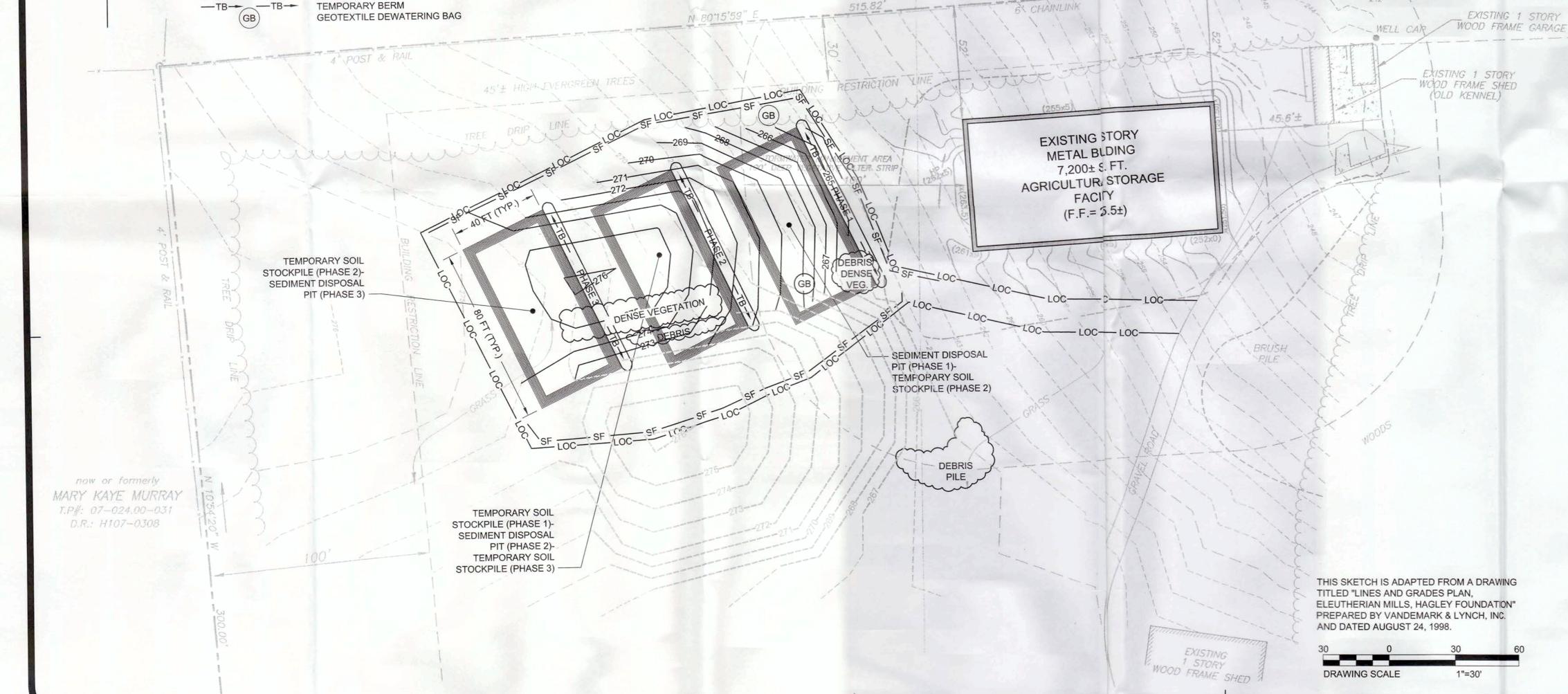
**ELEUTHERIAN MILLS - HAGLEY FOUNDATION** 

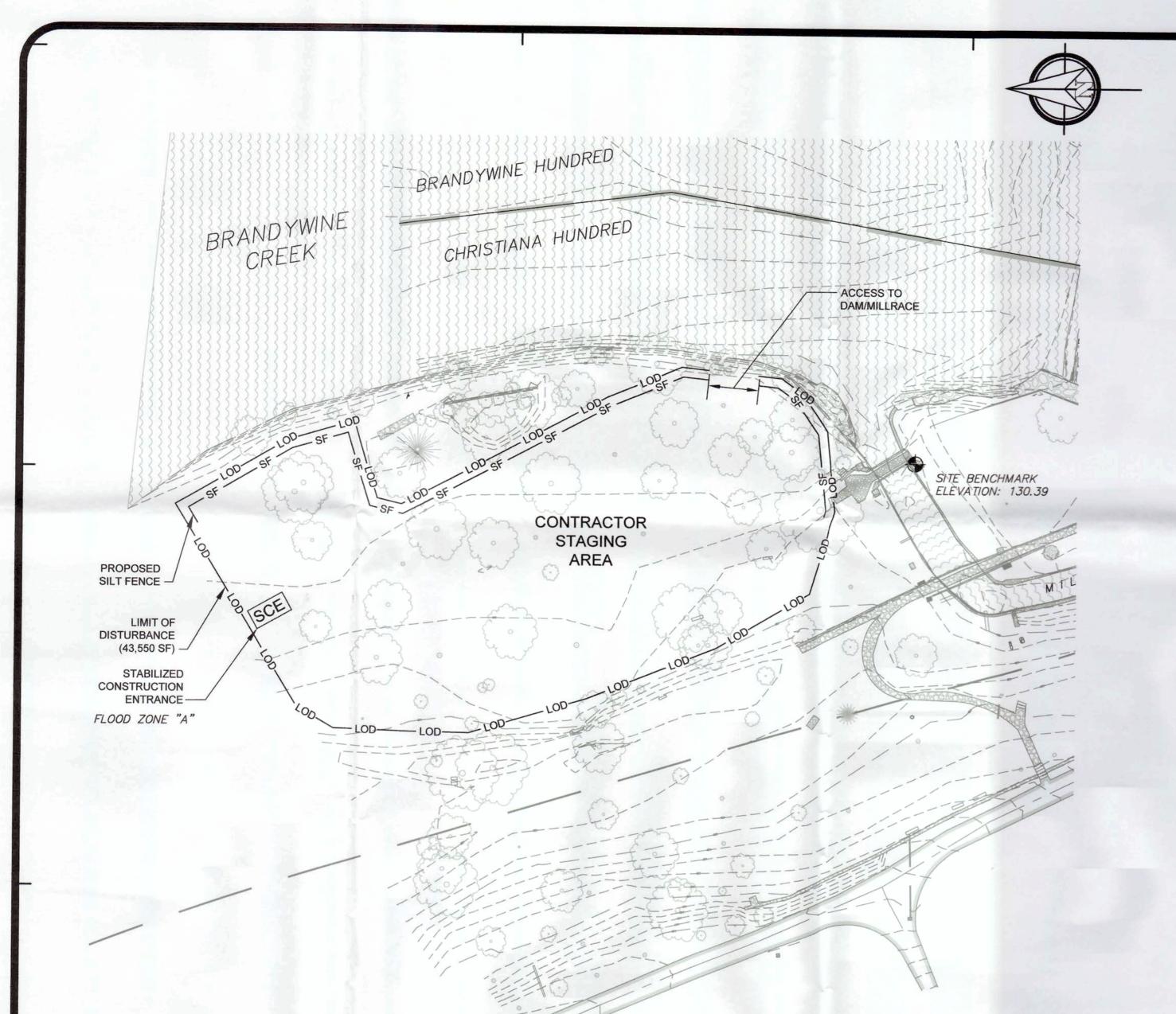


DATE: 19 FEBRUARY 2009

SCALE: PROJECT NO.

5980.PD SHEET:





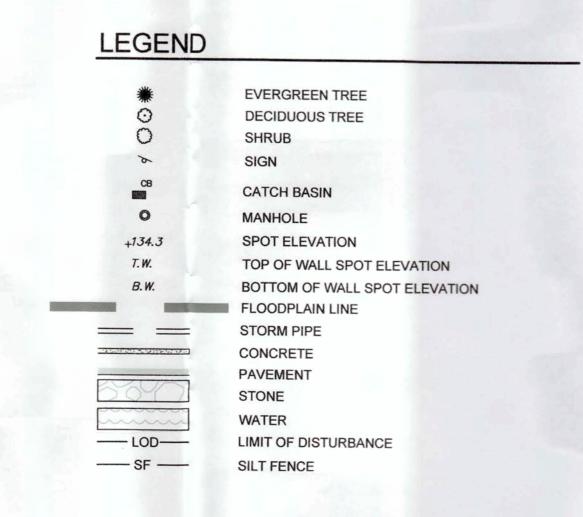
EROSION AND SEDIMENT CONTROL LAYOUT FOR CONTRACTOR STAGING AREA

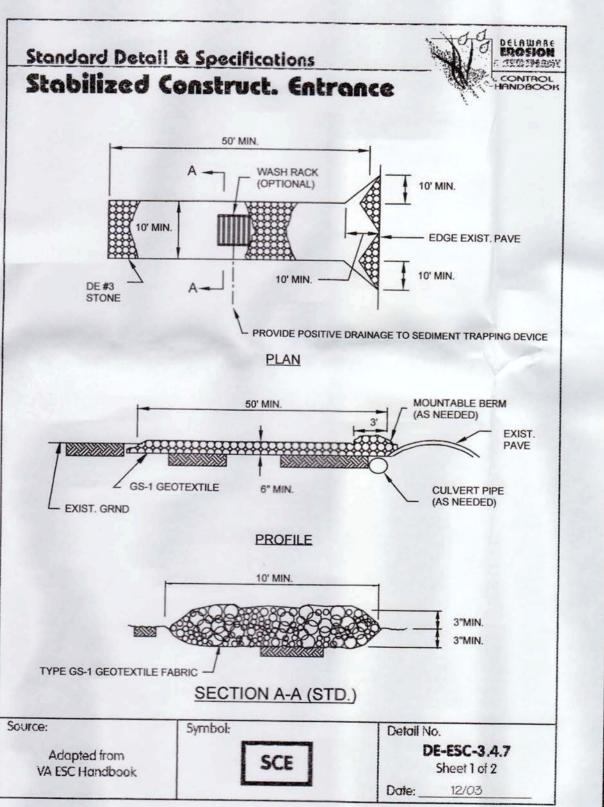


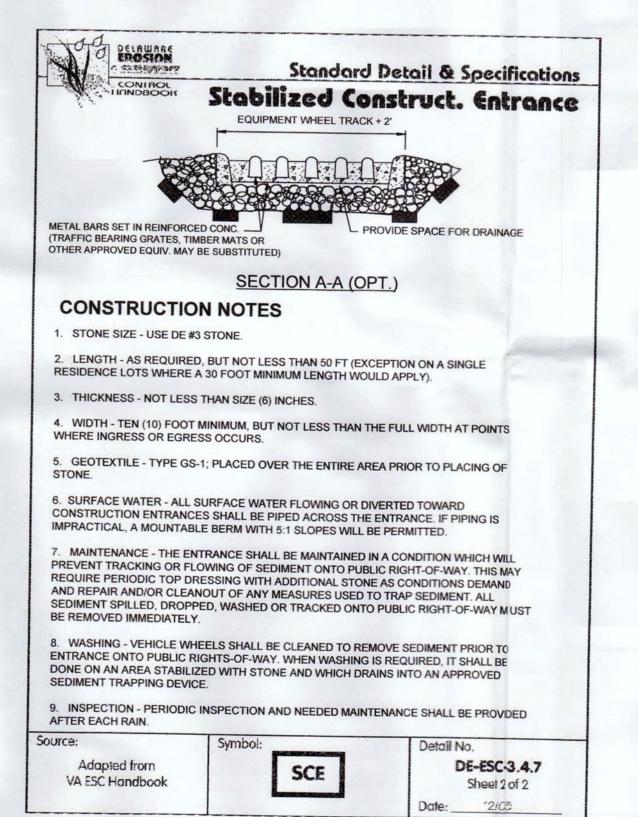
FLOOD ZONE "X"

STAGING AREA LAYOUT
SCALE: 1" = 400' +/-









DETAIL: STABILIZED CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE

DATE: 19 FEBRUARY 2009
SCALE: 1" = 40'
PROJECT NO. 5980.PD
SHEET: ES2 OF ES3

3		4.								1	
	TEMI	PORARY	SEEDING	G BY F	RATES	, DEP1	THS AN	D DAT	ES	Ì.	
Mix#	Species 5	Seedin	ng Rate	Optimum Seeding Dates  O = Optimum Planting Period; A = Acceptable Planting					nting Period	Planting Depth <sup>3</sup>	
1, 1,	Certified Seed	5	lb/1000	2/1-	stal Pla	ain 28/15-		edmont	8/1-	All 10/31-	
1	98878787888888	1b/Ac <sup>5</sup>	sq.ft.	4/30 O	8/14 A	10/31	3/1-4/30 O	7/31 A	10/31 O	2/1	1-2 inches
2	Barley Oats	125	4	0	A	A	0	A	A		2-3" sandy soils 1-2 inches
3	Rye	125	4	0	A	0	0	A	0	A	2-3" sandy soils 1-2 inches
4	Perennial Ryegrass	125	4	0	A	0	0	A	0		2-3" sandy soils 0.5 inches
5	Annual Ryegrass	125	4	0	A	0	0	A	0	A	1-2" sandy soils 0.5 inches 1-2" sandy soils
6	Winter Wheat	125	4	0	A	0	0	Α	0	А	1-2 sandy soils 1-2 inches 2-3" sandy soils
7	Foxtail Millet	30 PLS	0.7		0			0		II.	0.5 inches 1-2" sandy soils
	Pearl Millet	20 PLS	0.5		0			0			0.5 inches 1-2" sandy soils
May be Applicat Fifty por Use var Warm s	seeding requires 3 tons p planted throughout summole on slopes 3:1 or less unds per acre of Annual I ieties currently recomme eason grasses such as Me. Good on low fertility an	ner if soil r Lespedeza nded for D Millet or We	moisture a may be delaware, deeping Lo	added Conta	to 1/2 act a Co	the se ounty E y be us	ed area eding r extentions sed beto	ate of a n Offici ween 5	any of t e for in /1 and	he above formation 9/1 if des	1.
Winter s May be Applicat Fifty poo Use var Warm s	seeding requires 3 tons p planted throughout summole on slopes 3:1 or less unds per acre of Annual I leties currently recomme eason grasses such as M	ner if soil r Lespedeza nded for D Millet or We	moisture a may be delaware, deeping Lo	added Conta	to 1/2 act a Co	the se ounty E y be us	ed area eding r extentions sed beto	ate of a n Offici ween 5	any of t e for in /1 and	he above formation 9/1 if des	1.
Winter s May be Applicat Fifty poo Use var Warm s	seeding requires 3 tons p planted throughout summole on slopes 3:1 or less unds per acre of Annual I leties currently recomme eason grasses such as M	ner if soil r Lespedeza nded for D fillet or W nd acid are	moisture u may be delaware, eeping Lo eas. Seed	added Conta	to 1/2 act a Co	the se ounty E y be us	ed area eding r extentions sed beto	ate of a n Office ween 5 at dep	any of t e for in /1 and	he above formation 9/1 if dec .5".	1.
Winter's May be Applicat Fifty por Use var Warm's per acre	seeding requires 3 tons p planted throughout summole on slopes 3:1 or less unds per acre of Annual I leties currently recomme eason grasses such as M	ner if soil r Lespedeza nded for D Millet or We	moisture u may be delaware, eeping Lo eas. Seed	added Conta	to 1/2 act a Co	the se ounty E y be us	ed area eding r extentions sed beto	ate of a n Office ween 5 at dep	any of the for in	No.  DE-E: She	1.

ARE USED, INCREASE THE APPLICATION RATE OF NITROGEN FERTILIZER BY 20 POUNDS OF

. HYDRAULICALLY APPLIED MULCH - THE FOLLOWING CONDITIONS APPLY TO HYDRAULICALLY

A. WOOD FIBER MULCH SHALL CONSIST OF SPECIALLY PREPARED WOOD THAT HAS

B. BLENDED FIRER MULCH SHALL CONSIST OF ANY HYDRAULIC MULCH THAT CONTAIN

C. A BONDED FIBER MATRIX (BFM) CONSISTS OF LONG STRAND, SPECIALLYPREPARED

D. REFER TO FIGURE 3.4.5A FOR CONDITIONS AND LIMITATIONS OF USE FOR EACH OF

ii. ALL COMPONENTS OF THE HYDRAULICALLY APPLIED MULCHES SHALL BE PREPACKAGED

BY THE MANUFACTURE TO ASSURE MATERIAL PERFORMANCE. FIELD MIXING OF THE MULCH COMPONENTS IS ACCEPTABLE, BUT MUST BE DONE PER MANUFACTURES

DE-ESC-3.4.5

Sheet 1 of 3

Notes (cont.)

SYNTHETIC FIBERS TO ENHANCE PERFORMANCE.

THE ABOVE CATEGORIES OF HYDRAULIC MULCH.

RECOMMENDATIONS TO ENSURE THE PROPER RESULTS.

The Construction Site Pollution Prevention Plan should include the following elements:

BEEN PROCESSED TO A UNIFORM STATE, IS PACKAGED FOR SALE AS A

30% PAPER FIBER. THE PAPER COMPONENT MUST CONSIST OF SPECIALLY

WOOD FIBERS THAT HAVE BEEN PROCESSED TO A UNIFORM STATE HELD

PAPER (CELLULOSE) MULCH BUT MAY CONTAIN SMALL PERCENTAGES OF

HYDRAULIC SEEDING EQUIPMENT, AND CONSISTS OF A MINIMUM OF 70% VIRGIN

OR RECYCLED WOOD FIBER COMBINED WITH 30% PAPER FIBER AND ADDITIVES.

PREPARED PAPER THAT HAS BEEN PROCESSED TO A UNIFORMFIBROUS STATE

AND IS PACKAGED FOR SALE AS A HYDRAULIC MULCH FOR USE WITH HYDRAULIC

TOGETHER BY A WATER RESISTANT BONDING AGENT. BEMS SHALL CONTAIN NO

N PER ACRE (200 POUNDS OF 10-10-10 OR 66 POUNDS OF 30-0-0 PER ACRE).

APPLIED MULCH:

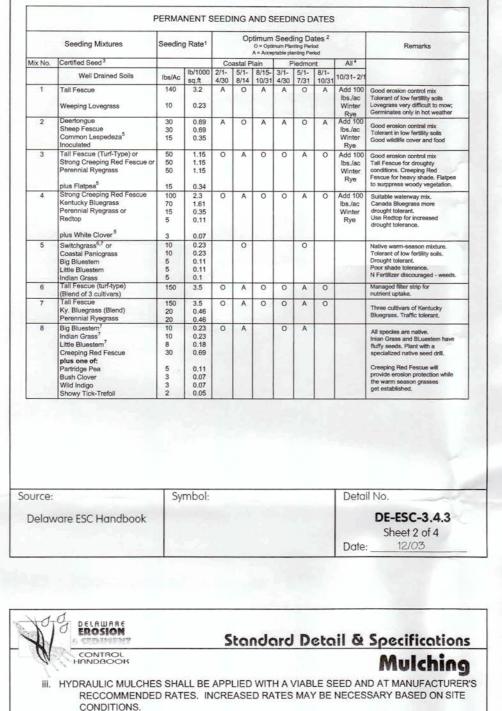
DEFINITIONS:

Delaware ESC Handbook

a. Concrete

Standard Detail & Specifications

Site Pollution Prevention



iv. HYDRAULICALLY APPLIED MULCHES AND ADDITIVES SHALL BE MIXED ACCORDING TO

APPLIED MULCH AS BEEN SPECIFIED FOR USE ON THE APPROVED SEDIMENT AND

Standard Detail & Specifications

Site Pollution Prevention

STORMWATER PLAN, OR SUPPLEMENTAL APPROVAL FROM THE PLAN APPROVAL

iv. MATERIALS WITHIN THIS CATEGORY SHALL ONLY BE USED WHEN HYDRAULICALLY

MANUFACTURERS RECOMMENDATIONS.

Standard Detail & Specifications

Vegetative Stabilization

		PERMAI	NENT S	EEDI		ND SI				(cont.)	
	Seeding Mixtures	Seedin	g Rate <sup>1</sup>		Op	O = Opti A = Accep	mum Plan	nting Peri	lod dod		Remarks
Mix No.	Certified Seed <sup>3</sup>		-		astal P	lain	P	iedmor	nt	All <sup>4</sup>	
	Poorly Drained Soils	lbs/Ac	lb/1000 sq.ft.	2/1-	5/1- 8/14	8/15-	3/1- 4/30	5/1- 7/31	8/1-	10/31-2/1	
9	Redtop Creeping Bentgrass Sheep Fescue Rough Bluegrass	75 35 30 45	1.72 0.8 0.69	0	A	0	0	A	0	Add 100 lbs./ac Winter Rye	Quick stabilization of disturbed sites and waterways
10	Reed Canarygrass <sup>6</sup>	10	0.23	A		0	A		0	igo	Good erosion control, wildlife
	Residential Lawns		_		_		_				cover and wetland revegetation
11	Tall Fescue Perennial Ryegrass Kentucky Bluegrass Blend	100 25 30	2.3 0.57 0.69	0	A	0	0	A	0		High value, high maintenance light traffic, irrigation necessar Well drained soils, full sun.
12	Tall Fescue Perennial Ryegrass Sheep Fescue	100 25 25	2.3 0.57 0.57	0	A	0	0	A	0		Moderate value, low maintenance, traffic tolerant
13	Creeping Red Fescue Chewings Fescue Rough Bluegrass Kentucky Bluegrass	50 50 20 20	1.15 1.15 0.4 0.4	0	A	0	0	A	0		Shade tolerant, moderate traffic tolerance, moderate maintenance.
14	Creeping Red Fescue Rough Bluegrass or Chewings Fescue	50 90	1.15	0	A	0	0	Α	0		Shade tolerant, moisture tolerant.
15	K-31 Tall Fescue	150	3.5	0	Α	0	0	Α	0		Monoculture, but performs we alone in lawns. Discouraged.
2. Winter adjustr 3. All see The ma 4. Cool so 5. All legu 6. Warm	nydroseeding is the choosen mel seeding requires 3 tons per acre nent to reflect local conditions, d shall meet the minimum purity aximum % of weed seeds shall ib asson species may be planted the uminous seed must be inoculated season grass mix and Reed Can season grasses require a soil ter	of straw maximand maximale in accordance froughout strains.	ulch. Plar um germi lance with ummer if cannot be	nation a Section soil move	percent on 1, Ch sisture is	tages napter 2 s adequ	ecommed, Title uate or	ended e 3 of the seede	by the he Dela d area	elaware. To Delaware I ware Code can be irrig	Department of Agriculture.

Standard Detail & Specifications

Delaware ESC Handbook

AREA, EROSION HAZARD, AND COST.

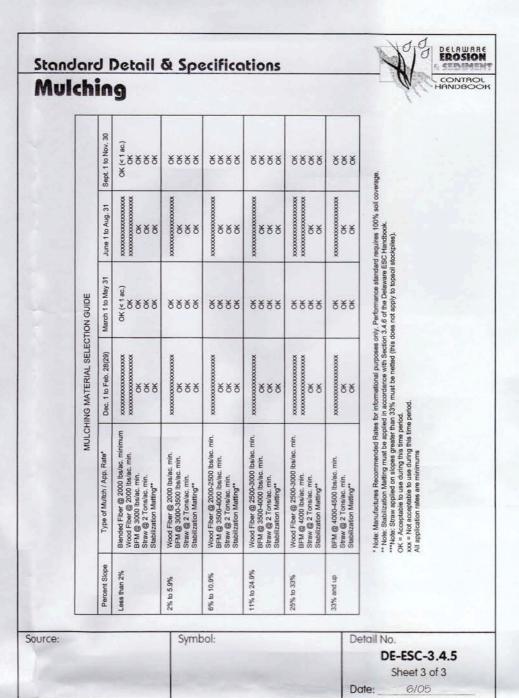
CONTOUR WHENEVER POSSIBLE.

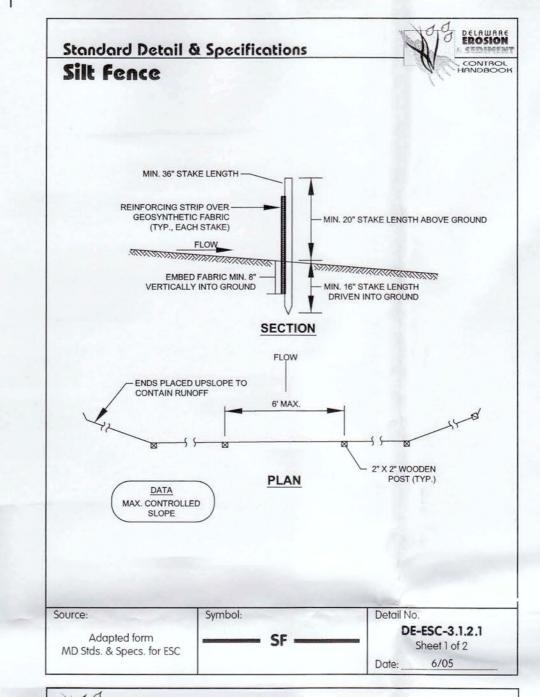
Standard Detail & Specifications

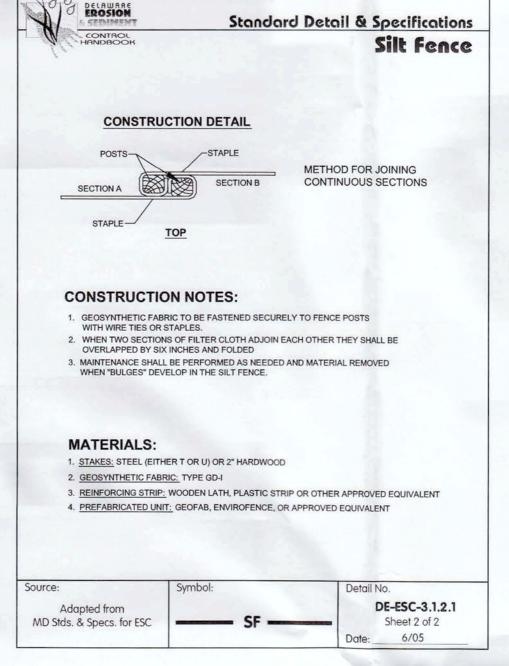
Notes (cont.)

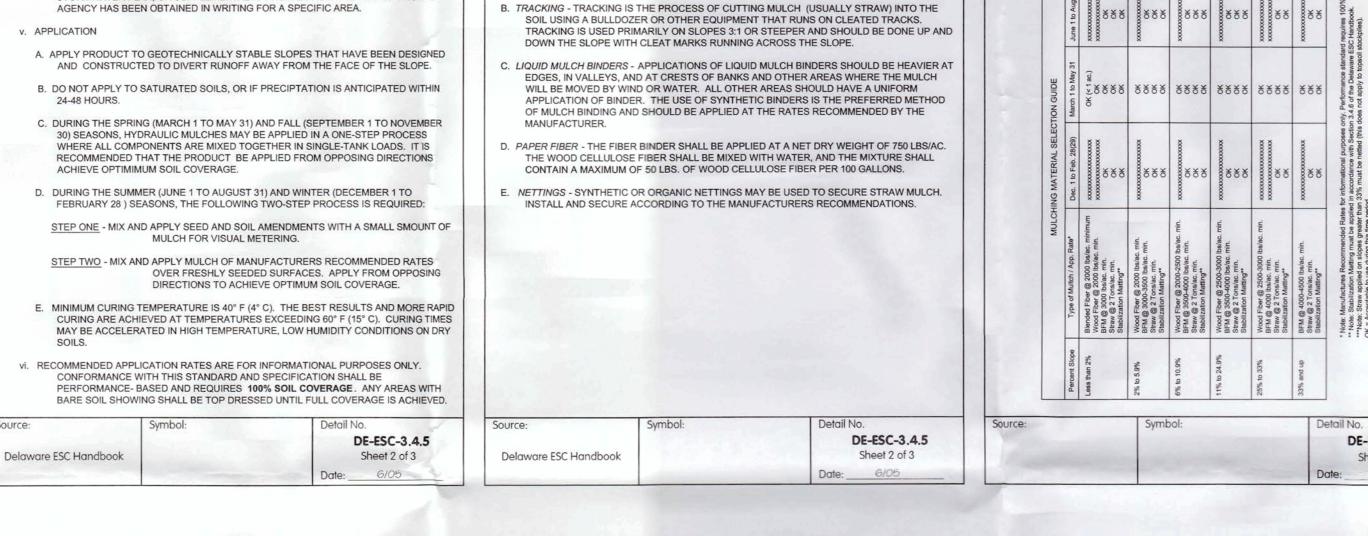
Site Pollution Prevention

0	ns				EROSION SERVICE	DELAWARE EROSION		rd Detail & Specifications
i	on				HANDBOOK	CONSTRUCTION NOTES:  1. SITE PREPARATION	Veget	ative Stabilization
NE	SEEDI	NG DA	ATES (	(cont.)		A. PRIOR TO SEEDING, INS	DE STABILIZATION STRUCTU	D SEDIMENT CONTROL PRACTICES SUCH URES, BERMS, DIKES, GRASSED
0=	um Seed Optimum Pla Acceptable pl	anting Peri	od		Remarks			FOR TEMPORARY SEEDINGS.
Plair	-	Piedmor	nt	All <sup>4</sup>		2. SEEDBED PREPARATION		
10	/15- 3/1- /31 4/30 O O		10/31	Add 100 lbs./ac Winter Rye	Quick stabilization of disturbed sites and waterways.	VEGETATION. THE SEEDB LARGE CLODS, ROCKS, AN	ED SHOULD BE WELL PREP ID OTHER OBJECTIONABLE	NSURE THE SUCCESS OF ESTABLISHING PARED, LOOSE, UNIFORM, AND FREE OF MATERIAL. THE SOIL SURFACE SHOULD
	O A		0		Good erosion control, wildlife cover and wetland revegetation.	NOT BE COMPACTED OR C	RUSTED.	
T	0 0	A	0		High value, high maintenance, light traffic, irrigation necessary. Well drained soils, full sun.	A. LIME - APPLY LIMING MA ACCORDANCE WITH T MANAGEMENT PLAN IS	HE APPROVED NUTRIENT MES NOT REQUIRED, APPLY DO	ECOMMENDATIONS OF A <b>SOIL TEST</b> IN MANAGEMENT PLAN. IF A NUTRIENT DLOMITIC LIMESTONE AT THE RATE OF 1
	0 0	A	0		Moderate value, low maintenance,	TO 2 TONS PER ACRE. TO 6 INCHES OF SOIL.	APPLY LIMESTONE UNIFO	RMLY AND INCORPORATE INTO THE TOP 4
	0 0	A	0		traffic tolerant Shade tolerant, moderate traffic tolerance, moderate maintenance.	ACCORDANCE WITH T	HE APPROVED NUTRIENT M	COMMENDATIONS OF A SOIL TEST IN MANAGEMENT PLAN. IF A NUTRIENT FORMULATION OF 10-10-10 AT THE RATE
	0 0	A	0		Shade tolerant, moisture tolerant,		CRE. APPLY FERTILIZER U	NIFORMLY AND INCORPORATE INTO THE
L	0 0	A	0		Monoculture, but performs well alone in lawns. Discouraged.	4. SEEDING		
ntag chap is a	es recommer 24, Titi dequate o	mended le 3 of the r seeder per year	by the Delay the Delay d area c	elaware. Tr Delaware ( ware Code can be irrig		STABILIZATION, SELECTIONS.  B. APPLY SEED UNIFORML	CT A MIXTURE FROM SHEE Y WITH A BROADCAST SEE	URE FROM SHEET 1. FOR A PERMANENT T 2 OR SHEET 3 DEPENDING ON THE DER, DRILL, CULTIPACKER SEEDER OR THE RECOMMENDED RATE AND PLANTING
						THEN <u>LIGHTLY</u> TAMPE HYDROSEEDING IS US	D INTO PLACE USING A ROL ED AND THE SEED AND FER	OVERED BY RAKING OR DRAGGING AND LLER OR CULTIPACKER. IF RTILIZER IS MIXED, THEY WILL BE MIXED EDIATELY AND WITHOUT INTERRUPTION.
						5. MULCHING ALL MULCHING SHALL BE D	ONE IN ACCORDANCE WITH	DETAIL DE-ESC-3.4.5.
				Detai	l No.	Source:	Symbol:	Detail No.
					DE-ESC-3.4.3 Sheet 3 of 4	Delaware ESC Handbook	-	<b>DE-ESC-3.4.3</b> Sheet 4 of 4









ANCHORING MULCH - MULCH MUST BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND

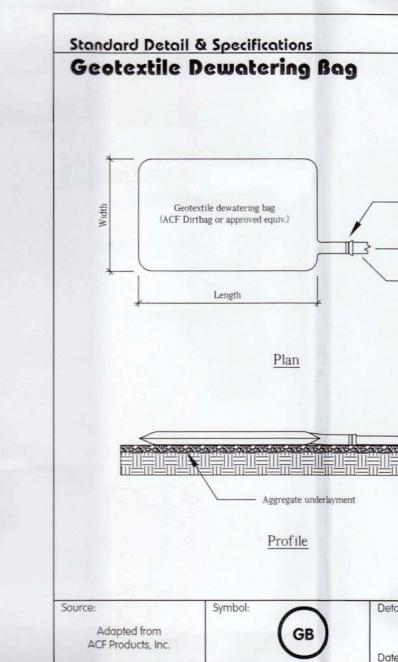
OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON SIZE OF

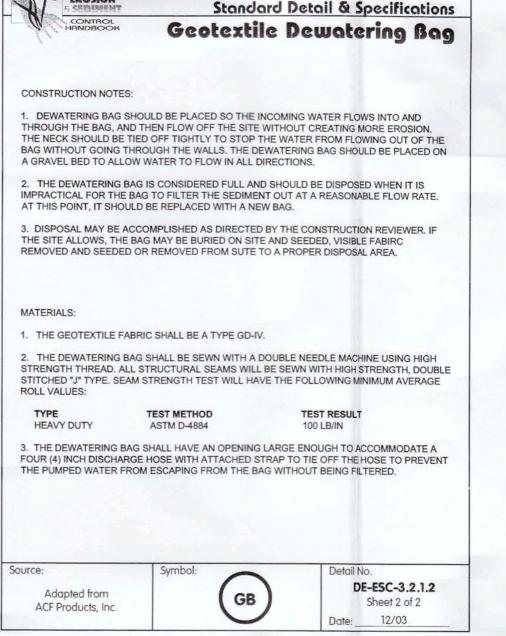
A. CRIMPING - A CRIMPER IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND

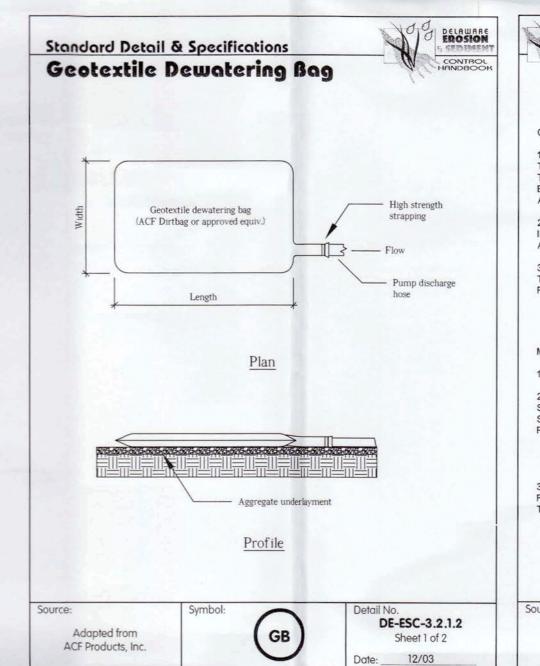
ANCHOR MULCH INTO THE TOP TWO (2) INCHES OF SOIL. THIS PRACTICE AFFORDS

CAN OPERATE SAFELY. ON SLOPING LAND, CRIMPING SHOULD BE DONE ON THE

MAXIMUM EROSION CONTROL BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT









e. Contact information for reporting spills through the DNREC 24-Hour Toll Free Number shall d. Trash shall be disposed of in accordance with all applicable Delaware laws. Material Inventory be prominently posted. e. Trash cans shall be placed at all lunch spots and littering is strictly prohibited. Recycle bins Document the storage and use of the following materials: shall be placed near the construction trailer f. If fertilizer bags can not be stored in a weather-proof location, they shall be kept on a pallet a. Best management practices for construction site pollution control shall be a part of regular and covered with plastic sheeting which is overlapped and anchored. b. Detergents progress meetings. c. Paints (enamel and latex) b. Information regarding waste management, equipment maintenance and spill prevention 1. Equipment maintenance practices d. Cleaning solvents shall be prominently posted in the construction trailer. a. If possible, equipment should be taken to off-site commercial facilities for washing and e. Pesticides f. Wood scraps b. If performed on-site, vehicles shall be washed with high-pressure water spray without CONTACT INFORMATION g. Fertilizers detergents in an area contained by an impervious berm. h. Petroleum based products 800-662-8802 **DNREC 24-Hour Toll Free Number**  Drip pans shall be used for all equipment maintenance. Good housekeeping practices **DNREC Solid & Hazardous Waste Branch**  Equipment shall be inspected for leaks on a daily basis. a. Store only enough product required to do the job. e. Washout from concrete trucks shall be disposed of in a temporary pit for hardening and b. All materials shall be stored in a neat, orderly manner in their original labeled containers proper disposal. and covered. Fuel nozzles shall be equipped with automatic shut-off valves. Substances shall not be mixed. g. All used products such as oil, antifreeze, solvents and tires shall be disposed of in d. When possible, all of a product shall be used up prior to disposal of the container. accordance with manufacturers' recommendations and local, state and federal laws and e. Manufacturers' instructions for disposal shall be strictly adhered to. f. The site foreman shall designate someone to inspect all BMPs daily. 5. Spill prevention practices a. Potential spill areas shall be identified and contained in covered areas with no connection to the storm drain system. a. All waste materials shall be collected and stored in securely lidded dumpsters in a location b. Warning signs shall be posted in hazardous material storage areas. that does not drain to a waterbody. c. Preventive maintenance shall be performed on all tanks, valves, pumps, pipes and other b. Waste materials shall be salvaged and/or recycled whenever possible. equipment as necessary. c. The dumpsters shall be emptied a minimum of twice per week, or more if necessary. The d. Low or non-toxic substances shall be prioritized for use. licensed trash hauler is responsible for cleaning out dumpsters. DE-ESC-3.6.1 DE-ESC-3.6.1 DE-ESC-3.6.1 Adapted from USFPA Adapted from USEPA Adapted from USEPA Pub. 840-B-92-002 Sheet 3 of 3 Sheet 2 of 3 Pub. 840-B-92-002 Sheet 1 of 3 Pub. 840-B-92-002 Date: 6/05

DATE: 19 FEBRUARY 2009 PROJECT NO.

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