
LEGEND
EXISTING
PROPOSED
PROPERTY LINE
N/A
EASEMENT LINE
ELEVATION CONTOUR
N/A
SPOT ELEVATION
EDGE OF WOODS
N/A
WETLANDS
N/A
SOILS TYPE AND BOUNDARY PER SOILS BOOK
PAVED ROAD
STORMWATER PIPE WITH SIZE AND TYPE
LIMIT OF DISTURBANCE
SILT FENCE
LIMIT OF DISTURBANCE AND SILT FENCE
LIMIT OF DISTURBANCE AND REINFORCED SILT FENCE
STABILIZED CONSTRUCTION ENTRANCE
POST DEVELOPMENT FLOW DIRECTION
FFE
APPROXIMATE FIRST FLOOR ELEVATION OF HOUSE (FOR S.C.D. PURPOSES)
UTILITY POLE
N/F ARTHUR H. & SYLVIA I. NORWOOD
N/F THOMAS E. JONES & CHARLENE A. WELLS
N/F MARK H. DAVIDSON
N/F HENRY J. HUFF
N/F RICHARD E. HUFF, JR. & JOCELYN M. JENKINS
N/F LADYBUG ASSOCIATES, LLC
RESIDUE WILLIAM EDWARD PETTYJOHN
BENCH MARK. MAG NAIL IN UTILITY POLE #42960 PR4 123 RA79 ELEV. = 44.21'
NORFOLK CANYON ROAD (50' WIDE PRIVATE RIGHT-OF-WAY)
WILMINGTON CANYON ROAD (50' WIDE PRIVATE RIGHT-OF-WAY)
BALTIMORE CANYON ROAD (50' WIDE PRIVATE RIGHT-OF-WAY)
NEPTUNE ROAD (ROAD 251)
25' OF RIGHT-OF-WAY DEDICATED TO PUBLIC USE
15' WIDE PERMANENT EASEMENT DEDICATED TO PUBLIC USE
GRADING PHASE ONE
GRADING PHASE TWO
GRADING PHASE TWO STOCKPILE AREA
RECREATIONAL AREA (OPEN SPACE)
DELINEATED WETLANDS
20' WIDE UTILITY EASEMENT
DRAINAGE SWALE, WITH 3H:1V SIDESLOPES, TO INTERCEPT AND FACILITATE OFFSITE RUNOFF.
25' WIDE UTILITY EASEMENT
10' WIDE UTILITY EASEMENT
SOIL STOCKPILE AREA
STORMWATER MANAGEMENT POND. SEE ENLARGED PLAN ON SHEET C3.2
20' WIDE INGRESS-EGRESS EASEMENT TO SWM POND
30' WIDE AGRICULTURAL FORESTED BUFFER STRIP (OPEN SPACE)
CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY THE RELOCATION OF THE EXISTING UTILITY POLE
10' WIDE DRAINAGE EASEMENT
95' WIDE EMERGENCY SPILLWAY. STABILIZE WITH EROSION CONTROL MATTING. CREST ELEVATION = 42.7'. SEE DETAILS ON SHEET C3.1.
STORMWATER MANAGEMENT OUTFALL STRUCTURE (CONCRETE WEIR). SEE DETAIL ON SHEET C3.1.
LIMIT OF DISTURBANCE
OPEN SPACE
RIPRAP OUTFALL PROTECTION. D50 = 9". LENGTH = 25', WIDTH = 45', THICKNESS = 27". INSTALL OVER MIRAFI 600X OR APPROVED EQUAL
TEMPORARY SEDIMENT BASIN DATA
DRAINAGE AREA: 85.67 AC.
SEDIMENT VOLUME REQUIRED: 308,412 CU. FT.
WET STORAGE PROVIDED: 330,112 CU. FT.
DRY STORAGE PROVIDED: 102,919 CU. FT.
SWALE PROTECTION NOTES
1 INSTALL ENERGY DISSIPATION PER "PIPE INLET/OUTLET RIPRAP DETAIL" ON SHEET C3.2.
2 INSTALL ENERGY DISSIPATION PER "TYPICAL RIPRAPPED SWALE SECTION" ON SHEET C3.2.
APPROVED
SUSSEX CONSERVATION DISTRICT
SEDIMENT CONTROL & STORMWATER MANAGEMENT
LOCATION MAP
1" = 1 MILE
SCALE: 1" = 100'
SITE LOCATION = TAX MAP 2-35-24, PARCEL 36
DESIGN / DEVELOPMENT PLANS PRINTS ISSUED FOR: • REVIEW
NO. | REVISIONS | DATE
1 | S.C.E.D. COMMENTS OF 7-14-04 | 7/27/04
2 | S.C.E.D. COMMENTS OF 8-21-04 | 10/28/04
3 | EASEMENTS ADDED | 11/23/04
SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY, DELAWARE
APPROVED BY
DATE
GMB
GEORGE, MILES & BUHR, LLC
ARCHITECTS & ENGINEERS
SALISBURY • BALTIMORE • LEWES • SEAFORD • YORK
www.gmbnet.com
THE COTTAGES AT NEPTUNE CANYON
BROADKILL HUNDRED
SUSSEX COUNTY, DELAWARE
SITE PLAN AND SEDIMENT AND STORMWATER MANGEMENT PLAN
SCALE : 1" = 100'
DESIGN BY : JJS,JWK
DRAWN BY : JWK
CHECKED BY: JAS
GMB FILE : 2003260
DATE : JUNE 2004
DRAWING 4 OF 18
C1
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SEDIMENT CONTROL NOTES

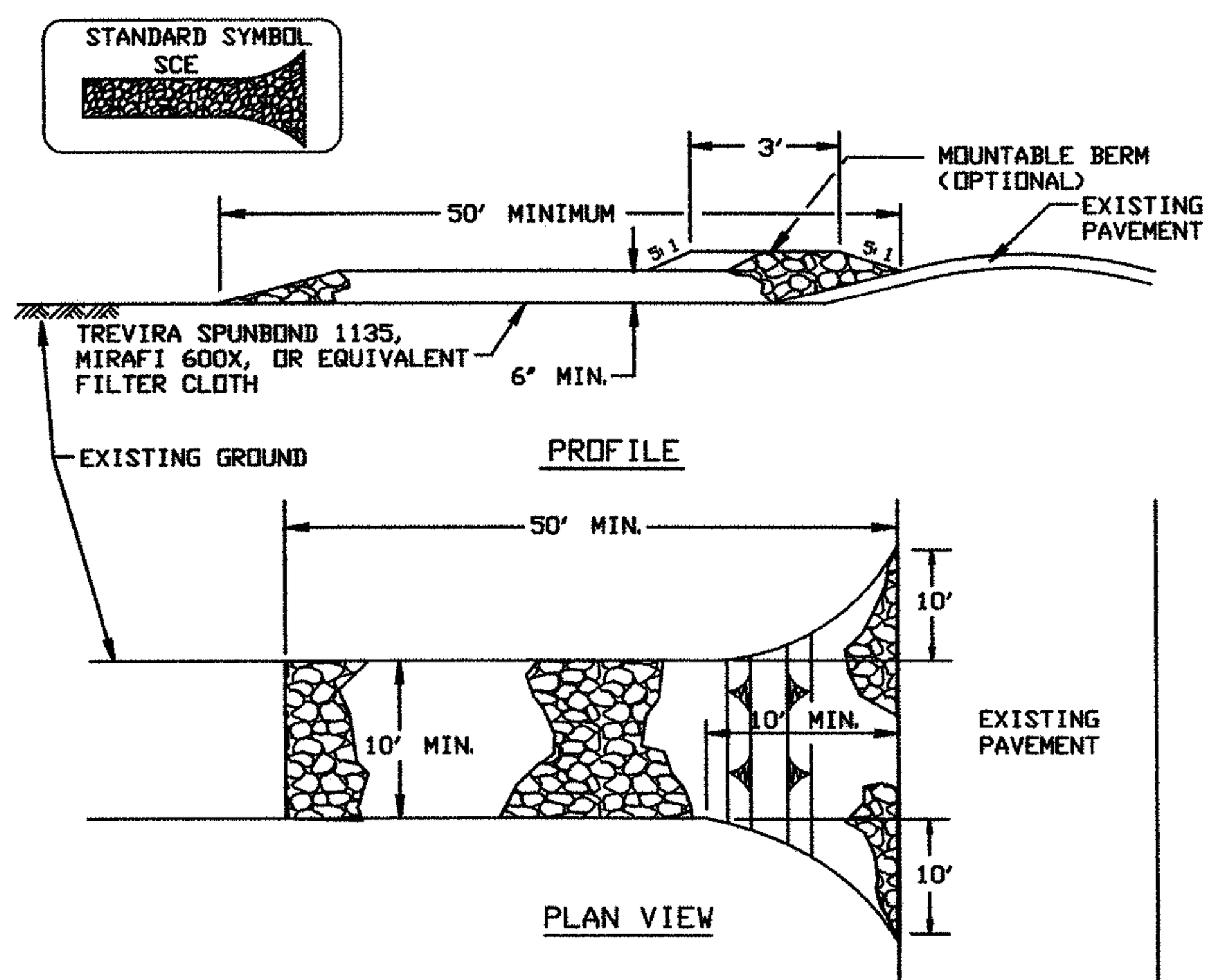
1. REVIEW AND OR APPROVAL OF THE SEDIMENT AND STORMWATER MANAGEMENT PLAN SHALL NOT RELIEVE THE CONTRACTOR FROM HIS OR HER RESPONSIBILITIES FOR COMPLIANCE WITH THE REQUIREMENTS OF THE SEDIMENT AND STORMWATER REGULATIONS, NOR SHALL IT RELIEVE THE CONTRACTOR FROM ERRORS OR OMISSIONS IN THE APPROVED PLAN.
2. IF THE APPROVED PLAN NEEDS TO BE MODIFIED, ADDITIONAL SEDIMENT AND STORMWATER CONTROL MEASURES MAY BE REQUIRED AS DEEMED NECESSARY BY THE SUSSEX CONSERVATION DISTRICT.
3. THE SUSSEX CONSERVATION DISTRICT RESERVES THE RIGHT TO ENTER PRIVATE PROPERTY FOR PURPOSES OF PERIODIC SITE INSPECTION.
4. FOLLOWING SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 14 CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS, TOPSOIL STOCKPILES, AND ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL COMPLY WITH THE DELAWARE EROSION AND SEDIMENT CONTROL HANDBOOK 1989 OR LATEST EDITION.
6. CONTRACTOR SHALL MAINTAIN AND REPAIR ALL EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT PRACTICES DAMAGED DURING UTILITY INSTALLATION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE STORMWATER MANAGEMENT FACILITIES FOR THIS PROJECT DURING CONSTRUCTION. THE OWNERS ASSOCIATION SHALL HAVE PERPETUAL MAINTENANCE RESPONSIBILTY OF THE STORMWATER MANAGEMENT FACILITIES FOR THIS PROJECT AFTER CONSTRUCTION.
8. APPROVED PLANS REMAIN VALID FOR 3 YEARS FROM THE DATE OF AN APPROVAL.
9. AS-BUILT SURVEYS AND DRAWINGS ARE TO SUBMITTED TO THE DISTRICT WITHIN 60 DAYS OF STORMWATER MANAGEMENT FACILITY COMPLETION.
10. APPROVAL OF A SEDIMENT AND STORMWATER PLAN DOES NOT GRANT OR IMPLY A RIGHT TO DISCHARGE STORMWATER RUNOFF. THE OWNER/DEVELOPER IS RESPONSIBLE FOR ACQUIRING ANY AND ALL AGREEMENTS, EASEMENTS, ETC., NECESSARY TO COMPLY WITH STATE DRAINAGE AND OTHER APPLICABLE LAWS.
11. ANY DEVIATION FROM THE "SEQUENCE OF OPERATIONS" INDICATED ON THIS DRAWINGS SHALL BE APPROVED BY THE SEDIMENT CONTROL REPRESENTATIVE.
12. MINOR FIELD ADJUSTMENTS MAY BE MADE TO INSURE THE CONTROL OF SEDIMENT, UPON APPROVAL OF SEDIMENT CONTROL REPRESENTATIVE.
13. PLACEMENT AND INSTALLATION OF SEDIMENT CONTROL DEVICES SHALL ALLOW FOR FULL PROTECTION OF TRENCH EXCAVATION, STOCKPILES, AND OTHER AREAS DISTURBED DURING CONSTRUCTION PROCEDURES.
14. ALL SEDIMENT CONTROL DEVICES ONCE INSTALLED SHALL BE APPROVED BY SEDIMENT CONTROL REPRESENTATIVES BEFORE PROCEEDING WITH ACTUAL CONSTRUCTION.
15. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL DEVICES SHALL BE INSPECTED AND LEFT IN FUNCTIONAL CONDITION.
16. NO SPOILS, STOCKPILED OR EXCAVATED MATERIAL MAY BE DISCHARGED INTO WETLANDS REGULATED BY THE STATE OF DELAWARE OR THE U.S. ARMY CORPS OF ENGINEERS.
17. MATERIAL REMOVED FROM SURFACE TREATED, GRAVEL, OR SAND ROADS AND STOCKPILED FOR RE-USE SHALL BE PROTECTED WITH APPROVED SEDIMENT CONTROL PROCEDURES. THE METHOD PROPOSED SHALL BE REVIEWED WITH SUSSEX CONSERVATION DISTRICT REPRESENTATIVE PRIOR TO THE START OF CONSTRUCTION.
18. CONTACT SUSSEX CONSERVATION DISTRICT PRIOR TO COMMENCEMENT OF ANY WELL POINT OPERATIONS.
19. EROSION CONTROL MATTING IS REQUIRED IN OPEN CHANNELS AND ON SLOPES OF 3H:1V OR STEEPER. MATTING SHALL BE "NORTH AMERICAN GREEN SC150BN" OR AN EQUAL APPROVED BY THE SUSSEX CONSERVATION DISTRICT.
20. LOCATE STOCKPILES ON AREAS WITH LITTLE OR NO SLOPE. STOCKPILES MUST BE SURROUNDED WITH SILT FENCE OR A STABILIZED EARTHEN BERM.
21. STOCKPILING OF EXCAVATED MATERIAL OUTSIDE OF THE CONTRACT AREA SHALL REQUIRE AN ADDITIONAL EROSION AND SEDIMENT CONTROL PLAN FOR THAT LOCATION. PLAN MUST BE SUBMITTED AND APPROVED BY THE SUSSEX CONSERVATION DISTRICT.
22. TO PREVENT OR REDUCE MOVEMENT OF DUST FROM DISTURBED SOIL SURFACES, THE CONTRACTOR SHALL SPRINKLE THE SITE WITH WATER UNTIL THE SURFACE IS MOIST AND REPEAT AS NECESSARY.
23. ALL GRADED AREAS TO BE SEEDED SHALL HAVE A 4" MINIMUM DEPTH OF TOPSOIL.
24. THE ENTIRE PROPERTY IS OUTSIDE THE 100 YEAR FLOOD ZONE, PER F.E.M.A. FIRM MAP NUMBER 10005C0325 F.
25. THE PREDOMINANT SOIL TYPES AT THE CONSTRUCTION SITE ARE SASSAFRAS SANDY LOAM, 0 TO 2 PERCENT SLOPES (SaA), KENANSVILLE LOAMY SAND, 0 TO 2 PERCENT SLOPES (KbA), RUMFORD LOAMY SAND, 0 TO 2 PERCENT SLOPES (RuA), AND WOODSTOWN SANDY LOAM (Wo).
26. SEDIMENT EXCAVATED FROM THE POND DURING MAINTENANCE OPERATIONS SHALL BE HAULED OFF-SITE WITHIN SEVEN (7) DAYS OF REMOVAL.
27. ALL LOT LINES ALONG THE ROAD SHALL HAVE A 15' WIDE DRAINAGE AND UTILITY EASEMENT ALONG THE INTERIOR SIDE.
28. SITE DATA (IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THESE QUANTITIES):
    SITE AREA: 85.87 ACRES
    AREA TO BE DISTURBED: 16.7 ACRES IN PHASE ONE, 5.2 ACRES IN PHASE TWO
    EARTH CUT VOLUME: ±28,400 CU. YDS. IN PHASE ONE, ±5,000 CU. YDS. IN PHASE TWO
    EARTH FILL VOLUME: ±28,400 CU. YDS. IN PHASE ONE, ±5,000 CU. YDS. IN PHASE TWO

CONTRACT OWNER'S CERTIFICATE

I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN AND THAT RESPONSIBLE PERSONNEL INVOLVED IN THE LAND DISTURBANCE WILL HAVE A CERTIFICATION OF TRAINING AT A DEPARTMENTAL SPONSORED OR APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT CONTROL BEFORE INITIATION OF THE PROJECT. I CERTIFY THAT THE DEPARTMENT OR DELEGATED INSPECTION AGENCY HAS THE RIGHT TO CONDUCT ON-SITE INSPECTIONS.

FRANCIS J. GONZON — OCTOBER 28, 2004
8 SPINNAKER CIRCLE — DATE
LEWES, DELAWARE 19958
TEL. (302) 645-5800
FAX (302) 645-7313

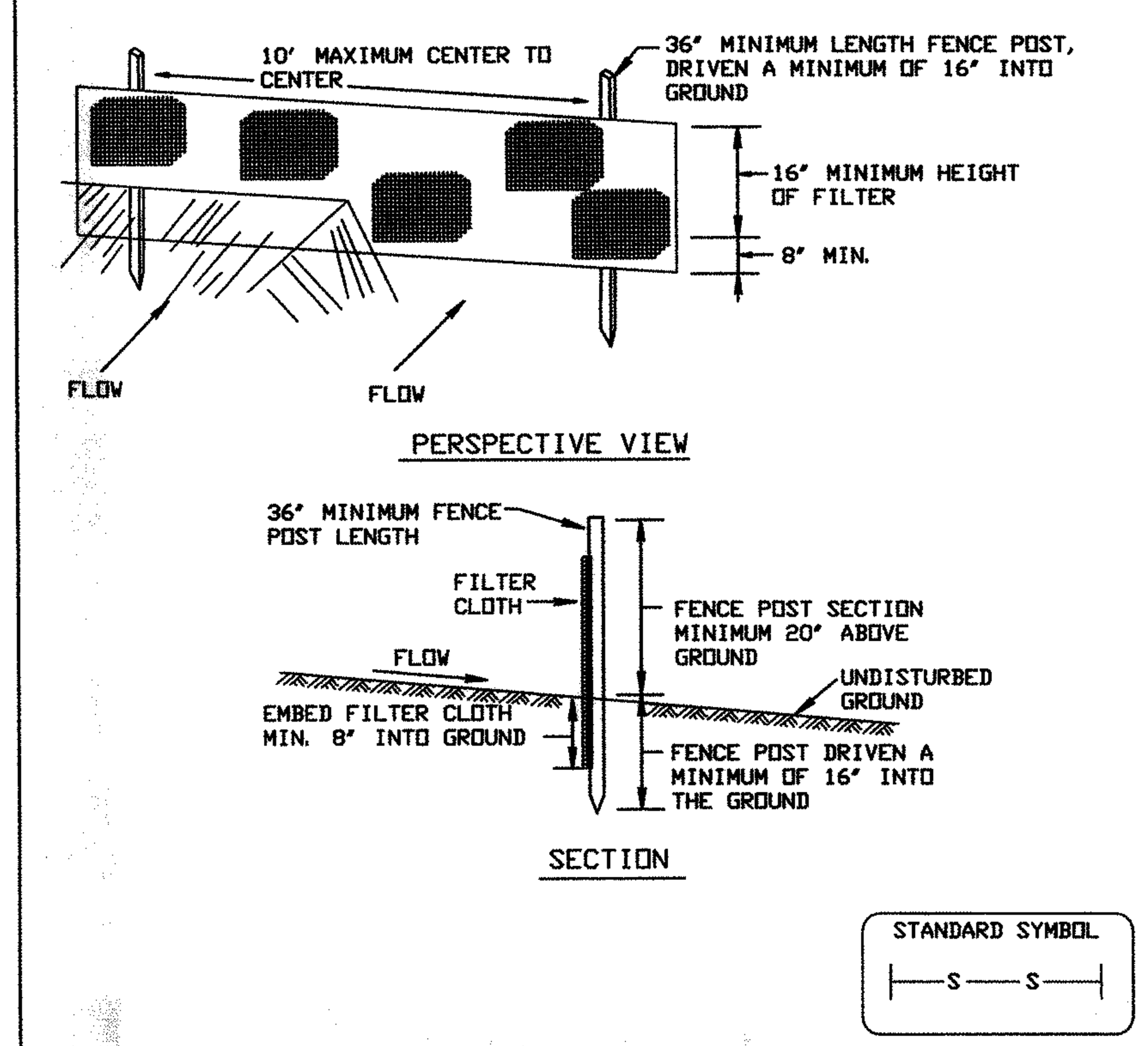
STABILIZED CONSTRUCTION ENTRANCE DETAIL



CONSTRUCTION SPECIFICATIONS

1. Stone size - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Vehicle wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Perodic inspection and needed maintenance shall be provided after each rain.

SILT FENCE DETAIL



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

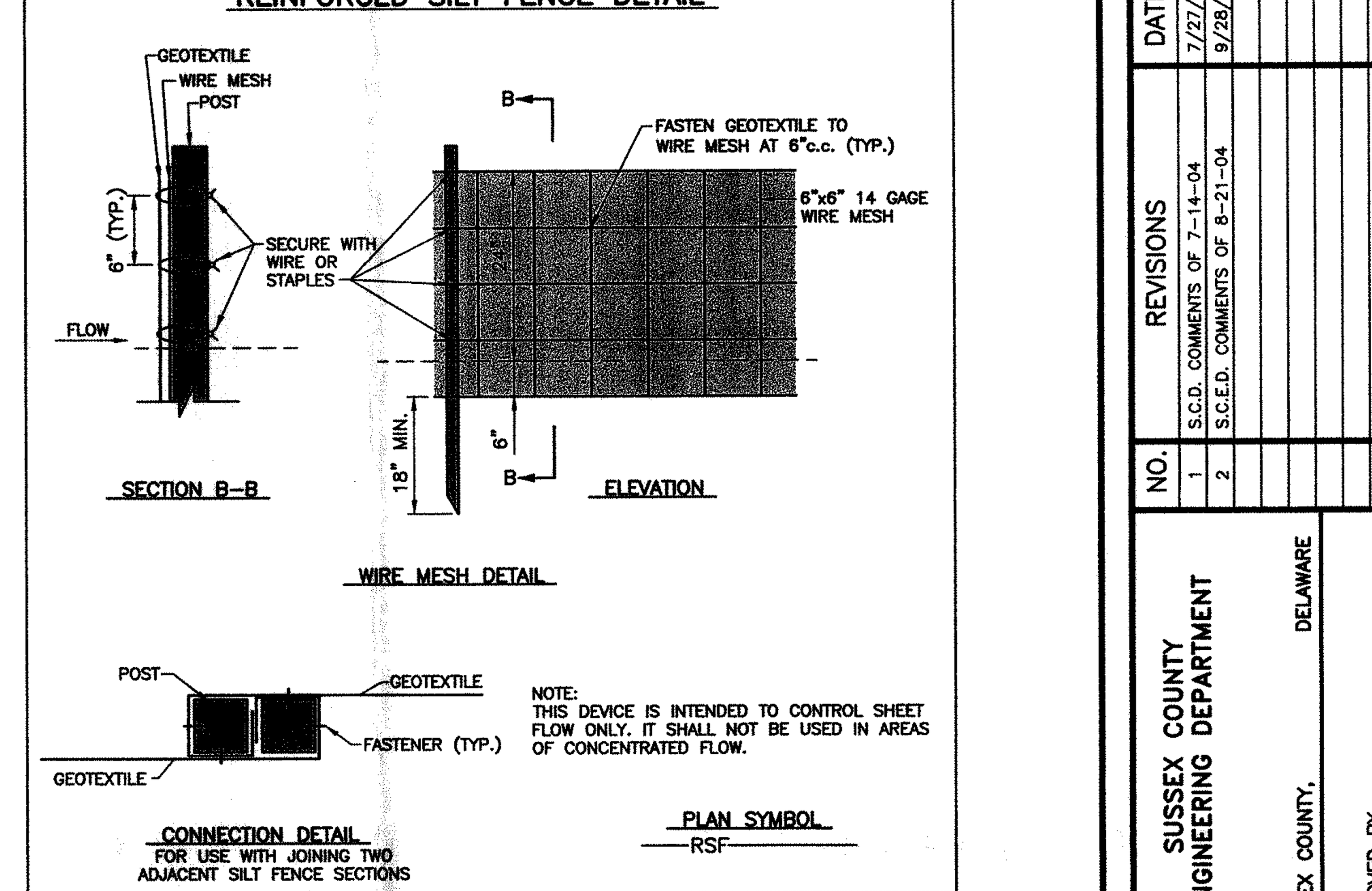
1. Filter cloth to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they should be overlapped by six inches and folded.
3. Maintenance shall be performed as needed and material removed when "bulges" develop in the silt fence.

Posts: Steel, either T or U, or 2" hardwood

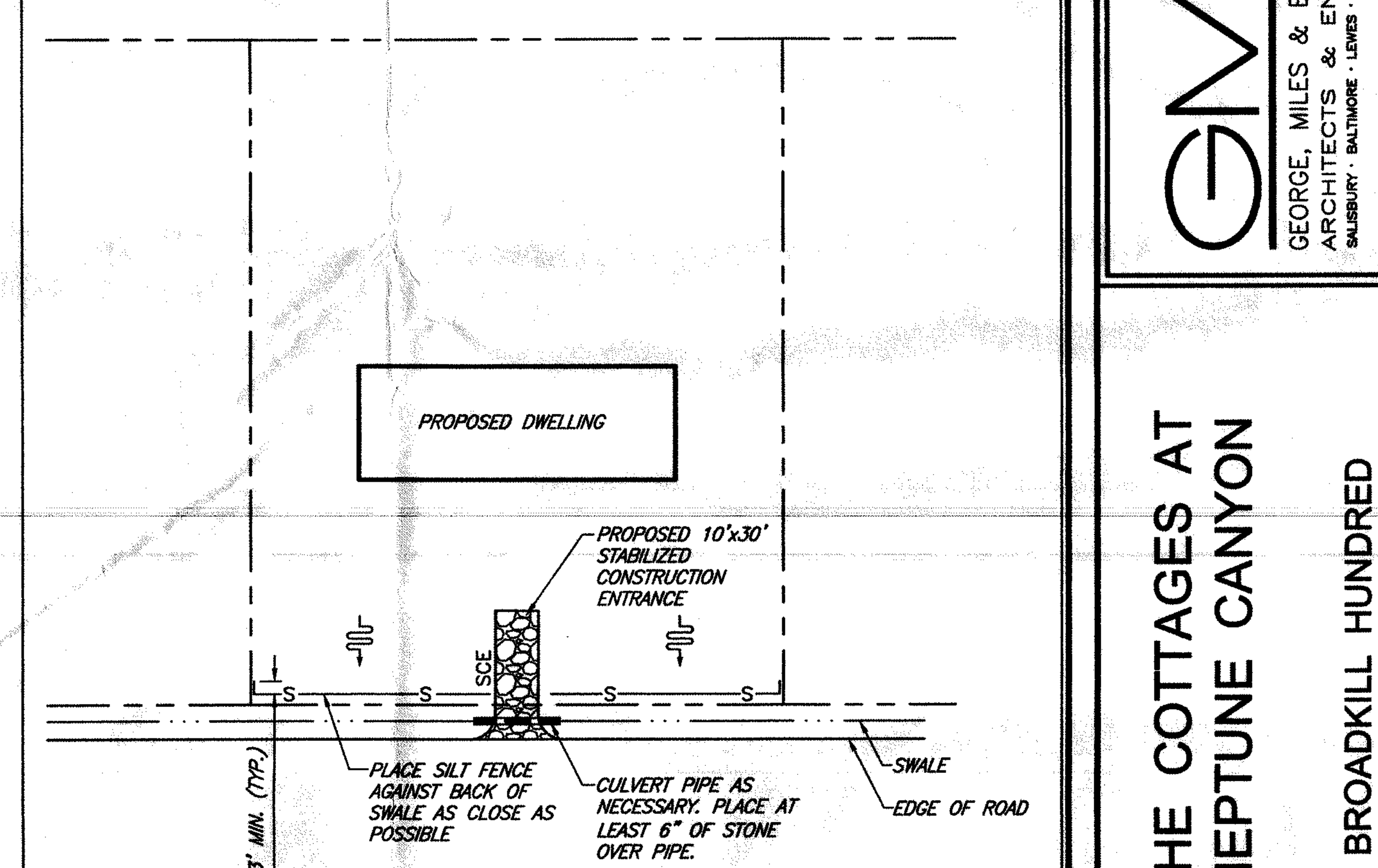
Filter Cloth: Poly Filter X, Mirafi 100x, stablinka T140N or approved equivalent

Prefabricated Unit: Geofab, Envirofence, or approved equivalent

REINFORCED SILT FENCE DETAIL



TYPICAL PLAN FOR SINGLE FAMILY LOT HOME CONSTRUCTION



NOTES:
1. FOR EACH LOT, STABILIZED CONSTRUCTION ENTRANCE, NECESSARY SILT FENCING, AND OTHER EROSION CONTROL DEVICES TO BE INSTALLED AFTER ROAD CONSTRUCTION AND STORMWATER MANAGEMENT FACILITIES HAVE BEEN ESSENTIALLY COMPLETE, AND THE SITE DETERMINED TO BE "STABILIZED" BY THE DISTRICT.
2. SILT FENCE IS TO BE PLACED DOWNSLOPE OF GROUND THAT COULD BE DISTURBED.
3. SILT FENCE REINFORCED WITH WELDED WIRE FABRIC IS TO BE PLACED ADJACENT TO WETLAND AREAS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION:
LOOSEN UPPER 4 INCHES OF SOIL BY DISCING, RAKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
APPLY 1-2 TONS PER ACRE (46-92 LBS/1000 SQ. FT.) OF DOLOMITIC LIMESTONE AND 600 LBS PER ACRE (14 LBS/1000 SQ. FT.) OF 10-10-10 FERTILIZER.

SEEDING:
FOR PERIODS OF SEPTEMBER 1 THROUGH NOVEMBER 15 AND MARCH 1 THROUGH MAY SEED WITH 40 LBS/ACRE OF PERENNIAL RYE (1.0 LBS/1000 SQ. FT.). PERIODS OF NOVEMBER 15 THROUGH FEBRUARY 28 PROTECT SITE BY APPLYING 2 TONS PR ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.

MULCHING:
APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LB/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING A SYNTHETIC BINDER SUCH AS ACRYLIC DLR (AGRI-TAC) DCA-70, PETROSET OR TERRA TACK AT RATES RECOMMENDED BY THE MANUFACTURER.

PERMANENT SEEDING NOTES

SEEDBED PREPARATION:
LOOSEN UPPER 4 INCHES OF SOIL BY DISCING, RAKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SOIL AMENDMENTS:
APPLY 1-2 TONS PER ACRE (46-92 LBS/1000 SQ. FT.) OF DOLOMITIC LIMESTONE AND 600 LBS PER ACRE (14 LBS/1000 SQ. FT.) OF 10-10-10 FERTILIZER.

SEEDING:
FOR PERIODS OF SEPTEMBER 1 THROUGH NOVEMBER 15 AND MARCH 1 THROUGH MAY, SEED WITH 210-230 LBS PER ACRE (5 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR PERIODS OF NOVEMBER 15 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING.

MULCHING:
APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LB/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATIONS USING A SYNTHETIC BINDER SUCH AS ACRYLIC DLR (AGRI-TAC) DCA-70, PETROSET OR TERRA TACK AT RATES RECOMMENDED BY THE MANUFACTURER.

MAINTENANCE:
INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS, AND RESEEDINGS.

WETLANDS STATEMENT

THE SITE WAS INSPECTED BY ENVIRONMENTAL RESOURCES, INC. FOR THE EXISTENCE OF WETLANDS IN ACCORDANCE WITH FEDERAL 404 WETLAND JURISDICTIONAL DETERMINATION REQUIREMENTS. THE WETLANDS THAT WERE LOCATED ON-SITE ARE ISOLATED, NON-NAVIGABLE AND INTRASTATE AND ARE THEREFORE OUTSIDE THE JURISDICTION OF THE U.S. ARMY CORPS OF ENGINEERS.

SEQUENCE OF OPERATIONS

1. SUSSEX CONSERVATION DISTRICT MUST BE NOTIFIED IN WRITING FIVE (5) DAYS PRIOR TO COMMENCING WITH CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER MANAGEMENT PLAN.
2. GRADING WITHIN PHASE TWO SHALL START UNTIL ALL GRADING AND STABILIZATION WITHIN PHASE ONE HAS BEEN COMPLETED, AND APPROVAL HAS BEEN GRANTED FROM THE SEDIMENT CONTROL INSPECTOR. DISTURBANCE OF GREATER THAN 20 ACRES WITHOUT PERMISSION FROM SUSSEX CONSERVATION DISTRICT CONSTITUTES A VIOLATION OF THE APPROVED SEDIMENT AND STORMWATER PLAN.
3. CLEAR AND GRUB THOSE AREAS NECESSARY FOR INSTALLATION OF SEDIMENT CONTROL MEASURES.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCE.
5. INSTALL PERIMETER CONTROLS.
6. CLEAR AND GRUB REMAINING AREA (WITHIN LIMIT OF DISTURBANCE).
7. STRIP TOPSOIL AND STOCKPILE AT DESIGNATED LOCATIONS.
8. ROUGH GRADE POND. STOCKPILE AND TRANSPORT EXCAVATED MATERIAL TO REQUIRED ON-SITE LOCATIONS. POND SHALL BE USED AS TEMPORARY SEDIMENT BASINS DURING CONSTRUCTION. SEDIMENT POND NEEDS TO BE CLEANED OUT AFTER THE SITE IS STABILIZED, AND EXCAVATED TO FINAL GRADE. STABILIZE POND PER SEEDING NOTES ON THIS SHEET AND COVER ENTIRE SLOPE WITH EROSION CONTROL MATTING PLACED PER "TYPICAL MATTING INSTALLATION DETAIL" ON SHEET C3.
9. ROUGH GRADE ROADS AND INSTALL CULVERTS. SWALES WITH TEMPORARY STONE CHECK DAMS SHALL CONVEY STORMWATER TO THE SEDIMENT TRAP.
10. INSTALL UNDERGROUND UTILITIES.
11. INSTALL GRAVEL BASE COURSE AND PAVE ROADS.
12. TOPSOIL, FINE GRADE, SEED AND MULCH DISTURBED AREAS.
13. REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE AREA AFTER OBTAINING PERMISSION FROM SEDIMENT CONTROL INSPECTOR.
14. REMOVE ACCUMULATED SEDIMENT FROM PONDS. GRADE PONDS TO FINAL GRADE AND STABILIZE.
15. AS-BUILT DRAWINGS FOR EACH POND SHALL BE SUBMITTED TO THE DISTRICT WITHIN 60 DAYS OF POND COMPLETION. THESE DRAWINGS AND ASSOCIATED COMPUTATIONS SHOULD VERIFY THAT THE CUMULATIVE AS-BUILT STORAGE IN THE PONDS AND THAT THE OUTLET STRUCTURE WILL ALLOW THE POND TO FUNCTION AS DESIGNED.
16. CONSTRUCT BUILDINGS AND CONNECT TO UTILITIES. NO HOUSE CONSTRUCTION CAN BEGIN UNTIL THE SUSSEX CONSERVATION DISTRICT HAS APPROVED THE CONSTRUCTION AND STABILIZATION OF THE STORMWATER FACILITIES.

ENGINEER: GEORGE, MILES & BUHR, LLC
101 ARCH STREET
SEAFORD, DELAWARE 19973

CONTACT: JUDY A. SCHWARTZ, P.E.
TEL. (302) 628-1421
FAX (302) 628-8350

CURRENT OWNER: WILLIAM EDWARD PETTYJOHN
601 FEDERAL STREET
MILTON, DELAWARE 19968
TEL. (302) 684-4585
FAX: N/A

APPLICANT / CONTRACT OWNER / DEVELOPER: FRANCIS J. GONZON
8 SPINNAKER CIRCLE
LEWES, DELAWARE 19958
TEL. (302) 645-5800
FAX (302) 645-7313

DESIGN / DEVELOPMENT PLANS
PRINTS ISSUED FOR:
• REVIEW

NO.	REVISIONS	DATE
1	S.C.D. COMMENTS OF 7-14-04	7/27/04
2	S.C.E.D. COMMENTS OF 8-21-04	9/28/04

SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY, DELAWARE
APPROVED BY ____ DATE

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THE COTTAGES AT NEPTUNE CANYON

BROADKILL HUNDRED
SUSSEX COUNTY, DELAWARE

JUDY A. SCHWARTZ REGISTERED No. 6511 DELAWARE PROFESSIONAL ENGINEER

SEDIMENT AND STORMWATER MANAGEMENT NOTES & DETAILS

SCALE	: NONE
DESIGN BY	: JWK
DRAWN BY	: JWK
CHECKED BY:	JAS
GMB FILE	: 2003260
DATE	: JUNE 2004

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DRAWING 5 OF 17

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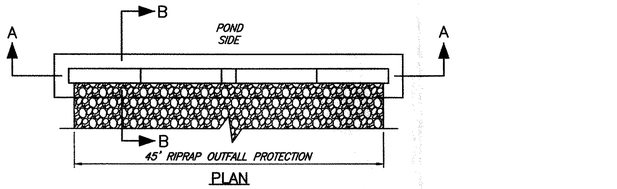
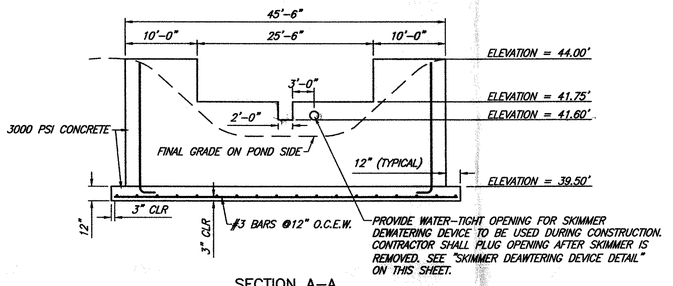
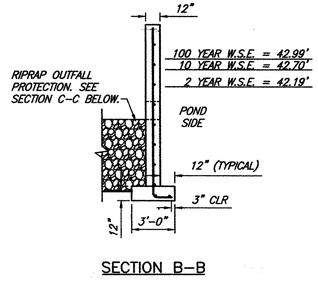


PLAN



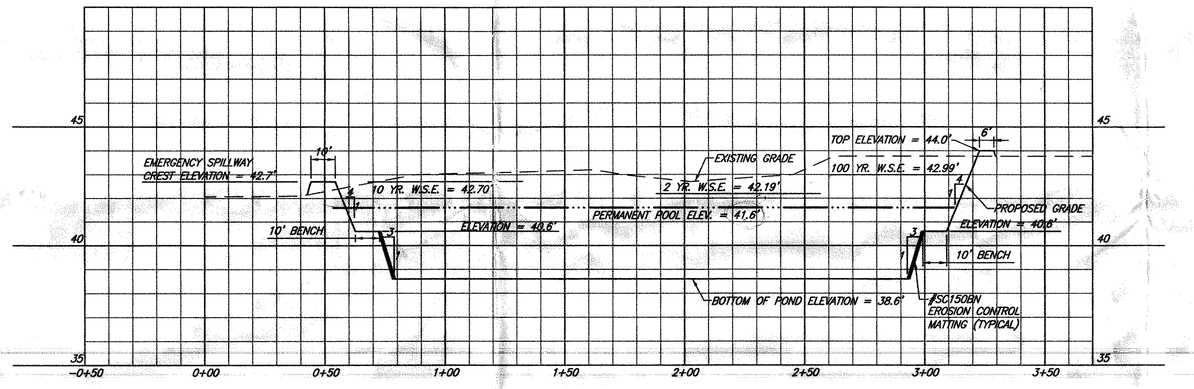
SECTION A–A



SECTION B–B

OUTFALL STRUCTURE DETAIL - CONCRETE WEIR

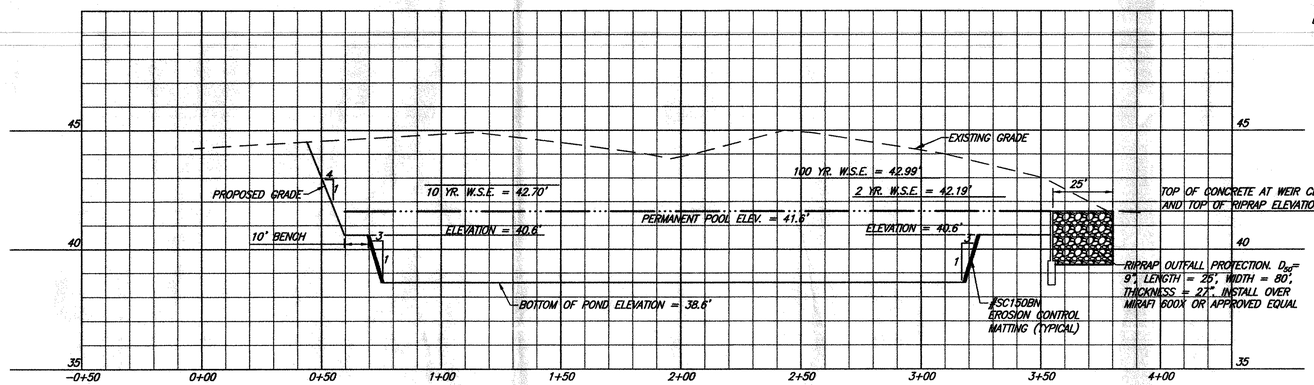
NO SCALE



S.W.M. POND SECTION B - B

HORIZONTAL SCALE: 1" = 30'

VERTICAL SCALE: 1" = 3'



S.W.M. POND SECTION C - C

HORIZONTAL SCALE: 1" = 30'

VERTICAL SCALE: 1" = 3'

PLOT CODE CHART

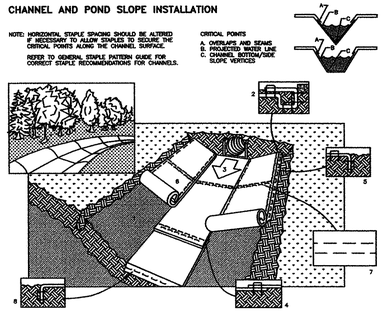
PEN1-RED	.006 INCHES (.15mm)
PEN2-YELLOW	.007 INCHES (.18mm)
PEN3-GREEN	.010 INCHES (.25mm)
PEN4-BLUE	.014 INCHES (.35mm)
PEN5-MAGENTA	.020 INCHES (.50mm)
PEN6-WHITE	.028 INCHES (.70mm)

CHANNEL AND POND SLOPE INSTALLATION

NOTE: HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

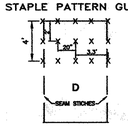
REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE RECOMMENDATIONS FOR CHANNELS.

CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW OR BOTTOM OF CHANNEL.
4. PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH A 6" OVERLAP. USE A DOUBLE ROW OF STAGGERED STAPLES 4" APART TO SECURE BLANKETS.
5. FULL LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. BLANKETS ON SIDE SLOPES MUST BE OVERLAPPED 4" OVER THE CENTER BLANKET AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT INTERVALS. USE A ROW OF STAPLES 4" APART OVER ENTIRE WIDTH OF THE CHANNEL. PLACE A SECOND ROW 4" BELOW THE FIRST ROW IN A STAGGERED PATTERN.
8. THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED IN A 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

STAPLE PATTERN GUIDE

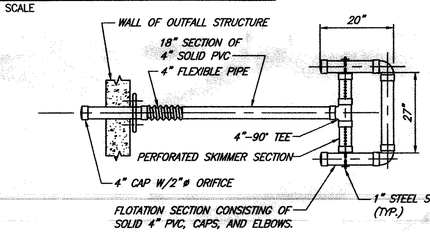


NORTH AMERICAN GREEN

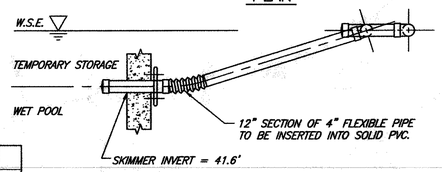
NORTH AMERICAN GREEN EROSION CONTROL BLANKET
#SC150BN 14649 HIGHWAY 41 NORTH, EVANSVILLE, INDIANA 47711
USA 1-800-772-2040 CANADA 1-800-448-2040

TYPICAL MATTING INSTALLATION DETAIL

NO SCALE



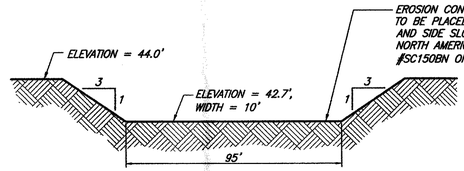
PLAN



SECTION

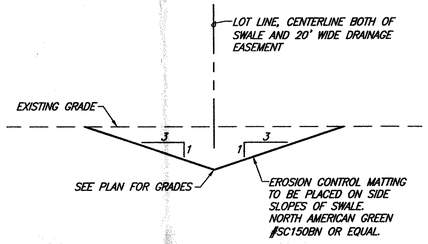
SKIMMER DEWATERING DEVICE DETAIL

NO SCALE



EMERGENCY SPILLWAY DETAIL

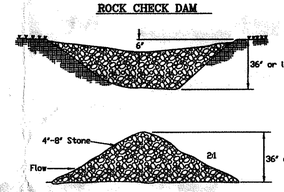
NO SCALE



TYPICAL SWALE SECTION A-A

NO SCALE

ROCK CHECK DAM



SPACING BETWEEN CHECK DAMS

L = The distance such that points A and B are equal elevation.

Construction Specifications

1. Swales and ditches shall be prepared in accordance with the construction specifications described in the Standards and Specifications for Earth Dike, Temporary Swale, Perimeter Dike/Swale, or Diversions.
2. The check dam shall be constructed of 4" to 8" riprap. The riprap shall be placed so that it completely covers the width of the channel.
3. The top of the check dam shall be constructed so that the center is approximately 6" lower that the outer edges, forming a weir that the water can flow across.
4. The maximum height of the check dam at the center of the weir must not exceed three (3) feet.
5. Maximum spacing between dams should be the distance in the channel where the toe of the upstream dam is at the same elevation as the top of the downstream dam.

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CHECK DAM LOCATIONS (LEFT & RIGHT)

(CONTRACTOR MAY FIELD ADJUST AS NECESSARY)

MASSEY'S CANYON ROAD	WILMINGTON CANYON ROAD	BALTIMORE CANYON ROAD
1+25	3+50	1+00
8+00	4+10L	3+00
9+00	4+50R	4+00
11+00	7+00	6+00
15+50	9+00	8+00
	10+00	9+75
NORFOLK CANYON ROAD	11+00	11+15
3+00	12+00	
9+50	13+00	
14+00	14+00	
17+00	17+00	
	18+00	
	19+00	
	20+00	
	21+00	
	22+00	
	25+00	
	28+00	

DESIGN / DEVELOPMENT PLANS
PRINTS ISSUED FOR:
• REVIEW

NO.	REVISIONS	DATE
1	S.C.D. COMMENTS OF 7-14-04	7/27/04
2	S.C.E.D. COMMENTS OF 8-21-04	10/28/04

SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY, DELAWARE
APPROVED BY _____ DATE _____

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THE COTTAGES AT NEPTUNE CANYON
BROADKILL HUNDRED
SUSSEX COUNTY, DELAWARE

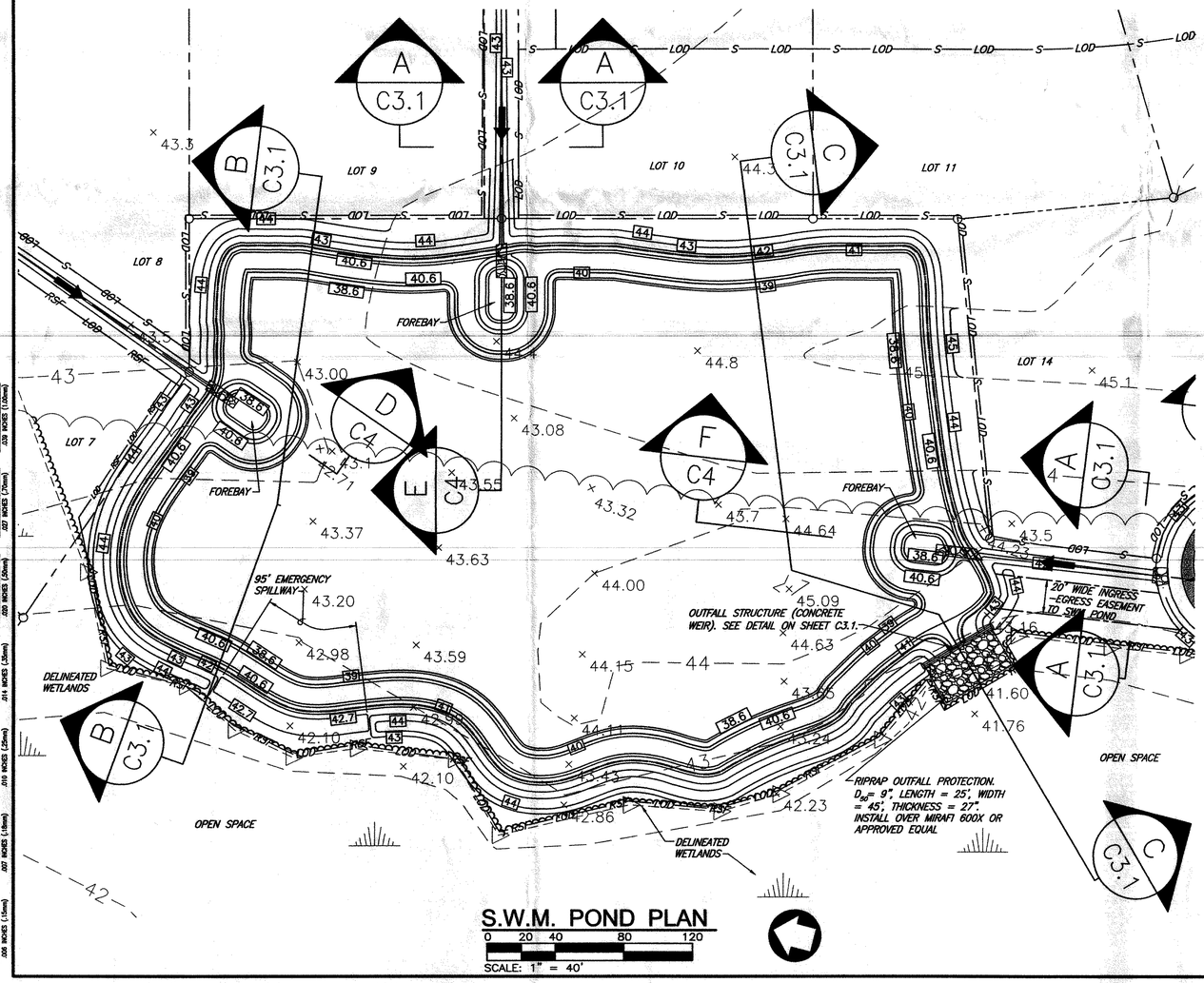
JUDY A. SCHWARTZ
REGISTERED
No. 6511
DELAWARE
PROFESSIONAL ENGINEER

SEDIMENT AND STORMWATER MANAGEMENT DETAILS AND SECTIONS

SCALE	: AS SHOWN
DESIGN BY	: JLS,JWK
DRAWN BY	: JWK
CHECKED BY	: JAS
GMB FILE	: 2003260
DATE	: JUNE 2004

C3.1

DRAWING 6 OF 18

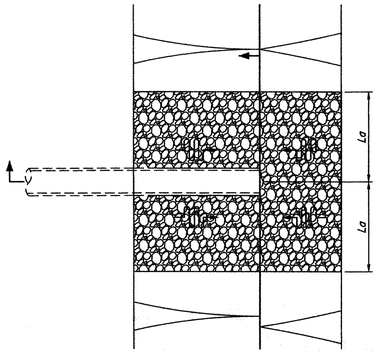


S.W.M. POND PLAN

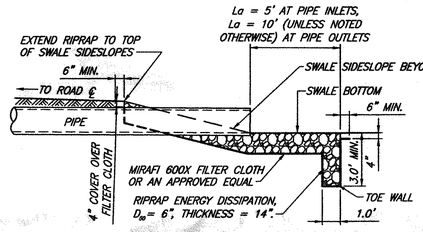
0 20 40 80 120

SCALE: 1" = 40'

WITHOUT INTERSECTING SWALE

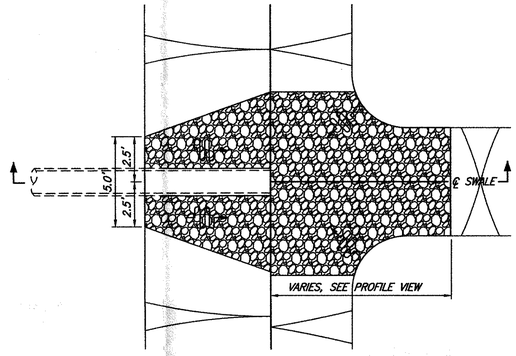


PLAN VIEW

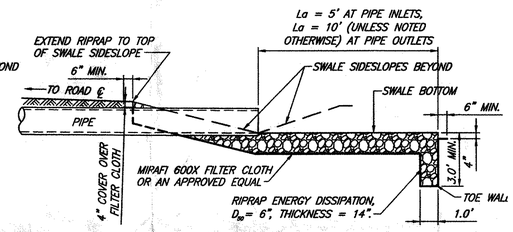


PROFILE VIEW

WITH INTERSECTING SWALE



PLAN VIEW



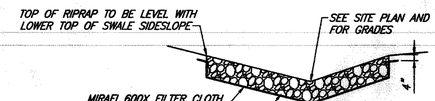
PROFILE VIEW

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE RIPRAP SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES AS SHOWN ON THE PLAN. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
2. THE RIPRAP SHALL CONFORM TO THE GRADING LIMITS AS SHOWN ON THE PLAN.
3. FILTER CLOTH SHALL BE PROTECTED FROM PUNCHING, CUTTING OR TEARING. ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF CLOTH OVER THE DAMAGED AREA. ALL CONNECTING JOINTS SHOULD OVERLAP A MINIMUM OF 1 FOOT IF THE DAMAGE IS EXTENSIVE, REPLACE THE ENTIRE FILTER CLOTH.
4. STONE MAY BE PLACED BY EQUIPMENT. RIPRAP SHALL BE PLACED IN A MANNER TO PREVENT DAMAGE TO THE FILTER CLOTH. HAND PLACEMENT WILL BE REQUIRED TO THE EXTENT NECESSARY TO PREVENT DAMAGE TO THE CONDUITS, STRUCTURES, ETC.

TYPICAL PIPE INLET / OUTLET RIPRAP DETAIL

NO SCALE



NOTE:
PLACE RIPRAPPED SWALE 5' EACH WAY FROM CENTERLINE CORNER.

CONSTRUCTION SPECIFICATIONS

1. THE SUBGRADE FOR THE RIPRAP SHALL BE PREPARED TO THE REQUIRED LINES AND GRADES AS SHOWN ON THE PLAN. ANY FILL REQUIRED IN THE SUBGRADE SHALL BE COMPACTED TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
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TYPICAL RIPRAPPED SWALE SECTION

NO SCALE

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SUSSEX COUNTY
ENGINEERING DEPARTMENT
SUSSEX COUNTY, DELAWARE

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THE COTTAGES AT NEPTUNE CANYON

BROADKILL HUNDRED
SUSSEX COUNTY, DELAWARE

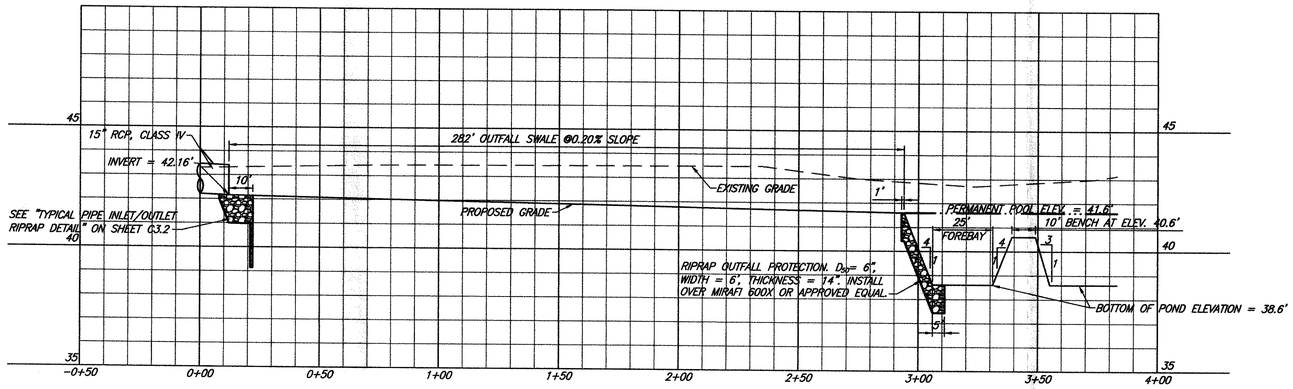
JUDY A. SCHWARTZ
REGISTERED
No. 6517
DELAWARE
PROFESSIONAL ENGINEER

SEDIMENT AND STORMWATER MANAGEMENT DETAIL, SECTION, AND POND PLAN

SCALE	: AS SHOWN
DESIGN BY	: JLS,JWK
DRAWN BY	: JWK
CHECKED BY	: JAS
GMB FILE	: 2003260
DATE	: JUNE 2004

C3.2

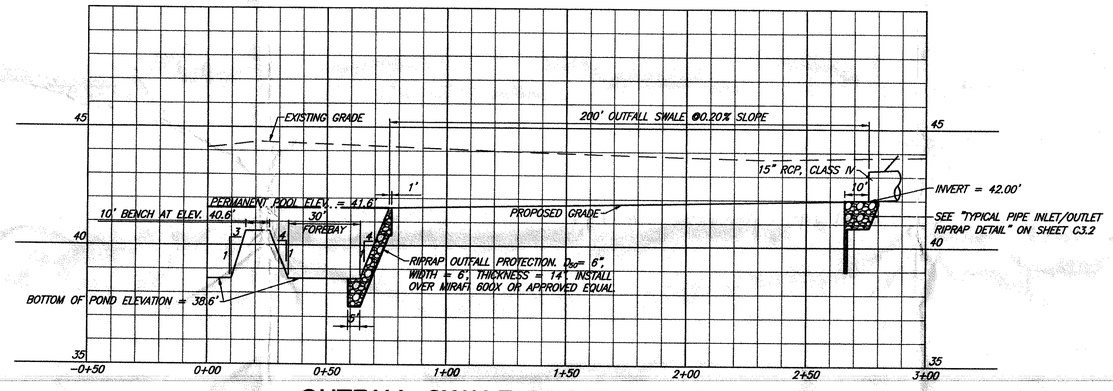
DRAWING 7 OF 18



OUTFALL SWALE PROFILE D - D

HORIZONTAL SCALE: 1" = 30'

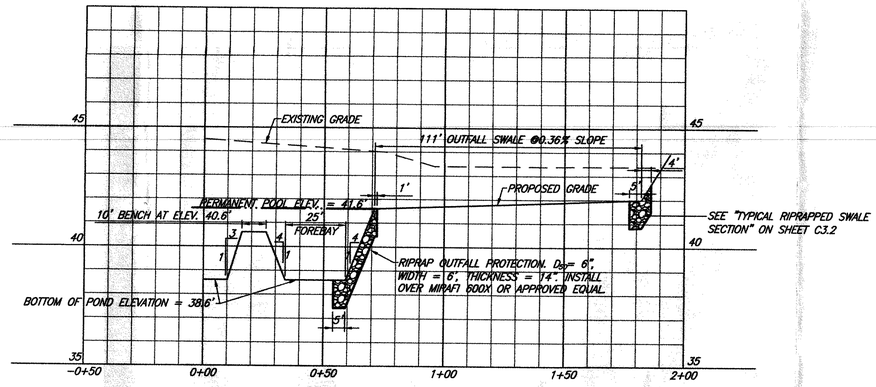
VERTICAL SCALE: 1" = 3'



OUTFALL SWALE PROFILE E - E

HORIZONTAL SCALE: 1" = 30'

VERTICAL SCALE: 1" = 3'



OUTFALL SWALE PROFILE F - F

HORIZONTAL SCALE: 1" = 30'

VERTICAL SCALE: 1" = 3'

PLOT CODE
FP07-WHITE .039 INCHES (1.00mm)
FP09-MAGENTA .027 INCHES (.70mm)
FP05-BLUE .020 INCHES (.50mm)
FP04-CYAN .014 INCHES (.35mm)
FP03-GREEN .010 INCHES (.25mm)
FP02-YELLOW .007 INCHES (.18mm)
FP01-RED .005 INCHES (.13mm)

H:\Projects\2003\2003260\Drawings\C704-PF-Swales.dwg, 10/27/2004 4:07:46 PM

DESIGN / DEVELOPMENT PLANS
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1	S.C.E.D. COMMENTS OF 8-21-04	10/28/04
	ENTIRE SHEET ADDED	

SUSSEX COUNTY
ENGINEERING DEPARTMENT
SUSSEX COUNTY, DELAWARE

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BROADKILL HUNDRED
SUSSEX COUNTY, DELAWARE

JUDY A. SCHWARTZ
REGISTERED
No. 8611
DELAWARE
PROFESSIONAL ENGINEER

OUTFALL SWALE PROFILES

SCALE : AS SHOWN	C4
DESIGN BY : JWK	
DRAWN BY : JWK	
CHECKED BY: JAS	
GMB FILE : 2003260	
DATE : JUNE 2004	DRAWING 8 OF 18