

HOWARD COUNTY

Capital Project #D-1159

Chestnut Farm Lane

Pond Outfall Repair Project

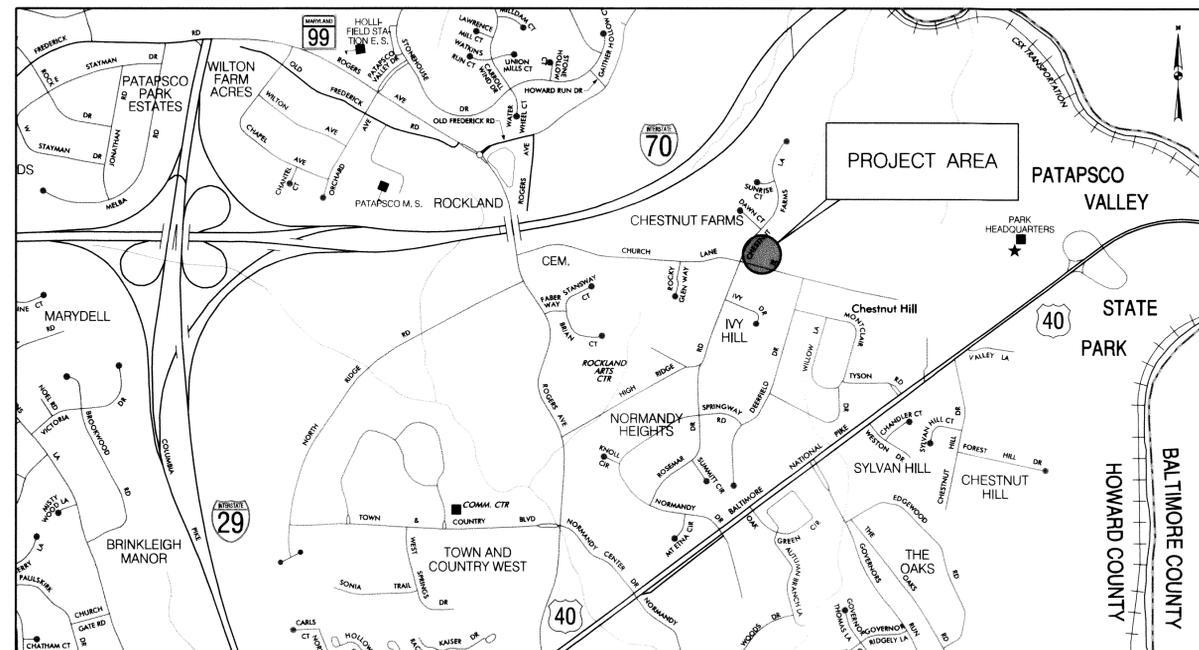
Storm Water Management Division
Bureau Of Environmental Services

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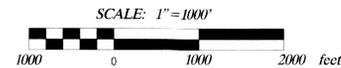
SHEET NO.	TITLE
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LEGEND

PROPOSED MEDIAN BARRIER	
ELECTRICAL HAND BOX - SIGNALS	
FLOW LINE	
STATE, COUNTY OR CITY LINES	
PROPOSED TRAFFIC BARRIER	
EXISTING TRAFFIC BARRIER	
PROPOSED FENCE LINE	
EXISTING FENCE LINE	
RIGHT OF WAY LINE	
EXISTING ROADWAY	
BASE OR SURVEY LINE	
TRAVERSE POINT	
APPROXIMATE LIMITS OF CUT AND/OR FILL	
PROPOSED MAJOR CONTOUR	
PROPOSED MINOR CONTOUR	
LIMIT OF DISTURBANCE	
EXISTING MAJOR CONTOURS	
EXISTING MINOR CONTOURS	
EXISTING PIPE/CULVERT	
EXISTING DROP INLET	
WETLAND	
HEDGE / TREE LINE	
BUSH / TREE	
CONIFEROUS TREE	
LIGHT POLE	



HORIZONTAL DATUM	NAD 83 /91
VERTICAL DATUM	NAVD 88



GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FIVE (5) WORKING DAYS PRIOR TO ANY WORK BEING DONE.
- THIS PLAN IS PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS /BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- SURVEY OF THIS SITE WAS PERFORMED BY AB CONSULTANTS, INC-OCTOBER 2011.
- THE COORDINATES SHOWN HEREON ARE BASED ON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. BENCHMARKS SHOWN HEREON WERE PROVIDED BY AB CONSULTANTS INC.
- WATERS OF THE US WERE DELINEATED BY McCORMICK TAYLOR OCTOBER 2011.
- OBSTRUCTIONS SHOWN ON THIS DRAWING ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND McCORMICK TAYLOR DOES NOT WARRANT OR GUARANTEE THE CORRECTNESS OR COMPLETENESS OF THE INFORMATION GIVEN. THE CONTRACTOR MUST VERIFY SUCH INFORMATION TO HIS OWN SATISFACTION.
- THE EXISTING INFORMATION SHOWN ON THESE PLANS WAS TAKEN FROM THE BEST AVAILABLE SOURCES AND SHALL BE VERIFIED BEFORE STARTING CONSTRUCTION. HOWARD COUNTY DOES NOT GUARANTEE THE COMPLETENESS OR THE CORRECTNESS OF THE SHOWN INFORMATION.
- THE CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTORS'S OPERATION SHALL BE REPAIRED IMMEDIATELY. ALL UTILITIES SHALL HAVE A CLEARANCE BY A MINIMUM OF 6 INCHES VERTICALLY AND A MINIMUM OF 5 FEET HORIZONTALLY.
- SHOULD THE CONTRACTOR DISCOVER DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY McCORMICK TAYLOR IMMEDIATELY TO RESOLVE THE SITUATION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- SITE DEVELOPMENT DETAILS ARE REFERENCED FROM THE AS-BUILT PLANS FOR CHESTNUT FARMS SECTION 1 AREA 1 (F-86-159).
- A JOINT PERMIT APPLICATION WILL BE SUBMITTED TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR THIS PROJECT. (TRACKING NUMBER 201260892)
- STORMWATER MANAGEMENT IS NOT REQUIRED FOR THIS PROJECT SINCE THIS PROJECT WILL NOT ADD IMPERVIOUS AREA.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 32013 EXPIRATION DATE: 7/2013

DESIGN CERTIFICATION

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE SITE WITHIN 30 DAYS OF COMPLETION.

OWNER'S/DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts
HOWARD SOIL CONSERVATION DISTRICT
DATE: 10/24/12

9-26-12
DATE

Amy L. Hribar
DESIGNER'S SIGNATURE

MARYLAND
REGISTRATION
NUMBER 32013

Amy L. Hribar
PRINTED NAME

9/27/12
DATE

Howard E. Saltzman
OWNER/DEVELOPER SIGNATURE

Howard E. Saltzman Chief, Stormwater Management Division
PRINTED NAME AND TITLE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

John R. Roberts 9/27/12
DIRECTOR OF PUBLIC WORKS DATE
Howard E. Saltzman 9/27/12
CHIEF, STORMWATER MANAGEMENT DIVISION DATE

McCormick Taylor
Engineers & Planners Since 1946
509 South Exeter Street
4th Floor
Baltimore, Maryland 21202
(410) 662-7400

Howard County
MARYLAND
Storm Water Management Division
Bureau of Environmental Services
6751 Columbia Gateway Drive, Suite 514
Columbia, Maryland 21046-3143
(410) 313-6444



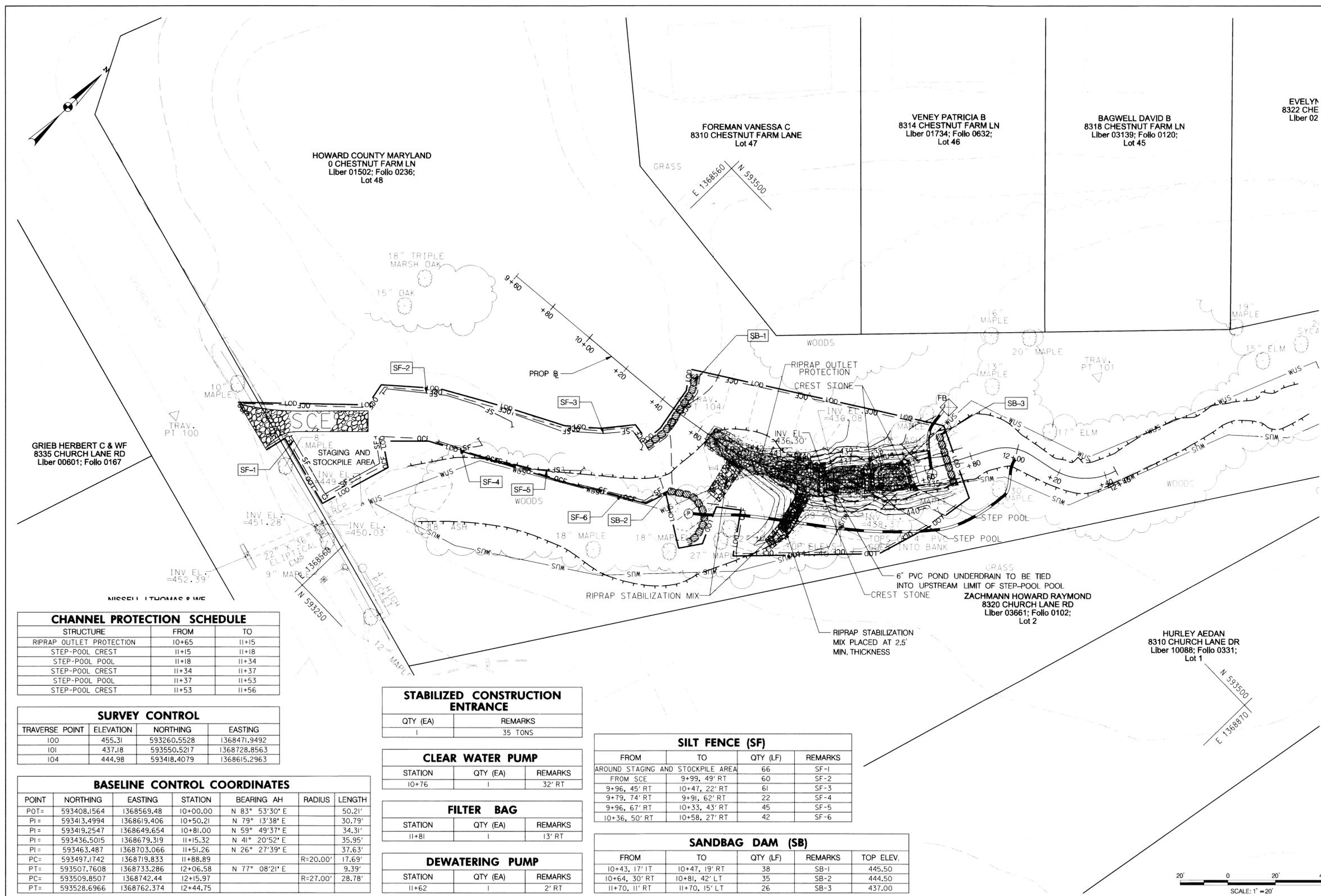
DES:	LN/MG	LEN	AS-BUILT	7/18/13
DRN:	MR			
CHK:	CB			
DATE:	9/26/12			
BY:	NO.		REVISION	DATE

CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044
TITLE SHEET

SCALE AS SHOWN
SHEET 1 OF 12

- TIME RESTRICTION NOTES:**
1. PUMPING IS NOT PERMITTED BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM, MONDAY THROUGH FRIDAY.
 2. CONSTRUCTION EQUIPMENT SHALL NOT BE STARTED NOR RUN BETWEEN THE HOURS OF 7:00 PM AND 7:00AM, MONDAY THROUGH FRIDAY.
 3. FOR SATURDAY WORK, THE ABOVE HOURS SHALL BE 5:00 PM AND 9:00 AM, RESPECTIVELY.
 4. NO WORK SHALL BE DONE ON SUNDAY.

- NOTES:**
1. EROSION AND SEDIMENT CONTROL SHALL BE STRICTLY ENFORCED.
 2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE FOR EACH PHASE OF CONSTRUCTION AND CAN ONLY BE REMOVED UPON THE APPROVAL OF THE ENGINEER AND THE SEDIMENT CONTROL INSPECTOR. NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.
 3. TYPICAL PUMP AROUND SHOWN. ACTUAL PLACEMENT SHALL BE BASED ON THE LENGTH OF THE CHANNEL THAT THE CONTRACTOR IS ABLE TO STABILIZE AT THE END OF THE WORKDAY. WORK AND PUMP AROUND STAGING SHALL PROCEED FROM UPSTREAM TO DOWNSTREAM.
 4. CONTRACTOR MAY USE AREA WITHIN POND FOR STOCKPILE DURING CONSTRUCTION ACTIVITIES.
 5. SILT FENCE SHALL BE UPGRADED TO SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.



LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- - - TOE OF DAM
- PROPERTY LINE
- 100 YEAR FLOODPLAIN
- WUS WATERS OF THE US
- EXISTING TREE
- ⊗ EXISTING TREE TO BE REMOVED
- LOD LIMIT OF DISTURBANCE
- - - ORANGE CONSTRUCTION FENCE
- - - DIVERSION /DEWATERING HOSE
- ▨ SANDBAG DAM
- SF SILT FENCE
- ▨ RIPRAP STABILIZATION MIX
- ⊕ FB DEWATERING PUMP
- ⊕ FB DEWATERING FILTER BAG
- ⊕ CLEAR WATER PUMP
- ▨ SCE STABILIZED CONSTRUCTION ENTRANCE
- ▨ RIPRAP OUTLET PROTECTION
- ▨ STEP-POOL

CHANNEL PROTECTION SCHEDULE

STRUCTURE	FROM	TO
RIPRAP OUTLET PROTECTION	10+65	11+15
STEP-POOL CREST	11+15	11+18
STEP-POOL POOL	11+18	11+34
STEP-POOL CREST	11+34	11+37
STEP-POOL POOL	11+37	11+53
STEP-POOL CREST	11+53	11+56

SURVEY CONTROL

TRAVERSE POINT	ELEVATION	NORTHING	EASTING
100	455.31	593260.5528	1368471.9492
101	437.18	593550.5217	1368728.8563
104	444.98	593418.4079	1368615.2963

BASELINE CONTROL COORDINATES

POINT	NORTHING	EASTING	STATION	BEARING	AH	RADIUS	LENGTH
POT=	593408.1564	1368569.48	10+00.00	N 83° 53'30" E			50.21'
PI=	593413.4994	1368619.406	10+50.21	N 79° 13'38" E			30.79'
PI=	593419.2547	1368649.654	10+81.00	N 59° 49'37" E			34.31'
PI=	593436.5015	1368679.319	11+15.32	N 41° 20'52" E			35.95'
PI=	593463.487	1368703.066	11+51.26	N 26° 27'39" E			37.63'
PC=	593497.1742	1368719.833	11+88.89		R=20.00'		17.69'
PT=	593507.7608	1368733.286	12+06.58	N 77° 08'21" E			9.39'
PC=	593509.8507	1368742.44	12+15.97		R=27.00'		28.78'
PT=	593528.6966	1368762.374	12+44.75				

STABILIZED CONSTRUCTION ENTRANCE

QTY (EA)	REMARKS
1	35 TONS

CLEAR WATER PUMP

STATION	QTY (EA)	REMARKS
10+76	1	32' RT

FILTER BAG

STATION	QTY (EA)	REMARKS
11+81	1	13' RT

DEWATERING PUMP

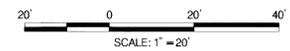
STATION	QTY (EA)	REMARKS
11+62	1	2' RT

SILT FENCE (SF)

FROM	TO	QTY (LF)	REMARKS
AROUND STAGING AND STOCKPILE AREA		66	SF-1
FROM SCE	9+99, 49' RT	60	SF-2
9+96, 45' RT	10+47, 22' RT	61	SF-3
9+79, 74' RT	9+91, 62' RT	22	SF-4
9+96, 67' RT	10+33, 43' RT	45	SF-5
10+36, 50' RT	10+58, 27' RT	42	SF-6

SANDBAG DAM (SB)

FROM	TO	QTY (LF)	REMARKS	TOP ELEV.
10+43, 17' LT	10+47, 19' RT	38	SB-1	445.50
10+64, 30' RT	10+81, 42' LT	35	SB-2	444.50
11+70, 11' RT	11+70, 15' LT	26	SB-3	437.00



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Mark Thomas
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

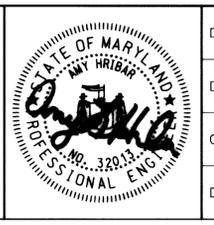
9/25/12
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Howard County
MARYLAND

Storm Water Management Division
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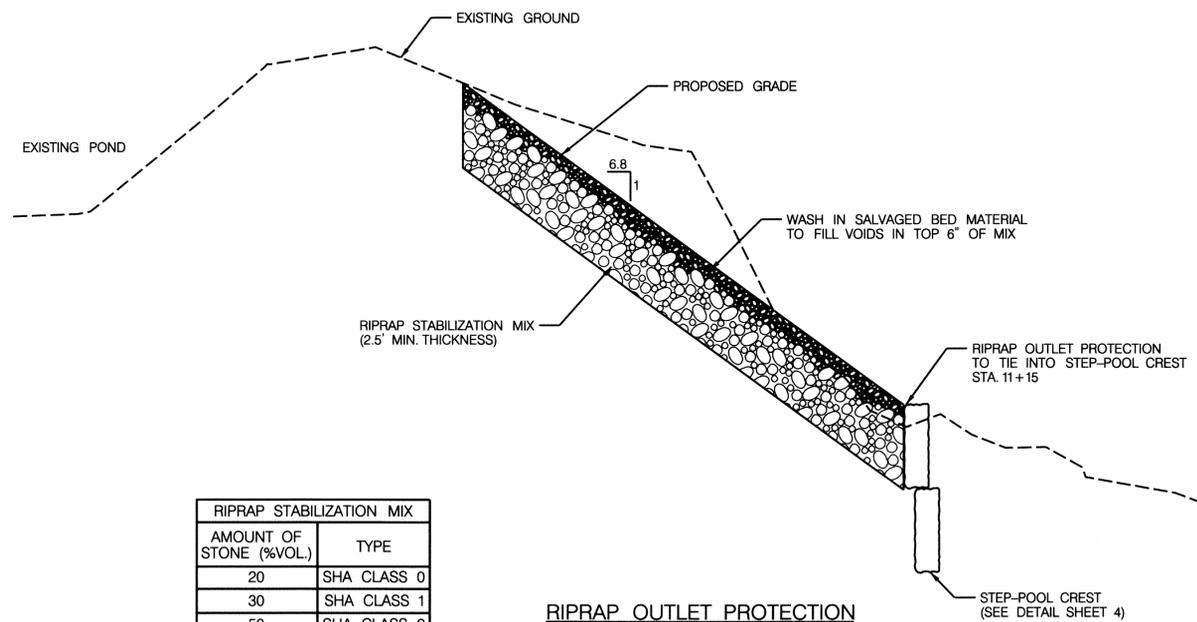
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CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044

SITE PLAN

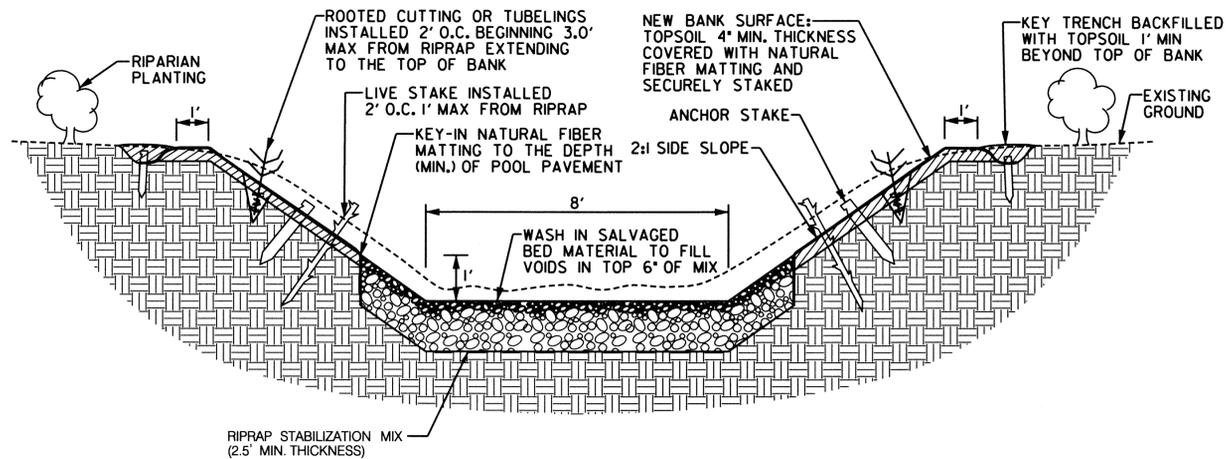
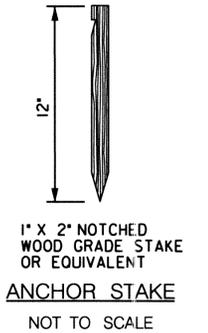
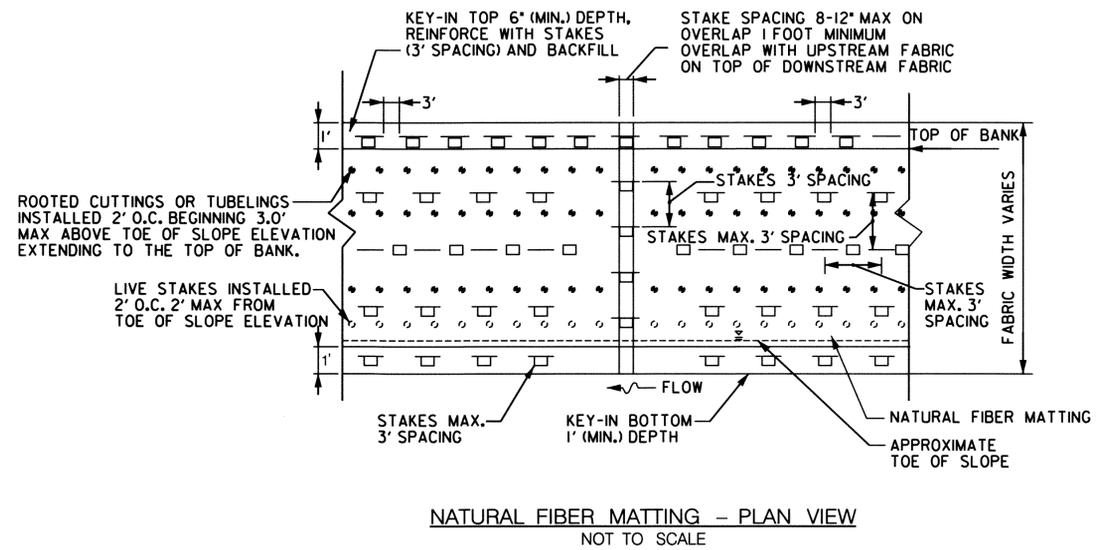
SCALE
1" = 20'

SHEET
2 OF 12



RIPRAP STABILIZATION MIX	
AMOUNT OF STONE (%VOL.)	TYPE
20	SHA CLASS 0
30	SHA CLASS 1
50	SHA CLASS 2
100	TOTAL

RIPRAP OUTLET PROTECTION PROFILE VIEW
NOT TO SCALE



RIPRAP OUTLET PROTECTION SECTION VIEW
NOT TO SCALE
NOTE: RIPARIAN SEED (SEE SHEET 8) TO BE APPLIED TO SURFACE OF RIPRAP STABILIZATION MIX.

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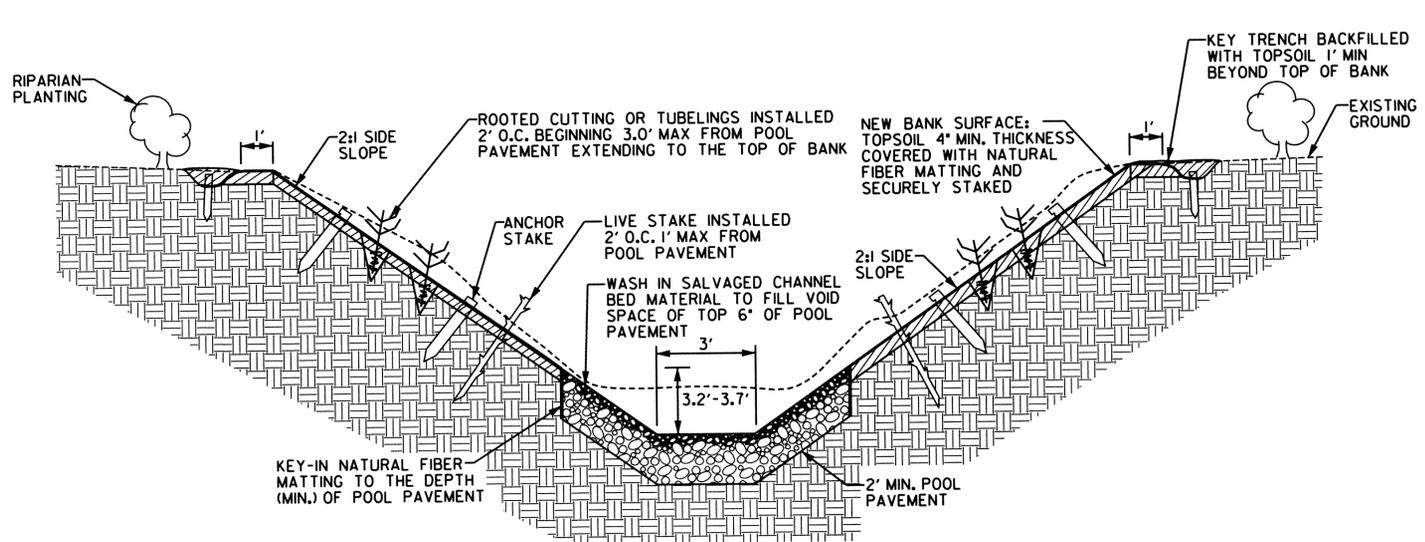
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STABILIZATION DETAILS

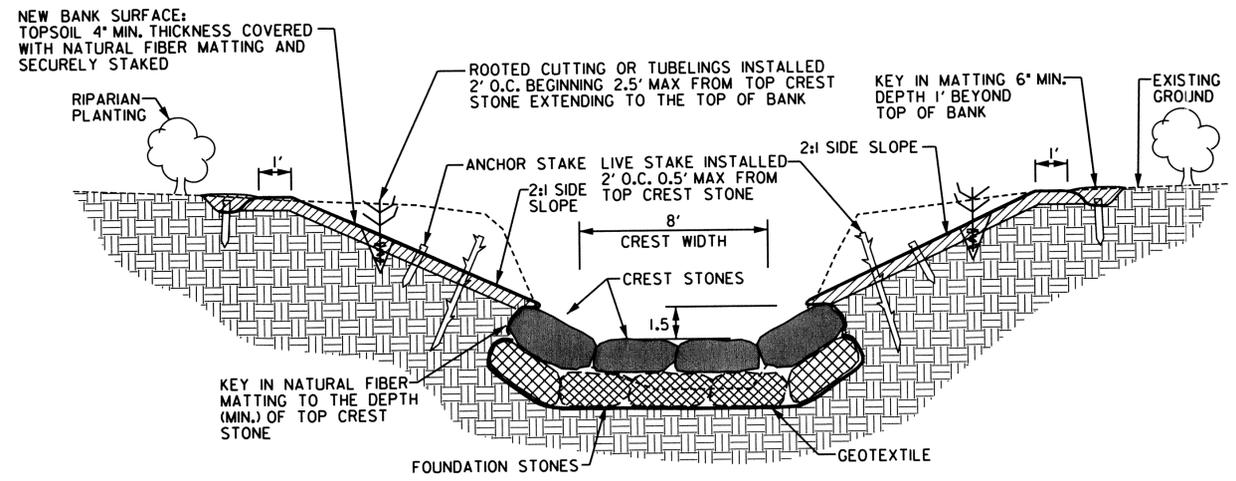
SCALE
AS NOTED
SHEET
3 OF 12

Mark L. Roca
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

9/28/12
DATE

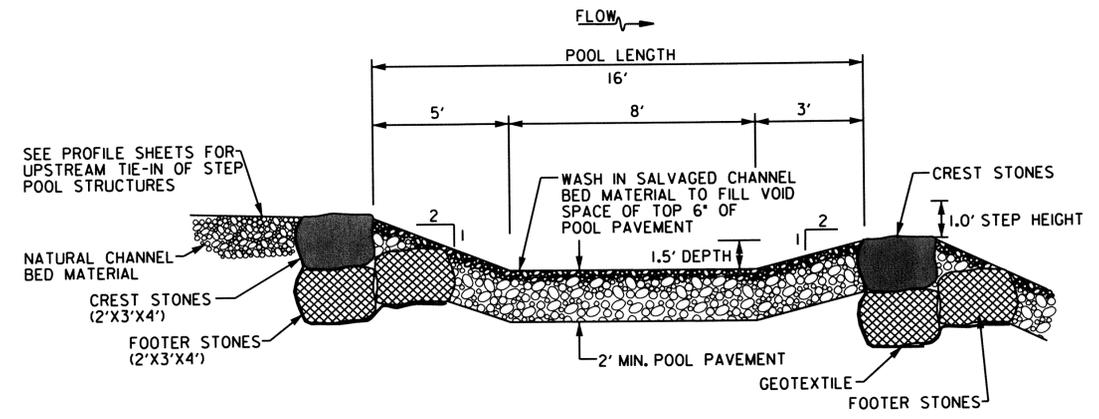


TYPICAL CROSS SECTION OF STEP-POOL POOL
NOT TO SCALE



TYPICAL CROSS SECTION OF STEP-POOL CREST
NOT TO SCALE

POOL PAVEMENT MIX	
AMOUNT OF STONE (%VOL.)	TYPE
20	57 STONE
50	SHA CLASS 0
30	SHA CLASS 1
100	TOTAL



TYPICAL PROFILE THROUGH STEP-POOL
NOT TO SCALE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

9/28/12
DATE

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CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044

STABILIZATION DETAILS

SCALE
AS NOTED
SHEET
4 OF 12

EROSION AND SEDIMENT CONTROL – GENERAL NOTES

HOWARD SOIL CONSERVATION DISTRICT TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE RE-DISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: – LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: – APPLY 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ. FT.).

SEEDING: – FOR PERIODS MARCH 1 – APRIL 30 AND FROM AUGUST 15 – OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.); FOR THE PERIOD MAY 1 – AUGUST 14, SEED WITH 3 LBS / ACRE OF WEEPING LOVEGRASS (1.07 LBS/1000 FT.). FOR THE PERIOD NOVEMBER 16 – FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS/ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: – APPLY 1-1/2 TO 2 TONS/ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED WEED-FREE, SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL. NO ASPHALT EMULSION SHALL BE USED FOR ANCHORING. ONLY A NON-TOXIC, LATEX BACKING MATERIAL IS ALLOWED.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

SEQUENCE OF CONSTRUCTION

1. OBTAIN A GRADING PERMIT AND MDE PERMIT TRACKING #201260892. (1 DAY)
2. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK. THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION (410) 313-1880 A MINIMUM OF 24 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
3. ORANGE HIGH VISIBILITY FENCE SHALL BE MANUALLY INSTALLED WHERE INDICATED ON THE PLANS. THIS SHALL BE COMPLETED BY AND INSPECTED AT THE PRECONSTRUCTION MEETING. (1 DAY)
4. THE CONTRACTOR SHALL COORDINATE AN ON-SITE PRE-CONSTRUCTION MEETING WHICH SHALL INCLUDE, BUT NOT BE LIMITED TO, THE COUNTY PROJECT MANAGER, THE ENGINEER, AND A REPRESENTATIVE FROM HOWARD COUNTY CONSTRUCTION INSPECTION. (1 DAY)
5. CONSTRUCT THE FOLLOWING PERIMETER CONTROLS AS SHOWN ON THE PLANS: STABILIZED CONSTRUCTION ENTRANCE AND SILT FENCE, CLEARING ONLY THE AREA NEEDED TO INSTALL THE E&S CONTROLS. (1 DAY)
6. WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, INSTALL STREAM DIVERSION/PUMP AROUND WHICH INCLUDES THE SAND BAG DAMS, CLEAR WATER PUMP, DIVERSION/DEWATERING HOSE, AND DEWATERING PUMP. DEWATER ALL WORK AREAS AS NEEDED TO A FILTER BAG. (1 DAY)
7. REMOVE IN CHANNEL DEBRIS. COMMENCE IN STREAM CONSTRUCTION AND GRADING. STABILIZE ALL DISTURBED AREAS AT THE END OF EACH WORK DAY AND REMOVE STREAM DIVERSION/PUMP AROUND. COMPLETE CHANNEL GRADING FROM UPSTREAM TO DOWNSTREAM. (5 DAYS)
8. INSTALL LANDSCAPING PER PLAN. (1 DAY)
9. STABILIZE TEMPORARY CONSTRUCTION ACCESS AND GRADE TO FINAL ELEVATIONS REMOVING ALL RUTS. (1 DAY)
10. WHEN AREAS ARE FULLY STABILIZED, AND UPON PERMISSION FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE THE REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ANY DISTURBED AREAS. (1 DAY)

GENERAL NOTES

1. AT THE END OF EACH WORK DAY, THE WORK AREA MUST BE STABILIZED AND THE PUMP AROUND REMOVED FROM THE CHANNEL. REFER TO THE DETAILS AND SPECIFICATIONS FOR MCWC 1.2: PUMP-AROUND PRACTICE INCLUDED ON THE PLANS.
2. THE CONTRACTOR SHALL USE A PUMP AND DIVERSION HOSES TO ACCOMMODATE A 3 INCH DISCHARGE DIAMETER AND THE FLOWS ANTICIPATED DURING CONSTRUCTION IN THE CHANNEL SECTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING A CONSTRUCTION PHASE DEWATERING SYSTEM, INCLUDING A TEMPORARY SYSTEM OF PUMPS, DRAINAGE DITCHES AND, S ANDBAG/ STONE DIVERSIONS, AS REQUIRED TO REMOVE WATER FROM ANY SOURCE, INCLUDING GROUND WATER, AND MAINTAIN WORKABLE, DRY CONDITIONS IN THE WORK AREA.
4. THE CONTRACTOR SHALL NOTE THAT THE WATERWAY LOCATED WITHIN THE PROJECT LIMITS IS CLASSIFIED AS USE 1 WATERS. INSTREAM WORK IS PROHIBITED MARCH 1 THROUGH JUNE 15, INCLUSIVE DURING ANY YEAR.
5. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. PLEASE REFER TO "1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H-30-01, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL

HOWARD SOIL CONSERVATION DISTRICT PERMANANT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1. **PREFERRED** – APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 600 LBS/ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS/ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS/1000 SQ. FT.).
2. **ACCEPTABLE** – APPLY 2 TONS/ACRE DOLOMITIC LIMESTONE (92 LBS/1000 SQ. FT.) AND 1000 LBS/ACRE 10-10-10 FERTILIZER (23 LBS/1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING – FOR THE PERIODS MARCH 1 – APRIL 30, AND AUGUST 1 – OCTOBER 15, SEED WITH 60 LBS / ACRE (1.4 LBS/1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 – JULY 31, SEED WITH 60 LBS KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS/ACRE (0.05 LBS/100 SQ. FT.) OF WEEPING LOVEGRASS. DURING THE PERIOD OF OCTOBER 16 – FEBRUARY 28, PROTECT SITE BY: **OPTION 1** – TWO TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. **OPTION 2** – USE SOD. **OPTION 3** – SEED WITH 60 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELL ANCHORED STRAW.

MULCHING – APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL. NO ASPHALT EMULSION SHALL BE USED FOR ANCHORING. ONLY A NON-TOXIC, LATEX TACKING MATERIAL IS ALLOWED.

MAINTENANCE – INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

HOWARD COUNTY CONSERVATION DISTRICT STANDARD SEDIMENT CONTROL NOTES

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1. B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
7. SITE ANALYSIS:

TOTAL AREA OF SITE	0.26 ACRES
AREA DISTURBED	0.26 ACRES
AREA TO BE ROOFED OR PAVED	0 ACRES
AREA TO BE VEGETATIVELY STABILIZED	0.26 ACRES
TOTAL CUT	70.80 CU. YDS.
TOTAL FILL	71.54 CU. YDS.
OFFSITE WASTE/BORROW AREA LOCATION	SEE NOTE 12 BELOW
8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT CONTROL MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.
11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTH OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.
12. OFFSITE WASTE / BORROW SITE SHALL HAVE AN APPROVED SEDIMENT CONTROL PLAN AND PERMIT.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION
PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

PURPOSE
TO PROVIDE A SUITABLE, SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

- A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
- B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
- C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
- D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

I. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

II. TOPSOIL SPECIFICATIONS – SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

- A. TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND. OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDEERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1-1/2" IN DIAMETER.
 - B. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
 - C. WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTURBED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
- A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION – VEGETATIVE STABILIZATION METHODS AND MATERIALS.

IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

- A. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 1. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 2. ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
 3. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 4. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME AS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
- NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST, AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.

- B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION – SECTION VEGETATIVE STABILIZATION METHODS AND MATERIALS.

V. TOPSOIL APPLICATION

- A. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
- B. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" – 8" HIGHER IN ELEVATION.
- C. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" – 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- D. TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

John R. Roberts
HOWARD COUNTY SOIL CONSERVATION DISTRICT

10/28/12
DATE

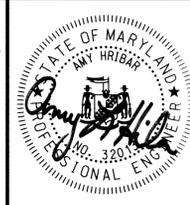
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(410) 313-6444



DES: MG

DRN: MR

CHK: CB

DATE: 9/26/12

BY	NO.	REVISION	DATE

CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044
**EROSION AND SEDIMENT
CONTROL NOTES**

SCALE

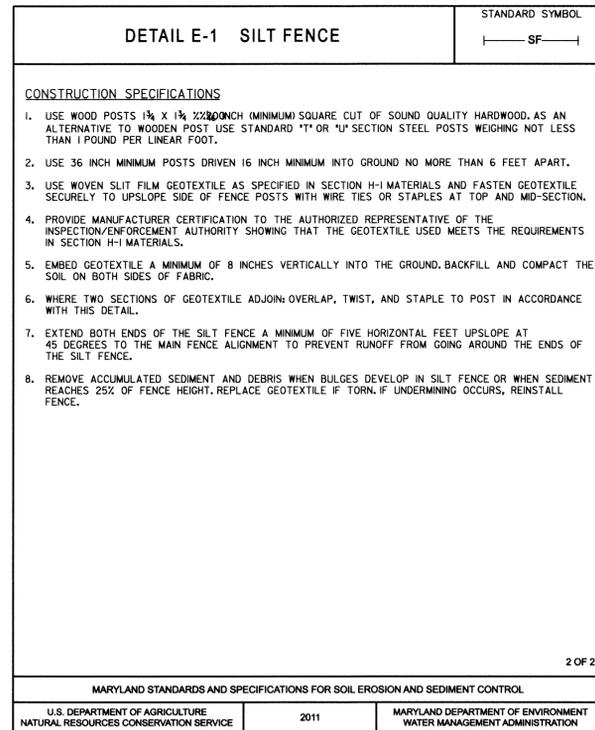
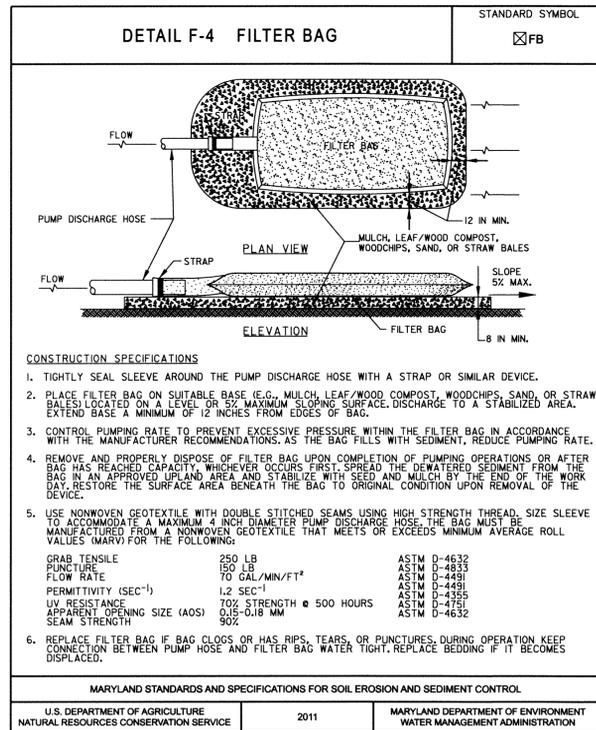
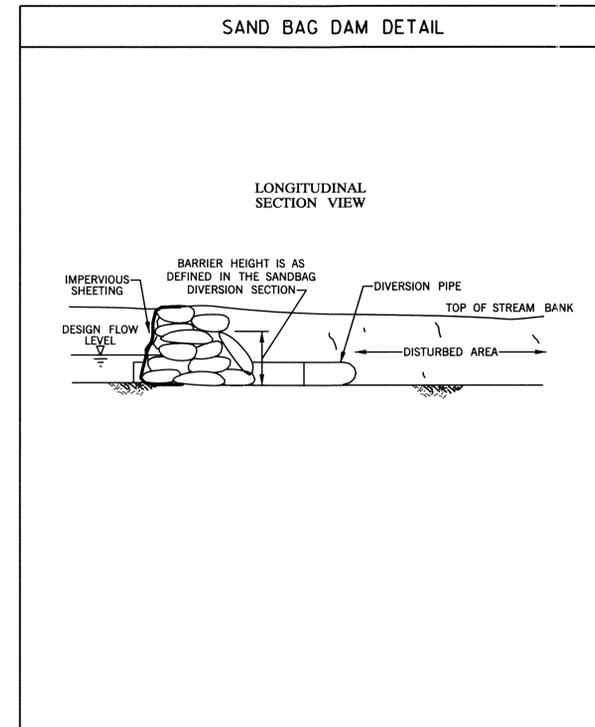
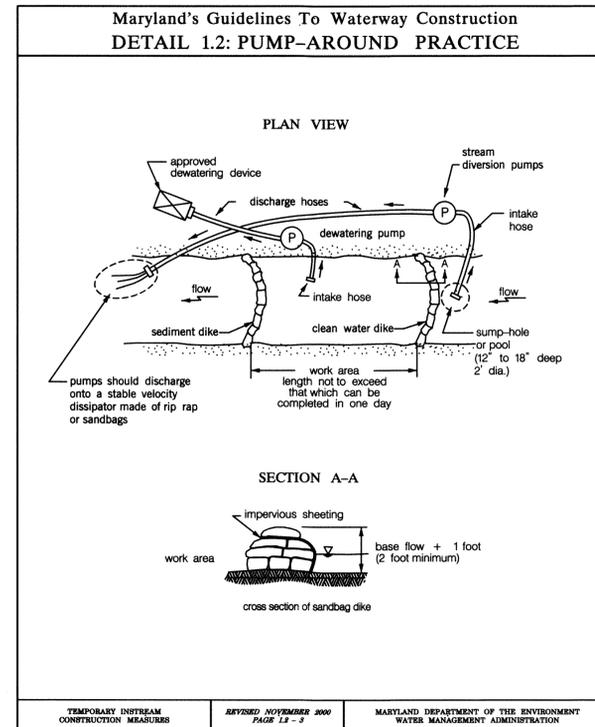
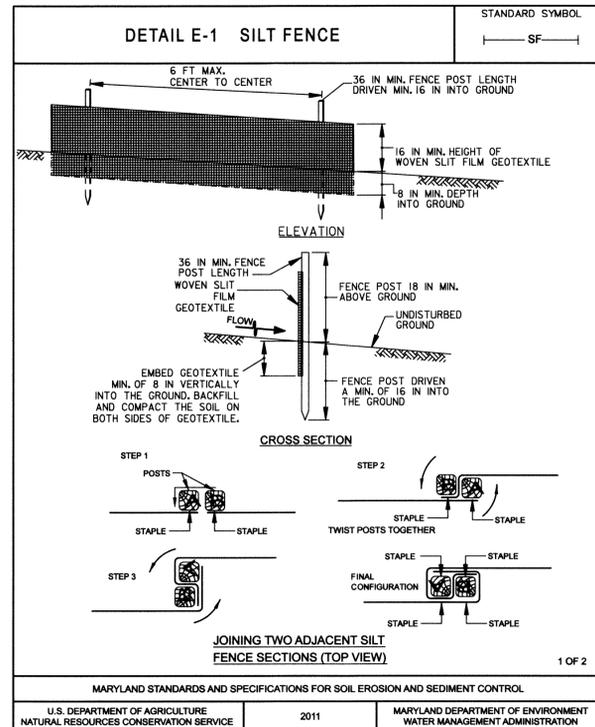
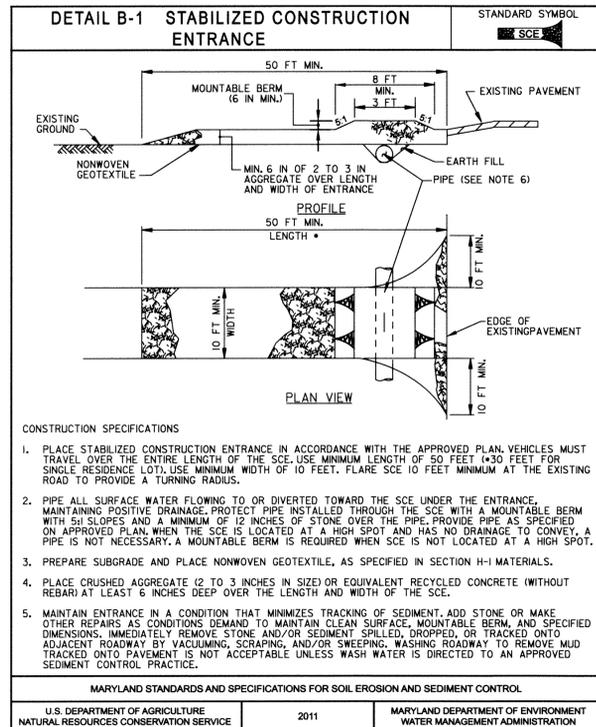
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5 OF 12

Walter J. ...
CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

9/28/12
DATE



John P. Roberts 10/2/12

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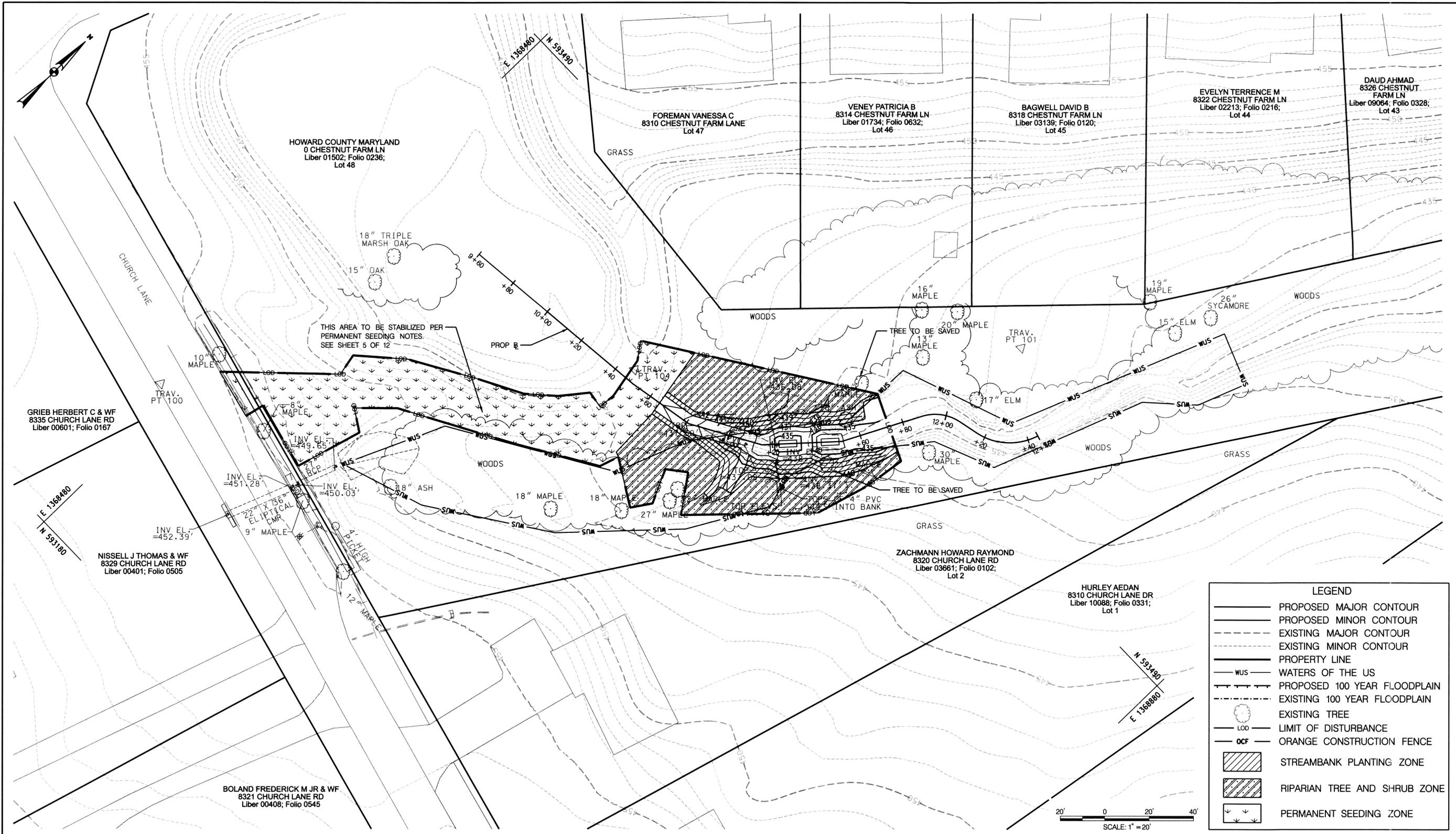
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CHESTNUT FARM LANE
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CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044

EROSION AND SEDIMENT CONTROL DETAIL SHEET

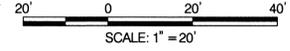
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6 OF 12



LEGEND

- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPERTY LINE
- WATERS OF THE US
- PROPOSED 100 YEAR FLOODPLAIN
- EXISTING 100 YEAR FLOODPLAIN
- EXISTING TREE
- LIMIT OF DISTURBANCE
- ORANGE CONSTRUCTION FENCE
- STREAMBANK PLANTING ZONE
- RIPARIAN TREE AND SHRUB ZONE
- PERMANENT SEEDING ZONE



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W. J. ...
 CHIEF, BUREAU OF ENVIRONMENTAL SERVICES

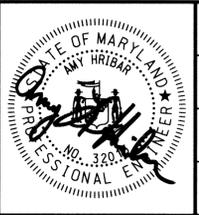
7/28/12
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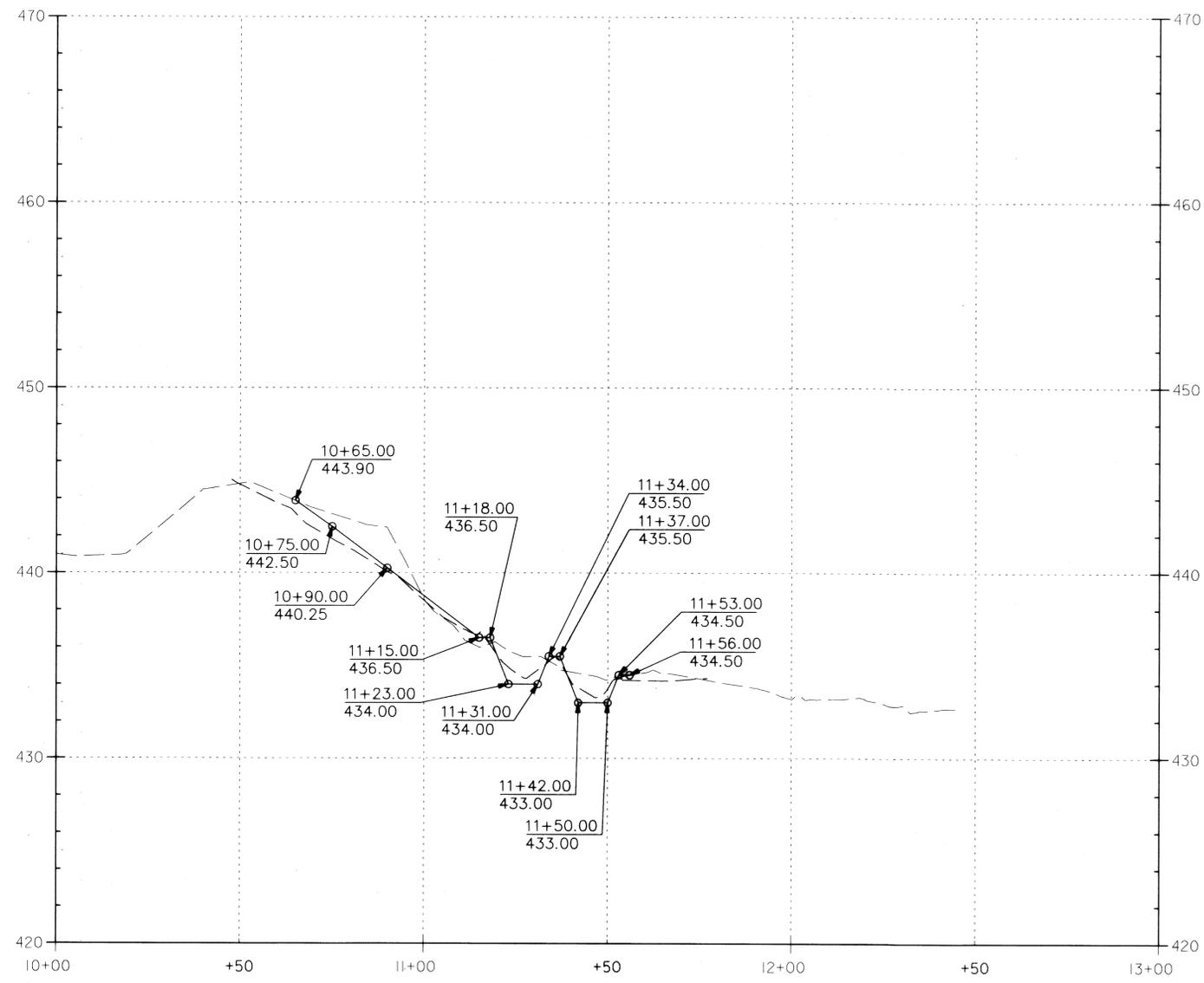
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CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044

LANDSCAPING PLAN

SCALE
 1" = 20'

SHEET
 7 OF 12



STEP-POOL PROFILE ELEVATIONS		
LOCATION	PROPOSED ELEV. (FT)	AS-BUILT ELEV. (FT)
CREST 1	436.50	436.64
POOL 1	434.00	434.31
CREST 2	435.50	435.51
POOL 2	433.00	433.28
CREST 3	434.50	434.47

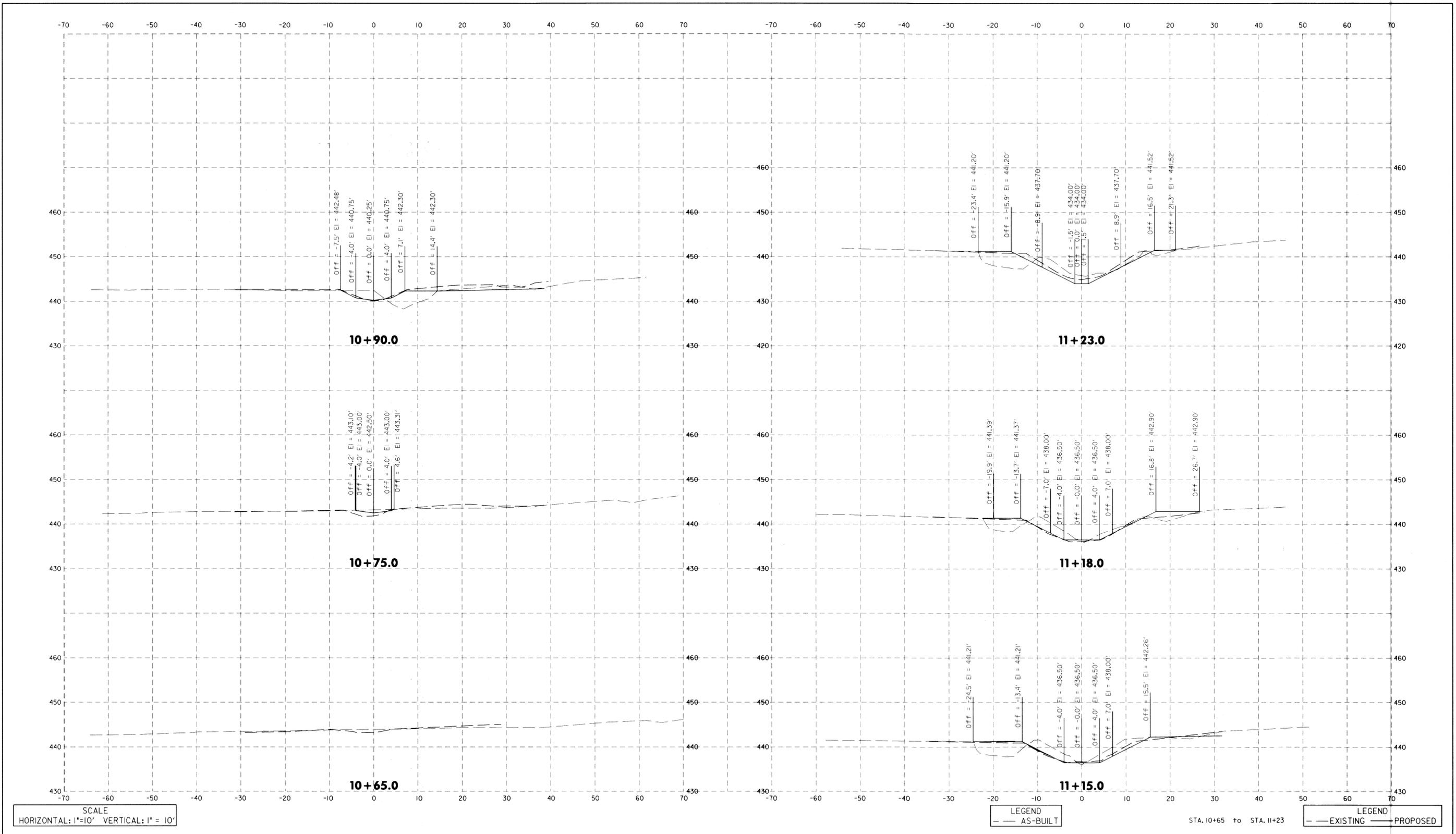
NOTE:
 AS-BUILT PROFILE SHOWN DEPICTS THE CENTERLINE OF THE CONSTRUCTED STEP-POOL SYSTEM. REFER TO THE STEP-POOL ELEVATION TABLE FOR PROPOSED STRUCTURE COMPARISON. CRESTS AND POOLS ARE DESIGNATED 1 TO 3, STARTING AT THE UPSTREAM STRUCTURE LIMIT AND EXTENDING DOWNSTREAM.

CHESTNUT FARM LANE

SCALE
 HORIZONTAL: 1" = 20' VERTICAL: 1" = 40'

LEGEND
 --- AS-BUILT
 --- EXISTING --- PROPOSED

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND CHIEF, BUREAU OF ENVIRONMENTAL SERVICES	McCormick Taylor Engineers & Planners Since 1946 509 South Exeter Street 4th Floor Baltimore, Maryland 21202 (410) 662-7400	Howard County MARYLAND Storm Water Management Division Bureau of Environmental Services 6751 Columbia Gateway Drive, Suite 514 Columbia, Maryland 21046-3143 (410) 313-6444	 PROFESSIONAL ENG.	DES: LN	LEN	AS-BUILT	7/18/13	CHESTNUT FARM LANE POND OUTFALL REPAIR PROJECT CAPITAL PROJECT #D-1159 ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND TAX MAP 18, LOT 48 EP-12-044 PROFILE SHEET	SCALE
				DRN: MR					AS NOTED
CHK: CB				SHEET					
DATE: 9/26/12	BY	NO.	REVISION	DATE	9 OF 12				



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HOWARD COUNTY, MARYLAND

Michael D. Lucas
9/28/12
DATE
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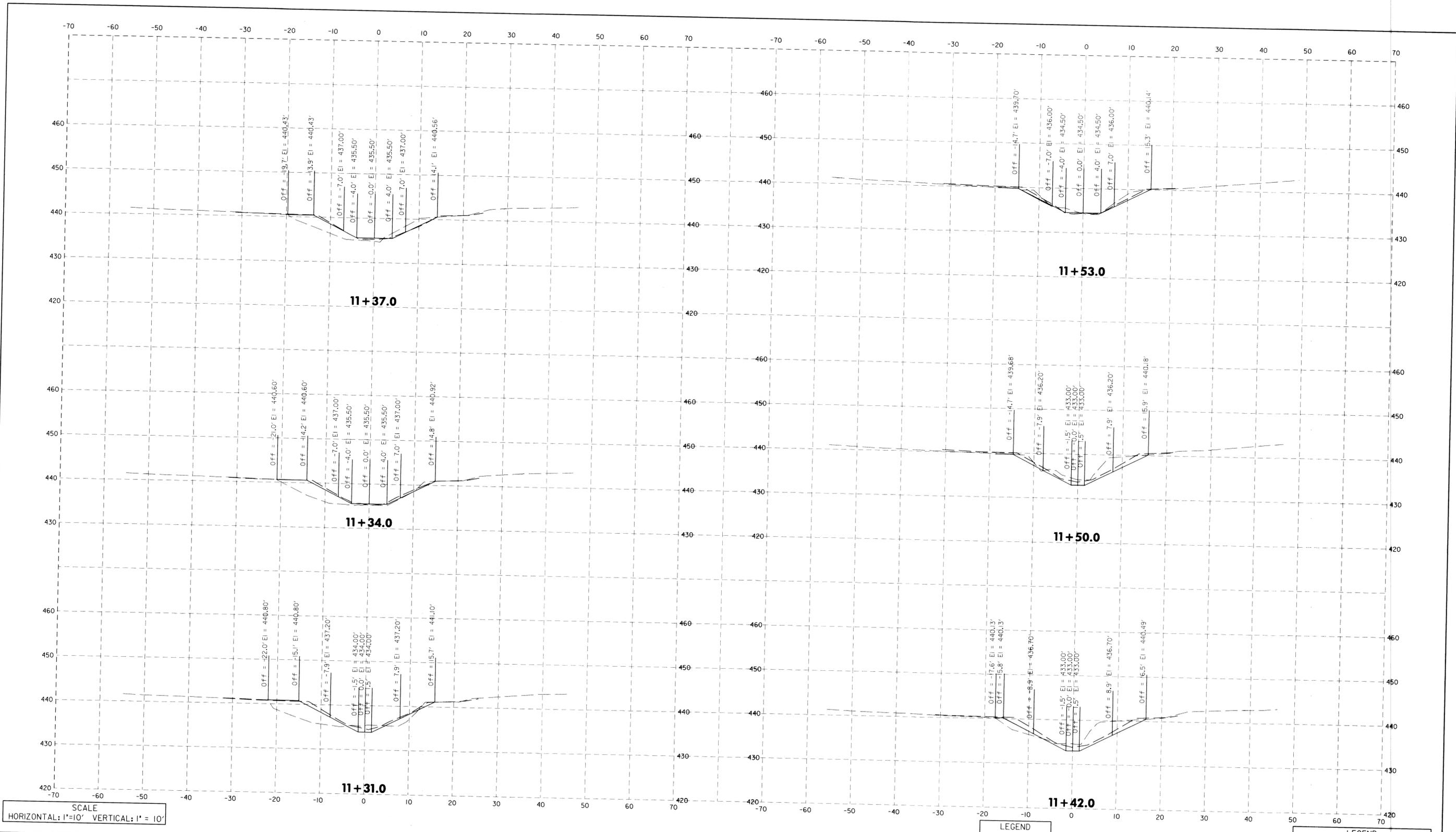


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CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044

CROSS SECTIONS

SCALE
AS SHOWN
SHEET
10 OF 12



SCALE
HORIZONTAL: 1"=10' VERTICAL: 1"= 10'

LEGEND
— AS-BUILT

STA. 11+31 to STA. 11+53

LEGEND
— EXISTING — PROPOSED

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

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**CHESTNUT FARM LANE
POND OUTFALL REPAIR PROJECT
CAPITAL PROJECT #D-1159
ELECTION DISTRICT NO. 2, HOWARD COUNTY MARYLAND
TAX MAP 18, LOT 48
EP-12-044**

CROSS SECTIONS

SCALE
AS SHOWN
SHEET
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