

HARFORD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS

BID NO. 16-074

COUNTRY WALK FACILITY 1B

SWM RETROFIT

GENERAL NOTES

1. SPECIFICATIONS: ALL WORK IS TO BE PERFORMED IN ACCORDANCE MARYLAND STATE HIGHWAY ADMINISTRATIONS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JULY 2008 AND THE MOST RECENT REVISIONS THEREOF AND ADDITIONS THERETO.
2. UTILITIES: UTILITY LOCATIONS SHOWN ON THE PLANS ARE BASED ON LIMITED INFORMATION AVAILABLE. HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. THE COST OF REPAIR OR REPLACEMENT OF ANY SUCH FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE BORNE BY HIM.

CONTACT "MISS UTILITY" PHONE 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THERE SHOULD BE NO EXCAVATION UNTIL THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN DETERMINED.
3. STANDARD DETAILS: REFERENCE MADE TO STANDARDS ARE TAKEN FROM THE HARFORD COUNTY ROAD CODE "BOOK OF STANDARD DETAILS" AND FROM "THE MARYLAND STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS-HIGHWAY AND INCIDENTAL STRUCTURES". IT WILL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE STANDARD DRAWINGS IN HIS POSSESSION ARE THE LATEST REVISED STANDARDS UP TO AND INCLUDING THE DATE OF THE ADVERTISEMENT OF THIS CONTRACT.
4. RIGHT-OF-WAY LINES: RIGHT-OF-WAY LINES SHOWN ON THESE PLANS DO NOT INCLUDE EASEMENTS. THEY ARE FOR ASSISTANCE IN INTERPRETING THE PLANS ONLY. THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE RIGHT-OF-WAY AND EASEMENT INFORMATION, SEE THE APPROPRIATE RIGHT-OF-WAY PLATS.
5. SOIL CONSERVATION: THE CONTRACTOR SHALL NOT DISTURB THE EXISTING VEGETATION OUTSIDE THE LIMITS OF DISTURBANCE. STOCKPILING AND STAGING WILL NOT BE ALLOWED ON SITE. THE CONTRACTOR MUST SECURE AN OFF-SITE AREA AND ANY NECESSARY PERMITS. SOIL STABILIZATION WILL CONFORM TO 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR WILL OBTAIN APPROVAL OF THE HARFORD COUNTY SOIL CONSERVATION DISTRICT FOR HIS PLANS IN CONTROLLING SEDIMENT EROSION FOR THE BORROW AREA AND DISPOSING OF ANY WASTE EXCAVATION.
6. EXISTING SIGNS OR OTHER PRIVATE AND/OR COMMERCIAL PROPERTY: ALL EXISTING SIGNS OR OTHER PRIVATE AND/OR COMMERCIAL PROPERTY DISTURBED DURING CONSTRUCTION SHALL BE TEMPORARILY RESET IMMEDIATELY AND PERMANENTLY RESET AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.
7. SURVEYS:
HORIZONTAL CONTROL - COORDINATES SHOWN ON THE PLANS ARE BASED NAD83(2011) PER LEICA SMARTNET

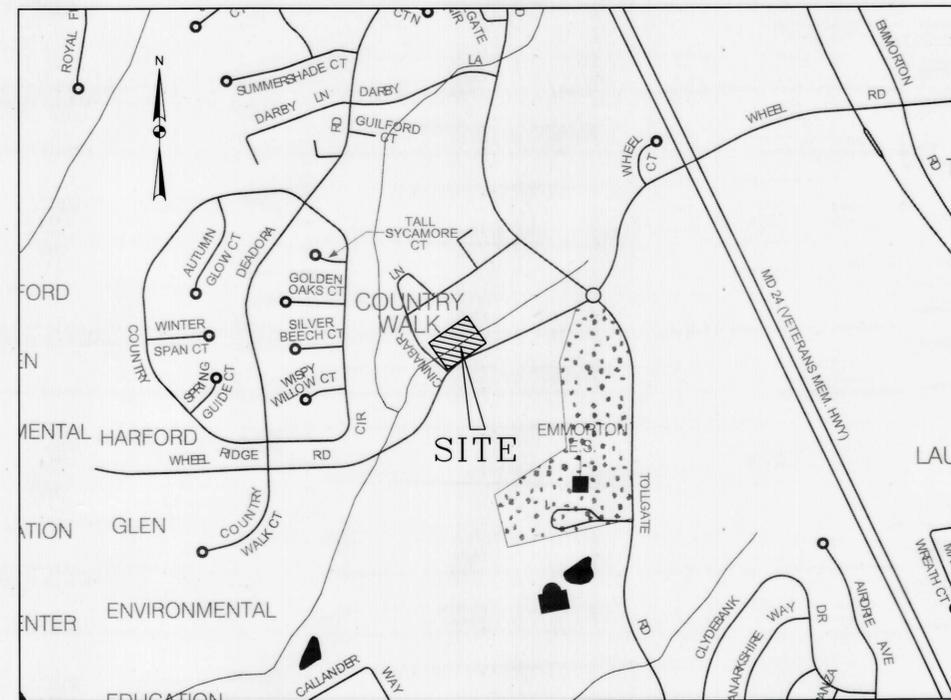
VERTICAL CONTROL - ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NAVD88 (GEOID12A) AS PER LEICA SMARTNET

ONLY THOSE CONTROL POINTS SHOWN ON THESE PLANS ARE TO BE USED FOR THE CONSTRUCTION OF THIS PROJECT.

ALL CONSTRUCTION STAKEOUTS AND CUT SHEETS SHALL BE PERFORMED BY A MARYLAND LICENSED REGISTERED LAND SURVEYOR OR PROPERTY LINE SURVEYOR.
8. THE CONTRACTOR SHALL CONTACT HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS, BUREAU OF CONSTRUCTION INSPECTIONS AT (410) 638-3217 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
9. MARYLAND DEPARTMENT OF THE ENVIRONMENT CLASSIFIES THIS STREAM AS A USE 1 STREAM PURSUANT TO WHICH INSTREAM WORK IS PROHIBITED FROM MARCH 1 TO JUNE 15, INCLUSIVE, DURING THE YEAR

INDEX OF SHEETS

SHEET NO.	TITLE
1	TITLE SHEET
2	GEOMETRY SHEET
3	SITE LAYOUT AND GRADING PLAN
4	STORM WATER MANAGEMENT PROFILES
5	STORM WATER MANAGEMENT DETAILS
6	EROSION & SEDIMENT CONTROL PLAN
7	EROSION & SEDIMENT CONTROL/PLANTING PLAN
8	EROSION & SEDIMENT CONTROL DETAILS
9	EROSION & SEDIMENT CONTROL DETAILS
10	EROSION & SEDIMENT CONTROL NOTES
11	MAINTENANCE OF TRAFFIC
12	BORING LOGS
13	DRAINAGE AREA MAP



LOCATION MAP

SCALE 1" = 600'

DEVELOPER'S CERTIFICATION

I/We hereby certify that all proposed work shown on these construction drawing(s) will be accomplished pursuant to these plans. I/We also understand that it is my/our responsibility to have the construction supervised and certified, including the submittal of "As-Built" plans within 30 days of completion, by a Registered Professional Engineer.

Signed: *Joseph J. Siemka*
Print Name: Joseph J. Siemka
Date: 7-13-16

AS-BUILT CERTIFICATION

I hereby certify that the facility on this plan was constructed as shown on the "As-built" plans and meets the approved plans and specifications.

Signed: _____
Print Name: _____
Date: _____
P.E. NO. _____

ENGINEER'S CERTIFICATION

I hereby certify that this plan has been prepared by me, or under my supervision, and meets the minimum standards of the Harford County Department of Public Works and/or the United States Department of Agriculture, Soil Conservation Service, and/or the Department of Natural Resources Water Resources Administration.

Signed: *SEIBED A. SARDAT*
Print Name: SEIBED A. SARDAT
Date: 7/13/16
P.E. NO. 16493

**HARFORD SOIL CONSERVATION DISTRICT
SMALL POND APPROVAL**

Signed: *Willie B. Blum* 9/16/16
DATE

DISTRICT OFFICIAL

TECHNICAL REVIEW FOR DISTRICT

Reference NRCS answer letter dated 9/9/16
USDA-NRCS DATE

Harford County Stormwater Management Billing # 99936

THESE PLANS HAVE BEEN REVIEWED BY HARFORD COUNTY AND MEET THE TECHNICAL REQUIREMENTS FOR STORMWATER QUANTITY AND/OR QUALITY MANAGEMENT ONLY.

CAPITAL PROJECTS APPROVAL

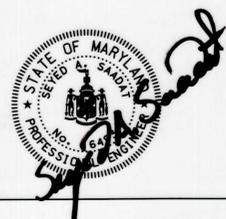
REVIEWED FOR TECHNICAL SUFFICIENCY	<i>R. Bruce Appell</i> 9/19/16
STORMWATER MANAGEMENT	
REVIEW AND APPROVAL RECOMMENDED	<i>Michael L. Ritt</i> 9/19/16
CHIEF ENGINEER	
APPROVAL RECOMMENDED	<i>Shirley</i> 09/19/16
DEPUTY DIRECTOR OF PUBLIC WORKS	
APPROVED	<i>J. Smith</i> 9-20-16
DIRECTOR OF PUBLIC WORKS	

REVIEWED AND APPROVAL RECOMMENDED:	<i>Shirley A. Collins</i> 9/22/16
PROJECT ENGINEER	
REVIEW AND APPROVAL RECOMMENDED:	<i>CM Buckley</i> 9/22/16
CHIEF ENGINEER	
APPROVAL RECOMMENDED:	<i>Shirley</i> 09/26/16
DEPUTY DIRECTOR OF PUBLIC WORKS	
APPROVED:	<i>J. Smith</i> 9-26-16
DIRECTOR OF PUBLIC WORKS	

SWM 160993
EG: SWMENG - 00506-2016

Owner: HARFORD COUNTY
DEPARTMENT OF PUBLIC WORKS

DIVISION OF HIGHWAYS AND STORMWATER MANAGEMENT
212 SOUTH BOND STREET, 1ST FLOOR
BEL AIR MARYLAND 21014
410-638-3545
CONTACT: ELIZABETH COLLINS



SWM 99936
S/C PLAN NO. 59806

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. 16493

EXPIRATION DATE: MAY 16, 2017

RK&K
Rummel, Klepper & Kahl, LLP
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PH: (410) 728-2900 FAX: (410) 728-3160
Engineers | Construction Managers | Planners | Scientists
www.rkk.com

NORTH CELL STAKEOUT TABLE (CONTOUR 217.0)

DESCRIPTION	STATION	NORTHING	EASTING	RADIUS
POB/PC	0+00.00	664,472.59	1,500,627.80	
PI	0+04.61	664,469.13	1,500,624.76	
CC		664,452.76	1,500,650.32	30.00'
PT	0+09.15	664,464.91	1,500,622.89	
PC	0+24.96	664,450.46	1,500,616.49	
PI	0+27.81	664,447.85	1,500,6615.33	
CC		664,448.84	1,500,620.14	4.00'
PT	0+29.91	664,445.91	1,500,617.42	
PC	0+67.87	664,420.06	1,500,645.21	
PI	0+71.69	664,417.46	1,500,648.01	
CC		664,422.99	1,500,647.94	4.00'
PT	0+73.96	664,420.13	1,500,650.74	
PC	0+87.10	664,429.33	1,500,660.12	
PI	0+90.59	664,431.77	1,500,662.61	
CC		664,420.76	1,500,668.52	12.00'
PT	0+93.89	664,432.50	1,500,666.02	
PC	1+12.57	664,436.39	1,500,6684.29	
PI	1+13.97	664,436.68	1,500,685.66	
CC		664,448.12	1,500,681.80	12.00'
PT	1+15.36	664,437.28	1,500,686.93	
PC	1+27.19	664,442.34	1,500,697.62	
PI	1+31.05	664,443.99	1,500,701.11	
CC		664,455.90	1,500,691.20	15.00'
PT	1+34.75	664,447.12	1,500,703.37	
PC	1+48.55	664,458.32	1,500,711.44	
PI	1+50.73	664,460.09	1,500,712.71	
CC		664,449.55	1,500,723.61	15.00'
PT	1+52.88	664,461.42	1,500,714.44	
PC	1+81.40	664,478.86	1,500,737.00	
PI	2+05.06	664,493.33	1,500,755.73	
CC		664,489.94	1,500,728.44	14.00'
PT	2+10.42	664,502.77	1,500,734.03	
PC	2+50.41	664,518.73	1,500,697.35	
PI	2+59.05	664,522.17	1,500,689.44	
CC		664,504.97	1,500,691.37	15.00'
PT	2+66.08	664,517.06	1,500,682.48	
PC	3+17.56	664,486.55	1,500,641.02	
PI	3+20.79	664,484.64	1,500,638.41	
CC		664,462.39	1,500,658.79	30.00'
POE/PT	3+24.00	664,482.21	1,500,636.28	

TRAVERSE POINTS

TRAVERSE	NORTHING	EASTING	ELEVATION	DESCRIPTION
RKK 2E	664,282.0711	1,500,715.7991	231.33'	REBAR & CAP
RKK 3E	664,487.9036	1,500,554.4866	231.86'	REBAR & CAP
RKK 5E	664,346.1990	1,500,631.5570	229.00'	REBAR & CAP
RKK 6E	664,374.3170	1,500,611.9129	228.65'	REBAR & CAP

SPLIT RAIL FENCE

ALIGNMENT POINT	STATION	OFFSET
1	20+00.4	95.6 RT
2	20+01.1	16.6 RT
3	20+06.6	21.8 LT
4	20+17.1	58.8 LT
5	20+31.7	98.1 LT
6	20+91.9	115.4 LT
7	21+89.9	76.7 LT
8	21+90.5	52.2 LT
9	21+95.7	22.4 LT

- TOTAL FENCE LENGTH = 421 LF
- POINTS START AT INTERSECTION OF CINNABAR LANE AND WEST WHEEL ROAD GOING CLOCKWISE



BASELINE CONTROL COORDINATES

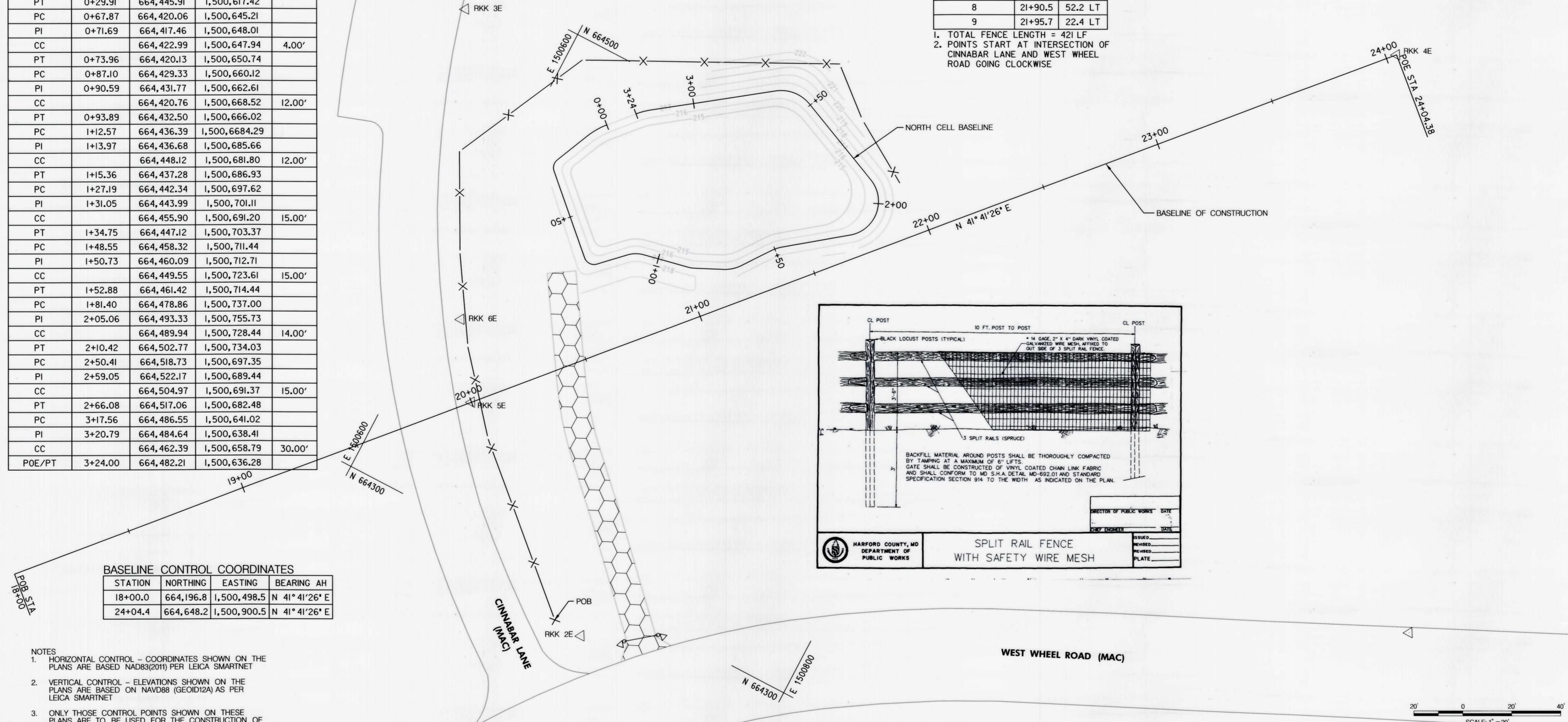
STATION	NORTHING	EASTING	BEARING AH
18+00.0	664,196.8	1,500,498.5	N 41° 41' 26" E
24+04.4	664,648.2	1,500,900.5	N 41° 41' 26" E

- NOTES
- HORIZONTAL CONTROL - COORDINATES SHOWN ON THE PLANS ARE BASED NAD83(2011) PER LEICA SMARTNET
 - VERTICAL CONTROL - ELEVATIONS SHOWN ON THE PLANS ARE BASED ON NAVD88 (GEOID12A) AS PER LEICA SMARTNET
 - ONLY THOSE CONTROL POINTS SHOWN ON THESE PLANS ARE TO BE USED FOR THE CONSTRUCTION OF THIS PROJECT.
 - STAKEOUT GEOMETRY FOR NORTH CELL PROVIDED AT CONTOUR ELEVATION 217.0.

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. 16493

EXPIRATION DATE: MAY 16, 2017



CL POST
10 FT. POST TO POST
CL POST
BLACK LOCUST POSTS (TYPICAL)
* 14 GAUGE 2" X 4" DARK VINYL COATED GALVANIZED WIRE MESH AFFIXED TO OUT SIDE OF 3 SPLIT RAIL FENCE.
3 SPLIT RAILS (SPRUCE)
3'-6"

BACKFILL MATERIAL AROUND POSTS SHALL BE THOROUGHLY COMPACTED BY TAMPING AT A MAXIMUM OF 6" LIFTS.
GATE SHALL BE CONSTRUCTED OF VINYL COATED CHAIN LINK FABRIC AND SHALL CONFORM TO MD S.H.A. DETAIL MD-692.01 AND STANDARD SPECIFICATION SECTION 914 TO THE WIDTH AS INDICATED ON THE PLAN.

HARFORD COUNTY, MD
DEPARTMENT OF
PUBLIC WORKS

SPLIT RAIL FENCE
WITH SAFETY WIRE MESH

DIRECTOR OF PUBLIC WORKS DATE
CHIEF ENGINEER DATE
ISSUED
REVISED
REVISED
PLATE

SWM 99936
SWM 160994

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Engineers | Construction Managers | Planners | Scientists
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Revisions

EG: SUMENGA - 000506 - 2016

HARFORD COUNTY, MARYLAND
Wheel Creek Stormwater Management Retrofits
Country Walk Facility 1B
GEOMETRY SHEET

Drawn By : _____ CPS
Designed By : _____ CPS
Reviewed By : _____ SAS

Contract No : _____
Scale : _____ 1" = 20'
Sheet 2 Of 13
Date : MARCH 2016

Friday, July 08, 2016 02:25 PM
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ADC MAP: 49 GRID: F4
 TAX MAP: 0056
 HCC BILLING ID NO.:
 HCC DWG ID NO.:

LEGEND

- EX. FENCE
- STREET LIGHT
- EX. UG ELECTRIC
- EX. OH ELECTRIC
- EX. GAS
- EX. WATER
- EX. FIRE HYDRANT
- EX. SAN SEWER
- EX. SAN MANHOLE
- EX. STORM DRAIN
- EX. SD MANHOLE
- RIGHT OF WAY LINE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- WUS - WATERS OF THE U.S.
- WETLAND BOUNDARY
- WETLANDS BUFFER
- 100-YR FLOODPLAIN
- TREE (DBH >24')
- BORING LOCATION
- FENCE LINE
- ACCESS ROAD

TYPE K END TREATMENT

STATION	OFFSET	QTY
20+23	114' RT	1
20+38	117' RT	1

14' ACCESS ROAD GATE

STATION	OFFSET	LENGTH
20+30	115' RT	14'

PERMANENT ACCESS ROAD

FROM	STATION	OFFSET	QTY
TO	20+30	121' RT	216 SY
	20+53	37' LT	

STRUCTURE SCHEDULE

STRUCTURE	STATION	OFFSET	TYPE	INVERT	NOTES
EW-1	20+57.3	13.1' LT	D-II	214.99	REPLACE EX. END SECTION
ES-1	19+14.2	4.5' LT	D-18	210.45	REPLACE EX. END SECTION

PIPE SCHEDULE

FROM	TO	INVERT IN	INVERT OUT	SIZE/TYPE	LENGTH	SLOPE	NOTES
EW-1	EX-RISER	214.99	214.18	18" CAP	20 LF	4.1%	REPLACE EXISTING
EX-RISER	ES-1	213.99	210.58	APPROX. 63" CIPP	117 LF	2.9%	REMEDIAL PIPE LINING

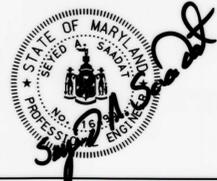
REMOVE AND REPLACE GROUT PACK FOR EX. 66" CMP AT EX. RISER

- NOTES**
- BASEFLOW TO BE MAINTAINED IN EXISTING CHANNEL. STORM FLOWS WILL FLOW INTO WATER QUALITY CELLS AND SPILLOVER INTO THE MAIN CHANNEL.
 - ALL GRADED SLOPES TO BE MAXIMUM 3:1.
 - ALL UTILITIES, EXCEPT STORM DRAINS, TAKEN FROM RECORD DOCUMENTS.
 - SEE SHEET 2 FOR POND STAKEOUT TABLES.
 - SEE SHEET 12 FOR BORING LOGS.
 - SEE SHEET 4 FOR WET POOL SECTIONS.
 - SEE SHEET 8 FOR RIPRAP LINING SCHEDULE.
 - CONTRACTOR SHALL INSTALL TYPE K END TREATMENTS IMMEDIATELY AFTER TRAFFIC BARRIER REMOVAL. THE ACCESS GATE SHALL NOT BE INSTALLED UNTIL ALL OTHER CONSTRUCTION IS COMPLETED.
 - THE STREAM IS DESIGNATED AS A USE I-P WATERWAY WITH A STREAM CLOSURE PERIOD FROM MARCH 1 TO JUNE 15.

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. 16493

EXPIRATION DATE: MAY 16, 2017



SWM 99936
S/C PLAN NO. 59806

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www.rkk.com

EG: SWM ENG - 000506 - 2016 SWM 160995

Revisions

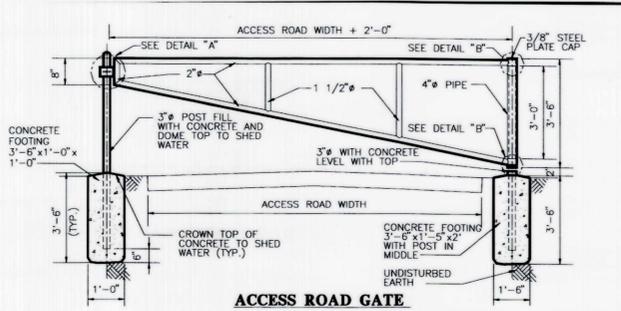
HARFORD COUNTY, MARYLAND

Wheel Creek Stormwater Management Retrofits
Country Walk Facility 1B
PLAN SHEET

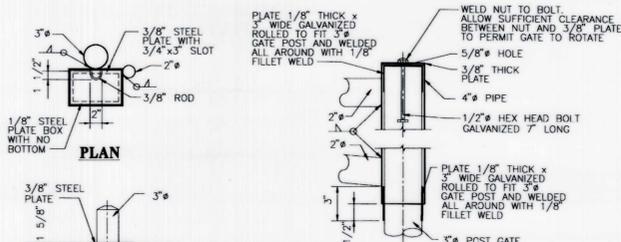
Drawn By : _____ CPS	Contract No : _____
Designed By : _____ CPS	Scale : 1" = 20'
Reviewed By : _____ SAS	Sheet 3 Of 13
	Date : MARCH 2016

File: J:\16_03_2016_1T_02355_P4...
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 02 Wheel Creek P...
 02 Wheel Creek P...

ADC MAP: 49 GRID: F 4
 TAX MAP : 0056
 HCG BILLING ID No.:
 HCG DWG ID No.:

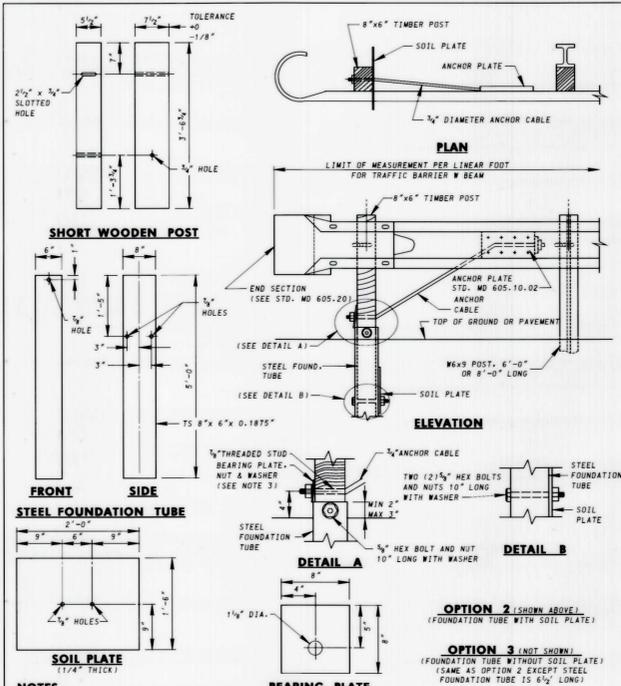


ACCESS ROAD GATE



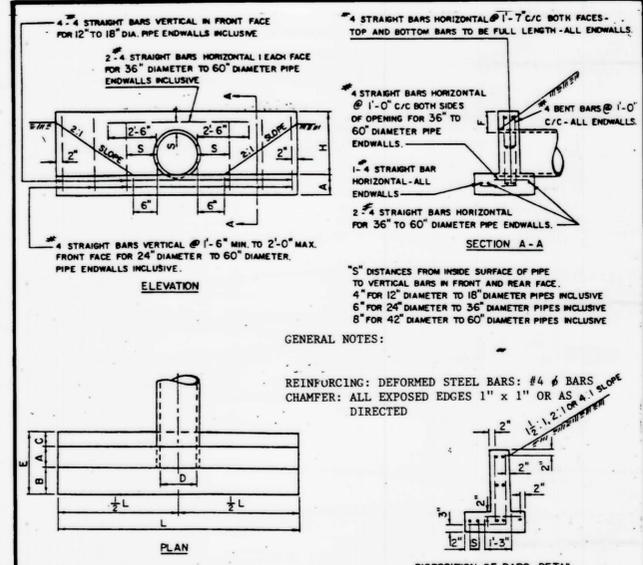
- NOTES:
1. ALL METAL USED IN THE MANUFACTURE OF THE ACCESS ROAD GATE TO BE HOT DIP GALVANIZED. ALL WELDS AND PIPE TO BE PAINTED AND TOUCHED UP IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 2. ALL JOINTS TO BE WELDED ALL AROUND WITH 3/16" WELDS.
 3. ALL PIPE TO BE SCHEDULE 40 STEEL. DIAMETERS SHOWN ARE NOMINAL PIPE SIZE.
 4. PADLOCK WILL BE FURNISHED BY HARFORD COUNTY DPW IF IT IS IN PUBLIC PROPERTY.
 5. CONTRACTOR SHALL PROVIDE AN ADDITIONAL 3/8" POST WITH 3/8" ROD. LOCATE TO HOLD GATE IN AN OPEN POSITION 90° FROM THAT SHOWN BELOW.
 6. GATE TO SWING IN TOWARDS HARFORD COUNTY'S PROPERTY OR EASEMENT.
 7. WIDTH OF GATE NOT TO EXCEED 16 FT.
 8. CONCRETE STRENGTH $f_c' = 4,000$ psi @ 28 DAYS WITH AIR ENTRAINED.

STORMWATER MANAGEMENT ACCESS ROAD GATE
NOT TO SCALE



- NOTES:
1. NOTES ON STD. MD 605.10 APPLY TO OPTION 2 & 3.
 2. IF THE FOUNDATION TUBE AND SOIL PLATE (OPTION 2) ARE DRIVEN INTO THE SOIL, PROPER CARE SHOULD BE TAKEN TO ENSURE THAT THE SOIL PLATE FASTENERS ARE NOT BROKEN DURING THE DRIVING PROCESS.
 3. SECURE BEARING PLATE WITH 16 PENNY GALVANIZED NAIL TO PREVENT ROTATION OF PLATE.
 4. SAME AS MD 605.01 NOTE 6.

**Maryland Department of Transportation
STATE HIGHWAY ADMINISTRATION**
STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES
**TYPE K TRAFFIC BARRIER END TREATMENT
OPTION 2 & 3 ANCHORAGE**
STANDARD NO. MD 605.10-01



QUANTITIES IN TABLE TO BE USED FOR EST. ONLY

OPENINGS D AREA INCHES(SQ. FT.)	DIMENSIONS								INCLINE/STEEL CONC. C.Y.	
	A	B	C	E	F	H	L	L		
12	0.75	8"	6"	6"	1'-9"	9"	1'-9"	6'-6"	0.81	38
15	1.23	9"	6"	6"	1'-9"	9"	2'-0"	7'-9"	0.78	55
18	1.78	9"	6"	6"	1'-9"	9"	2'-9"	9'-0"	0.95	62
24	3.14	9"	14"	6"	2'-5"	9"	2'-9"	11'-6"	1.56	91
30	4.91	9"	14"	6"	2'-5"	12"	3'-6"	14'-2"	2.19	136
36	7.07	12"	16"	10"	3'-2"	12"	4'-0"	16'-8"	4.18	222
42	9.62	12"	16"	10"	3'-2"	12"	4'-6"	19'-2"	5.13	265
48	12.57	12"	16"	10"	3'-2"	12"	5'-0"	21'-8"	6.12	326
54	15.90	12"	20"	12"	3'-8"	12"	5'-6"	24'-2"	7.68	384
60	19.64	12"	20"	12"	3'-8"	12"	6'-0"	26'-8"	8.86	428

HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS
STANDARD TYPE 'C' ENDWALL ROUND PIPE
PLATE D-II

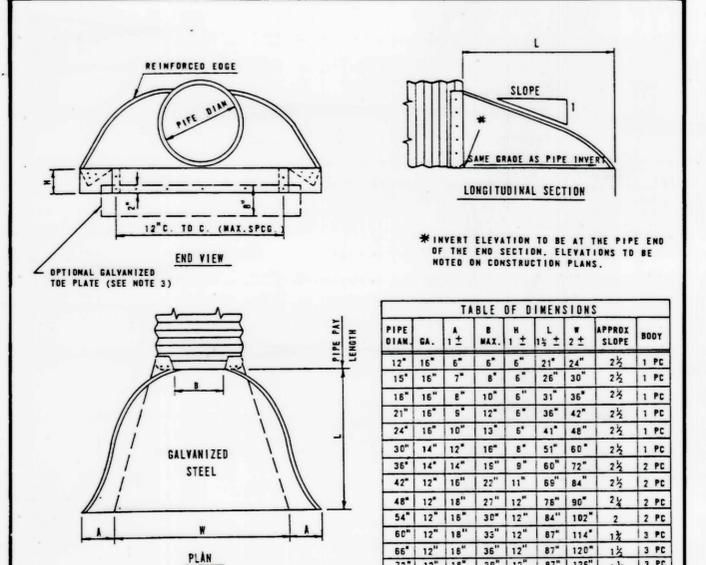
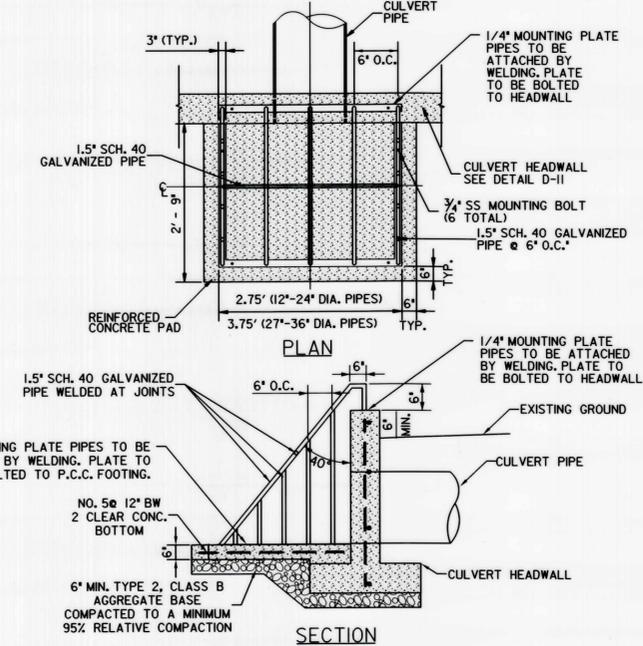


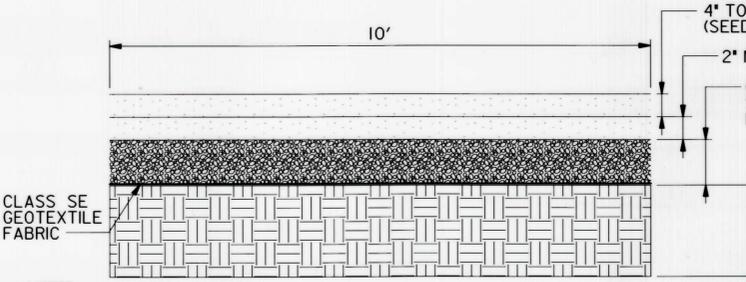
TABLE OF DIMENSIONS

PIPE DIAM. GA.	A	B	H	L	V	APPROX. SLOPE	BODY
12"	16"	6"	6"	21"	24"	2 1/2%	1 PC
15"	16"	7"	8"	6"	26"	30"	2 1/2% 1 PC
18"	16"	8"	10"	6"	31"	36"	2 1/2% 1 PC
21"	16"	8"	12"	6"	36"	42"	2 1/2% 1 PC
24"	16"	10"	13"	6"	41"	48"	2 1/2% 1 PC
30"	14"	12"	16"	8"	51"	60"	2 1/2% 1 PC
36"	14"	14"	18"	8"	60"	72"	2 1/2% 1 PC
42"	12"	16"	22"	11"	69"	84"	2 1/2% 2 PC
48"	12"	18"	27"	12"	78"	96"	2 1/2% 2 PC
54"	12"	18"	30"	12"	84"	102"	2 1/2% 2 PC
60"	12"	18"	35"	12"	87"	114"	1 1/2% 3 PC
66"	12"	18"	36"	12"	87"	120"	1 1/2% 3 PC
72"	12"	18"	38"	12"	87"	126"	1 1/2% 3 PC
78"	12"	18"	42"	12"	87"	132"	1 1/2% 3 PC
84"	12"	18"	45"	12"	87"	138"	1 1/2% 3 PC

HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS
METAL END SECTION ROUND METAL PIPE
PLATE D-18

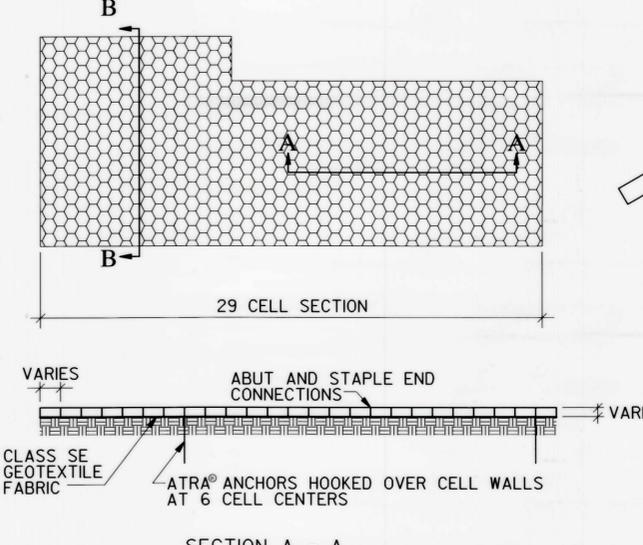


RISER LOW FLOW TRASH RACK
NOT TO SCALE

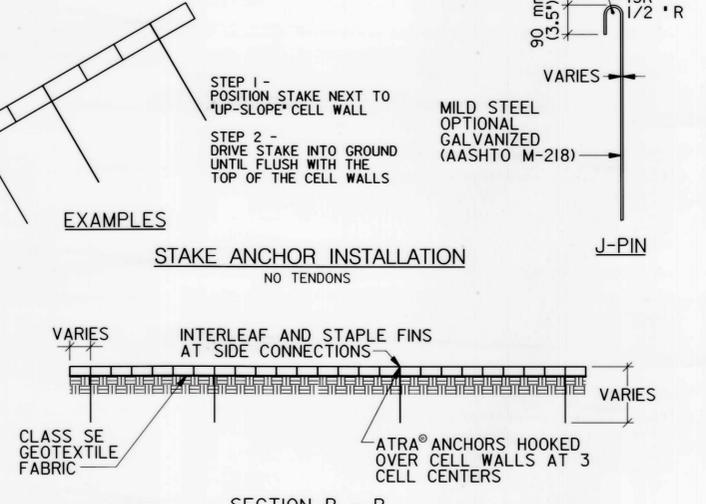


- NOTES:
1. SHRUBS SHALL BE PLACED ON THE POND SIDE OF ACCESS ROAD EVERY 50' OR CHANGE IN DIRECTION
 2. NO. 57 STONE MAY BE SALVAGED FROM TEMPORARY ACCESS ROAD.

ACCESS ROAD SECTION WITH CELLULAR CONFINEMENT ANCHORING SYSTEM
NOT TO SCALE



TYPICAL CELLULAR CONFINEMENT ANCHOR SYSTEM
NOT TO SCALE



STAKE ANCHOR INSTALLATION
NO TENDONS

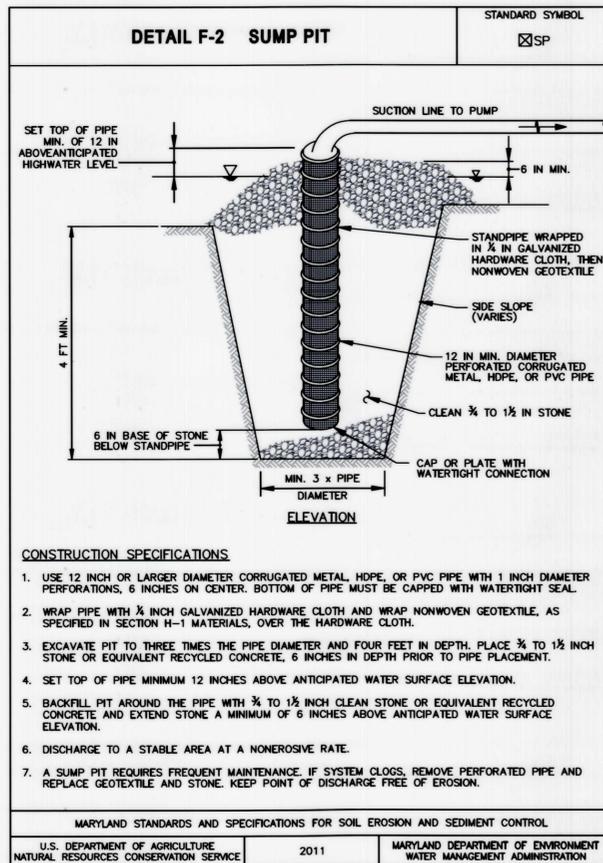
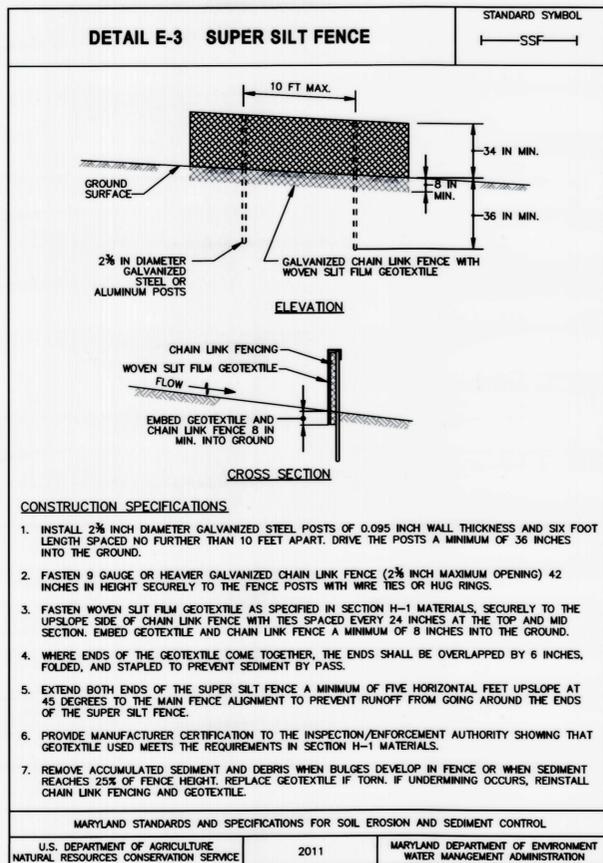
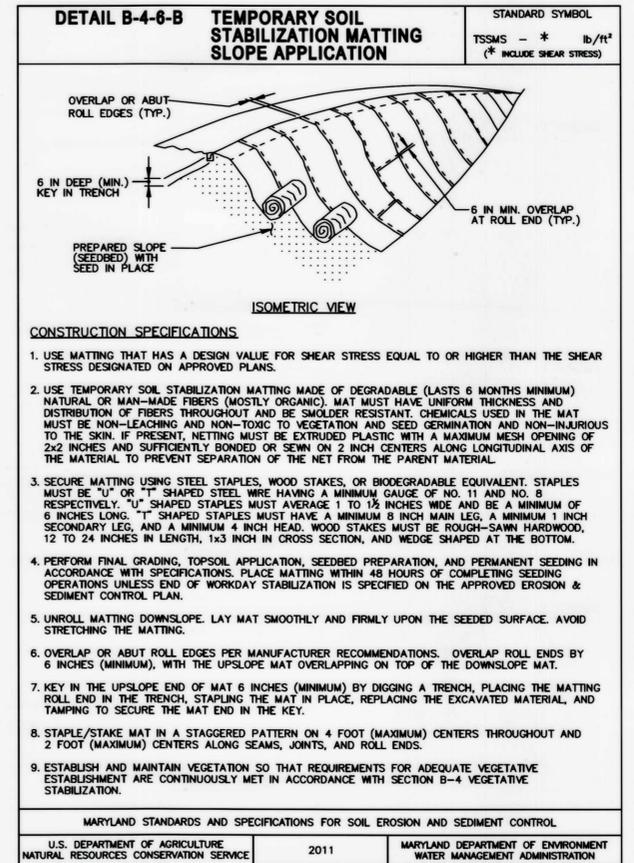
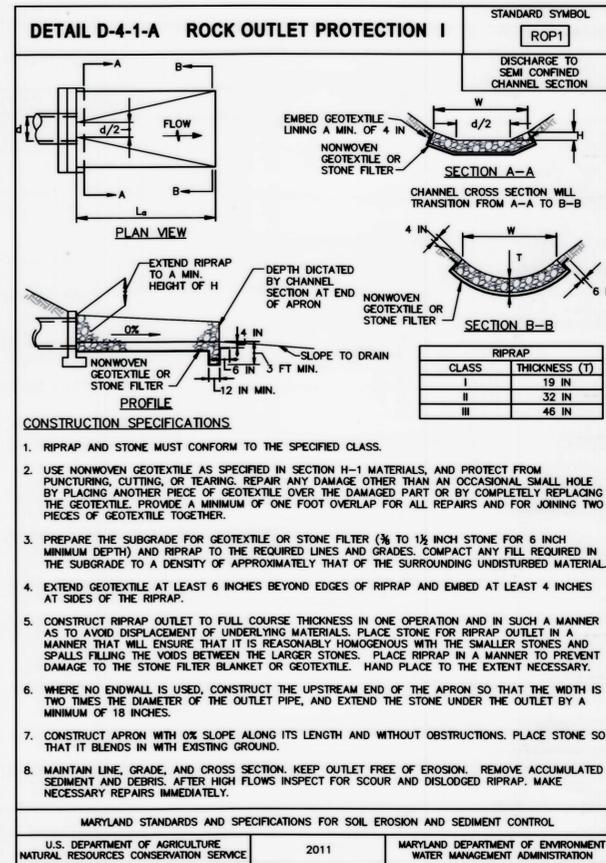
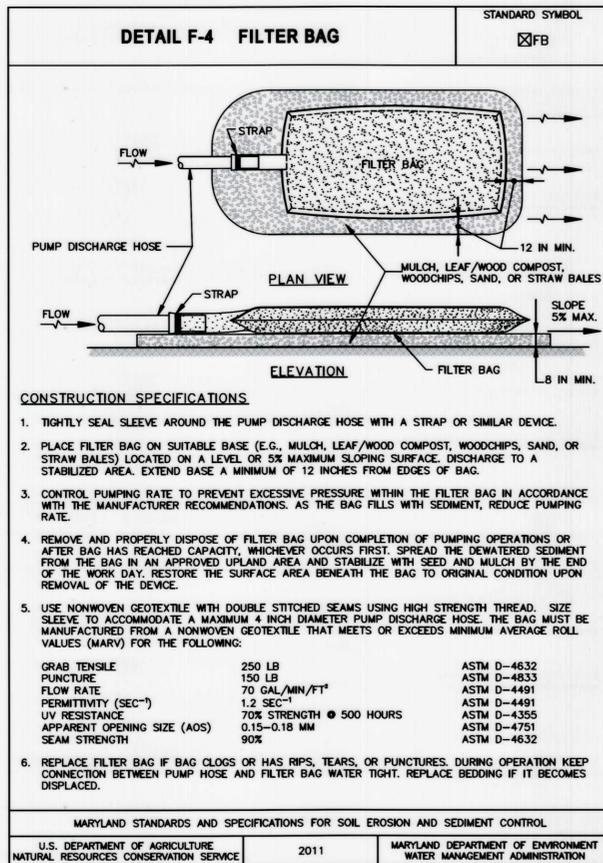
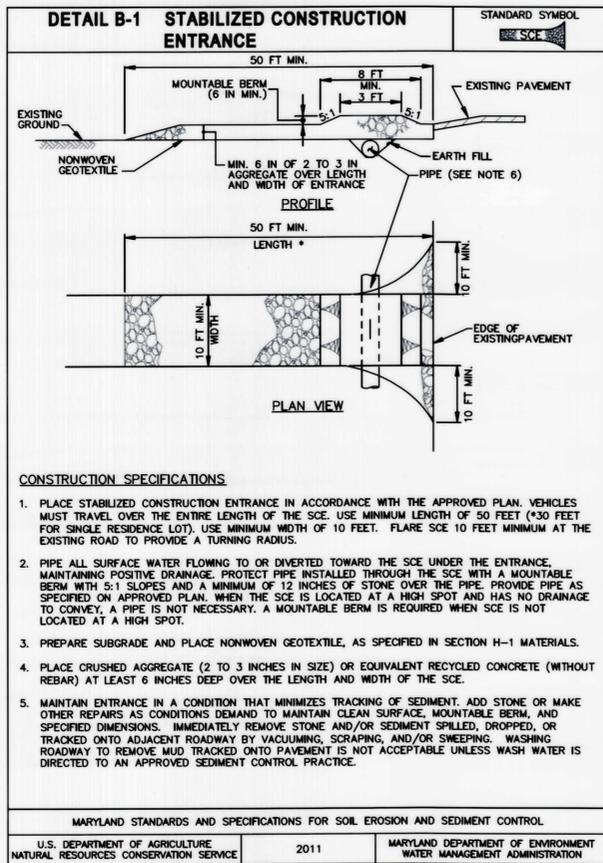
PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO. 16493
EXPIRATION DATE: MAY 16, 2017

Swm 160997
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Revisions
HARFORD COUNTY, MARYLAND
Wheel Creek Stormwater Management Retrofits
Country Walk Facility 1B
STORM WATER MANAGEMENT DETAILS
Drawn By: CPS
Designed By: CPS
Reviewed By: SAS
Contract No.:
Scale: AS SHOWN
Sheet 5 Of 13
Date: MARCH 2016

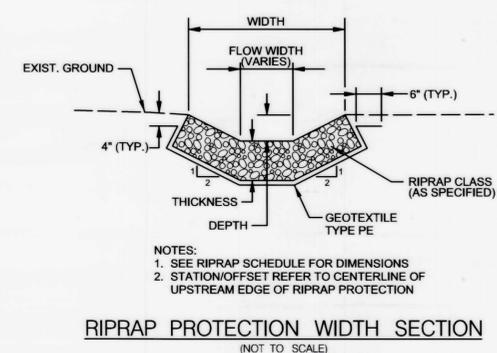
Friday, July 08, 2016 AT 02:25 PM \\bls1r-g3\1-2016\2016\18054_HarForDCATask 02 Wheel Creek_Ph3\CADD\DWG\p00-D100_wheelcreek.pwd.dgn

ADC MAP: 49 GRID-F TAX MAP: 0056 HCC BILLING ID NO.: HCC DWG ID NO.: SCALE: 1"=10'



RIPRAP SCHEDULE

STATION	OFFSET	SIZE	D50 (IN)	DMAX (IN)	THICKNESS (IN)	FLOW WIDTH (FT)	WIDTH (FT)	DEPTH (FT)	LENGTH (FT)	QTY (SY)
20+65	82' LT	CLASS I	9.5"	15	19"	2.0	6.0	1.0	11.7	7
21+16	23' LT	CLASS I	9.5"	15	19"	3.0	7.0	1.0	15.9	36
19+14	3' LT	CLASS II	16"	24	32"	10	17.5	1.25	12	28



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Revisions	

HARFORD COUNTY, MARYLAND

Wheel Creek Stormwater Management Retrofits
 Country Walk Facility 1B
 EROSION & SEDIMENT CONTROL DETAILS

Drawn By: _____ CPS	Contract No: _____
Designed By: _____ CPS	Scale: _____ NOT TO SCALE
Reviewed By: _____ SAS	Sheet 8 Of 13
	Date: MARCH 2016

S/C PLAN NO. 59806

Friday, July 08, 2016, 01:02:57 PM
 \\baler-03\work\2016\59806\Task\Task 02 Wheel Creek Ph3\CADD\DWG\SES-D1002_wheelcreek-PondE.dwg

ADC MAP: 49 GRID: E
 TAX MAP: 00506
 HCC BILLING ID NO.:
 HCC DWG ID NO.:

SEDIMENT CONTROL NOTES

1. A GRADING UNIT OF 20 ACRES IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME.
2. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY DPW. NO MORE THAN THIRTY ACRES CUMULATIVELY MAY BE DISTURBED AT ANY GIVEN TIME.
3. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER, NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
4. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ALL FOREST RETENTION AREAS WILL BE DELINEATED WITH BLAZE ORANGE FENCE AS WELL AS ANY SWM INFILTRATION PRACTICE PRIOR TO ANY CLEARING. WORK BEYOND THE LIMITS OF DISTURBANCE AND IN ANY AREA INSIDE THE FOREST RETENTION AND SWM INFILTRATION AREA IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.
5. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE INSTALLATION OF THE PERIMETER SEDIMENT CONTROL PRACTICES THE SITE MUST BE INSPECTED BY THE DEPARTMENT OF PUBLIC WORKS (DPW). NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL FROM DPW.
6. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY A WASH RACK MAY NEED TO BE ESTABLISHED.
7. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE RE-APPROVAL BY THE HARFORD SOIL CONSERVATION DISTRICT.
8. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
 - a) THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
 - b) SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
9. DUST CONTROL MUST BE MANAGED AS PART OF ALL SEDIMENT CONTROL PLANS. FAILURE TO DO SO IS A VIOLATION OF THIS PLAN.
10. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN ON THE PLAN. IF THE BASIN IS TO BE USED AS A FUTURE SWM FACILITY, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 STANDARDS AND SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HARFORD SOIL CONSERVATION DISTRICT.
11. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.
12. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
13. ENSURE POSITIVE DRAINAGE TO ALL ROAD INLETS DURING ALL PHASES OF ROAD CONSTRUCTION TO ENSURE POSITIVE FLOW TO TRAPS AND OR BASINS.
14. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR LAND GRADING.
15. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOW FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.
16. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
17. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
18. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
19. TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL ESSENTIAL PARTS OF THE SEDIMENT CONTROL PLAN AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
20. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
21. PRIOR TO REMOVAL OF TRAPS OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED.
22. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF THE DPW INSPECTOR. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR'S APPROVAL CONSTITUTES A VIOLATION.

SITE ANALYSIS (NOT FOR BIDDING PURPOSES)

TOTAL AREA TO BE STABILIZED = 0.55 ACRES
 TOTAL DISTURBED AREA = 0.55 ACRES
 TOTAL AREA TO BE PAVED = 0.00 ACRES
 TOTAL CUT = 856 CY
 TOTAL FILL = 15 CY
 NPDES ID POINT: N:664,400.5897 E:1,500,661.4868

ANY SOIL MATERIAL LEAVING THE SITE SHALL ONLY BE DISPOSED OF AT SITES WITH AN APPROVED EROSION AND SEDIMENT CONTROL PLAN AND AN ACTIVE GRADING PERMIT

ENGINEER'S CERTIFICATION

"I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL AND STORM WATER MANAGEMENT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THIS SITE CONDITIONS AND THAT IT WAS PREPARED WITH THE MD STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. DATED 2011."

Sayed A. Sabat
 ENGINEER
 7/12/16
 DATE

DEVELOPER'S CERTIFICATION

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HARFORD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, OR AS DEEMED NECESSARY."

J. Smith
 OWNER
 7-13-16
 DATE

S/C PLAN NO. 59806

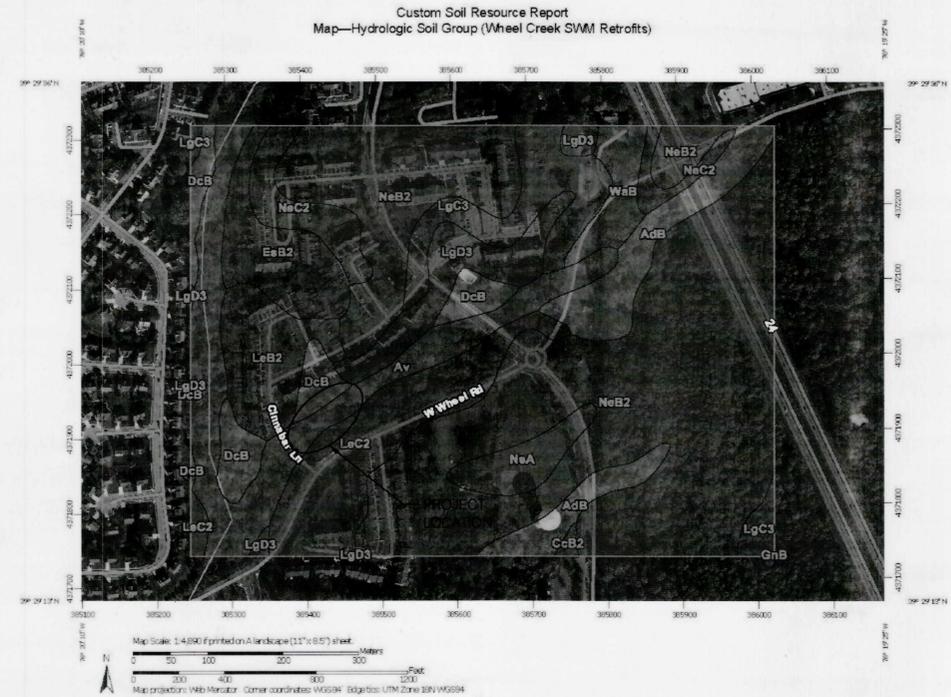
PERMANENT VEGETATIVE STABILIZATION

ALL DISTURBED AREAS WHICH ARE NOT BE PAVED, SHALL BE PERMANENTLY STABILIZED AS FOLLOWS:

- A). SEEDBED PREPARATION: LOOSEN UPPER THREE INCH BY RAKING, DISCING, OR OTHER ACCEPTABLE MEANS AFTER SPREADING FOUR INCHES OF TOP SOIL.
 - B). SOIL AMENDMENTS: APPLY 500 LBS. PER ACRE OF 10-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.
 - C). SEEDING: * FOR PERIODS MARCH 1 TO MAY 15 AND AUGUST 15 TO OCTOBER 15, SEED WITH 125LBS. PER ACRE OF TALL FESCUE, 15 LBS. PER ACRE OF PERENNIAL RYEGRASS, AND 10 LBS. OF KENTUCKY BLUEGRASS. FOR PERIOD OF MAY 16 TO AUGUST 14, SEED WITH 110 LBS. PER ACRE OF TALL FESCUE AND 3 LBS. PER ACRE OF WEEPING LOVEGRASS. FOR PERIOD OF OCTOBER 16 TO FEBRUARY 28, PROTECT SITE BY: OPTIONS (1) 2 TONS PER ACRE OF WOOD CELLULOSE FIBER MULCH (WCFM) AND SEED AS SOON AS POSSIBLE IN THE SPRING, (2) USE SOD OR (3) SEED WITH 60LBS. PER ACRE OF TALL FESCUE AND MULCH WITH 2 TONS PER ACRE OF WOOD CELLULOSE FIBER MULCH (WCFM). NOTE: FOR QUICK COVER WITH TALL FESCUE, ADD 2 LBS. OF SMALL GRAIN PER 1,000 SQ.FT.
 - D). MULCHING SPECIFICATIONS MULCH SHALL BE WOOD CELLULOSE FIBER MULCH (WCFM) COMPLYING WITH SECTION B-4-5, B.1. OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS. THE WCFM SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING AT A RATE OF 1500 LBS. PER ACRE (NET DRY WEIGHT).
- * IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, SECTION B-4-5, TABLE B.3.

TEMPORARY VEGETATION STABILIZATION

- A). SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES BY DISCING, RAKING OR OTHER ACCEPTABLE MEANS.
 - B). SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE OF 10-10-10 FERTILIZER AND TWO TONS PER ACRE OF LIME.
 - C). SEEDING: FOR PERIOD OF MARCH 1 TO APRIL 30 AND AUGUST 15 TO NOVEMBER 15, SEED WITH 2.5 BU PER ACRE OF CEREAL RYE PLUS 30 LBS. PER ACRE OF TALL FESCUE OR 5 LBS. PER ACRE OF REDTOP OR 20 LBS. PER ACRE OF PERENNIAL RYEGRASS. FOR PERIODS OF MAY 1 TO AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS OR 40 LBS. PER ACRE OF JAPANESE OR FOXTAIL MILLET. FOR PERIODS OF NOVEMBER 16 TO FEBRUARY 28, PROTECT THE SITE BY APPLYING 1500 LBS. PER ACRE OF WOOD CELLULOSE FIBER MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.
 - D). MULCHING SPECIFICATIONS MULCH SHALL BE WOOD CELLULOSE FIBER MULCH (WCFM) COMPLYING WITH SECTION B-4-5, B.1. OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS. THE WCFM SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SEEDING AT A RATE OF 1500 LBS. PER ACRE (NET DRY WEIGHT).
- * IF OTHER SEED MIXES ARE TO BE SUBSTITUTED, THEY MUST COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS, SECTION B-4-4, TABLE B.1.



PROJECT LOCATION: SOIL SURVEY MAP



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 LICENSE NO. 16493
 EXPIRATION DATE: MAY 16, 2017

EROSION AND SEDIMENT CONTROL
 PLAN # 59806

RECOMMEND FOR APPROVAL
M. D. ...
 HARFORD COUNTY DPW

TECHNICAL CONCURRENCE
B. ...
 HARFORD SOIL CONSERVATION DISTRICT

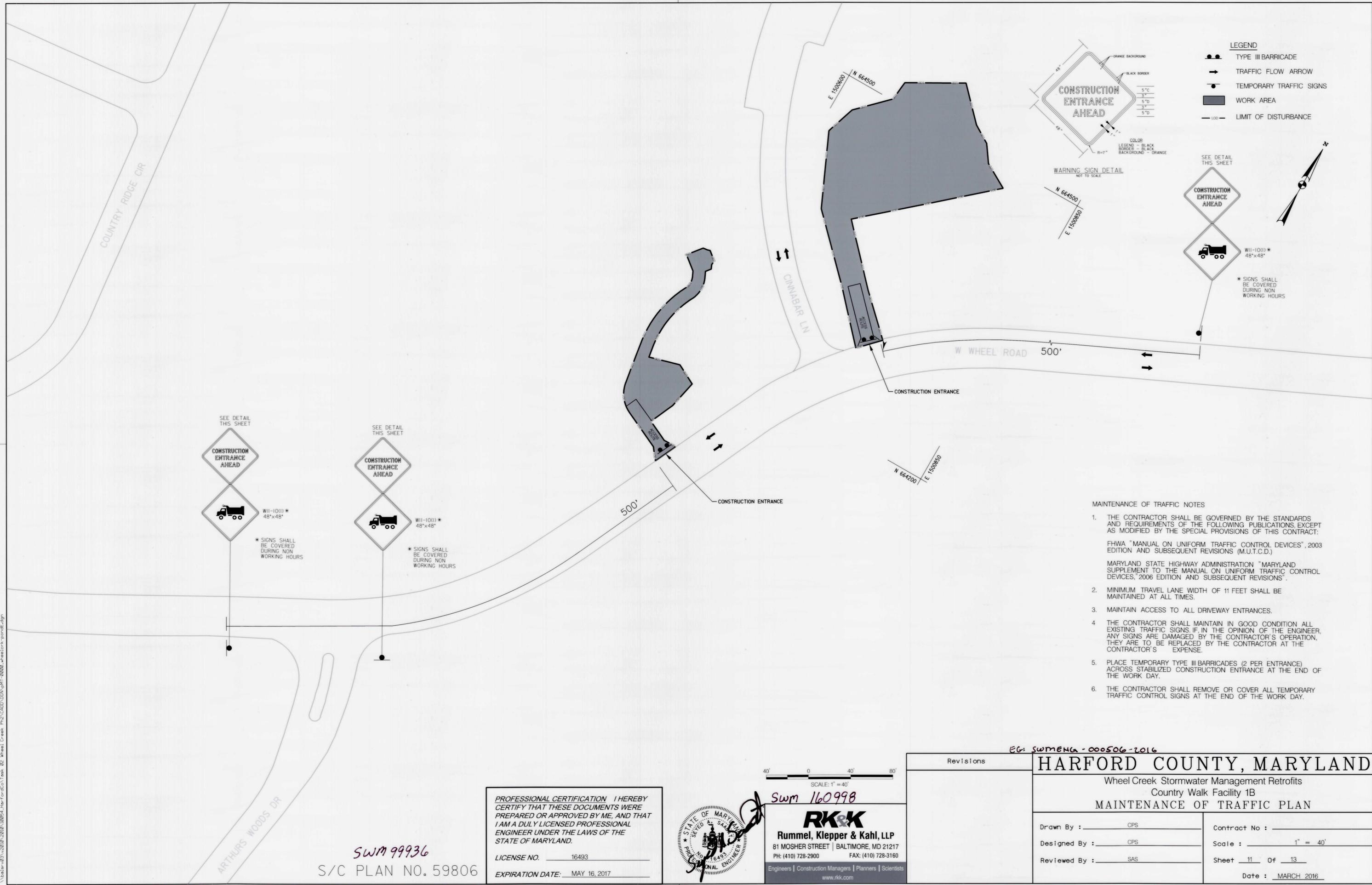
APPROVED:
W. ...
 HARFORD SOIL CONSERVATION DISTRICT

Revisions	HARFORD COUNTY, MARYLAND	
	Wheel Creek Stormwater Management Retrofits Country Walk Facility 1B EROSION & SEDIMENT CONTROL NOTES	
Drawn By : _____	CPS	Contract No : _____
Designed By : _____	CPS	Scale : AS SHOWN
Reviewed By : _____	SAS	Sheet 10 Of 13
		Date : MARCH 2016

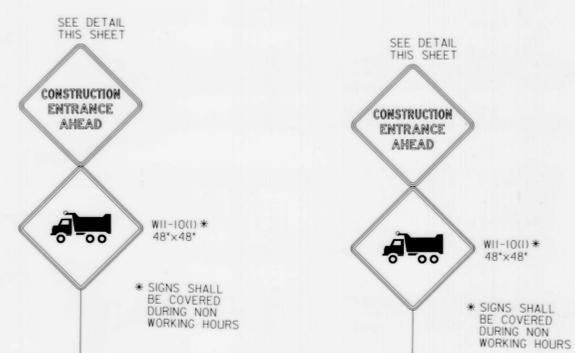
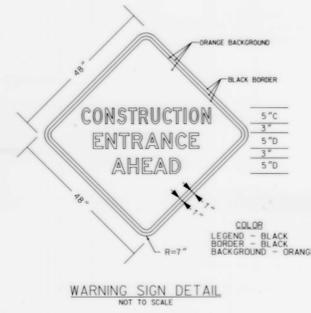
S/C 160992

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Friday, July 08, 2016, AT 03:00 PM
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- LEGEND**
- TYPE III BARRICADE
 - TRAFFIC FLOW ARROW
 - TEMPORARY TRAFFIC SIGNS
 - WORK AREA
 - LIMIT OF DISTURBANCE



- MAINTENANCE OF TRAFFIC NOTES**
- THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT:
 FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2003 EDITION AND SUBSEQUENT REVISIONS (M.U.T.C.D.)
 MARYLAND STATE HIGHWAY ADMINISTRATION "MARYLAND SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2006 EDITION AND SUBSEQUENT REVISIONS.
 - MINIMUM TRAVEL LANE WIDTH OF 11 FEET SHALL BE MAINTAINED AT ALL TIMES.
 - MAINTAIN ACCESS TO ALL DRIVEWAY ENTRANCES.
 - THE CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ALL EXISTING TRAFFIC SIGNS. IF, IN THE OPINION OF THE ENGINEER, ANY SIGNS ARE DAMAGED BY THE CONTRACTOR'S OPERATION, THEY ARE TO BE REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
 - PLACE TEMPORARY TYPE III BARRICADES (2 PER ENTRANCE) ACROSS STABILIZED CONSTRUCTION ENTRANCE AT THE END OF THE WORK DAY.
 - THE CONTRACTOR SHALL REMOVE OR COVER ALL TEMPORARY TRAFFIC CONTROL SIGNS AT THE END OF THE WORK DAY.

SWM 99936
 S/C PLAN NO. 59806

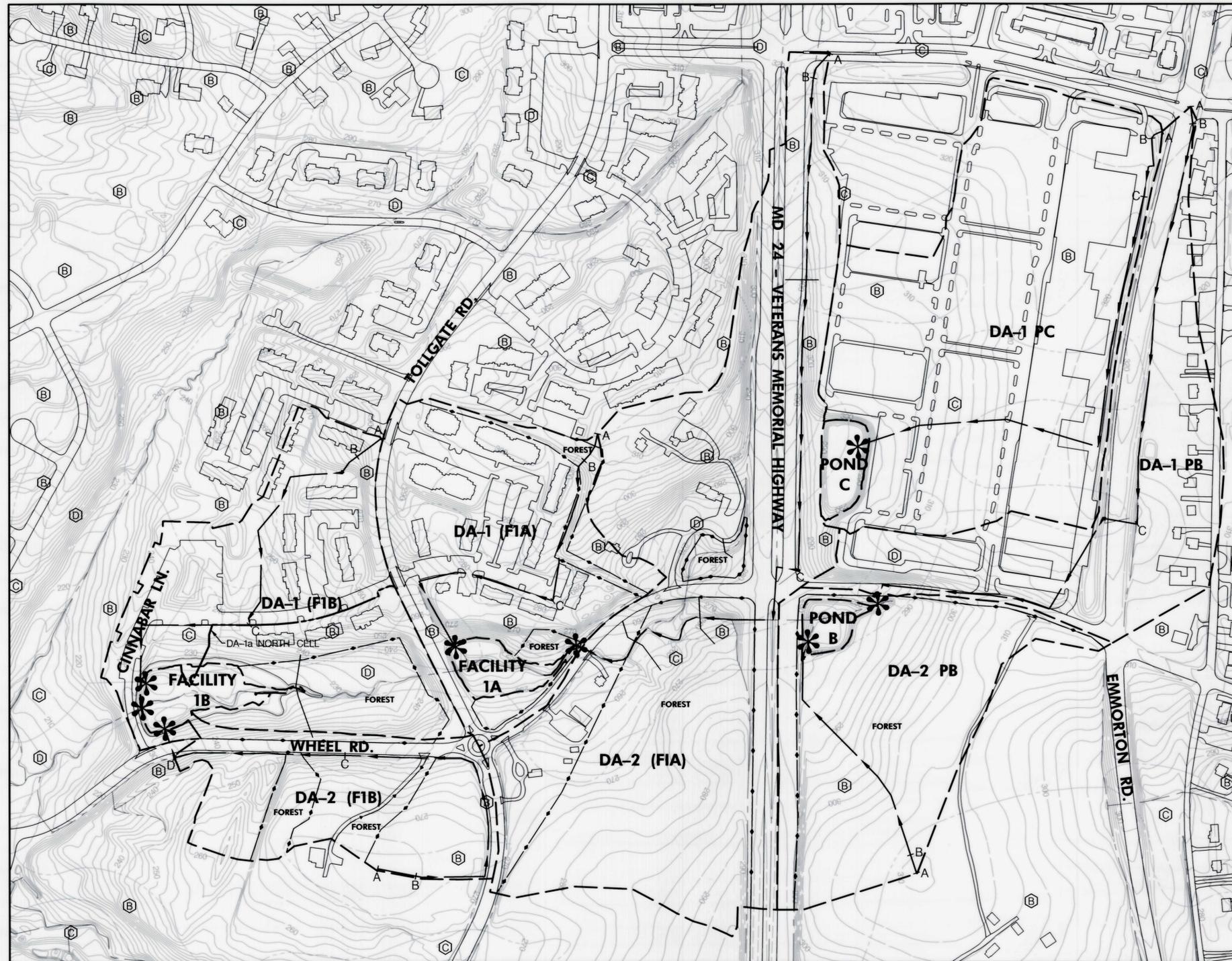
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SCALE: 1" = 40'
 Swm 160998
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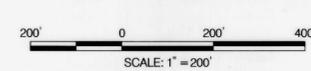
Revisions	EG: SWMENA-000506-2016 HARFORD COUNTY, MARYLAND	
	Wheel Creek Stormwater Management Retrofits Country Walk Facility 1B MAINTENANCE OF TRAFFIC PLAN	
Drawn By :	CPS	Contract No. :
Designed By :	CPS	Scale : 1" = 40'
Reviewed By :	SAS	Sheet 11 Of 13
		Date : MARCH 2016

ADC MAP: 49 GRID: F
 TAX MAP: 0056
 HCG BILLING ID NO.:
 HCG DWG ID NO.:



- LEGEND**
- DRAINAGE AREA BOUNDARY
 - NORTH CELL SUB-DRAINAGE AREA BOUNDARY
 - COUNTY CONTOURS
 - * POINTS OF INTERESTS
 - A B C TIME OF CONCENTRATION PATH
- DA-1 PC DRAINAGE AREA**
- SOILS BOUNDARY
 - Ⓟ HYDROLOGIC SOIL GROUP
 - ==== EXISTING STORM DRAIN
 - IMPERVIOUS AREA
 - TR-55 SECTION LOCATIONS
 - LAND USE BOUNDARY
 - STREAM LINE
- NOTES:**

1. CONTOURS AND TOPOGRAPHY ARE COMPILATIONS OF GIS AND FIELD RUN SURVEY. GIS AND FIELD RUN CONTOUR INTERVAL ARE 2-FOOT AND 1-FOOT RESPECTIVELY.
2. FOR AREAS IDENTIFIED AS FORESTED, LAND USE WAS SPLIT BETWEEN IMPERVIOUS AREA & OPEN SPACE AS DETERMINED FROM GIS.



DRAINAGE AREA TABLE			
DA#	AREA (ac.)	RCN	Tc (hr.)
DA-1 PB	15.18	86	0.277
DA-2 PB	13.43	60	0.187
DA-1 PC	25.68	95	0.185
DA-1 (F1A)	13.63	74	0.311
DA-2 (F1A)	35.11	69	0.375
DA-1 (F1B)	16.15	70	0.154
DA-2 (F1B)	9.35	67	0.361

SWM 99936 S/C PLAN NO. 59806

SWM 161000

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EG: SWMENG - 000506 - 2016

HARFORD COUNTY, MARYLAND	
Wheel Creek Stormwater Management Retrofits Country Walk Facility 1B DRAINAGE AREA MAP	
Revisions	Contract No. : _____
Drawn By : _____ CPS	Scale : _____ 1" = 200'
Designed By : _____ CPS	Sheet 13 Of 13
Reviewed By : _____ SAS	Date : MARCH 2016

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LICENSE NO. 16493

EXPIRATION DATE: MAY 16, 2017



Friday, July 08, 2016 AT 03:01 PM
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ADC MAP: 49 GRID: F
 TAX MAP: 0056
 HCG BILLING ID NO.:
 HCG DWG ID NO.: