

Hydrologic Summary	
Name	Potomac Ridge SWM Pond 'A'
MCDEP Asset	10887
Drainage Area	58.8 Acres
RCN	82
Time of Concentration	0.18 hours

Land Use/Soils Composition			
Land Use/Hydrologic Soil Group	B	C	D
Streets/Roads	0.03	5.06	N/A
Medium Density Residential	16.4	36.68	0.68

Flow Path Summary					
Segment/Parameter	Flow Type	Length	Slope	Velocity	Surface
A to B	Sheet Flow	50 LF	2%	N/A	Paved
B to C	Shallow Concentrated	675 LF	6.50%	N/A	Unpaved
C to D	Open Channel	1475 LF	N/A	4.0 fps	Natural Channel
D to E	Open Channel	475 LF	N/A	6.0 fps	Storm Drain/Concrete

Legend

- Drainage Divide
- TOC Flow Path
- TOC Point of Interest
- 2 Foot Contours

SEAL:

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 # 32457
EXPIRATION DATE: 06/20/2014

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

STORMWATER MANAGEMENT	SEDIMENT CONTROL TECHNICAL REQUIREMENTS:
REVIEWED _____ DATE _____	REVIEWED _____ DATE _____
APPROVED _____ DATE _____	APPROVED _____ DATE _____

S.M.FILE NO. _____

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

ADMINISTRATIVE REQUIREMENTS:

REVIEWED _____ DATE _____

SEDIMENT CONTROL PERMIT NO. _____

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED.

MISS UTILITY

Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

Department of Environmental Protection
Montgomery County
Maryland

MARK	DESCRIPTION	DATE	APPR. MARK	DATE	APPR.

DESIGNED BY: K/M/O
DRAWN BY: G/B/B
CHECKED BY: G/B/B
SUBMITTED BY: J/B/B

DATE: JAN 2014
TASK ORDER NO.: 12 01
CONTRACT NO.:

FILE NUMBER:
PLOT DATE: 1/17/2014
PLOT SCALE: 1"=100'
FILE NAME: D1-EC-01.dwg
SIZE: ANS I D

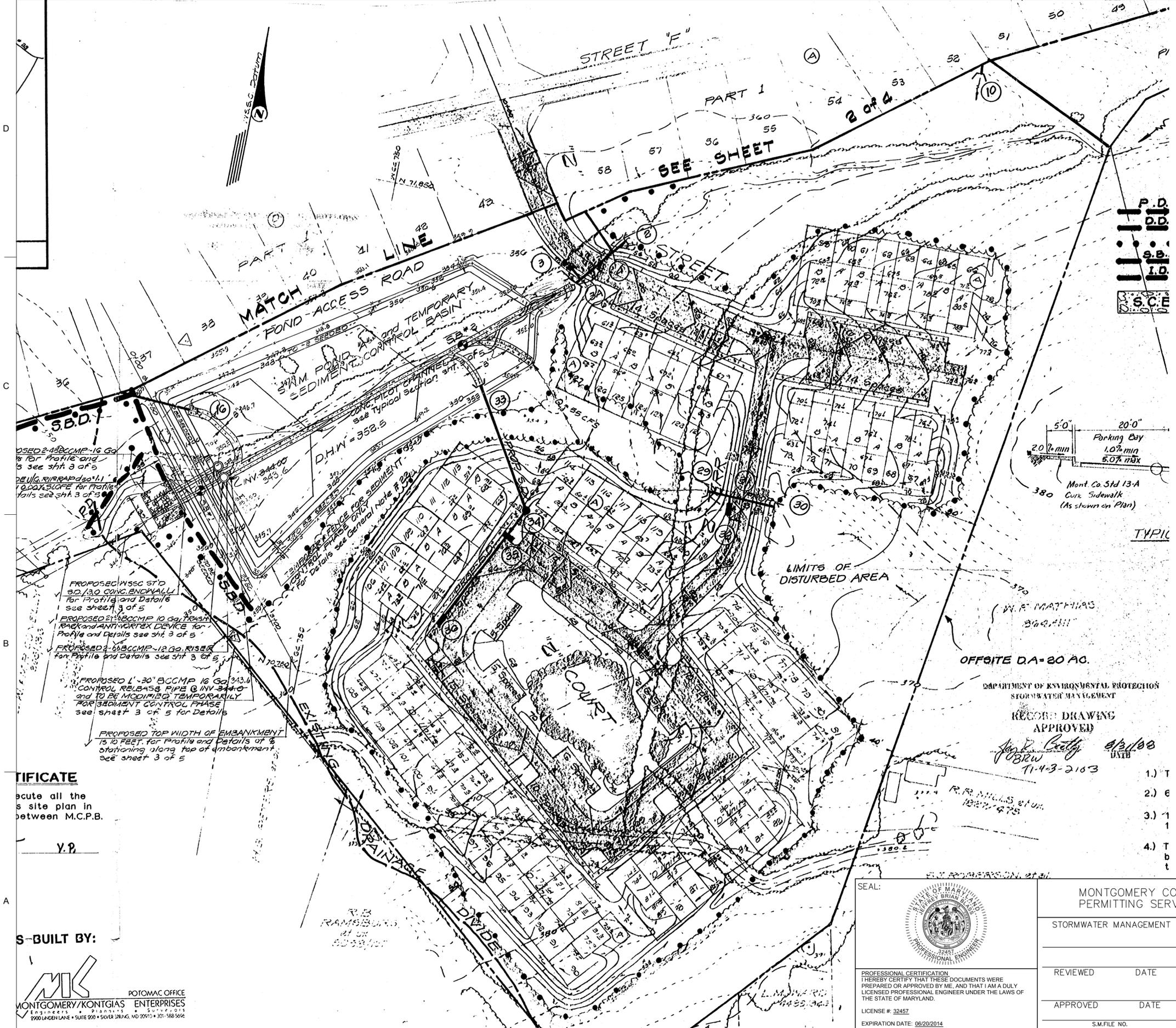
MR. CRAIG CARSON 240-777-7713
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
ROCKVILLE, MD 20850

CPJ Associates

TASK ORDER 12-01
POTOMAC RIDGE SWM POND 'A' RETROFIT (ASSET #10887) - NOT FOR CONSTRUCTION
MONTGOMERY COUNTY, MARYLAND

DRAINAGE AREA MAP

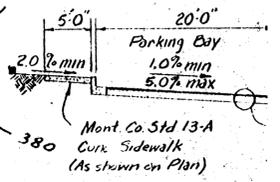
SHEET NO.
3 OF 12
DA-01



EXISTING POND ROUTING ASSET # 10887			
FREQUENCY	PEAK DISCHARGE (cfs)		POND WSEL (ft)
	INFLOW	OUTFLOW	
1-YEAR	85.57	60.39	347.03
2-YEAR	123.43	70.05	347.87
10-YEAR	252.21	163.49	349.79
100-YEAR	399.38	263.23	351.25

SWM REQUIREMENT VS. PROVIDED CAPACITY			
DESCRIPTION	UNIT	REQUIRED	PROVIDED
WATER QUALITY STORAGE VOLUME	Ac-ft	0.96	N/A
CHANNEL PROTECTION VOLUME	Ac-ft	3.24	1.998
CHANNEL PROTECTION RELEASE RATE	cfs	1.58	60.39

EXISTING POND DATA FOR ASSET # 10887	
DESCRIPTION	ELEVATION
POND BOTTOM	342.41
PERMANENT POOL	N/A
TOP OF DAM	352.00



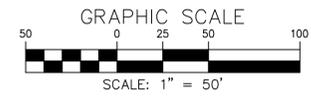
PROPOSED 2'-48" BCCMP-16 GO...
 PROPOSED 2'-48" BCCMP-12 GO...
 PROPOSED 1'-20" BCCMP-16 GO...
 PROPOSED TOP WIDTH OF EMBANKMENT...
 PROPOSED 2'-48" BCCMP-10 GO...
 PROPOSED 2'-48" BCCMP-12 GO...
 PROPOSED 1'-20" BCCMP-16 GO...

CERTIFICATE
 Execute all the...
 Y.P.

S-BUILT BY:

 POTOMAC OFFICE
 MONTGOMERY/KONTGIAS ENTERPRISES
 Engineers • Planners • Surveyors
 9900 LINDEN LANE • SUITE 200 • SILVER SPRING, MD 20910 • 301-588-5696

OFFSITE D.A. = 20 AC.
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 FOR WATER MANAGEMENT
RECORD DRAWING APPROVED
 [Signature]
 11-4-3-2103



SEAL:

 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 # 32457
 EXPIRATION DATE: 08/20/2014

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:	
STORMWATER MANAGEMENT	SEDIMENT CONTROL TECHNICAL REQUIREMENTS:
REVIEWED DATE	REVIEWED DATE
APPROVED DATE	APPROVED DATE

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT
 ADMINISTRATIVE REQUIREMENTS:
 REVIEWED DATE
 SEDIMENT CONTROL PERMIT NO.
 MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED.

Department of Environmental Protection
 Montgomery County Maryland

DATE	DESCRIPTION	APPR.	MARK

DESIGNED BY: K/M/C
 CHECKED BY: G/B/B
 SUBMITTED BY: J/B/B
 PLOT SCALE: 1"=50'
 PLOT DATE: 1/17/2014
 FILE NAME: 01-EC-01.dwg

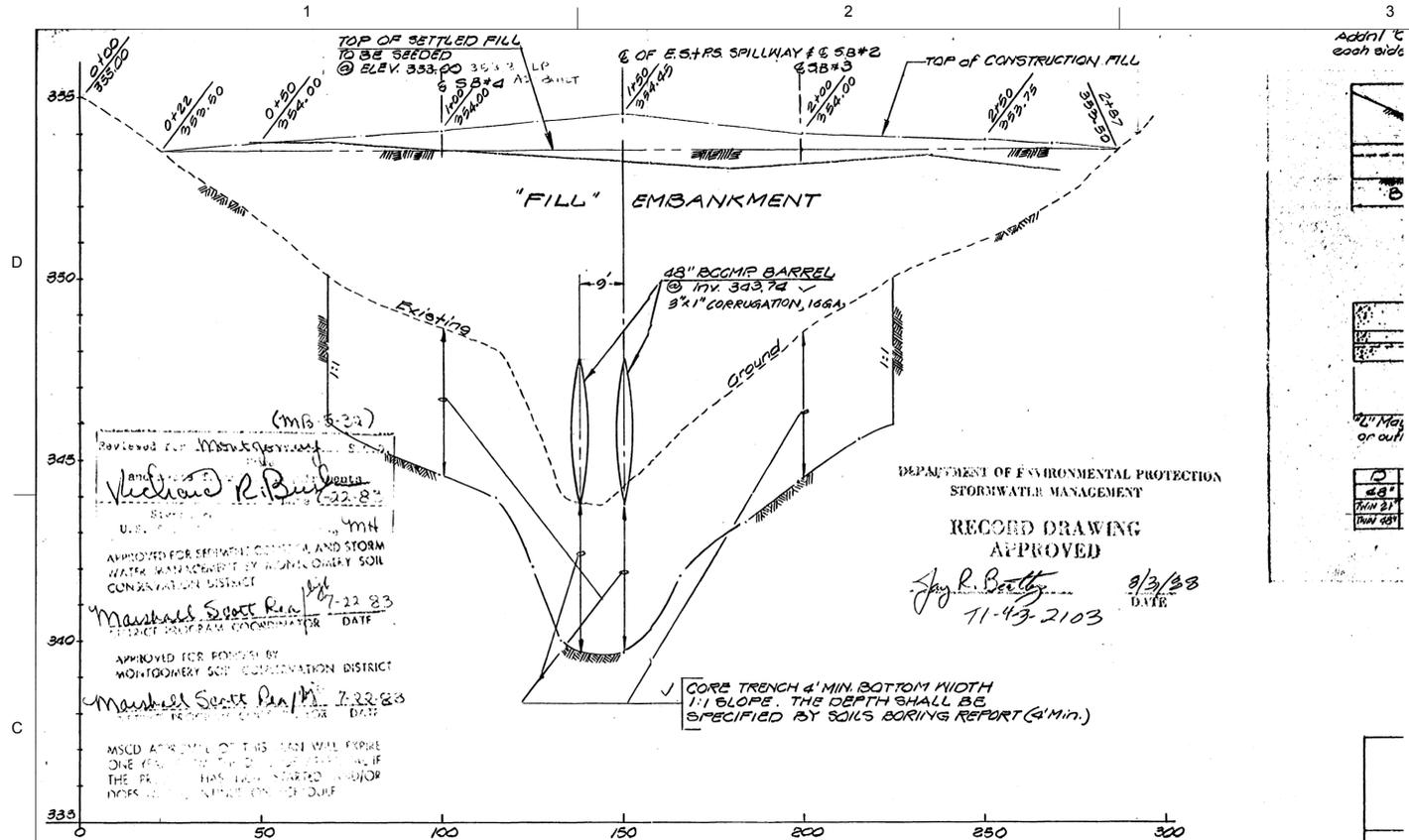
MR. CRAIG CARSON 240-777-7713
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 11000 ROCKVILLE PIKE, SUITE 100
 ROCKVILLE, MD 20850

CPJ Associates

TASK ORDER 12-01
 POTOMAC RIDGE SWM POND 'A' RETROFIT (ASSET #10887) - NOT FOR CONSTRUCTION
 MONTGOMERY COUNTY, MARYLAND

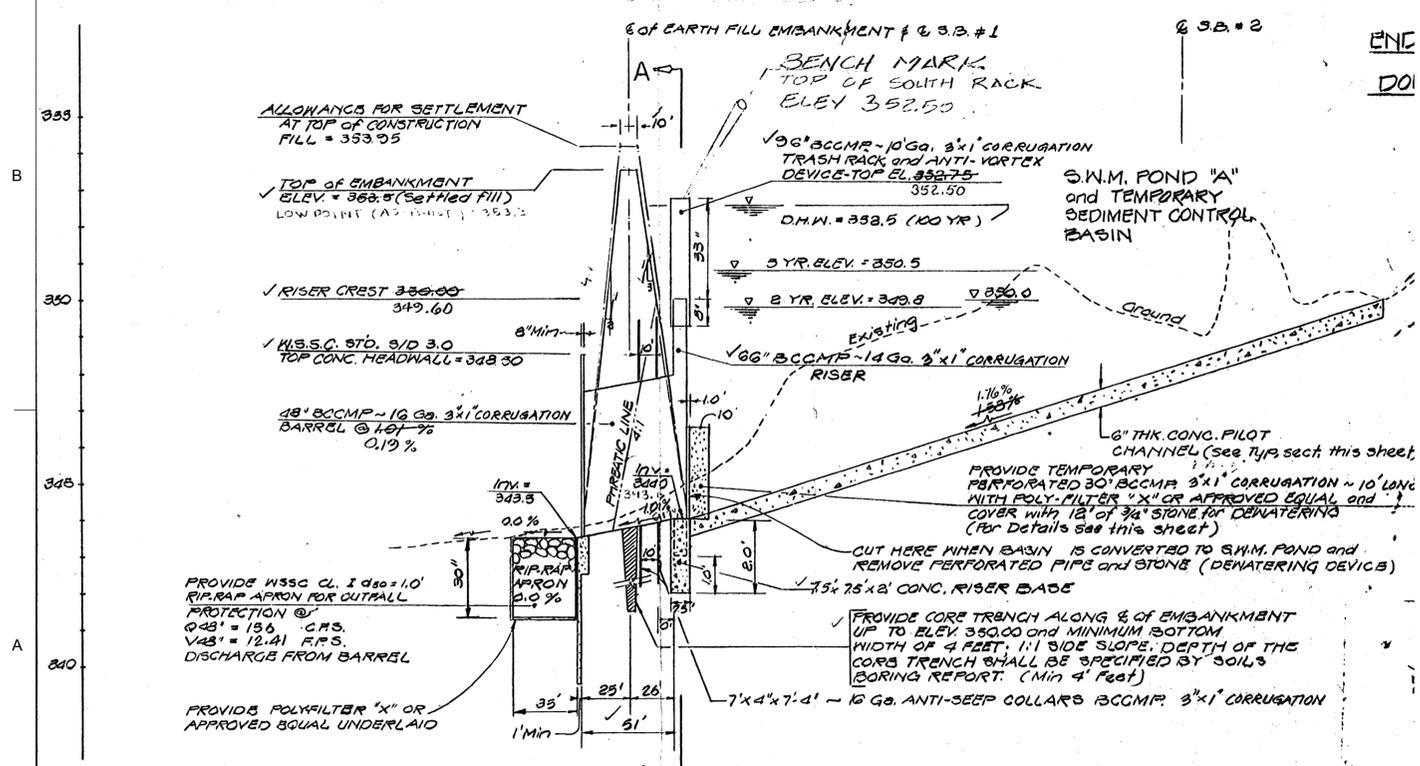
AS-BUILT PLAN

SHEET NO. 4 OF 12
 EC-01



PROPOSED PROFILE ALONG \mathcal{C} TOP of EMBANKMENT FOR S.W.M. POND 'A'

(For Stationing see sheet 1 of 4)
 SCALE: HORIZ. 1" = 25'
 VERT. 1" = 2.5'

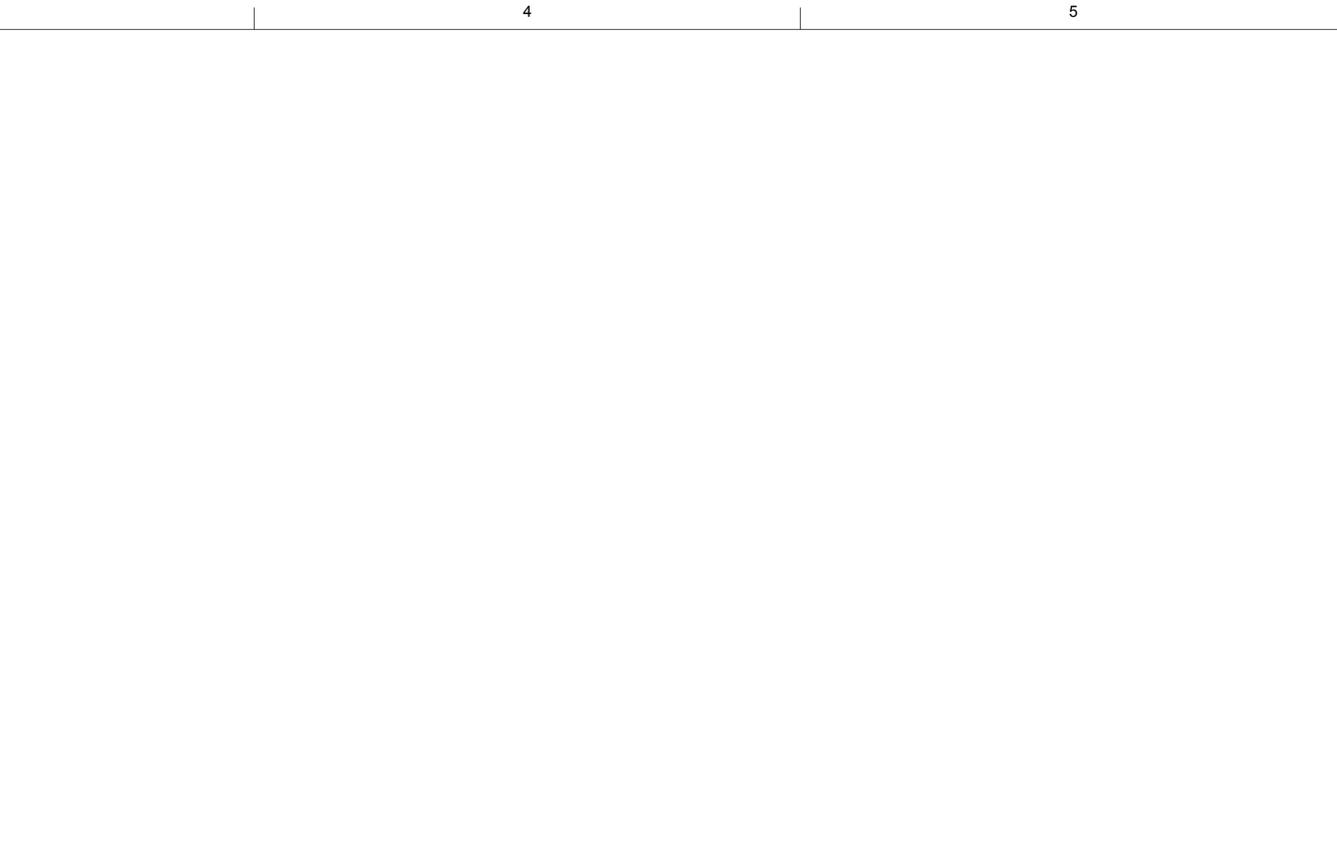


AS-BUILT BY:

PROFILE ALONG \mathcal{C} OF PRINCIPAL SPILLWAY, EMERGENCY SPILLWAY AND ALONG CONCRETE PILOT CHANNEL FOR S.W.M. POND 'A'

SCALE: HORIZ. 1" = 25'
 VERT. 1" = 2.5'

GENERAL NOTE:



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 LICENSE # 32457
 EXPIRATION DATE: 06/20/2014

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:

STORMWATER MANAGEMENT	SEDIMENT CONTROL TECHNICAL REQUIREMENTS:	ADMINISTRATIVE REQUIREMENTS:
REVIEWED _____ DATE _____	REVIEWED _____ DATE _____	REVIEWED _____ DATE _____
APPROVED _____ DATE _____	APPROVED _____ DATE _____	SEDIMENT CONTROL PERMIT NO. _____

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

MCDPS APPROVAL OF THIS PLAN WILL EXPIRE ONE YEAR FROM THE DATE OF APPROVAL IF THE PROJECT HAS NOT STARTED, UNLESS THE PERMIT HAS BEEN EXTENDED.

GRAPHIC SCALE: 1" = 50'

DATE	DESCRIPTION	APPR. MARK	DATE	APPR. MARK

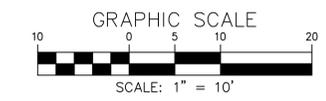
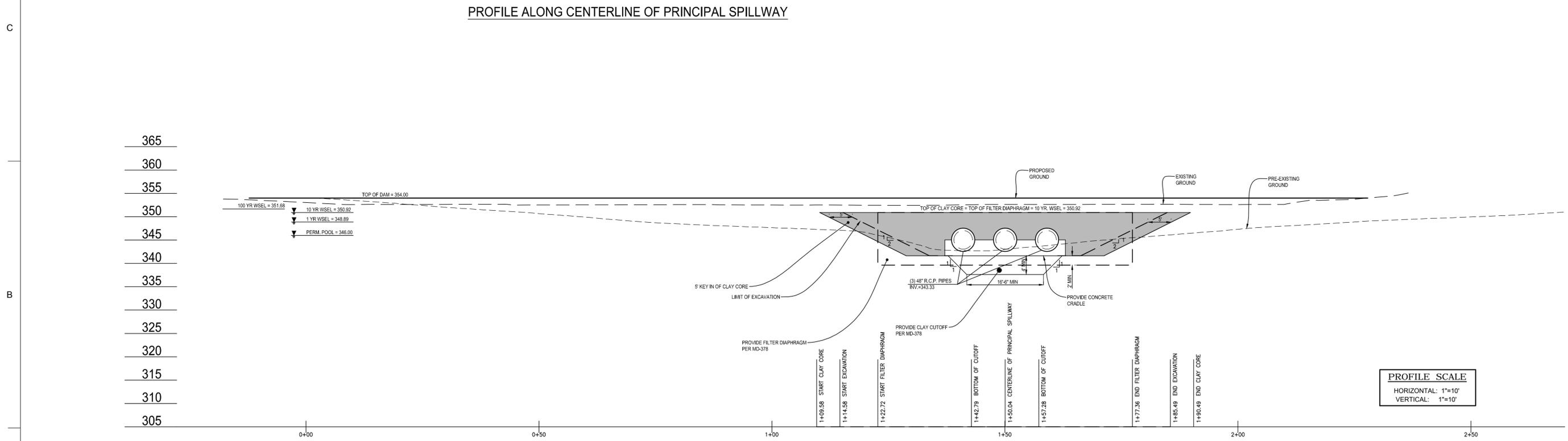
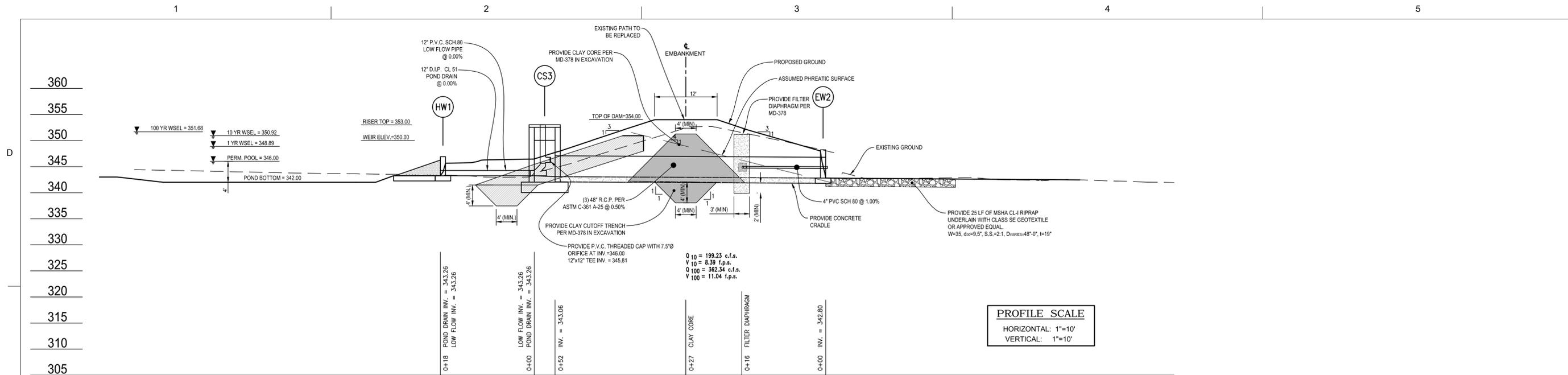
DESIGNED BY: KMO
 DRAWN BY: GBB
 CHECKED BY: JBB
 SUBMITTED BY: JBB
 DATE: 1/17/2014
 FILE NAME: 01-EC-01.dwg

MR. CRAIG CARSON 240-777-7713
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 ROCKVILLE, MD 20850

TASK ORDER 12-01
 POTOMAC RIDGE SWM POND 'A' RETROFIT (ASSET #0887) - NOT FOR CONSTRUCTION
 MONTGOMERY COUNTY, MARYLAND

AS-BUILT PROFILES

SHEET NO. 5 OF 12
 EC-02



MISS UTILITY
 Call "Miss Utility" at 1-800-257-7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with underground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for compliance with requirements of Chapter 36A of the Montgomery County Code.

SEAL:

 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 # 32457
 EXPIRATION DATE: 06/20/2014

MONTGOMERY COUNTY DEPARTMENT OF PERMITTING SERVICES APPROVED FOR:	
STORMWATER MANAGEMENT	SEDIMENT CONTROL TECHNICAL REQUIREMENTS:
REVIEWED _____ DATE _____	REVIEWED _____ DATE _____
APPROVED _____ DATE _____	APPROVED _____ DATE _____
S.M.FILE NO.	

NOTE: MCDPS APPROVAL DOES NOT NEGATE THE NEED OF A MCDPS ACCESS PERMIT

ADMINISTRATIVE REQUIREMENTS:
 REVIEWED _____ DATE _____

SEDIMENT CONTROL PERMIT NO. _____

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Department of Environmental Protection
 Montgomery County Maryland

DATE	APPR.	MARK	DESCRIPTION

DESIGNED BY: KMO
 CHECKED BY: GBB
 SUBMITTED BY: JBB

DATE: JAN 2014
 TASK ORDER NO.: 12-01
 CONTRACT NO.:
 FILE NUMBER:

PLOT DATE: 1/20/2014
 PLOT SCALE: 1"=10'
 FILE NAME: 01-EC-01.dwg
 SIZE: ANS I D

MR. CRAIG CARSON 240-777-7713
 MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
 10000 ROCKVILLE PIKE, SUITE 100
 ROCKVILLE, MD 20850

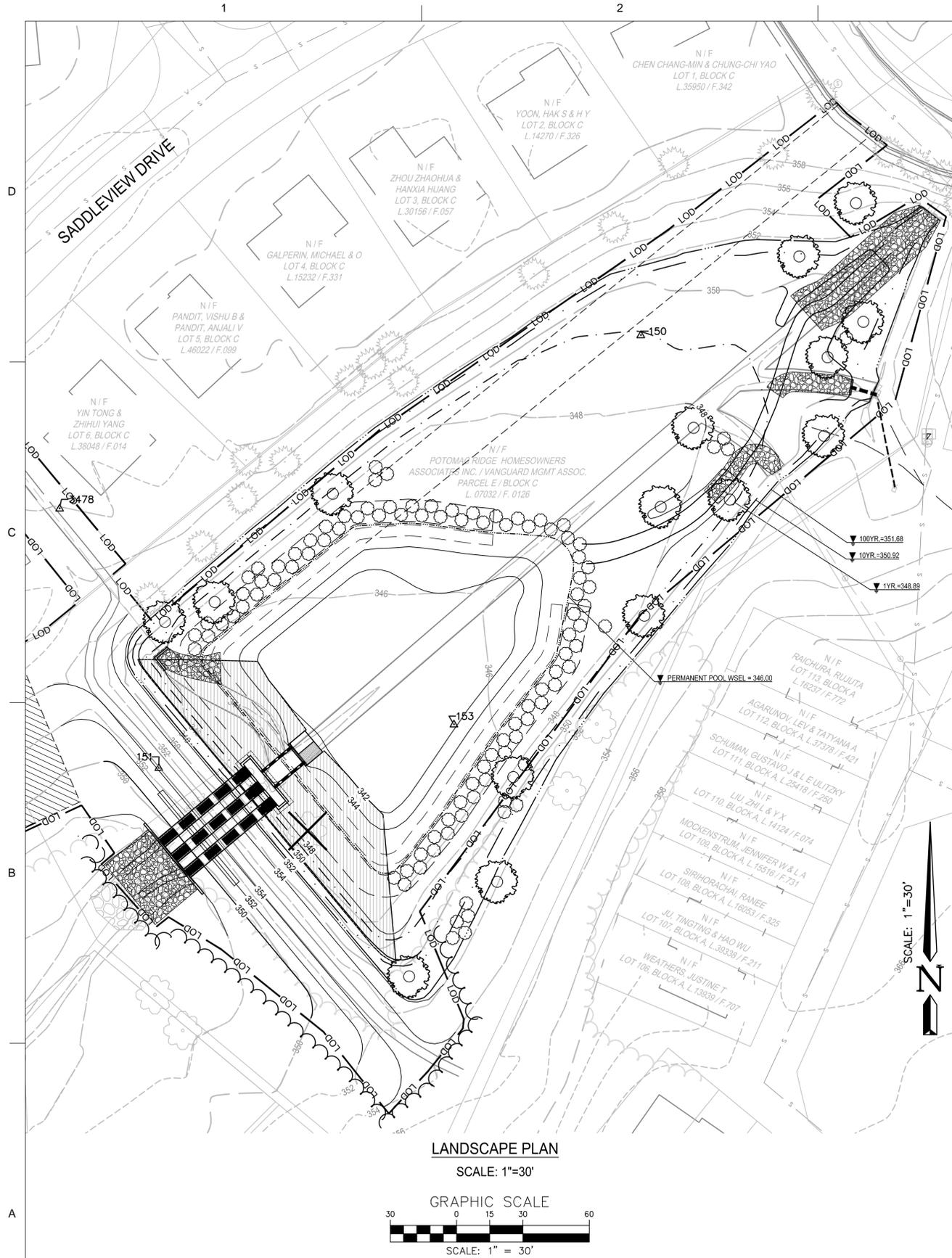
CPJ Associates

TASK ORDER 12-01
 POTOMAC RIDGE SWIM FOND 'A' RETROFIT (ASSET #0887) - NOT FOR CONSTRUCTION UNTIL MONTGOMERY COUNTY, MARYLAND

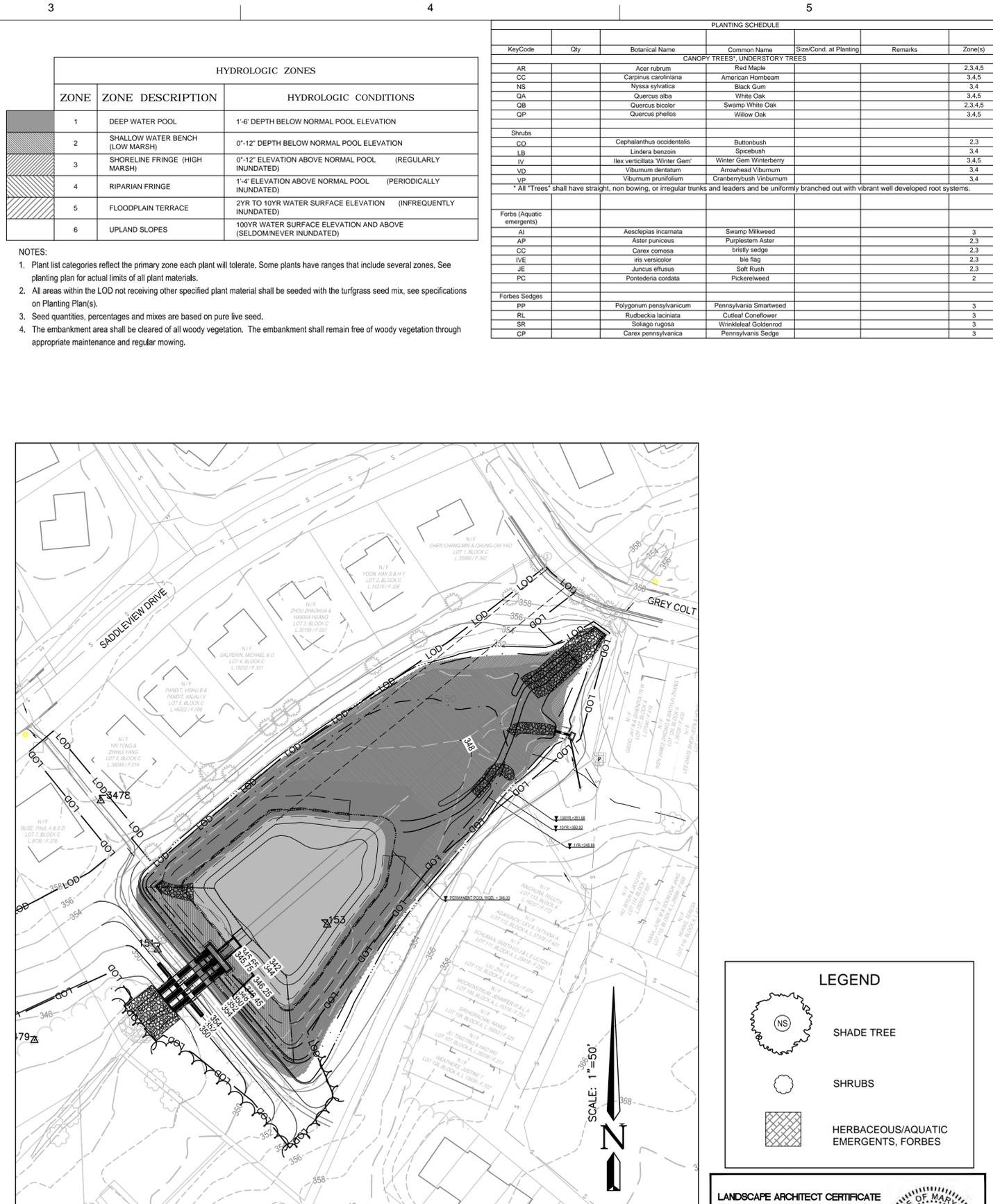
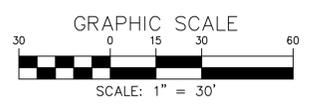
PROFILES

SHEET NO. 8 OF 12
 PR-01

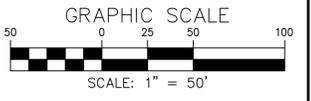
Attached Xref's



LANDSCAPE PLAN
SCALE: 1"=30'



HYDROLOGIC ZONES PLAN INSET
SCALE: 1"=50'



- NOTES:**
- Plant list categories reflect the primary zone each plant will tolerate. Some plants have ranges that include several zones. See planting plan for actual limits of all plant materials.
 - All areas within the LOD not receiving other specified plant material shall be seeded with the turfgrass seed mix, see specifications on Planting Plan(s).
 - Seed quantities, percentages and mixes are based on pure live seed.
 - The embankment area shall be cleared of all woody vegetation. The embankment shall remain free of woody vegetation through appropriate maintenance and regular mowing.

HYDROLOGIC ZONES		
ZONE	ZONE DESCRIPTION	HYDROLOGIC CONDITIONS
1	DEEP WATER POOL	1'-6" DEPTH BELOW NORMAL POOL ELEVATION
2	SHALLOW WATER BENCH (LOW MARSH)	0'-12" DEPTH BELOW NORMAL POOL ELEVATION
3	SHORELINE FRINGE (HIGH MARSH)	0'-12" ELEVATION ABOVE NORMAL POOL (REGULARLY INUNDATED)
4	RIPARIAN FRINGE	1'-4" ELEVATION ABOVE NORMAL POOL (PERIODICALLY INUNDATED)
5	FLOODPLAIN TERRACE	2YR TO 10YR WATER SURFACE ELEVATION (INFREQUENTLY INUNDATED)
6	UPLAND SLOPES	100YR WATER SURFACE ELEVATION AND ABOVE (SELDOM/NEVER INUNDATED)

PLANTING SCHEDULE						
KeyCode	Qty	Botanical Name	Common Name	Size/Cond. at Planting	Remarks	Zone(s)
CANOPY TREES, UNDERSTORY TREES						
AR		Acer rubrum	Red Maple			2,3,4,5
CC		Carpinus caroliniana	American Hornbeam			3,4,5
NS		Nyssa sylvatica	Black Gum			3,4
QA		Quercus alba	White Oak			3,4,5
QB		Quercus bicolor	Swamp White Oak			2,3,4,5
QP		Quercus phellos	Willow Oak			3,4,5
Shrubs						
CO		Cephalanthus occidentalis	Butterbush			2,3
LB		Lindera benzoin	Spicebush			3,4
IV		Ilex verticillata 'Water Gem'	Winter Gem Winterberry			3,4,5
VD		Viburnum dentatum	Arrowhead Viburnum			3,4
VP		Viburnum prunifolium	Cranberrybush Viburnum			3,4
* All "Trees" shall have straight, non bowing, or irregular trunks and leaders and be uniformly branched out with vibrant well developed root systems.						
Forbes (Aquatic emergents)						
AI		Aesclepias incarnata	Swamp Milkweed			3
AP		Aster puniceus	Purplestem Aster			2,3
CC		Carex comosa	bristly sedge			2,3
IVE		iris versicolor	tie flag			2,3
JE		Juncus effusus	Soft Rush			2,3
PC		Pontederia cordata	Pickerelweed			2
Forbes Sedges						
PP		Polygonum pennsylvanicum	Pennsylvania Smartweed			3
RL		Rudbeckia laciniata	Cutleaf Coneflower			3
SR		Solidago rugosa	Wrinkleleaf Goldenrod			3
CP		Carex pennsylvanica	Pennsylvania Sedge			3

LEGEND

- (NS) SHADE TREE
- (○) SHRUBS
- (□) HERBACEOUS/AQUATIC EMERGENTS, FORBES

LANDSCAPE ARCHITECT CERTIFICATE

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS CORRECT AND TAKEN FROM AVAILABLE PLANS AND RECORDS.

DATE _____

ERIC J. STURM
REGISTERED LANDSCAPE ARCHITECT MD. # 755

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Department of Environmental Protection
Montgomery County Maryland

DESIGNED BY: AS/JG
DRAWN BY: JGB
CHECKED BY: JGB
SUBMITTED BY: JGB
PLOT SCALE: 1/20/2014
AS-SHOWN

FILE NUMBER: 01-EC-01.dwg
FILE NAME: 01-EC-01.dwg

MR. CRAIG CARSON 240-777-7713
MONTGOMERY COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION
265 ROCKVILLE PIKE
ROCKVILLE, MD 20850

TASK ORDER 12-01
POTOMAC RIDGE SWIM FOND 'A' RETROFIT (ASSET #1087) - NOT FOR CONSTRUCTION UNLESS SPECIFICALLY NOTED ON MONTGOMERY COUNTY, MARYLAND

LANDSCAPE PLAN

SHEET NO. 11 OF 12
LP-01

