

U.S. ARMY CORPS OF ENGINEERS BALTIMORE DISTRICT REAL PROPERTY SERVICES FIELD OFFICE

EMERSON - CAMPUS VCP ENVIRONMENTAL CONCEPT PLAN

HOWARD COUNTY, MARYLAND

1. SITE ANALYSIS DATA
 - a. TOTAL AREA OF SITE - 2.20 ACRES
 - b. LIMITS OF DISTURBANCE - 4.45 ACRES
 - c. PROPOSED USE - ACCESS CONTROL TO EMERSON CAMPUS OFFICE BUILDINGS
 - d. PROPOSED IMPERVIOUS AREA - 2.66 ACRES
 - e. PROPOSED GREEN OPEN SPACE - 1.46 ACRES
 - f. AREA OF STEEP SLOPES (15% OR GREATER) - 0.25 ACRES
 - g. AREA OF ERODIBLE SOILS - 0.82 ACRES
 - h. AREA OF FLOODPLAIN AND FLOODPLAIN BUFFERS - 0.00 ACRES
 - i. AREA OF FORESTS - 0.00 ACRES
 - j. AREA OF WETLANDS AND WETLAND BUFFERS - 0.00 ACRES
 - k. AREA OF STREAMS AND STREAM BUFFERS - 0.00 ACRES
 - l. PARCELS: DJEJ, GJH, O, Q

2. PROJECT INFORMATION
 - a. THE PROPOSED LAYOUT OF THE PROJECT HAS BEEN DESIGNED TO AVOID ANY IMPACT ON NATURAL RESOURCES. ALL APPROPRIATE MEASURES SHALL BE UTILIZED TO PROTECT ALL NATURAL RESOURCES IN THE AREA, INCLUDING WETLANDS AND FOREST CONSERVATION AREAS. NO WORK SHALL BE DONE WITHIN THE CONSERVATION AREA, WETLAND BUFFER, OR ANY OTHER NATURAL RESOURCE PROTECTION AREA.
 - b. NATURAL FLOW PATTERNS WERE MAINTAINED AS MUCH AS POSSIBLE. THE EXISTING SITE SLOPES DOWN TO THE SOUTH AND EAST AND ULTIMATELY DRAINS INTO THE EXISTING STORMWATER MANAGEMENT POND LOCATED IN PARCEL Q. THE PROPOSED DRAINAGE PROMOTES INFILTRATION WITH REMAINING STORMWATER OUTFALLING TO THE STORMWATER POND IN PARCEL Q.
 - c. EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN DESIGNED AND PROPOSED IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - d. EROSION AND SEDIMENT CONTROL PROTECTION SHALL BE PROVIDED AROUND THE PERIMETER OF ALL STORMWATER MANAGEMENT (SWM) FACILITIES, IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, UNTIL FINAL SITE STABILIZATION IS ACHIEVED.
 - e. ENVIRONMENTAL SITE DESIGN (ESD) TECHNIQUES AND PRACTICES HAVE BEEN UTILIZED TO THE MAXIMUM EXTENT PRACTICABLE IN CONFORMANCE WITH HOWARD COUNTY AND THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) STORMWATER MANAGEMENT REGULATIONS. THE PROPOSED SITE DESIGN MEETS THE MINIMUM REQUIREMENTS. THE PROJECT INCLUDES SEVEN (7) MICRO-BIOTENTATION FACILITIES AND ONE (1) BIO-SWALE. ALL ESD FACILITIES DRAIN TO THE EXISTING STORMWATER MANAGEMENT POND LOCATED ON PARCEL Q.
 - f. FOREST CONSERVATION FOR PARCELS A THROUGH H AND OPEN SPACE PARCELS I THROUGH R WAS ADDRESSED UNDER F-02-111.
 - g. THIS PROJECT LIMIT OF DISTURBANCE DOES NOT IMPACT ANY WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS.

3. GENERAL NOTES
 - a. APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN STAGES AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
 - b. APPLICABLE DPZ FILE REFERENCES: F-02-111, F-07-055, F-08-083, F-08-207, F-11-019, F-11-052, F-11-094, SDP-07-109, SDP-10-096, SDP-11-025, SDP-12-010, SP-02-12.
 - c. ADDRESS OF AFFECTED PROPERTIES:
 PARCEL DI 9070 STERLING DRIVE, LAUREL, MD 20723
 PARCEL EI 9080 STERLING DRIVE, LAUREL, MD 20723
 PARCEL FI 9085 STERLING DRIVE, LAUREL, MD 20723
 PARCEL GI 9025 STERLING DRIVE, LAUREL, MD 20723
 PARCEL H: 9005 STERLING DRIVE, LAUREL, MD 20723
 PARCEL O: STEPHENS ROAD, LAUREL, MD 20723
 PARCEL Q: STEPHENS ROAD, LAUREL, MD 20723

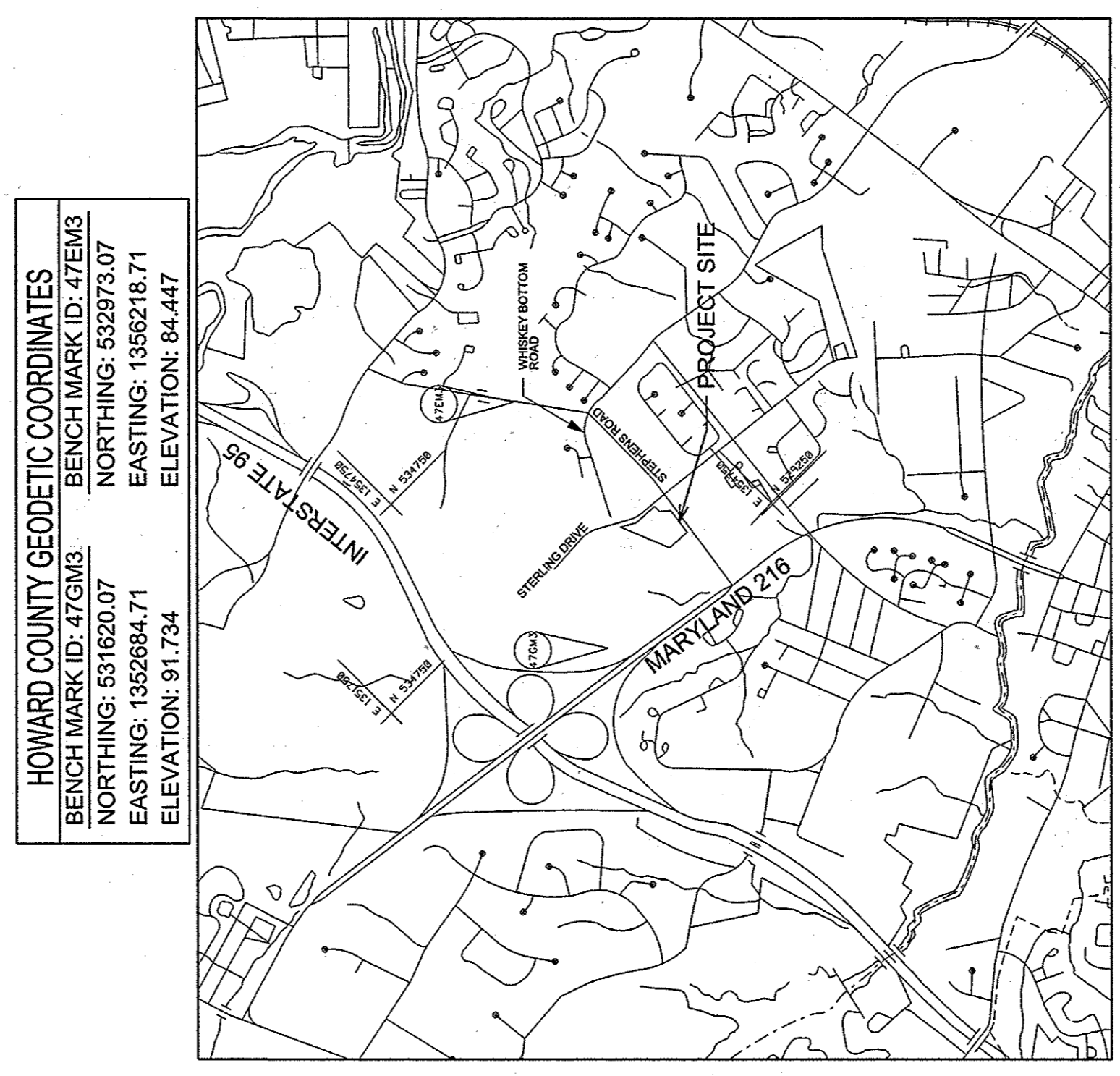
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6	SITE GRADING, DRAINAGE, AND UTILITIES PLAN
7	EROSION AND SEDIMENT CONTROL - PHASE II
8	EROSION AND SEDIMENT CONTROL - PHASE II
9	SWM
10	ENLARGED SWM FACILITIES
11	ENLARGED SWM FACILITIES

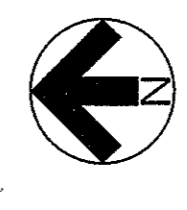
LEGEND

- BENCHMARK
- MAP COORDINATE



VICINITY MAP
SCALE 1"=2000'

HOWARD COUNTY ADC MAP 40, GRID B6



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 APPROVED: *[Signature]* DATE: 3-28-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 APPROVED: *[Signature]* DATE: 2-19-16
 CHIEF, DIVISION OF LAND DEVELOPMENT

OWNER/DEVELOPER:
 EMERSON DEVELOPMENT IV, LLC
 ONE TEXAS STATION, SUITE 200
 TIMONIUM, MARYLAND 21093
 (443) 699-8000

EMERSON CAMPUS VCP
 PARCEL H

LOT # / PARCEL #
 PARCEL # / PARCEL #
 PARCEL # / PARCEL #
 PARCEL # / PARCEL #

EMERSON REVTZ PROPERTY TAX MAP
 SUBDIVISION NAME: 47
 ZONE: P-1C
 ELEC. DISTRICT: 20
 GRID: 40, B6
 WATER CODE: 14470.005
 SERVER CODE

DES. BY: MSW SCALE: 1:2000 PROJ. NO.
 DRN. BY: MSW DATE: 2/16/2016
 CHK. BY: RAC APPROVED: 1 OF 11

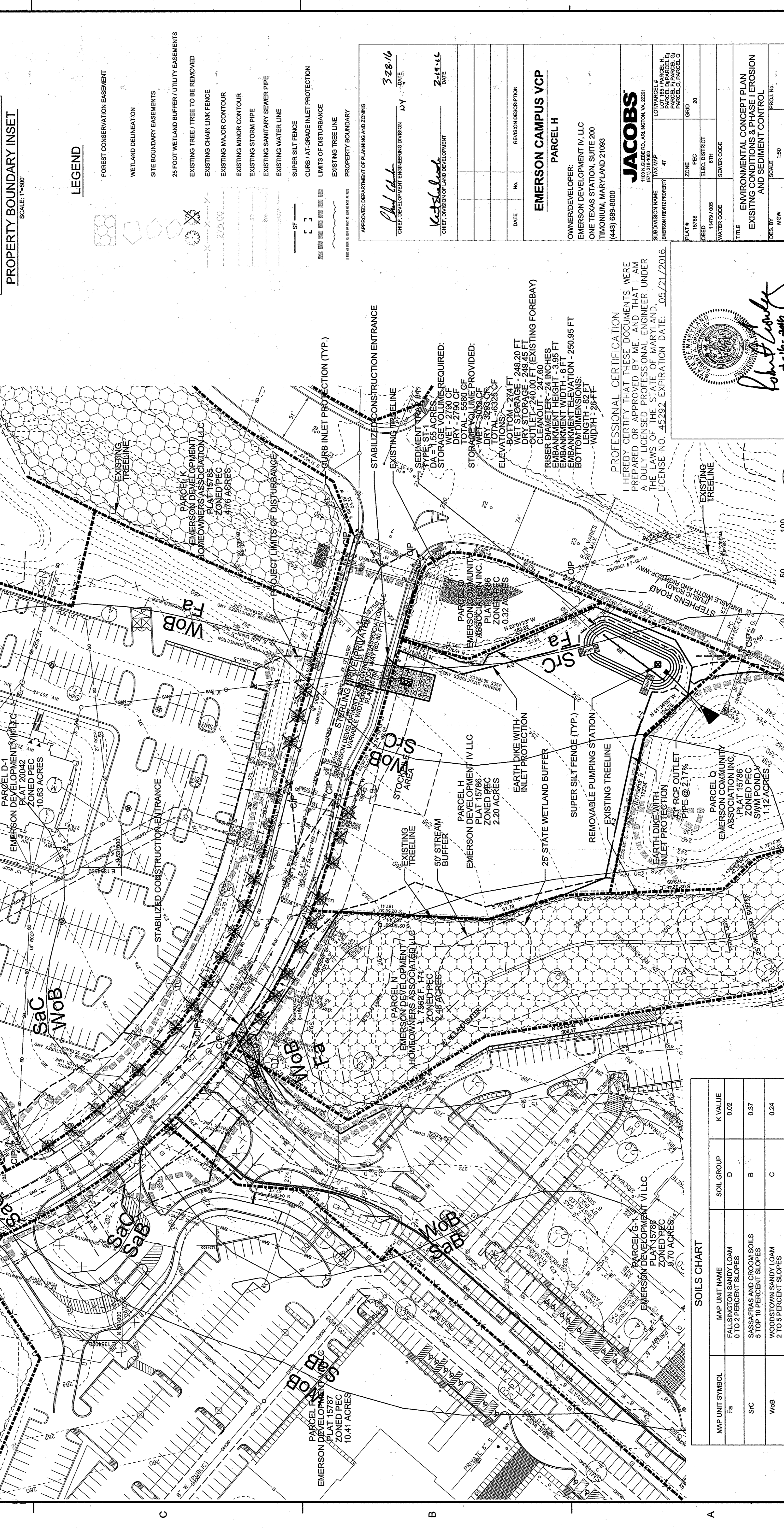
TITLE: COVER SHEET

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. 45292, EXPIRATION DATE: 05/21/2016

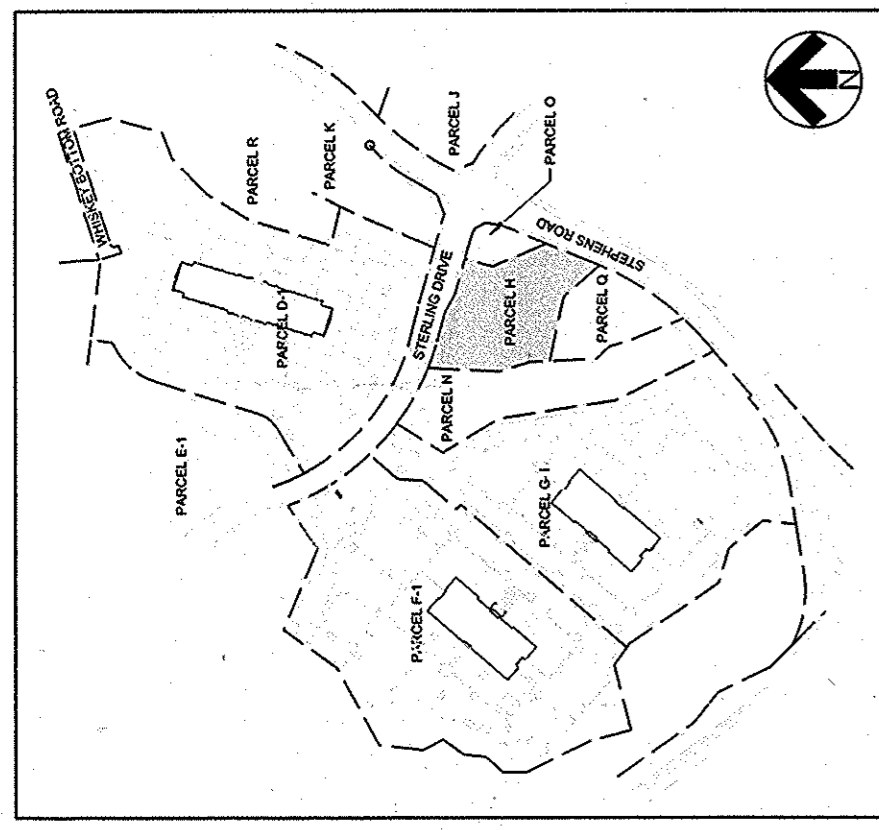
[Signature]
 2-16-2016

STATE OF MARYLAND
 PROFESSIONAL ENGINEER

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UNCLASSIFIED//FOR OFFICIAL USE ONLY



PROPERTY BOUNDARY INSET
SCALE: 1"=50'

LEGEND

- FOREST CONSERVATION EASEMENT
- WETLAND DELINEATION
- SITE BOUNDARY EASEMENTS
- 25 FOOT WETLAND BUFFER / UTILITY EASEMENTS
- EXISTING TREE / TREE TO BE REMOVED
- EXISTING CHAIN LINK FENCE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING STORM PIPE
- EXISTING SANITARY SEWER PIPE
- EXISTING WATER LINE
- SUPER SILT FENCE
- CURB / AT-GRADE INLET PROTECTION
- LIMITS OF DISTURBANCE
- EXISTING TREE LINE
- PROPERTY BOUNDARY

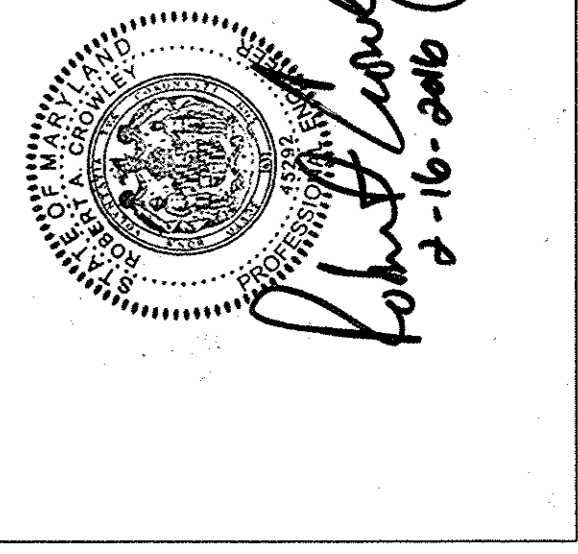
APPROVED, DEPARTMENT OF PLANNING AND ZONING	DATE	NO.	REVISION DESCRIPTION
<i>Phil Gell</i>	3/28/16		
<i>Kyle Gell</i>	2/19/16		

EMERSON CAMPUS VCP
PARCEL H
OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21083
(443) 689-8000

JACOBS	
SUBDIVISION NAME: EMERSON DEVELOPMENT IV, LLC	
TAX MAP: 47	
LOT/PARCEL #	GRID
LOT 166 / PARCEL H	20
LOT 167 / PARCEL I	
LOT 168 / PARCEL J	
LOT 169 / PARCEL K	
LOT 170 / PARCEL L	
LOT 171 / PARCEL M	
LOT 172 / PARCEL N	
LOT 173 / PARCEL O	
LOT 174 / PARCEL P	
LOT 175 / PARCEL Q	
LOT 176 / PARCEL R	
LOT 177 / PARCEL S	
LOT 178 / PARCEL T	
LOT 179 / PARCEL U	
LOT 180 / PARCEL V	
LOT 181 / PARCEL W	
LOT 182 / PARCEL X	
LOT 183 / PARCEL Y	
LOT 184 / PARCEL Z	
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LOT 187 / PARCEL AC	
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PROFESSIONAL CERTIFICATION
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Robert Lewis
2-16-2016



SOILS CHART

MAP UNIT SYMBOL	MAP UNIT NAME	SOIL GROUP	K VALUE
Fa	FALLSINGTON SANDY LOAM 0 TO 2 PERCENT SLOPES	D	0.02
S/C	SASSAFRAS AND OROON SOILS 5 TO 10 PERCENT SLOPES	B	0.37
Wob	WOODSTOWN SANDY LOAM 2 TO 5 PERCENT SLOPES	C	0.24

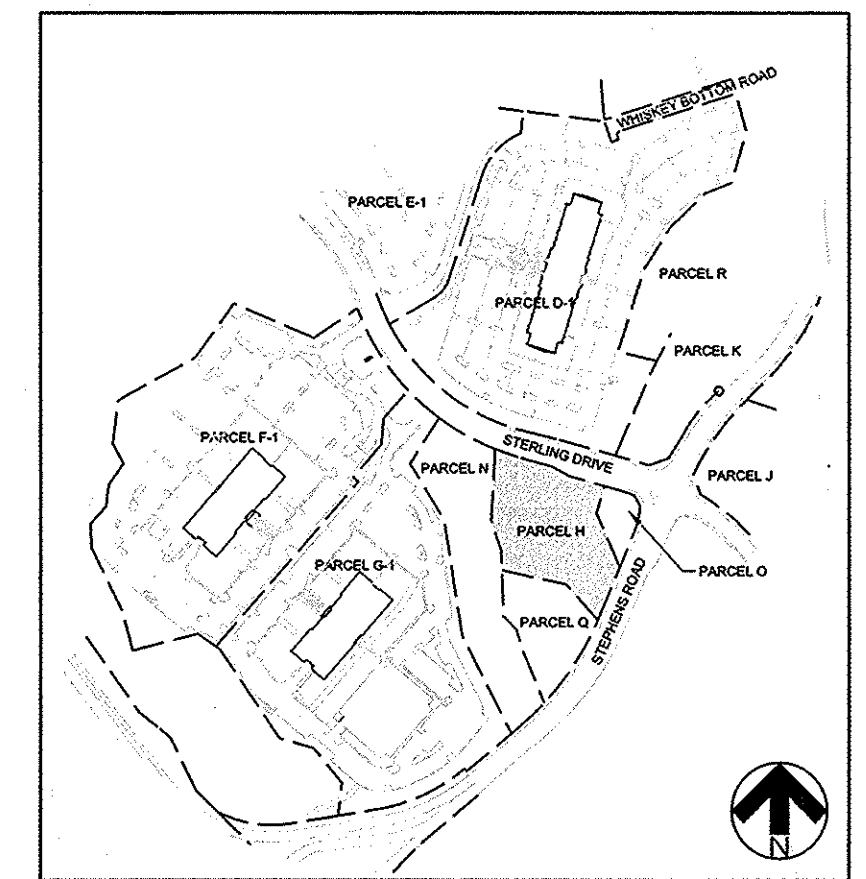
HOWARD COUNTY SOIL SURVEY - MAP #24 WEB SOIL SURVEY HOWARD COUNTY, MD. (MD024)

NOTE:
1. SEDIMENT TRAP SHALL NOT BE REMOVED UNTIL AREA DRAINING TO THE TRAP IS STABILIZED. CONTRACTOR SHALL PHASE CONSTRUCTION OF PROPOSED EXIT LANES SO THAT CONTRIBUTING AREA TO SEDIMENT TRAP HAS BEEN STABILIZED AND / OR RUNOFF HAS BEEN DIVERTED TO STORMWATER MANAGEMENT FACILITIES VIA STORM SEWER SYSTEM.



SCALE: 1" = 50'

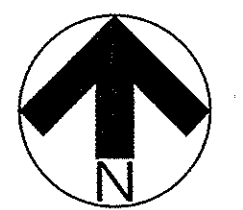
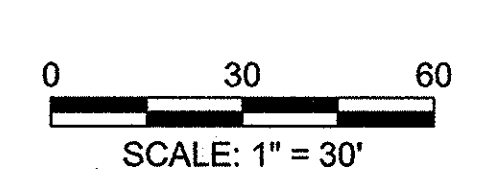
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PROPERTY BOUNDARY INSET
SCALE: 1" = 500'

LEGEND

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- PAVEMENT STRIPING



APPROVED: DEPARTMENT OF PLANNING AND ZONING		
<i>[Signature]</i>	3-28-16	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
<i>[Signature]</i>	2-19-16	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
DATE	No.	REVISION DESCRIPTION

EMERSON CAMPUS VCP
PARCEL H

OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

JACOBS

SUBDIVISION NAME EMERSON / REMITZ PROPERTY	TAX MAP 47	LOT/PARCEL # LOT 165 / PARCEL H, PARCEL D, PARCEL E, PARCEL F, PARCEL G, PARCEL O, PARCEL Q
PLAT # 15786	ZONE PEC	GRID 20
DEED 11479 / 005	ELEC. DISTRICT 6TH	
WATER CODE	SEWER CODE	

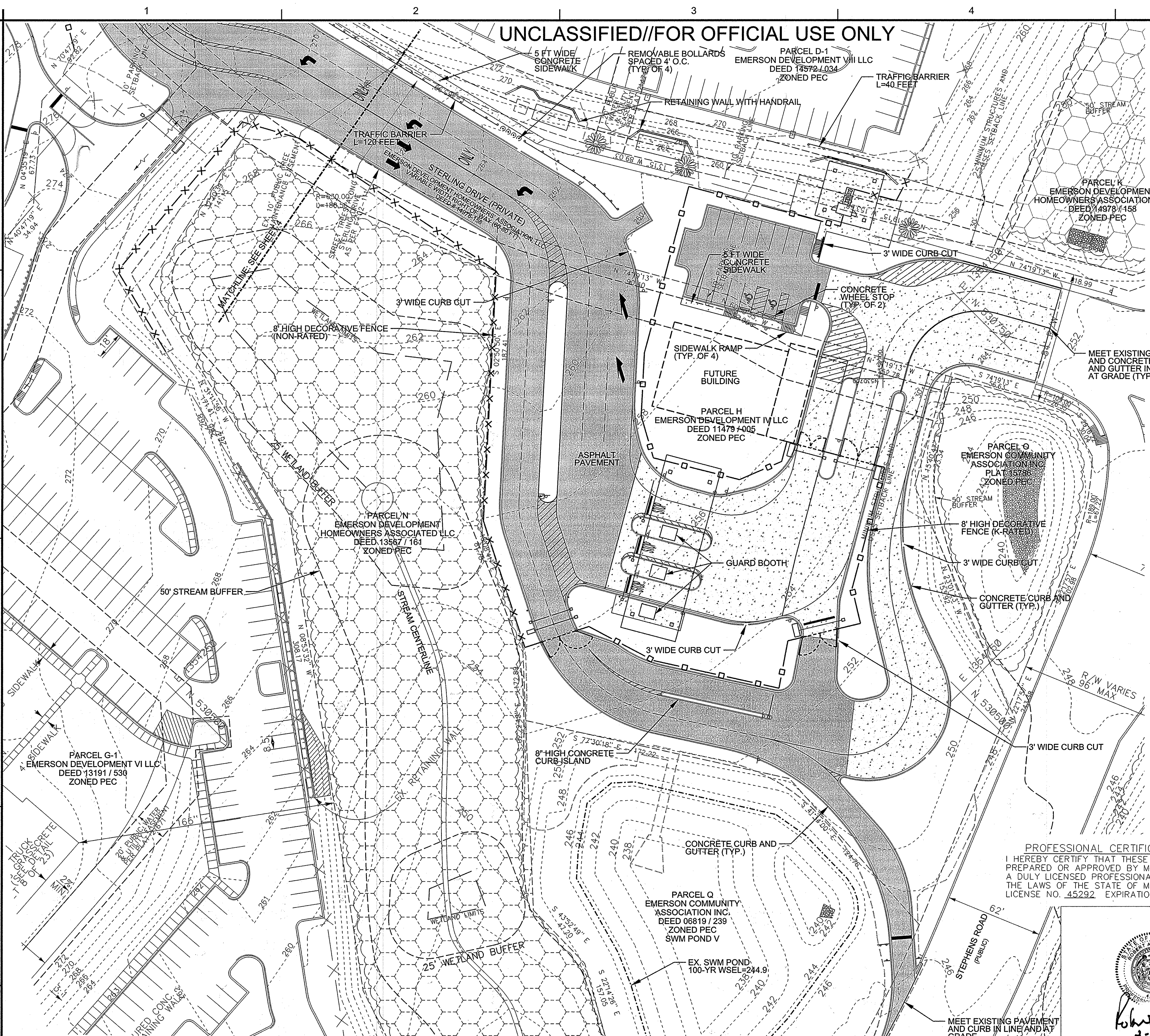
ENVIRONMENTAL CONCEPT PLAN
SITE LAYOUT PLAN

DES. BY MGW	SCALE 1:30	PROJ. No.
DRN. BY MGW	DATE 2/16/2016	
CHK. BY RAC	APPROVED	3 OF 11

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[Signature]
3-16-2016

ECP-15-086

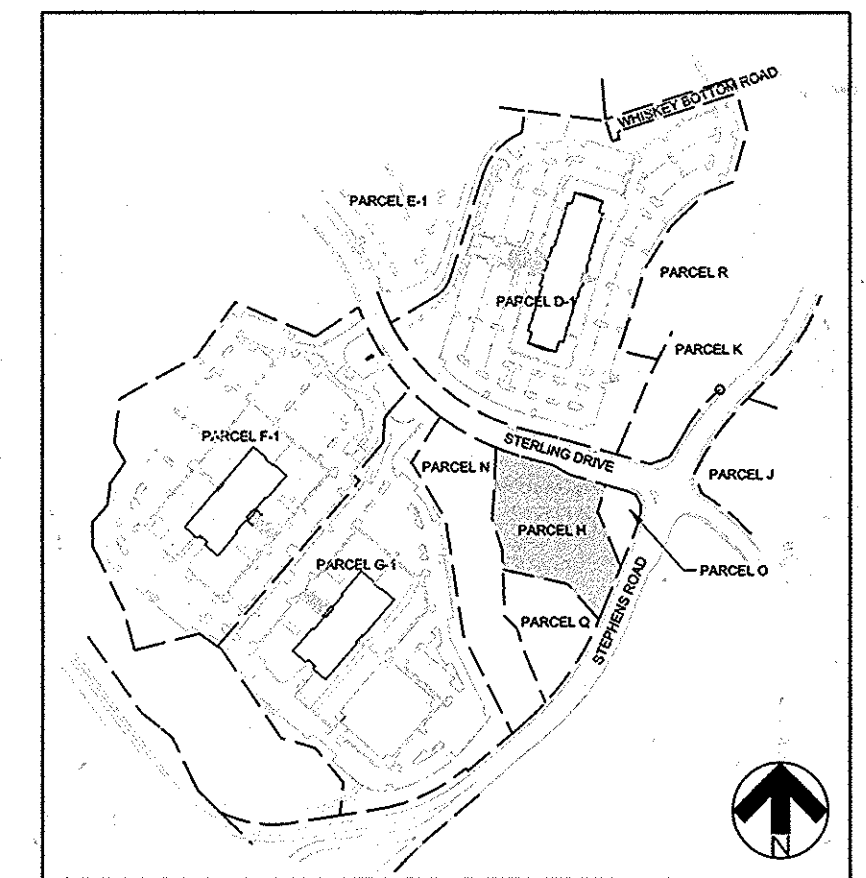
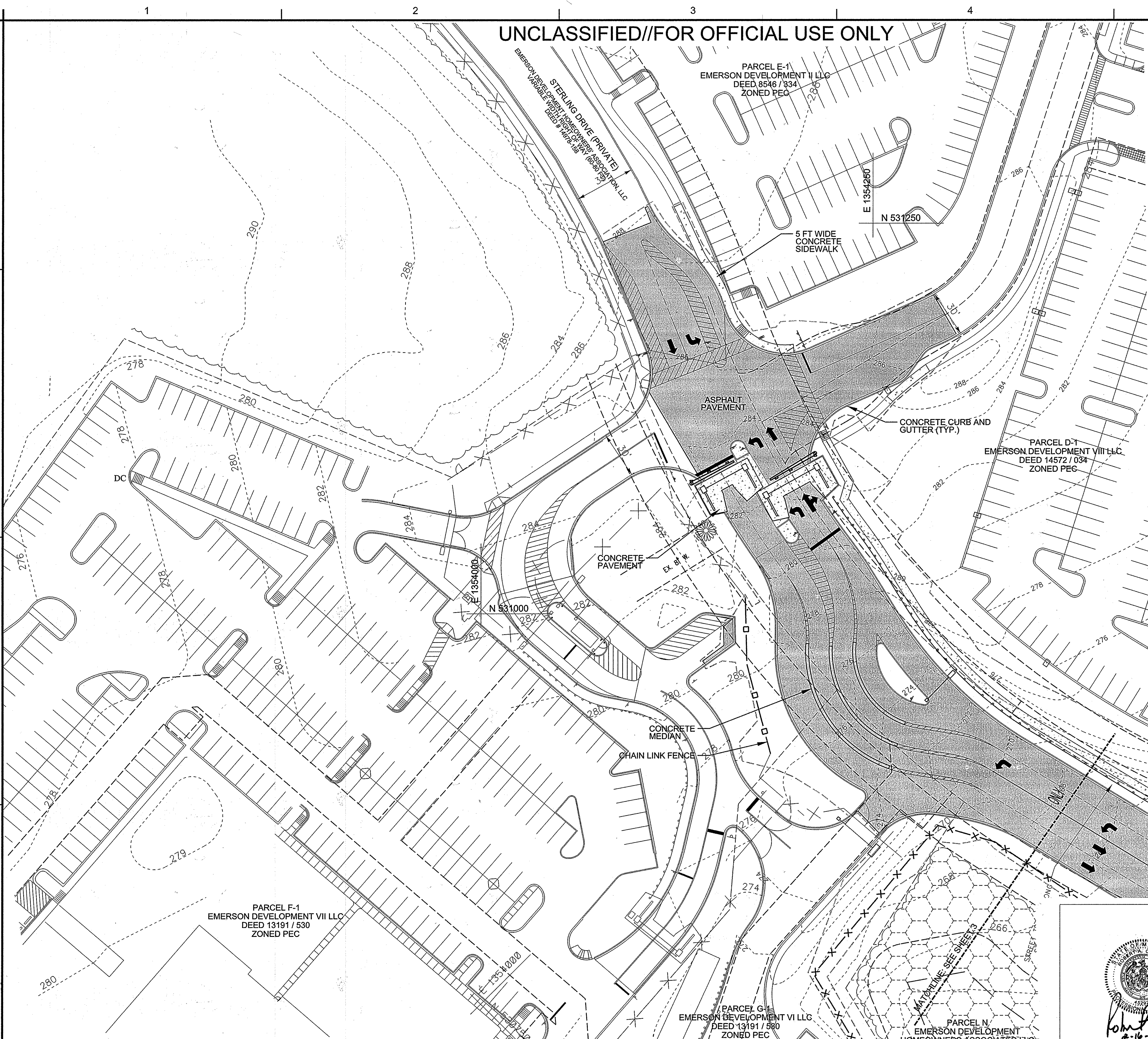


NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

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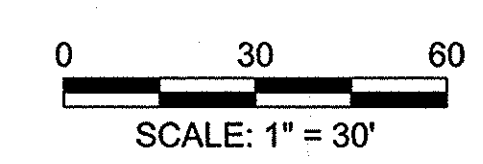
D
C
B
A



PROPERTY BOUNDARY INSET
SCALE: 1"=500'

LEGEND

- ASPHALT PAVEMENT
- CONCRETE PAVEMENT
- PAVEMENT STRIPING



SCALE: 1" = 30'

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. 45292 EXPIRATION DATE: 05/21/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING
W. Chalk 3-28-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION
W. Chalk 2-19-16
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE	No.	REVISION DESCRIPTION

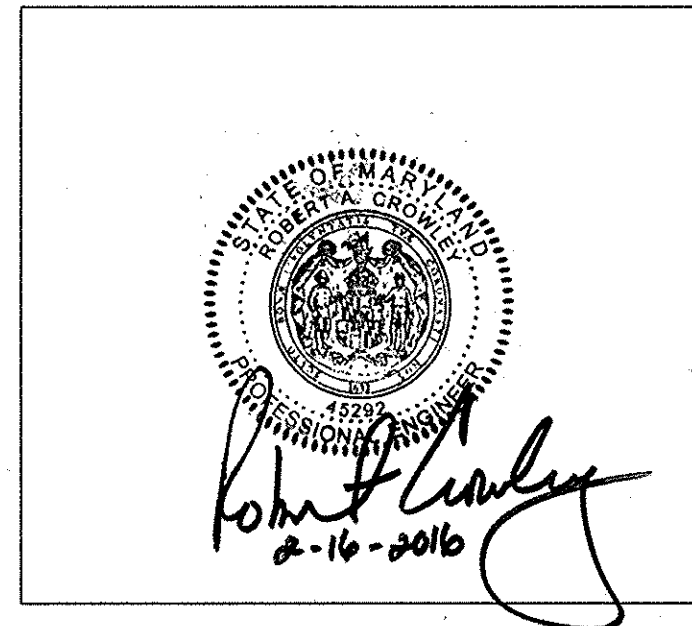
**EMERSON CAMPUS VCP
PARCEL H**

OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

JACOBS
1100 N. GLEBE RD., ARLINGTON, VA, 22201
(703) 218-1000

SUBDIVISION NAME	TAX MAP	LOT/PARCEL #
EMERSON / REVITZ PROPERTY	47	LOT 165 / PARCEL H, PARCEL D, PARCEL E, PARCEL F, PARCEL G, PARCEL O, PARCEL Q
PLAT #	ZONE	GRID
15786	PEC	20
DEED #	ELEC. DISTRICT	
11479 / 005	6TH	
WATER CODE	SEWER CODE	

TITLE		
ENVIRONMENTAL CONCEPT PLAN SITE LAYOUT PLAN		
DES. BY	SCALE	PROJ. No.
MGW	1:30	
DRN. BY	DATE	
MGW	2/16/2016	
CHK. BY	APPROVED	4 OF 11
RAC	<i>Robert Carley</i> 2-16-2016	

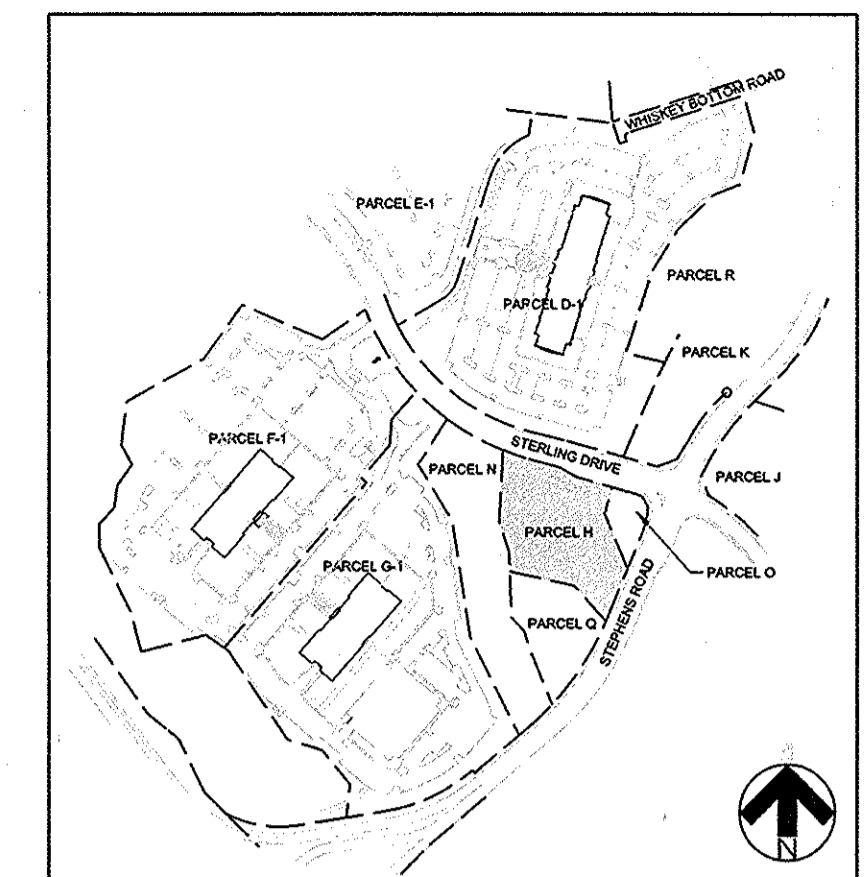
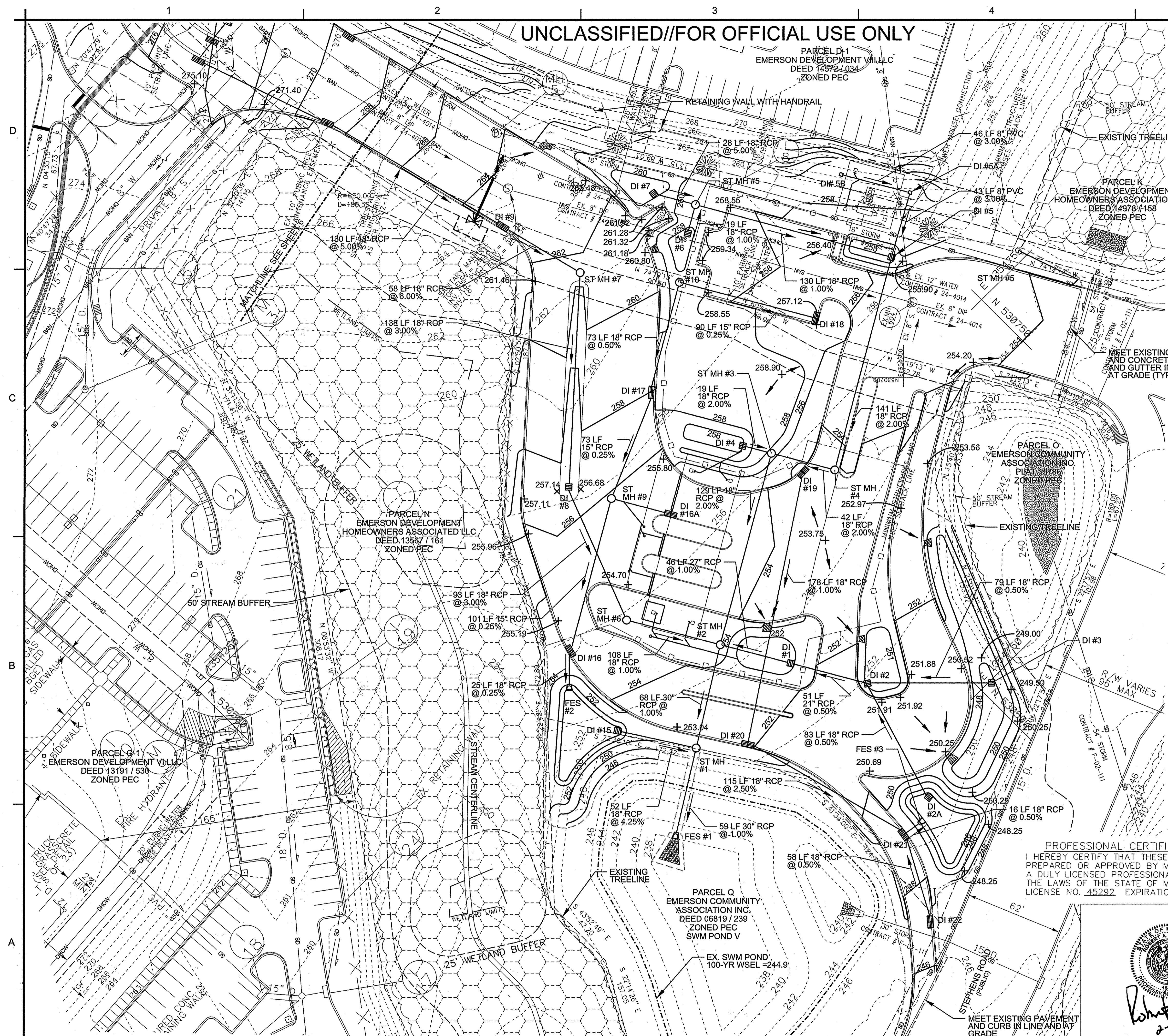


NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

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ECP-15-086

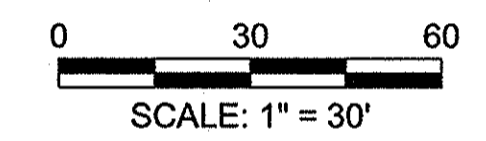
UNCLASSIFIED//FOR OFFICIAL USE ONLY



PROPERTY BOUNDARY INSET
SCALE: 1"=500'

LEGEND

- LIMITS OF DISTURBANCE
- SPOT ELEVATION
- FLOW ARROW
- RIP RAP
- MAJOR CONTOUR
- MINOR CONTOUR
- CURB INLET
- MANHOLE
- STORM PIPE
- SANITARY PIPE
- WATERLINE



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/28/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/19/16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	No.	REVISION DESCRIPTION

**EMERSON CAMPUS VCP
PARCEL H**

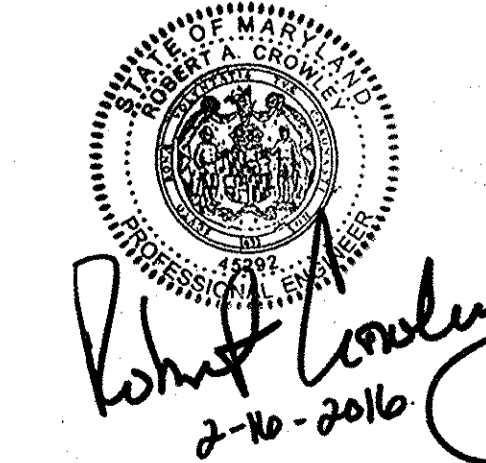
OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC,
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

JACOBS

1100 N. GLEBE RD., ARLINGTON, VA, 22201
(703) 218-1000

SUBDIVISION NAME EMERSON / RENTZ PROPERTY	TAXMAP 47	LOT/PARCEL # LOT 165 / PARCEL H, PARCEL D, PARCEL E, PARCEL F, PARCEL G, PARCEL O, PARCEL Q
PLAT # 15788	ZONE PEC	GRID 20
DEED 11479 / 005	ELEC. DISTRICT 6TH	
WATER CODE	SEWER CODE	

TITLE ENVIRONMENTAL CONCEPT PLAN SITE GRADING, DRAINAGE, AND UTILITY PLAN		
DES. BY MGW	SCALE 1:30	PROJ. No.
DRN. BY MGW	DATE 2/18/2016	
CHK. BY RAC	APPROVED	5 OF 11



NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

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ECP-15-086

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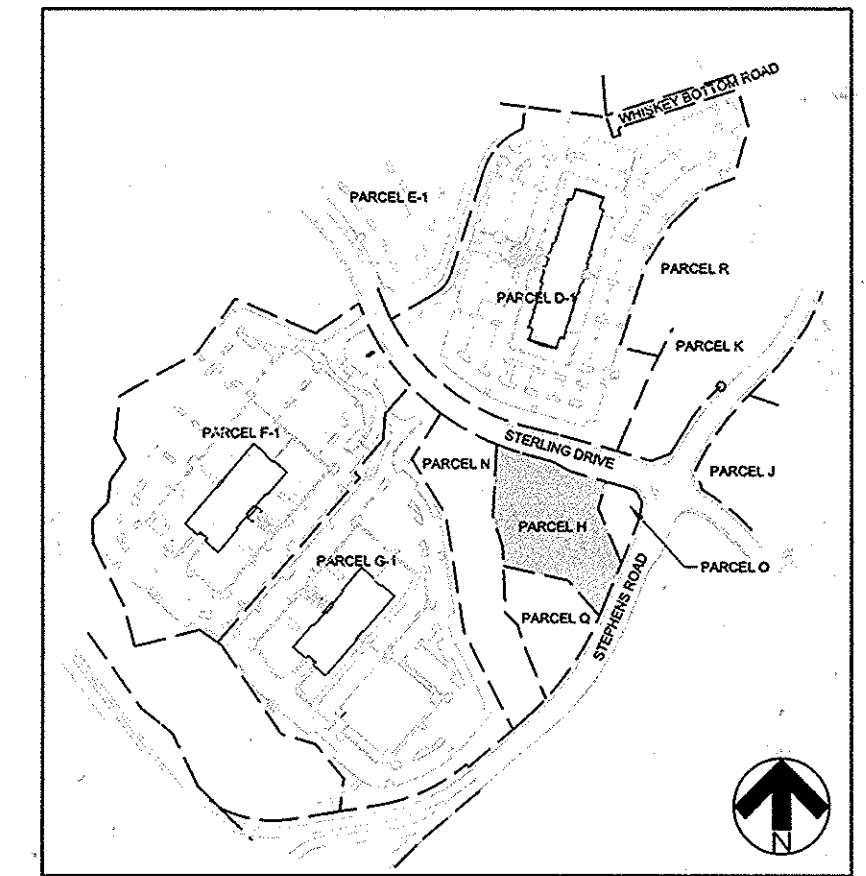
PARCEL E-1
EMERSON DEVELOPMENT VII LLC
DEED 8546 / 334
ZONED PEC

PARCEL D-1
EMERSON DEVELOPMENT VIII LLC
DEED 14572 / 034
ZONED PEC

PARCEL F-1
EMERSON DEVELOPMENT VII LLC
DEED 13191 / 530
ZONED PEC

PARCEL G-1
EMERSON DEVELOPMENT VI LLC
DEED 13191 / 530
ZONED PEC

PARCEL N
EMERSON DEVELOPMENT
HOMEOWNERS ASSOCIATED LLC
DEED 13567 / 161
ZONED PEC

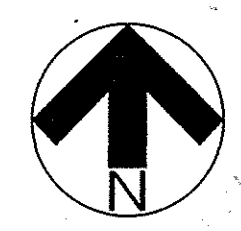


PROPERTY BOUNDARY INSET
SCALE: 1"=500'

LEGEND

- LIMITS OF DISTURBANCE
- SPOT ELEVATION
- FLOW ARROW
- RIP RAP
- MAJOR CONTOUR
- MINOR CONTOUR
- CURB INLET
- MANHOLE
- STORM PIPE
- SANITARY PIPE
- WATERLINE

SCALE: 1" = 30'



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. 45292 EXPIRATION DATE: 05/21/2016.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief
CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-28-16
DATE

Chief
CHIEF, DIVISION OF LAND DEVELOPMENT 2-19-16
DATE

DATE	No.	REVISION DESCRIPTION

EMERSON CAMPUS VCP
PARCEL H

OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

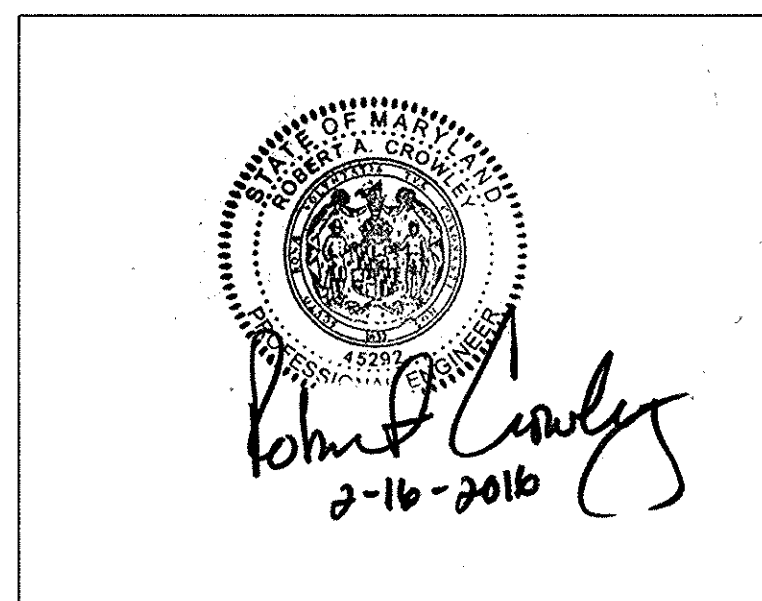
JACOBS

SUBDIVISION NAME EMERSON / REVITZ PROPERTY		TAX MAP 47	LOT/PARCEL # LOT 165 / PARCEL H, PARCEL D1, PARCEL E1, PARCEL F1, PARCEL G1, PARCEL O, PARCEL Q
PLAT # 15786	ZONE PEC	GRID 20	
DEED 11479 / 005	ELEC. DISTRICT 6TH		
WATER CODE	SEWER CODE		

TITLE
ENVIRONMENTAL CONCEPT PLAN
SITE GRADING, DRAINAGE, AND UTILITY PLAN

DES. BY MGW	SCALE 1:30	PROJ. No.
DRN. BY MGW	DATE 2/16/2016	6 OF 11
CHK. BY RAC	APPROVED	

ECP-15-086



NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

UNCLASSIFIED//FOR OFFICIAL USE ONLY

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PARCEL D-1
EMERSON DEVELOPMENT VIII LLC
DEED 14572 / 034
ZONED PEC

EXISTING TREELINE
PARCEL K
EMERSON DEVELOPMENT
HOMEOWNERS ASSOCIATION LLC
DEED 14978 / 158
ZONED PEC

PARCEL N
EMERSON DEVELOPMENT
HOMEOWNERS ASSOCIATED LLC
DEED 13567 / 161
ZONED PEC

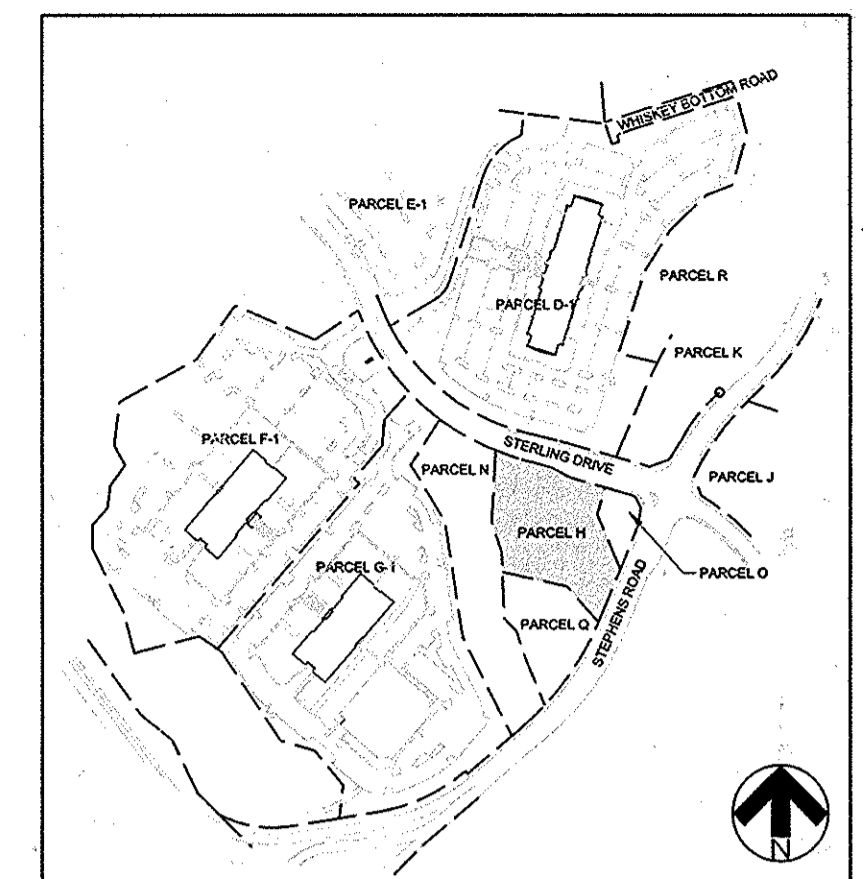
PARCEL G-1
EMERSON DEVELOPMENT VIII LLC
DEED 13191 / 530
ZONED PEC

EXISTING TREELINE
PARCEL O
EMERSON COMMUNITY
ASSOCIATION INC.
DEED 06819 / 239
ZONED PEC
SWM POND V

EX. SWM POND
100-YR WSEL @ 244.9

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. 45292 EXPIRATION DATE: 05/21/2016

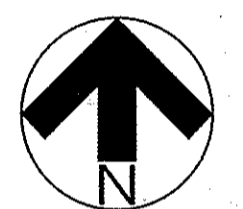
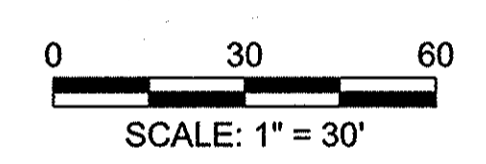
Robert Cowley
2-16-2016



PROPERTY BOUNDARY INSET
SCALE: 1" = 500'

LEGEND

- LIMITS OF DISTURBANCE
- SF- SILT FENCE
- [] INLET / CURB CUT PROTECTION



APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-28-16
CHIEF, DEVELOPMENT ENGINEERING DIVISION NY DATE

[Signature] 2-16-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	No.	REVISION DESCRIPTION

EMERSON CAMPUS VCP
PARCEL H

OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

JACOBS

SUBDIVISION NAME EMERSON / REVITZ PROPERTY	TAX MAP 47	LOT/PARCEL # LOT 165 / PARCEL H, PARCEL D/PARCEL E, PARCEL F/PARCEL G, PARCEL O, PARCEL Q
PLAT # 15786	ZONE PEC	GRID 20
DEED 11479 / 005	ELEC. DISTRICT 6TH	
WATER CODE	SEWER CODE	

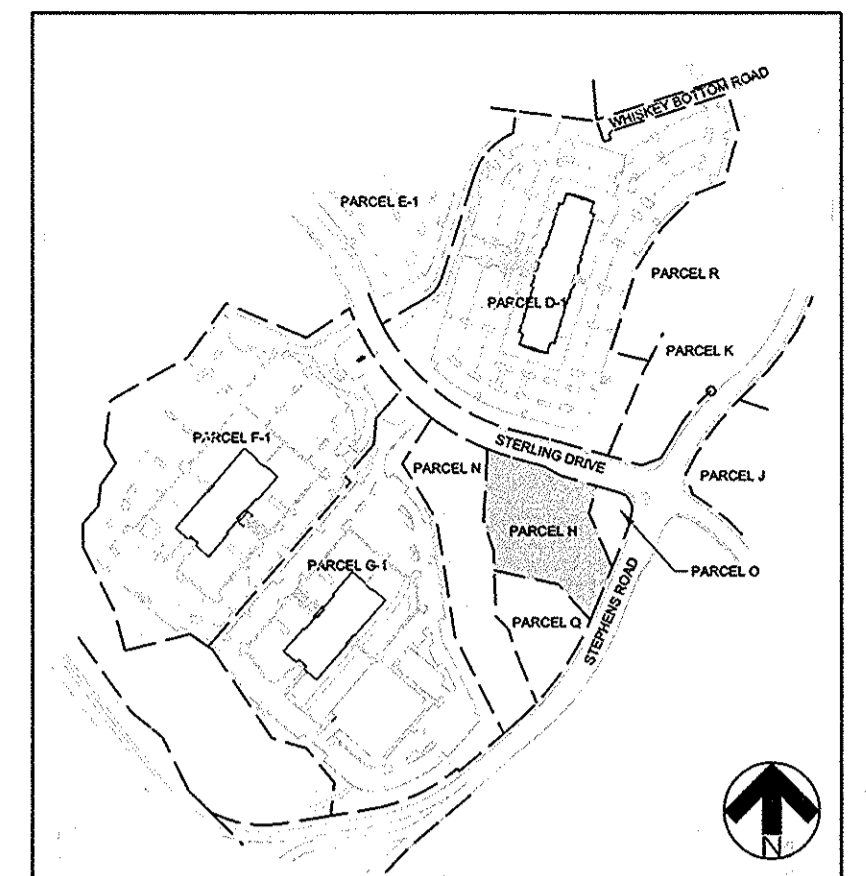
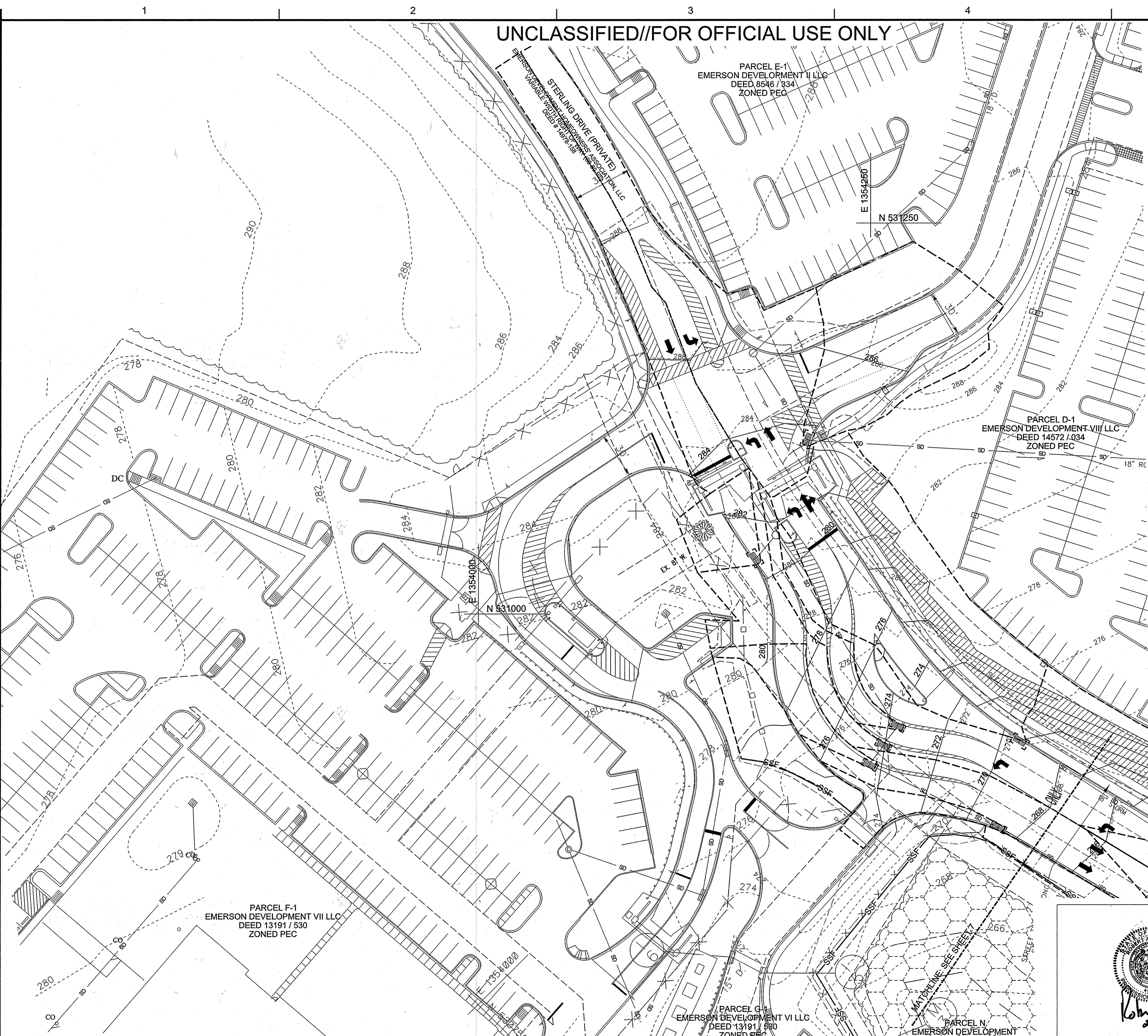
TITLE ENVIRONMENTAL CONCEPT PLAN EROSION AND SEDIMENT CONTROL - PHASE II		
DES. BY MGW	SCALE 1:30	PROJ. No.
DRN. BY MGW	DATE 2/16/2016	7 OF 11
CHK. BY RAC	APPROVED	

NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

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UNCLASSIFIED//FOR OFFICIAL USE ONLY

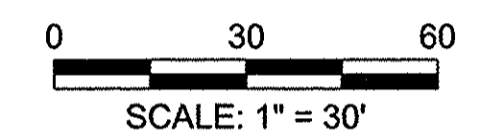
D
C
B
A



PROPERTY BOUNDARY INSET
SCALE: 1"=500'

LEGEND

- LIMITS OF DISTURBANCE
- SF- SILT FENCE
- [] INLET / CURB CUT PROTECTION



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. 45292 EXPIRATION DATE: 05/21/2016

APPROVED: DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/28/16
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2-19-16
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	No.	REVISION DESCRIPTION

**EMERSON CAMPUS VCP
PARCEL H**

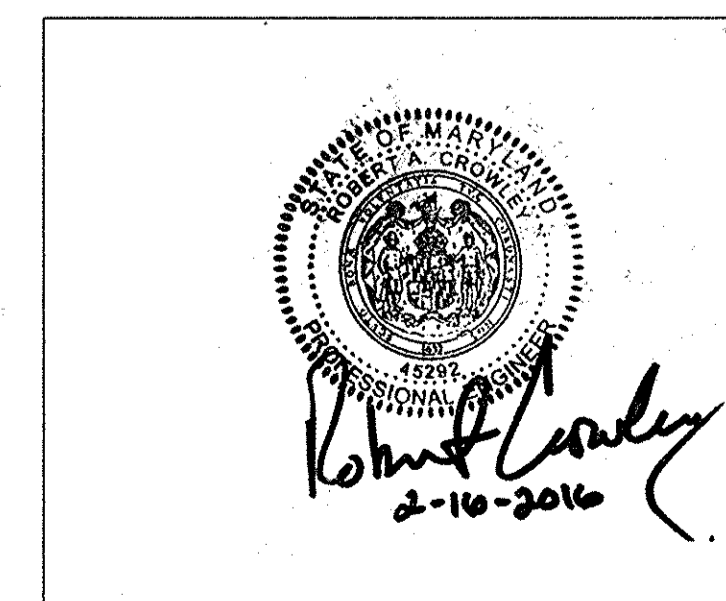
OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

JACOBS
1100 N. GLEBE RD., ARLINGTON, VA. 22201
(571) 218-1000

SUBDIVISION NAME EMERSON/REVITZ PROPERTY	TAX MAP # 47	LOT/PARCEL # LOT 165 / PARCEL H, PARCEL D, PARCEL E, PARCEL F, PARCEL G, PARCEL O, PARCEL Q
PLAT # 15786	ZONE PEC	GRID 20
DEED 11479 / 005	ELEC. DISTRICT 6TH	
WATER CODE	SEWER CODE	

TITLE
**ENVIRONMENTAL CONCEPT PLAN
EROSION AND SEDIMENT CONTROL - PHASE II**

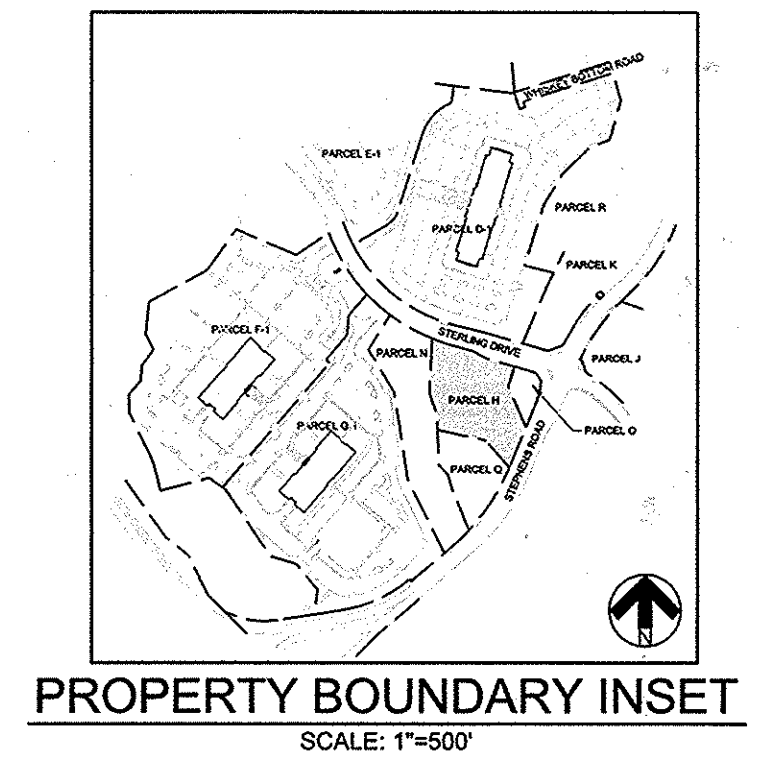
DES. BY MGW	SCALE 1:30	PROJ. No.
DRN. BY MGW	DATE 2/16/2016	
CHK. BY RAC	APPROVED	8 OF 11



NOTES:
1. FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.

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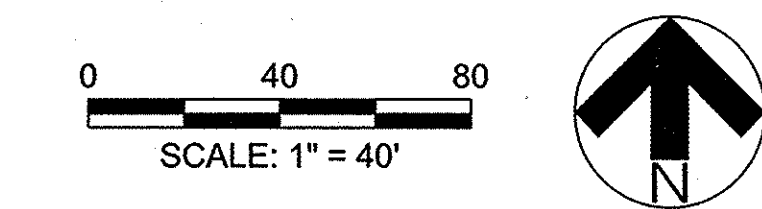
ECF-15-086



PROPERTY BOUNDARY INSET
SCALE: 1"=500'

LEGEND

- LIMITS OF DISTURBANCE
- MICRO-BIORETENTION
- FLOW ARROW
- SWM FACILITY DRAINAGE DIVIDE
- RECONSTRUCTED IMPERVIOUS AREA (SEE NOTE 2)



APPROVED: DEPARTMENT OF PLANNING AND ZONING		
	3/28/16	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION		
	2-19-16	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT		
DATE	No.	REVISION DESCRIPTION

**EMERSON CAMPUS VCP
PARCEL H**

OWNER/DEVELOPER:
EMERSON DEVELOPMENT IV, LLC
ONE TEXAS STATION, SUITE 200
TIMONIUM, MARYLAND 21093
(443) 689-8000

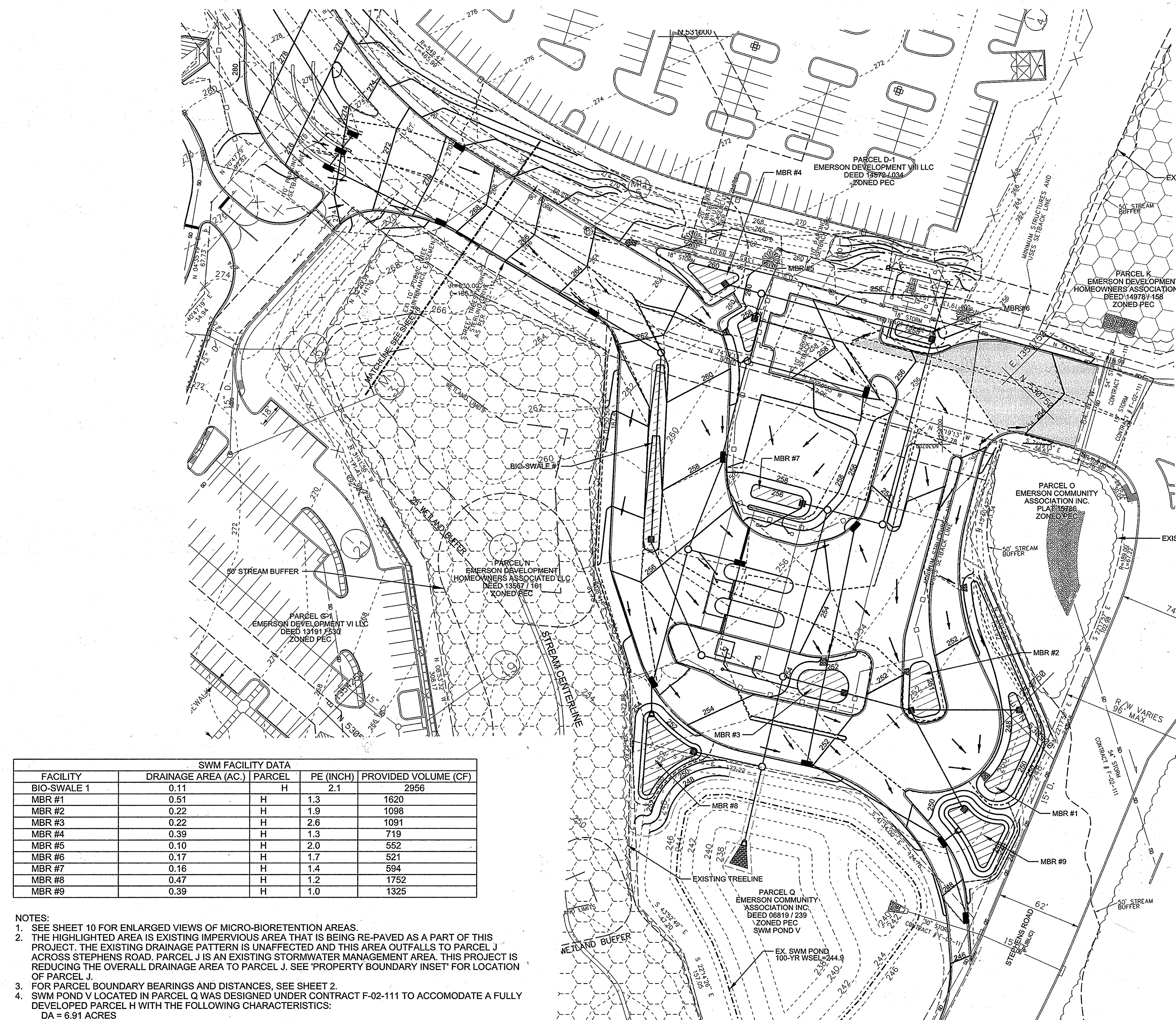
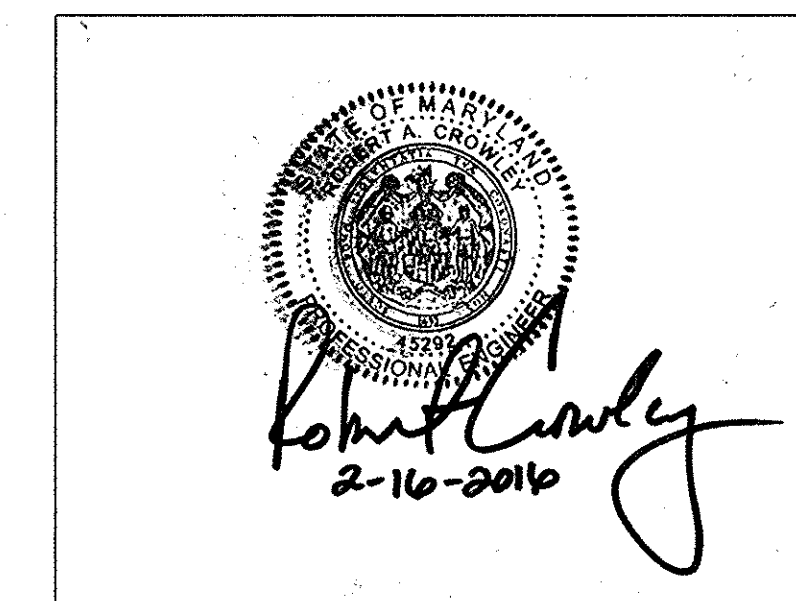
JACOBS

SUBDIVISION NAME: TAXMAP		LOT/PARCEL #
EMERSON/RENTZ PROPERTY: 47		LOT 165 / PARCEL H, PARCEL D / PARCEL E, PARCEL F / PARCEL G, PARCEL Q, PARCEL R
PLAT #	ZONE	GRID
15786	PEC	20
DEED	ELEC. DISTRICT	
11479 / 005	6TH	
WATER CODE	SEWER CODE	

**ENVIRONMENTAL CONCEPT PLAN
SWM**

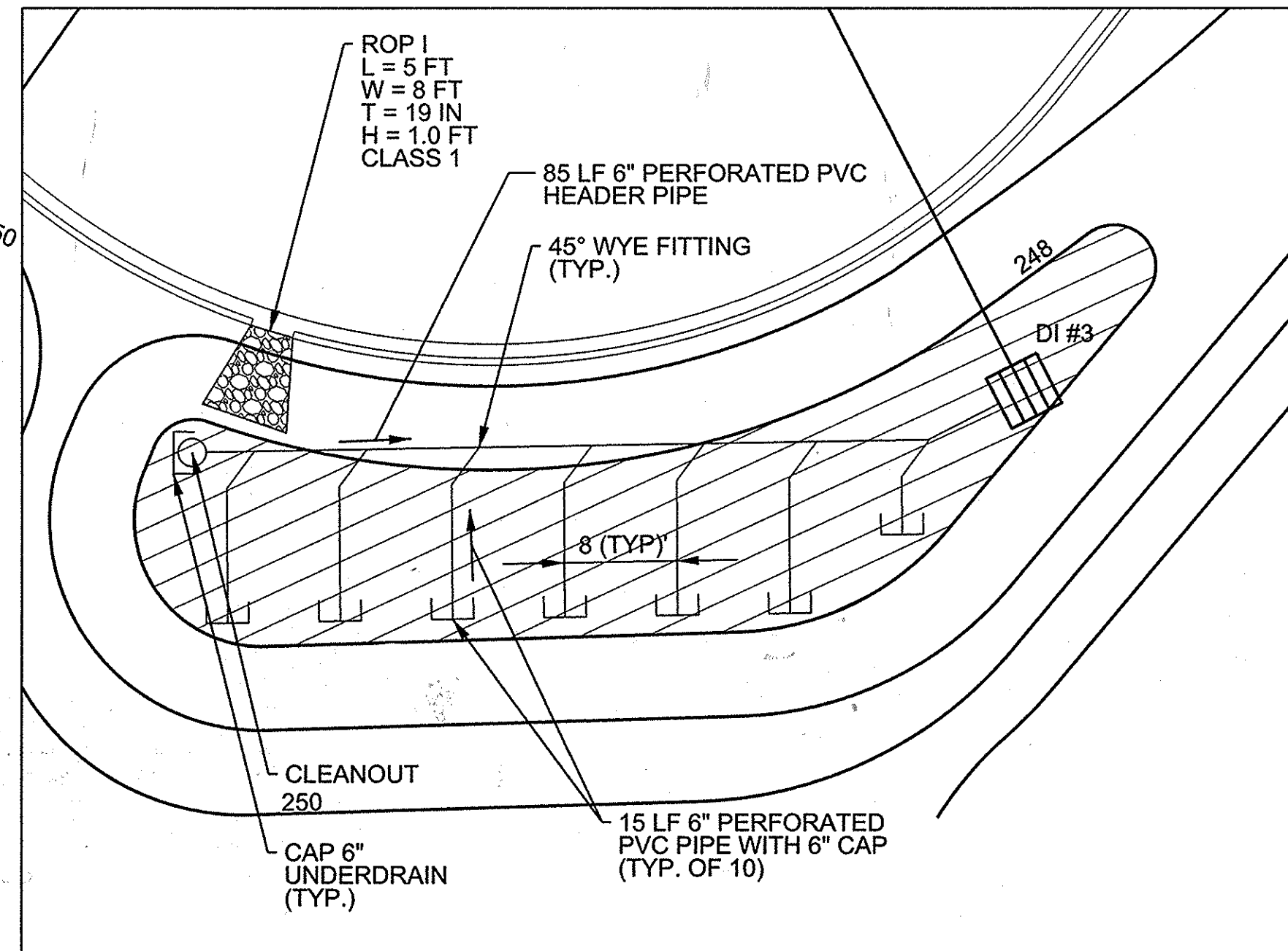
DES. BY	SCALE	PROJ. No.
MGW	1:40	
DRN. BY	DATE	
MGW	2/18/2016	
CHK. BY	APPROVED	9 OF 11
RAC		

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. 45292 EXPIRATION DATE: 05/21/2016.

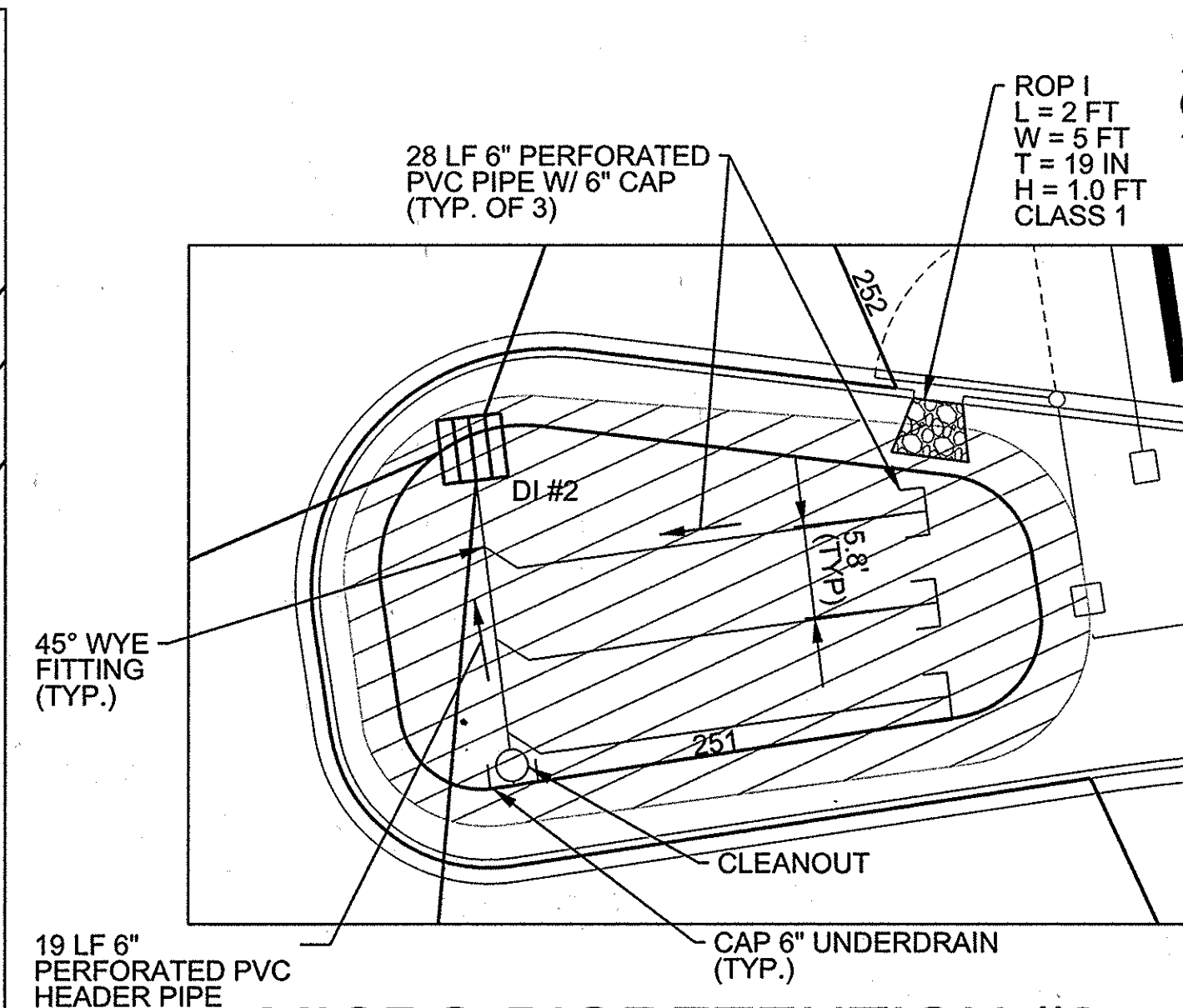


SWM FACILITY DATA				
FACILITY	DRAINAGE AREA (AC.)	PARCEL	PE (INCH)	PROVIDED VOLUME (CF)
BIO-SWALE 1	0.11	H	2.1	2956
MBR #1	0.51	H	1.3	1620
MBR #2	0.22	H	1.9	1098
MBR #3	0.22	H	2.6	1091
MBR #4	0.39	H	1.3	719
MBR #5	0.10	H	2.0	552
MBR #6	0.17	H	1.7	521
MBR #7	0.16	H	1.4	594
MBR #8	0.47	H	1.2	1752
MBR #9	0.39	H	1.0	1325

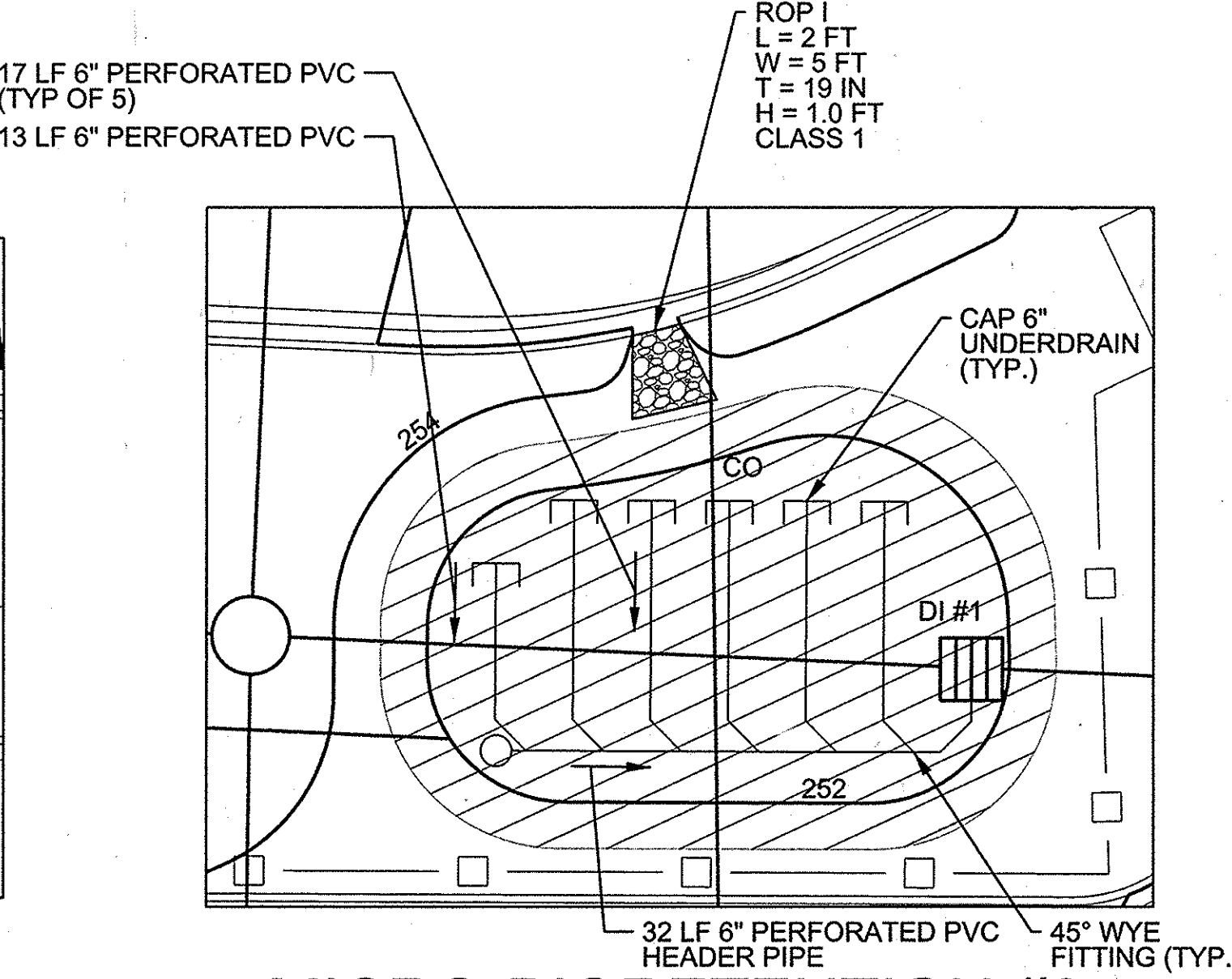
- NOTES:
- SEE SHEET 10 FOR ENLARGED VIEWS OF MICRO-BIORETENTION AREAS.
 - THE HIGHLIGHTED AREA IS EXISTING IMPERVIOUS AREA THAT IS BEING RE-PAVED AS A PART OF THIS PROJECT. THE EXISTING DRAINAGE PATTERN IS UNAFFECTED AND THIS AREA OUTFALLS TO PARCEL J ACROSS STEPHENS ROAD. PARCEL J IS AN EXISTING STORMWATER MANAGEMENT AREA. THIS PROJECT IS REDUCING THE OVERALL DRAINAGE AREA TO PARCEL J. SEE 'PROPERTY BOUNDARY INSET' FOR LOCATION OF PARCEL J.
 - FOR PARCEL BOUNDARY BEARINGS AND DISTANCES, SEE SHEET 2.
 - SWM POND V LOCATED IN PARCEL Q WAS DESIGNED UNDER CONTRACT F-02-111 TO ACCOMMODATE A FULLY DEVELOPED PARCEL H WITH THE FOLLOWING CHARACTERISTICS:
DA = 6.91 ACRES
RCN = 94
Tc = 0.12 HOURS
Q10 = 40.22 CFS



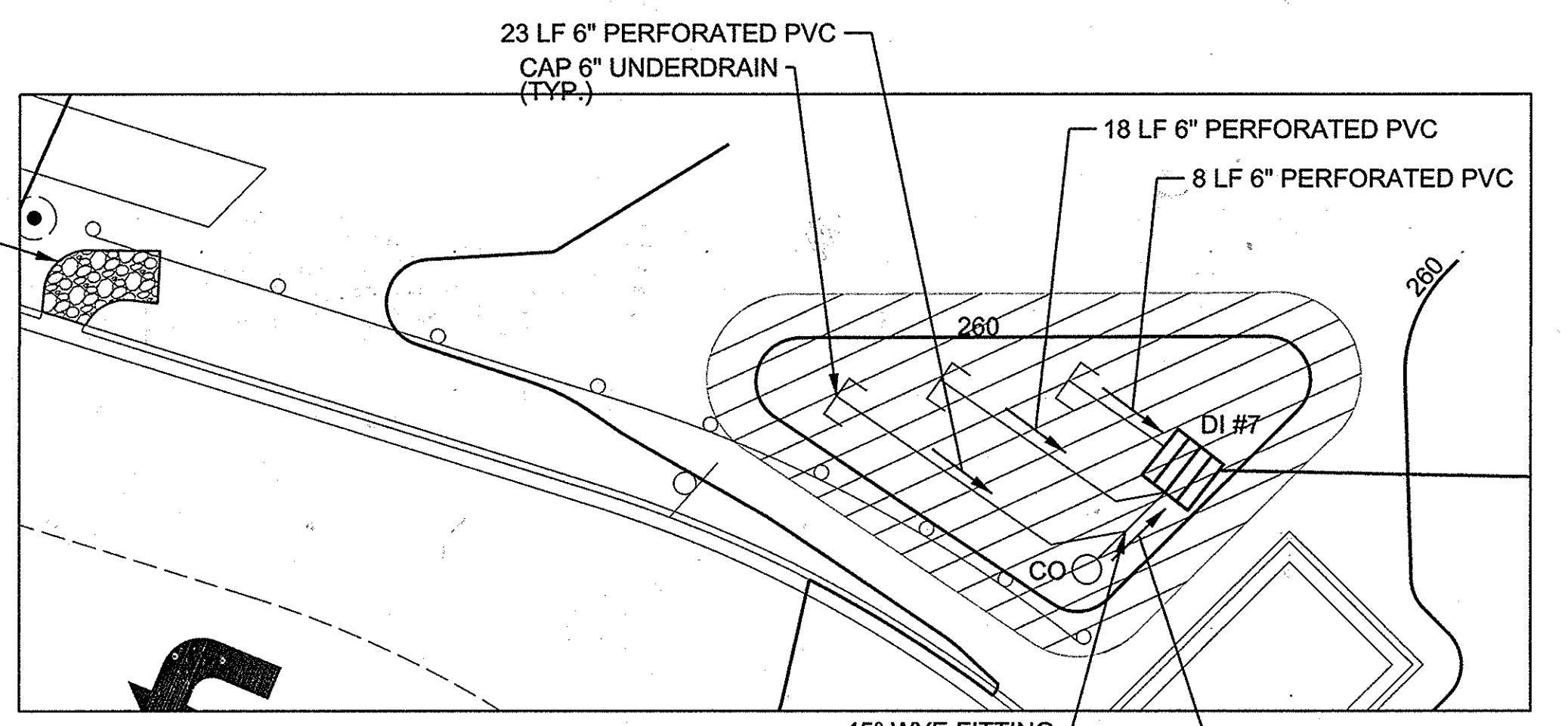
MICRO-BIORETENTION #1



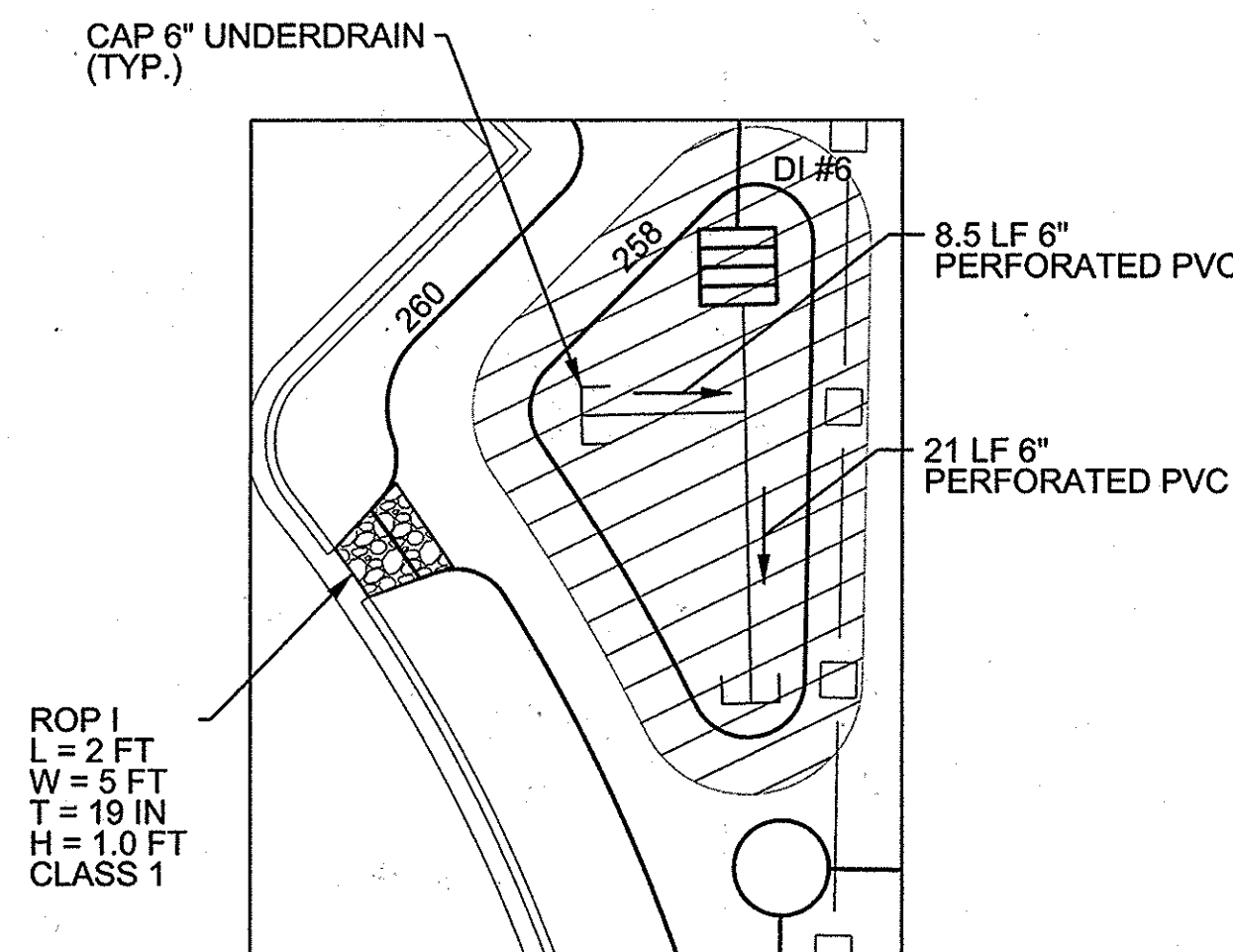
MICRO-BIORETENTION #2



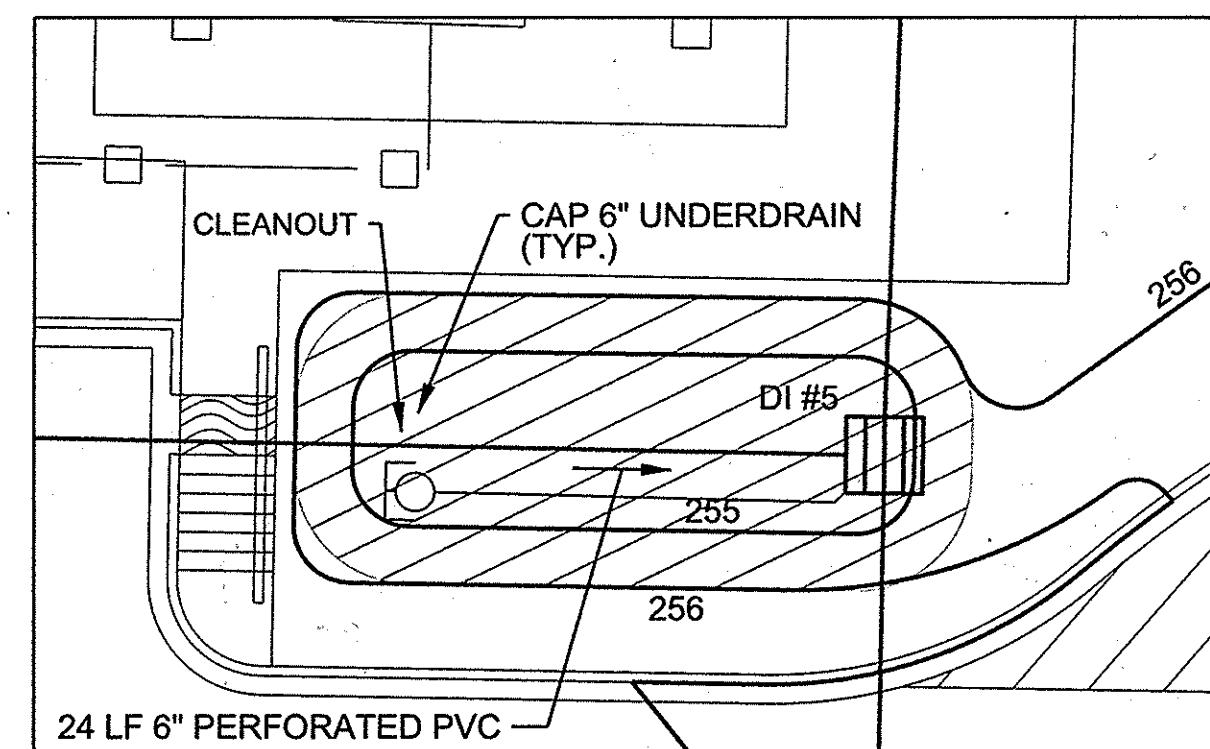
MICRO-BIORETENTION #3



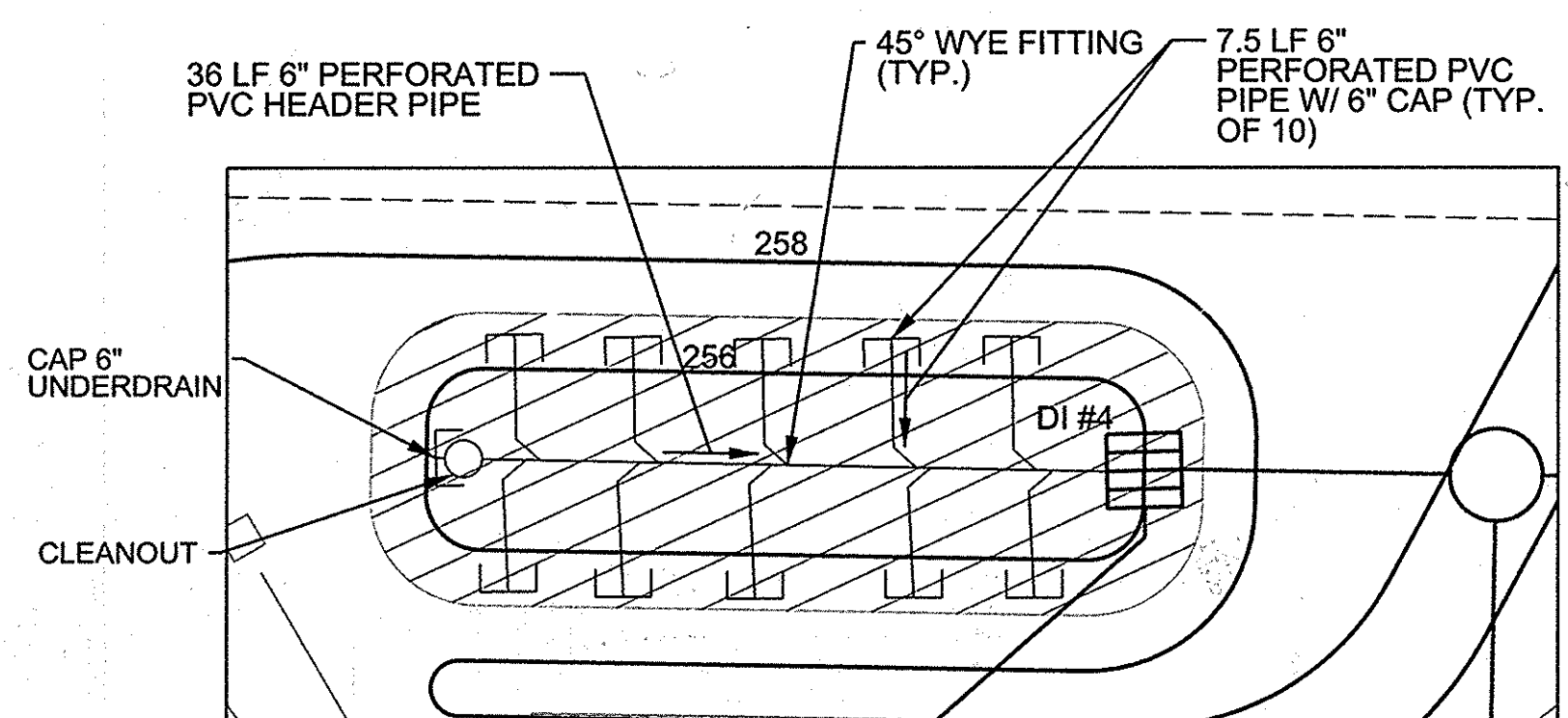
MICRO-BIORETENTION #4



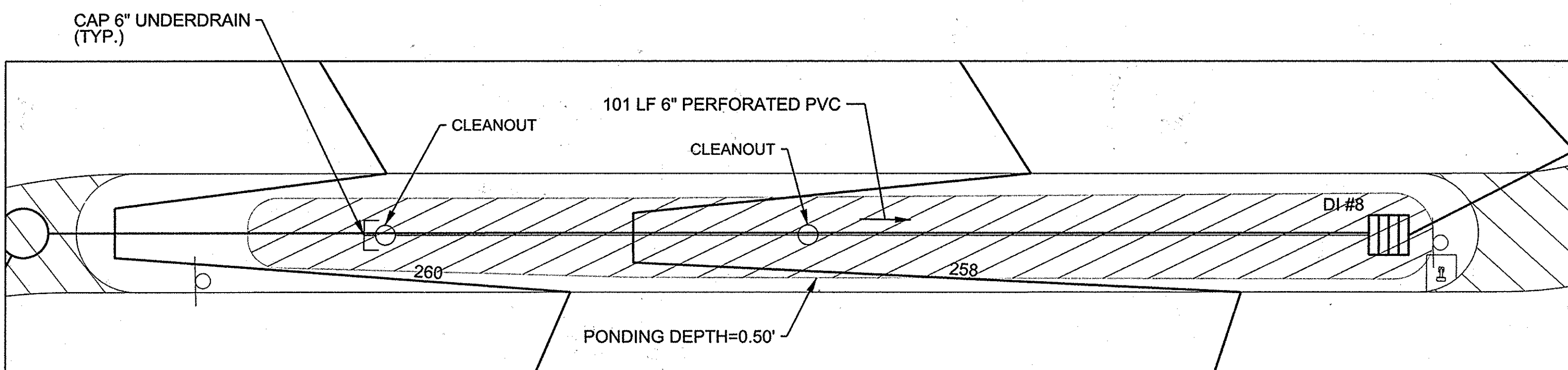
MICRO-BIORETENTION #5



MICRO-BIORETENTION #6



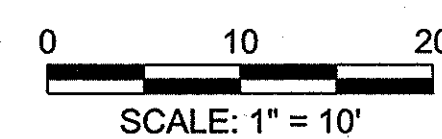
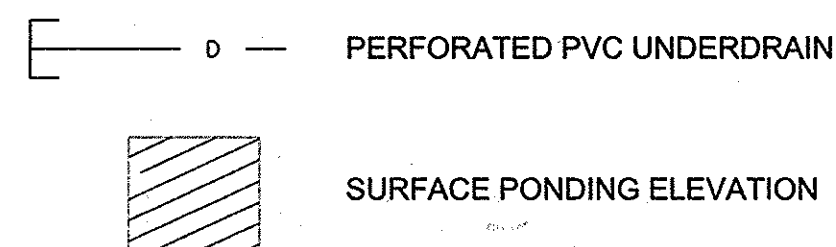
MICRO-BIORETENTION #7



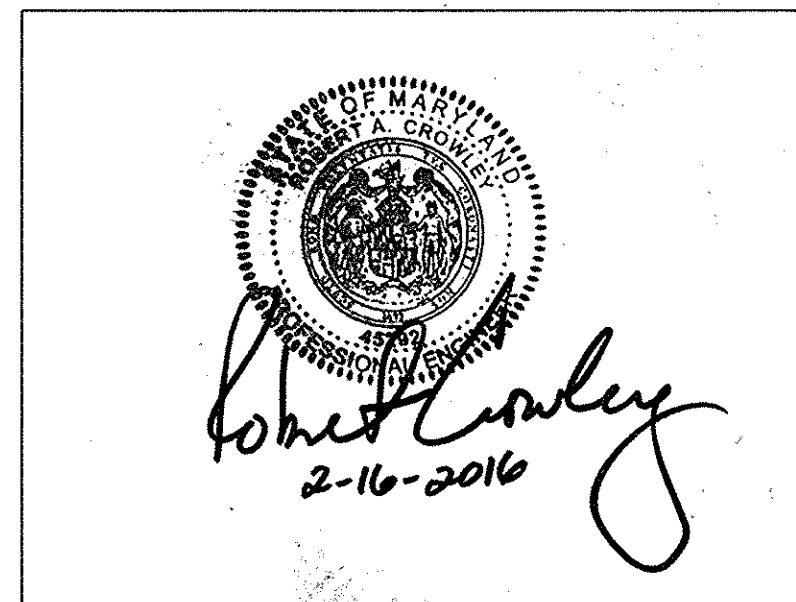
BIO-SWALE #1

MBR ID	SURFACE ELEV.	PONDING ELEV.	SURFACE AREA (SF)
#1	248.00'	249.00'	963
#2	251.00'	252.00'	738
#3	252.00'	253.00'	742
#4	260.00'	261.00'	460
#5	258.00'	259.00'	352
#6	255.00'	256.00'	320
#7	256.00'	257.00'	370

LEGEND



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. 45292 EXPIRATION DATE: 05/21/2016



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 3-28-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
 [Signature] 2-19-16
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DATE	No.	REVISION DESCRIPTION

EMERSON CAMPUS VCP
PARCEL H
 OWNER/DEVELOPER:
 EMERSON DEVELOPMENT IV, LLC
 ONE TEXAS STATION, SUITE 200
 TIMONIUM, MARYLAND 21093
 (443) 689-8000

JACOBS
 1100 N. GLEBE RD., ARLINGTON, VA, 22201
 (571) 215-1000

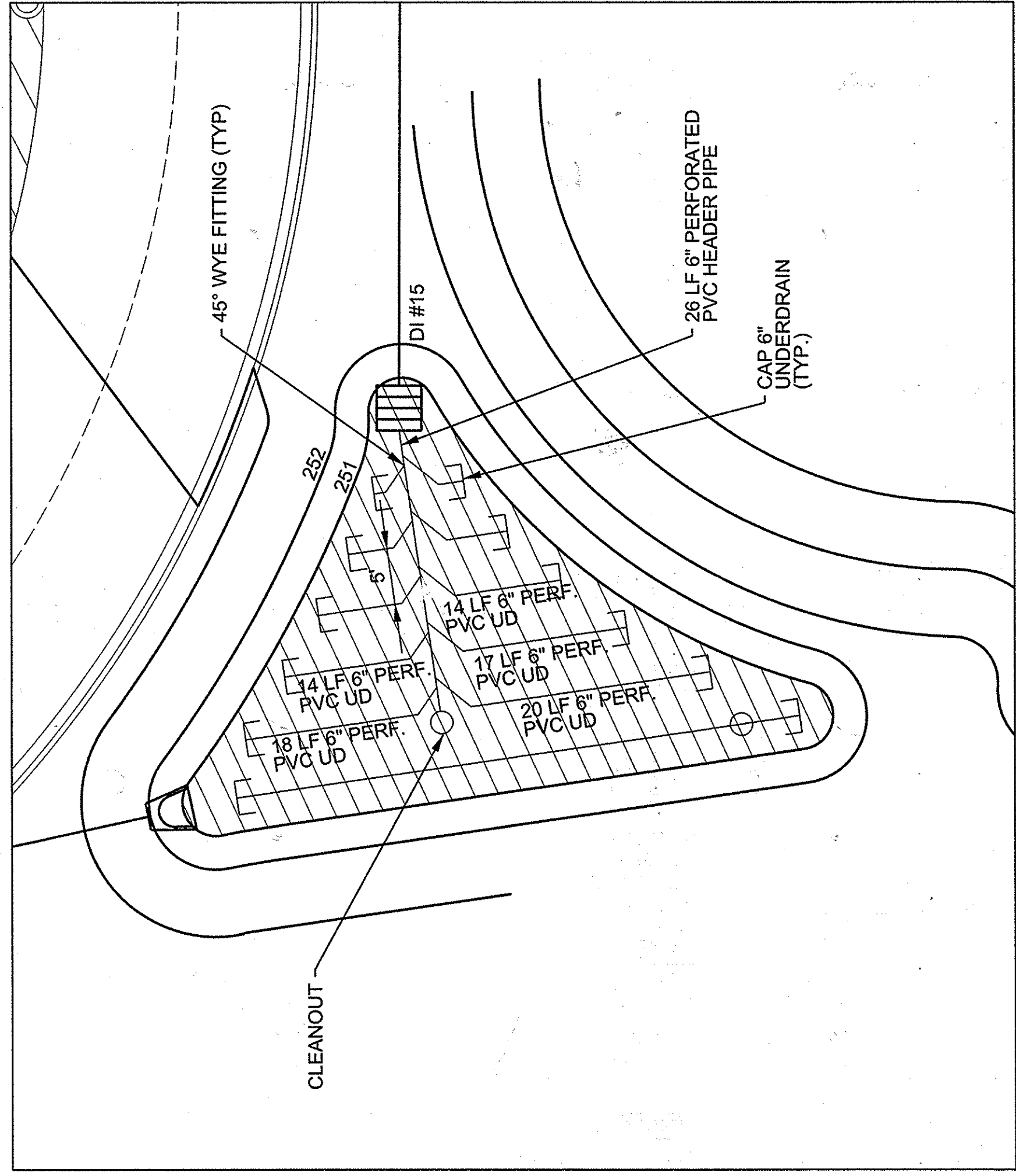
SUBDIVISION NAME	TAX MAP	LOT/PARCEL #
EMERSON /REVITZ PROPERTY	47	LOT 165 / PARCEL H, PARCEL D, PARCEL E, PARCEL F, PARCEL G, PARCEL O, PARCEL Q

PLAT #	ZONE	GRID
15786	PEC	20

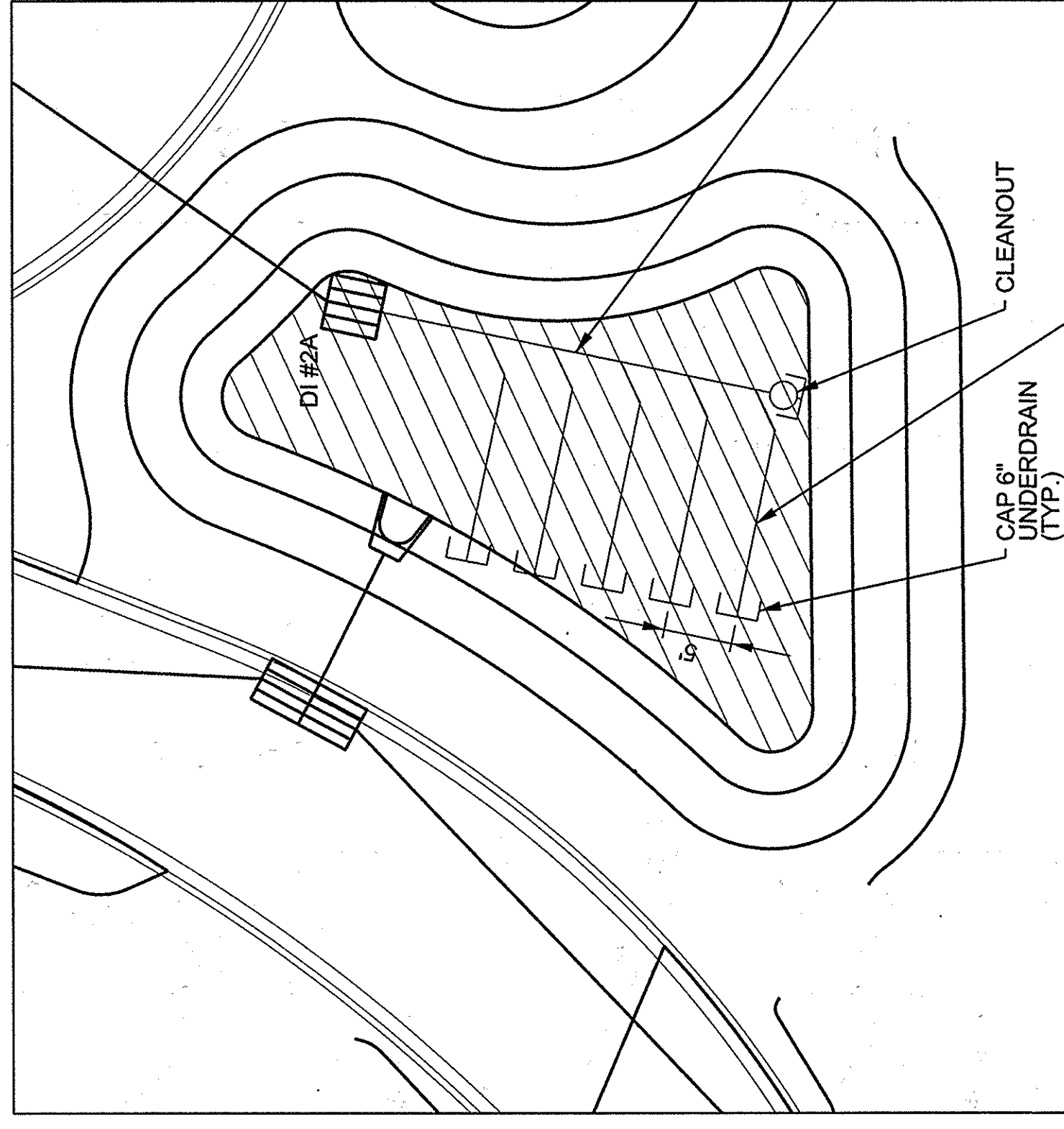
DEED	ELEC. DISTRICT
11479 / 005	6TH

WATER CODE	SEWER CODE

TITLE		
ENVIRONMENTAL CONCEPT PLAN ENLARGED SWM FACILITIES		
DES. BY	SCALE	PROJ. No.
MGW	1:10	
DRN. BY	DATE	
MGW	2/16/2016	
CHK. BY	APPROVED	
RAC	[Signature]	10 OF 11



MICRO-BIORETENTION #8

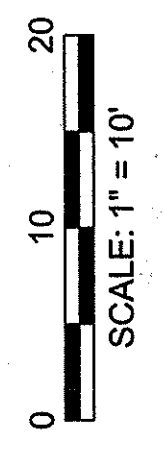


MICRO-BIORETENTION #9

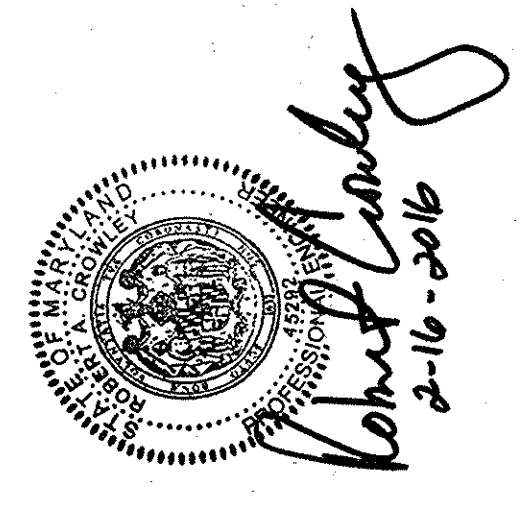
MBR ID	SURFACE ELEV.	PONDING ELEV.	SURFACE AREA (SF)
#8	251.00'	252.00'	1092
#9	245.00'	246.00'	848

LEGEND

- 0 — PERFORATED PVC UNDERDRAIN
- ▨ SURFACE PONDING ELEVATION



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. 45292. EXPIRATION DATE: 05/21/2016.



APPROVED: DEPARTMENT OF PLANNING AND ZONING
 DATE: 3-20-16
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 2-19-16
 CHIEF, DIVISION OF LAND DEVELOPMENT

DATE	No.	REVISION DESCRIPTION

EMERSON CAMPUS VCP
PARCEL H

OWNER/DEVELOPER:
 EMERSON DEVELOPMENT IV, LLC
 ONE TEXAS STATION, SUITE 200
 TIMONIUM, MARYLAND 21083
 (443) 688-8000

JACOBS
 2510 JACOBSON RD., ARLINGTON, VA 22201

SUBDIVISION NAME	TAX MAP	LOT/PARCEL #
EMERSON (RENTZ) PROPERTY	47	LOT 181 / PARCEL 1 PARCEL #1 / PARCEL 2 PARCEL #3 / PARCEL 4 PARCEL 5

PLAN #	ZONE	RFC	GRID
0786			20

DEEG	ELEC. DISTRICT	6TH
1479 / 005		

WATER CODE	SEWER CODE

TITLE: ENVIRONMENTAL CONCEPT PLAN ENLARGED SWM FACILITIES

DES. BY	SCALE	PROJ. NO.
MGW	1:10	

DRN. BY	DATE	APPROVED
MGW	2/10/2016	

CHK. BY	RAC

11 OF 11

ECP-15-086