

**DESIGN NARRATIVE**

FOR THE CONCEPT DESIGN PHASE OF THIS PROJECT, WE HAVE DELINEATED THE FEM SITE AND NATURAL RESOURCES PROVIDED A SITE DEVELOPMENT LAYOUT, AND LOCATED PROPOSED ESD PRACTICES. BASED UPON THE PROPOSED SITE LAYOUT, THERE ARE NO EXISTING PERENNIAL STREAMS AND STREAM BUFFERS, NO WETLAND BUFFERS, NO 100-YR FLOODPLAIN, AND NO WOODS WITHIN THE PROPERTY BOUNDARY. STEEP SLOPES, LOCATED AT DRIVEWAY BERMS AND EXISTING STORMWATER MANAGEMENT FACILITIES, AND TOPOGRAPHY ARE IDENTIFIED FOR THE SITE. SOILS ON SITE CONSIST OF U/D, URBAN LAND - UDORIENTS COMPLEX.

EFFORTS HAVE BEEN IMPLEMENTED TO GRADE THE SITE SUCH THAT DRAINAGE PATTERNS HAVE BEEN RETAINED, AND PROVISIONS FOR STABLE CONVEYANCE OF RUNOFF HAVE BEEN MADE.

FOR THIS PROJECT, THE ESD PRACTICES PROPOSED ARE MICRO-BIORETENTION FACILITIES AND LANDSCAPE CONCRETE CONTAINERS (FOR EXAMPLE FILTERRA SYSTEMS). THESE SWM PRACTICES ARE PROPOSED THROUGHOUT THE LIMIT OF WORK TO CAPTURE AND TREAT RUNOFF FROM IMPERVIOUS AREAS. THE RUNOFF IS TEMPORARILY STORED THESE FACILITIES WHERE DRAINAGE WILL FILTER THROUGH A SYSTEM OF LAYERED PLANTING MEDIA, SAND, AND GRAVEL WITHIN A LANDSCAPED AREA. ESDs HAVE BEEN DESIGNED TO PROTECT NATURAL RESOURCES, MAINTAIN NATURAL FLOW PATTERNS, AND MINIMIZE THE AMOUNT OF IMPERVIOUS AREA PROPOSED AS PART OF THIS DEVELOPMENT PROJECT.

**GENERAL NOTES**

1. THIS IS NOT A BOUNDARY OR TOPOGRAPHIC SURVEY. SURVEY FOR THIS SITE HAS BEEN ORDERED AND WILL BE INCLUDED FOR THE SDP.
2. THE INFORMATION SHOWN ON THIS PLAN WAS ACQUIRED FROM THE HOWARD COUNTY GIS AND IS INTENDED FOR ILLUSTRATIVE INFORMATION ONLY. SITE RESOURCES CANNOT VERIFY THE ACCURACY OF THE INFORMATION SHOWN.
3. THE INFORMATION SHOWN ON THIS EXHIBIT IS NOT FIELD VERIFIED AND SHALL NOT BE USED FOR DESIGN OR CONSTRUCTION.
4. THE COORDINATES SHOWN HEREON ARE BASED ON NAD '83 COORDINATE VALUES.
5. EXISTING UTILITIES ARE BASED ON HOWARD COUNTY GIS, THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION OF UTILITIES BY DIGGING TEST PITS, BY HAND, AT ALL UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
6. THE SITE LIES ENTIRE WITHIN SOIL TYPE U/D - URBAN LAND - UDORIENTS COMPLEX OF THE HYDROLOGIC SOIL GROUP D.
7. STORMWATER MANAGEMENT WILL BE PROVIDED BY ENVIRONMENTAL SITE DESIGN (ESD) PRACTICES. THE FACILITIES ARE TO BE PRIVATELY MAINTAINED.
8. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN, SITE DEVELOPMENT PLAN, OR GRADING OR BUILDING PERMIT. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION, SITE PLAN, OR GRADING AND BUILDING PERMIT STAGES.
9. THREE EXISTING SWM FACILITIES ON SITE WERE DESIGNED IN ACCORDANCE WITH MD 37B CRITERIA PER SDP-44-51.

**SITE ANALYSIS DATA**

TOTAL PROJECT AREA	37.08 AC
EXISTING IMPERVIOUS AREA	24.1 AC
WETLANDS / WETLAND BUFFER	0 AC
FLOODPLAINS / BUFFER	0 AC
FORESTS	0 AC
STEEP SLOPES (15% AND GREATER)	1.6 +/- AC
LOD AREA	6.0 AC
EXISTING IMPERVIOUS AREA (LOD)	5.8 AC
PROPOSED IMPERVIOUS AREA (LOD)	5.4 AC
PROPOSED SITE USAGE	COMMERCIAL DEVELOPMENT

**SOIL TABLE**

SOIL NAME	U/D - URBAN LAND/UDORIENTS COMPLEX (100% SITE)
K FACTOR (EROSION)	UDORIENTS 0.28
SOIL MAP NUMBER	SHEET 25 (SAVAGE SE QUAD)

\*U/D SOIL UNIT ENCOMPASSES THE ENTIRE PROJECT BOUNDARY.  
 URBAN LAND COMPONENT MAKES UP 60% OF THE MAP UNIT. THIS SOIL IS NOT FLOODED AND IS NOT PONDED. THE WATER TABLE IS DEEPER THAN 6 FEET. IT IS IN NON-IRRIGATED LAND CAPABILITY CLASS 2S. THIS COMPONENT IS NOT HYDRIC SOIL.

UDORIENTS COMPONENT MAKES UP 40% OF THE MAP UNIT, THE ASSIGNED K<sub>1</sub> ERODIBILITY FACTOR IS 0.28. THIS SOIL IS WELL DRAINED. THE SLOWEST PERMEABILITY WITH 60 INCHES IS SLOW. AVAILABLE WATER CAPACITY IS VERY HIGH AND SHRINK SWELL POTENTIAL IS MODERATE. THIS SOIL IS NOT FLOODED AND IS NOT PONDED. THE TOP OF THE SEASONAL HIGH WATER TABLE IS AT 60 INCHES. THIS COMPONENT IS NOT A HYDRIC SOIL. THE DEPTH TO A RESTRICTIVE FEATURE IS GREATER THAN 60 INCHES.

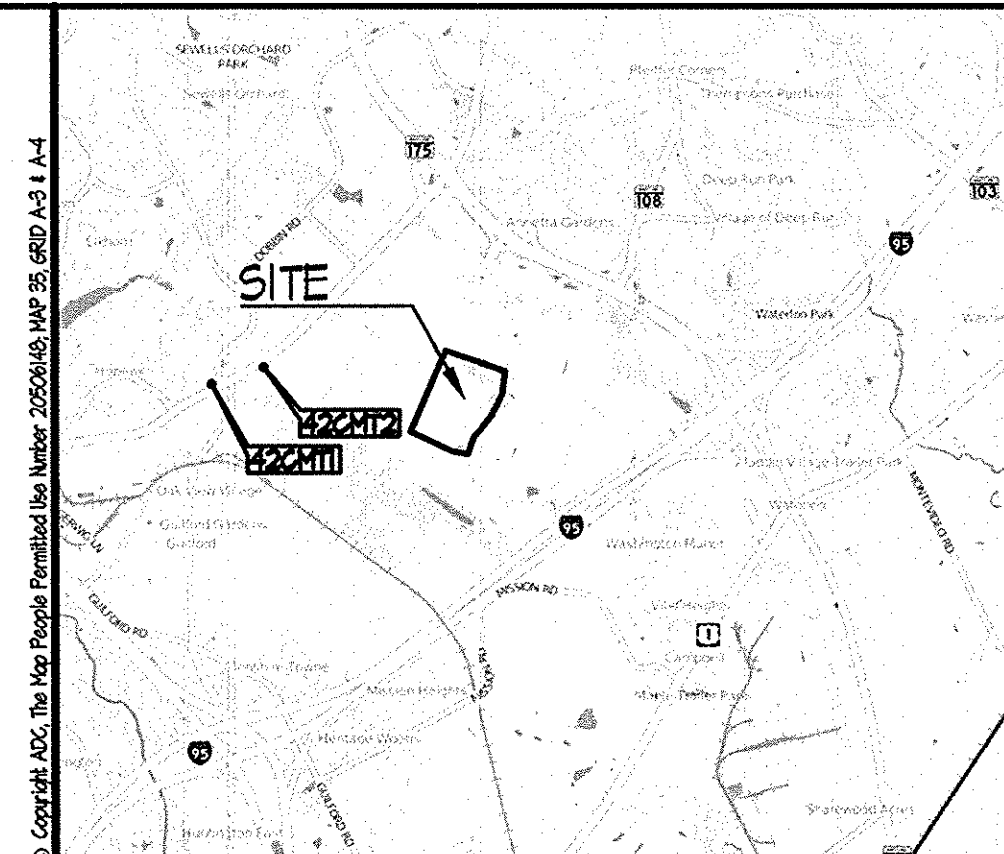
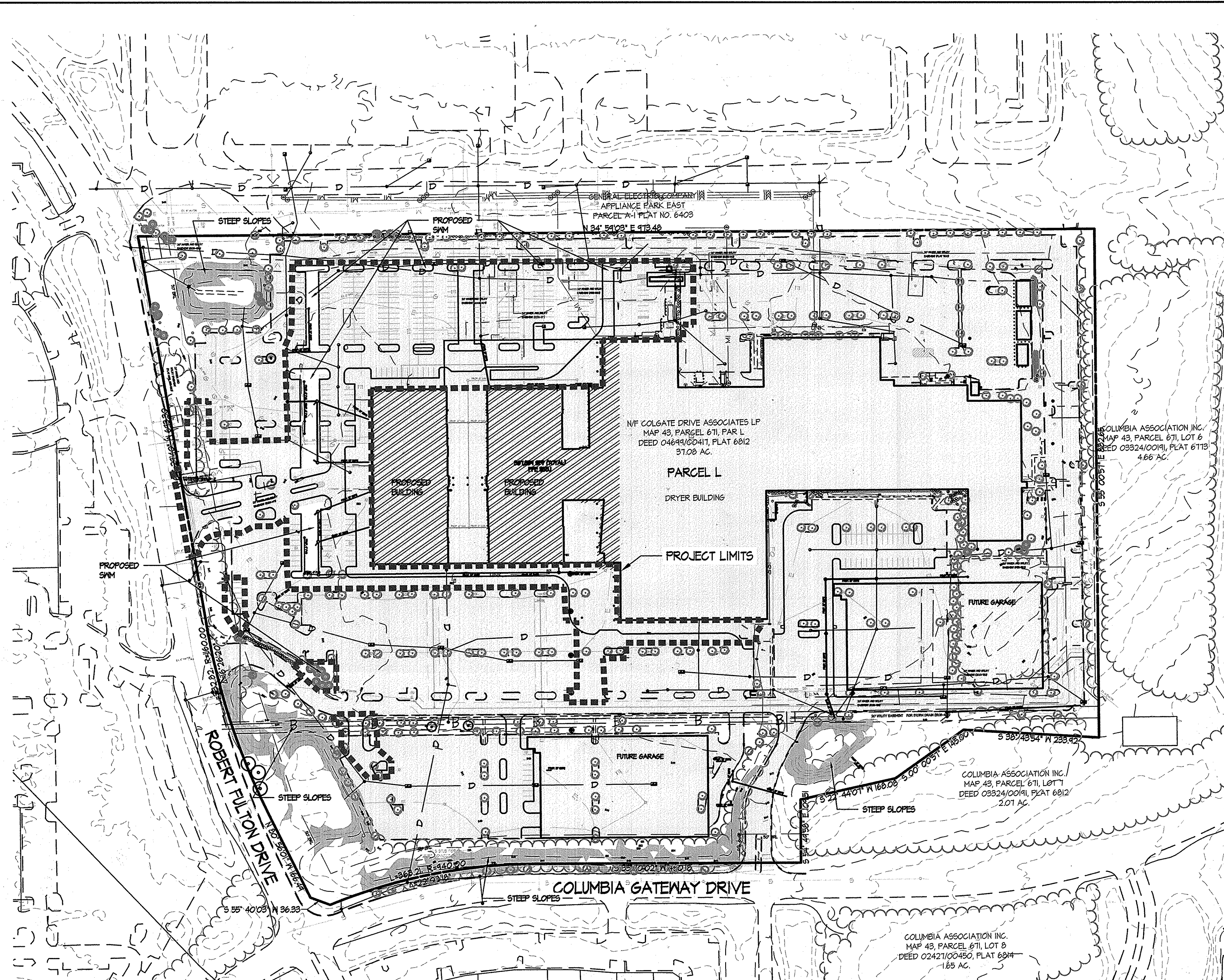
**FIELD VERIFICATION**

THE SITE NATURAL RESOURCES MAPPED ON THESE PLANS HAVE BEEN FIELD VERIFIED AS PER THE REQUIREMENTS OF SECTION 51.31 OF THE 2007 MARYLAND STORMWATER DESIGN MANUAL AND UPDATES. THIS VERIFICATION IS LIMITED TO THOSE NATURAL RESOURCES LISTED IN TABLE 51.1 OF THE MANUAL. NOTE THAT NOT ALL OF THE RESOURCES LISTED IN THE TABLE MAY BE PRESENT ON THIS SITE.

THE MAPPINGS OF THE NATURAL RESOURCES SHOWN ON THESE PLANS IS BASED ON THE FOLLOWING INFORMATION:

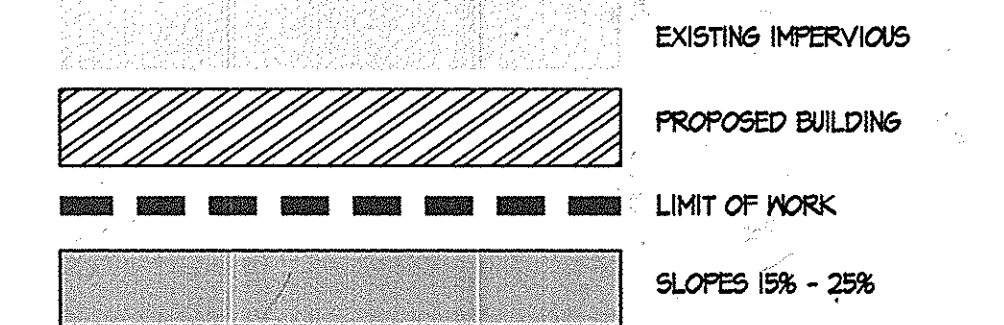
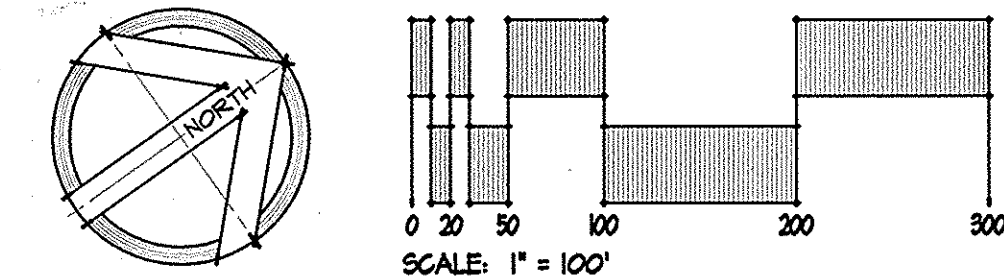
- HOWARD COUNTY GIS TOPOGRAPHY
- AN ALTA SURVEY PREPARED BY DBS & ASSOCIATES, LLC ON MARCH 14, 2000.
- SITE VISIT

Jennifer Harrington  
 PRINTED NAME  
*Jennifer Harrington* 1.29.15  
 SIGNED DATE



**VICINITY MAP** 1"=2000'

**BENCHMARKS** NAD83/11 & NAVD83 IN USE  
 #37113 ALSO KNOWN AS R-125 N65 PID: JY0628 ELEV: 123.961  
 BRASS DISC ON BRIDGE ABUTMENT ON US-1 0.5 MI. NORTHEAST OF RT-100.  
 #37114 ALSO KNOWN AS N/A N65 PID: N/A ELEV: 170.156  
 LIGHT BOLT AT END OF RAMP FROM I-100 TO US-1 SBL.



**DRAWING INDEX**

SHEET #	DRAWING #	DRAWING TITLE
1 OF 5	ECP-01	ECP COVER SHEET
2 OF 5	ECP-02	ECP EXISTING CONDITIONS PLAN
3 OF 5	ECP-03	ECP STORMWATER MANAGEMENT PLAN
4 OF 5	ECP-04	ECP EROSION & SEDIMENT CONTROL PLAN
5 OF 5	ECP-05	ECP SWM DETAILS

APPROVED: DEPARTMENT OF PLANNING & ZONING  
*Veit Seidel* 6/24/15  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*Jeff Edelman* 6/16/15  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

ADDRESS / PERMIT INFORMATION  
 7125 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 ZONE: M4, TAX MAP NO. 43, PARCEL NO. 0611, L4649 / P-411  
 ELECTION DISTRICT 5

OWNER/DEVELOPER  
 CORPORATE OFFICE PROPERTIES TRUST  
 6711 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 PHONE: 443-285-5641

**COPT**  
 CORPORATE OFFICE PROPERTIES TRUST

**SITE RESOURCES**  
 Comprehensive Land Planning & Site Design Services  
 18155 Arretville Pike • Phoenix, Maryland 21118  
 (410) 885-3388 • Fax (410) 885-3389

DES: SRI  
 PRN: SRI  
 CHK: SRI  
 DATE: 04/16/15

**ENVIRONMENTAL CONCEPT PLAN COVER SHEET**

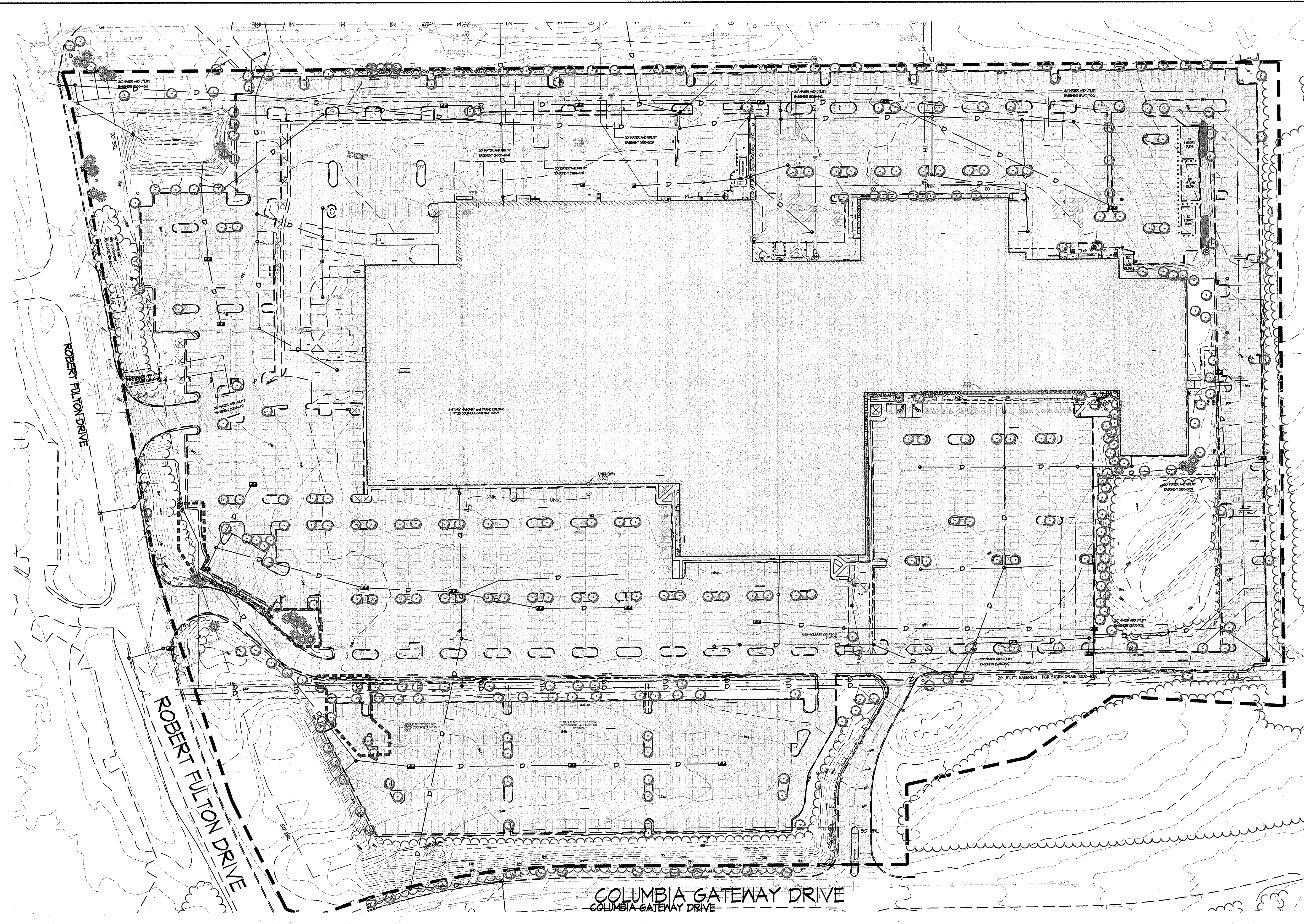
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**7125 COLUMBIA GATEWAY DRIVE WAREHOUSE**

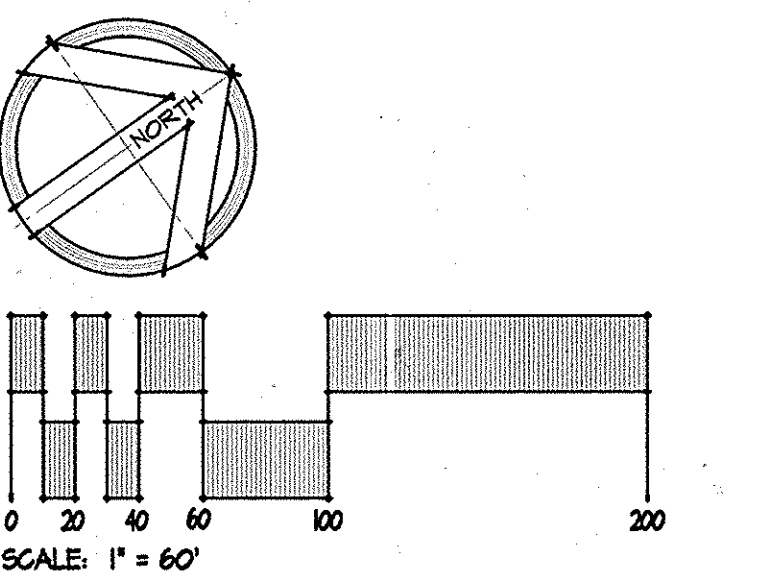
SCALE: 1"=100'  
 ECP-01  
 SHEET 1 OF 5  
 HOWARD COUNTY, MARYLAND  
 ECP-15-050



- NOTES**
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--- PROPERTY BOUNDARY (31.08 ACRES)  
 [Hatched Area] EX. IMPERVIOUS COVER (29.1 ACRES)



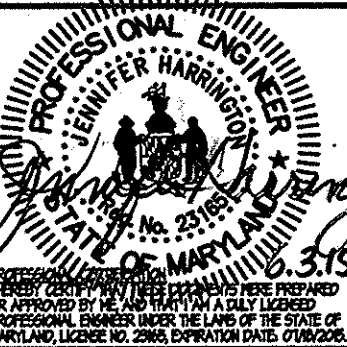
COLUMBIA GATEWAY DRIVE  
 COLUMBIA GATEWAY DRIVE

APPROVED: DEPARTMENT OF PLANNING & ZONING  
*Neil S. Sedore*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 6/16/15  
*John J. Kelly*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 6/16/15

ADDRESS / PERMIT INFORMATION  
 7125 COLUMBIA GATEWAY DRIVE  
 COLUMBIA, MARYLAND 21046  
 ZONE: M-1, TAX MAP NO. 43, PARCEL NO. 0671, L4691 / F-111  
 ELECTION DISTRICT 3  
 OWNER/DEVELOPER:  
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DATE: 04/16/15	BY: NO.	REVISION	DATE

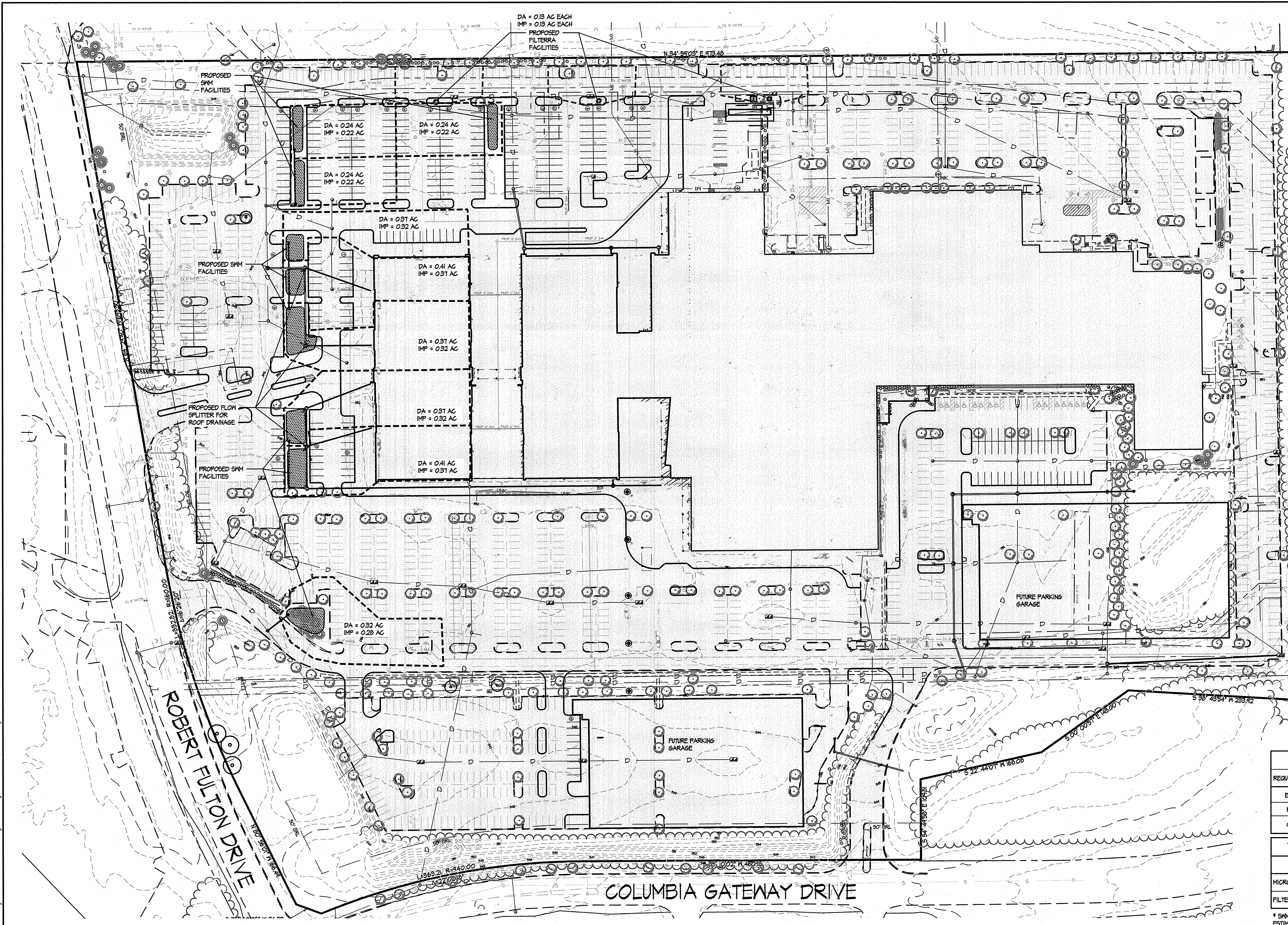
ENVIRONMENTAL CONCEPT PLAN  
 EXISTING CONDITIONS PLAN  
 DATE: 600' SCALE MAP NO. BLOCK NO.

7125 COLUMBIA GATEWAY DRIVE  
 WAREHOUSE  
 HOWARD COUNTY, MARYLAND

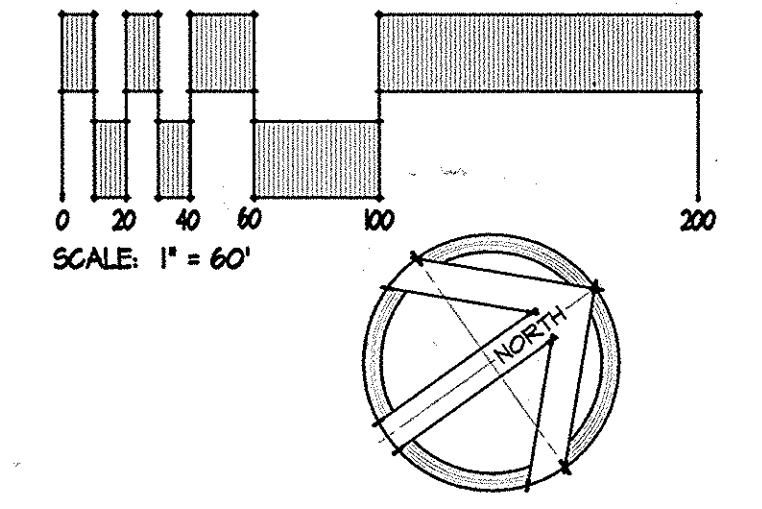
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 ECP0.02  
 SHEET 2 OF 5  
 ECP-15-050

Z:\110064-Columbia Gateway Warehouse at 7125 Columbia Gateway Drive.dwg: ECP Existing Conditions Planning-ECP0.02 Jun 02, 2015 10:21am jh





- NOTES**
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- PROPOSED IMPERVIOUS COVER
- PROPOSED ESD FACILITIES
- PROPOSED BUILDING ON EXISTING FOUNDATIONS
- SWM DRAINAGE AREA

SITE AREA TABULATION	
TOTAL PROPERTY AREA	= 31.08 AC
EX. IMPERVIOUS AREA	= 21.10 AC > 40%
SWM STUDY AREA	= 6.0 +/- AC
EX. IMPERVIOUS AREA	= 5.8 +/- AC
PROP. IMPERVIOUS AREA	= 5.4 +/- AC
TARGET Pe	= 1.0 inches

THIS REDEVELOPMENT PROJECT IS REQUIRED TO PROVIDE AN IMPERVIOUS AREA REDUCTION AND/OR INQ TREATMENT FOR 50% OF THE EXISTING IMPERVIOUS.

50% X EXISTING IMPERVIOUS = 50% X 5.80 AC = 2.90 AC  
 IMPERVIOUS AREA REDUCTION = 0.40 AC  
 IMPERVIOUS AREA REQUIRING TREATMENT = 2.50 AC

ESDV REQUIRED = PE X RV X A = 1.0 X 0.95 X 2.50 X 43560 = 8621 CF  
 12

SWM STORAGE REQUIREMENTS			
REQUIREMENT	VOLUME REQ'D (CUBIC FEET)	VOL. PROVIDED (CUBIC FEET)	NOTES
ESDV	9300 +/-	10,700 +/-	MICRO-BIORETENTION, FILTERRA SYSTEMS
REV	-	-	NOT REQUIRED FOR REDEV PROJECTS
CPV	-	-	EXISTING SWM FACILITIES

TREATMENT SUMMARY TABLE - PH2				
PRACTICE	DRAINAGE AREA (AC)	IMP. AREA TREATED (AC)	ESD VOL. PROVIDED (CF)	Pe TREATED (IN)
MICRO-BIORETENTION	3.21 +/-	2.64 +/-	9,200 +/-	1.0
FILTERRA SYSTEMS	0.39 +/-	0.39 +/-	1,500 +/-	1.0

\* SWM COMPUTATIONS FOR THIS ECP PLAN INCLUDE TREATMENT VOLUME ESTIMATES FOR ESDS AND BMP.

APPROVED: DEPARTMENT OF PLANNING & ZONING  
*Jeff Seidman*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
*Chief Clerk*  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 6/16/15

ADDRESS / PERMIT INFORMATION  
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 PHONE: 443-285-5647



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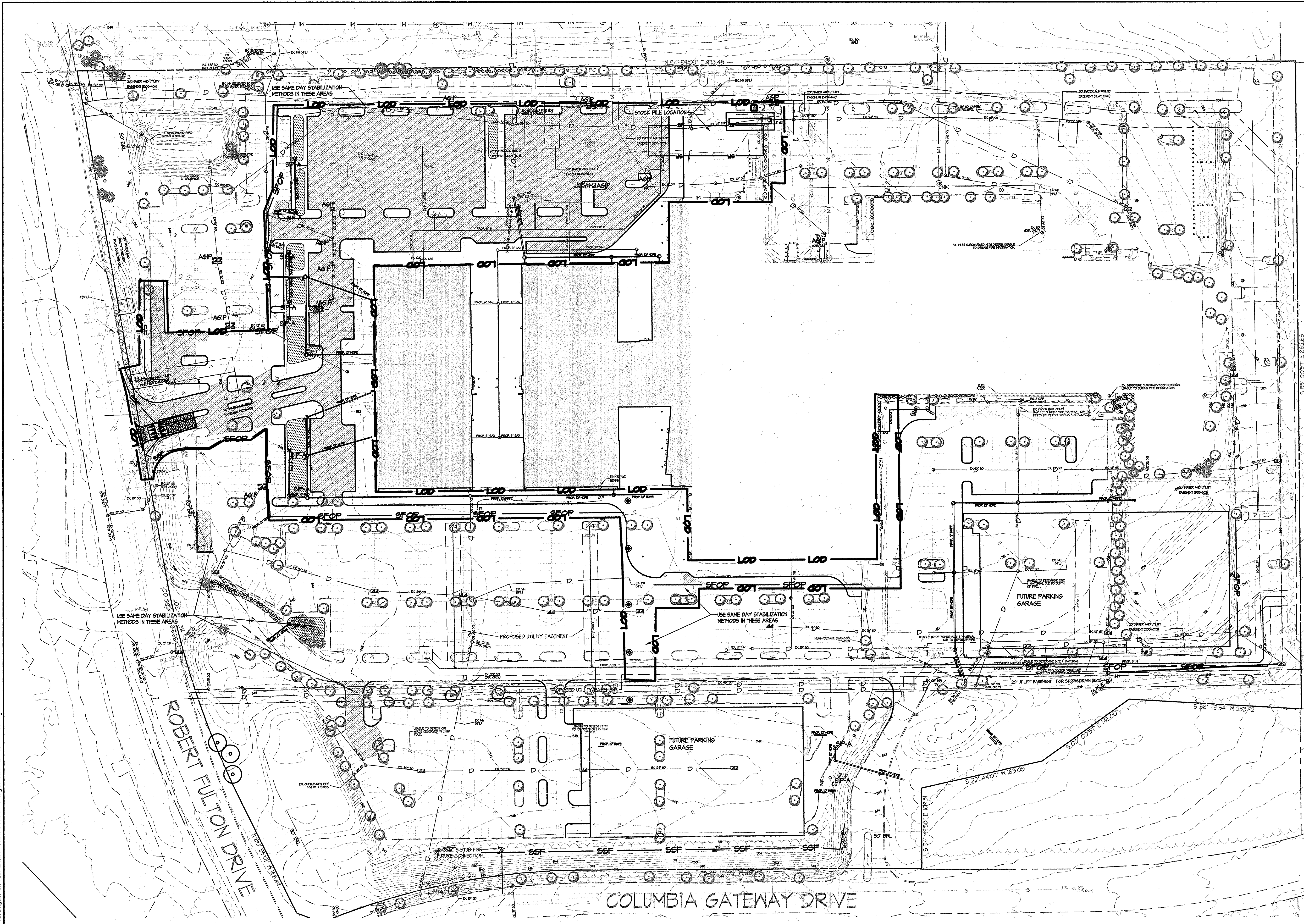
ENVIRONMENTAL CONCEPT PLAN  
 STORMWATER MANAGEMENT PLAN  
 DATE: 600' SCALE MAP NO. BLOCK NO.

7125 COLUMBIA GATEWAY DRIVE WAREHOUSE  
 HOWARD COUNTY, MARYLAND  
 SCALE: 1"=100'  
 ECP-03  
 SHEET 3 OF 5  
 ECP-15-050

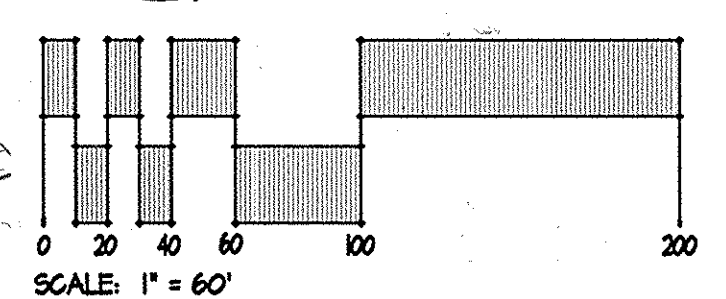
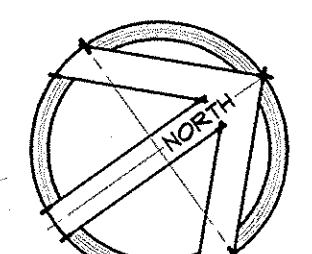
Z:\11006-Columbia Gateway Warehouse at 7125 Columbia Gateway Drive - Jan 02, 2015 11:20am .jlf



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- SFOP** SILT FENCE ON PAVING
- SSF** SUPER SILT FENCE
- SIP** STANDARD
- AGIP** AT GRADE
- CIP** CURB
- SSFP** SUPER SILT FENCE
- IP** INLET PROTECTION
- ESD** STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM
- ESD** PROPOSED ESD FACILITIES
- ESD** PROPOSED BUILDINGS TO BE CONSTRUCTED ON EXISTING FOUNDATIONS



APPROVED: DEPARTMENT OF PLANNING & ZONING  
*Ket Schleich*  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 6/04/15  
 DATE: 6/16/15

ADDRESS / PERMIT INFORMATION  
 7125 COLUMBIA GATEWAY DRIVE  
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 ZONE: M-1, TAX MAP NO. 43, PARCEL NO. 0671, L4691 / F-411  
 ELECTION DISTRICT 3

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DES: SRI  
 DRN: SRI  
 CHK: SRI  
 DATE: 04/16/15

ENVIRONMENTAL CONCEPT PLAN  
 EROSION AND SEDIMENT  
 CONTROL PLAN

7125 COLUMBIA GATEWAY DRIVE  
 WAREHOUSE

SCALE: 1"=60'  
 ECP0.04  
 SHEET 4 OF 5  
 HOWARD COUNTY, MARYLAND  
 ECP-15-050

Z:\110081-Columbia Gateway Warehouse at 7125 Columbia Gateway Drive - ECP Erosion & Sediment Control Planning\ECP0.04 - Jan 02, 2015 11:08am .jlf



