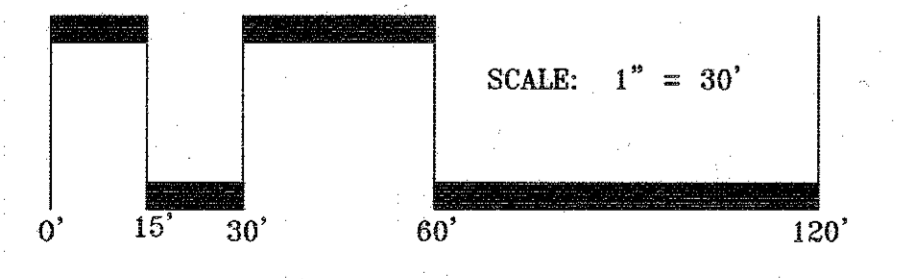


**LEGEND**

- FP FLOODPLAIN
- WATER EASEMENT
- SEWER EASEMENT
- E PROP. ELECTRICAL
- EXISTING TREE LINE
- PROPOSED TREE LINE
- W WETLANDS
- WB WETLAND BUFFER
- STREAM CENTERLINE
- SB STREAM BUFFER
- LIMIT OF SOIL BOUNDARY
- DRAINAGE AREA DELINEATION
- L.O.D. LIMIT OF DISTURBANCE
- SCE STABILIZED CONSTRUCTION ENTRANCE
- EARTH DIKE / CLEAN WATER DIVERSION
- SSF SUPER SILT FENCE
- PROPERTY LINE
- 366 EX. CONTOUR
- 300 PROP. CONTOUR
- PROP. STORM DRAIN
- EX. STORM DRAIN
- EX. S<sup>W</sup>S. (public) EX. SANITARY SEWER
- S<sup>W</sup>S. (public) PROP. SANITARY SEWER
- S<sup>W</sup>L (public) EX. WATER LINE
- S<sup>W</sup>L (public) PROP. WATER LINE
- EX. CURB & GUTTER
- PROPOSED CURB & GUTTER
- PARKING SPACE COUNT
- SLOPES 15% TO 25%
- SLOPES GREATER THAN 25%
- STORMWATER MANAGEMENT AREAS
- PERMEABLE PAVEMENT (A-1)
- PERMEABLE PAVEMENT (A-1) FACILITY IDENTIFICATION
- SGM-XX SUBMERGED GRAVEL WETLAND (M-2) FACILITY IDENTIFICATION
- MB-XX MICRO BIO-RETENTION (M-6) FACILITY IDENTIFICATION



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Veronica L. ...* 2-2-17  
 Chief, Division of Land Development gmf Date

*Chad ...* 2-6-17  
 Chief, Development Engineering Division bpd Date

**GLWGUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BALT: 410-890-1820 DC/VA: 301-989-2524 FAX: 301-421-4186

DATE	REVISION	BY	APPR.

# ENVIRONMENTAL CONCEPT PLAN DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD PARCEL 'B'

**SITE ANALYSIS**

1. SITE AREA: PARCEL B: 1.94 AC.  
 AREA OF WETLANDS: PARCEL B: 0.00 AC.  
 AREA OF FLOODPLAIN: PARCEL B: 0.00 AC.  
 AREA OF FOREST: PARCEL B: 0.00 AC.  
 EXISTING IMPERVIOUS AREA: PARCEL B: 0.25 AC.

2. AREA OF 15%+ SLOPES: 0.14 AC.  
 THERE ARE NO STEEP SLOPES (25% OR GREATER) IN EXCESS OF 20,000 CONTIGUOUS SQUARE FEET ON THE SITE.

3. THERE ARE NO HIGHLY ERODIBLE SOILS ON SITE.

4. LIMIT OF DISTURBED AREA: 1.80 AC.

5. PROPOSED USES: PARCEL B: 1.94 AC. DMIA

6. PROPOSED IMPERVIOUS AREA: 1.26 AC.

7. COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAT AND SITE DEVELOPMENT PLAN STAGES. 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.

8. THE ENVIRONMENTAL CONCEPT PLAN IS FOR STORMWATER MANAGEMENT PURPOSES ONLY. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION AND/OR SITE DEVELOPMENT PLAN.

9. THIS SITE IS NOT SUBJECT TO HOWARD COUNTY FOREST CONSERVATION REQUIREMENTS SINCE IT IS IN THE NT ZONING DISTRICT AND QUALIFIES FOR EXEMPTION (61202)(b)(iv). A PLANNED UNIT DEVELOPMENT WHICH HAS PRELIMINARY DEVELOPMENT PLAN APPROVAL AND 50% OR MORE OF THE LAND IS RECORDED AND SUBSTANTIALLY DEVELOPED BEFORE DECEMBER 31, 2012.

10. PREVIOUS FILE NUMBERS - SDP 15-060, F 15-049, F 15-106, F 14-480, F 94-10, FDP-DC-CRESCENT-A, AND FDP-DC-MSH-1.

11. ALL AREAS WITHIN DOWNTOWN COLUMBIA, INCLUDING THE SITE, HAVE BEEN DETERMINED BY HOWARD COUNTY TO BE REDEVELOPMENT. THIS SITE WILL UTILIZE THE REDEVELOPMENT CRITERIA ESTABLISHED BY MDE AS SET FORTH IN THE REDEVELOPMENT EXEMPTIONS DATED OCTOBER, 2010.

12. THE SITE AREA FALLS WITHIN THE HOWARD COUNTY EGO SOIL MAP #10.

13. 95% COMPACTION IN FILL AREAS SHALL MEET AASHTO T-180 REQUIREMENTS.

14. THE CEMETERY INVENTORY MAPS DO NOT SHOW ANY CEMETERIES WITHIN THE PROJECT LIMITS.

15. THE SCENIC ROADS MAP DOES NOT INDICATE ANY SCENIC ROADS WITHIN OR ADJACENT TO PROJECT LIMITS.

16. THIS PROPERTY IS WITHIN THE METROPOLITAN DISTRICT.

17. STORMWATER MANAGEMENT FOR THIS SITE IS PROVIDED IN ACCORDANCE WITH CHAPTER 5 OF THE MDE STORMWATER MANAGEMENT DESIGN MANUAL, VOLUMES 1 AND 2. THROUGHOUT THE SITE MICRO BIO-RETENTION (M-6), SUBMERGED GRAVEL WETLANDS (M-2), AND PERMEABLE PAVEMENTS (A-1) HAVE BEEN USED TO PROVIDE THE REQUIRED TREATMENT TO MEET THE ESDV TARGET VOLUME.

**DESIGN NARRATIVE**

The proposed development on the subject parcels is intended to meet all of the goals of environmental site design. Parcel B is to serve as an interim parking lot to satisfy parking demands generated due to the construction on Parcel A-2. All surface flow on proposed impervious areas is being conveyed to and treated by stormwater management facilities.

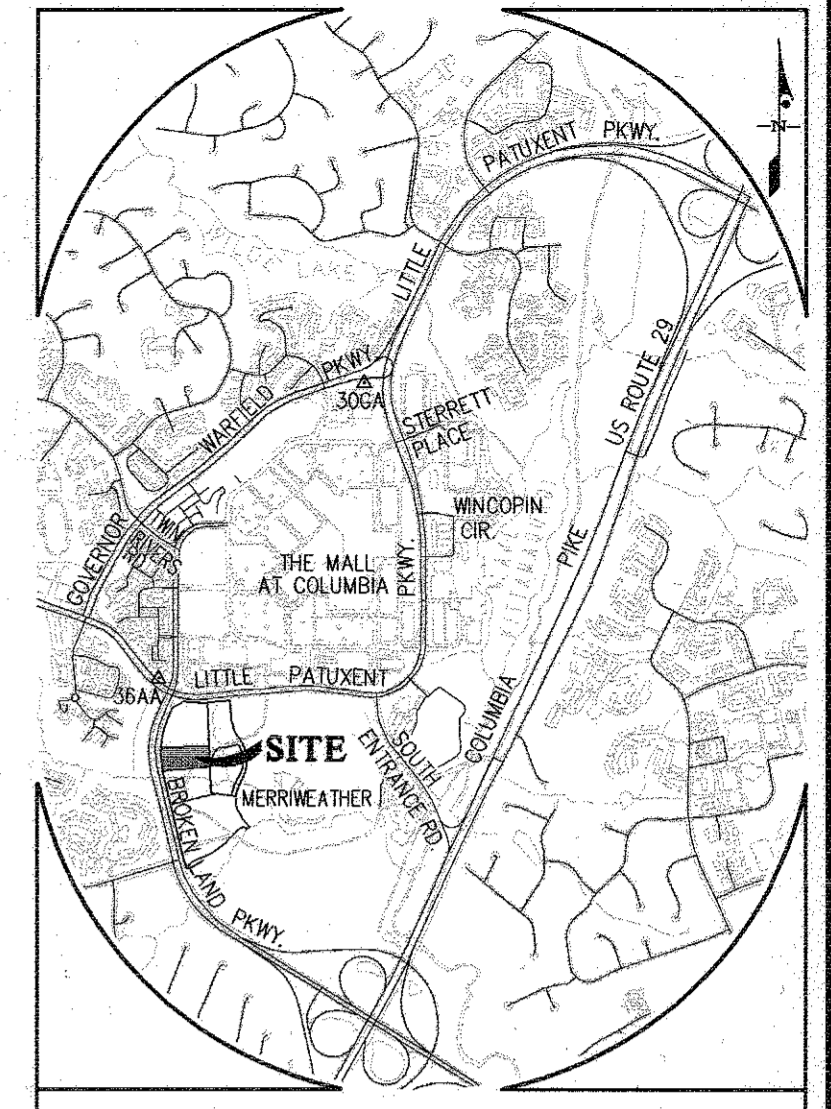
The proposed sediment controls for construction include earth dikes, sediment traps, and super silt fences. Earth dikes are used to direct sediment-laden runoff into sediment traps. The super silt fences are perimeter devices used to filter runoff. These devices will be used to ensure that the surrounding environment and landscape is not disturbed by the construction efforts on-site.

All of the proposed site is intended to drain to stormwater management facilities. A submerged gravel wetland is being proposed in the south-eastern corner of the site to treat a substantial amount of stormwater runoff and provides 5,175 cubic feet of ESDv storage. There is a micro-bioretenion facility being proposed in the south-western corner of the site and provides 476 cubic feet of ESDv storage. To capture and treat additional stormwater runoff, permeable pavement is proposed in the large central parking bay area. This permeable pavement is designed to provide 4,450 cubic feet of storage. Together these three ESDv devices provide a total of 10,100 cubic feet of ESDv storage which exceeds the target ESDv of 10,000 cubic feet by 519 cubic feet.

**SHEET INDEX**

1. ENVIRONMENTAL CONCEPT PLAN
2. CONCEPTUAL EROSION AND SEDIMENT CONTROL PLAN

FACILITY	DRAINAGE AREA (SF)	ESDv (CF) (Pe=2.60")	ESDv (CF) (Pe=1.00")	ESDv PROVIDED (CF)
SGM-1	36,745	6,204	2,388	6,204
PP-01	25,002	4,848	1,864	4,175
MB-01	11,615	1,173	451	1,173
<b>TOTAL ESDv PROVIDED:</b>				<b>11,557</b>
<b>TOTAL ESDv REQUIRED:</b>				<b>9,484</b>

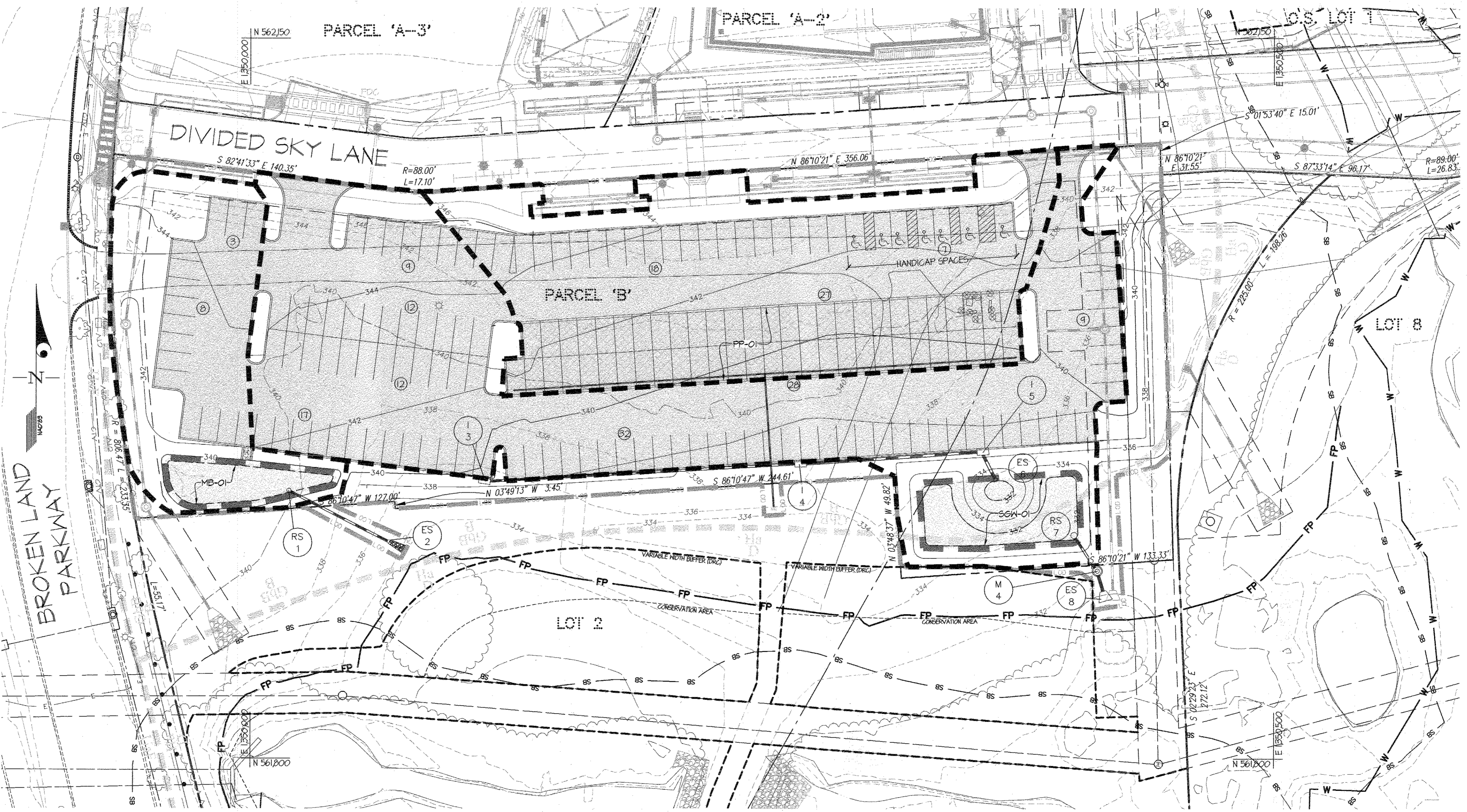


**VICINITY MAP**  
 SCALE: 1" = 2,000'

ADC MAP PAGE 33, GRID AI  
 HOWARD COUNTY CONTROL STATIONS

36AA  
 NORTHING: 562,804.8537  
 EASTING: 1,344,906.1101  
 ELEVATION: 354.151  
 (LATEST ADJ. NOV. 2008)

306A  
 NORTHING: 566,053.5474  
 EASTING: 1,352,111.5301  
 ELEVATION: 334.878  
 (LATEST ADJ. NOV. 2008)

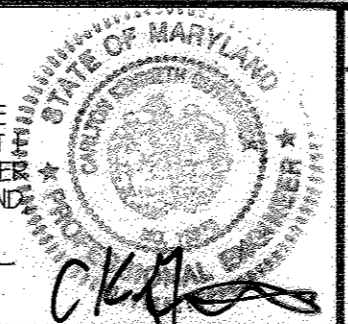


TOTAL PARKING SPACE COUNT = 182

PREPARED FOR:  
 THE HOWARD HUGHES CORPORATION  
 10480 LITTLE PATIENT PARKWAY  
 SUITE 400  
 COLUMBIA, MD 21044  
 ATTN: WILLIAM ROWE  
 (410) 964 - 4800

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12275 EXPIRATION DATE: MAY 26, 2018

1/21/17 *Chad ...*



ENVIRONMENTAL CONCEPT PLAN  
**DOWNTOWN COLUMBIA  
 CRESCENT NEIGHBORHOOD  
 PARCEL B**  
 INTERIM PARKING LOT  
 PART OF PARCEL 527

ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

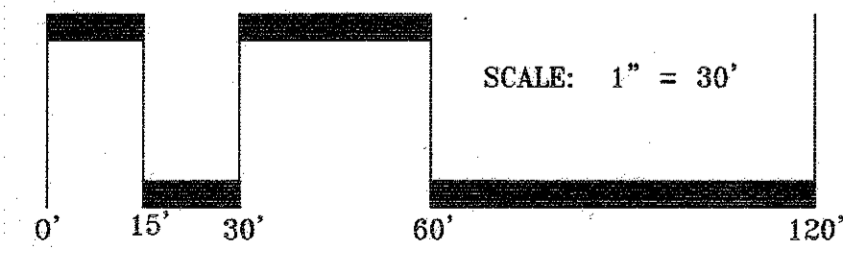
SCALE 1" = 30'	ZONING NT	G. L. W. FILE NO. 15019
DATE JAN., 2017	TAX MAP - GRID 36 - 01	SHEET 1 OF 2

1. DOWNTOWN COLUMBIA CRESCENT NEIGHBORHOOD PARCEL B BY CHAD ... - FOLDER 14/10/2017 - ECP-17-027



**LEGEND**

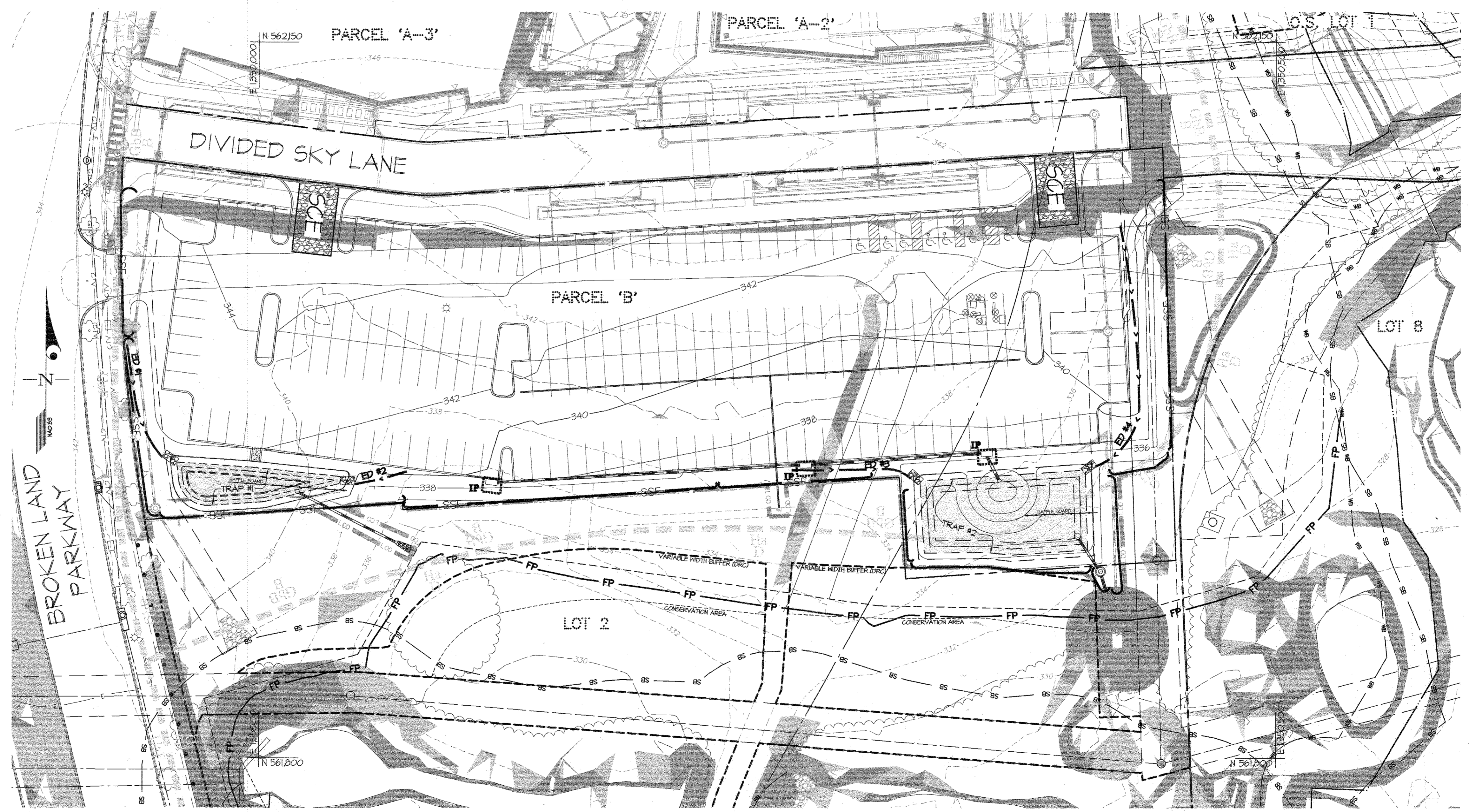
- FP — FLOODPLAIN
- — — WATER EASEMENT
- — — SEWER EASEMENT
- E — PROP. ELECTRICAL
- — — EXISTING TREE LINE
- — — PROPOSED TREE LINE
- W — WETLANDS
- WB — WETLAND BUFFER
- — — STREAM CENTERLINE
- SB — STREAM BUFFER
- — — LIMIT OF SOIL BOUNDARY
- — — DRAINAGE AREA DELINEATION
- LOD — LIMIT OF DISTURBANCE
- SCE — STABILIZED CONSTRUCTION ENTRANCE
- > — EARTH DIKE / CLEAN WATER DIVERSION
- SSF — SUPER SILT FENCE
- — — PROPERTY LINE
- 366 — EX. CONTOUR
- 300 — PROP. CONTOUR
- D — PROP. STORM DRAIN
- D — EX. STORM DRAIN
- 8" S. (public) — EX. SANITARY SEWER
- 8" S. (public) — PROP. SANITARY SEWER
- 8" W. (public) — EX. WATER LINE
- 8" W. (public) — PROP. WATER LINE
- — — EX. CURB & GUTTER
- — — PROPOSED CURB & GUTTER
- # — PARKING SPACE COUNT
- — — SLOPES 15% TO 25%
- — — SLOPES GREATER THAN 25%
- — — STORMWATER MANAGEMENT AREAS
- — — PERMEABLE PAVEMENT (A-1)
- FP-XX — PERMEABLE PAVEMENT (A-1) FACILITY IDENTIFICATION
- SGW-XX — SUBMERGED GRAVEL WETLAND (M-2) FACILITY IDENTIFICATION
- MB-XX — MICRO BIO-RETENTION (M-6) FACILITY IDENTIFICATION



SOIL TYPES			
Symbol	Description	Soil Type	K Factor
Ho	Holboro Cedarus, 0 to 3 percent slopes	D	0.37
Gbb	Gladstone Loom, 3 to 8 percent slopes	B	0.20

AREAS OF MODERATE AND STEEP SLOPES WITHIN LIMIT OF DISTURBANCE	
SLOPE	AREA (SF)
15-25%	1,004
25%+	4,400

- NOTES:**
- DUE TO THE LIMITED AREA TO PERFORM THE WORK SHOWN ON THESE PLANS, A STOCKPILE WITHIN THE LIMIT OF DISTURBANCE SHOWN IS NOT POSSIBLE. ANY SPOIL MATERIAL MUST BE TAKEN OFFSITE, AND ANY BORROW MUST COME FROM AN OFFSITE LOCATION.
  - THE SITE AREA FALLS WITHIN THE HOWARD COUNTY SCD SOIL MAP #18



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

*Kate Schuler* 2-2-17  
 Chief, Division of Land Development Date

*Chad Pahl* 2-4-17  
 Chief, Development Engineering Division Date

**GLW GUTSCHICK LITTLE & WEBER, P.A.**  
 CIVIL ENGINEERS, LAND SURVEYORS, LAND PLANNERS, LANDSCAPE ARCHITECTS  
 3909 NATIONAL DRIVE - SUITE 250 - BURTONSVILLE OFFICE PARK  
 BURTONSVILLE, MARYLAND 20886  
 TEL: 301-421-4024 BAL: 410-880-1820 DC/VA: 301-959-2524 FAX: 301-421-4186

DATE	REVISION	BY	APP'R.

PREPARED FOR:  
 THE HOWARD HUGHES CORPORATION  
 10480 LITTLE PATUXENT PARKWAY  
 SUITE 400  
 COLUMBIA, MD 21044  
 ATTN: WILLIAM ROWE  
 (410) 964 - 4800

PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE PLANS 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. 12475  
 EXPIRATION DATE: MAY 22, 2018  
 1/27/17 *CLW*

CONCEPTUAL EROSION AND SEDIMENT CONTROL PLAN

**DOWNTOWN COLUMBIA  
 CRESCENT NEIGHBORHOOD  
 PARCEL B  
 INTERIM PARKING LOT  
 PART OF PARCEL 527**

ELECTION DISTRICT No. 5  
 HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1" = 30'	NT	15019
DATE	TAX MAP - GRID	SHEET
JAN., 2017	36 - 01	2 OF 2