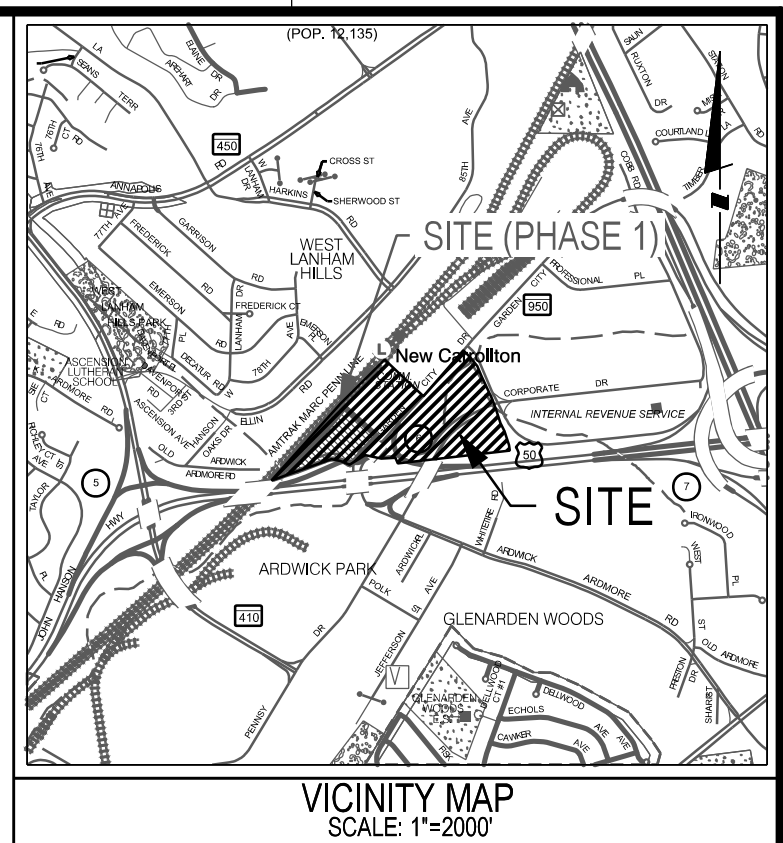


# ROUGH GRADING & FINE GRADING SITE DEVELOPMENT GRADING, EROSION, AND SEDIMENT CONTROL PLAN NEW CARROLLTON



## NARRATIVE

### I. EXISTING SITE

THE EXISTING SITE CONSISTS OF 8 LOTS CONTAINING PARKING LOTS, KISS AND RIDE AREA, BUS LOOP AND OFFICE BUILDINGS. THE SITE IS CURRENTLY ZONED MIXED USES (M-X-T). THE SITE DOES NOT LIE WITHIN TIER II WATERSHED; HOWEVER, THE SITE LIES WITHIN TMDL WATERSHED. THE SITE CONTAINS 100% D SOILS. THE EXISTING IMPERVIOUS AREA IS EQUAL TO 13.89 ACRES. THE LOWER BEAVERDAM CREEK PASSES THROUGH THE SITE. THE LOWER BEAVERDAM CREEK OUTFALLS TO ANACOSTIA RIVER (DNR 12 DIGIT NUMBER: 021402050816). THE SITE CONTAINS 3 ROADWAY CULVERTS THAT CONVEY THE STREAM THROUGH THE EXISTING ROADS. THERE ARE NO UPSTREAM DAMS THAT WOULD IMPACT THE SITE IF THE DAM WERE TO BREACH. PUBLIC UTILITIES ARE AVAILABLE AROUND THE SITE. WATER SERVICES ARE PROVIDED BY WSSC AND INCLUDE AND EXISTING 12" WATERLINE GOES ALONG GARDEN CITY DRIVE. THE ELECTRICAL SERVICES ARE PROVIDED BY PEPCO.

### II. PROPOSED SITE

THE PROPOSED PROJECT IS TO REDEVELOP THE EXISTING SITE INTO MIXED USE OFFICE, RETAIL AND MULTIFAMILY RESIDENTIAL DURING 5 PHASES (SWM LOD). THE PROPOSED SITE HAS A DISTURBED AREA OF 26.30 ACRES. THE PROPOSED DEVELOPMENT WILL INCREASE IMPERVIOUS AREA IS TO 15.25 ACRES. THIS SITE IS QUALIFIED FOR REDEVELOPMENT SINCE 52.9% OF THE EXISTING SITE IS IMPERVIOUS. THE PROPOSED WORK WILL INCREASE THE EXISTING IMPERVIOUS AREA BY ABOUT 1.36 ACRES. PHASES 1 AND 2 ARE PLANNED DEVELOPMENT WITH TOTAL DISTURBED AREA OF 15.41 ACRES. PHASES 3, 4, AND 5 ARE TRUE FUTURE DEVELOPMENTS.

### III. DESIGN CONSIDERATIONS

THE TARGET ENVIRONMENTAL SITE DESIGN VOLUME (ESD<sub>T</sub>) WILL BE CALCULATED BASED UPON THE DIFFERENCE FROM THE EXISTING IMPERVIOUS AREA TO THE SITE PROPOSED IMPERVIOUS AREA. THIS AREA WILL BE CONSIDERED THE "STORM WATER MANAGEMENT LIMIT OF DISTURBANCE (SWM LOD)". THE PROPOSED PROJECT HAS BEEN DIVIDED INTO "5" SWM LOD AREAS.

SWM LOD AREA	AREA (AC)	EX. IMP AREA (AC)	PR. IMP AREA (AC)
AREA 1	7.47	4.24	4.85
AREA 2	7.94	6.13	5.63
AREA 3	4.35	3.39	2.00
AREA 4	1.89	0.10	0.49
AREA 5	5.10	0.03	2.28
<b>TOTAL</b>	<b>26.75</b>	<b>13.89</b>	<b>15.25</b>

### IV. GRADING, EROSION AND SEDIMENT CONTROL

EROSION & SEDIMENT CONTROLS FOR THIS SITE WILL ADHERE TO THE 2013 PGSCD'S "SOIL EROSION & SEDIMENT CONTROL-POND SAFETY REFERENCE MANUAL". THE SITE WILL BE DIVIDED INTO FIVE CONSTRUCTION PHASES. THE SITE HAVE A DISTURBED AREA OF APPROXIMATELY 26.30 ACRES. SITE ACCESS FOR CONSTRUCTION WILL OCCUR WITHIN THE EXISTING GARDEN CITY DRIVE. EACH SWM LOD AREA IS LESS THAN 20 ACRES WITH PHASES 1 AND 2 TOTALING TO 15.41 ACRES.

THE FINAL IMPERVIOUS AREA WITHIN THE LOD IS EQUAL TO 15.25 ACRES. THE REDEVELOPMENT CRITERIA WILL REQUIRE THE SITE TO TREAT OR REMOVE 75% OF THE EXISTING SITE IMPERVIOUS AREA WITHIN THE LOD WHICH IS EQUAL TO 10.42 ACRES. TREATMENT WILL OCCUR BY MEANS OF IMPLEMENTING MICRO-SCALE PRACTICES TO TREAT RUNOFF FROM IMPERVIOUS AREAS. MULTIPLE ESD SUCH AS MICRO-BIOTRETENTIONS, BIO-SWALE, GREEN ROOF AND UNDERGROUND INFILTRATION UNITS WILL BE USED.

THE FINAL IMPERVIOUS AREA FOR PHASES 1 AND 2 IS 10.48 ACRES. TREATMENT OF THE IMPERVIOUS AREA WITHIN THE PHASE 1 AND 2 SWM LOD WILL BE PROVIDED BY MEANS OF IMPLEMENTING GREEN ROOF, SUBMERGED GRAVEL WETLAND, TWO MICRO-BIOTRETENTIONS AND TWO UNDERGROUND INFILTRATION UNITS. SILT FENCES WILL BE PLACED AROUND MICRO-BIOTRETENTIONS TO PREVENT CONSTRUCTION VEHICLES FROM ENTERING ESD AREAS. THE SITE WILL COMPLY WITH THE 377 DAY STABILIZATION CRITERIA.

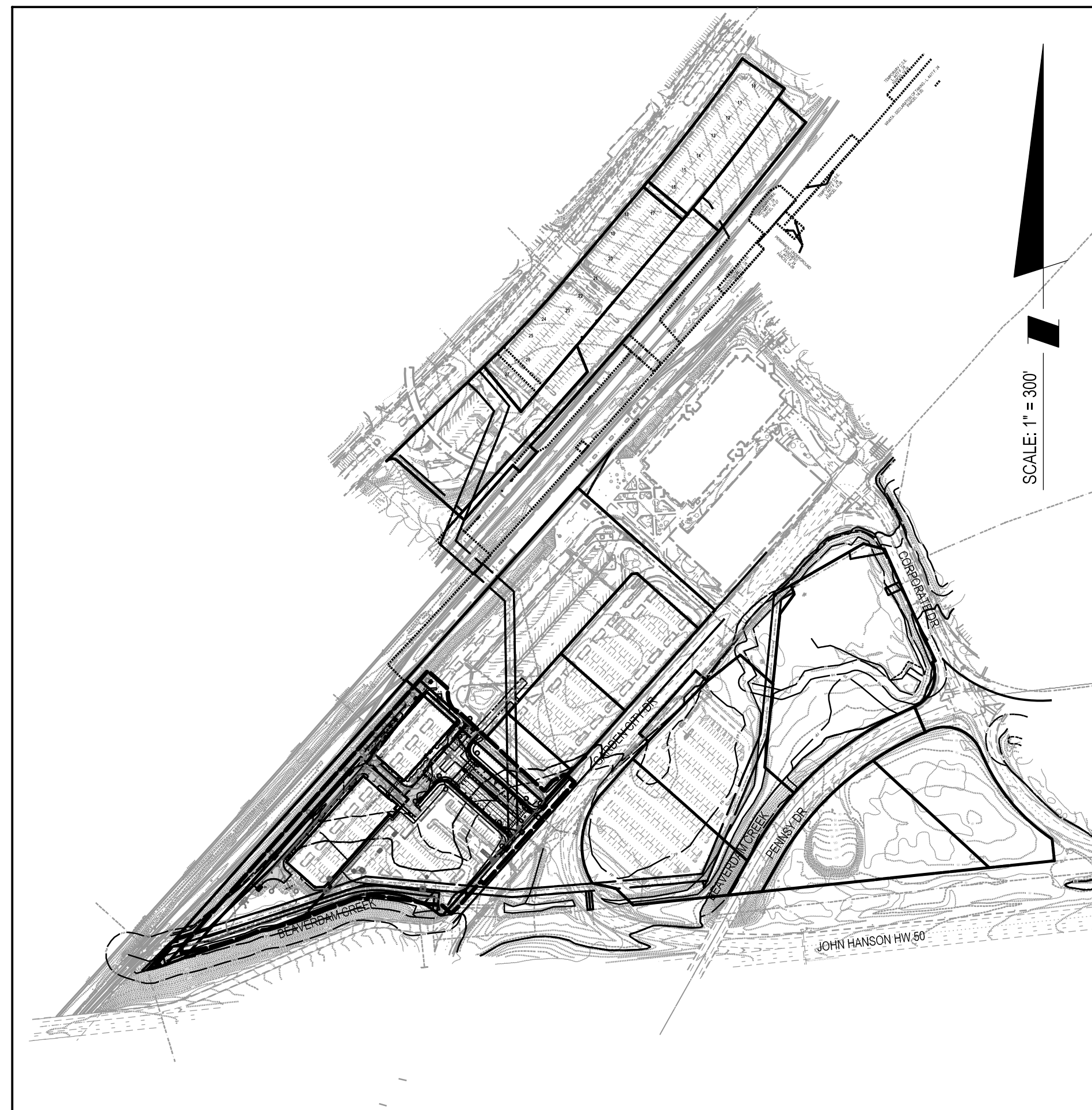
DUE TO BEAVERDAM CREEK CROSSING THROUGH THE SITE, STEEP SLOPES OF GREATER THAN 15% ARE PRESENT ALONG BEAVERDAM CREEK. THERE ARE NO HIGHLY ERODIBLE SOILS (HES) PRESENT IN THE SITE. SUPER SILT FENCES WILL BE USED AS PERIMETER CONTROL DEVICE. THE SUPER SILT FENCE WILL PROTECT WATER QUALITY OF THE STREAM AND PREVENT CONSTRUCTION VEHICLES FROM ENTERING STREAM. THE RUNOFF THROUGH SILT FENCE TO STORM DRAINS WILL BE PROTECTED THROUGH INLET PROTECTION. THE SITE LIES WITHIN THE 100 YEAR FLOODPLAIN. THE FLOODPLAIN STUDY WILL BE EVALUATED BY THE PRINCE GEORGE'S COUNTY DRIE. THE SITE CONTAINS WETLANDS BUT PHASES 1 AND 2 HAVE NO IMPACT ON WETLANDS. WETLAND IMPACT WILL BE DETERMINED ON FUTURE PHASES.

EROSION & SEDIMENT CONTROL PRACTICES PER PGSCD STANDARDS WILL BE IMPLEMENTED ONSITE IN ORDER TO MINIMIZE IMPACT TO EXISTING WATERWAYS. THE FOLLOWING TECHNIQUES HAVE BEEN UTILIZED FOR THIS PURPOSE:

- SILT FENCE AND SUPER SILT FENCE TO BE ESTABLISHED AS PERIMETER CONTROL
- INLET PROTECTION TO PROTECT EXISTING AND PROPOSED INLETS FROM SEDIMENT
- PIPE SLOPE OUTFALLS AS A MEANS OF DIRECTING RUNOFF FLOW
- PROVIDING 3 DAY SEDIMENT CONTROL FOR ALL SLOPES STEEPER THAN 3:1
- PROVIDING 7 DAY SEDIMENT CONTROL FOR ALL OTHER DISTURBED OR GRADED AREAS

THE SITE DOES NOT LIE WITHIN TIER II WATERSHED AND CHESAPEAKE BAY CRITICAL AREA. THE SITE LIES WITHIN TMDL WATERSHED WITH TOTAL SUSPENDED SOLID (TSS) IMPAIRMENT.

BASED ON THE AFOREMENTIONED METHODS WE PROPOSE THAT WE HAVE PROVIDED FULL INTEGRATION OF EROSION AND SEDIMENT CONTROL WITH THE COUNTY'S ESD TO THE MAP.



LOCATION MAP  
SCALE: 1" = 300'

## INDEX OF SHEETS

COVER SHEET	1
GENERAL NOTES AND LEGEND	2
COMPOSITE SHEET	3
ROUGH GRADE DRAINAGE MAP	4
ROUGH GRADE PLAN VIEW	5-8
FINE GRADE DRAINAGE MAP	9
FINE GRADE PLAN VIEW	10-13
SEQUENCE OF CONSTRUCTION	14
NOTES AND SPECIFICATIONS	15
DETAILS	16

DEED REFERENCE OR RECORD PLAT NO.: L:XXXXX F:XXXXX

MDE NOI PERMIT #: REFERENCE #XXXXXXXXX  
ISSUE DATE: XXXX/2015  
EXPIRATION DATE: XXXX/2020

### SITE GRADING UNITS

PHASE X GRADING UNIT: 7.47 ACRES  
PHASE X GRADING UNIT: 26.75 ACRES  
PROPOSED IMPERVIOUS: 57%

NOTE: ALL PROTECTED AREAS SHALL BE MARKED (FLAGGING OR PAINTING) IN THE FIELD PRIOR TO ANY LAND DISTURBING ACTIVITY.

### DRAINAGE CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN CONFORMS TO THE REQUIREMENTS OF SUBTITLE 32, DIVISION 2 OF THE GRADING ORDINANCE OF PRINCE GEORGE'S COUNTY, MARYLAND, AND THAT I OR MY STAFF HAVE INSPECTED THIS SITE AND THAT DRAINAGE FLOWS FROM UPHILL PROPERTIES ONTO THIS SITE, AND FROM THIS SITE ONTO OTHER DOWNGRADE PROPERTIES, HAVE BEEN ADDRESSED IN SUBSTANTIAL ACCORDANCE WITH APPLICABLE CODES.

### UTILITY CERTIFICATION

I HEREBY CERTIFY TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THAT THE EXISTING AND/OR PROPOSED UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS. FURTHER, THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH EACH INVOLVED UTILITY COMPANY AND ALL AVAILABLE UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLICITED FROM THEM.

JASON R. MILLS  
MD. REG. P.E. NO. 40836  
DATE:

### OWNER'S/DEVELOPER'S CERTIFICATION

"I/WE HEREBY CERTIFY THAT I/WE HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN AND THAT ANY CLEARING, GRADING, DRAINAGE, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. PRINCE GEORGE'S SOIL CONSERVATION DISTRICT AND THE ENFORCEMENT AUTHORITY SHALL HAVE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATIONS."

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_  
NAME (PRINTED) ALAN LEDERMAN TITLE DEVELOPMENT PARTNER  
PH# 301-370-0968 FIRM URBAN ATLANTIC  
COMPLETE ADDRESS 7735 OLD GEORGETOWN RD, SUITE 600, BETHESDA, MD 20814

### CONSULTANT'S CERTIFICATION

"I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICABLE AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT THIS PLAN WAS DESIGNED AND PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PRINCE GEORGE'S SOIL CONSERVATION DISTRICT AND "STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL". I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER."

SIGNATURE \_\_\_\_\_ MD. LICENSE# 40836 DATE \_\_\_\_\_  
NAME (PRINTED) JASON R. MILLS

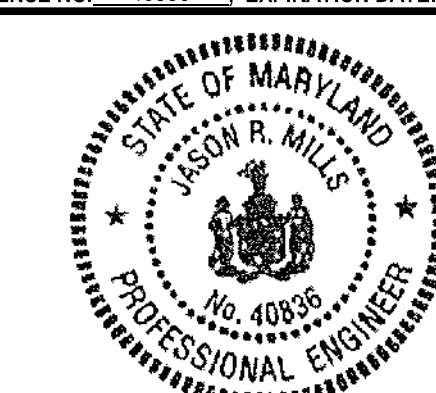
PRINCE GEORGE'S SOIL CONSERVATION DISTRICT FINAL APPROVAL GRADING, EROSION AND SEDIMENT CONTROL	
FSC# XXX-XX	EXPIRATION DATE
POND (P#)	
DISTRICT SIGNATURE	APPROVAL DATE
REVISION #:	
UPDATE #:	
DPIE "G" PERMIT NO.:	

### WETLAND NOTE

IT IS THE APPLICANT'S RESPONSIBILITY TO OBTAIN ANY STATE PERMITS, IF REQUIRED, FOR ANY CONSTRUCTION ACTIVITY COVERED BY THIS PLAN WHICH IMPACTS A STATE REGULATED WETLAND. ANY CHANGES TO PLANS FOR THIS DEVELOPMENT, WHETHER REQUIRED BY THE STATE OR INITIATED BY THE APPLICANT TO MEET STATE REQUIREMENTS, MUST BE APPROVED BY PGSCD.

THIS PLAN IS FOR MAINTENANCE AND CONSTRUCTION OF SEDIMENT AND EROSION CONTROL MEASURES ONLY

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. 40836 EXPIRATION DATE: 06/27/2017



## COVER SHEET

ROUGH GRADING & FINE GRADING SITE DEVELOPMENT  
GRADING, EROSION, AND SEDIMENT CONTROL PLAN  
NEW CARROLLTON



1" = 30'

SHEET 1 OF 16

PROJECT NO. 1958-00-0

LANHAM (20th) ELECTION DISTRICT, PRINCE GEORGE'S COUNTY, MARYLAND

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NO.	DATE	REVISIONS	BY	DATE
DESIGNED: ZR	NOV 2016	CAO STANDARDS VERSION: V8 - 2006	TECHNICIAN: ZR	CHECKED: JRM

**MISS UTILITY NOTE**  
INFORMATION CONCERNING EXISTING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES AND UTILITIES OR SERVICES BY DIGGING TEST PITS BY HAND, WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT MISS UTILITY AT 1-800-277-7777 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHOEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY COMPANY BEFORE PROCEEDING WITH CONSTRUCTION. CLEARANCES LESS THAN NOTED MAY REQUIRE REVISIONS TO THIS PLAN.

**OWNER**  
WASHINGTON METRO AREA TRANSIT AUTHORITY  
611 AND D ST NW  
WASHINGTON, DC 20004

**APPLICANT**  
NEW CARROLLTON DEVELOPER LLC  
7735 OLD GEORGETOWN ROAD, SUITE 600  
BETHESDA, MD 20817  
CONTACT: ALAN LEDERMAN  
PHONE: (301) 370 - 0968

MAP 5411 GRID A9	TAX MAP 52_A2 ZONING CATEGORY: M-X-T
WSSC 200 SHEET 206 NE 07	SITE DATUM
HORIZONTAL: NAD83	VERTICAL: NAVD-23