#### **GENERAL NOTES**

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MISHA STANDARDS AND SPECIFICATIONS IF APPLICABLE. 2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED OUTSIDE OF THE LIMIT 7. THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND
- STATE PLANE COORDINATE SYSTEM (HORIZ, NAD 83, VERT, NAVD 88), HOWARD COUNTY MONUMENT NOS, 41EC AND 41FA WERE USED

N 543,109,884 ELEV, 407,62

\*STD. CONC. MON. WITH A BRASS DISC.

E 1.344.797.530 PROPOSED SEWER IS TO BE PUBLIC.

- 10. ONLY QUALITATIVE STORMWATER MANAGEMENT (SWM) IS REQUIRED FOR THESE PROPOSED SITE IMPROVEMENTS BECAUSE THESE IMPROVEMENTS ARE CONSIDERED REDEVELOPMENT PER HOWARD COUNTY DESIGN MANUAL: VOLUME 1. AN UNDERGROUND SAND FILTER (BMP GROUP 4, TYPE F-2) IS PROPOSED TO MEET THE WQV REQUIREMENTS FOR THIS SITE. THIS WILL BE A PRIVATE SWM FACILITY, WHICH WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (SEE OPERATION & MAINTENANCE NOTES ON SHEET 9).
- EXISTING UTILITIES ARE BASED ON CONTRACT DRAWINGS FOR WATER (CONTRACT #44-1160) & SEWER (CONTRACT #34-3654-D). THERE IS NO FLOODPLAIN ON THIS SITE. THERE ARE NO WETLANDS ON THIS SITE. BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN SURVEY ON A FIELD RUN SURVEY ON SEPTEMBER 29, 2006. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED MAY 24, 2007.

CONTRACTOR IS RESPONSIBLE FOR ALL SITE CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SHALL CONFORM TO ALL STATE,

- FEDERAL, AND COUNTY CONSTRUCTION REGULATIONS. THE CONTRACTOR IS NOT RELIEVED OF RESPONSIBILITY SHOULD ANY REQUIRED ITEMS PERTAINING TO SITE CONSTRUCTION NOT BE INCLUDED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.
- 16. LOCATIONS OF EXISTING UTILITIES WERE OBTAINED FROM THE BEST AVAILABLE RECORDS. CONTRACTOR SHALL VERIFY TO HIS/HER SATISFACTION, THE FIELD LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY WORK.

  17. ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR CURB AND GUTTER DUE TO CONSTRUCTION ACTIVITY OUTSIDE THE LIMITS OF
- DISTURBANCE IS TO BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE. 18. WHERE NECESSARY, THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK
- 19. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY MONUMENTS, MARKERS, SIGNS, LIGHTS, OR ANY OTHER EXISTING SITE FEATURES DISTURBED DURING CONSTRUCTION. 20. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND
- SEDIMENT CONTROLS" PUBLISHED JOINTLY BY THE WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL
- 21. THE SUBJECT PROPERTY IS ZONED B-2 PER THE 7/28/06 "COMP. LITE" ZONING REGULATIONS AMENDMENTS.
  22. A GEO-TECHNICAL STUDY WAS CONDUCTED FOR THIS PROJECT BY ECS MID ATLANTIC, LLC DATED DECEMBER 5, 2006.
  23. TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADWAYS AND PARKING AREAS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY
- DESIGN MANUAL, VOL. IV, STANDARD NO. G-2.11.

  24. ALL COMPACTED FILL SHALL BE IN ACCORDANCE WITH AASHTO T-180 REQUIREMENTS.

  25. ALL EXTERIOR LIGHTING SHALL COMPLY WITH ZONING REGULATIONS SECTION 134. PROPOSED LIGHT LOCATIONS SHOWN ON SHEET 3 AND DETAILS ON SHEETS 6, 7 AND 15.
- 26. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$6,150 (4 SHADE TREES @ \$300.00 EA, 30 FLOWERING/EVERGREEN TREES 0 \$150.00 EA, 25 SHRUBS 0 \$30.00 EA) IS PART OF THE DEVELOPER'S
- PROPOSED BUILDING WILL NOT BE SPRINKLERED. O. THE PROPOSED DEVELOPMENT SHOWN IN THIS PLAN REQUIRES THE RELOCATION OF A BGE TRANSFORMER AND RELATED ELECTRICAL SERVICES, SEE DEMOLITION PLAN. THIS TRANSFORMER PROVIDES SERVICE TO THE CELL TOWER, TRAFFIC LIGHT (MONTPELIER ROAD), AND A SECONDARY TRANSFORMER LOCATED IN THE MONTPELIER RIGHT-OF-WAY. IT IS THE DEVELOPER'S RESPONSIBILITY TO COORDINATE THE RELOCATION OF THE TRANSFORMER AND ALL ASSOCIATED SERVICES, WITH BGE. THE DEVELOPER IS FINANCIALLY
- RESPONSIBLE FOR THE COST OF THIS WORK. THE DEVELOPER WILL ALSO BE FINANCIALLY RESPONSIBLE FOR ANY DAMAGES DUE TO LOSS OF SERVICE TO THE CELL TOWER, TRAFFIC LIGHT, OR OTHER SERVICES FED BY THE TRANSFORMER.

  31. RELOCATED SERVICES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY, AND WILL BE SUBJECT TO FINAL DESIGN AND APPROVAL BY BGE. WHERE POSSIBLE, TEMPORARY POWER SHOULD BE PROVIDED TO THE TRAFFIC SIGNAL AND CELL TOWER. ANY DISRUPTION IN SERVICE IS TO BE COORDINATED BY BGE, WITH PROPER NOTIFICATION TO THESE OWNERS OR ENTITIES AFFECTED BY THE DISRUPTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ABANDONMENT OF THE EXISTING WELL, AND REMOVAL OF THE EXISTING SEPTIC SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERMITTING OF THIS WORK WITH THE HOWARD COUNTY HEALTH DEPARTMENT, AND ALL WORK SHALL BE IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS AND REQUIREMENTS. THIS PARCEL WAS ORIGINALLY DEVELOPED UNDER SDP-72-043 BY HUMBLE OIL & REFINING COMPANY, BOARD OF APPEALS CASE
- BA-683-c WAS APPROVED ON NOVEMBER 22, 1971 AS A SPECIAL PERMIT TO OPERATE A GASOLINE STATION ON THE PARCEL. ALL EXTERIOR LIGHTING SHALL BE ORIENTED TO DIRECT OR REFLECT LIGHT INWARD AND DOWNWARD AWAY FROM ALL ADJOINING PUBLIC STREETS AND RESIDENTIAL AREAS. ALL OUTDOOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS SECTION 134.5.2. THE B-2 ZONING DISTRICT REQUIRES THE USE OF FULLY SHIELDED LIGHT FIXTURES AS CERTIFIED BY THE LIGHT MANUFACTURER OR HOTOMETRIC TEST REPORT, PER SECTION 134.c.1.
- 35. A DESIGN MANUAL WAIVER TO DMV III SECTIONS 2.8 AND 5.2.E TO REDUCE THE REQUIREMENTS OF 6 SPACES PER DRIVE-THRU LANE TO 4 WAS APPROVED ON MAY 31, 2007, BASED ON THE FOLLOWING CONDITIONS:

  1. THE SITE LAYOUT AND ENTRANCE CANNOT BE ADJUSTED ENOUGH TO ACCOMODATE A FIFTH VEHICLE PER LANE WITHOUT CREATING AN INTERSECTION SPACING ISSUE TO THE PUBLIC ROAD. 2. AS DESIGNED, THE OUTSIDE LANE CAN ACCOMODATE A FIFTH STACKING VEHICLE AND MAINTAIN TWO-WAY TRAFFIC THROUGHOUT
- 3. THE CURRENT DESIGN DOES NOT APPEAR TO AFFECT THE FUNCTION OF THE PUBLIC ROAD. 4. THE BANK/DEVELOPER HAS PROVIDED A LETTER ACCEPTING THE CONDITION AND INCLUDED SUPPORT DATA TO JUSTIFY THE NEED
- 5. THE DEVELOPER SHALL ADJUST THE CURB LINE OF THE BYPASS LANE AT THE REAR OF THE OUTSIDE FOURTH VEHICLE TO ALLOW A FIFTH VEHICLE IN THE OUTSIDE LANE TO BYPASS. THE BYPASS LANE SHALL BE A CONTINUOUS WIDTH OF 12'. WP-07-123 TO SECTIONS 16.120.f.1 AND 16.119.f.2 WAS APPROVED ON JUNE 26, 2007 TO ALLOW ACCESS ONTO JOHNS HOPKINS ROAD (A MINOR ARTERIAL). WITH THE FOLLOWING CONDITIONS: 1. REFERENCE THIS WAIVER ON SDP-07-093.
- 2. THE EXISTING ENTRANCE FROM JOHNS HOPKINS ROAD (THE ONE WHICH IS CLOSEST TO MONPELIER ROAD) MUST BE CLOSED 3. LANDSCAPING ALONG THE JOHNS HOPKINS ROAD MUST BE PROVIDED IN ACCORDANCE WITH SDP-07-093, BUT SHALL BE rranged to not obstruct the sight distance of drivers and pedestrians. 4. THE ENTRANCE ONTO JOHNS HOPKINS ROAD SHOULD ALIGN AS CLOSE AS POSSIBLE WITH THE MEDIAN OPENING THAT
- CROSSES JOHNS HOPKINS ROAD, SO THAT VEHICLES MAY CROSS OVER FROM EAST BOUND JOHNS HOPKINS INTO THE BANK SITE. 37. A KNOX ENTRY SYSTEM SHALL BE INSTALLED ON THE FRONT OF THE BUILDING ADJACENT TO THE ENTRY DOOR. THE BOX SHALL BE A KNOX 4400 SERIES KNOX BOX, WITH A HINGED DOOR.
- 38. FOREST CONSERVATION FOR THIS SITE HAS BEEN MET WITH A FEE-IN-LIEU PAYMENT OF \$5,553.90 FOR 0.17 ACRES OF CONTRACTOR ASSUMES THE RESPONSIBILITY FOR DEMOLITION AND REMOVAL OF FUEL DISPENSERS, UNDERGROUND GASOLINE STORAGE Tanks, and all associated conduits, fuel lines, and piping. Contractor is responsible for all county, state, and
- FEDERAL PERMITS REQUIRED FOR DEMOLITION AND REMOVAL OF GAS STATION ITEMS AND APPURTENANCES. 40. WP-08-063 TO WAIVE SECTION 16.156(k) WAS APPROVED ON FEBRUARY 12, 2008 WITH THE FOLLOWING CONDITIONS: 1. THE DEVELOPER'S AGREEMENT PROCESS AND THE SUBDIVISION OF THE SDP ORIGINALS MUST BE COMPLETED WITHIN 90 DAYS (ON OR BEFORE MAY 12, 2008) FROM THE DATE OF THE APPROVED WAIVER PETITION. 2. THE DEVELOPER SHALL COMPLETE ALL MIDE REQUIREMENTS FOR THE REMOVAL AND THE CLOSING OUT OF THE UNDERGROUND STORAGE TANKS ON THE FORMER GASOLINE STATION SITE (TEXACO). 3. THE DIVISION OF LAND DEVELOPMENT WILL NOT ACCEPT REQUESTS FOR EXTENSIONS, UNLESS A FORMAL WAIVER PETITION IS

1.11 ACRES +/-

1.29 ACRES +/-

B-2

BB&T BANK W/ 2 DRIVE UP TELLER LANES,

1 ATM LANE, AND LOBBY ATM MACHINES

22 (INCL. 2 HC SPACES)

3,994 S.F.

3,994 SF OR 0.09 ACRES ±

0.13 ACRES, 11.2% OF TOTAL LOT AREA

#### SITE ANALYSIS DATA CHART

1. TOTAL PROJECT AREA: 2. AREA OF PLAN SUBMISSION: 3. LIMIT OF DISTRUBANCE: 4. PRESENT ZONING:

9. PARKING SPACES PROVIDED:

- 5. PROPOSED USE:
- FLOOR SPACE: 7. MAXIMUM NUMBER OF EMPLOYEES: 8. MINIMUM NUMBER OF PARKING SPACES REQUIRED BY ZONING:
- 10. EXISTING BUILDING COVERAGE: 11. PROPOSED BUILDING COVERAGE: 12. TOTAL BUILDING COVERAGE\* (INCLUDING CANOPIES & OVERHANGS):
- 13. CASE NUMBERS APPLICABLE IMPROVEMENTS: JOHNS HOPKINS ROAD IMPROVEMENTS MONTPELIER ROAD IMPROVEMENTS WATER LINE EXTENSION 34-3654D - PUBLIC SEWER PLANS
- 14. SANITARY SEWER/ WATER SERVICE: PUBLIC

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING mile sold

OPTION 1: FEE-IN-LIEU	FOREST CONSERVATION DA	ATA SUMMARY
File Number: SDP-07-093	Project/Subdivision Name: BB&T	Bank at Montpelier
Fee-In-Lieu Amount: \$5,553.90	Net Tract Area: 1.11 acres±	Area of Disturbance: 1.29 acres±
Cash Receipt No.*: 4056	Watershed: Middle Patuxent	
Comment: Fee-In-Lieu for 0.17 acre	es of Afforestation	

# BB&T BANK PARCIEI, 9935699

5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND SDP-07-093



# **LOCATION MAP**

SCALE: 1" = 600'

AS-BUILT PLAN

FOREST CONSERVATION WORKSHEE

B. Area within 100 year floodplain C. Area to remain in agricultural production... LAND USE CATEGORY: (from table 3.2.1, page 40, Manual)

zoning, and limit to only one entry.

**EXISTING FOREST COVER:** 

BREAK EVEN POINT J. Forest retention above threshold with no mitigation......=

L. Total area of forest to be cleared....

. Reforestation for clearing below conservation threshold...=

AS-BUILT CERTIFICATION FOR PSWM

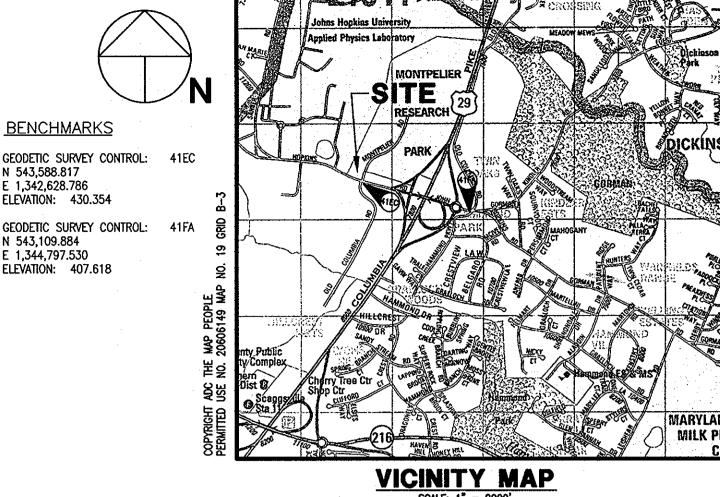
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND COMPLIES WITH THE APPROVAL PLANS AND SPECIFICATIONS I have verified that the contributing drainage area is SUFFICIENTLY STABILIZED TO PREVENT CLOSGING OF THE UNDERGROUND STORM WATER MANAGEMENT FACILITY.

Thomas Neugebauer, PE LIC. EXPIRES 6-16-11





DEVELOPER BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042 PHONE: 703-531-2855 ATTN: RICHARD PROSSER



△ BENCHMARKS

N 543,588.817 E 1,342,628.786 ELEVATION: 430.354

E 1,344,797.530 **ELEVATION: 407.618** 

GEODETIC SURVEY CONTROL:

#### SHEET INDEX

2 DEMOLITION PLAN 3 SITE LAYOUT & MAINTENANCE OF TRAFFIC PLANS 4 SITE GRADING PLAN 5 UTILITY PLAN 6 SITE DETAILS 7 BUILDING ELEVATIONS & SITE DETAILS 8 UTILITY PROFILES 9 STORMWATER MANAGEMENT PLAN 10 DRAINAGE AREA MAPS 11 GEO-TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION 18 RETAINING WALL TYPICAL DETAILS	1	COVER SHEET
4 SITE GRADING PLAN 5 UTILITY PLAN 6 SITE DETAILS 7 BUILDING ELEVATIONS & SITE DETAILS 8 UTILITY PROFILES 9 STORMWATER MANAGEMENT PLAN 10 DRAINAGE AREA MAPS 11 GEO-TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	2	DEMOLITION PLAN
5 UTILITY PLAN 6 SITE DETAILS 7 BUILDING ELEVATIONS & SITE DETAILS 8 UTILITY PROFILES 9 STORMWATER MANAGEMENT PLAN 10 DRAINAGE AREA MAPS 11 GEO-TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	3	SITE LAYOUT & MAINTENANCE OF TRAFFIC PLANS
6 SITE DETAILS 7 BUILDING ELEVATIONS & SITE DETAILS 8 UTILITY PROFILES 9 STORMWATER MANAGEMENT PLAN 10 DRAINAGE AREA MAPS 11 GEO—TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	4	SITE GRADING PLAN
7 BUILDING ELEVATIONS & SITE DETAILS 8 UTILITY PROFILES 9 STORMWATER MANAGEMENT PLAN 10 DRAINAGE AREA MAPS 11 GEO—TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	5	UTILITY PLAN
9 STORMWATER MANAGEMENT PLAN  10 DRAINAGE AREA MAPS  11 GEO-TECH REPORT INFORMATION  12 EROSION & SEDIMENT CONTROL PLAN  13 EROSION & SEDIMENT CONTROL DETAILS  14 LIGHTING & LANDSCAPING PLAN  15 LIGHTING & LANDSCAPING DETAILS  16 RETAINING WALL PLAN & GENERAL NOTES  17 RETAINING WALL PROFILE & SECTION	6	SITE DETAILS
9 STORMWATER MANAGEMENT PLAN  10 DRAINAGE AREA MAPS  11 GEO-TECH REPORT INFORMATION  12 EROSION & SEDIMENT CONTROL PLAN  13 EROSION & SEDIMENT CONTROL DETAILS  14 LIGHTING & LANDSCAPING PLAN  15 LIGHTING & LANDSCAPING DETAILS  16 RETAINING WALL PLAN & GENERAL NOTES  17 RETAINING WALL PROFILE & SECTION	7	BUILDING ELEVATIONS & SITE DETAILS
10 DRAINAGE AREA MAPS 11 GEO-TECH REPORT INFORMATION 12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	8	UTILITY PROFILES
11 GEO-TECH REPORT INFORMATION  12 EROSION & SEDIMENT CONTROL PLAN  13 EROSION & SEDIMENT CONTROL DETAILS  14 LIGHTING & LANDSCAPING PLAN  15 LIGHTING & LANDSCAPING DETAILS  16 RETAINING WALL PLAN & GENERAL NOTES  17 RETAINING WALL PROFILE & SECTION	9	STORMWATER MANAGEMENT PLAN
12 EROSION & SEDIMENT CONTROL PLAN 13 EROSION & SEDIMENT CONTROL DETAILS 14 LIGHTING & LANDSCAPING PLAN 15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	10	DRAINAGE AREA MAPS
13 EROSION & SEDIMENT CONTROL DETAILS  14 LIGHTING & LANDSCAPING PLAN  15 LIGHTING & LANDSCAPING DETAILS  16 RETAINING WALL PLAN & GENERAL NOTES  17 RETAINING WALL PROFILE & SECTION	11	GEO-TECH REPORT INFORMATION
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15 LIGHTING & LANDSCAPING DETAILS 16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	13	EROSION & SEDIMENT CONTROL DETAILS
16 RETAINING WALL PLAN & GENERAL NOTES 17 RETAINING WALL PROFILE & SECTION	14	LIGHTING & LANDSCAPING PLAN
17 RETAINING WALL PROFILE & SECTION	15	LIGHTING & LANDSCAPING DETAILS
	16	RETAINING WALL PLAN & GENERAL NOTES
18 RETAINING WALL TYPICAL DETAILS	17	RETAINING WALL PROFILE & SECTION
	18	RETAINING WALL TYPICAL DETAILS

#### **ADJACENT PROPERTY** CHART (#)

0.:	OWNER:	TAX MAP:
	HOPKINS HOSPITALITY INVESTORS LLC	41
2	EXXON MOBIL OIL CORP.	41
5	HOPKINS STATION GENERAL PARTNERSHIP	41
ŀ	JOHN HOPKINS UNIVERSITY	. 41

PERMIT INFORMATION CHART							
PROJECT NAME  BB&T BANK AT MONTPELIER  ADDRESS 10990 JOHNS HOPKINS RD.  ADDRESS PARCEL NO. 356							
PLAT # OR L/F	GRID #	ZONING	TAX	MAP	NO.	ELECT. DIS	T. CENSUS TRAC
L 10183 F 686	16	B-2		41		5	6051.02
WAT	ER CODE:					SEWER (	CODE:



LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395 SITE DEVELOPMENT PLAN



I HEREBY CERTIFY THAT

THESE DOCUMENTS WERE

LICENSED PROFESSIONAL

LICENSE NO. 201135,

PREPARED OR APPROVED BY

ME, AND THAT I AM A DULY

ENGINEER UNDER THE LAWS

OF THE STATE OF MARYLAND,

EXPIRATION DATE: 7/29/08.

BB&T BANK - AT MONTPELIER

#### **COVER SHEET**

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356 ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16 5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

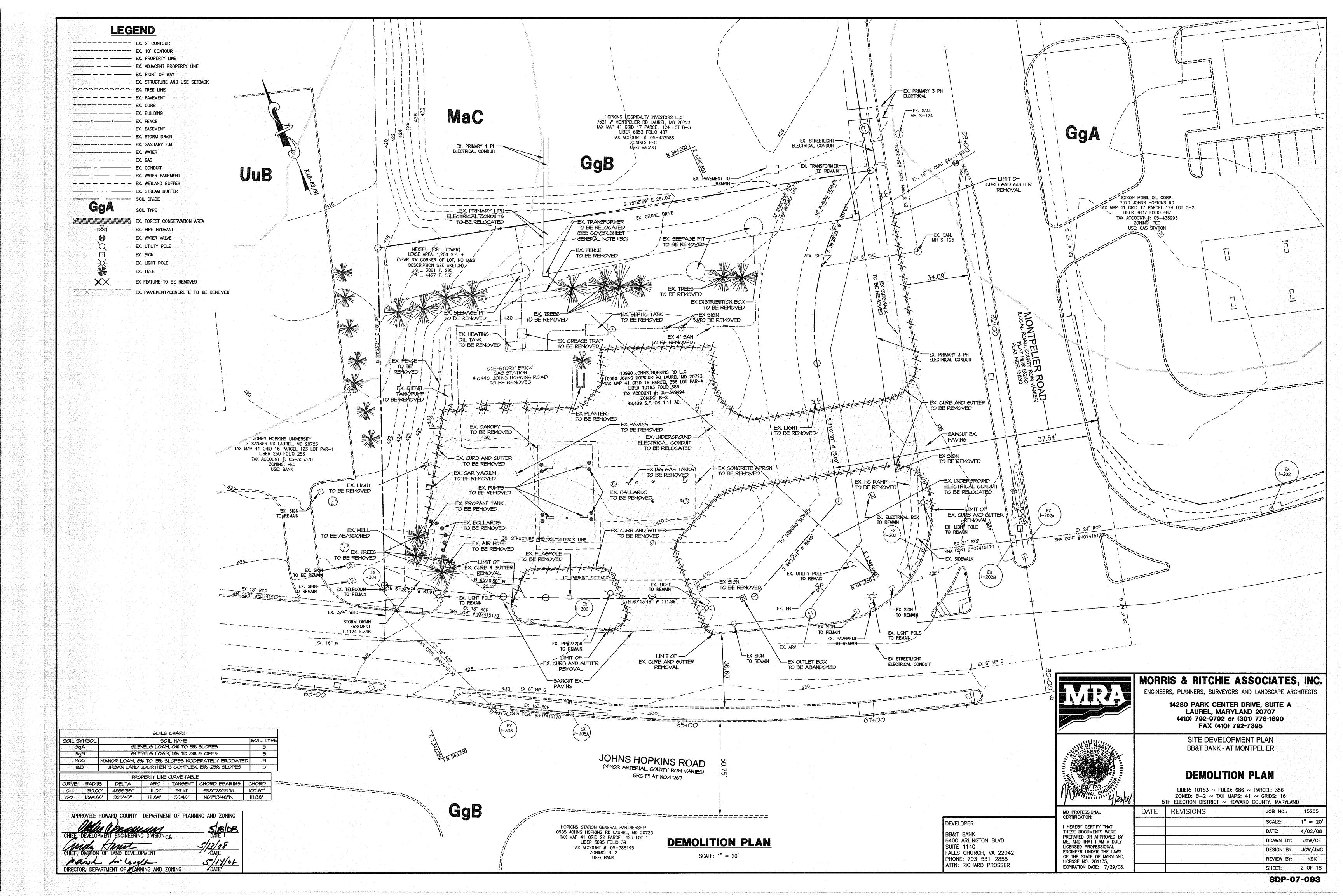
DATE	REVISIONS	JOB NO.:
10/03/08	ADDED DUMPSTER PAD & SIDEWALK	SCALE:
	EXTENSION	DATE:
11/11/10	AS-BUILT INFO. APPED TO PLAN	DRAWN BY:
		DESIGN BY:
		REVIEW BY:
		CHECT.

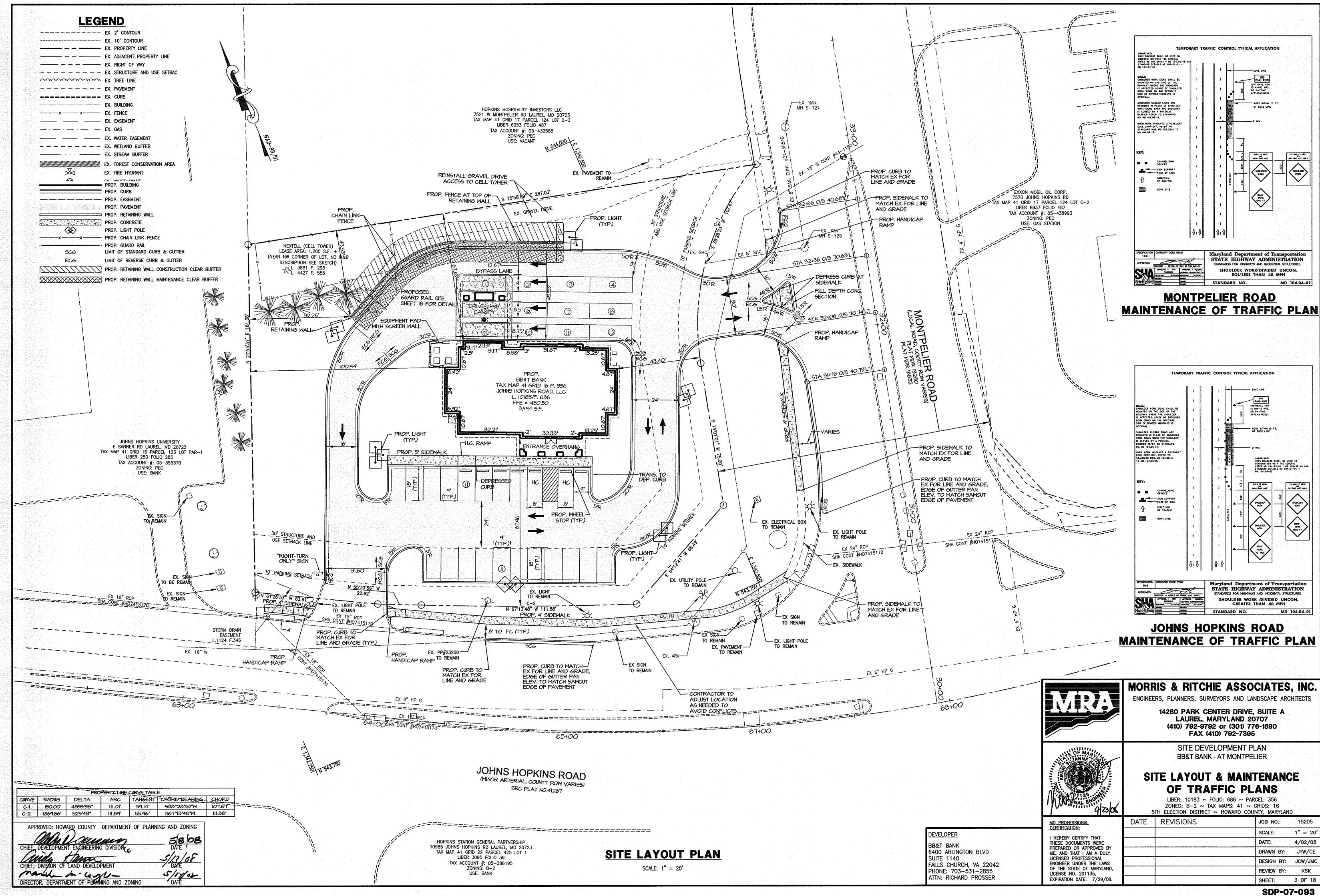
SDP-07-093

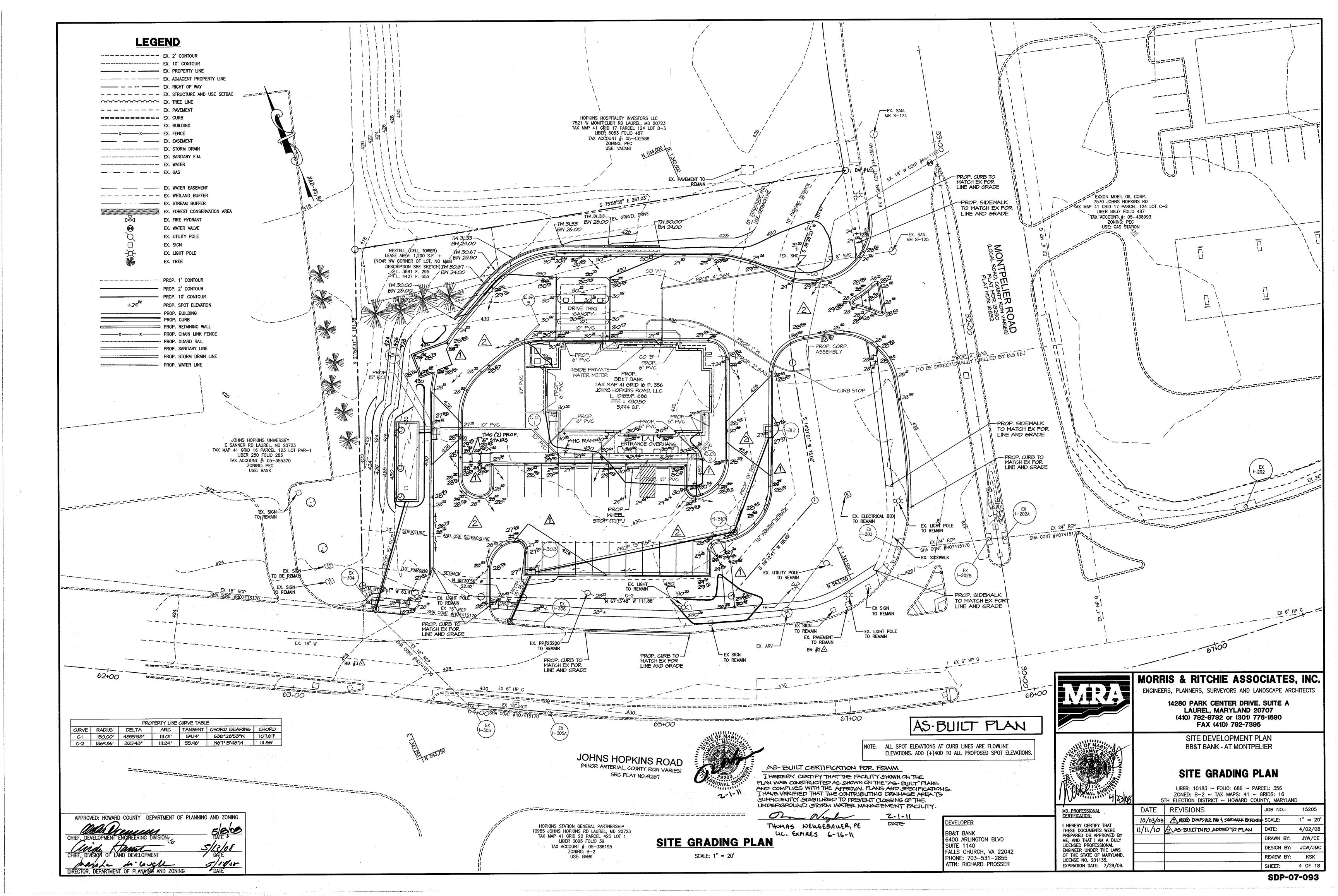
4/02/08

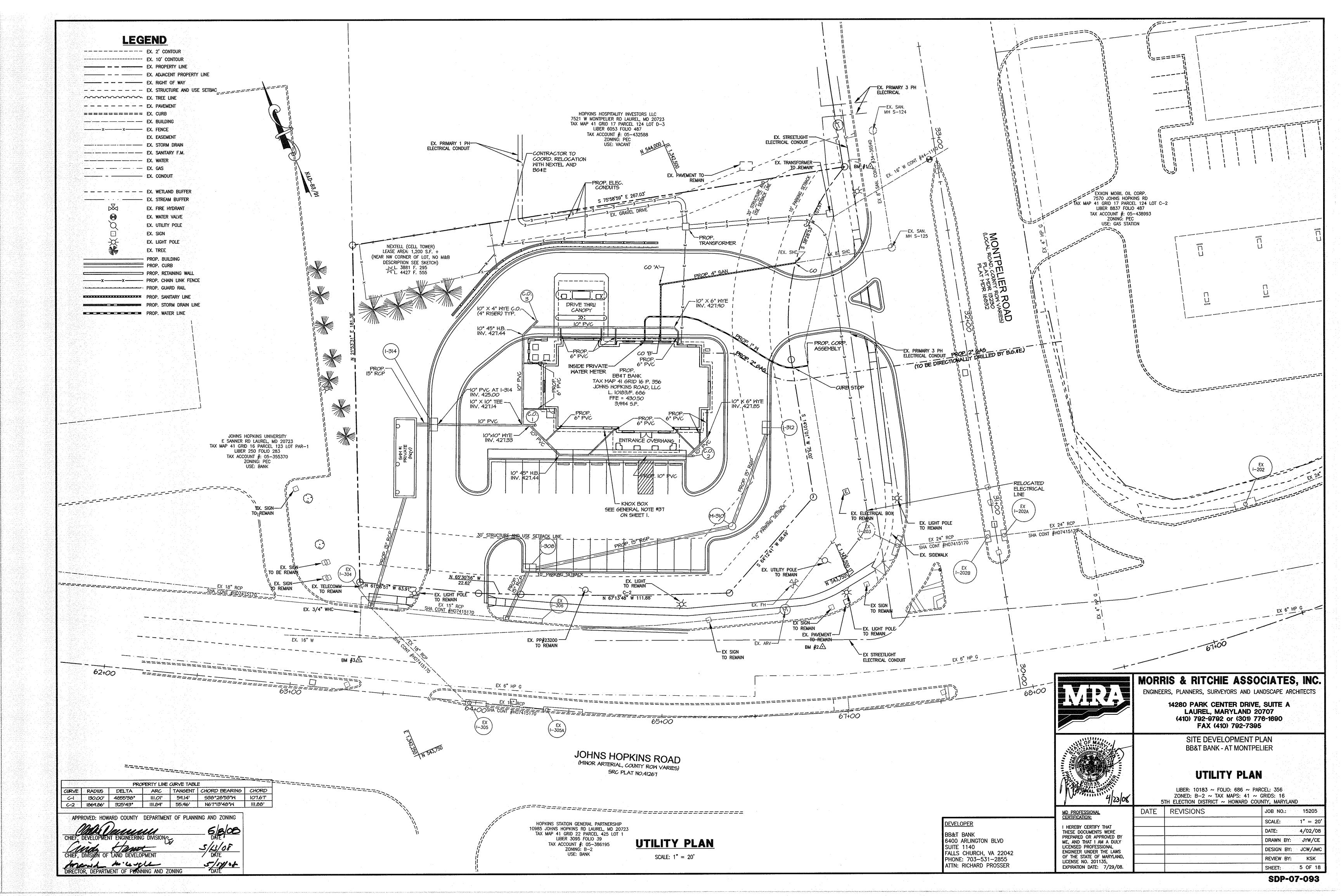
JMC

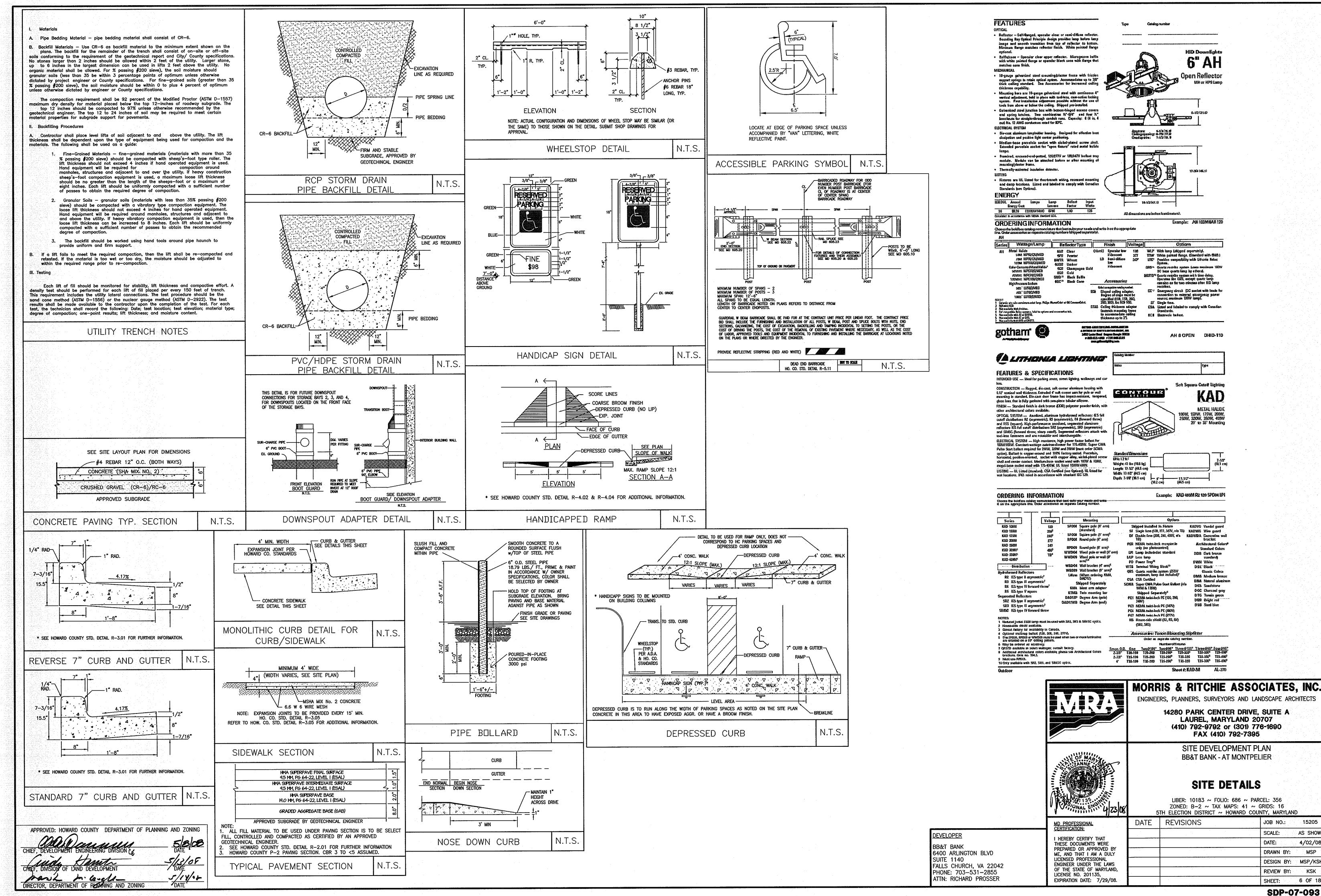
JMC/JW

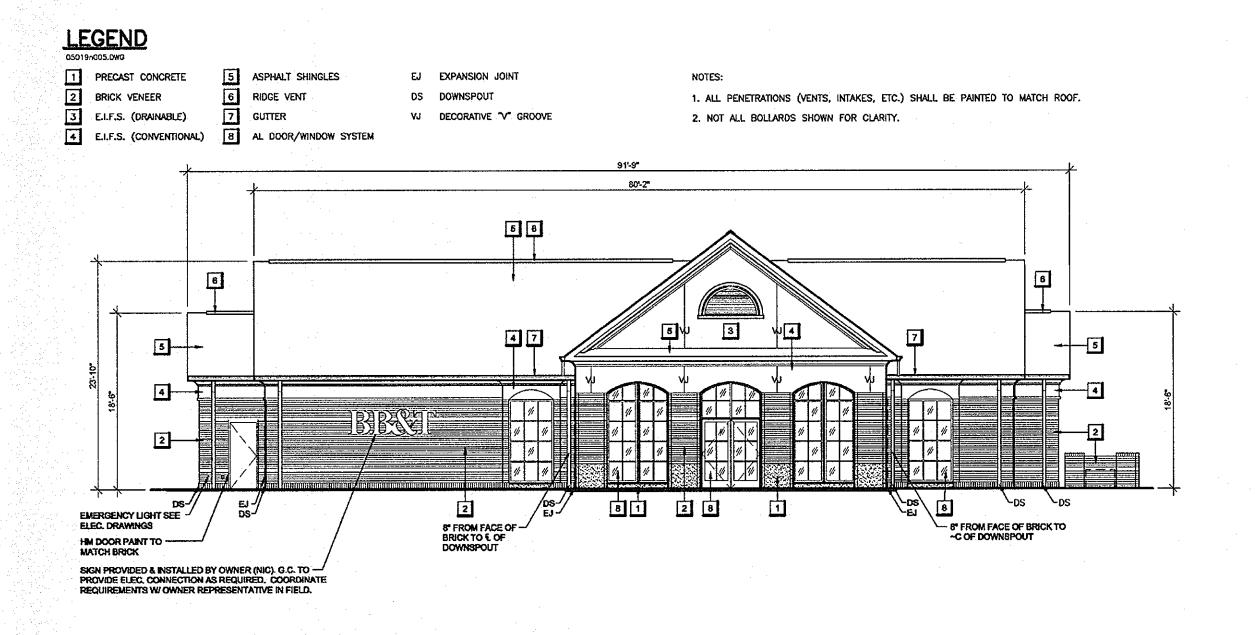












SIDE ELEVATION - MONTPELIER ROAD

SIDE ELEVATION

5 ASPHALT SHINGLES

4 E.I.F.S. (CONVENTIONAL) 8 AL DOOR/WINDOW SYSTEM

VJ DECORATIVE "V" GROOVE SEE

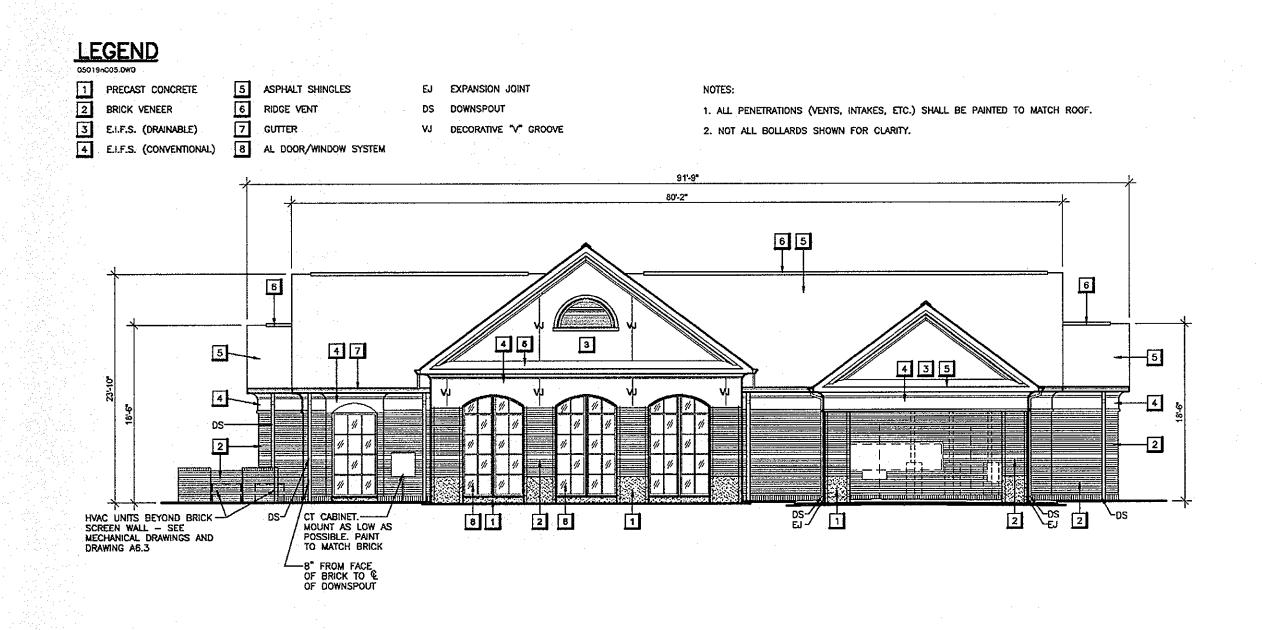
SIGN PROVIDED & INSTALLED BY OWNER (NIC).
G.C. TO PROVIDE ELEC. CONNECTION AS
REQUIRED. COORDINATE REQUIREMENTS W/
OWNER REPRESENTATIVE IN FIELD.

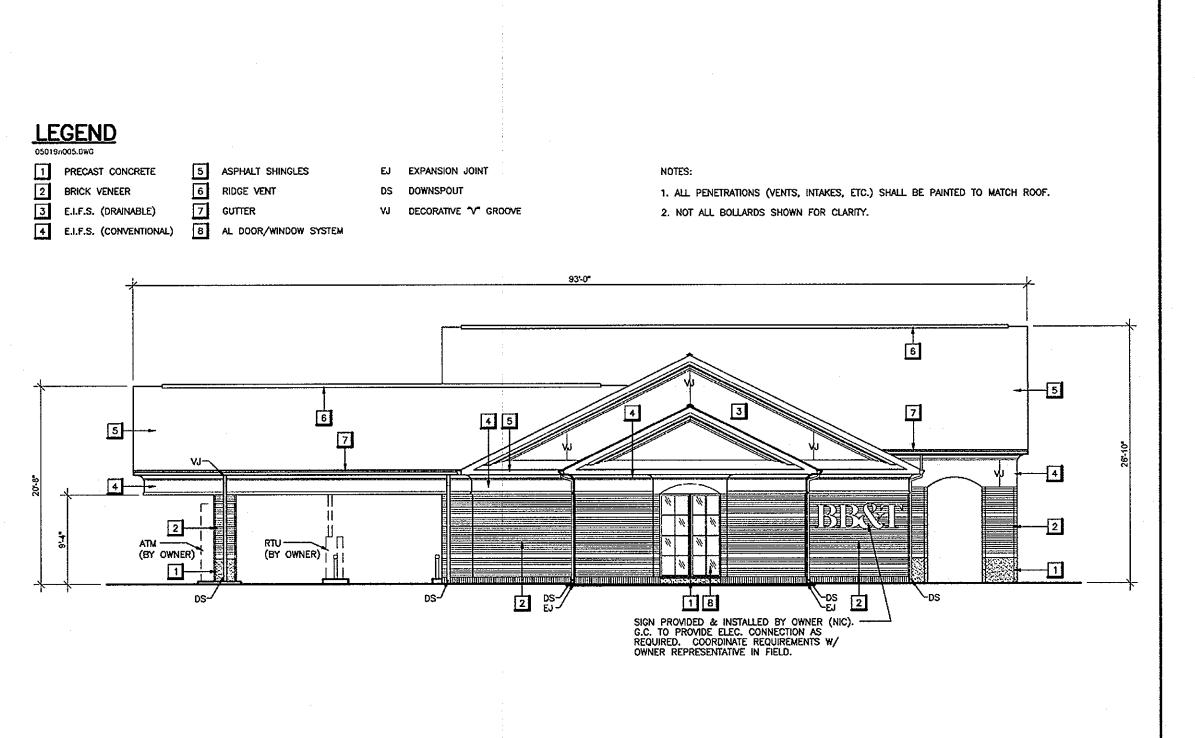
**LEGEND** 

1 PRECAST CONCRETE

5

2 BRICK VENEER





1. ALL PENETRATIONS (VENTS, INTAKES, ETC.) SHALL BE PAINTED TO MATCH ROOF.

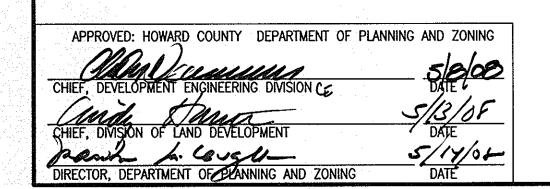
4

SEMI-RECESSED SIGN PROVIDED BY OWNER-INSTALLED BY CONTRACTOR, COORDINATE REQUIREMENTS W/ OWNER REPRESENTATIVE IN FIELD.

2. NOT ALL BOLLARDS SHOWN FOR CLARITY.

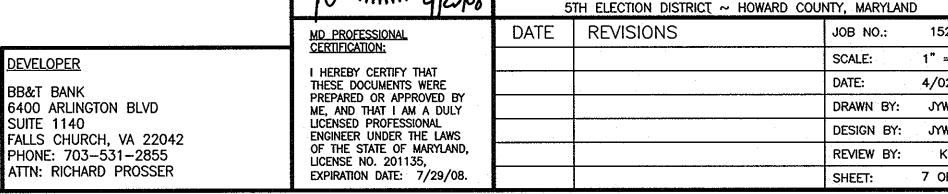
MECHANICAL DRAWINGS.

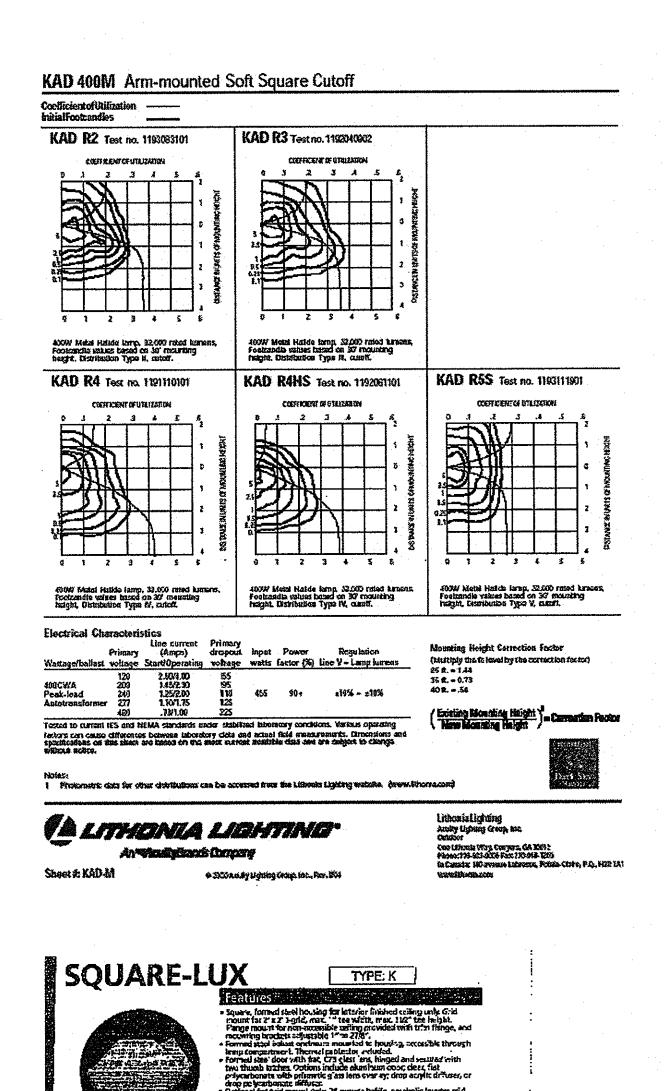
NOTE: BUILDING ADDRESS SIGNAGE TO BE LOCATED O THE BUILDING

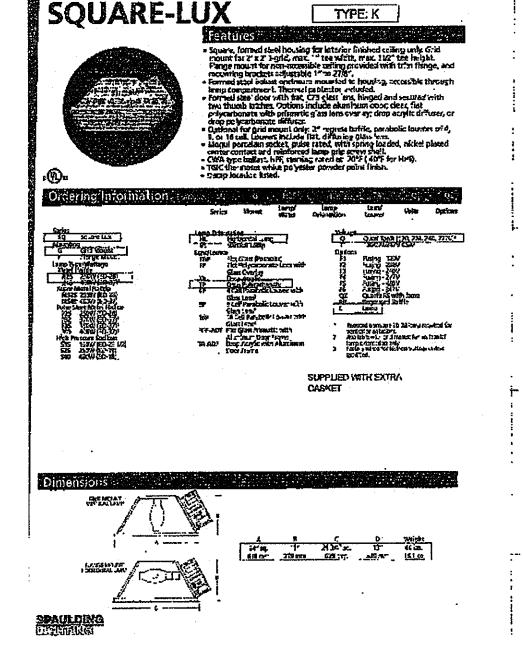


REAR ELEVATION

FRONT ELEVATION - JOHNS HOPKINS ROAD









#### MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395

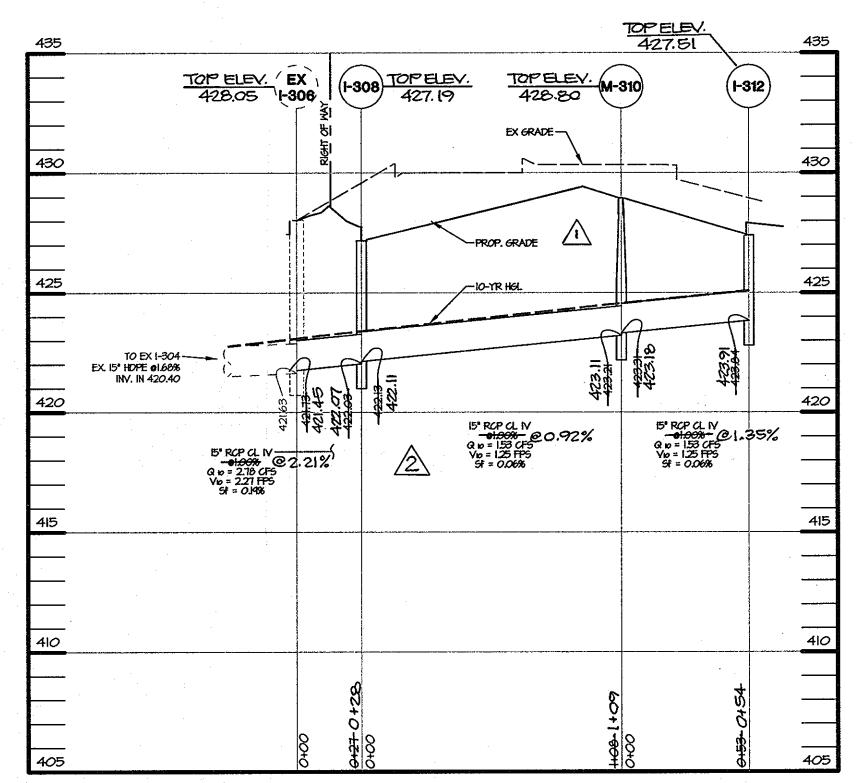
SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER

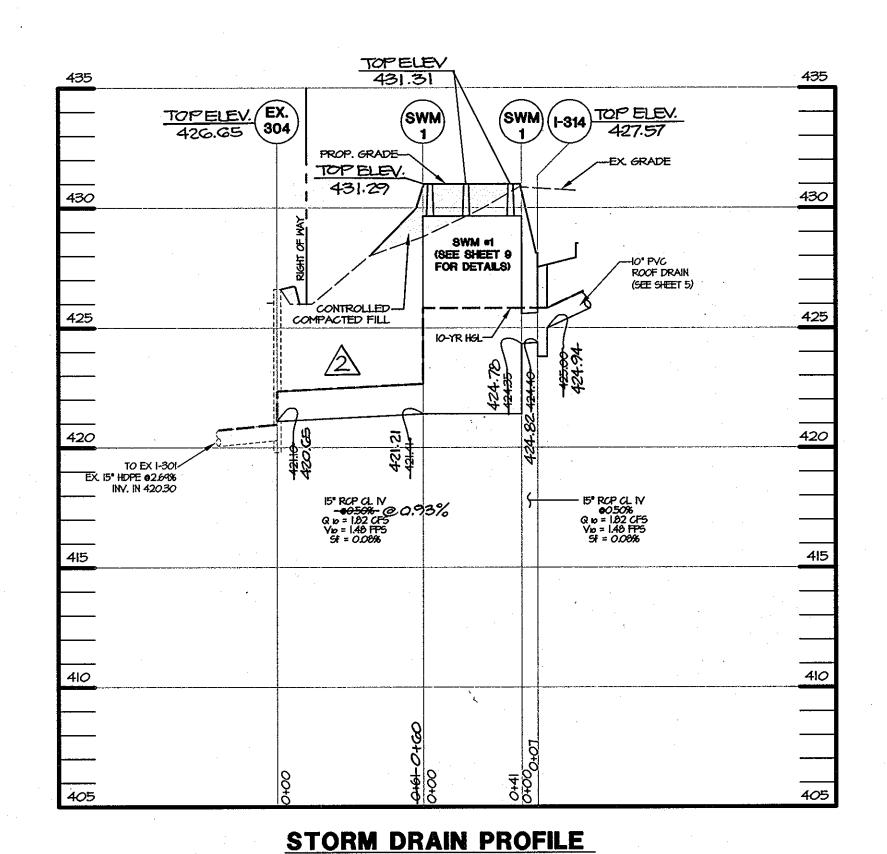


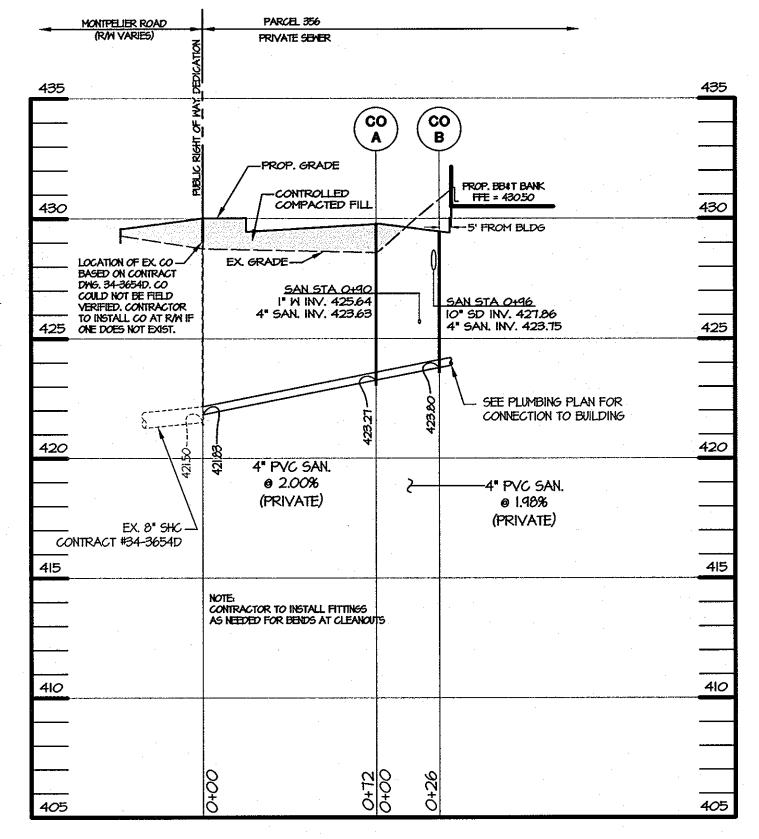
**BUILDING ELEVATIONS & DETAILS** 

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356
ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16
5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

1" = 20'4/02/08 DRAWN BY: JYW/CE DESIGN BY: JYW/CE 7 OF 18







**SANITARY PROFILE** HOR. 1" = 40'VERT. 1" = 4'

STORM DRAIN PROFILE EX I-306 TO I-312 HOR. 1" = 40'VERT. 1" = 4'

EX I-304 TO I-314 HOR. 1" = 40'VERT. 1" = 4'

MONTPELIER ROAD (R/M VARIES) PARCEL 356 PRIVATE WATER SEE PLUMBING PLAN FOR CONNECTION TO BUILDING. BB&T BANK EX. GROUND -FFE = 430.50 430

430 PROP. GRADE -M STA 0199 10" PVC INV. 427.82 SEE PLUMBING PLAN FOR \_ CONNECTION TO BUILDING I" W INV. 426.19 EX. 16" WATER MAIN -425 -PROP. I" WHO W STA 0+00= EX. WL STA 25+07.96 (CONTR. # 44-1160) PROP. CREPORATION 420 4" SAN. INV. 423.62 I" W INV.424.23 TOP VALVE EL. 428.87± 420

WATER SERVICE CONNECTION PROFILE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

OCORDINATES TO CENTER OF STRUCTURE AT FLOWLINE FOR DOUBLE WR & CENTER OF STRUCTURE FOR SINGLE WR INLETS & MANHOLES. TOP OF GRATE ELEVATION AT CENTER OF STRUCTURE AT FLOWLINE FOR DOUBLE WR, SINGLE WR INLET, MANHOLE, AND CLEANOUT ELEVATIONS ARE AT CENTER OF RIM LOCATION STR NO. \\* TOP ELEV | INV IN | INV IN | INV OUT | 423.1 REMARKS NORTHING EASTING 543,819.26 1,342,344.17 I-308 427.15 422.11 422.13 422.03 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 M-310 423-18 423-31 423-21 STANDARD PRECAST MANHOLE, HO. CO. STAND. DETAIL G-5.12 543,797.06 | 1,342,452.85 423.84 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 543,838.74 1,342,492.23 -427.55 AZASA AZASZ -424.40 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 543,910.25 1,342,327.31 CO # 1 429.58 --- 427.33 MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 543,889.71 1,342,374.45 CO # 2 430.20 --- 427.78 MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 CO # 3 429.66 --- 427.48 MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 TRAFFIC BEARING 543,938.01 1,342,396.01 \* TOP COVER TO BE TRAFFIC BEARING, SEE HOWARD COUNTY STANDARD DETAIL S-3.21.

• COORDINATES TO CENTER OF STRUCTURE.

STORMWATER MANAGEMENT STRUCTURE SCHEDULE LOCATION STR NO. TOP ELEV INV IN INV IN INV OUT REMARKS NORTHING EASTING 543,889.59 1,342,362.56 SWM #1 431.00 --- 424.35 421.41 UNDERGROUND SWM FACILITY, SEE DETAIL SHEET 9.

SANITARY STRUCTURE SCHEDULE LOCATION TYPE REMARKS NORTHING CO A 429.78 --- 423.27 STANDARD CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 TRAFFIC BEARING\* 543,931.97 1,342,468.17 CO B 429.47 --- 423.80 STANDARD CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 TRAFFIC BEARING\* 543,908.25 1,342,458.56 \* TOP COVER TO BE TRAFFIC BEARING, SEE HOWARD COUNTY STANDARD DETAIL S-3.21.

CONTROLLED AND COMPACTED FILL PER AASHTO T-180,

TO BE CERTIFIED BY AN APPROVED ON-SITE

SANITARY PIPE SCHEDULE (PRIVATE) SIZE TYPE LENGTH 4" PVC SDR 35 103 LF

TYPE RCP, CL. IV WATER PIPE SCHEDULE (PRIVATE)
SIZE TYPE LENGTH

SD PIPE SCHEDULE

RCP, CL. IV

PVC SCHEDULE 40

NOTE: ALL ROOF DRAINS ARE SLOPED AT 0.50%.

SWM PIPE SCHEDULE

6" PVC SCHEDULE 40

<del>-188-</del>|191

WATER PIPE FITTINGS SCHEDULE (PRIVATE) CORPORATION STOP

1" TYPE K COPPER 106 LF

GEOTECHINICAL ENGINEER COMPACTED SPECIFICATIONS FOR UTILITIES IN FILL

WHERE UTILITY PIPES ARE TO BE PLACED ON COMPACTED FILL, THE FOLLOWING

A. PRIOR TO PLACEMENT OF COMPACTED FILL, ANY SOFT OR OTHERWISE UNSUITABLE SOILS ENCOUNTERED AT THE EXISTING RAVINE BOTTOM OR SLOPE, SHALL BE UNDERCUT AND REMOVED FROM THE CONSTRUCTION AREA.

B. ACCEPTABLE COMPACTED FILL SHALL BE PLACED IN SIX INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. METHOD T-180.

C. THE COMPACTED FILL SHALL BE BENCHED INTO THE EXISTING VIRGIN SLOPES WITH EACH LIFT PLACED TO A SMOOTH TRANSITION FROM VIRGIN TO FILL SOILS.

AS-BUILT CERTIFICATION FOR PSWM I HEREBY CERTIPY THAT THE FACILITY SHOWN ON THE PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS BUILT" FLANS AND COMPLIES WITH THE APPROVAL PLANS AND SPECIFICATIONS. I HAVE VERIFIED THAT THE CONTRIBUTING PRANAGE AREA IS SUFFICIENTLY STABILIZED TO PREVENT CLOSEING OF THE UNDERGROUND STORM WATER MANAGEMENT FACILITY.

Oh orgalin THOMAS NEWGEBAUER, PE LIC. EXPIRES 6-16-11





# MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE, SUITE A

LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395

SITE DEVELOPMENT PLAN

**BB&T BANK - AT MONTPELIER** 

# **UTILITY PROFILES**

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356 ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16

MD_PROFESSIONAL CERTIFICATION:
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. 201135,
EXPIRATION DATE: 7/29/08.

Ð	5	TH ELECTION DISTRICT ~ HOWARD COUL	NTY, MARYLAND
	DATE	REVISIONS	JOB NO.:
	10/03/08	SCALE:	
		SIDEWALK EXTENSION	DATE:
	11/11/10	AS BUILT INFO. ADDED TO FLAN	DRAWN BY:
			DESIGN BY:

DEVELOPER BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042 PHONE: 703-531-2855 ATTN: RICHARD PRUSSER

SDP-07-093

REVIEW BY:

SHEET:

15205

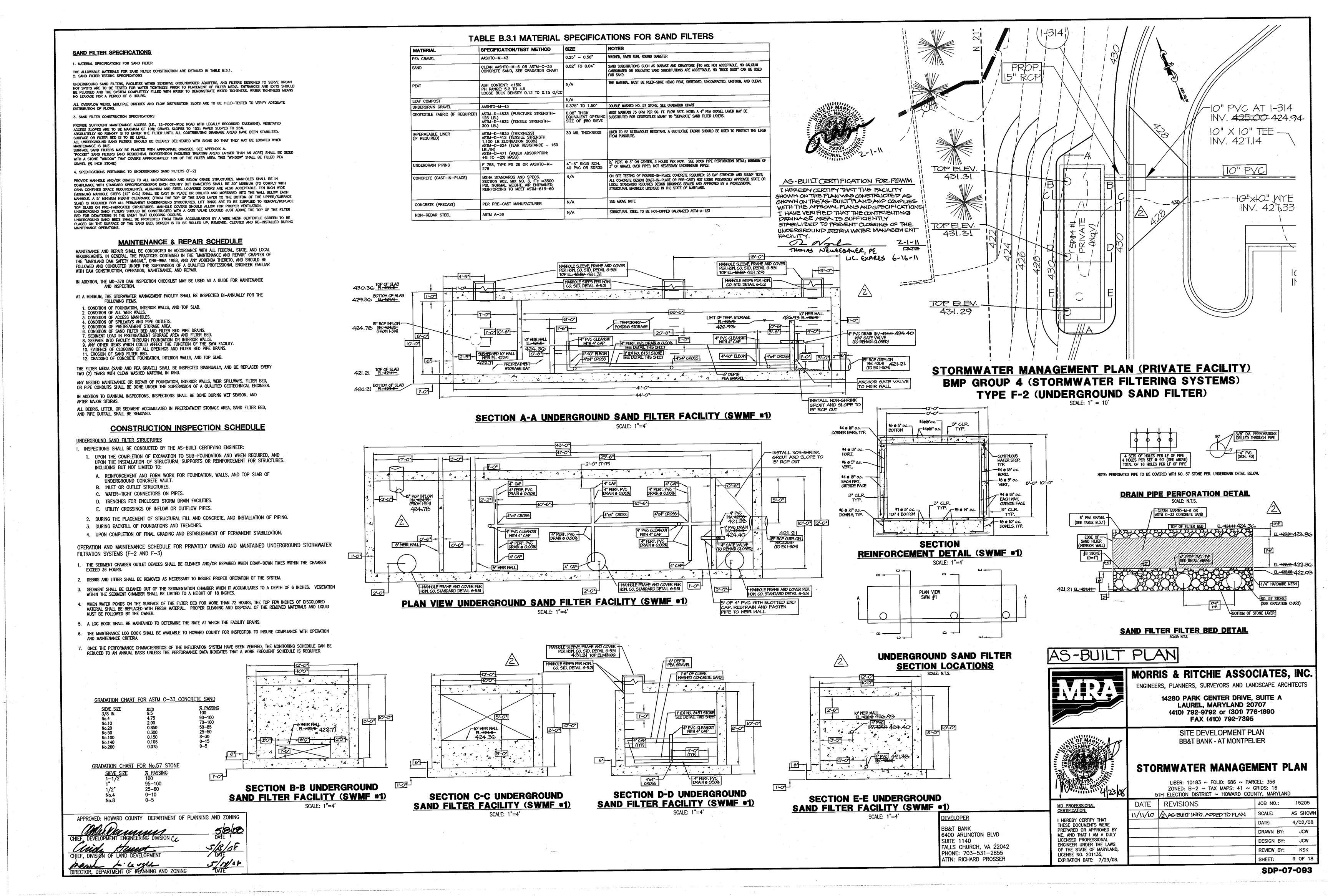
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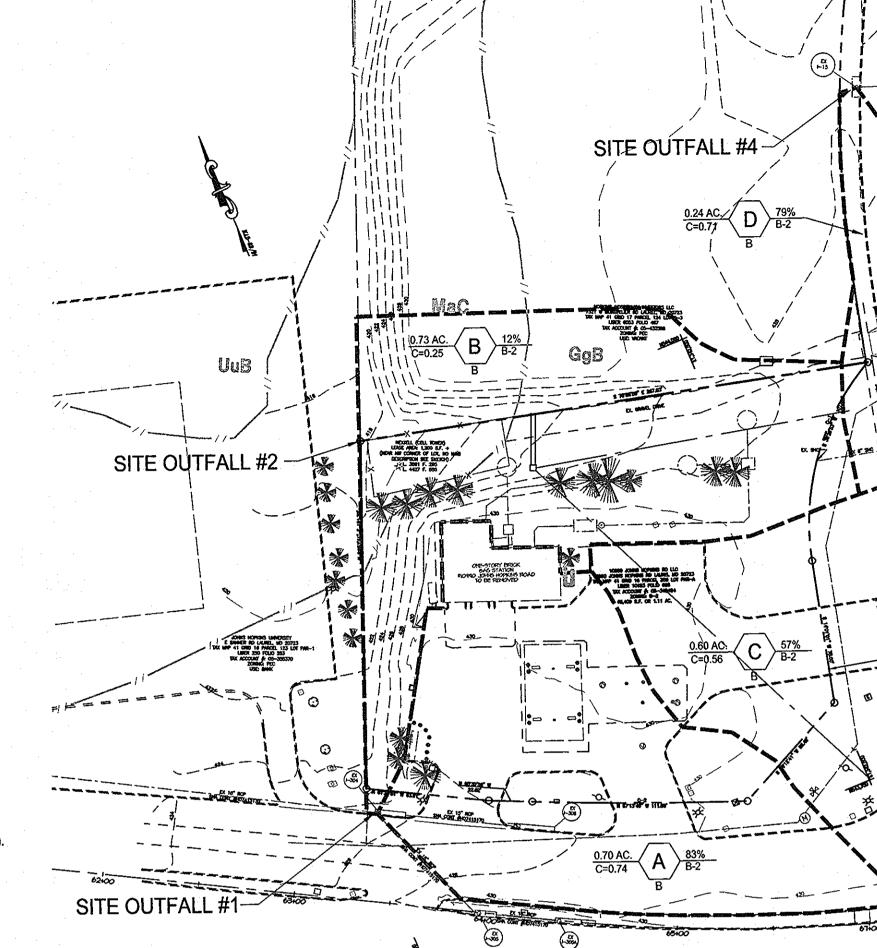
4/02/08

JCW

KSK

8 OF 18





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SITE OUTFALL #4 SITE OUTFALL #2 UNDERGROUND SAND FILTER (PRIVATE) SITE OUTFALL #3 PROPOSED SWM & SD DRAINAGE

# AREA MAP

SCALE: 1" = 50'

# **LEGEND**

·	
	EX. 2' CONTOUR
	- EX. 10' CONTOUR
	- EX. PROPERTY LINE
	- EL ADJACENT PROPERTY LINE
	- EX. RIGHT OF WAY
·	- EX. STRUCTURE AND USE SETBACK
~~~~~~	EX. TREE LINE
	- EX. PAVEMENT
	≕ EX. ¢URB
· ·	- EX. BUILDING
x	— EX. FENCE
	- EX. EASEMENT
	— EX. STORM DRAIN
	- EX. SANITARY F.M.
	- EX. WATER
· · · · · · ·	- EX. GAS
	EX. CONDUIT
·	EX. WATER EASEMENT
	EX. WEILAND BUFFER
	EX. STREAM BUFFER
production / / productions	SOIL DIVIDE
GgA	SOIL TYPE
. WARE SECOND COME DOSER OF	BRE DRAINAGE DIVIDE
	- PROP. 1' CONTOUR
	- PROP. 2' CONTOUR
	- PROP. 10' CONTOUR
+2a <sup>80</sup>	PROP. SPOT. FLEVATION

1. THIS SITE IS CLASSIFIED AS A RE-DEVELOPMENT PER THE HOWARD COUNTY DESIGN MANUAL, VOLUME 1. IT IS ONLY REQUIRED THAT

EXTREME FLOOD

PROTECTION VOLUME (Qf)

- 4. Channel protection volume ( $C_pV$ ) is not required for this <u>re-development</u>.
- 5. Flood protection volume (Qp10) is not required for this RE-DEVELOPMENT.

# EXISTING SWM DRAINAGE AREA MAP

SCALE: 1" = 50'

10 March 1985		A TALL TO A SAME TO THE A	
STEP	REQUIREMENT	VOLUME REQUIRED (acft.)	NOTES
1	WATER QUALITY VOLUME (WqV)	0.023 ac.—ft.	0.026 acft. PROVIDED BY SWM #1, PRIVATE SAND FILTER
2	RECHARGE VOLUME (ReV)		RE-DEVELOPMENT DOES NOT REQUIRE ReV
3	CHANNEL PROTECTION VOLUME (CpV)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE CpV
4	OVERBANK FLOOD PROTECTION VOLUME (Qp)	N/A	RE-DEVELOPMENT DOES NOT REQUIRE Qp10

RE-DEVELOPMENT DOES NOT

REQUIRE Qp100

GENERAL SWM STORAGE REQUIREMENTS

	SOILS LEGEND	
SYMBOL	NAME/DESCRIPTION	SOIL TYPE
GgA	GLENELG LOAM, 0-3% SLOPES	В
GgB	GLENELG LOAM, 3-8% SLOPES	В
MaC	MANOR LOAM, 8%-15% SLOPES, MODERATLEY ERODED	В
UuB	URBAN LAND UDORTHENTS COMPLEX, 15%-25% SLOPES	D

5 8 DE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

# SITE OUTFALL #1 DRAINAGE AREA: EX. DA. A

DRAINAGE AREA:	0.70 AC
AREA LAWN: AREA IMPERVIOUS:	0.12 AC 0.58 AC
WEIGHTED C-FACTOR:	0.74
TIME OF CONCENTRATION	: 5 MIN
SITE RUNOFF: (10-YR.)	3.63 CFS

#### SITE OUTFALL #1 DRAINAGE AREA: PR. DA. A-E

DRAINAGE AREA:	1.21	AC
AREA LAWN: AREA IMPERVIOUS:	0.31 0.90	
WEIGHTED C-FACTOR:	0.68	· .
TIME OF CONCENTRATION: SITE RUNOFF: (10-YR.)		MIN 76 CFS

# SITE OUTFALL #2 DRAINAGE AREA: EX. DA. B

DRAINAGE AREA:	0.73 AC
AREA LAWN: AREA IMPERVIOUS:	0.64 AC 0.09 AC
WEIGHTED C-FACTOR:	0.25
TIME OF CONCENTRATION: SITE RUNOFF: (10-YR.)	5 MIN 1.28 C

#### SITE OUTFALL #2 DRAINAGE AREA: PR. DA. F

DRAINAGE AREA:	0.52 AC	
AREA LAWN: AREA IMPERVIOUS:	0.43 AC 0.09 AC	
WEIGHTED C-FACTOR:	0.28	
TIME OF CONCENTRATION: SITE RUNOFF: (10-YR.)	5 MIN 1.02 (	

# SITE OUTFALL #3 DRAINAGE AREA: EX. DA. C

SITE OUTFALL #3

GgA

73 AC	DRAINAGE AREA:	0.60 AC
64 AC	AREA LAWN:	0.26 AC
09 AC	AREA IMPERVIOUS:	0.34 AC
25	WEIGHTED C-FACTOR:	0.56
5 MIN	TIME OF CONCENTRATION:	5 MIN
1.28 CFS	SITE RUNOFF: (10-YR.)	2.35 CFS

# SITE OUTFALL #3 DRAINAGE AREA: PR. DA. G

DRAINAGE AREA:	0.29 AC
AREA LAWN: AREA IMPERVIOUS:	0.10 AC 0.19 AC
WEIGHTED C-FACTOR:	0.62
TIME OF CONCENTRATION	1: 5 MIN
SITE RUNOFF: (10-YR.)	1.26 CFS

# SITE OUTFALL #4 DRAINAGE AREA: EX. DA. D

:	DRAINAGE AREA:	0.24 AC
	AREA LAWN: AREA IMPERVIOUS:	0.05 AC 0.19 AC
-	WEIGHTED C-FACTOR:	0.71
	TIME OF CONCENTRATION:	5 MIN
	SITE RUNOFF: (10-YR.)	1.19 CF

# SITE OUTFALL #4 DRAINAGE AREA: PR. DA. H

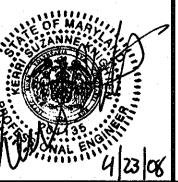
DRAINAGE AREA:	0.25 AC
AREA LAWN: AREA IMPERVIOUS:	0.06 AC 0.19 AC
WEIGHTED C-FACTOR:	0.69
TIME OF CONCENTRATION:	5 MIN
SITE RUNOFF: (10-YR.)	1.21 CFS



# MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395



#### SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER **EXISTING & PROPOSED** SWM & STORM DRAIN DRAINAGE AREA MAPS

ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16
5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

DEVELOPER	MD PE
BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042 PHONE: 703–531–2855 ATTN: RICHARD PROSSER	I HERE THESE PREPA ME, AT LICENS ENGINE OF TH LICENS EXPIRA

PROFESSIONAL RTIFICATION:	
HEREBY CERTIFY THAT ESE DOCUMENTS WERE EPARED OR APPROVED BY , AND THAT I AM A DULY ENSED PROFESSIONAL	
GINEER UNDER THE LAWS THE STATE OF MARYLAND, ENSE NO. 201135, PIRATION DATE: 7/29/08.	

ATE	REVISIONS	JOB NO.: 15205
		SCALE: AS SHOWN
		DATE: 4/02/08
		DRAWN BY: JCW
		DESIGN BY: JCW
		REVIEW BY: TCN
		SHEET: 10 OF 18

BB&T Bank@ Maplelawn
ECS Project No. 02-4313-A

Earthwork Operations

Subgrade Preparation

Subgrade preparation should generally include the stripping of any unsuitable surface materials from the planned structure and pavement areas. Caution should be taken when stripping unsuitable materials so as to not mix these materials with otherwise suitable subgrade soils. It is recommended that the stripping of unsuitable surficial materials should extend to a minimum of 5 feet beyond the structure and pavement area limits.

Subsequent to initial stripping operations, the exposed subgrade soils in the planned building and pavement areas should be examined and probed by a qualified representative of the Geotechnical Engineer. If there is uncertainty regarding the ability of the existing soil to support new building and fill loads, then the exposed soils should be thoroughly prooffolled by a vehicle having an axle weight of at least 10 tons, such as a fully-loaded tandem-axle dump truck. This procedure is intended to assist in identifying any localized loose or unstable materials. In the event that any unstable materials are encountered during the prooffolling operations, those subgrade soils should either be thoroughly densified in-place, or undercut to firm ground and replaced with controlled, compacted fill back up to final subgrade elevations.

#### Fill Placement

Prior to placement of compacted fill, representative bulk samples (about 50 pounds) should be taken of the proposed fill soils and laboratory tests should be conducted to determine Atterberg limits, natural moisture content, grain-size distribution, and moisture-density relationships for compaction. These test results will be necessary for proper control of construction for new engineered fill

Upon achieving competent subgrade conditions, the Contractor can place and compact engineered fill to reach final subgrade levels. In general, any materials to be used as structural fill should consist of soil types classified as ML, SC, SM or more granular, in accordance with ASTM D 2487, and should have a Liquid Limit less than 40 and a Plasticity Index less than 20. However, materials used as backfill behind below-grade walls or retaining walls should have classifications of SM, or more granular, in accordance with ASTM D 2487. The results of the borings indicate that the majority of the Existing Fill soils and on-site natural soils should be suitable for re-use at the site as general fill, with moisture adjustment during fill placement. However, more select materials may be needed as backfill within the critical zones of below-grade walls.

#### BB&T Bank@ Maplelawn ECS Project No. 02-4313-A

Page 12

Finer-grained plastic soils, and organic soil types, if encountered at the site, may be used as fill in landscape areas. Any such materials encountered during grading operations should be either

stockpiled for later use in landscape fills, or should be placed in approved disposal areas either on site or off site.

Prior to the utilization of any on-site or off-site borrow materials, the Geotechnical Engineer should be provided with representative complex in order to determine the cuitability of the

should be provided with representative samples in order to determine the suitability of the materials for use as a controlled compacted fill and to develop moisture-density relationships. In order to expedite the earthwork operations, it is recommended that any off-site borrow materials important to the site generally should be comprised of SM or more granular soil types.

All structural fill should be placed in loose lifts, which do not exceed 8 inches in thickness, and should be compacted to at least 95 percent of the maximum dry density, as determined by the Standard Proctor Compaction Test (ASTM D 698). Structural fill placed within the upper 2 feet of floor slab subgrades and pavement areas should be compacted to at least 98 percent of the Standard Proctor maximum dry density to provide improved support characteristics for slabs and pavements. Generally, the moisture content of the fill material should be maintained within ±2 percentage points of the optimum moisture content for the fill material, as determined by ASTM D 698. Fill materials placed in non-structural areas should be compacted to at least 90 percent of the Standard Proctor maximum dry density in order to avoid significant subsidence under self weight.

Due to the textural variations of the on-site soils, variations in moisture-density relationships should be anticipated. Such variations must be determined in the field by a qualified representative of the Geotechnical Engineer at the time of construction, so that any necessary changes to fill placement and compaction procedures can be implemented.

During placement of new fill, the footprint of the proposed building area should be well defined, including the limits of the fill zones at the time of fill placement. Grade controls should be maintained throughout the filling operations. All filling operations should be observed on a full-time basis by a qualified representative of the Geotechnical Engineer to determine that minimum compaction requirements are being achieved. A minimum of one compaction test per lift should be made per 2,500 square feet of fill lift area, but not fewer than two tests per lift should be made for any lift. The elevations and locations of the field density tests should be clearly identified at the time of fill placement and compaction.

Compaction equipment suitable for the soil types being used as fill should be selected to compact the fill. Theoretically, any equipment type can be used, so long as the required density is achieved. Ideally, a steel drum roller generally will be the most efficient for compaction of granular soil types and for sealing the surface soils, while a sheepsfoot roller or pneumatic-tire roller generally will be most efficient for compaction of cohesive soil types.

#### BB&T Bank@ Maplelawn ECS Project No. 02-4313-A December 5, 2006 Page 13

At the end of each work day, all fill areas should be graded to facilitate surface drainage of any water runoff associated with precipitation, and should be sealed by use of a smooth-drum roller to limit infiltration of surface water. During placement and compaction of new fill at the beginning of each workday, the Contractor should, at the direction of the Geotechnical Engineer, scarify existing subgrade soils so that a weak plane will not be formed between the new fill and the existing subgrade soils. When and where necessary, we recommend that subgrade soils should be scarified to depths of about 4 inches prior to placement of new fill.

Fill materials should not be placed on frozen soils, frost-heaved soils, and/or excessively wet soils. All frozen, frost-heaved, or excessively wet soils should be removed prior to continuation of fill operations. Borrow fill materials should not contain frozen materials at the time of placement. Moisture contents for excessively wet soils will need to be lowered to the range limits previously discussed.

If any problems are encountered during the earthwork operations, or if site conditions are found to deviate from those indicated by the soil test borings, the Geotechnical Engineer should be notified immediately.

#### Construction Considerations

The on-site soils contain silt and clay fines and therefore, will be sensitive to moisture increases and to construction disturbance. Construction activities in the presence of excessive moisture can lead to softening of the subgrade soils and loss of bearing capacity. Therefore, it will be prudent to schedule earthwork operations during the warmer and drier seasons that generally occur from late spring to early fall. Measures should also be taken to limit site disturbance, especially from rubber-tired heavy construction equipment, and to provide for drainage of surface water from areas being developed.

A firm working surface for the placement of engineered fill should be established prior to construction of new fills. The moisture content of the fill soils at the time of placement should be carefully controlled to ensure that the required compaction effort can be achieved without excessive pumping or movement of the fill mass. In the event that the earthwork operations are accomplished during the cooler and wetter periods of the year, delays and additional costs should be anticipated. At these times, reduction of soil moisture may need to be accomplished by a combination of mechanical manipulation and the use of chemical additives, such as lime or cement, in order to lower moisture contents to levels appropriate for compaction.

As noted in the Water Level Observations section of this report, groundwater was not encountered in the soil borings at the time of the subsurface exploration. Therefore, ECS anticipates that groundwater should not be encountered during construction operations. However, if perched groundwater or elevated groundwater is encountered at the time of

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION C. BATE

CHIEF, DIVISION OF LAND DEVELOPMENT

DATE

#### BB&T Bank@ Maplelawn ECS Project No. 02-4313-A December 5, 2006

Page 14

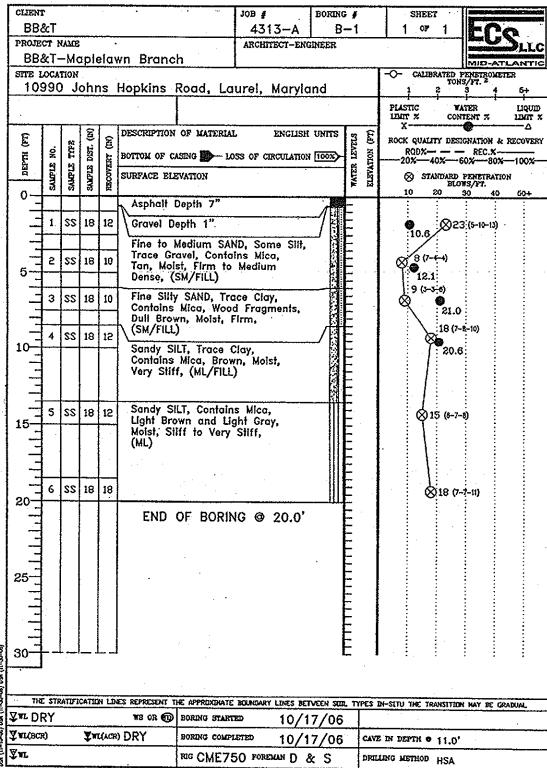
construction, groundwater control methods may be required, including the use of ditches, and sump pits and pumps. The Geotechnical Engineer should be further consulted if such groundwater is encountered.

All foundation excavations must be protected to prevent the disturbance of the subgrade materials and to minimize any potential loss of support capacity. Foundation concrete generally should be placed for foundations during the same day that the foundation excavations are made and approved. Should excavating and placing the foundation concrete during the same day not be practical, we recommend that a concrete mud mat, 2 to 3 inches thick, be placed to protect the subgrade soils from moisture changes and disturbance. If protection of the soils is not provided with a concrete mud mat, then undercutting of softened or loosened soils may be necessary prior to the placement of reinforcing steel and concrete for the foundation.

Prior to the placement of any foundation concrete or mud mat, the subgrade soils must be carefully examined and tested by a qualified representative of the Geotechnical Engineer to confirm the availability of the design soil bearing capacity. To minimize disturbance to the subgrade soils during excavation, we recommend that a bucket without scarifying teeth, in addition to hand excavation methods, be used during the final phases of the excavation for the foundations to avoid disturbing the bearing soils.

Any cuts or excavations associated with building and utility excavations may require forming or bracing, slope flattening or other physical measures to control sloughing and/or to prevent slope instability. The Contractor should be familiar with applicable OSHA codes and requirements regarding protection of workers in trench excavations.

The surface soils contain appreciable fines and are considered erodible. The Contractor should provide and maintain good site drainage during earthwork operations to help to maintain the integrity of the surface soils. All erosion and sedimentation control measures should be in accordance with sound engineering practice and current local requirements. Surface water should be directed away from the construction area, and the work area should be sloped at gradients of 1 to 2 percent, to reduce the potential for ponding water and the subsequent saturation of the surface soils.

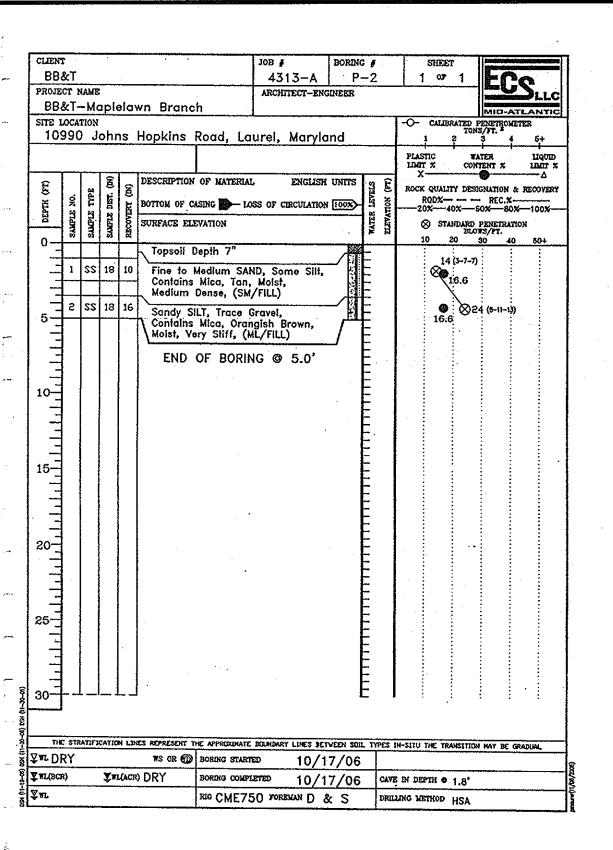


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	BB&T-Maplelawn Branch	MID-ATLANTIC		<b> -</b>
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	1 SS 18 8 Fine to Medium SAND, Some Silt,	⊗28 (4-12-16)	THILBER) THILACE DRY	10/11/00
	Fragments, Contains Mica, Tan,		} ' <del> </del>	10/11/00
	2 SS 18 18 Moist, Medium Dense, (SM/FILL)	<b>∑</b> 15 (7-8-7)	\sqrt\\ \alpha\rm \qqrt\\ \alpha\rm \qqrt\\ \alpha\rm \qqrt\\ \qqrt\	RIG CME750 FOREMAN D & S DRILL
	3 SS 18 3 Sandy Slity CLAY, Trace Organics, Brown, Moist, Medium Stiff, (CL/FILL)  4 SS 18 16 Fine Slity SAND, Contains Mica, Light Orangish Brown, Moist, Medium Dense, (SM)  5 SS 18 1  15 6 SS 18 12	20 24.9 34 ×19 (7-5-10) ×16 (6-7-9)	,	
Ŷ	25 - 7 SS 18 16 Sandy SILT, Contains Mica, Tan and Light Orangish Brown, Moist, Very Stiff to Hard, (ML)	⊗24 (10-11-j3) (12-14-19)⊗33		
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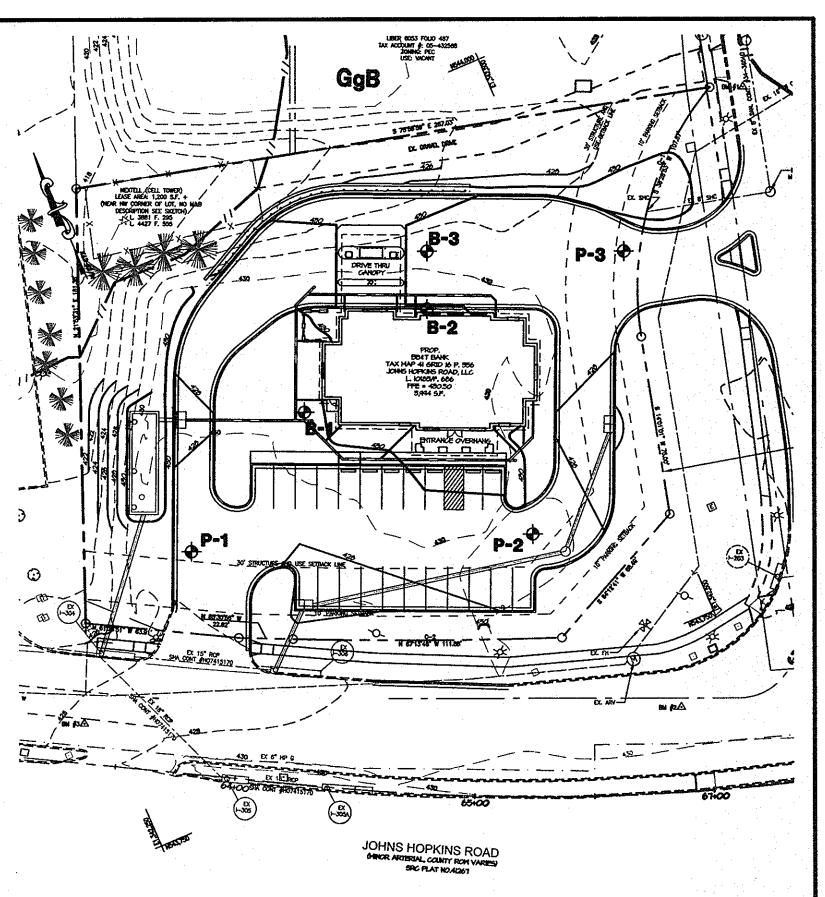
RIG CME750 FOREMAN D & S DRILLING METHOD HSA

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# SOIL BORING LOCATION PLAN SCALE: 1" = 40'

SOILS CHART

SOIL SYMBOL SOIL NAME SOIL TYPE

GGA GLENELG LOAM, 0% TO 3% SLOPES B

GGB GLENELG LOAM, 3% TO 8% SLOPES B

MAC MANOR LOAM, 8% TO 15% SLOPES MODERATELY ERODATED B

UB URBAN LAND UDORTHENTS COMPLEX, 15%-25% SLOPES A



# MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395

SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER

#### GEO-TECH. REPORT INFORMATION

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356

ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16

5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

MD 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,	l
LICENSE NO. 201135, EXPIRATION DATE: 7/29/08.	-

DEVELOPER

BB&T BANK

SUITE 1140

6400 ARLINGTON BLVD

FALLS CHURCH, VA 22042 PHONE: 703-531-2855

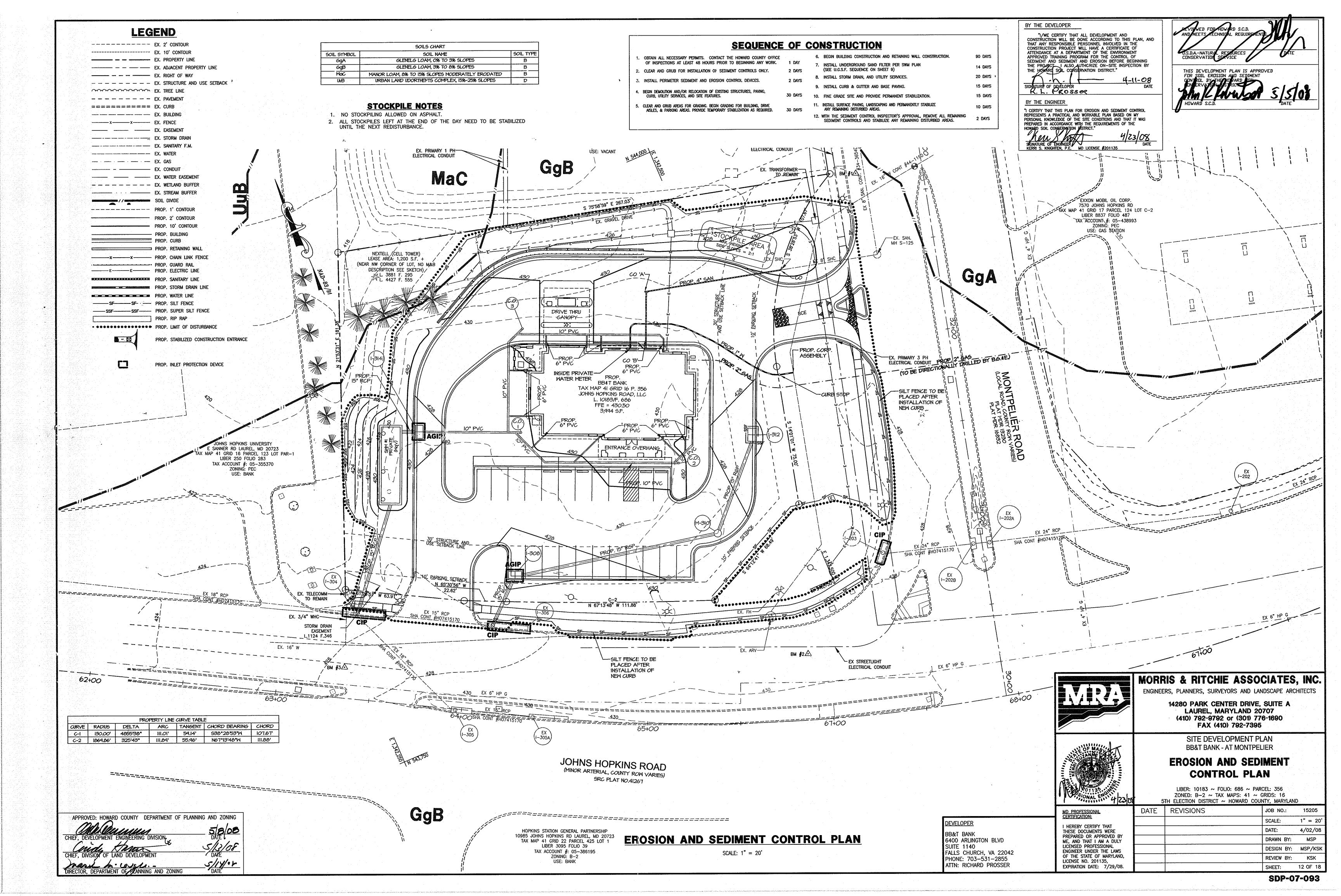
ATTN: RICHARD PROSSER

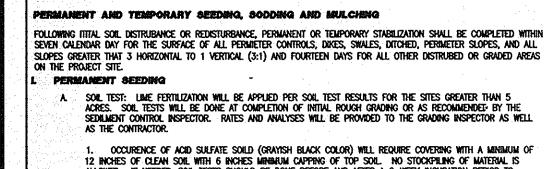
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VEGETATIVE STABILIZATION

SOIL TEST: LIME FERTILIZATION WILL BE APPLIED PER SOIL TEST RESULTS FOR THE SITES GREATER THAN 5 ACRES. SOIL TESTS WILL BE DONE AT COMPLETION OF INITIAL ROUGH GRADING OR AS RECOMMENDED BY THE SEDILMENT CONTROL INSPECTOR. RATES AND ANALYSES WILL BE PROVIDED TO THE GRADING INSPECTOR AS WELL

1. OCCURENCE OF ACID SULFATE SOILD (GRAYISH BLACK COLOR) WILL REQUIRE COVERING WITH A MINIMUM OF 12 INCHES OF CLEAN SOIL WITH 6 INCHES MINIMUM CAPPING OF TOP SOIL. NO STOCKPILING OF MATERIAL IS ALLOWED, IF NEEDED, SOIL TESTS SHOULD BE DONE BEFORE AND AFTER A 6-WEEK INCUBATION PERIOD TO ALLOW OXIDATION OF SULFATES.

THE MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT ARE:
A. SOIL ph shall be between 6.0 and 7.0. B. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).

c. The soil shall contain less than 40% clay but enough fine grained material (> 30% silt PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF MOISTURE. AN EXCEPTION IS IF LOYEGRASS OR SERECIA LESPEDEZA IS TO BE PLANTED, THEN A SANDY SOIL (<30% SILT PLUS CLAY) SOIL SHALL CONTAIN 1.5% MENDAUM ORGANIC MATTER BY WEIGHT.

SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

IF THESE CONDITIONS CANNOT BE MET BY SOILS ON SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 21 STANDARD AND SPECIFICATIONS FOR TOPSOIL OR AMENDMENTS MADE AS RECOMMENDED BY

A CERTIFIED AGRONOMIST.

SEED PREPARATION: AREA TO BE SEEDED SHALL BE LOOSE AND FRABLE TO A DEPTH OF AT LEAST 3 INCHES.

THE TOP LAYER SHALL BE LOOSENED BY RAKING, DISKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING

OCCURS. FOR SITES LESS THAN 5 ACRES, APPLY 100 POUNDS DOLOMITIC LIMESTONE AND 21 POUNDS OF

10-10-10 FERTILLER PER 1,000 SQUARE FEET. HARROW OR DISK LIE AND FERTILLIZER INTO THE SOIL TO A DEPTH

OR BETWEEN AUGUST 15 AND OCTOBER 31. APILY SEED UNIFORMLY ON A MOIST FIRM SEEDBED WITH A CYCLONE seeder, cultipacker seeer or hydroseeer (slurry includes seeds and fertilizer. recommend on stee SLOPES ONLY.) MAXIMUM SEED DEPTH SHOULD BE 1/4, INCH IN CLAYEY SOILS AND 1/4 INCH IN SANDY SOILS WHEN USING OTHER THAN THE HYDORSEEER METHOD. IRRIGATE WHERE NECESSARY TO SUPPORT ADEQUATE GROWTH UNTIL VEGETATION IS FRIMLY ESTABLISHED. IF OTHER SEED MIXES ARE TO BE USED, SELECT FROM TABLE 25. ENTITLED "PERMANENT SEEDING FOR LOW MAINTENANCE AREAS" FROM THE CURRENT STANDARDS AND SPECIFICATION FOR SOIL EROSSON AND SEDIMENT CONTROL. MIXES SUITABLE FOR THIS ARE 1, 3, AND 5-7. MIXES 5-7 ARE SUITABLE IN NON-MOWABLE SITUATIONS.

MULCHING: MULCH SHALL BE APPLIED TO ALL SEEDED AREA MAMEDIATELY AFTER SEEDING. DURING THE TIME PERIOS WHEN SEEDING IS NOT PERMITTED, MULCH SHALL BE APPLIED IMMEDIATELY AFTER GRADING. MULCH SHALL BE UNROTTED, UNCHOPPED, SMALL GRAIN STRAW APPLIED AT A RATE OF 2 TONS PER ACRE OF 90 POUNDS PER 1,000 SQUARE FEET (2 BALES). IF A MULCH—ANCHORING TOOL IS USED, APPLY 2.5 TONS PER ACRES. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2

SECURING STRAW MULCH: STRAW MULCH SHALL BE SECURED IMMEDIATELY FOLLOWING MULCH APPLICATIONS TO MINIMIZE MOVEMENT BY WIND OR WATER. THE FOLLOWING METHODS ARE PERMITTED: (i) Use a mulch—anchoring tool which is designed to punch and anchor mulch into the soil.

Surface to a minimum depth of 2 inches. This is the most effective method for securing mulch,

HOWEVER, IT IS LIMITED TO RELATIVELY FLAT AREAS WHERE EQUIPMENT CAN OPERATE SAFELY. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. APPLY THE FIBER BINDER AT A NET DRY WEIGHT OF 750 POUNDS PER ACRE. IF WINED WITH WATER, USE 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.

(iii) Liquid binders may be used. Apply at higher rates at the edges, where wind catches mulch, such as in valleys and on crests fo slopes. The remainder o the area should appear uniform after binder application. Binders listed in the 1994 standards and specifications for soil erosion AND SEDIMENT CONTROL OR APPROVED EQUAL SHALL BE APPLIED AT RATES RECOMMENDED. BY THE

(iv) lightweight plastic netting may be used to secure mulch. The netting will be stapled to the GROUND ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET. 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET

PERENNIAL RYE-0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER1).

MILLET-0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15).

NO FILLS MAY BE PLACED ON FROZEN GROUND. ALL FILL TO BE PLACES IN APPROXIMATELY HORIZONTAL LAYER EACH LAYER HAVING ALGOSE THICKNESS OF NOT MORE THAN 8 INCHES. ALL FILL IN ROADWAYS AND PARKING AREA IS TO BE CLASSIFIED TYPE 2 AS PER ANNE ARUNDEL COUNDY CODE— ARTICLE 21, SECTION 2-308, AND COMPACTED TO 90% DENSITY; COMPACTION TO BE DETERMINED BY ASTIM D-1557-66T (MODIFIED PROCTOR). ANY FILL WITHIN THE BUILDING AREA IS TO BE COMPACTED TO A MINIMUM OF 95 % DENSITY AS DETERMINED BY METHODS PREVIOUSLY MENTIONED. FILLS FOR POND EMBANGMENTS SHALL BE COMPACTED AS PER MD—378 CONSTRUCTION SPECIFICATIONS. ALL OTHER FILLS SHALL BE COMPACTED SUFFICIENTLY SO AS TO BE STABLE AND PREVEN EROSION AND SLIPPAGE.

INSTALLATION OF SO SHOULD FOLLOW PERMANENT SEEDING DATES. SEEDBED PREPARATION FOR SOD SHALL BE AS NOTED IN SECTION (B) ABOVE. PERMANENT SOD IS TO BE TALL FESCUE, STATE APPROVED SOD; LIME AND FERTILIZER PER PERMANENT SEEDING SPECIFICATINS AND LIGHTLY IRRIGATE SOIL PRIOR TO LAYING SOD. SOD IS TO BE LAID ON THE CONTOUR WITH ALL ENDS TIGHTLY ABUTTING. JORTS ARE TO BE STAGGERED BETWEEN ROWS. WATER AND ROLL OR TAMP SOD TO INSURE POSITIVE ROOT CONTACT WITH THE SOL. ALL SLOPES STEEPER THAN 3:1, AS SHOWN, ARE TO BE PERMAMENTLY SODDED OR PROTECTED WITH AN APPROVED EROSION CONTROL NETTING. ADDITIONAL WATER FOR ESTABLISHMENT MY BE REQUIRED. SOD IS NOT TO BE INSTALLED ON FROZEN GROUND. SOD SHALL NOT BE TRANSPLANTED WHEN MOISTURE CONTENT (DRY OR WET) AND/OR EXTREME TEMPERTURE MAY BE ADVERSELY AFFECT ITS SURVIVAL. IN THE ABSENCE OF ADEQUATE RAINFALL, IRRIGATION SHOULD PERFORMED TO ENSURE ESTABLISHMENT OF SOD.

MINING OPERATIONS

SEDIMENT CONTROL PLANS FOR MINING OPERATINS MUST INCLUDE THE FOLLOWING SEEDING DATES AND MIXTURES:

AT THE RATE OF 2 POUNDS PER 1,000 SQUARE FEET AND SERICEA LESPEZA AT THE MINIMUM RATE OF 0.65 POUNDS PER 1,000 SQUARE FEET.

WILL TOPSOIL SHALL BE APPLIED AS PER THE STANDARD AND SPECIFICATINS FOR TOPSOIL FROM THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. NOTE: USE OF THIS INFORMATION PRECLUDE MEETING ALL OF THE REQUIREMENT OF THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT.

NOTE: PROJECTS WITHIN 4 MIRES OF THE BWI AIRPORT WILL NEED TO ADHERE TO MARYLAND AVIATION

ADMINISTRATION'S SEEDING SPECIFICATION RESTRICTIONS.

PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW pH, MATERIAL TOXIC TO

PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION. CONDITIONS WHERE PRACTICE APPLIES

I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:

A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE

THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS. C. THE ORIGINAL SOIL TO BE VEGFTATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.

D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.

FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. ARE HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON

CONSTRUCTION AND MATERIAL SPECIFICATIONS

TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN REPRESENTATIVES SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA—SCS IN COOPERATION WITH MARYLAND AGRICULTURAL.

SAND. OTHER SOILS MAY USED IF RECOMMENDED BY AN ARRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. RECARDLESS TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVELS, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.

II. TOPSOIL SPECIFICATIONS-SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:

II. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUICKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.

WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS. GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 Pounds per 1,000 SF) prior to the placement of topsoil. Line Shall be distributed uniformly over designated areas and worked into the soil in compunction with tillage operations as described in the

II. FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRE

IN 20.0 VECETATIVE STABILIZATION—SECTION I—VECETATIVE STABILIZATION METHODS AND MATERIALS.

III. TOPSOIL APPLICATION CONTROL PRACTICES SUCH AS DYCRSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.

II. GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT HIGHER IN ELEVATION.

III. TOPSOIL SHALL BE UNIFORMLY DISTURBED IN A 4"--8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER

IV. TOPSOIL SHALL NOT PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED

VI. ALTERNATIVE FOR PERMANENT SEEDING-INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:

COMPOSTED SLUDGE MATERIAL FOR USE A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRE SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

> COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.

COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOROUS, AND 0.2 PERCENT POTASSIUM AND HAVE A pH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET

C. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1

COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4LB/1,000 SF, AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND

SODDING. MD-VA. PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE. REVISED 1973.

STANDARDS AND SPECIFICATIONS FOR LAND GRADING RESHAPING OF THE EXISTING LAND SURFACE IN ACCORDANCE WITH A PLAN

THE PURPOSE OF A LAND GRADING SPECIFICATION IS TO PROVIDE FOR EROSION CONTROL AND VEGETATIVE ESTABLISHMENT ON THOSE AREAS WHERE THE EXISTING LAND SURFACE IS TO BE RESHAPED BY GRADING

BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SURROUNDINGS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE UFFICIENT TOPOGRAPHIC SURVEYS AND SOIL INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED ON THE GRADING OPERATION RELATED TO SLOPE STABILITY, EFFECT ON ADJACENT PROPERTIES AND DRAINAGE PATTERNS, MEASURES FOR DRAINAGE AND

MANY COUNTIES HAVE REGULATIONS AND DESIGN PROCEDURES ALREADY ESTABLISHED FOR LAND GRADING AND CUT AND FILL SLOPES. WHERE THESE REQUIREMENTS EXIST, THEY SHALL BE FOLLOWED. THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS OF THE AREA(S) TO BE GRADED THE PLAN SHALL ALSO INCLUDE PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION. SAFE DISPOSAL OF RUNOFF WATER AND DRAINAGE, SUCH AS WATERWAYS, LINED DITCHES. REVERSE SLOPE BENCHES (INCLUDE GRADE AND CROSS SECTION), GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND SUBSURFACE DRAINS. THE PLAN SHALL ALSO INCLUDE PHASING OF THESE PRACTICES. THE FOLLOWING SHALL BE INCORPORATED INTO THE PLAN:

PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO INSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.

CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1. (WHERE THE SLOPE IS TO BE MOWED THE SLOPE SHOULD BE NO STEEPER THAN 3:1, 4:1 IS PREFERRED BECAUSE OF SAFETY FACTORS SHALL REQUIRE SPECIAL DESIGN AND STABILIZATION CONSIDERATIONS THAT SHALL BE ADEQUATELY SHOWN ON THE

REVERSE BENCHES SHALL BE PROVIDED WHENEVER THE VERTICAL INTERVAL (HEIGHT) OF ANY 2:1 SLOPE EXCEEDS 20 FEET; FOR 3:1 SLOPE IT SHALL BE INCREASED TO 30 FEET AND FOR 4:1 TO 40 FEET. BENCHES SHALL BE LOCATED TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND SHALL NVEY THE WATER TO A STABLE OUTLET. SOILS, SEEPS, ROCK OUTCROPS, ETC., SHALL ALSO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.

A. BENCHES SHALL BE A MINIMUM OF SIX FEET WIDE TO PROVIDE FOR EASE OF MAINTENANCE.

B. BENCHES SHALL BE DESIGNED WITH A REVERSE SLOPE OF 6:1 OR FLATTER TO THE TOE OF THE UPPER SLOPE AND WITH A MINIMUM OF ONE FOOT IN DEPTH. BENCH GRADIENT TO THE OUTLET SHALL BE BETWEEN 2 PERCENT AND 3 PERCENT, UNLESS ACCOMPANIED BY APPROPRIATE

C. THE FLOW LENGTH WITHIN A BENCH SHALL NOT EXCEED 800' UNLESS ACCOMPANIED BY APPROPRIATE DESIGN AND COMPUTATIONS. FOR FLOW CHANNEL STABILIZATION SEE

IV. SURFACE WATER SHALL BE DIVERTED FROM THE FACE OF ALL CUT AND/OR FILL SLOPES BY THE USE OF EARTH DIKES, DITCHES AND SWALES OR CONVEYED DOWNSLOPE BY THE USE OF A DESIGNED STRUCTURE, EXCEPT WHERE:

THE FACE OF THE SLOPE IS OR SHALL BE STABILIZED AND THE FACE OF ALL GRADED SLOPES SHALL BE PROTECTED FORM SURFACE RUNOFF UNTIL THEY ARE

B. THE FACE OF SLOPE SHALL NOT BE SUBJECT TO ANY CONCENTRATED FLOWS OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGEWAYS, GRADED SWALES, DOWNSPOUTS,

C. THE FACE OF THE SLOPE WILL BE PROTECTED BY SPECIAL EROSION CONTROL MATERIALS, TO INCLUDE, BUT NOT LIMITED TO: APPROVED VEGETATIVE STABILIZATION PRACTICES (SEE SECTION G), RIP-RAP OR OTHER APPROVED STABILIZATION METHODS.

V. CUT SLOPES OCCURRING IN RIPABLE ROCK SHALL BE SERRATED AS SHOWN ON THE FOLLOWING DIAGRAM. THESE SERRATIONS SHALL BE MADE WITH CONVENTIONAL EQUIPMENT AS THE EXCAVATION IS MADE. EACH STEP OR SERRATION SHALL BE CONSTRUCTED ON THE CONTOUR AND WILL HAVE STEPS OUT AT NOMINAL TWO-FOOT INTERVALS WITH NOMINAL THREE-FOOT HORIZONTAL SHELVES. THESE STEPS WILL VARY DEPENDING ON THE SLOPE RATIO OR THE CUT SLOPE. THE NOMINAL. SLOPE LINE IS 1:1. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE, LIME, FERTILIZER AND SEED THUS PRODUCING A MUCH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION. OVERLAND FLOW SHALL BE DIVERTED FROM THE TOP OF ALL SERRATED CUT SLOPES AND CARRIED TO A SUITABLE OUTLET.

VI. SUBSURFACE DRAINAGE SHALL BE PROVIDED WHERE NECESSARY
TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY
AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE

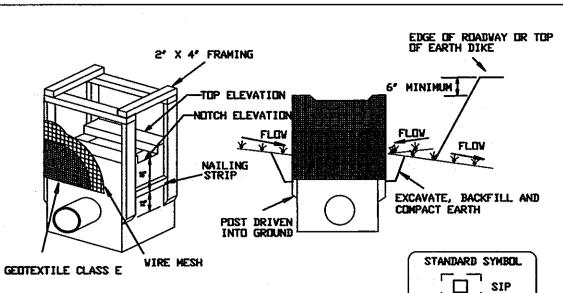
VII. SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATELY PROTECTING SUCH PROPERTIES AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER

VIII. FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER OBJECTIONABLE MATERIAL. IT SHOULD BE FREE OF STONES OVER TWO (2) INCHES IN DIAMETER WHERE COMPACTED BY HAND OR MECHANICAL TAMPERS OR OVER EIGHT (8) INCHES IN DIAMETER WHERE COMPACTED BY ROLLERS OR OTHER EQUIPMENT. FROZEN MATERIAL SHALL NOT BE PLACED IN THE FILL NOR SHALL TH FILL MATERIAL BE PLACED ON A FROZEN FOUNDATION

IX. STOCKPILES, BORROW AREAS AND SPOIL SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF

THIS STANDARD AND SPECIFICATIONS. ALL DISTURBED AREAS SHALL BE STABILIZED STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH 20.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION.

#### DETAIL 23A - STANDARD INLET PROTECTION



Construction Specifications

MAX. DRAINAGE AREA = 1/4 ACRE

1. Excavate completely around the Inlet to a depth of 18' below the

2. Brive the 2' x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the  $2' \times 4'$  frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6' below adjacent roadways where flooding and safety issues may arise.

3. Stretch the 1/2' x 1/2' wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a

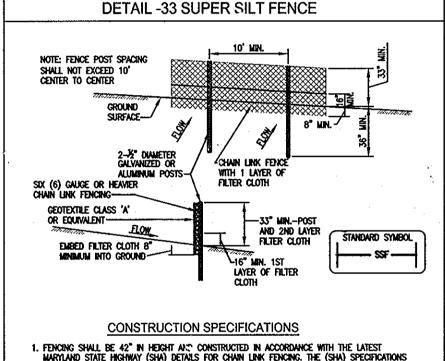
4. Stretch the Geotextile Class E tightly over the wire mesh with the geotixtile extending from the top of the frame to 18' below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.

5. Backfill around the inlet in compacted 6° layers until the layer of earth is level with the notch elevation on the ends and

6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be at least 6" higher than the top of the frame.

7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE E - 16 - 5



1. FENCING SHALL BE 42" IN HEIGHT AN: CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY (SHA) DETAILS FOR CHAIN LINK FENCING. THE (SHA) SPECIFICATIONS FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS. 2. THE POSTS DO NOT NEED TO BE SET IN CONCRETE.

3. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION. 5. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.

 WHEN TWO SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. 7. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BUILGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 50% OF THE FENCE HEIGHT.

. DEPARTMENT OF SOIL CONSERVATION		H-26-3			DEPARTMENT OF ENV MANAGEMENT ADMINST	
	DETAIL	33 - SUPER	SILT	FENC	Æ	
	•	SUPER SILT FENCE	DESIGN	I CRITERIA	<b>.</b>	
	SLOPE	STEEPNESS	SLOPE	LENGTH AX.)	LENGTH (MAX.)	
	0 - 10%	0 - 10:1		MITED	UNLIMITED	
	10 - 20% 20 - 33%	10:1 - 5:1 5:1 - 3:1		FEET	1500 FEET 1000 FEET	
5	33 - 50% 0% & HIGHER	3:1 - 2:1 2:1 & STEEPER		FEET FEET	500 FEET 250 FEET	
L						
. Department of Soil conservation		H-26-3A MODIFIED			) department of env Management administ	

1. A MIN. OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD CO. DEPARTMENT OF

OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND

ANY CONSTRUCTION (313-1855)

DESIGN MANUAL STORM DRAINAGE.

SITE ANALYSIS:

TOTAL AREA OF SITE

AREA TO BE ROOFED OR PAVED

AREA TO BE VEGETATIVELY STABILIZED

AREA DISTURBED

TOTAL CUT

TOTAL FILL

TOTAL TOPSOIL

GERMINATION AND ESTABLISHMENT OF GRASSES.

INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF

2. ALL VEGETATION AND STRUCTURAL ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS

STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER

SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN

AROUND THE PERIMETER IN ACCORDANCE WITH VOL 1, CHAPTER 12 OF THE HOWARD COUNTY

5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN

SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER

1.11± AC.

1.29 AC

0.58 AC.

2,028 CU. YDS.\*

757 CU. YDS.\*

227 CU. YDS.\*

ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION

AND SEIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE

OBTAINED FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR

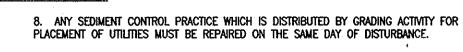
OFF SITE WASTE/BORROW AREA LOCATION (SEE NOTE ABOVE)

MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN

3:1, B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED

HOWARD SOIL CONSERVATION DISTRICTS STANDARD SEDIMENT CONTROL NOTES



9. ADDITIONAL SEDIMENT MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10. ON ALL SITES WITH DISTURBED AREAS IN ACCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH

DISTURBANCE OR GRADING. OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE authorized until this initial approval by the inspection agency is made.

11. TRENCHES FOR THE UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORK DAY, WHICHEVER IS SHORTER.

NOTE: UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN OFF-SITE AREA COVERED BY AN ACTIVE GRADING PERMIT, WITH FUNCTIONING EROSION & SEDIMENT

\* THE EARTHWORK QUANTITIES SHOWN HEREON ARE FOR INFORMATION PURPOSES ONLY. MRA MAKES NO GUARANTEE OF ACCURACY OF QUANITIES OR BALANCE OF SITE. THE DEVELOPER AND CONTRACTOR SHALL TAKE FULL RESPONSIBILITY OF ACTUAL EARTHWORK QUANTITIES ENCOUNTERED DURING CONSTRUCTION.

> <u>DEVELOPER</u> BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042 PHONE: 703-531-2855 ATTN: RICHARD PROSSER

DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

PROFILE

PLAN VIEW

to placing stone. NonThe plan approval authority may not require single family residences to use geotextile.

entrances shall be piped through the entrance, naintaining positive drainage. Pip Installed through the stabilized construction entrance shall be protected with a

mountable bern with 5:1 slopes and a minimum of 6' of stone over the pipe. Pipe ho

to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized

according to the amount of runoff to be conveyed. A 6' minimum will be required.

where construction traffic enters or leaves a construction site. Vehicles leaving

the site must travel over the entire length of the stabilized construction entrance

DETAIL 22 - SILT FENCE

FILTER CLUTH

EMBED GEDTEXTILE CLASS F

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Yood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter standard T or U section weighting not less than 1.00 pond per linear foot. (minimum) round and shall be of sound quality hardwood. Steel posts will be

2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall neet the following requirements for Geotextile Class  ${\sf Fi}$ 

50 lbs/in (nin.)

3. Where ends of geotextile fabric come together, they shall be overlapped

bulges occur or when sediment accumulation reached 50% of the fabric height.

SILT FENCE

Slope Length

unlinited

125 feet

60 feet

40 feet

system, soil Class A) maximum slope length and silt fence length will be

U.S. IN'PARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SUID, CONSERVATION SERVICE F - 15 - 3A VATER MANAGEMENT ADMINISTRATION

Silt Fence Design Criteria

20 lbs/in (nin.)

0.3 gal ft\*/ minute (max.) Tests MSMT 322

FENCE POST SECTION
HINIMUM 20° ABOVE
GROUND

- FENCE POST DRIVEN

\_\_\_\_\_SF\_\_\_\_\_

Testi HSHT 509 Testi HSHT 509

Silt Fence Length

untimited

1,000 feet

750 fest

500 feet

250 feet

PAGE HARYLAND DEPARTMENT OF ENVIRONMENT E - 15 - 3 VATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE PAGE MARYLAND DEPARTMENT OF ENVIRONMENT SDIL CONSERVATION SERVICE F - 17 - 3 WATER MANAGEMENT ADMINISTRATION

4. Stone - crushed aggregate (2" to 3") or reclained or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the

. Length – minimum of 50' (=30' for single residence lot).

HININUM 6' OF 2'-3' AGGREGATE OVER LENGTH AND VIDTH OF STRUCTURE

"ME GEOTEXTILE CLASS 'C'-

STANDARD SYMBOL

PERSPECTIVE VIEW

JOINING TWO ADJACENT SILT FENCE SECTIONS

Tensile Strength

SUIL CUNSERVATION SERVICE

Slope Steepness

Flatter than 50

50 1 to 10 1

10 1 to 5 1

5-1 to 3-1

3-1 to 2-1

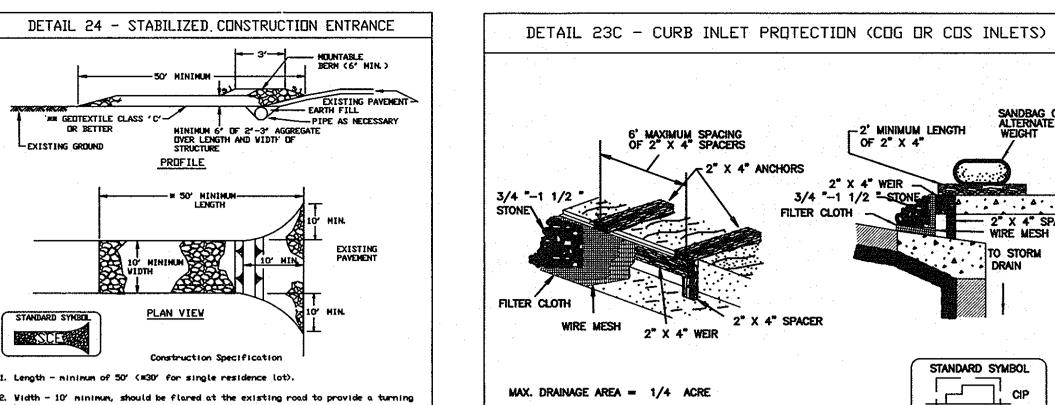
21 and steepen

Filtering Efficiency 75% (min.)

Tensile Modulus

SASCE W

BERM (6" MIN.)



. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard

2. Place a continuous piece of Geotextile Class E the same dimensions as the wire 5. Securely nail the 2" X 4" weir to a 9" long vertical spacer to be located between

4. Place the assembly against the inlet throat and nail (minimum 2' lengths of  $2" \times 4"$  to the top of the weir at spacer locations). These  $2" \times 4"$  anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.

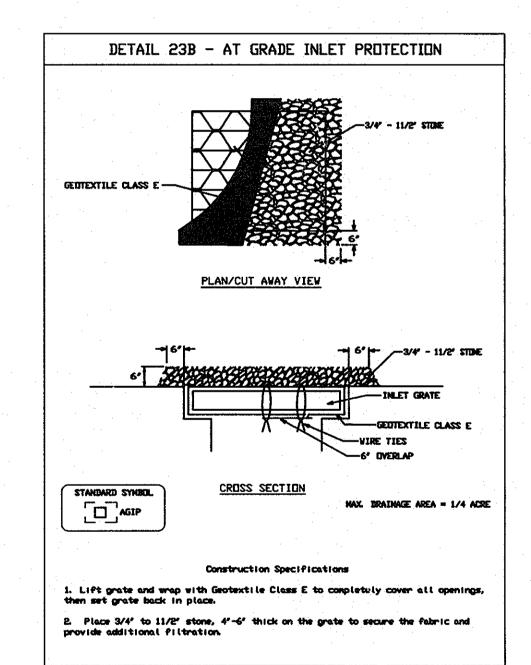
5. The assembly shall be placed so that the end spacers are a minimum 1° beyond both ends of the throat opening.

6. Form the 1/2 " x 1/2 " wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4 " x 1 1/2 " stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.

7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.

8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT SOIL CONSERVATION SERVICE WATER MANAGEMENT ADMINISTRATION



#### MORRIS & RITCHIE ASSOCIATES, INC.

NARYLAND DEPARTMENT OF ENVIRONMEN VAYER MANAGEMENT ADMINISTRATION

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395

SITE DEVELOPMENT PLAN

**BB&T BANK - AT MONTPELIER** 



LICENSE NO. 201135,

EXPIRATION DATE: 7/29/08.

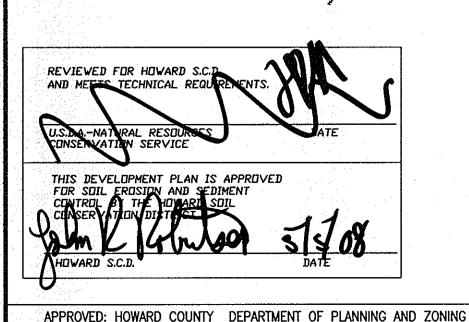
ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16

#### SEDIMENT CONTROL DETAILS LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356

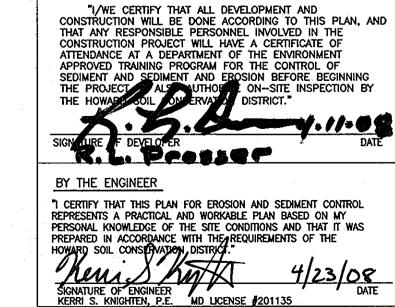
5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND MD\_PROFESSIONAL CERTIFICATION: HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL FNGINFFR UNDER THE LAWS OF THE STATE OF MARYLAND,

DATE | REVISIONS JOB NO.: 15205 SCALE: AS SHOWN DATE: 4/02/08 DRAWN BY: DESIGN BY: MSP/KSK REVIEW BY: SHEET: 13 OF 18

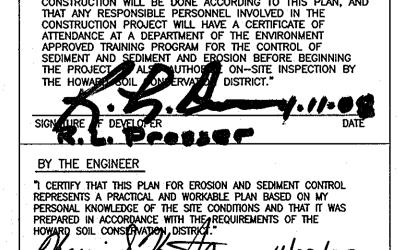
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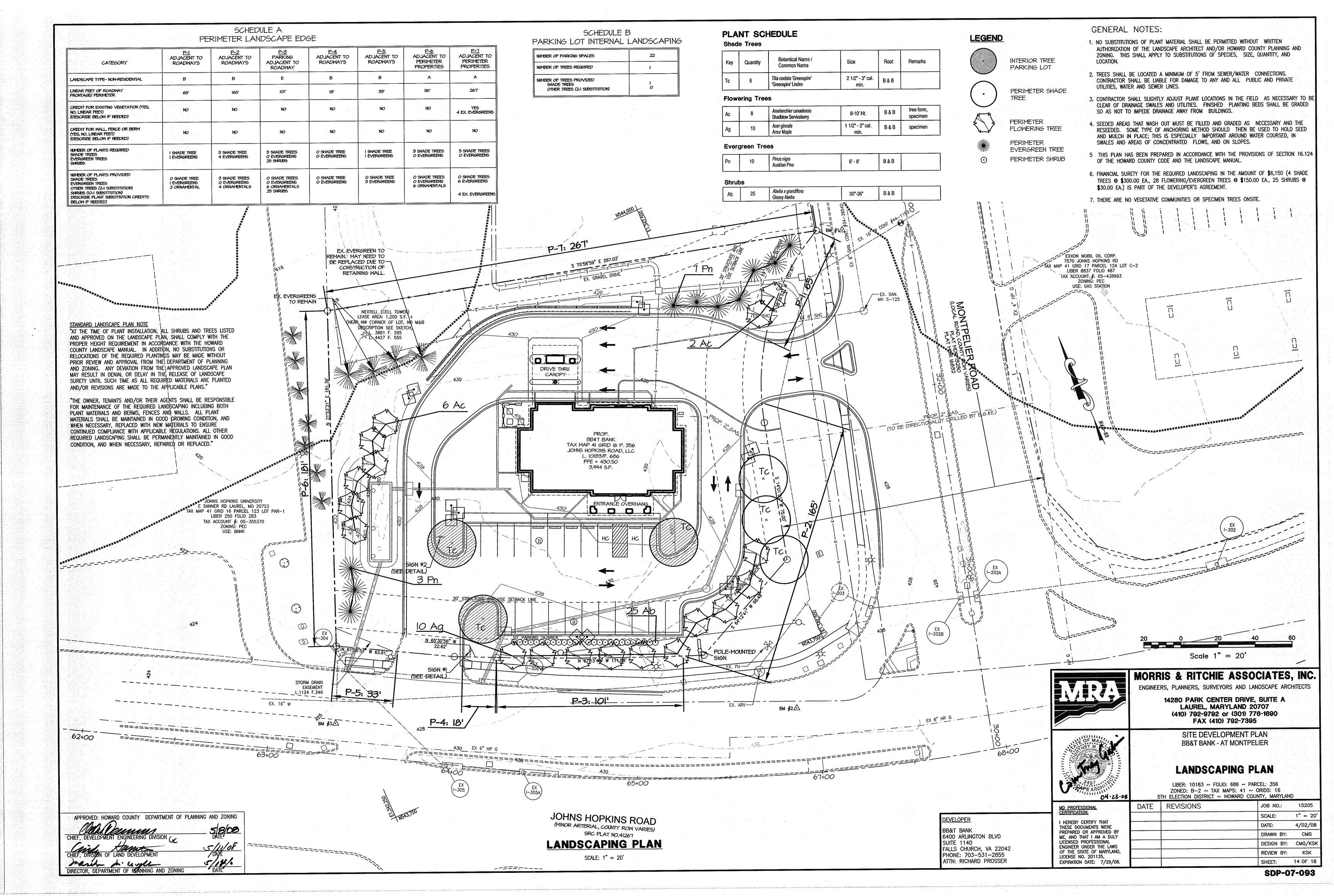


DIRECTOR DEPARTMENT OF PLANNING AND ZONING



BY THE DEVELOPER





#### PART 1 GENERAL:

#### 1.01 DESCRIPTION:

A. Work consists of all labor, materials, equipment and services necessary for and incidental to the execution and completion of THE FINAL LANDSCAPE PLAN as indicated on the Drawings and specified herein.

#### B. Include:

- 1. Layout.
- 2. Furnishing of tree protection and planting materials. 3. Preparation, planting operations, mulching and
- staking. 4. Maintenance.

#### 1.02 REFERENCES AND QUALITY ASSURANCE:

- A. Landscape Contractors Association MD-DC-VA (LCA), Landscape Specification Guidelines, latest edition except where superseded by specific requirements herein.
- B. American Association of Nurservmen (A.A.N.): American Standard for Nursery Stock, A.N.S.I. Z60.1, latest edition.
- C. Nomenclature: In accordance with Hortus Third, latest edition, by the staff of the L. H. Bailey Hortorium, Cornell
- D. Federal Specification: Q-P-166e as applicable to Peat
- E. National Arborist Association, Standard for Pruning of Shade Trees, Guying of Shade Trees, Fertilizing Shade and Ornamental Trees and Pesticides Application Operations, latest edition.
- F. Maryland Department of Transportation, State Highway Administration (MSHA) Standard Specifications for Construction and Materials, October 1993, as amended to date. Delete references to "Measurement and Payment".

#### 1.03 STANDARD OF COMPARISON:

- A. When requested by the Owner's Representative, the Contractor shall obtain approval of a "standard" of comparison, prior to the delivery of plant material to the
  - 1. Contact the Owner's Representative to schedule an inspection for approval of the "standards" for plant material to be installed at the project site.
  - 2. "Standards" shall be assembled at the project site for review and approval, or at the Contractor's principal business location, as determined by the Owner's Representative. Approved "standards" may be planted at the project site.

#### 1.04 SUBMITTALS:

- A. Source: Notify the Owner's Representative, in writing, of the source of all material at least ten (10) working days prior to delivery at the project site.
- B. Samples and Certifications: 1. If requested, a mulch sample shall be provided at the site for approval by the Owner's Representative
  - (1 C.F. minimum). 2. Submit certification of peat moss compliance with referenced specifications.

#### 1.05 DELIVERY, STORAGE AND HANDLING:

- A. Store plants that cannot be planted within 8 hours in a sheltered place. Water and maintain as required until
- B. Transport and handle plants so that foliage and roots are protected from breakage, sun and wind. Tops or roots of plants allowed to dry out or which have been damaged or disturbed root systems may be rejected.
- C. B & B (balled and burlapped) plants: Firm, natural balls of soil, with size and depth of ball in accordance with A.A.N. Standards.

#### 1.06 QUANTITIES AND SUBSTITUTIONS:

A. Quantities of plant material are based upon the plant lists shown on the Drawings.

#### B. Substitutions

- 1. Bidders shall notify the Owner's Representative if specified plants are not available from sources within 100 miles of the project site, giving the names of all sources contacted.
- 2. If an acceptable source cannot be located for the specified plants, the Owner's Representative will select a substitute and notify the Bidders of the approved substitution for the Bid to be based upon. or provide a source for the originally specified plant.
- 3. Substituted plants shall be of the same size and condition as the original plant specified.

#### 1.07 PROJECT CONDITIONS

- A. Plantina Season:
  - 1. Primary planting season: September 15 to May 15. 2. Other periods with written approval from the Owner's
- B. Existing Conditions: Notify Miss Utility (1-800-257-7777), and the Owner's Representative prior to planting operations. Verify the location of underground utilities.

#### APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION CE 5/8/08 S/13/0F DATE march L'uvalle 5/14/68 DATE DIRECTOR, DEPARTMENT OF BLANNING AND ZONING

#### 1.08 DEFINITIONS:

- A. Diameter at Breast Height (DBH): The diameter of a tree measured at a point on the trunk 4.5 feet above the ground.
- B. Initial Acceptance: Occurs when all plant material is in place in accordance with the specifications and approved by the Owner's Representative.
- C. Maintenance Period: From initial acceptance of the plantings, and continuing thereafter for a period of 12 months.
- D. Owner's Representative: The Landscape Architect or other Qualified Professional designated by the Owner or Developer of the Project. E. Retention: The deliberate holding and protecting of existing trees, shrubs or herbaceous plants on the site.
- F. Specimen Tree: A tree which exists on the project site prior to construction or planting having a 30 inch or greater DBH, or tree having 75 percent or more of the diameter of the current state or county champion tree of that same species.
- G. Start of Planting: Installation of plant material into excavated pits or beds. H. Final Acceptance: Occurs after Contractor has completed all

outstanding items, as determined by the Owner's Representative, at

#### 1.09 SURVIVAL REQUIREMENT AND REPLACEMENTS:

the end of the maintenance period.

- A. The minimum survival rate shall be 100 percent of the total number of trees and shrubs planted at the end of the 12-month maintenance period.
- B. Replacement materials shall be the same size as the original plant material taking into account any growth that has occurred since original installation.
- C. Methods of installation shall be identical to the original.

#### 1.10 PENALTY FOR VIOLATION:

- A. Immediately following the completion of construction and installation of the plantings, the owner or owner's representative will be notified for an inspection of the entire project site.
- B. If, upon Final Acceptance Inspection, trees and other vegetation designated as retention plant material are found to be damaged or dead due to mechanical intrusion or related construction activities associated with the landscape contractors installation and maintenance of the said plan, then replacement equivalent will be required.

#### PART 2 PRODUCTS:

#### 2.01 PLANTS:

- A. Plant materials shall meet or exceed the requirements of A.A.N. standards, or as amended herein.
- B. Plants shall be typical of the species and variety, and have a normal habit of growth with well established root systems.
- C. Sound, healthy, vigorous, free from plant diseases, insect pests or their eggs and without suckers or evidence of suckering. D. Trees and shrubs shall be freshly dug and nursery grown. They
- shall have been grown under climatic conditions similar to those in the locality of the project or properly acclimated to conditions of the project locality. E. Plants cut back from larger sizes or pruned prior to delivery will
- not be accepted, of the project or properly acclimated to conditions of the project locality. All container grown plants shall be well rooted & established in the container in which they are
- F. Measurements: The caliper of deciduous trees (except seedlings and whips) shall be measured 6-inches above ground level for trees up to and including 4 inch caliper and 12 inches above ground level for material larger than 4 inch caliper. Seedlings and whips shall be measured at the root collar.

#### 2.02 DECIDUOUS SHADE TREES:

- A. Single straight leader, well branched, and symmetrical, without suckers or evidence of suckering, according to their normal habit.
- B. Trees planted within five (5) feet of pedestrian ways, parking lots or roads shall be free from branches up to eight (8) feet in height from finish grade.

#### 2.03 EVERGREENS:

Sheared evergreen plant material shall not be acceptable.

# 2.04 SHRUBS:

At least 75% of the individual branches or canes of a shrub shall be to the height specified.

#### 2.05 HERBICIDES:

A. Contact herbicide shall be "Round-up" or approved equal. B. Pre-emergence herbicide shall be "Snapshot" or approved equal.

#### 2.06 TOPSOIL FOR AMENDING EXISTING SOIL:

- A. General Requirements (only where required by details on the Drawinas):
  - clay lumps, stones, stumps, roots or similar objects larger than 1-inch. 2. Free of brush, objectionable weeds and litter or other

1. Natural, friable sand loam topsoil which is free of subsoil.

- substance which is harmful to plant growth.
- B. In accordance with M.S.H.A. Item 920.01.02 for Furnished Topsoil if borrow topsoil is required from an off-site location.

#### 2.07 FERTILIZER FOR POST PLANTING:

- A. 5-10-5 (Plant food by minimum percentages.) Total Nitrogen
- Soluble Potash B. Fertilizer shall be slow release over a minimum 3 year period. Fertilizer shall be delivered to the site with formulas attached.

Available Phosphoric Acid

#### 2.08 PEAT MOSS:

Baled sphagnum peat moss, Type I-A, conforming to Federal Specification Q-P-166e.

#### 2.09 MULCH:

- A. Mulch shall be the following as indicated on the Drawings. 1. Shredded hardwood.
- 2. Pine Straw. B. Mulch shall have been prepared within the last four (4) months.

Potable: if not available at the site from a public water supply, the Contractor shall provide water at no additional cost to the Owner.

#### 2.11 ANTI-TRANSPIRANT:

Shall be the following or approved equal:

#### "Wilt-Pruf" Wilt-Pruf Products Inc.

- P. O. Box 469 Essex, CT 06426
- (203) 767-7033 or approved equal.

# 2.12 ACCESSORIES:

- A. Tree guying: 1. Stakes: 2 inch x 2 inch rough sawn oak stakes, notched to hold wire, length as required to secure the tree.
  - 2. Wire: Galvanized steel wire, doubled. 3. Sleeves: Nylon reinforced green vinyl hose.
- B. Tree shelters, netting and stakes: Extruded twin-walled polypropylene with ultra-violet stabilizer and anti-abrasion rim as manufactured by:

Tubex P.O. Box 7097

- Saint Paul, MN 55107
- (612) 228-0535 or approved equal.
- 1. Stake shall be oak, pointed, 1 inch x 1 inch x 3 feet nominal. 2. Protective netting: Flexible plastic mesh capable of covering the top opening of the tube to prevent entry by birds.

#### PART 3 EXECUTION:

#### 3.01 INITIAL INSPECTIONS:

- A. Pre-construction meeting:
  - 1. Prior to the beginning of any clearing, grading or disturbance of the site, a meeting at the project site shall be held with the Contractor and Owner's Representative.
  - 2. The following items, and others as deemed necessary, will be reviewed as applicable to the Project:
    - a) Staked limits of required retention areas and protection fencing, proposed limits of clearing and grubbing, the proposed location of sediment control devices, and the sequence of operations
  - b) Staking and flagging shall be completed by the Contractor prior to the pre-construction meeting. 3. Designated adjustments to the proposed limits and locations of items reviewed in the field during the pre-construction meeting shall be incorporated prior to beginning

#### B. Pre-planting meeting:

construction.

- 1. Prior to the beginning of planting operations, a meeting shall be held at the project site with the Contractor and Owner's Representative to review the following, as applicable to the project:
  - a) Staked limits, of proposed planting areas, completed prior to the meeting.
  - b) Areas to receive selective application of herbicides prior to planting, if applicable.
  - c) Proposed location of temporary and permanent
- d) Proposed schedule, sequence of planting operations and other requirements.

#### 3.02 PREPARATION:

- A. Tree protection fencing, signage and other pre-construction activities noted on the Drawings for retention areas shall be
- installed prior to any on-site clearing or grading operations. B. Additional temporary, and permanent fencing, shall be installed in conjunction with or prior to planting operations as shown on the Drawings.
- C. Plant Locations: As shown on the Drawings, to dimensions if shown, or as detailed if not specifically labeled. Locations subject to review by the Owner's Representative prior to planting. D. Utilities: The Contractor shall locate existing and proposed utilities
- prior to excavation of plantina holes. 1. If a conflict is identified between the location of utilities and proposed planting locations, the Owner's Representative shall establish an alternate location for plants as required to avoid the conflict.
- 2. Bidders shall notify the Owner's Representative of potential conflicts identified prior to submission of a Bid.
- E. No plant material shall be installed until the Owner's Representative has approved the finish grade of areas to receive

#### 3.03 EXCAVATION:

- A. Unclassified: Excavate and remove surplus materials encountered, without additional cost to the Owner. Retain only sufficient soil to form soil wells as shown on the Drawings. Disposal of surplus material may be on-site if approved by the Owner's Representative.
- B. Underground obstruction, rock or other obstructions too massive to remove: Notify Owner's Representative for further direction. Alternate locations will be selected. Make such relocations without additional compensation.

#### 3.04 PLANTING PROCEDURES:

- A. Do not plant when ground is frozen or excessively wet. B. Set plants straight and plumb and at such a level, that after settlement the first lateral root is flush with the adjacent around
- C. When B&B or container plants are set, planting soil shall be carefully tamped around the base of the balls to prevent voids. All burlap, rope, wires, etc., shall be removed from the tops of balls. Plastic/nylon cords or cloth shall not be left in place on
- D. Backfill plants and tamp to two-thirds depth of pit and thoroughly water before bringing backfill up to proper grade. Thoroughly water the plant again after the soil well has been completely formed in-place.
- E. Wells Around Trees and Shrubs: After planting is complete, form a soil well around designated plants, extending to the outer limit of the plant pit in accordance with the planting details shown on the
- F. Designated Planting Beds: All vegetative growth shall be removed to a sufficient depth to insure a weed-free bed. Till the existing soil to a depth of 8-inches throughout the designated bed areas. The edge of all planting beds shall be cut vertically and the soil recessed within 1 foot of the bed edge so that the mulch is flush with adjacent arade when the installation has been completed.

#### 3.05 MULCHING:

- A. Plants and beds shall receive a 2 to 4 inch cover of mulch. Mulch shall be installed within 8 hours after planting has been
- B. Mulch, surrounding planting mass areas, shall provide a uniform and contiguous surface, and appearance between and around all plant material, buildings and paved areas.

#### 3.06 STAKING, WRAPPING AND GUYING: A. Stake trees, which require staking as shown on the Drawings,

during the same day as planting. 1. Guying shall be in accordance with the Details.

#### 2. Stakes shall be securely driven in ground and plants guyed to provide and maintain adequate support.

- 3.07 PRUNING AND ANTI-TRANSPIRANT APPLICATION: A. Pruning: Any broken or damaged branches shall be removed. Damage, removal or pruning of tree leaders shall be cause for
- B. Anti-transpirant: Deciduous plants, installed from May 1st to September 15th shall receive application in accordance with the manufacturer's recommendations.

#### 3.08 POST-PLANTING FERTILIZATION:

- A. Notify Owner's Representative prior to fertilizing operations. B. Approximately 1 year after planting, but prior to the maintenance agreement's expiration, the Contractor shall fertilize all plant material. Plant foliage shall be completely dry at the time of
- application. Fertilizer adhering to plant foliage after application shall be removed. Water thoroughly after application. C. Rate of application shall be in accordance with the fertilizer
- manufacturer's recommendations or the followina: 1. Shrubs: 4 pounds of 5-10-5 per 100 square feet. 2. Trees: 2 pounds of 5-10-5 per inch of caliper distributed

# uniformly in planting well.

- 3.09 CLEAN-UP: A. Excess and waste materials shall be removed from the site before or upon completion of planting operations, or daily if required by the Owner's Representative.
  - B. Repair turf areas and other existing conditions damaged during planting operations, including regrading, seeding and mulching to the satisfaction of the Owner's Representative.

3.10 WARRANTY: A. Contractor shall warranty all plant material for a period of one (1) full year after the date of substantial completion against defects, unsatisfactory growth, disease or death.

- 3.11 MAINTENANCE: A. Contractor shall inspect and provide necessary services throughout
  - the 12-month maintenance period. 1. Watering as required for local conditions.

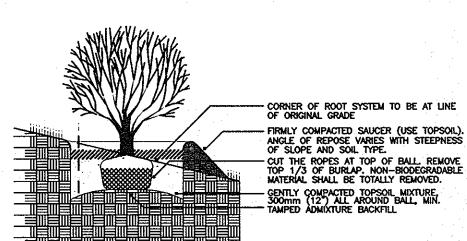
necessary to control problems.

- 2. Inspection for pests and disease shall be performed a minimum of two (2) times within the initial year, after spring leaf-out and at mid-summer, or more frequently if
- 3. Weeding and removal of invasive plants shall be performed a minimum of four (4) times per year, during the first two weeks of the months of May, June, July and August. 4. Plant material shall be re-mulched, just prior to the
- maintenance agreement's expiration, with a minimum 1-inch depth of new mulch. 5. Fencing, signs, stakes and guys shall be tightened, repaired or replaced as necessary throughout the maintenance period in accordance with original details and installation
- requirements. Ensure trees to remain plumb and upright. B. Remove and replace dead or damaged plant material to comply with the Minimal Survival requirement in accordance with Item 1.09
- C. Notify Owner's Representative prior to initiating maintenance operations.

#### 3.12 ACCEPTANCE:

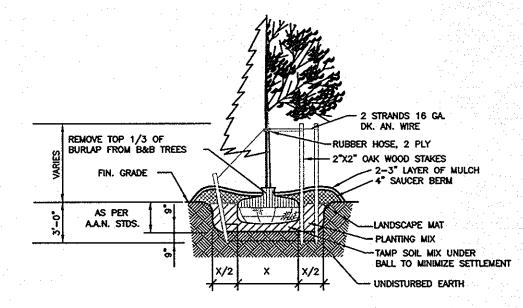
Contractor must contact the Owner at least ten working days in advance to schedule acceptance inspection(s).

> DEVELOPER BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042 PHONE: 703-531-2855 ATTN: RICHARD PROSSER

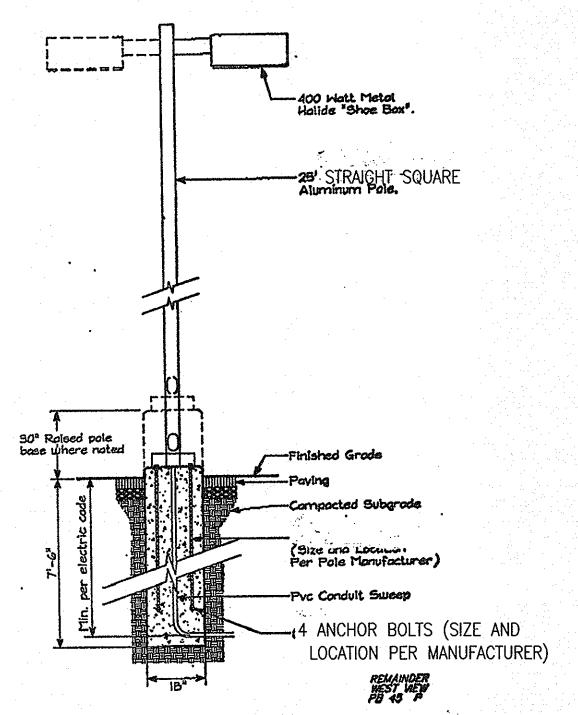


#### SHRUB PLANTING DETAIL (BALL & BURLAP OR CONTAINER)

NOT TO SCALE



#### SHADE, FLOWERING OR EVERGREEN TREE PLANTING DETAIL NOT TO SCALE



# POLE BASE DETAIL Provide 30" roised pole base above paving where noted in addition to foundation shown.



## MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 14280 PARK CENTER DRIVE, SUITE A

LAUREL MARYLAND 20707

(410) 792-9792 or (301) 776-1690

FAX (410) 792-7395 SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER



#### LIGHTING AND LANDSCAPING DETAILS LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356

MD 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. 201135, EXPIRATION DATE: 7/29/08

5TH FLECTION DISTRICT ~ HOWARD COUNTY, MARYLAND DATE REVISIONS JOB NO.: 15205 SCALE: N/A DATE: 4/02/08 DRAWN BY: CG DESIGN BY: CG

ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16

SDP-07-093

DRB

15 OF 18

REVIEW BY:

SHEET:

#### 1.1 WORK INCLUDES

FURNISHING AND INSTALLING SEGMENTAL RETAINING WALL UNITS, GEOGRID REINFORCEMENT, WALL FILL, AND BACKFILL TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS AND AS SPECIFIED HEREIN. THE CONTRACT ALSO INCLUDES THE FURNISHING AND INSTALLING ALL APPURTENANT MATERIALS, EQUIPMENT, AND LABOR REQUIRED FOR CONSTRUCTION OF THE GEOGRID REINFORCED, SEGMENTAL RETAINING WALL, ALL EXISTING AND PROPOSED CONSTRUCTION AND SITE GRADING INFORMATION WAS REFERENCED FROM THE SITE GRADING PLAN, SHEET 4, DATED 6-6-07, PREPARED BY MORRIS & RITCHIE ASSOCIATES, INC.

#### 1.2 REFERENCE STANDARDS

- ASTM C90 HOLLOW LOAD BEARING MASONRY UNITS.
- ASTM C140 SAMPLING AND TESTING CONCRETE MASONRY UNITS. ASTM C145 - SOLID LOAD BEARING CONCRETE MASONRY UNITS.
- GEOSYNTHETIC RESEARCH INSTITUTE (GRI), GRI--GG4 DETERMINATION OF LONG TERM DESIGN STRENGTH OF
- ASTM D 638 TEST METHOD FOR TENSILE PROPERTIES OF PLASTIC.
- ASTM D 1248 SPECIFICATION OF POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS.
- ASTM D 4218 TEST METHOD FOR CARBON BLACK CONTENT IN POLYETHYLENE COMPOUNDS BY THE MUFFLE FURNACE TECHNIQUE.
- ASTM D 3034 SPECIFICATION FOR POLYVINYL CHLORIDE (PVC) PIPE.
- ASTM C 1372 SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS. GRI-GG4 - DETERMINATION OF LONG-TERM DESIGN STRENGTH OF GEOGRIDS
- K. GRI-GG5 DETERMINATION OF GEOGRID (SOIL) PULLOUT

#### 1.3 DELIVERY, STORAGE AND HANDLING

- A. CONTRACTOR SHOULD CHECK THE MATERIALS UPON DELIVERY TO ASSURE THAT PROPER MATERIAL HAS BEEN
- B. CONTRACTOR SHOULD PREVENT EXCESSIVE MUD, WET CEMENT, EPOXY, AND LIKE MATERIALS WHICH MAY AFFIX THEMSELVES, FROM COMING IN CONTACT WITH THE MATERIALS.
- GEOGRIDS SHOULD BE STORED ABOVE -20° F. CONTRACTOR SHOULD PROTECT THE MATERIALS FROM DAMAGE. DAMAGED MATERIAL SHOULD NOT BE INCORPORATED
- INTO THE REINFORCED RETAINING WALL. 1.4 SUBMITTALS/CERTIFICATION

THE CONTRACTOR SHALL SUBMIT A MANUFACTURER'S CERTIFICATION, PRIOR TO THE START OF THE WORK, THAT THE RETAINING WALL SYSTEM COMPONENTS MEET THE REQUIREMENTS OF ASTM C 1372 AND OTHER REQUIREMENTS SPECIFIED HEREIN. THIS CERTIFICATION SHOULD BE PROVIDED TO THE GEOTECHNICAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO

#### PART 2 - PRODUCTS

#### 2.1 DEFINITIONS

- GEOGRID IS A HIGH DENSITY POLYETHYLENE, POLYESTER, OR POLYPROPYLENE GRID, SPECIFICALLY FABRICATED FOR USE AS
- CONCRETE RETAINING WALL UNITS ARE AS DETAILED ON THE DRAWINGS AND AS SPECIFIED HEREIN. GEOSYNTHETIC DRAINAGE COMPOSITES ARE POLYETHYLENE NET STRUCTURE WITH NON-WOVEN GEOTEXTILES BONDED TO
- EROSION CONTROL BLANKETS CONSIST OF A WEB OF POLYOLEFIN FIBERS SECURELY BOUNDED BY POLYOLEFIN THREADS
- BETWEEN TWO HIGH STRENGTH POLYOLEFIN NETS. BACKFILL IS THE SOIL WHICH IS USED AS FILL FOR THE REINFORCED SOIL MASS.
- FOUNDATION SOIL IS THE IN-SITU SOIL OR CONTROLLED COMPACTED FILL PLACED BELOW THE BOTTOM OF THE RETAINING WALL AND GEOGRID ZONE.
- G. DRAINAGE MATERIALS INCLUDE THE STONE PLACED WITHIN AND 1-FOOT BEHIND THE CONCRETE UNITS, THE PERFORATED LONGITUDINAL PVC PIPES, THE LATERAL SOLID PVC PIPES AND THE DRAINAGE GEOCOMPOSITE, IF REQUIRED.

#### 2.2 MATERIALS

THE CONTRACTOR SHOULD SUBMIT MANUFACTURER'S CATALOG AND SAMPLES OF THE PROPOSED MATERIALS FOR APPROVAL BY THE PROJECT GEOTECHNICAL ENGINEER A MINIMUM OF SEVEN DAYS BEFORE THE START OF CONSTRUCTION. MATERIALS SHOULD BE TRANSPORTED TO THE SITE ONLY AFTER APPROVAL OF THE PROPOSED MATERIALS BY THE PROJECT GEOTECHNICAL ENGINEER.

#### A. CONCRETE UNITS

- MASONRY UNITS SHOULD BE KEYSTONE STANDARD II RETAINING WALL UNITS, SUBSTITUTION OF OTHER CONCRETE UNITS MAY BE ALLOWED WITH THE PRIOR APPROVAL OF THE GEOTECHNICAL ENGINEER.
- CONCRETE WALL UNITS SHOULD HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, IN ACCORDANCE WITH ASTM C-90. THE CONCRETE SHOULD HAVE ADEQUATE FREEZE/THAW PROTECTION WITH A MAXIMUM MOISTURE ABSORPTION OF 6 PERCENT.
- MODULAR CONCRETE MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 1372 STANDARD SPECIFICATIONS FOR SEGMENTAL RETAINING WALL UNITS.
- THE UNITS SHALL PASS 100 FREEZE/THAW CYCLES IN WATER WITH LESS THAN 1% WEIGHT LOSS IN ACCORDANCE WITH
- EXTERIOR DIMENSIONS MAY VARY. UNITS ARE REQUIRED TO HAVE A MINIMUM OF 1.0 SQUARE FOOT OF FACE AREA
- UNITS SHOULD HAVE ANGLED SIDES AND BE CAPABLE OF ATTAINING CONCAVE AND CONVEX ALIGNMENT CURVES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- UNITS SHOULD BE INTERLOCKED WITH NON-CORROSIVE REINFORCED FIBERGLASS PINS. 8. UNITS SHOULD BE INTERLOCKED AS TO PROVIDE A MAXIMUM OF 24-INCH OF SETBACK PER BLOCK, WHERE REQUIRED.

#### B. LEVELING PAD

MATERIAL FOR LEVELING PAD/FOOTING SHOULD CONSIST OF COMPACTED FREE-DRAINING COARSE AGGREGATES MEETING THE REQUIREMENTS OF ASTM #57 STONE OR OTHER APPROVED GRADED AGGREGATE MATERIAL. A MINIMUM OF 6 INCHES DEEP AND 30 INCHES WIDE COMPACTED LEVELING PAD IS REQUIRED.

- C. FIBERGLASS CONNECTING PINS 1. THERMOSET ISOPTHALIC POLYESTER RESIN PULTRUDED FIBERGLASS REINFORCEMENT RODS, A MINIMUM ONE-HALF INCH
- 2. PINS SHOULD HAVE A MINIMUM FLEXURAL STRENGTH OF 128,000 PSI AND SHORT BEAM SHEAR OF 6,400 PSI. 3. FOR SUBSTITUTE CONCRETE UNITS, USE OF OTHER COMPATIBLE CONNECTOR SYSTEMS MAY BE ALLOWED WITH THE PRIOR APPROVAL OF THE GEOTECHNICAL ENGINEER.

D. GEOGRID GEOGRID SHALL BE MIRAGRID 3XT, OR EQUIVALENT AS APPROVED BY THE GEOTECHNICAL ENGINEER. THE GEOGRID SHOULD HAVE A LONG-TERM DESIGN STRENGTH OF 3,000 POUNDS PER FOOT. THE LONG-TERM DESIGN STRENGTH IS DEFINED AS THE ULTIMATE STRENGTH DIMDED BY REDUCTION FACTORS FOR CREEP, DURABILITY, INSTALLATION DAMAGE AND AN OVERALL FACTOR OF SAFETY.

#### E. REINFORCED BACKFILL

REINFORCED BACKFILL SOILS SHOULD BE NON-PLASTIC, CONTROLLED FILL MEETING THE REQUIREMENTS OF AASHTO A-2-4. OR MORE GRANULAR. BASED ON THE AVAILABLE SUBSURFACE INFORMATION, SUITABLE MATERIALS MAY BE AVAILABLE ON-SITE. HOWEVER, THE GRADING PLANS INDICATE THAT SIGNIFICANT EXCAVATIONS ARE NOT PLANNED FOR THE PROPOSED DEVELOPMENT. THEREFORE, THE IMPORT OF FILL MATERIALS MAY BE REQUIRED. IMPORTED BACKFILL SHOULD MEET THE ABOVE REQUIREMENTS AND SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER.

#### F. CONTROLLED FILL

CONTROLLED FILL SOILS TO BE PLACED OUTSIDE THE REINFORCED BACKFILL AREA AND WHERE SPECIFIED SHOULD CONSIST OF ON-SITE OR BORROW SOILS MEETING THE REQUIREMENTS OF AASHTO A-4 OR MORE GRANULAR. ALL FILL MATERIALS PROPOSED TO BE PLACED BEHIND THE REINFORCED BACKFILL SHOULD BE PLACED AS CONTROLLED FILL COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE STANDARD PROCTOR, ASTM D-698.

#### G. LOW-PERMEABILITY SOIL

LOW-PERMEABILITY SOILS TO BE PLACED AT THE TOP OF THE WALL WHERE SPECIFIED SHOULD CONSIST OF SANDY, SILTY OR CLAYEY SOILS MEETING THE REQUIREMENTS OF ML, CL, SM, OR SC WITH A MINIMUM OF 25% PASSING THE #200 SIEVE.

#### H. UNIT CORE/DRAINAGE FILL

OPEN-GRADED SOILS TO BE PLACED WITHIN THE VOIDS OF THE RETAINING WALL UNITS AND A MINIMUM OF 12 INCHES BEHIND THE UNITS. WHERE SPECIFIED, SHOULD CONSIST OF ASTM #57 STONE AND SHOULD BE WRAPPED IN FILTER FABRIC.

THE DRAINAGE PIPES SHOULD BE PERFORATED OR SLOTTED PVC PIPE MANUFACTURED IN ACCORDANCE WITH ASTM D-3034.

FILTER FABRIC SHOULD BE NON-WOVEN, POLYPROPYLENE GEOTEXTILE, 140N MANUFACTURED BY NICOLON MIRAFI GROUP OR APPROVED EQUIVALENT.

# APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING DIRECTOR, DEPARTMENT OF ANNING AND ZONING

#### PART 3 - EXECUTION

#### 3.1. EXCAVATION

- A. THE CONTRACTOR SHOULD EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. UNDER NO CIRCUMSTANCES SHOULD THE EXCAVATION LINES AND GRADES BE EXCEEDED, EXCEPT WITH OWNER'S APPROVAL. THE CONTRACTOR SHOULD PROTECT THE EXCAVATION FROM SLOUGHING BY PLACING A MEMBRANE OVER THE FACE OF THE
- PRIOR TO RETAINING WALL CONSTRUCTION AND THE PLACEMENT OF FILL, ALL TOPSOIL SHOULD BE STRIPPED AND REMOVED
- EXCAVATIONS SHOULD BE SLOPED OR OTHERWISE SUPPORTED IN ACCORDANCE WITH OCCUPATION SAFETY AND HEALTH ADMINISTRATION (OSHA) AND OTHER LOCAL AND STATE REGULATIONS.

#### 3.2. FOUNDATION SUBGRADE PREPARATION

- FOUNDATION SOIL SHOULD BE EXCAVATED AS REQUIRED FOR INSTALLATION OF LEVELING PAD, GEOGRID AND OTHER ELEMENTS AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.
- ALLOWABLE BEARING PRESSURE FOR NATURAL AND CONTROLLED, COMPACTED FILL SOILS SHOULD BE AS SPECIFIED IN PART
- FOUNDATION SOIL SHOULD BE TESTED BY THE ENGINEER TO ASSURE THAT THE ACTUAL FOUNDATION SOIL STRENGTH MEETS OR EXCEEDS THE ASSUMED DESIGN STRENGTH. SOILS NOT MEETING REQUIRED STRENGTH SHOULD BE REMOVED AND REPLACED WITH CONTROLLED, COMPACTED MATERIAL.
- THE AVAILABLE SUBSURFACE DATA INDICATES THAT EXISTING FILLS WILL LIKELY BE PRESENT IN THE VICINITY OF THE PROPOSED RETAINING WALL. EXISTING FILL MATERIALS SHOULD BE EVALUATED BY GTA DURING CONSTRUCTION. IT IS LIKELY THAT OVEREXCAVATION AND REPLACEMENT OF EXISTING FILLS WILL BE NECESSARY.
- OVEREXCAVATED AREAS SHOULD BE BACKFILLED WITH MATERIAL COMPACTED TO 95 PERCENT OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH THE STANDARD PROCTOR, ASTM D-698. THE EXPOSED FOUNDATION SUBGRADE SHOULD BE PROOFROLLED WITH A LOADED DUMP TRUCK, IF POSSIBLE. ANY SOFT OR
- UNSTABLE AREAS IDENTIFIED DURING PROOFROLLING SHOULD BE OVEREXCAVATED AND BACKFILLED WITH CONTROLLED FILL. ANY FILLS REQUIRED TO ESTABLISH SLOPING SURFACES IN FRONT OF THE WALLS SHOULD CONSIST OF CONTROLLED FILL AND SHOULD BE PLACED, COMPACTED AND FIELD TESTED IN ACCORDANCE WITH THE REQUIREMENTS SPECIFIED HEREIN.

#### 3.3. LEVELING PAD

- THE LEVELING PAD SHOULD BE PLACED AS SHOWN ON THE CONSTRUCTION DRAWINGS WITH A MINIMUM THICKNESS OF 6
- LEVELING PAD MATERIALS SHOULD BE INSTALLED UPON UNDISTURBED IN-SITU SOILS OR CONTROLLED, COMPACTED
- LEVELING PAD SHOULD BE PREPARED TO INSURE COMPLETE CONTACT OF RETAINING WALL UNIT WITH BASE. GAPS SHOULD NOT BE ALLOWED.

#### 3.4. UNIT INSTALLATION

- FIRST COURSE OF CONCRETE WALL UNITS SHOULD BE PLACED ON THE LEVELING PAD. THE UNITS SHOULD BE CHECKED FOR LEVEL AND ALIGNMENT. THE FIRST COURSE IS THE MOST IMPORTANT TO PROVIDE ACCURATE AND ACCEPTABLE RESULTS.
- INSURE THAT UNITS ARE IN FULL CONTACT WITH BASE. UNITS ARE PLACED SIDE BY SIDE FOR FULL LENGTH OF WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A
- STRING LINE OR OFFSET FROM BASE LINE. INSTALL FIBERGLASS CONNECTING PIN. LAY UP EACH COURSE INSURING THAT THE CONNECTING PINS ARE INSERTED THROUGH FRONT SLOT OF THE UNIT, AND INTO
- THE RECEIVING SLOT IN THE COURSE BENEATH. REPEAT PROCEDURE TO THE EXTENT OF WALL HEIGHT. AT THE END OF EACH COURSE WHERE THE WALL CHANGES ELEVATION, UNITS SHOULD BE TURNED INTO THE BACKFILL. UNITS
- SHOULD BE LAID AS TO CREATE THE MINIMUM RADIUS POSSIBLE. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, A MINIMUM OF ONE UNIT SHOULD BE INSTALLED INTO THE GRADE. ONLY THE FRONT FACE OF THE UNITS SHOULD BE VISIBLE FROM CONVEX AND CONCAVE CURVES SHOULD BE MADE USING COMPAC UNITS OR BY TRIMMING THE STANDARD II UNITS AS
- REQUIRED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CAP UNITS SHOULD BE INSTALLED AND BONDED WITH CONSTRUCTION ADHESIVE OR EPOXY CEMENT AS REQUIRED BY
- CONTRACTOR SHOULD PROVIDE POSITIVE DRAINAGE FOR THE BACK OF THE RETAINING WALL DURING CONSTRUCTION.

#### 3.5. GEOGRID INSTALLATION

- ALL UTILITIES IN THE VICINITY OF ANY RETAINING WALL OR GEOGRID REINFORCEMENT MUST BE INSTALLED AND PROPERLY
- BACKFILLED PRIOR TO PLACING THE GEOGRID SOIL REINFORCEMENT OR CONSTRUCTING THE WALL. THE GEOGRID SOIL REINFORCEMENT SHOULD BE LAID HORIZONTALLY ON COMPACTED BACKFILL AND CONNECTED TO THE CONCRETE WALL UNITS. HOOK GRID OVER THE FIBERGLASS CONNECTING PIN, PULL TAUT, AND ANCHOR BEFORE BACKFILL IS PLACED ON THE GEOGRID.
- SLACK IN THE GEOGRID AT THE WALL UNIT CONNECTIONS SHOULD BE REMOVED IN A MANNER, AND TO SUCH A DEGREE, AS APPROVED BY THE ENGINEER. GEOGRID SHOULD BE LAID AT THE PROPER ELEVATION AND ORIENTATION AS SHOWN ON THE CONSTRUCTION DRAWINGS OR
- AS DIRECTED BY THE ENGINEER. CORRECT ORIENTATION (ROLL DIRECTION) OF THE GEOGRID SHOULD BE VERIFIED BY THE CONTRACTOR. GEOGRID SHOULD BE SECURED IN-PLACE WITH STAPLES, PINS, SAND BAGS, OR BACKFILL AS REQUIRED BY FILL PROPERTIES,
- UNIAXIAL GEOGRID DOES NOT NEED TO BE OVERLAPPED IN THE ACROSS THE ROLL DIRECTION, EXCEPT TO CONTAIN THE FILL AT THE SLOPE FACE WHEN WRAP-AROUND FACING IS USED. UNIAXIAL GRID SHOULD BE

FILL PLACEMENT PROCEDURES, OR WEATHER CONDITIONS, OR AS DIRECTED BY THE ENGINEER.

OVERLAPPED 48" IN THE ROLLED DIRECTION. 2. A LAYER OF SOIL A MINIMUM OF 4 INCHES IN THICKNESS SHOULD BE SPREAD BETWEEN UNIAXIAL GEOGRID LAYERS IN THE AREA TO BE OVERLAPPED, OR AS DIRECTED.

#### 3.6. FILL PLACEMENT

- A. WALL BACKFILL MATERIAL SHOULD BE PLACED IN NO MORE THAN 8-INCH LIFTS AND COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR (ASTM D-698). BACKFILL SHOULD BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT MINIMIZES THE DEVELOPMENT OF
- WRINKLES IN AND/OR MOVEMENT OF THE GEOGRID.
- ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 4 FEET OF THE WALL FACE. BACKFILL SHOULD BE PLACED FROM THE WALL OUTWARD TO INSURE THAT THE GEOGRID REMAINS TAUT.
- TRACKED CONSTRUCTION EQUIPMENT SHOULD NOT BE OPERATED BEHIND OR ABOVE THE WALL. RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOGRID REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHOULD BE AVOIDED.
- PLACE FILTER FABRIC BETWEEN THE UNIT CORE/DRAINAGE FILL AND THE REINFORCED BACKFILL AS SHOWN ON PLANS. THE FILTER FABRIC SHOULD BE EMBEDDED A MINIMUM OF TWO FEET INTO THE REINFORCED FILL. THE FINISHED SLOPING SURFACE ON THE TOE SIDE OF RETAINING WALLS SHOULD BE PROTECTED BY INSTALLING THE

#### 3.7. DRAINAGE

A. DRAINAGE FILL SHOULD BE PLACED BEHIND THE WALL TO THE LIMITS SHOWN. THE DRAINAGE FILL SHOULD BE A MINIMUM OF 12-INCHES THICK AND SHOULD MEET THE REQUIREMENTS OF ASTM #57 STONE. THE DRAINAGE FILL SHOULD BE WRAPPED IN FILTER FABRIC (MIRAFI 140N OR EQUAL) AS SHOWN ON THE DRAWINGS.

PERMANENT EROSION CONTROL BLANKET AND LOAMING AND SEEDING IN ACCORDANCE WITH PROJECT REQUIREMENTS.

- POSITIVE DRAINAGE SHOULD BE MAINTAINED DURING AND AFTER CONSTRUCTION, SOILS WITHIN THE REINFORCED ZONE THAT BECOME WET DURING CONSTRUCTION SHOULD BE DRIED TO OPTIMUM MOISTURE OR REMOVED.
- INSTALL THE PERFORATED DRAINAGE PIPES AND LATERAL DRAINAGE PIPES INCREMENTALLY ALONG WITH THE INSTALLATION OF CONCRETE UNITS AND PLACEMENT OF FILL.

#### PART 4 - CONSTRUCTION OBSERVATION AND TESTING

- A. RETAINING WALLS SHOULD BE CONSTRUCTED UNDER THE OBSERVATION OF GTA. GTA'S PARTICIPATION WILL FACILITATE COMPLIANCE WITH GTA'S RECOMMENDATIONS AND ALLOW CHANGES TO BE MADE IN THE EVENT THAT SUBSURFACE CONDITIONS ARE FOUND TO VARY FROM THOSE ANTICIPATED DURING THIS DESIGN. GTA WILL NOT BE RESPONSIBLE FOR PROBLEMS RELATED TO THE CONSTRUCTION OF THIS WALL IF WE ARE NOT RETAINED FOR CONSTRUCTION OBSERVATION.
- B. THE REQUIRED BEARING PRESSURE BENEATH THE FOOTING OF THE WALL SHOULD BE VERIFIED IN THE FIELD BY A CERTIFIED SOILS TECHNICIAN. TESTING DOCUMENTATION MUST BE PROVIDED TO THE GEOTECHNICAL ENGINEER PRIOR TO THE START OF WALL CONSTRUCTION. THE REQUIRED TEST PROCEDURE SHALL BE THE DYNAMIC CONE PENETROMETER (DCP) TEST. C. THE SUITABILITY OF FILL MATERIAL SHOULD BE CONFIRMED BY THE ON-SITE SOILS TECHNICIAN.

#### PART 5 - DESIGN CRITERIA

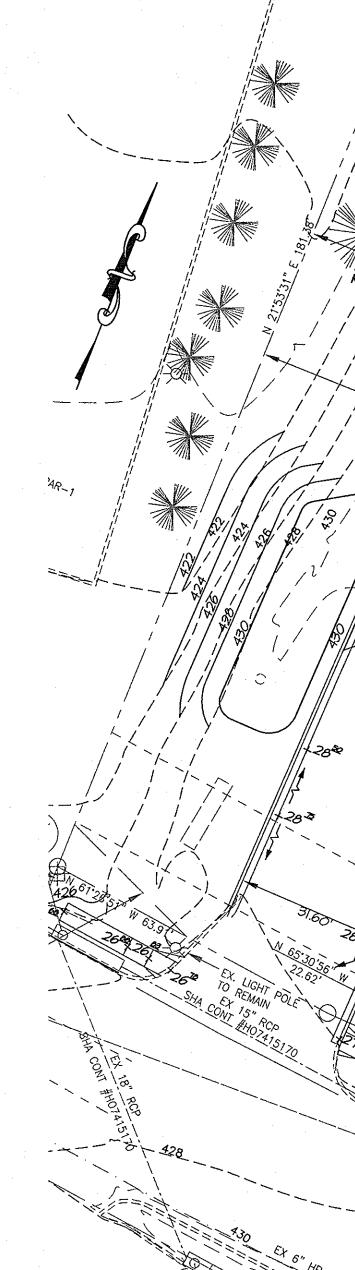
- A. REQUIRED MINIMUM ALLOWABLE FOUNDATION BEARING PRESSURE IS 2,000 PSF. B. DESIGN INTERNAL FRICTION ANGLE FOR REINFORCED SOIL = 28 DEGREES.
- C. DESIGN MOIST UNIT WEIGHT FOR REINFORCED SOIL = 110 PCF. D. FOUNDATION AND RETAINED SOIL INTERNAL FRICTION ANGLE = 28 DEGREES AND COHESION = 0 PSF.
- FOUNDATION AND RETAINED SOIL DESIGN MOIST UNIT WEIGHT = 110 PCF. F. RETAINING WALLS ARE NOT DESIGNED TO RESIST HYDROSTATIC PRESSURE.

2.0

- G. THIS RETAINING WALL DESIGN WAS BASED ON THE FOLLOWING MINIMUM FACTORS-OF-SAFETY (F.S.): F.S. FOR SLIDING:
- F.S. FOR BEARING CAPACITY:

F.S. FOR OVERTURNING:

F.S. FOR PULLOUT: 1.5 3.0



APPROXIMATE LIMITS OF GEOGRAPH AND APPROXIMATE LIMITS OF GEOGRAPH

#### RETAINING WALL LOCATION PLAN

-PROPOSED\_RETAINING WALL

GRADE TOP OF THE WALL TO

DRAIN IN THE DIRECTION SHOWN

THE LOCATION PLAN WAS ADOPTED FROM THE SITE GRADING PLAN, SHEET 4, DATED 6/6/07, PREPARED BY MORRIS & RITCHIE ASSOCIATES, INC.



**GEO-TECHNOLOGY ASSOCIATES. INC.** GEOTECHNICAL AND ENIVRONMENTAL CONSULTANTS 14280 PARK CENTER DRIVE, SUITE: A LAUREL, MARYLAND 20707 (410) 792-9446 or (301) 470-4470

WWW.MRAGTA.COM BB&T BANK - AT MONTPELIER RETAINING WALL

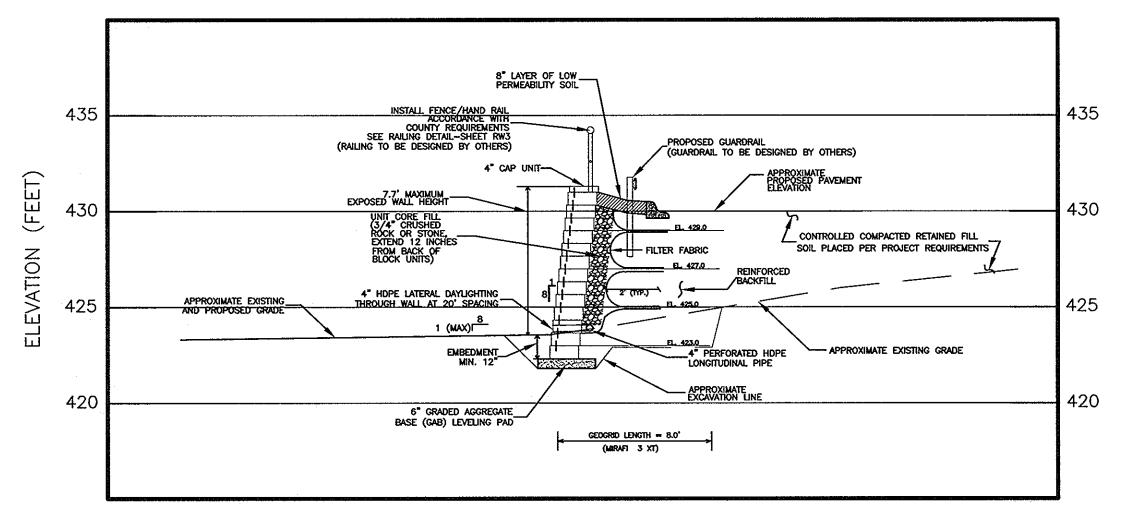
FAX: (410) 792-7395

PLAN AND GENERAL NOTES

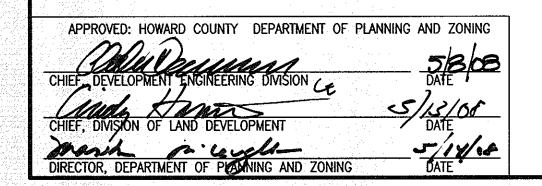
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.: 070084
6/6/07	REVISED PLANS BASED ON COUNTY COMMENTS	SCALE: AS SHOWN
		DATE: 02/27/07
		DESIGNED BY: GTA
*		DRAWN BY: JAV
		REVIEW BY: RPM
		SHEET: 16 OF 18

HORIZONTAL SCALE: 1" = 10' VERTICAL SCALE: 1" = 5'



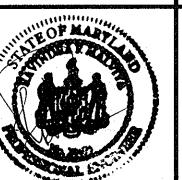
RETAINING WALL - SECTION 1 (APPROXIMATE STATION 0+83) HORIZONTAL SCALE: 1" = 5' VERTICAL SCALE: 1" = 5'





GEO-TECHNOLOGY ASSOCIATES, INC.
GEOTECHNICAL AND ENIVRONMENTAL CONSULTANTS
14280 PARK CENTER DRIVE, SUITE: A
LAUREL, MARYLAND 20707
(410) 792-9446 or (301) 470-4470
EAY: (410) 792-7395 FAX: (410) 792-7395





BB&T BANK - AT MONTPELIER **RETAINING WALL** 

PROFILE AND SECTION

HOWARD COUNTY, MARYLAND

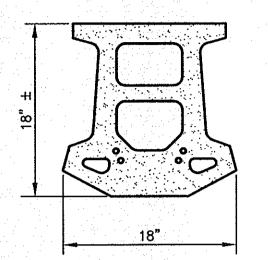
Έ	REVISIONS	JOB NO.: 070084
07	REVISED PLANS BASED ON COUNTY COMMENTS	SCALE: AS SHOWN
		DATE: 02/27/07
		DESIGNED BY: GTA
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		REVIEW BY: RPM
		SHEET: 17 OF 18



**CAP UNIT ELEVATION** 



CAP UNIT ELEVATION



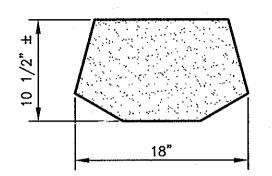
STANDARD II PLAN

STANDARD II UNIT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

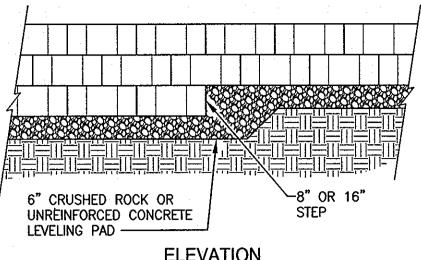
**CAP UNIT PLAN** 

UNIVERSAL **CAP UNIT OPTION** 



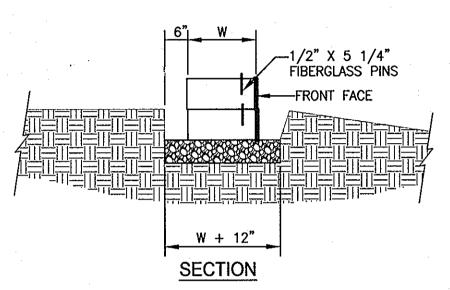
CAP UNIT PLAN

**3-PLANE SPLIT CAP UNIT OPTION** 



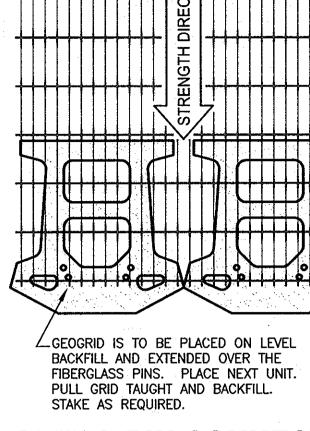
**ELEVATION** 

THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2000 PSI ± UNREINFORCED CONCRETE.



LEVELING PAD DETAIL

NOT TO SCALE

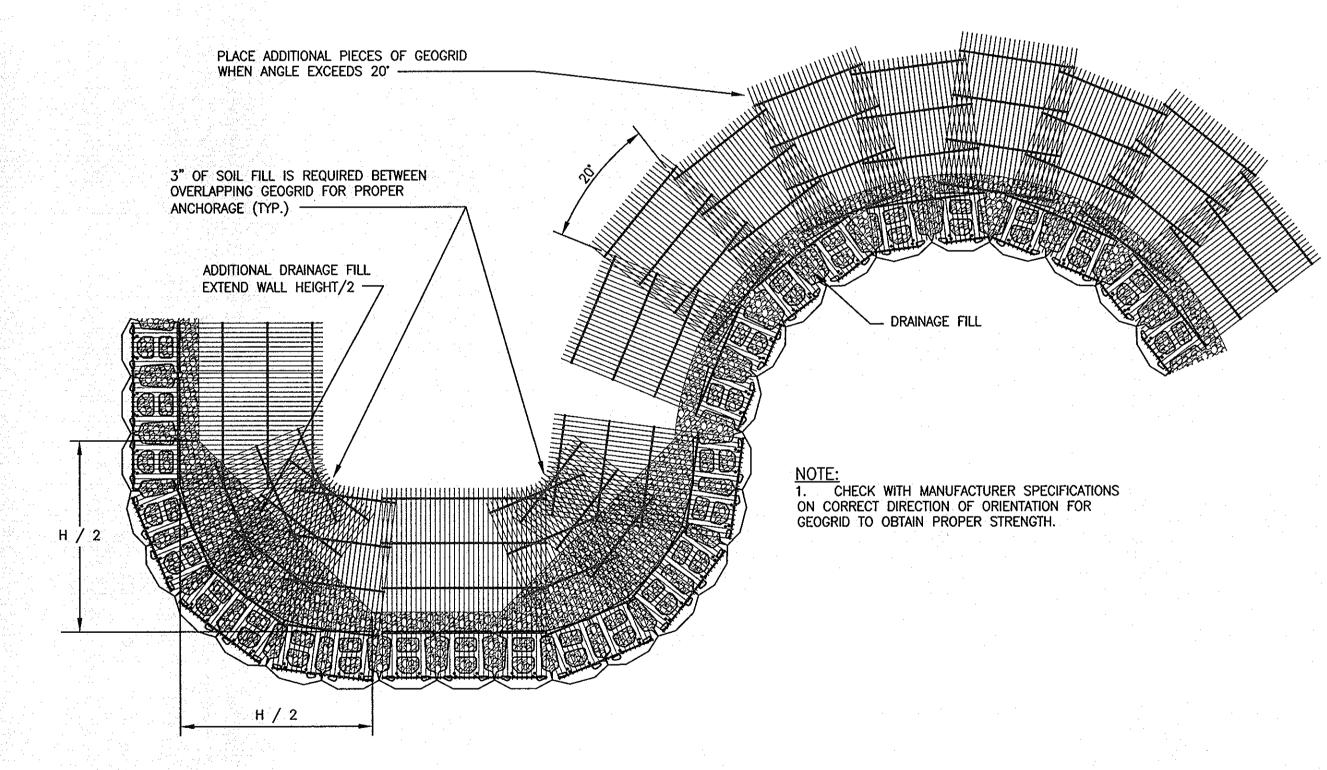


**GRID & PIN CONNECTION** 

NOT TO SCALE

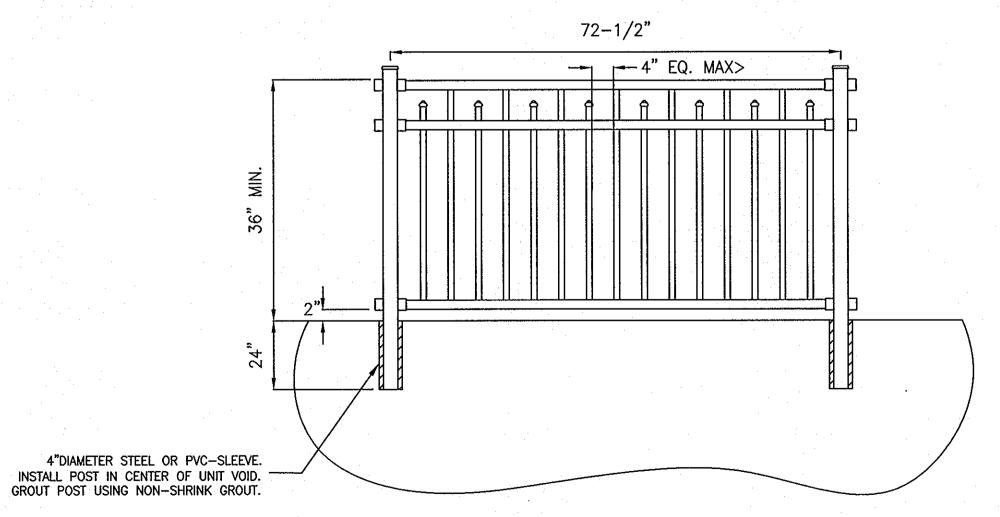
---- KEYSTONE 4" CAP UNIT

STANDARD II UNIT



GEOGRID INSTALLATION ON CURVES

NOT TO SCALE



PLACE POST IN CENTER OF — STANDARD UNIT VOID

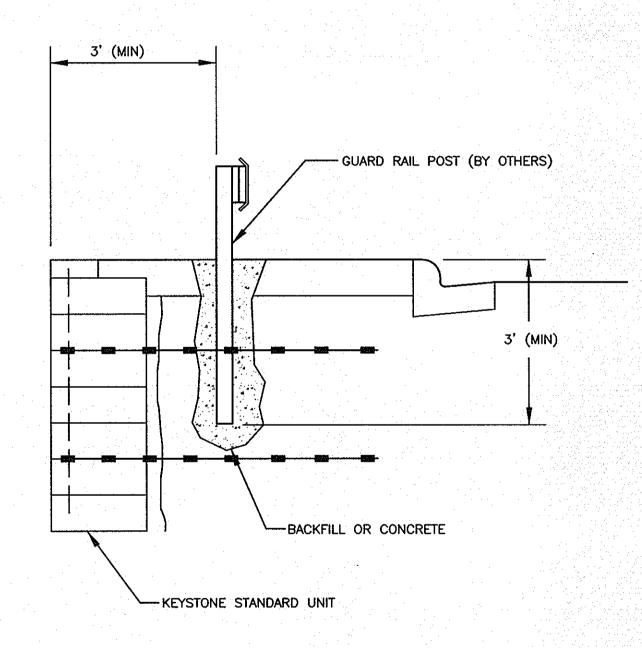
FENCE OR RAILING — (DESIGN BY OTHERS)

SOLID GROUT CORES OF TOP
THREE BLOCKS AT EACH RAILING POST USING NON-SHRINK GROUT

BLACK ALUMINUM DECORATIVE FENCE (DESIGN BY OTHERS)
RESIDENTIAL STRENGTH - #200 (OR EQUAL) MANUFACUTRED BY JERITH MANUFACTURING COMPANY, INC. SIMILAR FENCE SUPPLY BY OTHER MANUFACTURER MAY BE USED WITH PRIOR APPROVAL OF THE DESIGN ENGINEER.

# ORNAMENTAL FENCE TYPICAL DETAIL

NOT TO SCALE



## TYPICAL GUARD RAIL DETAIL

NOT TO SCALE



# GEO-TECHNOLOGY ASSOCIATES, INC. GEOTECHNICAL AND ENIVRONMENTAL CONSULTANTS

14280 PARK CENTER DRIVE, SUITE: A LAUREL, MARYLAND 20707 (410) 792-9446 or (301) 470-4470 FAX: (410) 792-7395

# WWW.MRAGTA.COM



DATE

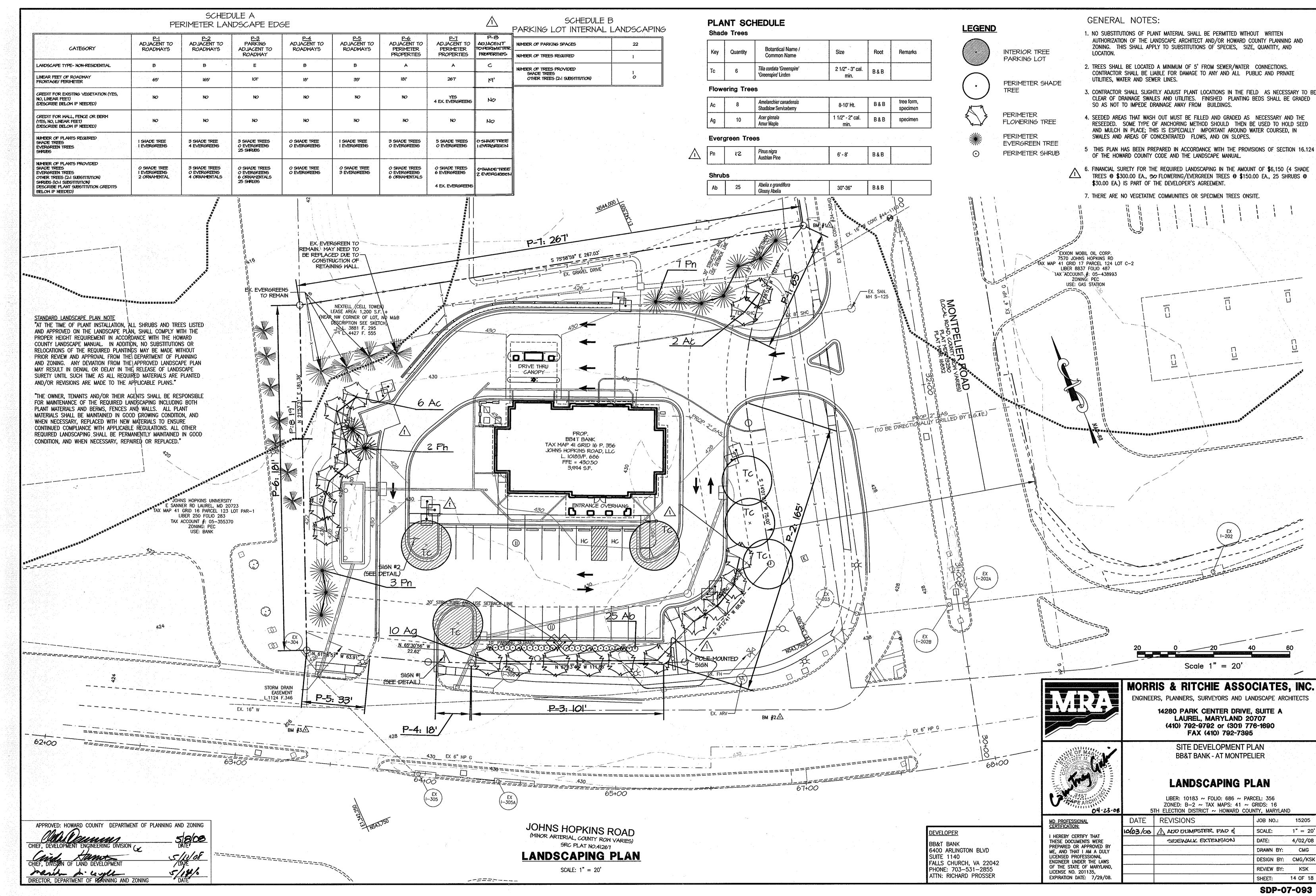
6/6/07

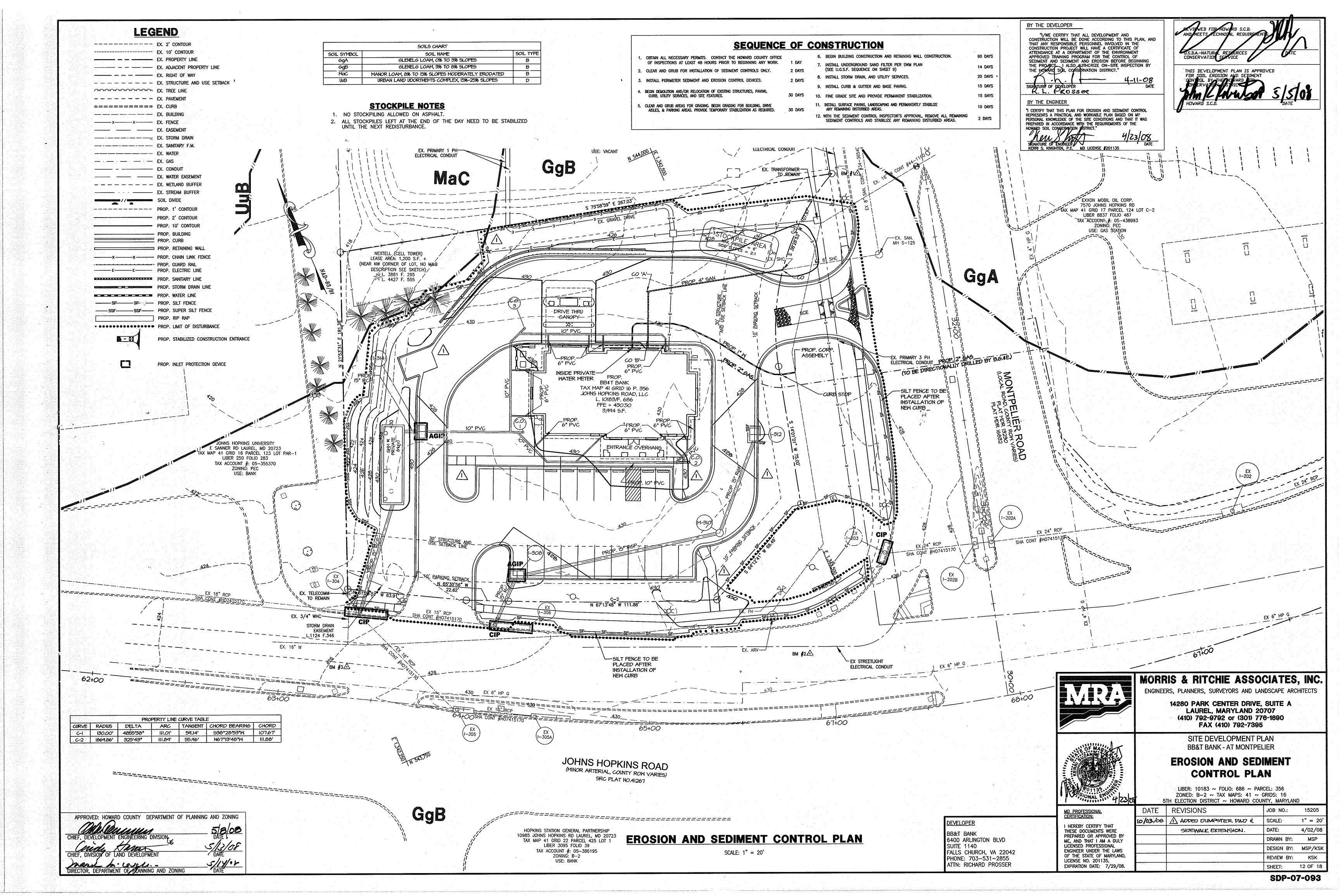
BB&T BANK - AT MONTPELIER **RETAINING WALL** 

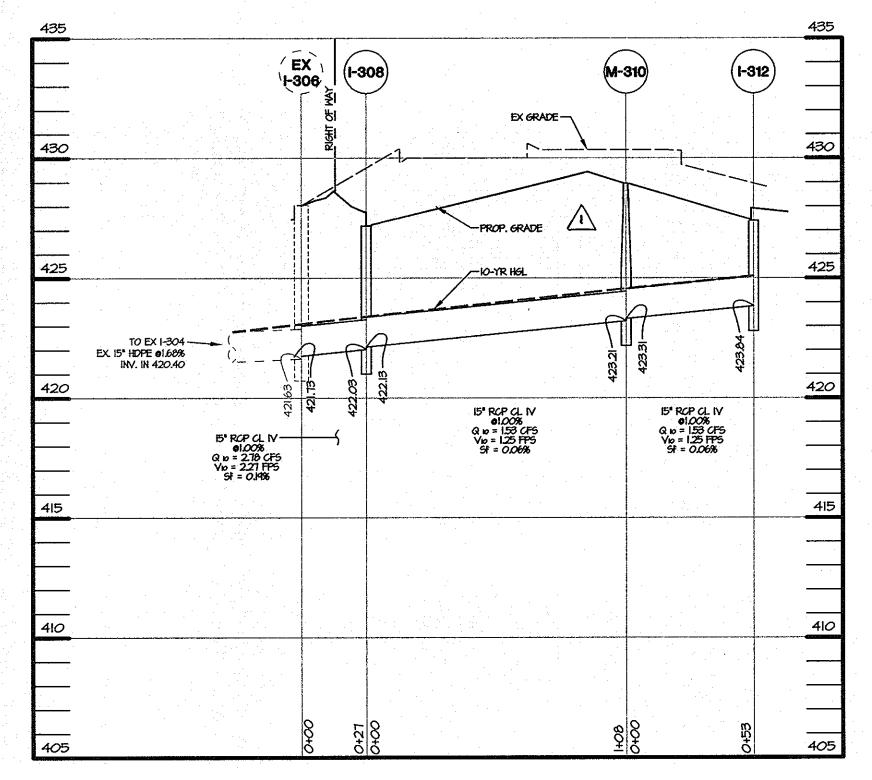
TYPICAL DETAILS

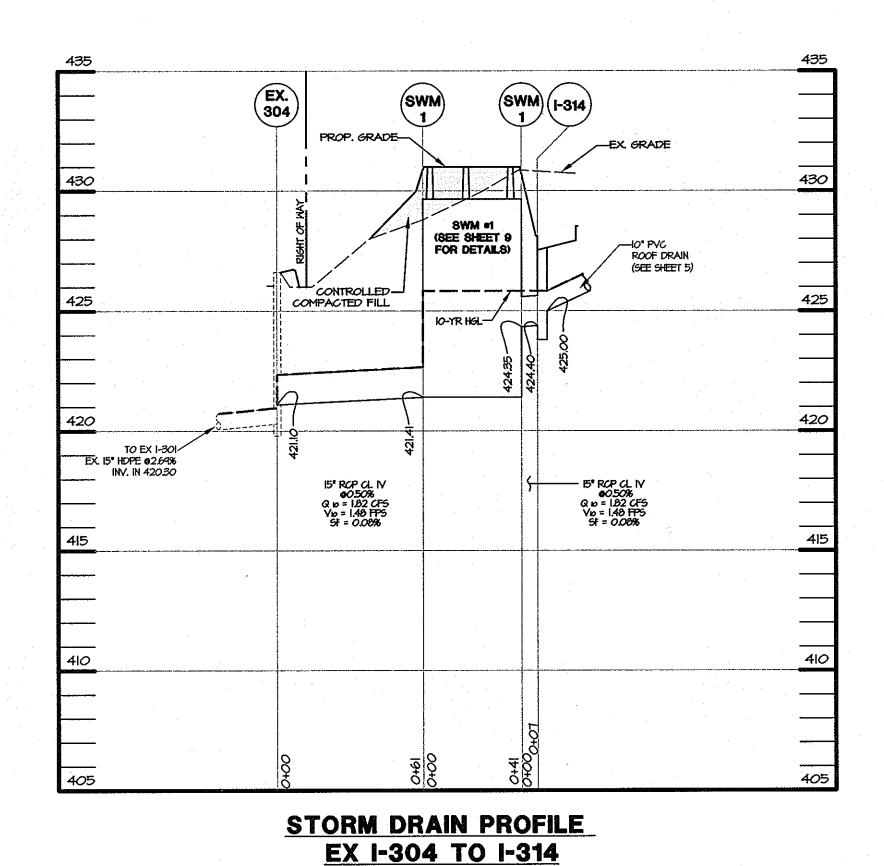


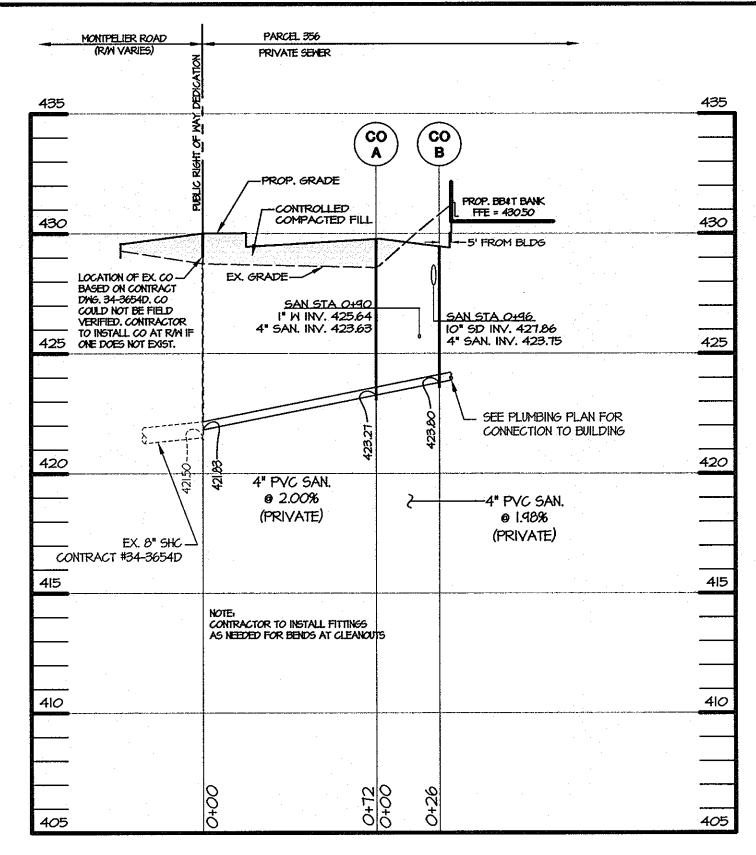
REVISIONS	JOB NO.: 070084
REVISED PLANS BASED ON COUNTY COMMENTS	SCALE: AS SHOWN
	DATE: 02/27/07
	DESIGN BY: GTA
	DRAWN BY: JAV
	REVIEW BY: RPM
	SHEET: 18 OF 18







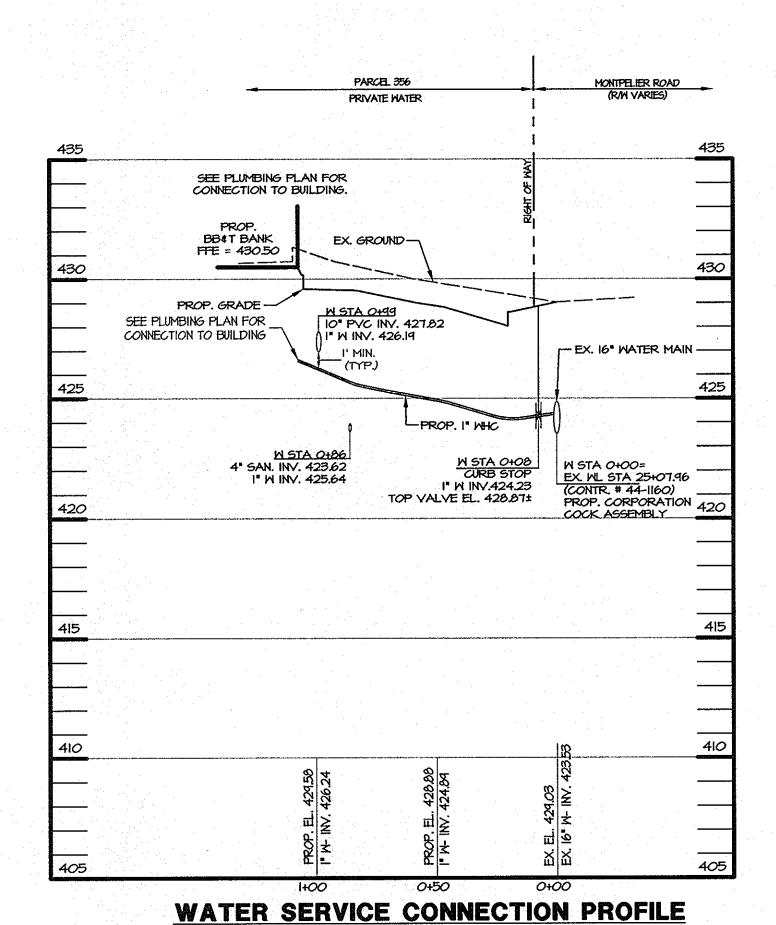




**SANITARY PROFILE** HOR. 1" = 40' VERT. 1" = 4'

STORM DRAIN PROFILE EX I-306 TO I-312

HOR. 1" = 40'VERT. 1" = 4'



COORDINATES TO CENTER OF STRUCTURE AT FLOWLINE FOR DOUBLE WR & CENTER OF STRUCTURE FOR SINGLE WR INLETS & MANHOLES.

\* TOP OF GRATE ELEVATION AT CENTER OF STRUCTURE AT FLOWLINE FOR DOUBLE WR, SINGLE WR INLET, MANHOLE, AND CLEANOUT ELEVATIONS STORM DRAIN STRUCTURE SCHEDULE LOCATION REMARKS NORTHING EASTING STR NO. \* TOP ELEV INV IN INV IN INV OUT 427.15 --- 422.13 422.03 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 543,819.26 | 1,342,344.17 543,797.06 1,342,452.85 428.96 --- 423.31 423.21 STANDARD PRECAST MANHOLE, HO. CO. STAND. DETAIL G-5.12 543,838.74 1,342,492.23 427.40 --- 423.84 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 427.55 --- 424.40 PRECAST WR INLET, HOWARD COUNTY STANDARD DETAIL D-4.35 543,910.25 1,342,327.31 429.58 --- 427.33 MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 543,889.71 1,342,374.45 --- 427.78 MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 CO # 3 | 429.66 | --- | 427.48 | MODIFIED CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 | TRAFFIC BEARING\* 543,938.01 | 1,342,396.01 \* TOP COVER TO BE TRAFFIC BEARING, SEE HOWARD COUNTY STANDARD DETAIL S-3.21. • COORDINATES TO CENTER OF STRUCTURE.

			STORM	<b>IWATER</b>	MANAGEMENT STRUCTURE SCHEDULE			<b>LOCATION</b>
STR NO.	TOP ELEV	INV IN	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING
SWM #1	431.00		424.35	421.41	UNDERGROUND SWM FACILITY, SEE DETAIL SHEET 9.		543,889.59	1,342,362.56

CONTROLLED AND COMPACTED FILL PER AASHTO T-180,

TO BE CERTIFIED BY AN APPROVED ON-SITE

GEOTECHINICAL ENGINEER

SANITARY STRUCTURE SCHEDULE TOP ELEV INV IN INV IN INV OUT CO A 429.78 --- 423.27 STANDARD CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 TRAFFIC BEARING\* 543,931.97 1,342,468.17 CO B 429.47 --- 423.80 STANDARD CLEANOUT, HOWARD COUNTY STANDARD DETAIL S-2.22 TRAFFIC BEARING\* 543,908.25 1,342,458.56 \* TOP COVER TO BE TRAFFIC BEARING, SEE HOWARD COUNTY STANDARD DETAIL S-3.21.

SANITARY PIPE SCHEDULE (PRIVATE)
SIZE TYPE LENGTH 4" PVC SDR 35 103 LF

COMPACTED SPECIFICATIONS FOR UTILITIES IN FILL

WHERE UTILITY PIPES ARE TO BE PLACED ON COMPACTED FILL, THE FOLLOWING

A. PRIOR TO PLACEMENT OF COMPACTED FILL, ANY SOFT OR OTHERWISE UNSUITABLE SOILS ENCOUNTERED AT THE EXISTING RAVINE BOTTOM OR SLOPE, SHALL BE UNDERCUT AND REMOVED FROM THE CONSTRUCTION AREA.

B. ACCEPTABLE COMPACTED FILL SHALL BE PLACED IN SIX INCH THICK LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY A.A.S.H.T.O. METHOD T-180.

C. THE COMPACTED FILL SHALL BE BENCHED INTO THE EXISTING VIRGIN SLOPES WITH EACH LIFT PLACED TO A SMOOTH TRANSITION FROM VIRGIN TO FILL SOILS.



# MORRIS & RITCHIE ASSOCIATES, INC.

SD PIPE SCHEDULE

RCP, CL. IV

6" PVC SCHEDULE 40 123

NOTE: ALL ROOF DRAINS ARE SLOPED AT 0.50%

SWM PIPE SCHEDULE

WATER PIPE SCHEDULE (PRIVATE)

SIZE TYPE LENGTH

1" TYPE K COPPER 106 LF

WATER PIPE FITTINGS SCHEDULE (PRIVATE)

15" RCP, CL. IV

PVC SCHEDULE 40 296

188

LENGTH

68

ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690 FAX (410) 792-7395

SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER



#### **UTILITY PROFILES**

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356 ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16 5TH FI FOTION DISTRICT ~ HOWARD COUNTY. MARYLAND

	MD PROFESSIONAL CERTIFICATION:
<u>DEVELOPER</u>	I HEREBY CERTIFY THAT
BB&T BANK 6400 ARLINGTON BLVD SUITE 1140 FALLS CHURCH, VA 22042	THESE DOCUMENTS WERE PREPARED OR APPROVED B' ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAN
PHONE: 703-531-2855 ATTN: RICHARD PROSSER	LICENSE NO. 201135, EXPIRATION DATE: 7/29/08

2	J	TH ELECTION DISTRICT ~ HOWARD CO	ONTI, MARTEAND
	DATE	REVISIONS	JOB NO.:
	10/03/08	ADDED DUMPSTER PAD \$	SCALE:
		SIDEWALK EXTENSION	DATE:
		·	DRAWN BY:
			DESIGN BY:
			REVIEW BY:
			SHEET:

SDP-07-093

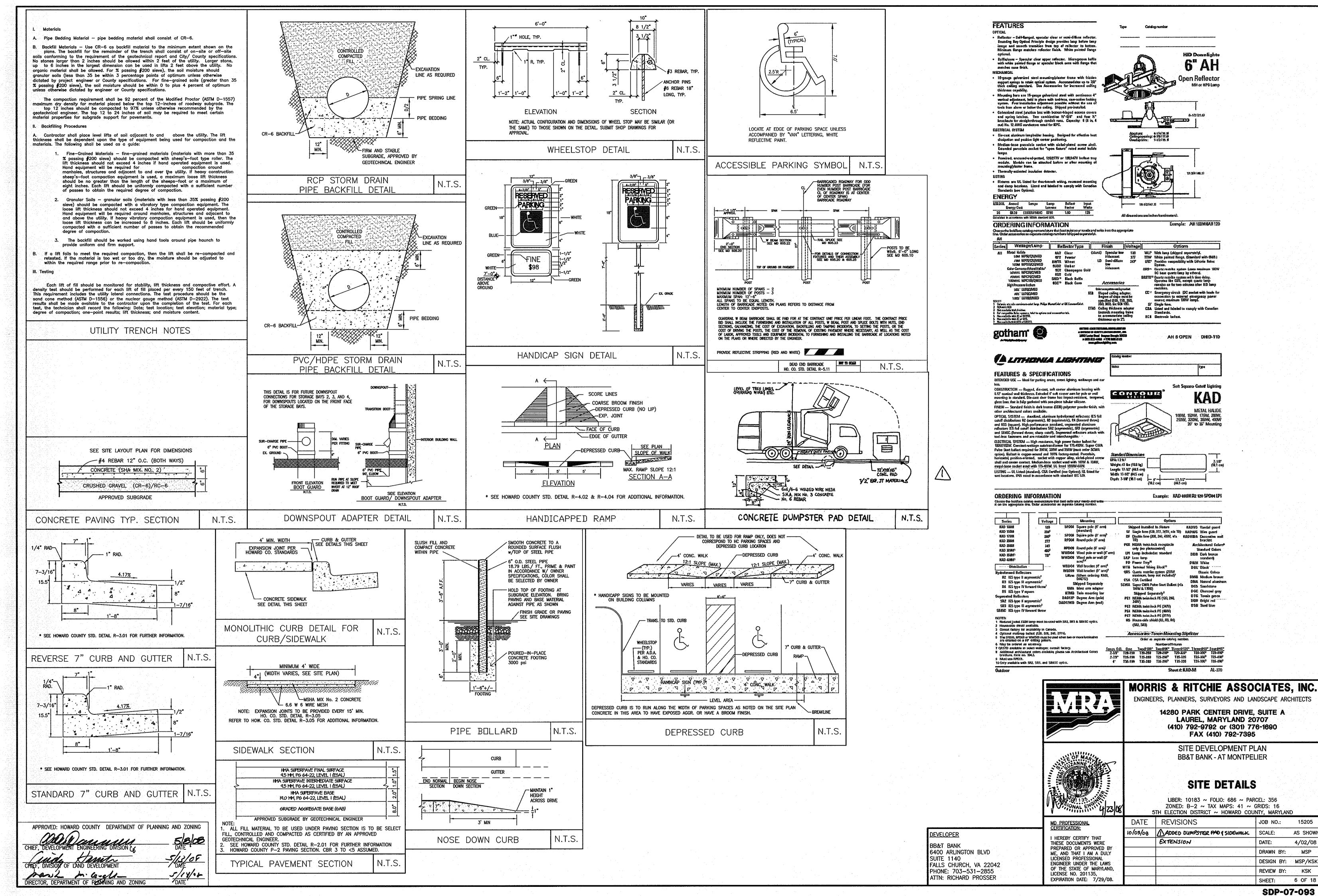
AS SHOWN

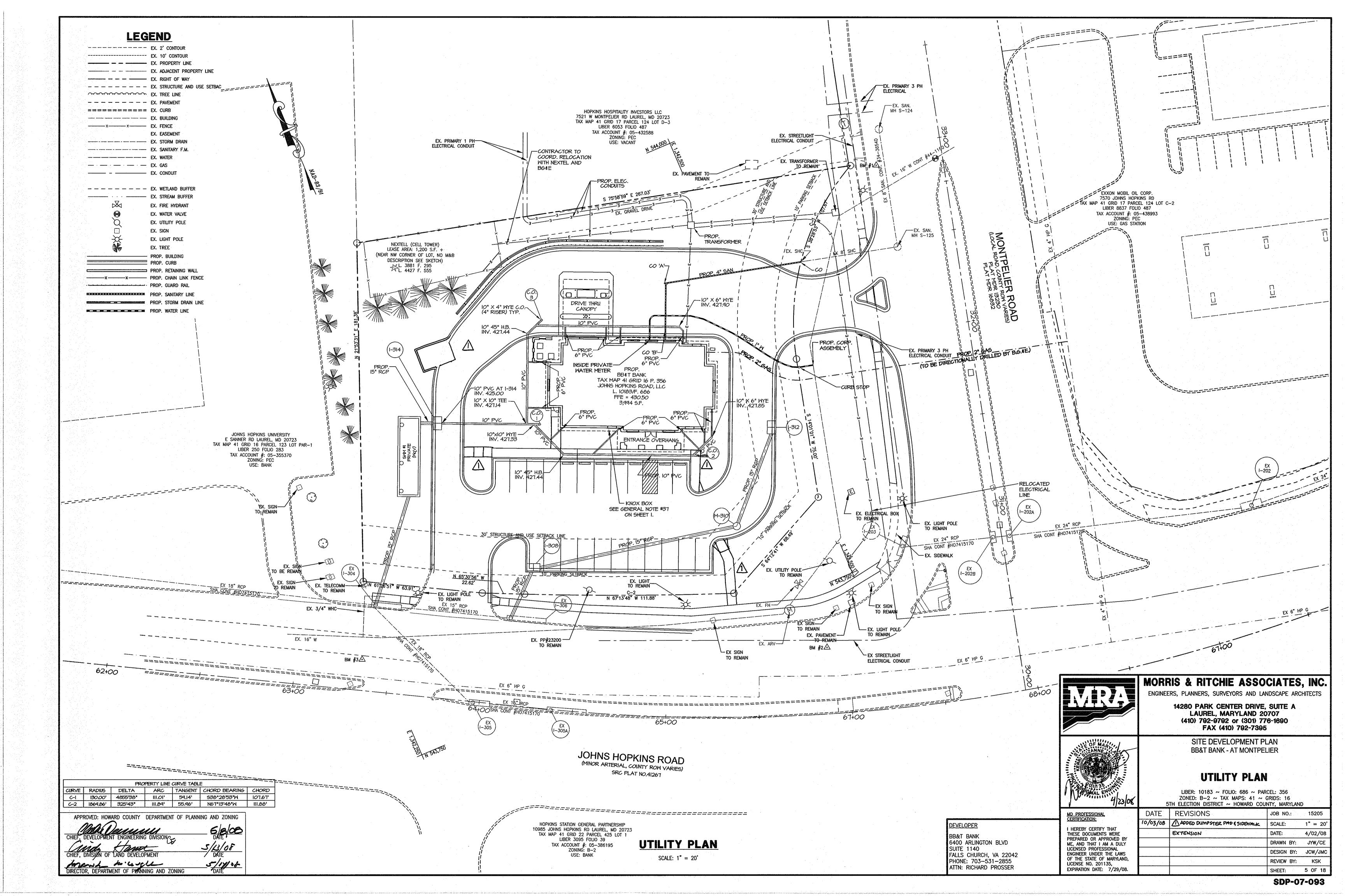
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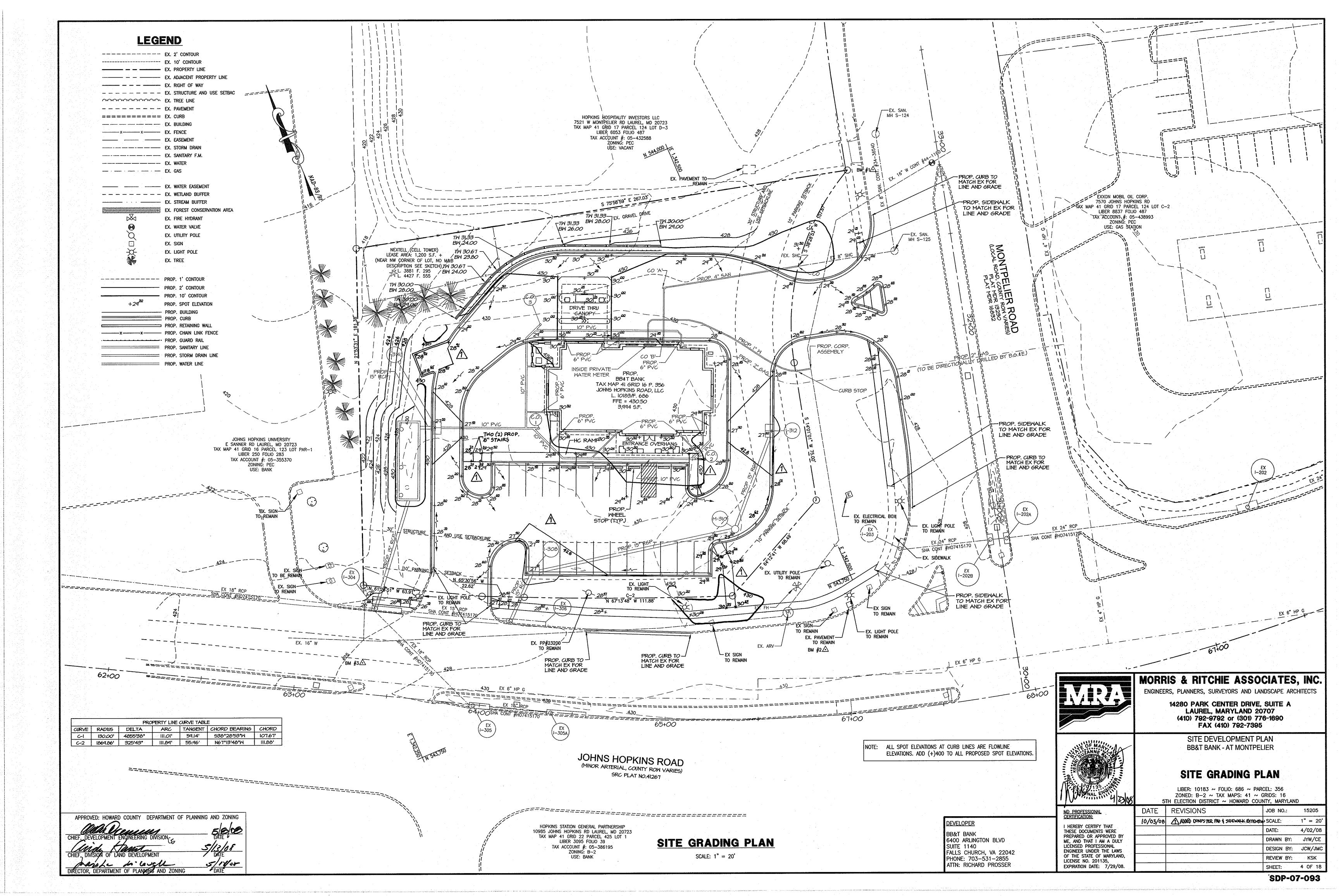
JCW

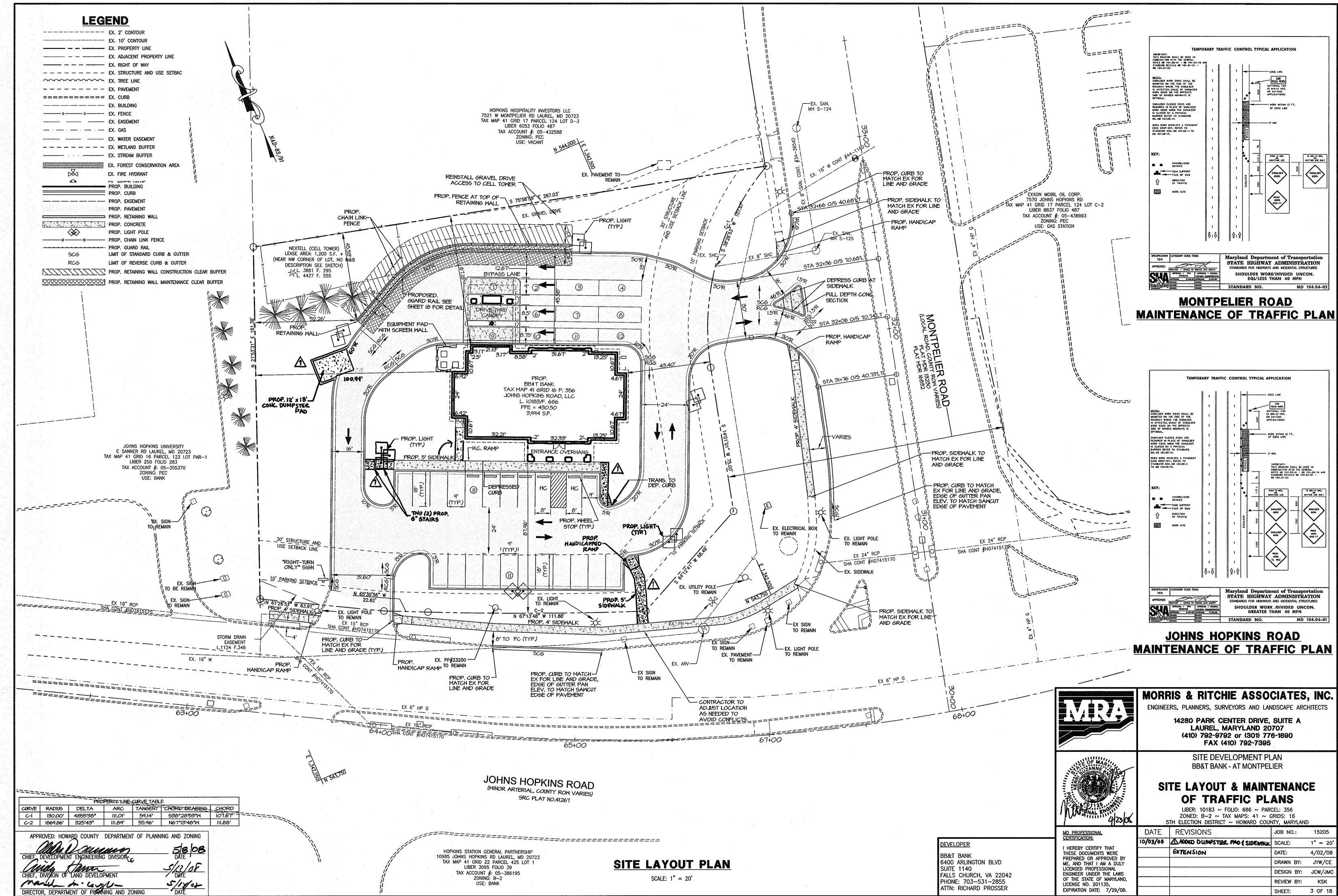
JCW

8 OF 18









#### **GENERAL NOTES**

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.

  2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313—1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.

  4. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT
- 5. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED. ALL SPOT GRADES ARE FLOWLINE BOTTOM OF CURB GRADES UNLESS OTHERWISE INDICATED.

  6. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED OUTSIDE OF THE LIMIT
- OF DISTURBANCE.

  THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND
  STATE PLANE COORDINATE SYSTEM (HORIZ. NAD 83, VERT. NAVD 88). HOWARD COUNTY MONUMENT NOS. 41EC AND 41FA WERE USED FOR THIS PROJECT.
- STA. NO. 41EC N 543,588.817 ELEV. 430,35 E 1,342,628.786 STA. NO. 41FA N 543,109.884 ELEV. 407.62
  - EV. 430.35 \*S

STD. CONC. MON. WITH A BRASS DISC.

- PROPOSED WATER IS TO BE PUBLIC.
  PROPOSED SEWER IS TO BE PUBLIC.
- 9. PROPOSED SEWER IS TO BE PUBLIC.

  10. ONLY QUALITATIVE STORMWATER MANAGEMENT (SWM) IS REQUIRED FOR THESE PROPOSED SITE IMPROVEMENTS BECAUSE THESE IMPROVEMENTS ARE CONSIDERED REDEVELOPMENT PER HOWARD COUNTY DESIGN MANUAL: VOLUME 1. AN UNDERGROUND SAND FILTER (BMP GROUP 4, TYPE F-2) IS PROPOSED TO MEET THE WQV REQUIREMENTS FOR THIS SITE. THIS WILL BE A PRIVATE SWM FACILITY, WHICH WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER (SEE OPERATION & MAINTENANCE NOTES ON SHEET 9).
- 11. EXISTING UTILITIES ARE BASED ON CONTRACT DRAWINGS FOR WATER (CONTRACT #44-1160) & SEWER (CONTRACT #34-3654-D).

  12. THERE IS NO FLOODPLAIN ON THIS SITE. THERE ARE NO WETLANDS ON THIS SITE.

  13. BOUNDARY AND TOPOGRAPHY SHOWN HEREON IS BASED ON FIELD RUN SURVEY ON A FIELD RUN SURVEY ON SEPTEMBER 29, 2006.
- 14. THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY THE TRAFFIC GROUP, DATED MAY 24, 2007.

  15. CONTRACTOR IS RESPONSIBLE FOR ALL SITE CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SHALL CONFORM TO ALL STATE, FEDERAL, AND COUNTY CONSTRUCTION REGULATIONS. THE CONTRACTOR IS NOT RELIEVED OF RESPONSIBILITY SHOULD ANY REQUIRED ITEMS PERTAINING TO SITE CONSTRUCTION NOT BE INCLUDED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.
- NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.

  16. LOCATIONS OF EXISTING UTILITIES WERE OBTAINED FROM THE BEST AVAILABLE RECORDS. CONTRACTOR SHALL VERIFY TO HIS/HER SATISFACTION, THE FIELD LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY WORK.
- SATISFACTION, THE FIELD LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMERCEMENT OF ANY WORK.

  17. ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR CURB AND GUTTER DUE TO CONSTRUCTION ACTIVITY OUTSIDE THE LIMITS OF DISTURBANCE IS TO BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 18. WHERE NECESSARY, THE CONTRACTOR SHALL TEST PIT ALL EXISTING UTILITIES AT LEAST FIVE (5) DAYS PRIOR TO STARTING ANY WORK SHOWN ON THESE DRAWINGS.

  19. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY MONUMENTS, MARKERS, SIGNS, LIGHTS, OR ANY OTHER EXISTING SITE.
- FEATURES DISTURBED DURING CONSTRUCTION.

  20. ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROLS" PUBLISHED JOINTLY BY THE WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE
- 21. THE SUBJECT PROPERTY IS ZONED B-2 PER THE 7/28/06 "COMP. LITE" ZONING REGULATIONS AMENDMENTS.

  22. A GEO-TECHNICAL STUDY WAS CONDUCTED FOR THIS PROJECT BY ECS MID ATLANTIC, LLC DATED DECEMBER 5, 2006.

  23. TRENCH COMPACTION FOR STORM DRAINS WITHIN ROADWAYS AND PARKING AREAS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY
- DESIGN MANUAL, VOL. IV, STANDARD NO. G-2.11.

  24. ALL COMPACTED FILL SHALL BE IN ACCORDANCE WITH AASHTO T-180 REQUIREMENTS.

  25. ALL EXTERIOR LIGHTING SHALL COMPLY WITH ZONING REGULATIONS SECTION 134. PROPOSED LIGHT LOCATIONS SHOWN CN SHEET 3
- AND DETAILS ON SHEETS 6, 7 AND 15.

  26. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING IN THE AMOUNT OF \$6,150 (4 SHADE TREES \$ \$300.00 EA., 30 FLOWERING/EVERGREEN TREES \$ \$150.00 EA., 25 SHRUBS \$ \$30.00 EA.) IS PART OF THE DEVELOPER'S AGREEMENT.
- 28. TRASH DISPOSAL WILL BE PERFORMED BY NIGHT CLEANING CREW USING ALL POLL OUT TRASH CONTAINERS WHICH WILL BE REM
- 29. PROPOSED BUILDING WILL NOT BE SPRINKLERED.
  30. THE PROPOSED DEVELOPMENT SHOWN IN THIS PLAN REQUIRES THE RELOCATION OF A BGE TRANSFORMER AND RELATED ELECTRICAL SERVICES, SEE DEMOLITION PLAN. THIS TRANSFORMER PROVIDES SERVICE TO THE CELL TOWER, TRAFFIC LIGHT (MONTPELIER ROAD), AND A SECONDARY TRANSFORMER LOCATED IN THE MONTPELIER RIGHT-OF-WAY. IT IS THE DEVELOPER'S RESPONSIBILITY TO COORDINATE THE RELOCATION OF THE TRANSFORMER AND ALL ASSOCIATED SERVICES, WITH BGE. THE DEVELOPER IS FINANCIALLY RESPONSIBLE FOR THE COST OF THIS WORK. THE DEVELOPER WILL ALSO BE FINANCIALLY RESPONSIBLE FOR ANY DAMAGES DUE TO
- LOSS OF SERVICE TO THE CELL TOWER, TRAFFIC LIGHT, OR OTHER SERVICES FED BY THE TRANSFORMER.

  31. RELOCATED SERVICES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY, AND WILL BE SUBJECT TO FINAL DESIGN AND APPROVAL BY BGE. WHERE POSSIBLE, TEMPORARY POWER SHOULD BE PROVIDED TO THE TRAFFIC SIGNAL AND CELL TOWER. ANY DISRUPTION IN SERVICE IS TO BE COORDINATED BY BGE, WITH PROPER NOTIFICATION TO THESE OWNERS OR ENTITIES AFFECTED BY THE DISRUPTION.
- SERVICE IS TO BE COORDINATED BY BGE, WITH PROPER NOTIFICATION TO THESE OWNERS OR ENTITIES AFFECTED BY THE DISRUPTION.

  32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ABANDONMENT OF THE EXISTING WELL, AND REMOVAL OF THE EXISTING SEPTIC SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERMITTING OF THIS WORK WITH THE HOWARD COUNTY HEALTH DEPARTMENT, AND ALL WORK SHALL BE IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS AND REQUIREMENTS.
- 33. THIS PARCEL WAS ORIGINALLY DEVELOPED UNDER SDP-72-043 BY HUMBLE OIL & REFINING COMPANY. BOARD OF APPEALS CASE BA-683-c WAS APPROVED ON NOVEMBER 22, 1971 AS A SPECIAL PERMIT TO OPERATE A GASOLINE STATION ON THE PARCEL.

  34. ALL EXTERIOR LIGHTING SHALL BE ORIENTED TO DIRECT OR REFLECT LIGHT INWARD AND DOWNWARD AWAY FROM ALL ADJOINING PUBLIC STREETS AND RESIDENTIAL AREAS. ALL OUTDOOR LIGHTING SHALL CONFORM TO ZONING REGULATIONS SECTION 134.b.2. THE
- B-2 ZONING DISTRICT REQUIRES THE USE OF FULLY SHIELDED LIGHT FIXTURES AS CERTIFIED BY THE LIGHT MANUFACTURER OR PHOTOMETRIC TEST REPORT, PER SECTION 134.c.1.

  35. A DESIGN MANUAL WAVER TO DMV III SECTIONS 2.8 AND 5.2.E TO REDUCE THE REQUIREMENTS OF 6 SPACES PER DRIVE—THRU LANE TO 4 WAS APPROVED ON MAY 31, 2007, BASED ON THE FOLLOWING CONDITIONS:

  1. THE SITE LAYOUT AND ENTRANCE CANNOT BE ADJUSTED ENOUGH TO ACCOMODATE A FIFTH VEHICLE PER LANE WITHOUT CREATING AN INTERSECTION SPACING ISSUE TO THE PUBLIC ROAD.

  2. AS DESIGNED, THE OUTSIDE LANE CAN ACCOMODATE A FIFTH STACKING VEHICLE AND MAINTAIN TWO—WAY TRAFFIC THROUGHOUT
- THE SITE.

  3. THE CURRENT DESIGN DOES NOT APPEAR TO AFFECT THE FUNCTION OF THE PUBLIC ROAD.

  4. THE BANK/DEVELOPER HAS PROVIDED A LETTER ACCEPTING THE CONDITION AND INCLUDED SUPPORT DATA TO JUSTIFY THE NEED FOR ONLY 4 SPACES FOR THEIR BANK.
- 5. THE DEVELOPER SHALL ADJUST THE CURB LINE OF THE BYPASS LANE AT THE REAR OF THE OUTSIDE FOURTH VEHICLE TO ALLOW A FIFTH VEHICLE IN THE OUTSIDE LANE TO BYPASS. THE BYPASS LANE SHALL BE A CONTINUOUS WIDTH OF 12'.

  36. WP-07-123 TO SECTIONS 16.120.f.1 AND 16.119.f.2 WAS APPROVED ON JUNE 26, 2007 TO ALLOW ACCESS ONTO JOHNS HOPKINS ROAD (A MINOR ARTERIAL), WITH THE FOLLOWING CONDITIONS:
- 1. REFERENCE THIS WAIVER ON SDP-07-093.
  2. THE EXISTING ENTRANCE FROM JOHNS HOPKINS ROAD (THE ONE WHICH IS CLOSEST TO MONPELIER ROAD) MUST BE CLOSED AS INDICATED ON THE SDP.
  3. LANDSCAPING ALONG THE JOHNS HOPKINS ROAD MUST BE PROVIDED IN ACCORDANCE WITH SDP-07-093, BUT SHALL BE
- ARRANGED TO NOT OBSTRUCT THE SIGHT DISTANCE OF DRIVERS AND PEDESTRIANS.

  4. THE ENTRANCE ONTO JOHNS HOPKINS ROAD SHOULD ALIGN AS CLOSE AS POSSIBLE WITH THE MEDIAN OPENING THAT CROSSES JOHNS HOPKINS ROAD, SO THAT VEHICLES MAY CROSS OVER FROM EAST BOUND JOHNS HOPKINS INTO THE BANK SITE.

  37. A KNOX ENTRY SYSTEM SHALL BE INSTALLED ON THE FRONT OF THE BUILDING ADJACENT TO THE ENTRY DOOR. THE BOX SHALL BE
- A KNOX 4400 SERIES KNOX BOX, WITH A HINGED DOOR.

  38. FOREST CONSERVATION FOR THIS SITE HAS BEEN MET WITH A FEE—IN—LIEU PAYMENT OF \$5,553.90 FOR 0.17 ACRES OF AFFORESTATION.
- 39. CONTRACTOR ASSUMES THE RESPONSIBILITY FOR DEMOLITION AND REMOVAL OF FUEL DISPENSERS, UNDERGROUND GASOLINE STORAGE TANKS, AND ALL ASSOCIATED CONDUITS, FUEL LINES, AND PIPING. CONTRACTOR IS RESPONSIBLE FOR ALL COUNTY, STATE, AND FEDERAL PERMITS REQUIRED FOR DEMOLITION AND REMOVAL OF GAS STATION ITEMS AND APPURTENANCES.

  40. WP-08-063 TO WAIVE SECTION 16.156(k) WAS APPROVED ON FEBRUARY 12, 2008 WITH THE FOLLOWING CONDITIONS:
- THE DEVELOPER'S AGREEMENT PROCESS AND THE SUBDIVISION OF THE SDP ORIGINALS MUST BE COMPLETED WITHIN 90 DAYS
  (ON OR BEFORE MAY 12, 2008) FROM THE DATE OF THE APPROVED WAVER PETITION.
   THE DEVELOPER SHALL COMPLETE ALL MDE REQUIREMENTS FOR THE REMOVAL AND THE CLOSING OUT OF THE UNDERGROUND STORAGE TANKS ON THE FORMER GASOLINE STATION SITE (TEXACO).
   THE DIVISION OF LAND DEVELOPMENT WILL NOT ACCEPT REQUESTS FOR EXTENSIONS, UNLESS A FORMAL WAVER PETITION IS

1.11 ACRES +/-

1.29 ACRES +/-

BB&T BANK W/ 2 DRIVE UP TELLER LANES,

1 ATM LANE, AND LOBBY ATM MACHINES

22 (INCL. 2 HC SPACES)

3,994 SF OR 0.09 ACRES ±

0.13 ACRES, 11.2% OF TOTAL LOT AREA

0.05 ACRES

3,994 S.F.

#### SITE ANALYSIS DATA CHART

- TOTAL PROJECT AREA:

  2. AREA OF PLAN SUBMISSION:

  3. LIMIT OF DISTRUBANCE:
- AREA OF PLAN SUBMISSION:
   LIMIT OF DISTRUBANCE:
   PRESENT ZONING:
   PROPOSED USE:

10. EXISTING BUILDING COVERAGE:

- 6. FLOOR SPACE:
- 7. MAXIMUM NUMBER OF EMPLOYEES: 8. MINIMUM NUMBER OF PARKING SPACES REQUIRED BY ZONING: 9. PARKING SPACES PROVIDED:
- 11. PROPOSED BUILDING COVERAGE:
  12. TOTAL BUILDING COVERAGE\* (INCLUDING CANOPIES & OVERHANGS):
- 13. CASE NUMBERS APPLICABLE IMPROVEMENTS:

  H07415170 JOHNS HOPKINS ROAD IMPROVEMENTS
  F-98-45 MONTPELIER ROAD IMPROVEMENTS
  44-1160 WATER LINE EXTENSION
- 14. SANITARY SEWER/ WATER SERVICE: PUBLIC

# APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION: CHIEF, DIVISION OF LAND DEVELOPMENT DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE DATE

OPTION 1: FEE-IN-LIEU	FOREST CONSERVATION DATA SUMMARY				
File Number: SDP-07-093	Project/Subdivision Name: BB&T	Bank at Montpelier			
Fee-In-Lieu Amount: \$5,553.90	Net Tract Area: 1.11 acres±	Area of Disturbance: 1.29 acres±			

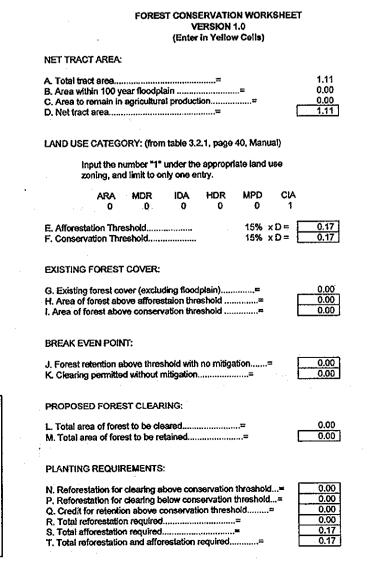
# TE DEVELOPMENT PLAN BB&T BANK AT MONTPELIER PARCEL "356"

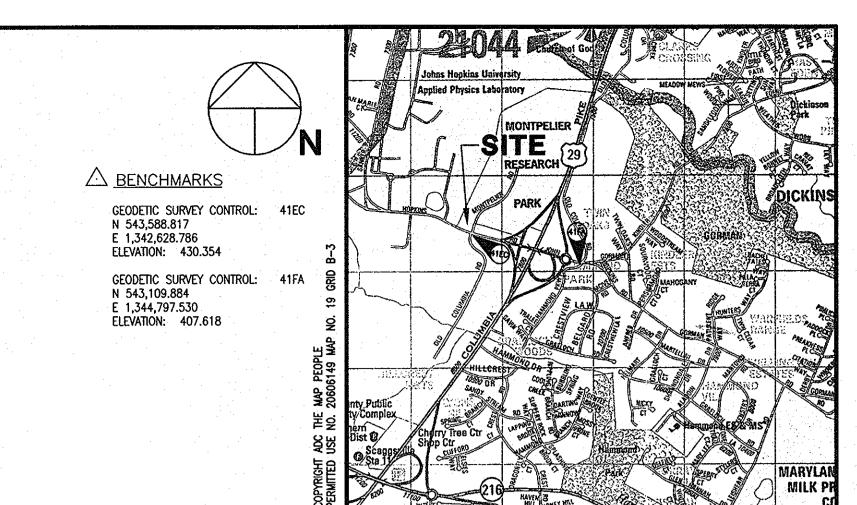
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND SDP-07-093



### LOCATION MAP

SCALE: 1" = 600'





SCALE: 1" = 2000'

#### SHEET INDEX

1	COVER SHEET	
2	DEMOLITION PLAN	
3	SITE LAYOUT & MAINTENANCE OF TRAFFIC PLANS	1915
4	SITE GRADING PLAN	
5	UTILITY PLAN	
6	SITE DETAILS	
7	BUILDING ELEVATIONS & SITE DETAILS	
8	UTILITY PROFILES	
9	STORMWATER MANAGEMENT PLAN	
10	DRAINAGE AREA MAPS	
11	GEO-TECH REPORT INFORMATION	
12	EROSION & SEDIMENT CONTROL PLAN	
13	EROSION & SEDIMENT CONTROL DETAILS	
14	LIGHTING & LANDSCAPING PLAN	
15	LIGHTING & LANDSCAPING DETAILS	
16	RETAINING WALL PLAN & GENERAL NOTES	
17	RETAINING WALL PROFILE & SECTION	1 1
18	RETAINING WALL TYPICAL DETAILS	

# ADJACENT PROPERTY CHART\*

NO.:	OWNER:	TAX MAP:
1	HOPKINS HOSPITALITY INVESTORS LLC	41
2	EXXON MOBIL OIL CORP.	41
3.	HOPKINS STATION GENERAL PARTNERSHIP	.41
4	JOHN HOPKINS UNIVERSITY	41

PERMIT INFORMATION CHART									
	PROJECT NAME BB&T BANK AT MONTPELIER			ADDRESS 10990 JOHNS HOPKINS RD.			PARCEL NO. 356		
	PLAT # OR L/F	GRID #	ZONING	TAX M	AP I	NO.	ELECT. DIS	Т.	CENSUS TRACT
	L 10183 F 686	16	B-2	4	-1		5		6051.02
	TAW	ER CODE:					SEWER (		



# MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

14280 PARK CENTER DRIVE, SUITE A LAUREL, MARYLAND 20707 (410) 792-9792 or (301) 776-1690

FAX (410) 792-7395

SITE DEVELOPMENT PLAN BB&T BANK - AT MONTPELIER



<u>DEVELOPER</u>

BB&T BANK

SUITE 1140

6400 ARLINGTON BLVD

FALLS CHURCH, VA 22042 PHONE: 703-531-2855 ATTN: RICHARD PROSSER

#### COVER SHEET

LIBER: 10183 ~ FOLIO: 686 ~ PARCEL: 356

ZONED: B-2 ~ TAX MAPS: 41 ~ GRIDS: 16

5TH ELECTION DISTRICT ~ HOWARD COUNTY, MARYLAND

OF PROFESSIONAL	DAIL	Ĺ
CERTIFICATION:	10/03/08	ľ
I HEREBY CERTIFY THAT		ŀ
THESE DOCUMENTS WERE		
PREPARED OR APPROVED BY		ŀ
ME, AND THAT I AM A DULY		
LICENSED PROFESSIONAL		ŀ
ENGINEER UNDER THE LAWS		
OF THE STATE OF MARYLAND,		ľ
LICENSE NO. 201135,		l
EXPIRATION DATE: 7/29/08.		I

DATE	REVISIONS	JOB NO.:	15205
10/03/08	ADDED DUMPSTER PADA SIDEWALK	SCALE:	AS SHOWN
	EXTENSION	DATE:	4/02/08
		DRAWN BY:	JMC
		DESIGN BY:	JMC/JW
. "		REVIEW BY:	KSK
		SHEET:	1 OF 18