

# ROAD CONSTRUCTION PLANS

# STONE MANOR SECTION 3

## LOTS 1-15 & OPEN SPACE LOTS 16-18

## SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

### GENERAL NOTES:

- THIS PROPERTY IS ZONED R-20 PER THE 2/2/04 COMPREHENSIVE ZONING PLAN.
- SITE DATA:  
ZONING: R-20  
TAX MAP 25 PARCEL 68 & 69 GRID 19  
SECOND ELECTION DISTRICT  
DEED REFERENCE: 214/ 266 & 7457/ 328  
MINIMUM LOT SIZE: 12,000 SQ. FT.  
AREA OF REQUIRED OPEN SPACE LOTS: 7.91 X 40% = 3.16 ACRES  
AREA OF PROPOSED OPEN SPACE LOTS: 3.00 ACRES ±  
AREA OF ROAD DEDICATION: 0.393 ACRES ±
- HORIZONTAL AND VERTICAL DATUMS ARE RELATED TO THE MARYLAND MAD 83 (HORZ) AND NGVD29 (VERT) AS PROJECTED FROM HOWARD COUNTY CONTROL STATIONS NO. 241 & 243 (ALL UNITS ARE IN FEET). HOWARD COUNTY CONTROL STATIONS CONSIST OF A STANDARD STAMPED DISC SET ON TOP OF CONCRETE COLUMN.  
STA. No. 241 N 577,298.654 ELEV. 437.831  
E 1,368,075.133  
STA. No. 243 N 580,648.904 ELEV. 404.482  
E 1,364,974.471
- THIS SUBDIVISION IS SUBJECT TO THE 5TH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AS AMENDED ON OCTOBER 2, 2003.
- PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT. PUBLIC WATER AND SEWER WILL BE UTILIZED.
- ALL AREAS ARE MORE OR LESS:  
DRIVEWAYS SHALL BE PROVIDED PRIOR TO RESIDENTIAL OCCUPANCY TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:  
A) WIDTH - 12 FEET (14 FEET SERVING MORE THAN ONE RESIDENCE)  
B) SURFACE - 6 INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING.  
C) GEOMETRY - MAXIMUM 14% GRADE, MAXIMUM 10% GRADE CHANGE AND MINIMUM OF 45-FOOT RADIUS.  
D) STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H2S LOADING).  
E) DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100-YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE.  
F) STRUCTURE CLEARANCES - MINIMUM 12 FEET  
G) MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE.
- THIS BOUNDARY & TOPOGRAPHY IS BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY DONE BY MILDENBERG, BOENDER AND ASSOCIATES ON OR ABOUT AUG. 2003.
- STORM WATER MANAGEMENT IS PUBLICLY OWNED AND MAINTAINED BY HOWARD COUNTY AND WILL BE PROVIDED VIA:  
- THE CHANNEL PROTECTION VOLUME IS PROVIDED BY THE EXISTING WET POND LOCATED ON STONE MANOR SECTION 1. THIS POND ALSO MANAGES THE 2 AND 10 YEAR EVENTS FOR ITS ASSOCIATED DRAINAGE AREA. THE WQV AND Rev FOR THE REMAINING AREAS OF THE SITE ARE PROVIDED BY: NATURAL AREA CONSERVATION CREDIT, SHEET FLOW TO BUFFER CREDIT AND NON-ROOFTOP DISCONNECTION CREDITS. THESE AREAS INCLUDE LOTS 1&2, AND 11-15
- WETLANDS, STREAM AND FOREST STAND DELINEATION IS BY ECO SCIENCE PROFESSIONALS INC. ON OR ABOUT AUGUST 2003. FLOODPLAIN STUDY WAS CONDUCTED BY MILDENBERG, BOENDER & ASSOCIATES, INC. ON OR ABOUT SEPTEMBER 2003.
- WETLANDS, STREAMS, 25% STEEP SLOPES AND FLOODPLAINS DO EXIST ON SITE.
- NO CEMETERIES EXIST ON SITE.
- HISTORIC STRUCTURE HO-421 (STONE HOUSE @ BON AIR) IS TO REMAIN AS PART OF LOT 14.
- TRAFFIC STUDY BY MARS GROUP, DATED AUG. 2003. APPROVED MARCH 19, 2004.
- 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 WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT FOR THE REQUIRED LANDSCAPE PLANTINGS.
- FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY RETENTION OF 1.17 ACRES, REFORESTATION OF 1.03 ACRES, AND A FEE-IN-LIEU OF 0.36 ACRES (15,246 SQ.FT.) OF REFORESTATION (A TOTAL OF 2.56 AC.) IN THE AMOUNT OF \$7,841.08. FINANCIAL SURETY FOR THE ON-SITE RETENTION AND REFORESTATION WILL BE POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT.
- THIS DEVELOPMENT WILL BE ANNEXED IN THE STONE MANOR HOME OWNERS ASSOCIATION.
- ALL EXISTING STRUCTURES TO BE REMOVED UNLESS OTHERWISE NOTED.
- NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, 100 YEAR FLOODPLAIN EASEMENT AND FOREST CONSERVATION EASEMENT AREAS, EXCEPT AS SHOWN ON APPROVED PLANS.
- UTILITY AND ROADWAY (STONECREST DRIVE) CROSSINGS SHOWN ARE DETERMINED NECESSARY DISTURBANCE BY THE DEPARTMENT OF PLANNING AND ZONING AND THE HOWARD CONSERVATION DISTRICT IN ACCORDANCE WITH SECTION 16.116(C) OF THE FIFTH EDITION SUBDIVISION AND LAND DEVELOPMENT REGULATION. (M.D.E. TRACKING NUMBER 05-NT-0317)
- DEVELOPMENT AND CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT.
- PUBLIC WATER AND SEWAGE ALLOCATION WILL BE GRANTED AT THE TIME OF THE ISSUANCE OF THE BUILDING PERMIT IF CAPACITY IS AVAILABLE.
- THERE IS AN EXISTING DWELLING/STRUCTURE LOCATED ON LOT 14 TO REMAIN. NO NEW BUILDINGS, EXTENSIONS OR ADDITIONS TO THE EXISTING DWELLING ARE TO BE CONSTRUCTED AT A DISTANCE LESS THAN THE ZONING REGULATIONS REQUIRE.
- WATER & SEWER SERVICE TO THESE LOTS WILL BE GRANTED UNDER THE PROVISIONS OF SECTION 18.122.B OF THE HOWARD COUNTY CODE.
- DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAN FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES AND FOREST CONSERVATION (DESIGNATED AS "FOREST CONSERVATION AREA"), LOCATED IN, ON, OVER AND THROUGH LOTS/PARCELS, ANY CONVEYANCES OF THE AFORESAID LOTS/PARCELS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S)/PARCELS. DEVELOPER SHALL EXECUTE AND DELIVER DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND IN THE CASE OF THE FOREST CONSERVATION EASEMENT(S), UPON COMPLETION OF THE DEVELOPER'S OBLIGATIONS UNDER THE FOREST CONSERVATION INSTALLATION AND MAINTENANCE AGREEMENT EXECUTED BY THE DEVELOPER AND THE COUNTY, AND THE RELEASE OF DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
- ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2 1/2" GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE) 3" LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON THE TOP OF EACH POST.
- STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT. A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND AND TREE.

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#### RELATED DPZ #'S:

SP-04-04, SP-98-15, P-01-14,  
S-97-16, S-99-21,  
F-00-54, F-02-06

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT."

*[Signature]* 6/16/06  
DATE

*[Signature]*  
PRINTED NAME OF DEVELOPER

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN AND ALL CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PROFESSIONAL AND RELIABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE. CONSTRUCTION SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER OF THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*[Signature]* 6/19/06  
DATE

*[Signature]*  
PRINTED NAME OF ENGINEER

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SEDIMENTATION, EROSION AND SEDIMENT CONTROL.

*[Signature]* 6/22/06  
DATE

USDA - NATURAL RESOURCES CONSERVATION SERVICE

THESE PLANS FOR THE HOWARD SOIL CONSERVATION DISTRICT MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

*[Signature]* 6/22/06  
DATE

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS

*[Signature]* 6-26-06  
DATE

CHIEF BUREAU OF HIGHWAYS

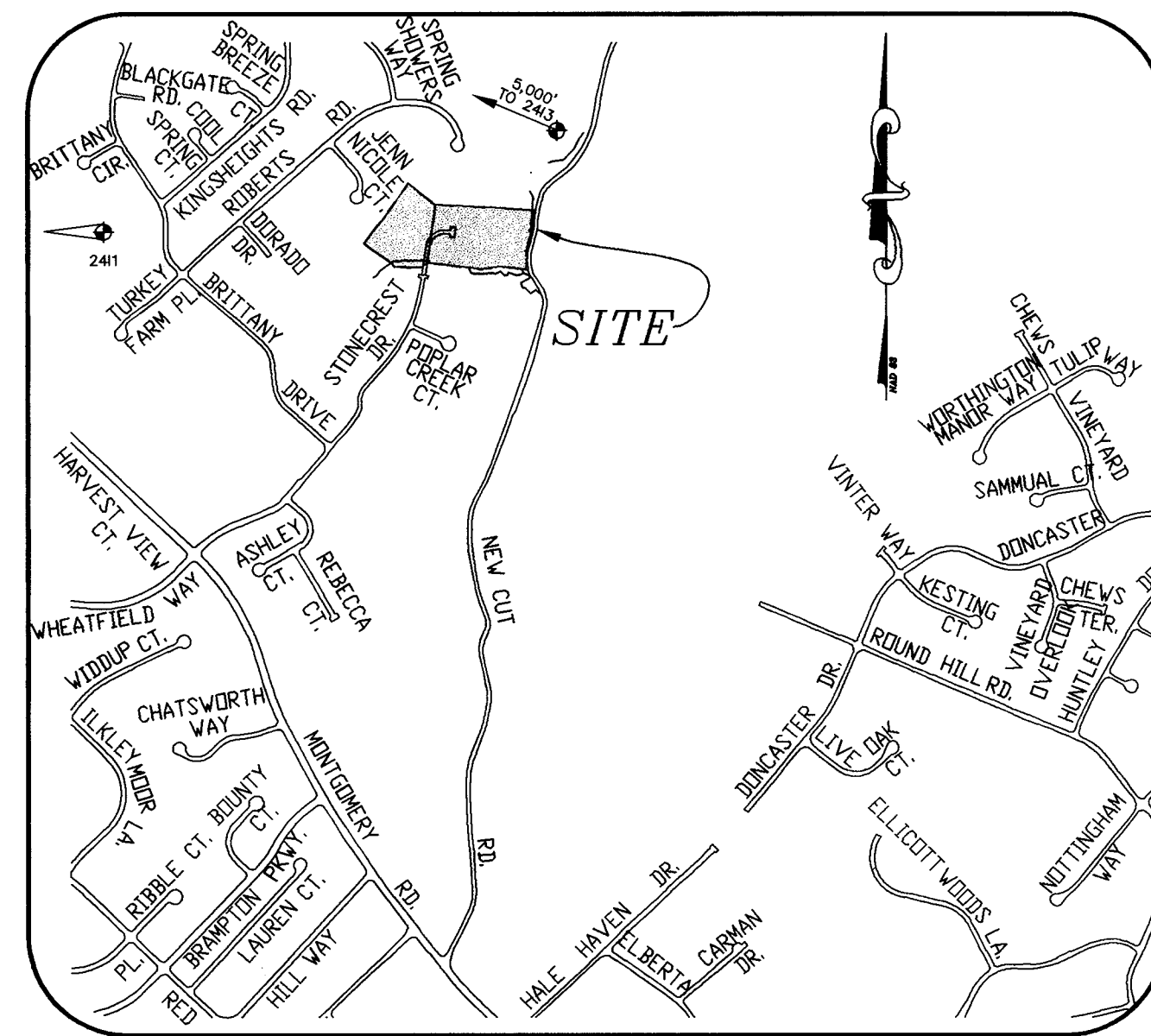
APPROVED: DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 6/29/06  
DATE

CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 6/29/06  
DATE



### VICINITY MAP

SCALE: 1"=1000'

#### OWNERS

MID-ATLANTIC LAND SERVICES, INC.  
5300 DORSEY HALL DRIVE  
ELLCOTT CITY, MD 21042

STONE MANOR III, LLC  
5300 DORSEY HALL DR  
ELLCOTT CITY, MD 21042

THE RAIN GARDENS AND LEVEL SPREADERS BEING USED TO MEET THE STORMWATER MANAGEMENT REQUIREMENTS ON EACH AFFECTED LOT SHALL BE DESIGNED, BONDED AND A DEVELOPER AGREEMENT EXECUTED AT THE SITE DEVELOPMENT PLAN STAGE OF THE PROJECT

#### DENSITY & OPEN SPACE TABULATION CHART FOR STONE MANOR SECTIONS 1-3

	EXISTING SECTION 1 F-06-54	SECTION 2 F-02-06	SECTION 3 F-06-36	TOTAL
GROSS AREA:	30,814 AC ±	9,797 AC ±	7,91 AC ±	48,52 AC ±
AREA OF STEEP SLOPES:	00.00 AC ±	00.00 AC ±	0.99 AC ±	0.99 AC ±
AREA OF FLOODPLAIN:	3,288 AC ±	00.00 AC ±	0.45 AC ±	3,74 AC ±
NET AREA:	27.53 AC ±	9,797 AC ±	6.47 AC ±	43.80 AC ±
AREA OF PROPOSED BUILDABLE LOTS SFD:	13,471 AC ±	4,168 AC ±	4.52 AC ±	22.16 AC ±
AREA OF PROPOSED BUILDABLE LOTS SFA:	00.00 AC ±	00.00 AC ±	00.00 AC ±	00.00 AC ±
TOTAL AREA OF PROPOSED BUILDABLE LOTS:	13,471 AC ±	4,168 AC ±	4.52 AC ±	22.16 AC ±
AREA OF PROPOSED ROAD (R/W):	2,520 AC ±	0,473 AC ±	0,393 AC ±	3,386 AC ±
REQUIRED OPEN SPACE (40% OF GROSS AREA):	12,326 AC ± (30%)	3,919 AC ±	3.16 AC ±	15.34 AC ±
PROVIDED OPEN SPACE:	14,823 AC ±	5.16 AC ±	3.00 AC ±	22.98 AC ±
NON CREDITED OPEN SPACE:	00.00 AC ±	00.00 AC ±	00.00 AC ±	00.00 AC ±
CREDITED OPEN SPACE:	00.00 AC ±	5,063 AC ±	3,00 AC ±	8,06 AC ±
REQUIRED RECREATIONAL OPEN SPACE (200 S.F. PER LOT):	5600 S.F.	2400 S.F.	3000 S.F.	11000 S.F.
PROVIDED RECREATIONAL OPEN SPACE:	7378 S.F.	3000 S.F.	4400 S.F.	14778 S.F.
NUMBER OF PROPOSED BUILDABLE LOTS (SFD):	28	0	15	55
NUMBER OF PROPOSED BUILDABLE LOTS (SFA):	0	0	0	0
NUMBER OF PROPOSED BUILDABLE LOTS:	28	12	15	55
NUMBER OF PROPOSED OPEN SPACE LOTS:	3	2	3	8
NUMBER OF BULK PARCELS:	0	0	0	0
TOTAL NUMBER OF PROPOSED LOTS:	31	14	18	63

\* : EXCESS OPEN SPACE FROM SECTION 1 TO SATISFY SECTION 3 OPEN SPACE REQUIREMENTS.

date	APR 2006
project	03-028
illustration	DJF
DJF	scale
NTS	approval

date	
description	
revisions	
no.	

STONE MANOR SECTION 3  
LOTS 1-15 & OPEN SPACE LOTS 16-18  
TAX MAP 25, GRID 19, PARCELS 68 & 69  
HOWARD COUNTY, MARYLAND  
SECOND ELECTION DISTRICT  
COVER SHEET

MILDENBERG, BOENDER & ASSOC., INC.  
Engineers Planners Surveyors  
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
(410) 997-0236 Fax (410) 621-5521 Wash. (410) 997-0996 Fax











KeB2

BrB2 (C)

BrF (C)

M&F

LeC2

BrD2

**TRAP #2**  
 STONE OUTLET SEDIMENT TRAP (ST-II)  
 EXIST. DRAINAGE AREA = 1.73 AC  
 PROP. DRAINAGE AREA = 0.87 AC  
 WET STOR. REQ. = 2,114 CF  
 DRY STOR. REQ. = 1/4 OF  
 WET STOR. PROV. ELEV. = 3,278 CF/395.5  
 DRY STOR. PROV. ELEV. = 4,250 CF/398.0  
 EMBANKMENT ELEV. = 399.0  
 WEIR ELEV. = 398.0  
 OUTLET ELEV. (NET STORAGE) = 395.5  
 BOTTOM ELEV. = 393.0  
 CLEANOUT ELEV. = 394.2  
 BOTTOM DIMENSIONS = 181' X 60'

**TRAP #1**  
 STONE OUTLET SEDIMENT TRAP (ST-II)  
 EXIST. DRAINAGE AREA = 0.85 AC  
 PROP. DRAINAGE AREA = 1.10 AC  
 WET STOR. REQ. = 1,980 CF  
 DRY STOR. REQ. = 1/4 OF  
 WET STOR. PROV. ELEV. = 2,140 CF/401  
 DRY STOR. PROV. ELEV. = 2,898 CF/493.7  
 EMBANKMENT ELEV. = 405.0  
 WEIR ELEV. = 404.0  
 OUTLET ELEV. (NET STORAGE) = 402.0  
 BOTTOM ELEV. = 400.0  
 CLEANOUT ELEV. = 400.6  
 BOTTOM DIMENSIONS = 30' X 30'

**LEGEND**

- DENOTES WETLANDS
- 100 YR FLOODPLAIN EASEMENT
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION EASEMENT (REFORESTATION)
- PRIVATE USE-IN-COMMON DRIVEWAY EASMENT
- PRIVATE DRAINAGE & UTILITY EASEMENT
- 10' PUBLIC TREE MAINTENANCE EASEMENT
- AREA OF ROAD DEDICATION
- PUBLIC SEWER, WATER, DRAINAGE & UTILITY EASEMENT
- 25% SLOPES OR GREATER
- DENOTES 4' CONCRETE SIDEWALK
- DENOTES LIMITS OF DISTURBANCE
- EXISTING PAVEMENT & CURB AND GUTTER TO BE REMOVED
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- EROSION CONTROL MATTING

**SEQUENCE OF CONSTRUCTION**

1. OBTAIN GRADING AND M.D.E. PERMIT (1 DAY)
2. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1 DAY)
3. ACCESS TO EXISTING HOUSE ON LOT 14 SHALL BE MAINTAINED AT ALL TIMES.
4. CONSTRUCT TRAP #1 AND #2, SUPER SILT FENCES, PERIMETER EARTH DIKES TO TRAP #2 AND EARTH DIKE WEST OF TRAP #1 (5 DAYS)
5. CONSTRUCT STREAM DIVERSION FOR BOTTOMLESS ARCH (WMA 4.2.c). DURING THIS PHASE, SITE SHALL BE ACCESSED BY EXISTING DRIVEWAY AT EITHER END OF PROPOSED CULVERT. MASS GRADING OVER PROJECT SITE MAY BE PERFORMED CONCURRENTLY WITH CULVERT CONSTRUCTION (30 DAYS)
6. STREAM DIVERSION MAY BE CONSTRUCTED IN TWO PHASES, WORKING FROM THE BOTTOM OF THE STREAM UP. INSTALL FILTER BAGS AND FLEXIBLE DIVERSION PIPE WHICH MAY BE RELOCATED FROM ONE SIDE OF STREAM TO THE OTHER AS CONSTRUCTION CONTINUES.
7. INSTALL DIVERSION PIPE AND SAND BAGS FROM LOWER LIMITS OF THE LOD TO THE UPPER LIMITS WITHIN THE STREAM GOING AROUND EXISTING CULVERTS AS REQUIRED, WITH PERMISSION FROM INSPECTOR TO BE RECEIVED BEFORE PROCEEDING.
8. REMOVE EXISTING BOX CULVERT (100± EAST OF MH-1), METAL CULVERT PIPE (SOUTH OF LOT 15), AND STONE WALLS ADJACENT TO STREAM (NORTH OF EXISTING DRIVE). GRADE BACK DISTURBED BANKS AT A SLOPE EQUAL TO ADJACENT EMBANKMENT SLOPE WHERE EXISTING DOWNSTREAM STRUCTURES ARE BEING REMOVED.
9. INSTALL SUPER SILT FENCE AT TOP OF STREAM BANK PER DETAIL "C" ON SHEET 3. INSTALL ARCH CULVERT FOOTING TO WEATHERED ROCK. DIVERSION PIPE MAY BE LOCATED BETWEEN FOOTINGS.
10. INSTALL ARCH CULVERT AND BACKFILL AND AROUND CULVERT. (GEOTECHNICAL ENGINEER SHALL BE PRESENT DURING FOOTING INSTALLATION AND BACKFILL PROCESS)
11. INSTALL CONCRETE ARCH COLLARS AND RIP-RAP INLET AND OUTLET PROTECTION, ADD SUPER SILT FENCE AROUND EACH END OF ES-1 AND ES-2, FINE GRADE AND STABILIZE STREAM EMBANKMENTS. RIP-RAP SHALL BE INSTALLED WITH A LOW FLOW CHANNEL PER DETAIL "F" ON SHEET 3.
12. WITH INSPECTOR'S APPROVAL, REMOVE SAND BAGS, FILTER BAGS AND DIVERSION PIPES.
13. WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, CONSTRUCT STORM DRAIN SYSTEM AND UTILITIES. DELAY CONSTRUCTION OF STORM DRAIN SYSTEM FROM 1-6 TO 1-7 UNTIL CONVERSION OF TRAP #2. UPON COMPLETION OF MASS GRADES, INSTALL EARTH DIKES NORTH OF TRAP #1. PROVIDE INLET PROTECTION TO ALL INLETS UPON INSTALLATION (60 DAYS)
14. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT TRAP #2 HAVE BEEN STABILIZED, AND WITH PERMISSION OF SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT TRAP #2. INSTALL 16 AND 17 AND STABILIZE REMAINING AREA (7 DAYS)
15. WHEN ALL CONTRIBUTING DRAINAGE AREAS TO SEDIMENT CONTROL DEVICES HAVE BEEN STABILIZED, CONTRACTOR SHALL CLEAN THE EXISTING POND OF SEDIMENT ATTRIBUTED BY THIS PLAN AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES AND STABILIZE REMAINING DISTURBED AREAS (5 DAYS)

**NOTES:**

1. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
  - A. 7 CALENDAR DAYS FOR ALL PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1.
  - B. 14 CALENDAR DAYS FOR ALL OTHER DISTURBED AREAS ON THE SITE.
 NOTE: CLASS I STREAM MUST NOT BE DISTURBED BETWEEN MARCH 1 AND JUNE 15, (1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL H-29-2)
2. WHEN INSTALLING RIP-RAP CHANNEL IN STREAM ADJUST CHANNEL WHERE POSSIBLE TO SAVE ANY TREES 8" DBH OR GREATER.

THESE PLANS FOR CONSTRUCTION OF EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

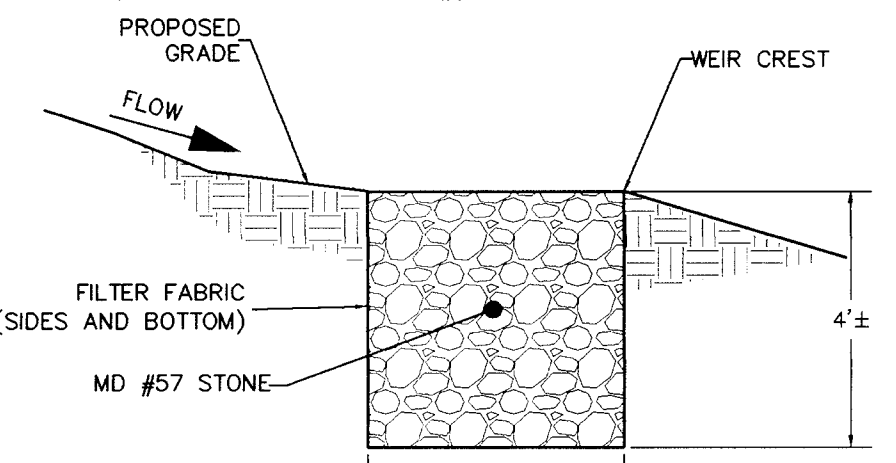
HOWARD CONSERVATION DISTRICT

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 DATE: 6/22/06

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 DATE: 6/20/06

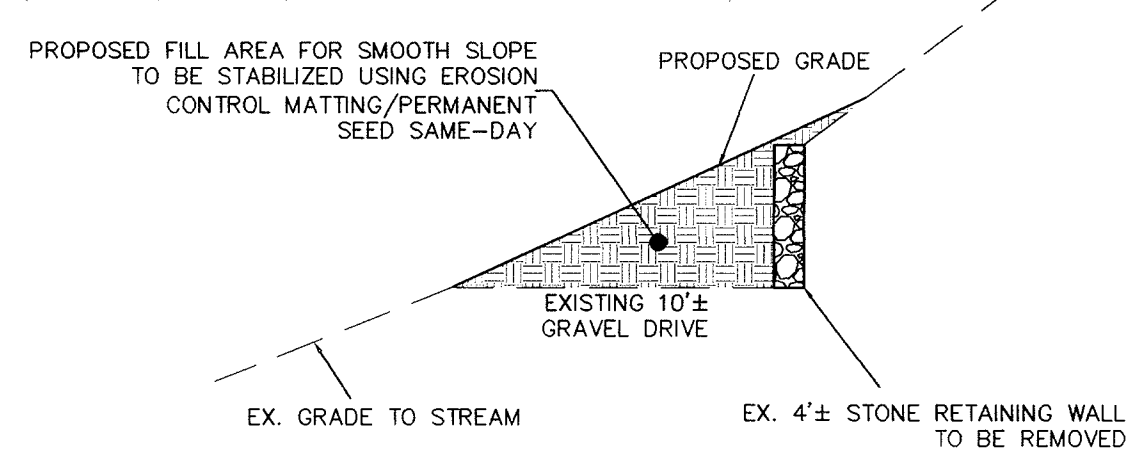
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE: 6/16/06

**SOILS CLASSIFICATION:**  
 BrB2 BRANDYWINE LOAM 3-8 PERCENT SLOPES, MODERATELY ERODED (C)  
 BrD3 BRANDYWINE LOAM 15-25 PERCENT SLOPES, SEVERELY ERODED (C)  
 W&A WATCHUNG SILT LOAM, 0-3 PERCENT SLOPES (D)  
 M&F BRANDYWINE LOAM 25-60 PERCENT SLOPES (C)



**LEVEL SPREADER DETAIL**

**NOTES:**  
 THE TOP OF THE STONE ELEVATION FOR EACH DEVICE SHALL BE LEVEL FOR ITS ENTIRE LENGTH.  
 THE LOW SIDE OF THE DEVICE SHALL TYPICALLY BE INSTALLED AT THE LIMITS OF THE LOD.  
 IF THE DRAINAGE AREA ABOVE THE SPREADER IS NOT STABILIZED AND WITH THE PERMISSION OF THE INSPECTOR, FILTER FABRIC MAY BE EXTENDED FROM THE IN FLOW SIDE AND LAID OVER THE TOP OF THE DEVICE UNTIL THE DRAINAGE AREA IS STABILIZED.



**TYPICAL DRIVEWAY SECTION**

**OWNERS**  
 MID-ATLANTIC LAND SERVICES, INC.  
 5300 DORSEY HALL DRIVE  
 ELLICOTT CITY, MD 21042

STONE MANOR III, LLC  
 5300 DORSEY HALL DR  
 ELLICOTT CITY, MD 21042

project	03-028	date	APR 2006
illustration	DJF	engineering	DJF
scale	1"=60'	approval	

description	revision	date

**STONE MANOR SECTION 3**  
 LOTS 1-15 & OPEN SPACE LOTS 16-18  
 TAX MAP 25, GRID 19, PARCELS 68 & 69  
 HOWARD COUNTY, MARYLAND  
 SECOND ELECTION DISTRICT

**GRADING, EROSION AND SEDIMENT CONTROL PLAN**

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland, 21042  
 (410) 987-0296 Fax: (301) 621-5521 Wash. (410) 987-0298 Fax



HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LEGGED VEGETATIVE COVER IS NEEDED.

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

STANDARD SEDIMENT CONTROL NOTES

- 1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF NAT CONSTRUCTION (313-1855).

THESE QUANTITIES ARE FOR PERMIT PURPOSES ONLY. CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN QUANTITY MEASUREMENTS.

TEMPORARY DUST CONTROL MEASURES

- 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.

BY THE DEVELOPER: I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF COMPLIANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

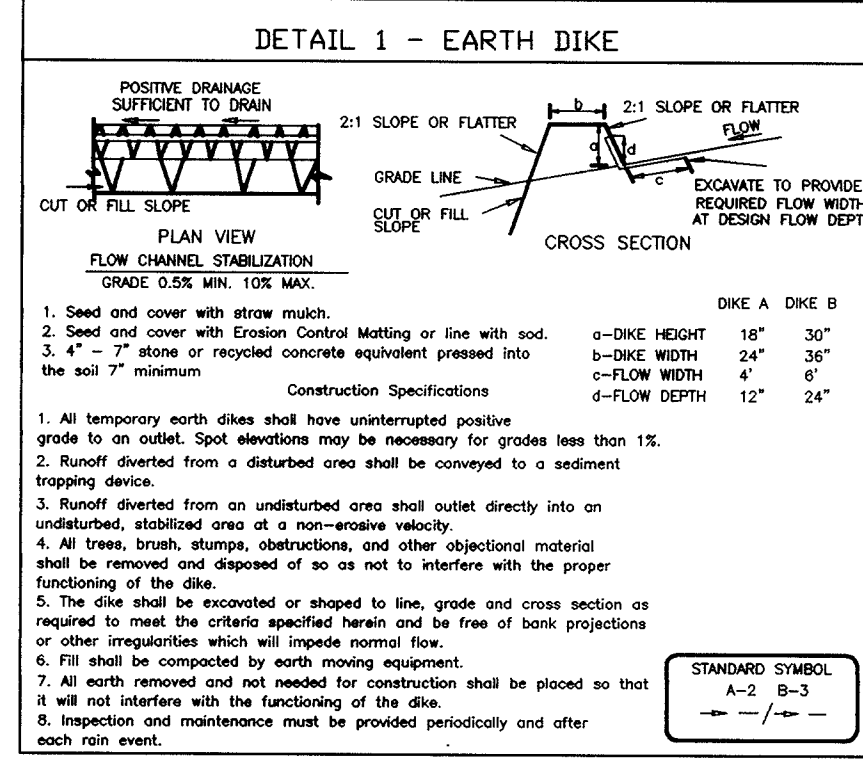
Signature and stamp area for the developer, including dates and official titles like 'DEVELOPER' and 'REGISTERED PROFESSIONAL ENGINEER'.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBGRADE PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION. PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

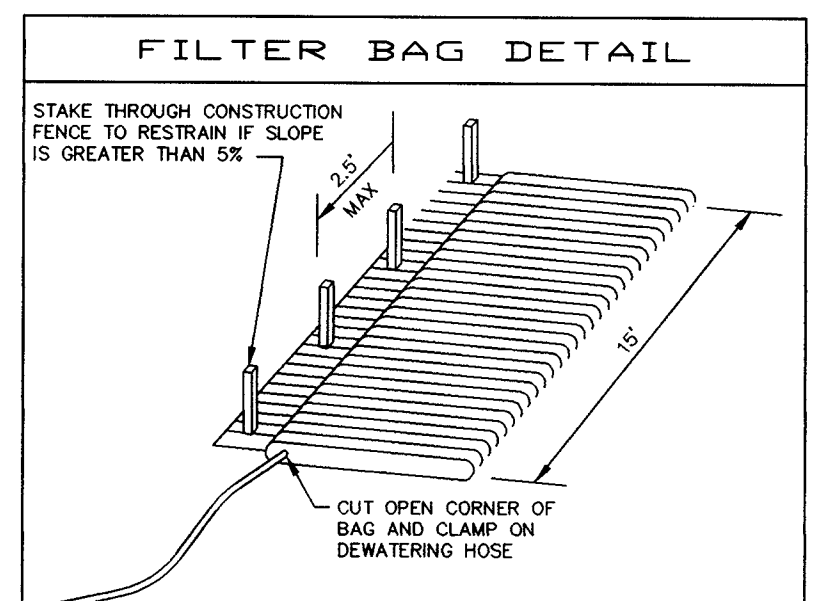
CONDITIONS WHERE PRACTICE APPLIES: THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE: a. THE TEXTURE OF THE EXPOSED SUBGRADE/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.

CONSTRUCTION AND MATERIAL SPECIFICATIONS: TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL THAT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-NRCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.

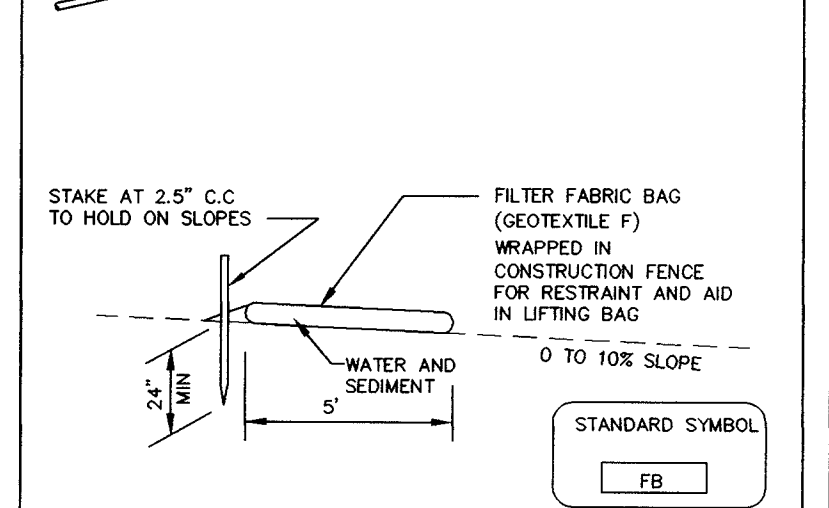


OWNERS: MID-ATLANTIC LAND SERVICES, INC. 5300 DORSEY HALL DRIVE ELLICOTT CITY, MD 21042. STONE MANOR III, LLC 5300 DORSEY HALL DR ELLICOTT CITY, MD 21042.

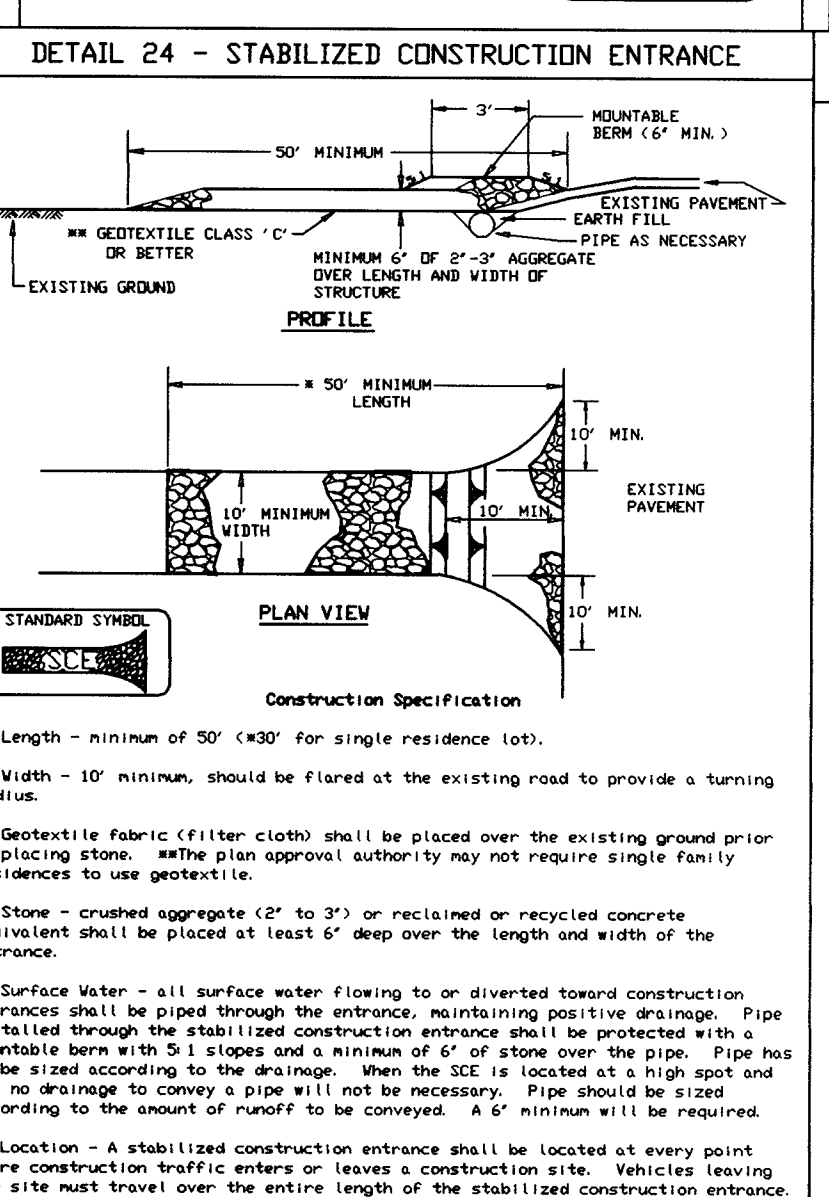
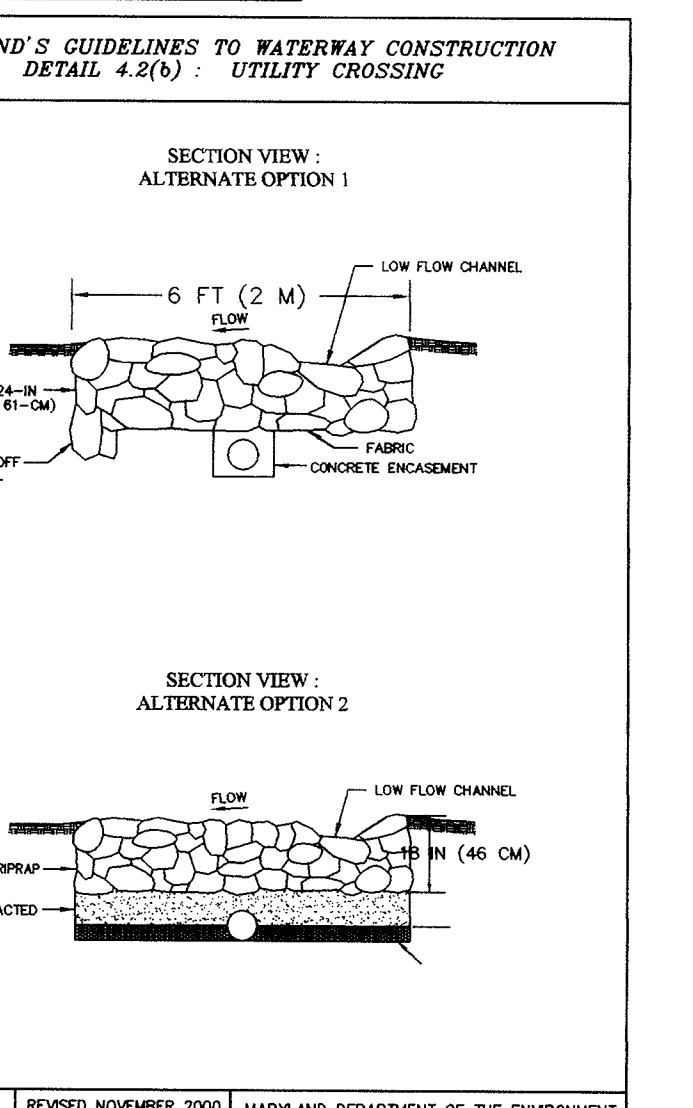
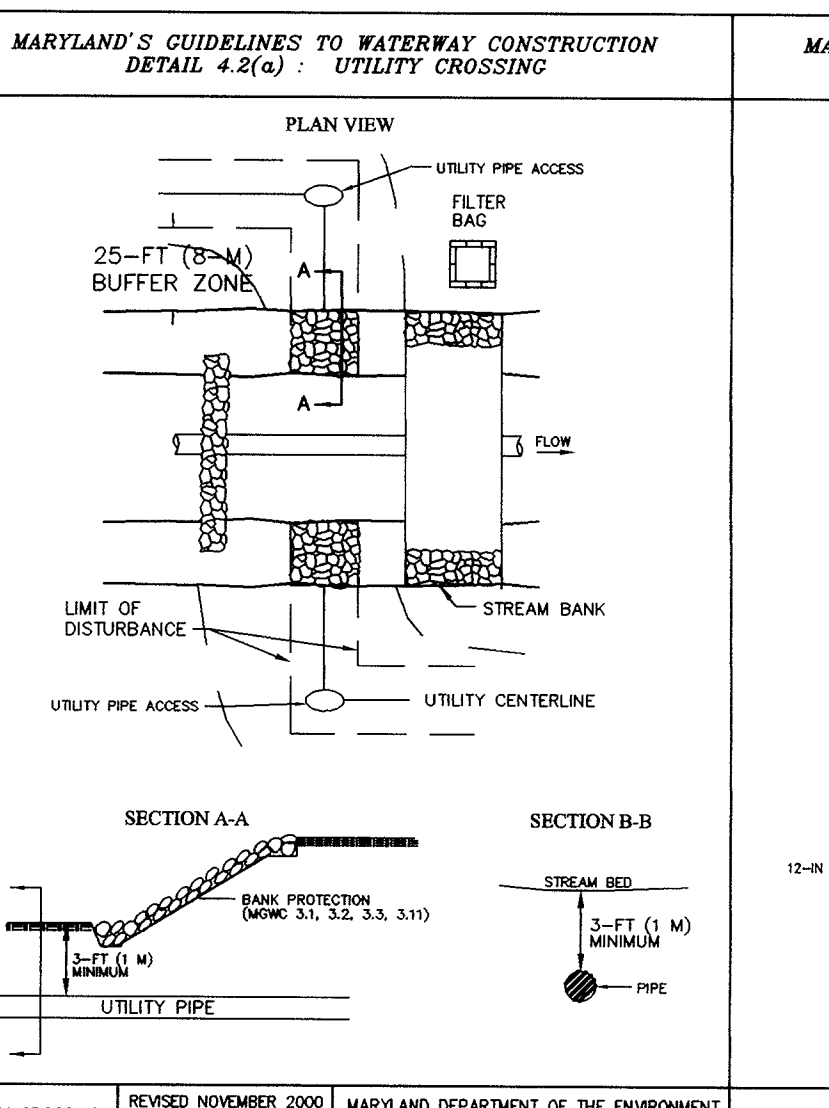
MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION DETAIL 4.2: UTILITY CROSSING. Includes a table with columns for 'date', 'project', 'description', 'DIF', 'DIF', 'approval', and 'date'. It also contains descriptive text about erosion control devices and stream diversions.



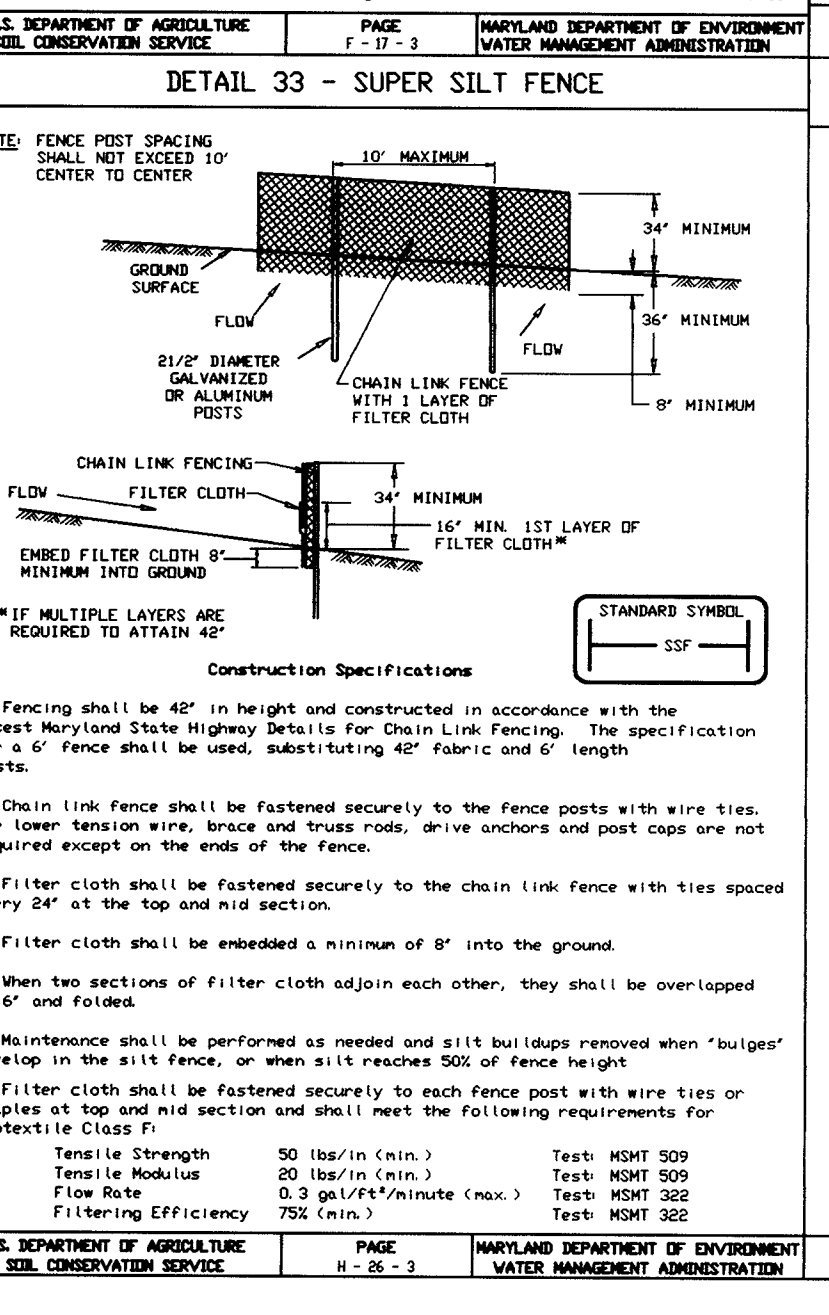
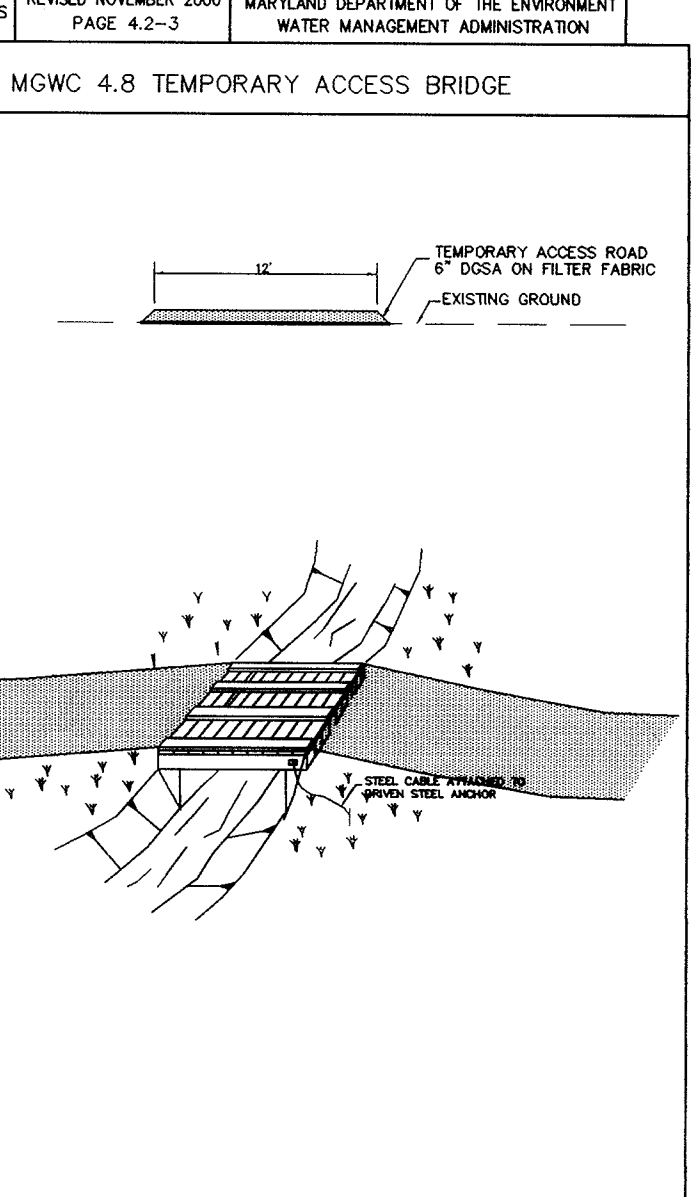
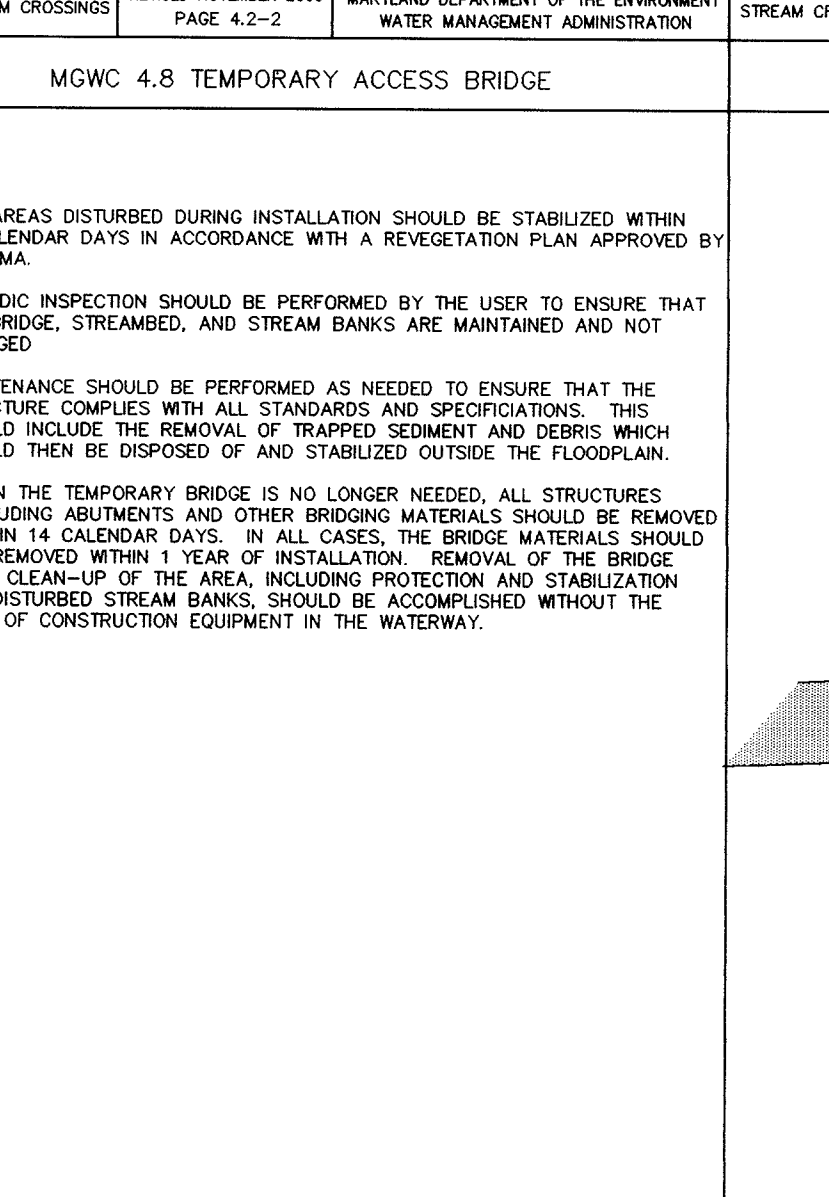
DETAIL 1 - EARTH DIKE: 1. Seed and cover with Erosion Control Matting or fine soil seed. 2. 3\"/>



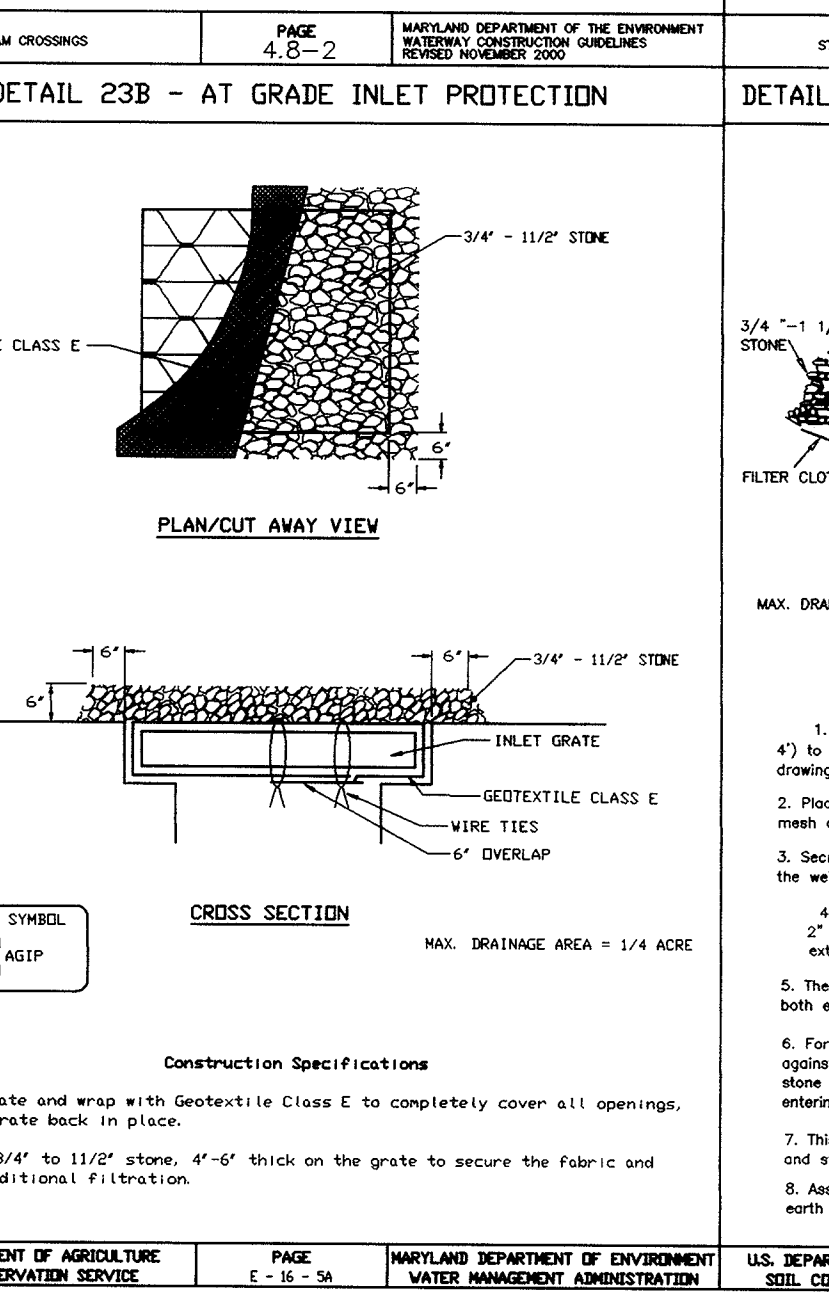
DETAIL 1 - EARTH DIKE: 1. All temporary earth dikes shall have unwaterlogged positive grade to an outlet. Spot dewatering may be necessary for grades less than 1%.



MGWC 4.8 TEMPORARY ACCESS BRIDGE: DESCRIPTION: A TEMPORARY ACCESS BRIDGE IS A STREAM CROSSING MADE OF WOOD, METAL, OR OTHER MATERIALS DESIGNED TO LIMIT THE AMOUNT OF DISTURBANCE TO THE STREAM BANKS AND BED.



DETAIL 23B - AT GRADE INLET PROTECTION: 1. All areas disturbed during installation should be stabilized within 14 calendar days in accordance with a revegetation plan approved by the WMA.

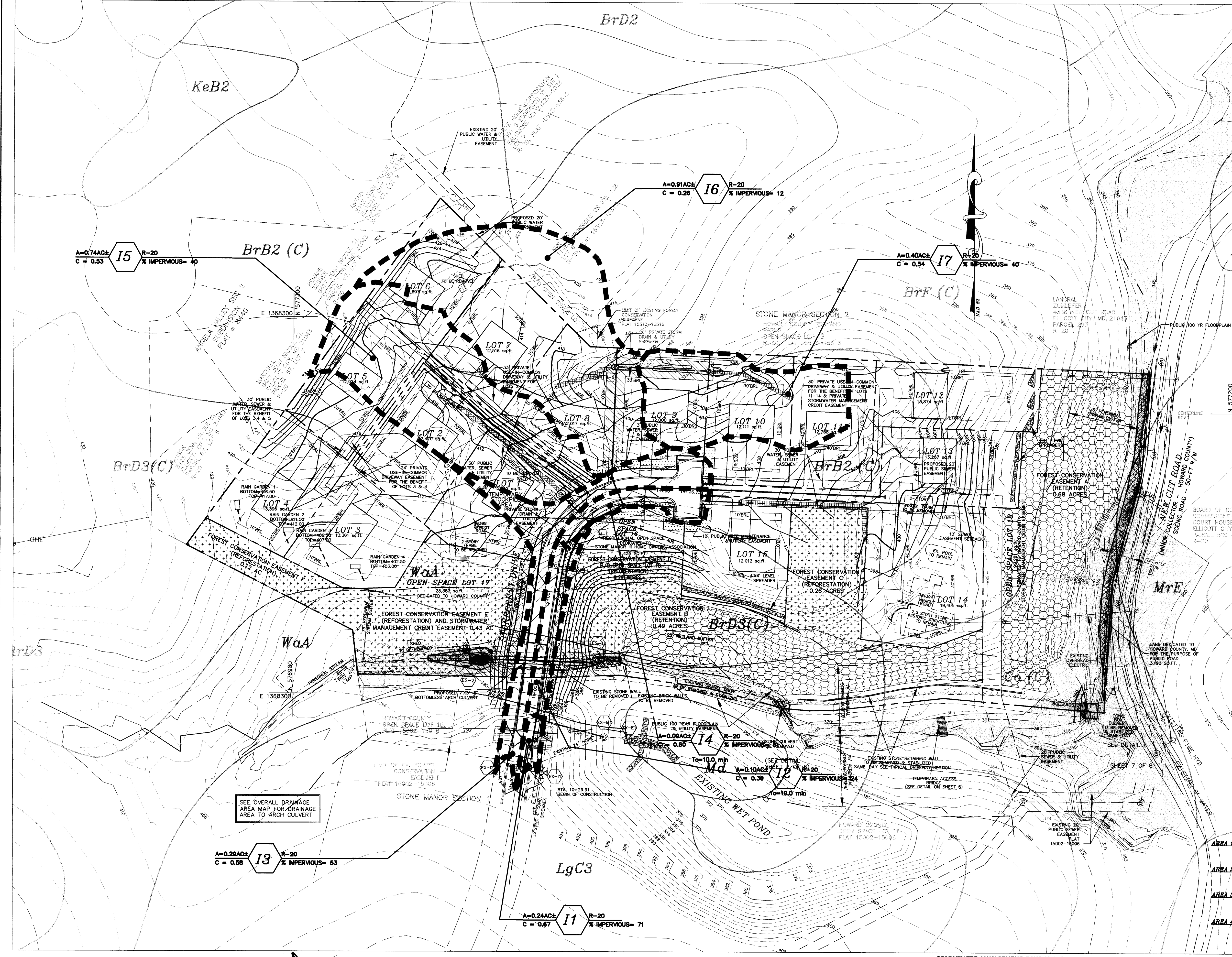


DETAIL 23C - CURB INLET PROTECTION (CGD OR CDS INLETS): 1. A continuous piece of wire mesh 120\"/>

STONE MANOR SECTION 3 LOTS 1-15 & OPEN SPACE LOTS 16-18. TAX MAP 25, GRID 19, PARCELS 68 & 69. SECOND ELECTION DISTRICT. SEDIMENT CONTROL NOTES AND DETAILS. MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0246 Fax: (410) 997-0248 Fax.

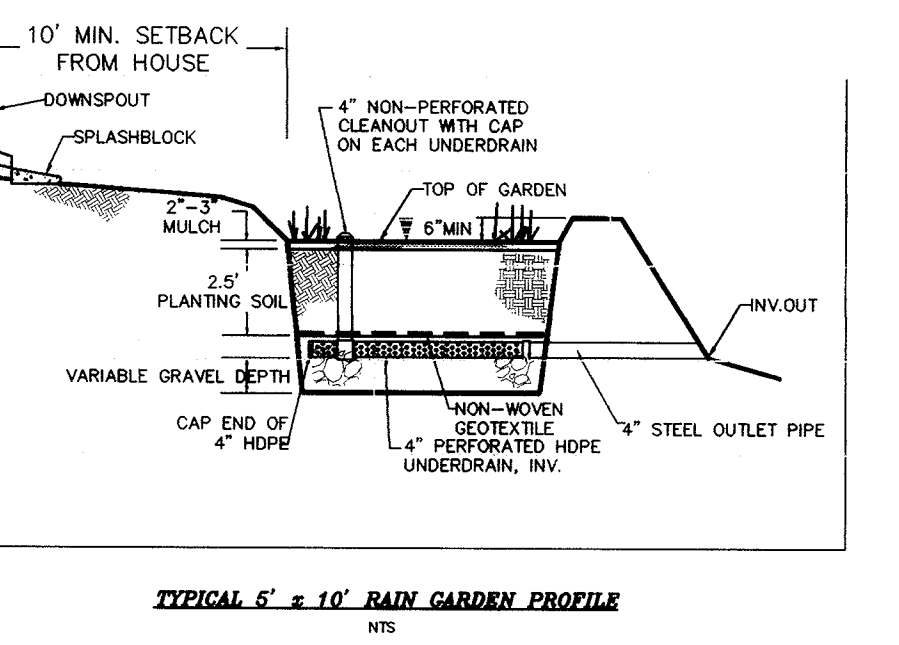
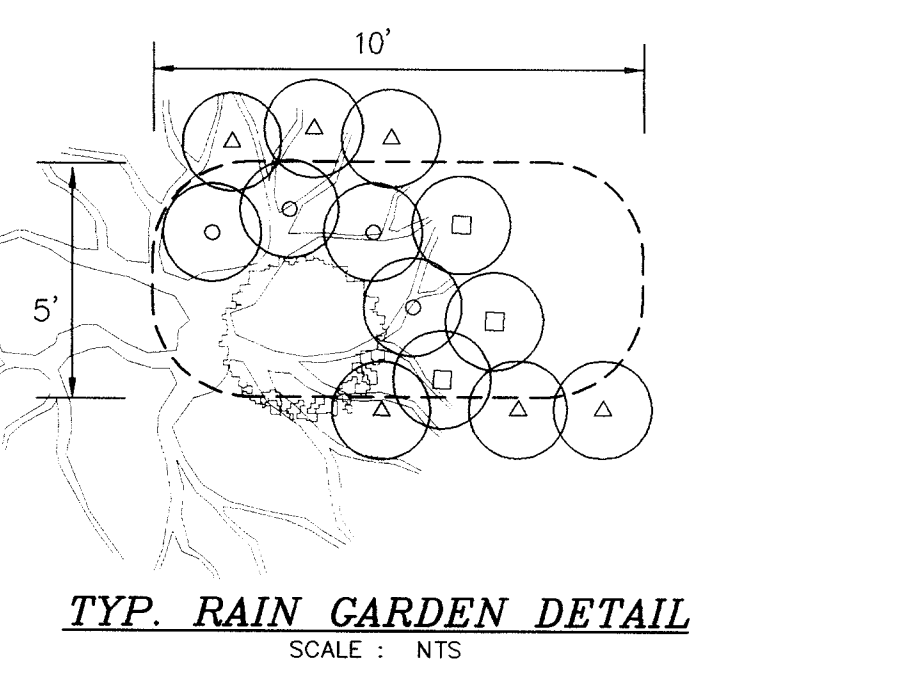


H:\03-028\dwg\FINAL RD-CONSTRUCTION.dwg



**LEGEND**

- DENOTES WETLANDS
- 100 YR FLOODPLAIN EASEMENT
- FOREST CONSERVATION EASEMENT (RETENTION)
- FOREST CONSERVATION EASEMENT (REFORESTATION)
- PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT
- 25% SLOPES OR GREATER
- PUBLIC TREE MAINTENANCE EASEMENT
- AREA OF ROAD DEDICATION
- DENOTES AREA OF 15%-24.99% SLOPES
- DENOTES 4' CONCRETE SIDEWALK
- PRIVATE DRAINAGE & UTILITY EASEMENT
- PUBLIC SEWER, WATER, DRAINAGE & UTILITY EASEMENT
- EXISTING PAVEMENT & CURB AND GUTTER TO BE REMOVED
- DENOTES PROPOSED PAVED AREAS



**PLANT LIST**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
1		PLATANUS OCCIDENTALIS	AMERICAN STYCAMORE	2-1/2" - 3" CAL.
1		ILEX GLABRA	HICK BERRY	2' - 3" HT.
6		LOBELIA SIPHILITICA	GREAT BLUE LOBELIA	1 GAL. CONTAINER
4		ONOCLEA SENSIBILIS	SENSITIVE FERN	1 GAL. CONTAINER
3		ASTER NOVAE-ANGLIAE	NEW ENGLAND ASTER	1 GAL. CONTAINER

TOTAL: 13 PERENNIALS, 1 SHRUB, 1 TREE (PER EACH RAIN GARDEN)

**STORMWATER MANAGEMENT SUMMARY**

WQv (3,920 cft) IS PROVIDED FOR IN THE EXISTING WET POND. Cpv, 2 AND 10-YEAR MANAGEMENT IS PROVIDED FOR WITHIN THE EXISTING POND.

WQv AND Rev IS PROVIDED BY GRASS CHANNEL CREDIT AND SHEET FLOW TO BUFFER. Cpv IS NOT REQUIRED DUE TO THE FLOW BEING LESS THAN 2 cfs.

WQv AND Rev IS PROVIDED BY SHEET FLOW TO BUFFER CREDIT. Cpv IS NOT REQUIRED DUE TO FLOW LESS THAN 2 cfs.

WQv AND Rev IS TREATED BY ROOFTOP DISCONNECTIONS (RAIN GARDENS). Cpv IS NOT REQUIRED DUE TO THE FLOW BEING LESS THAN 2 cfs.

**OPERATION AND MAINTENANCE SCHEDULE FOR RAIN GARDENS**

**SOILS CLASSIFICATION:**

BrB2 BRANDYWINE LOAM 3-8 PERCENT SLOPES, MODERATELY ERODED (C).  
 BrD3 BRANDYWINE LOAM 15-25 PERCENT SLOPES, SEVERELY ERODED (D).  
 Wga WATCHUNG SILT LOAM, 0-3 PERCENT SLOPES (D).  
 BrF BRANDYWINE LOAM 25-60 PERCENT SLOPES (C).

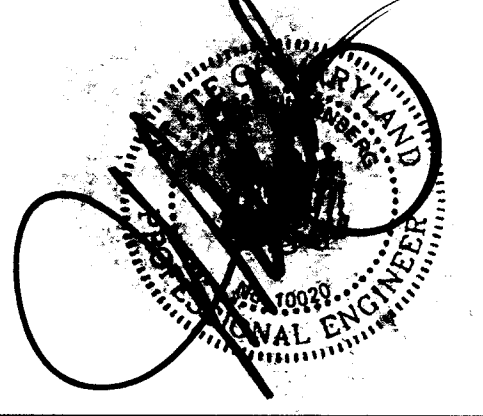
**STORMWATER MANAGEMENT POND MAINTENANCE SCHEDULE PUBLIC FACILITY**

- PUBLIC ROUTINE MAINTENANCE**
- FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.
  - TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOVED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND, AND MAINTENANCE ACCESS SHOULD BE MOVED AS NEEDED.
  - GRASS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
  - VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIP-ROCK OUTLET AREA SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
- PUBLIC NON-ROUTINE MAINTENANCE**
- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, RIP-ROCK STRUCTURE AND THE PILES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING MAINTENANCE OPERATIONS.
  - SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RESER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY HOWARD COUNTY'S DEPARTMENT OF PUBLIC WORKS.

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 Chief Bureau of Highways  
 6-26-09  
 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development  
 6/29/09  
 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 6/29/09  
 DATE



**OWNERS**  
 MID-ATLANTIC LAND SERVICES, INC.  
 5300 DORSEY HALL DRIVE  
 ELLICOTT CITY, MD 21042

STONE MANOR III, LLC  
 5300 DORSEY HALL DR  
 ELLICOTT CITY, MD 21042

date	APR 2006	approval
Project	09-028	DF
illustration	DF	scale
DF	1"=50'	

date		approval
description		
revisions		

**STONE MANOR SECTION 3**  
 LOTS 1-15 & OPEN SPACE LOTS 16-18  
 TAX MAP 25, GRID 19, PARCELS 68 & 69  
 HOWARD COUNTY, MARYLAND

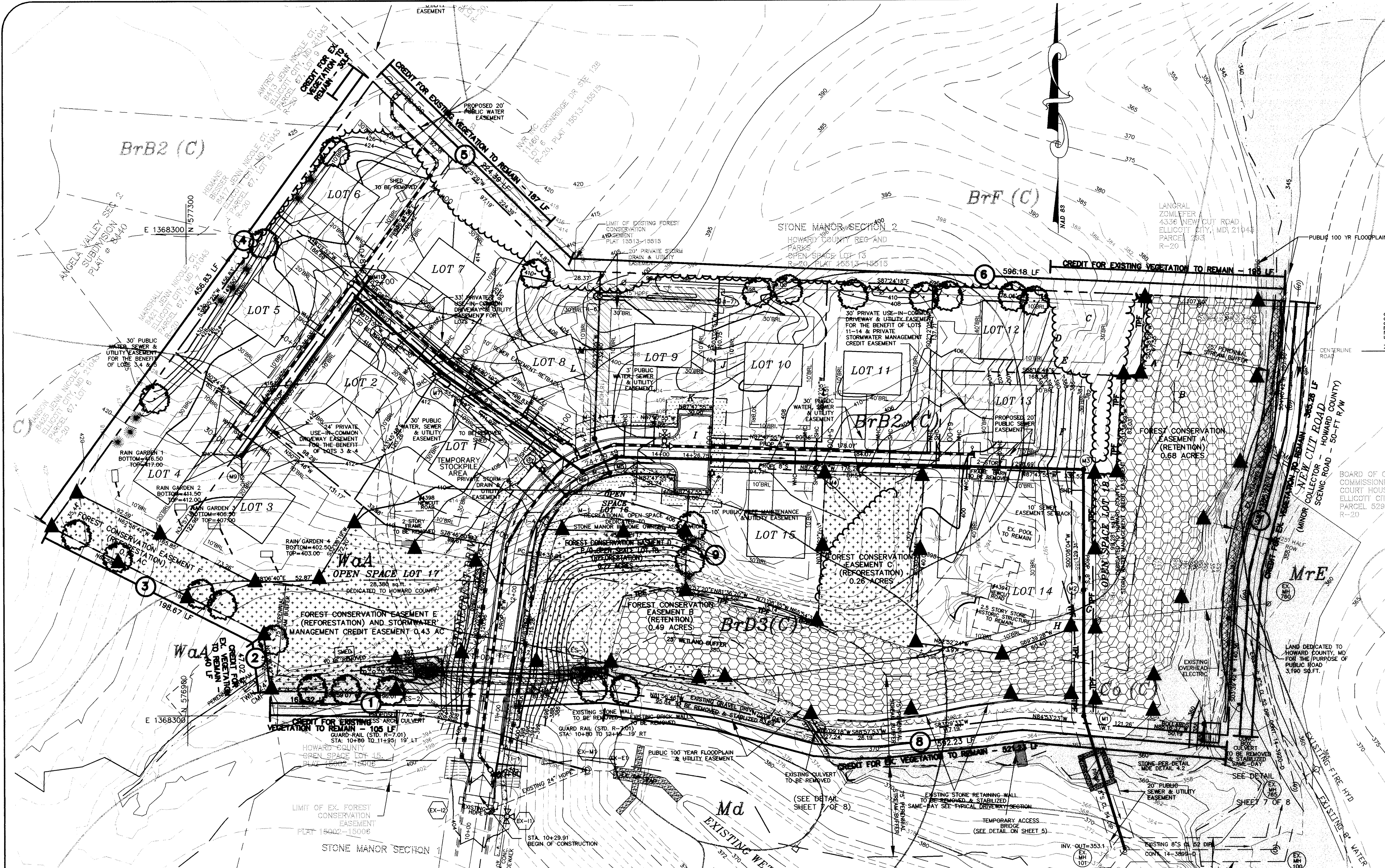
SECOND ELECTION DISTRICT  
 INLET DRAINAGE AREA MAP

**MILDENBERG, & ASSOC., INC.**  
 Engineers Planners Surveyors  
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.









**NOTES**

- THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION EASEMENT(S) HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF HOWARD COUNTY CODE AND FOREST CONSERVATION ACT. NO CLEARING, GRADING, OR CONSTRUCTION PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT EXCEPT AS SHOWN ON AN APPROVED ROAD CONSTRUCTION DRAWING OR SITE DEVELOPMENT PLAN. HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.
- FOREST CONSERVATION OBLIGATIONS IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD COUNTY CODE AND FOREST CONSERVATION ACT FOR THIS SUBDIVISION HAVE BEEN FULFILLED BY REFORESTATION OF 1.17 ACRES, REFORESTATION OF 1.03 ACRES, AND A FEE-IN-LIEU OF 0.36 ACRES (7,841.08 SQ. FT.) OF REFORESTATION (A TOTAL OF 2.56 AC) IN THE AMOUNT OF \$7,841.08. FINANCIAL SURETY FOR THE ON-SITE RETENTION OF 1.17 ACRES (50,985.2 SQ. FT.) IN THE AMOUNT OF \$10,193.04 AND REFORESTATION OF 1.03 ACRES (45,226.44 SQ. FT.) IN THE AMOUNT OF \$22,433.40 HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE TOTAL AMOUNT OF \$32,626.44.
- AT THE TIME OF PLANT INSTALLATION, ALL TREES LISTED AND APPROVED ON THE LANDSCAPE PLAN, SHALL COMPLY WITH THE PROPER HEIGHT REQUIREMENT IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATIONS OF THE REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATIONS FROM THE APPROVED LANDSCAPE PLAN MAY RESULT IN DENIAL OR DELAY IN THE RELEASE OF THE LANDSCAPE SURVEY UNTIL SUCH TIME AS ALL REQUIRED MATERIALS ARE PLANTED AND/OR REVISIONS ARE MADE TO THE ROAD DRAWING PLANS.
- THE OWNER, TENANTS AND/OR THEIR AGENTS SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE REQUIRED PERIMETER LANDSCAPING. ALL PLANT MATERIALS SHALL BE MAINTAINED IN GOOD GROWING CONDITION AND WHEN NECESSARY, REPLACED WITH NEW MATERIALS TO ENSURE CONTINUED COMPLIANCE WITH APPLICABLE REGULATIONS. ALL OTHER REQUIRED LANDSCAPING SHALL BE PERMANENTLY MAINTAINED IN GOOD CONDITION, AND WHEN NECESSARY, REPAIRED OR REPLACED.

**PLANTING SPECIFICATIONS AND NOTES**

**SITE PREPARATION AND SOILS**

- FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. THE FENCING SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY PRIOR TO ANY LAND CLEARING, GRADING, OR ROADING. THE FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
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- ATTACHMENT OF ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN PROTECTED AREAS. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM MOISTURE, FLOODING, EXCESSIVE EXCAVATING OPERATIONS, OFF-SITE RUN-OFF, SPRAY AND DRIPPING OF MATERIALS THAT MAY BE HARMFUL TO TREES.
- THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORAGE OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS. REMOVAL OF TOPSOIL OR ROOTS MAY WITHIN THE FOREST CONSERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE LIMITED TO THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVE AREAS, AS NECESSARY.

**PLANT STORAGE AND INSPECTION**

- FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE.
- FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 30 DAYS AFTER DELIVERY TO THE SITE.
- PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE SHOULD BE REPLACED.
- PLANTING ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

**PRE-CONSTRUCTION MEETING**

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE:
  - TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION AREAS, SPECIFIC TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STORAGE AREAS, AND TO DISCUSS PROTECTION DEVICES.
  - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES.
  - MAKE ALL NECESSARY ADJUSTMENTS.
  - ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS PENALTIES.

**CONSTRUCTION MONITORING**

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS. INDIVIDUAL TREES THAT MAY BE DAMAGED BY CONSTRUCTION ACTIVITIES, SUCH AS SOIL COMPACTION, ROOT INJURY, TRUNK WOUNDS, OR REMOVAL OF TOPSOIL OR ROOTS, SHALL BE IDENTIFIED AND DOCUMENTED. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REPAIRED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE CONSULTATION WITH A PROFESSIONAL ARBORIST.
- THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.
- REMOVAL OF DAMAGED TREES (DEAD, DISEASED, OR THOSE SUBJECT TO WIND THROW) WILL BE ALLOWED ALONG THE EDGE OF THE FOREST RETENTION EASEMENT AREA. THIS SHALL BE WITHIN OTHER TREE SAVE AREAS.

**MAINTENANCE SCHEDULE**

- ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A THREE YEAR PERIOD.
- ASSESS TREE MORTALITY OF PLANTING STOCK, REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.
- VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION IS TO BE EXPECTED. DO NOT DISCOURAGE THIS EFFORT UNLESS IT IS NEGATIVELY EFFECTING THE PLANTED STOCK.
- REMOVE THROUGH MANUAL MEANS (GRUBBING, PULLING, CUTTING) AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN 2-FEET RADIUS SURROUNDING THE PLANTED WOODY NURSERY STOCK.
- REMOVE AND DISPOSE OF MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN ENTIRE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL, NATURALLY OCCURRING OR ACCUMULATING, UNLESS IT IS SMOTHERING PLANTING STOCK.
- A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS MAY BE REQUIRED TO ACHIEVE THIS GOAL.

**REFORESTATION PLANT LIST (FCE C, D, & F)**

QTY. SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & SPACING	REMARKS
50 Acer rubrum	VT	D-W	FAC	15'	CONT/B & B	1" CALIPER
14 Corya glabra	I	D-M	FAC	15'	CONT/B & B	1" CALIPER
20 Lindera benzoin	T	M	FACW-	15'	CONT/B & B	3'-5" HEIGHT
18 Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B	1" CALIPER
24 Quercus alba	I	D-M	FACU	15'	CONT/B & B	1" CALIPER
14 Prunus serotina	I	M	FACU	15'	CONT/B & B	3'-5" HEIGHT
14 Prunus serotina	I	M	FACU	15'	CONT/B & B	3'-5" HEIGHT

**REFORESTATION PLANT LIST (FCE E)**

QTY. SPECIES	SHADE	MOIST.	WET.	MIN.O.C.	SIZE & SPACING	REMARKS
11 Acer negundo	T	M-W	FACU	15'	CONT/B & B	3'-5" HEIGHT
28 Acer rubrum	VT	D-W	FAC	15'	CONT/B & B	1" CALIPER
11 Liriodendron tulipifera	MT	D-M	FAC	15'	CONT/B & B	1" CALIPER
11 Nyssa sylvatica	T	M-W	FAC	15'	CONT/B & B	1" CALIPER
13 Platanus occidentalis	MT	M-W	FACW-	15'	CONT/B & B	1" CALIPER
11 Salix nigra	VI	M-W	FACW+	15'	CONT/B & B	1" CALIPER
10 Viburnum dentatum	T	M	FACW-	15'	CONT/B & B	3'-5" HEIGHT

NOTE: THIS PLAN IS TO BE USED FOR LANDSCAPE AND FOREST CONSERVATION PURPOSES ONLY.

**STREET TREE CALCULATIONS**

STONE CREST DRIVE - 860 LF / 40 = 22 TREES

TOTAL TREES REQUIRED = 22 TREES

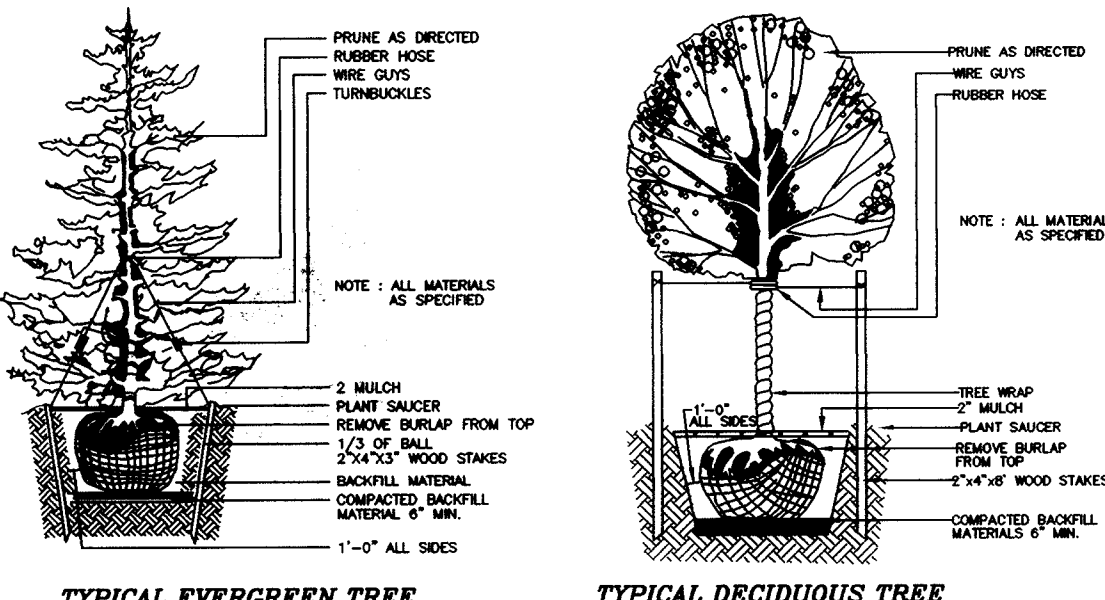
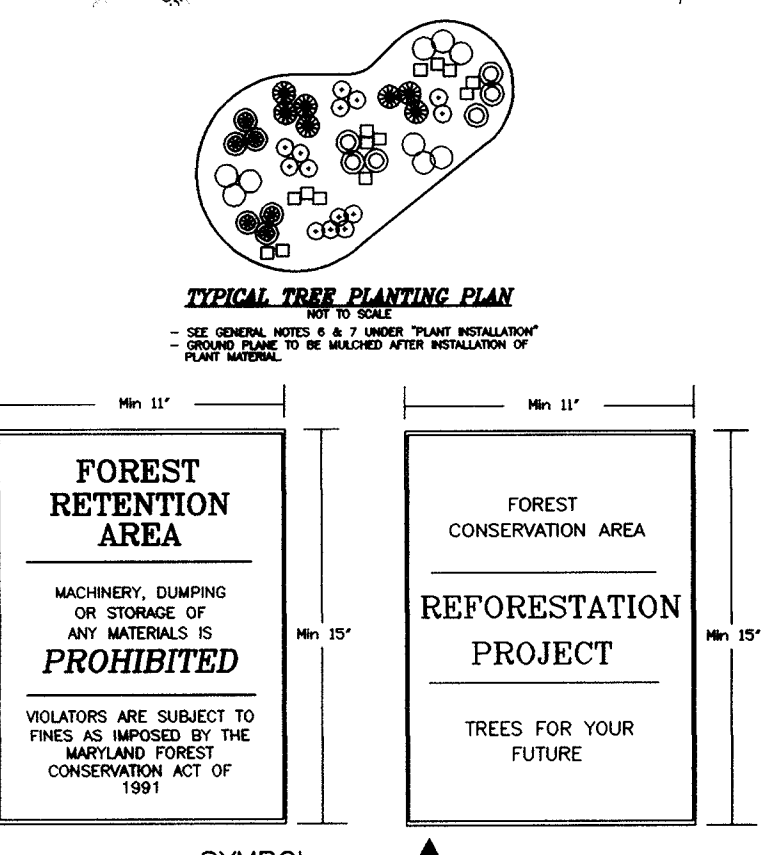
TOTAL TREES PROVIDED = 22 TREES

**STREET TREE PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
22	(Symbol)	ACER RUBRUM 'RED SUNSET'	RED SUNSET RED MAPLE	2 1/2" - 3" CAL.
TOTAL				22 STREET TREES

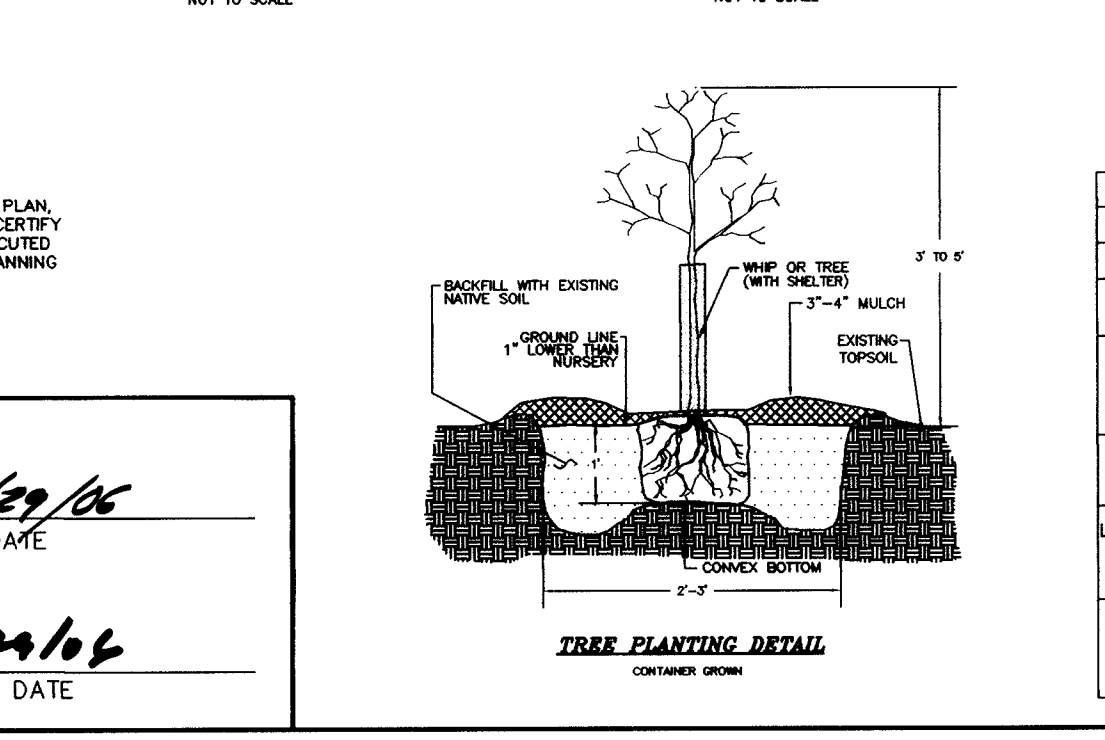
**PERIMETER PLANTING SCHEDULE**

QUANTITY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE
23	(Symbol)	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN SUGAR MAPLE	2 1/2" - 3" CAL.
10	(Symbol)	PINUS STROBUS	EASTERN WHITE PINE	6" - 8" HT
TOTAL				33 TREES (23 SHADE TREES, 10 EVERGREENS)



MD DNR QUALIFIED PROFESSIONAL  
 M. J. ... 6/13/06  
 I CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPING MANUAL. I FURTHER CERTIFY THAT UPON COMPLETION A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED STATE GUARANTEE OF PLANT MATERIALS WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 Chief, Division of Land Development  
 6/29/06



**SCHEDULE A: PERIMETER LANDSCAPED EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES	ADJACENT TO ROADWAYS	ADJACENT TO PER. PROPERTIES	ADJACENT TO ROADWAYS	TOTAL					
LANDSCAPE TYPE	A (PERIMETER 1)	A (PERIMETER 2)	A (PERIMETER 3)	A (PERIMETER 4)	A (PERIMETER 5)	A (PERIMETER 6)	B (PERIMETER 7)	B (PERIMETER 8)	B (PERIMETER 9)	
LINEAR FEET OF PERIMETER	165.32 LF (60.32 LF)	47.02 LF	198.67 LF	456.83 LF (426.83 LF)	224.39 LF	596.18 LF (401.18 LF)	365.26 LF	592.23 LF (521.13 LF)	78.63 LF	
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET)	YES, 105 LF OF EX. TREES TO REMAIN	YES, 47 LF OF EX. TREES TO REMAIN	N/A	YES, 105 LF OF EX. TREES TO REMAIN	YES, 187 LF OF EX. TREES TO REMAIN	YES, 195 LF OF EX. TREES TO REMAIN	YES, 71 LF OF EX. TREES TO REMAIN	YES, 71 LF OF EX. TREES TO REMAIN	N/A	
NUMBER OF PLANTS REQUIRED	1 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	4 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 2 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 2 SHRUBS	25 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS
CREDIT FOR EXISTING VEGETATION	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LAND USE - ADJACENT LAND USE	TYPE A 1:60 LF NONE	TYPE A 1:60 LF NONE	TYPE A 1:60 LF NONE	TYPE A 1:60 LF NONE	TYPE A 1:60 LF NONE	TYPE A 1:60 LF NONE	TYPE B 1:40 LF NONE	TYPE A 1:60 LF NONE	TYPE B 1:50 LF NONE	
NUMBER OF PLANTS PROVIDED	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	4 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	3 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	1 SHADE TREE 0 EVERGREEN TREES 0 SHRUBS	7 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	0 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS	2 SHADE TREES 0 EVERGREEN TREES 2 SHRUBS	2 SHADE TREES 2 EVERGREEN TREES 0 SHRUBS	23 SHADE TREES 10 EVERGREEN TREES 0 SHRUBS

**SPECIMEN TREES**

KEY	SPECIES
A	30" YELLOW POPLAR TO REMAIN
B	34" AMERICAN BEECH TO REMAIN
C	31" TULIP POPLAR TO REMAIN
D	36" TULIP POPLAR TO REMAIN
E	31" TULIP POPLAR TO REMAIN
F	42" TULIP POPLAR TO BE REMOVED
G	44" WHITE OAK TO REMAIN
H	42" AMERICAN BEECH TO REMAIN
I	35" TULIP POPLAR TO BE REMOVED
J	42" TULIP POPLAR TO BE REMOVED
K	34" TULIP POPLAR TO BE REMOVED
L	44" TULIP POPLAR TO BE REMOVED
M	36" TULIP POPLAR TO BE REMOVED

**FOREST CONSERVATION EASEMENTS**

ALTERNATIVE 1	ALTERNATIVE 2
FCE A 0.68 AC	RETENTION
FCE B 0.49 AC	RETENTION
FCE C 0.26 AC	52 TREES REQUIRED
FCE D 0.22 AC	46 TREES REQUIRED
FCE E 0.43 AC	86 TREES REQUIRED
FCE F 0.12 AC	24 TREES REQUIRED
TOTAL 2.20 AC	208 TREES REQUIRED

**OWNERS**

MID-ATLANTIC LAND SERVICES, INC.  
 5300 DORSEY HALL DRIVE  
 ELLICOTT CITY, MD 21042

STONE MANOR III, LLC  
 5300 DORSEY HALL DR  
 ELLICOTT CITY, MD 21042

**MILDENBERG, BOENDER & ASSOC., INC.**  
 Planners Surveyors  
 5072 Dorssey Hall Drive, Suite 202, Ellicott City, Maryland 21042  
 (410) 997-0296 Baltimore (301) 621-5521 Wash. (410) 997-0298 Fax.

**STONE MANOR SECTION 3**  
 LOTS 1-15 & OPEN SPACE LOTS 16-18  
 TAX MAP 25, GRID 19, PARCELS 68 & 69  
 HOWARD COUNTY, MARYLAND

**LANDSCAPE AND FOREST CONSERVATION PLAN**

SECOND ELECTION DISTRICT

Project: 09-028  
 Date: APR 2006  
 Illustration: engineering  
 DWF: approval  
 Scale: 1"=50'

8 OF 8  
 F-06-36