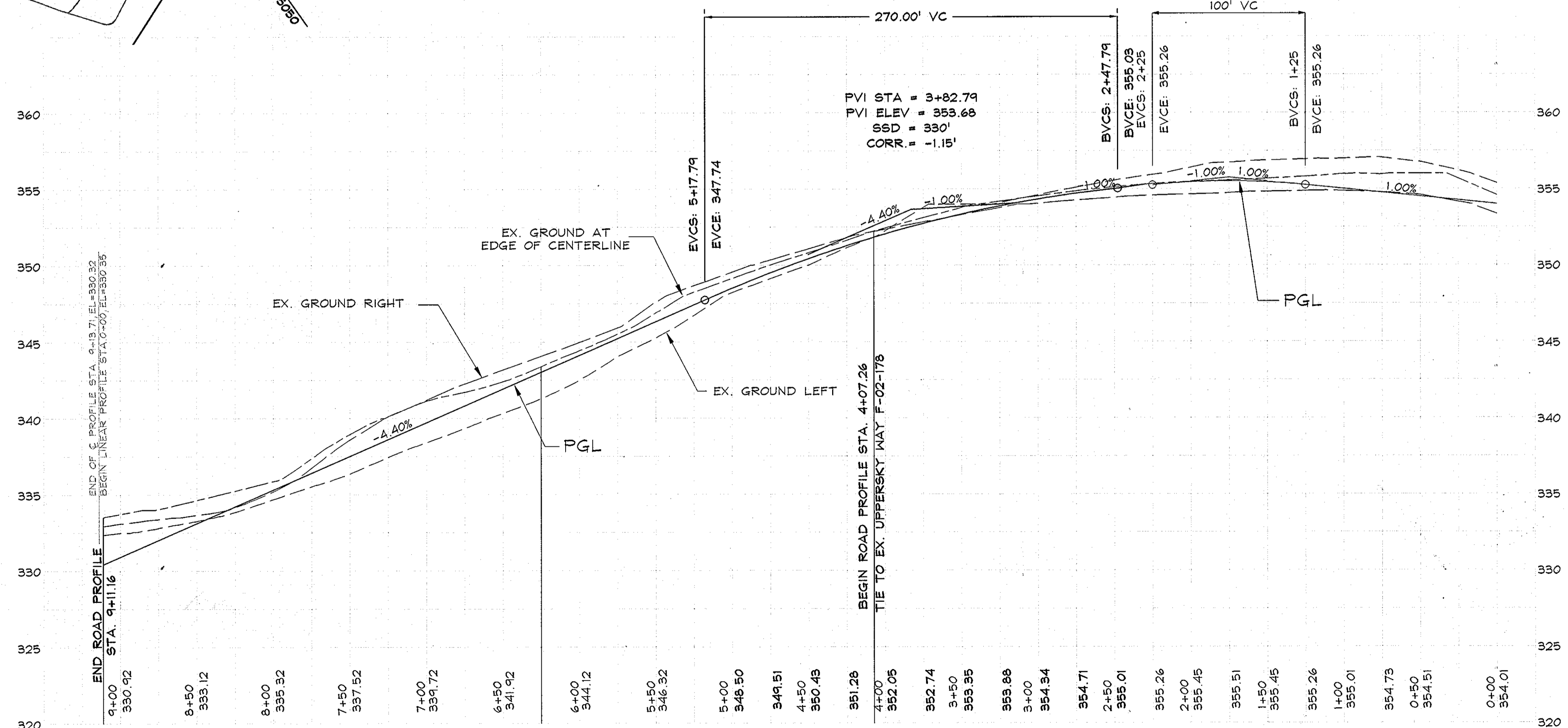


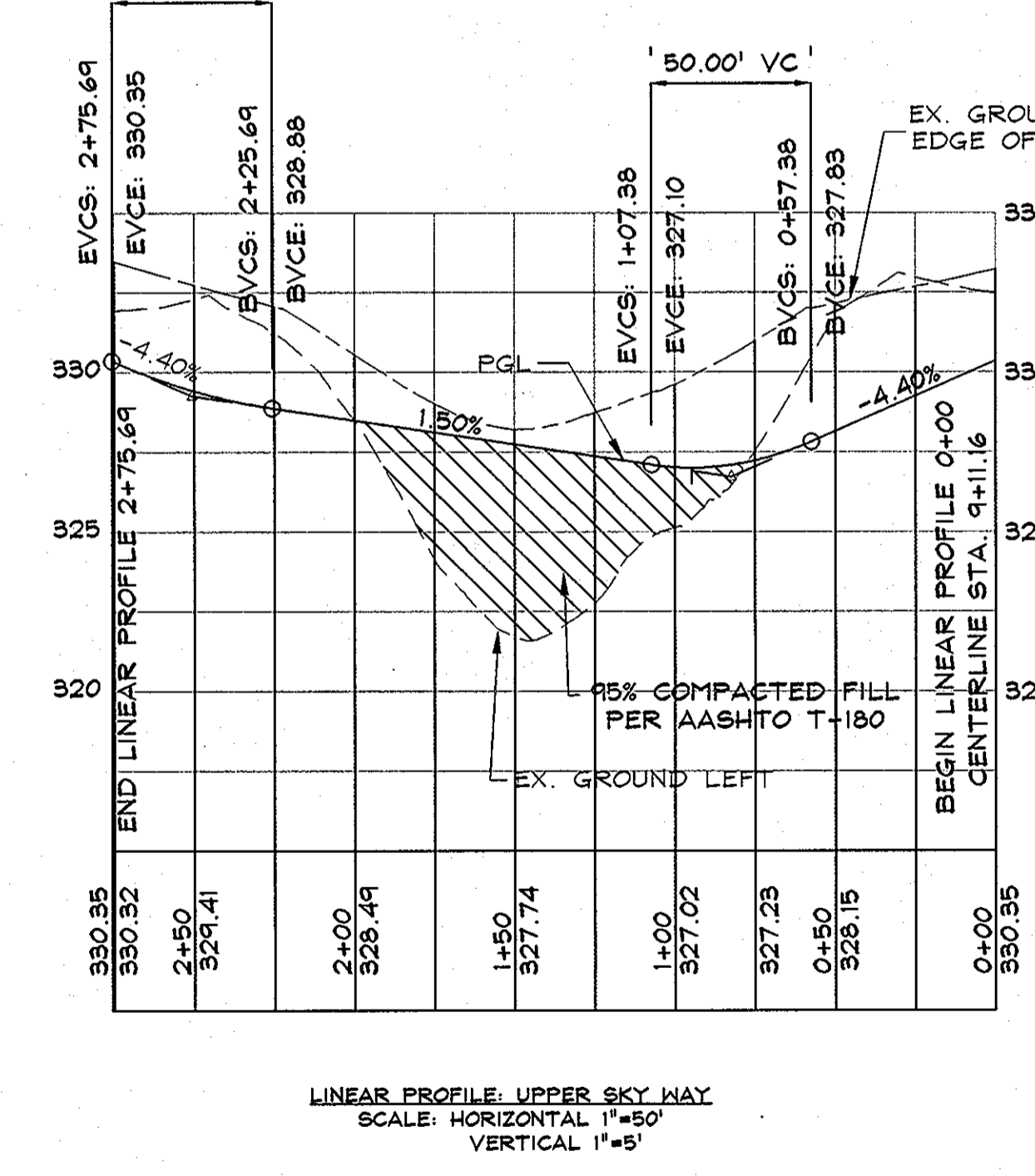
CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	DELTA	BEARING	CHORD
C 1	146.57	600.00	73.14	13°54'04"	N89°06'11"E	146.21
C 2	118.47	400.00	59.67	16°59'12"	S37°34'07"W	118.04

HIGH POINT ELEV = 355.51
HIGH POINT STA = 1+74.97
PVI STA = 1+75
PVI ELEV = 355.76
SSD=310'
CORR. = -0.25'



PVI STA = 2+50.69
PVI ELEV = 329.25
PVI STA = 0+94.67
LOW POINT ELEV = 327.00
LOW POINT STA = 0+94.67
PVI ELEV = 326.73



DRAWING LEGEND

- EXISTING MINOR CONTOUR (2' INTERVAL)
- EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROF. REINFORCED CURB & GUTTER
- PROF. REINFORCED CURB & GUTTER
- PROPOSED ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING EXPANSION
- PROPOSED SPOT ELEVATION & FLOW ARROW
- EXISTING TREES
- EXISTING TREE LINE
- EXISTING SHRUB/BURSH LINE
- PROPOSED STORM DRAIN 1/4"
- EXISTING FOREST CONSERVATION EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- PROPOSED STREET LIGHT, 150 WATT HIGH BAYER FIBERGLASS POLE

STREET LIGHT CHART

☼	150 WATT PREMIER	☉ STA. 0+90, 33', LT.
☼	150 WATT PREMIER	☉ STA. 3+10', 24', RT.
☼	150 WATT PREMIER	☉ STA. 5+45.23', LT.

STREET LIGHT CHART

☼	150 WATT PREMIER	☉ STA. 7+85, 23', RT.
☼	150 WATT PREMIER	LP A-1 ☉ STA. 1+55', 5', RT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
4-7-08
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
4/15/08
DATE

7/2/08
DATE

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. 25420, dated 7.20.08.

STATE OF MARYLAND
PROFESSIONAL ENGINEER

DeMario Design Consultants, Inc.

The Old Forge House
65 East Main Street, Suite 200
Westminster, MD 21157
Phone: (410) 386-0580
Fax: (410) 386-0584
eMail: ddc@demariodesign.com

OWNER:
EMERSON LAND BUSINESS TRUST
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

DEVELOPER:
GENERAL GROWTH PROPERTIES
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

SITE ADDRESS:
UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B PARCELS C THRU E & OPEN SPACE LOT 1 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000 ROAD CONSTRUCTION PLANS, PROFILE AND STRIPING PLAN

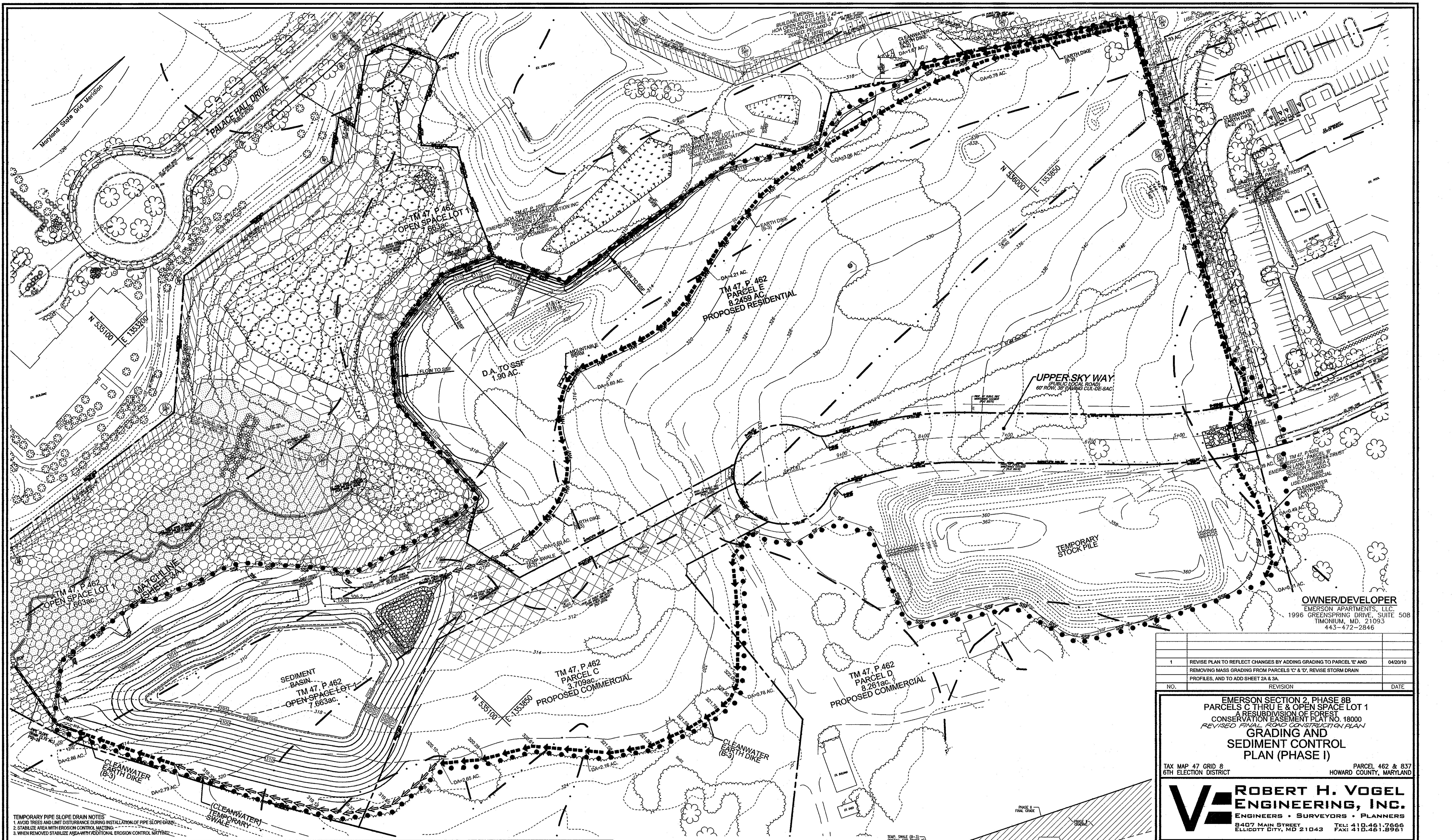
6TH ELECTION DISTRICT HOWARD COUNTY, MD

NO.	REVISIONS	DRN.	REV.	DATE
1	REVISE PLANS TO REFLECT CHANGES BY ADDING GRADING TO PARCELS AND REMOVE GRADING FROM PARCELS C & D			5/13/2010

CO. FILE # F-07-141
TAX ACC. # N/A
TAX MAP: 47
BLOCK / GRID: 8
PARCEL # 462 & 837
ZONE / USE: PEC-MXD-3
DWG. SCALE: AS SHOWN

DES. BY: JOO
DRN. BY: SDS
CHK. BY: MRT
DATE: 9.26.07
DDC JOB#: 05104.2
SHEET NUMBER:
2 of 14

F-07-141

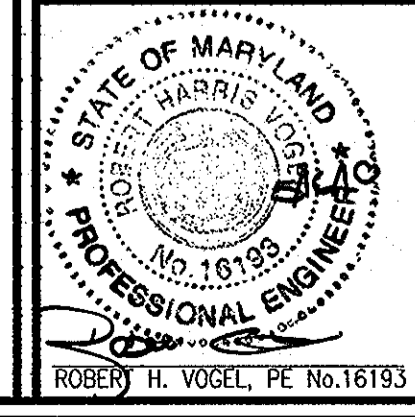


OWNER/DEVELOPER
 EMERSON APARTMENTS, LLC.
 1996 GREENSPRING DRIVE, SUITE 508
 TIMONIUM, MD, 21093
 443-472-2846

NO.	REVISION	DATE
1	REVISE PLAN TO REFLECT CHANGES BY ADDING GRADING TO PARCEL 'E' AND REMOVING MASS GRADINGS FROM PARCELS 'C' & 'D', REVISE STORM DRAIN PROFILES, AND TO ADD SHEET 2A & 3A	04/20/10

EMERSON SECTION 2, PHASE 8B
 PARCELS C THRU E & OPEN SPACE LOT 1
 A RESUBDIVISION OF FOREST
 CONSERVATION EASEMENT PLAT NO. 18000
 REVISED FINAL ROAD CONSTRUCTION PLAN
**GRADING AND
 SEDIMENT CONTROL
 PLAN (PHASE I)**
 TAX MAP 47 GRID 8
 6TH ELECTION DISTRICT
 PARCEL 462 & 837
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET TEL: 410.461.7666
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



PROFESSIONAL CERTIFICATE
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 18193, EXPIRATION DATE: 08-27-2010

ZONED: PEC-MXC-3
 DESIGN BY: RHV
 DRAWN BY: DJ
 CHECKED BY: RHV
 DATE: MAY 2010
 SCALE: 1"=50'
 W.O. NO.: 09-12

2A SHEET OF 14

TEMPORARY PIPE SLOPE DRAIN NOTES
 1. AVOID TREES AND LIMIT DISTURBANCE DURING INSTALLATION OF PIPE SLOPE DRAIN.
 2. STABILIZE AREA WITH EROSION CONTROL MATTING.
 3. WHEN REMOVED STABILIZE AREA WITH ADDITIONAL EROSION CONTROL MATTING.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DIRECTOR

DATE: 6/10/10
 DATE: 6/09/10
 DATE: [Blank]

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

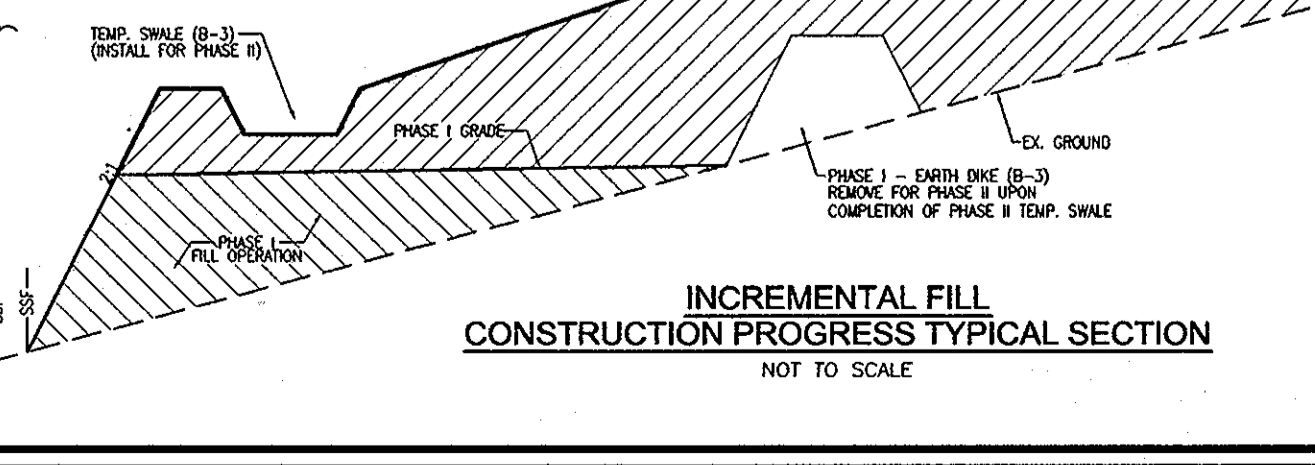
[Signature]
 SIGNATURE OF DEVELOPER
 5/13/10
 DATE

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
 SIGNATURE OF ENGINEER
 5/10/10
 DATE

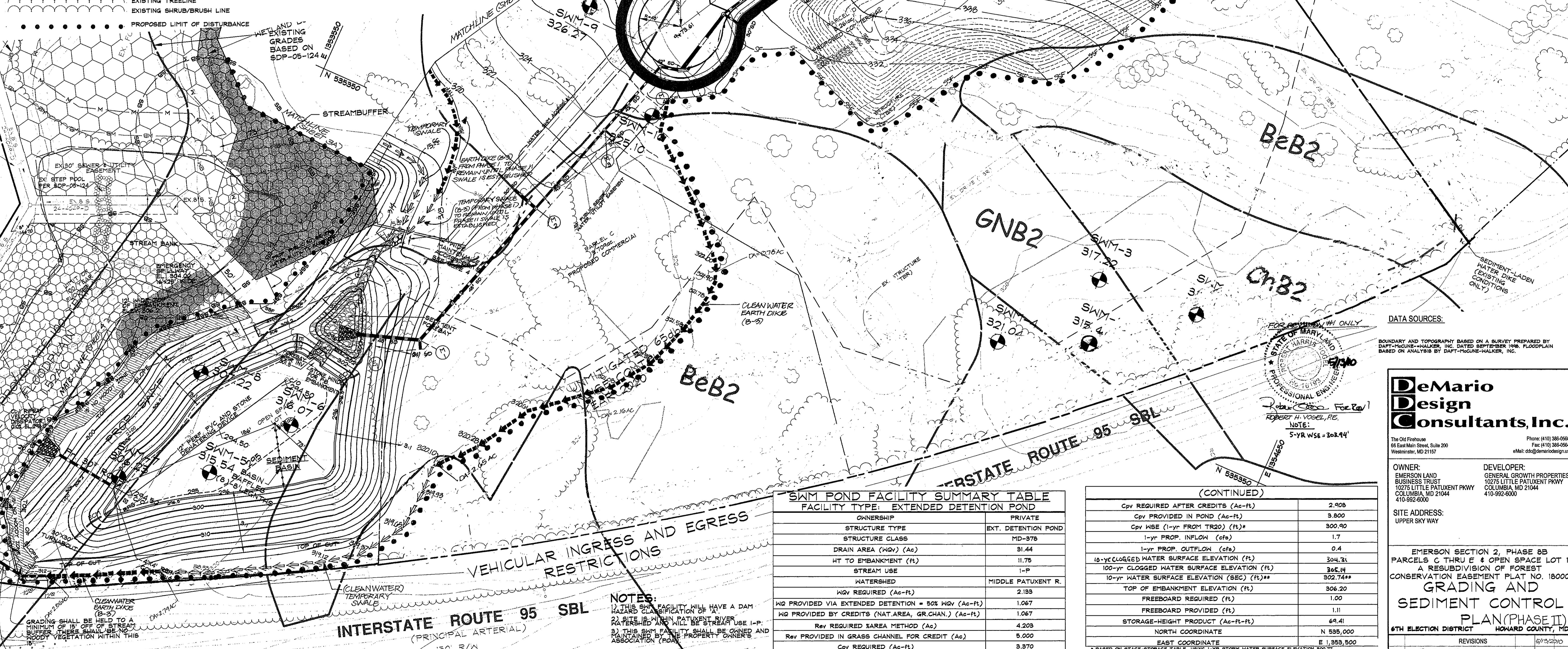
THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature]
 HOWARD S.C.D.
 4/10/10
 DATE



DRAWING LEGEND

- 682 --- EXISTING MINOR CONTOUR (2' INTERVAL)
- 680 --- EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- 682 --- PROPOSED MINOR CONTOUR (2' INTERVAL)
- 680 --- PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROP. STANDARD CURB & GUTTER / PROP. REVERSE CURB & GUTTER
- PROP. REVERSE CURB & GUTTER
- PROP. REVERSE MOUNTABLE CURB & GUTTER
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED HOUSE
- PROPOSED SPOT ELEVATION & FLOW ARROW
- EXISTING TREES
- PROPOSED ORNAMENTAL TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- EXISTING TREELINE
- EXISTING SHRUB/BRUSH LINE
- PROPOSED LIMIT OF DISTURBANCE
- EXISTING GRADES BASED ON SGP-05-124 W/
- PROP. 18" D. --- PROPOSED STORM DRAIN W/ INLETS & MANHOLE
- PROP. 18" AGIP --- PROPOSED INLET PROTECTION MEASURES
- PROP. 8" W. --- PROPOSED WATER LINE & HYDRANT
- GP --- GABION INFLOW PROTECTION
- SF --- SILT FENCE
- SSF --- SUPER SILT FENCE
- TEMP. SHALE --- TEMPORARY SHALE
- TEMP. SHALE (EX. COND. ONLY) --- TEMP. SHALE (EX. COND. ONLY)
- EARTH DIKE --- EARTH DIKE
- EARTH DIKE (EX. COND. ONLY) --- EARTH DIKE (EX. COND. ONLY)
- STABILIZED CONSTRUCTION ENTRANCE --- STABILIZED CONSTRUCTION ENTRANCE
- W.B. --- WETLANDS BUFFER
- S.B. --- STREAM BUFFER
- R.P.S. --- REMOVABLE PUMPING STATION
- ECM --- ECM (EROSION CONTROL MATTING)
- SOIL LINE --- SOIL LINE



BASIN TABLE		
BASIN TYPE	BASIN	
EXISTING DRAINAGE AREA: ACRES	2.75	
INTERIM DRAINAGE AREA: ACRES	16.14*	
PROPOSED DRAINAGE AREA: ACRES	16.14*	
STORAGE REQUIRED (CUBIC FEET):	CO	14,526
	WET	29,052
	DRY	29,052
	TOTAL	58,104
STORAGE PROVIDED (CUBIC FEET):	CO	19,907
	WET	37,983
	DRY	87,359
	TOTAL	125,342

EXISTING GROUND ELEVATION		
TOP EMBANKMENT ELEVATION	299.5	
WEIR CREST ELEVATION	299.5	
DRY STORAGE ELEVATION	299.5	
WET STORAGE ELEVATION	296.5	
CLEANOUT ELEVATION	295.5	
BOTTOM ELEVATION	294.5	
DEPTH OF CHANNEL (c)	N/A	
OUTLET WIDTH (b)	N/A	
BOTTOM DITCHION	300x150	
BASIN SIDE SLOPES	3:1	
BASIN DEPTH	C/O	1.0
	DRY	2.0
BARREL DIAMETER	DRY	5.0
	WET	3.0
RISER DIMENSIONS (PER SIDE)	4'	
WET STORAGE ZONE ELEVATION	294.5-296.5	
DRY STORAGE ZONE ELEVATION	296.5-299.5	

VEHICULAR INGRESS AND EGRESS RESTRICTIONS

INTERSTATE ROUTE 95 SBL (PRINCIPAL ARTERIAL)

NOTES:

- THIS SWM FACILITY WILL HAVE A DAM
- SITE IS WITHIN PATUXENT RIVER WATERSHED AND WILL BE STREAM USE I-P.
- THIS SWM FACILITY SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNERS AND ASSOCIATION (POA).

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. DATE: 4-7-09

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. DATE: 4/15/09

SWM POND FACILITY SUMMARY TABLE	
FACILITY TYPE: EXTENDED DETENTION POND	
OWNERSHIP	PRIVATE
STRUCTURE TYPE	EXT. DETENTION POND
STRUCTURE CLASS	MD-378
DRAIN AREA (MGV) (Ac)	31.44
HT TO EMBANKMENT (ft)	11.75
STREAM USE	I-P
WATERSHED	MIDDLE PATUXENT R.
WQV REQUIRED (Ac-ft)	2,193
WQ PROVIDED VIA EXTENDED DETENTION = 50% WQV (Ac-ft)	1,067
WQ PROVIDED BY CREDITS (NAT. AREA, GR. CHAN.) (Ac-ft)	1,067
Rev REQUIRED XAREA METHOD (Ac)	4,209
Rev PROVIDED IN GRASS CHANNEL FOR CREDIT (Ac)	5,000
Cpy REQUIRED (Ac-ft)	3,370

(CONTINUED)	
Cpy REQUIRED AFTER CREDITS (Ac-ft)	2,908
Cpy PROVIDED IN POND (Ac-ft)	9,800
Cpy WSE (1-yr FROM TR20) (ft)*	300.90
1-yr PROP. INFLOW (cfs)	1.7
1-yr PROP. OUTFLOW (cfs)	0.4
10-yr CLOGGED WATER SURFACE ELEVATION (ft)	304.21
100-yr CLOGGED WATER SURFACE ELEVATION (ft)	306.44
10-yr WATER SURFACE ELEVATION (SEC) (ft)**	302.74**
TOP OF EMBANKMENT ELEVATION (ft)	306.20
FREEBOARD REQUIRED (ft)	1.00
FREEBOARD PROVIDED (ft)	1.11
STORAGE-HEIGHT PRODUCT (Ac-ft-ft)	69.41
NORTH COORDINATE	N 535,500
EAST COORDINATE	E 1,353,500

DATA SOURCES:

BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-McGUE-HALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT-McGUE-HALKER, INC.

DeMario Design Consultants, Inc.

Professional Engineer
Robert H. Vogel, P.E.
5-YR WSE = 308.44'

OWNER: EMERSON LAND BUSINESS TRUST
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

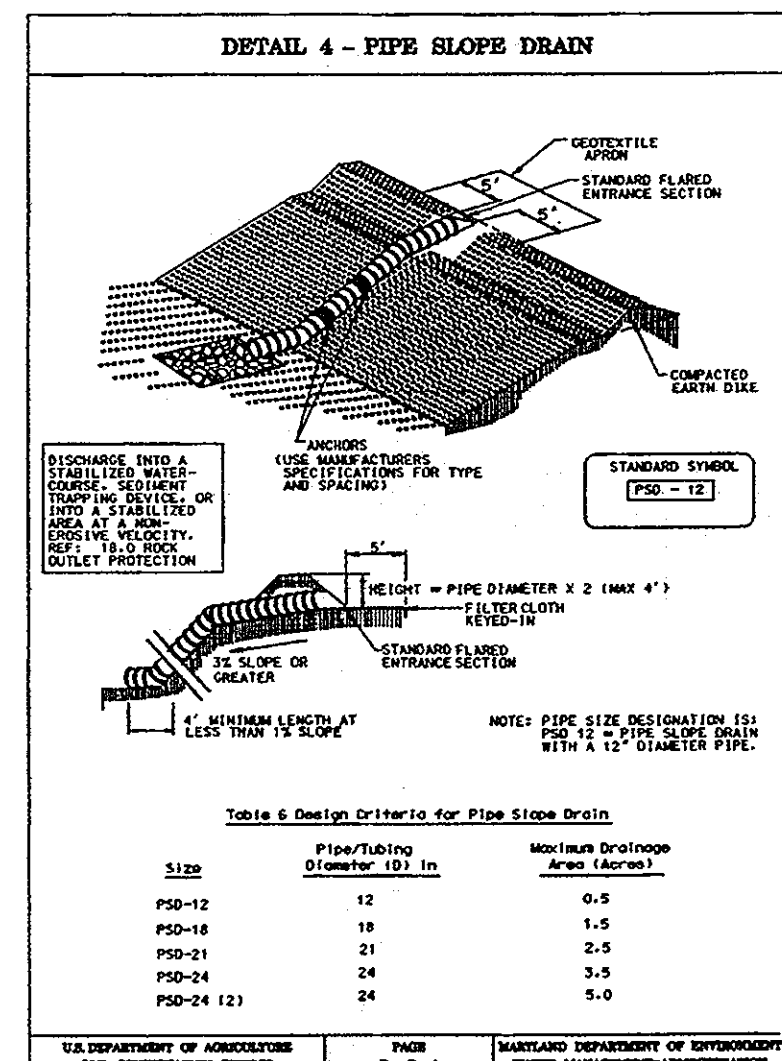
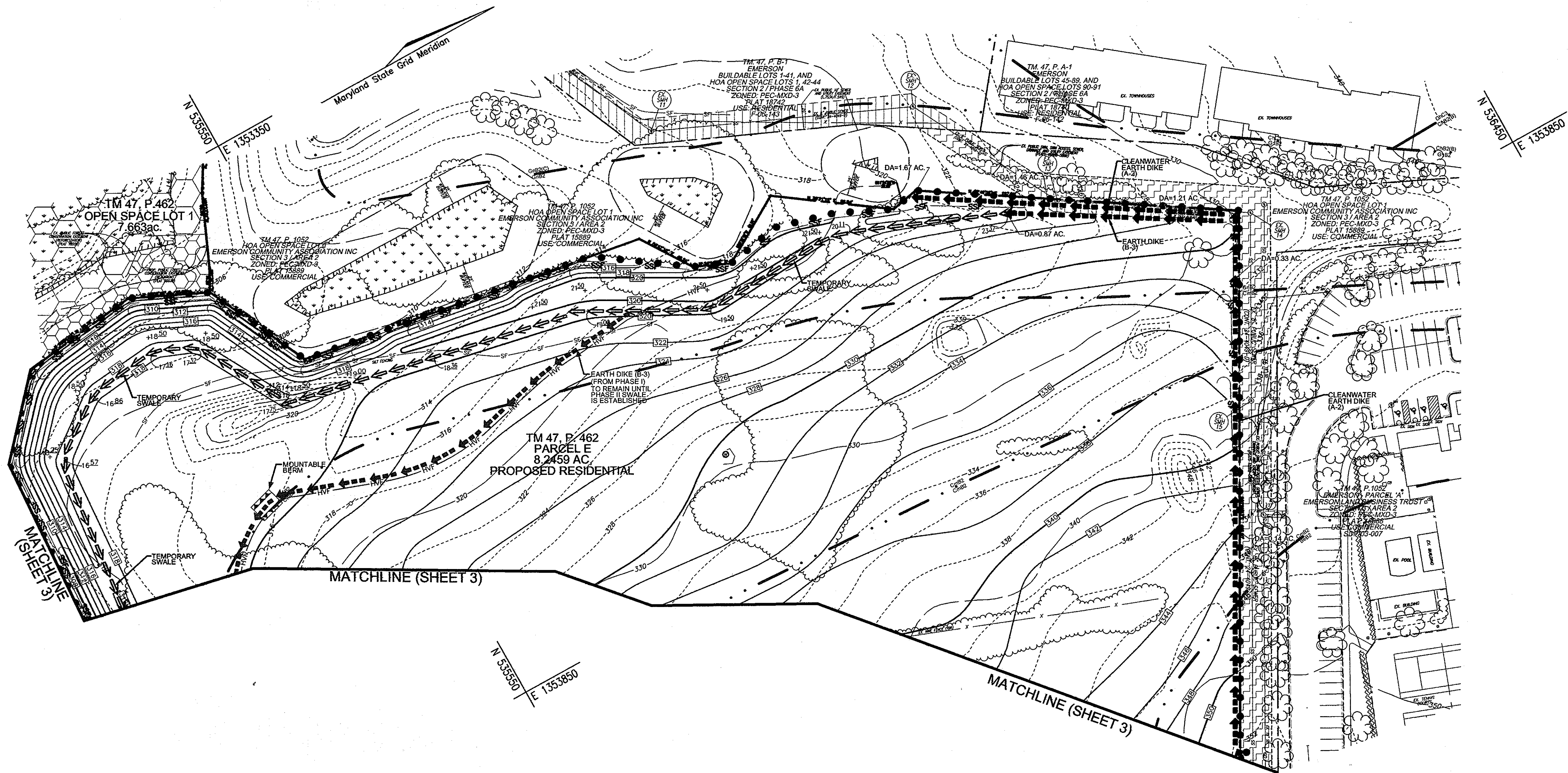
DEVELOPER: GENERAL GROWTH PROPERTIES
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

EMERSON SECTION 2, PHASE 8B PARCELS C, THRU E & OPEN SPACE LOT 1 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000 GRADING AND SEDIMENT CONTROL PLAN (PHASE II)

6TH ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS	
1	REVISE PLANS TO REFLECT CHANGES BY ADDING GRADING TO PARCEL E AND REMOVE GRADING FROM PARCELS C & D

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #	F-07-141	DES. BY:	JCOMRT	
TAX ACC. #	N/A	DRN. BY:	SDS	
TAX MAP:	47	CHK. BY:	MRT	
BLOCK / GRID:	8	DATE:	9.26.07	
PARCEL #:	462 & 837	DDC JOB#:	05104.2	
ZONE / USE:	PEC-MXD-3	SHEET NUMBER:		
DWG. SCALE:	1"=50'			

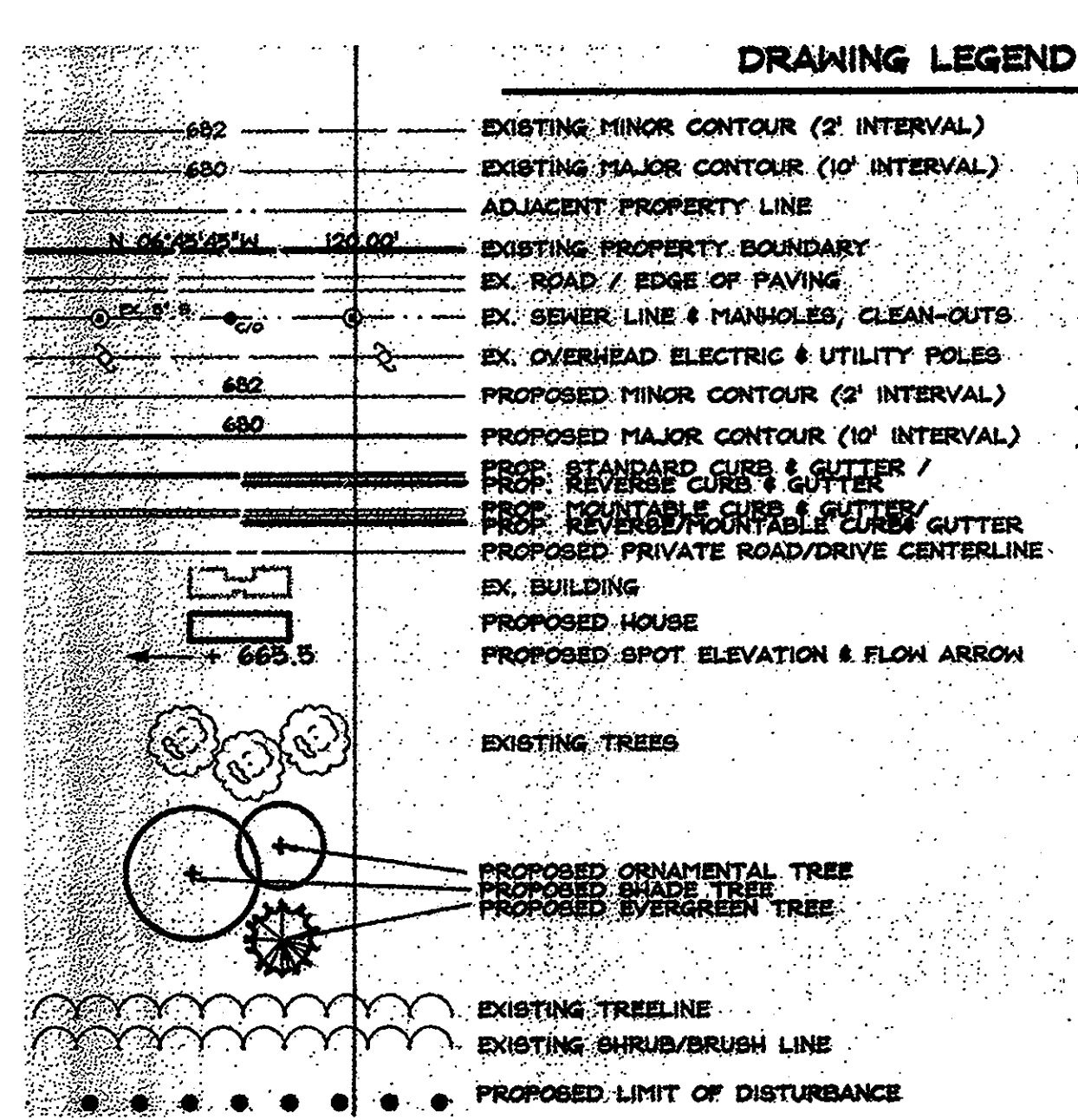


PIPE SLOPE DRAIN

Construction Specifications - Pipe Slope Drain

- The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
- The top of the earth dike over the inlet pipe shall be at least 2 times the pipe diameter measured at the invert of the pipe.
- Flexible tubing is preferred. However, corrugated metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
- A filter cloth shall be attached to the inlet end of pipe with a watertight connection. Filter cloth shall be placed under the inlet of the pipe slope drain and shall extend out 5' from the inlet. The filter cloth shall be 'rippled' on all sides.
- The Pipe Slope Drain shall be securely anchored to the slope by staking of the aprons provided. Spacing of anchors shall be as provided by manufacturer's specification. In no case shall less than two (2) anchors be provided, equally spaced along the length of pipe. These details should be provided by pipe suppliers.
- The soil around and under the pipe and section shall be hand rammed in 4 inch lifts to the top of the earth dike.
- All pipe connections shall be watertight.
- Whenever possible earth PSDs should be installed in areas that shall outlet into a sediment trap or basin. If this is not possible from the site or into a stream, a check compartment that leads to a sediment trap or basin, when discharging into a trap or basin the PSD shall discharge at the same elevation as the wet pool elevation. The discharge from the PSD shall be as far away from the sediment control outlet as possible.
- When the drainage area is stabilized, the PSD shall discharge into a stabilized area of non-erosive velocity.
- Inspection and any resulting maintenance shall be performed periodically and after each rain event.
- The inlet must be kept open at all times.

Size	Pipe/Fabric Diameter (12' Int.)	Maximum Drainage Area (Acres)
PSD-12	12	0.5
PSD-18	18	1.5
PSD-21	21	2.5
PSD-24	24	3.5
PSD-24 (2)	24	5.0



OWNER/DEVELOPER
 EMERSON APARTMENTS, LLC
 1996 GREENSPRING DRIVE, SUITE 508
 TIMONUM, MD. 21093
 443-472-2846

NO.	REVISION	DATE
1	REVISE PLAN TO REFLECT CHANGES BY ADDING GRADING TO PARCEL 'E' AND REMOVING MASS GRADING FROM PARCELS 'C' & 'D', REVISE STORM DRAIN PROFILES, AND TO ADD SHEET 2A & 3A	04/20/10

EMERSON SECTION 2, PHASE 8B
 PARCELS C THRU E & OPEN SPACE LOT 1
 A RESUBDIVISION OF FOREST
 CONSERVATION EASEMENT PLAT NO. 18000
 REVISED FINAL ROAD CONSTRUCTION PLAN
GRADING AND SEDIMENT CONTROL PLAN (PHASE II)
 TAX MAP 47 GRID 8
 6TH ELECTION DISTRICT
 PARCEL 462 & 837
 HOWARD COUNTY, MARYLAND

ROBERT H. VOGEL ENGINEERING, INC.
 ENGINEERS • SURVEYORS • PLANNERS
 8407 MAIN STREET
 ELLICOTT CITY, MD 21043
 TEL: 410.461.7666
 FAX: 410.461.8961

PROFESSIONAL CERTIFICATE

ZONED: PEC-MXC-3
 DESIGN BY: RHV
 DRAWN BY: DJ
 CHECKED BY: RHV
 DATE: MAY 2010
 SCALE: 1"=50'
 W.O. NO.: 09-12

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. 18151
 EXPIRATION DATE 06-27-2010

3A SHEET OF 14

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature]
 CHIEF, DEVELOPMENT ENGINEERING DIVISION
 [Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE: 6/10/10
 DATE: 6/10/10

BY THE DEVELOPER:
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature]
 SIGNATURE OF DEVELOPER
 DATE: 5/13/10

BY THE ENGINEER:
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature]
 SIGNATURE OF ENGINEER
 DATE: 6/10/10

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 [Signature]
 DATE: 6/10/10

CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the 2000 Standard for practice MD-378...

Site Preparation Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil...

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material...

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative...

Earth Fill Material - The fill material shall be taken from approved designated borrow areas...

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe: 1. Materials - (Polymer Coated steel pipe)...

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274...

Placement - Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in maximum 8 inch thick (bedform) layers...

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of heavy equipment...

When required by the reviewing agency the minimum required density will not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum...

Cut Off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans...

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet...

Structure Backfill Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material...

BY THE DEVELOPER

I HEREBY 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 AND GENERAL SERVICES TRAINING PROGRAM...

DATE: 3/12/08

ENGINEER

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS...

DATE: 3/12/08

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD COUNTY CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL

NATURAL RESOURCES CONSERVATION SERVICE DATE

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

DATE: 3/12/08

HOWARD SOIL CONSERVATION DISTRICT DATE

Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified...

1. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length...

2. Backfilling shall conform to "Structure Backfill".

3. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

1. Materials - Reinforced concrete pipe shall have ball and spigot joints with rubber gaskets and shall conform to or exceed ASTM C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding...

3. Laying pipe - Ball and spigot pipe shall be placed with the bell end upstream...

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe:

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241...

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length...

4. Backfilling shall conform to "Structure Backfill".

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Drainage Diaphragms - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

Concrete Structures shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No.3.

Rock Riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

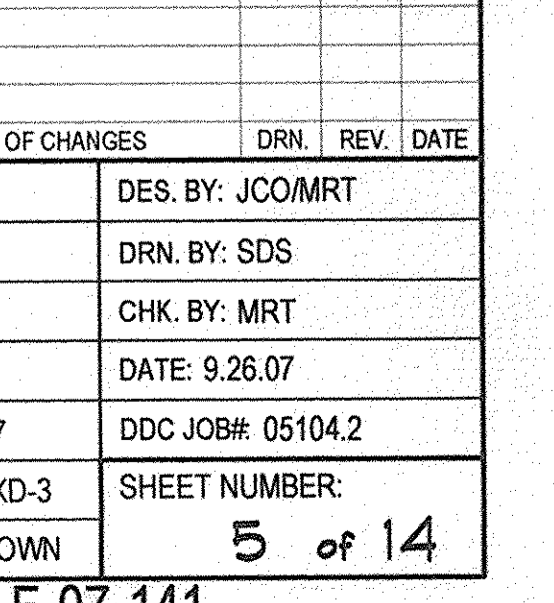
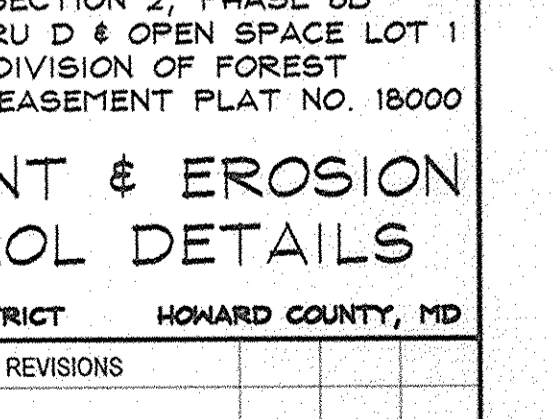
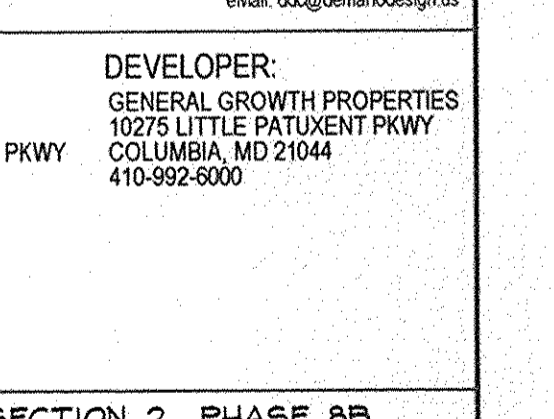
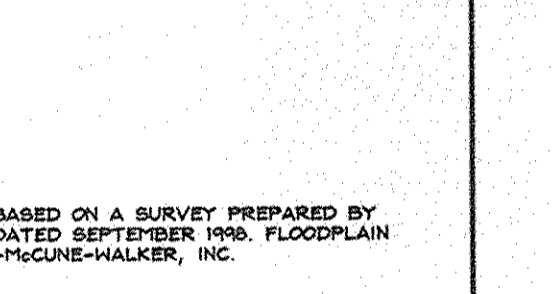
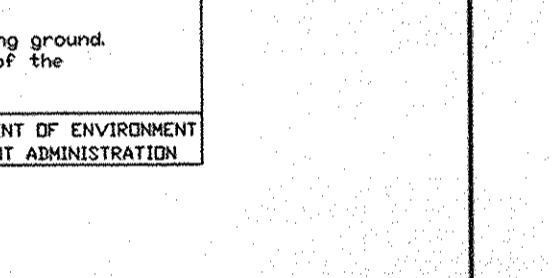
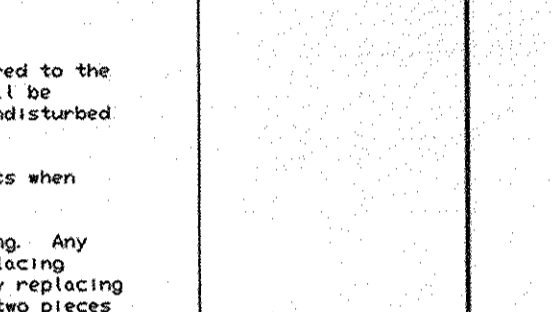
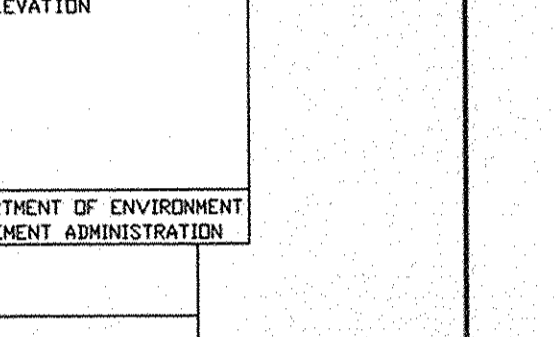
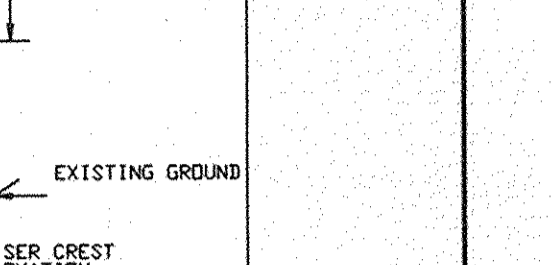
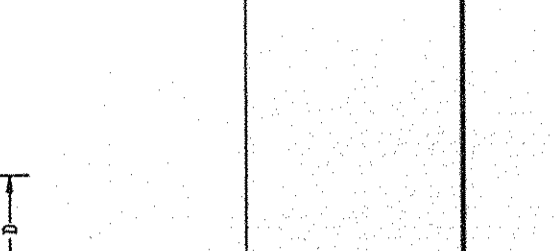
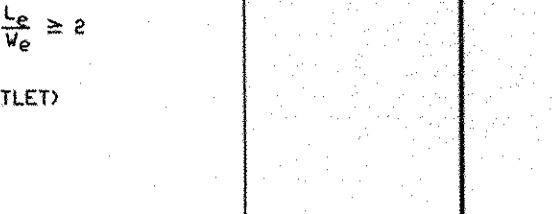
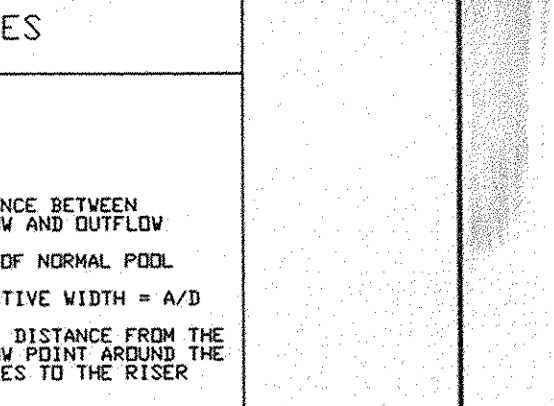
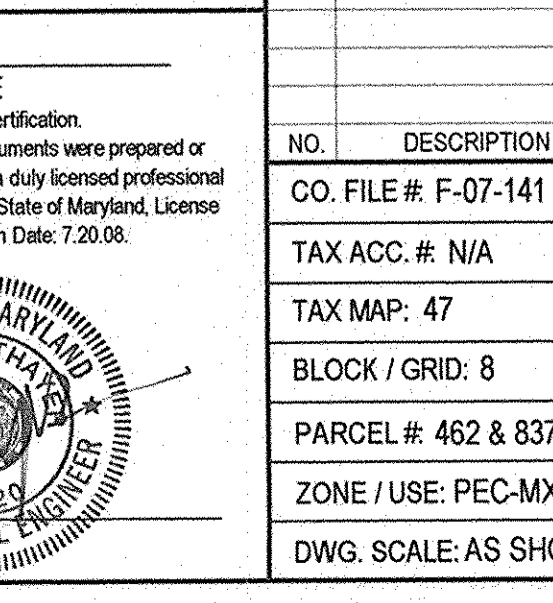
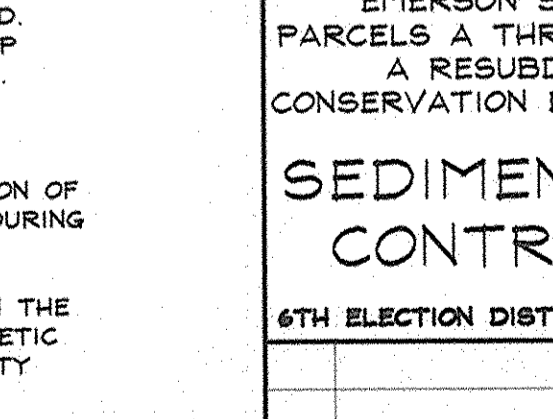
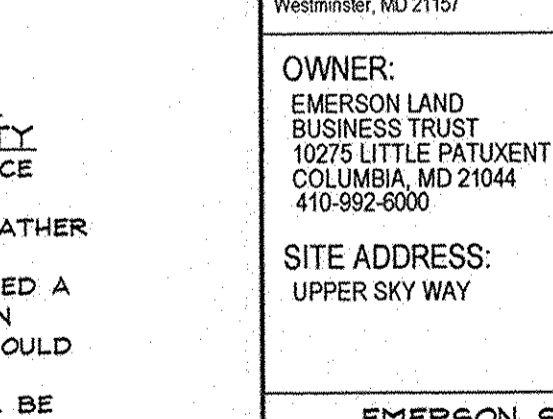
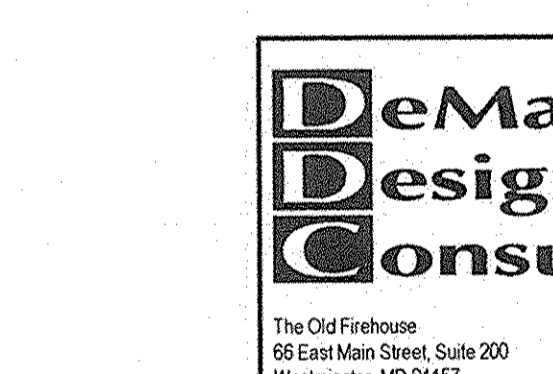
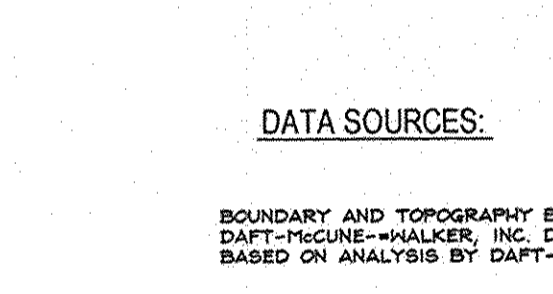
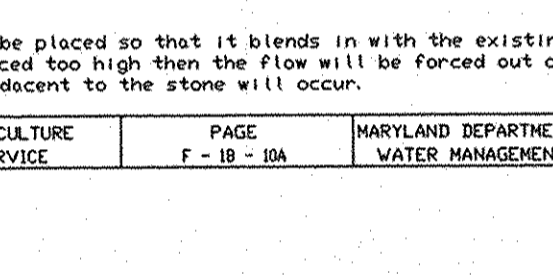
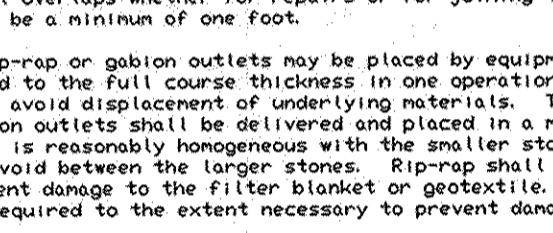
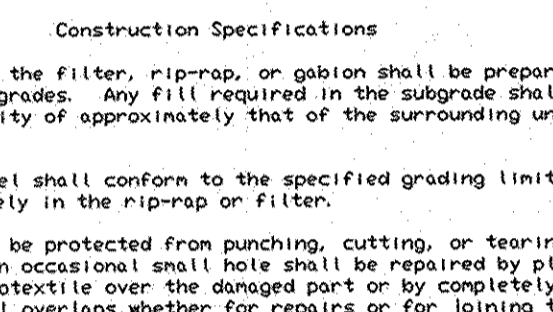
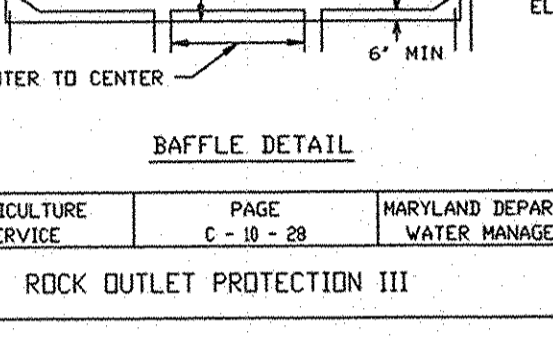
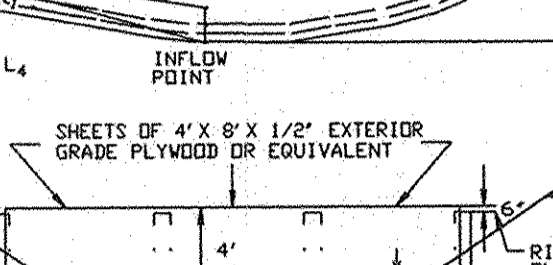
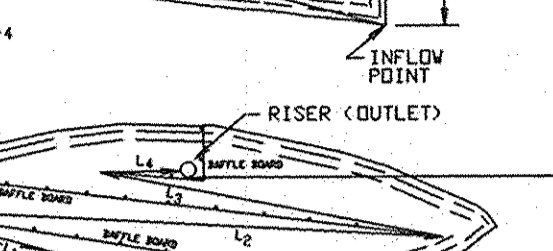
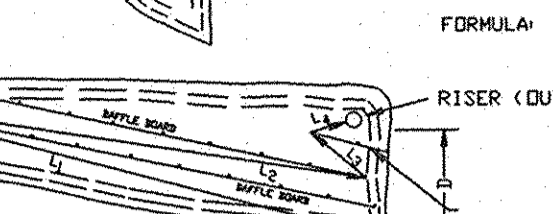
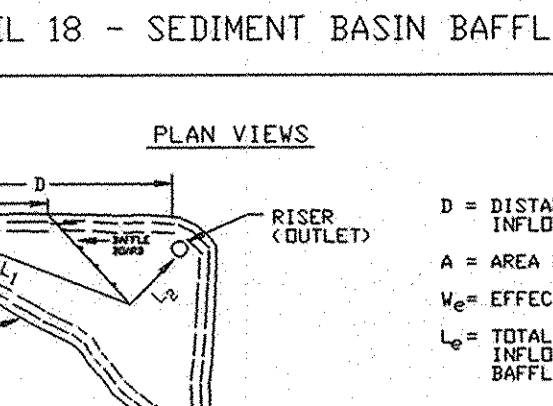
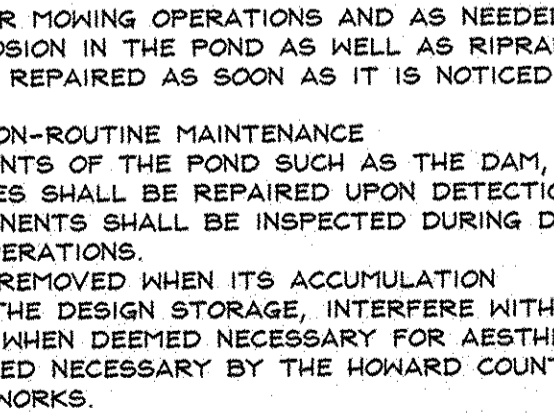
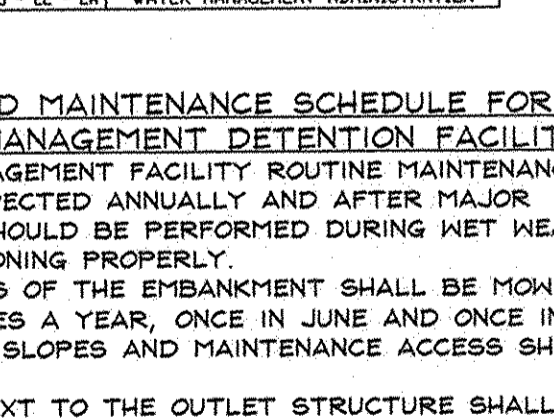
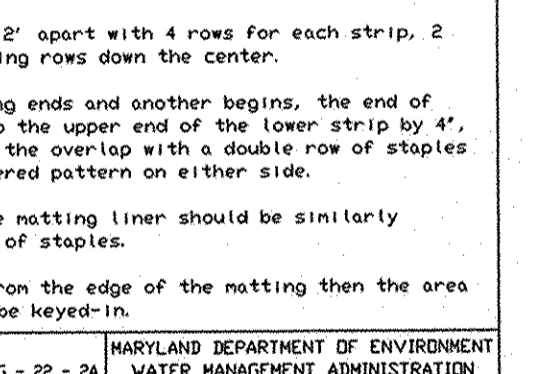
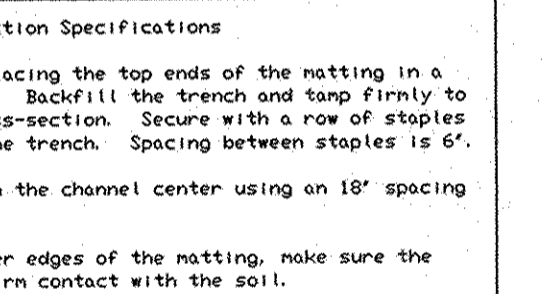
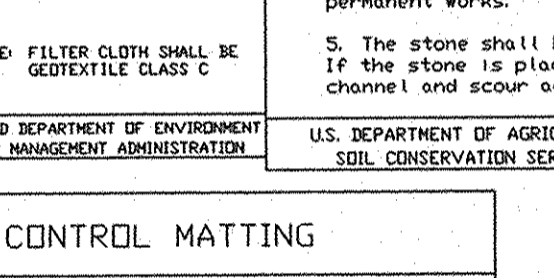
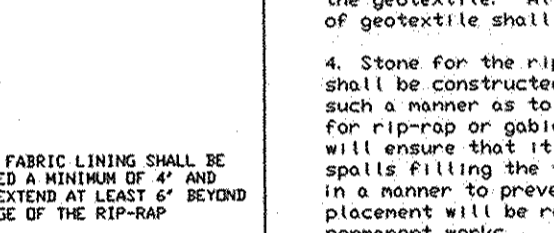
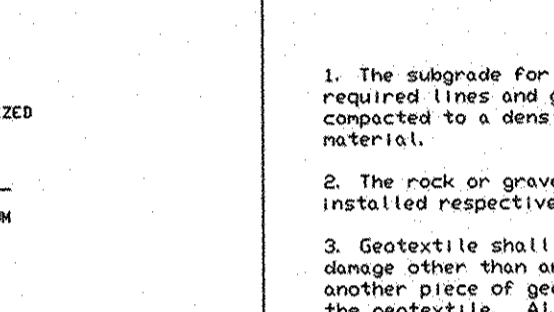
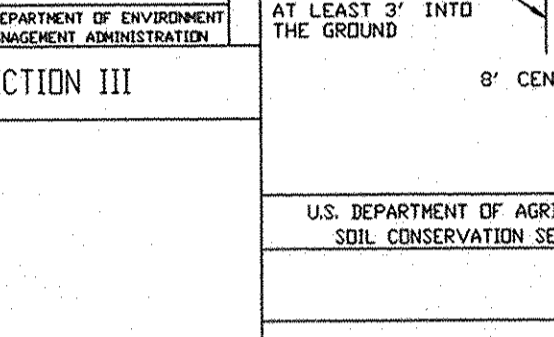
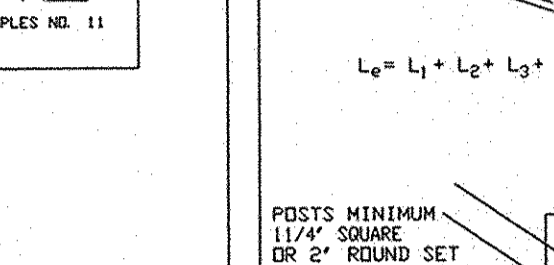
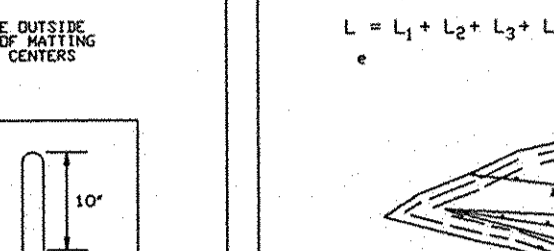
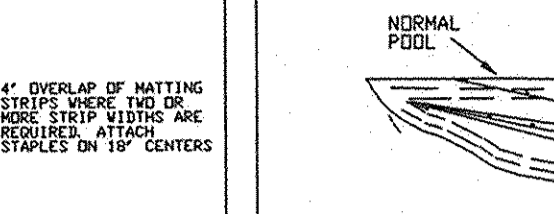
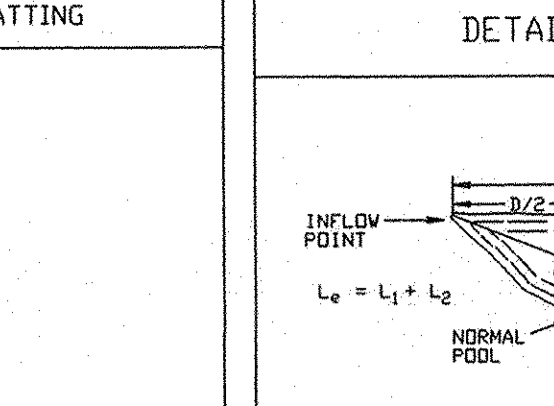
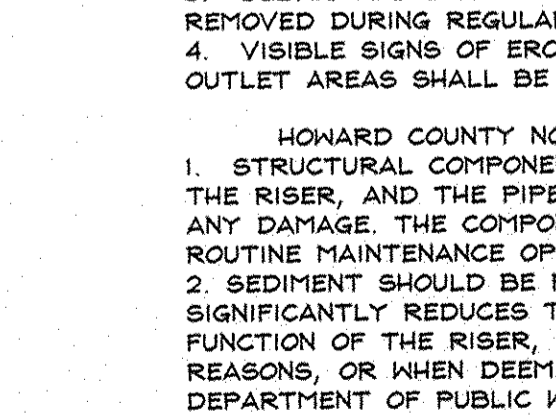
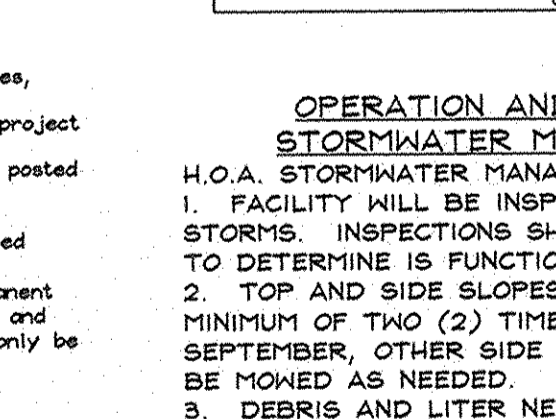
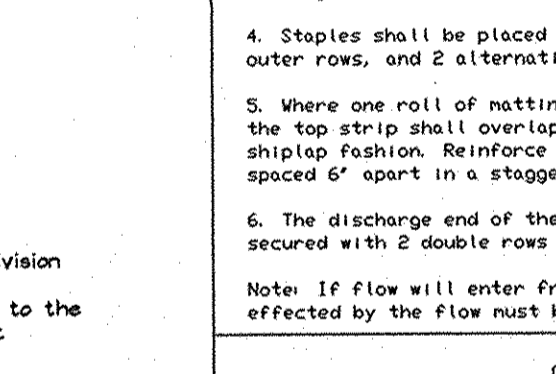
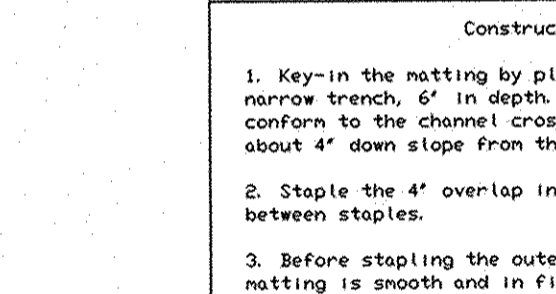
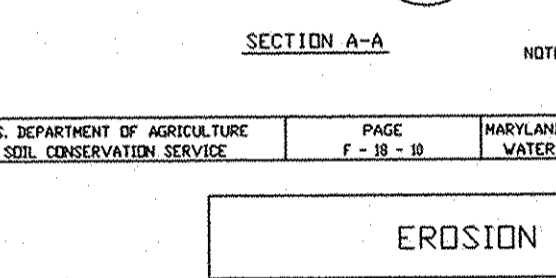
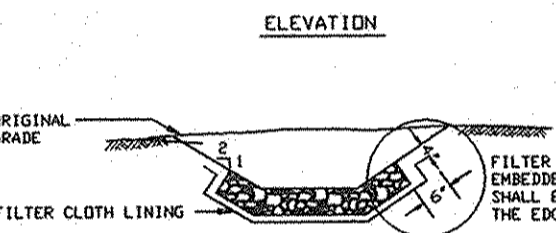
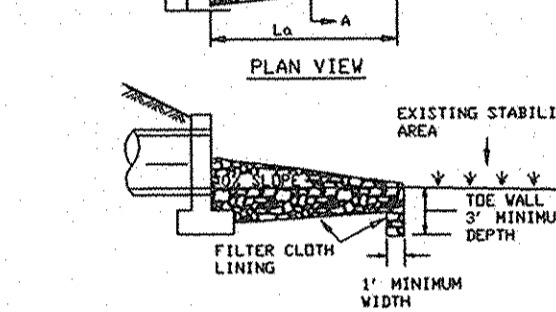
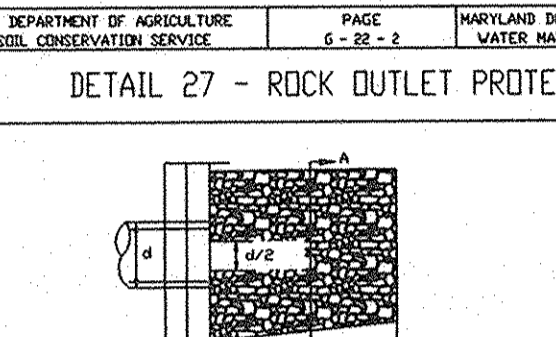
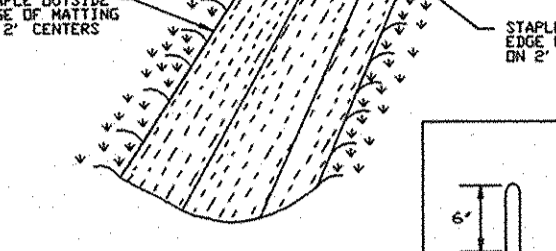
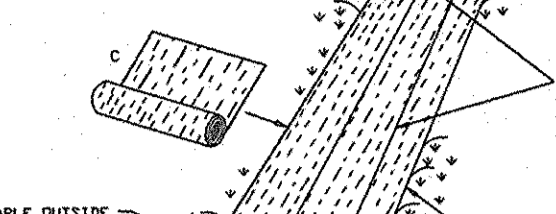
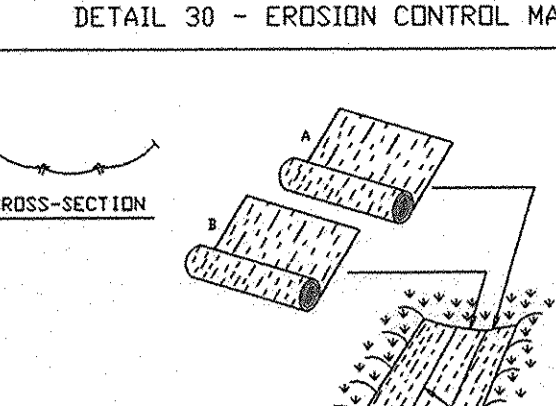
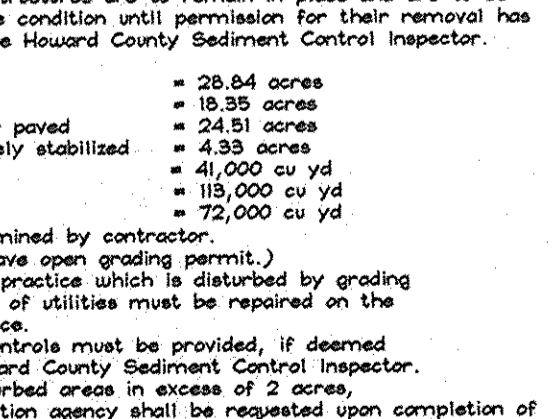
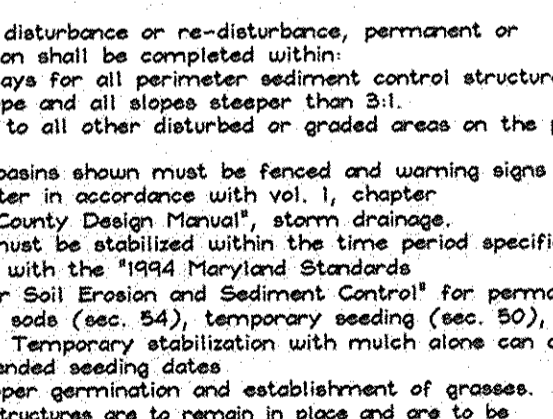
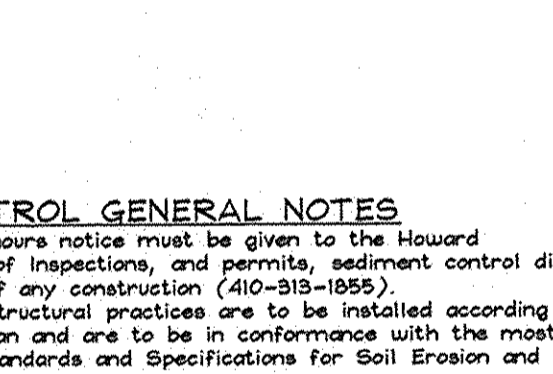
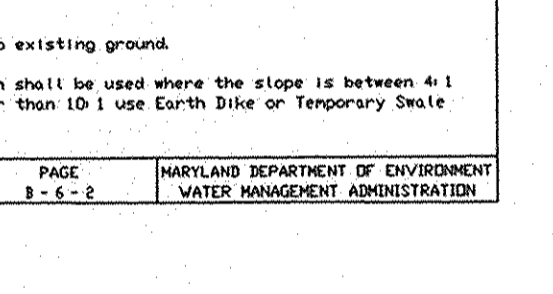
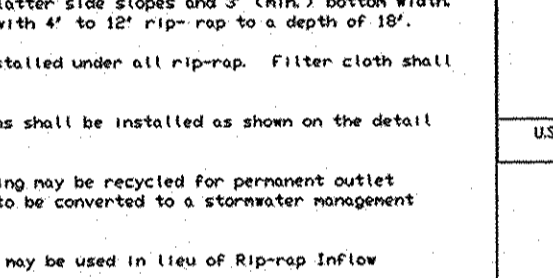
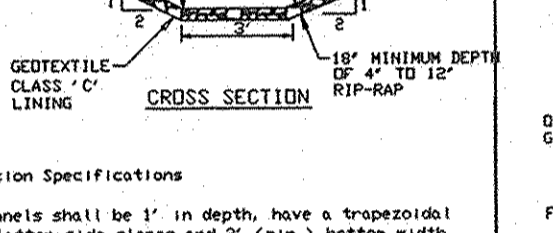
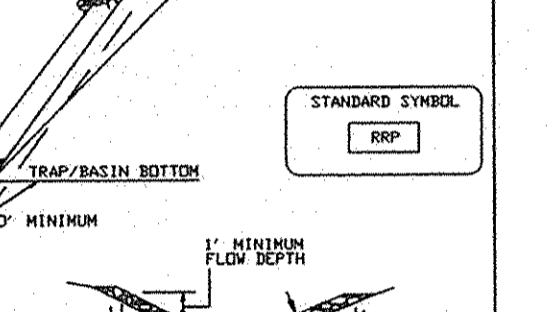
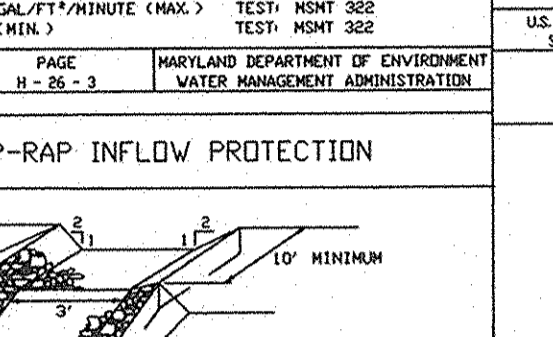
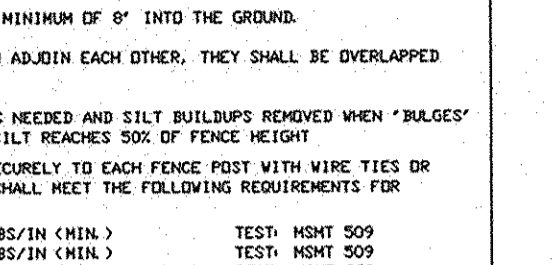
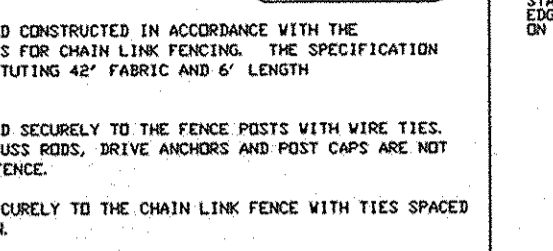
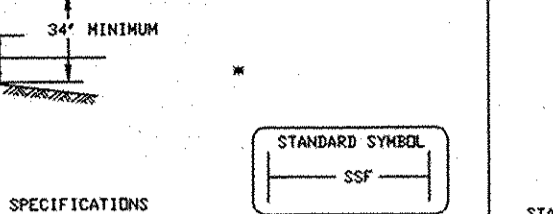
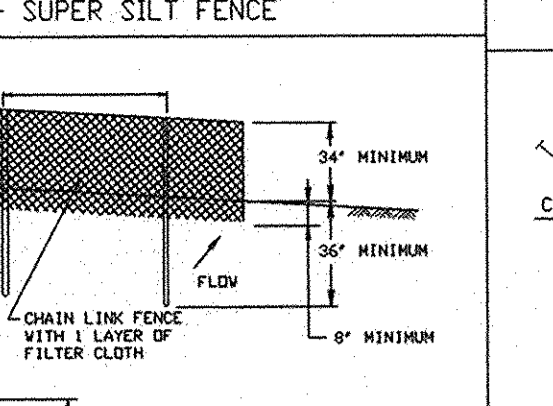
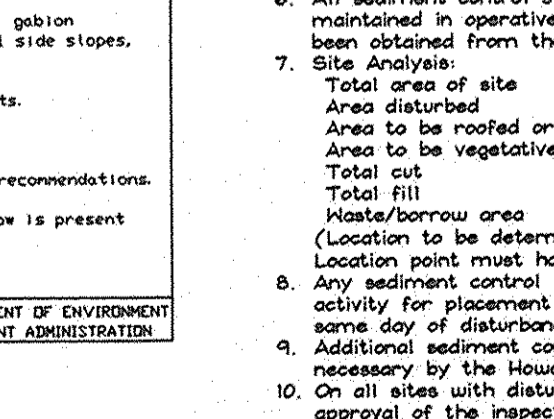
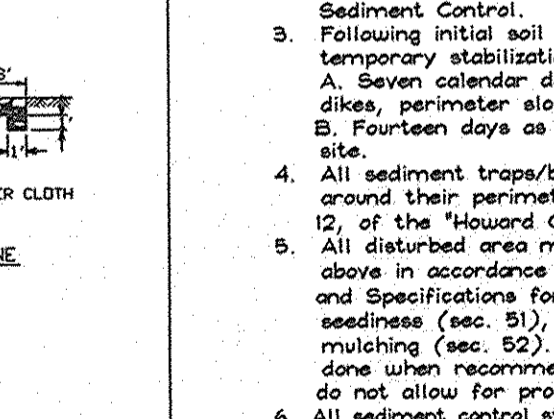
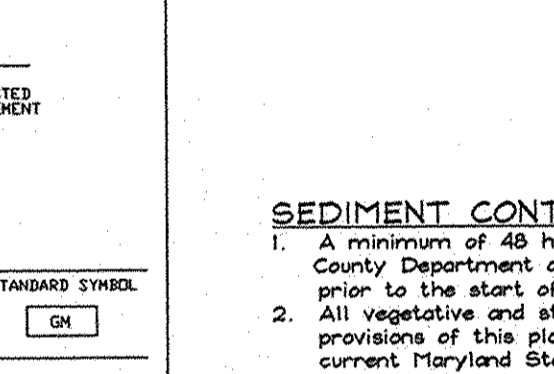
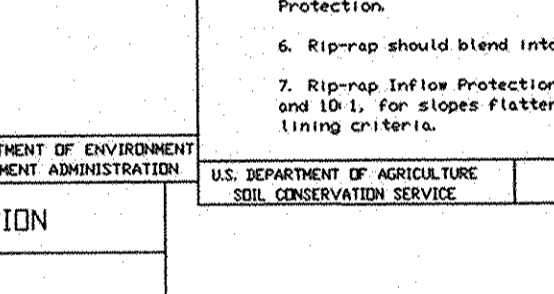
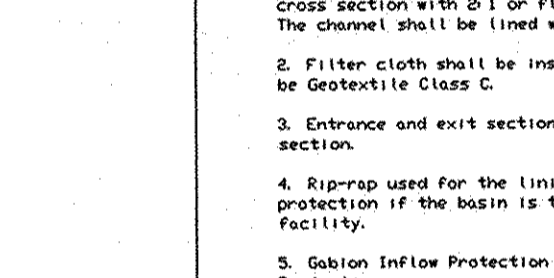
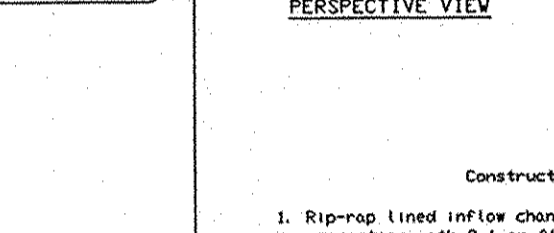
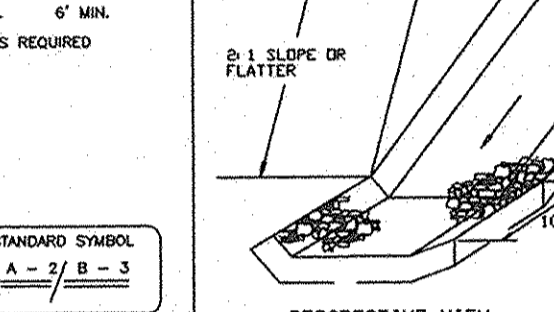
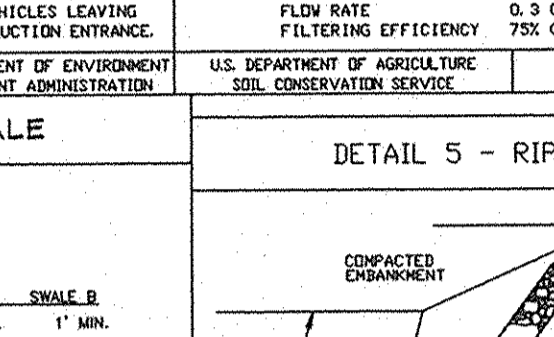
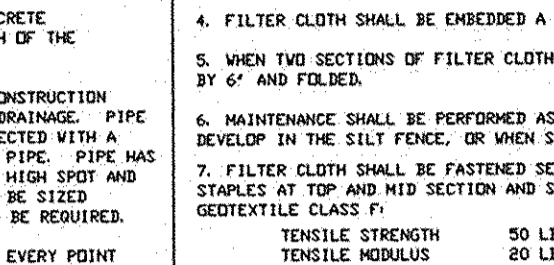
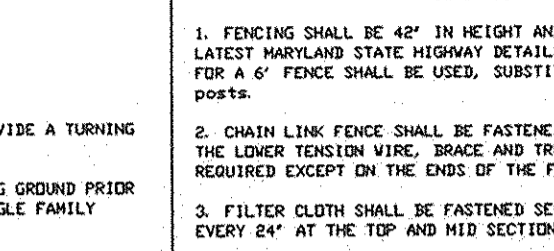
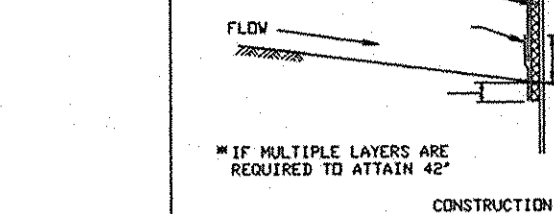
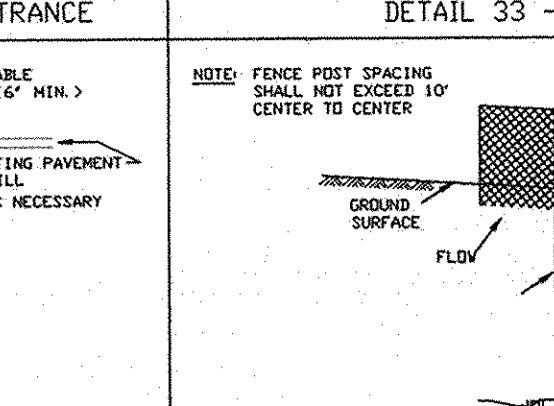
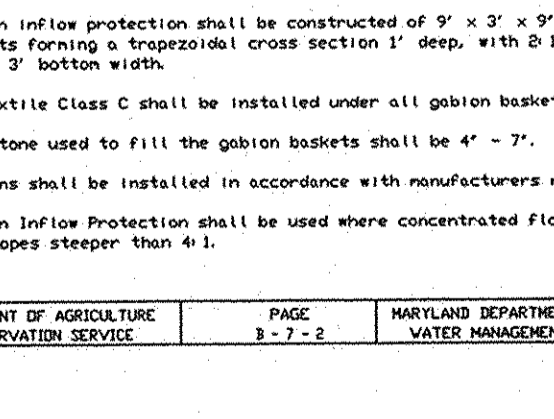
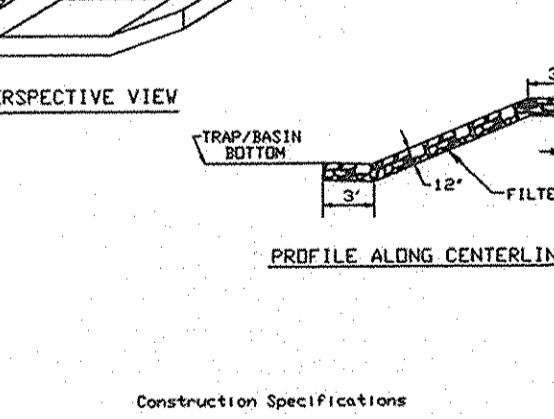
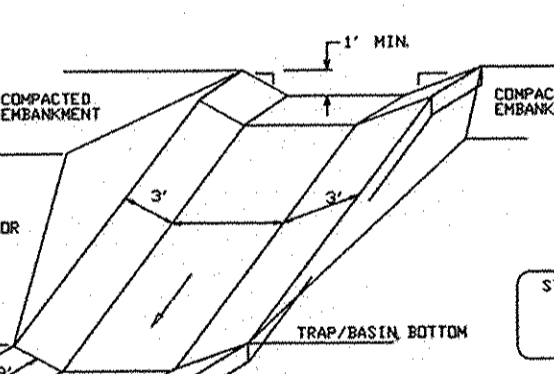
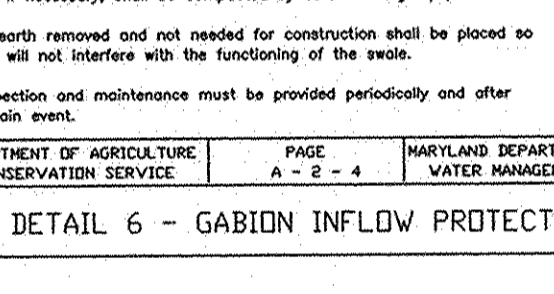
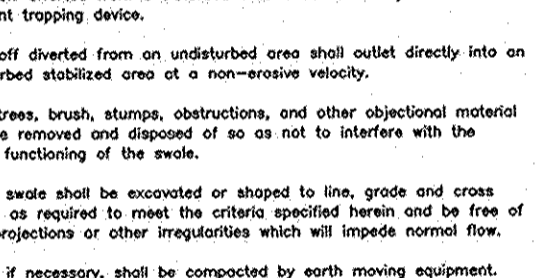
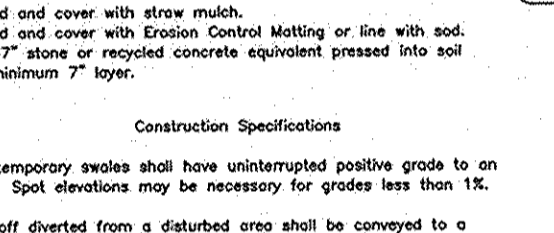
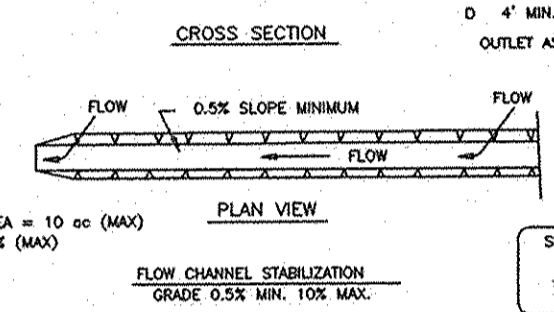
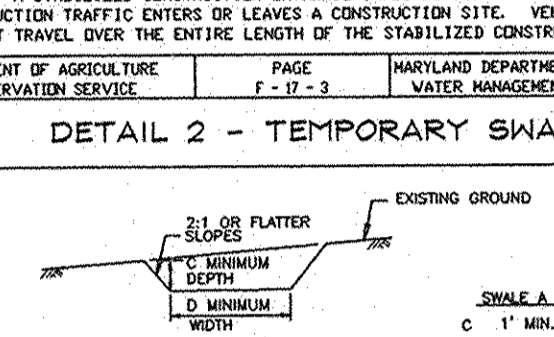
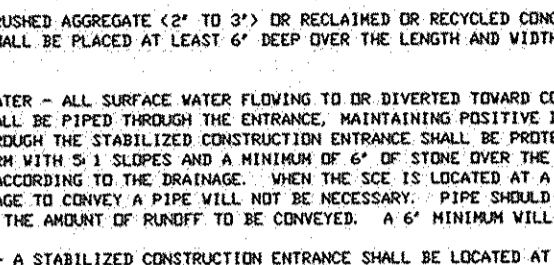
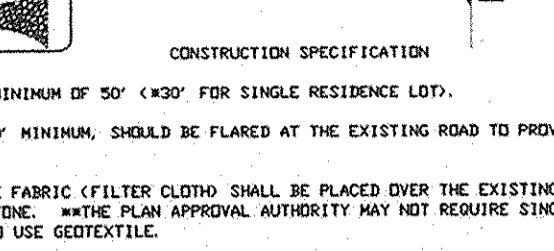
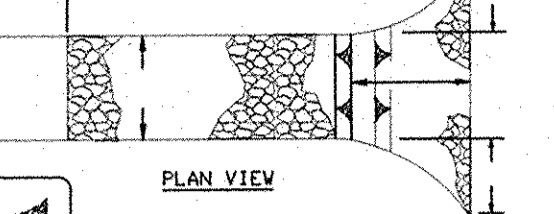
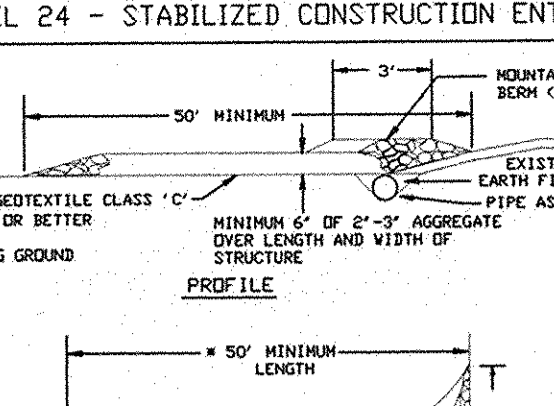
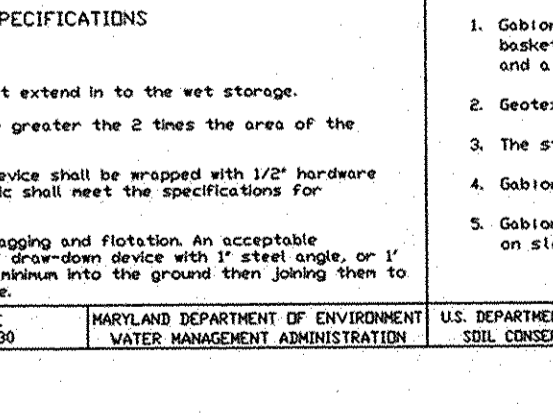
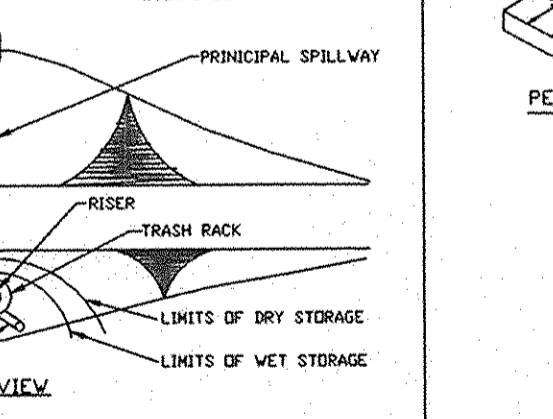
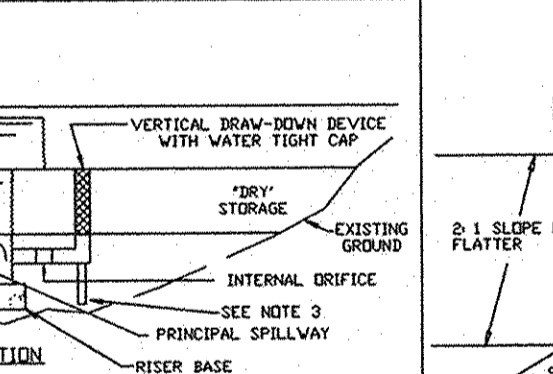
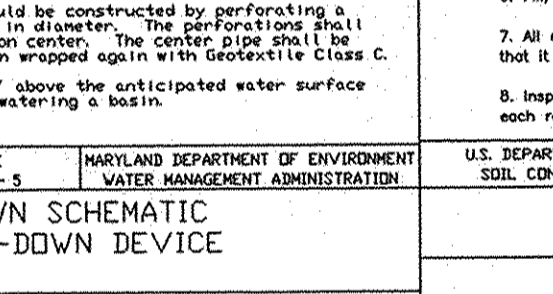
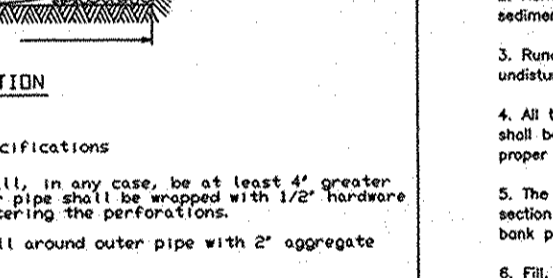
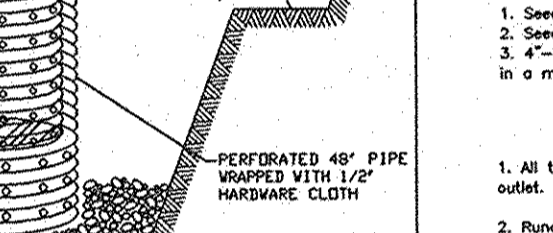
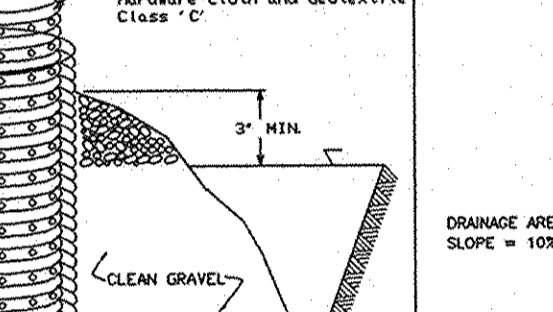
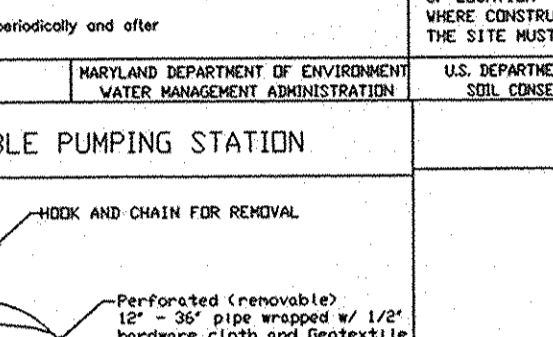
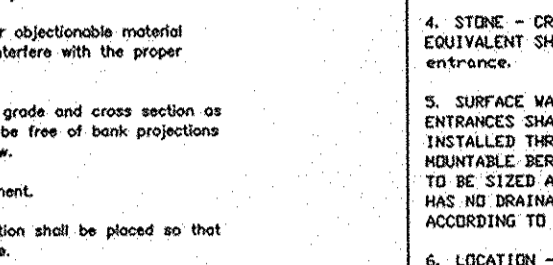
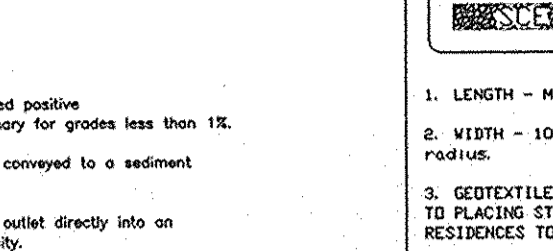
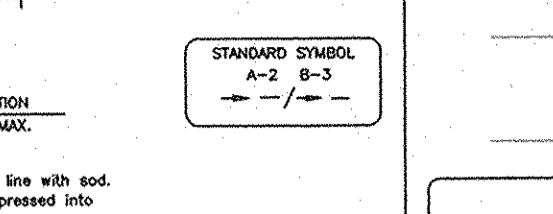
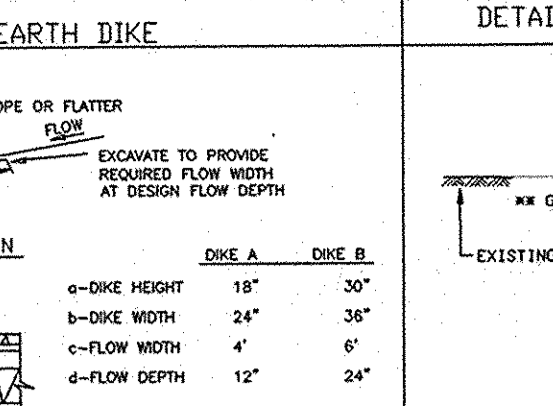
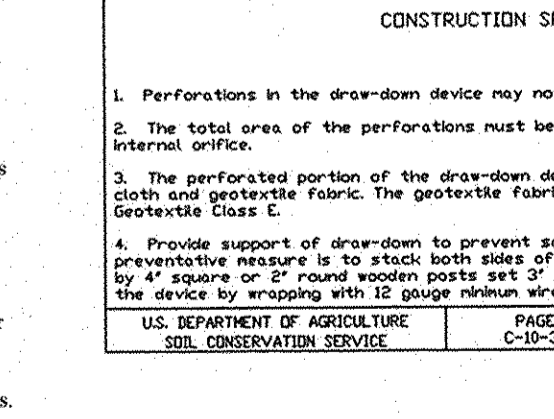
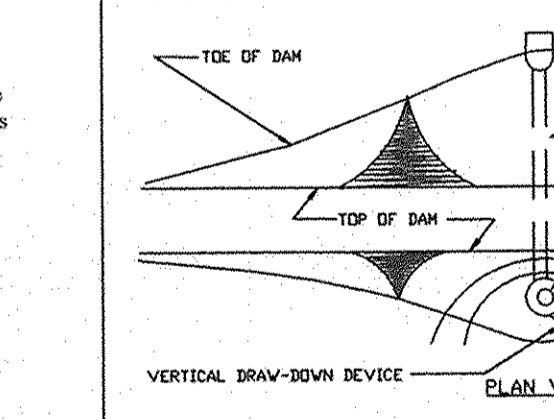
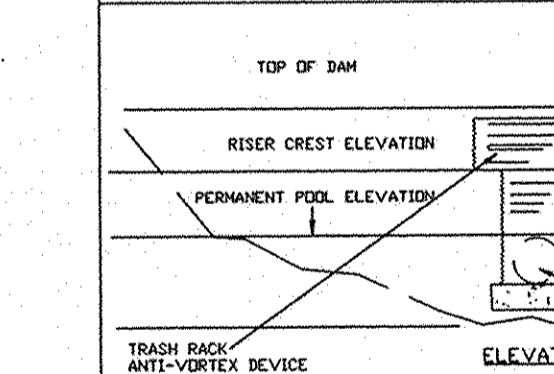
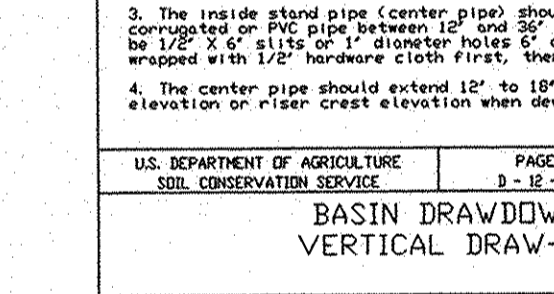
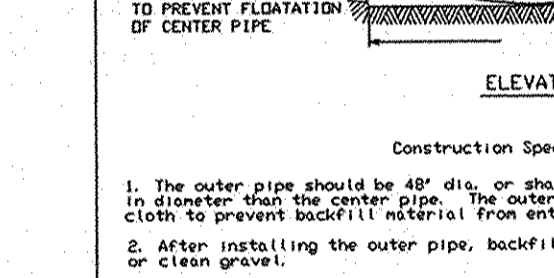
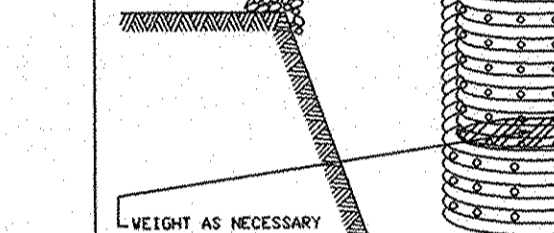
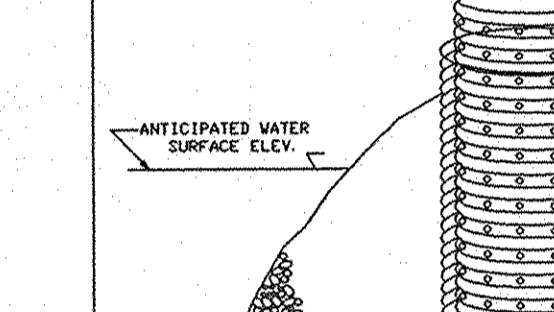
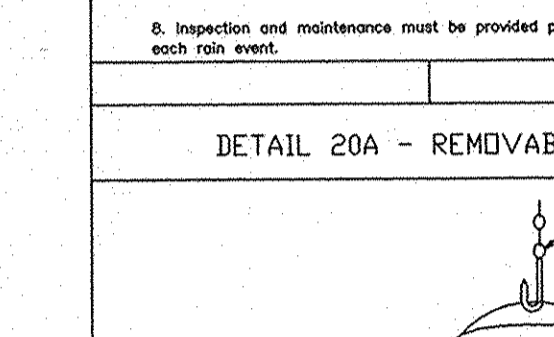
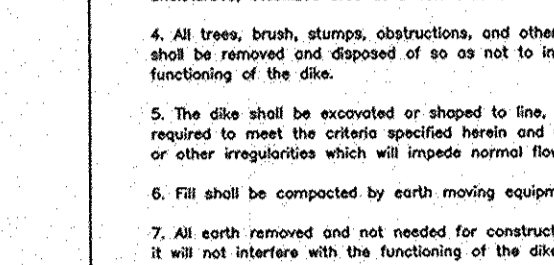
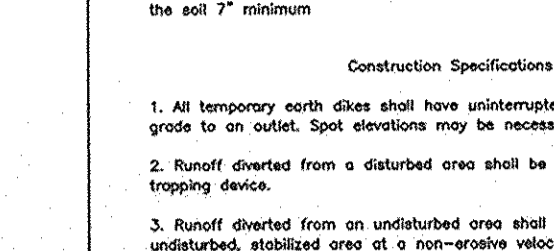
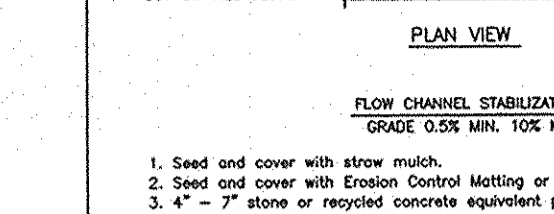
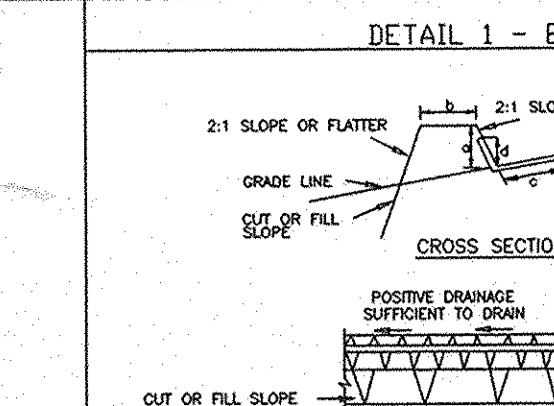
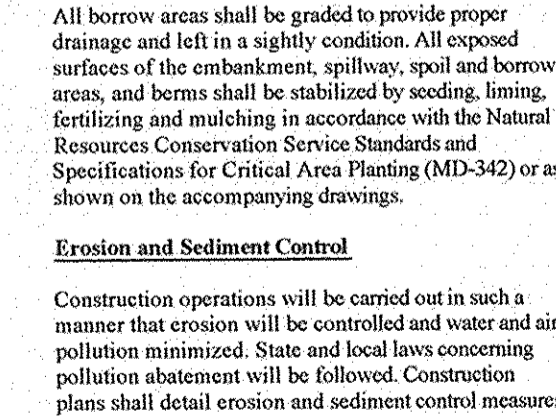
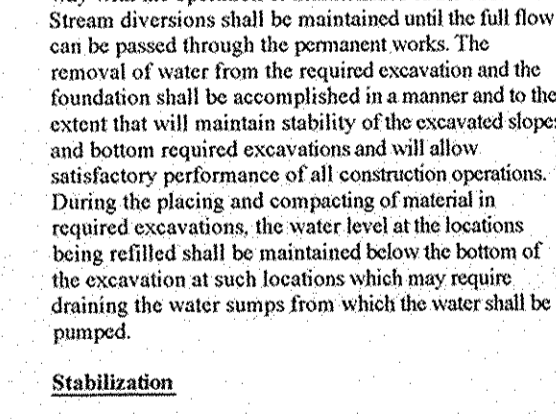
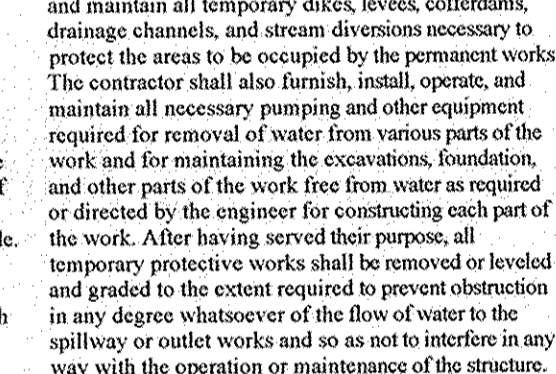
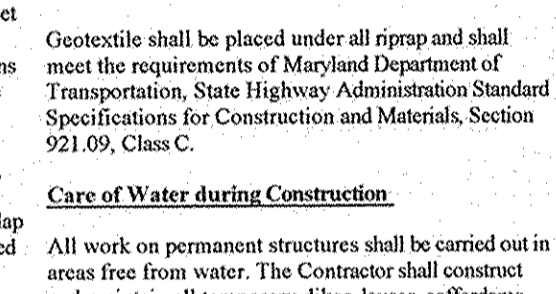
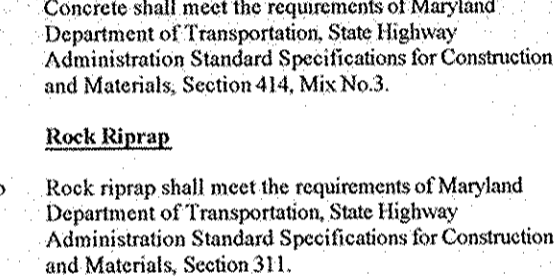
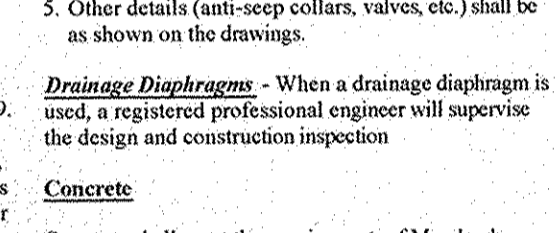
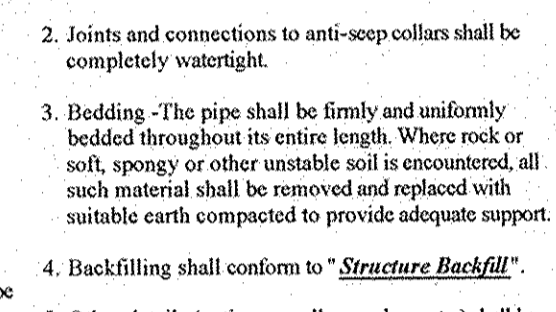
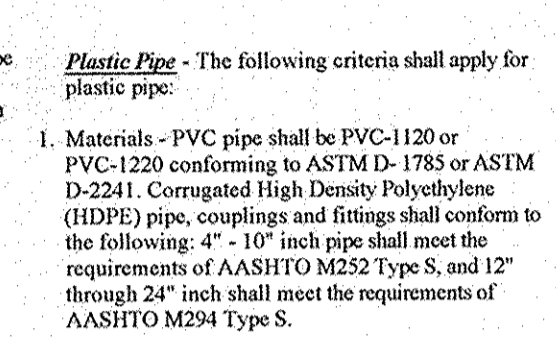
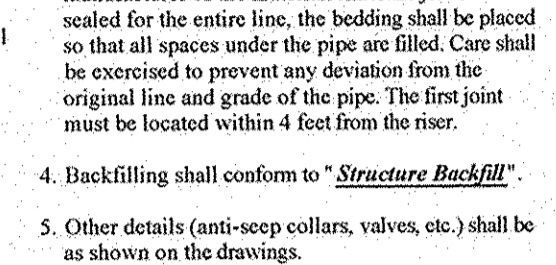
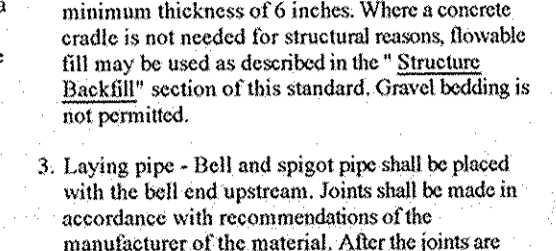
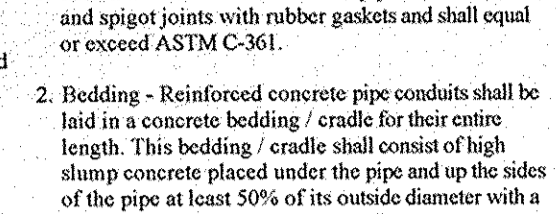
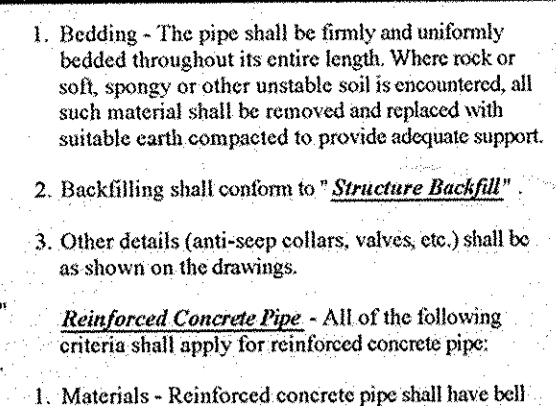
Geotextile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

Care of Water during Construction All work on permanent structures shall be carried out in areas free from water...

Structure Backfill Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material...

Stabilization All borrow areas shall be graded to provide proper drainage and left in a slightly channel. All exposed surfaces of the embankment, spillway, spoil and borrow areas...

Erosion and Sediment Control Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized...



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. DATE: 4-7-08

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. DATE: 4/15/08

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. DATE: 4/15/08

INSPECTION OF THE POND(S) SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, NRCS 'STANDARDS AND SPECIFICATIONS FOR PONDS' (MD-378)...

DeMario Design Consultants, Inc. The Old Fishhouse 66 East Main Street, Suite 200 Westminster, MD 21157

OWNER: EMERSON LAND BUSINESS TRUST, 10275 LITTLE PATUXENT PKWY, COLUMBIA, MD 21044

DEVELOPER: GENERAL GROWTH PROPERTIES, 10275 LITTLE PATUXENT PKWY, COLUMBIA, MD 21044

SITE ADDRESS: UPPER SKY WAY

EMERSON SECTION 2, PHASE BB PARCELS A THRU D & OPEN SPACE LOT 1 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000

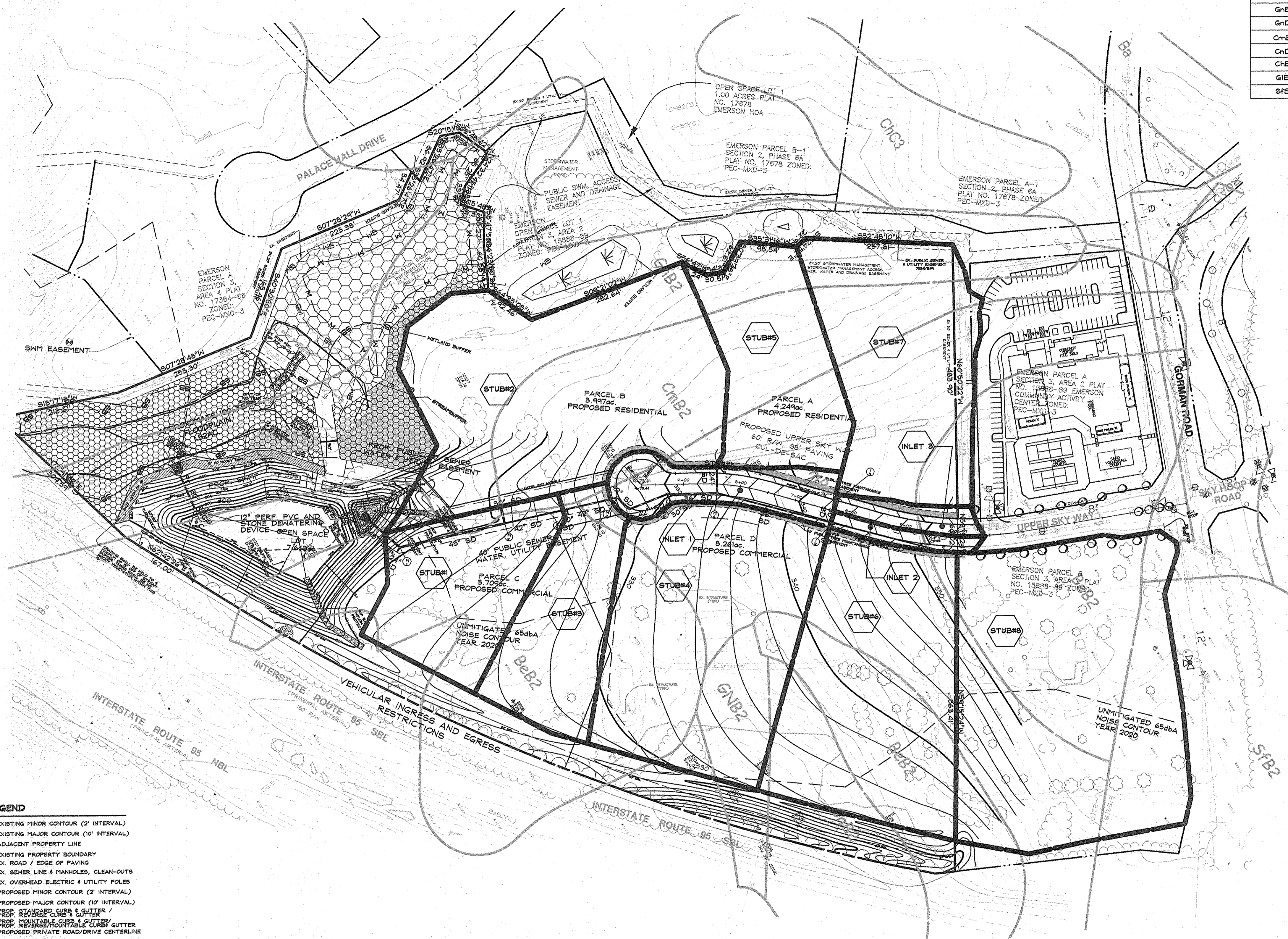
SEDIMENT & EROSION CONTROL DETAILS

6TH ELECTION DISTRICT HOWARD COUNTY, MD

Table with columns: NO., DESCRIPTION OF CHANGES, DRN., REV., DATE. Includes revision 1: DES. BY: JCOMRT, DRN. BY: SDS, DATE: 9.26.07.

SOILS CHART				
CODE(CLASS)	NAME	HYDRIC (Y/N/INCL.)	K VALUE	
BeB2(C)	BELTSVILLE SILT LOAM, 1%-5% SLOPES, MODERATELY ERODED	INCLUSIONS	0.43	
BeC2(C)	BELTSVILLE SILT LOAM, 5%-10% SLOPES, MODERATELY ERODED	INCLUSIONS	0.43	
GnB2(C)	GLENVILLE SILT LOAM, 3%-8% SLOPES, MODERATELY ERODED	INCLUSIONS	0.32	
GnD3(C)	GLENVILLE SILT LOAM, 15%-25% SLOPES, MODERATELY ERODED	INCLUSIONS	0.32	
CmB2(B)	CHILLUM SILT LOAM, 1%-5% SLOPES, MODERATELY ERODED	N	0.43	
CmD3(B)	CHILLUM-FAIRFAX LOAMS, 5%-15% SLOPES, SEVERELY ERODED	N	0.43	
ChB2(B)	CHESTER SILT LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32	
GlB2(B)	GLENELG LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32	
SfB2(B)	SASSAFRAS LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32	

DRAINAGE AREA COMPS				
D.A.	"C" FACTOR	% IMPERVIOUS	ACRES	
INLET#1	0.63	66%	0.75	
INLET#2	0.73	80%	0.18	
INLET#3	0.56	55%	0.26	
STUB#1	0.72	72%	1.64	
STUB#2	0.72	72%	4.24	
STUB#3	0.72	72%	1.49	
STUB#4	0.72	72%	3.54	
STUB#5	0.72	72%	1.79	
STUB#6	0.72	72%	5.28	
STUB#7	0.72	72%	2.65	
STUB#8	0.72	72%	4.76	



DATA SOURCES:
 BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-MCLINE-HALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT-MCLINE-HALKER, INC.

DeMario Design Consultants, Inc.
 The Old Firehouse
 65 East Main Street, Suite 200
 Westminster, MD 21157
 Phone: (410) 386-0560
 Fax: (410) 386-0564
 e-mail: ddc@demariodesign.com

OWNER: EMERSON LAND BUSINESS TRUST
 DEVELOPER: GENERAL GROWTH PROPERTIES
 10275 LITTLE PATUXENT PKWY
 COLUMBIA, MD 21044
 410-992-6000
 410-992-6000

SITE ADDRESS:
 UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B
 PARCELS A THRU D & OPEN SPACE LOT 1
 A RESUBDIVISION OF FOREST
 CONSERVATION EASEMENT PLAT NO. 18000

**STORM DRAIN
 DRAINAGE AREA MAP**

6TH ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE
CO. FILE # F-07-141	DES. BY: JCO		
TAX ACC. # N/A	DRN. BY: SDS		
TAX MAP: 47	CHK. BY: MRT		
BLOCK / GRID: 8	DATE: 9.26.07		
PARCEL # 462 & 837	DDC JOB#: 05104.2		
ZONE / USE: PEC-MXD-3	SHEET NUMBER:		
DWG. SCALE: 1"=100'	6 of 14		

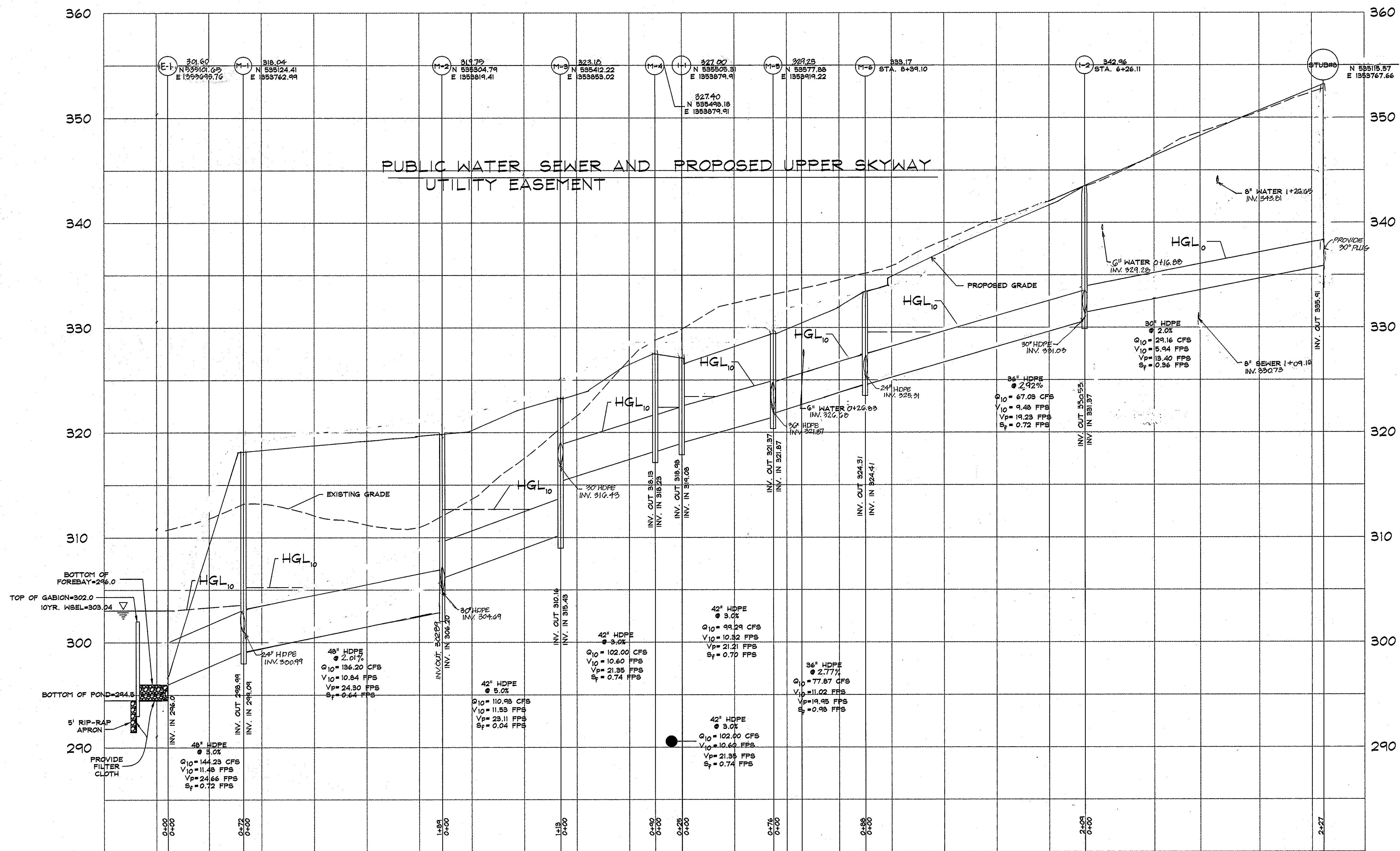
- DRAWING LEGEND**
- 602 EXISTING MINOR CONTOUR (2' INTERVAL)
 - 600 EXISTING MAJOR CONTOUR (10' INTERVAL)
 - ADJACENT PROPERTY LINE
 - N. 06°45'45"N 120.00' EXISTING PROPERTY BOUNDARY
 - EX. ROAD / EDGE OF PAVING
 - EX. SEWER LINE & MANHOLES, CLEAN-OUTS
 - EX. OVERHEAD ELECTRIC & UTILITY POLES
 - 602 PROPOSED MINOR CONTOUR (2' INTERVAL)
 - 600 PROPOSED MAJOR CONTOUR (10' INTERVAL)
 - PROP. STORM DRAIN / UTILITY / INLET / MANHOLE
 - PROP. PRIVATE ROAD/DRIVE CENTERLINE
 - EX. BUILDING
 - PROPOSED BUILDING EXPANSION
 - PROPOSED SPOT ELEVATION & FLOH ARROW
 - 665.5
 - EXISTING TREES
 - PROPOSED ORNAMENTAL TREE
 - PROPOSED SHADE TREE
 - PROPOSED EVERGREEN TREE
 - EXISTING TREELINE
 - EXISTING SHrub/BURSH LINE
 - PROPOSED STORM DRAIN W/ INLETS / MANHOLES
 - PROPOSED INLET PROTECTION MEASURES
 - PROPOSED WATER LINE & HYDRANT
 - PROPOSED SEWER AND MANHOLES
 - PROPOSED ELECTRIC TRANSFORMER
 - PROPOSED ELECTRIC METER
 - EXISTING FOREST CONSERVATION EASEMENT
 - PROPOSED FOREST CONSERVATION EASEMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 [Signature] 4-7-08
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 [Signature] 4/15/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

3/21/08 DATE
 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. 25420, Expiration Date: 7.20.08.

[Professional Engineer Seal]



DATA SOURCES:

BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-HOGLINE-WALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT-HOGLINE-WALKER, INC.

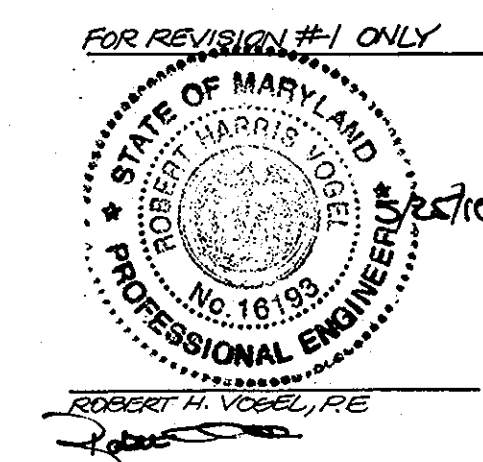
DeMario Design Consultants, Inc.

The Old Firehouse
66 East Main Street, Suite 200
Westminster, MD 21157
Phone: (410) 386-0560
Fax: (410) 386-0564
eMail: dco@demariodesign.com

OWNER:
EMERSON LAND BUSINESS TRUST
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-592-6000

DEVELOPER:
GENERAL GROWTH PROPERTIES
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-982-6000

SITE ADDRESS:
UPPER SKY WAY



EMERSON SECTION 2, PHASE 8B
PARCELS C THRU E & OPEN SPACE LOT 1
A RESUBDIVISION OF FOREST
CONSERVATION EASEMENT PLAT NO. 18000

STORM DRAIN PROFILES

6TH ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS 5/13/2010

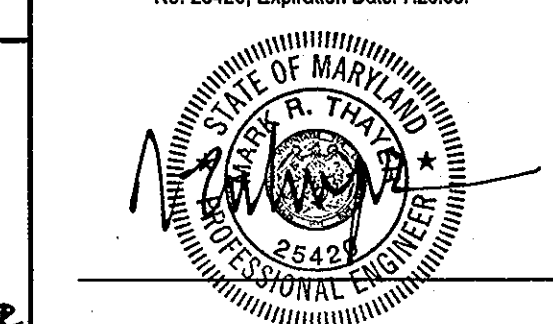
NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
1	REVISE PLANS TO REFLECT CHANGES BY ADDING GRADING TO PARCEL E AND REMOVE GRADING FROM PARCELS C & D			

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 4-7-09
CHIEF, BUREAU OF HIGHWAYS

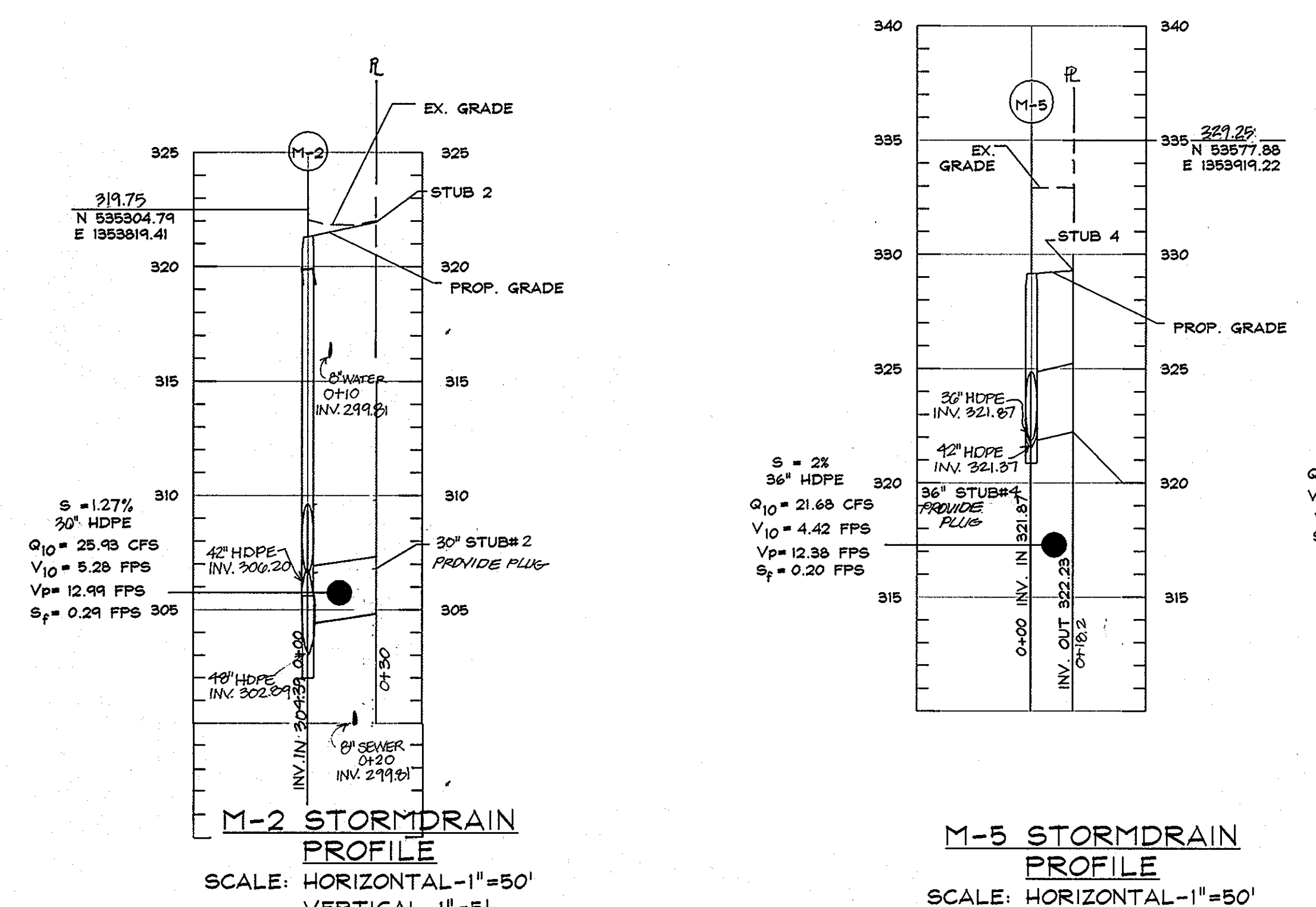
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Cindy ... 4/16/09
CHIEF DIVISION OF LAND DEVELOPMENT

... 4/15/09
CHIEF, DEVELOPMENT ENGINEERING DIVISION

3/12/08 DATE
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. 25420, Expiration Date: 7.20.08.

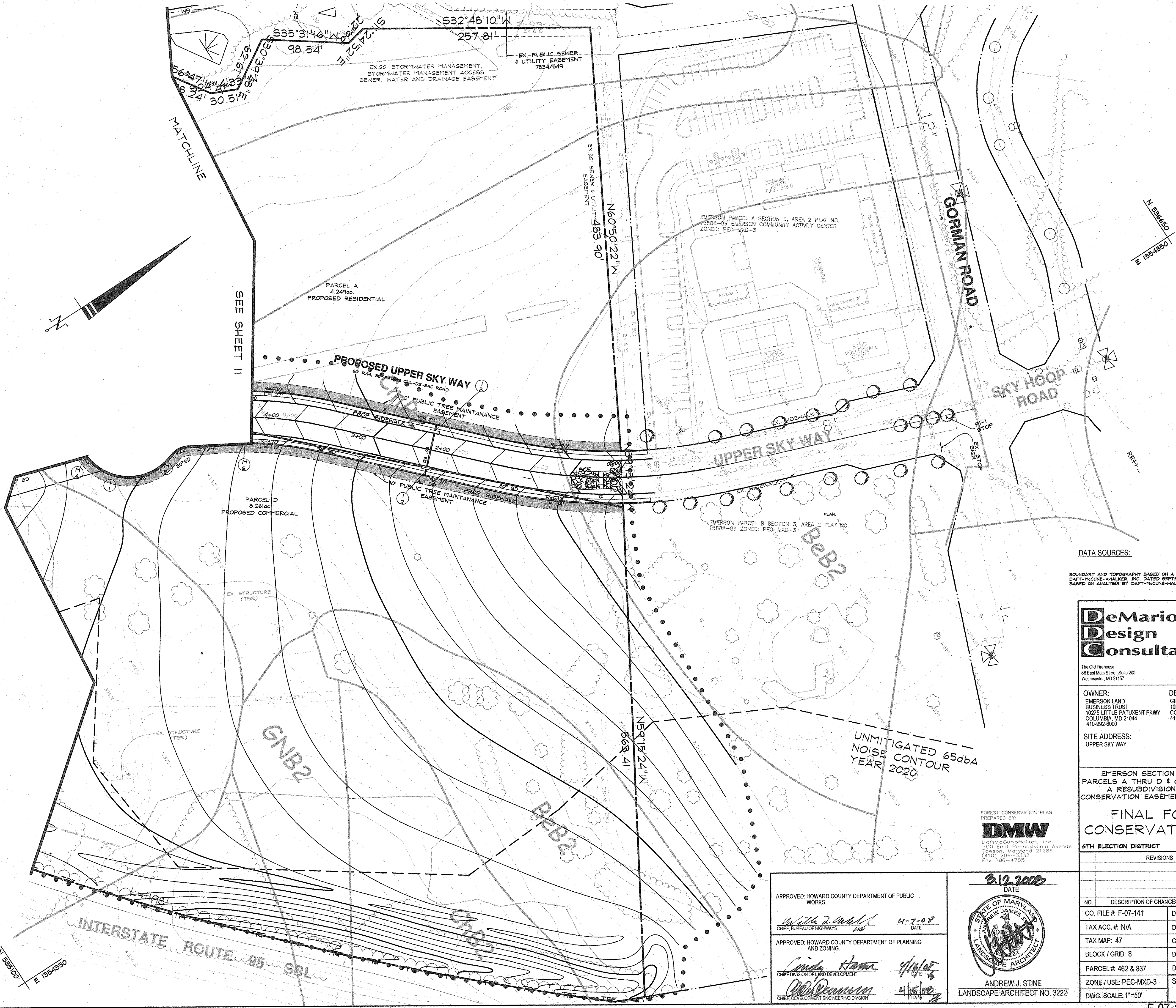
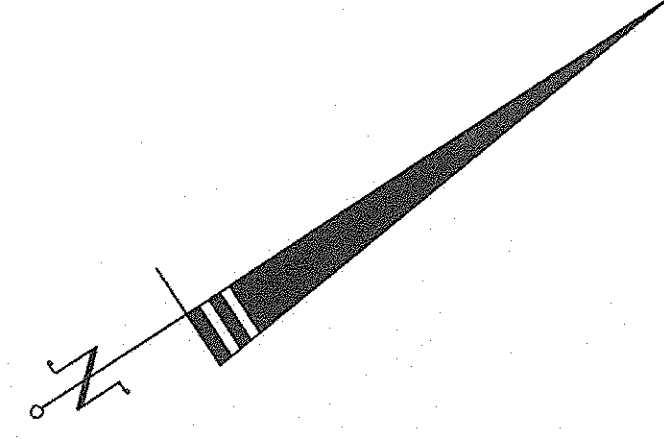


CO. FILE #: F-07-141	DES. BY: JCO
TAX ACC. #: N/A	DRN. BY: SDS
TAX MAP: 47	CHK. BY: MRT
BLOCK / GRID: 8	DATE: 9.26.07
PARCEL #: 462 & 837	DDC JOB#: 05104.2
ZONE / USE: PEC-MXD-3	SHEET NUMBER:
DWG. SCALE: 1"=50'	7 of 14



DRAWING LEGEND

- EXISTING MINOR CONTOUR (2' INTERVAL)
- EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROPOSED MINOR CONTOUR (2' INTERVAL)
- PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROP. STANDARD CURB & GUTTER /
- PROP. REVERSE FOOTCURE & GUTTER
- PROP. REVERSE FOOTCURE & GUTTER
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING EXPANSION
- PROPOSED SPOT ELEVATION & FLOW ARROW
- EXISTING TREES
- PROPOSED ORNAMENTAL TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE
- EXISTING TREELINE
- EXISTING SHRUB/BRUSH LINE
- PROPOSED STORM DRAIN W/
- PROPOSED INLET PROTECTION MEASURES
- PROPOSED WATER LINE & HYDRANT
- PROPOSED SEWER AND MANHOLES
- PROPOSED ELECTRIC TRANSFORMER
- PROPOSED ELECTRIC METER
- EXISTING FOREST CONSERVATION EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- 15' NO HOODY ZONE
- EXISTING WETLANDS
- 25' WETLANDS BUFFER
- TREE PROTECTION FENCING
- FOREST CONSERVATION EASEMENT



DATA SOURCES:
BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DART-MCCUNE-HALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DART-MCCUNE-HALKER, INC.

DeMario Design Consultants, Inc.

The Old Firehouse
66 East Main Street, Suite 200
Westminster, MD 21157
Phone: (410) 386-0560
Fax: (410) 386-0564
e-mail: dco@demariodesign.com

OWNER:
EMERSON LAND BUSINESS TRUST
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

DEVELOPER:
GENERAL GROWTH PROPERTIES
10275 LITTLE PATUXENT PKWY
COLUMBIA, MD 21044
410-992-6000

SITE ADDRESS:
UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B
PARCELS A THRU D & OPEN SPACE LOT 1
A RESUBDIVISION OF FOREST
CONSERVATION EASEMENT PLAT NO. 18000

FINAL FOREST CONSERVATION PLAN

6TH ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE
CO. FILE # F-07-141	DES. BY: JC01DMW		
TAX ACC. # N/A	DRN. BY: CVL		
TAX MAP: 47	CHK. BY: AUS		
BLOCK / GRID: 8	DATE: 9.26.07		
PARCEL # 462 & 837	DDC JOB#: 05104.2		
ZONE / USE: PEC-MXD-3	SHEET NUMBER:		
DWG. SCALE: 1"=50'	10 of 14		

FOREST CONSERVATION PLAN
PREPARED BY:
DMW
DartMcCuneWalker, Inc.
200 East Pennsylvania Avenue
Towson, Maryland 21286
(410) 296-3333
Fax 296-4705

3.12.2008
DATE

ANDREW J. STINE
LANDSCAPE ARCHITECT NO. 3222

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Walter R. Wald 4-7-07
CHIEF, BUREAU OF HIGHWAYS
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cindy Hannon 4/16/08
CHIEF DIVISION OF LAND DEVELOPMENT
DATE

Chris DeMunon 4/15/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE

E 1954990
N 1954910

N 1954950
E 1954950

N 1954910
E 1954950

WETLAND MITIGATION AREA AND EXISTING FOREST CONSERVATION EASEMENT (SDP-05-124, Plat No. 18000) TO BE COMBINED WITH ADDITIONAL FOREST CONSERVATION AREAS FOR THIS PHASE

FOREST CONSERVATION EASEMENT B

1.77 ac. TOTAL
 0.68 ac. RETENTION (Outside Floodplain)
 1.01 ac. FLOODPLAIN (Non-Credit)
 0.08 ac. REFORESTATION

0.13± Acres EXCLUDED FROM GROSS SITE AREA (SEE FOREST CONSERVATION TRACKING CHART NOTE H)

100 YEAR FLOODPLAIN
 1.52ac.

FOREST CONSERVATION EASEMENT A

2.61 ac. NEW EASEMENT TOTAL
 1.96 ac. EXISTING EASEMENT (PLAT No. 18000)
 0.07 ac. RETENTION THIS PHASE
 0.49 ac. REFORESTATION THIS PHASE
 0.09 ac. FLOODPLAIN THIS PHASE (non-credit)

DRAWING LEGEND

- EXISTING MINOR CONTOUR (2' INTERVAL)
- EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROPOSED MINOR CONTOUR (2' INTERVAL)
- PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROP. STORM DRAIN & GUTTER / INLET
- PROP. REFORESTATION AREA
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING EXPANSION
- PROPOSED SPOT ELEVATION & FLOW ARROW

EXISTING TREES

- PROPOSED ORNAMENTAL TREE
- PROPOSED SHADE TREE
- PROPOSED EVERGREEN TREE

EXISTING TREELINE

- EXISTING SHRUB/BURSH LINE
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- PROPOSED WATER LINE & HYDRANT
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- PROPOSED ELECTRIC TRANSFORMER
- PROPOSED ELECTRIC METER
- EXISTING FOREST CONSERVATION EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- 15' NO WOODY ZONE
- EXISTING WETLANDS
- 25' WETLANDS BUFFER
- TPF
- PROP. REFORESTATION AREA
- LOD
- FOREST CONSERVATION EASEMENT
- STREAM BUFFER
- PERMANENT FOREST PROTECTION SIGNS

DATA SOURCES:
 BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-MCGUIRE-WALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT-MCGUIRE-WALKER, INC.

FCE SUMMARY CHART:

FCE	RETENTION	REFORESTATION	FLOODPLAIN	TOTAL
FCE A	0.07 AC	0.49 AC	0.09 AC	0.65 AC
FCE B	0.68 AC	0.08 AC	1.01 AC	1.77 AC
TOTAL	0.75 AC	0.57 AC	1.10 AC	2.42 AC

THE FOREST CONSERVATION EASEMENT HAS BEEN ESTABLISHED TO FULFILL THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE AND THE FOREST CONSERVATION MANUAL. NO CLEARING, GRADING OR CONSTRUCTION IS PERMITTED WITHIN THE FOREST CONSERVATION EASEMENT, HOWEVER, FOREST MANAGEMENT PRACTICES AS DEFINED IN THE DEED OF FOREST CONSERVATION EASEMENT ARE ALLOWED.

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 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000
FINAL FOREST CONSERVATION PLAN
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

FOREST CONSERVATION PLAN
 PREPARED BY:
DMW
 DeMario Design Consultants, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-3333
 Fax: 296-4705

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. Galt 4-7-07
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Cindy Harris 4/16/07
 CHIEF DIVISION OF LAND DEVELOPMENT

Andrew J. Stine 4/15/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 3-12-2008

 ANDREW J. STINE
 LANDSCAPE ARCHITECT NO. 3222

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE # F-07-141	DES. BY: JCO/DMW			
TAX ACC. #: N/A	DRN. BY: TPM			
TAX MAP: 47	CHK. BY: JCO/MRT			
BLOCK / GRID: 8	DATE: 9.26.07			
PARCEL # 462 & 837	DDC JOB#: 05104.2			
ZONE / USE: PEC-MXD-3	SHEET NUMBER:			
DWG. SCALE: 1"=50'	11 of 14			

FOREST CONSERVATION TRACKING CHART

DFZ FILE Number	Section/Phase Number	Gross Area	Floodplain	Net Tract Area	Ex. Forest Area	Forest Cleared	Forest Retained	Reforest./Affor. Required	Reforest./Affor. Provided	Excess Reforest./Affor.	Future Forest Clearing	Future Reforest./Affor.	Comments
F-01-137	2 1A/1B	106.20	3.50	102.70	24.70	7.98	16.77	0.61	5.03	4.42	4.48	3.41	
F-01-145	2/2	18.90	3.50	115.40	24.80	8.03	16.77	2.95	5.03	2.08	3.28	3.41	See Note A
F-02-55	2/3	137.35	4.00	133.35	34.40	12.53	21.87	1.27	5.03	3.76	2.18	3.91	See Note B
F-02-131	3/1	206.85	21.19	185.66	85.30	34.47	45.83	0.00	5.03	5.03	2.18	3.91	
F-02-178	3/2	220.27	21.27	199.00	87.50	41.67	45.83	0.00	5.03	5.03	2.18	3.91	See Note C
F-03-13	2 /4	264.81	26.57	238.24	98.18	47.15	51.03	0.00	5.03	5.03	2.49	5.24	
F-03-175	2/5/C	267.84	27.40	240.44	98.62	47.59	51.03	0.00	5.77	5.77	2.49	5.24	
F-04-68	2/6/A	277.75	27.40	250.35	98.62	47.59	51.03	0.00	5.77	5.77	2.49	5.24	See Note D
F-04-131	2/4	277.75	27.40	250.35	98.62	47.59	51.03	0.00	8.55	8.55	2.49	3.91	See Note E
F-04-53	2/5/A	306.93	27.51	279.42	98.66	47.63	51.03	2.79	8.74	5.95	2.49	3.91	
F-04-127	2/5/B	332.63	32.43	300.20	115.66	63.31	52.35	8.51	11.51	3.00	2.49	3.91	See Note F
F-05-49	2/1/B	332.63	32.43	300.20	115.66	61.73	53.93	6.53	13.29	6.76	0.49	1.84	See Note G
F-05-93	2/7	341.19	32.43	308.76	115.66	61.73	53.93	7.81	13.29	5.48	0.49	1.84	
F-05-89	2/6/B	347.46	32.43	315.03	121.26	67.33	53.93	10.15	13.52	3.37	0.49	1.84	
SDP-05-124 FARM POND		347.46	32.43	315.03	121.26	67.33	53.93	10.15	15.49	5.34	0.49	1.84	
F-07-141	2/6/B	373.80	32.75	341.05	125.82	71.14	54.68	14.27	16.06	1.79	0.49	1.84	See Note H

FOREST CONSERVATION TRACKING CHART PROVIDED BY DAFT-McCUNE-WALKER, INC.

- A. 1.20 +/- ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWH ON OPEN SPACE LOT 174.
- B. 1.10 +/- ACRES OF FUTURE FOREST CLEARING SHOWN ON F-01-137 WAS CLEARED FOR SWH ON OPEN SPACE LOT 176.
- C. GROSS AREA INCLUDES 1.07 +/- ACRES FOR SANITARY SEWER EXTENSION AND CONTAINS 0.08 +/- ACRES OF FLOODPLAIN.
- D. GROSS AREA EXCLUDES 0.38 ACRES FOR THE SANITARY SEWER SHOWN ON F-02-178. GROSS AREA ALSO EXCLUDES 0.07 ACRES FOR AREA PREVIOUSLY ACCOUNTED FOR UNDER P-03-16.
- E. THIS LINE ITEM ACCOUNTS FOR REFORESTATION PROVIDED RETROSPECTIVELY ON A PHASE THAT PREVIOUSLY ADDRESSED FOREST CONSERVATION. APPROXIMATELY 1.33 ACRES OF FUTURE REFORESTATION AREA WILL BE USED UNDER THIS REFORESTATION PLAN.
- F. GROSS AREA EXCLUDES 0.22 ACRES FOR SANITARY SEWER SHOWN ON F-02-178. A GROSS AREA INCLUDES 2.37 ACRES FOR THE WETLAND MITIGATION SITE. FLOODPLAIN INCLUDES 1.2 ACRES FOR THE MITIGATION AREA FLOODPLAIN.
- G. APPROXIMATELY 0.42 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING CLEARED AND IS NOT BEING REFORESTED. APPROXIMATELY 1.58 ACRES OF FUTURE CLEARING/FUTURE REFORESTATION IS BEING RETAINED. APPROXIMATELY 0.13 ACRES OF FUTURE REFORESTATION IS BEING REFORESTED.
- H. GROSS AREA EXCLUDES 0.13 AC FOR SEWER SHOWN ON F-02-178. GROSS AREA ALSO EXCLUDES 2.37 AC FOR WETLAND MITIGATION AREA COUNTED UNDER F-04-127. FLOODPLAIN EXCLUDES 1.20 AC FOR MITIGATION AREA FLOODPLAIN COUNTED UNDER F-04-127.

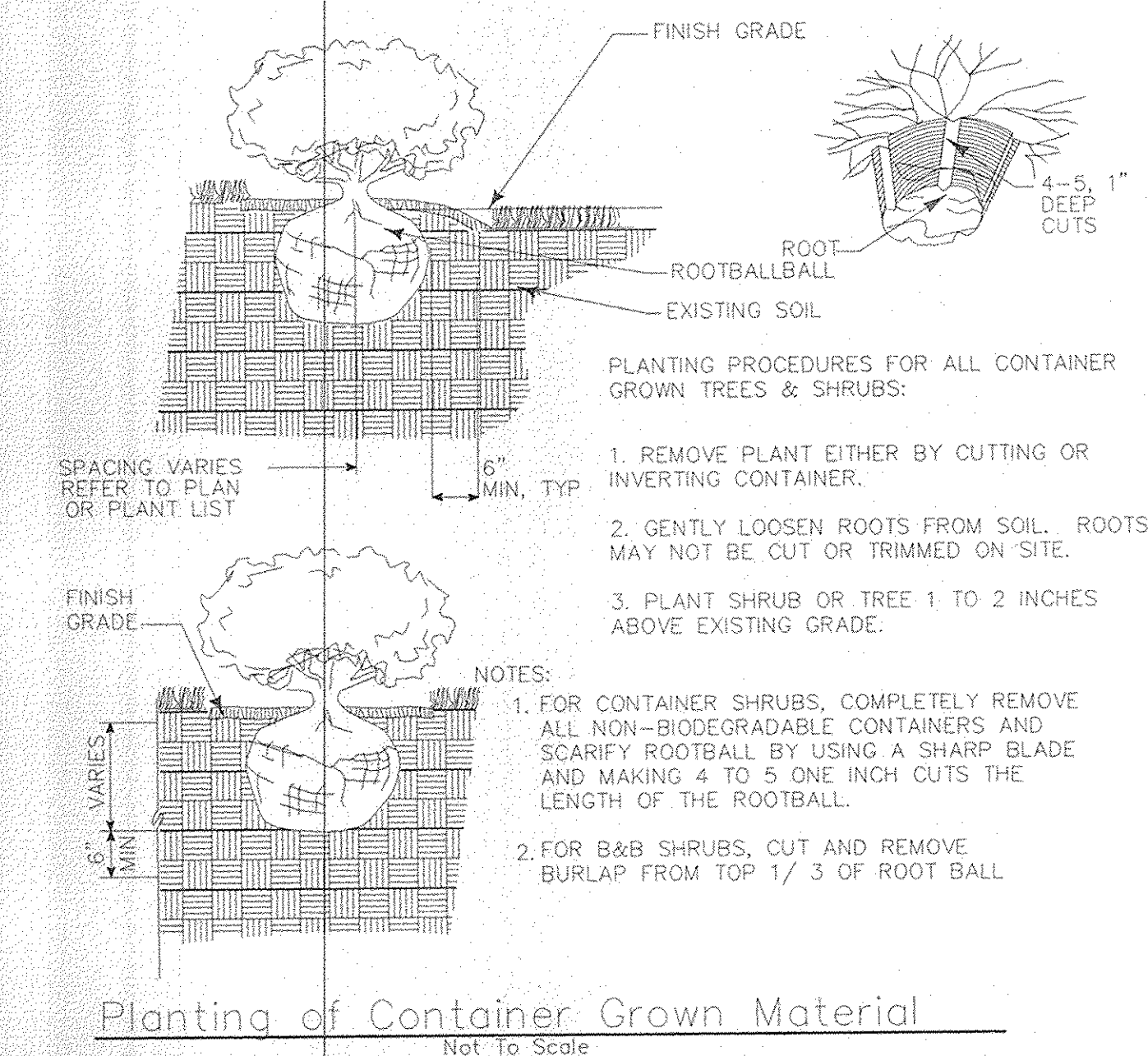
Forest Conservation Easement A - upland, wetland and mesic upland Plants required - 172 (350 whips/acre x 0.49 acres)

Species name	Common name	Size	Spacing	Quantity	Tolerance	Indicator status
Acer rubrum	red maple	18" - 24" height/cont. grown	11' x 11'	50	full sun to part shade	FAC
Betula nigra	river birch	18" - 24" height/cont. grown	11' x 11'	10	full sun	FAWV
Cornus amomum	silky dogwood	18" - 24" height/cont. grown	11' x 11'	15	full sun	FAWV
Liquidambar styraciflua	sweetgum	18" - 24" height/cont. grown	11' x 11'	45	full sun	FAC
Nyssa sylvatica	black gum	18" - 24" height/cont. grown	11' x 11'	28	full sun	FAC
Quercus bicolor	swamp white oak	18" - 24" height/cont. grown	11' x 11'	10	full sun to part shade	FAWV
Quercus phellos	willow oak	18" - 24" height/cont. grown	11' x 11'	16	full sun	FAC
TOTALS				172		

* - FAWV trees shall be planted within wetland limits

Forest Conservation Easement B - upland Plants required - 28 (350 whips/acre x 0.08 acres)

Species name	Common name	Size	Spacing	Quantity	Tolerance	Indicator status
Acer rubrum	red maple	18" - 24" height/cont. grown	11' x 11'	10	full sun to part shade	FAC
Liquidambar styraciflua	sweet gum	18" - 24" height/cont. grown	11' x 11'	8	full sun	FAC
Liriodendron tulipifera	tulip poplar	18" - 24" height/cont. grown	11' x 11'	5	full sun	FAWV
Quercus alba	white oak	18" - 24" height/cont. grown	11' x 11'	5	full sun to part shade	FAWV
TOTALS				28		



CUMULATIVE FOREST CONSERVATION CALCULATIONS

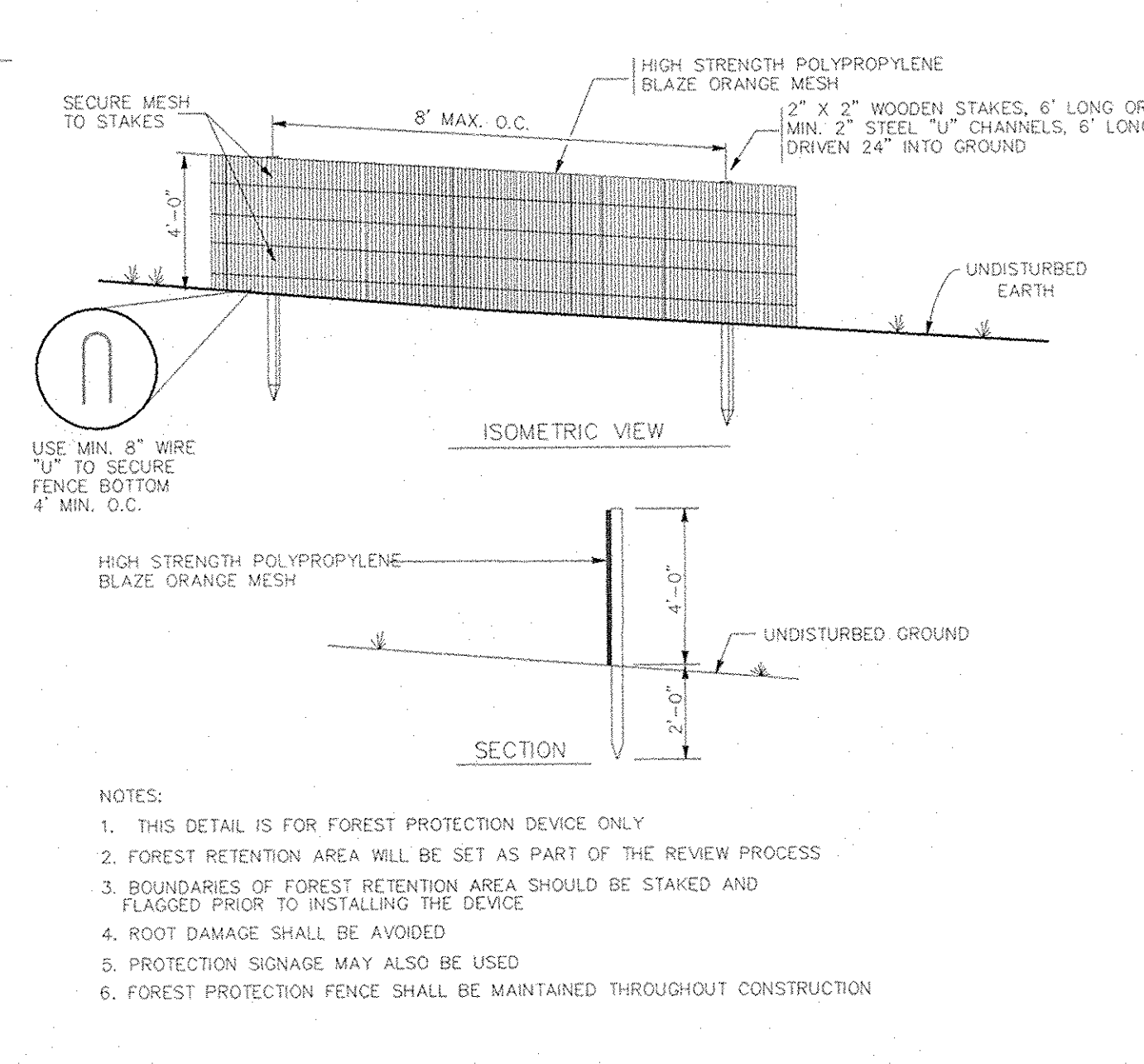
BASIC SITE DATA	ACRES (1,000)
GROSS SITE AREA	373.80
AREA WITHIN 100 YEAR FLOODPLAIN	32.75
AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL (IF APPLICABLE)	N/A
NET TRACT AREA	341.05
LAND USE CATEGORY	CA1

INFORMATION FOR CALCULATIONS	ACRES
A. NET TRACT AREA	341.05
B. REFORESTATION THRESHOLD (85% x A)	51.16
C. AFFORESTATION MINIMUM (15% x A)	51.16
D. EXISTING FOREST ON NET TRACT AREA	129.52
E. FOREST AREAS TO BE CLEARED	71.14
F. FOREST AREAS TO BE RETAINED	54.68

REFORESTATION CALCULATIONS	ACRES
A. NET TRACT AREA	341.05
B. REFORESTATION THRESHOLD (85% x A)	51.16
C. EXISTING FOREST ON NET TRACT AREA	129.52
D. FOREST AREAS TO BE CLEARED	71.14
E. FOREST AREAS TO BE RETAINED	54.68
F. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD	0.00
G. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD	0.00
H. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD	3.52

CLEARING ABOVE THE THRESHOLD	ACRES
IF FOREST AREAS TO BE RETAINED ARE LESS THAN THE REFORESTATION THRESHOLD (IF F IS GREATER THAN B), THE FOLLOWING CALCULATIONS APPLY:	
REFORESTATION FOR CLEARING ABOVE THRESHOLD (F x 1/4)	17.79
REFORESTATION FOR CLEARING BELOW THRESHOLD (G x 2)	0.00
TOTAL REFORESTATION REQUIRED (F x 1/4) + (G x 2)	17.79

CREDIT FOR RETENTION ABOVE CONSERVATION THRESHOLD	ACRES
REFORESTATION REQUIRED	14.27
REFORESTATION PROVIDED	16.06

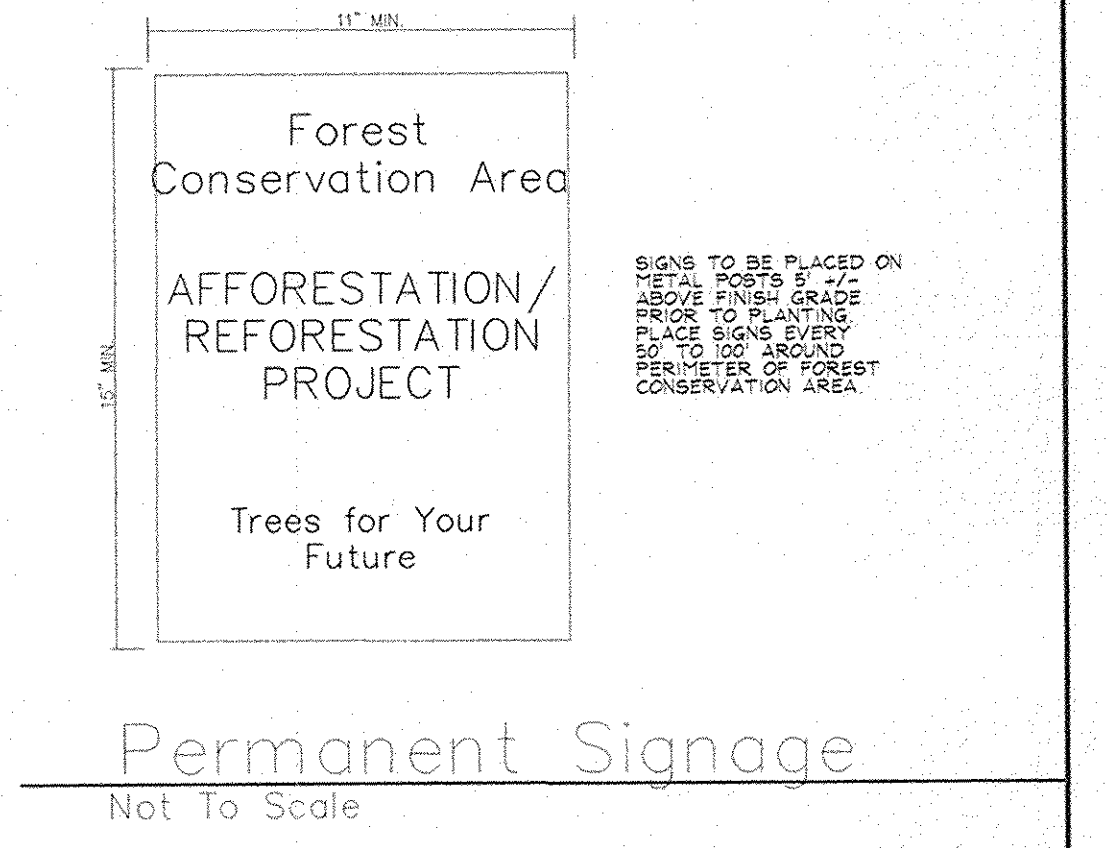


FOREST CONSERVATION GOALS AND OBJECTIVES:
 THE GOALS AND OBJECTIVES OF THIS FOREST CONSERVATION PLAN ARE TO ACCOUNT FOR THE ANTICIPATED CLEARING OF THE APPROXIMATELY 3.81 ACRES OF EXISTING FOREST ON THIS PHASE OF THE EMERSON DEVELOPMENT, AND TO RETAIN APPROXIMATELY 0.75 ACRES IN FOREST CONSERVATION EASEMENT. APPROXIMATELY 0.57 ACRES OF REFORESTATION IS PROPOSED ADJACENT TO EXISTING FORESTS AND REFORESTATION AREAS. SPECIES HAVE BEEN CHOSEN TO REFLECT AND ENHANCE THE EXISTING FOREST COMMUNITY AND TO TOLERATE THE VARYING MOISTURE REGIMES IN THE DESIGNATED PLANTING AREAS.

THE EXISTING FOREST CONSERVATION EASEMENT INCLUDING THE WETLAND MITIGATION AREA SHOWN ON SDP-05-124 WILL BE RE-RECORDED TO INCLUDE THE ADJACENT RETENTION AND REFORESTATION PROPOSED UNDER THIS PHASE. THIS PLAN IS INTENDED TO SUPPLEMENT SDP-05-124 WHICH DETAILS THE COMPLEX REFORESTATION AND EMERGENT PLANTINGS IN THE WETLAND MITIGATION AREA. REFORESTATION SHOWN HEREIN WILL BE IN ADDITION TO THE FOREST PLANTINGS IN ZONES IV, V, AND VI ON SDP-05-124.

WHEN CALCULATED CUMULATIVELY WITH PREVIOUS PHASES OF THIS PROJECT, A TOTAL OF 71.14 ACRES OF FOREST WILL BE CLEARED, AND 54.68 ACRES WILL BE RETAINED. THE TOTAL REFORESTATION OBLIGATION IS 14.27 ACRES, AND 16.06 ACRES OF REFORESTATION HAVE BEEN PROVIDED.

A SURETY IN THE AMOUNT OF \$12,415.00 (0.57 ACRES @ \$20,500/S.F.) WILL BE REQUIRED FOR PROPOSED REFORESTATION. A SURETY IN THE AMOUNT OF \$6,534.00 (0.75 ACRES @ \$8,200/S.F.) WILL BE REQUIRED FOR FOREST RETENTION. THE TOTAL FOREST CONSERVATION SURETY IS \$18,949.00.



Permanent Signage
 Not To Scale

BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-McCUNE-WALKER, INC. DATED SEPTEMBER 1989. FLOODPLAIN BASED ON ANALYSIS BY DAFT-McCUNE-WALKER, INC.

DATA SOURCES:

OWNER: EMERSON LAND BUSINESS TRUST
 DEVELOPER: GENERAL GROWTH PROPERTIES

SITE ADDRESS: UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B PARCELS A THRU D & OPEN SPACE LOT 1 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000

FOREST CONSERVATION PLAN PREPARED BY:

DMW
 DaftMcCuneWalker, Inc.
 200 East Pennsylvania Avenue
 Towson, Maryland 21286
 (410) 296-7331
 Fax: 296-4775

DATE: 3.12.2000

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

DATE: 4-7-07

DATE: 4/6/05

DATE: 4/15/07

DATE: 4/15/07

DATE: 4/15/07

DATE: 4/15/07

DATE: 4/15/07

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DATE: 4/15/07

DRAWING LEGEND

EXISTING MINOR CONTOUR (2' INTERVAL)	EXISTING MAJOR CONTOUR (10' INTERVAL)	ADJACENT PROPERTY LINE	EXISTING PROPERTY BOUNDARY	EX. ROAD / EDGE OF PAVING	EX. SEWER LINE & MANHOLES, CLEAN-OUTS	EX. OVERHEAD ELECTRIC & UTILITY POLES	PROPOSED MINOR CONTOUR (2' INTERVAL)	PROPOSED MAJOR CONTOUR (10' INTERVAL)	PROP. STAIRWAY, CURB & GUTTER /	PROP. MOUNTABLE CURB & GUTTER	PROPOSED PRIVATE ROAD/DRIVE CENTERLINE	EX. BUILDING	PROPOSED BUILDING EXPANSION	PROPOSED SPOT ELEVATION & FLOW ARROW	EXISTING TREES	PROPOSED ORNAMENTAL TREE	PROPOSED EVERGREEN TREE	EXISTING TREELINE	EXISTING SHRUB/BRUSH LINE
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PROPOSED ELECTRIC TRANSFORMER	PROPOSED ELECTRIC METER	EXISTING FOREST CONSERVATION EASEMENT	PROPOSED FOREST CONSERVATION EASEMENT	15' NO WOODY ZONE	EXISTING WETLANDS	WB - 25' WETLANDS BUFFER	TPF - TREE PROTECTION FENCING
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PERIMETER LANDSCAPE EDGE: SCHEDULE "A"

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES			
LANDSCAPE TYPE	P1 'B'	P2 'A'	P3 'A'	P4 'A'	
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	1895 L.F.	1056 L.F.	1209 L.F.	1107 L.F.	
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	675 L.F.	N/A	N/A	N/A	N/A
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A	N/A
NUMBER OF PLANTS REQUIRED	1220 LF				
SHADE TREES	24				
EVERGREEN TREES	31				
SHRUBS	0				
NUMBER OF PLANTS PROVIDED					
SHADE TREES	0				
EVERGREEN TREES	0				
OTHER TREES (2:1 SUBSTITUTION)	0				
SHRUBS	0				
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)					

At the time of plant installation, all shrubs and 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 re-locations of the required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from the approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to the applicable plans.

NOTES
 LANDSCAPE REQUIREMENTS TO BE DEFERRED TO THE SITE DEVELOPMENT PLAN STAGE FOR FUTURE TENANTS REQUIRED SCREENING WILL BE INCORPORATED INTO FUTURE TENANT. LANDSCAPE PLANS WILL ADDRESS REQUIREMENTS DEFINED IN "COMMERCIAL AND INDUSTRIAL DESIGN GUIDELINES" BY THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION. CREDIT TAKEN FOR EXISTING VEGETATION AND REDUNDANT STORAGE/STORAGE MANAGEMENT PERIMETER. PERIMETER 2, 3, AND 4 ARE ADJACENT PROPERTY IS ALSO WITHIN EMERSON SUBDIVISION; THEREFORE, NO SCREENING IS REQUIRED ALONG THESE PERIMETERS.

STREET TREE TABULATION
 STREET TREES REQUIRED: 28 TOTAL
 1134 L.F. @ 1 TREE/40 L.F. (INTERIOR ROAD-UPPER SKYWAY)
 STREET TREES PROVIDED: 28 TOTAL
 NOTE: ALL STREET TREES PROVIDED SHALL BE MAJOR/SHADE TREES.

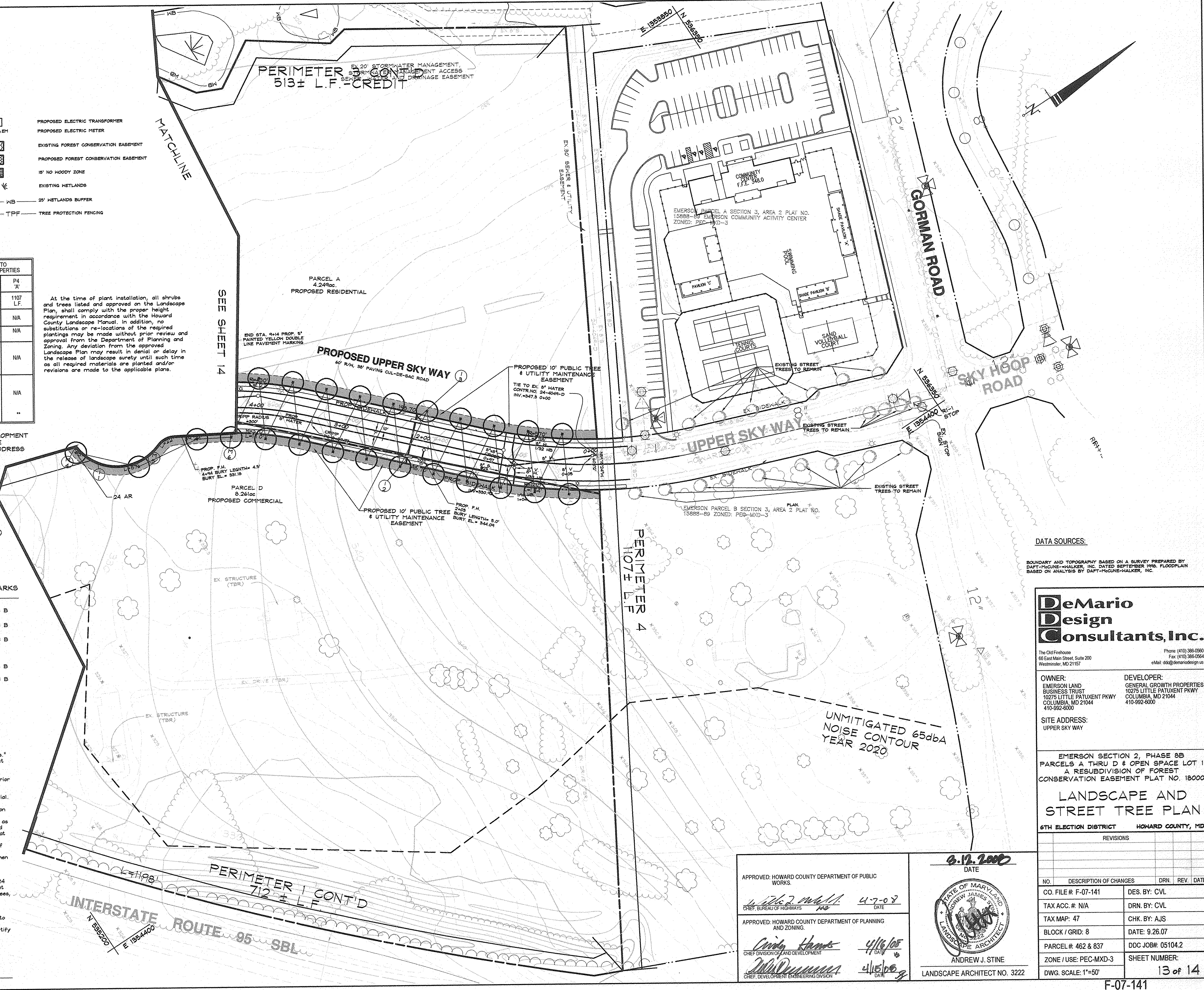
PLANT LIST

QTY	SYM	BOTANICAL NAME/COMMON NAME	SIZE	REMARKS
28	AR	ACER RUBRUM 'OCTOBER GLORY'	2 1/2 -3" CAL.	B & B
14	PAB	PLATANUS x ACERIFOLIA 'BLOODGOOD'	2 1/2 -3" CAL.	B & B
6	QP	QUERCUS PALUSTRIS PIN OAK	2 1/2 -3" CAL.	B & B
12	PA	PICEA ABIES NORWAY SPRUCE	6' HT.	B & B
13	PS	PINUS STROBUS EASTERN WHITE PINE	6' HT.	B & B

- General Planting Notes**
- All plant materials to meet A.N.L.A. Standards.
 - The Contractor is to follow specification guidelines for Baltimore & Washington Metropolitan Area as approved by the L.C.A. of Maryland, Washington D.C., & Virginia and described in the latest edition of "Landscape Specification Guidelines."
 - No substitutions are to be made without the consent of the Landscape Architect and/or the Owner.
 - All beds are to be topped with three (3) inches of hardwood mulch.
 - Contractor shall notify Miss Utility at (1-800) 257-7777, at least 72 hours prior to construction and verify the location of all utilities with the Owner before planting.
 - Landscape Architect/Owner shall select, verify, and/or approve all plant material. At the Owner's discretion, specimen and other plant material may be selected.
 - The Landscape Contractor shall coordinate with the general, lighting, & irrigation contractors regarding timing and installation of plant material. At the time of final inspection with acceptance, all electric, water & drainage utilities, as well as plant material, shall remain undamaged. Likewise, the Landscape Contractor and utilities contractors shall coordinate efforts to ensure that surface utilities are at the proper elevation relative to final grades.
 - The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and berms, fences and walls. 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.
 - This plan has been prepared in accordance with the provisions of Section 16.124 of the Ho. Co. Code. Financial surety for the required landscaping in the amount of \$4,750 must be posted as part of the Developer's Agreement (20 shade trees, 25 evergreen trees).
 - Developer/Builder's Certificate

I/We 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 Howard County Landscape Manual and the Emerson Landscape Design Criteria. I/We further certify that, upon completion, a letter of landscape installation, accompanied by an executed one-year guarantee of the plant materials, will be submitted to the Department of Planning and Zoning.

NAME: *Tom G. Anagnost* DATE: *3/11/08*



DATA SOURCES:
 BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT-McGUNE-WALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT-McGUNE-WALKER, INC.

DeMario Design Consultants, Inc.
 The Old Firehouse
 60 East Main Street, Suite 200
 Westminster, MD 21157
 Phone: (410) 385-0250
 Fax: (410) 385-0564
 eMail: ddm@demariodesign.us

OWNER: EMERSON LAND BUSINESS TRUST
 10275 LITTLE PATUENT PKWY
 COLUMBIA, MD 21044
 410-992-6000

DEVELOPER: GENERAL GROWTH PROPERTIES
 10275 LITTLE PATUENT PKWY
 COLUMBIA, MD 21044
 410-992-6000

SITE ADDRESS: UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B
 PARCELS A, THRU D & OPEN SPACE LOT 1
 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000

LANDSCAPE AND STREET TREE PLAN

6TH ELECTION DISTRICT HOWARD COUNTY, MD

REVISIONS

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE # F-07-141	DES. BY: CVL			
TAX ACC. # N/A	DRN. BY: CVL			
TAX MAP: 47	CHK. BY: AJS			
BLOCK / GRID: 8	DATE: 9.26.07			
PARCEL # 462 & 837	DDC JOB #: 05104.2			
ZONE / USE: PEC-MXD-3	SHEET NUMBER:			
DWG. SCALE: 1"=50'	13 of 14			

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
4/7/08 DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
4/16/08 DATE

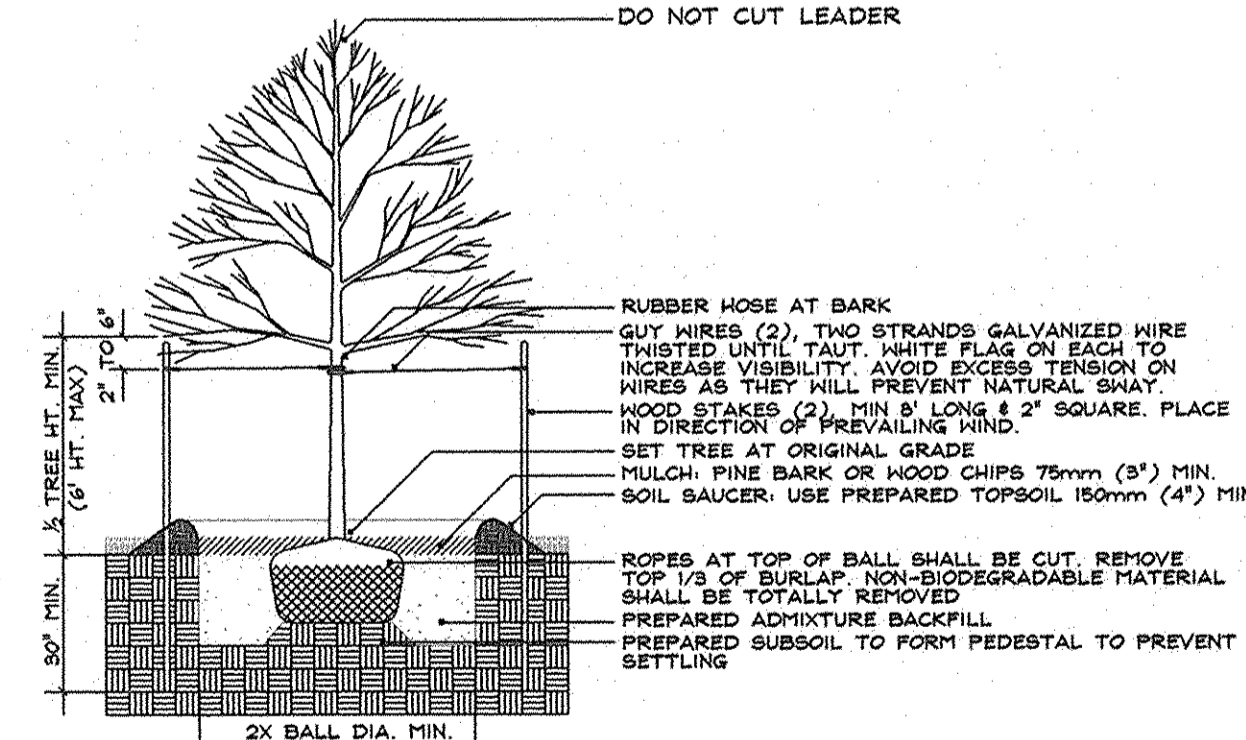
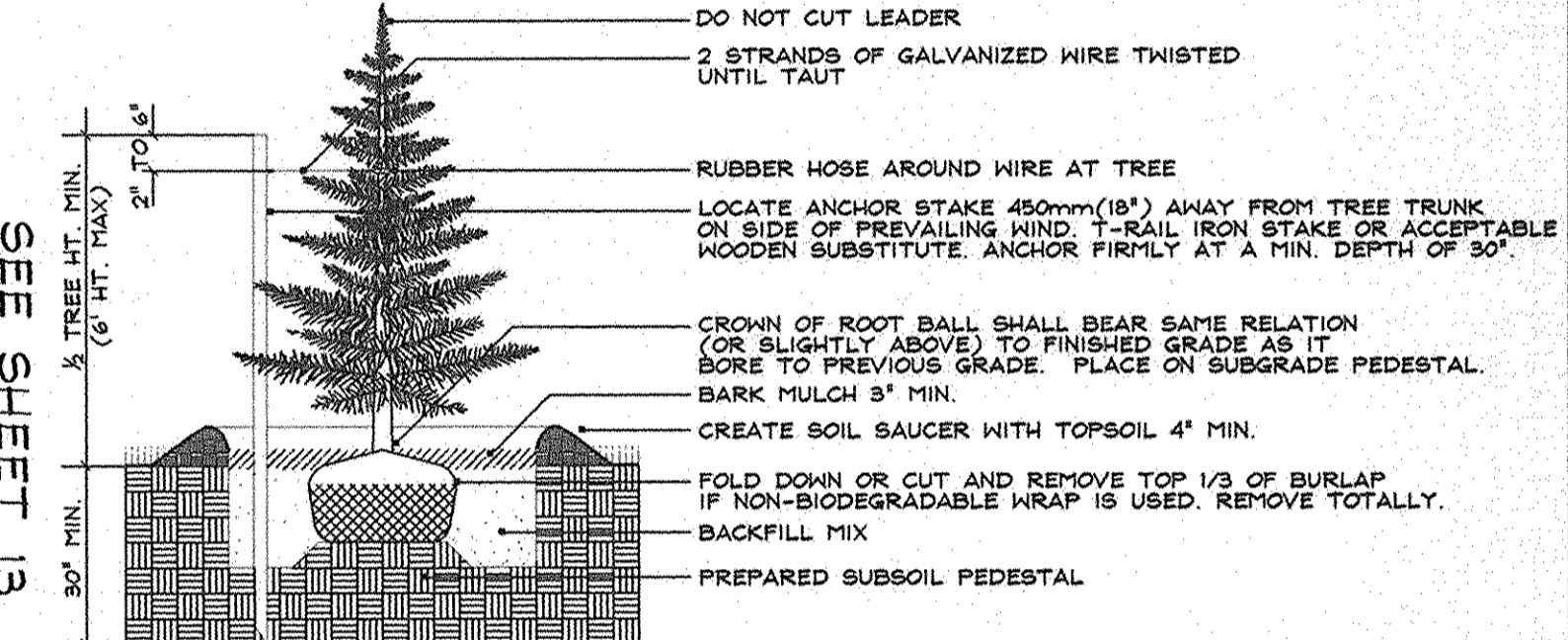
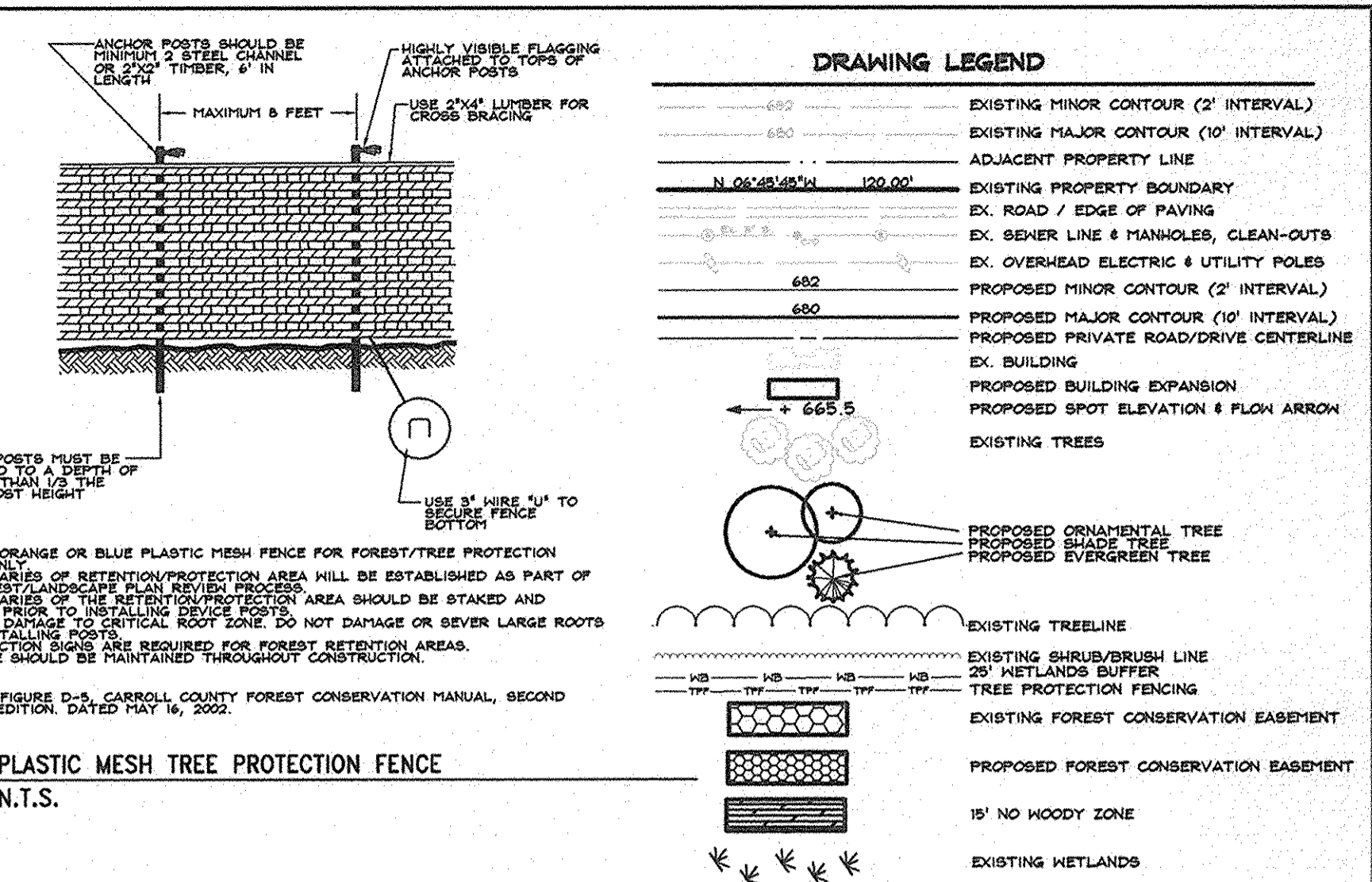
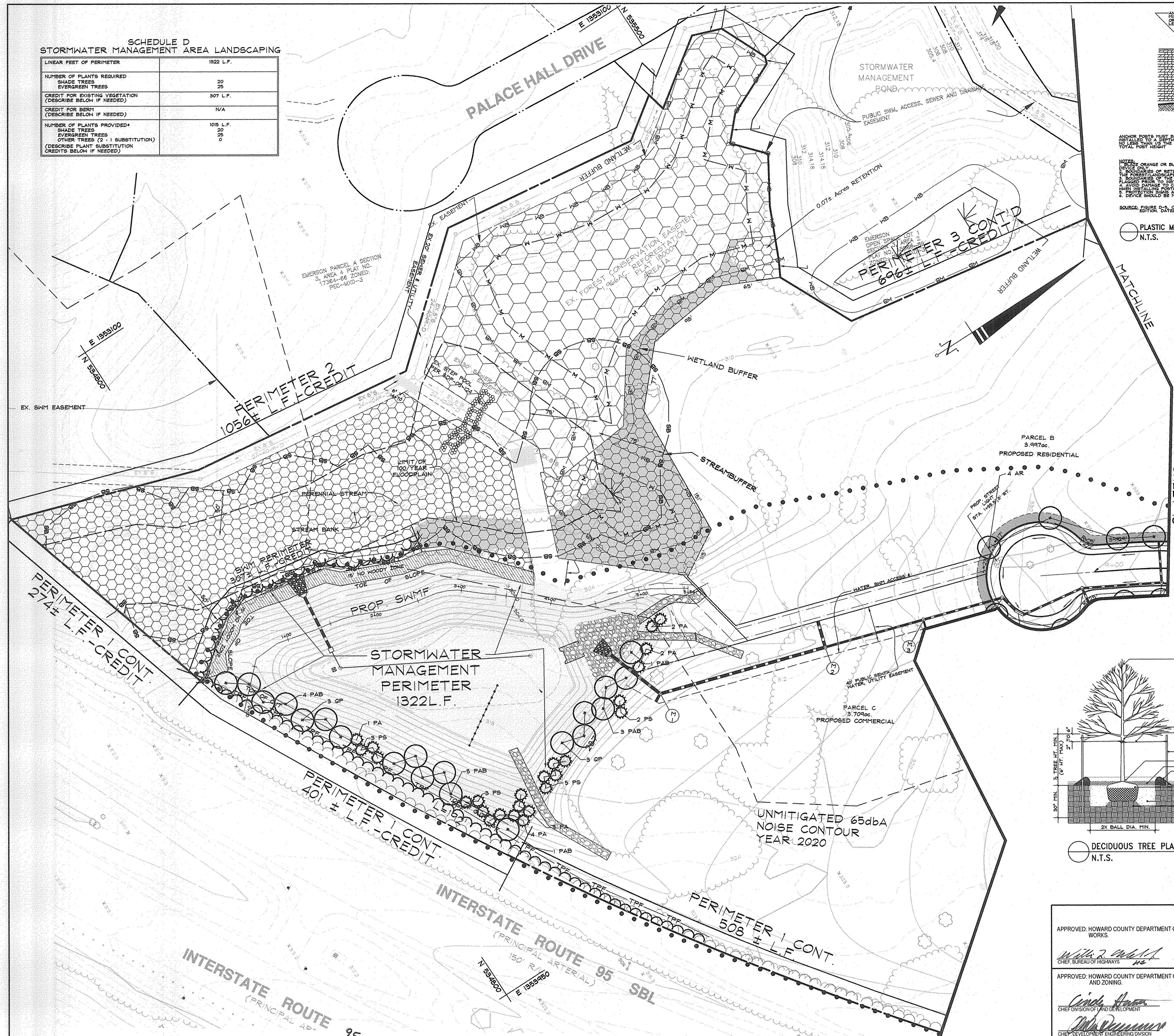
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
4/15/08 DATE

DATE: *3.12.2008*

STATE OF MARYLAND
 LANDSCAPE ARCHITECT
 ANDREW J. STINE
 LANDSCAPE ARCHITECT NO. 3222

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	1922 L.F.
NUMBER OF PLANTS REQUIRED	
SHADE TREES	20
EVERGREEN TREES	25
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	907 L.F.
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A
NUMBER OF PLANTS PROVIDED*	105 L.F.
SHADE TREES	20
EVERGREEN TREES	25
OTHER TREES (2:1:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	0



DRAWING LEGEND

- EXISTING MINOR CONTOUR (2' INTERVAL)
- EXISTING MAJOR CONTOUR (10' INTERVAL)
- ADJACENT PROPERTY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROPOSED MINOR CONTOUR (2' INTERVAL)
- PROPOSED MAJOR CONTOUR (10' INTERVAL)
- PROPOSED PRIVATE ROAD/DRIVE CENTERLINE
- EX. BUILDING
- PROPOSED BUILDING EXPANSION
- PROPOSED SPOT ELEVATION & FLOW ARROW
- EXISTING TREES
- PROPOSED ORNAMENTAL TREE
- PROPOSED SHADE TREE
- EXISTING EVERGREEN TREE
- EXISTING TREELINE
- EXISTING SHRUB/BURSH LINE
- 20' WETLANDS BUFFER
- TREE PROTECTION FENCING
- EXISTING FOREST CONSERVATION EASEMENT
- PROPOSED FOREST CONSERVATION EASEMENT
- 15' NO WOODY ZONE
- EXISTING WETLANDS

DATA SOURCES:

BOUNDARY AND TOPOGRAPHY BASED ON A SURVEY PREPARED BY DAFT+MCQUEEN+WALKER, INC. DATED SEPTEMBER 1998. FLOODPLAIN BASED ON ANALYSIS BY DAFT+MCQUEEN+WALKER, INC.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
Walter J. Miller 4-7-07
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
Cynthia Hanson 4/6/08
 CHIEF DIVISION OF LAND DEVELOPMENT

Andrew J. Stine 4/15/07
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

DATE: 4.12.2008

STATE OF MARYLAND
 ANDREW J. STINE
 LANDSCAPE ARCHITECT NO. 3222

DeMario Design Consultants, Inc.

The Old Firehouse
 55 East Main Street, Suite 200
 Westminster, MD 21157
 Phone: (410) 386-0560
 Fax: (410) 386-0564
 eMail: ddc@demariodesign.us

OWNER: EMERSON LAND BUSINESS TRUST
 10275 LITTLE PATUXENT PKWY
 COLUMBIA, MD 21044
 410-992-6000

DEVELOPER: GENERAL GROWTH PROPERTIES
 COLUMBIA, MD 21044
 410-992-6000

SITE ADDRESS: UPPER SKY WAY

EMERSON SECTION 2, PHASE 8B
 PARCELS A THRU D & OPEN SPACE LOT 1
 A RESUBDIVISION OF FOREST CONSERVATION EASEMENT PLAT NO. 18000

LANDSCAPE AND STREET TREE PLAN

6TH ELECTION DISTRICT HOWARD COUNTY, MD

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #	F-07-141	DES. BY:	CVL	
TAX ACC. #	N/A	DRN. BY:	CVL	
TAX MAP:	47	CHK. BY:	AJS	
BLOCK / GRID:	8	DATE:	9.26.07	
PARCEL #	462 & 837	DDC JOB#:	05104.2	
ZONE / USE:	PEC-MXD-3	SHEET NUMBER:		
DWG. SCALE:	1"=50'			

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