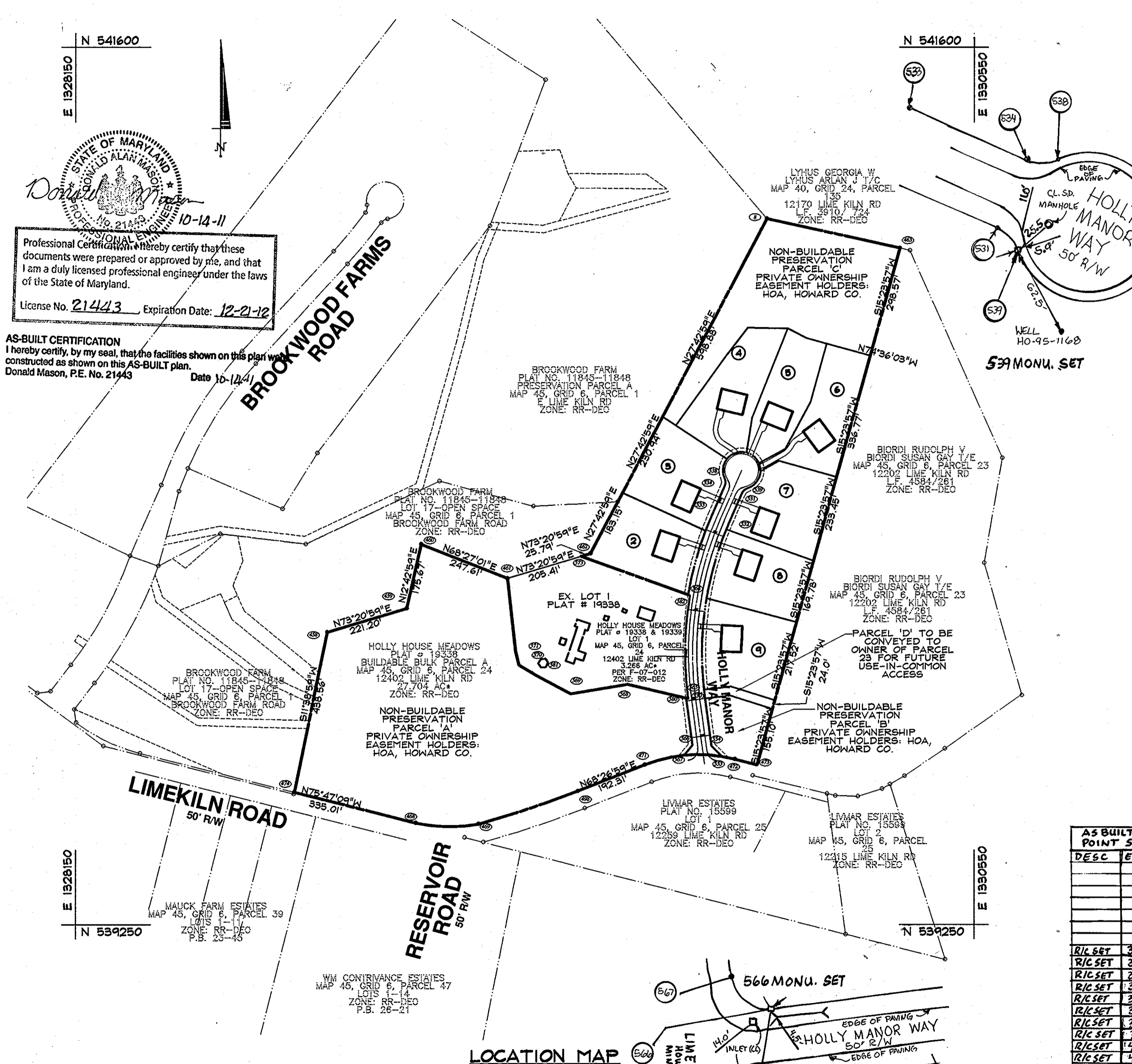


GENERAL NOTES

- 1. Existing Zoning: RR-DEO (Rural Residential - Density Exchange Option) per Feb. 2, 2004 Comprehensive Zoning Plan and the Comp. Lite Zoning Amendments effective July 28, 2006.
2. Dead Reference: 06/21/468
3. Plot Reference: N/A
4. Gross Area of Tract: 27.704 ac.
5. Area of 100 Year Floodplain: 1.39 ac.
6. Area of Steep Slopes: 3.02 ac.
7. Net Area of Tract: 26.012 ac.
8. Density Tabulation:
a) By-right lot yield: 5 lots
b) Maximum allowable yield: 11 lots
c) Buildable Lots Proposed: 8 lots (9 including ex. dwelling on Ex. Lot 1)
d) Buildable Preservation Parcels: 0
e) Non-Buildable Preservation Parcels: 3
f) DEO Units required: 4 units
9. Area of Proposed Lots/Parcels:
a) Buildable Lots: 8.688 Ac.
b) Buildable Preservation Parcels: 0.002 ac.
c) Non-Buildable Preservation Parcels: 19.772 ac.
d) Area of Proposed Public Roads: 1.009 ac.
e) Other Parcels: 0.112 ac.
10. Driveways shall be provided prior to issuance of a use and occupancy permit for new dwellings to insure safe access for fire and emergency vehicles per the following minimum requirements:
a) Width - 12' (16' serving more than one residence);
b) Surface - of composed crushed run base with tar and chip coating (1-1/2" min.);
c) Geometry - Max. 14% grade, max. 10% grade change and min. 45' turning radius;
d) Structures (culverts/bridges) capable of supporting 25 gross tons (2.5 loading);
e) Drainage Elements - capable of safely passing 100-year flood with no more than 1 foot depth over driveway surface;
f) Maintenance - sufficient to insure all weather use.
11. No grading, removal of vegetative cover or trees, paving and new structures shall be permitted within the limits of wetlands, streams(s), or their required buffers, floodplain and forest conservation easement areas.
12. For flag or pipeline lots, refuse collection, show removal and road maintenance are provided to the lands of the flag or pipeline and road right-of-way line and not on the pipeline lot driveway.
13. Land for a Public Road 1.009 AC is dedicated under the plat submitted with this Final Plan for Holly House Meadows Phase II.
14. Water and Sewer are private.
15. The Forest Conservation Obligations for the entire site and SP-07-002 were addressed with F-07-012.
16. Reservation of Public Utility and Forest Conservation Easements
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 herein 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 to be 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, or in the case of 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 the developer's surety posted with said agreement, a conveyance shall accept the easements and record the deed(s) of easement in the Land Records of Howard County.
17. Landscaping is provided in accordance with a certified Landscape Plan included in this road construction plan set in accordance with Section 16.124 of the Howard County Code and the Landscape Manual.
18. This plan complies with the requirements of Section 16.1200 of the Howard County Code for Forest Conservation.
19. All construction shall be in accordance with the latest Howard County Standards.
20. The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410)393-1880 at least five (5) working days prior to the start of work.
21. The contractor shall notify Hillis Cornes Engineering Associates, Inc. at least 48 hours prior to any excavation work being done.
22. Traffic control markings and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
23. 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 pipe sleeve (12 gauge) 3' long. A galvanized steel pole cap shall be mounted on top of post.
24. The existing topography shown herein was flown by Virginia Resource Mapping in Spring 2006.
25. Landscaping for this development and landscaping to be accepted shall be in accordance with the Developers Agreement, at Final Plan stage, in accordance with the latest edition of the Howard County Landscape Manual.
26. The forest conservation obligation for this development was provided as part of the Minor Subdivision for Holly House Meadows (F-07-012).
27. The coordinates shown herein are based upon the Howard County Geodetic Control, which is based upon the Maryland State Geodetic System, Howard County Monument No. 40 IA & 0079 and is used for this project.
28. This property is not within the Metropolitan District.
29. Private water and sewer systems will be utilized for this development. All lots will utilize their own individual systems, no abject systems are to be determined at the time of final plan approval.
30. Stormwater management for this development will be provided by the following means:
a) Recharge volume (Rev) will be provided through the use of the grass channel credit, the disconnection of non-roof-top run-off credit and the disconnection of rooftop runoff credit. The water quality (WQ) will be provided through a micro-pool extended detention pond, the disconnection of rooftop run-off credit through grading on lots 2-3 and 7-8 and rain gardens on lots 4 and 6 and a natural area conservation credit. Channel protection volume (CPV) will be provided through the micro-pool extended detention pond. Overbank flood protection volume and extreme flood protection volume are not required. The pond will be a jointly maintained facility (Howard County & HOA).
31. Existing utilities shown herein are based on field surveys and record drawings. The contractor will be responsible for verifying these utilities in the field at the time of construction.
32. The geotechnical study for this development was prepared by Hillis Cornes Engineering Associates, Inc. in July, 2006 and submitted for review as part of F-07-012.
33. The delineation for this site was prepared by Hillis Cornes Environmental in February, 2006 and submitted as part of F-07-012.
34. The Traffic Study for this project was compiled by the Traffic Group, Inc. and is dated August, 2006.
35. The geotechnical study for this project was prepared by Hillis Cornes Engineering Associates, Inc. in July, 2006.
36. The Sight Distance Study for this property was submitted as part of the Minor Subdivision for Holly House Meadows (#12402 Lime Kiln Road, F-07-12).
37. Project Background Information:
a) Subdivision Name: Holly House Meadows
b) Tax Map/Block/Parcel: 45/6/24
c) Zoning: RR-DEO
d) Election District: 5th
e) Total (Gross) Tract Area: 27.704 ac.
f) Number of Proposed Lots/Parcels: 12
g) Applicable Department of Planning & Zoning File No.: F-08-090, F-07-012 & SP-07-002
38. The proposed access street shall be public.
39. BRL denotes the Building Restriction Line.
40. Sediment and erosion control measures will be provided in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control.
41. Street trees shall be provided on the access street in accordance with Section 16.124 of the Howard County Subdivision Regulations.
42. Sidewalks are not provided because this site is located within the RR-DEO Zoning District, in accordance with Section 16.134 of the Howard County Code.
43. This area designates a private easement of 10,000 sq. ft. minimum as required by the Maryland State Department of the Environment for individual sewage disposal. Improvements of any nature on this area are restricted until public sewerage becomes available. These easement areas shall become null and void upon connection to a public sewerage system. The County Health Officer shall have the authority to grant variances for adjustments to the private sewerage easement. Recordation of a modified easement shall not be necessary.
44. This plan is subject to the Amended 5th Edition of the Howard County Subdivision and Land Development Regulations, effective date 10-2-2003 and as amended 12-15-2005.
45. Non-Buildable Preservation Parcel 1A
Area: 10.22 acres
Owner: Private ownership
Easement Holders: HOA, Howard County
Purpose: The purpose of this parcel is the preservation of existing environmental features, the protection of existing wetlands, streams and their buffers and the provision of stormwater management facilities.
Non-Buildable Preservation Parcel 1B
Area: 0.55 acres
Owner: Private ownership
Easement Holders: HOA, Howard County
Purpose: The purpose of this parcel is reforestation credit and screening of the proposed development from the Lime Kiln Road.
Non-Buildable Preservation Parcel 1C
Area: 8.24 acres
Owner: Privately owned by one of the adjacent lot owners, lots 3-6.
Easement Holders: HOA, Howard County
Purpose: The purpose of this parcel is the preservation of existing environmental features and the protection (in easement) of existing priority forest habitat.
Community Input: Meetings were held on the proposed subdivision in June, 2006.
46. All well casings shall be maintained to ensure a minimum of 8' in height above finish grade. If grading (filling) within the vicinity of a well casing, the casing shall be raised to guarantee a minimum of 8 feet.
47. The minimum width of all lots with private sewerage facilities complies with COMAR 26.04.02.05.
48. A Geologic Road Study is necessary as Lime Kiln Road has not been identified as a Howard County Scenic Road.
49. All proposed wells are to be drilled prior to final plan approval. It is the Developer's responsibility to schedule the well drilling prior to final plan submission. It will not be considered "government delay" if the well drilling holds up the Health Department signature of the Health Department.
50. All existing septic disposal areas of record have been shown. Existing off-property well and septic location information is approximated from Howard County Health Department records and field investigation by DeMario Design Consultants, Inc. in Spring, 2006.
51. All existing septic disposal areas are to be properly abandoned (according to Health Department Procedures) prior to final plan approval.
52. These plans are subject to a design manual waiver to appendix 'A' and detail R-1.01 of the design manual volume and permit 45' right-of-way between stations 1+80 to 4+50, design manual volume and permit 45' right-of-way between stations 1+80 to 4+50, design manual volume and permit 45' right-of-way between stations 1+80 to 4+50, design manual volume and permit 45' right-of-way between stations 1+80 to 4+50. The waiver was approved on April 3, 2008 subject to the following:
1. The road pavement width shall meet the standard 22' requirement.
2. A public E' street easement shall be located within the 45' right-of-way section.
3. All street trees shall be located in accordance with memorandum from Mr. Jim Irvin, dated October 3, 2006.
53. Contractor must remove (by grinding) the double yellow centerline at the proposed intersection.
54. MDE dam safety tracking/permit number - 200862954/08-NT-3292.

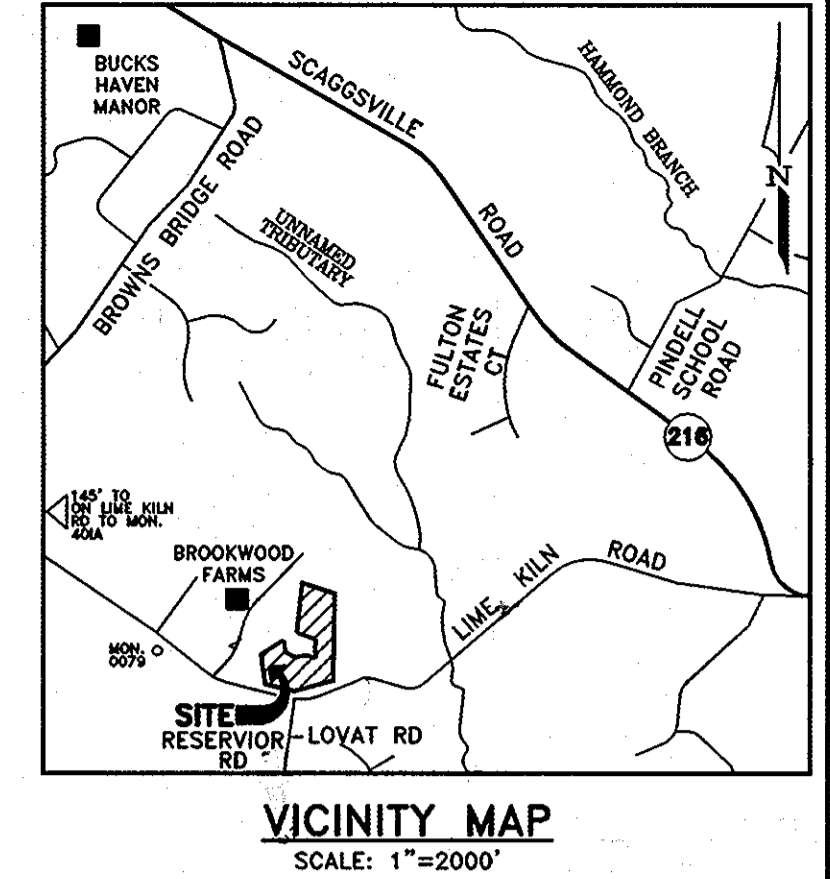
FINAL ROAD CONSTRUCTION PLANS for HOLLY HOUSE MEADOWS, PHASE II LOTS 2-9 & NON-BUILDABLE PRESERVATION PARCELS A, B, C & D A RESUBDIVISION OF BUILDABLE BULK PARCEL 'A' TAX MAP 45, GRID 6, PARCEL 24 5TH ELECTION DISTRICT HOWARD COUNTY, MD



AS-BUILT CERTIFICATION
I hereby certify that the facilities shown on this plan were constructed as shown on this AS-BUILT plan.
Donald Mason, P.E. No. 21443 Date 10-12-08
LAND TABULATION (PHASES I & II)
a) Total Area of Holly House Meadows Property per field survey: 27.704± acres
b) Total public R/W to be dedicated to Howard County: 1.009± acres
DENSITY TABULATION PHASE II
a) Total gross property area: 24,438 ac±
b) Area of on-site floodplain: 1.39 ac±
c) Area of steep slopes: 00.30 ac±
d) Net property area: 22,748 ac±
e) Permitted Base Density: 0.90 units/ac±
f) Proposed lot yield: 4
g) DEO's required: 4

BENCHMARK

Table with 2 columns: BENCHMARK #, DESCRIPTION. Includes benchmark #1 and #2 with coordinates and elevations.



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. OVERHEAD ELECTRIC & UTILITY POLES
PROPOSED MINOR CONTOUR (2' INTERVAL)
PROPOSED MAJOR CONTOUR (10' INTERVAL)
EX. BUILDING
PROPOSED BUILDING
PROPOSED SPOT ELEVATION & FLOW ARROW
LIMIT OF DISTURBANCE
PROPOSED SILT FENCE
PROPOSED SUPER SILT FENCE
PROPOSED EARTH DIKE
15.00% - 24.99% SLOPES
25.00% AND GREATER SLOPES
EXISTING TREELINE
PROPOSED TREELINE
MnF SOIL DELINEATION LINE
NcA
EXISTING TREES
PASSED FIELD LOCATED PERCOLATION TEST HOLE
FAILED FIELD LOCATED STREAM BUFFER
PROP. INF. LINE / PROP. WELL / EX. WELL
PROP. S.R.A (10,000 S.F. MIN)
25' MD STATE WETLAND BUFFER
NETLAND LIMIT (PER FIELD EROSION CONTROL MATTING (SCHEMATIC) LOCATION ONLY)
EXISTING SUBDRAINAGE

DRAWING INDEX table listing sheets 1-18 and their descriptions, including COVER SHEET, FINAL ROAD CONSTRUCTION PLAN, and various erosion control plans.

Site Analysis Data Chart
1. General Site Data
a. Present Zoning: RR-DEO
b. Applicable DPA File Reference: SP-07-002 & F-07-012
c. Proposed Use of Site or Structure(s): SFD RESIDENTIAL
d. Proposed Water and Sewer Systems: Public
e. Any Other Information Which May be Relevant: N/A
2. Area Tabulation
a. Total Area of Site: 24.438 Ac.
b. Approximate Area of 100 Year Floodplain: 1.39 ± Acres
c. Approximate Area of Steep Slopes (25% or Greater): 0.30 ± Acres
d. Net Area of Site: 22.748 Ac. ±
e. Area of Proposed Building Lots: 8.688 Acres
f. Area of Proposed Public Roads: 1.009 Ac. ±
3. Unit/Lot Tabulation
a. Total Number of Residential Units/Lots Allowed for Project by Right:
1) By-right lot yield: 5 lots
2) Maximum allowable yield: 11 lots
3) Buildable Lots Proposed: 8 lots (9 including ex. dwelling on Ex. Lot 1)
4) Buildable Preservation Parcels: 0
5) Non-buildable Preservation Parcels: 3
6) DEO Units required: 4 units

DENSITY EXCHANGE CHART PHASE II table showing total area of subdivision, alloted density units, net acreage, maximum density units, and proposed density units.

Coordinate Table with columns for Desc, Elev., No., North, East. Lists points like RL SET 275.33 and RL SET 340.20.



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. 22370 Expiration Date: 6-30-11

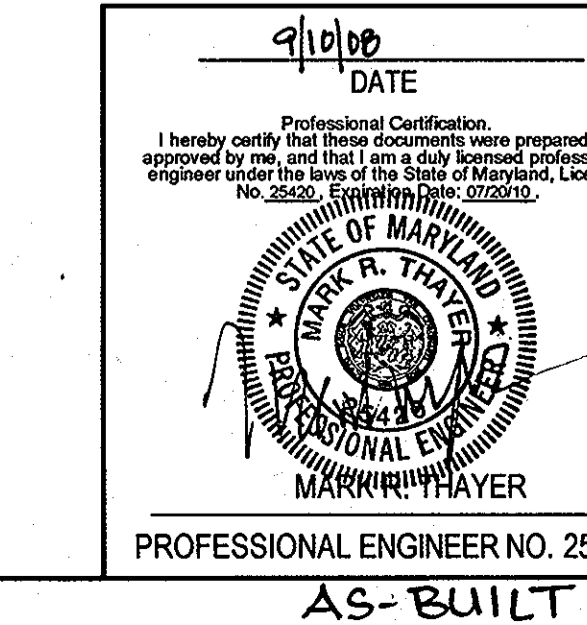
DeMario DESIGN CONSULTANTS

ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street, Westminister, MD 21157
Phone: (410) 388-0560
Fax: (410) 388-0564
http://www.demariodesign.com
eMail: ddo@demariodesign.com

OWNER: HOLLY HOUSE D/LP/MT. LLC
DEVELOPER: SELFRIDGE BUILDERS
C/O JIM SELFRIDGE
4781 TEN OAKS ROAD
DAYTON, MD 21038
DAYTON, MD 21038

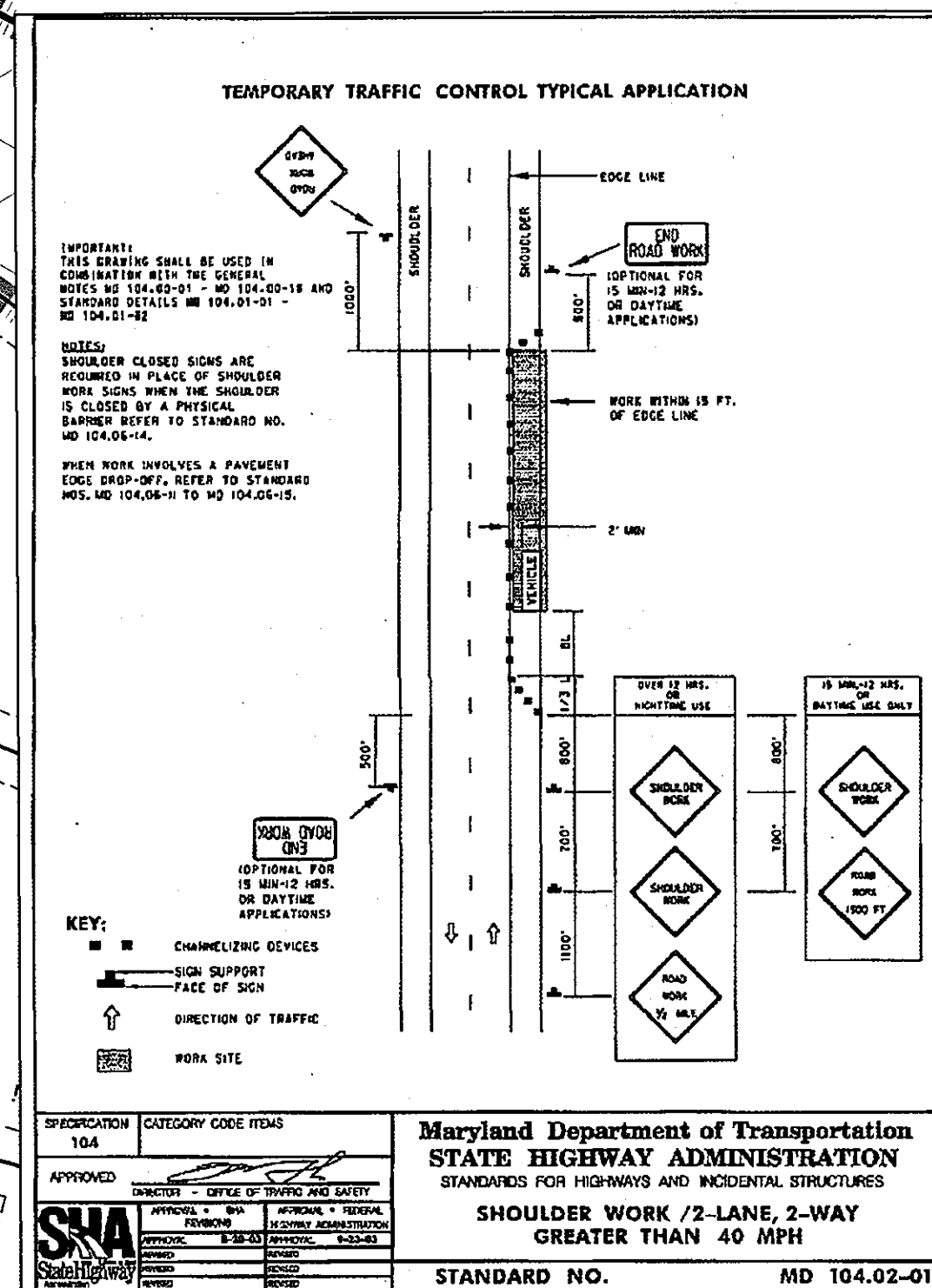
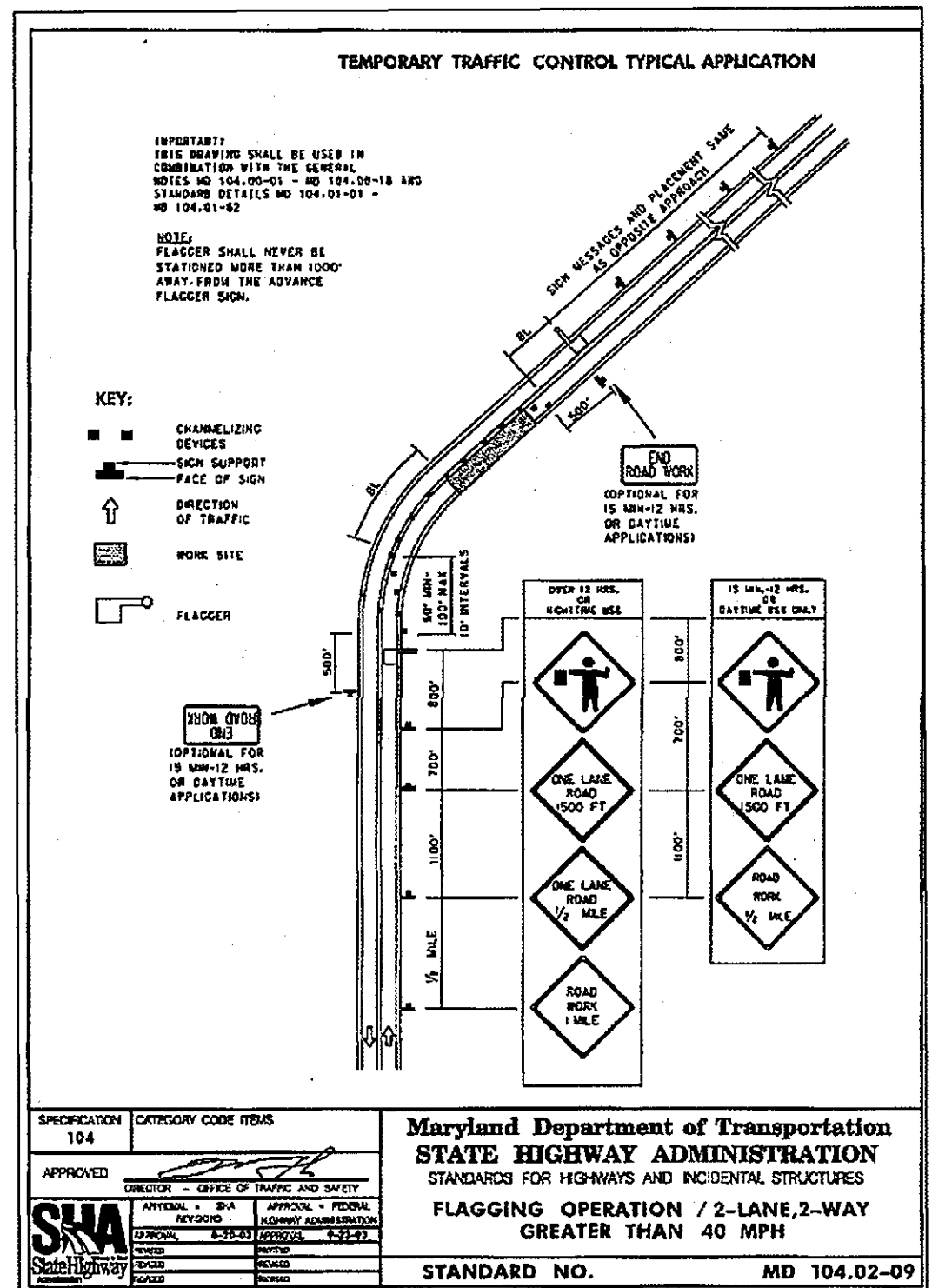
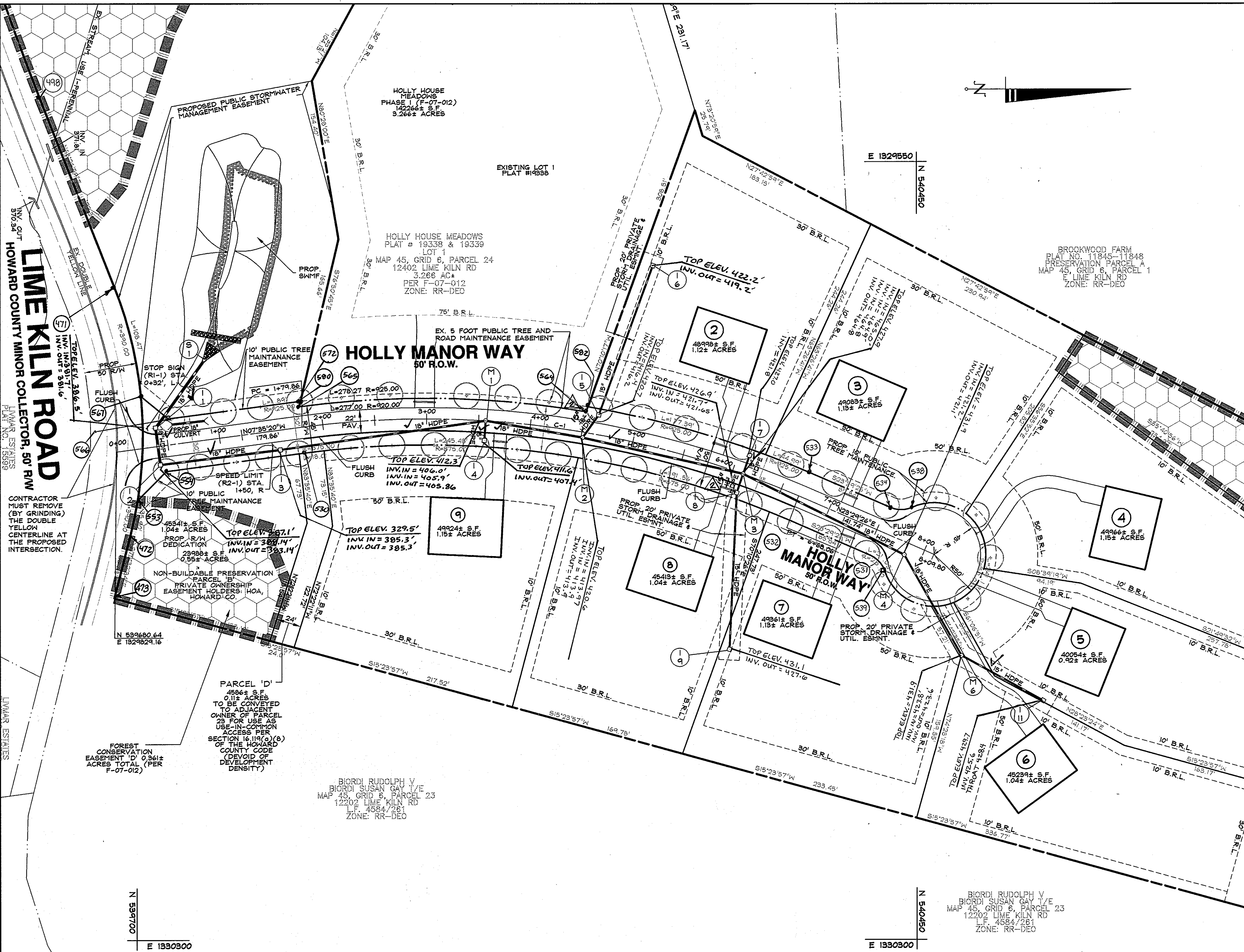
SITE ADDRESS: 12402 LIME KILN ROAD, FULTON, MD 20759
FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'

Table with columns: NO., DESCRIPTION OF CHANGES, DRN, REV, DATE. Includes CO. FILE #, TAX MAP #, BLOCK / GRID #, PARCEL #, ZONE / USE, DWG. SCALE, SHEET NUMBER, and page number 1 of 18.



AS-BUILT PROFESSIONAL ENGINEER NO. 25420 F-08-090

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING. APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. Includes signatures and dates for both departments.



DATA SOURCES:
 EX TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLEN ENVIRONMENTAL, INC. IN SPRING 2008. EX. OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. IN SPRING 2008.

DeMario
DESIGN CONSULTANTS
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street, Westminister, MD 21157
 Phone: (410) 386-0560 Fax: (410) 386-0564
 http://www.demariodesign.com eMail: ddc@demariodesign.com

OWNER: HOLLY HOUSE DVLPM, LLC
 C/O JIM SELF BRIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

DEVELOPER: SELF BRIDGE BUILDERS
 C/O JIM SELF BRIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
ROAD CONSTRUCTION # STREET TREE PLAN
 5TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
1	ADD CHANGES TO 15"			MAY 9/11
CO. FILE #	TAX ACC. # 05-342775	DES. BY: SDS		
TAX MAP: 45	BLOCK / GRID: 6	DRN. BY: SDS		
PARCEL #: 24	DWG. / USE: RR-DEO	CHK. BY: JCO		
DWG. SCALE: 1"=50'		DATE: 09.12.08		
		DDC JOB#: 05127.6		
		SHEET NUMBER:		

DRIVEWAY CULVERT CHART

LOT #	CULVERT SIZE & TYPE	INVERT IN	INVERT OUT
EXISTING LOT 1	12" HDPE-21LF	406.91	404.49
2	12" HDPE-14LF	425.57	425.23
3	12" HDPE-14LF	428.11	427.90
7	12" HDPE-14LF	428.54	428.26
8	12" HDPE-14LF	426.03	425.75
9	12" HDPE-14LF	412.69	411.35

CURVE TABLE

CURVE	RADIUS	LENGTH	DELTA	CHORD BRG.	CHORD DIST.	TANGENT
C-1	900.00'	488.20'	31°04'46"	507°57'09" W	482.23'	250.27'

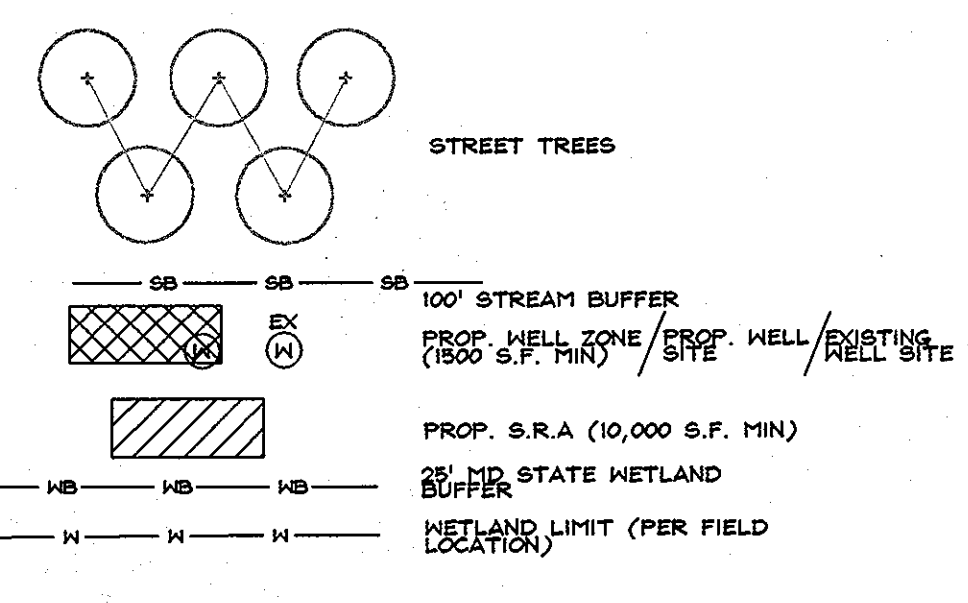
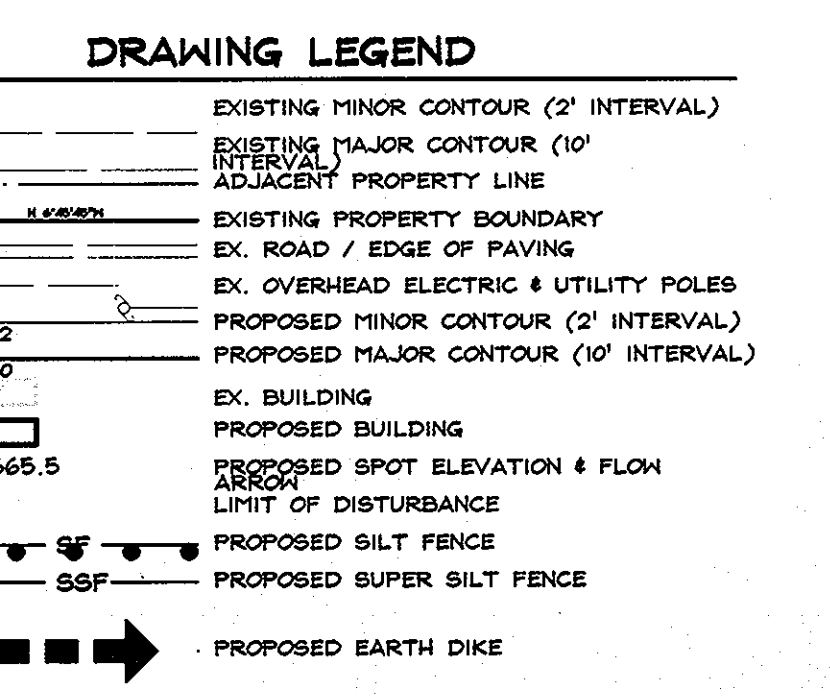
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 9-26-08
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Chris ... 10/2/08
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

John ... 10/1/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 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.

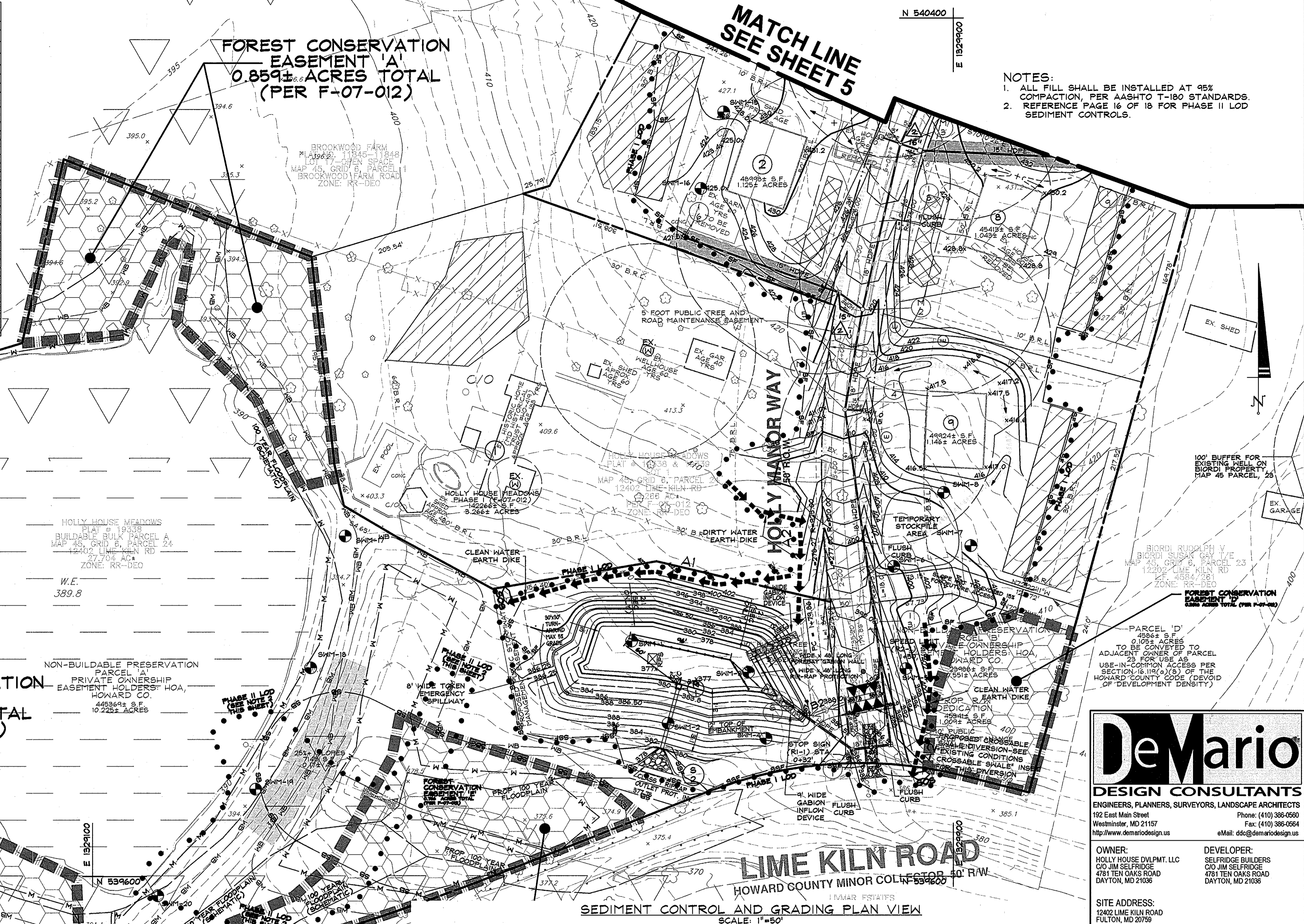
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
PROFESSIONAL ENGINEER
 MARK R. THAYER



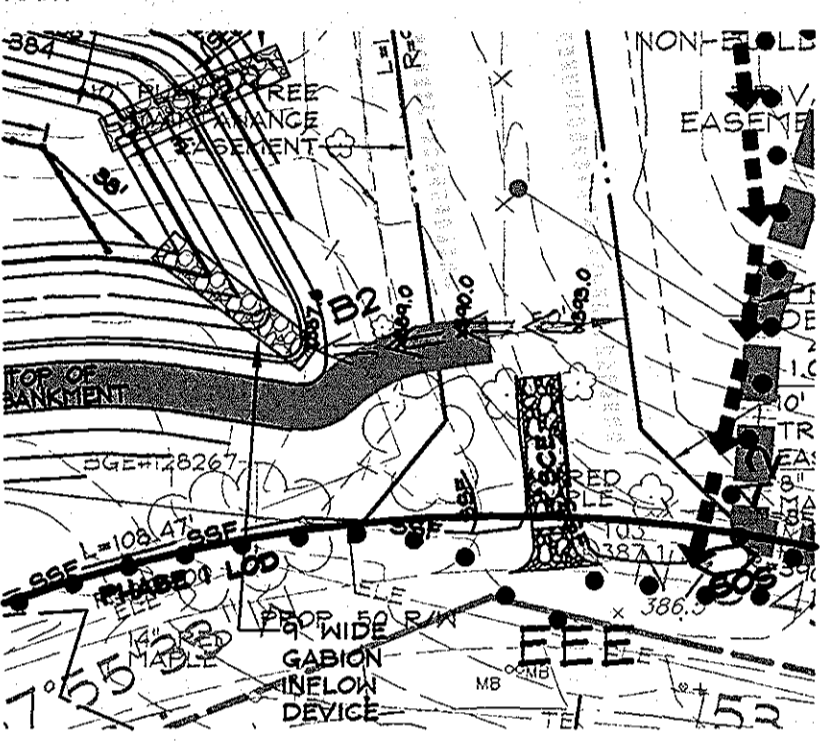
DRAWING LEGEND

- 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 & GUTTERS
- PROP. MOUNTABLE CURB & GUTTER / PROP. REVERSE/MOUNTABLE CURB & GUTTER
- PROP. 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 STORM DRAIN W/ INLETS & MANHOLE
- PROPOSED INLET PROTECTION MEASURES
- PROPOSED WATER LINE & HYDRANT
- RIP-RAP
- SILT FENCE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED TREELINE
- PROPOSED LIMIT OF DISTURBANCE
- EARTH DIKE
- OFFSITE FUTURE CONTOURS
- EROSION CONTROL MATTING
- WETLANDS LIMIT
- 25' WETLANDS BUFFER
- NON-WOODY VEGETATION BUFFER
- PROPOSED SEPTIC FIELDS
- PORTIONS OF SEPTIC FIELDS TO BE INSTALLED IN THIS DESIGN

BASIN TABLE		
BASIN TYPE		
EXISTING DRAINAGE AREA: ACRES		2.80
INTERIM DRAINAGE AREA: ACRES		6.00
PROPOSED DRAINAGE AREA: ACRES		6.03
STORAGE REQUIRED (CUBIC FEET):		
CO		5,427
WET		10,954
DRY		21,708
STORAGE PROVIDED (CUBIC FEET):		
CO		6,433
WET		17,484
DRY		26,511
TOTAL		45,998
EXISTING GROUND ELEVATION		
TOP EMBANKMENT ELEVATION		388.00
WEIR CREST ELEVATION		388.50
DRY STORAGE ELEVATION		388.00
WET STORAGE ELEVATION		380.00
CLEANOUT ELEVATION		377.00
BOTTOM ELEVATION		377.00
DEPTH OF CHANNEL (C)		N/A
OUTLET WIDTH (B)		N/A
BOTTOM DIMENSION		15x38
BASIN SIDE SLOPES		3.1/2:1
BASIN DEPTH		
C/O		1.5
WET		3.0
DRY		6.0
BARREL DIAMETER		
		24"
RISER DIMENSIONS (PER SIDE)		
WET STORAGE ZONE ELEVATION		377.0-380.0
DRY STORAGE ZONE ELEVATION		380.0-388.0
1-YR DISCHARGE, EXISTING (cfs)		1.1
1-YR DISCHARGE, PROPOSED (cfs)		0.4
1-YR DISCHARGE, ULTIMATE (SWT) (cfs)		0.1

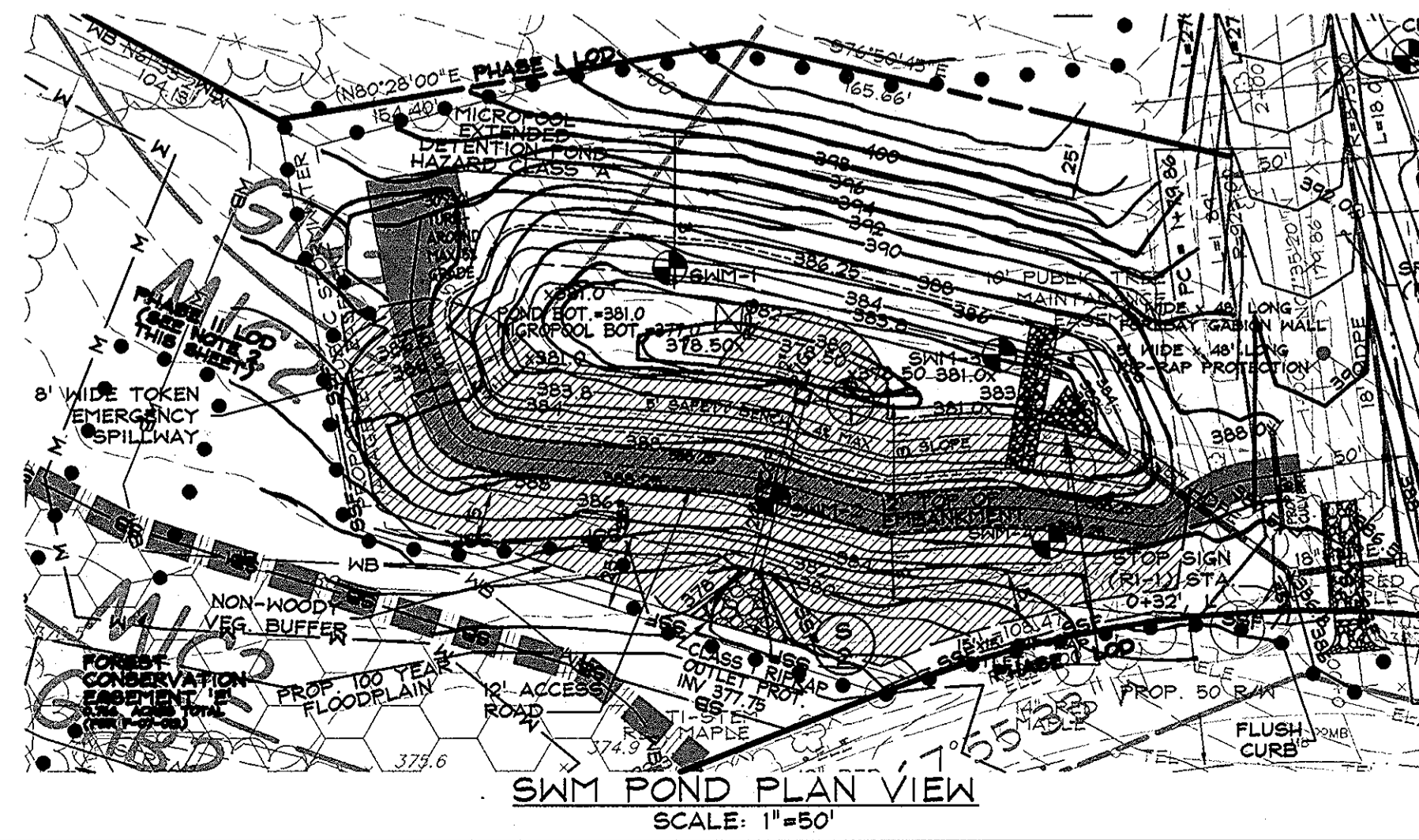
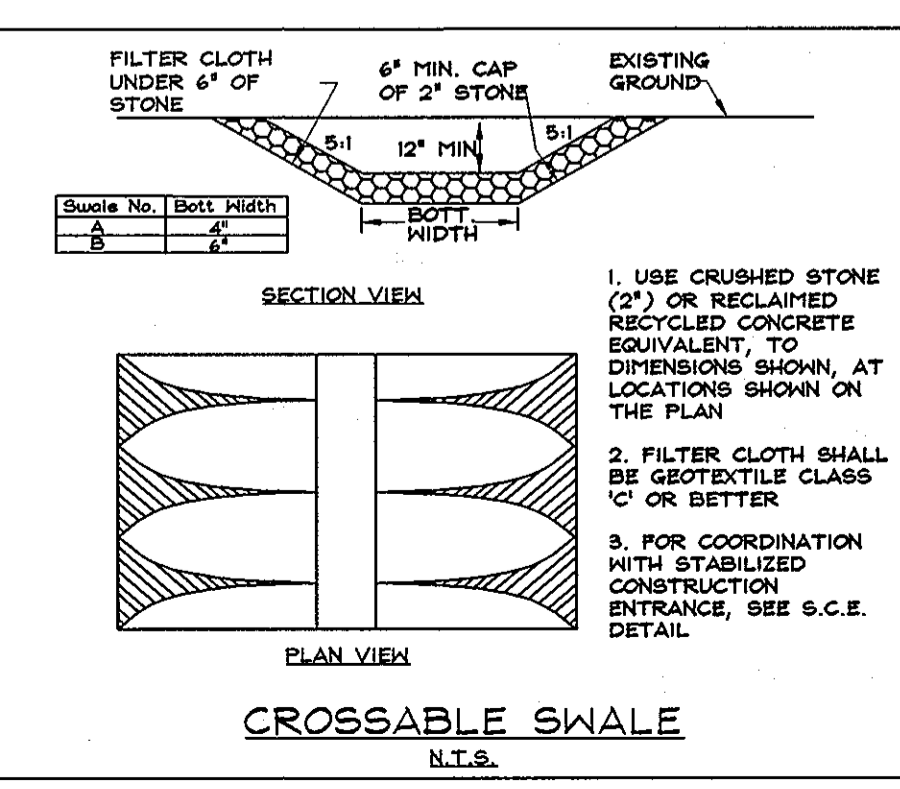


- NOTES:**
- ALL FILL SHALL BE INSTALLED AT 95% COMPACTION, PER AASHTO T-180 STANDARDS.
 - REFERENCE PAGE 16 OF 18 FOR PHASE II LOD SEDIMENT CONTROLS.



FOREST CONSERVATION EASEMENT 'B'
1.004± ACRES TOTAL
(PER F-07-012)

NON-BUILDABLE PRESERVATION PARCEL 'A'
PRIVATE OWNERSHIP EASEMENT HOLDERS' HOA,
HOWARD CO.
4888± S.F. 10.22± ACRES



AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE BUILDING, GRADING, AND SEDIMENT CONTROL DETAILS SHOWN ON THESE PLANS WERE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.
DATE: 12-12-11
PROF. ENGINEER: [Signature]

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.
DATE: 9-10-08
DEVELOPER: [Signature]

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
DATE: 9/22/08
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DATE: 9-26-09
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
DATE: 10/2/08
CHIEF, DEVELOPMENT ENGINEERING DIV.

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. 21413 Expiration Date: 12-31-12
PROF. ENGINEER: [Signature]

Professional Certification. I hereby 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. This plan was prepared in accordance with the requirements of the HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST 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.
PROF. ENGINEER: [Signature]

DeMario
DESIGN CONSULTANTS

ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street
Westminster, MD 21157
Phone: (410) 385-0560
Fax: (410) 385-0564
http://www.demariodesign.us
eMail: ddc@demariodesign.us

OWNER:
HOLLY HOUSE DVLPMT. LLC
C/O JIM SELF RIDGE
4781 TEN OAKS ROAD
DAYTON, MD 21036

DEVELOPER:
SELF RIDGE BUILDERS
C/O JIM SELF RIDGE
4781 TEN OAKS ROAD
DAYTON, MD 21036

SITE ADDRESS:
12402 LIME KILN ROAD
FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
GRADING & SEDIMENT EROSION CONTROL PHASE II
5TH ELECTION DISTRICT HOWARD COUNTY

REVISIONS		
NO.	DESCRIPTION OF CHANGES	DRN. REV. DATE
1	ADD CHANGES TO 15'	MPT 9/11
NO.	DESCRIPTION OF CHANGES	DRN. REV. DATE
CO. FILE #	DES. BY: SDS	
TAX ACC. #: 05-342775	DRN. BY: SDS	
TAX MAP: 45	CHK. BY: JCO	
BLOCK / GRID: 6	DATE: 09.12.08	
PARCEL # 24	DDC JOB#: 05127.6	
ZONE / USE: RR-DEO	SHEET NUMBER:	
DWG. SCALE: 1"=50'		4 of 18

9/10/08
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. 25242, Expiration Date: 07/25/10.
PROF. ENGINEER: [Signature]
PROFESSIONAL ENGINEER NO. 25242

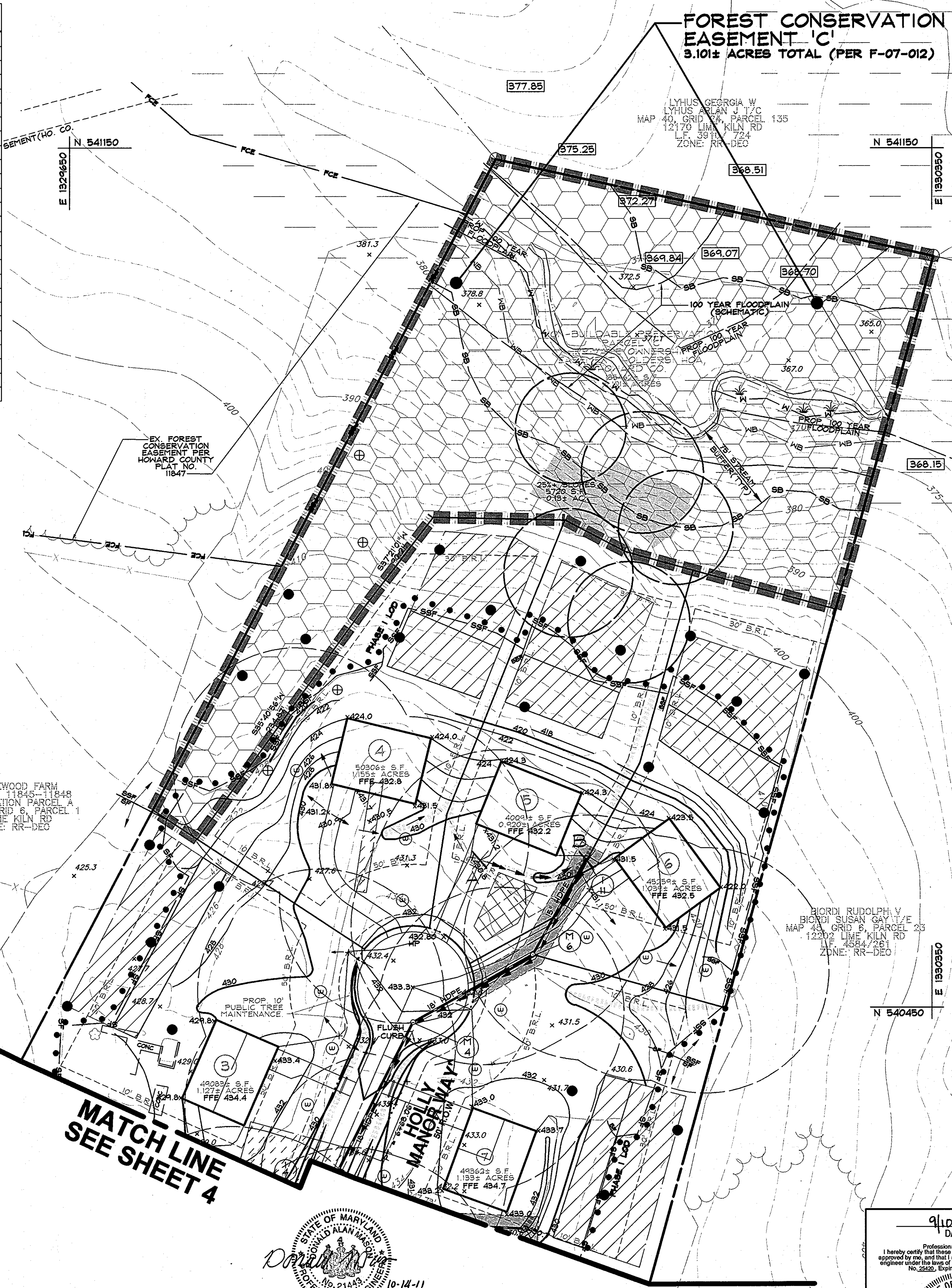
DRAWING LEGEND

- 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. MOUNTABLE 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 DECIDUOUS TREE
- PROPOSED EVERGREEN TREE
- EXISTING TREELINE
- EXISTING SHRUB/BRUSH LINE
- PROP. 18" D. --- PROPOSED STORM DRAIN W/
- PROP. 18" D. --- INLETS & MANHOLE
- PROP. 18" D. --- PROPOSED INLET PROTECTION MEASURES
- PROP. 8" W. --- PROPOSED WATER LINE & HYDRANT
- RIP-RAP
- SF --- SF --- SILT FENCE
- SSF --- SSF --- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE
- PROPOSED TREELINE
- PROPOSED LIMIT OF DISTURBANCE - PHASE I
- EARTH DIKE
- OFFSITE FUTURE CONTOURS
- EROSION CONTROL MATTING
- W --- W --- WETLANDS LIMIT
- WB --- WB --- 25' WETLANDS BUFFER
- SB --- SB --- 75' STREAM BUFFER

SWM POND FACILITY SUMMARY TABLE	
FACILITY TYPE: EXTENDED DETENTION POND	
OWNERSHIP	PRIVATE
STRUCTURE TYPE	EXT. DET. MICROPOOL
STRUCTURE CLASS	MD-378
DRAIN AREA (MGV) (Ac)	6.33
HT TO EMBANKMENT (ft)	5.0
STREAM USE	1-P
WATERSHED	PATUXENT R.
MGV REQUIRED (+MGV "WITHOUT CREDITS" COMP.) (Ac-ft)	0.462
MGV PROVIDED IN POND (+MGV "WITH CREDITS" COMP.) (Ac-ft)	0.277
MGV PROVIDED BY CREDITS (= BALANCE) (Ac-ft)	0.185
Rev REQUIRED %AREA METHOD (Ac)	0.320
Rev PROVIDED BY CREDITS (Ac)	1.140
Cpv REQUIRED (Ac-ft)	0.238
Cpv PROVIDED IN POND (Ac-ft)	0.238
Cpv MBE (1-yr FROM TR20) (ft)	382.51
1-yr EX. DISCHARGE (cfs)	2.3
1-yr PROP. INFLOW (cfs)	2.4
1-yr PROP. DISCHARGE AT DESIGN POINT (cfs)	0.7
10-yr WATER SURFACE ELEVATION (ft)	395.51
100-yr WATER SURFACE ELEVATION-CLOGGED (ft)	386.21
10-yr WATER SURFACE ELEVATION (SEC) (ft)*	386.05*
FREEBOARD REQUIRED (ft)	2.00
FREEBOARD PROVIDED (ft)	2.04
STORAGE-HEIGHT PRODUCT (Ac-ft-ft)	16.67
NORTH COORDINATE	N 539,750
EAST COORDINATE	E 1,329,600

* FOR THE SEC 10-yr, SEE SEDIMENT AND EROSION CONTROL COMPUTATIONS.

NOTE:
ALL FILL SHALL BE INSTALLED AT 95% COMPACTION, PER AASHTO T-180 STANDARDS.



FOREST CONSERVATION EASEMENT 'C'
3.101± ACRES TOTAL (PER F-07-012)

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.

DEVELOPER: *[Signature]* DATE: 9-18-08

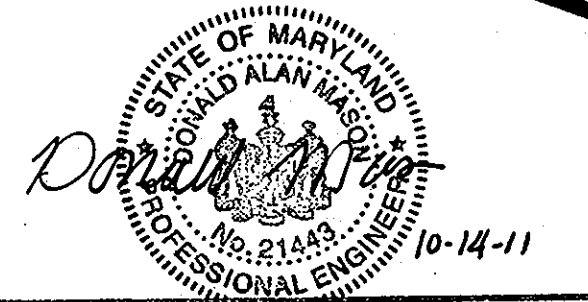
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[Signature] DATE: 9-22-08

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] DATE: 9-21-08

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] DATE: 10/26/08
[Signature] DATE: 10/26/08

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST 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.
[Signature] DATE: 9/18/08



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. 21443, Expiration Date: 12-21-12

No As-Built information is required on this sheet

9/18/08 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, Expiration Date: 9/22/12.
[Signature]
PROFESSIONAL ENGINEER NO. 25420



ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street Phone: (410) 388-0560
Westminster, MD 21157 Fax: (410) 388-0564
http://www.demariodesign.us eMail: ddo@demariodesign.us

OWNER: HOLLY HOUSE DVLPMT. LLC
C/O JIM SELFIDGE
4781 TEN OAKS ROAD
DAYTON, MD 21036

DEVELOPER: SELFIDGE BUILDERS
C/O JIM SELFIDGE
4781 TEN OAKS ROAD
DAYTON, MD 21036

SITE ADDRESS:
12402 LIME KILN ROAD
FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
GRADING & SEDIMENT EROSION CONTROL PHASE I
5TH ELECTION DISTRICT HOWARD COUNTY

REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE

CO. FILE #	DES. BY: MRT
TAX ACC. #: 05-342775	DRN. BY: SDS
TAX MAP: 45	CHK. BY: JCO
BLOCK / GRID: 6	DATE: 09.12.08
PARCEL #: 24	DDC JOB#: 05127.6
ZONE / USE: RR-DEO	SHEET NUMBER:
DWG. SCALE: 1"=50'	5 of 18

TABLE 25: PERMANENT SEEDING FOR LOW MAINTENANCE AREAS
HARDINESS ZONE 6b

MIX	SEED MIX USE CERTIFIED MATERIAL IF AVAILABLE	PLANTING LBS/AC.	SITE CONDITIONS	USDA HARDNESS ZONES	SEEDING DATES											BY
					3/1-5/15	3/15-5/15	5/15-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15					
1	TALL FESCUE (75%) CANADA BLUEGRASS (10%) KENTUCKY BLUEGRASS (10%) REDTOP (5%)	150	3.4	MOIST TO DRY	6b											A
2	KENTUCKY BLUEGRASS (50%) CREEPING RED FESCUE OR HARD FESCUE (40%) REDTOP (10%)	150	3.4	MOIST TO MODERATELY DRY TO DRY	6b											B
3	TALL FESCUE (85%) PERENNIAL RYEGRASS (10%) KENTUCKY BLUEGRASS (5%)	125	2.9	MOIST TO DRY	6b											C
4	RED FESCUE OR CHEWING FESCUE (80%) PERENNIAL RYEGRASS (20%)	60	.92	MOIST TO DRY	6b											D
5	TALL FESCUE (85%) OR PERENNIAL RYEGRASS (50%) PLUS CROWNVEETCH OR FLATPEA	110	2.5	MOIST TO DRY	6b											E
6	WEeping LOVEGRASS (17%) SERECIA LESPEDEA (83%)	4	.09	DRY TO VERY DRY	6b											F
7	TALL FESCUE (83%) WEeping LOVEGRASS (2%) SERECIA LESPEDEA (15%)	110	2.5	DRY TO VERY DRY	6b											G
8	REEDY CANARY GRASS (75%) REDTOP (6%) PLUS BIRDSFOOT TREFOIL (19%)	40	.92	WET TO MODERATELY DRY	6b											H
9	TALL FESCUE (86%) POA TRIVIALIZE (7%) BIRDSFOOT TREFOIL (7%)	125	2.9	WET TO MODERATELY DRY	6b											I
10	TALL FESCUE (80%) HARD FESCUE (20%)	120	3.4	WET TO DRY	6b											J
11	HARD FESCUE (100%)	.75	3.4	MOIST TO DRY	6b											K

NOTES:
 A/ USED BY SHA ON SLOPED AREAS. ADD A LEGUME FOR SLOPES > THAN 3:1
 B/ USED IN MEDIAN AREAS BY SHA. SHADE TOLERANT
 C/ POPULAR MIX - PRODUCES PERMANENT GROUNDCOVER QUICKLY. BLUEGRASS QUICKENS STAND.
 D/ BEST USE ON SHADY SLOPES NOT ON POORLY DRAINED CLAYS.
 E/ USE ON LOW MAINTENANCE, STEEP SLOPES. USE TALL FESCUE IN DRAUGHT CONDITIONS. CROWN VETCH BEST FOR 5b, 6a, 6b.
 F/ SUITABLE FOR SEEDING IN MIDSUMMER.
 G/ WEeping LOVEGRASS MAY BE SEEDED WITH TALL FESCUE IN MID-SUMMER. SERECIA LESPEDEA IS BEST SUITED FOR ZONES 7a & 7b.
 H/ USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS. BIRDSFOOT TREFOIL IS BEST FOR ZONES 5a, 6a ABOVE 2,000 FT.
 I/ USE IN AREAS OF MOIST SHADE. POA TRIVIALIZE THRIVES IN WET SHADY AREAS.
 J/ TALL FESCUE MAY BE SEEDD ALONE. THE HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND.
 K/ LOW FERTILITY GRASS. REQUIRES INFREQUENT MOWING. GOOD COMPANION FOR WILDFLOWERS.

TABLE 26 TEMPORARY SEEDING RATES, DEPTHS, AND DATES (HARDINESS ZONE 6b)

SPECIES	MINIMUM SEEDING RATES	PLANTING DEPTH	SEEDING DATES													
			3/1-5/15	3/15-5/15	5/15-8/14	6/2-7/31	8/1-10/1	8/15-10/15	8/15-11/15							
PER ACRE	LBS./1000 SQ.FT.	INCHES														
CHOOSE ONE:																
BARLEY	122 lbs	2.80	1-2	X												
OATS	98 lbs	2.21	1-2	X												
RYE	140 lbs	3.22	1-2	X												
BARLEY OR RYE PLUS FOXTAIL MILLET	150 lbs	3.45	1	X	X	X										
WEeping LOVEGRASS	4 lbs	.09	1/4-1/2		X											
ANNUAL RYEGRASS	50 lbs	1.15	1/4-1/2	X												
MILLET	50 lbs	1.15	1/2		X											

Note: Select one or more of the species or mixtures listed on Table 26 for the appropriate plant hardness zone.

STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

Section I - Vegetative Stabilization Methods and Materials

- Site Preparation**
 - Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
 - Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
 - Schedule required soil test to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.
- Soil Amendments (Fertilizer and Lime Specifications)**
 - Soil Test must be performed to determine the exact ratios and application rates for both lime and fertilizer on these specifications. Soil samples taken for testing should be taken from a representative area of the site by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes also be used for chemical analysis.
 - Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warranty of the producer.
 - Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 95% will pass through a #20 mesh sieve.
- Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.**

- Seeded Preparation**
 - Temporary Seeding**
 - Seeded preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or ridgeformers. If the soil is heavily compacted or very hard, the soil should be loosened to a depth of 10" to 12" and then rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the slope.
 - Apply fertilizer and lime as prescribed on the plans.
 - Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other suitable means.
 - Permanent Seeding**
 - Minimum soil conditions required for permanent vegetative establishment:
 - Soil pH shall be between 6.0 and 7.0
 - Soluble salts shall be less than 500 parts per million (ppm).
 - The soil shall contain less than 40% clay but enough fine grained material (> 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.
 - Soil shall contain 1.5% minimum organic matter by weight.
 - Soil must contain sufficient pore space to permit adequate root penetration.
 - If these conditions cannot be met by the soils on site, adding topsoil is required in accordance with Section 21 Standard and Specification for Topsoil.
 - Areas previously graded in conformance with the drawings shall be maintained in a true and even grade. The soil should be loosened to a depth of 3 - 5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
 - Apply soil amendments as per soil test or as included on the plans.
 - Mix soil amendments into the top 3 - 5" of topsoil by disking or other suitable means. Lawn areas should be rolled to level the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seeded preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Sloped areas (steeper than 3:1) should be tracked by dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Top 3" of soil should be loose and friable. Seeded loosening may not be necessary on newly disturbed areas.

- Seed Specifications**
 - All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within 6 months immediately preceding the date of sowing such material on the job.
 - Seed tags shall be made available to the inspector to verify type and rate of seed used.
 - Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80 F. can weaken bacteria and make the inoculant less effective.

- Methods of Seeding**
 - Hydroseeding:** Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast drop seeder, or a conditioner for the species.
 - Fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: Nitrogen: maximum of 100 lbs. per acre total of soluble nitrogen; Phosphorus: 200 lbs./ac.; Potassium: 200 lbs./ac.
 - Lime - use only ground agricultural limestone. (Up to 3 tons per acre may be applied by hydroseeding.) Do not use burnt hydrated lime when hydroseeding.
 - Dry Seeding:** This includes use of conventional drop or broadcast spreaders.
 - Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary Seeding Specifications on Tables 25 & 26. The seeded area shall then be rolled with a weighted roller to provide good seed soil contact.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
 - Roll or Cultipacker Seeding:** Mechanized seeders that apply and cover seed with soil.
 - Cultipacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seeded must be firm after planting.
 - Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

- Mulch Specifications (In order of preference)**
 - Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color and shall not be mixed with other material. The straw shall be heavily daisy and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
 - Wood Cellulose Fiber Mulch (WCFM)
 - WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
 - WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformity of the material.
 - WCFM, including dye, shall contain no germination or growth inhibiting factors.
 - WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blanket-like ground cover on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedings.
 - WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
 - WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1 mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.
- Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

- Mulching Seeded Areas - Mulch shall be applied to all seeded areas immediately after seeding.**
 - If grading is completed outside of the seeding season, mulch alone shall be applied as soon as possible. If the seeding season returns and seeding can be performed in accordance with these specifications.
 - When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a wood anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
 - Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

- Securing Straw Mulch (Mulch Anchoring):** Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
 - A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping lands, this practice should be used on the contour if possible.
 - Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
 - Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys or on crest of banks. The remainder of area should anchor uniform after binder application. Synthetic binders such as Acrylic DLR (Agra-Tack), DCA-70, Petrosol, Terra Tex II, Terra Tack or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
 - Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

- Incremental Stabilization -- Cut Slopes -- See G-20-6**
- Incremental Stabilization -- Fill Slopes -- See G-20-7**

21.0 STANDARDS & SPECIFICATIONS FOR TOPSOIL

Definition - Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose - To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

- Conditions Where Practice Applies
- This practice is limited to areas having 2:1 or flatter slopes where:
 - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
 - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 - The original soil to be vegetated contains material toxic to plant growth.
 - The soil is so acidic that treatment with limestone is not feasible.

For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

- Topsoil salvaged from the existing site may be used provided that it meets the standards set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given site type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

- Topsoil Specifications - Soil to be used as topsoil must meet the following:**
 - Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
 - Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
 - Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with toxic sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

- For sites having disturbed areas over 5 acres:
 - On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
 - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
 - Organic content of topsoil shall be not less than 1.5 percent by weight.
 - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
 - No sod or seed shall be placed on soil which has been treated with toxic sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
 - Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

- Topsoil Application**
 - When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
 - Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.
 - Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 - Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.

- Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:**
 - Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
 - Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
 - Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a PH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
 - Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
 - Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding, MD-V A, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes, Revised 1973.

SECTION V - TURFGRASS ESTABLISHMENT

Areas where turfgrasses may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and rolled to prepare a proper seedbed. Stones and debris over 1/2" in diameter should be removed. The resulting seedbed should be in such condition that future mowing of grasses will pose no difficulty.

Note: Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

- Turfgrass Mixtures**
 - Kentucky Bluegrass - Full sun mixture -** For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 15 to 2.0 pounds/1000 square feet. A minimum of these bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 95% of the mixture by weight.
 - Kentucky Bluegrass/Perennial Rye - Full sun mixture -** For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding rate: 2 pounds mixture/1000 square feet. Minimum of 5 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.
 - Tall Fescue/Kentucky Bluegrass - Full sun mixture -** For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes certified Tall Fescue Cultivars 15 - 100% certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate: 5 to 8 lb/1000 sq. ft. One or more cultivars may be blended.
 - Kentucky Bluegrass/Fine Fescue - Shade Mixture -** For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass Cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 1 1/2 - 3 lb/1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen with each cultivar ranging from a minimum of 10% to a maximum of 95% of the mixture by weight.

Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland".

- Ideal times of seeding:**
 - Western MD: March 15 - June 1, August 1 - October 1 (Hardiness Zones - 5b, 6a)
 - Central MD: March 1 - May 15, August 15 - October 15 (Hardiness Zone - 6b)
 - Southern MD, Eastern Shore: March 1 - May 15, August 15 - October 15 (Hardiness Zone - 7a, 7b)

- Irrigation**
If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.
- Repairs and Maintenance**
Inspect all seeded areas for failures and make necessary repairs, replacements, and reseeding within the planting season.
 - Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.
 - If the stand provides less than 40% ground coverage, reestablish following original time, fertilizer, seeded preparation and seeding recommendations.
 - If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.
- Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 77.

SEQUENCE OF CONSTRUCTION - PHASE I

- OBTAIN A GRADING PERMIT AND REQUIRED MDE PERMITS (MDE PERMIT NO. 20062354/08-NT-3232). (1 DAY)
- NOTIFY "MISS UTILITY" AT LEAST 48 HOURS BEFORE BEGINNING ANY WORK AT 1-800-257-7777. NOTIFY THE HOWARD COUNTY OFFICE OF CONSTRUCTION/INSPECTION DIVISION AT 410-313-1870 AT LEAST 24 HOURS BEFORE STARTING ANY WORK. (2 DAYS)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
- INSTALL PERIMETER CLEANWATER DIKES, SILT FENCE AND SUPER SILT FENCE. SEE SHEET 19 OF 18 (EXISTING POND RECONSTRUCTION SEQUENCE OF CONSTRUCTION - PHASE II, SHEET 16 OF 18) FOR ANY ADDITIONAL PERIMETER CONTROLS REQUIRED FOR EXISTING POND RECONSTRUCTION. (3 DAYS)
- WITH SEDIMENT CONTROL DEVICES INSTALLED AND WITH INSPECTORS APPROVAL, INSTALL BASIN. (1 WEEK)
- WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, INSTALL REINFORCER OF EARTH DIKES. THEN CLEAR AND GRADE SITE. (2 WEEKS)
- FINE GRADE AREA FOR THE NEW ROAD AND INSTALL STORMDRAINS. NOTE THAT THE TEMPORARY SHALE DIVERSION INTO THE EAST SIDE OF THE BASIN SHALL BE REPLACED BY A CROSSABLE SHALE WHERE THE ROAD IS GRADED, AND CONTINUE TO FUNCTION AS A DIVERSION. (4 WEEKS)
- ONCE INLETS I-1 AND I-2 ARE INSTALLED AND FUNCTIONAL, RUNOFF ALONG THE ROAD SHALL BE DIVERTED TO THESE INLETS, AND THE CROSSABLE SHALE/DIVERSION MAY BE REMOVED. HOWEVER PRIOR TO THE AS THE PIER BETWEEN I-1 AND I-2 IS INSTALLED, THE RIPRAP INFLOW DEVICE THAT THIS OPERATION WILL DISTURB SHALL BE RESTORED AT THE END OF EACH WORKING DAY. (4 DAYS)
- WITH STORMDRAINS INSTALLED, PAVE ROAD. (3 WEEKS)
- FINE GRADE SITE AND STABILIZE ALL DISTURBED AREAS. (2 WEEKS)
- INSTALL SITE LANDSCAPING & STREET TREES. (2 WEEKS)
- WITH ALL DISTURBED AREAS STABILIZED, FLUSH STORM DRAIN SYSTEM, THEN WITH THE INSPECTORS APPROVAL CONVERT T SHM (SEDIMENT BASIN) TO FINAL (SMH POND) AND REMOVE SEDIMENT CONTROL DEVICES. (1 WEEK)
- BEGIN PHASE II, SHEET 19.
- (CONTINUED FROM SHEET 18) - NOTIFY HOWARD COUNTY OFFICE OF INSPECTIONS AND PERMITS FOR A FINAL INSPECTION OF THE COMPLETED SITE. (2 DAYS)
- PROVIDE THE INSPECTOR, HOWARD COUNTY SCD, AND HIDE WITH A COPY OF THE AS-BUILT OF BOTH NEW AND RECONSTRUCTED PONDS.

DATA SOURCES:
 EX. TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING, DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLEN ENVIRONMENTAL INC. IN SPRING 2006. EX. OFF-PROPERTY WELLS AND SEPTIC LOCATIONS APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.

DeMario
 DESIGN CONSULTANTS
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street, Westminster, MD 21157
 Phone: (410) 388-0560, Fax: (410) 388-0564
 http://www.demariodesign.us, eMail: dcd@demariodesign.us

OWNER: HOLLY HOUSE DWLP.MT. LLC
DEVELOPER: SELF-DRIVE BUILDERS
 C/O JIM SELF-DRIVE
 4781 TEN OAKS ROAD DAYTON, MD 21036
 4781 TEN OAKS ROAD DAYTON, MD 21036

SITE ADDRESS: 12402 LIME KILN ROAD, FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
SEDIMENT & EROSION CONTROL NOTES
 8TH ELECTION DISTRICT HOWARD COUNTY

REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE
CO. FILE #	TAX ACC. # 05-342775	DES. BY: JCO	
TAX MAP: 45	BLOCK / GRID: 6	DRN. BY: SDS	
PARCEL # 24	ZONE / USE: RR-DEO	CHK. BY: JCO	
DWG. SCALE: N/A		DATE: 09.12.08	
		DDC JOB# 05127.6	
		SHEET NUMBER:	
			6 of 18

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. 21443, Expiration Date: 12-21-12.

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: 12-21-12.

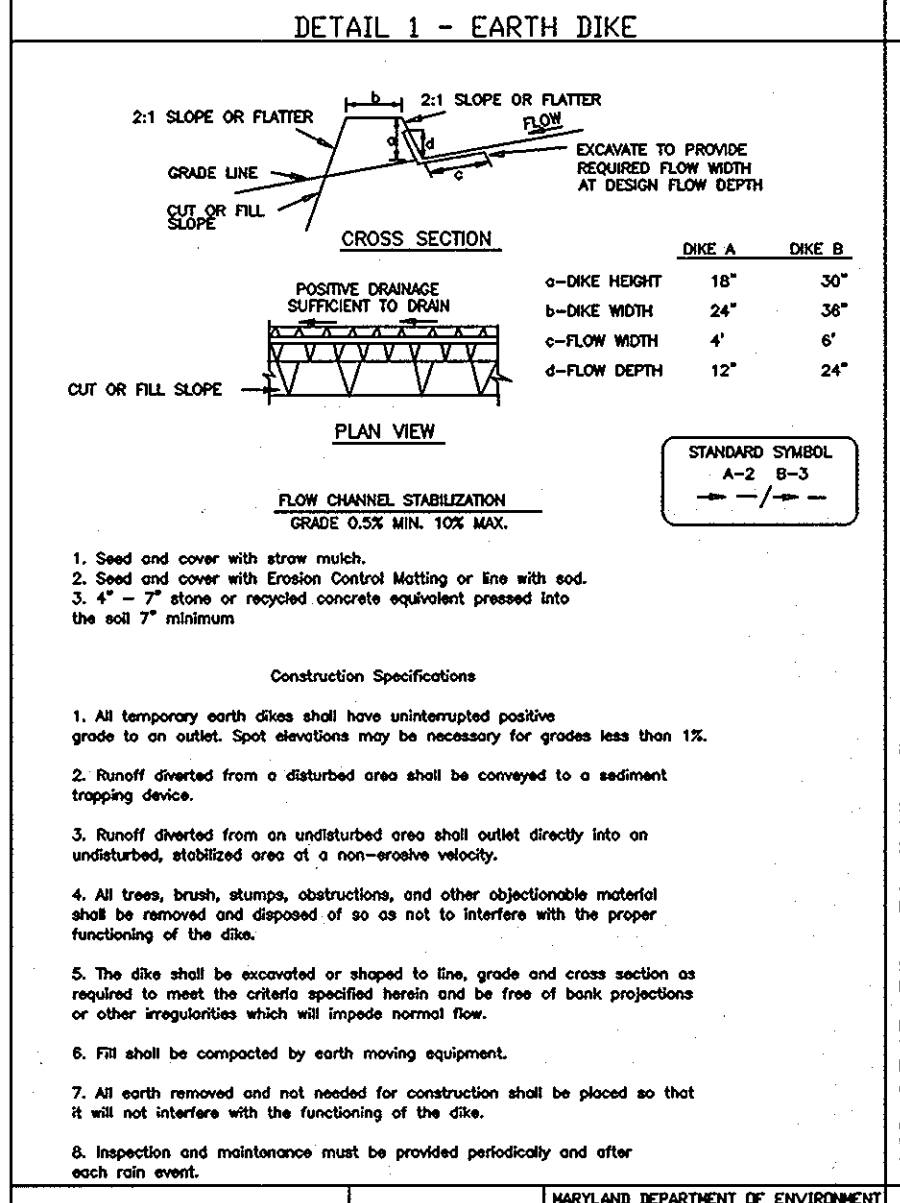
SEDIMENT CONTROL GENERAL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspections, and permit, sediment control division prior to the start of any construction (410-318-1855).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current Maryland Standards and Specifications for Soil Erosion and Sediment Control.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within:
 - Seven calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1.
 - Fourteen days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with vol. 1, chapter 22 of the "Howard County Design Manual", storm drainage.
- All disturbed area must be stabilized within the time period specified above in accordance with the "1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control" for permanent seedings (sec. 51), sods (sec. 54), temporary seeding (sec. 50), and mulching (sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 - Total area of site = 27.73 acres
 - Area disturbed = 4.61 acres
 - Area to be roofed or paved = 1.52 acres
 - Area to be vegetatively stabilized = 5.09 acres
 - Total fill = 16,880 cu yd
 - Total cut = 22,950 cu yd
 - Make/borrow area = 4,950 cu yd
 The excess amount will be disposed of at a site determined by the contractor, that has a valid grading permit.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized.
- The contractor shall inspect and provide necessary maintenance on the sediment and erosion control devices shown on the plan. The inspection shall be on a daily basis and after each rainfall.

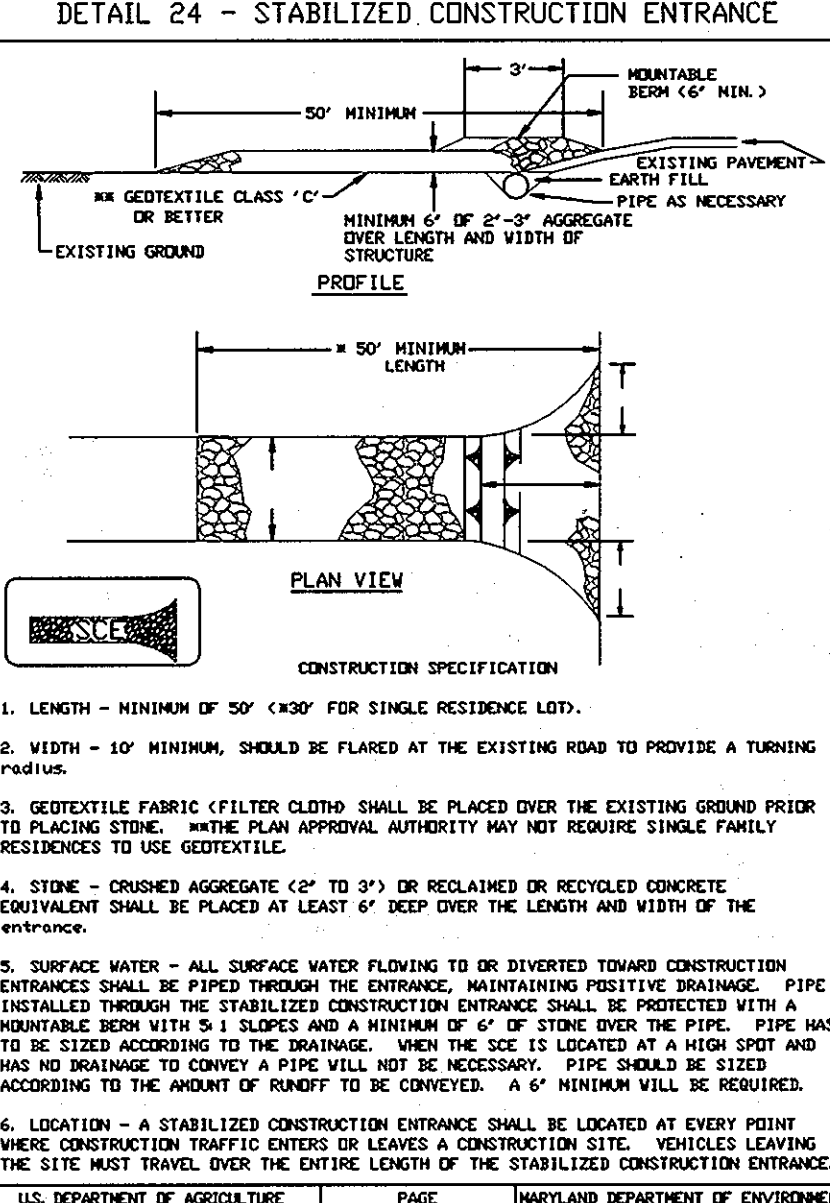
OPERATION AND MAINTENANCE SCHEDULE FOR STORMWATER MANAGEMENT DETENTION FACILITY

- H.O.A. STORMWATER MANAGEMENT FACILITY ROUTINE MAINTENANCE FACILITY WILL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IS FUNCTIONING PROPERLY.
- TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR, ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.
- DEBRIS AND LITER 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 RIPRAP OUTLET AREAS SHALL BE REPAIRED AS SOON AS IT IS NOTICED.

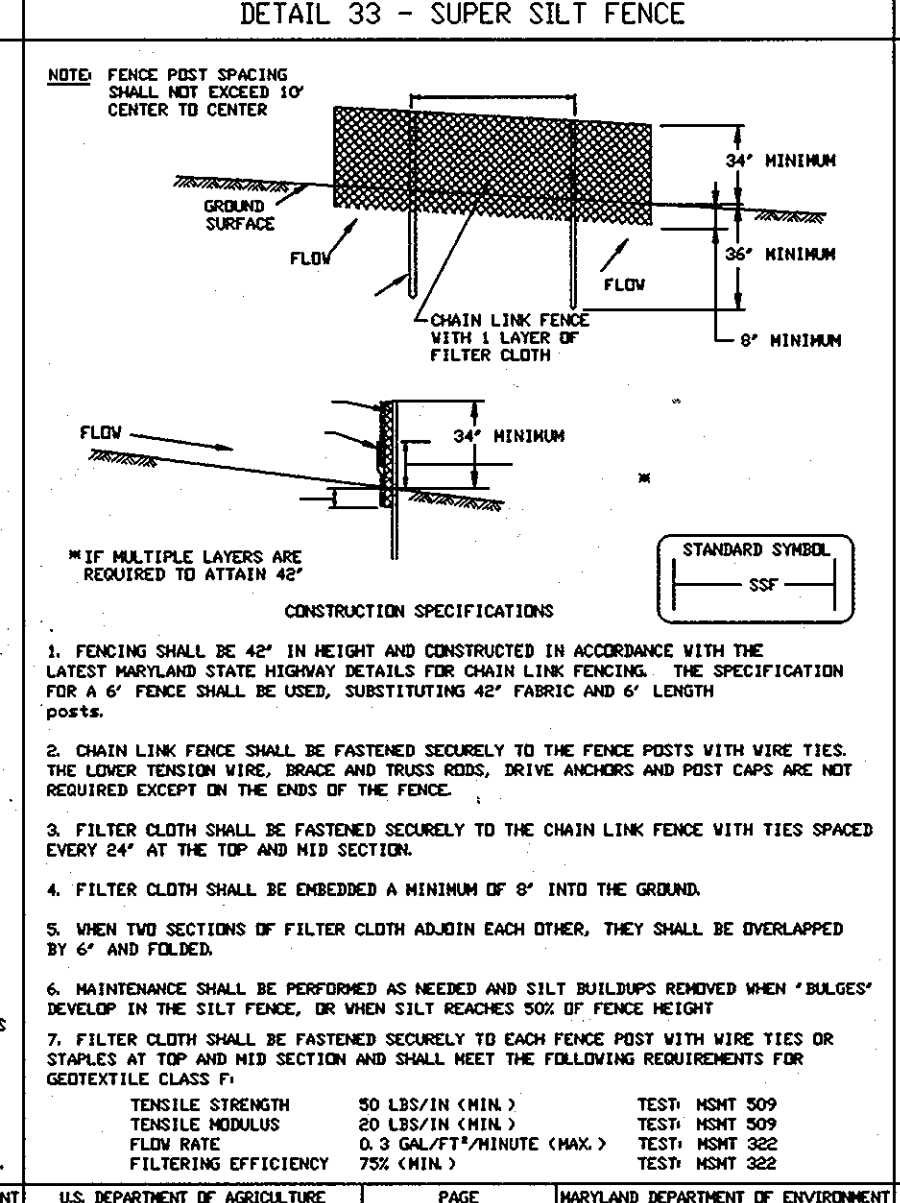
- HOWARD COUNTY NON-ROUTINE MAINTENANCE**
- STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, THE RISER, AND THE PIPES SHALL BE REPAIRED UPON DETECTION OF ANY DAMAGE. THE COMPONENTS SHALL BE INSPECTED DURING DURING ROUTINE MAINTENANCE OPERATIONS.
 - SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERE WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.



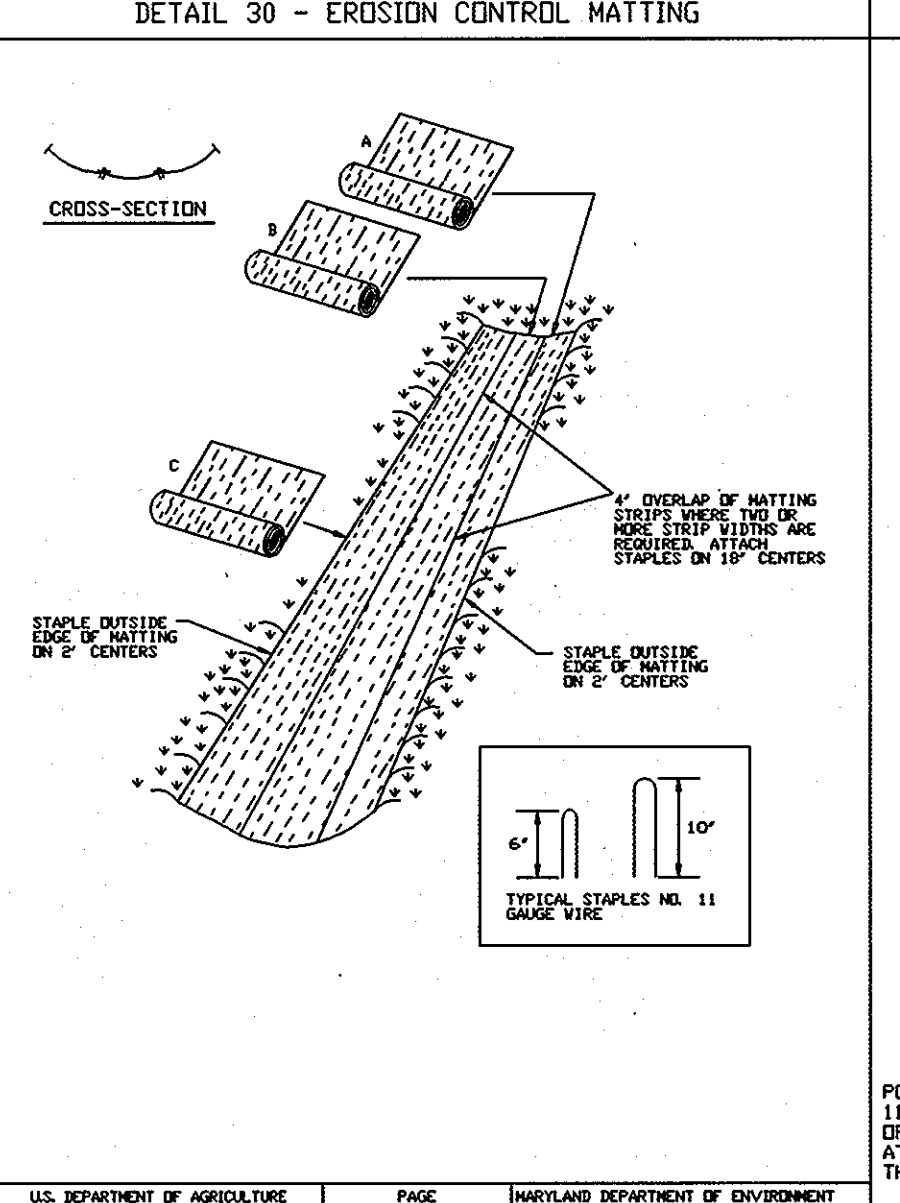
1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or live with sod.
3. 4\"/>



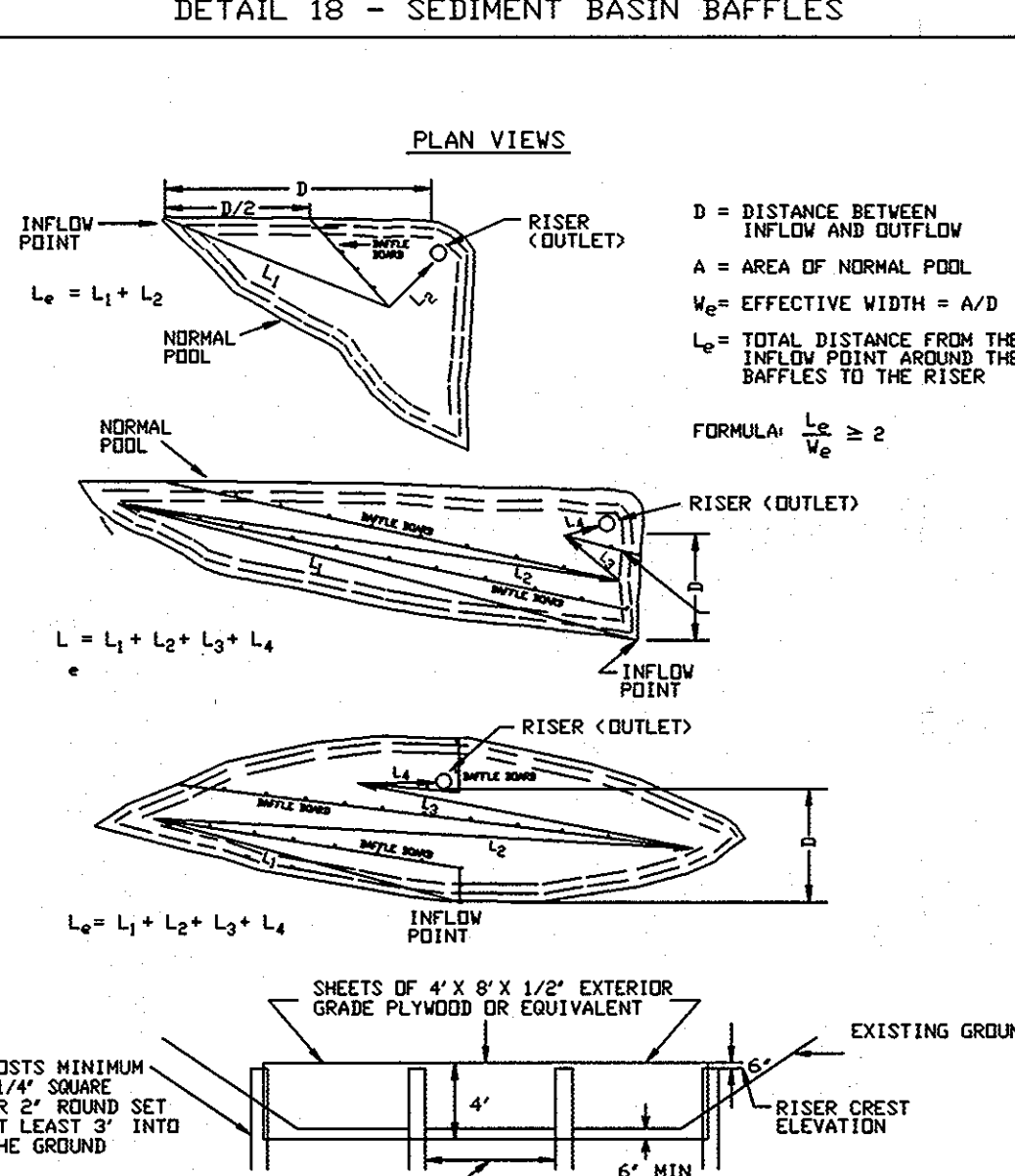
1. LENGTH - MINIMUM OF 50' x 300' FOR SINGLE RESISTANCE LOT.
2. WIDTH - 10' MINIMUM, SHOULD BE PLACED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. WRITE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2\"/>



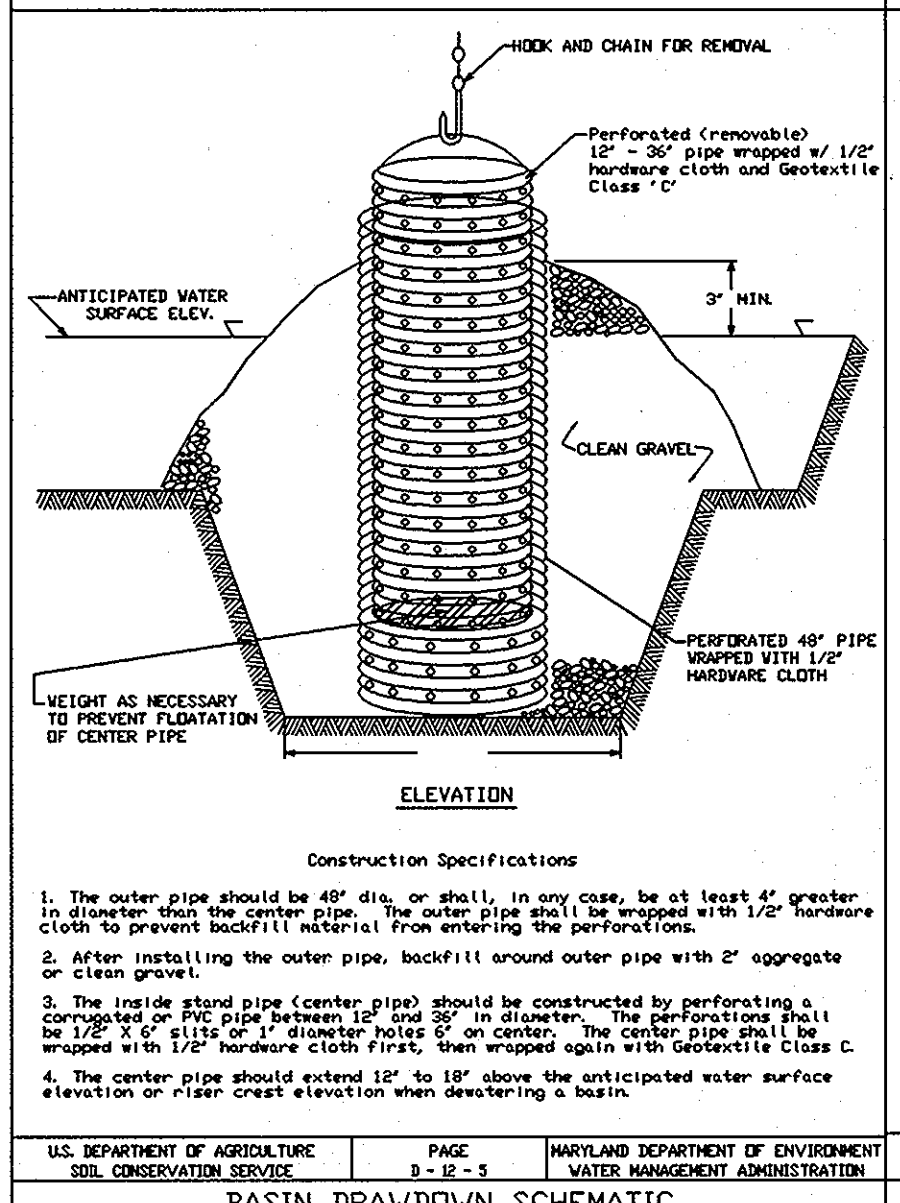
1. FENCING SHALL BE 42\"/>



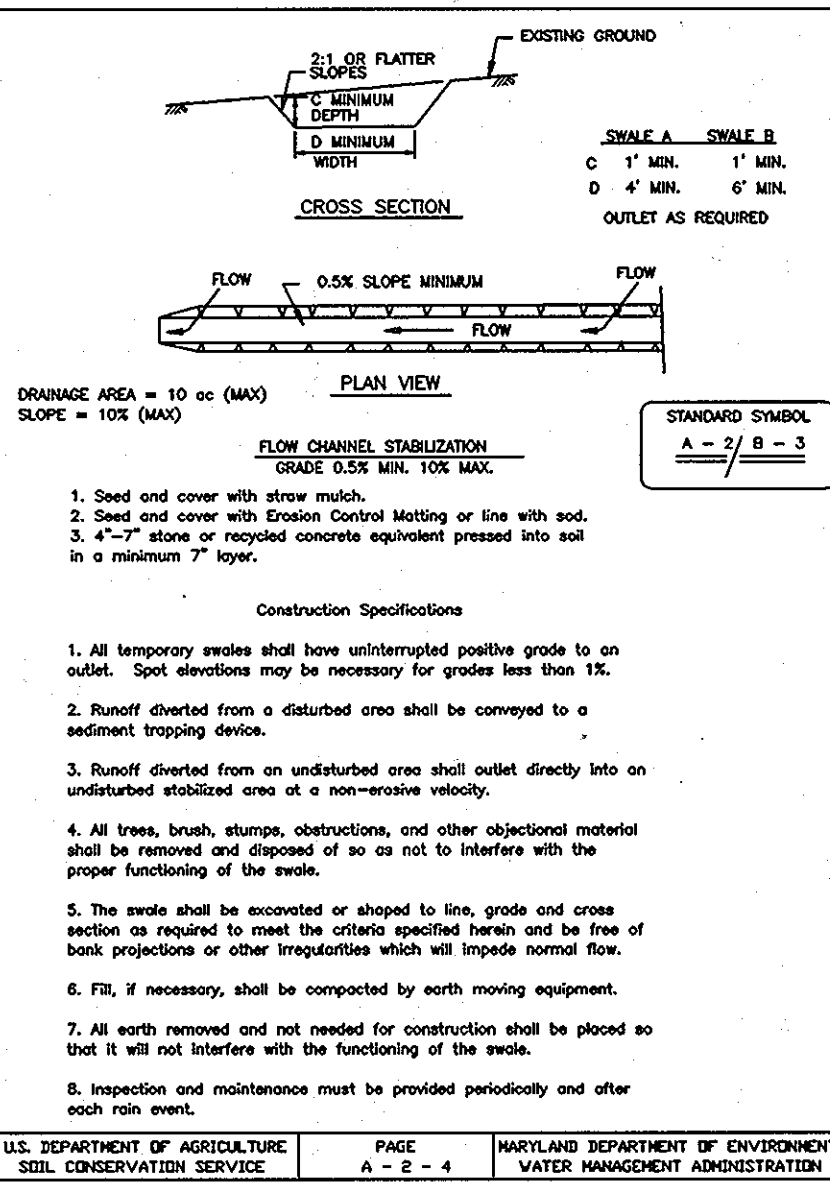
1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6\"/>



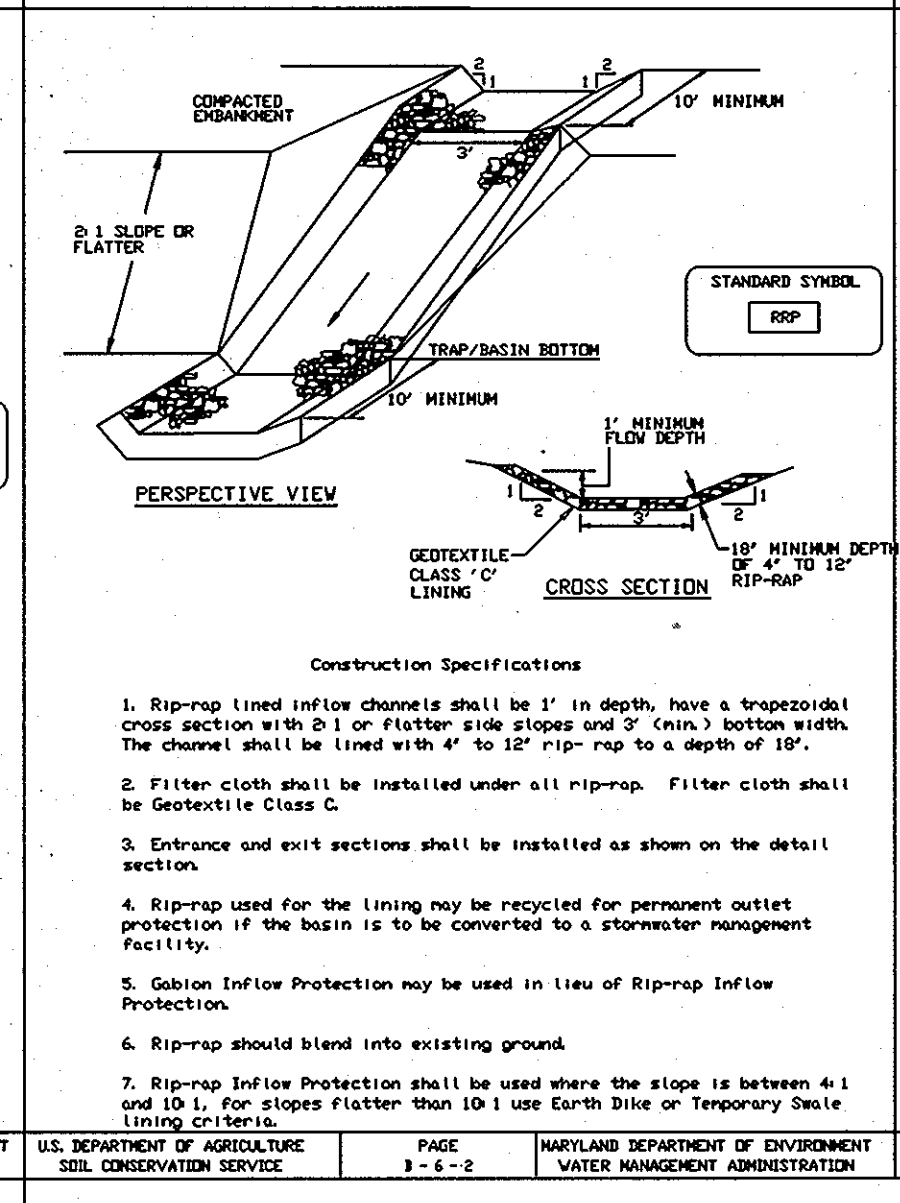
1. The subgrade for the filter, riprap, or gabion shall be prepared to the required lines and grades. Any fill required in the subgrade shall be compacted to a density of approximately that of the surrounding undisturbed material.
2. The rock or gravel shall conform to the specified grading limits when installed respectively in the riprap or filter.
3. Geotextile shall be protected from punching, cutting, or tearing. Any damage other than an occasional small hole shall be repaired by placing another piece of geotextile over the damaged part or by completely replacing the geotextile. All overlaps whether for repairs or for joining the pieces of geotextile shall be a minimum of one foot.
4. Stone for the riprap or gabion outlets may be placed by equipment. They shall be constructed to the full course thickness in one operation and in such a manner as to avoid displacement of underlying materials. The stone for riprap or gabion outlets shall be delivered and placed in a manner that will ensure that it is reasonably homogeneous with the smaller stones and spalls filling the void between the larger stones. Riprap shall be placed in a manner to prevent damage to the filter blanket or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
5. The stone shall be placed so that it blends in with the existing ground. If the stone is placed too high then the flow will be forced out of the channel and scour adjacent to the stone will occur.



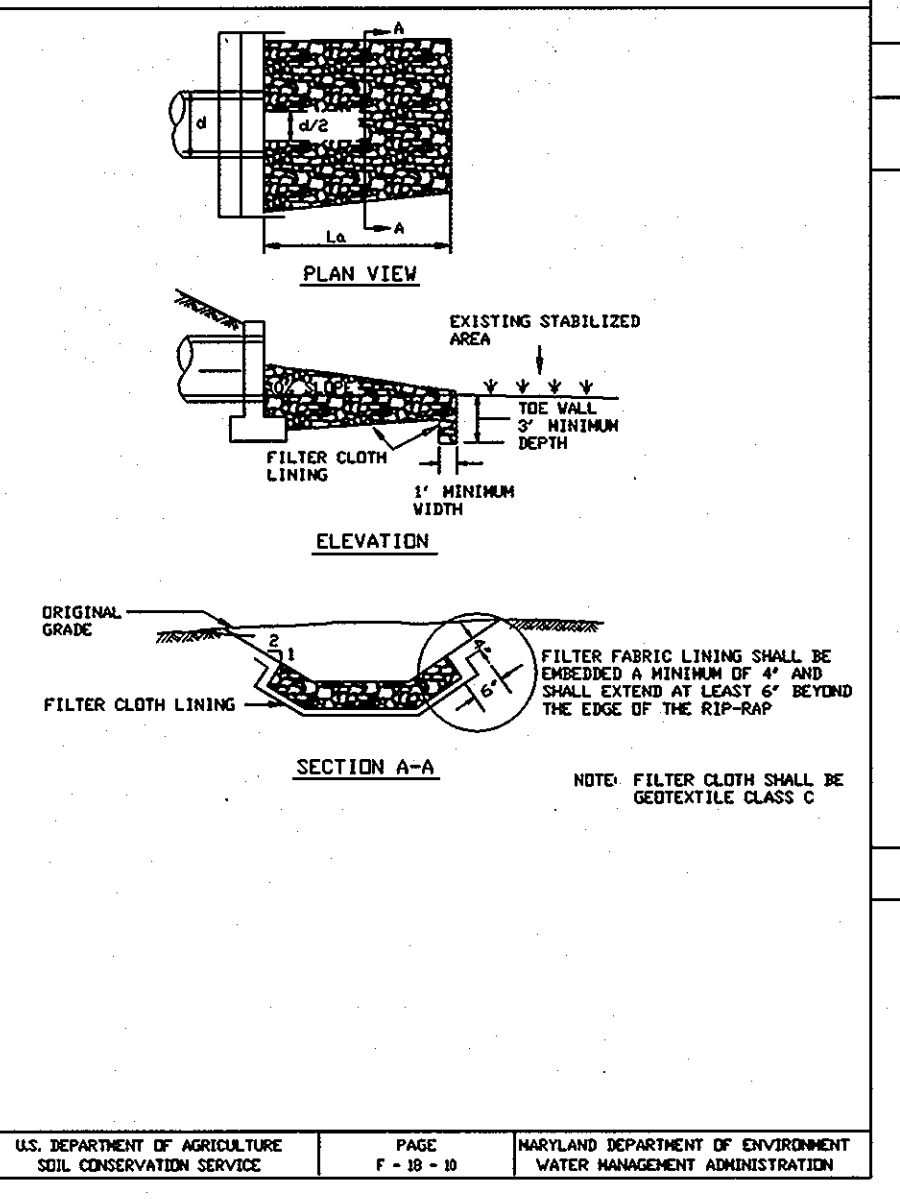
1. All temporary erosion shall have uninterfered positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area of a non-erodible velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or sloped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.



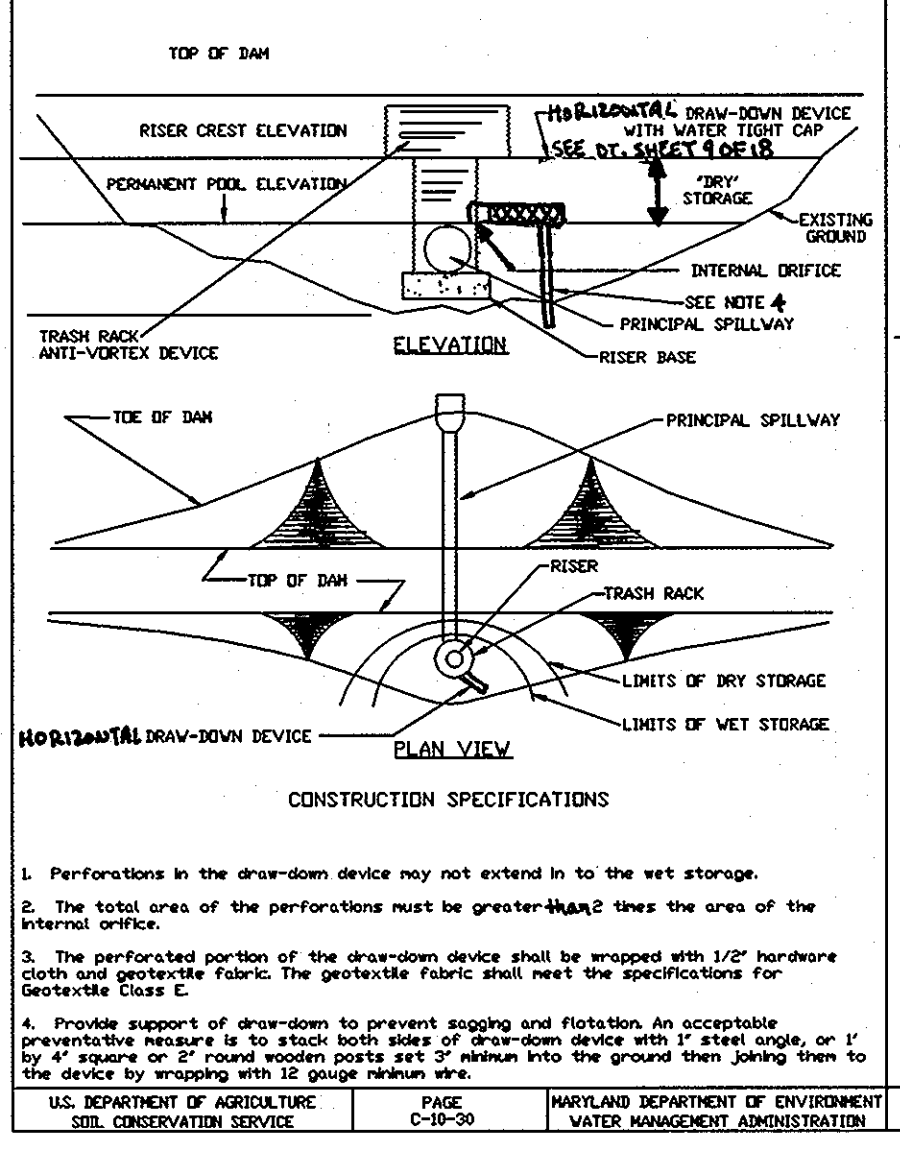
1. All temporary erosion shall have uninterfered positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area of a non-erodible velocity.
4. All trees, brush, stumps, obstructions, and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The swale shall be excavated or sloped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill, if necessary, shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the swale.
8. Inspection and maintenance must be provided periodically and after each rain event.



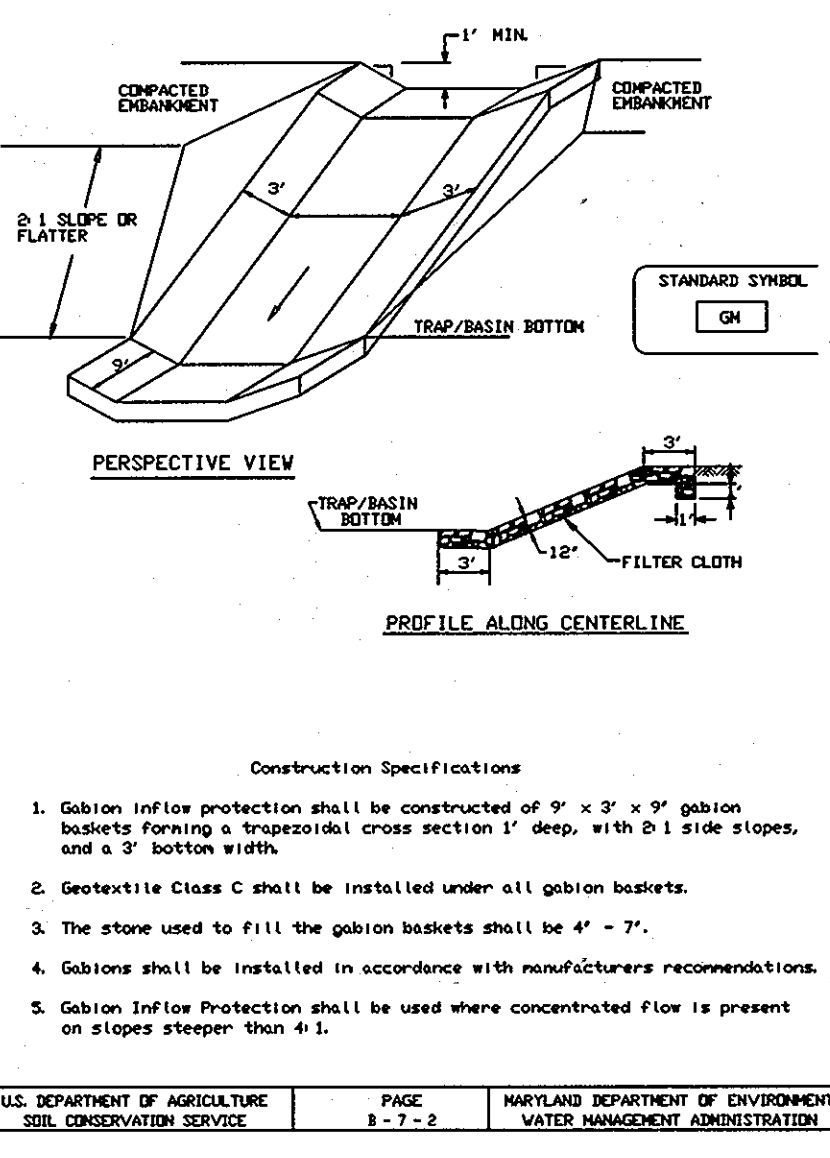
1. Riprap lined inflow channels shall be 1' in depth, have a trapezoidal cross section with 2:1 or flatter side slopes and 3' (min.) bottom width. The channel shall be lined with 4\"/>



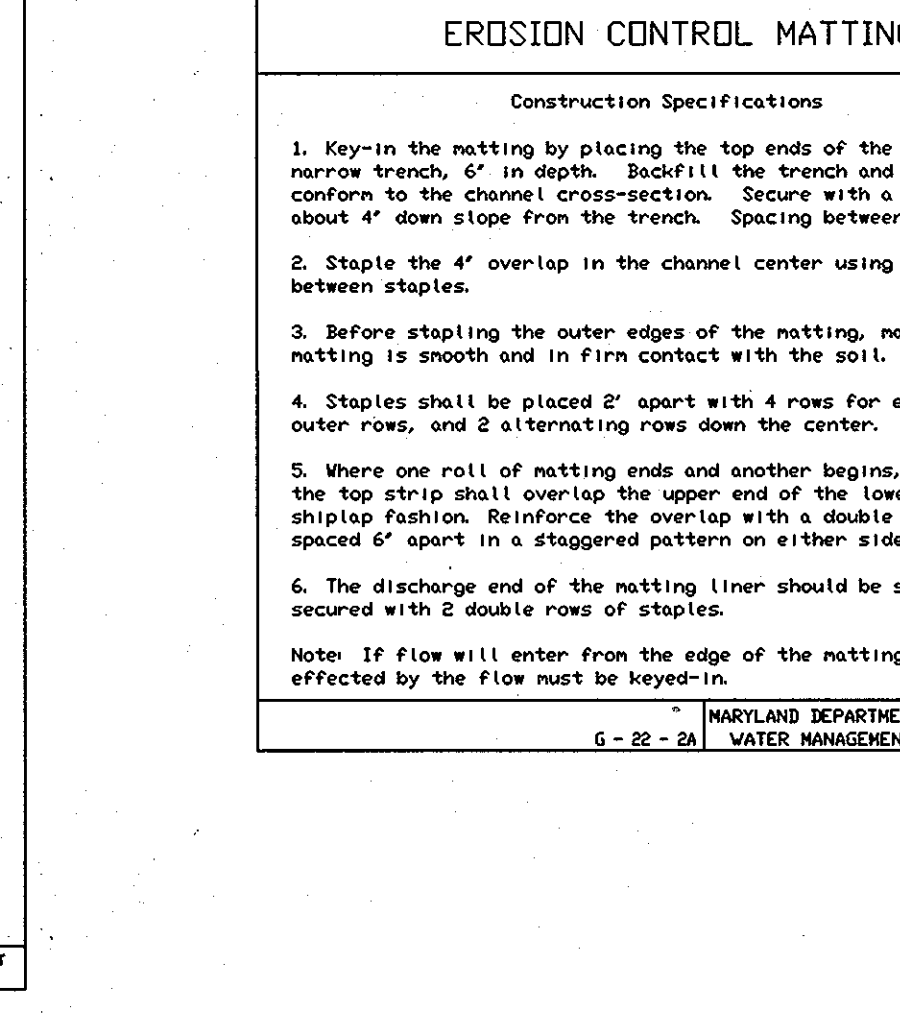
1. Riprap used for the lining may be recycled for permanent outlet protection if the basin is to be converted to a stormwater management facility.
2. Riprap should blend into existing ground.
3. Riprap should be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
4. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4', shiplap fashion. Reinforce the overlap with a double row of staples spaced 6\"/>



1. Performances in the draw-down device may not extend to the wet storage.
2. The total area of the perforations must be greater than 20% times the area of the internal orifice.
3. The perforated portion of the draw-down device shall be wrapped with 1/2\"/>



1. Gabion inflow protection shall be constructed of 2\"/>



1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6\"/>

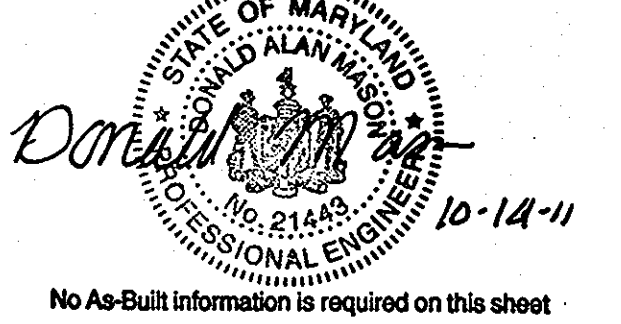
BY THE DEVELOPER:
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT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

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

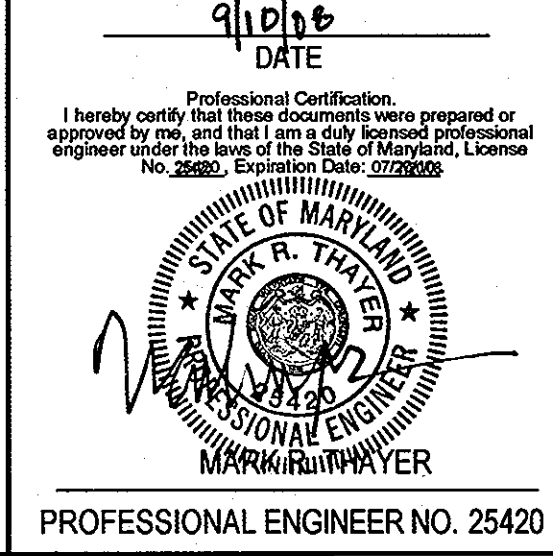
ENGINEER
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST 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.

OPERATION, MAINTENANCE AND INSPECTION

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' (410-318-1878). THE POND OWNER(S) AND ANY HEIR, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATION, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER(S) SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATIONS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID BAYEAGE, SLIDING OR SLUMPING.



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. 21443, Expiration Date: 12-31-12



PROFESSIONAL ENGINEER NO. 25420

DATA SOURCES:
EX TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING, DATE OF CAPTURE IS SPRING 2006. EX SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX WETLAND AND STREAM LOCATIONS SHOWN PER 2010 INVESTIGATION BY MARLENE ENVIRONMENTAL, INC. IN SPRING 2006. EX OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.

DeMario DESIGN CONSULTANTS
ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street, Westminster, MD 21157
Phone: (410) 388-0560, Fax: (410) 388-0564
http://www.demariodesign.us, eMail: ddc@demariodesign.us

OWNER: HOLLY HOUSE DVL/PMT. LLC, 200 JIM GELBART ROAD, DAYTON, MD 21036
DEVELOPER: SELFPRIDGE BUILDERS, C/O JIM GELBART, 4781 TEN OAKS ROAD, DAYTON, MD 21036

SITE ADDRESS: 12402 LIME KILN ROAD, FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A' SEDIMENT & EROSION CONTROL DETAILS 5TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE
CO. FILE #	DES. BY: JCO		
TAX ACC. # 05-342775	DRN. BY: SDS		
TAX MAP: 45	CHK. BY: JCO		
BLOCK / GRID: 6	DATE: 09.12.08		
PARCEL # 24	DDC JOB#: 05127.6		
ZONE / USE: RR-DEO	SHEET NUMBER:		
DWG. SCALE: AS SHOWN	7 of 18		

CONSTRUCTION SPECIFICATIONS

1. General
All stormwater management facilities shall be constructed in accordance with Howard County's "Design Manual Volume 1 - Storm Drainage 2006" and the "2000 Maryland Stormwater Design Manual Volumes 1 & 2". All references to ASTM and AASHTO specifications apply to the most recent version.

2. Site Preparation
Areas designated for borrow areas, embankment, and structural works shall be cleared, grubbed and stripped of topsoil. All trees, vegetation, roots and other objectionable material shall be removed.

3. Earth Fill
Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps, wood, rubbish, stones greater than 6" frozen or other objectionable materials.

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 (before compaction) layers which are to be continuous over the entire length of the fill.

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 tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller.

When required by the reviewing agency the minimum required density shall be not less than 95% of maximum dry density for a moisture content within +/-2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction.

Cut/Out Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet.

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. The height shall extend up to at least the 10-year water elevation or as shown on the plans.

Structure Backfill - Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment.

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.

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.

5. Removal and Replacement of Defective Fill

Fill placed at densities lower than specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be removed to meet the requirements or replaced with acceptable fill.

6. Pipe Conduits

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

- 1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.011 inch (11 mil) on both sides of the pipe.

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

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands or flanges.

Connections - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are of the same material.

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7. Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 302, Mix No.3.

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

Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill".

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

Drainage Diaphragms - A drainage diaphragm is NOT used on this project.

7. Concrete

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 302, Mix No.3.

8. Rock Riprap

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 SE Non-woven.

9. Care of Water during Construction

All work on permanent structures shall be carried out in areas free from the Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works.

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10. Stabilization

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, pool and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resources Conservation Service Standards and specifications for Critical Area Planting (MD-343) or as shown on the accompanying drawings.

11. 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. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.

12. Seeding

Seeding, fertilizing and mulching shall be as follows: Seed Mix: 50% Kentucky Bluegrass, 40% Perennial Ryegrass, 10% St. Augustine.

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13. Filter Cloth

All filter cloth shall conform to the 1941 Maryland Standards and Specifications for soil erosion and sediment control, or the latest edition.

14. Gabions

All gabions shall be PVC coated woven wire baskets. Stone size shall be 4 inches to 7 inches. (Class IV Gabions)

15. Fence

Chain link fencing: Construct fencing in accordance with the State Highway Administration Standard details 690.01 and 690.02. Use specifications for a 6-foot fence, substituting 42" fabric and 0.29" line posts. Construct the gate in accordance with SIA Standard detail 690.01 with 42" fabric. The fabric used for the fence and gate must conform to AASHTO Designation M181-74. Fence post and wire fabric shall be dark vinyl (PVC) coated green or black.

16. Construction Inspection by Designated Engineers

The construction of the pond and embankment, and certification that the pond and embankment have been built in accordance with the plans shall be under the supervision of a Registered Professional Engineer. The engineer shall be notified sufficiently in advance of construction in order that arrangements can be made for (1) Inspection of pipe trench and bedding, (2) Inspection of riser and anti-seep collars and, (3) Supervision of embankment construction and compaction testing. The engineer shall direct the handling of water during construction, minor changes not affecting the integrity of the dam in order to compensate for unusual soil conditions, and the removal and replacement of defective fill.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND JOINTLY MAINTAINED STORMWATER MANAGEMENT PONDS

ROUTINE MAINTENANCE BY HOA

- 1. Facility shall be inspected annually and after major storms, inspections shall be performed during wet weather to determine if the pond is functioning properly.
2. Top and side slopes of the embankment shall be mowed a minimum of two(2) times per year, once in June and once in September. Other side slopes and maintenance access shall be mowed as needed.
3. Debris and litter shall be removed during regular mowing operations and as needed.
4. Visible signs of erosion in the pond as well as the rip-rap or gabion outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE BY HOWARD COUNTY

- 1. Structural components of the pond such as the dam, riser and the pipes shall be repaired upon the detection of any damage. The components shall be inspected during routine maintenance operations.
2. Sediment shall be removed from the pond and forebay no later than when the capacity of the pond or forebay is half full of sediment or when deemed necessary for aesthetic reasons, upon approval from the department of public works.
3. When the drawdown time exceeds 72 hours, filter media shall be replaced.

TABLE 4B - MATERIALS SPECIFICATIONS FOR RAINGARDENS
Table with 5 columns: Material, Specification, and Notes. Lists materials like Broomsedge, Switchgrass, and various shrubs.

D. PLANT INSTALLATION
Plants shall be planted to a uniform thickness of 2 to 3 inches. Root stock of the plant material shall be kept moist and stored on the sides of the hole.

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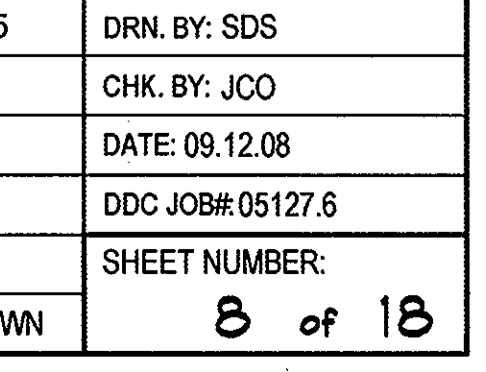
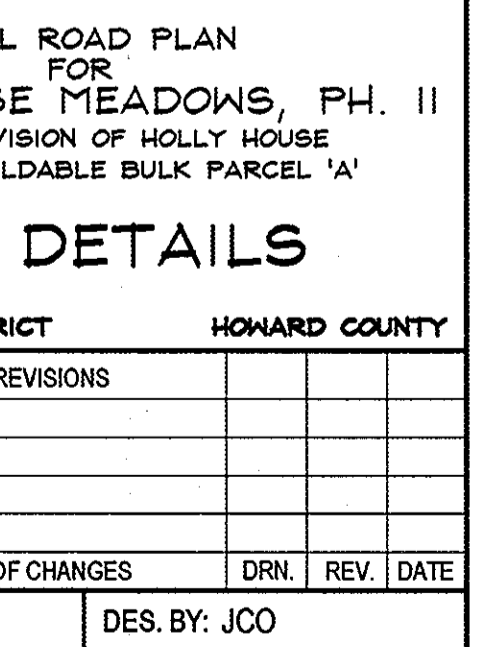
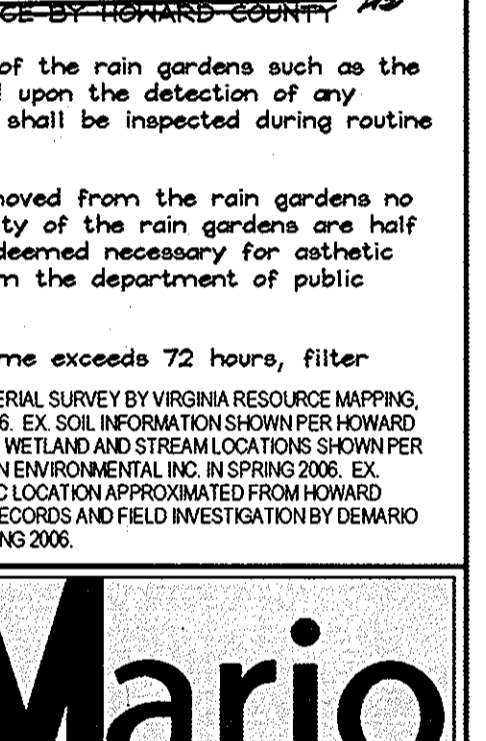
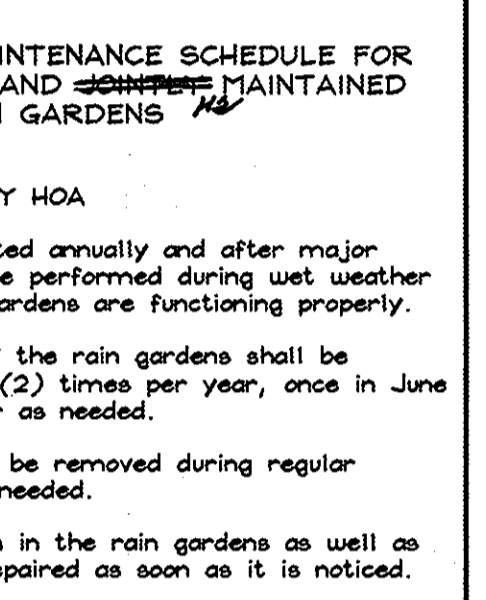
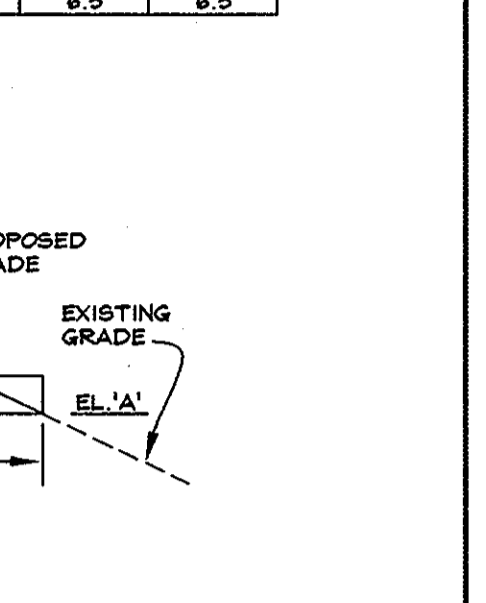
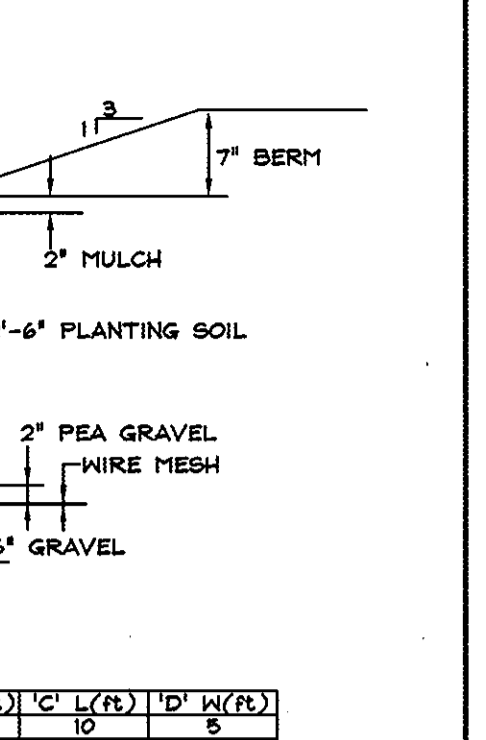
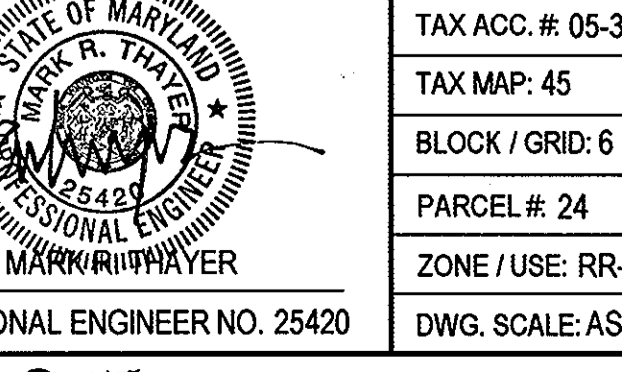
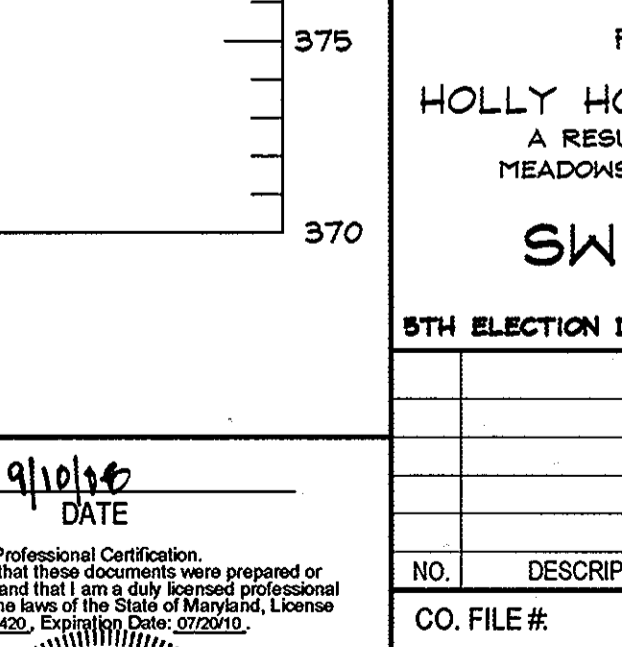
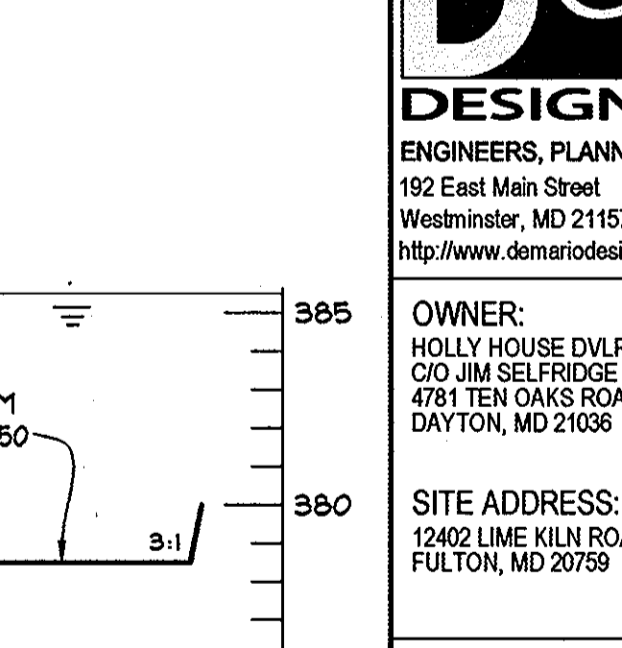
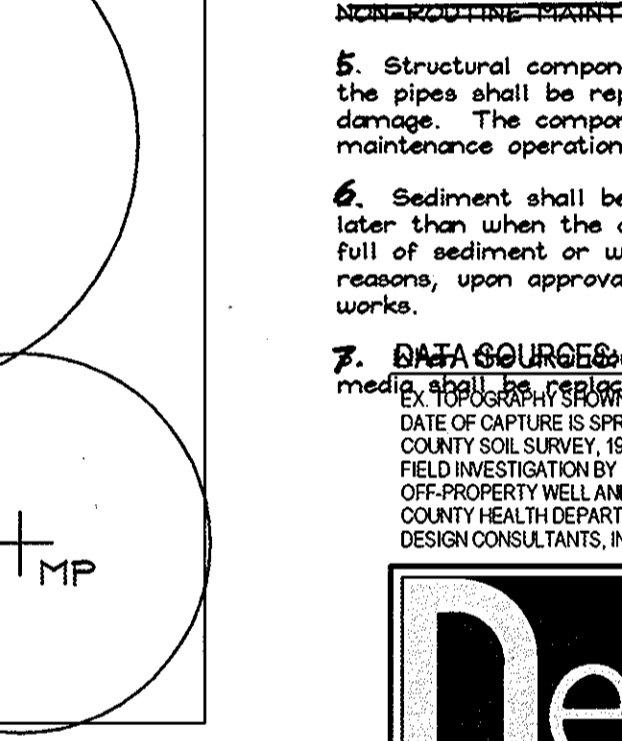
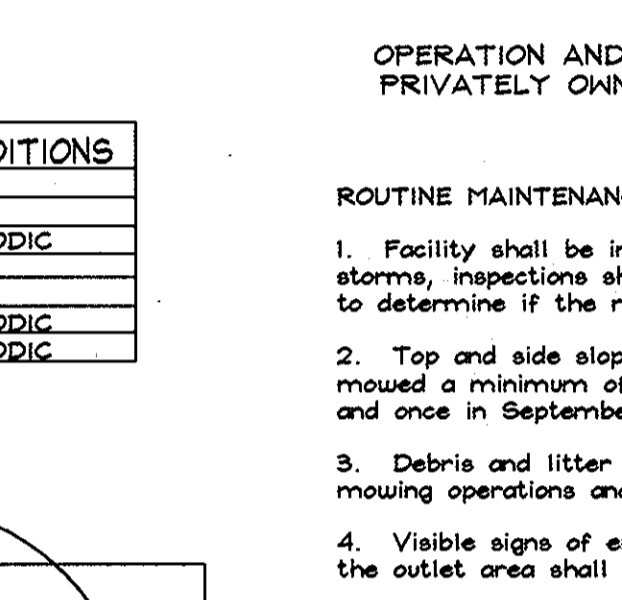
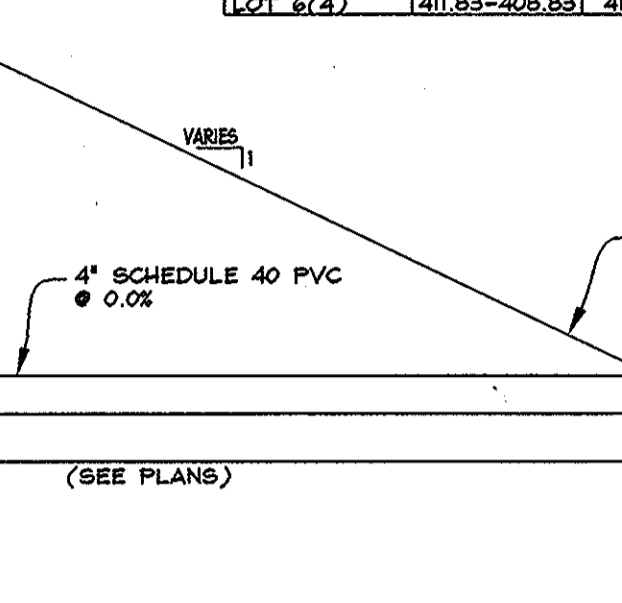
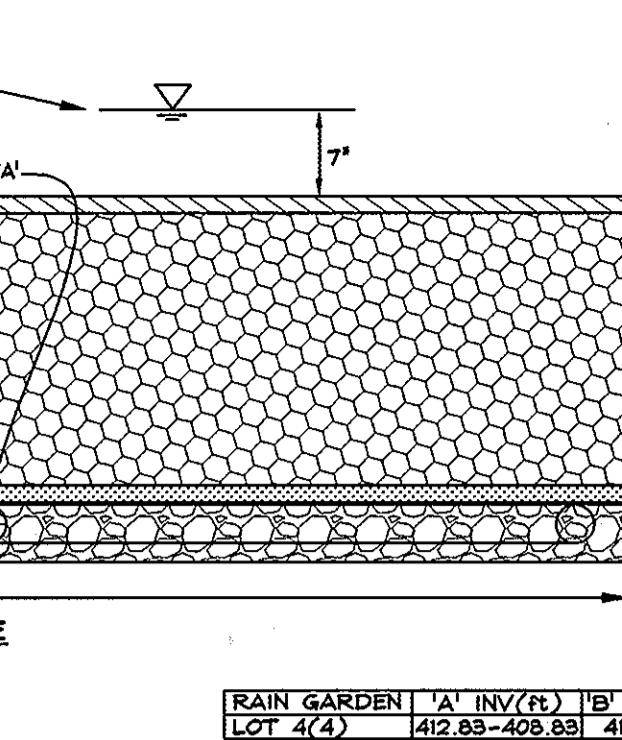
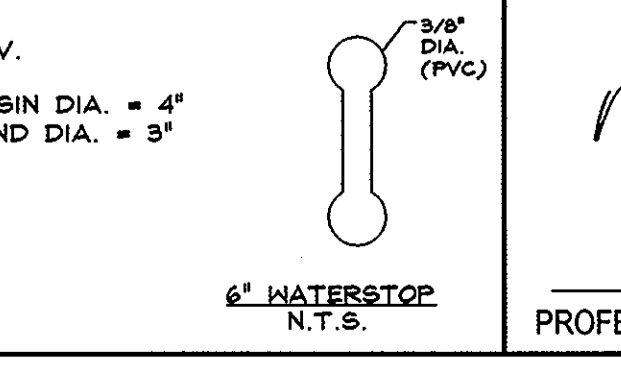
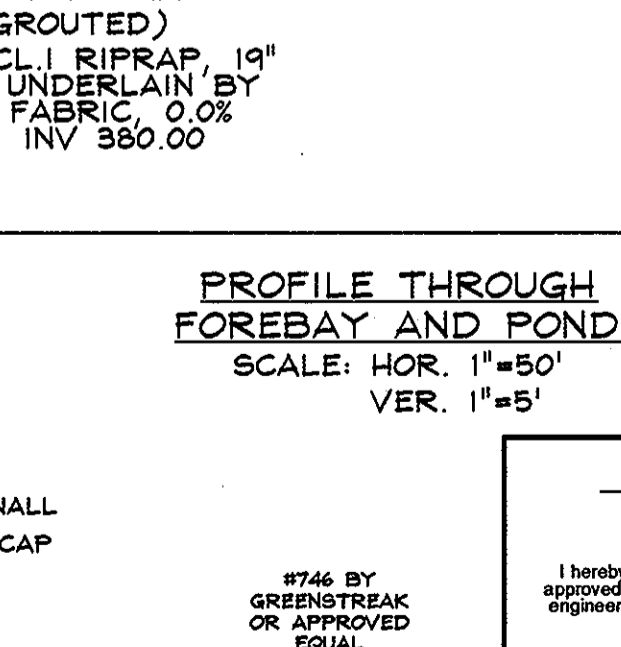
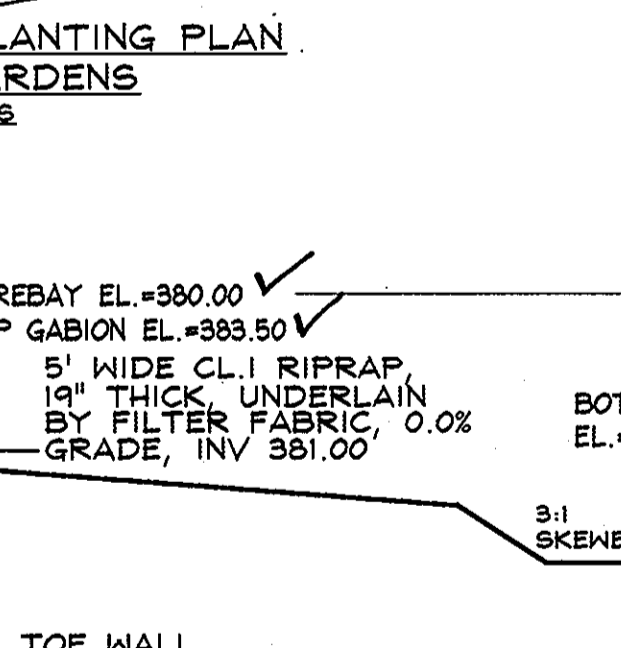
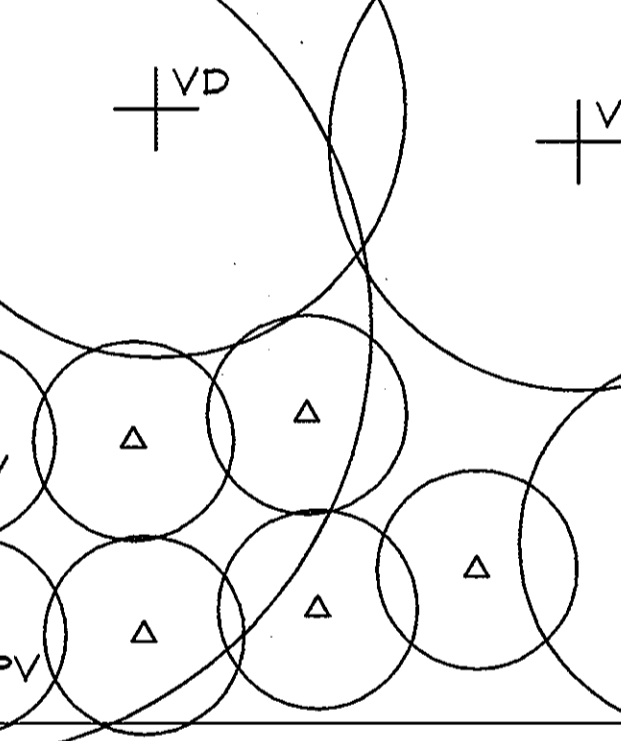
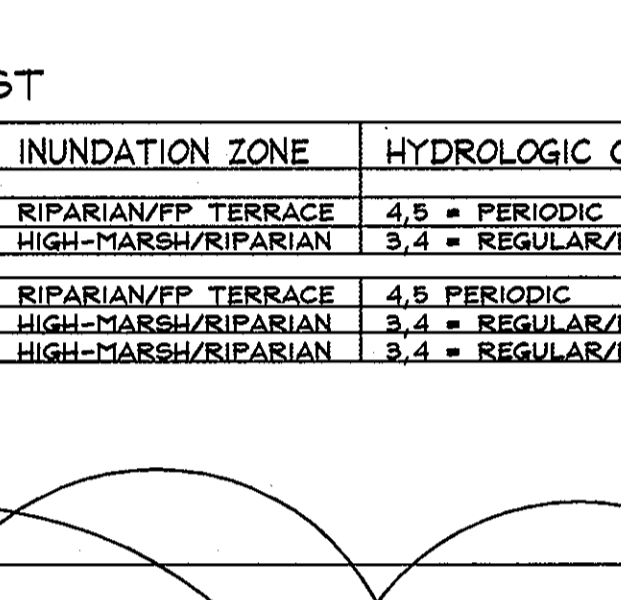
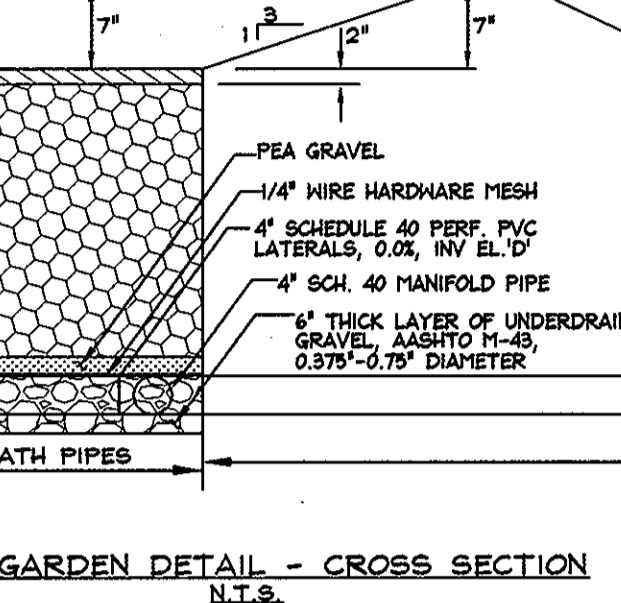
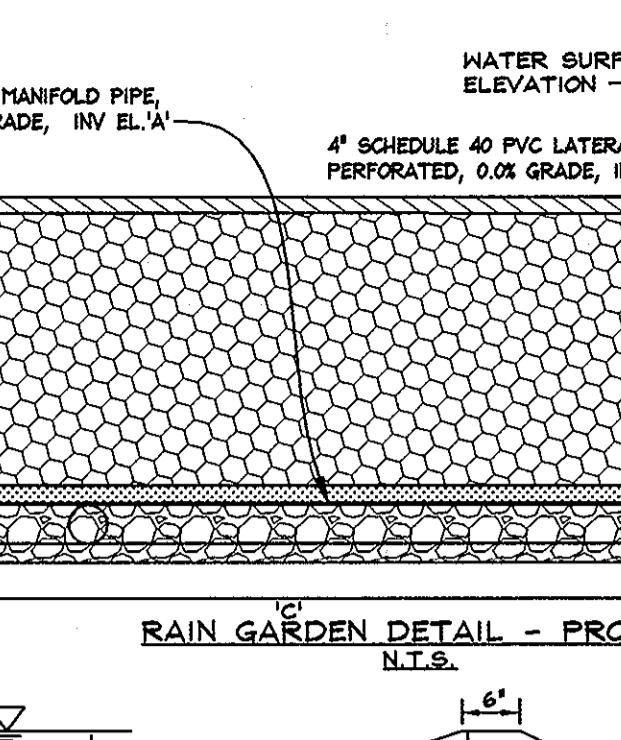
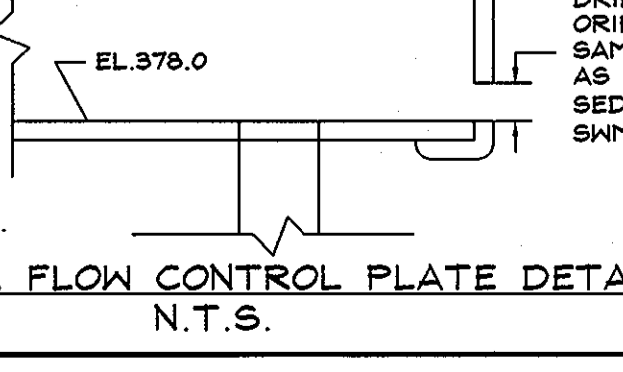
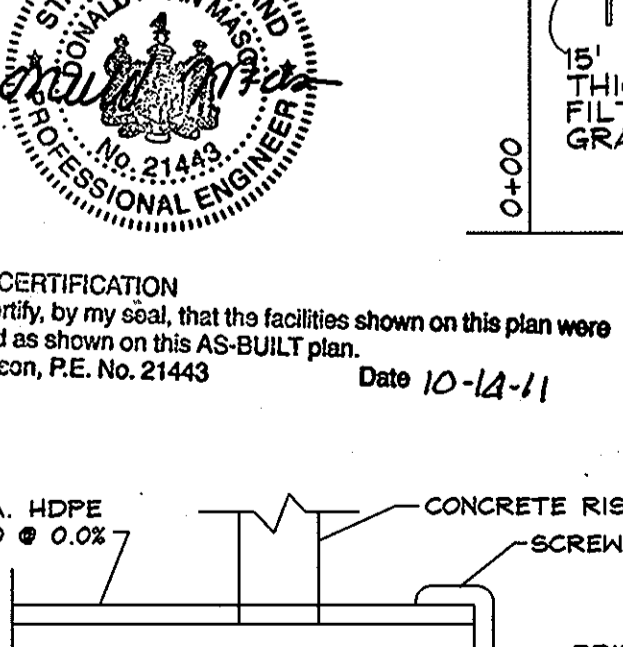
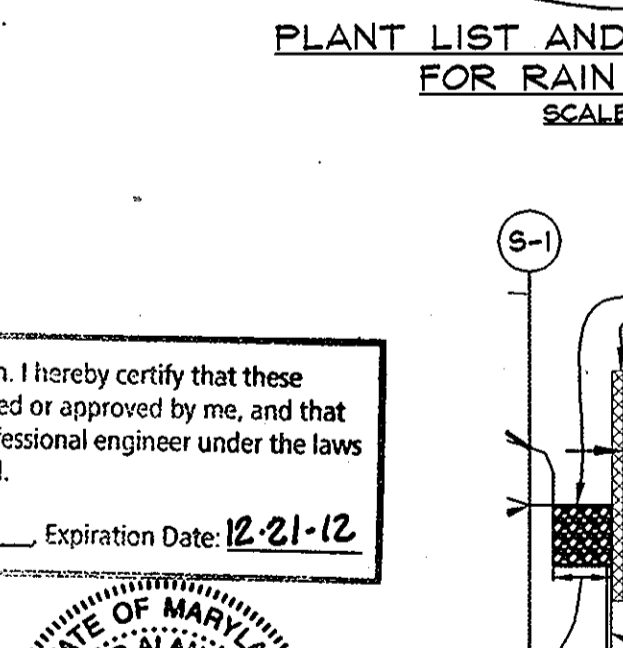
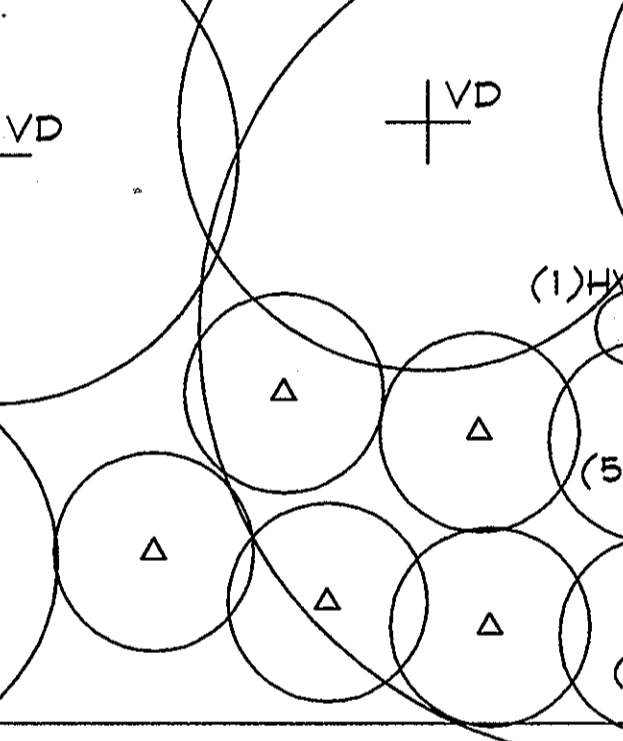
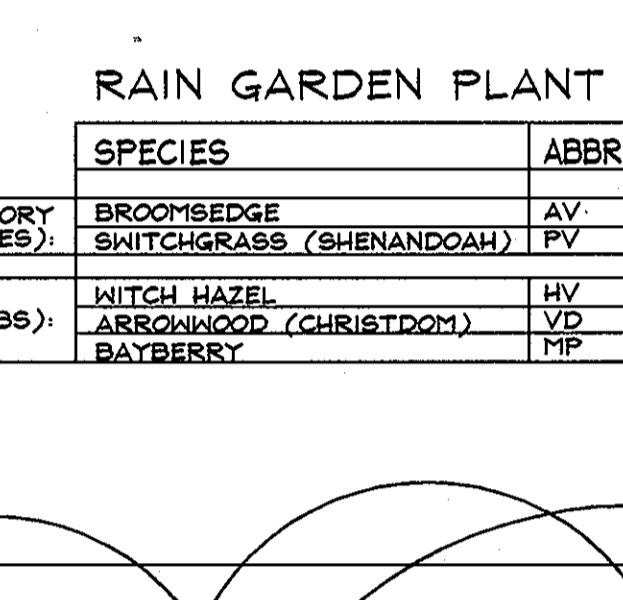
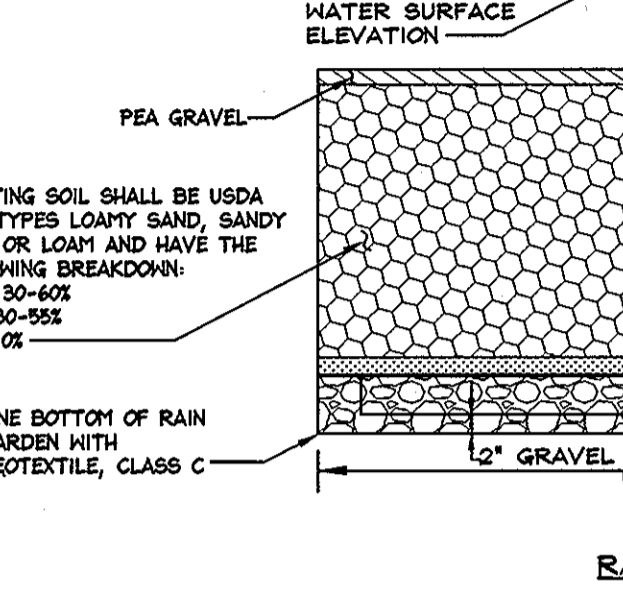
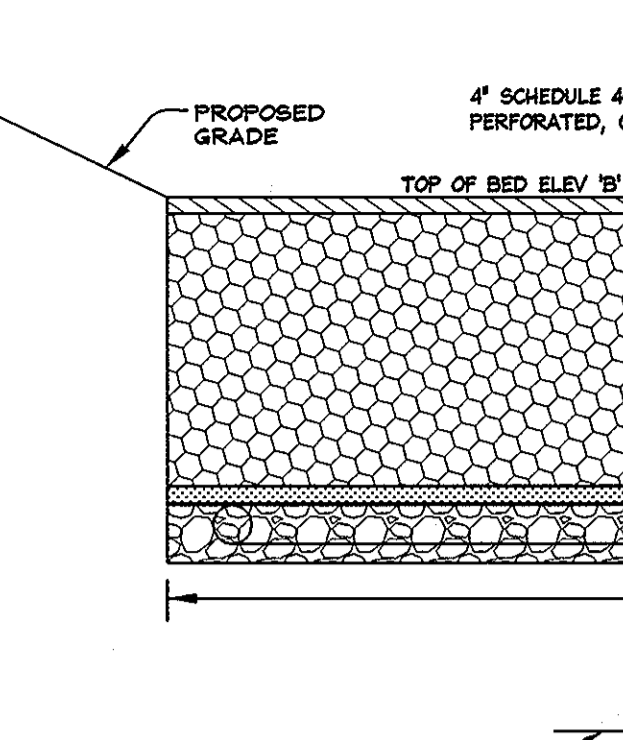
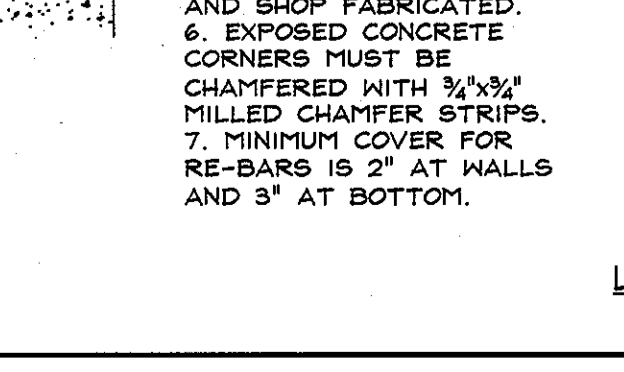
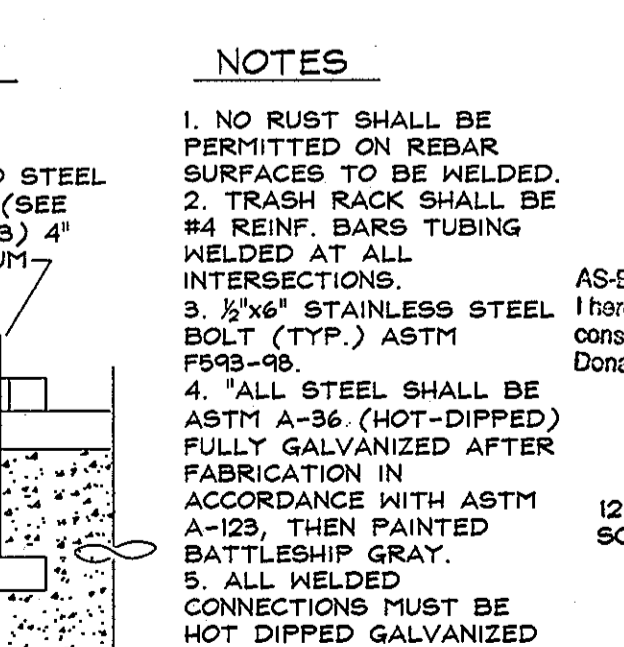
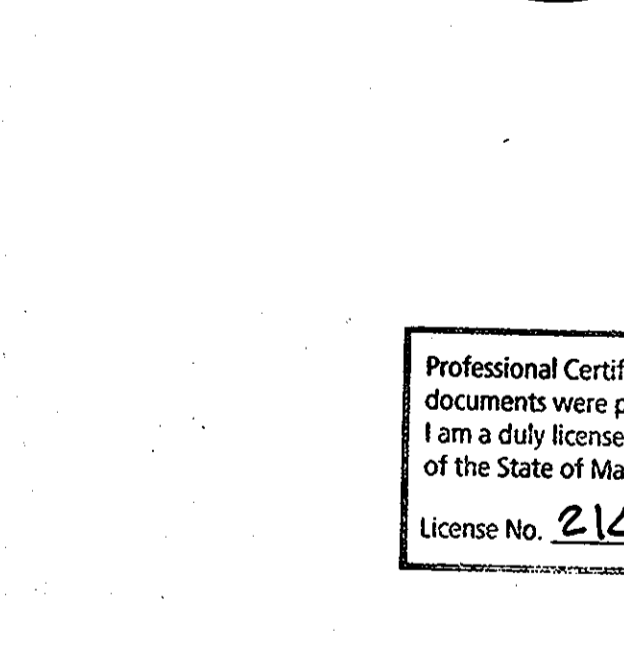
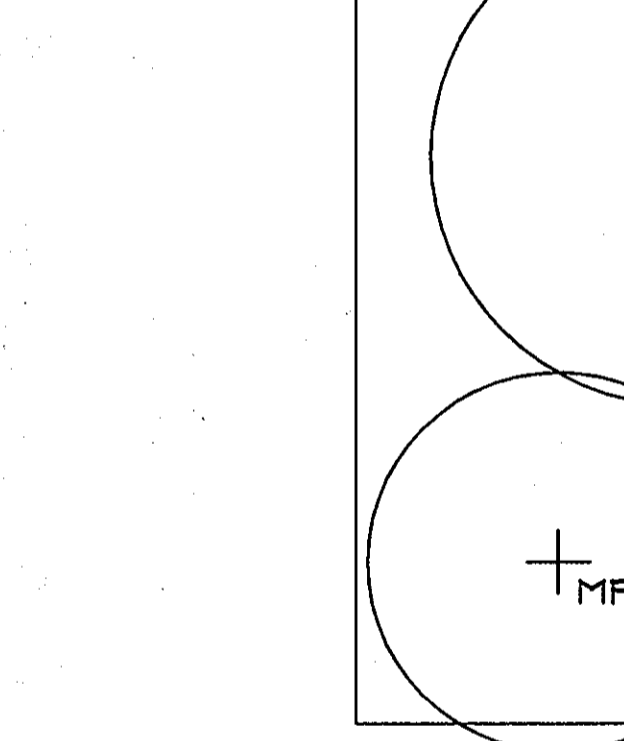
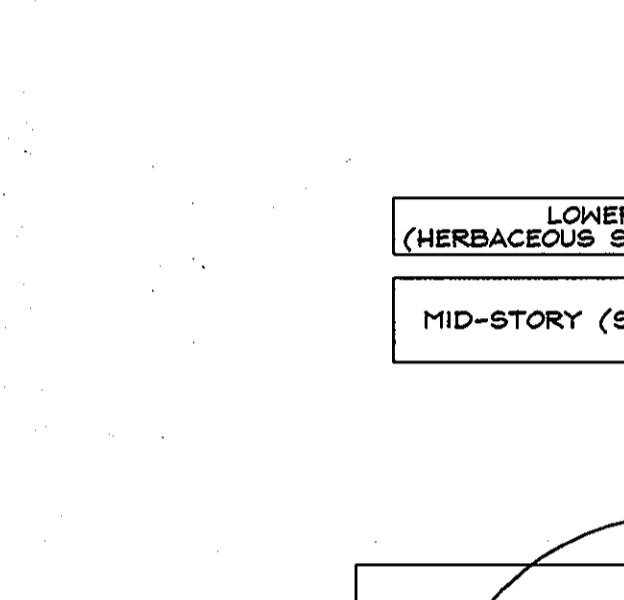
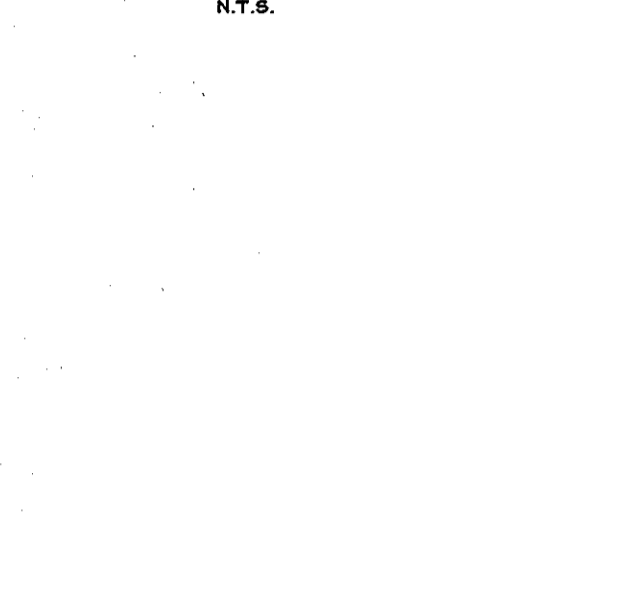
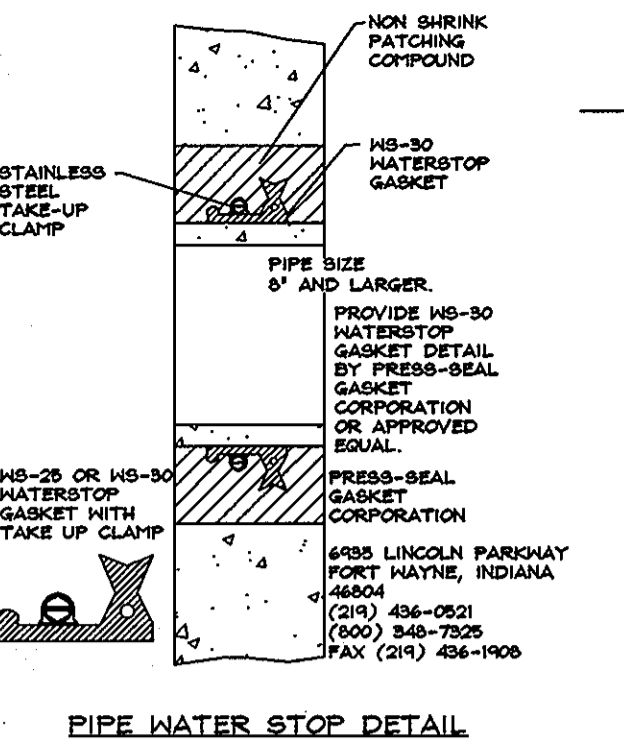
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BY THE DEVELOPER: I/we certify that all development and/or construction will be done according to these plans and that any responsible personnel involved in the construction project will have a certificate of attendance at a department of the environment approved training program for the control of sediment and erosion before beginning the project.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

TRASH RACK WELDING DETAILS. NOTES: 1. FIELD MEASURE THE STRUCTURE DIMENSIONS FOR CUTTING OF TRASH RACK. 2. GALVANIZE ENTIRE RACK AFTER FABRICATION.

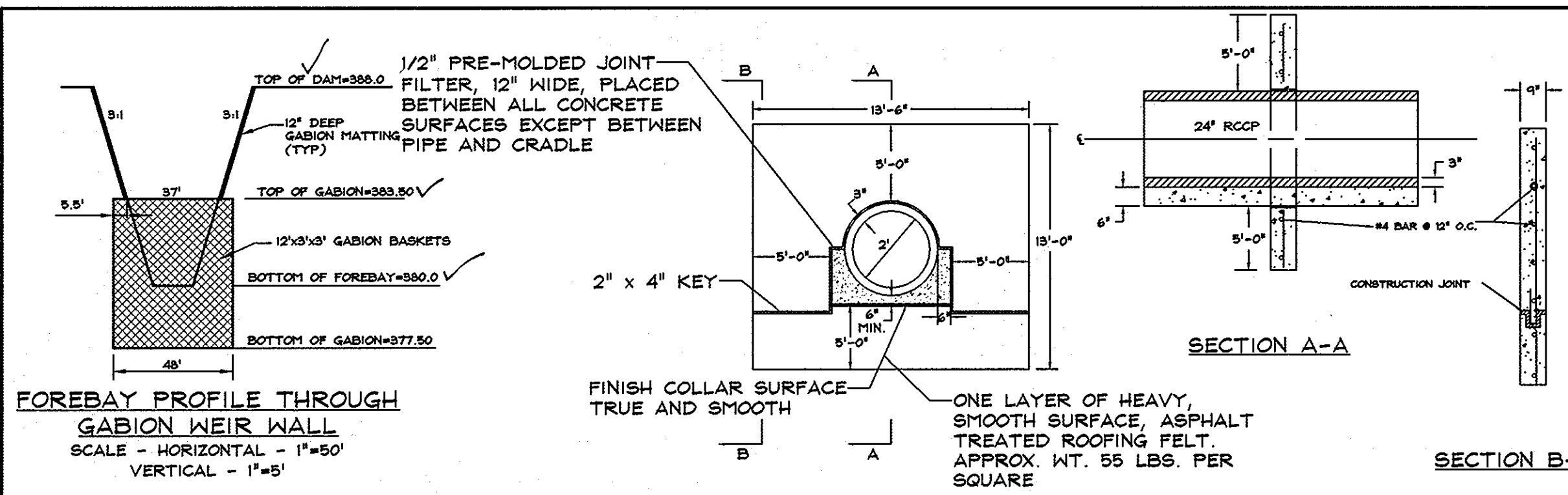
NOTES: 1. NO RUST SHALL BE PERMITTED REEF SURFACES TO BE WELDED. 2. TRASH RACK SHALL BE #4 REINF. BARS TUBING WELDED AT ALL INTERSECTIONS.

AS-BUILT CERTIFICATION: I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this AS-BUILT plan.

PROFILE THROUGH FOREBAY AND POND. SCALE: HOR. 1"=50' VER. 1"=5'

FINAL RUD PLAN FOR HOLLY HOUSE MEADOWS, PH. II A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'

DESIGN CONSULTANTS: ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS. OWNER: HOLLY HOUSE DVLPM, LLC. DEVELOPER: SELF-REDEVELOPERS CO. INC. FRIDGES 4781 TEN OAKS ROAD DAYTON, MD 21036



HILLIS-CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: 12402 Lime Kiln Road
Location: Howard County, Maryland

Station	Depth	Soil Description	Moisture (%)	Specific Gravity	Unit Weight (pcf)	Classification
1+00	0-1'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	1-2'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	2-3'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	3-4'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	4-5'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	5-6'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	6-7'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	7-8'	Light gray silty clay with sand	22.5	2.65	115	CL
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HILLIS-CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

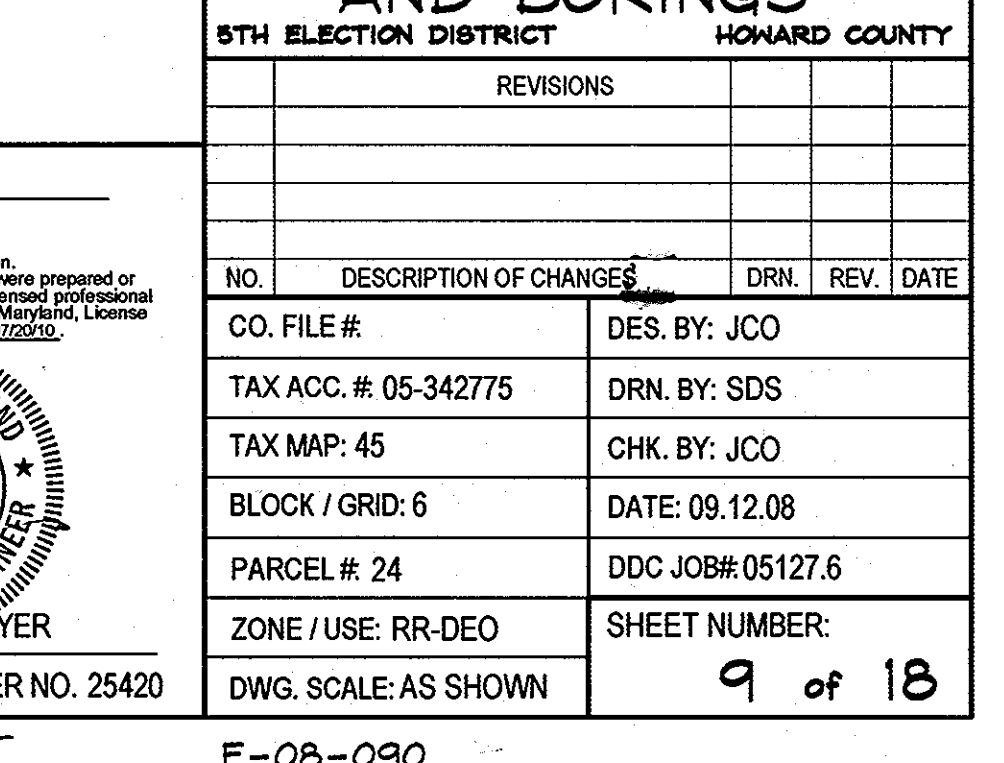
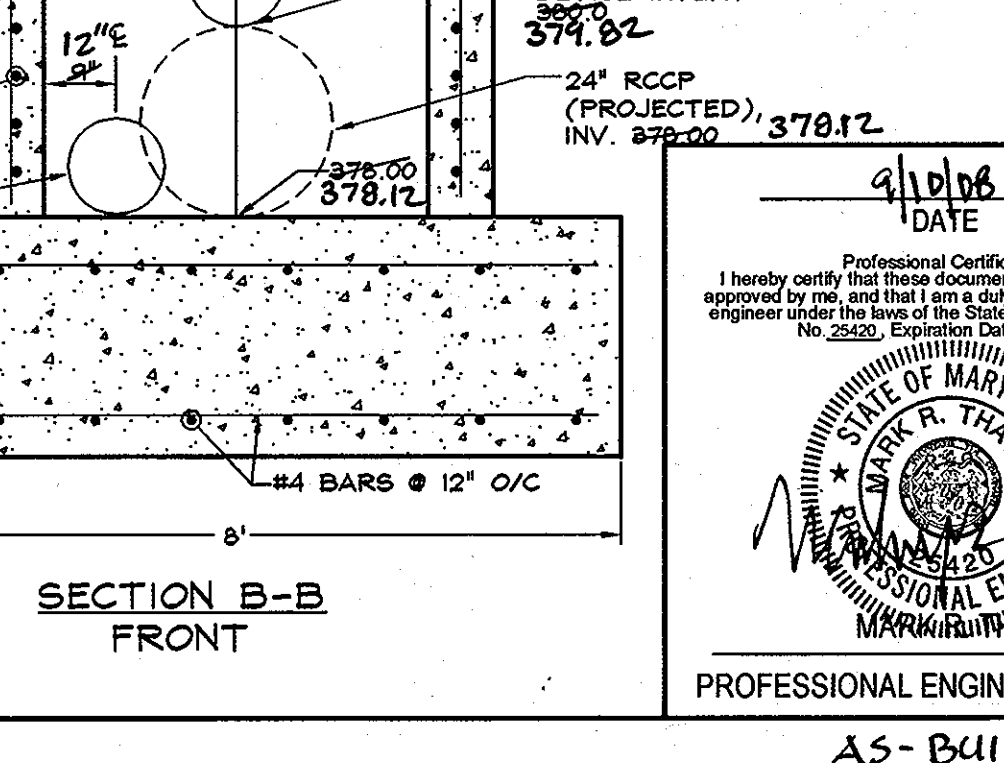
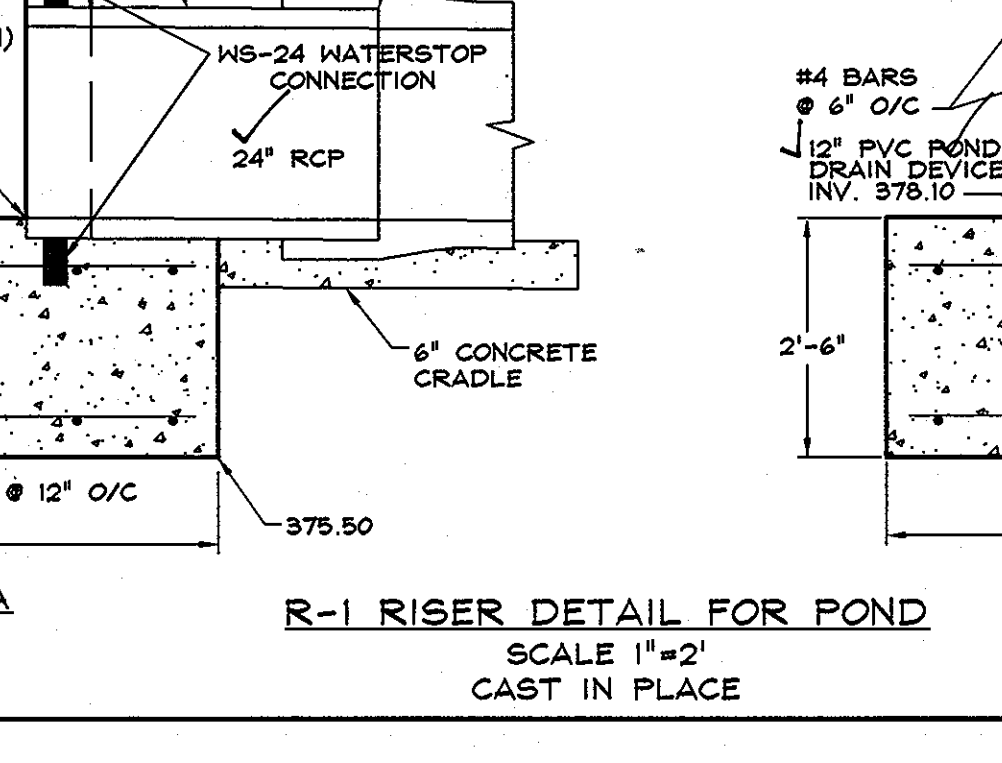
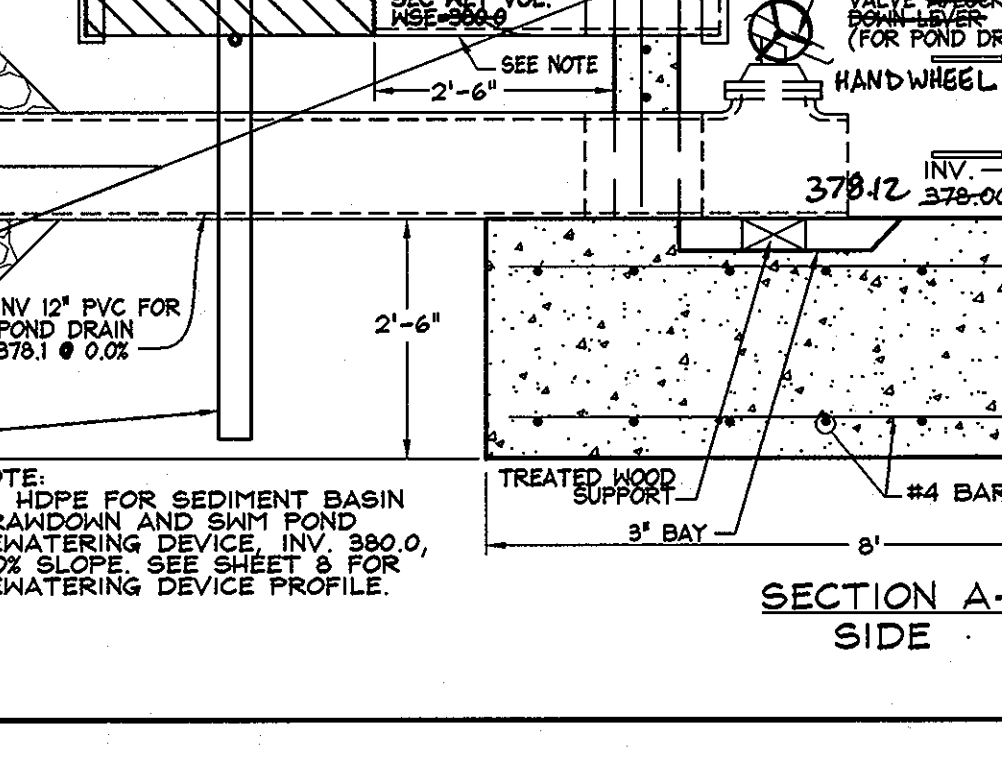
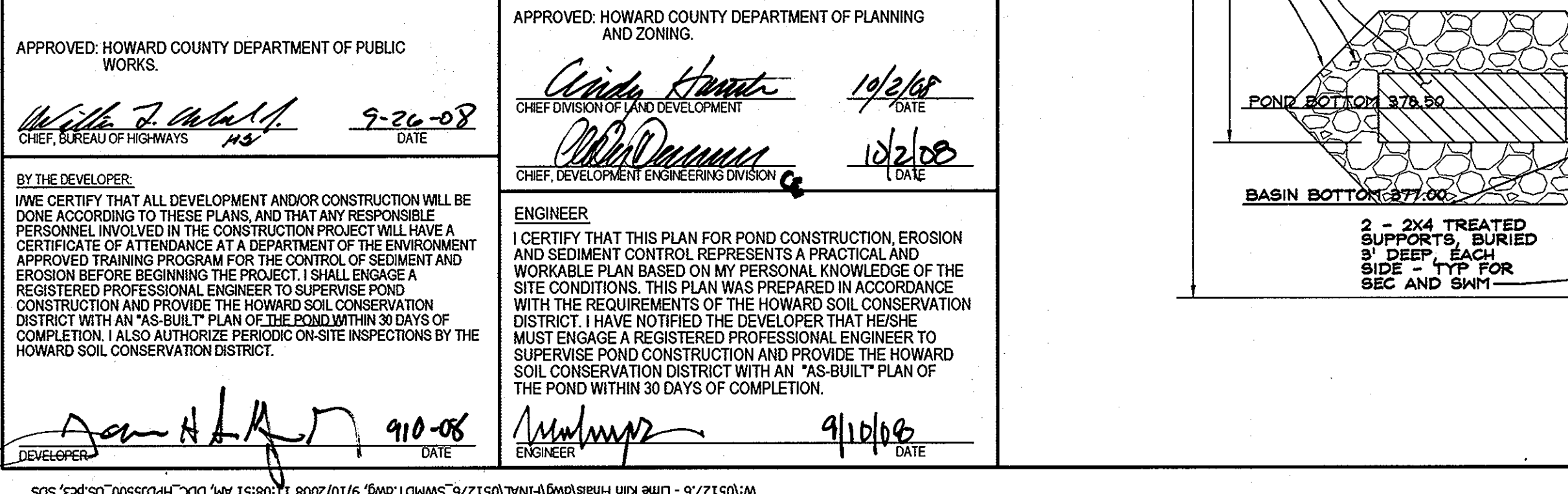
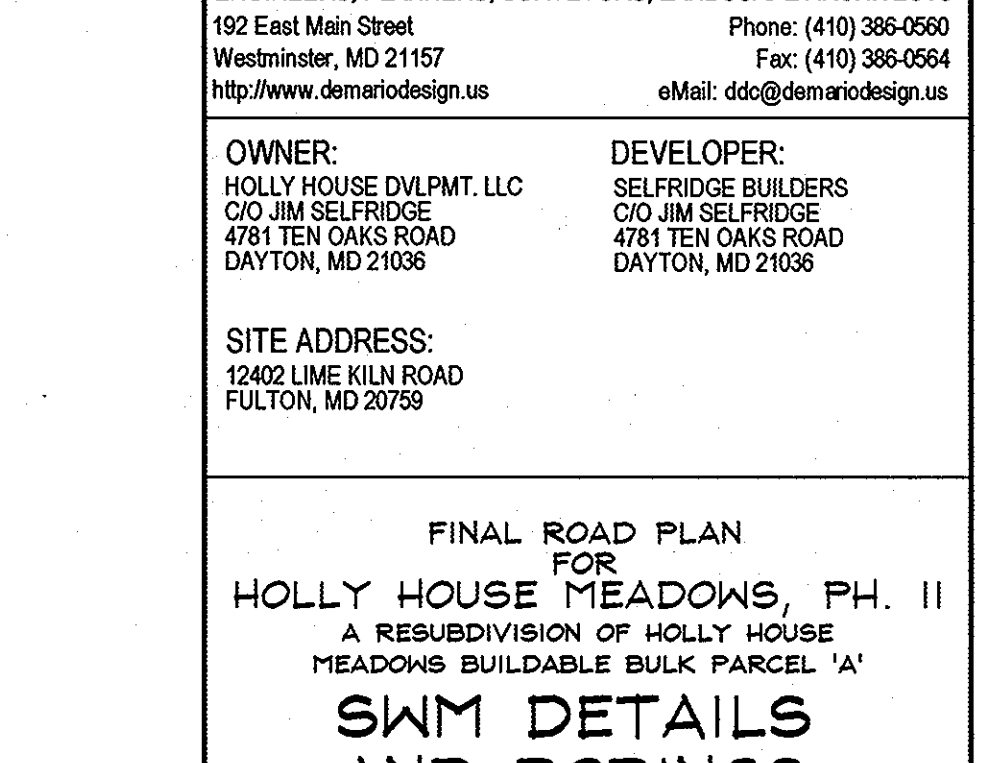
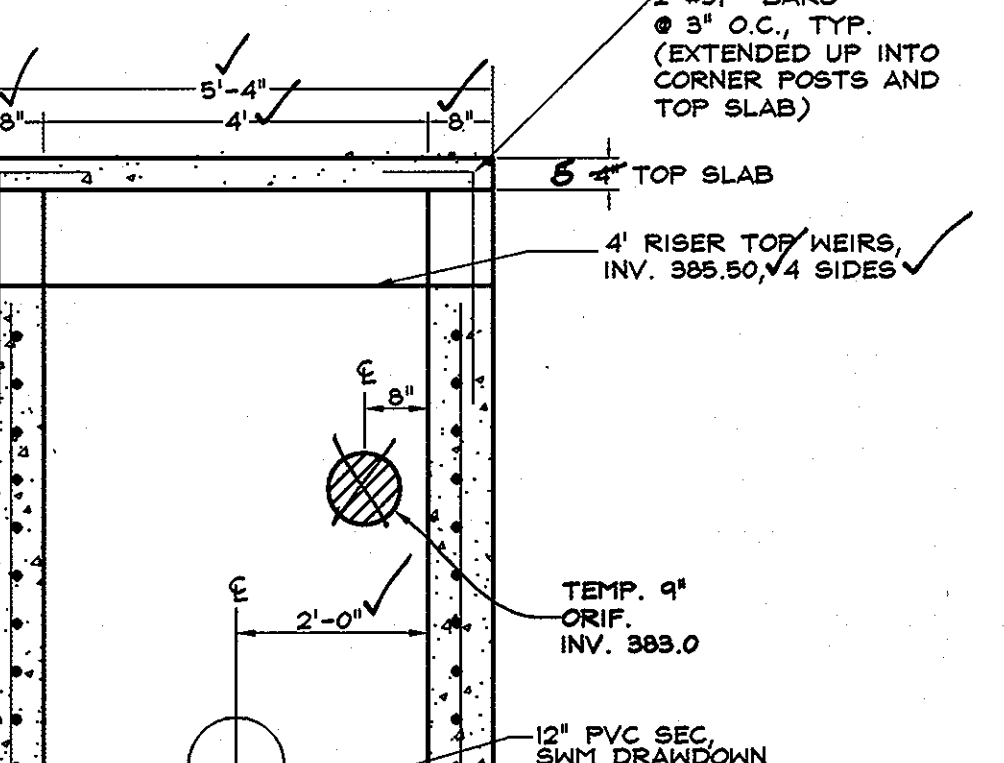
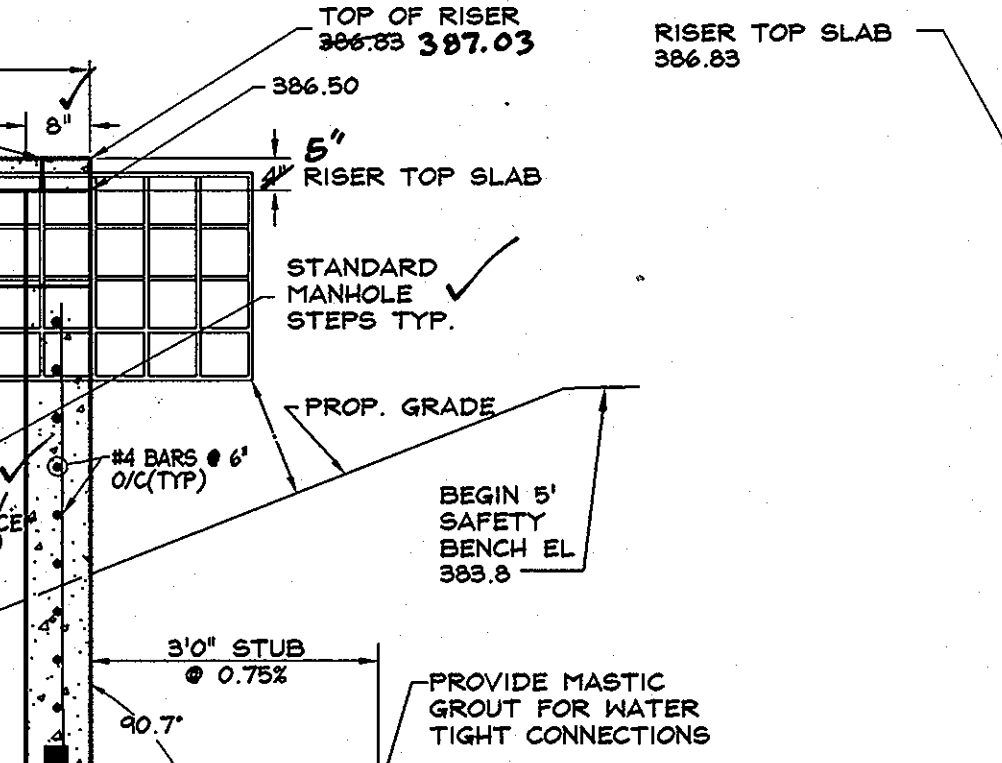
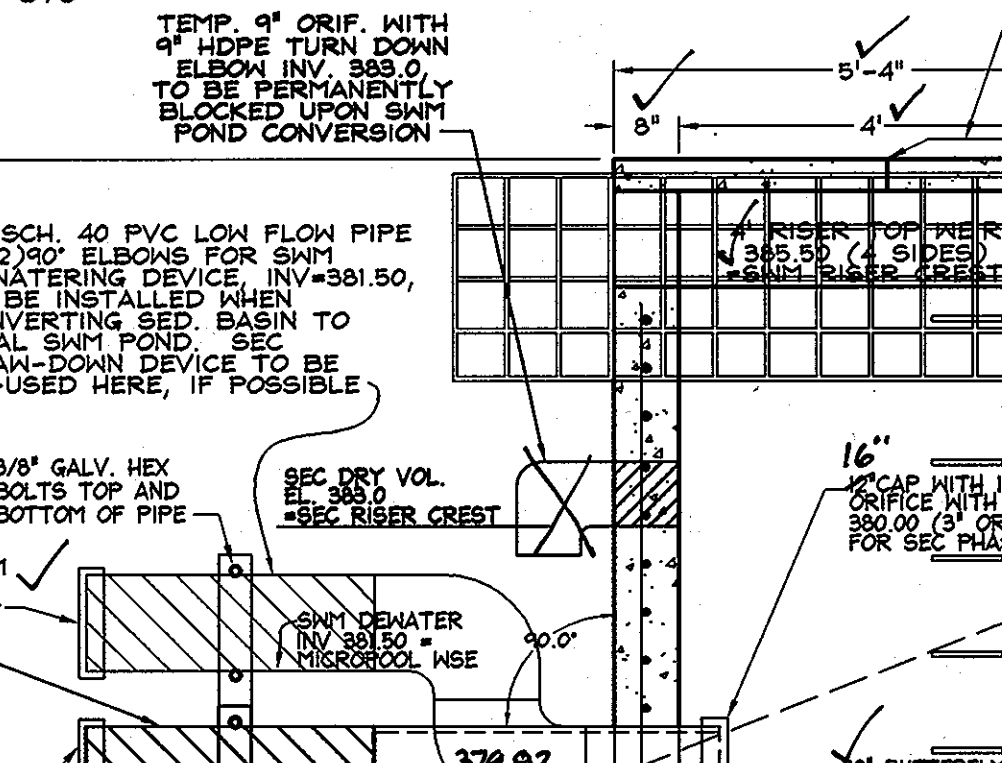
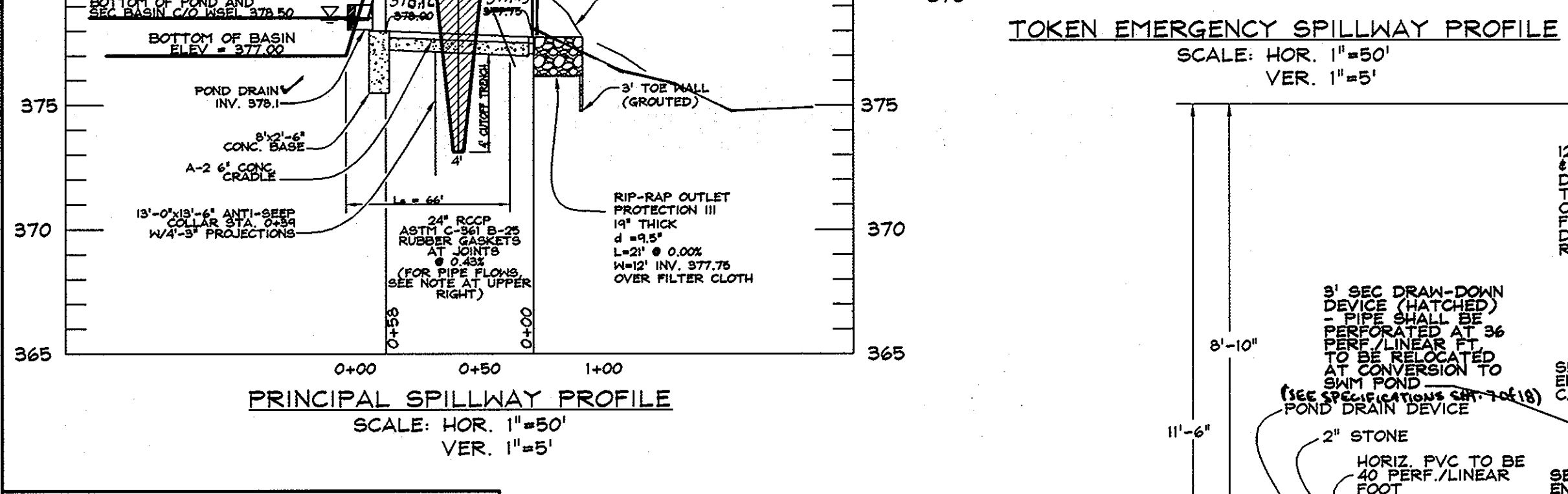
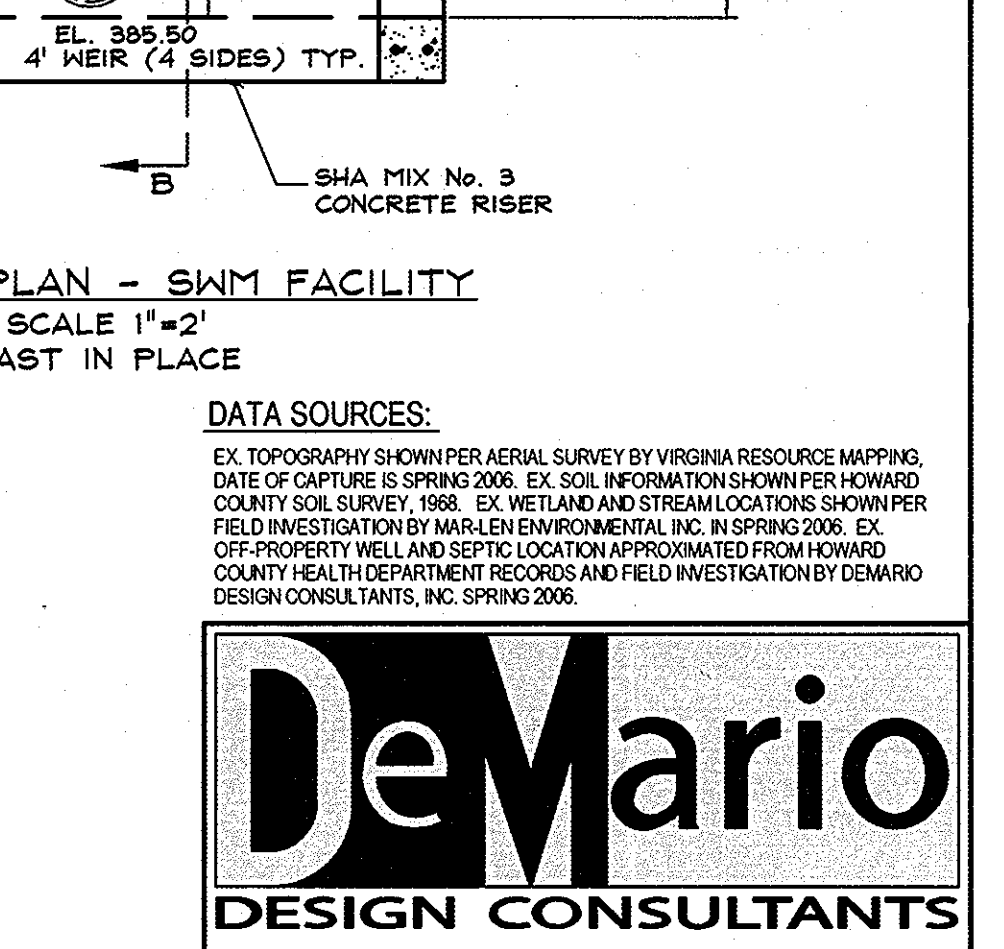
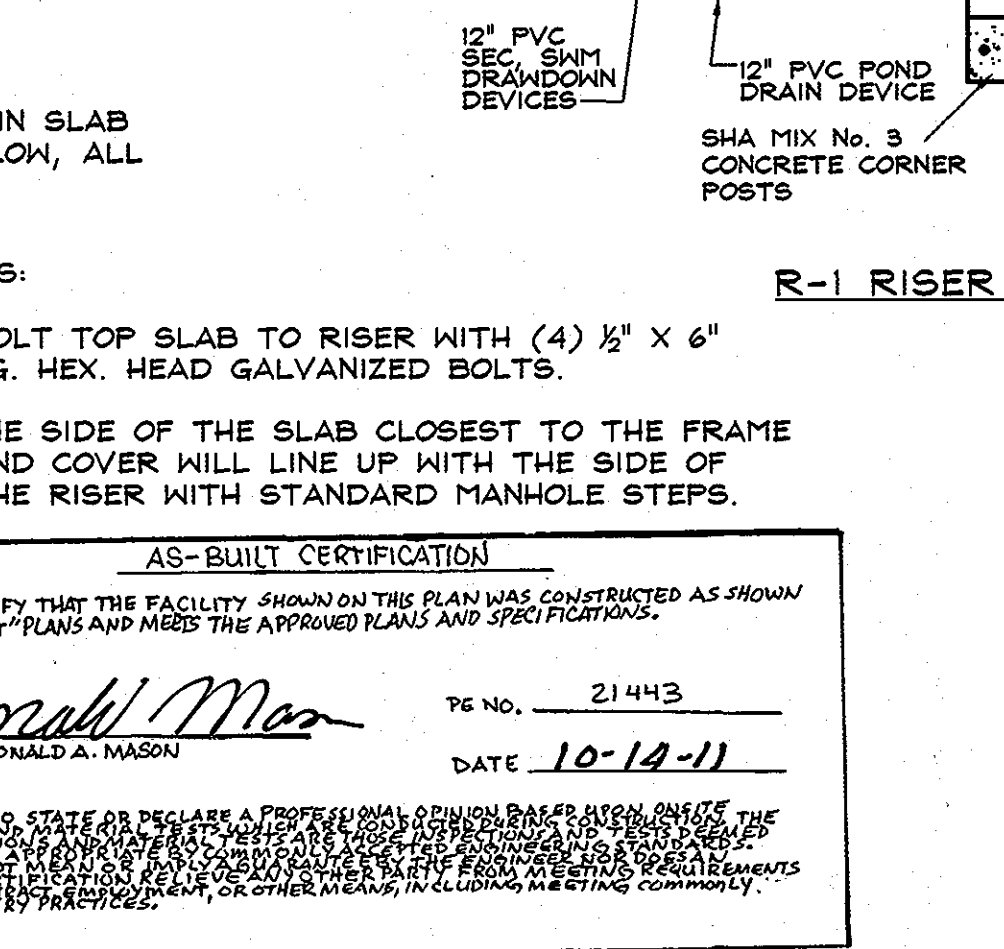
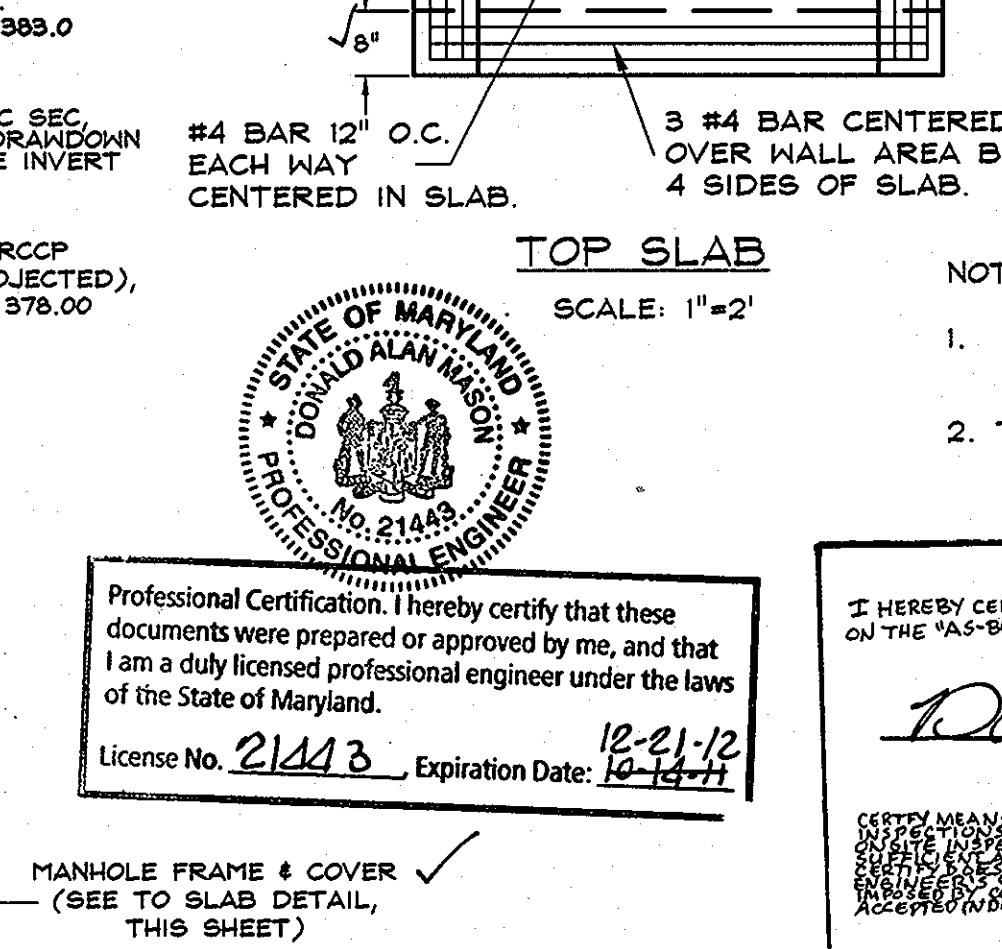
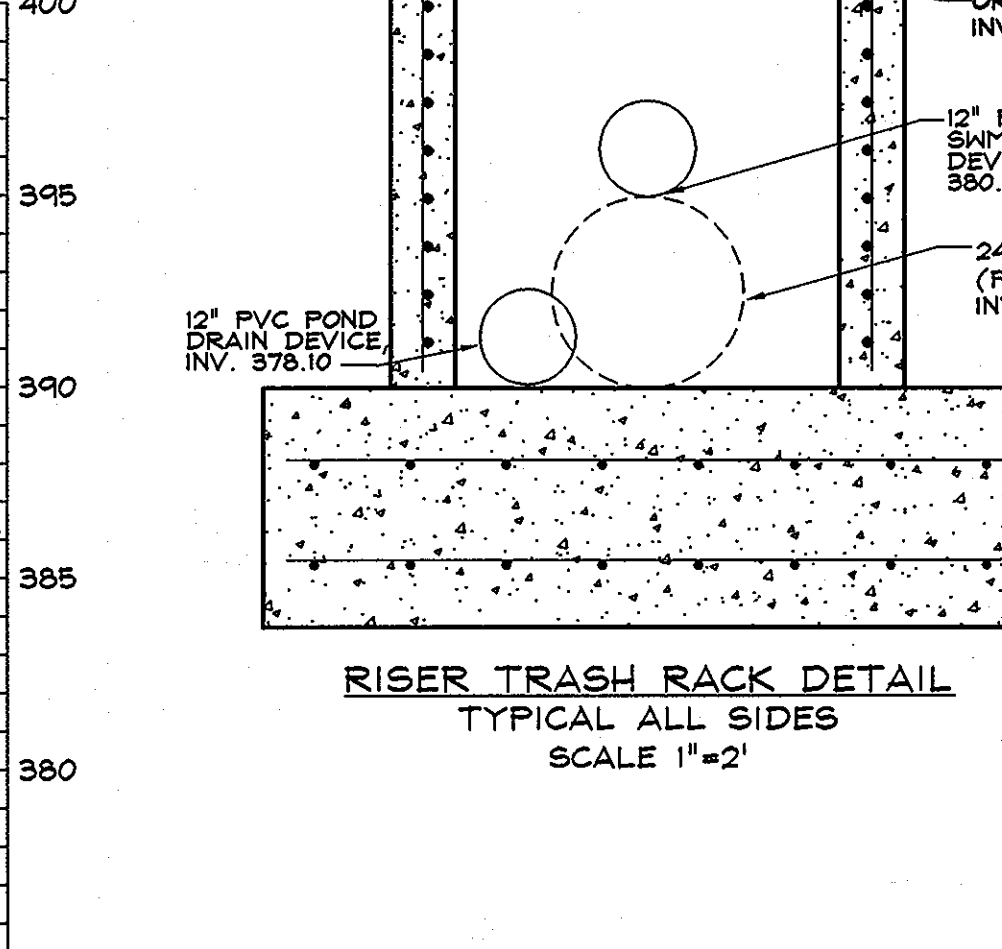
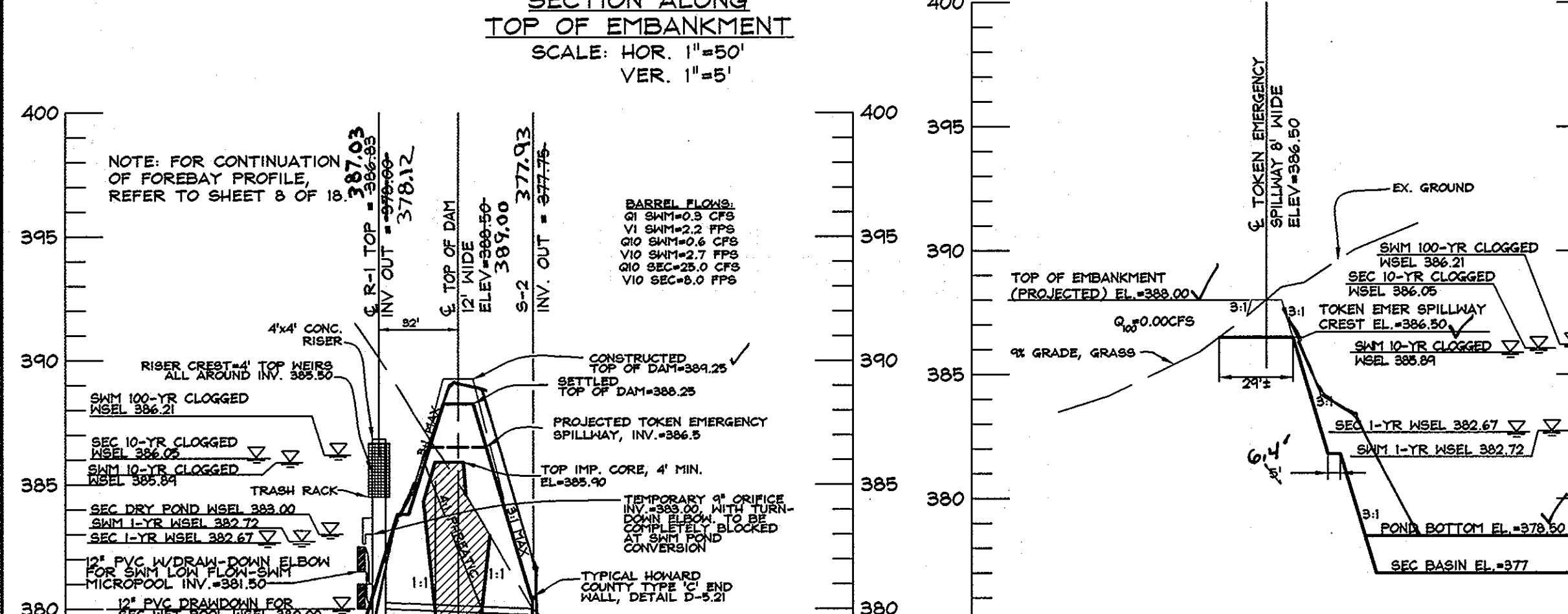
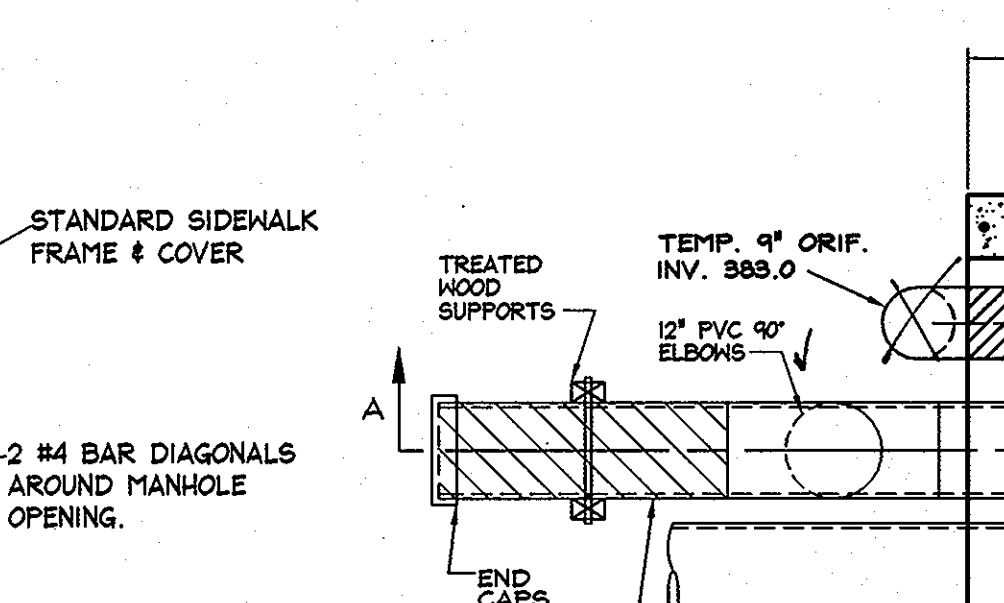
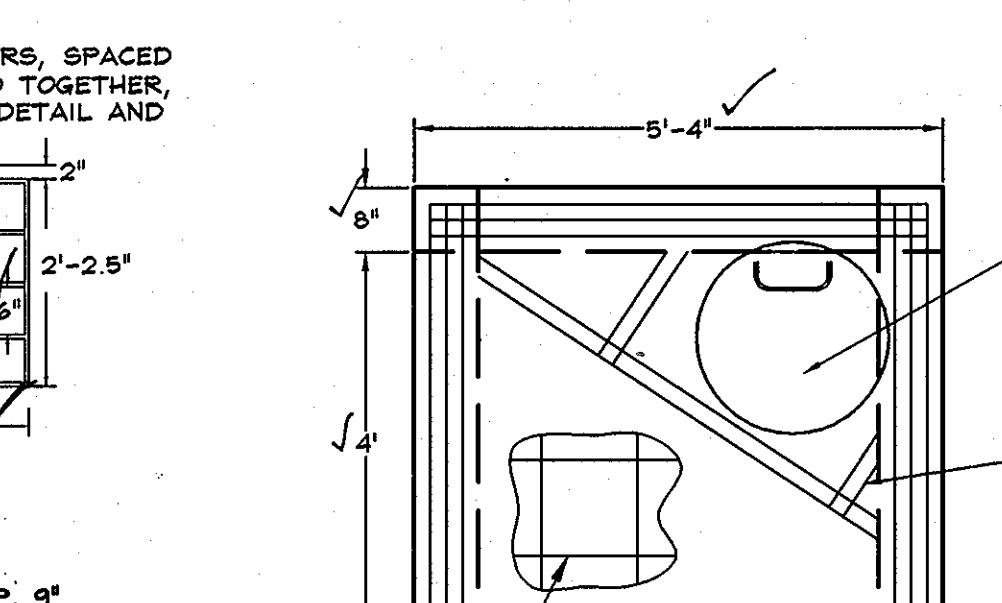
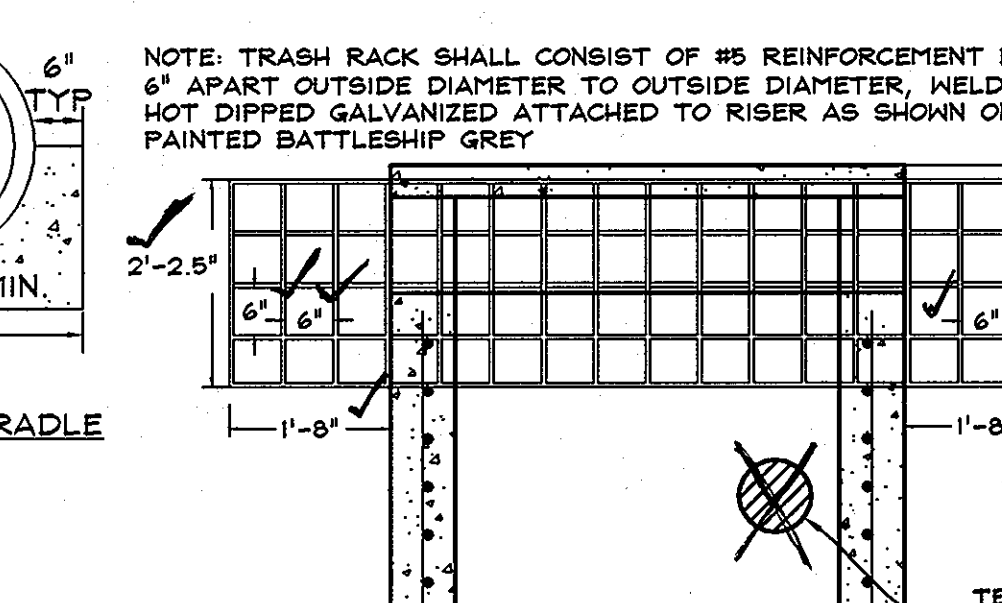
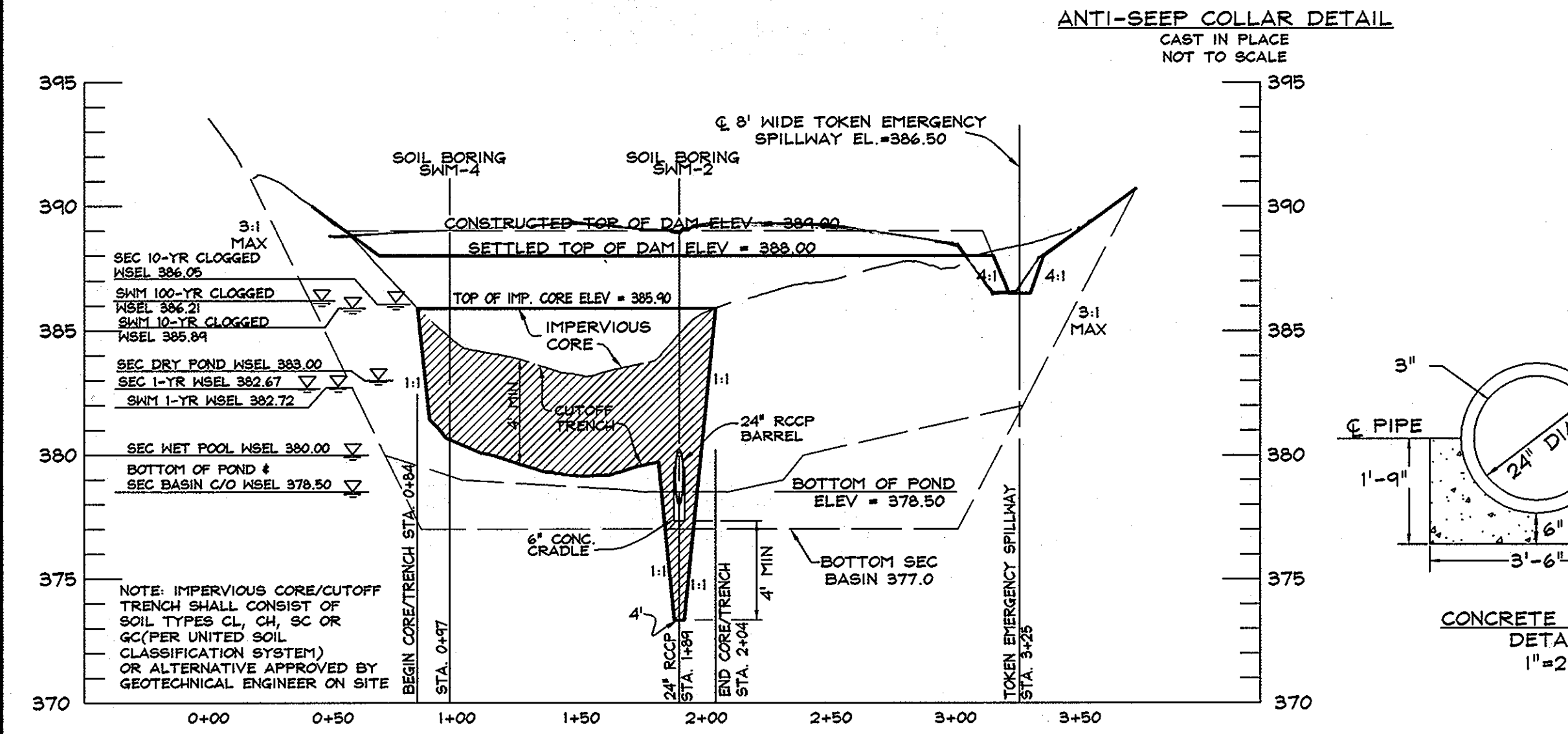
Project Name: 12402 Lime Kiln Road
Location: Howard County, Maryland

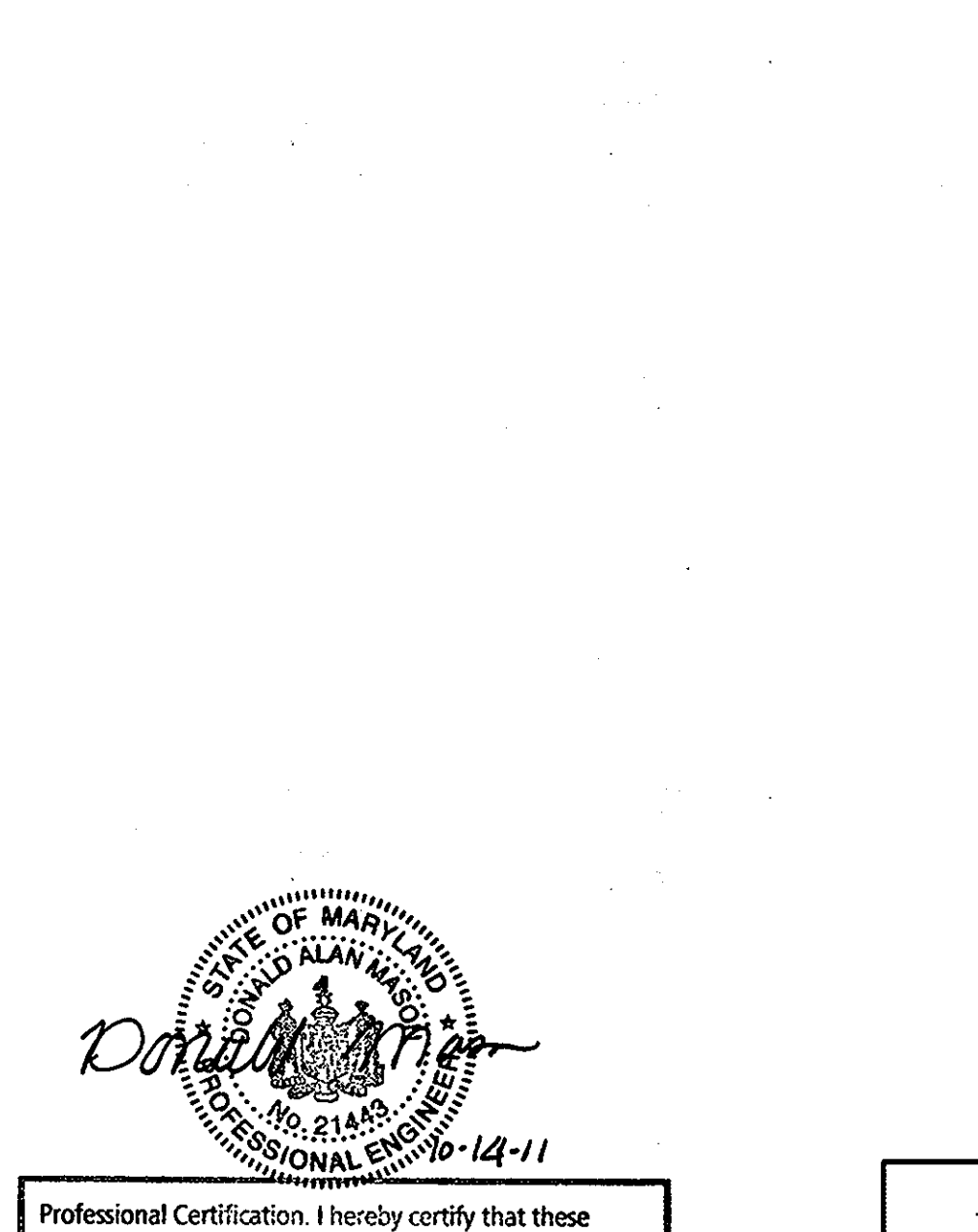
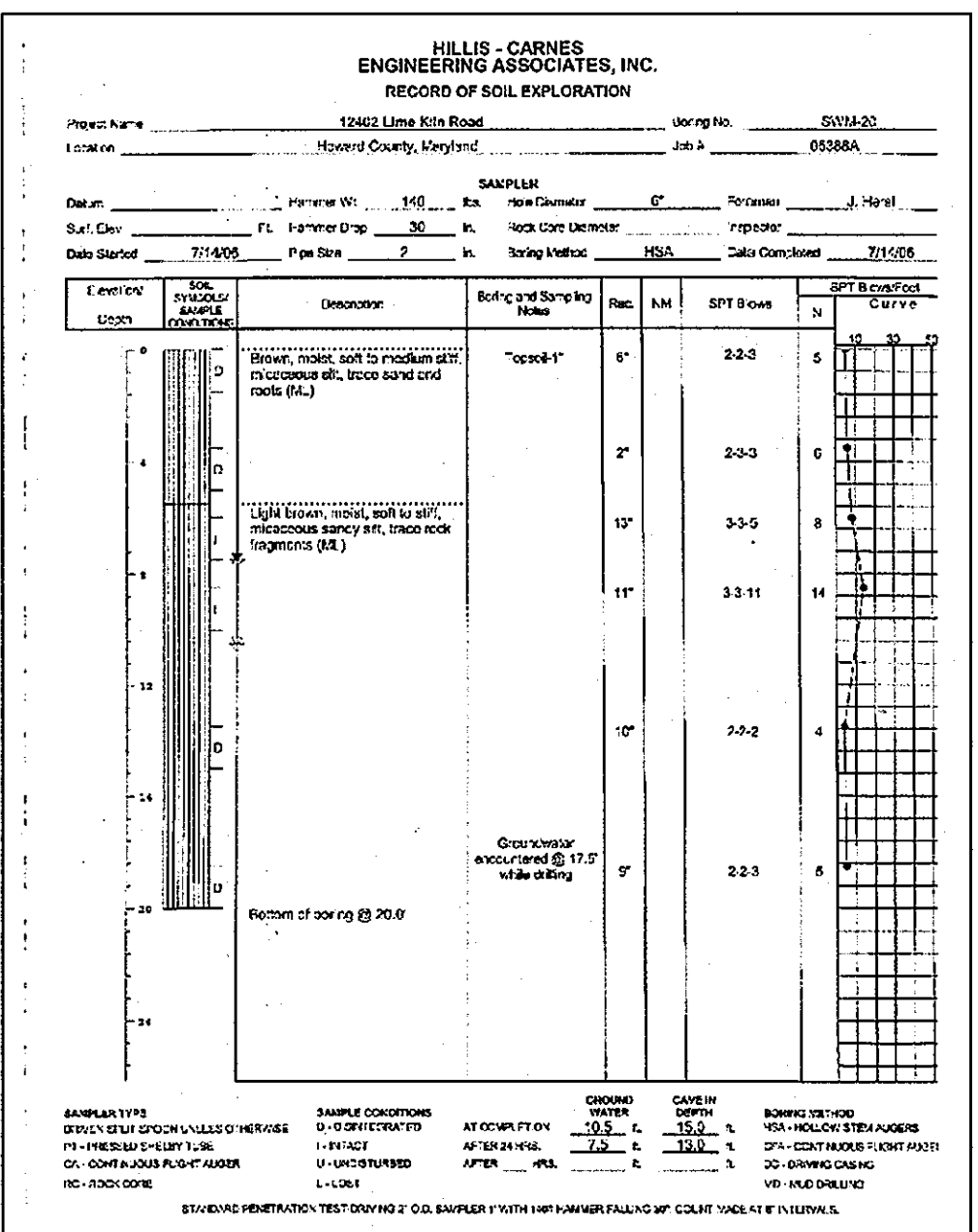
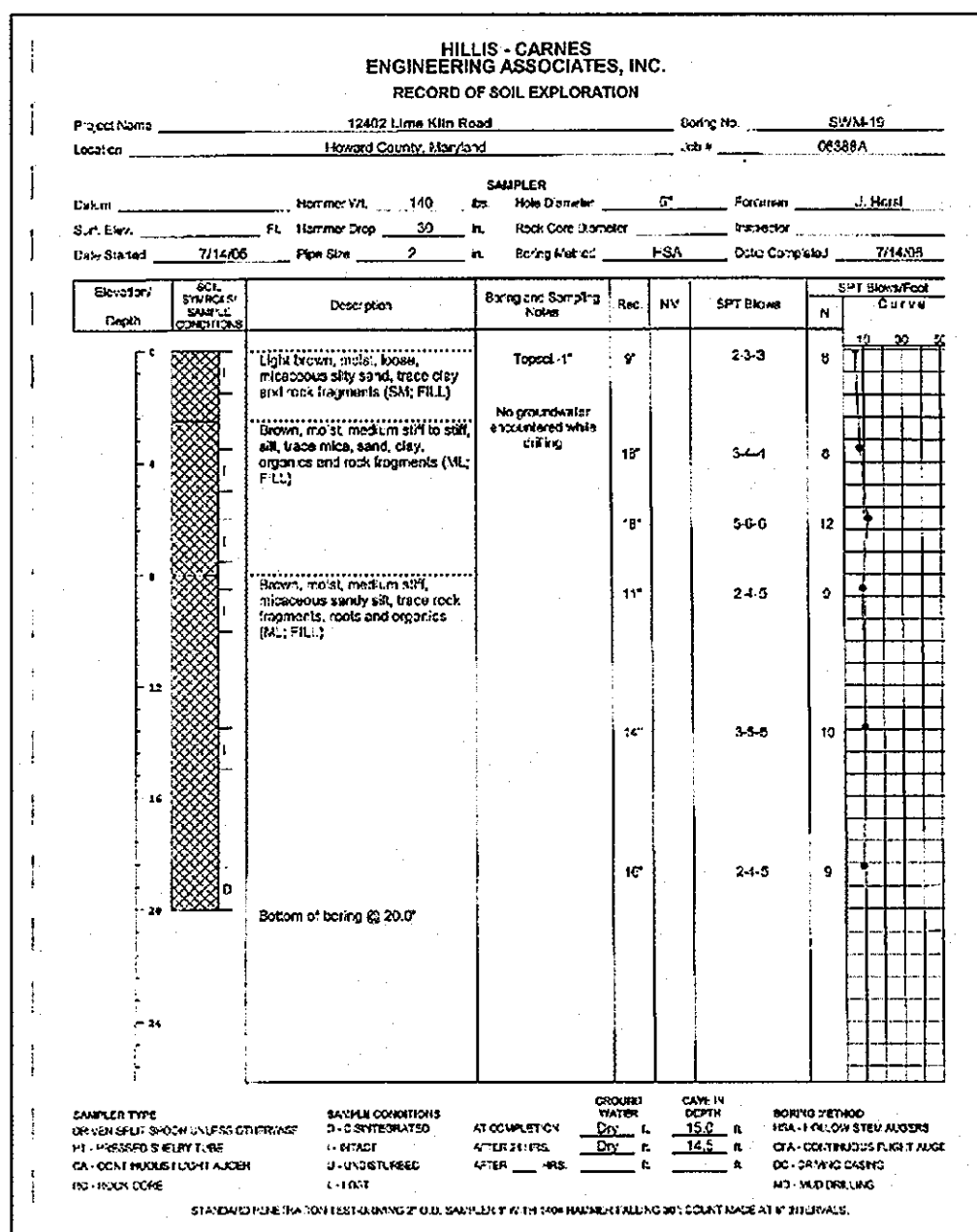
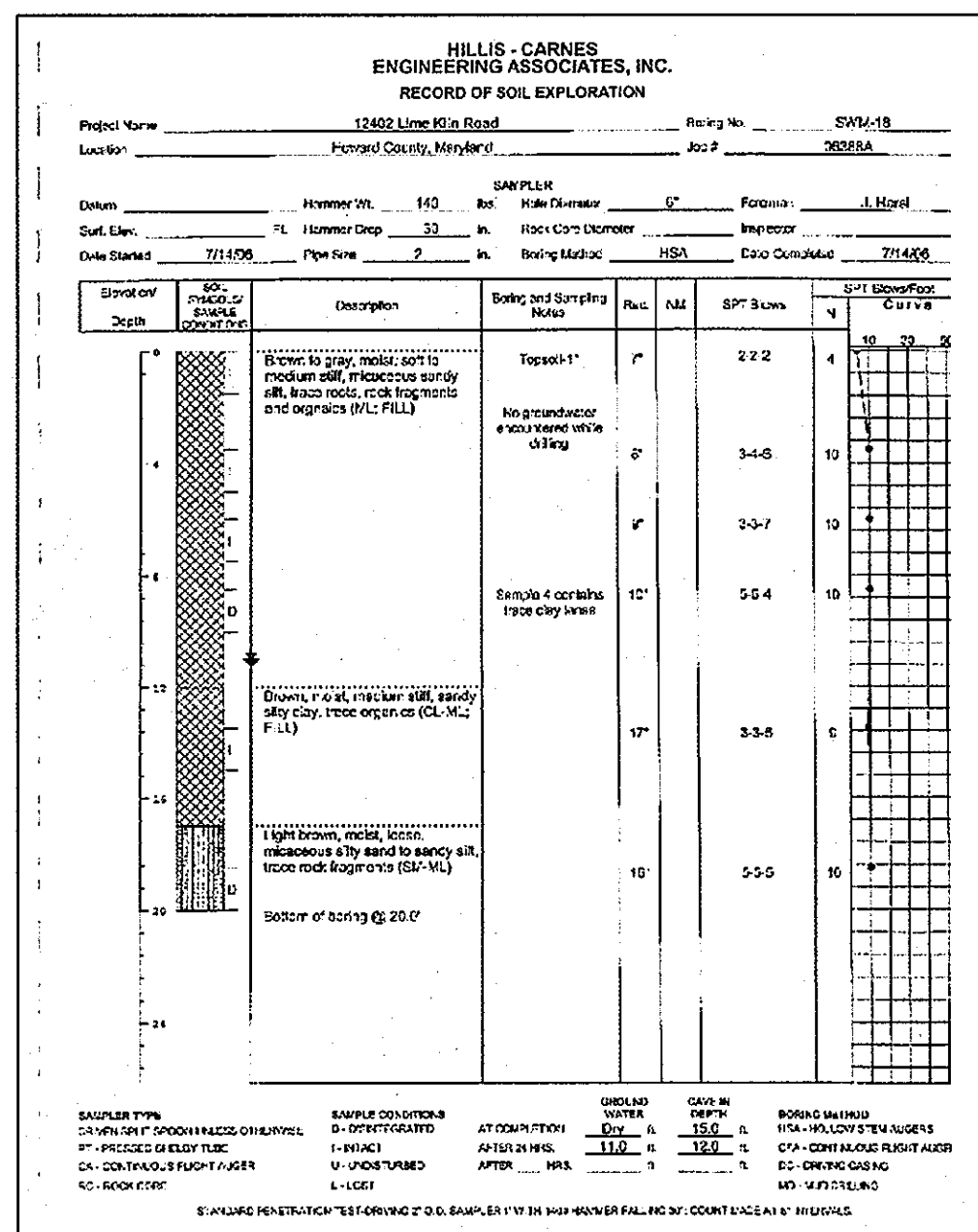
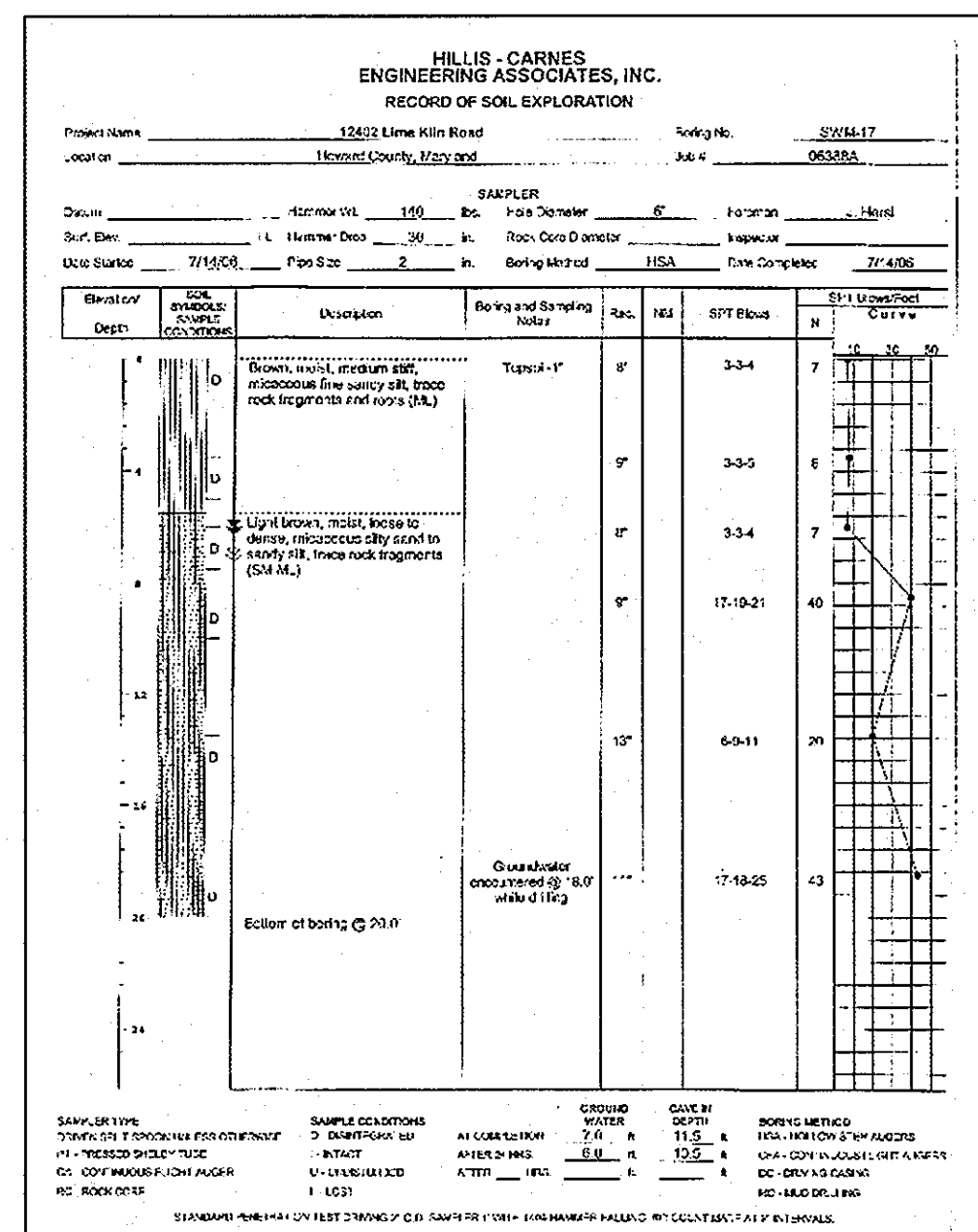
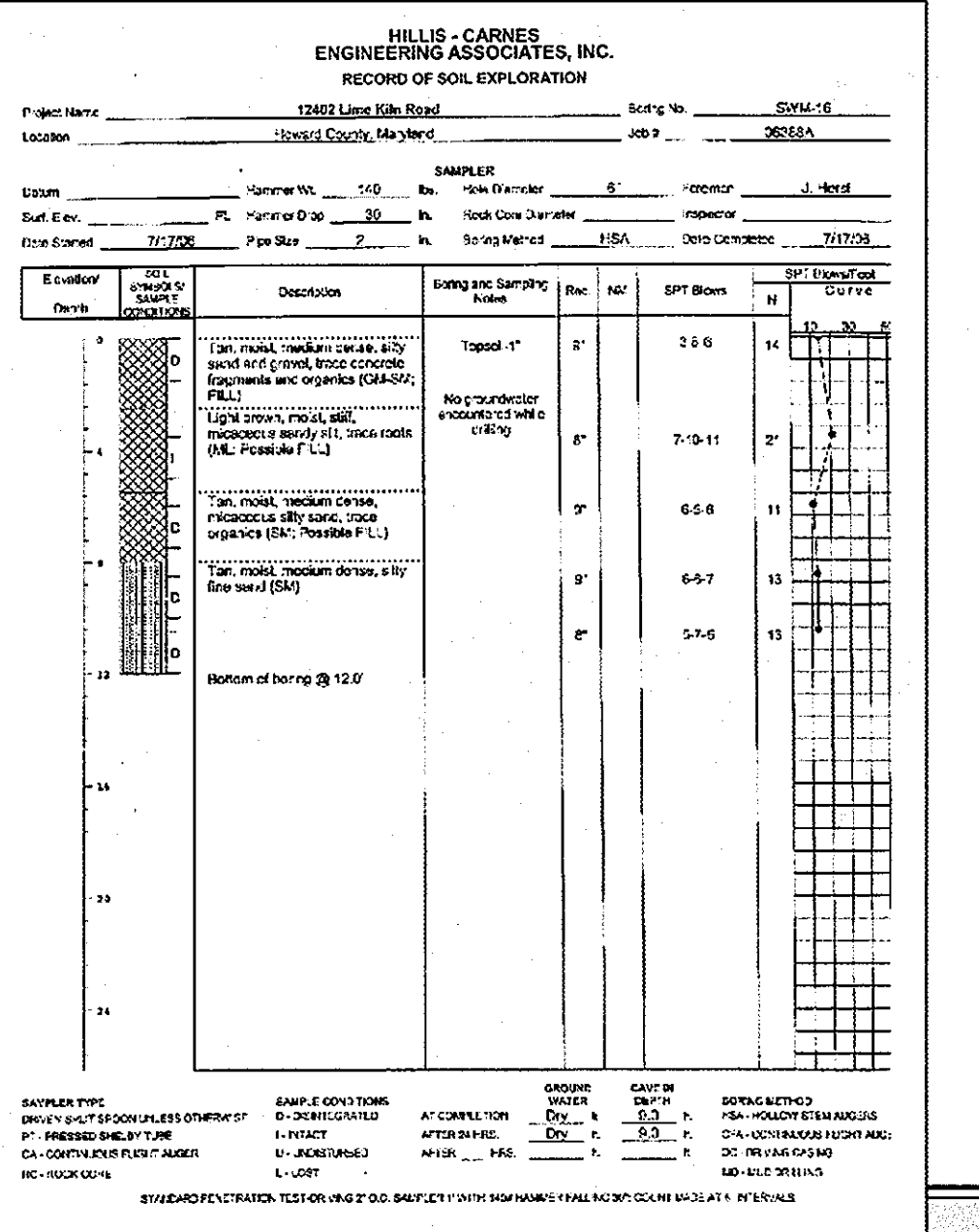
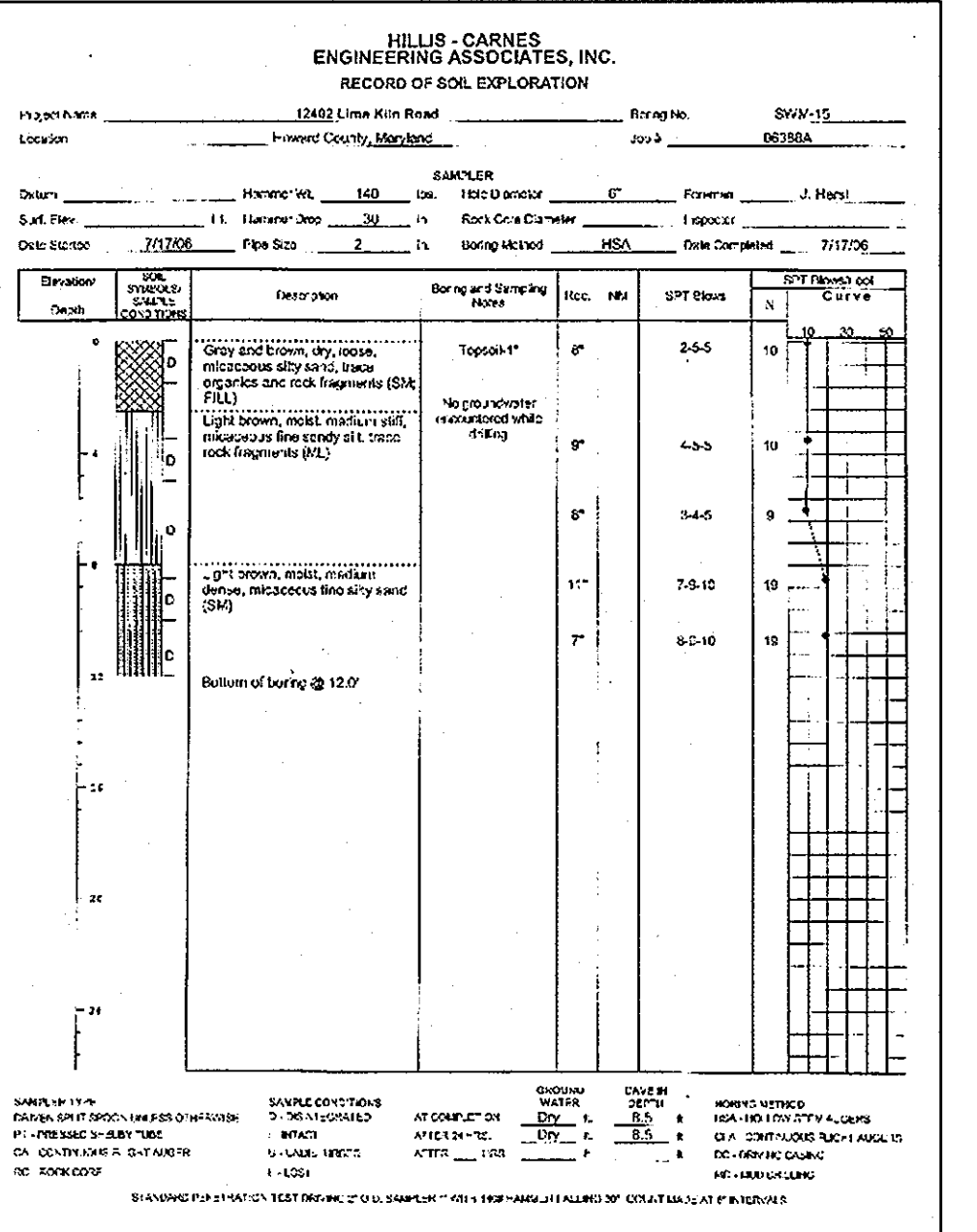
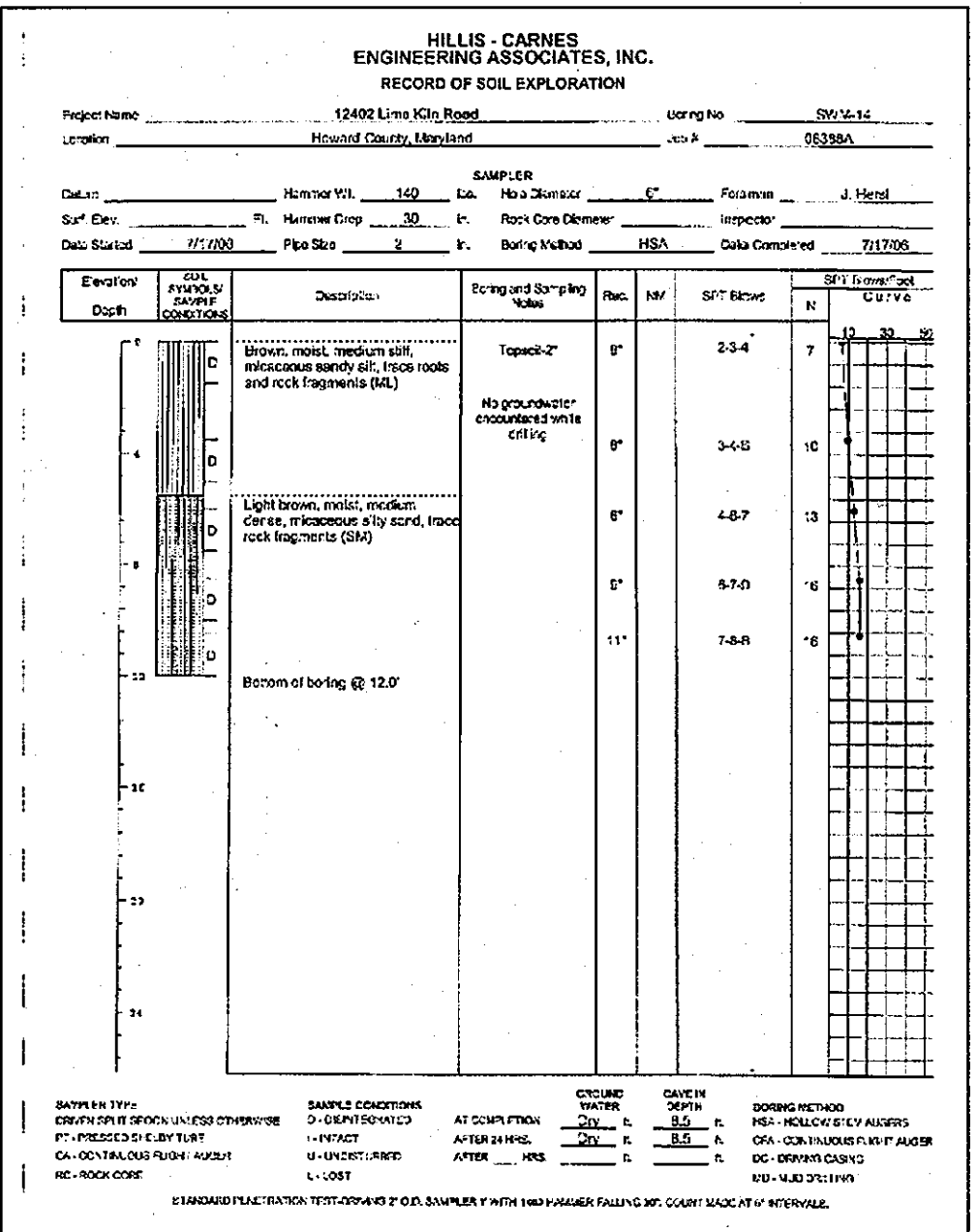
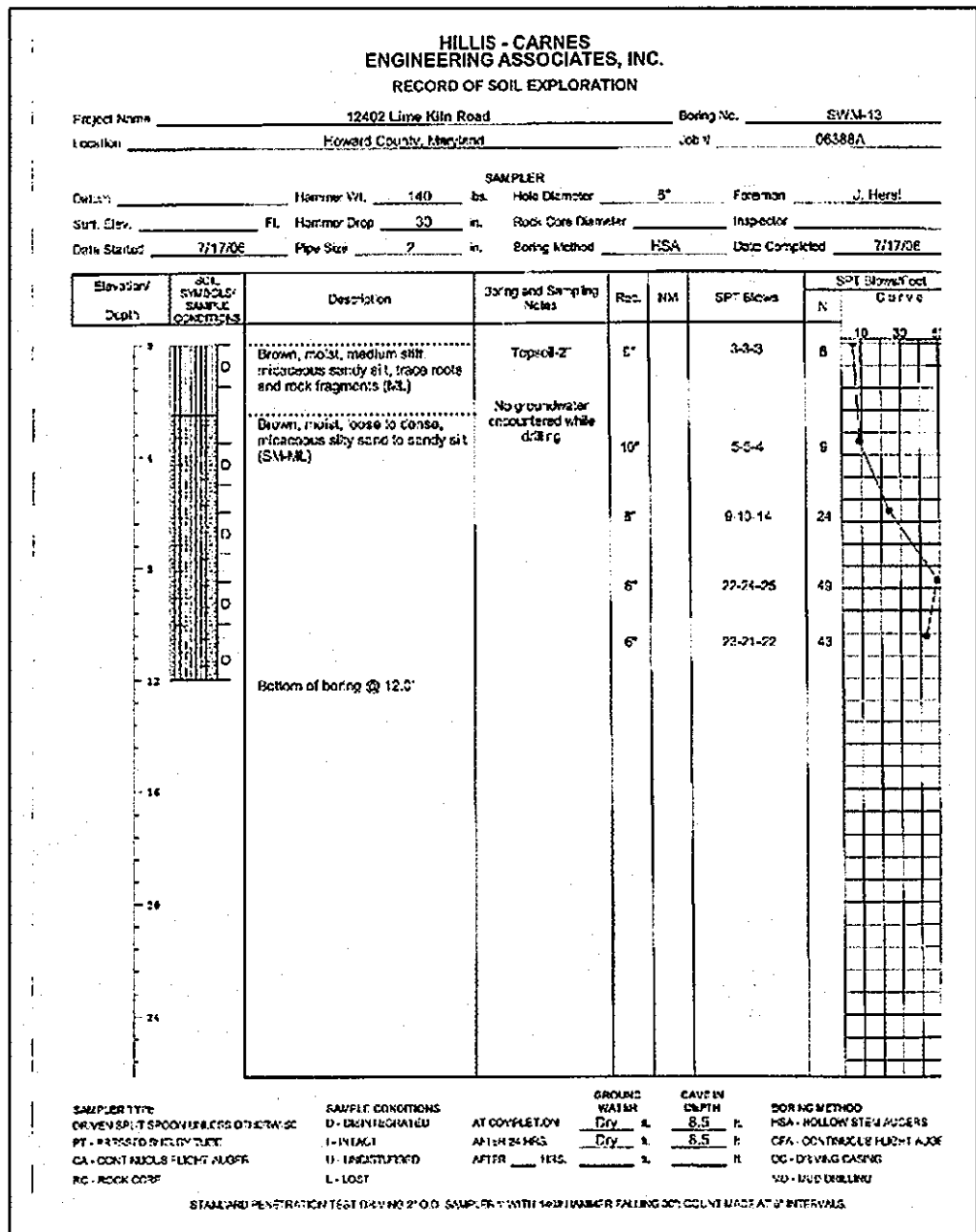
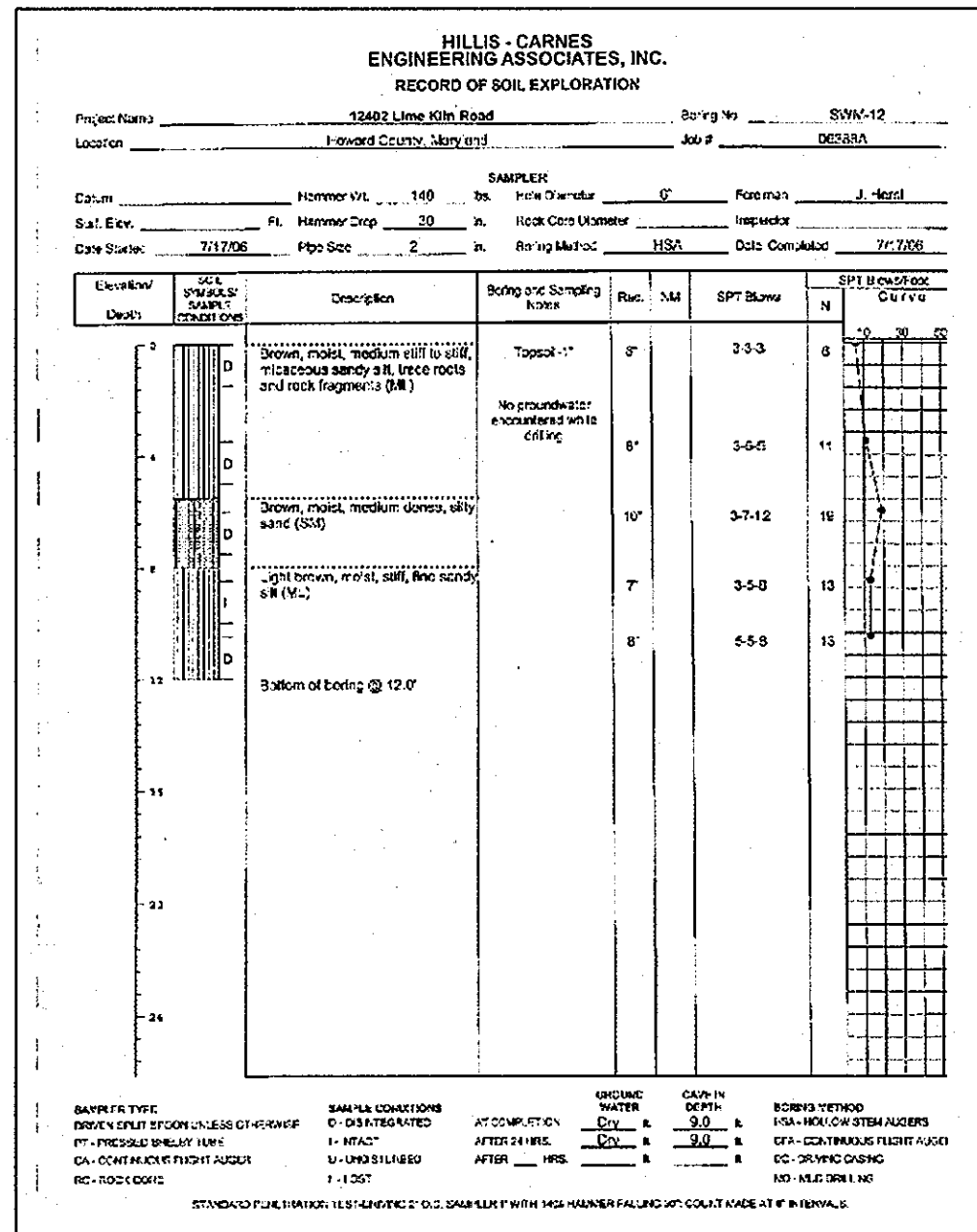
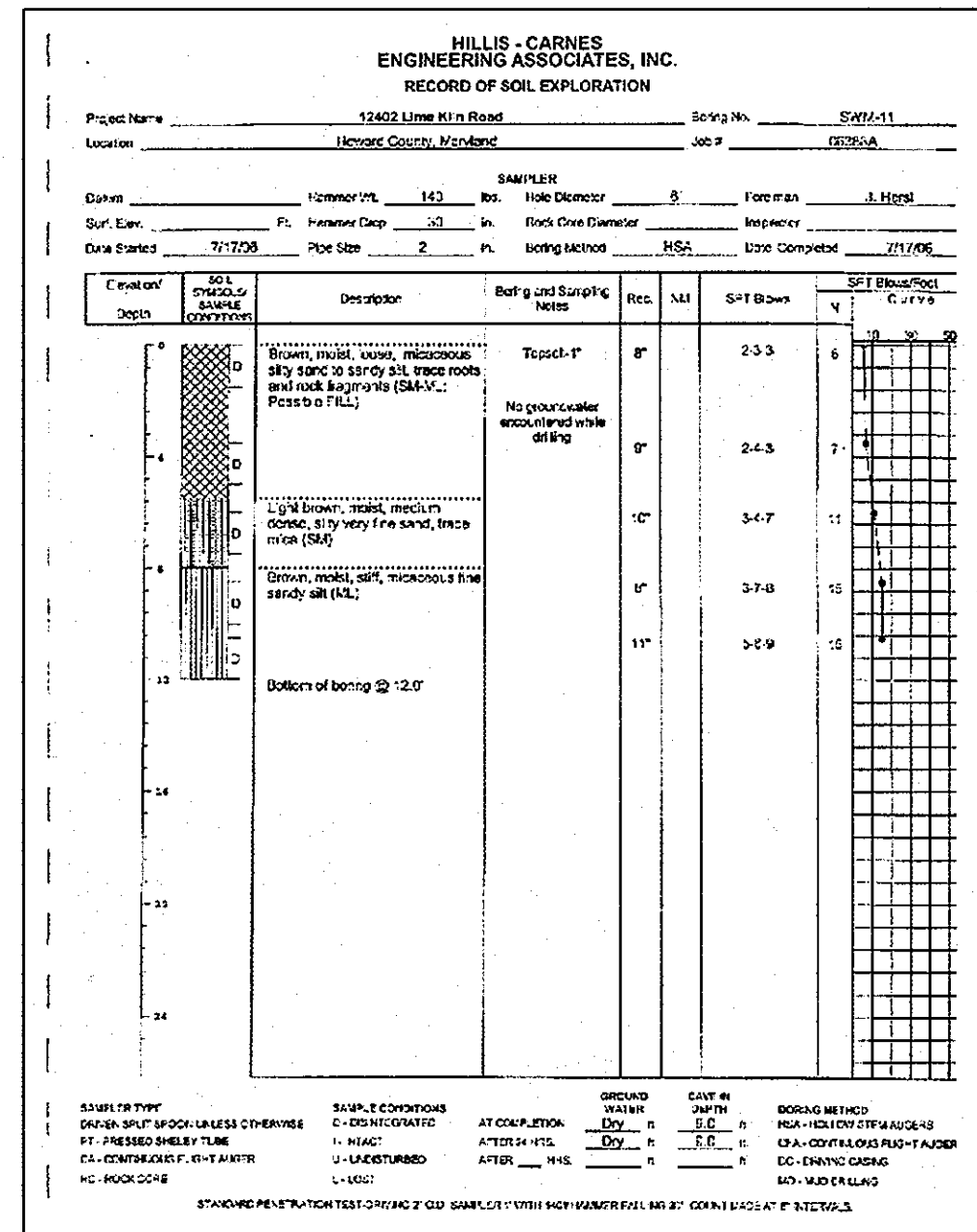
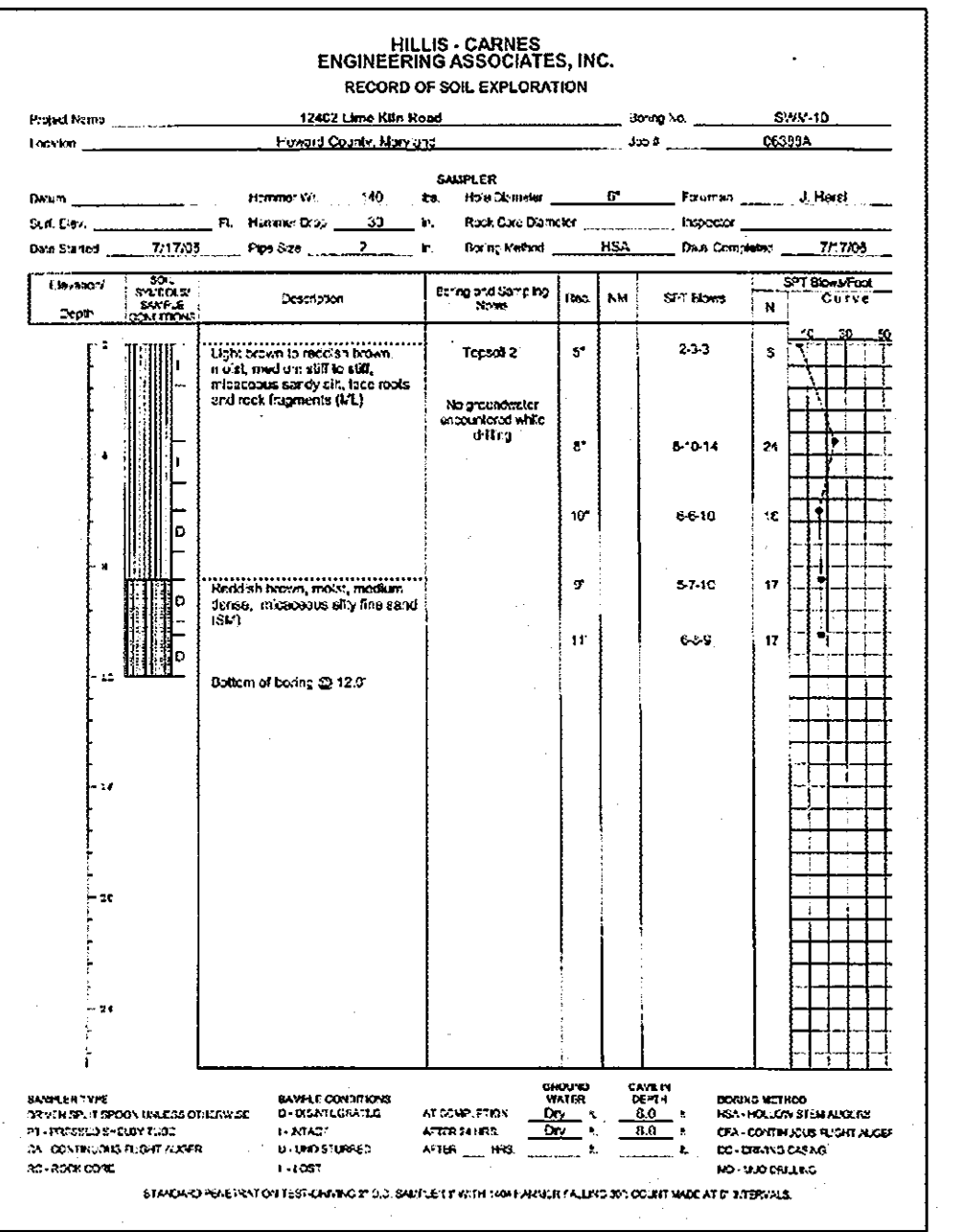
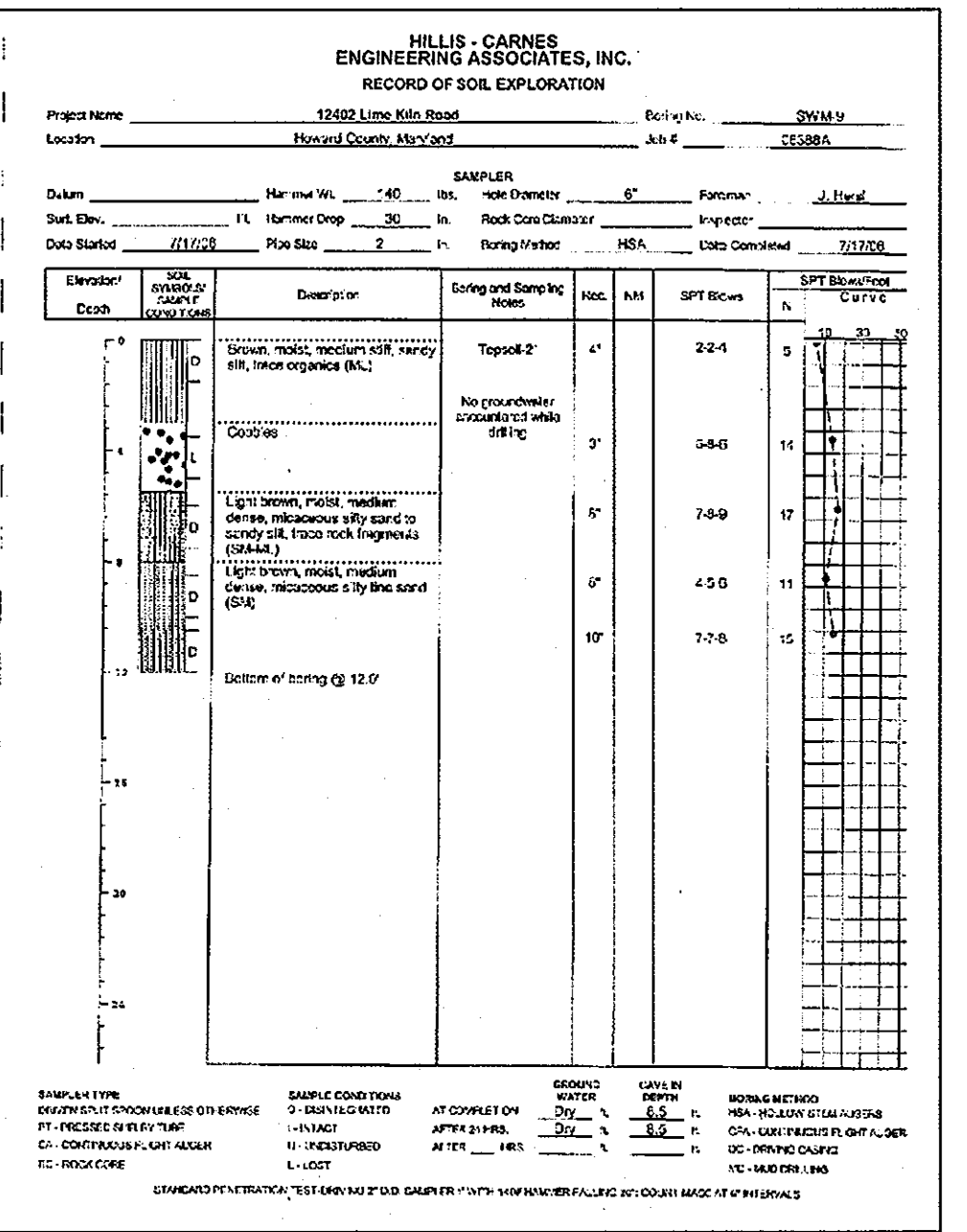
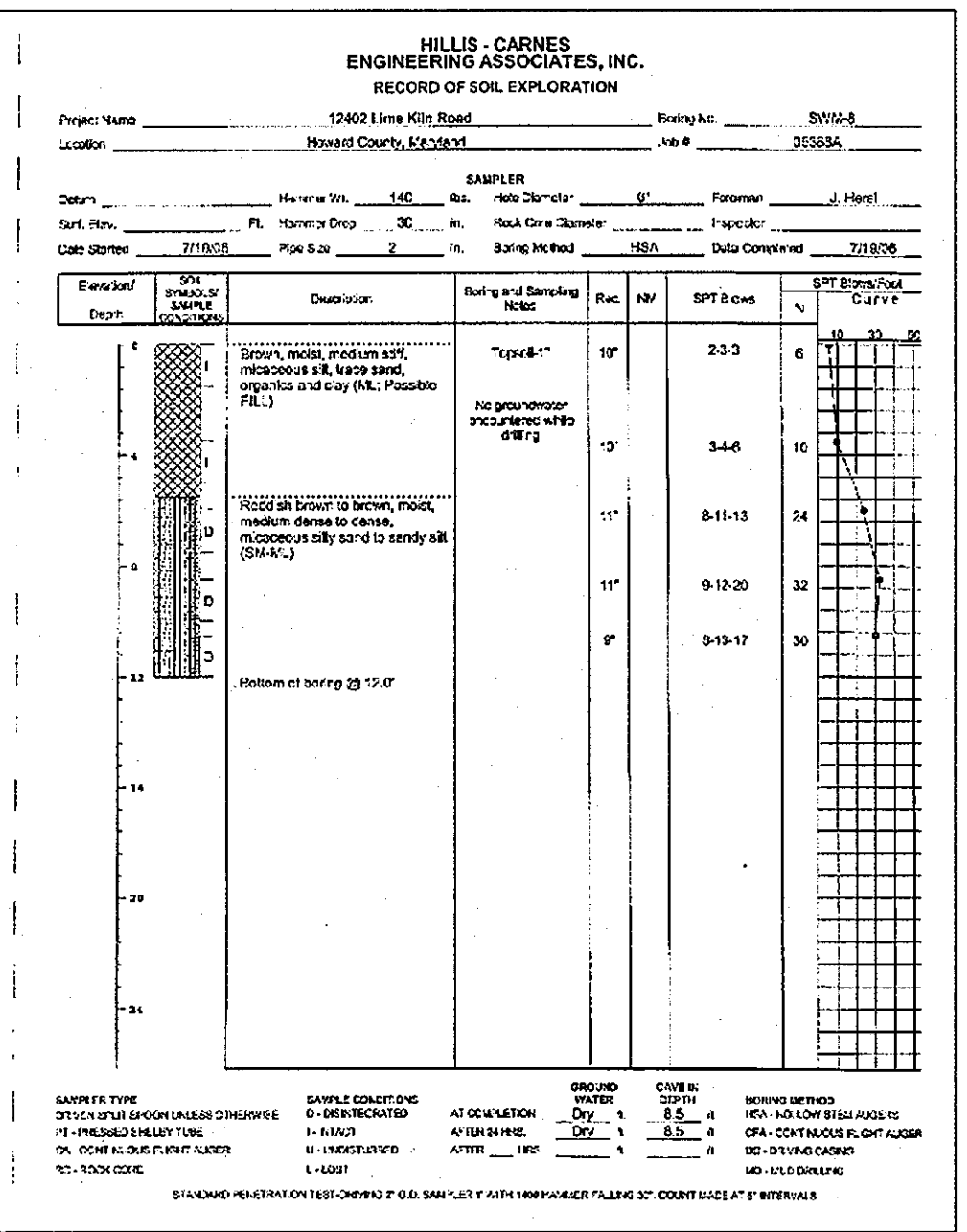
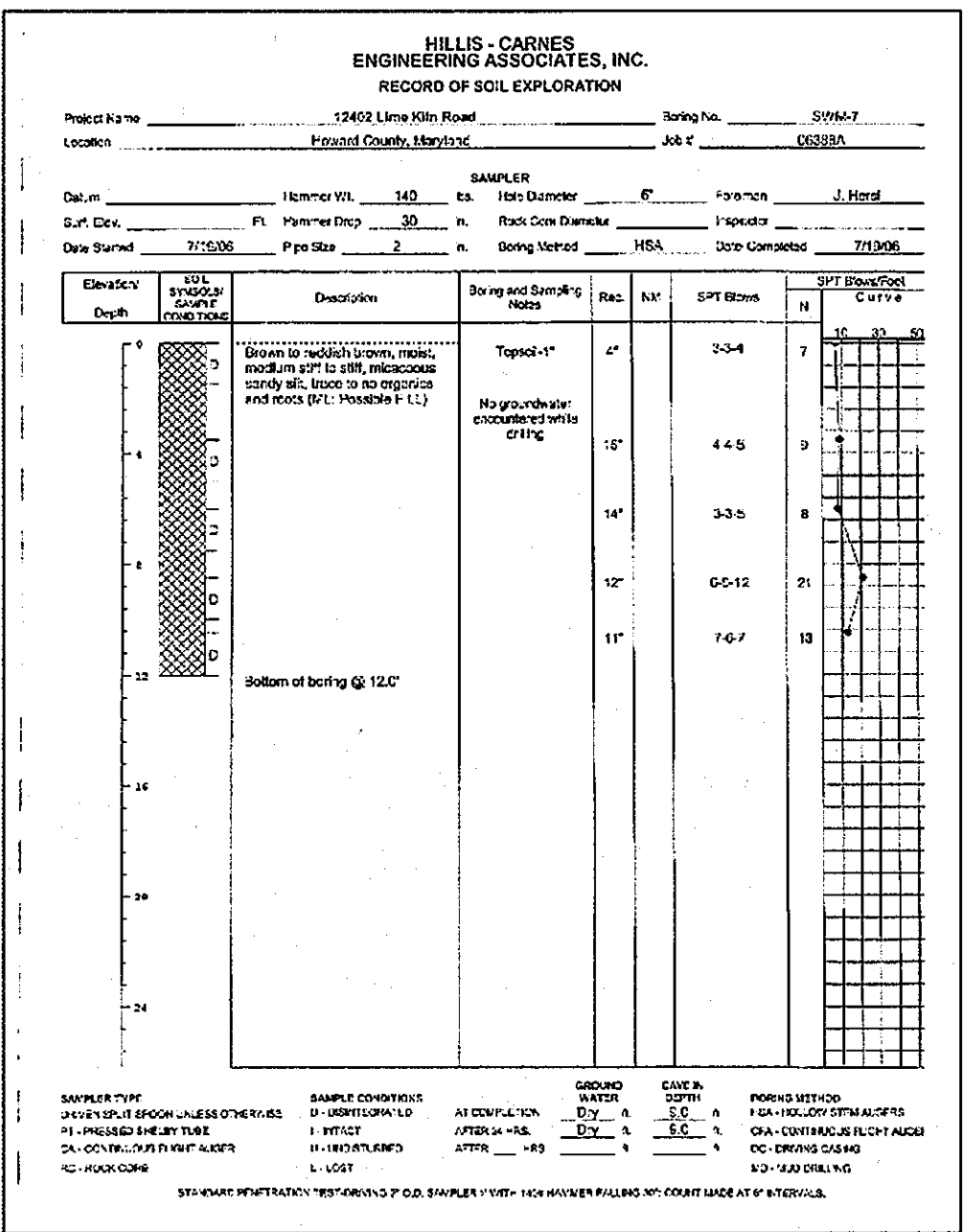
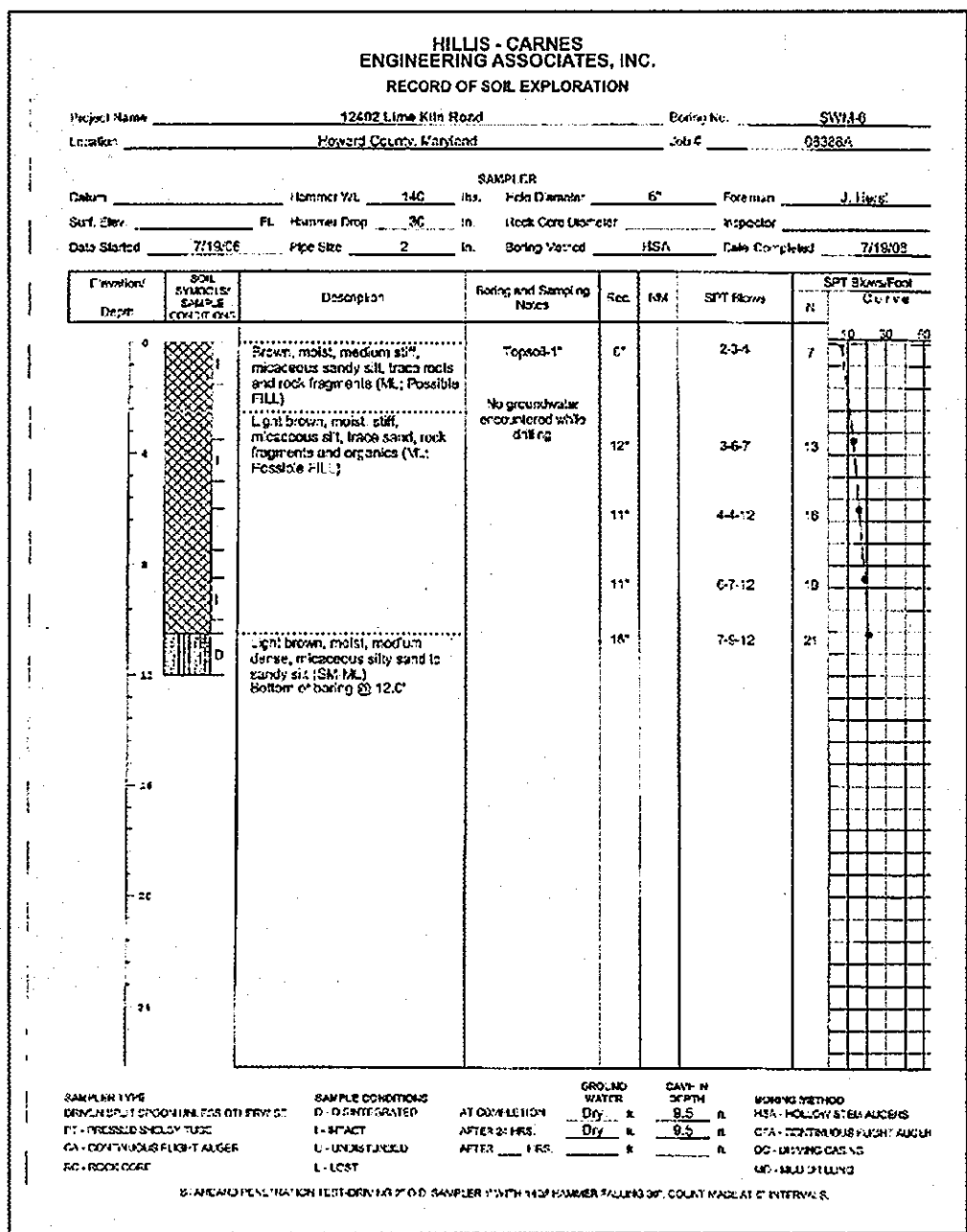
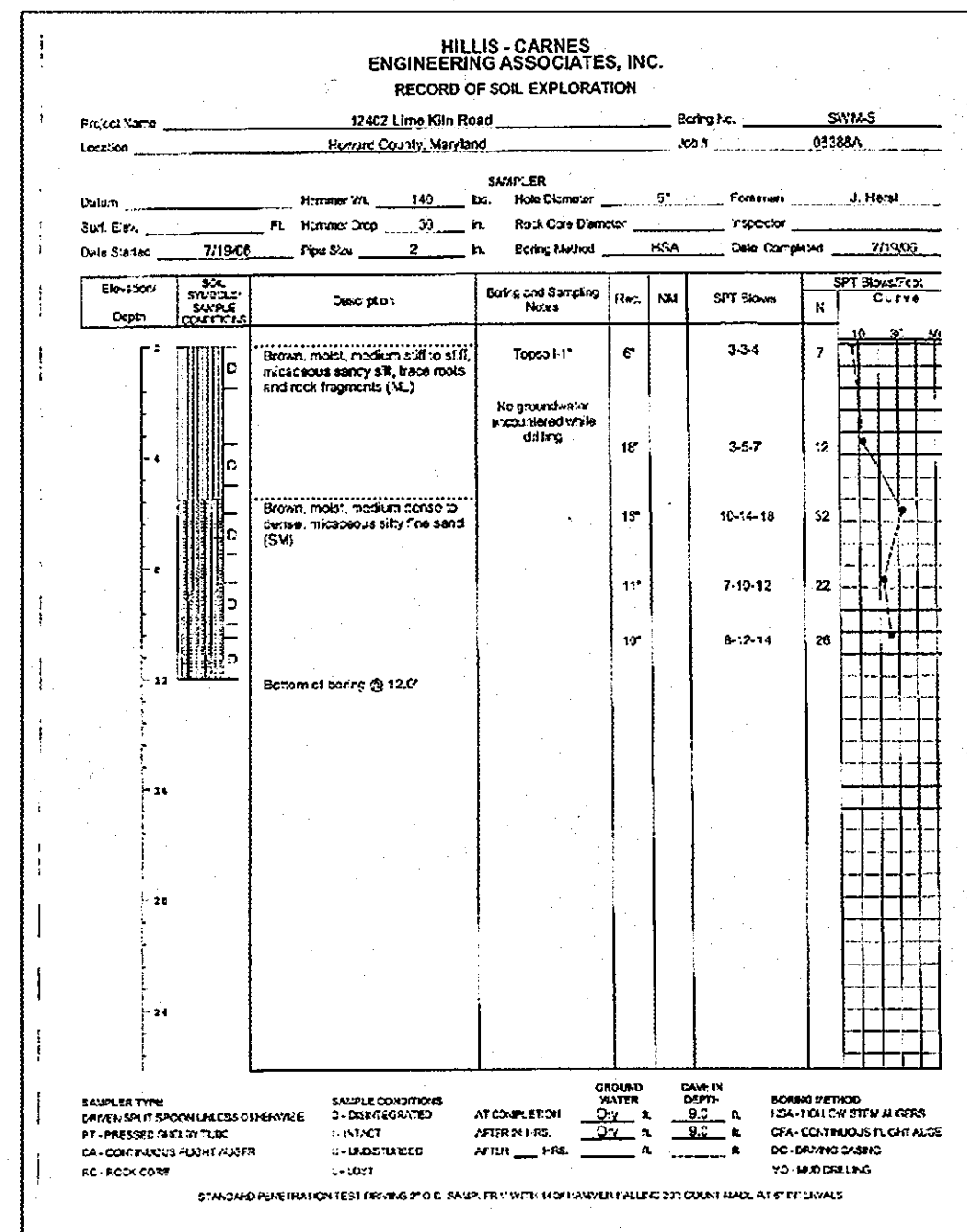
Station	Depth	Soil Description	Moisture (%)	Specific Gravity	Unit Weight (pcf)	Classification
1+00	0-1'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	1-2'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	2-3'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	3-4'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	4-5'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	5-6'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	6-7'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	7-8'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	8-9'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	9-10'	Light gray silty clay with sand	22.5	2.65	115	CL

HILLIS-CARNES ENGINEERING ASSOCIATES, INC. RECORD OF SOIL EXPLORATION

Project Name: 12402 Lime Kiln Road
Location: Howard County, Maryland

Station	Depth	Soil Description	Moisture (%)	Specific Gravity	Unit Weight (pcf)	Classification
1+00	0-1'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	1-2'	Light gray silty clay with sand	22.5	2.65	115	CL
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1+00	3-4'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	4-5'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	5-6'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	6-7'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	7-8'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	8-9'	Light gray silty clay with sand	22.5	2.65	115	CL
1+00	9-10'	Light gray silty clay with sand	22.5	2.65	115	CL





APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Cindy Hertz 10/26/08
 CHIEF DIVISION OF LAND DEVELOPMENT
John Demario 10/21/08
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. ... 9-26-08
 CHIEF, BUREAU OF HIGHWAYS

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST 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.

BY THE DEVELOPER:
 I ME 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.

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. 21443, Expiration Date: 12-21-12

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: 09-22-12

DeMario

DESIGN CONSULTANTS
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street, Westminster, MD 21157
 Phone: (410) 386-0580
 Fax: (410) 386-0584
 http://www.demariodesign.us
 eMail: dd@demariodesign.us

OWNER:
 HOLLY HOUSE DVLPMT. LLC
 C/O JIM SELFIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

DEVELOPER:
 SELFIDGE BUILDERS
 C/O JIM SELFIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS DIVISION BULK PARCEL 'A'

SWM BORINGS

5TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
CO. FILE #	DES. BY: SDS			
TAX ACC. #: 05-342775	DRN. BY: SDS			
TAX MAP: 45	CHK. BY: JCO			
BLOCK / GRID: 6	DATE: 09.12.08			
PARCEL #: 24	DDC JOB#: 05127.6			
ZONE / USE: RR-DEO	SHEET NUMBER:			
DWG. SCALE: N/A	10 of 18			

REVISIONS

DRAWING LEGEND

- 682 --- EXISTING MINOR CONTOUR (2' INTERVAL)
- 680 --- EXISTING MAJOR CONTOUR (10' INTERVAL)
- --- ADJACENT PROPERTY LINE
- 120.0' N 64°45'W --- EXISTING PROPERTY BOUNDARY
- --- SOIL DELINEATION LINE
- MIF --- EX. ROAD / EDGE OF PAVING
- NCA --- EX. OVERHEAD ELECTRIC & UTILITY POLES
- CHE --- EX. BUILDING
- --- EXISTING TREELINE
- --- EXISTING SHRUB/BRUSH LINE
- --- EXISTING TREES
- --- STEEP SLOPES (25%+)
- --- STEEP SLOPES (15%-24.9%)
- WB --- 25' WETLAND BUFFER LIMIT
- W --- APPROXIMATE WETLAND LIMIT
- (X) --- EX. WELL AND 100' BUFFER
- SB --- 100' STREAM BUFFER
- (+ + +) --- EX. PERA PER FIELD INVESTIGATION AND/OR HEALTH DEPARTMENT RECORDS
- (*) --- SPECIMEN TREE & ASSOCIATED CRITICAL ROOT ZONE

SOILS CHART

CODE	NAME	HYDRIC (Y/N/INCL.)	K VALUE
Ba	BAILE SILT LOAM	Y	0.43
CHB2	CHESTER SILT LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32
GIB2	GLENELG LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32
GIC2	GLENELG LOAM, 8%-15% SLOPES, MODERATELY ERODED	N	0.32
GIC3	GLENELG LOAM, 8%-15% SLOPES, SEVERELY ERODED	N	0.32
GIB3	GLENELG LOAM, 15%-25% SLOPES, MODERATELY ERODED	N	0.32
GnA	GLENVILLE SILT LOAM, 0%-3% SLOPES	N	0.32
GnB2	GLENVILLE SILT LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.32
MIB2	MANOR LOAM, 3%-8% SLOPES, MODERATELY ERODED	N	0.37
MIC2	MANOR LOAM, 8%-15% SLOPES, MODERATELY ERODED	N	0.37
MIC3	GLENELG LOAM, 8%-15% SLOPES, SEVERELY ERODED	N	0.37
MID2	MANOR LOAM, 15%-25% SLOPES, MODERATELY ERODED	N	0.37
MID3	MANOR LOAM, 15%-25% SLOPES, SEVERELY ERODED	N	0.37

DRAINAGE AREA COMPS

D.A.	'C' FACTOR	% IMPERVIOUS	ACRES
I-1	0.41	3%	0.26
I-2	0.31	17%	0.23
I-3	0.24	24%	0.93
I-4	0.24	23%	1.02
I-5	0.28	28%	0.43
I-6	0.21	20%	0.21
I-7	0.32	29%	0.35
I-8	0.31	30%	0.33
I-9	0.21	20%	0.10
I-10	0.21	20%	0.53
I-11	0.21	20%	0.56

DATA SOURCES:
 EX. TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING, DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLEN ENVIRONMENTAL INC. IN SPRING 2006. EX. OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.

DeMario
DESIGN CONSULTANTS

ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street Phone: (410) 388-0560
 Westminster, MD 21157 Fax: (410) 388-0564
 http://www.demariodesign.us eMail: ddc@demariodesign.us

OWNER:
 HOLLY HOUSE DVLPMT. LLC
 C/O JIM SELFBRIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

DEVELOPER:
 SELFBRIDGE BUILDERS
 C/O JIM SELFBRIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20789

FINAL ROAD PLAN FOR
 HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
STORMDRAIN DRAINAGE AREA
 5TH ELECTION DISTRICT HOWARD COUNTY

REVISIONS		
NO.	DESCRIPTION OF CHANGES	DRN. REV. DATE
1	PIPE CHANGES TO 15"	MPT 9/11
NO.	DESCRIPTION OF CHANGES	DRN. REV. DATE
CO. FILE #:	DES. BY: SDS	
TAX ACC. #: 05-342775	DRN. BY: SDS	
TAX MAP: 45	CHK. BY: JCO	
BLOCK / GRID: 6	DATE: 09.12.08	
PARCEL #: 24	DDC JOB#: 05127.6	
ZONE / USE: RR-DEO	SHEET NUMBER:	
DWG. SCALE: 1"=50'	11 of 18	

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. 21443 Expiration Date: 12-21-12

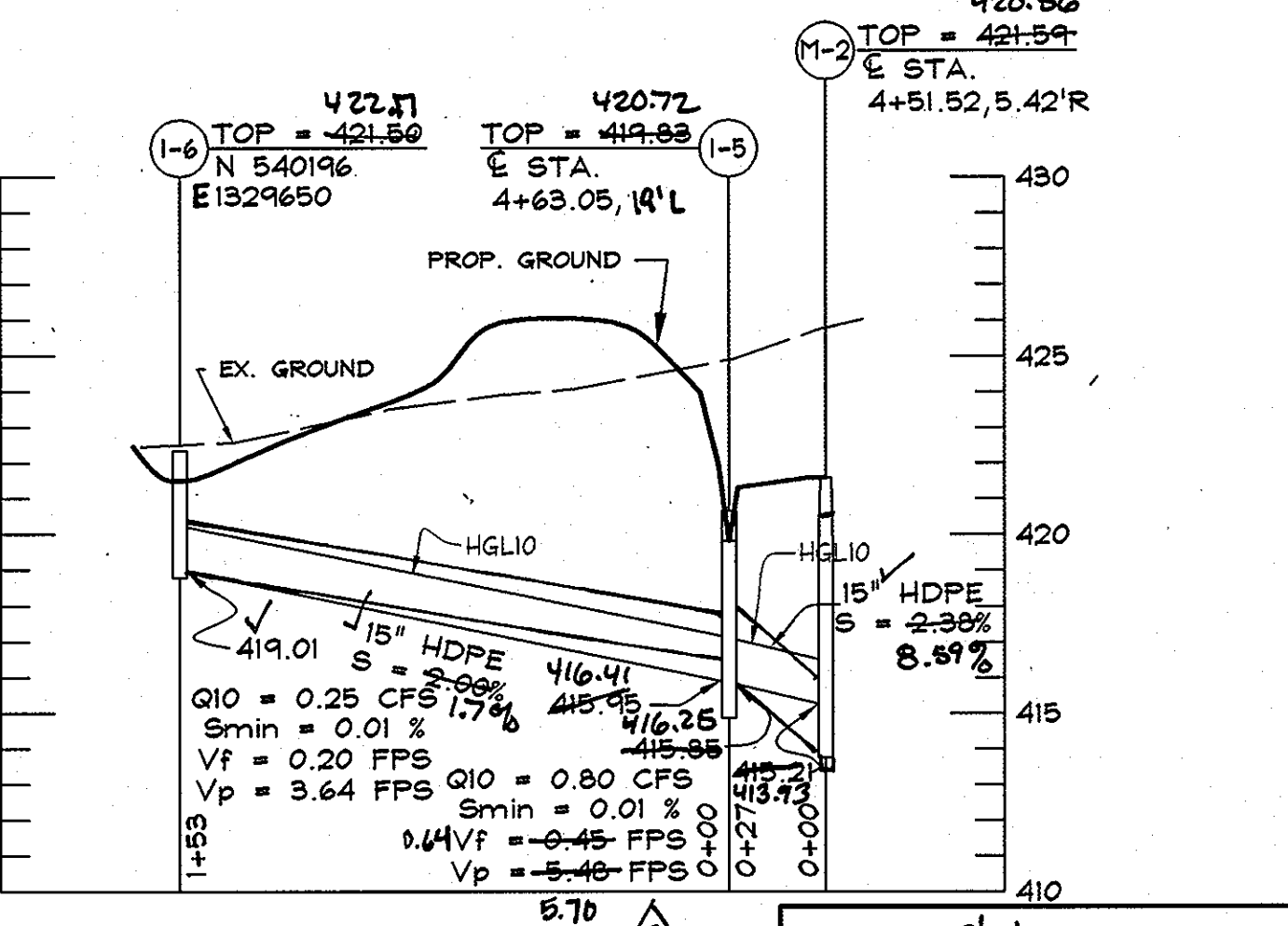
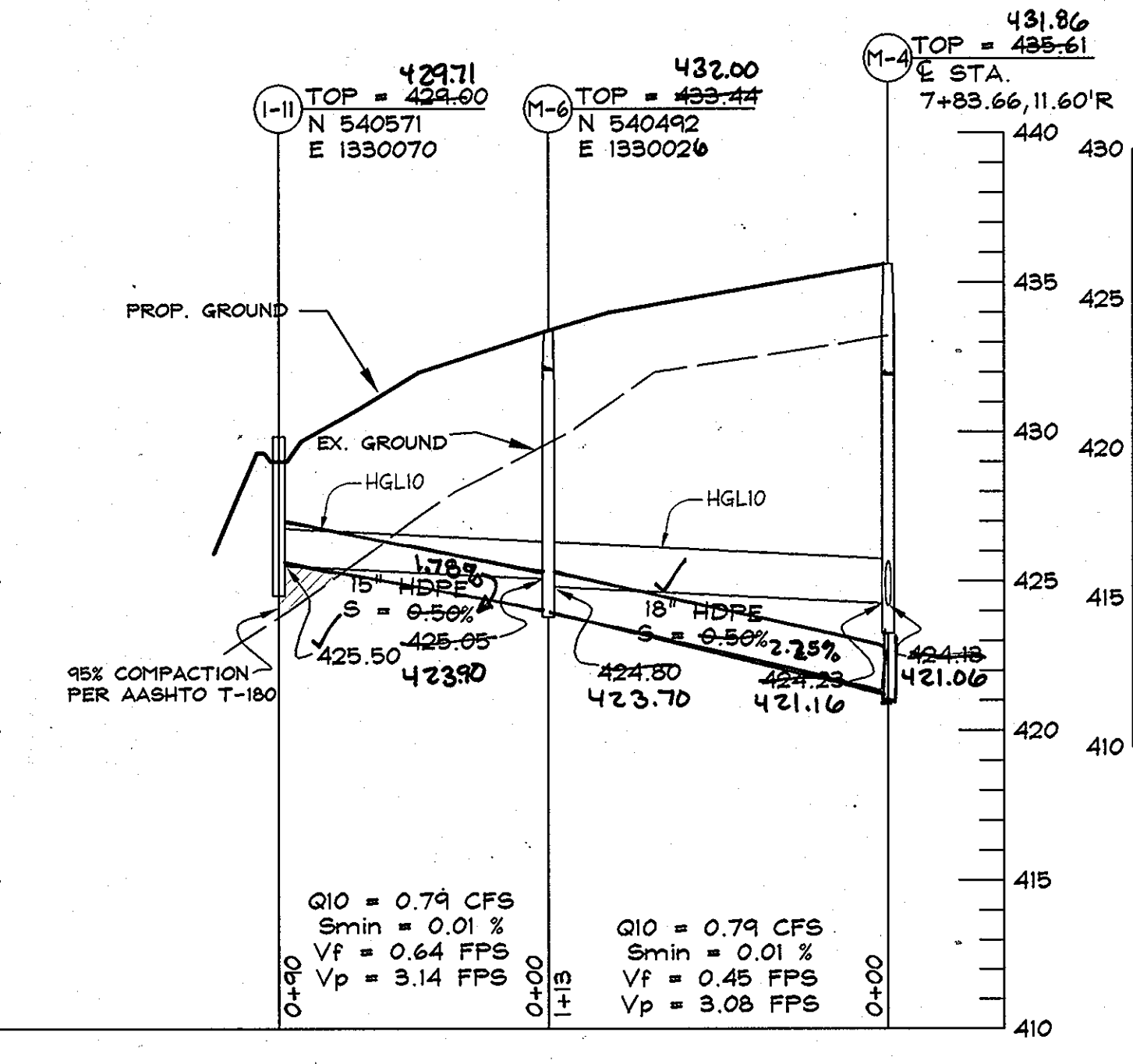
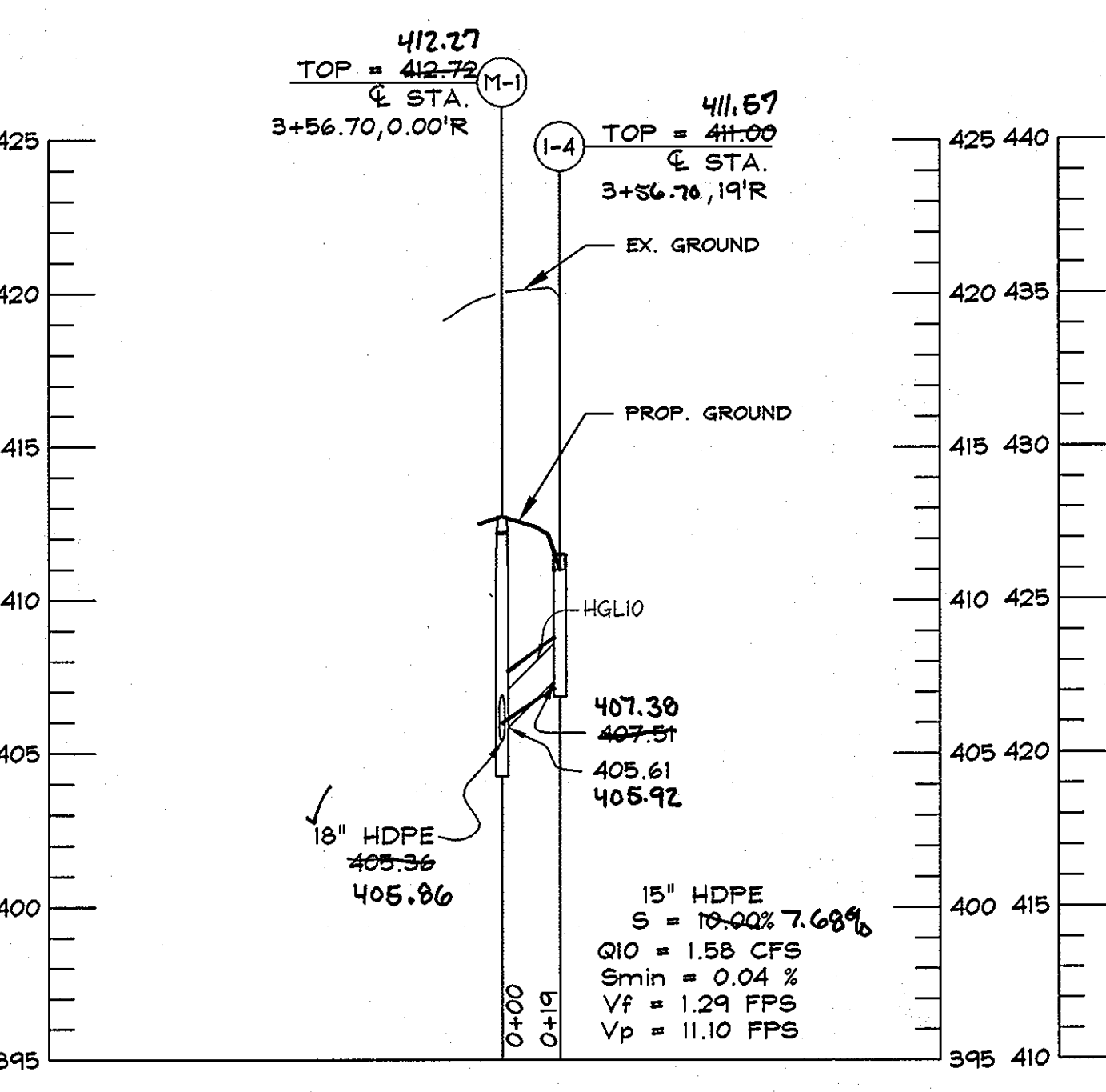
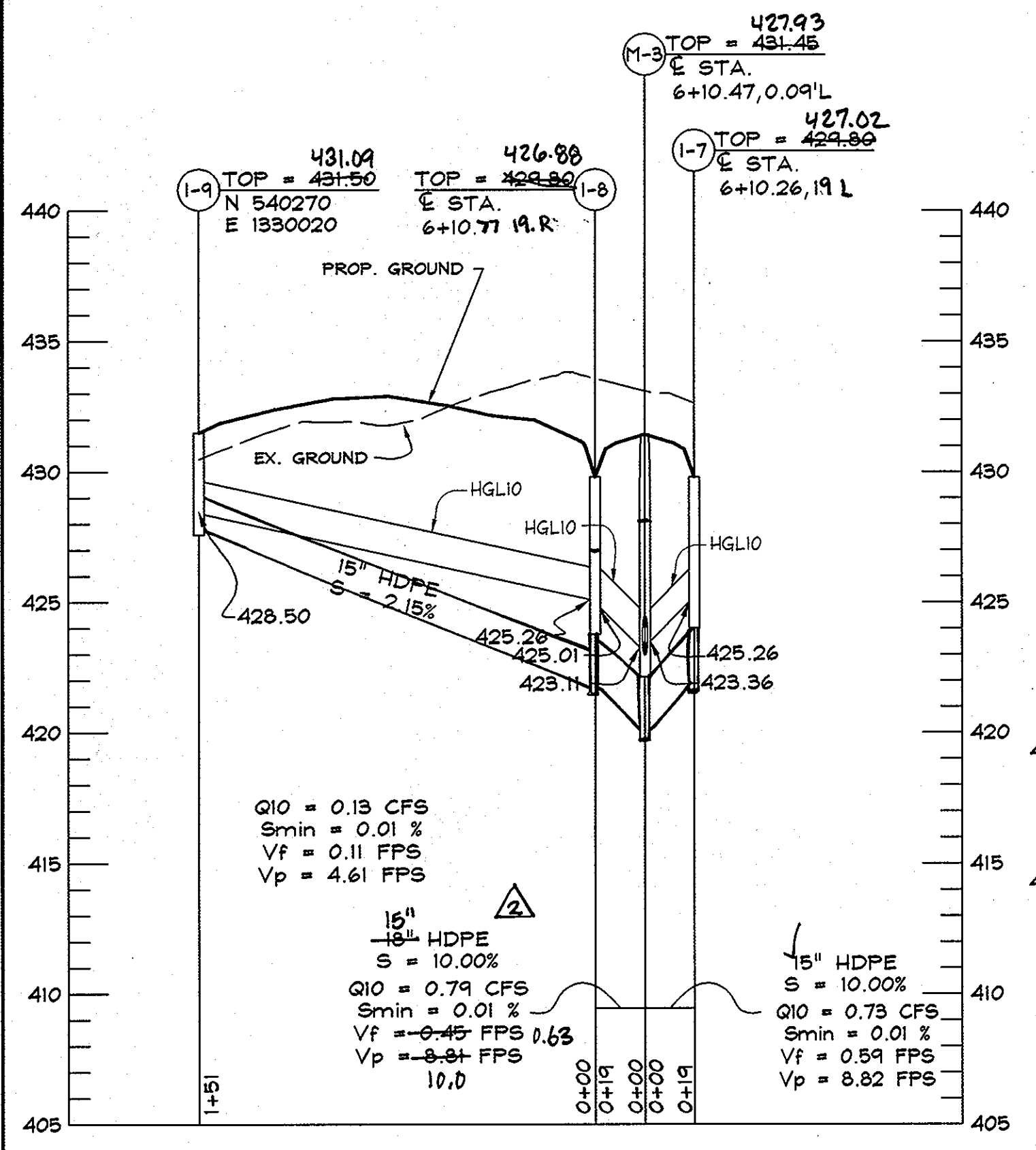
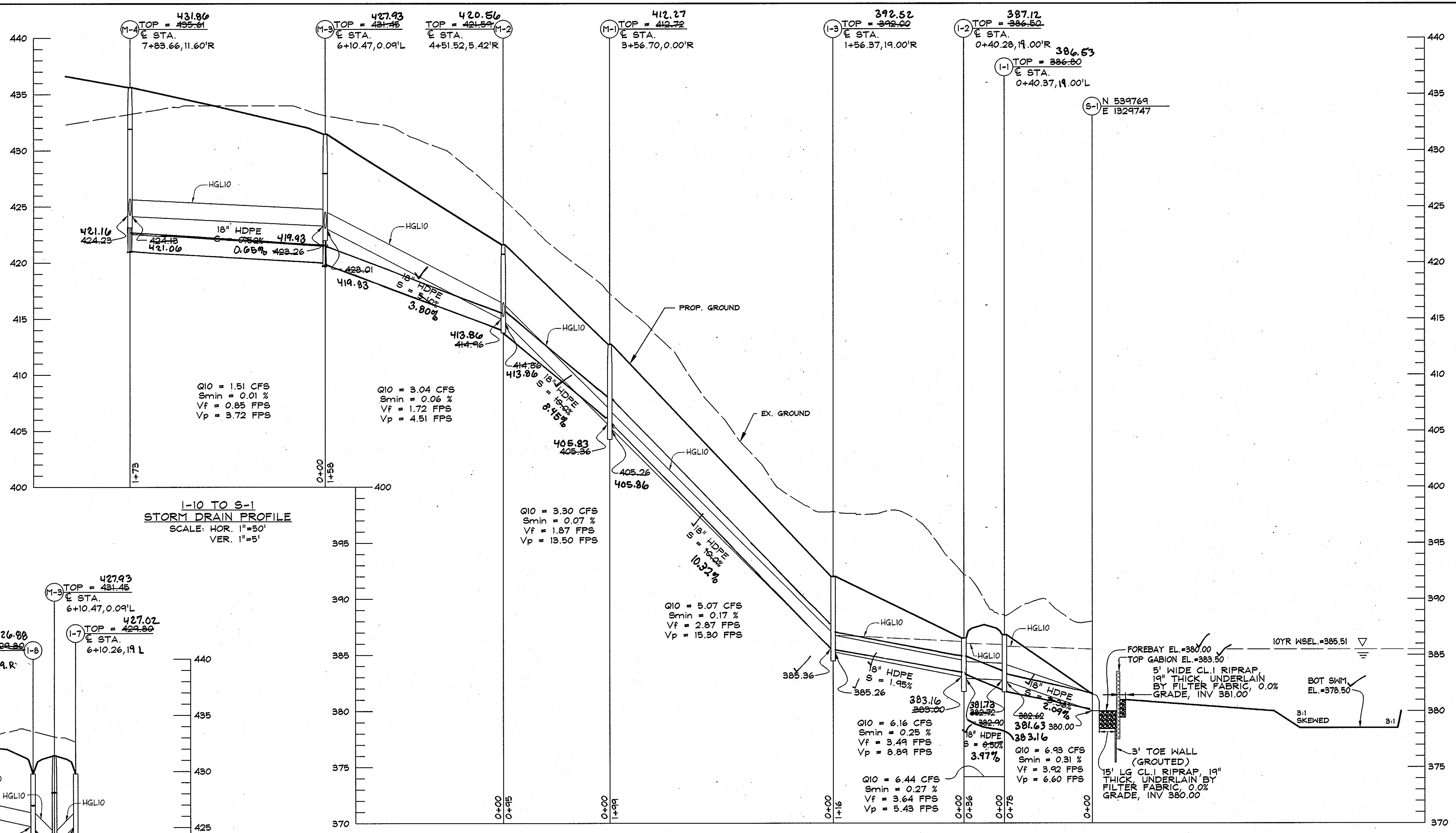


No As-Built Information is required on this sheet

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature] 9-26-08 DATE

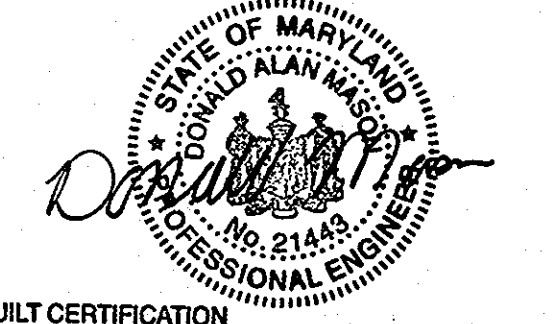
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 [Signature] 11/2/08 DATE
 [Signature] 10/2/08 DATE

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: 09/20/10.
 [Signature] DATE
 PROFESSIONAL ENGINEER NO. 25420



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
 DATE: 9-26-08
 DATE: 10/2/08

STRUCTURE SCHEDULE SEE SHEET 12 OF 18



AS-BUILT CERTIFICATION
 I hereby certify, by my seal, that the facilities shown on this plan were constructed as shown on this AS-BUILT plan.
 Donald Mason, P.E. No. 21443 Date 10-14-11

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. 21443 Expiration Date: 12-31-12

DATA SOURCES:
 EX TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLEN ENVIRONMENTAL, INC. IN SPRING 2006. EX. OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.



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 Westminster, MD 21157
 Phone: (410) 386-0560
 Fax: (410) 386-0560
 Email: ddo@demariodesign.us

OWNER: HOLLY HOUSE DVLPMT. LLC
 DEVELOPER: SELFRIDGE BUILDERS
 12402 LIME KILN ROAD
 FULTON, MD 20759

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

FINAL ROAD PLAN FOR
 HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE
 MEADOWS BUILDABLE BULK PARCEL 'A'
STORM DRAIN PROFILES
 5TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
1	PIPE CHANGES TO 15"			9/11

PROFESSIONAL ENGINEER NO. 25420
 STATE OF MARYLAND
 DONALD R. THEBERG
 PROFESSIONAL ENGINEER
 MARK R. THAYER

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO ROADWAYS (SFD - FRONT ORIENTATION)	ADJACENT TO PERIMETER PROPERTIES		
		P1 'A'	P2 'A'	P3 'A'
LANDSCAPE TYPE	N/A	1168 L.F.	707 L.F.	645 L.F.
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	N/A	1168 L.F.	707 L.F.	645 L.F.
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	56 L.F.	433 L.F.	N/A
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A	N/A	N/A
NUMBER OF PLANTS REQUIRED	N/A	19	5	11
SHADE TREES		0	0	0
EVERGREEN TREES		0	0	0
SHRUBS		0	0	0
NUMBER OF PLANTS PROVIDED	N/A	19	5	11
SHADE TREES		0	0	0
EVERGREEN TREES		0	0	0
OTHER TREES (2:1 SUBSTITUTION)		0	0	0
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)				

**SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING**

LINEAR FEET OF PERIMETER	640 L.F. TYPE 'B'	273 L.F. TYPE 'C'
NUMBER OF PLANTS REQUIRED	13	7
SHADE TREES	16	14
EVERGREEN TREES		
CREDIT FOR EXISTING VEGETATION (DESCRIBE BELOW IF NEEDED)	N/A	N/A
CREDIT FOR BERM (DESCRIBE BELOW IF NEEDED)	N/A	N/A
NUMBER OF PLANTS PROVIDED	10	5
SHADE TREES	16	7
EVERGREEN TREES	6	11
OTHER TREES (2:1 SUBSTITUTION)		
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)		

NOTE: THE DEVELOPER WILL BE RESPONSIBLE FOR LANDSCAPE OBLIGATIONS. THE FINANCIAL SURETY FOR THE REQUIRED INSTALLATION OF THE STREET TREES WILL BE POSTED AS PART OF THE DPW DEVELOPER'S AGREEMENT FOR ROAD CONSTRUCTION. THE LANDSCAPE SURETY FOR THE REMAINDER OF THE REQUIRED LANDSCAPING WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT ASSOCIATED WITH THE SWM CONSTRUCTION AND MAINTENANCE.

- NOTES:**
- NO STREET TREES ARE TO BE PLACED WITHIN 10' OF A PROPOSED DRIVEWAY.
 - I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE LANDSCAPE SURETY FOR THE REQUIRED LANDSCAPING WILL BE POSTED WITH THE DEVELOPER'S AGREEMENT ASSOCIATED WITH THE SWM CONSTRUCTION AND MAINTENANCE.

- NAME:** *Andrew J. Stine* **DATE:** 9-10-08
- 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.
 - AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS HERewith LISTED AND APPROVED FOR THIS SITE SHALL BE OF THE PROPER HEIGHT REQUIREMENTS IN ACCORDANCE WITH THE HOWARD COUNTY LANDSCAPING MANUAL. IN ADDITION, NO SUBSTITUTIONS OR REPLACEMENTS OF REQUIRED PLANTINGS MAY BE MADE WITHOUT PRIOR REVIEW AND APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING. ANY DEVIATION FROM THIS 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 APPLICABLE PLANS AND CERTIFICATES.
 - 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 \$21,000.00 MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT (55 SHADE TREES, 30 EVERGREEN TREES).

PLANT LIST

QTY	SYM	BOTANICAL NAME/ COMMON NAME	SIZE	REMARKS
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SHADE TREES

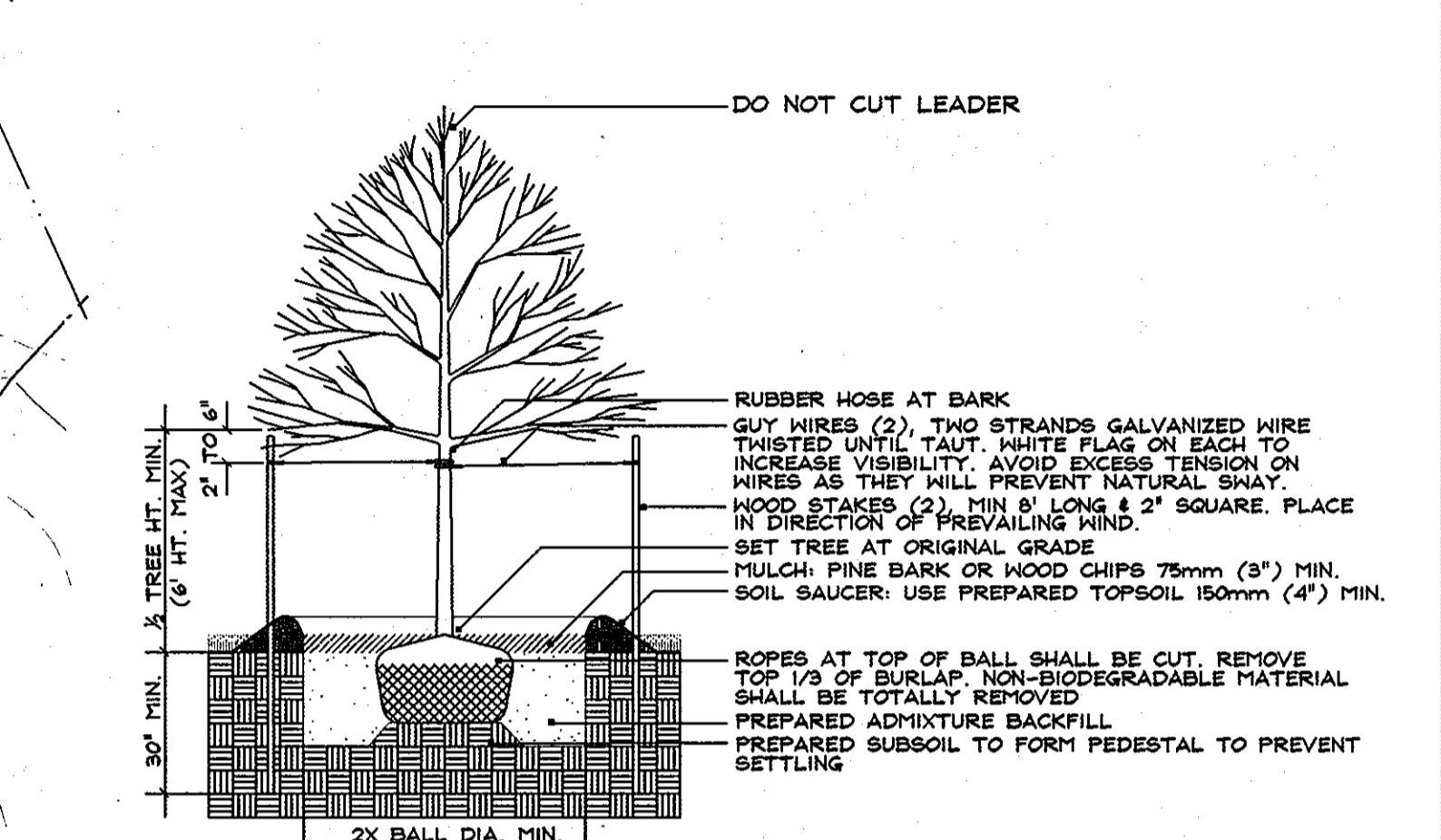
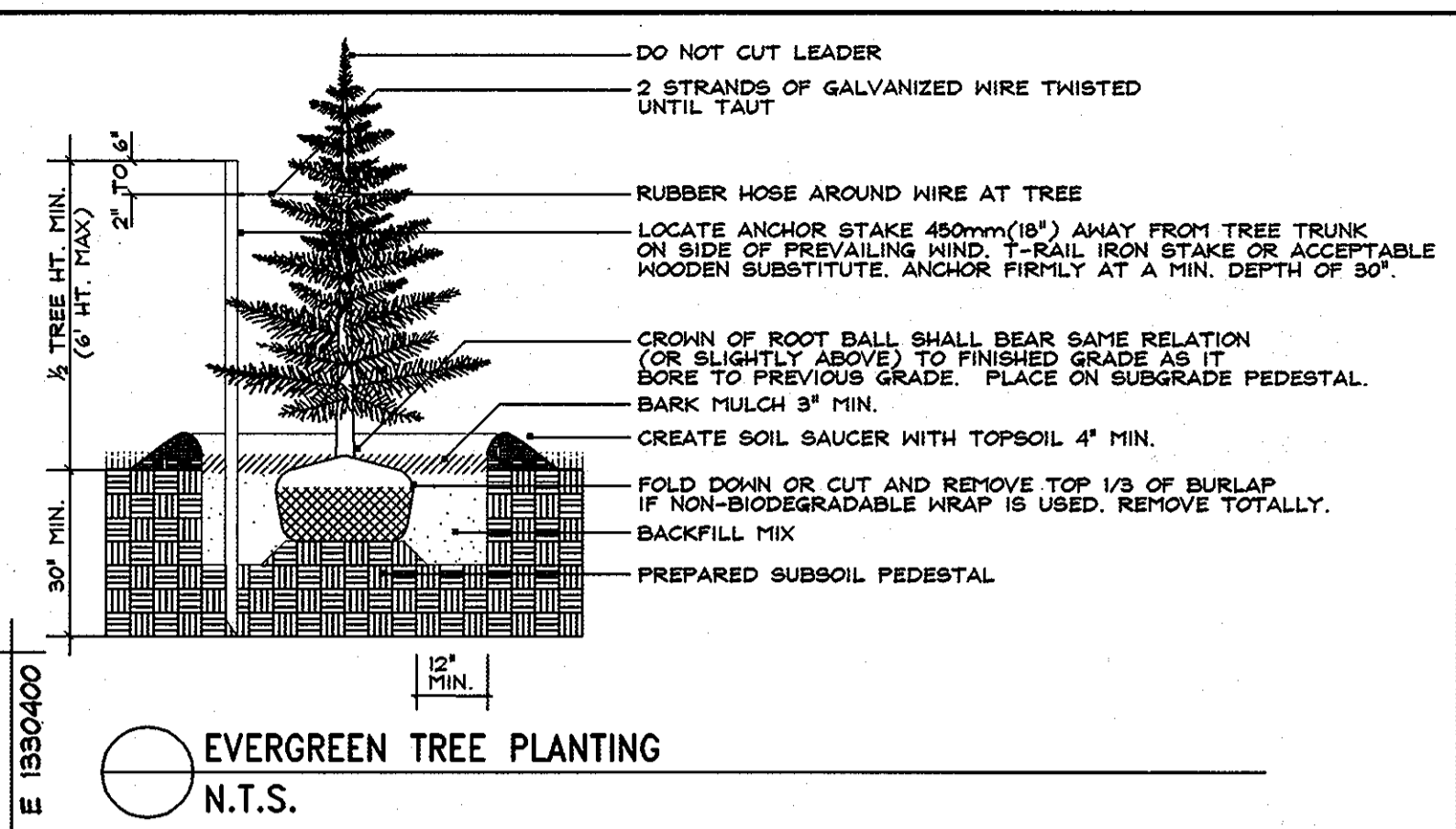
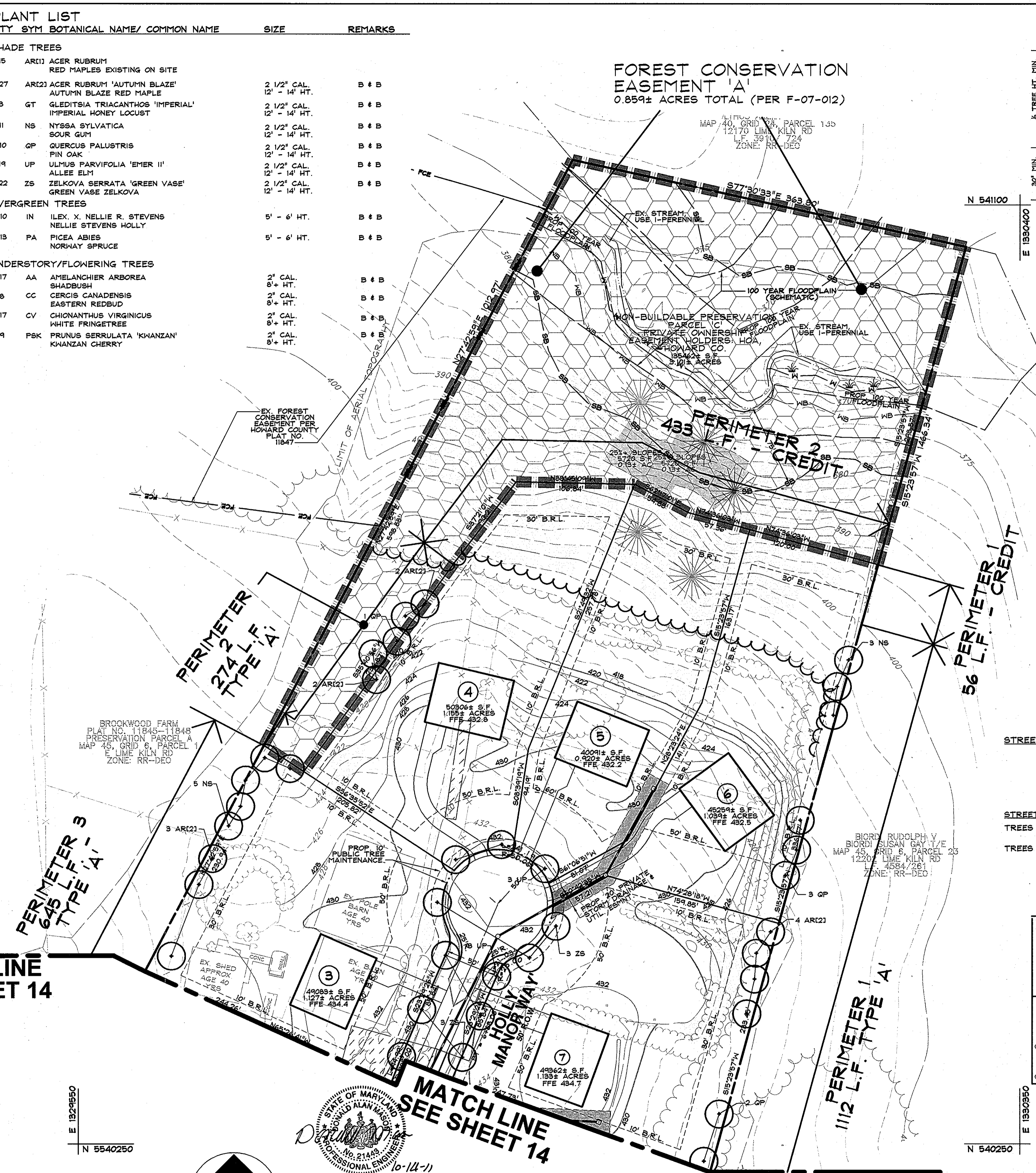
15	AR11	ACER RUBRUM RED MAPLES EXISTING ON SITE		
27	AR12	ACER RUBRUM 'AUTUMN BLAZE' AUTUMN BLAZE RED MAPLE	2 1/2" CAL. 12' - 14' HT.	B & B
3	GT	GLEDITSIA TRIACANTHOS 'IMPERIAL' IMPERIAL HONEY LOCUST	2 1/2" CAL. 12' - 14' HT.	B & B
11	NS	NYSSA SYLVATICA SOUR GUM	2 1/2" CAL. 12' - 14' HT.	B & B
10	OP	QUERCUS PALUSTRIS PIN OAK	2 1/2" CAL. 12' - 14' HT.	B & B
19	UP	ULMUS PARVIFOLIA 'EMER II' ALLEE ELM	2 1/2" CAL. 12' - 14' HT.	B & B
22	ZS	ZELKOVA SERRATA 'GREEN VASE' GREEN VASE ZELKOVA	2 1/2" CAL. 12' - 14' HT.	B & B

EVERGREEN TREES

10	IN	ILEX X. NELLIE R. STEVENS NELLIE STEVENS HOLLY	5' - 6' HT.	B & B
13	PA	PICEA ABIES NORWAY SPRUCE	5' - 6' HT.	B & B

UNDERSTORY/FLOWERING TREES

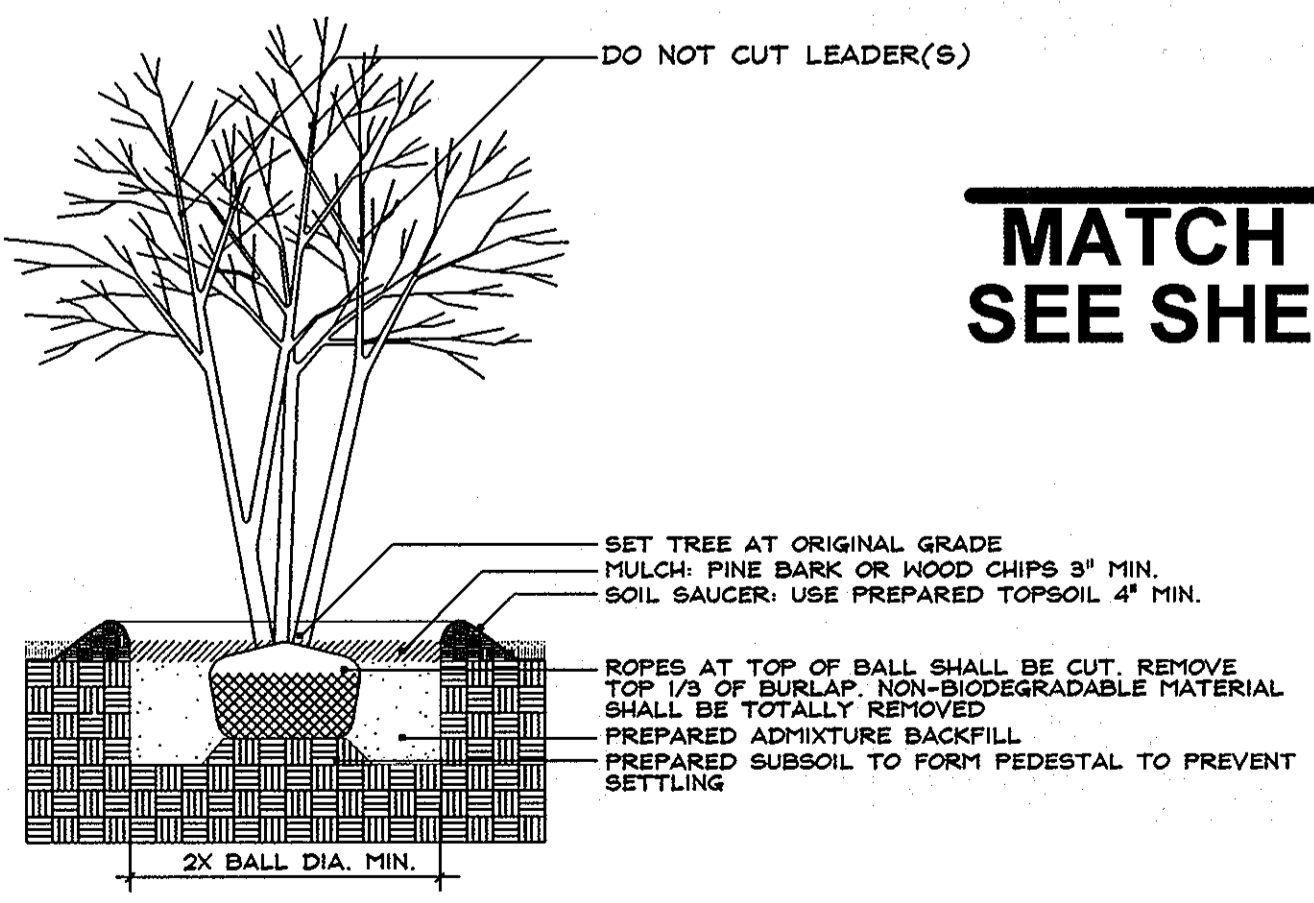
17	AA	AMELANCHIER ARBOREA SHADBUSH	2" CAL. 8' - 9' HT.	B & B
8	CC	CERCIS CANADENSIS EASTERN REDBUD	2" CAL. 8' - 9' HT.	B & B
17	CV	CHIONANTHUS VIRGINICUS WHITE FRINGETREE	2" CAL. 8' - 9' HT.	B & B
9	PSK	PRUNUS SERRULATA 'KHANZAN' KHANZAN CHERRY	2" CAL. 8' - 9' HT.	B & B



EVERGREEN TREE PLANTING
N.T.S.

DECIDUOUS TREE PLANTING (LESS THAN 3" CAL.)
N.T.S.

NOTE: This plan has been prepared in accordance with the provisions of section 16.124 of the HO.CO. code of financial surety for the required landscaping in the amount of \$21,000.00 must be posted as part of the developer's agreement (55 shade tree, 30 evergreen trees.)



DECIDUOUS MULTI-STEM TREE PLANTING
N.T.S.

STREET TREE TABULATION HOLLY MANOR WAY

STREET TREES REQUIRED:	41 TOTAL
1620 L.F. @ 1 TREE/40 L.F. = 41	
STREET TREES PROVIDED:	41 TOTAL
ALL NEW TREES TO BE PROVIDED SHALL BE SHADE TREES.	

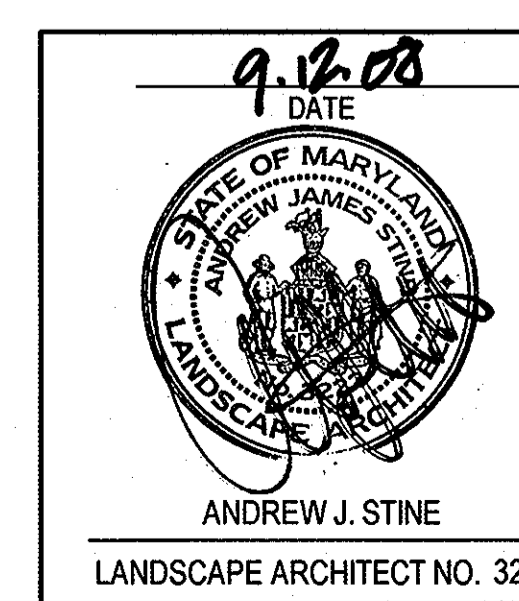
STREET TREE TABULATION (LIME KILN ROAD)

TREES REQUIRED:	32 TOTAL
1282 L.F. @ 1 TREE/40 L.F.	
TREES PROVIDED:	34 TOTAL CREDIT REQUESTED FOR 15 EXISTING TREES ALONG LIMEKILN ROAD THAT DO NOT INTERFERE WITH EX. BGE 19KV OVERHEAD ELECTRIC LINE. 34 MINOR/FLOWERING TREES THAT MEET BGE GREEN ZONE REQUIREMENTS FOR PLANTING NEAR UTILITY LINES ARE PROPOSED TO FULFILL THE REMAINING STREET TREE REQUIREMENTS.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Walter J. Walsh 9-26-08
CHIEF, BUREAU OF HIGHWAYS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Wanda Hume 10/2/08
CHIEF DIVISION OF LAND DEVELOPMENT

Andrew J. Stine 10/2/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION



DATA SOURCES:
EX. TOPOGRAPHY SHOWN PER AERIAL SURVEY BY VIRGINIA RESOURCE MAPPING, DATE OF CAPTURE IS SPRING 2006. EX. SOIL INFORMATION SHOWN PER HOWARD COUNTY SOIL SURVEY, 1988. EX. WETLAND AND STREAM LOCATIONS SHOWN PER FIELD INVESTIGATION BY MARLENE ENVIRONMENTAL INC. IN SPRING 2006. EX. OFF-PROPERTY WELL AND SEPTIC LOCATION APPROXIMATED FROM HOWARD COUNTY HEALTH DEPARTMENT RECORDS AND FIELD INVESTIGATION BY DEMARIO DESIGN CONSULTANTS, INC. SPRING 2006.

DeMario
DESIGN CONSULTANTS
ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street Westminister, MD 21157
Phone: (410) 386-0560 Fax: (410) 388-0564
http://www.demarioconsultants.com eMail: ddc@demarioconsultants.com

OWNER: HOLLY HOUSE DVLPM. LLC
C/O JIM SELFRIE
4781 TEN OAKS ROAD
DAYTON, MD 21036

DEVELOPER: SELFRIE BUILDERS
C/O JIM SELFRIE
4781 TEN OAKS ROAD
DAYTON, MD 21036

SITE ADDRESS: 12402 LIME KILN ROAD
FULTON, MD 20759

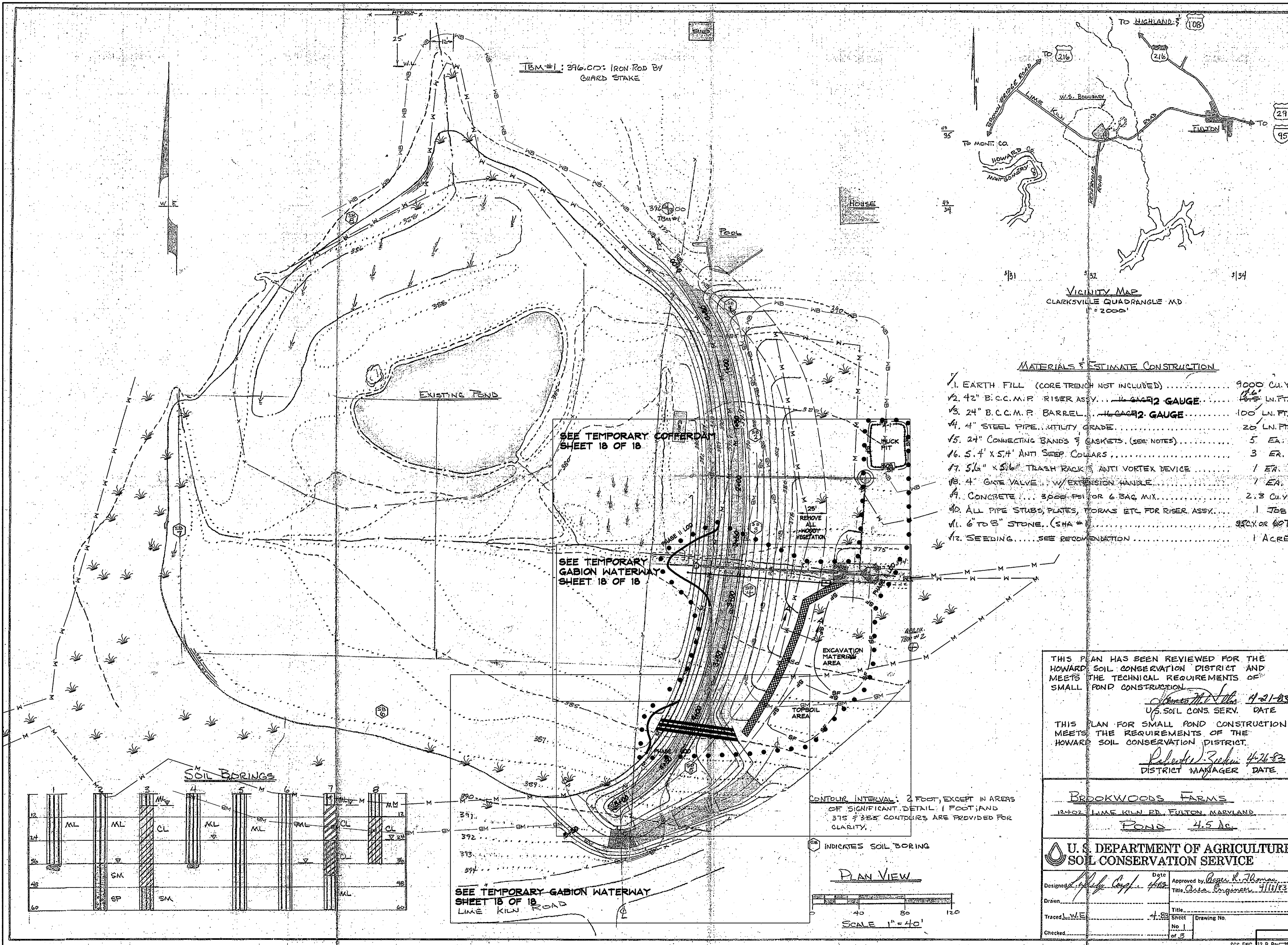
FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
FINAL LANDSCAPE PLAN

5TH ELECTION DISTRICT HOWARD COUNTY

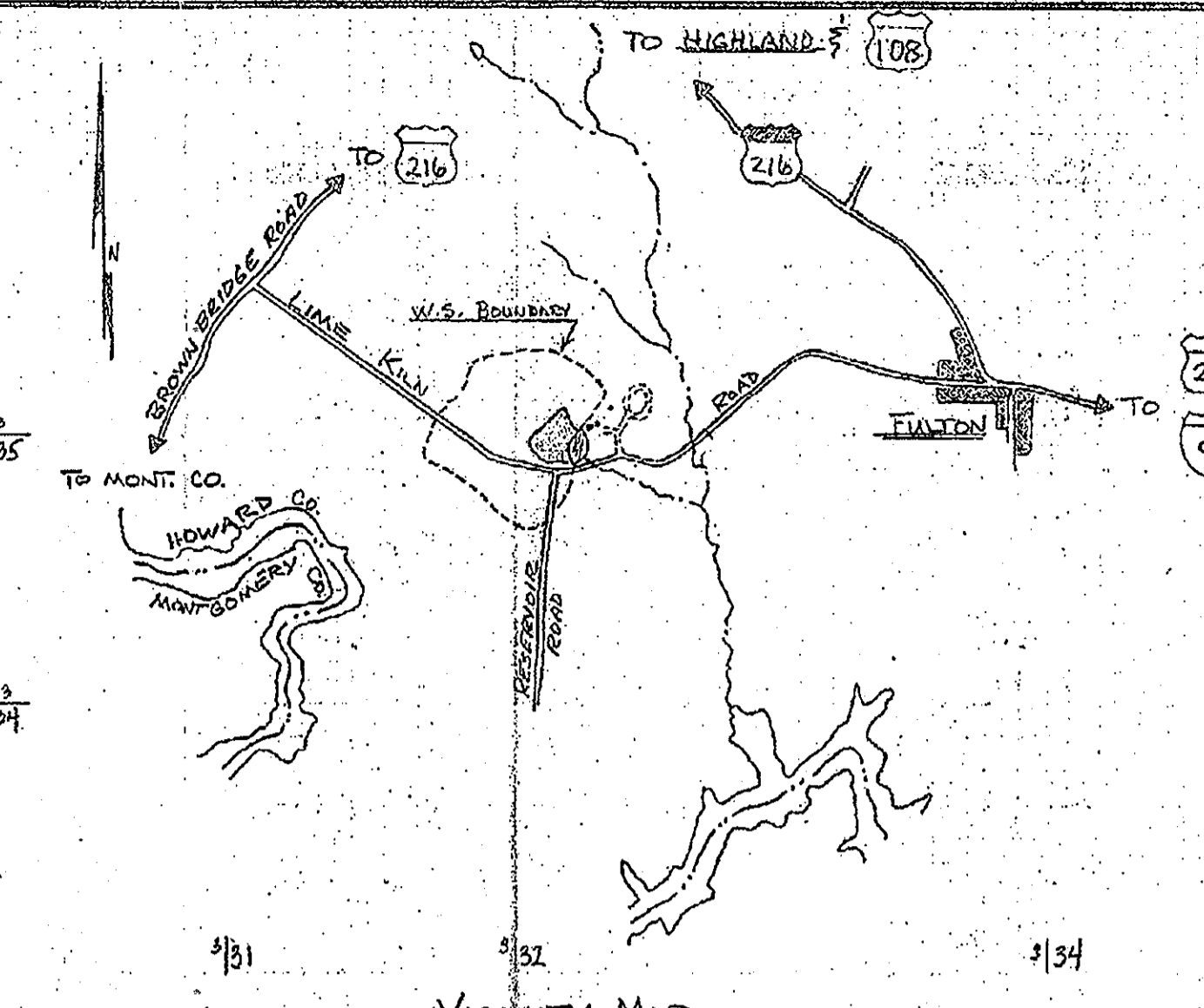
REVISIONS			
NO.	DESCRIPTION OF CHANGES	DRN.	REV. DATE

CO. FILE #:	DES. BY: AJ S
TAX ACC. #: 05-342775	DRN. BY: JDP
TAX MAP: 45	CHK. BY: AJ S
BLOCK / GRID: 6	DATE: 09.12.08
PARCEL #: 24	DDC JOB#: 05127.6
ZONE / USE: RR-DEO	SHEET NUMBER:
DWG. SCALE: 1" = 50'	15 of 18

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. 21443 Expiration Date: 12-31-12



PURPOSE NOTE:
 THE PURPOSE OF REDLINING SHEETS 1, 16, 17, 18 OF 18 IS TO CREATE PHASE III WHICH SEPARATES THE EXISTING POND RETROFIT FROM THE ACTUAL SUBDIVISION SO THAT THE PUBLIC IMPROVEMENTS CAN BE DEDICATED TO HOWARD COUNTY.



- MATERIALS & ESTIMATE CONSTRUCTION**
- 1. EARTH FILL (CORE TRENCH NOT INCLUDED) 9000 CU. YD.
 - 2. 42" B.C.C.M.P. RISER ASSY. WITH GAUGE 1475 LN. FT.
 - 3. 24" B.C.C.M.P. BARREL WITH GAUGE 100 LN. FT.
 - 4. 4" STEEL PIPE, UTILITY GRADE 20 LN. FT.
 - 5. 24" CONNECTING BANDS & GASKETS (SEE NOTES) 5 EA.
 - 6. 5.4' X 5.4' ANTI SLEEP COLLARS 3 EA.
 - 7. 5.6" X 5.6" TRASH RACK'S ANTI VORTEX DEVICE 1 EA.
 - 8. 4" GATE VALVE W/ EXTENSION HANDLE 7 EA.
 - 9. CONCRETE ... 3000 PSI OR 6 BAG MIX 2.3 CU. YD.
 - 10. ALL PIPE STUBS, PLATES, WORMS ETC FOR RISER ASSY. 1 JOB
 - 11. 6" TO 8" STONE (SHA #1) 2500 OR 60 TON
 - 12. SEEDING SEE RECOMMENDATION 1 ACRE



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. 22390 Expiration Date: 6-30-11

FOR REVISIONS BY BEI ONLY. REVISION #1 ONLY

See MDE Permit:
 200862554/08-NT-3232

THIS PLAN HAS BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS THE TECHNICAL REQUIREMENTS OF SMALL POND CONSTRUCTION.
Robert J. Zich 4-21-08
 U.S. SOIL CONSERV. DATE

THIS PLAN FOR SMALL POND CONSTRUCTION MEETS THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Robert J. Zich 4-26-08
 DISTRICT MANAGER DATE

BROOKWOODS FARMS
 12402 LIME KILN RD. FULTON, MARYLAND
POND 4.5 AC.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE

Designed by *[Signature]* Date *4/21/08*
 Drawn *[Signature]*
 Traced *[Signature]*
 Checked *[Signature]*

Approved by *[Signature]* Date *4/16/08*
 Title *Area Engineer*
 Sheet *4* of *3*
 Title *Pond*
 No. *1* of *3*
 Drawing No. *[Blank]*

THE PURPOSE OF THE EXISTING POND MAINTENANCE PLANS IS FOR THE REPLACEMENT/MAINTENANCE METHODS FOR THE EXISTING FACILITY ONLY

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.

[Signature] 9/16/08
 DEVELOPER DATE

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

[Signature] 9/16/08
 ENGINEER 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. 21998.

[Signature]
 W. RICHARD DEMARIO
 PROFESSIONAL ENGINEER NO. 21998

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
[Signature] 10/2/08
 CHIEF DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
[Signature] 9-26-09
 CHIEF, BUREAU OF HIGHWAYS DATE

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

[Signature] 9/22/08
 NATURAL RESOURCES CONSERVATION SERVICE DATE

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

[Signature] 9/22/08
 HOWARD SOIL CONSERVATION DISTRICT DATE

DeMario DESIGN CONSULTANTS
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street Phone: (410) 388-0560
 Westminster, MD 21157 Fax: (410) 388-0564
 http://www.demariodesign.us eMail: ddk@demariodesign.us

OWNER:
 HOLLY HOUSE DVL PMT. LLC
 C/O JIM SELFIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

DEVELOPER:
 SELFIDGE BUILDERS
 C/O JIM SELFIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

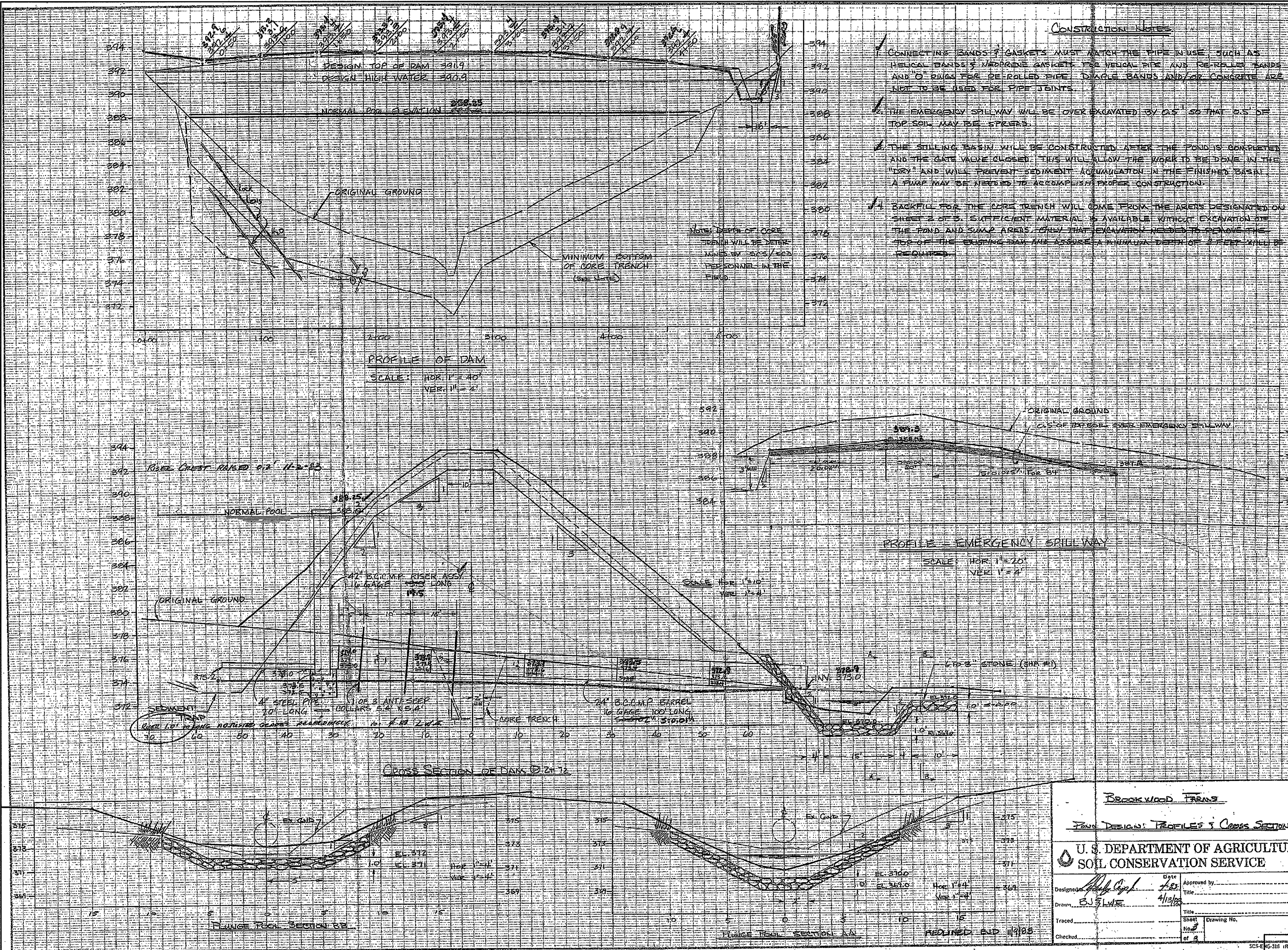
SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
EXISTING POND SEDIMENT CONTROL & RECONSTRUCTION PLAN PHASE III
 8TH ELECTION DISTRICT HOWARD COUNTY

NO.	DESCRIPTION OF CHANGES	DRN.	REV.	DATE
1	Add Purpose Note & Revise Title Block	BEI	4-5-11	

CO. FILE # _____ DES. BY: WRD
 TAX ACC. #: 05-342775 DRN. BY: LJC
 TAX MAP: 45 CHK. BY: JCO
 BLOCK / GRID: 6 DATE: 09.12.08
 PARCEL #: 24 DDC JOB#: 05127.6
 ZONE / USE: RR-DEO SHEET NUMBER: _____
 DWG. SCALE: 1"=40' 16 of 18

AS-BUILT
 F-08-090



- CONSTRUCTION NOTES**
- CONNECTING BANDS & GASKETS MUST MATCH THE PIPE IN USE. SUCH AS HELICAL BANDS & NEOPRENE GASKETS FOR HELICAL PIPE AND ROLLER BANDS AND O-RINGS FOR PERFORATED PIPE. SINGLE BANDS AND/OR CONCRETE ARE NOT TO BE USED FOR PIPE JOINTS.
 - THE EMERGENCY SPILLWAY WILL BE OVER EXCAVATED BY 0.5' SO THAT 0.5' OF TOP SOIL MAY BE SPREAD.
 - THE SOILING BASIN WILL BE CONSTRUCTED AFTER THE POND IS COMPLETED AND THE GATE VALVE CLOSED. THIS WILL ALLOW THE WORK TO BE DONE IN THE "DRY" AND WILL PREVENT SEDIMENT ACCUMULATION IN THE FINISHED BASIN. A PUMP MAY BE NEEDED TO ACCOMPLISH PROPER CONSTRUCTION.
 - BACKFILL FOR THE CORE TRENCH WILL COME FROM THE AREAS DESIGNATED ON SHEET 2 OF 3. SUFFICIENT MATERIAL IS AVAILABLE WITHOUT EXCAVATION OF THE POND AND SURROUND AREAS. SHOW THAT EXCAVATION NEEDED TO REMOVE THE TOP OF THE EXISTING DAM AND ASSURE A MINIMUM DEPTH OF 2 FEET SHALL BE REQUIRED.



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. 22390 Expiration Date: 6-30-11
 REVISIONS BY BEI ONLY
 REVISION #1 ONLY

DeMario
DESIGN CONSULTANTS
 ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
 192 East Main Street Westminster, MD 21157
 Phone: (410) 386-0560 Fax: (410) 386-0564
 Email: ddc@demariodesign.us

OWNER:
 HOLLY HOUSE DVLPMT. LLC
 C/O JIM SELF RIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

DEVELOPER:
 SELF RIDGE BUILDERS
 C/O JIM SELF RIDGE
 4781 TEN OAKS ROAD
 DAYTON, MD 21036

SITE ADDRESS:
 12402 LIME KILN ROAD
 FULTON, MD 20759

PHASE III

FINAL ROAD PLAN FOR HOLLY HOUSE MEADOWS, PH. II
 A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'

EXISTING POND MAINTENANCE PLAN
 5TH ELECTION DISTRICT HOWARD COUNTY

BROOKWOOD FARMS

Final Design: Profiles & Cross Sections

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Design: [Signature] Date: 7/23/08
 Drawn: E.J. LIME Date: 4/13/08
 Traced: [Signature] Date: [Blank]
 Checked: [Signature] Date: [Blank]

Title: [Blank]
 Sheet No. 3 of 3
 Drawing No. [Blank]

THE EXISTING POND IS PRIVATELY OWNED AND PRIVATELY MAINTAINED

THE PURPOSE OF THE EXISTING POND MAINTENANCE PLANS IS FOR THE REPLACEMENT/MAINTENANCE METHODS FOR THE EXISTING FACILITY ONLY

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.

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

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. 21998, Expiration Date: 06/30/08.

W. RICHARD DEMARIO
 PROFESSIONAL ENGINEER NO. 21998

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

DATE: 10/2/08

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

DATE: 10/2/08

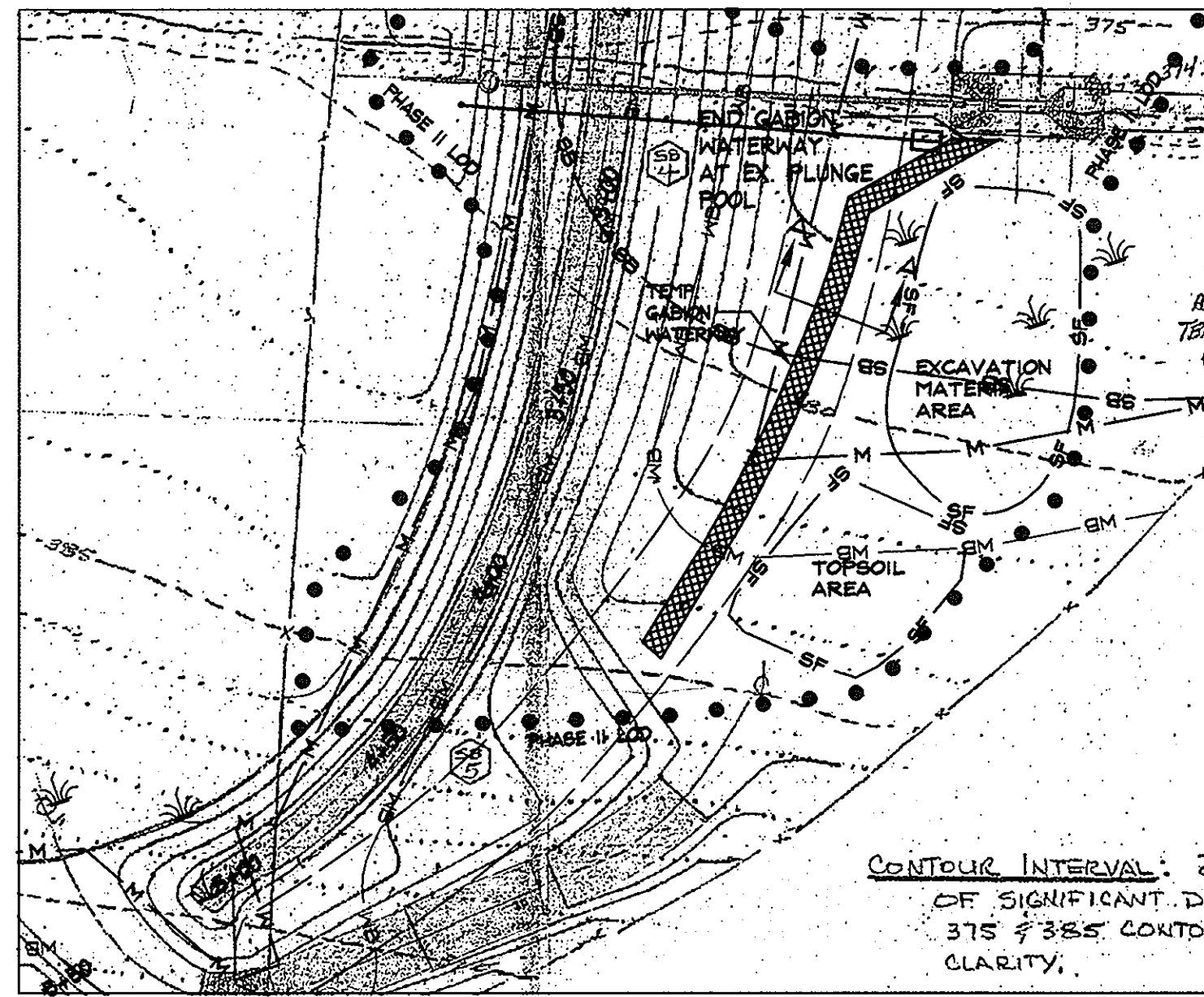
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
 Cindy Hankins 10/2/08
 Chief, Division of Land Development

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
 W. RICHARD DEMARIO 10/2/08
 Chief, Bureau of Highways

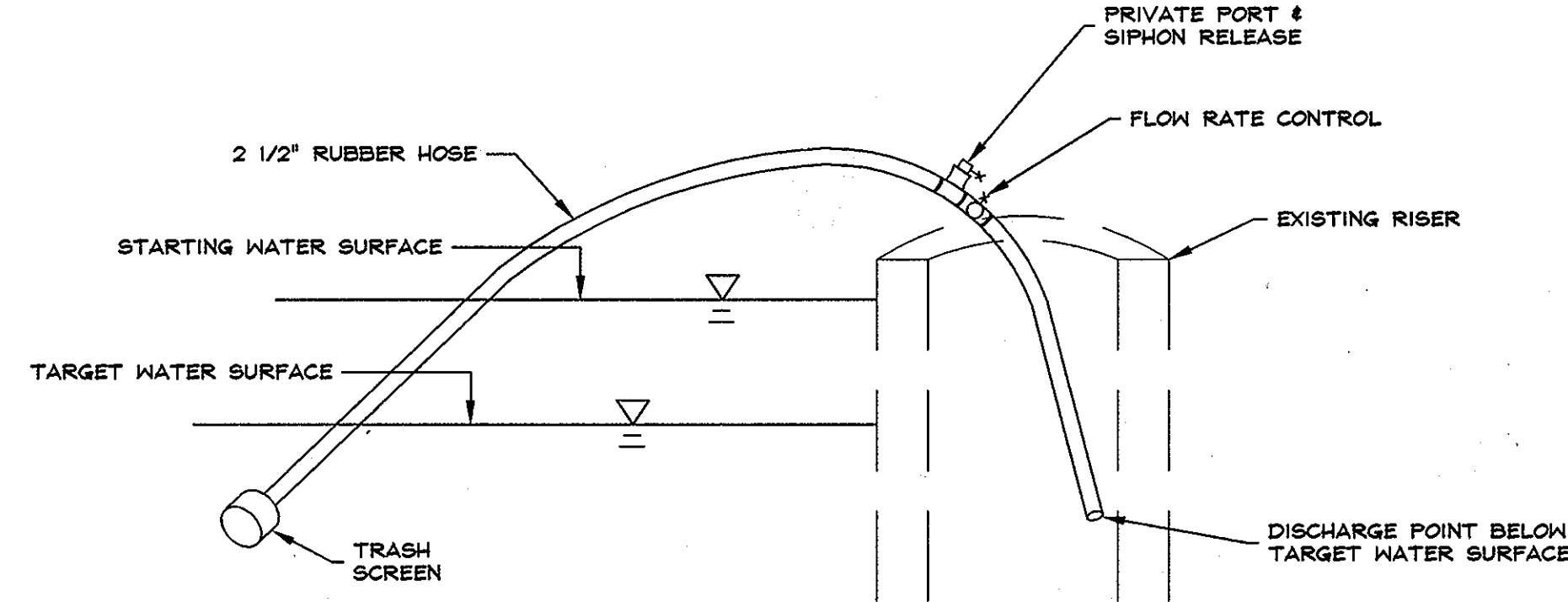
DATE: 9-26-08
 DEVELOPER: [Signature]

DATE: 9/14/08
 ENGINEER: [Signature]

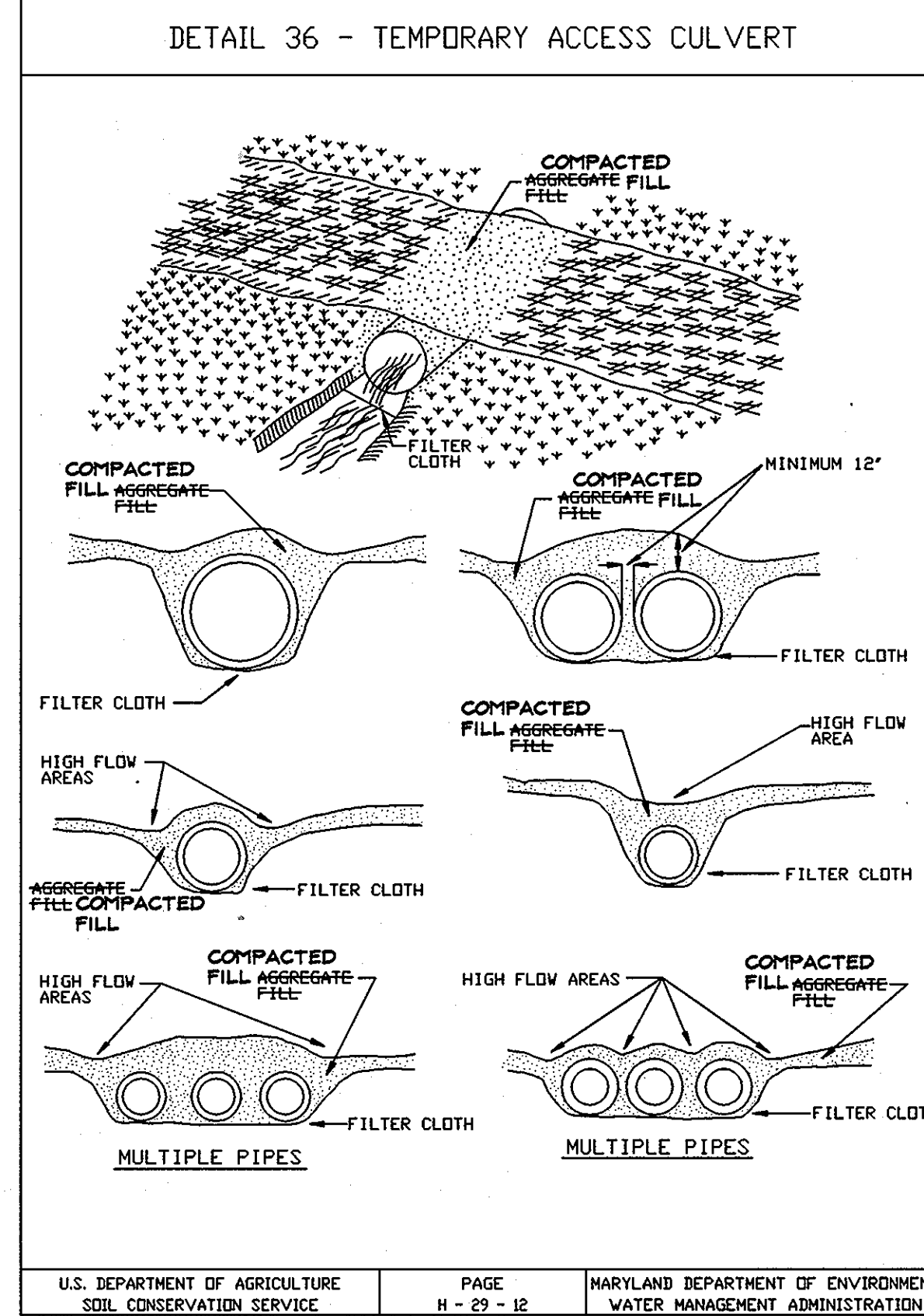
NO.	REVISIONS	DRN.	REV.	DATE
1	REVISE TITLE BLOCK TO SHOW PHASE III	BEI	4-5-11	
CO. FILE #	DES. BY: WRD			
TAX ACC. #: 05-342775	DRN. BY: SDS			
TAX MAP: 45	CHK. BY: JCO			
BLOCK / GRID: 6	DATE: 09.12.08			
PARCEL #: 24	DDC JOB#: 05127.6			
ZONE / USE: RR-DEO	SHEET NUMBER:			
DWG. SCALE: 1"=40'	17 of 18			



TEMPORARY GABION WATERWAY
SCALE: HOR. 1"=40'

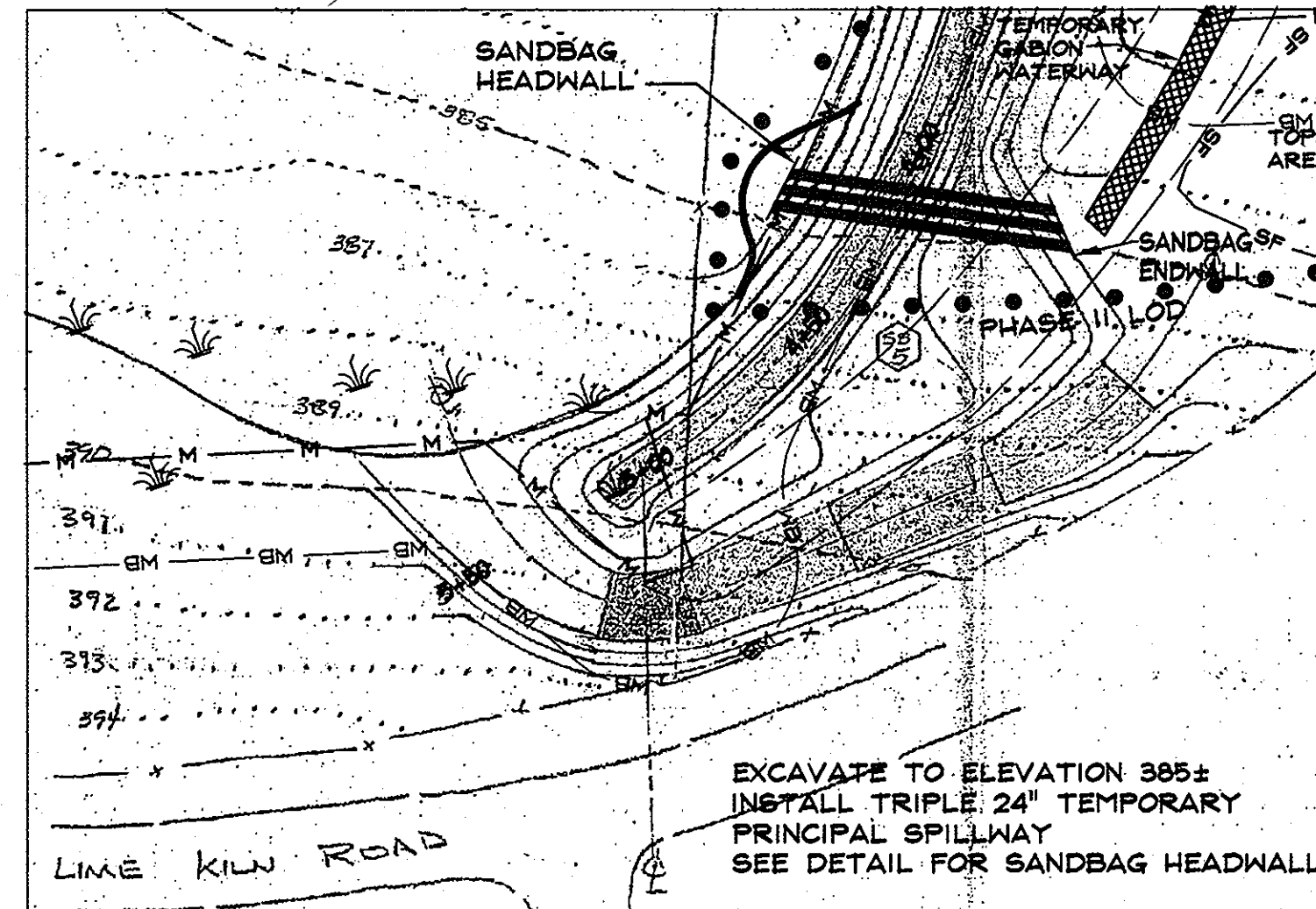


SIPHON DETAIL
NOT TO SCALE

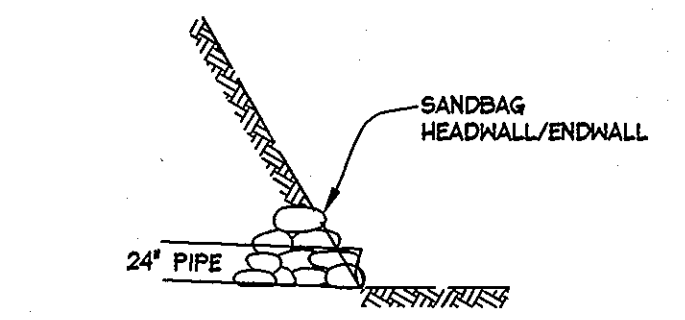


TEMPORARY ACCESS CULVERT

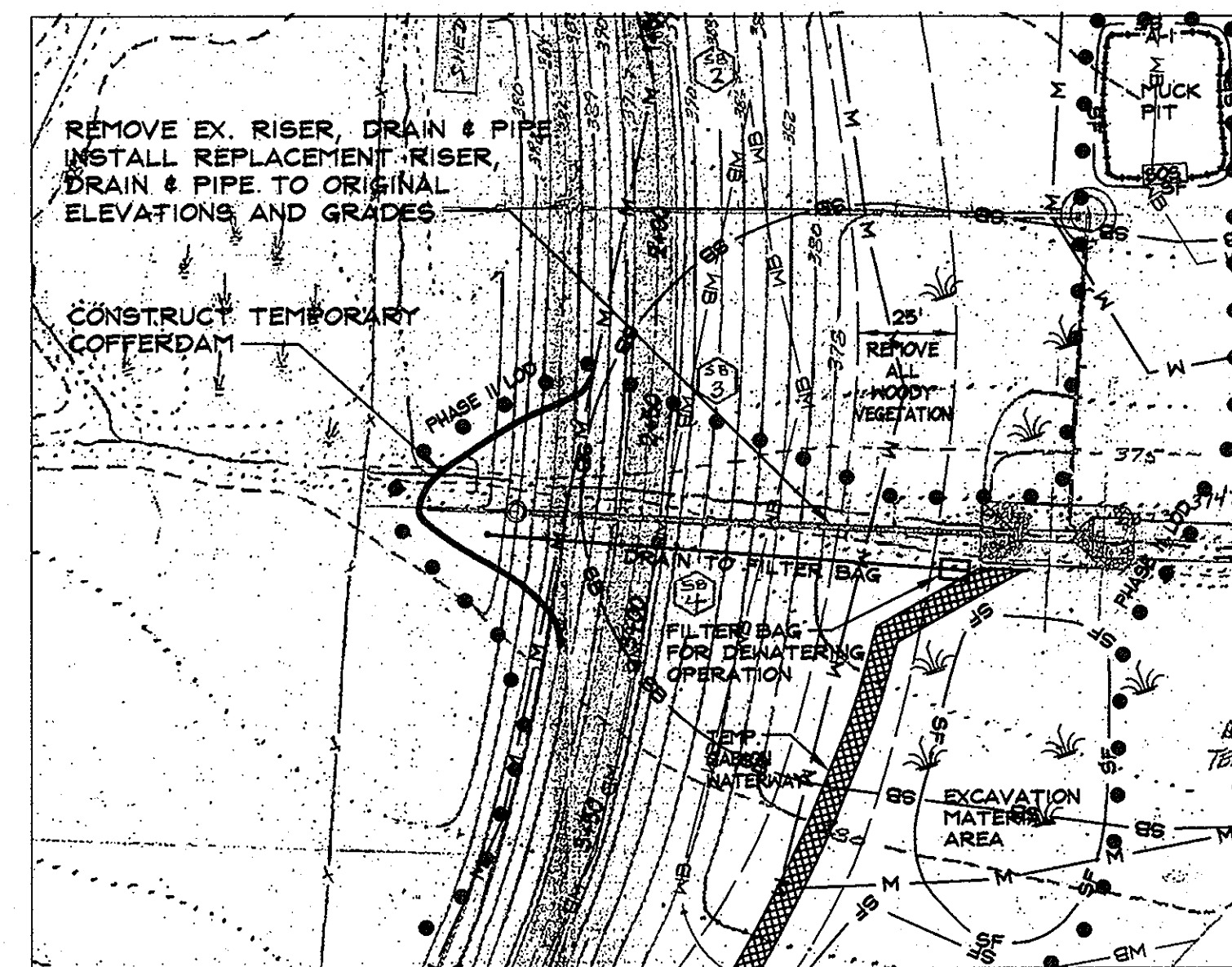
- Construction Specifications
- Restrictions - No Construction or removal of a temporary access culvert will be permitted between October 1 through April 30 For Class III and Class IV Trout Waters or between March 1 through June 15 For non-trout waterways.
 - Culvert Strength - All culverts shall be strong enough to support their cross sectional area under maximum expected loads.
 - Culvert Size - The size of the culvert pipe shall be the largest pipe diameter that will fit into the existing channel without major excavation of the waterway channel or without major approach fills. If a channel width exceeds 3 feet, additional pipes may be used until the cross sectional area of the pipes is greater than 60 percent of the cross sectional area of the existing channel. The minimum size culvert that may be used is a 12" diameter pipe. In all cases, the pipe(s) shall be large enough to convey normal stream flows.
 - Culvert Length - The culvert(s) shall extend a minimum of one foot beyond the upstream and downstream toe to the aggregate placed around the culvert. In no case shall the culvert exceed 40 feet in length.
 - Filter Cloth - Filter cloth shall be placed on the streambed and streambanks prior to placement of the pipe culvert(s) and aggregate. The filter cloth shall cover the streambed and extend a minimum six inches and a maximum one foot beyond the end of the culvert and bedding material. Filter cloth reduces settlement and improves crossing stability.
 - Culvert Placement - The invert elevation of the culvert shall be installed on the natural streambed grade to minimize interference with fish migration (free passage of fish).
 - Culvert Protection - The culvert(s) shall be covered with a minimum of one foot of aggregate. If multiple culverts are used they shall be separated by at least 12" of compacted aggregate fill.
 - Stabilization - All areas disturbed during culvert installation shall be stabilized within 14 calendar days of the disturbance in accordance with the Standard for 'Critical Area Stabilization With Permanent Seeding.'



TEMPORARY POND DEWATERING
SCALE: HOR. 1"=40'

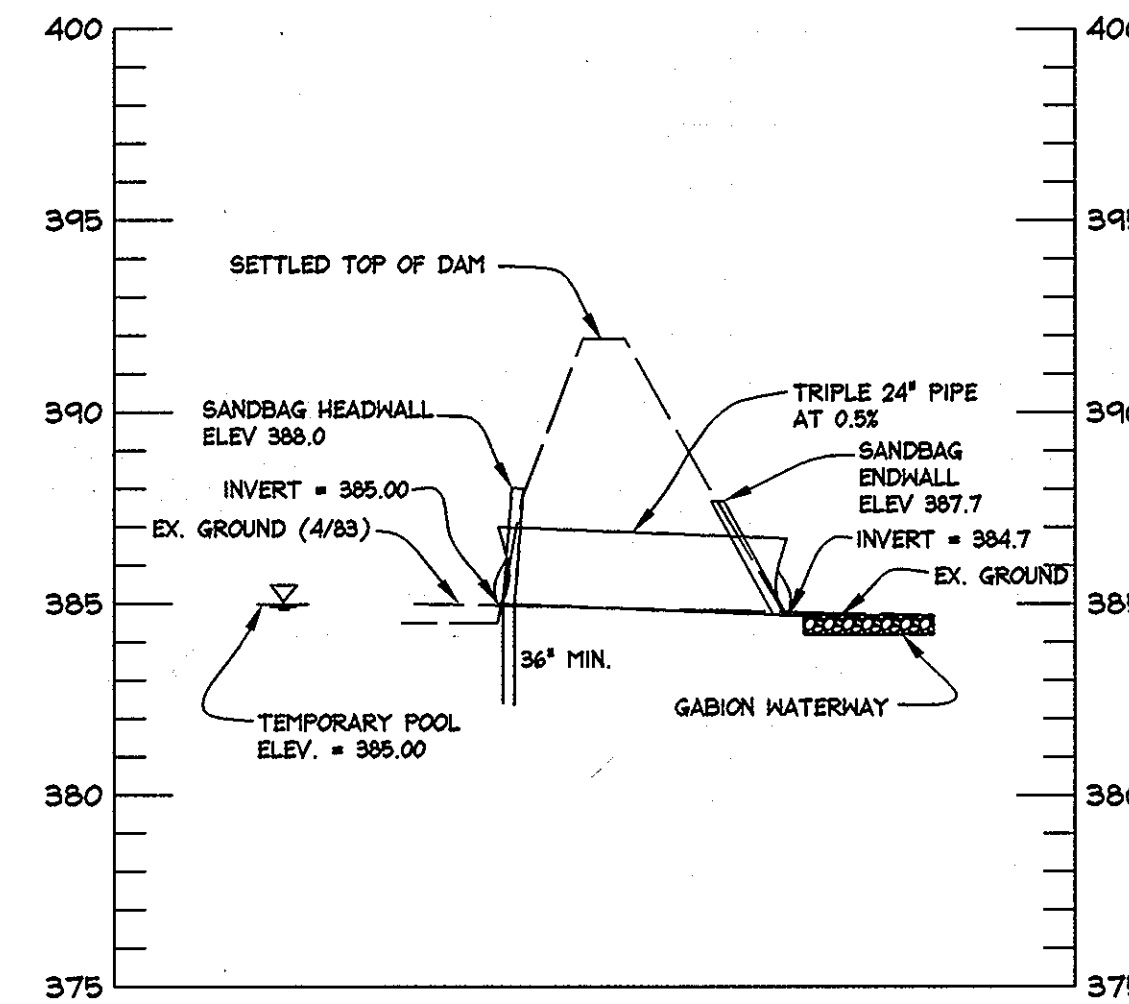


SANDBAG HEADWALL/ENDWALL
DETAIL
NOT TO SCALE

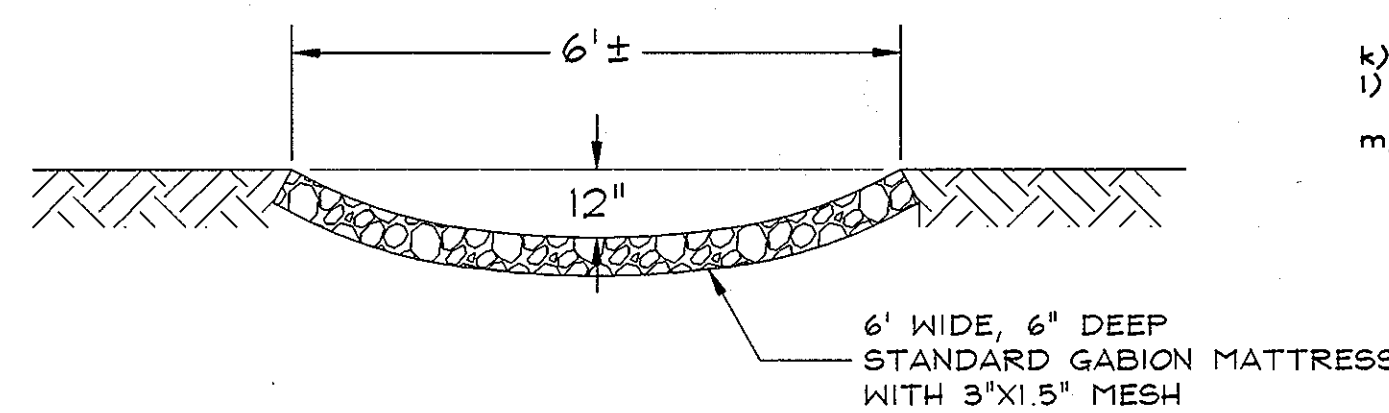


ACCEPTABLE COFFERDAM SYSTEMS:
FAS-DAM (LIMITED TO 12' OF WATER) 1-800-488-0030
PORTADAM (LIMITED TO 12' OF WATER) 1-800-346-4793
DAM-IT DAMS (LIMITED TO 16' OF WATER) 1-248-755-7383

TEMPORARY COFFERDAM
SCALE: HOR. 1"=40'



PROFILE OF TRIPLE 24" PIPE
SCALE: HOR. 1"=50'
VER. 1"=5'



TEMPORARY GABION WATERWAY
SECTION A-A
NOT TO SCALE

Required Sequence of Construction - PHASE II

NOTE: Contractor Shall Report Each Day's Planned Activities To The Engineer-In-Charge. If No Activity Is Planned, Contractor Is Still Obligated To Call Engineer.

14. (Continued from Sheet 6) - Construct temporary principal spillway
 - Obtain MDE Permits as required.
 - Install siphon and begin lowering water surface elevation. Note: Siphon to continue operation during construction of temporary culvert.
 - Install temporary gabion mattress waterway. Tie edges into existing ground. Tie outfall into existing plunge pool.
 - Install Cofferdam at Station 4+25+/-
 - De-water Cofferdam by discharging into existing riser structure, if needed.
 - Install sediment control devices for temporary pipe construction.
 - Once Cofferdam area is de-watered, remove topsoil along temporary pipe and temporary waterway alignment. Stockpile topsoil adjacent to temporary waterway, behind silt fence. Protect Topsoil from runoff and erosion.
 - Excavate embankment for triple pipe. Place excavated material so that runoff drains into the open trench and not into Gabion mattress. Lay pipe at positive slope towards Gabion mattress. Install water tight joints. Prior to backfilling, contractor shall allow engineer to inspect the joints. Pipe bedding shall be compacted embankment material, free of rock and organic material. No stone base shall be permitted. See Access Culvert Detail.
 - Construct Sandbag Head wall and end walls. Headwall and End wall shall be a minimum of 36 inches deep and shall be packed tightly around the temporary pipes.
 - Cover temporary pipe with remaining embankment material. Compact embankment material to 92%.
 - Remove Cofferdam - See Draw Down Methodology.
 - Complete removal of cofferdam and stabilize disturbed areas with temporary seeding mix.
 - Provide daily inspection of the temporary principal spillway for duration of project. This includes weekends and holidays. Report any changes to the Engineer-in-Charge immediately.
 - With approval of the engineer proceed to the next step in the sequence of construction.
15. Replace Principal Spillway
 - Install cofferdam at Station 2+75 +/-
 - De-water Cofferdam by discharging into existing riser structure.
 - Construct Muck Pit.
 - Remove topsoil and store in Top Soil stockpile area.
 - Remove Embankment Material and Store in stockpile area. Contractor shall be careful not to mix embankment material with pond muck.
 - Remove pond muck to de-watering pit.
 - Remove the existing riser, pond drain, principal spillway and pipe end section. Dispose of all removed spillway material at approved disposal site.
 - Prepare excavation for new principal spillway and riser. Remove any remaining muck to muck pit. Shape Trench for Principal Spillway Pipe. Over excavate For Anti-Seep Collars. Prior to backfilling with Flowable Fill, contractor shall allow engineer to inspect the pipe joints. Four Riser Base and drain supports.
 - Place Flowable fill up to spring line of pipe.
 - After Flowable fill has set, begin backfill of embankment. Contractor shall compact with core around the anti-seep collars and over the pipe until sufficient depth is achieved to use heavier compaction equipment. Contractor shall notch Existing embankment for each lift to insure that the embankment is properly compacted.
 - Compaction testing shall occur on each lift.
 - Apply 4 to 6 inches of topsoil. Fine Grade Area of Excavation to Match Existing Upstream and Down Stream Slopes. Apply permanent Stabilization.
 - Once Engineer has approved New Riser, drain and pipe, remove cofferdam.
16. Site Restoration
 - Re-establish cofferdam at station 4+25+/- . Set Cofferdam elevation at one foot above new riser weir elevation.
 - Remove temporary triple pipes. Remove any material that has become muck or mixed with unsuitable material. Dispose of Muck in Muck Pit.
 - Restore embankment in controlled lifts using acceptable embankment material. Contractor shall notch Existing embankment for each lift to insure that the embankment is properly compacted.
 - Compaction testing shall occur on each lift.
 - Apply 4 to 6 inches of topsoil. Fine Grade Area of Excavation to Match Existing Upstream and Down Stream Slopes. Apply permanent Stabilization.
 - Remove Cofferdam
 - Remove temporary waterway. Fine Grade Stockpile areas and close muck pit. Remove all woody vegetation within 25 feet of the toe of the embankment. Apply permanent stabilization.
17. Monitoring Phase
 - Contractor to monitor ground - in of permanent stabilization. Should the newly seeded areas require watering, contractor is permitted to withdraw water from the pond.
 - Contractor and Engineer shall jointly inspect the work once a month for the first six months or until all punch list items are resolved.
18. Return to Phase I, Sheet 6.

SEE SHEET 6 OF 18 FOR PHASE I SEQUENCE OF CONSTRUCTION

Draw Down Methodology

Remove Cofferdam, allowing pond water surface to be lowered by three feet. Be prepared to reduce the rate of draw down as may be directed by the engineer. In no case shall the rate of draw down exceed 1 inch per hour. Contractor is to maintain continuous on-site observation during the draw down period. Contractor shall halt draw down under the following conditions and notify the engineer:

- Visible slumping of the embankment on either the upstream or the downstream sides
- Flooding of Lime Kiln Road or any other downstream structures or roads.
- Direction from any County Agency such as Police, Fire, County Inspector or State Agency
- Movement of the Temporary Pipes, including any settlement of the soil above the pipes.

THE PURPOSE OF THE EXISTING POND MAINTENANCE PLANS IS FOR THE REPLACEMENT/MAINTENANCE METHODS FOR THE EXISTING FACILITY ONLY

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.

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

9/11/8
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. 22390.

W. RICHARD DEMARIO
PROFESSIONAL ENGINEER NO. 21998

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. 22390 Expiration Date: 6-30-11
FOR REVISION BY BEZ ONLY
REVISION #1 ONLY

DeMario
DESIGN CONSULTANTS
ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
192 East Main Street Westminister, MD 21157
Phone: (410) 388-0680 Fax: (410) 388-0664
http://www.demariodesign.us eMail: ddd@demariodesign.us

OWNER:
HOLLY HOUSE DVLPMT. LLC
C/O JIM SELFRIEDE
4781 TEN OAKS ROAD
DAYTON, MD 21036

DEVELOPER:
SELFRIEDE BUILDERS
C/O JIM SELFRIEDE
4781 TEN OAKS ROAD
DAYTON, MD 21036

SITE ADDRESS:
12402 LIME KILN ROAD
FULTON, MD 20759

PHASE III
FINAL ROAD PLAN FOR
HOLLY HOUSE MEADOWS, PH. II
A RESUBDIVISION OF HOLLY HOUSE MEADOWS BUILDABLE BULK PARCEL 'A'
EXISTING POND MAINTENANCE PLAN
5TH ELECTION DISTRICT HOWARD COUNTY

NO.	REVISIONS	DRN.	REV.	DATE
1	REVISE TITLE BLOCK TO SHOW PHASE III	BEZ	4-3-11	

CO. FILE #	DES. BY:
TAX ACC. #: 05-342775	DRN. BY: WRD
TAX MAP: 45	CHK. BY: JCO
BLOCK / GRID: 6	DATE: 09.12.08
PARCEL #: 24	DDC JOB#: 05127.6
ZONE / USE: RR-DEO	SHEET NUMBER:
DWG. SCALE: 1"=40'	18 of 18

AS-BUILT
F-08-090

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.
Cinda Harris 10/2/08
CHIEF DIVISION OF LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
Walter A. M... 9-26-08
CHIEF, BUREAU OF HIGHWAYS DATE

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.

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. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.