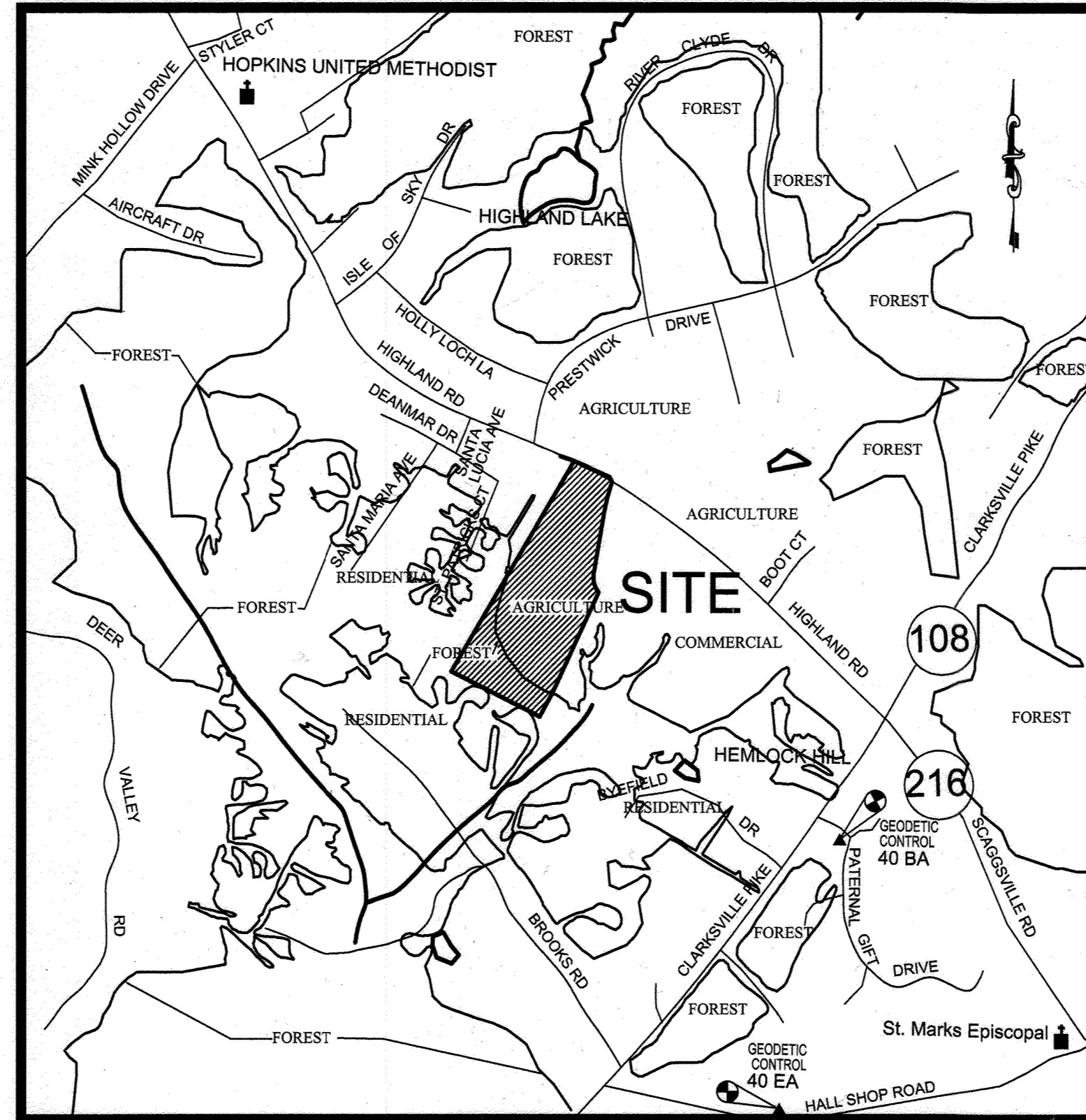


SITE DATA

1. LOCATION: TAX MAP 40, PARCEL 44
2. 5TH ELECTION DISTRICT
3. ZONING: RR-DEO
4. GROSS AREA OF PROJECT: 24.5002 AC
5. NO. OF DWELLING UNITS: 12
6. AREA OF PROPOSED RESIDENTIAL LOTS 6-16: 10.4289 AC
7. AREA OF BUILDABLE PRESERVATION PARCEL: 2.3092 AC
8. OPEN SPACE REQUIRED: NONE
9. NON-BUILDABLE PRESERVATION SPACE TO BE OWNED BY HOA: 10.3510 AC
10. RECREATION OPEN SPACE REQUIRED: NONE
11. THE LAND DEDICATED TO HOWARD COUNTY, MARYLAND FOR PURPOSES OF A PUBLIC ROAD: 1.4111 AC
12. AREA OF 100 YEAR FLOOD PLAIN: NONE
13. NO. OF LOTS/PARCELS:
 - 11 BUILDABLE LOTS
 - 1 BUILDABLE PRESERVATION PARCEL
 - 4 NON-BUILDABLE PRESERVATION PARCELS

GENERAL NOTES:

1. THE PROJECT IS IN CONFORMANCE WITH THE OCTOBER 18, 1993 COMPREHENSIVE ZONING PLAN STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. DEED REF.: LIBER 1100 FOLIO 242
3. DENSITY CALCULATIONS:
NUMBER OF UNITS BY RIGHT: (24.5002/4.25) = 5
NUMBER OF UNITS BASED ON DEO/CEO OPTION (24.319/2) = 12
REQUIRED NUMBER OF DEO'S (12 - 5) = 7 DEO'S
NO. OF BUILDABLE ENTITIES PROPOSED: 11 LOTS & 1 BUILDABLE PARCEL.
4. PROJECT BOUNDARY IS BASED ON BOUNDARY SURVEY BY D&D, FEBRUARY 2002
THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM HOWARD COUNTY MONUMENT NOS. 40BA (ELEVATION 534.654 AND COORDINATES N 549,925.102 E 1,324,025.124) AND 40EA (ELEVATION 503.948 AND COORDINATES N 547,911.373 E 1,324,510.058) ARE THE CLOSES TO THIS PROJECT. TRAVERSE RAN BY MARKS AND ASSOCIATES, BOUNDARY SURVEY BY D&D.
5. THE CONTOURS AND ELEVATIONS SHOWN HEREON ARE BASED ON AERIAL PHOTOGRAPHY BY AIR SURVEY PHOTOGRAMMETRIC MAPPING SERVICES, MARCH 18, 2001
6. CVP & WQV WILL BE PROVIDED BY A MICROPOOL EXTENDED DETENTION POND FACILITY TO BE OWNED AND MAINTAINED BY OWING PROPERTY HOMEOWNERS ASSOCIATION, INC. RW WILL BE PROVIDED BY GRASS CHANNELS IN THE ROADWAY TO BE OWNED AND MAINTAINED BY HOWARD COUNTY, MARYLAND.
7. WATER WILL BE PRIVATE FOR ALL LOTS
8. LOTS 6-8, 15 & 16 WILL HAVE PRIVATE SEPTIC SYSTEMS; SHARED SEPTIC SYSTEM, CONTRACT NO. 50-4157-D, FOR LOTS 9-14, AND BUILDABLE PRESERVATION PARCEL A APPROVED MAY 1, 2001 TO BE MAINTAINED BY HOWARD COUNTY.
9. FOREST STAND DELINEATION BY DEWBERRY & DAVIS LLC, FEB 2002
10. APFO TRAFFIC STUDY PREPARED BY LEE CUNNINGHAM & ASSOC. JAN., 2001 (APPROVED UNDER S-10-18).
11. LANDSCAPING WILL BE PROVIDED IN ACCORDANCE WITH SECTION 16.124 OF THE H.C. SUBDIVISION AND LAND DEVELOPMENT REGULATIONS & THE LANDSCAPE MANUAL.
12. STREET LIGHTS REQUIRED FOR THIS SITE EXCEPT PROVIDE ONE 250-WATT HPS VAPOR PENDANT FIXTURE (SAG) MOUNTED AT 3' ON A BRONZE FIBERGLASS POLE, USING A 12' ARM, LOCATED NO LESS THAN 4' FROM BACK OF CURB OR EDGE OF PAVEMENT ON THE NORTHEAST CORNER OF THE INTERSECTION OF GREEN HOLLOW WAY AND HIGHLAND ROAD, ARM RADIAL TO FILLET.
13. THIS PROPERTY IS NOT WITHIN THE METROPOLITAN DISTRICT.
14. THERE ARE NO BURIAL OR CEMETERY LOCATIONS ON THIS SITE.
15. THERE ARE NO WETLANDS ON THE SITE AS PER VOGEL & ASSOC. JAN., 2001
16. THIS SITE MEETS THE OBJECTIVES OF ZONING SECTION 105.F.(6) BY:
 - A. PROVIDING PRESERVED AREAS THAT FUNCTION AS FOREST CONSERVATION AREAS AND PRESERVE THE RURAL CHARACTER OF THE SITE.
 - B. CLUSTERING LOTS & CONSOLIDATING SEPTIC AREAS TO MINIMIZE DISTURBANCE TO FOREST AREAS RESOURCES.
THE SHARED SEPTIC WILL BE CONSTRUCTED OUTSIDE OF THE WOODED AREAS WITH SOME OF THE FUTURE RECOVERY AREA IN THE WOODS.
 - C. ELIMINATING FARMING DISTURBANCE ACTIVITIES.
 - D. PRESERVING EXISTING VEGETATION ALONG HIGHLAND ROAD.
 - E. PRESERVING RURAL & SCENIC VIEWS FROM HIGHLAND ROAD BY LOCATING HOUSING A MINIMUM OF 200' FROM THE R/W & BY PRESERVING MOST OF THE EXISTING FARM BUILDINGS.
17. PLANNING & ZONING FILE NUMBERS: F-82-32, F-84-58, VP-82-43, VP-84-21
SKETCH PLAN FILE NO. S-01-18.
18. A FOREST CONSERVATION PLAN IN ACCORDANCE WITH SECTION 16.1200 OF THE HOWARD CO. CODE & THE FOREST CONSERVATION MANUAL, PROVIDED AS PART OF THIS PRELIMINARY PLAN FOR THIS SITE. DEWBERRY & DAVIS LLC, FEB 2002
19. THERE ARE NO HISTORIC SITES ON THIS PROPERTY.
20. SOME OF THE EXISTING STRUCTURES ON PARCEL A ARE TO REMAIN.
21. WATERSHED: PATUXENT, STREAM USE DESIGNATION: IVP
22. PROPOSED POND IS A HAZARD CLASS 'A'
23. THIS SUBDIVISION PLAN WAS SUBMITTED PRIOR TO NOVEMBER 15, 2001 AND IS THEREFORE SUBJECT TO THE FOURTH EDITION OF THE SUBDIVISION REGULATIONS. FURTHER, PLAN NO. P-02-18 WAS APPROVED SUBSEQUENT TO THIS DATE AND IS THEREFORE SUBJECT TO ZONING AMENDMENTS CONTAINED IN COUNCIL BILL 50-2001.
24. FOREST CONSERVATION WILL BE PROVIDED BY ON SITE REFORESTATION AND AFFORESTATION OF 1.26 AC. AREA OF FOREST TO BE RETAINED IS 3.64 AC.
25. DRIVEWAY CULVERT DESIGN IS SHOWN ON SHEET 10 OF 26. THE EXACT LOCATION OF DRIVEWAY WILL NOT BE KNOWN UNTIL HOUSES ARE SITED AS PART OF THE BUILDING PERMIT PROCESS.
26. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
27. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) WORKING DAYS PRIOR TO THE START OF WORK.
28. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
29. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNINGS 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.
30. ALL FILL AREAS WITHIN ROADWAYS AND UNDER STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO T-180.
31. THE SURETY AMOUNT FOR ONSITE PERIMETER AND STORM WATER MANAGEMENT LANDSCAPING IS 64 SHADE TREES X \$300 = \$19,200, & 31 EVERGREEN TREES X \$150 = \$4,650. STREET TREES ARE NOT INCLUDED IN THE LANDSCAPE SURETY BOND.
32. THE ONSITE FOREST CONSERVATION SURETY IS \$59,154.48 (FOREST RETENTION 3.64 ACRES X \$20-\$31,711.68) (FOREST AFFORESTATION 1.26 ACRES X \$50-\$27,442.80)
33. DEVELOPER RESERVES UNTO ITSELF, ITS SUCCESSORS AND ASSIGNS, ALL EASEMENTS SHOWN ON THIS PLAT FOR WATER, SEWER, STORM DRAINAGE, OTHER PUBLIC UTILITIES, AND FOREST CONSERVATION (DESIGNATED AS "FOREST CONSERVATION AREA"), LOCATED IN, OVER AND THROUGH LOTS 6 THROUGH 16, OR PORTIONS THEREOF, AND SHOWN ON THIS PLAT AS THE FOREST CONSERVATION AREA. ANY AND ALL CONVEYANCES OF AFORESAID LOTS SHALL BE SUBJECT TO THE EASEMENTS HEREIN RESERVED, WHETHER OR NOT EXPRESSLY STATED IN THE DEED(S) CONVEYING SAID LOT(S). DEVELOPER SHALL EXECUTE AND DELIVER A DEEDS FOR THE EASEMENTS HEREIN RESERVED TO HOWARD COUNTY, WITH A METES AND BOUNDS DESCRIPTION OF THE FOREST CONSERVATION AREA. UPON COMPLETION OF THE PUBLIC UTILITIES AND THEIR ACCEPTANCE BY HOWARD COUNTY, AND, IN CASE OF A FOREST EASEMENT(S) UPON COMPLETION OF DEVELOPER'S OBLIGATION UNDER THE FOREST CONSERVATION INSTALLATION AND DEVELOPER'S SURETY POSTED WITH SAID AGREEMENT, THE COUNTY SHALL ACCEPT THE EASEMENTS AND RECORD THE DEED(S) OF EASEMENT IN THE LAND RECORDS OF HOWARD COUNTY.
34. FOR FLAG OR PIPE STEM LOTS, REFUSE COLLECTION, SNOW REMOVAL AND ROAD MAINTENANCE ARE PROVIDED TO THE JUNCTION OF THE FLAG OR PIPE STEM AND THE ROAD RIGHT-OF-WAY LINE ONLY AND NOT ONTO THE FLAG OR PIPE STEM LOT DRIVEWAY.
35. LANDSCAPING FOR LOT(S) 6 TO 16 ANY PRESERVATION PARCELS A-E IS PROVIDED IN ACCORDANCE WITH A CERTIFIED LANDSCAPE PLAN WHICH IS INCLUDED WITH THE ROAD CONSTRUCTION PLAN SET IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
36. ALL FILL AREAS SHALL HAVE 95% COMPACTION PER AASHTO T-180 SPECIFICATIONS.
37. ACCORDING TO THE SHARED SEPTIC SYSTEM DESIGN REQUIREMENTS, LOTS 9, 10, 11, 12, 13, AND 14 ARE RESTRICTED TO A MAXIMUM OF (4) FOUR BEDROOMS PER LOT.



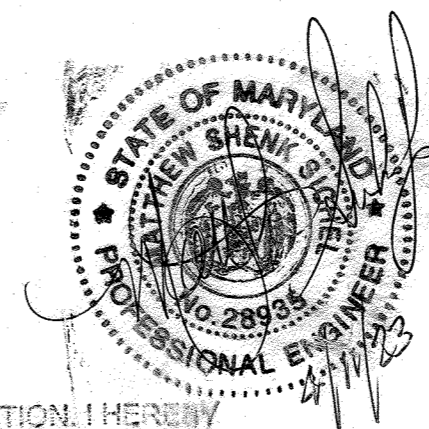
VICINITY MAP
SCALE: 1"=1000'

**FINAL ROAD CONSTRUCTION, GRADING, AND
STORMWATER MANAGEMENT PLANS**
OWINGS PROPERTY
LOTS 6 THRU 16 AND PRESERVATION PARCELS A-E
A RESUBDIVISION OF LOT 3
TAX MAP # 40
5th ELECTION DISTRICT HOWARD COUNTY, MARYLAND.

SHEET INDEX	
SHEET NO.	DESCRIPTION
1	FINAL PLAN - COVER SHEET
2	GREEN HOLLOW WAY & ROCKWOOD LANE - PLAN & PROFILE
3	GREEN HOLLOW WAY - PLAN & PROFILE
4	FILLET ROAD PROFILES
5	HIGHLAND ROAD PLAN
6	HIGHLAND ROAD SHOULDER IMPROVEMENTS - CROSS SECTIONS
7	HIGHLAND ROAD TRAFFIC CONTROL PLAN
8	STORM DRAIN PROFILES
9	STORM DRAIN PROFILES
10	STORM DRAIN STRUCTURE AND PIPE SCHEDULE
11	STORM DRAIN STUDY
12	STORM WATER MANAGEMENT POND #1 - PLAN & DETAILS
13	STORM WATER MANAGEMENT POND #1 - NOTES & DETAILS
14	STORM WATER MANAGEMENT POND #1 - SPECS & DETAILS
15	SWM - DRAINAGE AREA MAP (EXISTING)
16	SWM - DRAINAGE AREA MAP (PROPOSED)
17	GRADING PLAN
18	GRADING PLAN
19-20	SEDIMENT CONTROL - PHASE 1
21-22	SEDIMENT CONTROL - PHASE 2
23	GRADING AND SEDIMENT CONTROL NOTES
24	SEDIMENT CONTROL DETAILS AND BORING LOGS
25	SEDIMENT CONTROL DETAILS
26	LANDSCAPE/FOREST CONSERVATION PLAN
27	LANDSCAPE NOTES & DETAILS
28	FOREST CONSERVATION NOTES & DETAILS
29	STREET LIGHT PLAN

TRAFFIC CONTROL SIGNS				
STREET NAME	CL. STATION	OFFSET	POSTED SIGN	SIGN CODE
GREEN HOLLOW WAY	0+85	LEFT	STOP	R1-1
GREEN HOLLOW WAY	3+52	LEFT	STOP AHEAD	W3-1a
GREEN HOLLOW WAY	1+58	RIGHT	SPEED LIMIT 25MPH	R2-1
GREEN HOLLOW WAY	-	INTERSECTION	STREET NAME SIGN	-

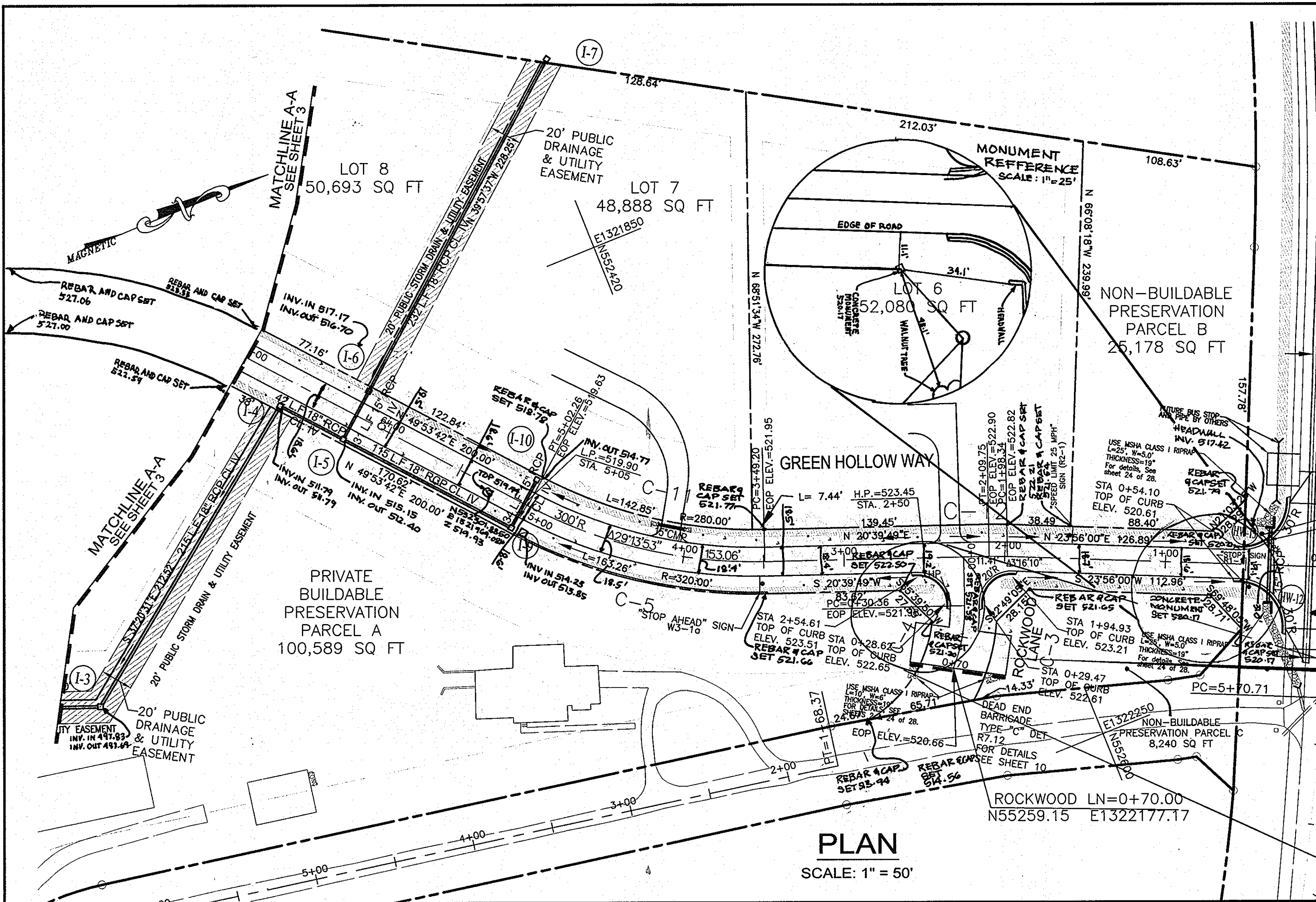
ROAD CLASSIFICATION		
STREET NAME	CLASSIFICATION	R/W
GREEN HOLLOW WAY	PUBLIC-200 ADT ACCESS PLACE	40 FEET
ROCKWOOD LANE	PUBLIC-200 ADT ACCESS PLACE	40 FEET
HIGHLAND ROAD	MAJOR COLLECTOR	100 FEET



PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 22025 EXPIRATION DATE: 1/5/05

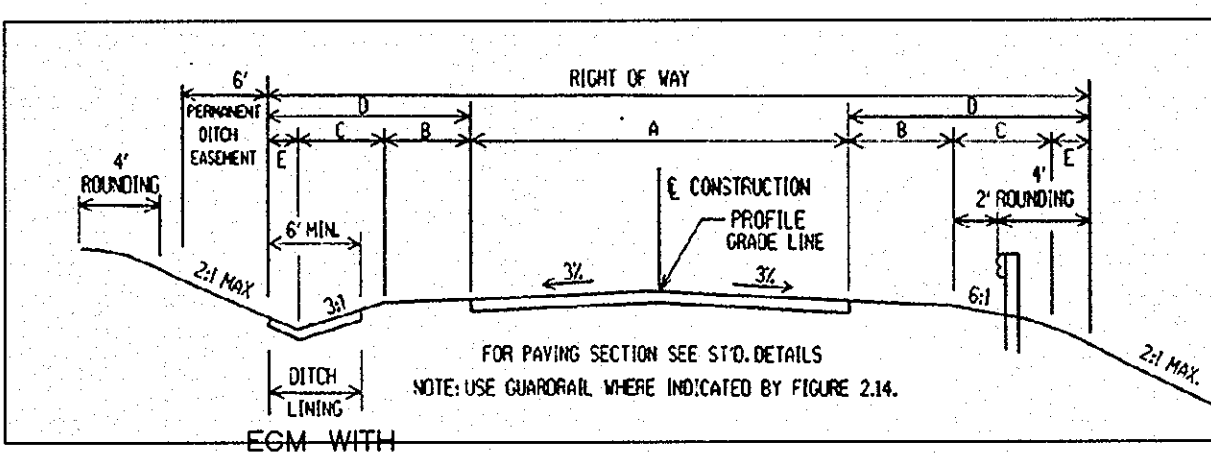
THIS SEAL FOR A ONLY

APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. White</i> CHIEF, BUREAU OF HIGHWAYS	3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Cindy Kessler</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/1/04 DATE
<i>Dale Thompson</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/29/04 DATE
NO. 3/1/04	REVISED SHEETS 3, 11, 14, 17 AND 24, FOR REVISIONS TO LOT 9
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E	
PROJECT NAME: OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND	
TITLE: COVER SHEET S-01-18 P-02-018 F-03-133	OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY: Dewberry & Davis LLC 203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 948-9300 FAX: (301) 258-7907	DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
DES.: IEV	JOB: XXX
DRW.: SGB	PROJ.: 02745
CHK.: MM	DATE: DEC. 2003
SCALE: AS SHOWN	SHEET 1 OF 29

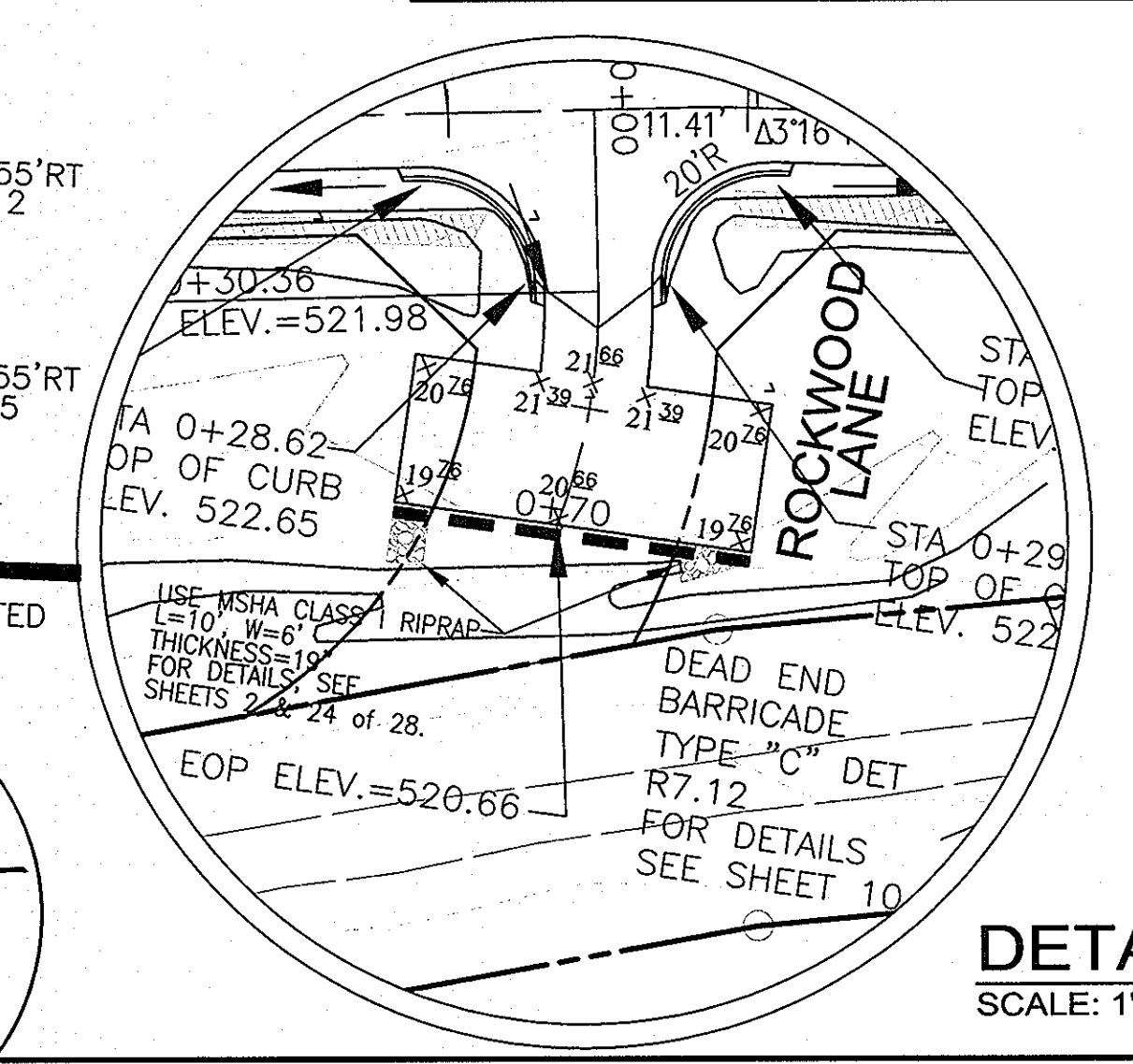


Curve	Radius	Length	Delta	Chord	Chord Bearing
C-3	120.00'	51.84'	24°45'00"	51.43'	S 52°08'09" E
C-4	80.00'	75.25'	53°53'34"	72.50'	N 35°50'50" W
C-5	320.00'	163.26'	29°13'53"	161.50'	S 35°16'46" W
C-11	280.00'	142.85'	29°13'53"	141.31'	N 35°16'46" E
C-12	220.00'	125.55'	3°16'10"	125.55'	S 22°17'55" W

**TYPICAL PAVEMENT SECTION
GREEN HOLLOW WAY & ROCKWOOD LANE***



CLASSIFICATION	A	B	C	D	E	R/W
PUBLIC-200 ADT ACCESS PLACE	18'	4'	4'	11'	3'	40'



STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER SACCHARUM	GREEN MOUNTAIN MAPLE	40	2 1/2"-3" Cal.

DRAWING NO.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
2	GREEN HOLLOW WAY	0+37	22' R	250-WATT HPS VAPOR PENDANT FIXTURE (SAG) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM

NOTE: STREET SIGN TO BE MOUNTED ON STREET LIGHT POLE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Madala
 CHIEF, BUREAU OF HIGHWAYS 3-25-04 DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Chris Hamstra 4/1/04 DATE
Chris Hamstra 3/29/04 DATE
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO. DATE REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-16 AND PARCELS A-E

PROJECT NAME: **OWINGS PROPERTY**
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44 HOWARD COUNTY, MARYLAND

TITLE: **ROAD PROFILE**
 S-01-18 P-02-018 F-03-133

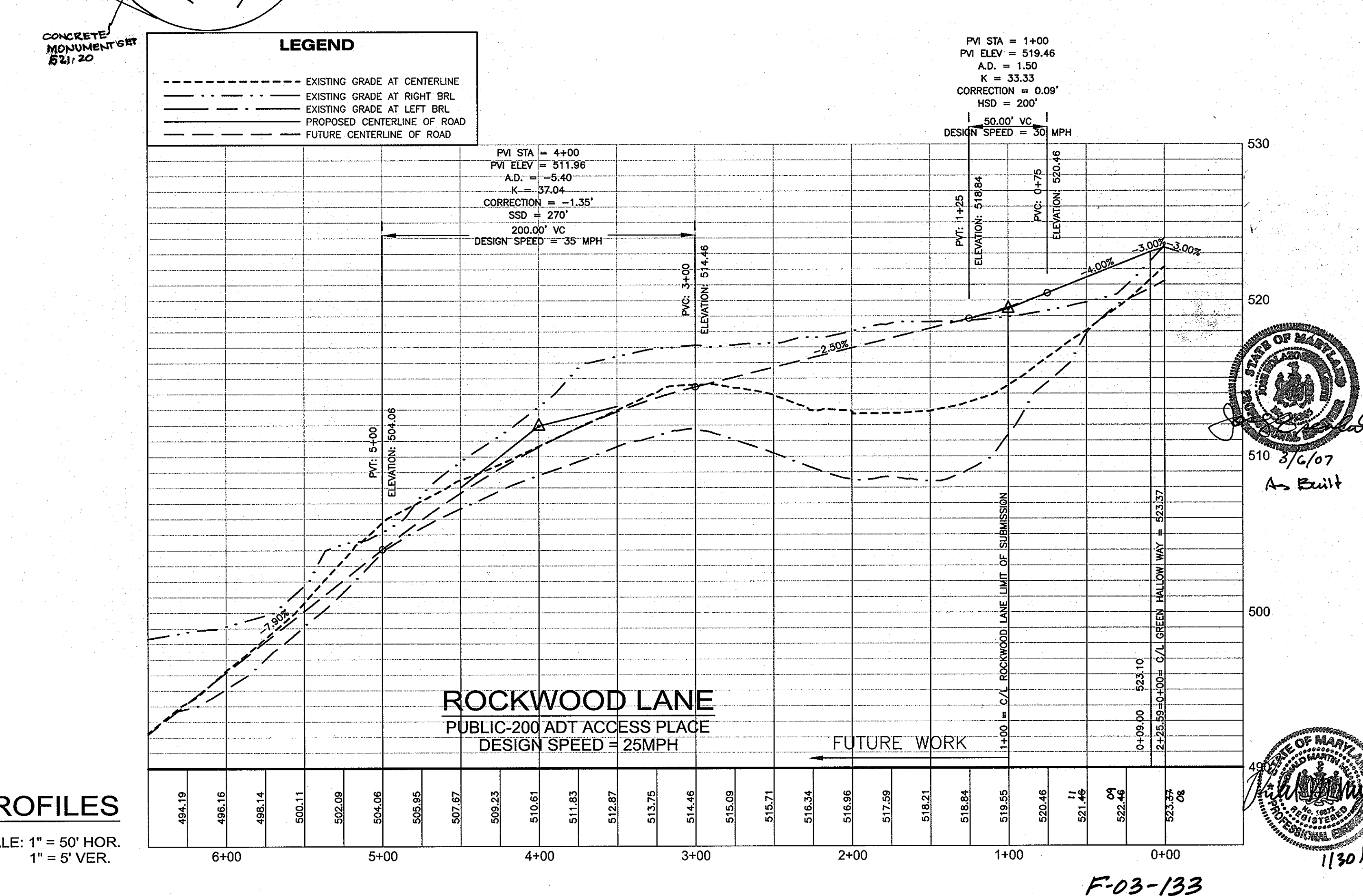
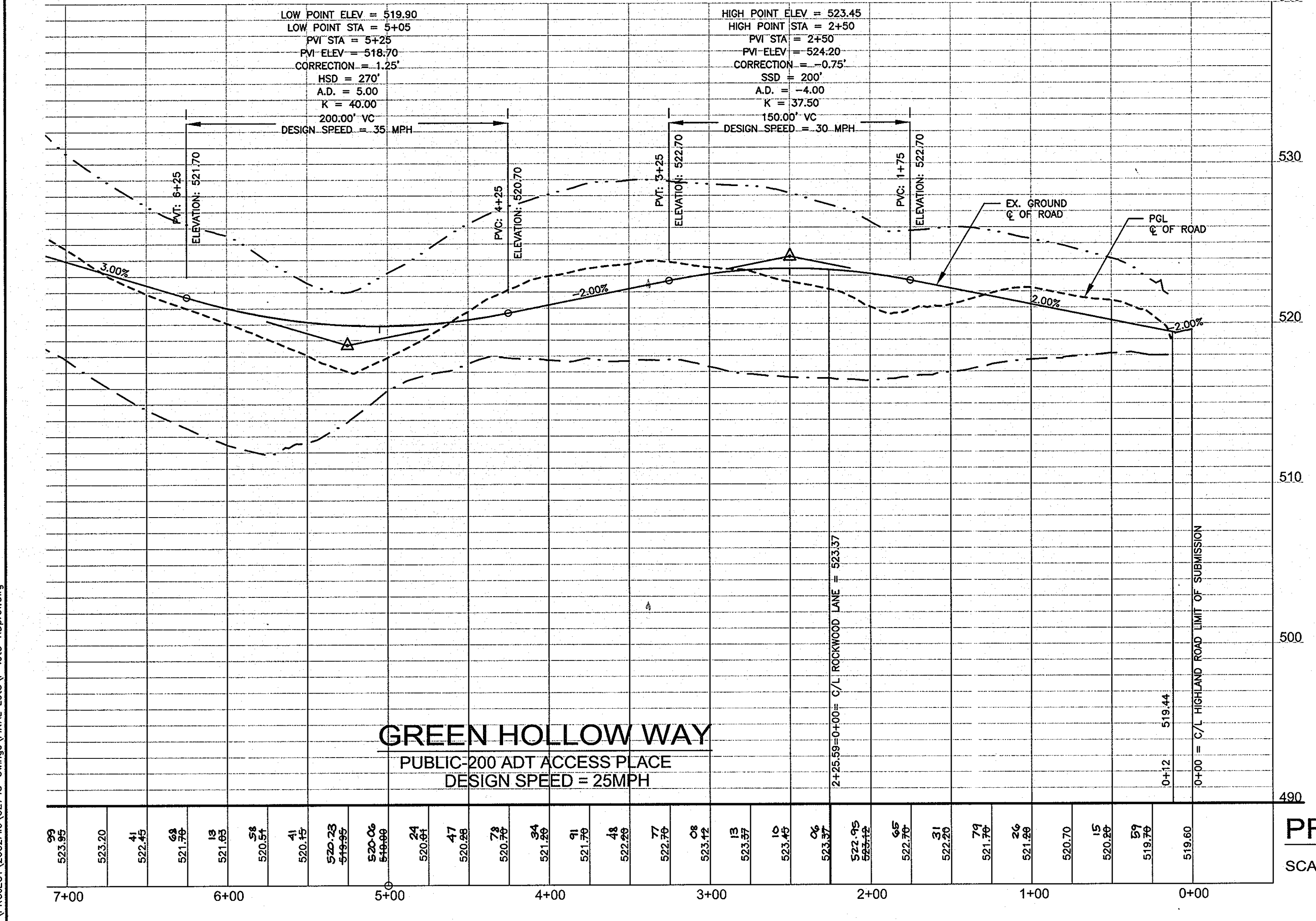
OWNERS: MR. & MRS. HARWOOD OWINGS
 13009 HIGHLAND ROAD
 HIGHLAND, MARYLAND 20777

DEVELOPER: DALE THOMPSON BUILDERS
 6300 WOODSIDE COURT
 COLUMBIA, MARYLAND 21046
 (410) 935-8738
 (410) 381-8747

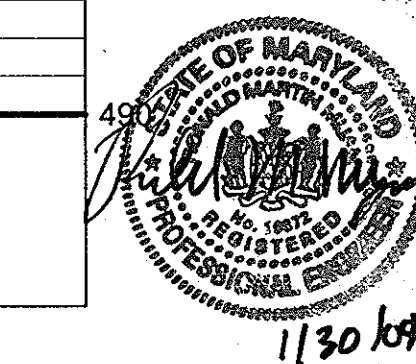
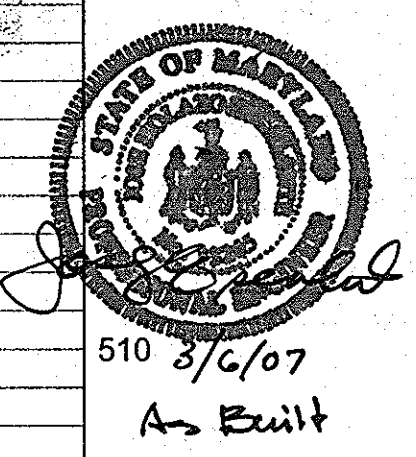
PREPARED BY: **Dewberry & Davis LLC**
 203 PERRY PARKWAY
 GAITHERSBURG, MD 20877
 TEL: (301) 948-8300
 FAX: (301) 298-7807

DES.: IEV JOB: XXX
 DRW.: SGB PROJ.: OZ745
 CHK.: MM DATE: DEC. 2003

SCALE: AS SHOWN SHEET 2 OF 29

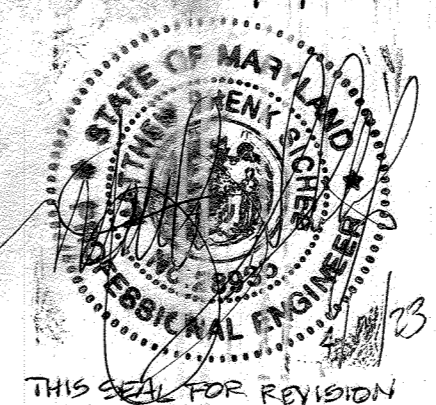


PROFILES
 SCALE: 1" = 50' HOR.
 1" = 5' VER.



F-03-133

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THE SE 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. 10935 EXPIRATION DATE: 1/15/2025



REVISION NO. 10 IS BY DALE THOMPSON BUILDERS, INC. THE ENGINEER'S SEAL AND SIGNATURE ARE HEREWITH AFFIXED.

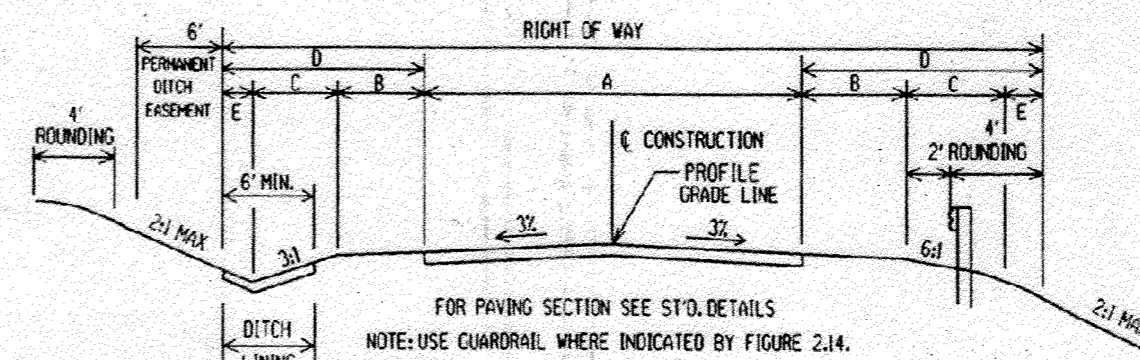
STREET TREES PLANT SCHEDULE				
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE
	ACER SACCHARUM	GREEN MOUNTAIN MAPLE	33	2 1/2"-3" Cal.

APPROVED: DEPARTMENT OF PUBLIC WORKS
William R. Malcom Jr.
 CHIEF, BUREAU OF HIGHWAYS 3-25-04 DATE

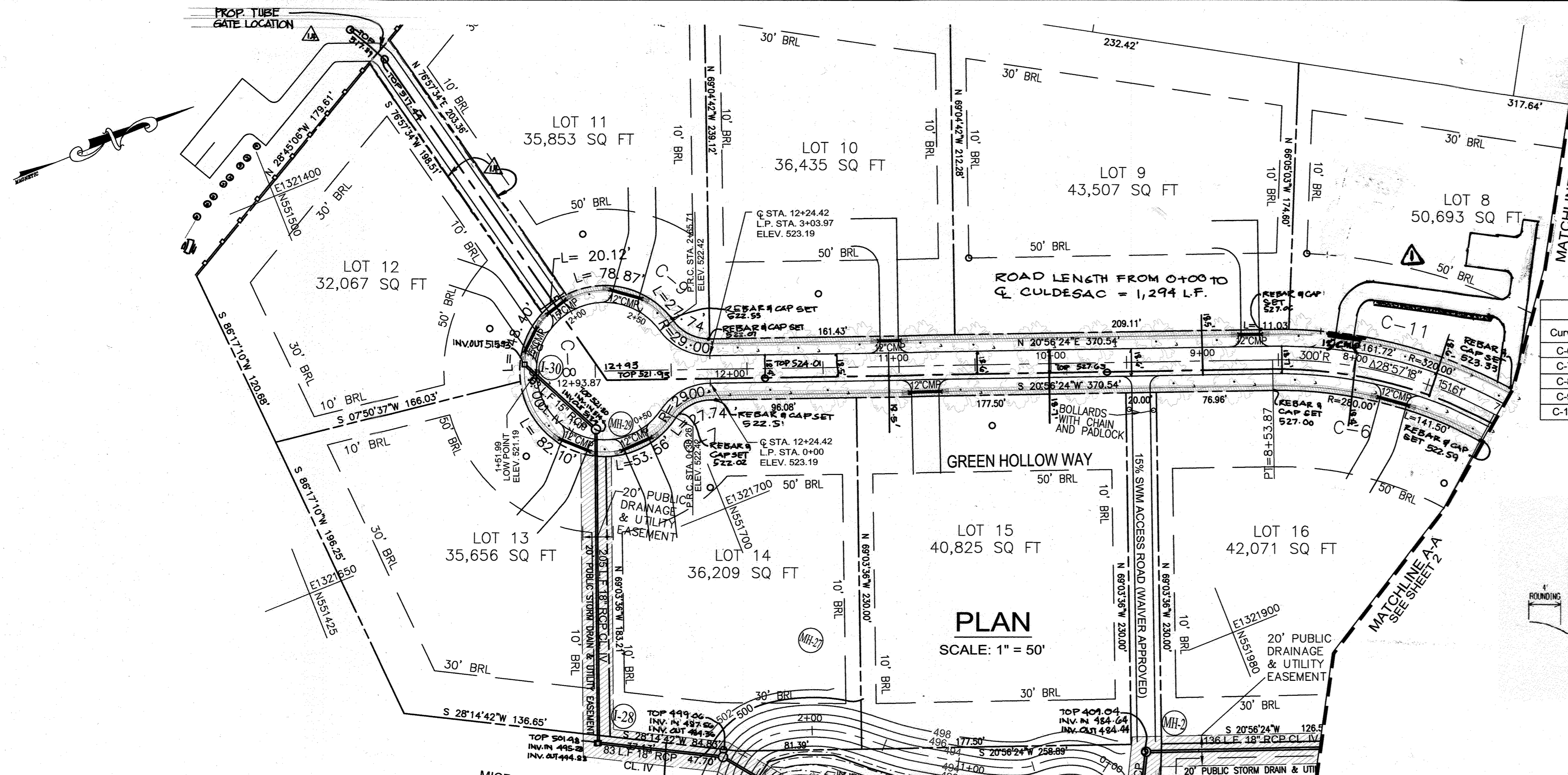
APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy Hamilton
 CHIEF, DIVISION OF LAND DEVELOPMENT 4/1/04 DATE
John Williams
 CHIEF, DEVELOPMENT ENGINEERING DIVISION 3/26/04 DATE

CURVE TABLE					
Curve	Radius	Length	Delta	Chord	Chord Bearing
C-6	280.00'	141.50'	28°57'18"	140.00'	S 35°25'03" W
C-7	29.00'	27.74'	54°47'50"	26.69'	S 06°27'31" E
C-8	56.00'	283.05'	289°35'41"	64.56'	N 69°03'36" W
C-9	29.00'	27.74'	54°47'50"	26.69'	N 48°20'20" E
C-11	280.00'	142.85'	29°13'53"	141.31'	N 35°16'46" E

TYPICAL PAVEMENT SECTION
 GREEN HOLLOW WAY & ROCKWOOD LANE*



CLASSIFICATION	A	B	C	D	E	R/W
PUBLIC-200 ADT ACCESS PLACE*	18"	4"	4"	11"	3"	40"



NO. 3/1/2025 LOT 8 MUTATION
 10-04-07 REMOVED EXISTING FENCING FROM STREET TO PROP. GATE LOCATION REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E
PROJECT NAME
OWINGS PROPERTY
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44
 HOWARD COUNTY, MARYLAND

TITLE
ROAD PROFILE
 S-01-18 P-02-018 F-03-133

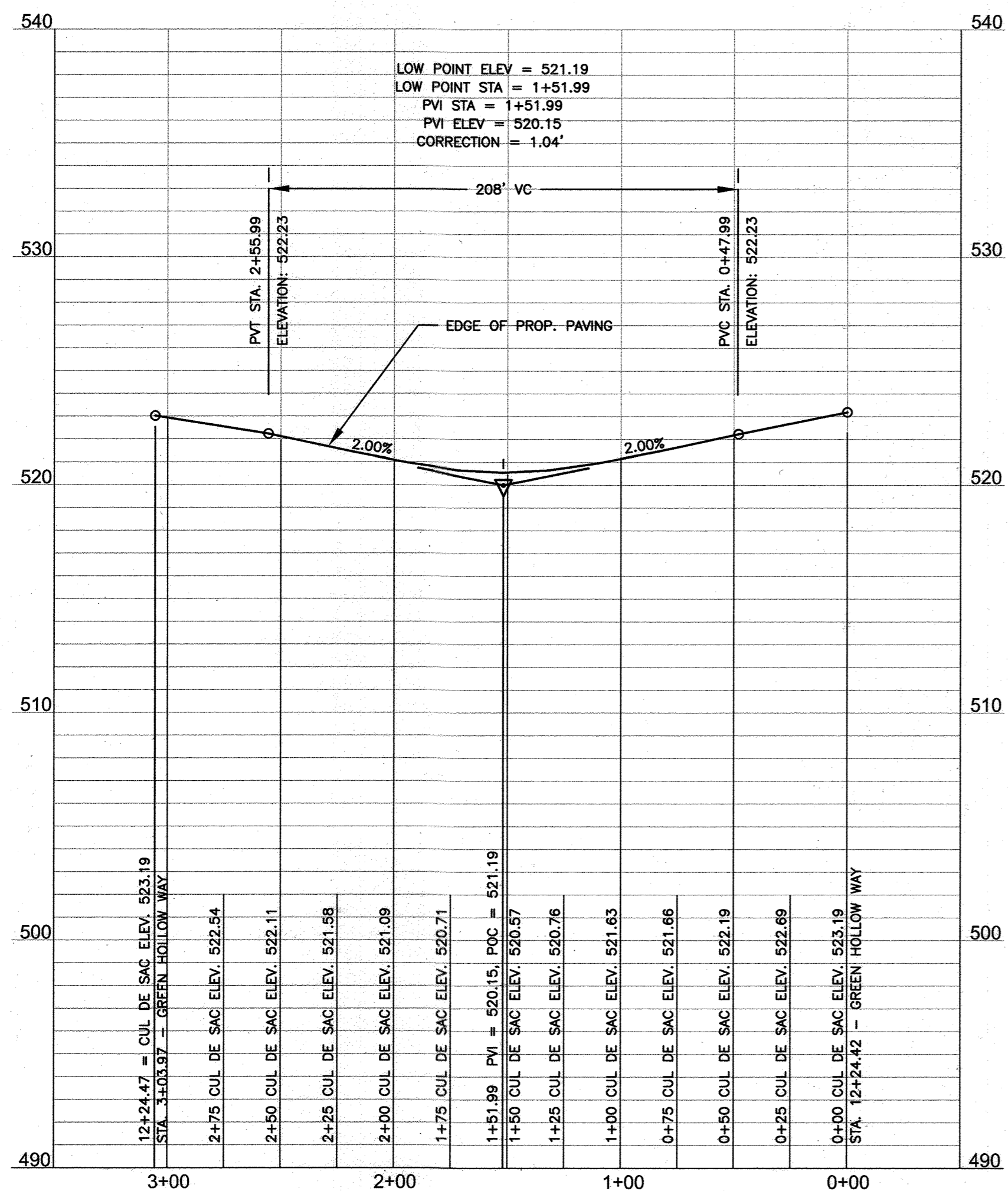
PREPARED BY:
Dewberry & Davis LLC
 203 PERRY PARKWAY
 GAITHERSBURG, MD 20877
 TEL: (301) 948-8300
 FAX: (301) 258-7607

OWNERS: MR. & MRS. HARWOOD OWINGS
 13009 HIGHLAND ROAD
 HIGHLAND, MARYLAND 20777
 DEVELOPER: DALE THOMPSON BUILDERS
 6300 WOODSIDE COURT
 COLUMBIA, MARYLAND 21046
 (410) 995-6736
 (410) 381-8747

DES.: IEV JOB: XXX
 DRW.: SGB PROJ.: 02745
 CHK.: MM DATE: DEC. 2003

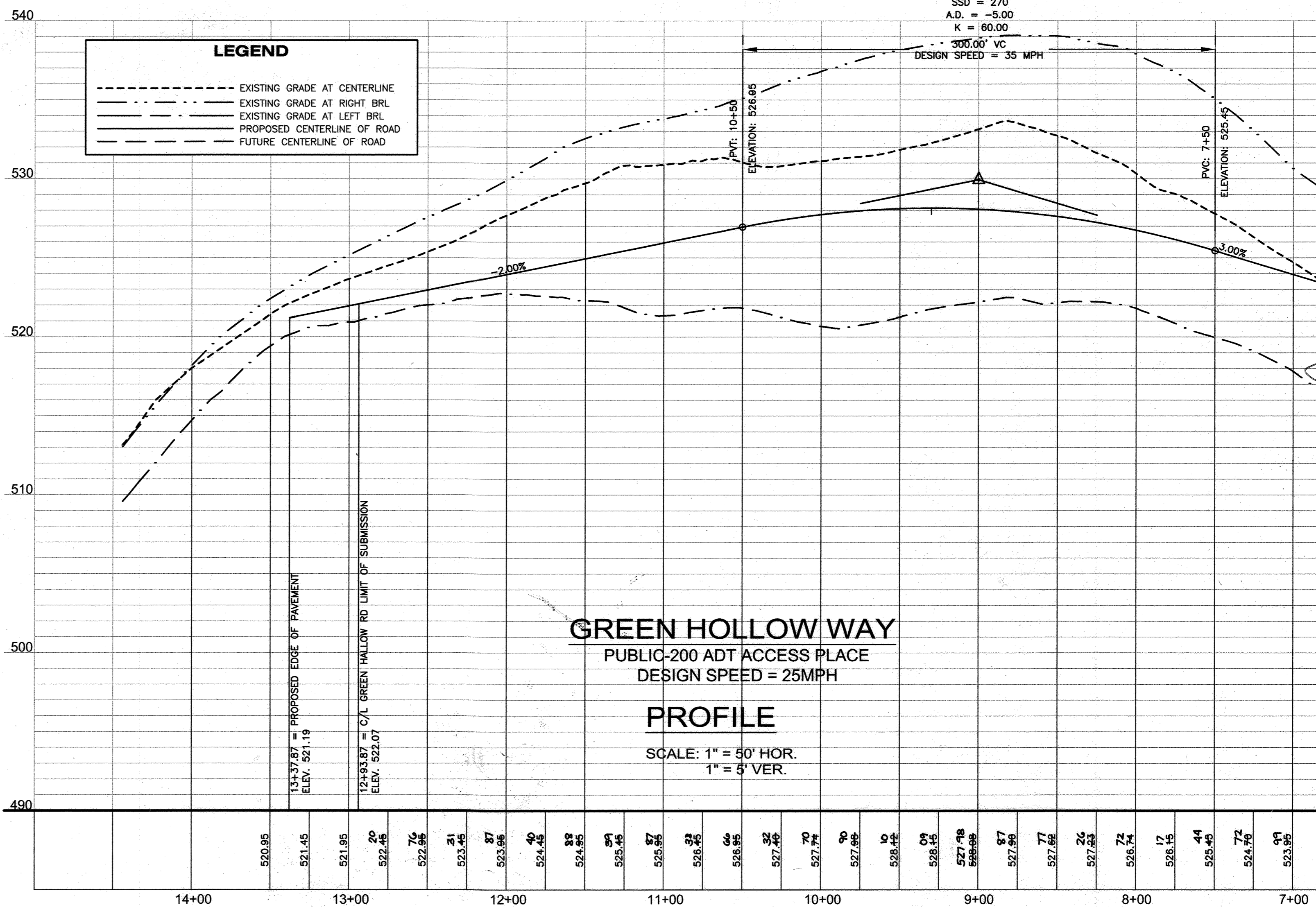
SCALE: AS SHOWN SHEET 3 OF 29

FOR CONTINUATION SEE SHEET 16



LINEAR PROFILE EDGE OF PAVEMENT

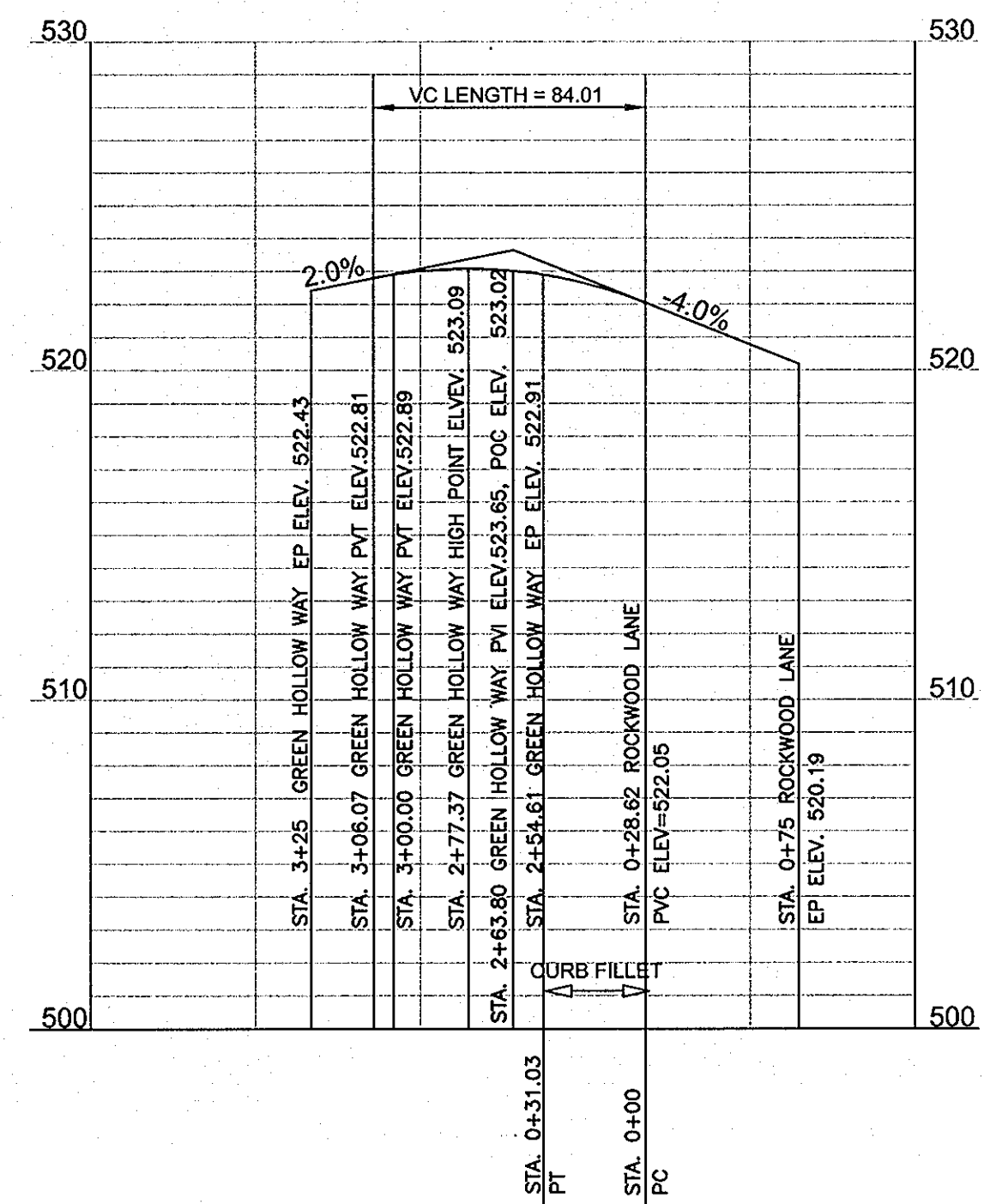
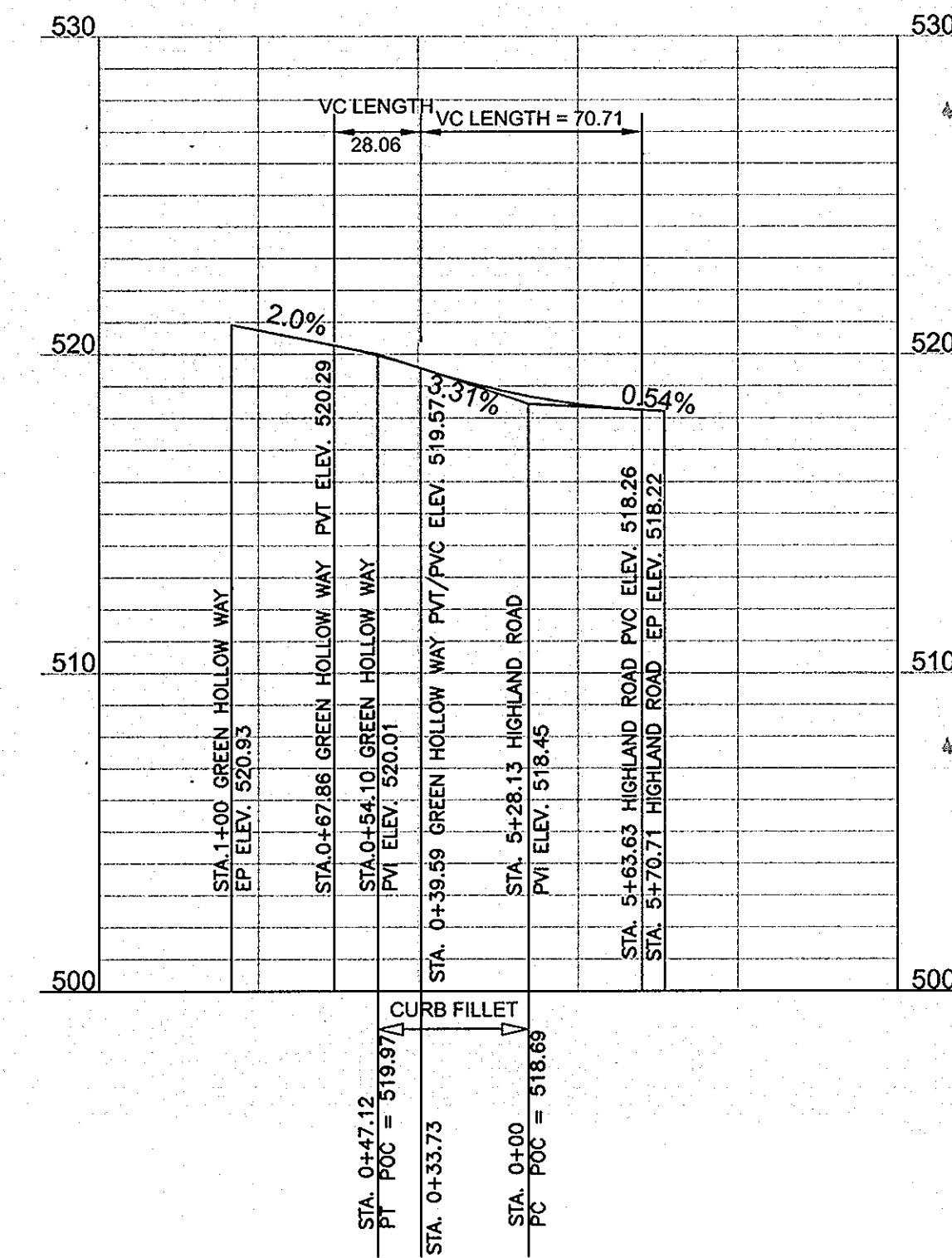
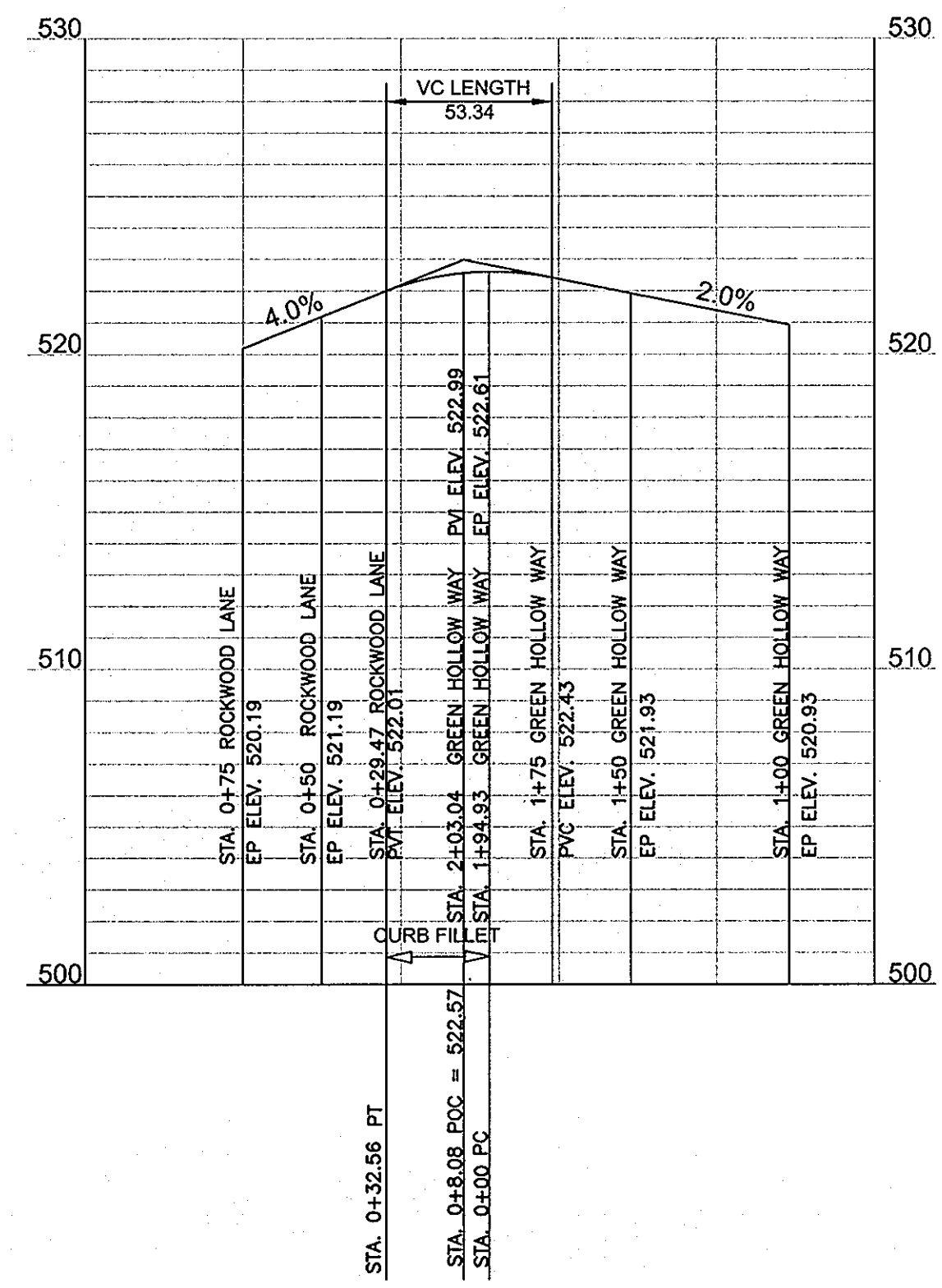
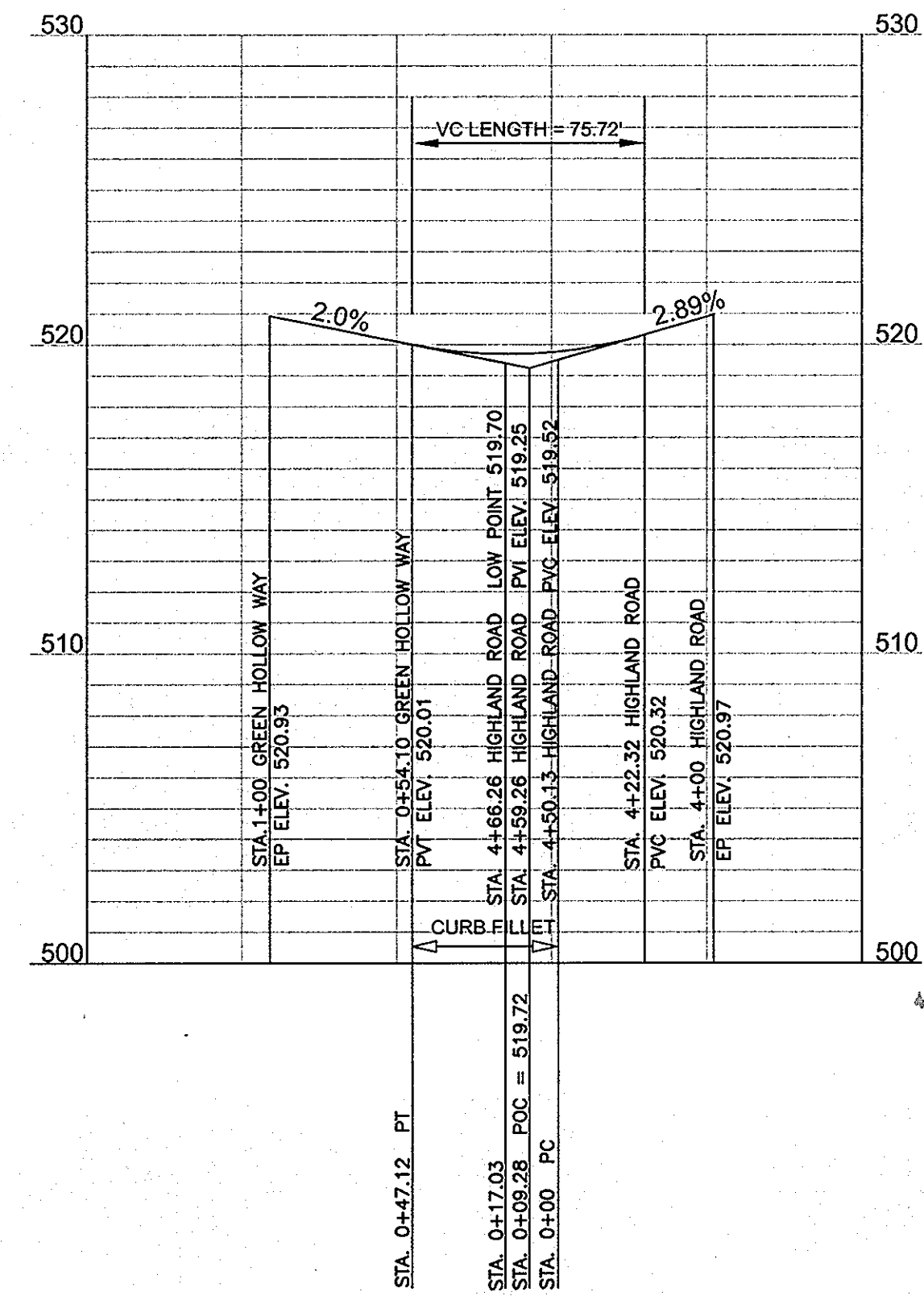
SCALE: 1" = 50' HOR.
 1" = 5' VER.



Jose E. Encalada
 3/6/07
 In Built



F03-133



**EDGE OF PAVEMENT FILLET PROFILES
GREEN HOLLOW WAY AND HIGHLAND RD**

SCALE: 1" = 50' HOR.
1" = 5' VER.

**EDGE OF PAVEMENT FILLET PROFILES
GREEN HOLLOW WAY AND ROCKWOOD LN**

SCALE: 1" = 50' HOR.
1" = 5' VER.



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. ...</i> CHIEF, BUREAU OF HIGHWAYS		3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>... ..</i> CHIEF, DIVISION OF LAND DEVELOPMENT		4/1/04 DATE
APPROVED: <i>... ..</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION		2/29/04 DATE
NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME: OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE: FILLET ROAD PROFILE		OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
S-01-18 P-02-018 F-03-133		DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
PREPARED BY: Dewberry & Davis LLC A Dewberry Company	203 PERRY PARKWAY GATHERSBURG, MD 20877 TEL: (301) 548-5300 FAX: (301) 258-7607	
DES.: IEV	JOB: XXX	
DRW.: SGB	PROJ.: OZ745	SCALE: AS SHOWN
CHK.: MM	DATE: DEC. 2003	SHEET 4 OF 29

P:\PROJECT\2002\Fillets\Oz745-Owings\FINAL Lot3\F-1a3-10p.dwg

P.370 RESIDENTIAL
RRDEO
FOUNTAIN C. J &
G. V WF

P 117 AGRICULTURAL
RRDEO
MCDANIEL JOHN P &
ELLEN G

HIGHLAND RD R/W VARIES
50' C/L TO P/L
ALONG PROPERTY
MAJOR COLLECTOR

P 117. MAP 34
DEED REF. 1174/ 541
AGRICULTURAL - RRDEO
MCDANIEL JOHN P
& ELLEN G

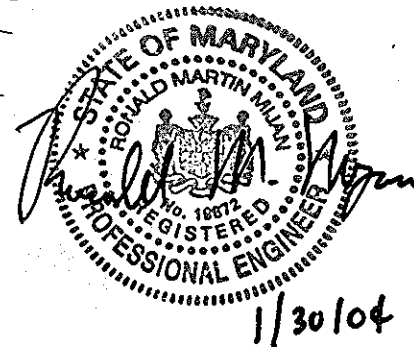
P 117. MAP 34
DEED REF. 1174/ 541
AGRICULTURAL - RRDEO
MCDANIEL JOHN P
& ELLEN G

P.401. LOT 1 AGRICULTURAL
RRDEO
MCDANIEL JOHN P & ELLEN G

HIGHLAND RD R/W VARIES
50' C/L TO P/L
ALONG PROPERTY

P.401. LOT 2
AGRICULTURAL
RRDEO
MCDANIEL JOHN
P & ELLEN G

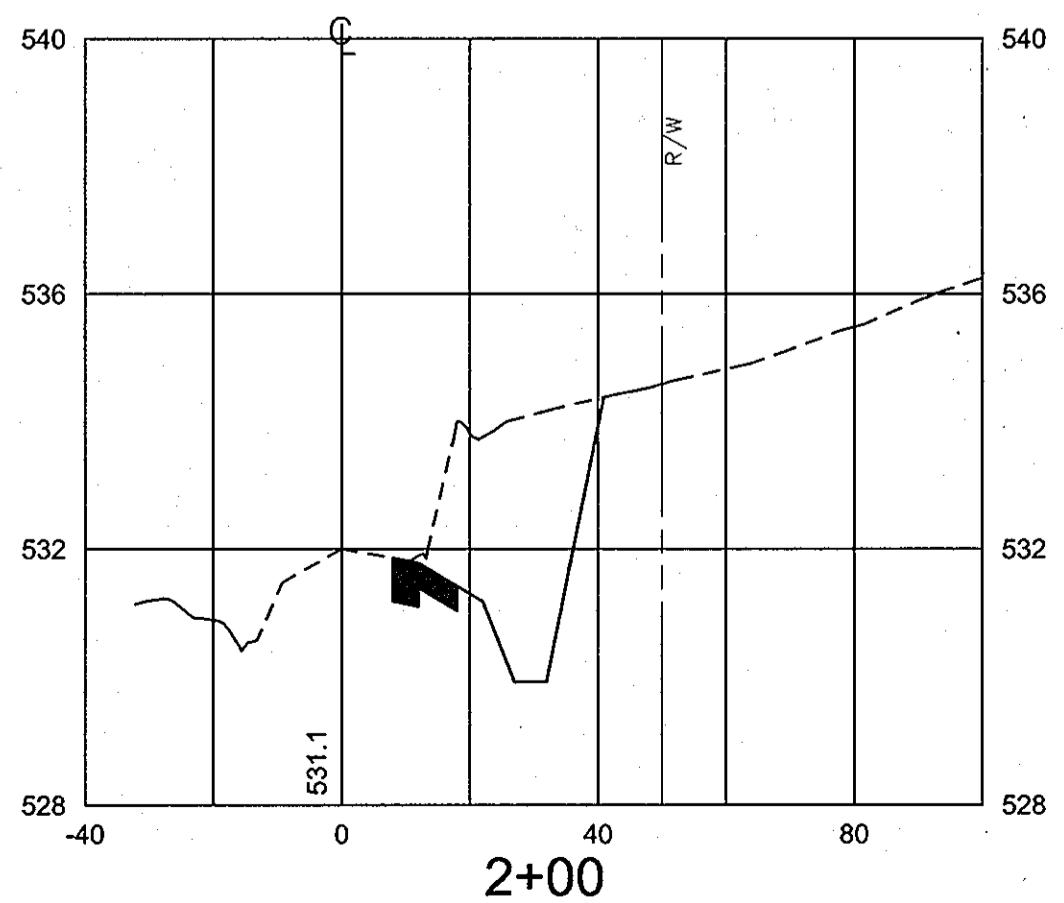
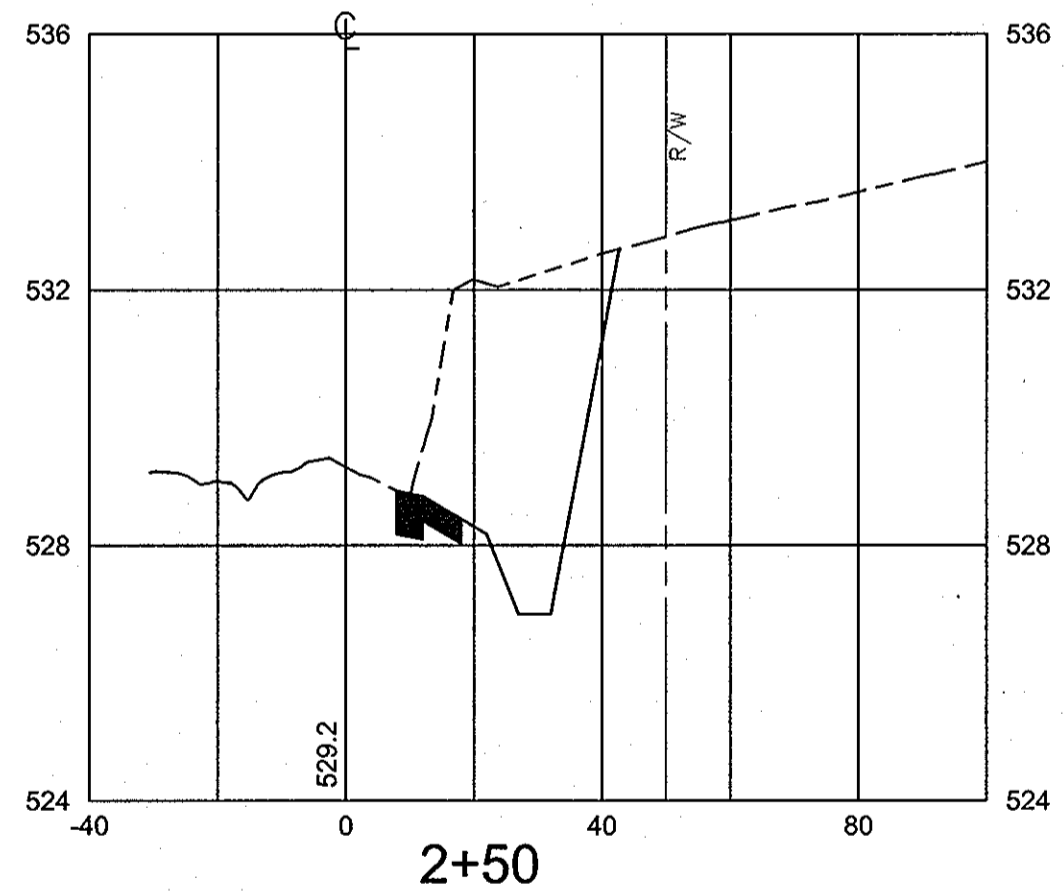
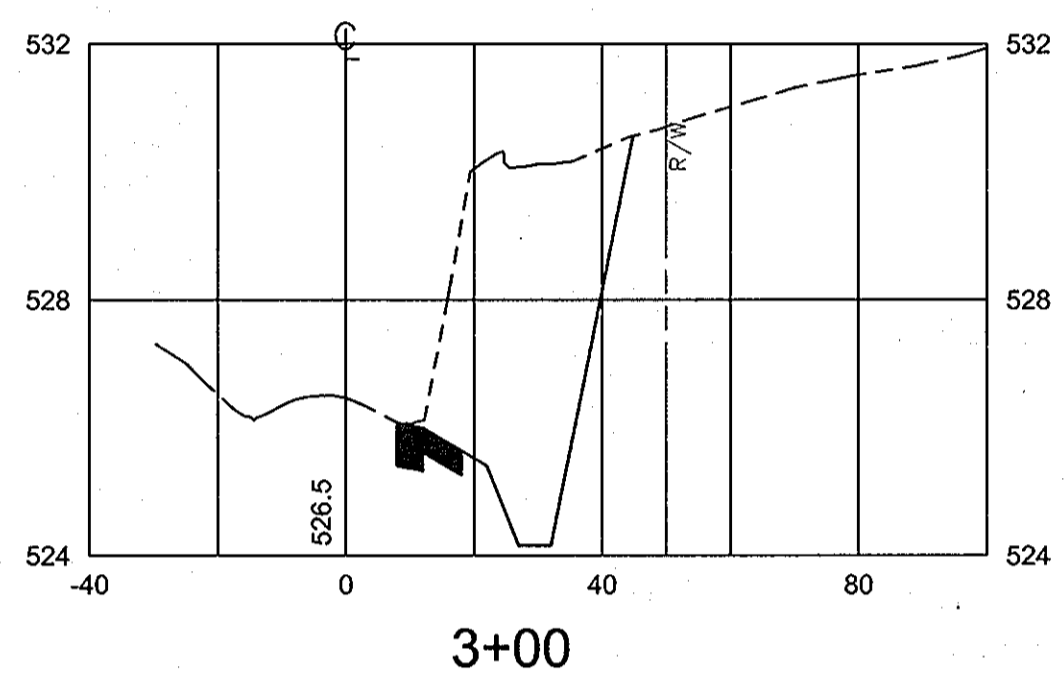
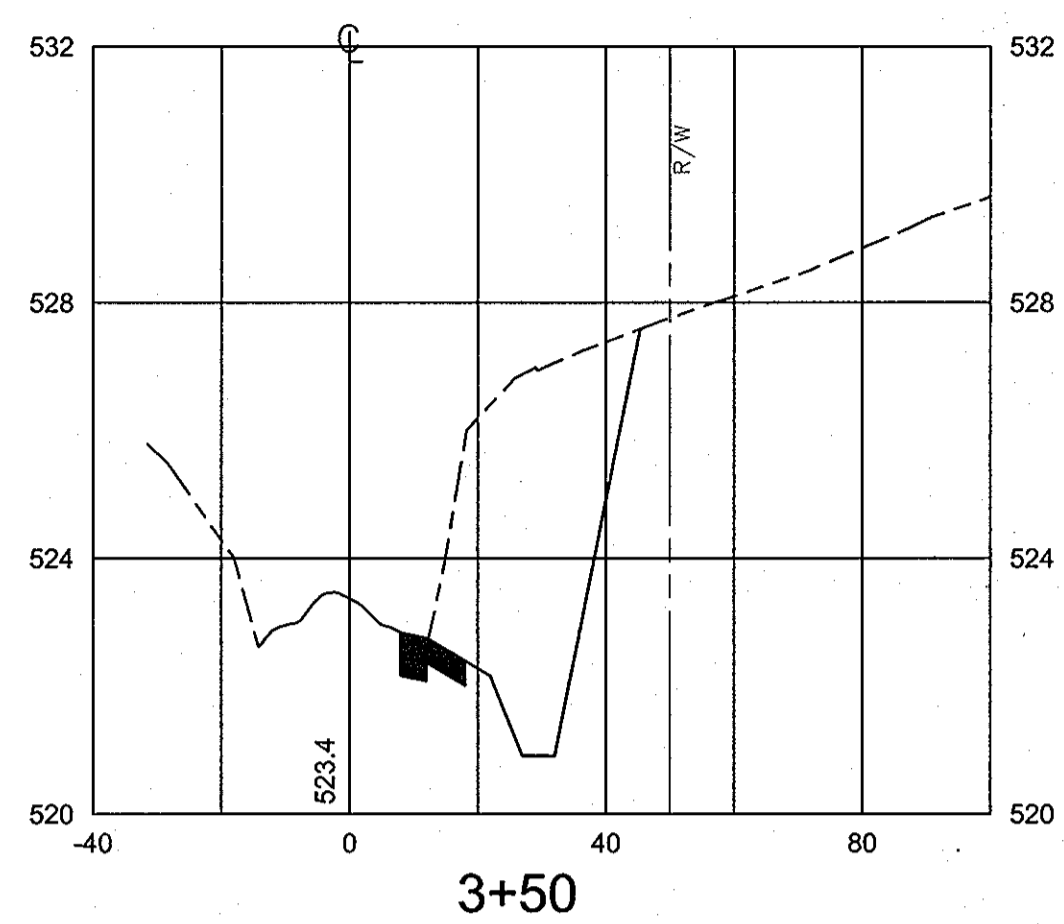
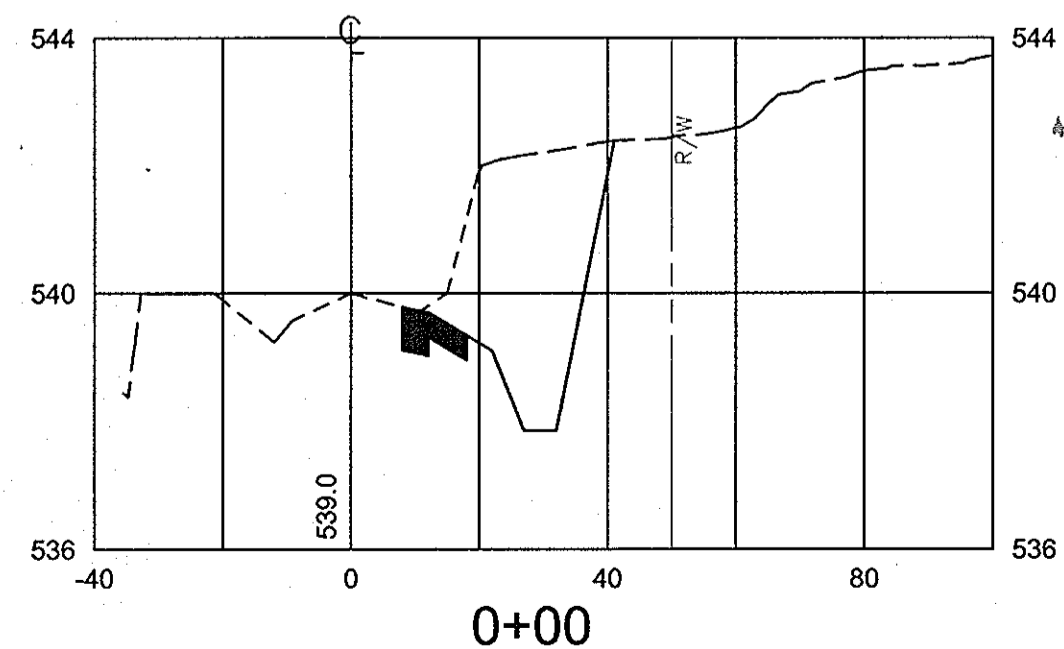
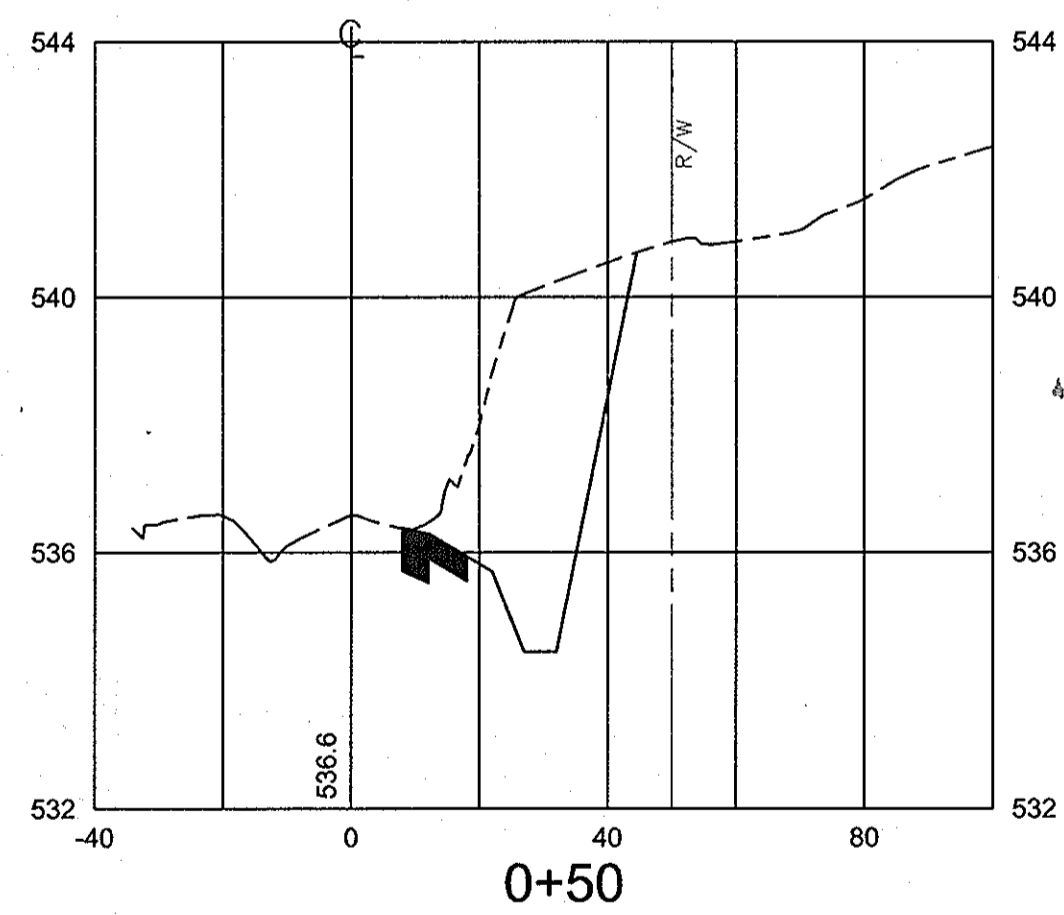
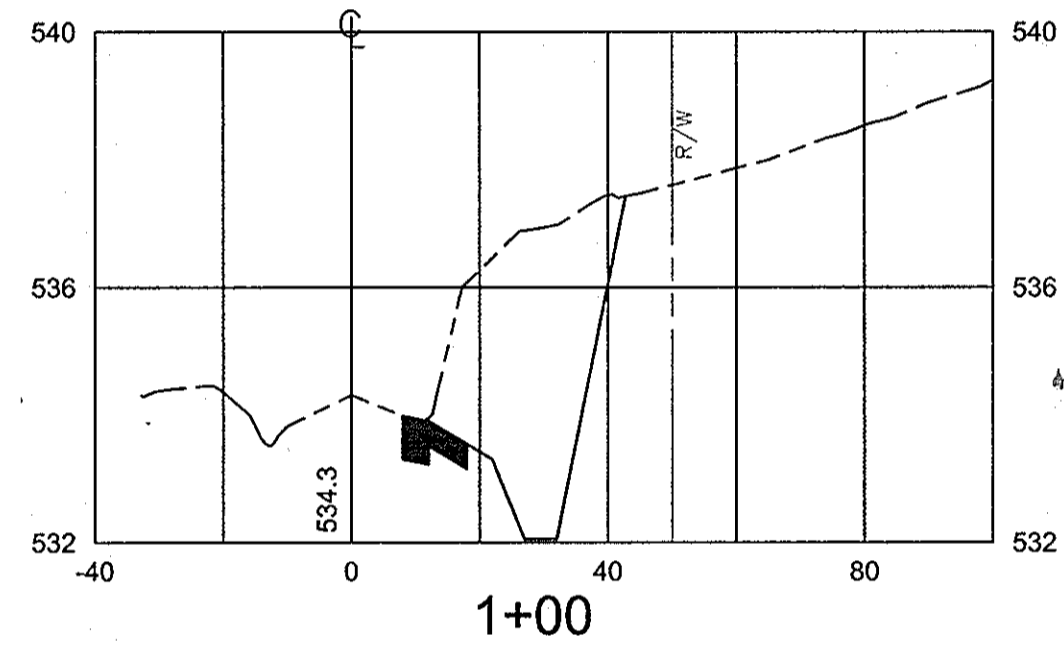
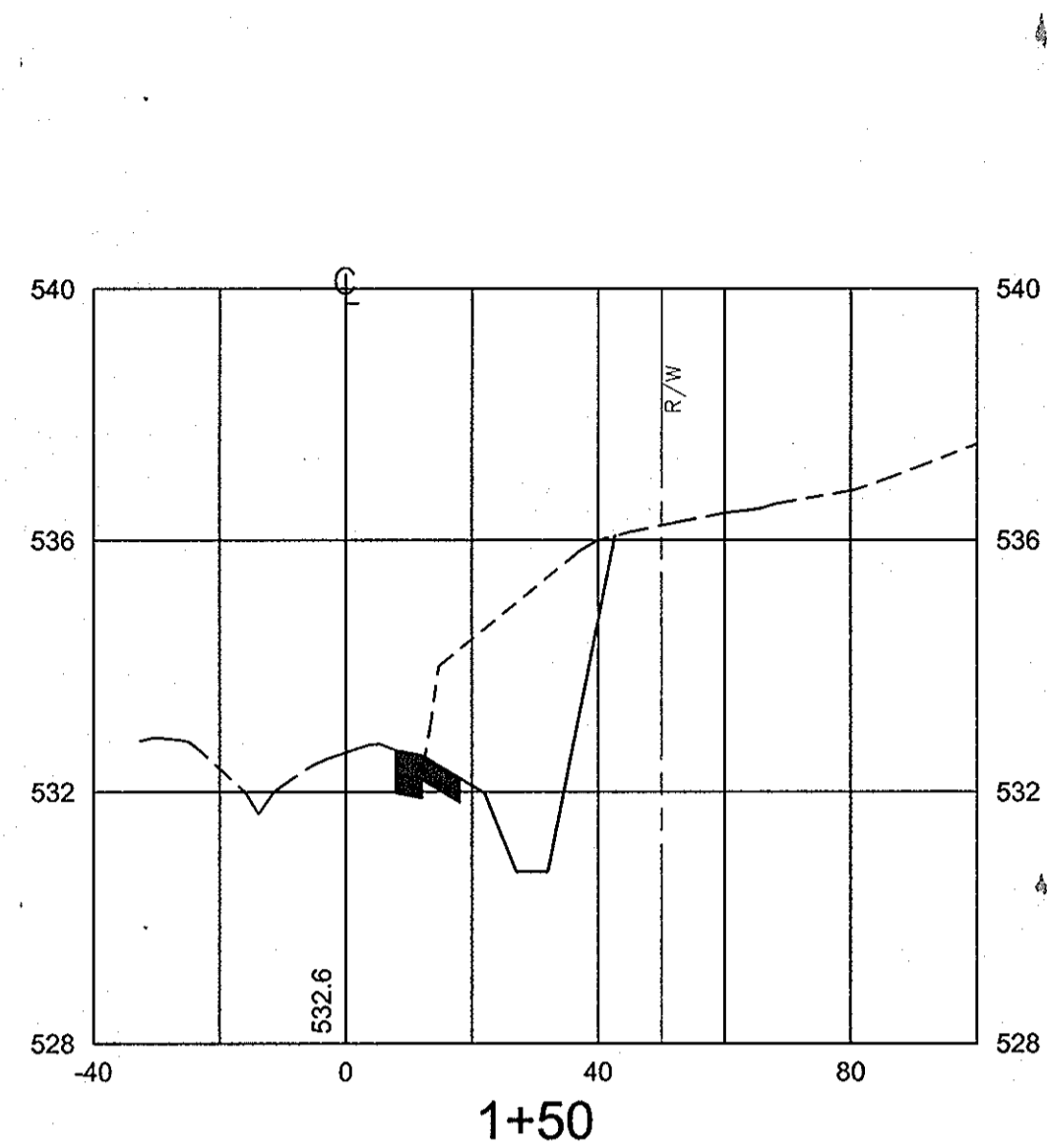
P.78 P.78. LOT A
AGRICULTURAL
RRDEO
SANBORN JAMES M
& EMILIE S



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. Mahan Jr.</i> CHIEF, BUREAU OF HIGHWAYS DATE: 3-25-04		
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Arvid Stenlund</i> CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 4/1/04		
APPROVED: DEPARTMENT OF PUBLIC WORKS <i>John J. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 3/21/04		
NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-16 AND PARCELS A-E		
PROJECT NAME OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE HIGHLAND ROAD PLAN S-01-18 P-02-018 F-03-133	OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
PREPARED BY : Dewberry & Davis LLC A Heery Company	203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 948-8300 FAX: (301) 258-7907	
DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-3747		
DES. : IEV	JOB : XXX	SCALE :
DRW. : SGB	PROJ. : 02745	1" = 40'
CHK. : MM	DATE : DEC. 2003	SHEET 5 OF 29

P:\PROJECT\2002\FIN\02745-Owings\FINAL_Lot3\F-103-Highland RD_Plan.dwg

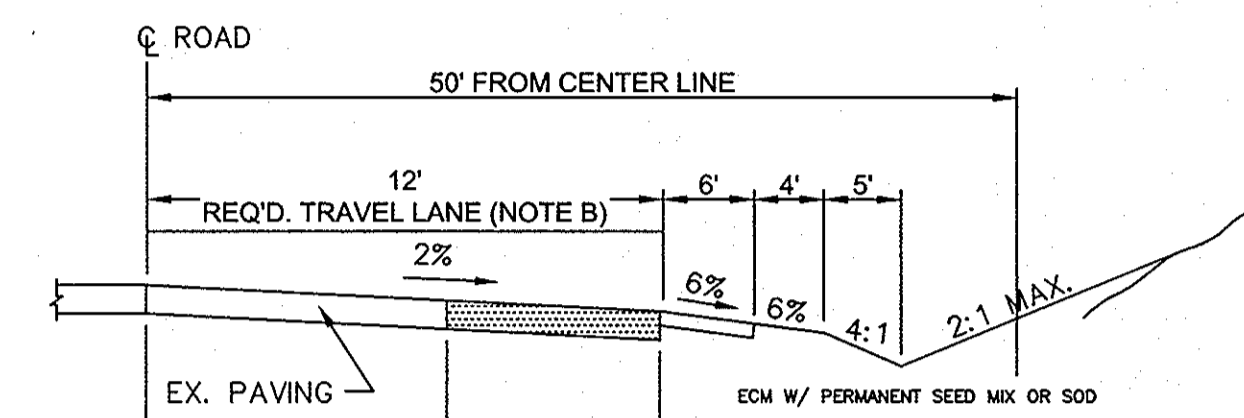
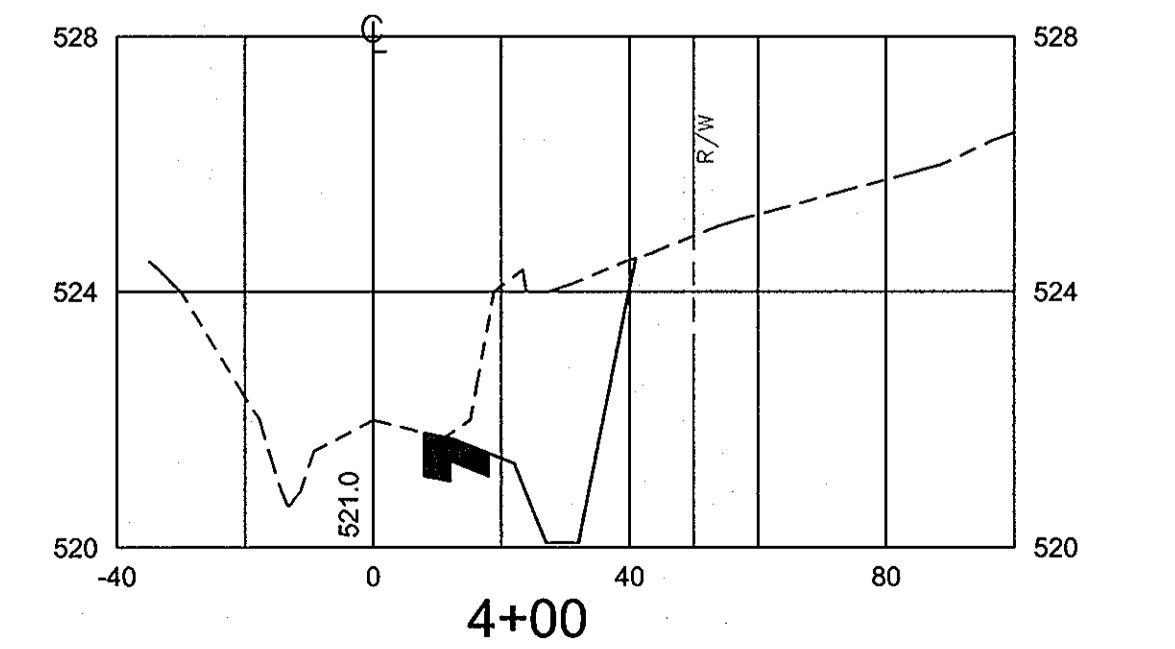
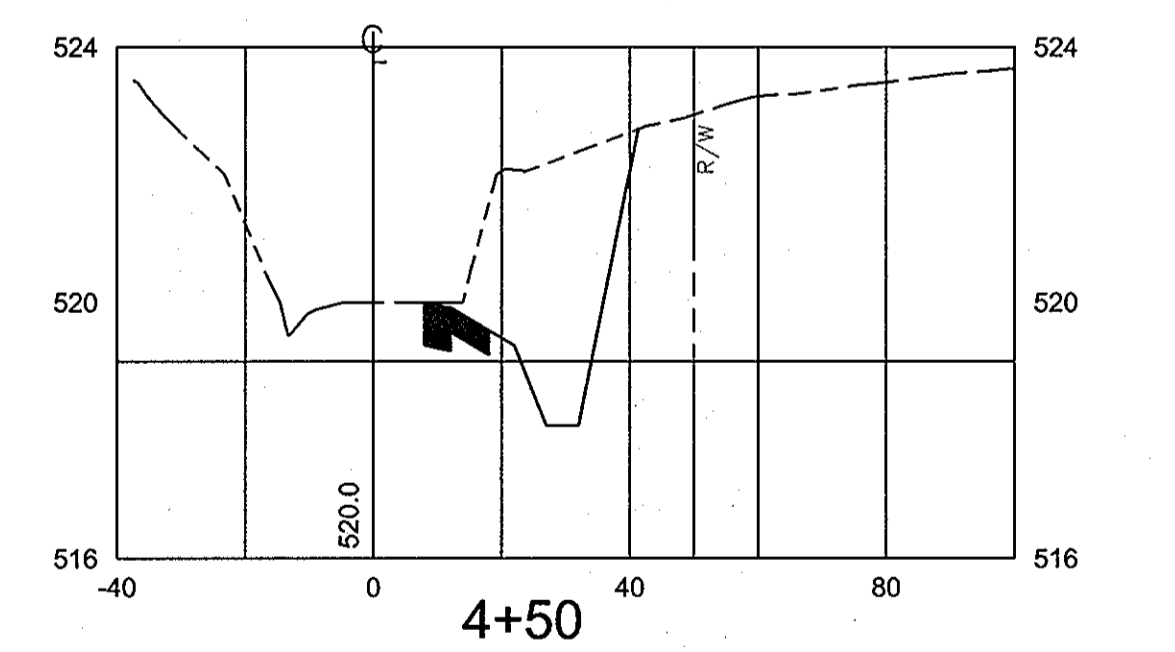
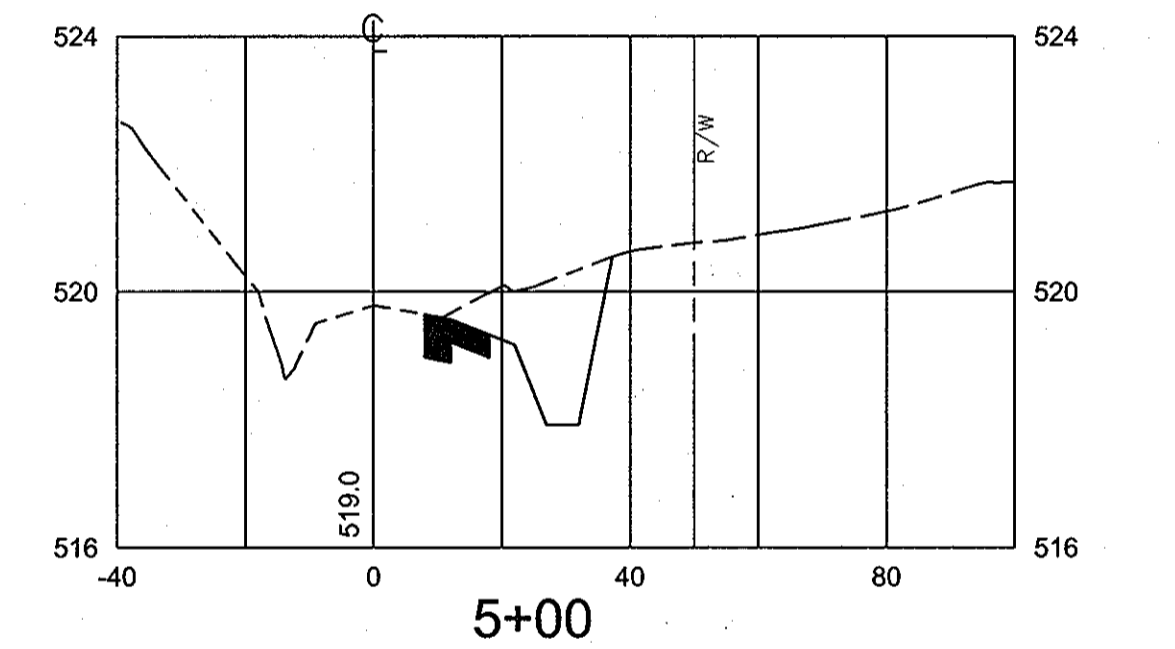
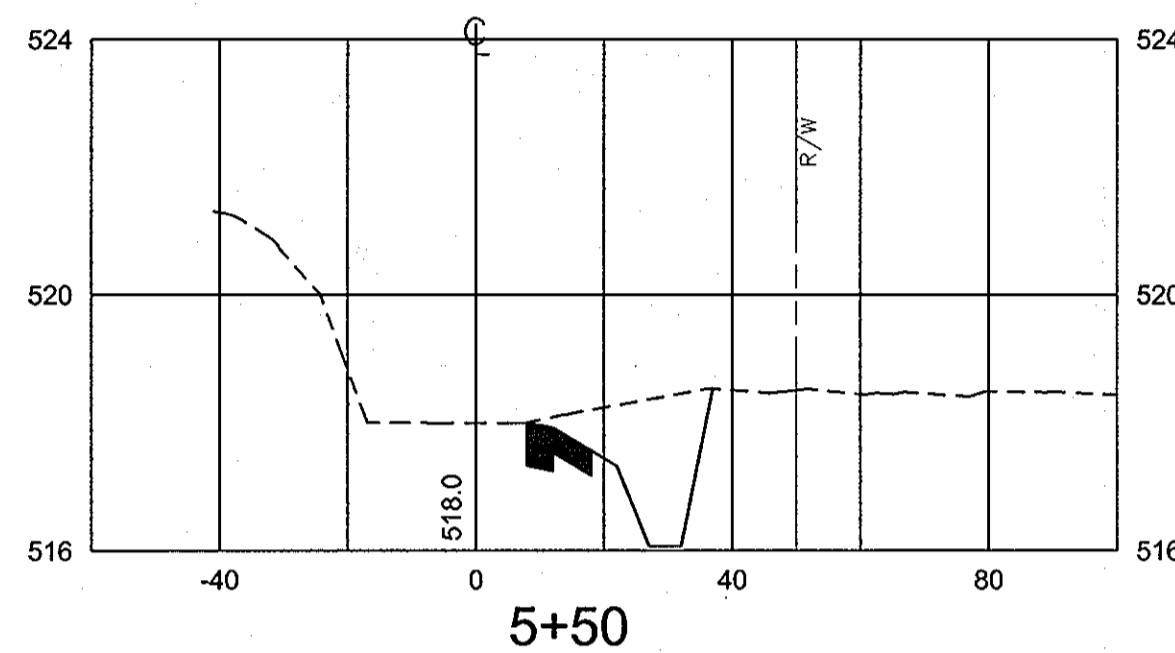
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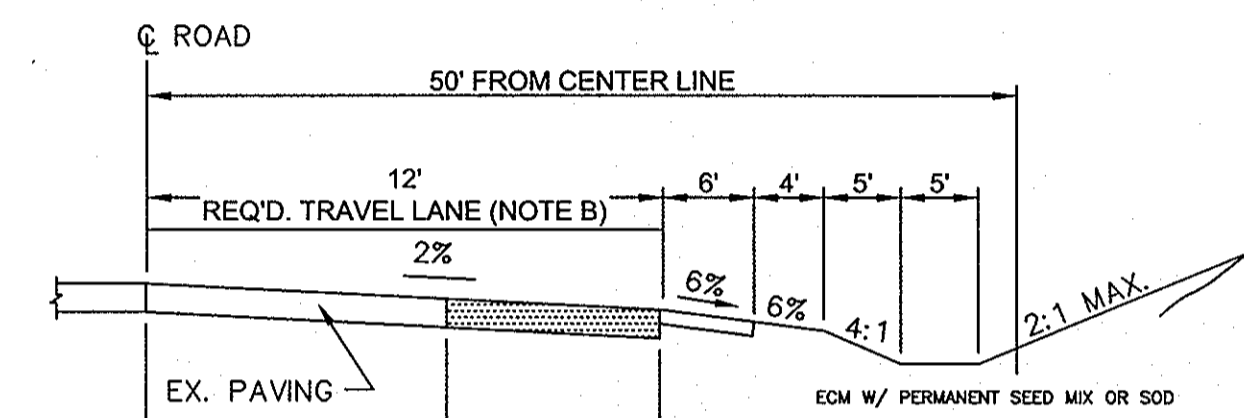
SCALE:
HORIZ: 1"=30'
VERT: 1"=3'

LEGEND

- CENTER LINE
- - - - - EXISTING EDGE OF PAVEMENT
- — — — — PROPOSED EDGE OF PAVEMENT
- - - - - EXISTING GRADE
- — — — — R/W



IMPROVEMENT ALONG HIGHLAND ROAD
(MAJOR COLLECTOR)
 STA. 5+00 TO STA. 18+05.96
 NOT TO SCALE

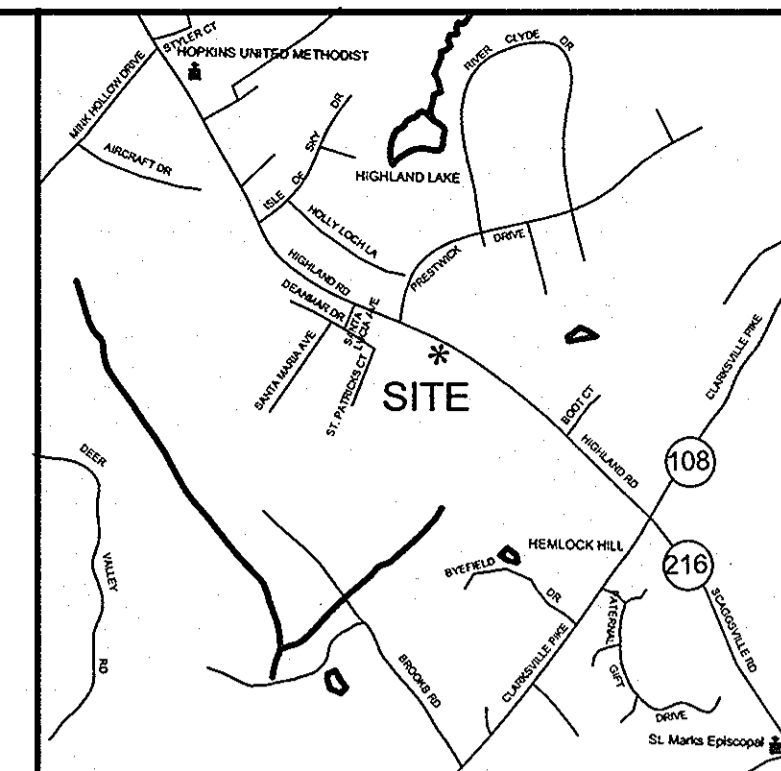


IMPROVEMENT ALONG HIGHLAND ROAD
(MAJOR COLLECTOR)
 STA. 0+00 TO STA. 5+00
 NOT TO SCALE

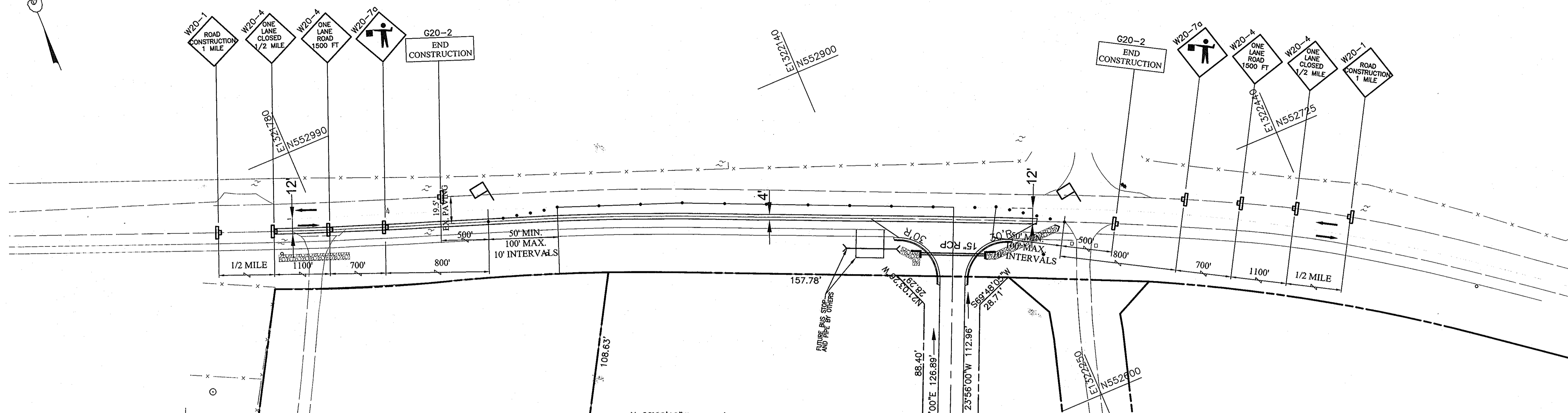
- NOTE A - WHEN EXISTING TRAVEL LANE IS LESS THAN THE REQUIRED 12' LANE CONTRACTOR SHALL REMOVE ENOUGH OF THE EXISTING ROAD BED TO PROVIDE A MINIMUM BASE WIDENING OF 4'
- NOTE B - THE SURFACE OVERLAY SHALL BE CARRIED TO THE E OF THE ROAD AND NOTCHED AND SEALED
- NOTE C - SURFACE OVERLAY COURSE TO BE EQUAL TO SURFACE COURSE OF TYPICAL PAVING SECTION OF SUBDIVISION
- NOTE D - E OF ROAD TO BE MILLED AT DEPTH OF 1/2" x 1' WIDE USING A MILLING MACHINE.
- NOTE E - THE IMPROVEMENTS TO THE E OF HIGHLAND ROAD ARE TO BE IN ACCORDANCE WITH HOWARD COUNTY DETAILS, R-1001.
- NOTE F - PROVIDE AT LEAST ONE-FOOT FULL DEPTH SAWCUT ONTO HIGHLAND ROAD PAVEMENT.



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. Melton Jr.</i> CHIEF, BUREAU OF HIGHWAYS	3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Janis Hamilton</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/1/04 DATE
<i>Chris Dammann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/2/04 DATE
NO. _____ DATE _____ REVISIONS _____	
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E	
PROJECT NAME OWINGS PROPERTY	
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND	
TITLE HIGHLAND ROAD SHOULDER IMPROVEMENTS CROSS SECTIONS S-01-18 P-02-018 F-03-133	OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND HIGHLAND, MARYLAND 20777
PREPARED BY : Dewberry & Davis LLC A Deloitte Company	DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
DES. : IEV	JOB : XXX
DRW. : SGB	PROJ. : OZ745
CHK. : MM	DATE : DEC. 2003
SCALE : AS SHOWN	SHEET 6 OF 28



VICINITY MAP
SCALE: 1"=2000'



TEMPORARY TRAFFIC CONTROL PLAN

SCALE: 1" = 40'

MAINTENANCE OF TRAFFIC SPECIAL PROVISIONS

GENERAL

1. THE PURPOSE OF THIS PORTION OF THE SPECIAL PROVISION IS TO SET FOR THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE TO TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR AND/OR PERMITTEE.
2. PROPERTY TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY AND THAT OF HIGHWAY WORKERS HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPERTY APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
3. THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT WHICH HAS BEEN APPROVED BY THE APPROPRIATE HOWARD COUNTY HIGHWAY DEPARTMENT TRAFFIC ENGINEER.
4. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE PROVISIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 OR LATEST EDITION, ESPECIALLY PART VI, AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982 OR LATEST; INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.)
5. THE CONTRACTOR AND/OR PERMITTEE SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS SET FOR IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUEST TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULING CHANGE. THE CONTRACTOR AND/OR PERMITTEE SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
6. NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE UNTIL COMPLETELY AND CORRECTLY IN PLACE TO HAVE BEEN CHECKED FOR APPROVED USAGE.

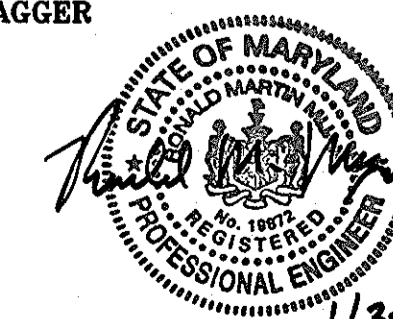
7. GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACES WHEN SPECIFIC OWNER TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC AND ANY ADDITIONAL SIGNING HAS BEEN APPROVED BY THE APPROPRIATE HOWARD COUNTY HIGHWAY DEPARTMENT TRAFFIC ENGINEER.
8. THE CONTRACTOR AND/OR PERMITTEE SHALL PROVIDE, MAINTAIN IN NEW CONDITION AND MOVE WHEN NECESSARY OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
9. ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS FOR REFLECTIVE DEVICES. A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO - REFLECTANCE CAPABILITY OF AT LEAST 80% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
10. ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
11. THROUGHOUT THE PERIODS OF WORK ACTIVITIES TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP. IN LIEU OF THE TCP PREPARED FOR THIS PROJECT AND/OR INDIVIDUAL TYPICAL TRAFFIC CONTROL STANDARDS, THE CONTRACTOR AND/OR PERMITTEE HAS THE OPTION OF PREPARING AND SUBMITTING A TCP WHOLLY OR IN PART OF HIS OWN DESIGN FOLLOWING GUIDELINES SET FORTH IN THE MUTCD AND PRESCRIBED BY THE ADMINISTRATION. A TCP DEVELOPED BY THE CONTRACTOR AND/OR PERMITTEE SHALL NOT BE IMPLEMENTED UNTIL ADVANCE WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER. TCP'S MAY BE IMPLEMENTED, WITHIN A SINGLE PROJECT OR JOINTLY BETWEEN TWO OR MORE PROJECTS. IN SITUATIONS WHERE TCP'S JOINTLY IMPLEMENTED, CARE SHALL BE EXERCISED TO PRESENT CORRECT AND NON-CONFLICTING GUIDANCE TO THE TRAVELING PUBLIC.
12. THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER UNLESS OTHERWISE NOTED.
13. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT UNLESS OTHERWISE NOTED, NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR AND/OR PERMITTEE SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

NOTES:

1. FLAGGER SHALL NEVER BE STATIONED MORE THAN 1000' AWAY FROM THE ADVANCE FLAGGER SIGN.
2. THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES AT THE BEGINNING OF STANDARDS NO. MD. 104.00.

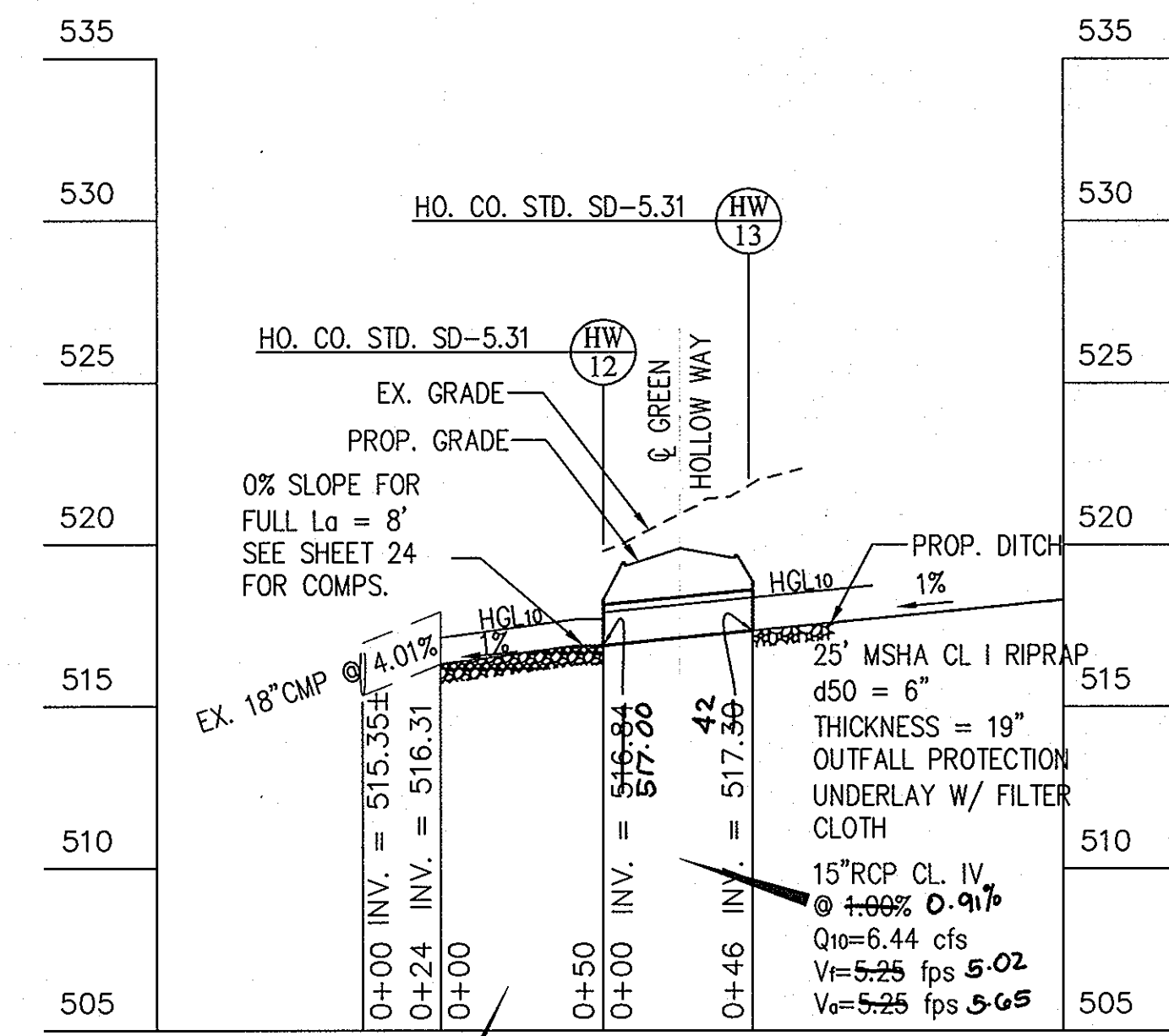
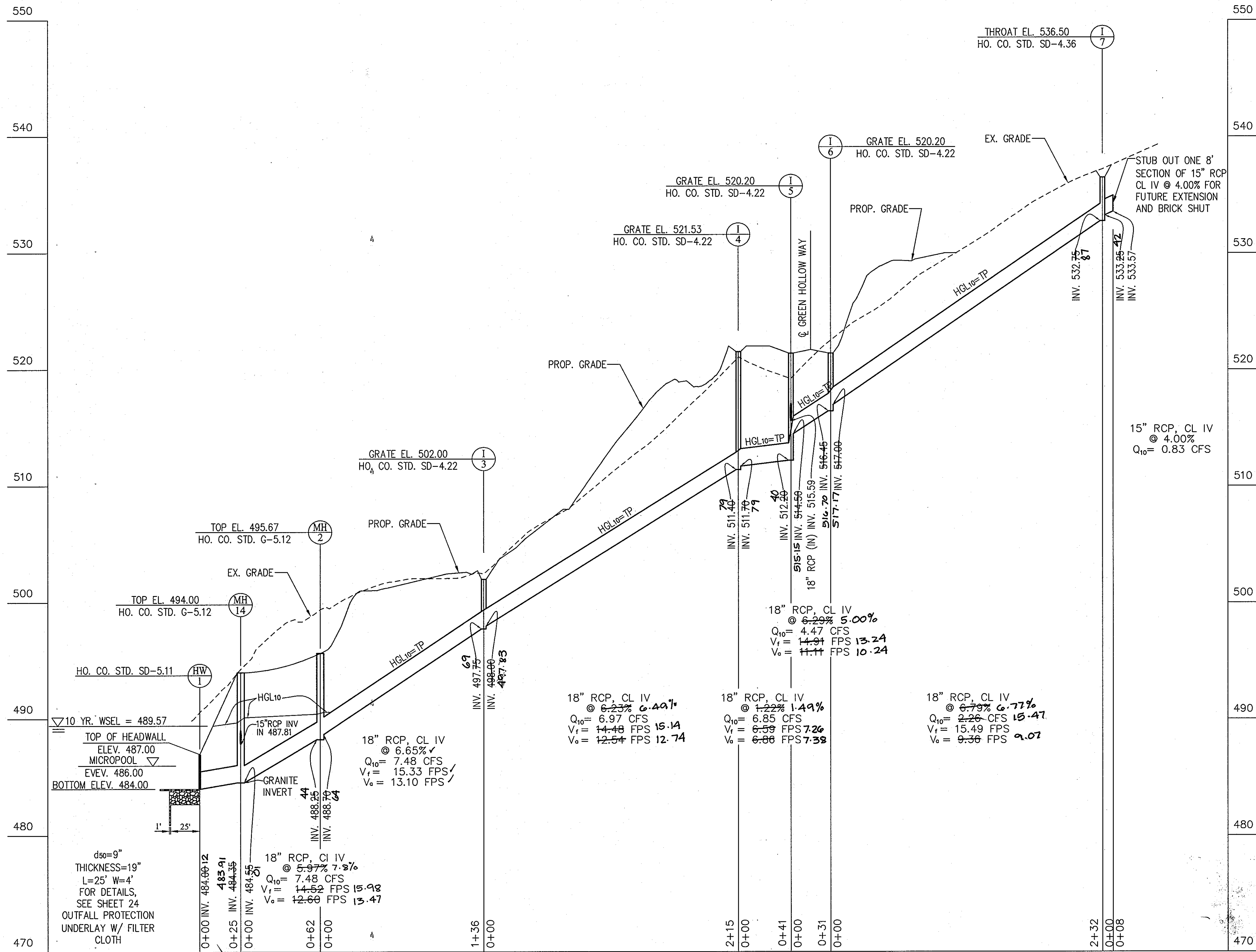
KEY

- CHANNELIZING DEVICES
- ▭ WORK AREA
- ⇨ SIGN
- ⇨ DIRECTION OF TRAFFIC
- ⚠ FLAGGER



NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. ...</i> CHIEF, BUREAU OF HIGHWAYS	3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Janice Hamilton</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/1/04 DATE
<i>Chris ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/21/04 DATE
NO. _____ DATE _____ REVISIONS _____	
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E	
PROJECT NAME OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND	
TITLE HIGHLAND ROAD TRAFFIC CONTROL PLAN S-01-18 P-02-018 F-03-133	OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY : Dewberry & Davis LLC A Dewberry Company	DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
203 PERRY PARKWAY GATHERSBURG, MD 20877 TEL: (301) 946-8800 FAX: (301) 258-7607	
DES. : KK	JOB : XXX
DRW. : KK	PROJ. : OZ745
CHK. : RMM	DATE : DEC. 2003
SCALE : 1" = 40'	SHEET 7 OF 29



d₅₀=9"
THICKNESS=19"
L=25' W=4'
FOR DETAILS,
SEE SHEET 24
OUTFALL PROTECTION
UNDERLAY W/ FILTER
CLOTH

18" RCP, CL IV
@ 6.65%
Q₁₀ = 7.48 CFS
V_f = 14.52 FPS
V₆ = 12.68 FPS

18" RCP, CL IV
@ 6.23%
Q₁₀ = 6.97 CFS
V_f = 14.48 FPS
V₆ = 12.57 FPS

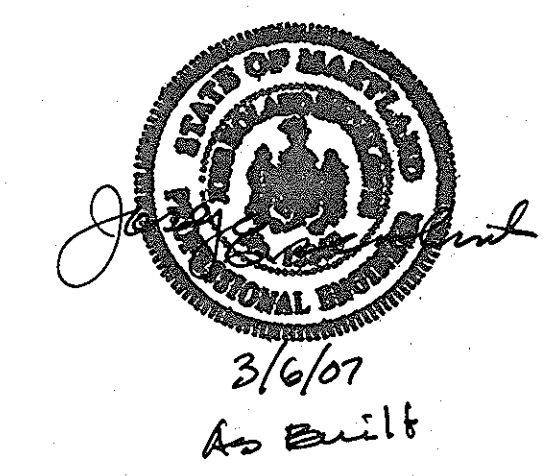
18" RCP, CL IV
@ 1.22%
Q₁₀ = 6.85 CFS
V_f = 6.59 FPS
V₆ = 6.88 FPS

18" RCP, CL IV
@ 6.73%
Q₁₀ = 2.26 CFS
V_f = 15.49 FPS
V₆ = 9.36 FPS

18" RCP, CL IV
@ 1.00%
Q₁₀ = 9.47 CFS
V_f = 8.41 FPS
V₆ = 8.91 FPS

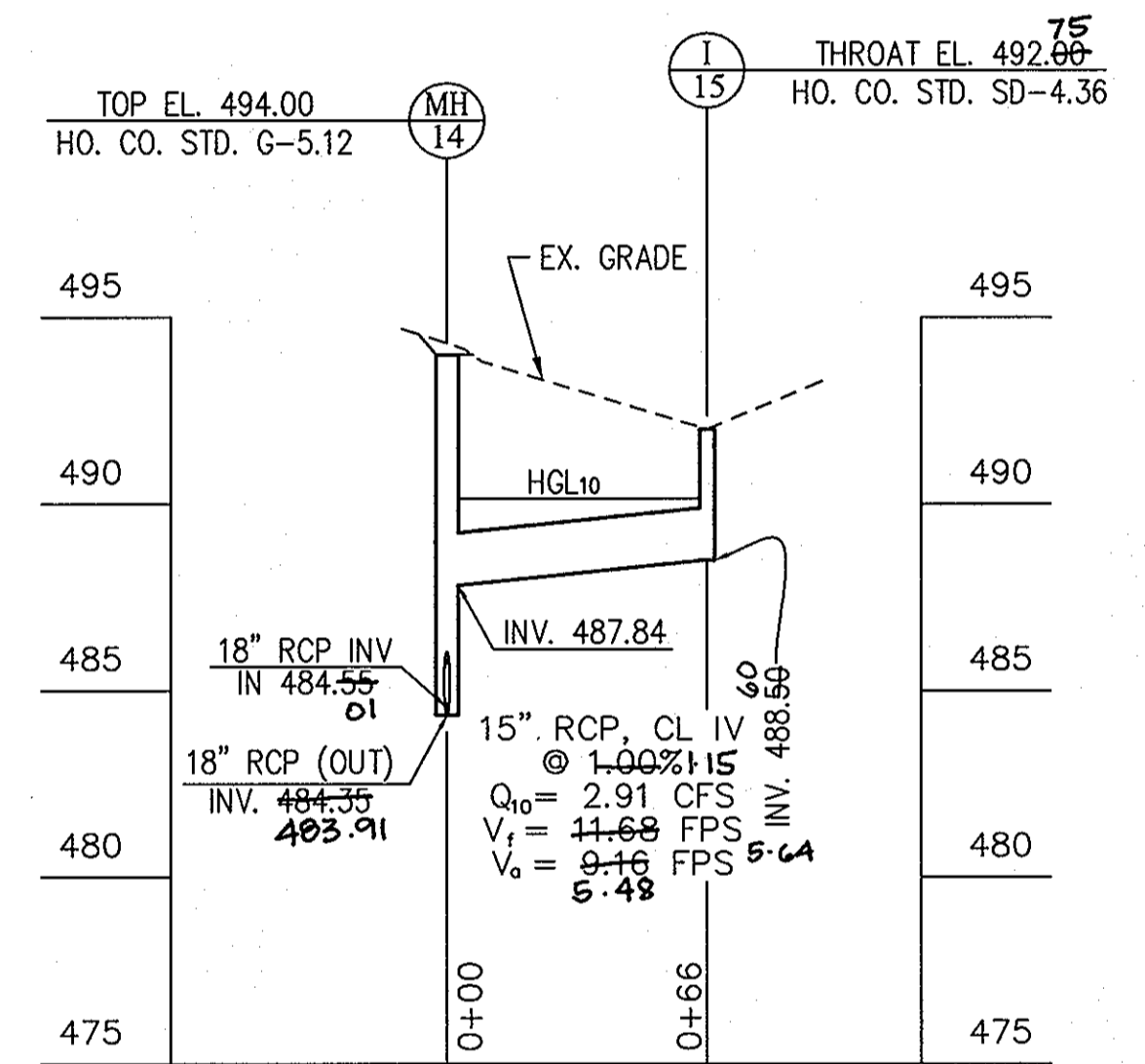
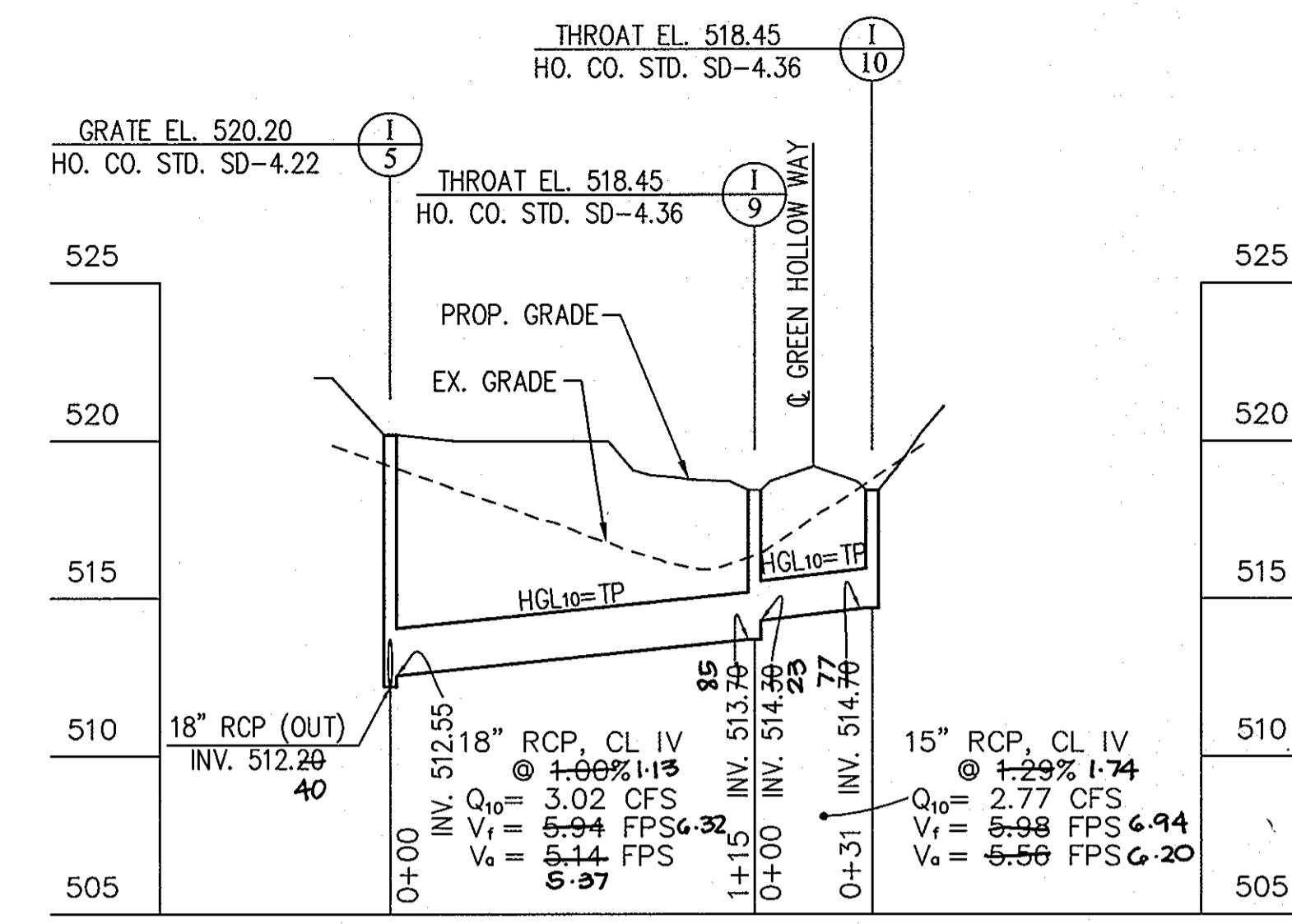
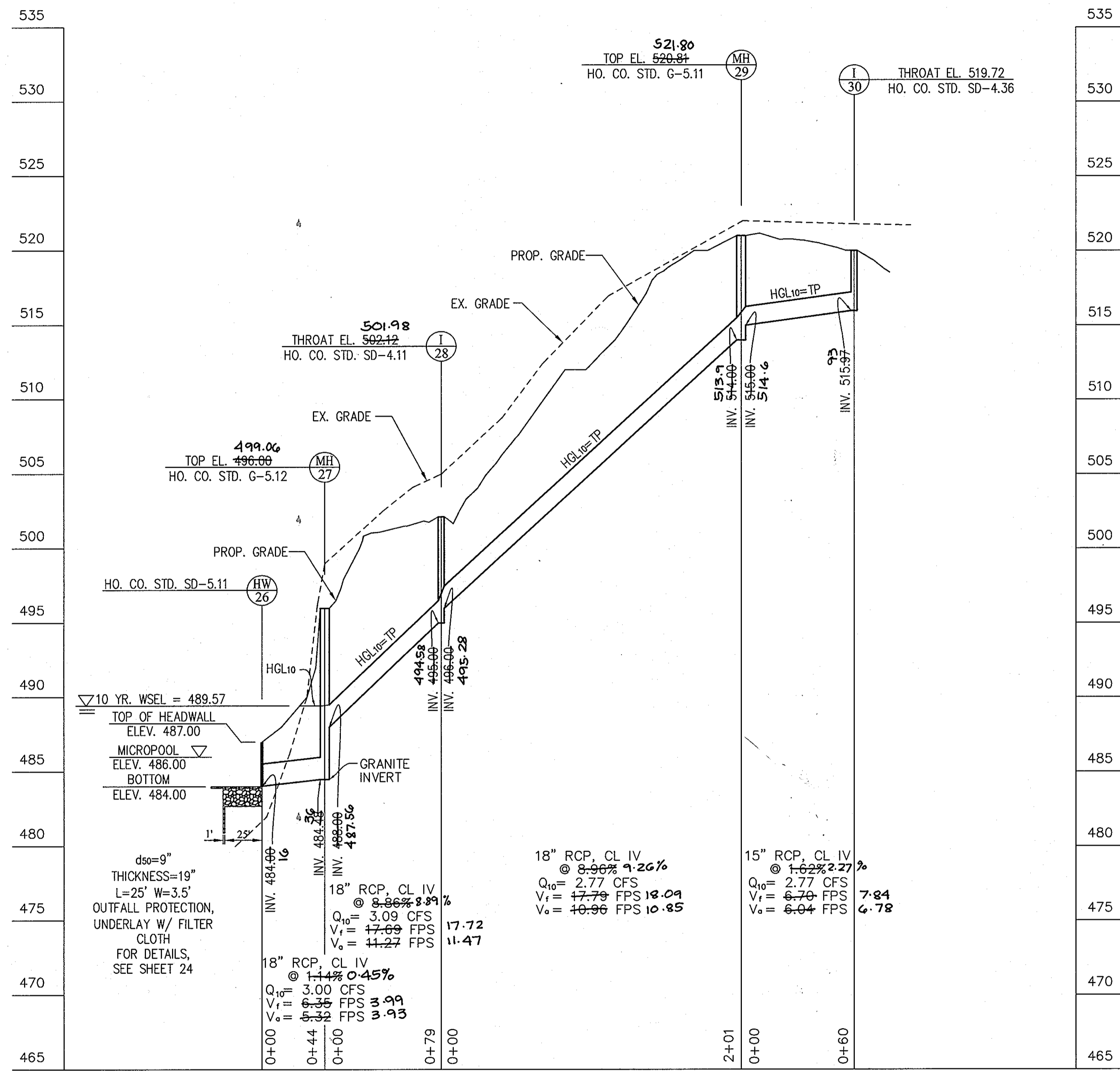
PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.

PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.



NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

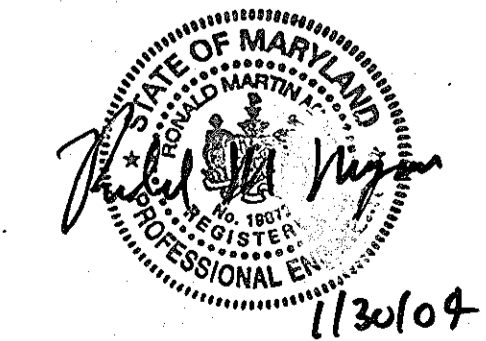
APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. ...</i> CHIEF, BUREAU OF HIGHWAYS DATE: 3-25-04		
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Cynthia ...</i> CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 7/1/04		
APPROVED: DEPARTMENT OF ENGINEERING <i>...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 3/2/04		
NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE STORM DRAIN PROFILES S-01-18 P-02-018 F-03-133		OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY : Dewberry & Davis LLC 203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 948-8300 FAX: (301) 258-7607		DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 361-8747
DES. : IEV	JOB : XXX	SCALE : AS SHOWN
DRW. : SGB	PROJ. : 02745	SHEET : 8 OF 29
CHK. : MM	DATE : DEC. 2003	



PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.

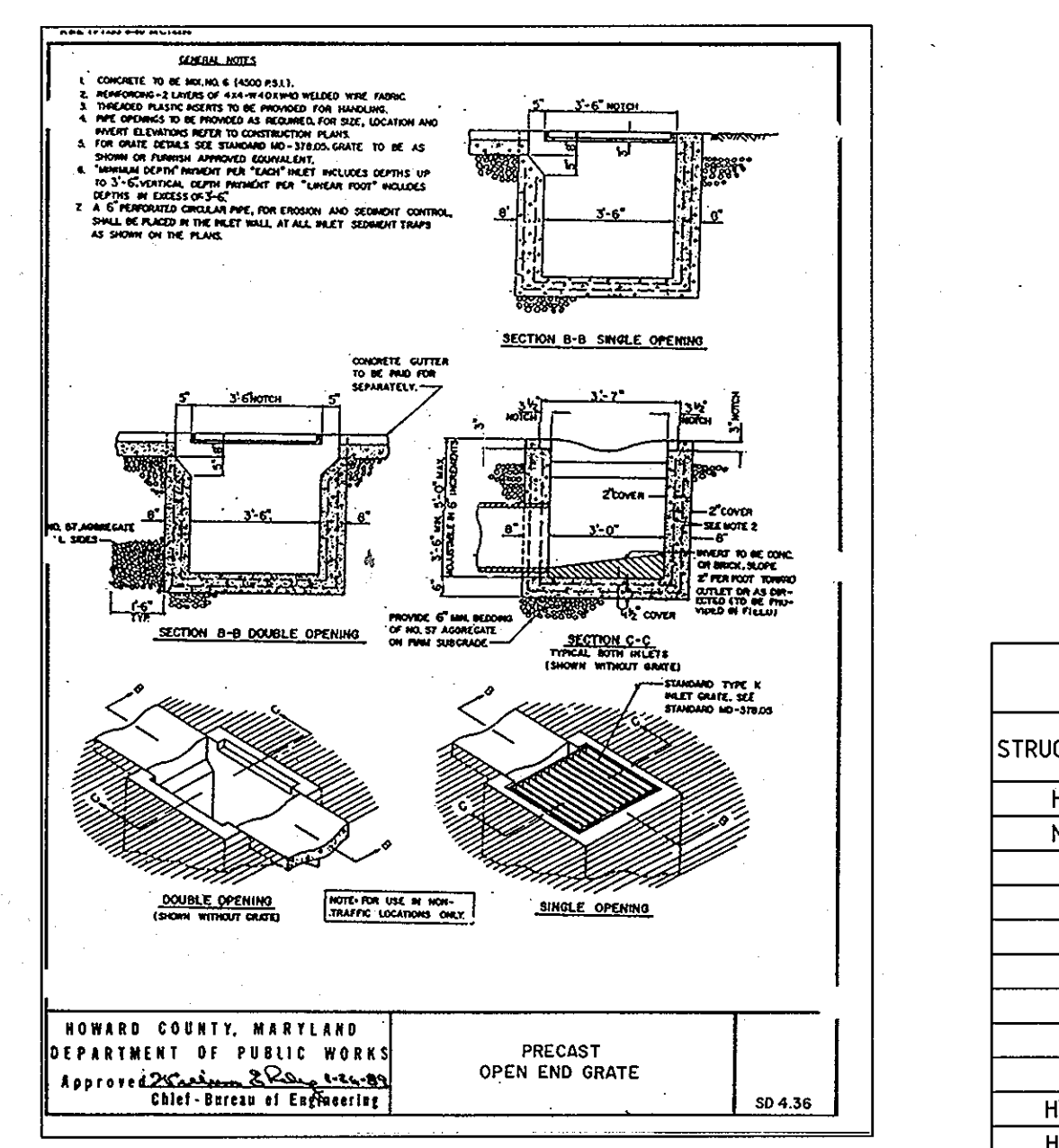
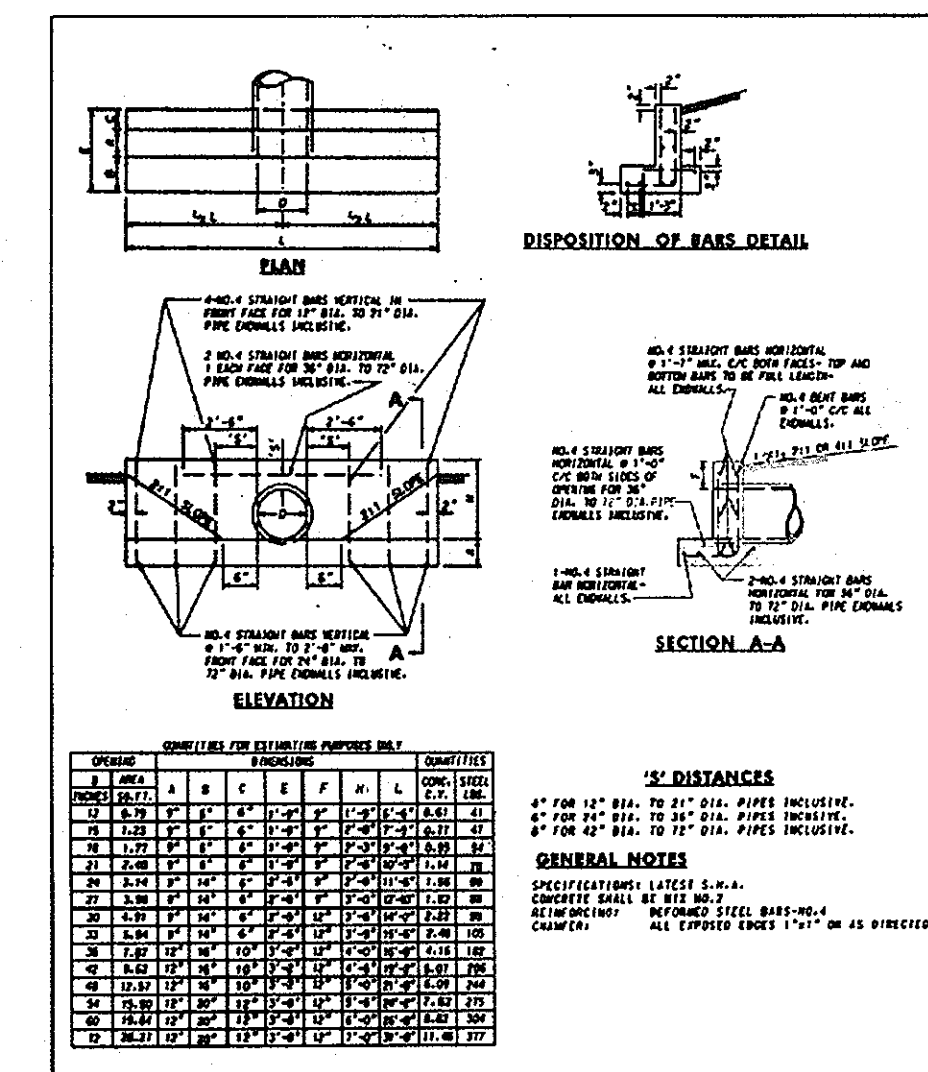
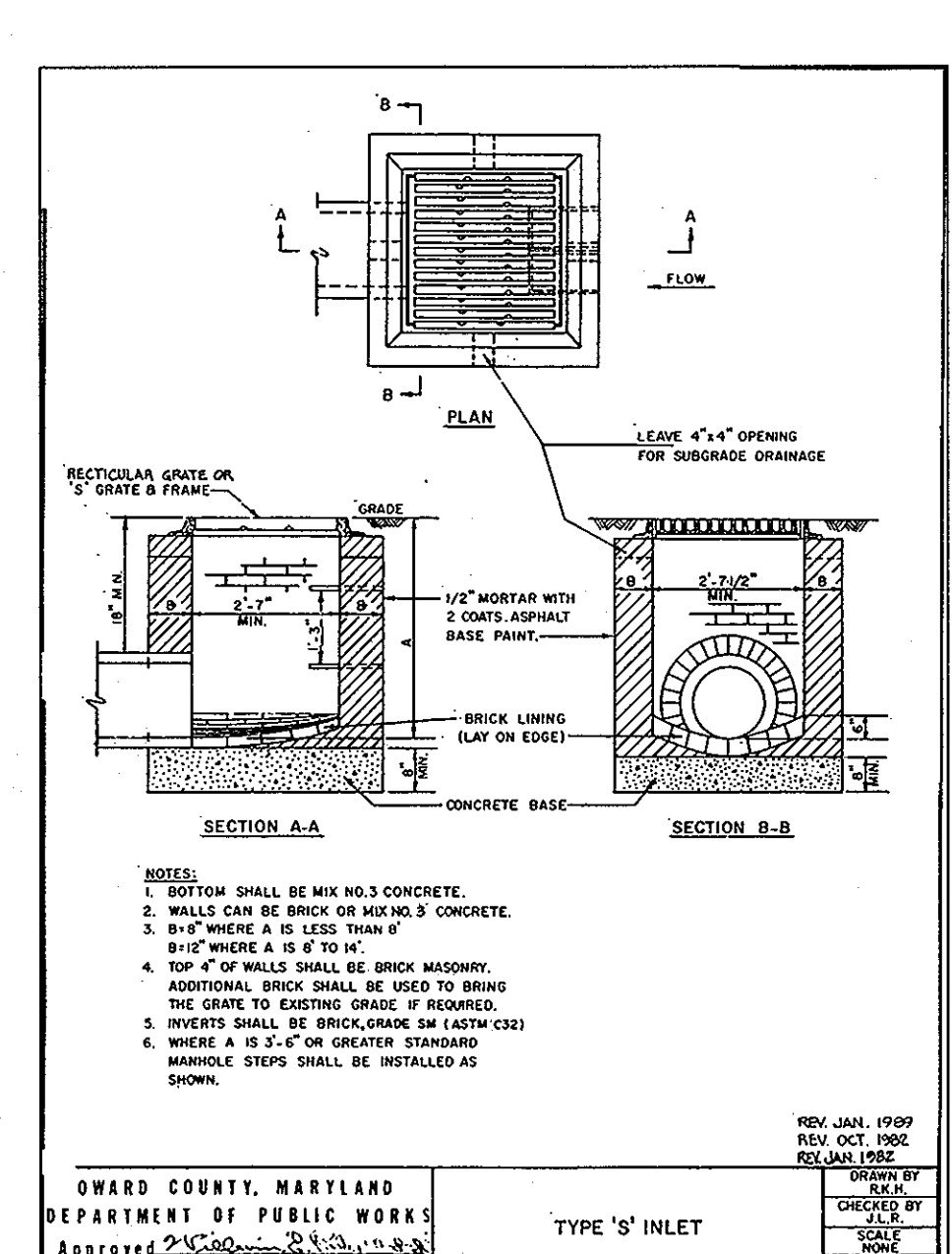
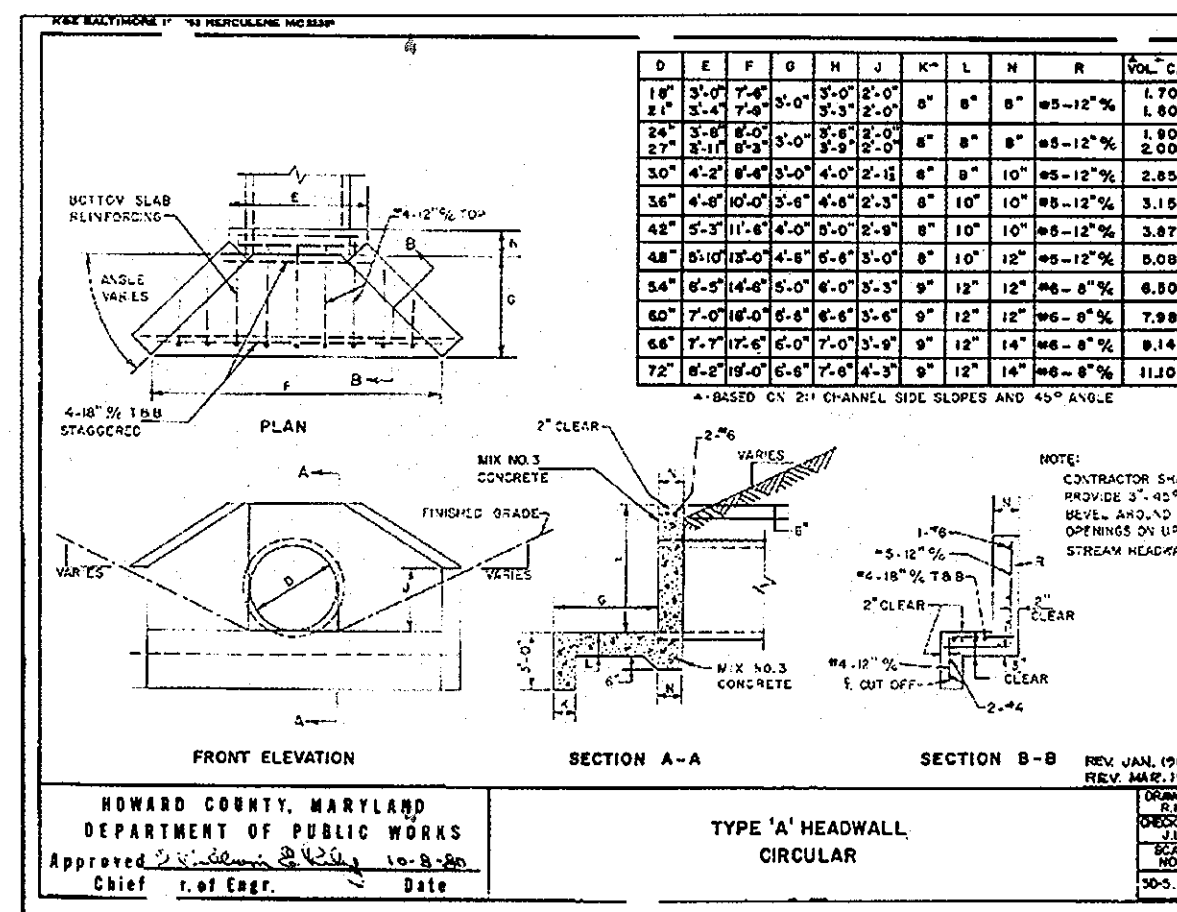
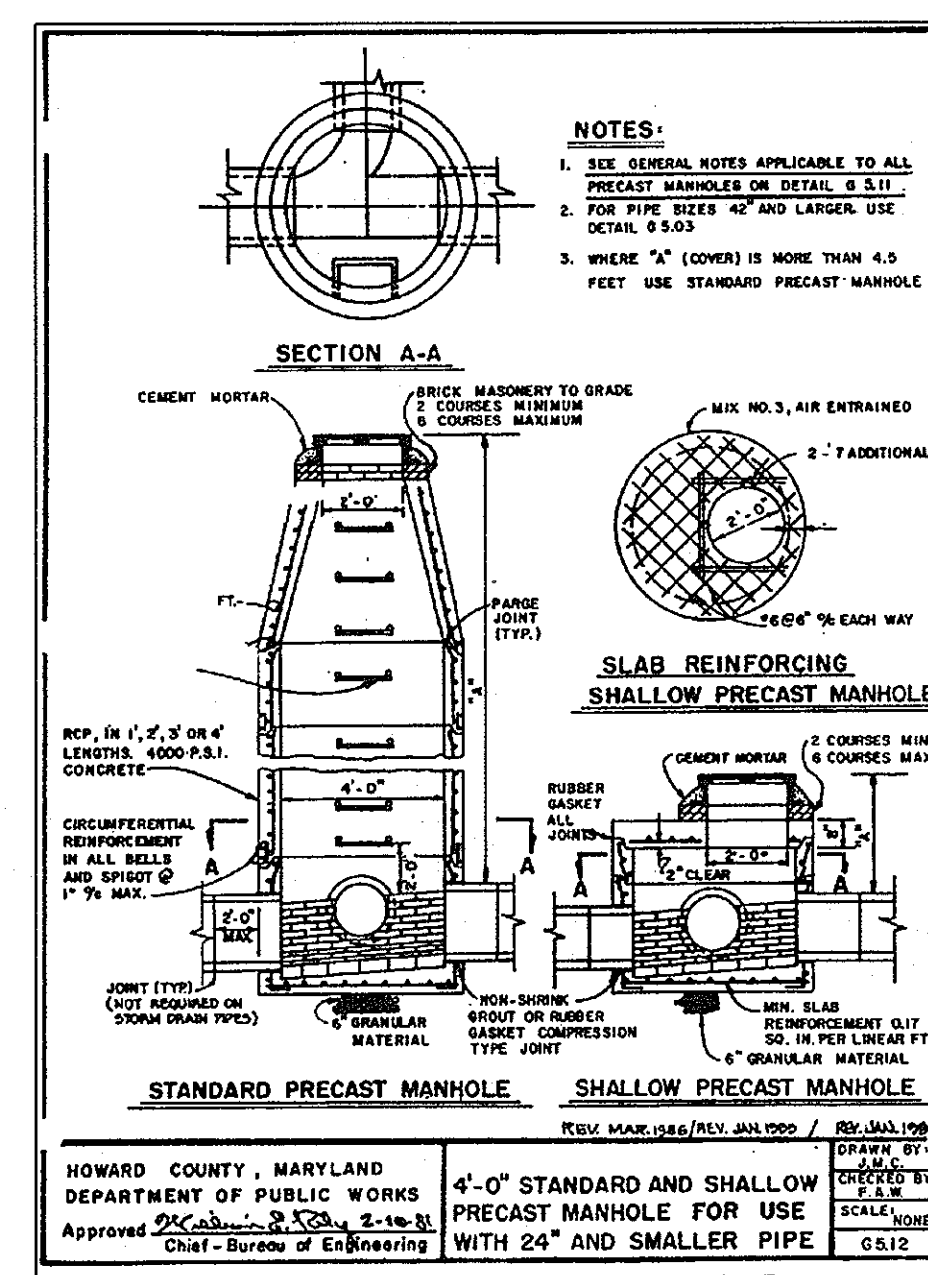
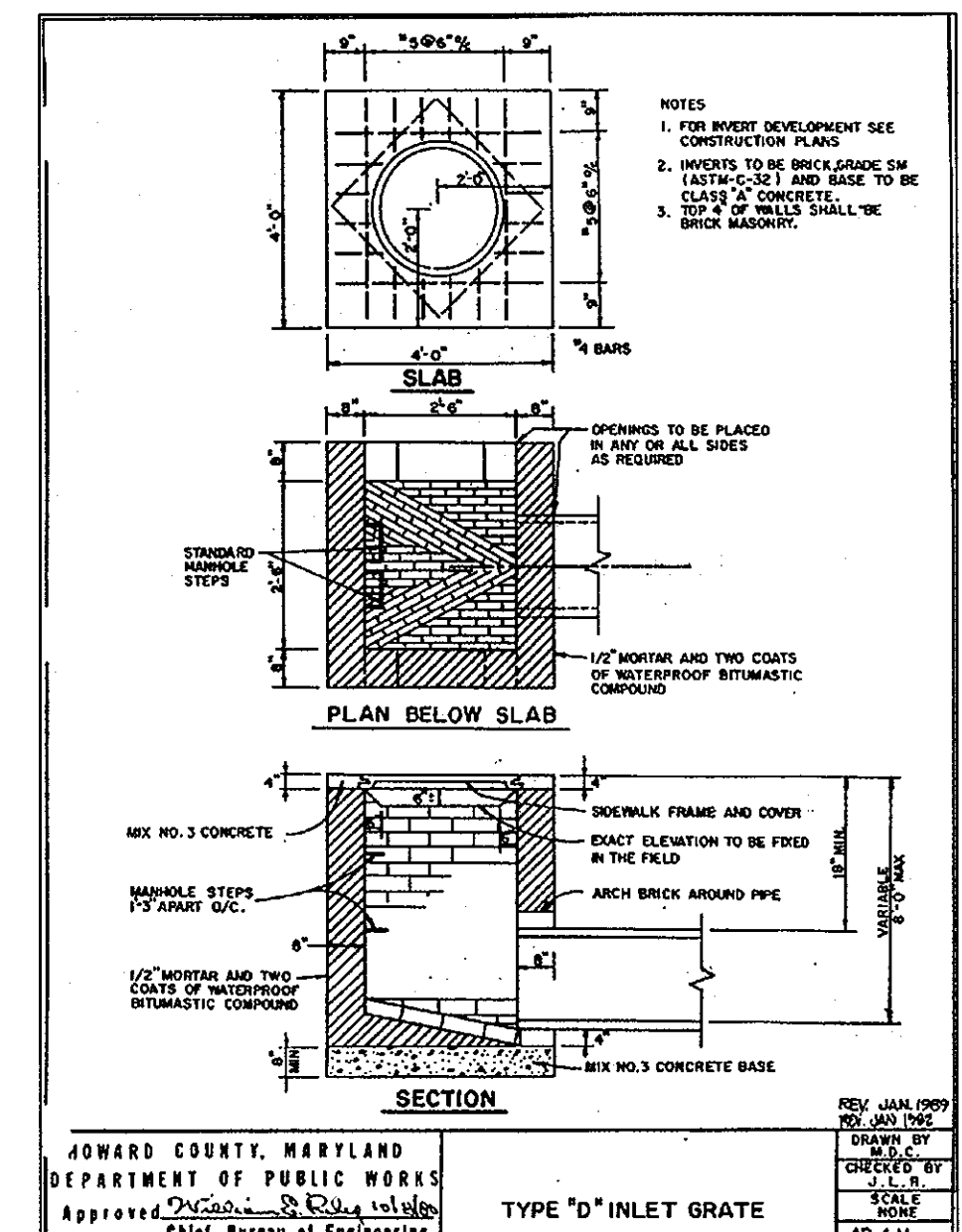
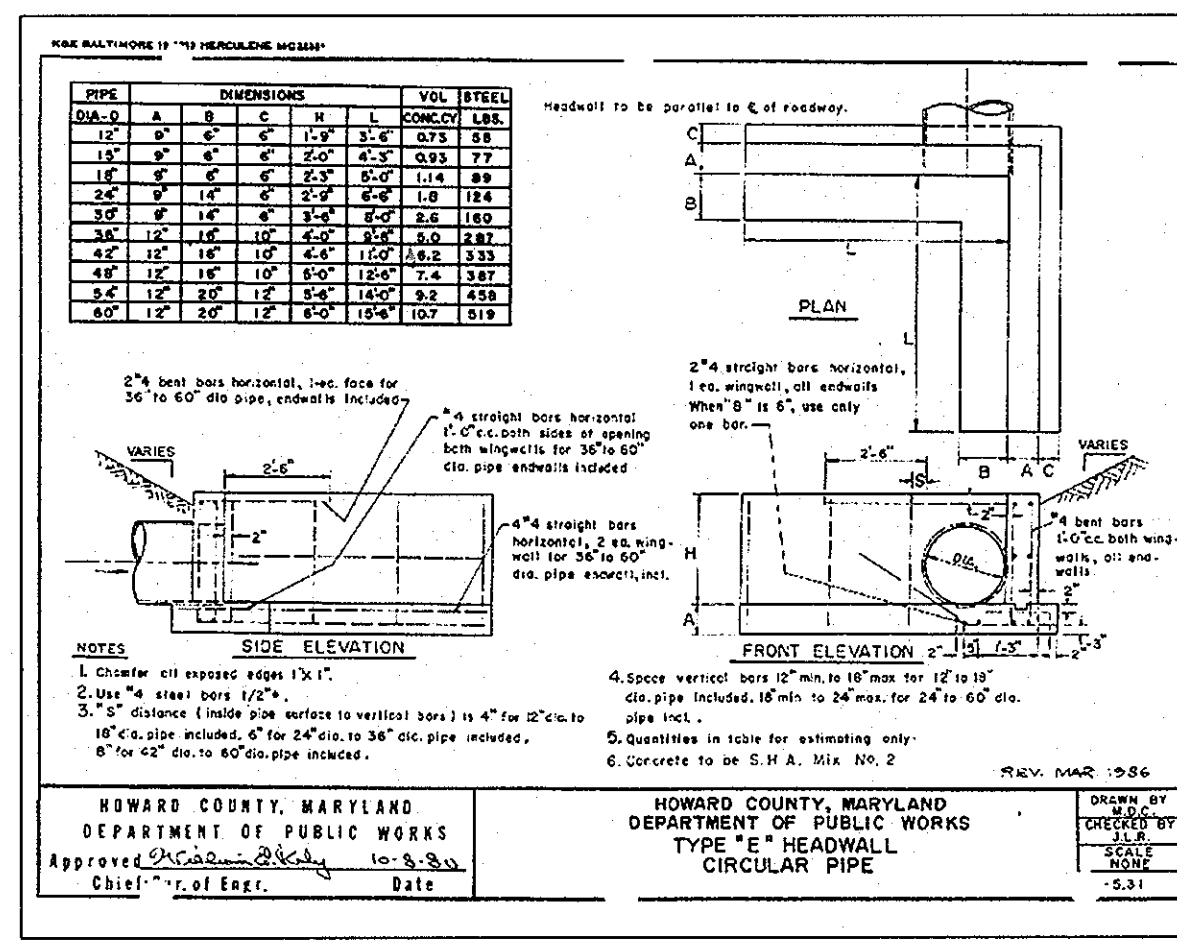
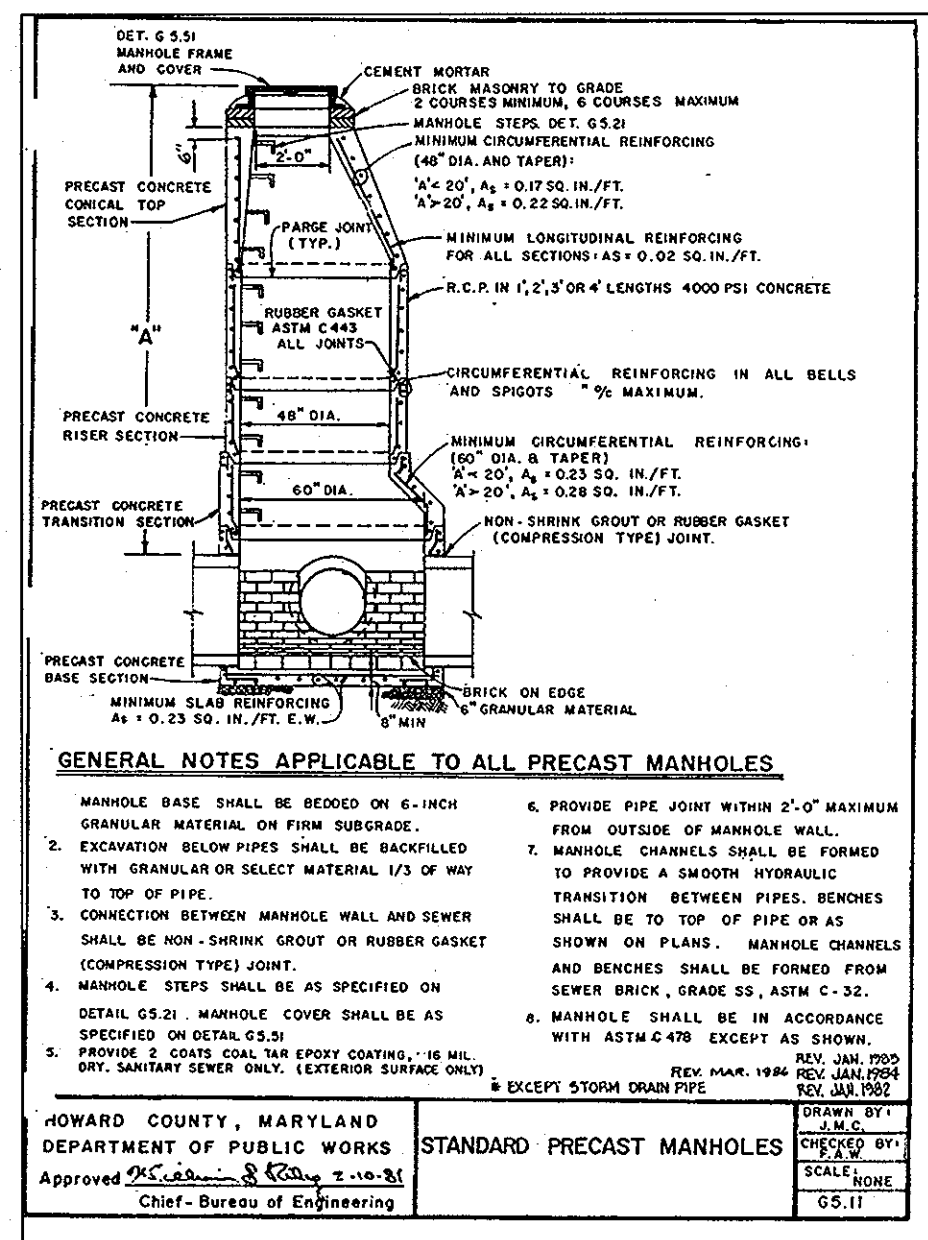
PROFILE
SCALE: 1" = 50' HOR.
1" = 5' VER.

3/6/07
As Built



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. Walker</i> CHIEF, BUREAU OF HIGHWAYS DATE: 3-25-04	
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Gina Hamilton</i> CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 4/1/04	
APPROVED: DEPARTMENT OF ENGINEERING <i>Bill Dammann</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 2/21/04	
NO. _____ DATE _____ REVISIONS _____	
A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-18 AND PARCELS A-E	
PROJECT NAME: OWINGS PROPERTY LOTS 6 THRU 18 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT PARCEL 44 HOWARD COUNTY, MARYLAND	
TITLE: STORM DRAIN PROFILES S-01-18 P-02-018 F-03-133	OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY: Dewberry & Davis LLC 203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 948-8500 FAX: (301) 258-7800	DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
DES.: IEV	JOB: XXX
DRW.: SGB	PROJ.: OZ745
CHK.: MM	DATE: DEC. 2003
SCALE: AS SHOWN	
SHEET 9 OF 29	

NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION CONTACT "MMS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.



DRIVEWAY CULVERT DATA

LOT NUMBERS	STREET GRADE	DISCHARGE Q ₁₀ (CFS)	TYPE PIPE DIAMETER	PIPE CAPACITY (CFS)	FULL FLOW VELOCITY (FPS)	OUTFALL PROTECTION FOR CULVERT AND ROAD SIDE DITCH (1)	REMARKS
6	0.0%	0.0	N/A	-	-	NO CULVERT REQUIRED - HIGH POINT	Q TO I-10
7	2.0%	3.5	15" CMP	5.00	4.00 (3)	RIPRAP L=5', W=3.5'	Q TO I-10
8	1.96%	1.4	12" CMP	2.70	3.40 (3)	RIPRAP L=5', W=3.5'	Q TO I-6
9	1.12%	0.2	12" CMP	2.00	2.50 (3)	RIPRAP L=5', W=3.5'	Q TO I-6
10	2.0%	1.1	12" CMP	2.73	3.47 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
11	2.0%	2.1	12" CMP	2.73	3.47 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
12	2.0%	2.3	15" CMP	5.00	4.00 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
13	2.0%	0.4	12" CMP	2.73	3.47 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
14	2.0%	0.4	12" CMP	2.73	3.47 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
15	2.06%	0.1	12" CMP	2.78	3.50 (3)	RIPRAP L=5', W=3.5'	Q TO I-30
16	2.89%	-	12" CMP	3.35	4.10 (3)	RIPRAP L=5', W=3.5'	Q TO I-5
SWM ACCESS ROAD	0.0%	0.0	-	-	-	NO CULVERT REQUIRED - HIGH POINT	-
SHARED SEPTIC ACCESS ROAD	2.0%	2.3	15" CMP	5.0	4.0 (3)	RIPRAP L=5', W=3.5'	Q TO I-30

- NOTES:
- OUTFALL PROTECTION PER TABLE 4.06, VOL. I OF THE DESIGN MANUALS.
 - 10 YEAR DISCHARGE SHOWN ARE DISCHARGE TO DOWNSTREAM INLET.
 - PROVIDE RIPRAP PROTECTION AS PER HSCD REGARDLESS OF LINING REQUIREMENT TABLE 4.06.

TABLE 4.06 LIMITING VELOCITIES FOR DITCHES AND CHANNELS

LINING TYPE	ALLOWABLE VELOCITIES (FPS)	REMARKS
EARTH, WITHOUT VEGETATION	1.0 TO 3.0	USE SOIL STABILIZATION MATTING OVER SEED AND MULCH FOR CONSTRUCTION ITEMS
SEED & MULCH	2.5	"
GRAINS, STIFF STEMMED GRASSES	2.0 TO 3.0	"
BUNCH GRASS	2.0 TO 3.0	"
SOLID SODDING	4.0	"
STIFF CLAY OR CLAY & GRAVEL	3.0 TO 5.0	"
FINE GRAVEL	5.0	"
WELL ESTABLISHED GRASSES, SHORT PLANT BLADES	5.0	"
SOIL STABILIZATION MATTING OVER SEED & MULCH	5.6	"
SHALE & ROCK COURSE GRAVEL (CLASS I RIPRAP)	6.0	"
RIPRAP	VARIES	"
CONCRETE CHANNEL	NO MAXIMUM	"

NOTE: THIS CHART BASED ON SHA 611-405.0, DATED ON 1994

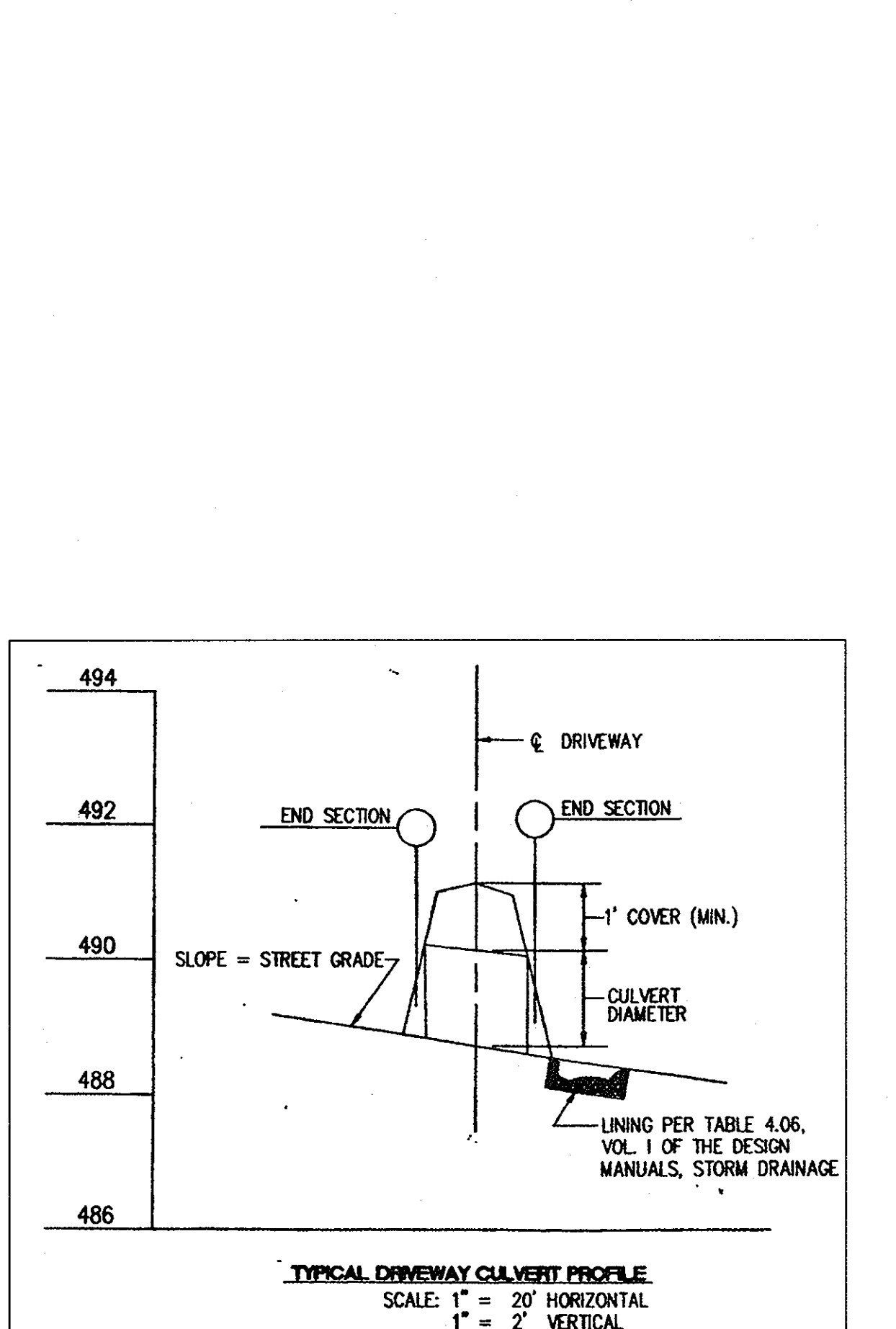
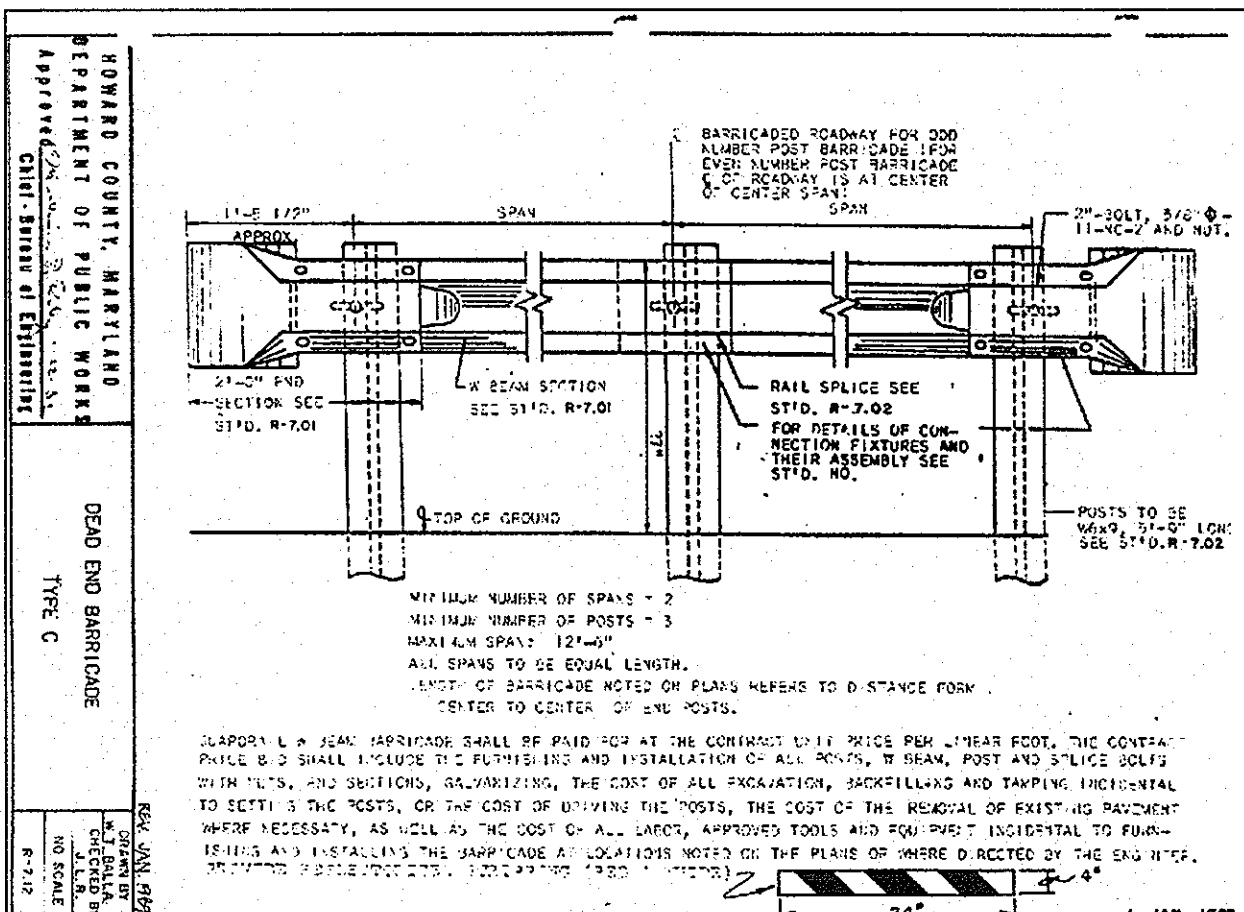
PIPE SCHEDULE

PIPE SIZE (IN.)	CLASS/TYPE	TOTAL LENGTH (FT.)	REMARKS
15	RCP CL IV	211	
18	RCP CL IV	1181	

STRUCTURE SCHEDULE

STRUCTURE NO.	TOP ELEVATION	INV. IN	INV. OUT	ROAD NAME	ROAD STA.	OFFSET	TYPE	REMARKS
HW-1	-	-	484.00	GREEN HOLLOW WAY	N551836, E1321996	-	TYPE "A" HEAD WALL	SD-5.11
MH-2	495.67	488.76	488.25	GREEN HOLLOW WAY	N551898, E1321951	-	STD PRECAST MANHOLE	G-5.12
I-3	+502.00	498.00	497.95	GREEN HOLLOW WAY	N551028, E1322001	-	TYPE "S" INLET	SD-4.22
I-4	+521.53	511.30	511.48	GREEN HOLLOW WAY	6+66.50	17.0' LT	TYPE "S" INLET	SD-4.22
I-5	+520.20	544.55	512.88	GREEN HOLLOW WAY	6+23.00	17.0' LT	TYPE "S" INLET	SD-4.22
I-6	+520.20	517.80	516.45	GREEN HOLLOW WAY	6+23.00	17.0' RT	TYPE "S" INLET	SD-4.22
I-7	+536.50	532.35	532.35	GREEN HOLLOW WAY	N552437, E1321730	-	PRECAST DOUBLE OPEN END GRATE	SD-4.36
I-9	+518.45	516.38	513.70	GREEN HOLLOW WAY	5+05.00	17.0' RT	PRECAST DOUBLE OPEN END GRATE	SD-4.36
I-10	+518.45	-	514.78	GREEN HOLLOW WAY	5+05.00	17.0' LT	PRECAST DOUBLE OPEN END GRATE	SD-4.36
HW-12	-	-	546.84	GREEN HOLLOW WAY	0+39.00	23.0' LT	TYPE "E" HEAD WALL	SD-5.31
HW-13	-	-	517.30	GREEN HOLLOW WAY	0+39.00	23.0' RT	TYPE "E" HEAD WALL	SD-5.31
MH-14	494.00	487.84	484.35	GREEN HOLLOW WAY	N551866, E1322012	-	STD PRECAST MANHOLE	G-5.12
I-15	+492.00	-	488.50	GREEN HOLLOW WAY	N551888, E1322078	-	PRECAST DOUBLE OPEN END GRATE	SD-4.36
HW-26	-	-	484.80	GREEN HOLLOW WAY	N551664, E1321884	-	TYPE "A" HEAD WALL	SD-5.11
MH-27	496.00	488.00	484.48	GREEN HOLLOW WAY	N551638, E1321850	-	STD PRECAST MANHOLE	G-5.12
I-28	+502.12	496.00	495.00	GREEN HOLLOW WAY	N551628, E1321811	-	TYPE "D" INLET	SD-4.11
MH-29	520.81	545.00	545.30	GREEN HOLLOW WAY	13+00.00	37.5' LT	STD MANHOLE	G-5.11
I-30	+519.72	-	515.97	GREEN HOLLOW WAY	13+45.87	0.0 RT/LT	PRECAST DOUBLE OPEN END GRATE	SD-4.36

- × THROAT ELEVATION
- + GRATE ELEVATION



APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 3-25-04
 CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 [Signature] 4/1/04
 CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: [Signature] 3/21/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO. DATE REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E

PROJECT NAME: **OWINGS PROPERTY**
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44 HOWARD COUNTY, MARYLAND

TITLE: **STORM DRAIN STRUCTURE AND PIPE SCHEDULE**
 S-01-18 P-02-018 F-03-133

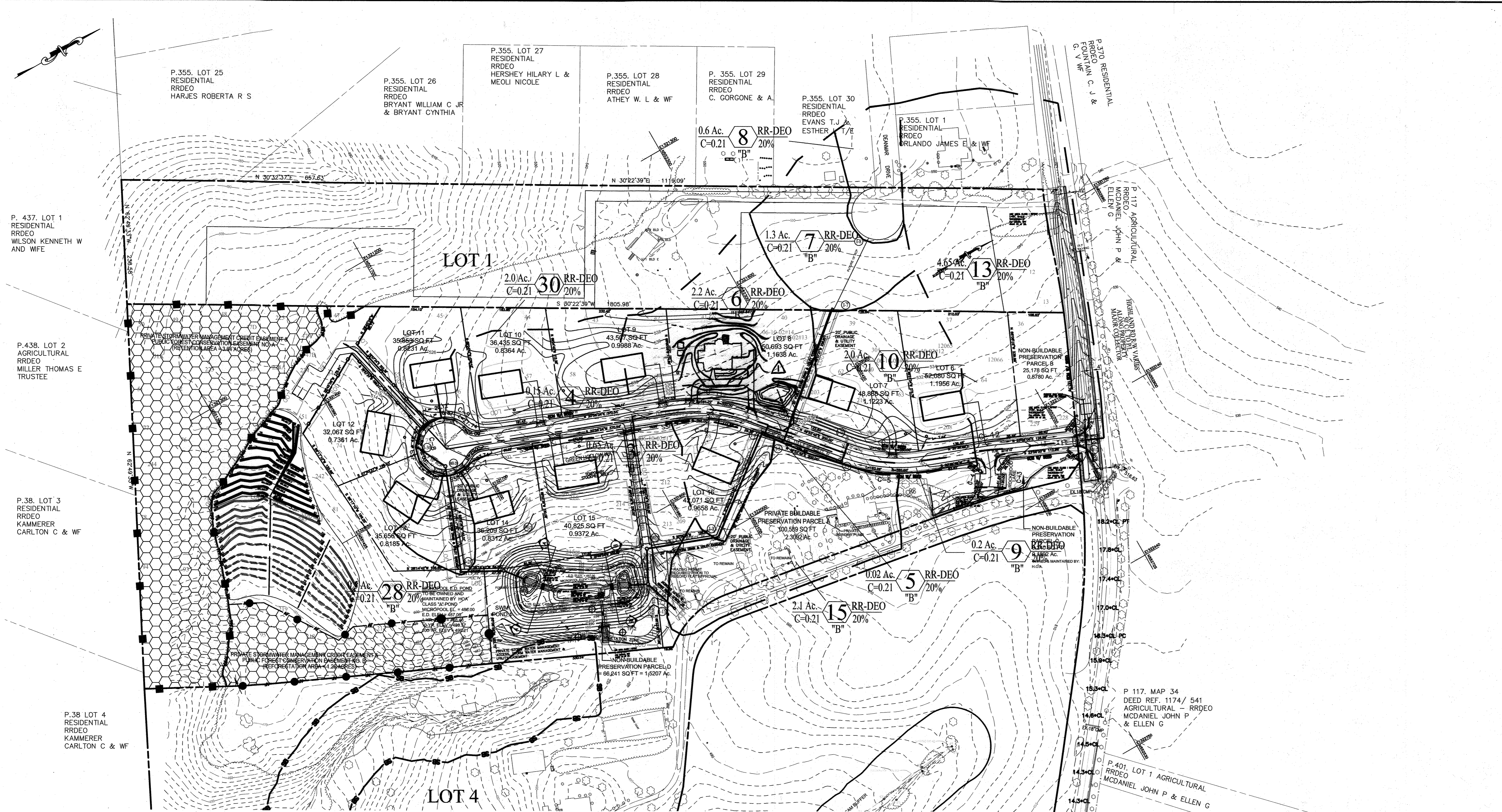
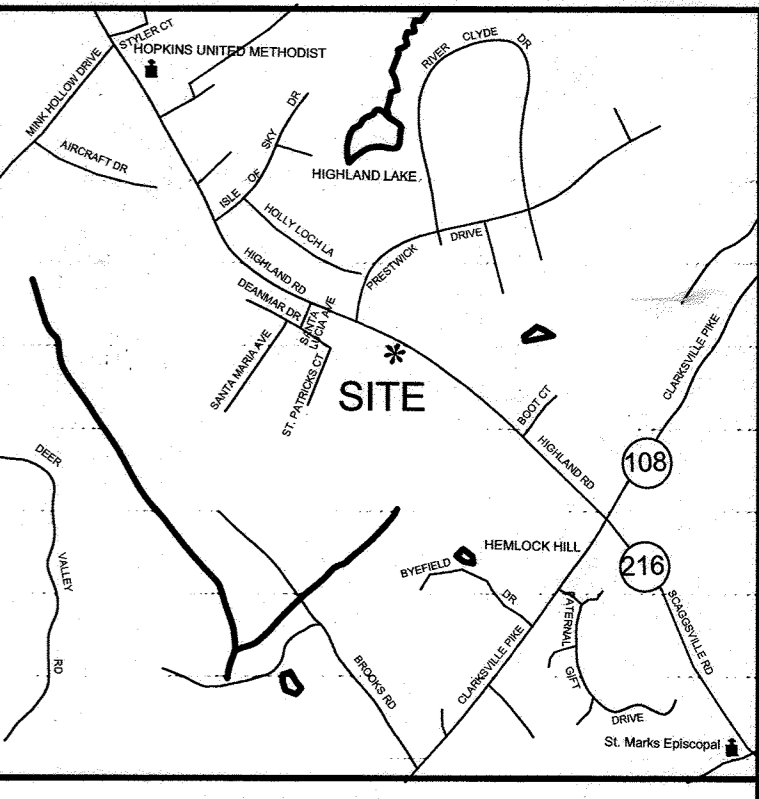
PREPARED BY: **Dewberry & Davis LLC**
 203 PERRY PARKWAY GAITHERSBURG, MD 20877
 TEL: (301) 948-9200 FAX: (301) 258-7607

DEVELOPER: **DALE THOMPSON BUILDERS**
 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046
 (410) 995-6736 (410) 381-8747

DES: IEV JOB: XXX
 DRW: SGB PROJ: 02745
 CHK: RMM DATE: DEC. 2003 SCALE: AS SHOWN SHEET 10 OF 29

NOTES:

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTRACT "MESS UTILITY" AT 1:00 PM PRIOR TO THE START OF EXCAVATION. CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS. CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.



P.355. LOT 25
RESIDENTIAL
RRDEO
HARJES ROBERTA R S

P.355. LOT 26
RESIDENTIAL
RRDEO
BRYANT WILLIAM C JR
& BRYANT CYNTHIA

P.355. LOT 27
RESIDENTIAL
RRDEO
HERSHEY HILARY L &
MEOLI NICOLE

P.355. LOT 28
RESIDENTIAL
RRDEO
ATHEY W. L & WF

P.355. LOT 29
RESIDENTIAL
RRDEO
C. GORGONE & A.

P.355. LOT 30
RESIDENTIAL
RRDEO
EVANS T J &
ESTHER T/E

P.355. LOT 1
RESIDENTIAL
RRDEO
ORLANDO JAMES E & WF

P.370
RESIDENTIAL
RRDEO
MOUNTAIN C J &
C V WF

P.437. LOT 1
RESIDENTIAL
RRDEO
WILSON KENNETH W
AND WIFE

P.438. LOT 2
AGRICULTURAL
RRDEO
MILLER THOMAS E
TRUSTEE

P.38. LOT 3
RESIDENTIAL
RRDEO
KAMMERER
CARLTON C & WF

P.38 LOT 4
RESIDENTIAL
RRDEO
KAMMERER
CARLTON C & WF

P.117. MAP 34
DEED REF. 1174/ 541
AGRICULTURAL - RRDEO
MCDANIEL JOHN P &
ELLEN G

P.401. LOT 1 AGRICULTURAL
RRDEO
MCDANIEL JOHN P & ELLEN G

APPROVED: DEPARTMENT OF PUBLIC WORKS	<i>Walter Z. ...</i>	3-25-04
CHIEF, BUREAU OF HIGHWAYS		DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	<i>... Hamilton</i>	4/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT		DATE
	<i>... De... ..</i>	3/23/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION		DATE

NO.	3/1/2003	LOT 8 PLOT PLAN	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E			
PROJECT NAME			
OWINGS PROPERTY			
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E			
5th ELECTION DISTRICT TAX MAP # 40, GRID			
PARCEL 44			
HOWARD COUNTY, MARYLAND			

TITLE	STORM DRAIN STUDY	OWNERS :	MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY :	Dewberry & Davis LLC A Densbury Company	DEVELOPER :	DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 955-6736 (410) 381-8747

DES. :	IEV	JOB :	XXX
DRW. :	SGB	PROJ. :	OZ745
CHK. :	MM	DATE :	DEC. 2003
SCALE :	1" = 100'	SHEET	11 OF 29

"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. 28935, EXPIRATION DATE: 1/15/2015"

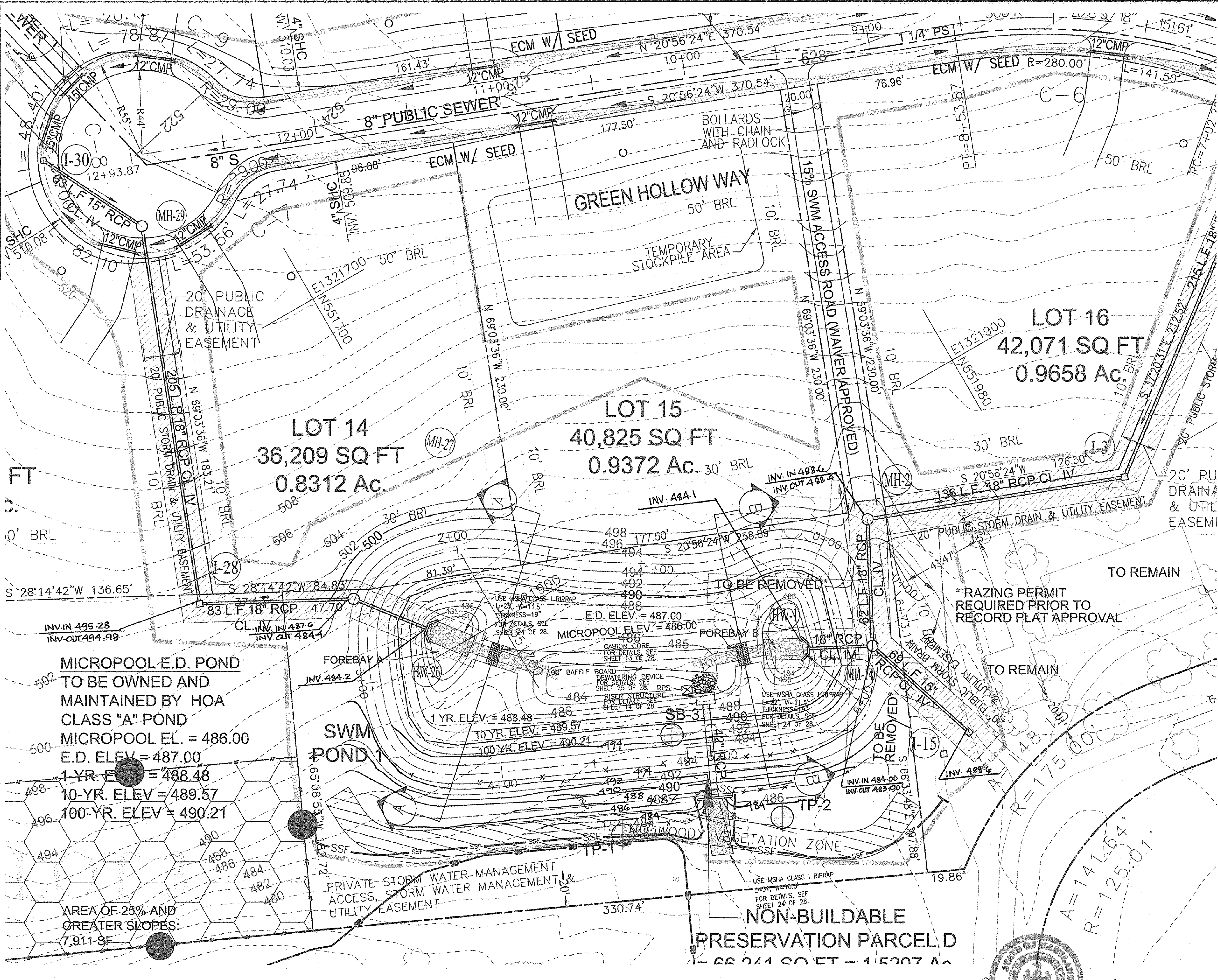


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F-03-123

Control Element	Type/Size of Control	Storage Provided	Elevation	Dis charge	Remarks
Units		Acre-Feet	MSL	cf/s	
Micro-pool		0.11	486.0	0	Part of WQv
Forebay		0.046	486.0	0	In addit. To Micro-pool volume
Extended Detention	6" pipe sized to 1.65" Dia.	0.1	487.0	0.06	Average release rate 0.17
Channel Protection	6" pipe sized to 1.37" Dia.	0.4	488.48	0.17	0.7 cfs- pre-rate release rate 0.19 cfs
Qp-10			489.57	1.95	14.5 cfs Pre-rate safety storm
Qp-100			490.21	49.09	14.5 cfs Pre-rate safety storm



MICROPOOL E.D. POND
TO BE OWNED AND MAINTAINED BY HOA
CLASS "A" POND
MICROPOOL EL. = 486.00
E.D. ELEV. = 487.00
1-YR. E. = 488.48
10-YR. ELEV. = 489.57
100-YR. ELEV. = 490.21

AREA OF 25% AND GREATER SLOPES
7,911-SF

* RAZING PERMIT REQUIRED PRIOR TO RECORD PLAT APPROVAL

BASED ON THE FIELD SURVEY DONE ON THE POND BY ERIC C. MARKS AS CERTIFIED BY HIM ON 12/20/06 (SHT 12/28) AND CERTIFICATION OF GARLAND L. BRIAN, SR. DATED FEBRUARY 5, 2007, ON THE INSTALLATION OF THE ANTI-SHEEP COLLAR AND RISER, FURTHER OF THE ANTI-SHEEP COLLAR AND RISER, FURTHER I BASED ON MY TR20 ANALYSIS OF THE DATA, I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN IN THE "AS-BUILT" PLAN AND MEETS THE APPROVED PLAN AND SPECIFICATIONS.

2-5-2007
JOSE H. ESCALANTE
PE # 13265
3/6/07
As Built

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

DATE: _____
SIGNATURE: _____ P.E. NO. _____

CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 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: 3/31/07
SIGNATURE: Richard M. Nigam
PRINTED NAME OF ENGINEER: Richard M. Nigam

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: 3/19/04
SIGNATURE: Dale H. Thompson
PRINTED NAME OF ENGINEER: Dale H. Thompson

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

DATE: 3/12/04
SIGNATURE: John Brown

DATE: 3/17/04
SIGNATURE: John Brown

DATE: 3/17/04
SIGNATURE: John Brown

DATE: 3/11/04
SIGNATURE: William A. Mansfield
CHIEF, BUREAU OF HIGHWAYS

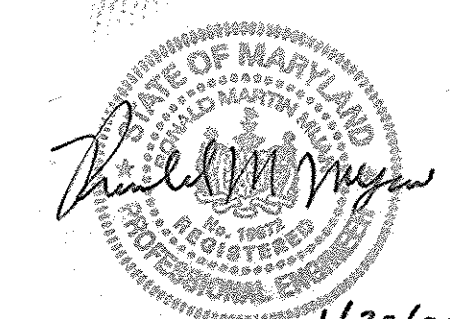
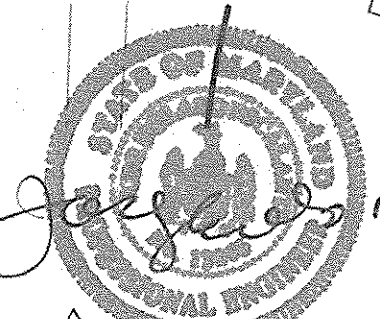
DATE: 4/1/04
SIGNATURE: Catherine
CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 3/21/04
SIGNATURE: ...
CHIEF, DEVELOPMENT ENGINEERING DIVISION

LEGEND

- - - EXISTING 2 FOOT CONTOURS
- - - EXISTING 10 FOOT CONTOURS
- PERC TEST HOLE: PASSED
- PERC TEST HOLE: FAILED
- PROPOSED WELL LOCATION
- ▨ FOREST CONSERVATION EASEMENT
- ▨ PROPOSED SHARED SEPTIC AREA
- ▨ EXISTING 15-24.9% SLOPES
- ▨ EXISTING 25% AND GREATER SLOPES
- ▨ SOILS LINE
- ▨ LIMITS OF DISTURBANCE

NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

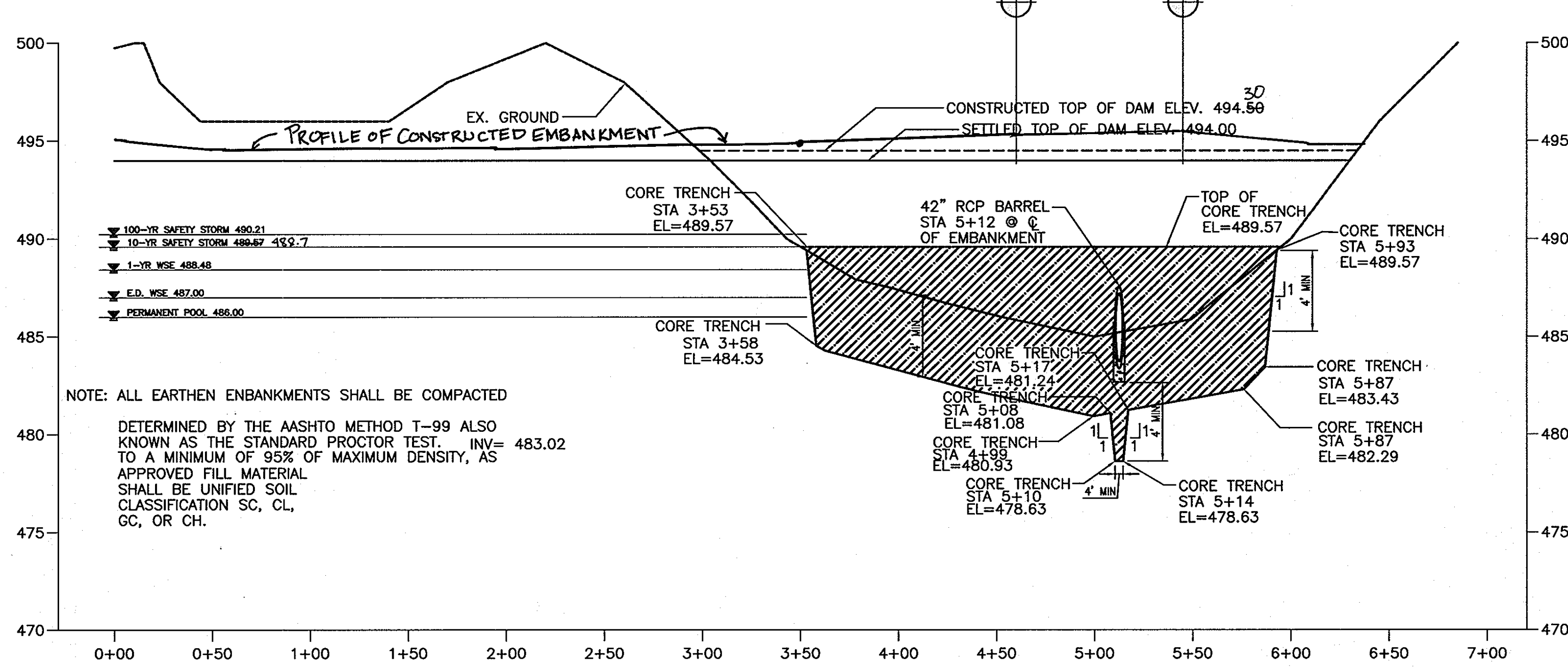
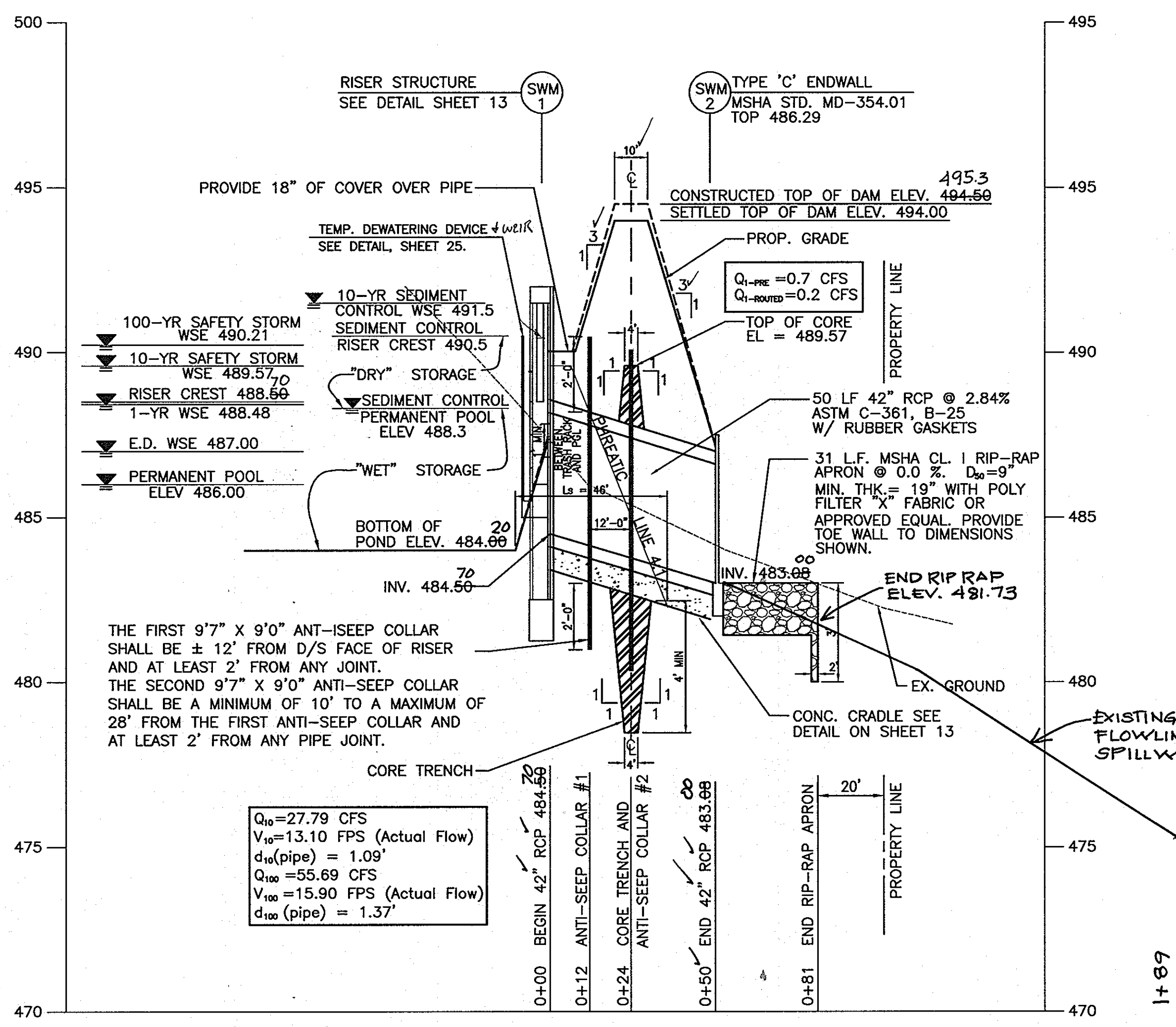


NO.	10-04-01	REMOVED EXISTING FENCING FROM STREET TO PROP. GATE	
NO.		REVISIONS	
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E			
PROJECT NAME OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND			
TITLE SWM POND #1 PLAN & DETAILS S-01-18 P-02-018 F-XX-XX		OWNERS : MR & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
PREPARED BY : Dewberry & Davis LLC A subsidiary of 203 PERRY PARKWAY GAINERSBURG, MD 20877 TEL: (301) 948-8300 FAX: (301) 298-7607			
DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 985-6735 (410) 381-8747			
DES. : MM	JOB : XXX	SCALE : 1" = 30'	SHEET 12 OF 28
DRW. : SGB	PROJ. : OZ745		
CHK. : JMC	DATE : DEC. 2003		

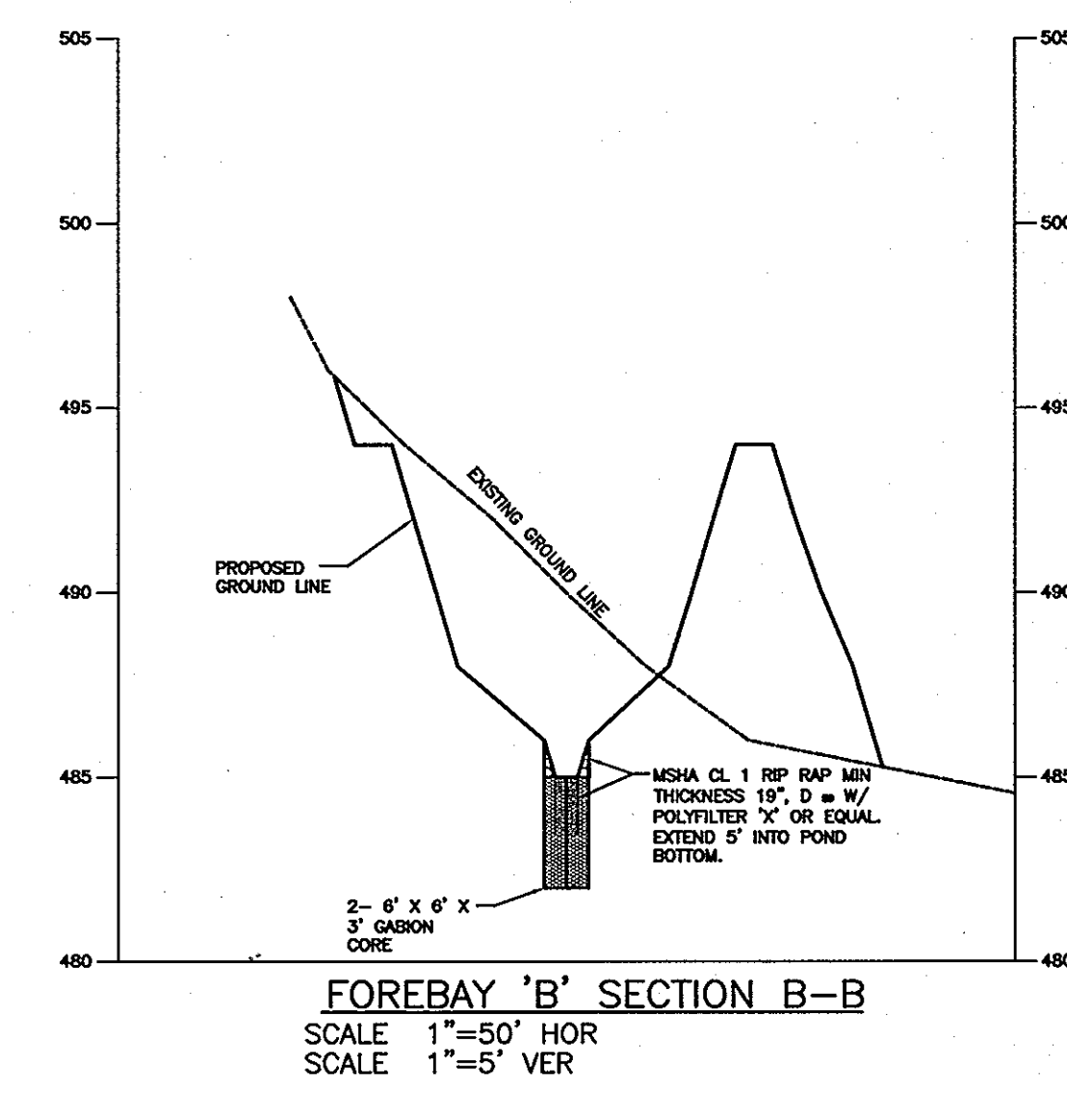
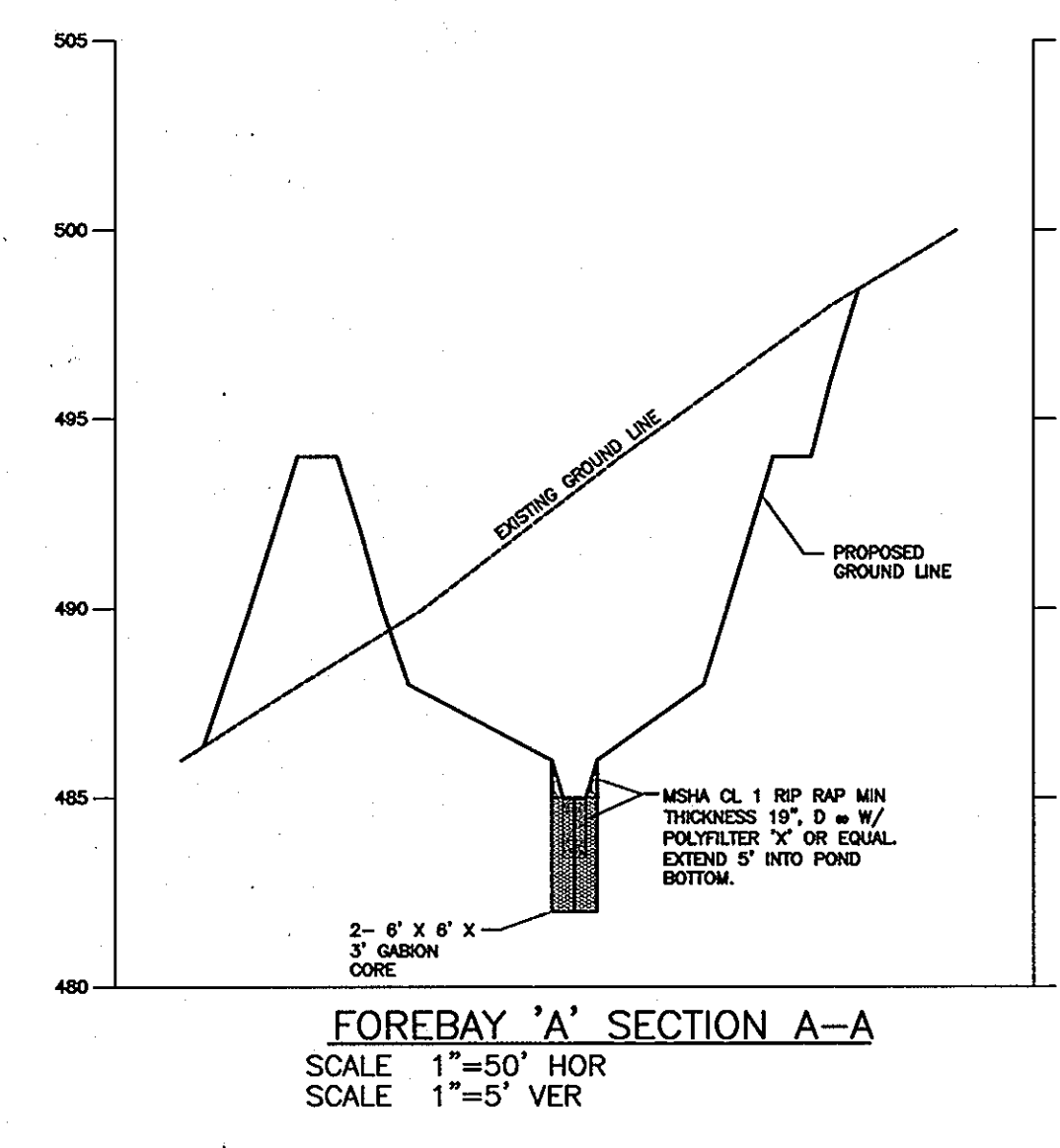
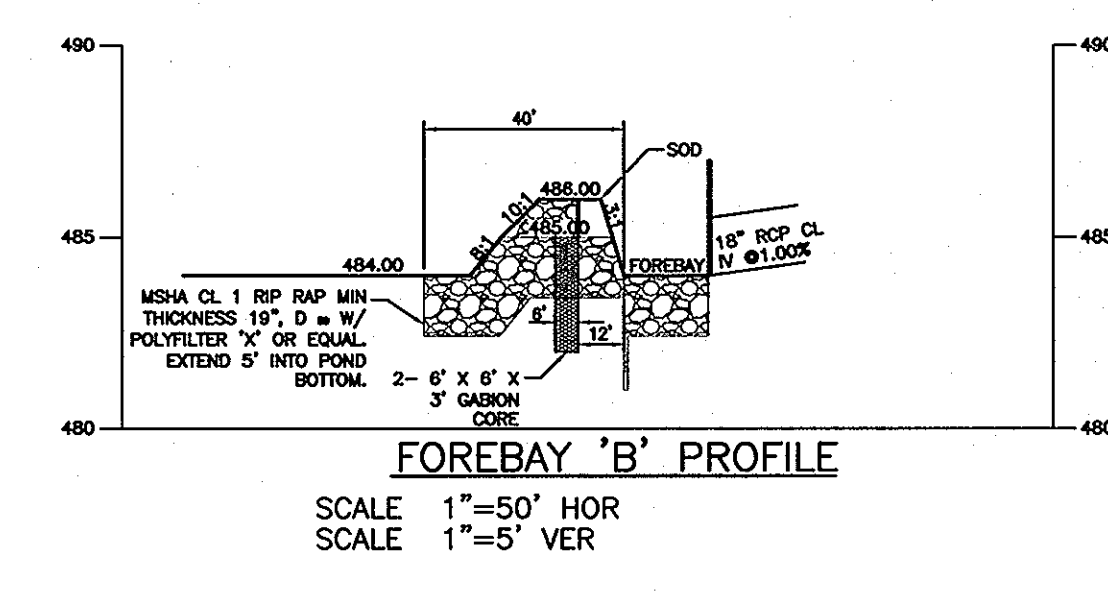
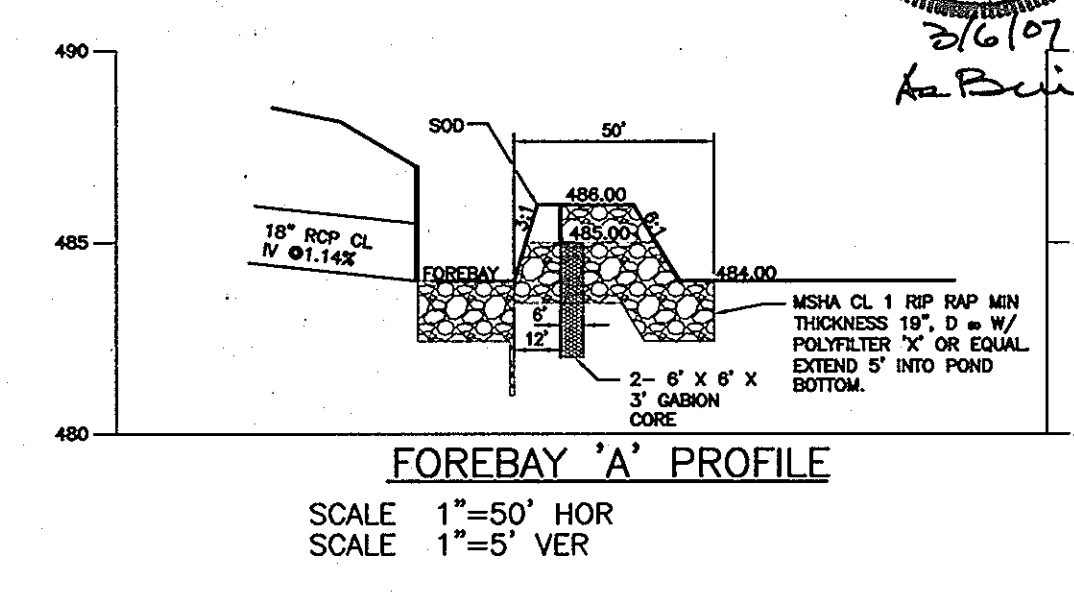
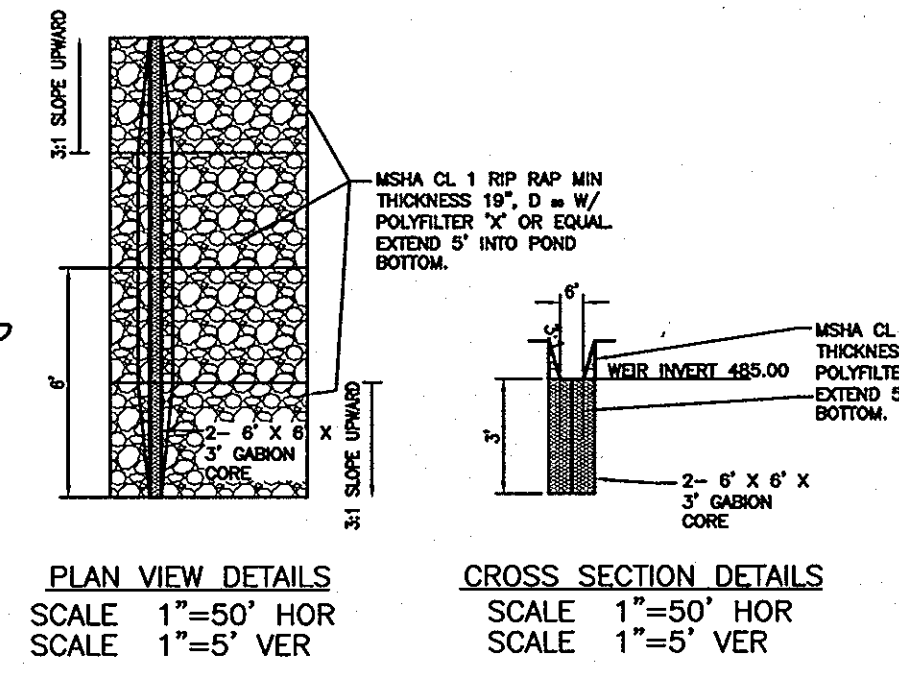
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F-03-133



BASED ON THE FIELD SURVEY DONE ON THE POND BY ERIK C MARKS AS CERTIFIED BY HIM ON 12/20/06 (SHT 12/28) AND THE CERTIFICATION OF GARLAND L BRIAN, SR. DATED FEBRUARY 5, 2007 ON THE INSTALLATION OF THE ANTI-SEEP COLLAR AND RISER, I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN IN THE "AS-BUILT" PLAN AND MEETS THE APPROVED PLAN AND SPECIFICATIONS



GTA GEOTECHNICAL EXPLORATION

2. Basin Excavation and Embankment Construction

Based on the referenced pond drawing, excavation of up to 8 feet will be required to achieve the proposed basin bottom elevation of 484 MSL. Additional excavation will be required to construct sand filter and recharge volumes. Fills up to 9 feet will be required to achieve embankment top elevation of 494 MSL. From test pit data and review of the referenced plans, excavation of the basin can generally be accomplished by standard means, such as scraping and possibly ripping.

Groundwater was observed in Test Pits TP-1 and TP-2 at approximate elevations of 473.5 to 477.5 MSL, respectively. These test pits were located in an existing swale near the downstream toe of the proposed embankment. Test Pit TP-3, located within the proposed basin, was dry to the bottom elevation of 470.5 MSL. Accordingly, groundwater is not expected in excavations to the proposed pond bottom elevation of 480 MSL, and groundwater is not expected to impact pond construction or the stability of excavated slopes.

Existing fill, topsoil, and unstable materials are not considered suitable for support of the proposed embankment or structures. Prior to the placement of compacted fill or the construction of the outfall and structures, areas supporting the proposed embankment and structures should be stripped and grubbed to remove existing fill, topsoil and any organic matter. Unsuitable materials should be removed to the bottom of the proposed cutoff trench. The existing fill encountered in Test Pit TP-3 appears generally suitable for reuse as structural fill. After removal, existing fill meeting the project requirements for structural fill, and free of deleterious materials may be reused.

Based on the test pit data, a topsoil stripping thickness up to 24 inches may occur at the outfall. GTA recommends an average stripping thickness of 12 inches be used for earthwork estimates. The actual stripping thickness will be impacted by contractor methodology, season of construction, and localized topsoil development.

After stripping, the subgrade should be proof-rolled as directed by a geotechnical engineer or his qualified representative. Unsuitable soils identified by proofrolling should be removed from subgrade. No fills should be placed or foundations constructed until the geotechnical engineer approves the subgrade.

Fills for cutoff trench and embankment construction should be placed in eight-inch loose lifts, and compacted to at least 95 percent of the maximum dry density in accordance with the Standard Proctor, ASTM D-698. Fills around the outfall works should be placed in 4-inch lifts and compacted to the same standard with hand equipment. Based on laboratory analysis, on-site soils are likely to be wet of the optimum moisture for compaction, and moisture conditioning may be required. Construction during a dry season is recommended to facilitate the drying of soils. Compactive effort should be monitored with in-place density testing as performed by a qualified representative under the direction of a professional engineer.

Construction Observation and Testing Scope

If requested by Dale Thompson Builders, during site development GTA will provide observation and testing services to observe that the work is being performed in accordance with the intent of this report and the project plans.

LIMITATIONS

This report has been prepared for the exclusive use of Dale Thompson Builders, in accordance with generally accepted geotechnical engineering practice. No other warranty, express or implied, is made.

The analysis and recommendations contained in this report are based on the data obtained from limited observation and testing of the surface materials. The test pits indicate soil conditions only at specific locations and times, and only to the depths penetrated. They do not necessarily reflect strata variations that may exist between the test pit locations. Consequently, the analysis and recommendations must be considered preliminary until the subsurface conditions can be verified by direct observation at the time of construction. If variations in subsurface conditions from those described are noted during construction, recommendations in this report may need to be re-evaluated.

In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are verified in writing. Geo-Technology Associates, Inc. is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis without the express written authorization of Geo-Technology Associates, Inc.

AS-BUILT CERTIFICATION	
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.	
SIGNATURE	P.E. NO.
DATE	
CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TEST ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.	
BY THE ENGINEER:	
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.	
SIGNATURE	DATE
PRINTED NAME OF ENGINEER	
BY THE DEVELOPER:	
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT AND GENERAL SERVICES PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL EMPLOY A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE	DATE
PRINTED NAME OF DEVELOPER	
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.	
SIGNATURE	DATE
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE	
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE	DATE
DISTRICT HOWARD SOIL CONSERVATION DISTRICT	
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE	DATE
CHIEF, BUREAU OF HIGHWAYS	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
SIGNATURE	DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	
SIGNATURE	DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION	

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER PONDS (P-1 THROUGH P-5)

ROUTINE MAINTENANCE (BY HOA)

FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHOULD BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE POND IS FUNCTIONING PROPERLY.

TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF TWO (2) TIMES A YEAR. ONCE IN JUNE AND ONCE IN SEPTEMBER. OTHER SIDE SLOPES, THE BOTTOM OF THE POND AND MAINTENANCE ACCESS SHOULD BE MOWED AS NEEDED.

DEBRIS AND LITTER NEXT TO THE OUTLET STRUCTURE SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.

VISIBLE SIGNS OF EROSION IN THE POND AS WELL AS RIP-RAP OUTLET AREA SHALL BE REPAIRED AS SOON AS NOTICED.

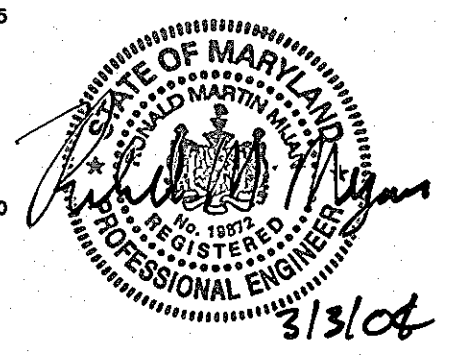
NON-ROUTINE MAINTENANCE (BY HOA)

STRUCTURAL COMPONENTS OF THE POND SUCH AS THE DAM, RISER STRUCTURE, AND THE PIPES SHALL BE REPAIRED UPON THE DETECTION OF ANY DAMAGE. THE COMPONENTS SHOULD BE INSPECTED DURING ROUTINE MAINTENANCE OPERATIONS.

SEDIMENT SHOULD BE REMOVED WHEN ITS ACCUMULATION SIGNIFICANTLY REDUCES THE DESIGN STORAGE, INTERFERES WITH THE FUNCTION OF THE RISER, WHEN DEEMED NECESSARY FOR AESTHETIC REASONS, OR WHEN DEEMED NECESSARY BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

OPERATION, MAINTENANCE AND INSPECTION

INSPECTION OF THE POND SHOWN HEREON SHALL BE PERFORMED AT LEAST ANNUALLY, IN ACCORDANCE WITH THE CHECKLIST AND REQUIREMENTS CONTAINED WITHIN USDA, SCS "STANDARDS AND SPECIFICATIONS FOR PONDS" (MD-378). THE POND OWNER AND ANY HEIRS, SUCCESSORS, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE SAFETY OF THE POND AND THE CONTINUED OPERATIONS, SURVEILLANCE, INSPECTION AND MAINTENANCE THEREOF. THE POND OWNER SHALL PROMPTLY NOTIFY THE SOIL CONSERVATION DISTRICT OF ANY UNUSUAL OBSERVATIONS THAT MAY BE INDICATORS OF DISTRESS SUCH AS EXCESSIVE SEEPAGE, TURBID SEEPAGE, SLIDING OR SLUMPING.



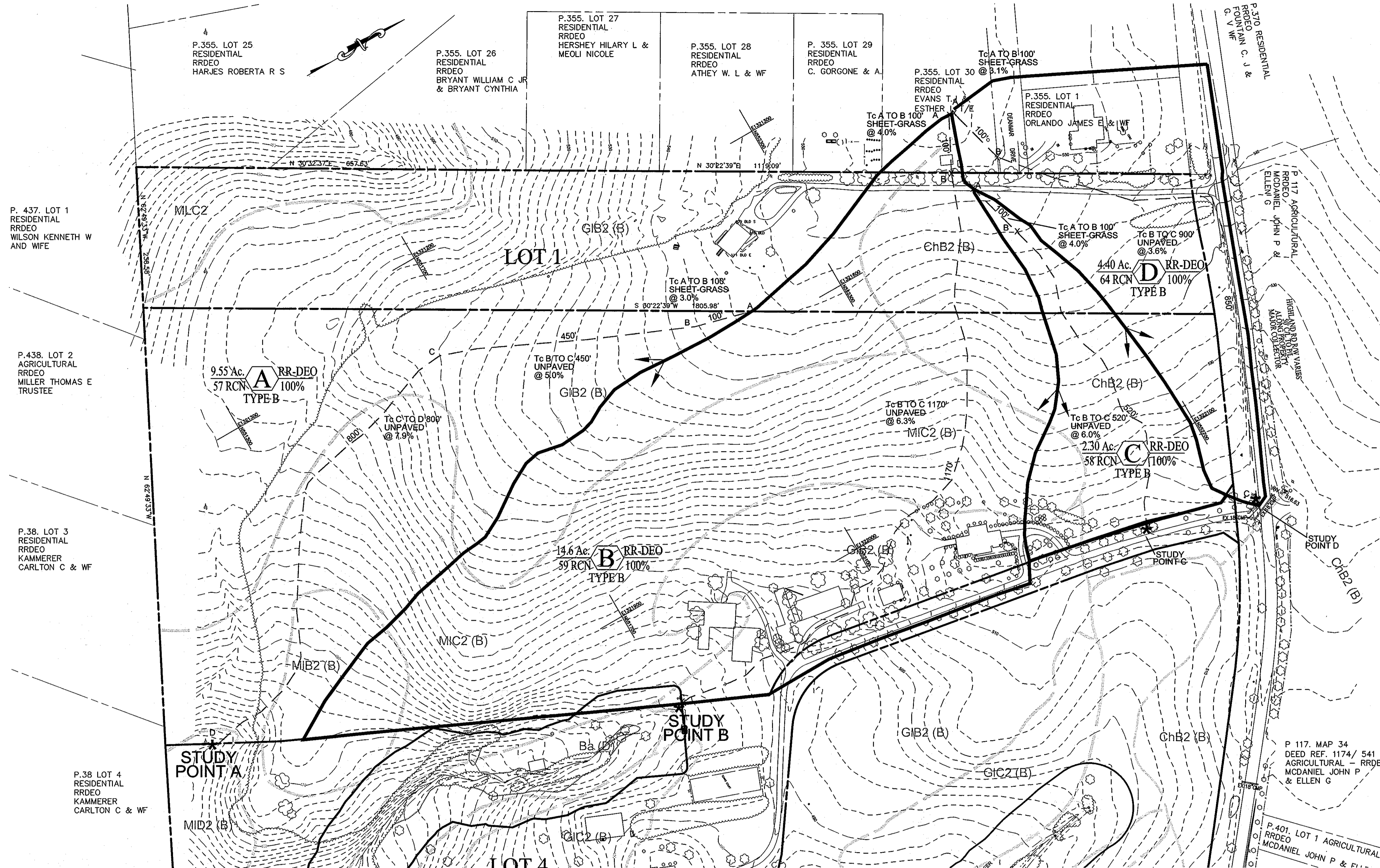
NO.	DATE	REVISIONS
A RESUBMISSION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME		
OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE	SWM POND #1 NOTES & DETAILS S-01-18 P-02-018 F-03-133	
PREPARED BY:	Dewberry & Davis LLC 203 PERRY PARKWAY, SUITE 1 GATHERSBURG, MD 20877 TEL: (301) 948-8300 FAX: (301) 258-7807	
DEVELOPER:	DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747	
OWNERS:	MR. & MRS. MARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
DES.: MM	JOB: XXX	SCALE: AS SHOWN
DRW.: SGB	PROJ.: 02745	SHEET 13 OF 29
CHK.: RMM	DATE: DEC. 2003	

**SOILS LEGEND
HOWARD COUNTY**

- NON-HYDRIC SOILS LIST**
- CHB2 CHESTER SILT LOAM,
3 TO 8 PERCENT SLOPES,
MODERATELY ERODED
 - GLB2 GLENELG LOAM,
3 TO 8 PERCENT SLOPES,
MODERATELY ERODED
 - MLB2 MANOR LOAM,
3 TO 8 PERCENT SLOPES,
MODERATELY ERODED
 - MLC2 MANOR LOAM,
8 TO 15 PERCENT SLOPES,
MODERATELY ERODED
 - MLD2 MANOR LOAM,
15 TO 25 PERCENT SLOPES,
MODERATELY ERODED
- HYDRIC SOILS LIST**
- NO HYDRIC SOILS ON SITE
- DESCRIPTION PER HOWARD COUNTY SOIL SURVEY

LEGEND

- - - - - EXISTING 2 FOOT CONTOURS
- - - - - EXISTING 10 FOOT CONTOURS
- - - - - SOILS LINE
- MIC2 SOIL TYPE (SEE SOIL LEGEND)
- — — — — DRAINAGE DIVIDE
- — — — — To FLOWPATH



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William J. Maloney</i> CHIEF, BUREAU OF HIGHWAYS <i>MS</i>	3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>Grady Hamrick</i> CHIEF, DIVISION OF LAND DEVELOPMENT <i>AL</i>	4/1/04 DATE
<i>Chad D. ...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION <i>4</i>	5/21/04 DATE

NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-16 AND PARCELS A-E		

PROJECT NAME
OWINGS PROPERTY
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
5th ELECTION DISTRICT
PARCEL 44
HOWARD COUNTY, MARYLAND

TITLE
EXISTING SWM DRAINAGE AREA MAP
S-01-18 P-02-018 F-03-133

OWNERS :
MR. & MRS. HARWOOD OWINGS
13009 HIGHLAND ROAD
HIGHLAND, MARYLAND 20777

PREPARED BY :
Dewberry & Davis LLC
203 PERRY PARKWAY
GAITHERSBURG, MD 20877
TEL: (301) 948-8300
FAX: (301) 258-7607

DEVELOPER :
DALE THOMPSON BUILDERS
6300 WOODSIDE COURT
COLUMBIA, MARYLAND 21046
(410) 995-8735
(410) 351-8747

DES. : IEV **JOB :** XXX

DRW. : SGB **PROJ. :** OZ745

CHK. : RMM **DATE :** DEC. 2003

SCALE : 1" = 100'

SHEET 15 OF 29

OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY WET POND

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 litter next to the outlet structure shall be removed during regular mowing operations and as needed.

When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.



OPERATION, MAINTENANCE, AND INSPECTION

Inspection of the pond shown hereon shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds* (MD378). The pond owner(s) and their heirs, 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 seepage, sliding or slumping.

NOTE

INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-251-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

P:\PROJECTS\2004\02\04\OWINGS\DWG\OWINGS_SWM.dwg, 1/29/2004 2:34:59 PM, jehack

SOILS LEGEND
HOWARD COUNTY

- NON-HYDRIC SOILS LIST**
- CHB2 CHESTER SILT LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
 - GLB2 GLENELG LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
 - MLB2 MANOR LOAM, 3 TO 8 PERCENT SLOPES, MODERATELY ERODED
 - MLC2 MANOR LOAM, 8 TO 16 PERCENT SLOPES, MODERATELY ERODED
 - MLD2 MANOR LOAM, 16 TO 25 PERCENT SLOPES, MODERATELY ERODED
- HYDRIC SOILS LIST**
- NO HYDRIC SOILS ONSITE
- DESCRIPTION PER HOWARD COUNTY SOIL SURVEY

SUBAREA 'A'

Tc	0.220 hr
RCN	61
DA	8.4 Ac.
Soils	TYPE B
1 Acre Lots	
Open	3.72 Ac.
Woods	2.58 Ac.
Credits	
Environmentally Sensitive Development	8.40 Ac.
Natural Area of Conservation (Forest Conservation Easement)	3.64 Ac.

SUBAREA 'B'

Tc	.208 hr
RCN	68
DA	17.1 Ac.
Soils	TYPE B
1 Acre Lots	
Onsite	9.76 Ac.
Offsite	2.63 Ac.
Open	
Onsite	3.99 Ac.
Pavement	
Onsite	0.60 Ac.
Offsite	0.12 Ac.
Credits	
Grass Channel Ditch for Rev	

SUBAREA 'B1'

Tc	.208 hr
RCN	68
DA	15.5 Ac.

SUBAREA 'D'

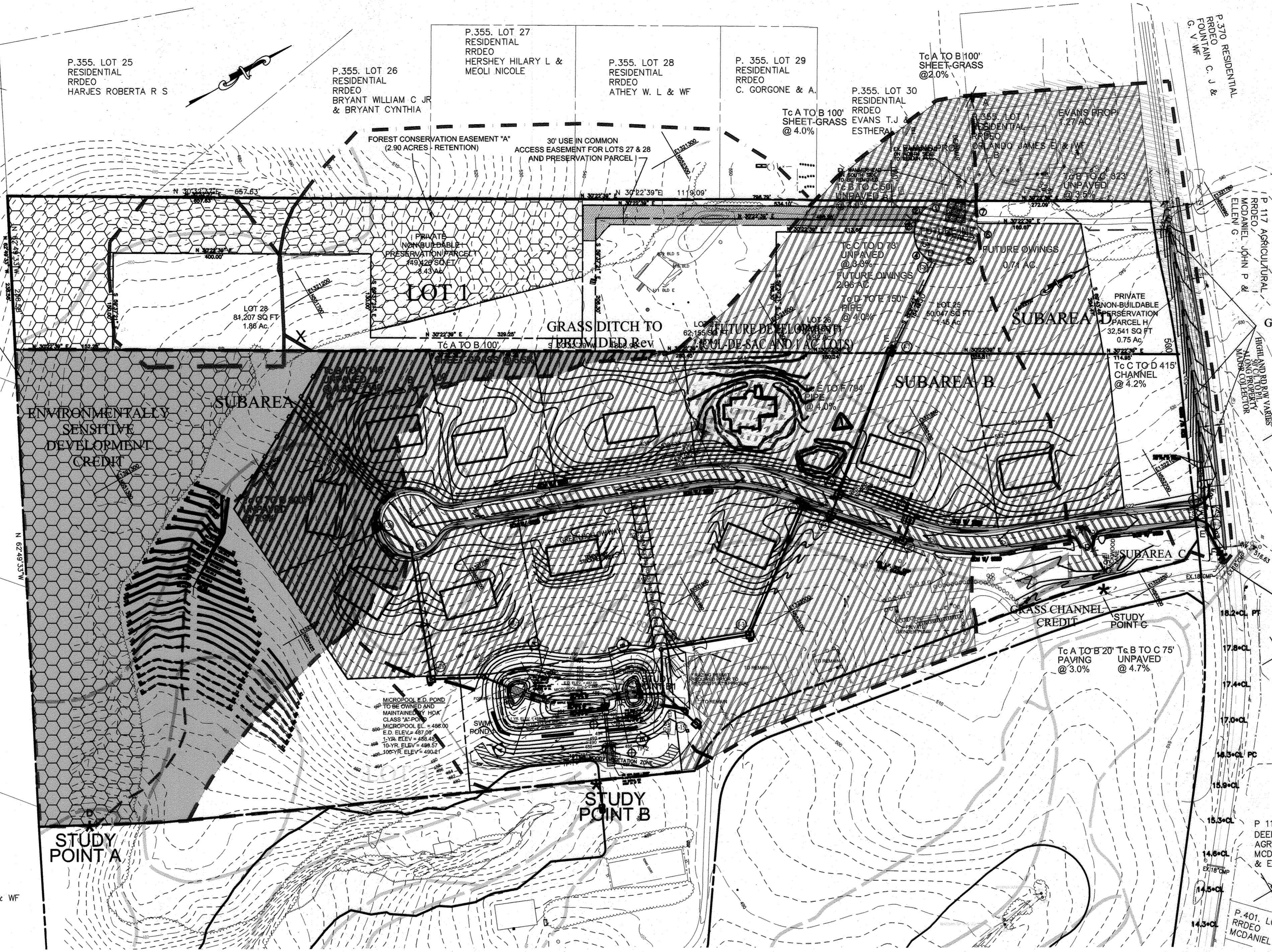
Tc	0.395 hr
RCN	68
DA	4.80 Ac.
Soils	TYPE B
1 Acre Lots	
Onsite	0.98 Ac.
Offsite	1.98 Ac.
Street A	0.40 Ac.
Open	
Onsite	0.69 Ac.
Offsite	0.75 Ac.
Credits	
Grass Channel	4.8 Ac.

SUBAREA 'C'

Tc	0.217 hr
RCN	68
DA	0.55 Ac.
Soils	TYPE B
1 Acre Lots	
Open	
Green Hollow Way	0.04 Ac.
Open	0.19 Ac.
Credits	
Grass Channel	0.55 Ac.

LEGEND

- EXISTING 2 FOOT CONTOURS
- EXISTING 10 FOOT CONTOURS
- SOILS LINE
- SOIL TYPE (SEE SOIL LEGEND)
- ENVIRONMENTAL CREDIT (SUB AREA A)
- DRAINAGE DIVIDE
- Tc FLOWPATH
- DITCH PROVIDING Rev
- NATURAL CONSERVATION AREA (FOREST CONSERVATION)
- GRASS CHANNEL CREDIT Rev & WQV
- OPEN
- PAVEMENT
- 1 ACRE LOTS



SUMMARY OF CONTROLS PROVIDED IN POND 1

Control Element	Type/Size of Control	Storage Provided	Elevation	Discharge	Remarks
Units		Acre-Feet	MSL	cfs	
Micro-pool		0.19	486.0	0	Part of WQV
Forebay		0.046	486.0	0	In addit. To Micro-pool volume
Extended Detention	6" pipe sized to 1.65" Dia.	0.22	487.0	0.06	Average release rate 0.17
Channel Protection	6" pipe sized to 1.37" Dia.	0.4	488.48	0.17	0.7 cfs pre-rate release rate 0.19 cfs
Qp-10			489.57	21.95	14.5 cfs Pre-rate safety storm
Qp-100			490.21	49.09	14.5 cfs Pre-rate safety storm

OPERATION, MAINTENANCE, AND INSPECTION

Inspection of the pond shown herein shall be performed at least annually, in accordance with the checklist and requirements contained within USDA, SCS Standards and Specifications For Ponds (MD378). The pond owner(s) and their heirs, 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 seepage, sliding or slumping.

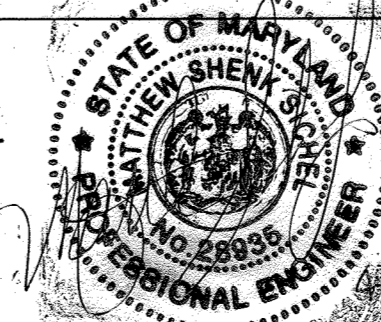
OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY WET POND

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 litter next to the outlet structure shall be removed during regular mowing operations and as needed.

When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is 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. 28935, EXPIRATION DATE: 1/15/2025



NOTICE: INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

APPROVED: DEPARTMENT OF PUBLIC WORKS
William Z. ... 3-25-04
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
... 4/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF ENGINEERING
... 3/22/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO. 3/1/2023 LOT 8 PLOT PLAN REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E

PROJECT NAME: **OWINGS PROPERTY**
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44
HOWARD COUNTY, MARYLAND

TITLE: **PROPOSED SWM DRAINAGE AREA MAP**
S-01-18 P-02-018 F-03-133

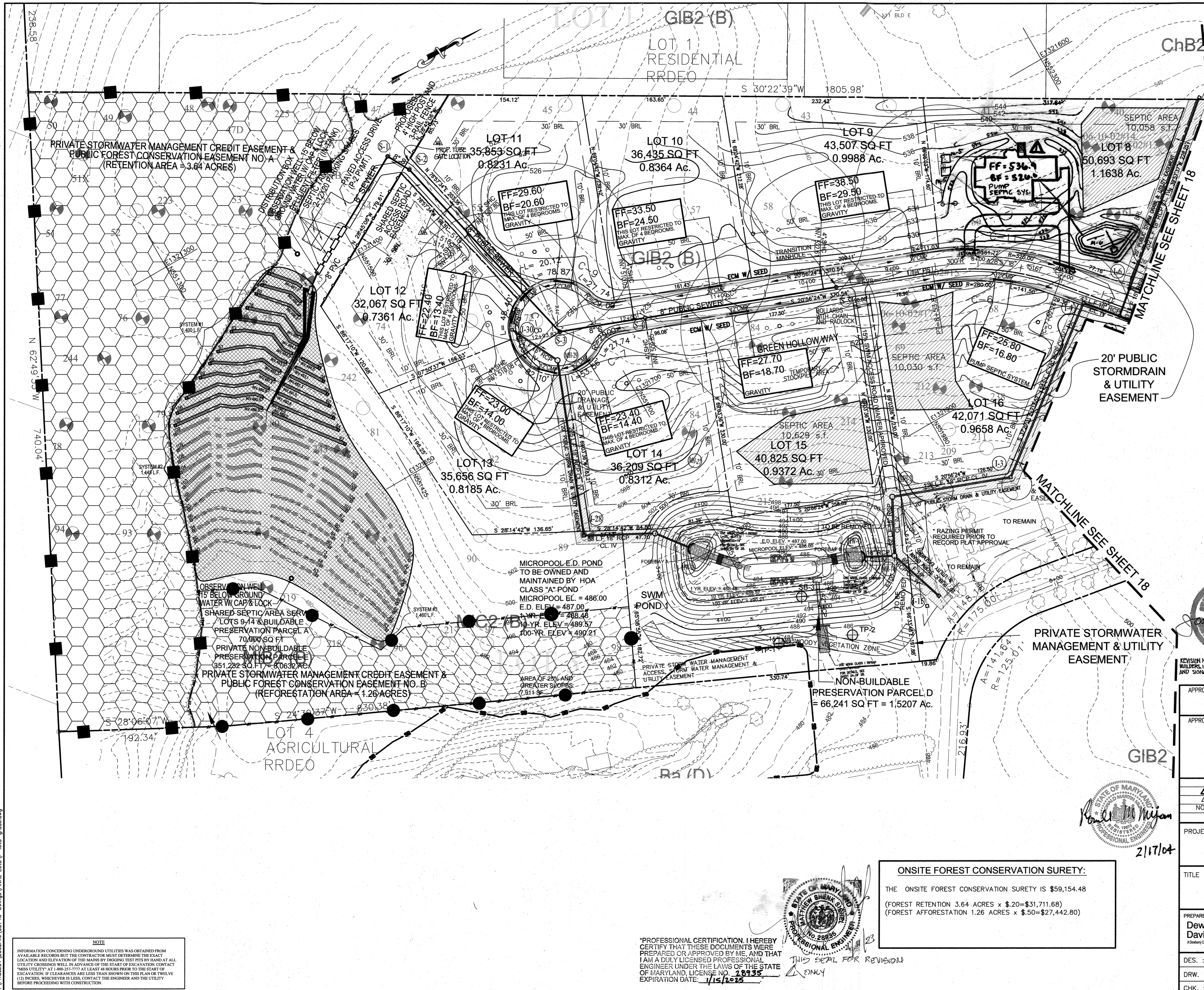
OWNERS: MR. & MRS. HARWOOD OWINGS
13009 HIGHLAND ROAD
HIGHLAND, MARYLAND 20777

DEVELOPER: DALE THOMPSON BUILDERS
6300 WOODSIDE COURT
COLUMBIA, MARYLAND 21046
(410) 985-6736
(410) 381-8747

PREPARED BY: **Dawberry & Davis LLC**
804 WEST DIAMOND AVE.
GATHERSBURG, MD 20878
TEL: (301) 948-8300
FAX: (301) 258-7907

DES.: IEV JOB.: XXX
DRW.: SGB PROJ.: OZ745 SCALE.: 1" = 100'
CHK.: RMM DATE: DEC. 2003 SHEET 16 OF 29

P:\PROJECT\2002\Final\OZ745-Owings\Drawings\FINAL Lot 3\F-03-proposal\SWMap.dwg, 1/29/2004 3:10:39 PM, jcheek
P:\PROJECT\2002\Final\OZ745-Owings\FINAL Lot 3\F-03-proposal\SWMap.dwg



ENGINEER'S CERTIFICATE
 I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 Signature of Engineer: *Rand M. Mijan* DATE: 3/3/04

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE REEMED NECESSARY.
 Signature of Developer: *[Signature]* DATE: 3/3/04

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
 U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE DATE: _____
 THE DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DISTRICT HOWARD SOIL CONSERVATION LIST DATE: _____
 APPROVED: DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF HIGHWAYS DATE: _____
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE: _____
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: _____

LEGEND

- EXISTING 2 FOOT CONTOURS
- EXISTING 10 FOOT CONTOURS
- PERC TEST HOLE: PASSED
- PERC TEST HOLE: FAILED
- PROPOSED WELL LOCATION
- FOREST CONSERVATION EASEMENT
- PROPOSED SHARED SEPTIC AREA
- EXISTING 15-24.9% SLOPES
- EXISTING 25% AND GREATER SLOPES
- SOILS LINE

REVISION NO. 04 BY DALE THOMPSON BUILDERS, INC. THE ENGINEER'S SEAL AND SIGNATURE HEREWITH AFFIXED.
 NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Mahan Jr. 3-25-04
 CHIEF, BUREAU OF HIGHWAYS
 APPROVED: DEPARTMENT OF PLANNING AND ZONING
C. Hamaker 4/1/04
 CHIEF, DIVISION OF LAND DEVELOPMENT
[Signature] 3/3/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

3/1/2003 LOT 8 PLOT PLAN
 10-D4-01 REMOVED EXISTING FENCING FROM STREET TO PROP. GATE LOCATION
 NO. DATE REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E
 PROJECT NAME: **OWINGS PROPERTY**
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44
 HOWARD COUNTY, MARYLAND

TITLE: **GRADING PLAN**
 S-01-18 P-02-018 F-03-133

PREPARED BY: **Dewberry & Davis LLC**
 203 PERRY PARKWAY
 GAITHERSBURG, MD 20877
 TEL: (301) 948-6500
 FAX: (301) 258-7607

OWNERS: MR. & MRS. HARWOOD OWINGS
 13009 HIGHLAND ROAD
 HIGHLAND, MARYLAND 20777

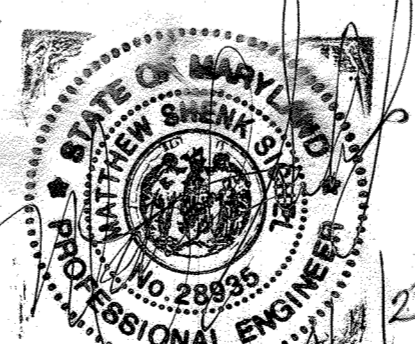
DEVELOPER: DALE THOMPSON BUILDERS
 6300 WOODSIDE COURT
 COLUMBIA, MARYLAND 21046
 (410) 995-6736
 (410) 381-8747

DES.: IEV JOB.: XXX
 DRW.: SGB PROJ.: OZ745 SCALE: 1" = 50'
 CHK.: MM DATE: DEC. 2003 SHEET 17 OF 29

ONSITE FOREST CONSERVATION SURETY:
 THE ONSITE FOREST CONSERVATION SURETY IS \$59,154.84
 (FOREST RETENTION 3.64 ACRES x \$.20=\$31,711.68)
 (FOREST AFFORESTATION 1.26 ACRES x \$.50=\$27,442.80)

NOTE
 INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWENTY (20) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

"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. 28755, EXPIRATION DATE: 1/15/2005"



P:\PROJECT\2002\16-OWINGS\FINAL Loc3V -lot3-grading.dwg

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

Richard M. Mijam 3/15/04
 SIGNATURE OF ENGINEER DATE

DEVELOPER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE REEMED NECESSARY.

John A. Shyne 3/9/04
 SIGNATURE OF DEVELOPER DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A.—NATURAL RESOURCES CONSERVATION SERVICE DATE

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

DISTRICT HOWARD SOIL CONSERVATION LIST DATE

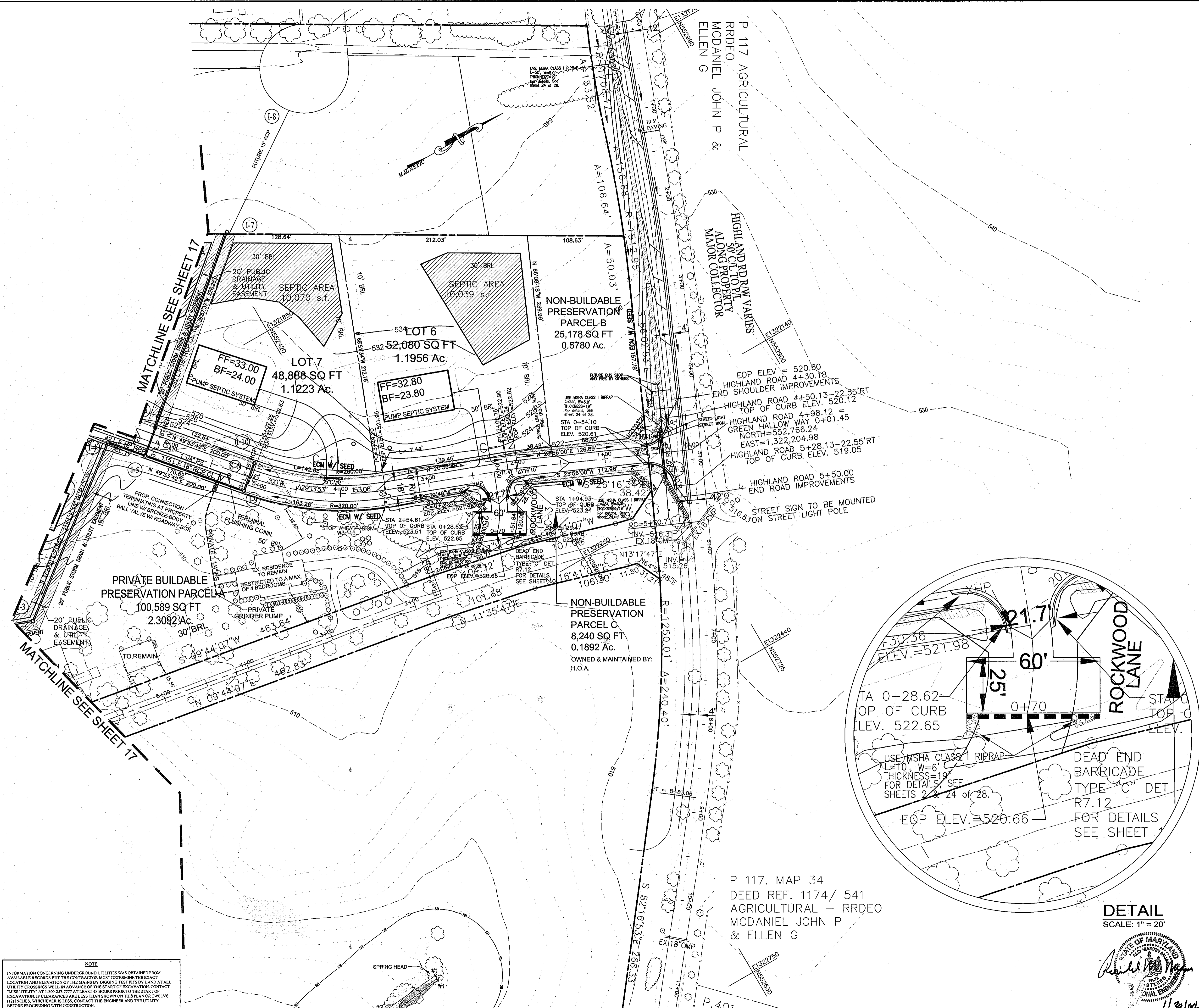
APPROVED: DEPARTMENT OF PUBLIC WORKS

CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING

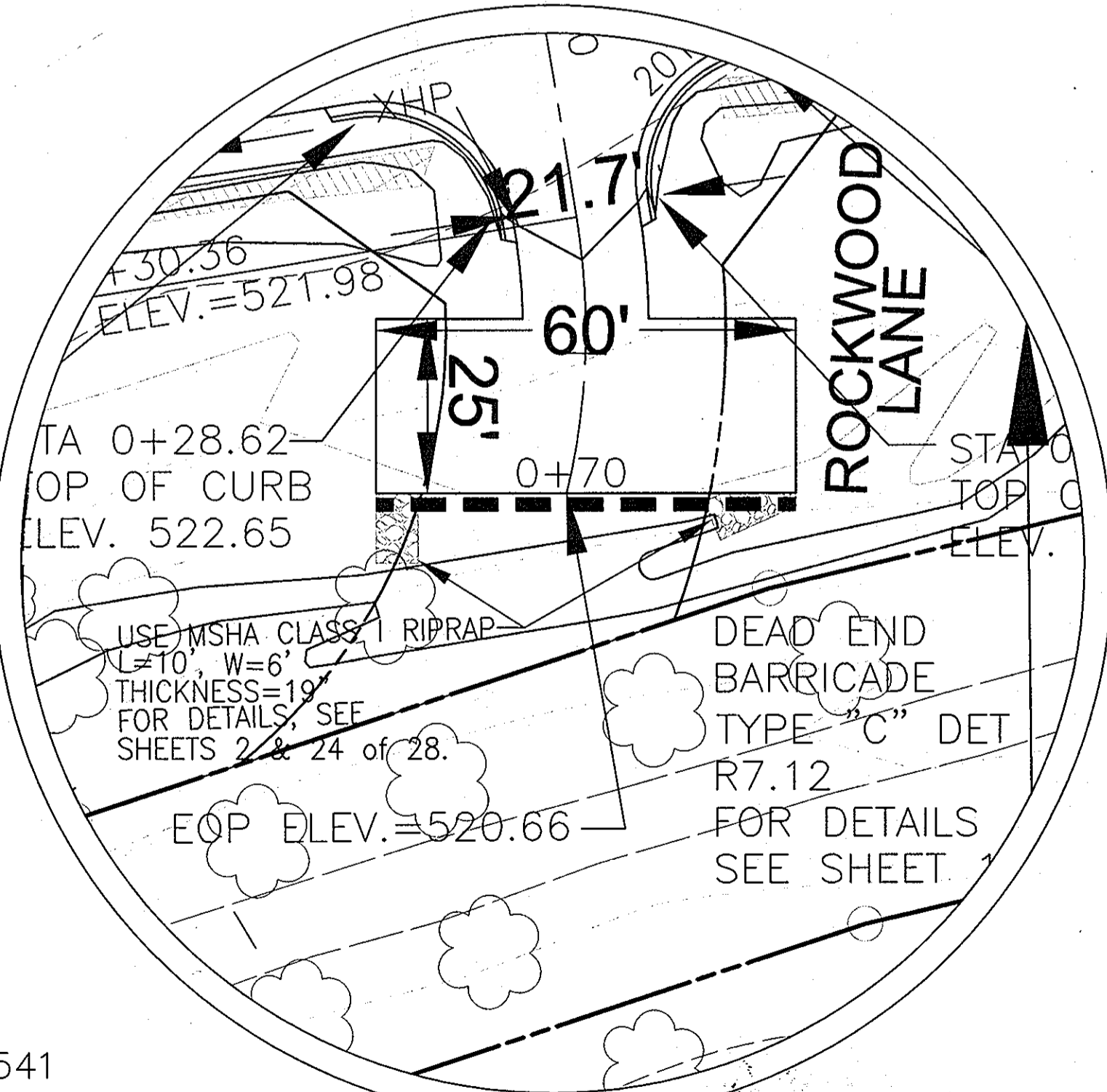
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

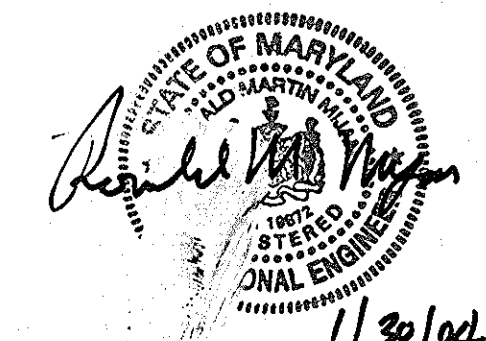


- LEGEND**
- EXISTING 2 FOOT CONTOURS
 - EXISTING 10 FOOT CONTOURS
 - PERC TEST HOLE: PASSED
 - PERC TEST HOLE: FAILED
 - PROPOSED WELL LOCATION
 - ▨ FOREST CONSERVATION EASEMENT
 - ▨ PROPOSED SHARED SEPTIC AREA
 - ▨ EXISTING 15-24.9% SLOPES
 - ▨ EXISTING 25% AND GREATER SLOPES
 - SOILS LINE

NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES



DETAIL
 SCALE: 1" = 20'



NOTE
 INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WILL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

APPROVED: DEPARTMENT OF PUBLIC WORKS
William F. Whelan 3-25-04
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John A. Shyne 4/1/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Richard M. Mijam 3/29/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

NO.	DATE	REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E
PROJECT NAME **OWINGS PROPERTY**
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44
 HOWARD COUNTY, MARYLAND

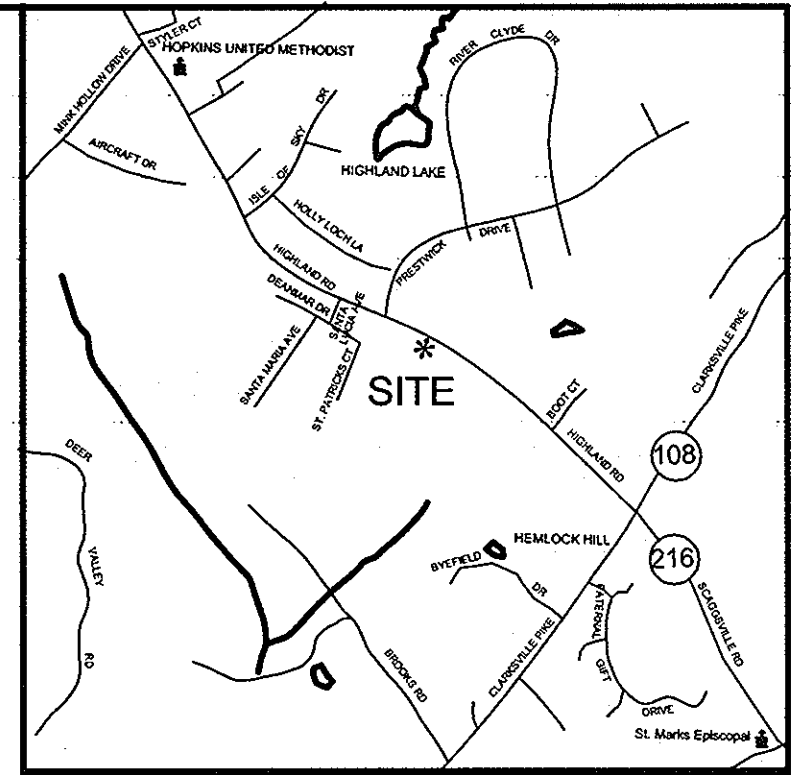
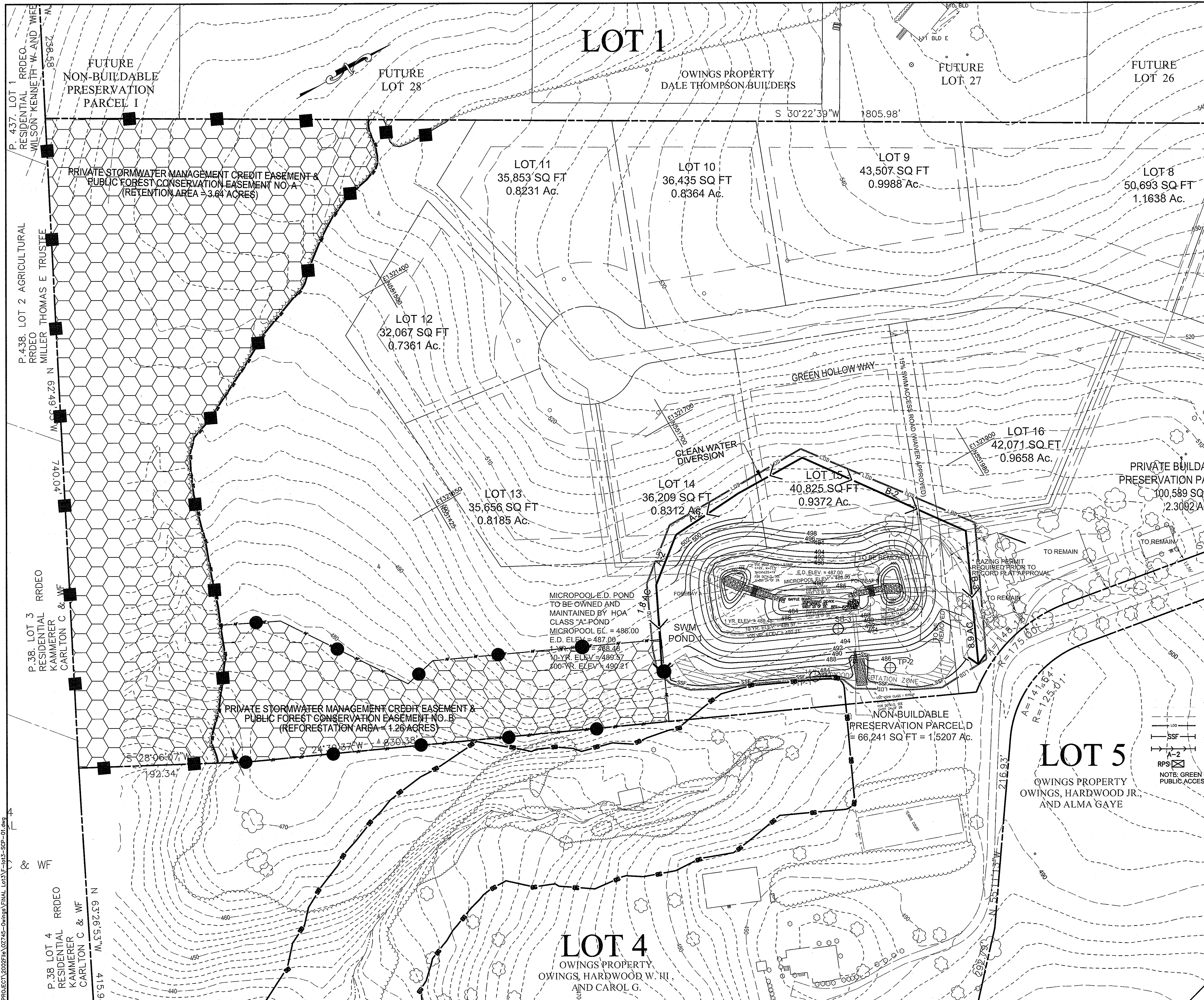
TITLE **GRADING PLAN**
 S-01-18 P-02-016 F-03-133

PREPARED BY: Dewberry & Davis LLC
 203 PERRY PARKWAY
 GAITHERSBURG, MD 20877
 TEL: (301) 948-8300
 FAX: (301) 258-7607

DEVELOPER: DALE THOMPSON BUILDERS
 6300 WOODSIDE COURT
 COLUMBIA, MARYLAND 21046
 (410) 995-6736
 (410) 381-8747

DES.: IEV **JOB:** XXX
DRW.: SGB **PROJ.:** 02745 **SCALE:** 1" = 50'
CHK.: MM **DATE:** DEC. 2003 **SHEET 18 OF 29**

P:\PROJECT\2002\02\0745-Owings\FINAL_Lots3V-1c15-grading.dwg



VICINITY MAP
SCALE: 1"=2000'

NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

AS-BUILT CERTIFICATION	
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.	
SIGNATURE	P.E. NO.
DATE	
CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATE RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.	
BY THE 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 NOTICED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.	
SIGNATURE	DATE
PRINTED NAME OF ENGINEER	
BY THE DEVELOPER:	
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE	DATE
PRINTED NAME OF DEVELOPER	
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.	
SIGNATURE	DATE
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE	
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
SIGNATURE	DATE
DISTRICT HOWARD SOIL CONSERVATION DISTRICT	
APPROVED: DEPARTMENT OF PUBLIC WORKS	
SIGNATURE	DATE
APPROVED: BUREAU OF HIGHWAYS	
SIGNATURE	DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
SIGNATURE	DATE
APPROVED: DIVISION OF LAND DEVELOPMENT	
SIGNATURE	DATE
APPROVED: DEPARTMENT OF ENGINEERING DIVISION	
SIGNATURE	DATE

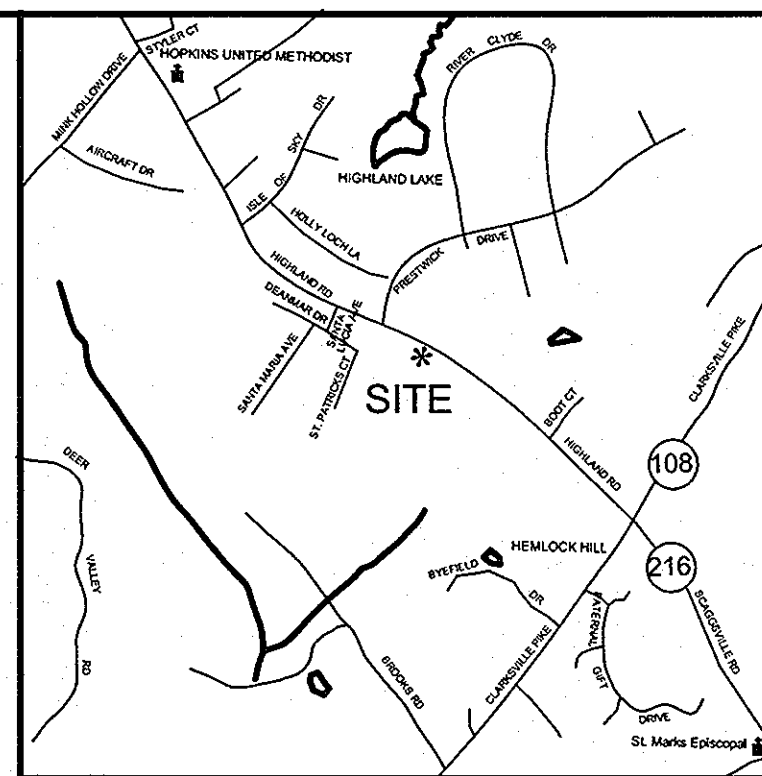
MATCHLINE SEE SHEET 20



LEGEND
 EXISTING 2 FOOT CONTOURS
 EXISTING 10 FOOT CONTOURS
 LIMITS OF DISTURBANCE
 SUPER SILT FENCE
 EARTH DIKE
 REMOVABLE PUMPING STATION
 NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

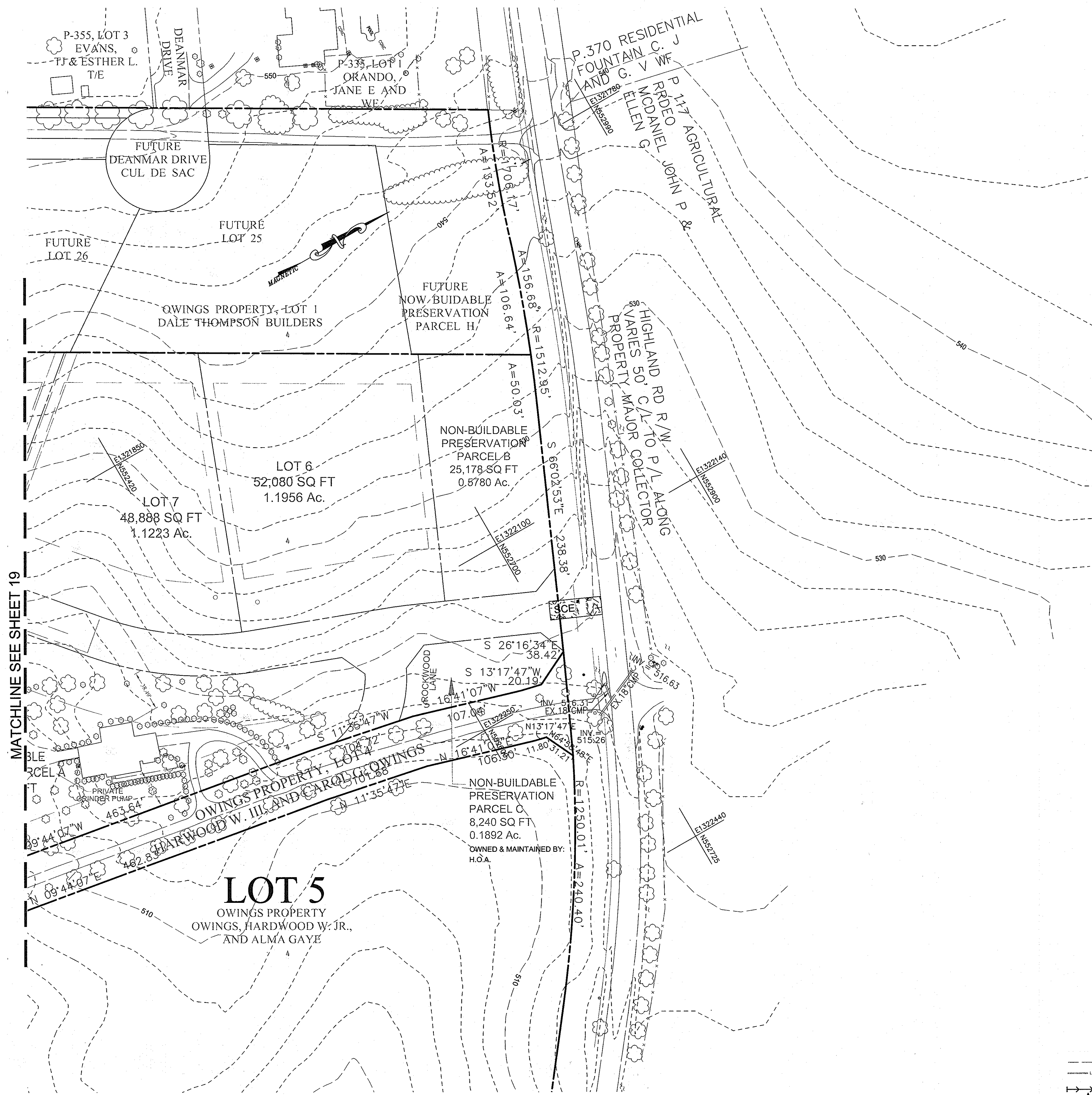
NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-16 AND PARCELS A-E		
PROJECT NAME: OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE: SEDIMENT CONTROL - PHASE 1		OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY: Dewberry & Davis LLC		DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-0736 (410) 381-8747
DES.: IEV	JOB: XXX	
DRW.: SGB	PROJ.: 02745	SCALE: 1" = 50'
CHK.: MM	DATE: DEC. 2003	SHEET 19 OF 29

P. 437. LOT 1 RESIDENTIAL RRDEO WILSON KENNETH W. AND WIFE
 P. 438. LOT 2 AGRICULTURAL RRDEO MILLER THOMAS E TRUSTEE
 P. 439. LOT 3 RESIDENTIAL RRDEO KAMMERER CARLTON C & WIFE
 P. 440. LOT 4 RESIDENTIAL RRDEO KAMMERER CARLTON C & WIFE
 P. 441. LOT 5 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 442. LOT 6 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 443. LOT 7 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 444. LOT 8 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 445. LOT 9 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 446. LOT 10 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 447. LOT 11 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 448. LOT 12 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 449. LOT 13 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 450. LOT 14 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 451. LOT 15 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 452. LOT 16 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 453. LOT 17 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 454. LOT 18 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 455. LOT 19 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 456. LOT 20 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 457. LOT 21 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 458. LOT 22 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 459. LOT 23 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 460. LOT 24 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
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 P. 466. LOT 30 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
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 P. 468. LOT 32 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 469. LOT 33 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 470. LOT 34 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 471. LOT 35 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 472. LOT 36 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 473. LOT 37 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 474. LOT 38 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 475. LOT 39 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 476. LOT 40 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 477. LOT 41 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 478. LOT 42 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
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 P. 513. LOT 77 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
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 P. 532. LOT 96 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 533. LOT 97 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 534. LOT 98 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 535. LOT 99 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE
 P. 536. LOT 100 OWINGS PROPERTY OWINGS, HARDWOOD JR. AND ALMA GAYE



VICINITY MAP
SCALE: 1"=2000'

NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION CONTACT "MISS UTILITY" AT 1-800-272-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.



MATCHLINE SEE SHEET 19

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

DATE: _____
SIGNATURE: _____ P.E. NO. _____

CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS 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.

Rahel M. Mijan 3/8/04
SIGNATURE: _____ DATE: _____
PRINTED NAME OF ENGINEER: **Rahel M. Mijan**

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.

Dale H. Thompson 3/9/04
SIGNATURE: _____ DATE: _____
PRINTED NAME OF DEVELOPER: **DALE H. THOMPSON**

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

Jim Mingo 3/2/04
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE
DATE: _____

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

Dale H. Thompson 3/2/04
DISTRICT HOWARD SOIL CONSERVATION LIST
DATE: _____

APPROVED: DEPARTMENT OF PUBLIC WORKS
William A. White 3-25-04
CHIEF, BUREAU OF HIGHWAYS
DATE: _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cathy Minto 4/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT
DATE: _____

William A. White 3/2/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION
DATE: _____

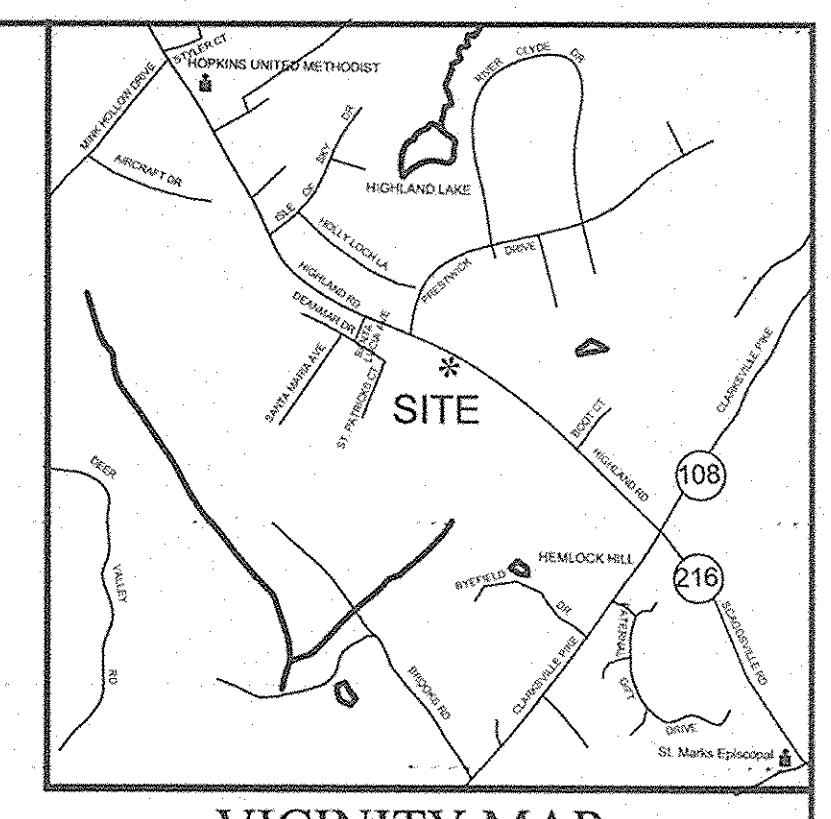
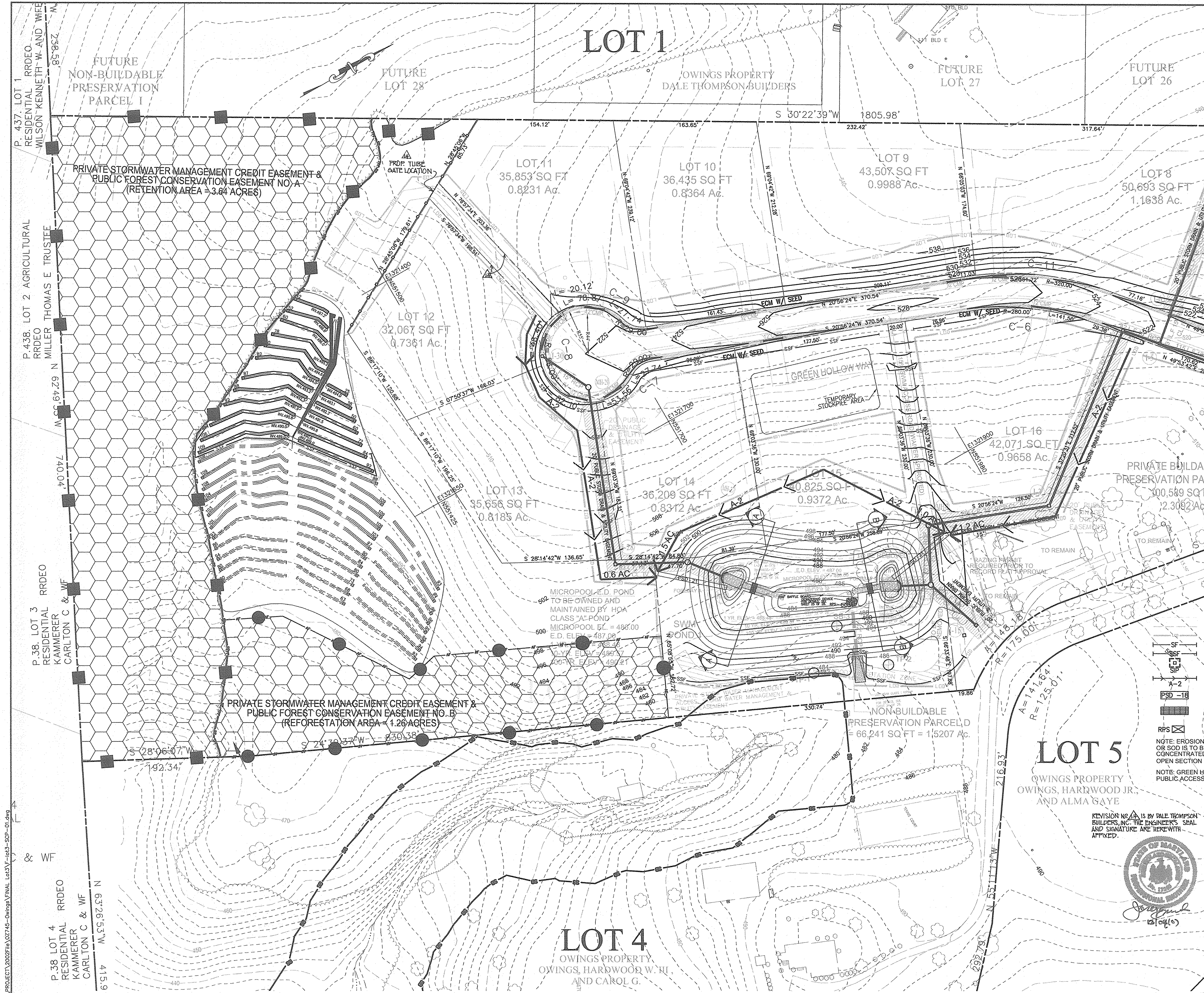


LEGEND

--- EXISTING 2 FOOT CONTOURS
--- EXISTING 10 FOOT CONTOURS
--- LIMITS OF DISTURBANCE
--- EARTH DIKE
[Symbol] STABILIZED CONSTRUCTION ENTRANCE

NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME: OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE: SEDIMENT CONTROL-PHASE 1		OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY: Dewberry & Davis LLC		DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 985-6735 (410) 381-5747
DES. : IEV	JOB : XXX	SCALE : 1" = 50'
DRW. : SGB	PROJ. : OZ745	SHEET 20 OF 29
CHK. : MM	DATE : DEC. 2003	



VICINITY MAP
SCALE: 1"=2000'

NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS IN HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION CONTACT "MISCELLANY" AT 1-800-273-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

SIGNATURE _____ P.E. NO. _____
DATE _____

CERTIFY MEANS TO START OR DECLARE A PROFESSIONAL OPINION BASED UPON ON-SITE INSPECTIONS AND MATERIAL TESTS WHICH ARE CONDUCTED DURING CONSTRUCTION. THE ON-SITE INSPECTIONS AND MATERIAL TESTS ARE THOSE INSPECTIONS AND TESTS DEEMED SUFFICIENT AND APPROPRIATE COMMONLY ACCEPTED ENGINEERING STANDARDS. CERTIFY DOES NOT MEAN OR IMPLY A GUARANTEE BY THE ENGINEER NOR DOES AN ENGINEER'S CERTIFICATION RELIEVE ANY OTHER PARTY FROM MEETING REQUIREMENTS IMPOSED BY CONTRACT, EMPLOYMENT, OR OTHER MEANS, INCLUDING MEETING COMMONLY ACCEPTED INDUSTRY PRACTICES.

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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 SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

Ronald M. Mijan 3/13/04
SIGNATURE _____ DATE _____
PRINTED NAME OF ENGINEER **Ronald M. Mijan**

BY THE DEVELOPER:

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

Dale H. Thompson 3/9/04
SIGNATURE _____ DATE _____
PRINTED NAME OF DEVELOPER **DALE H. THOMPSON**

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

John P. ... 3/7/04
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE _____

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

... 3/7/04
DISTRICT HOWARD SOIL CONSERVATION LIST DATE _____

APPROVED: DEPARTMENT OF PUBLIC WORKS
Walter E. ... 3-25-04
CHIEF, BUREAU OF HIGHWAYS DATE _____

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Cindy ... 7/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT DATE _____

... 3/29/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE _____

MATCHLINE SEE SHEET 22

LEGEND

- EXISTING 2 FOOT CONTOURS
- EXISTING 10 FOOT CONTOURS
- LIMITS OF DISTURBANCE
- SILT FENCE
- SUPER SILT FENCE
- STANDARD INLET PROTECTION
- EARTH DIKE
- PIPE SLOPE DRAIN
- EROSION CONTROL MATTING W/ SEED
- REMOVABLE PUMPING STATION

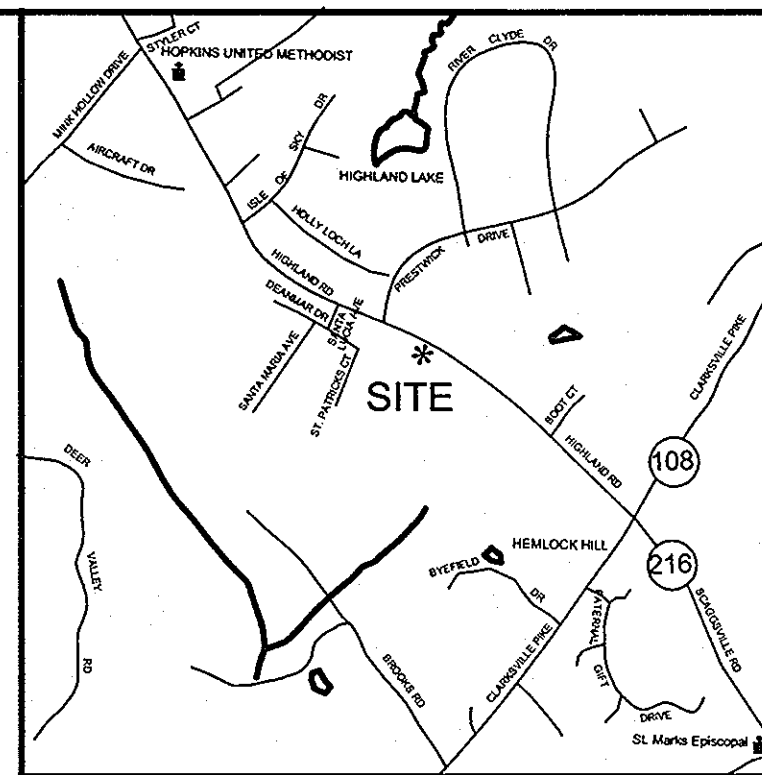
NOTE: EROSION CONTROL MATTING W/ SEED OR SOD IS TO BE PROVIDED IN ALL AREAS OF CONCENTRATED FLOW SUCH AS SWALES, OPEN SECTION ROAD DITCHES, ETC.

NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

NO.	10-D4-DT	REVISED EXISTING FENCING FROM STREET TO PROP. GATE LOCATION
DATE		REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE	SEDIMENT CONTROL - PHASE 2	
S-01-18 P-02-018 F-03-133		
PREPARED BY:	Dewberry & Davis LLC 203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 945-6500 FAX: (301) 258-7527	
DES.:	IEV	JOB: XXX
DRW.:	SGB	PROJ.: 02745
CHK.:	MM	DATE: DEC. 2003
TITLE	OWINGS PROPERTY BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747	
OWNERS:	MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
SCALE:	1" = 50'	
SHEET	21 OF 29	

P:\PROJECT\2002\10\02745-OWINGS\FINAL\Lot3\F-1013-SCP-01.dwg

F-03-133



VICINITY MAP
SCALE: 1"=2000'

NOTE
INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT MISS UTILITY AT 1-800-227-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICH EVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

AS-BUILT CERTIFICATION
I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

BY THE ENGINEER:
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS 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/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.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

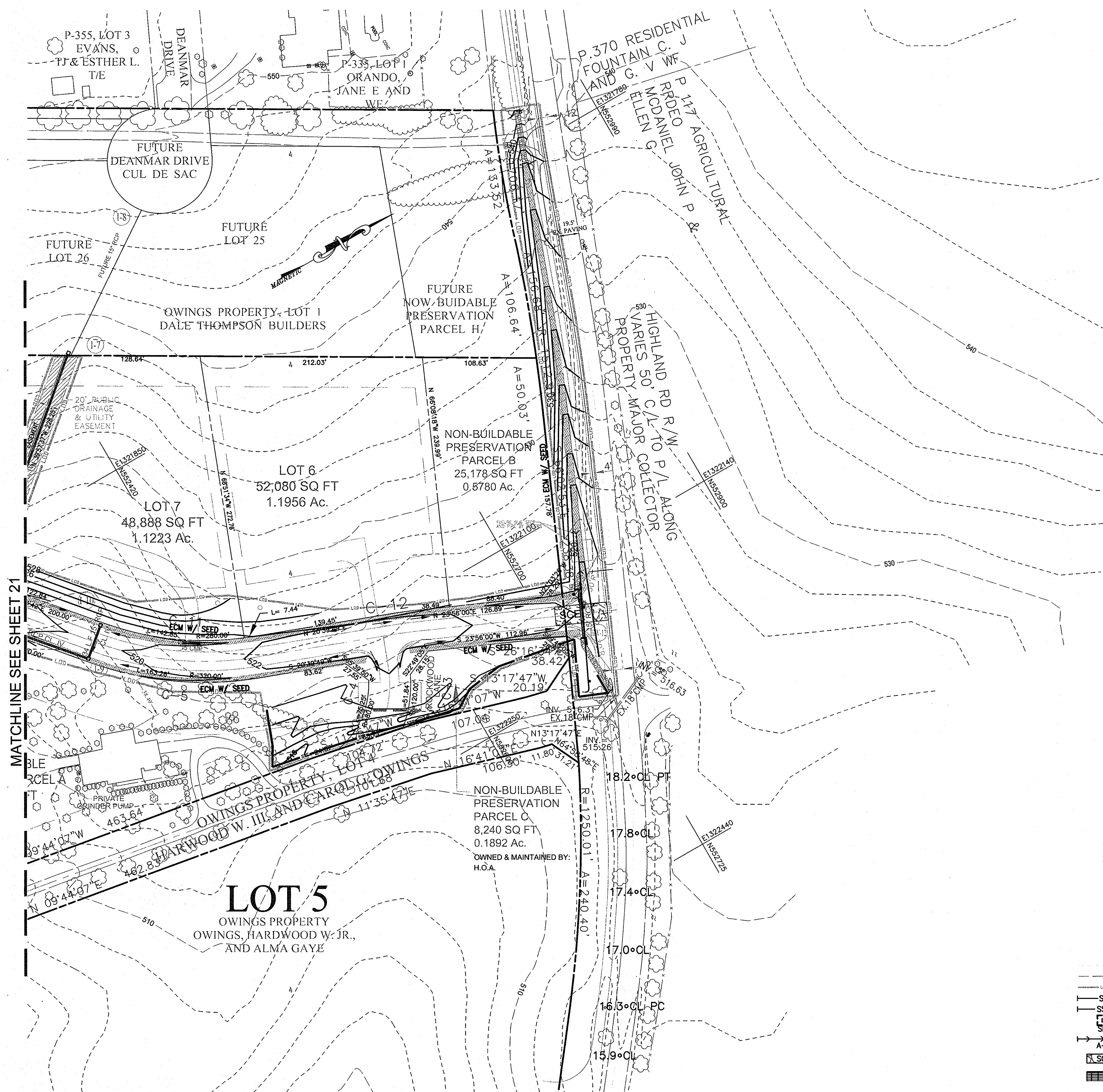
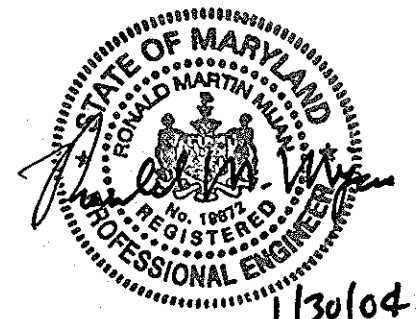
THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: DEPARTMENT OF PUBLIC WORKS

APPROVED: DEPARTMENT OF PLANNING AND ZONING

APPROVED: CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: CHIEF, DEVELOPMENT ENGINEERING DIVISION



MATCHLINE SEE SHEET 21

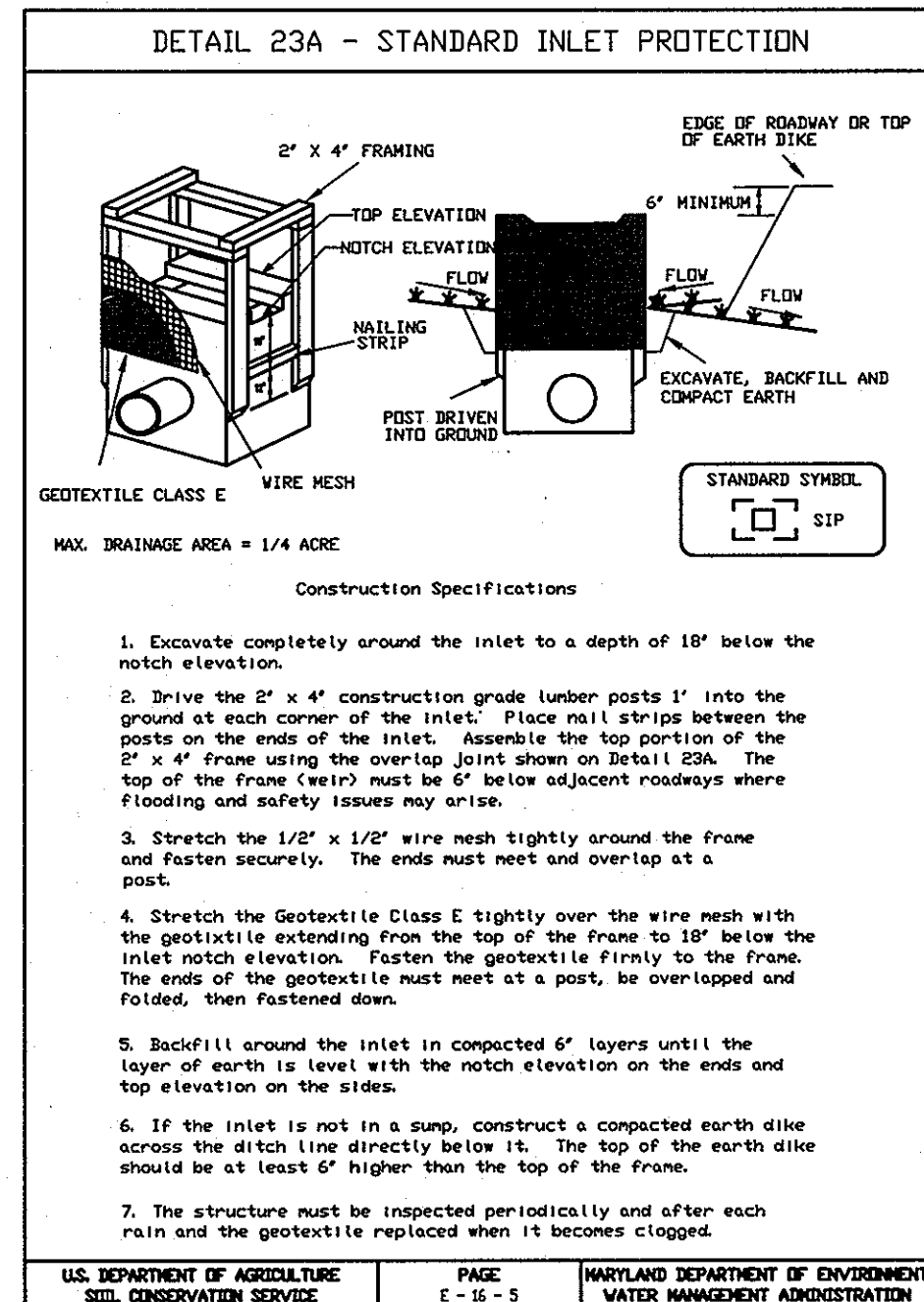
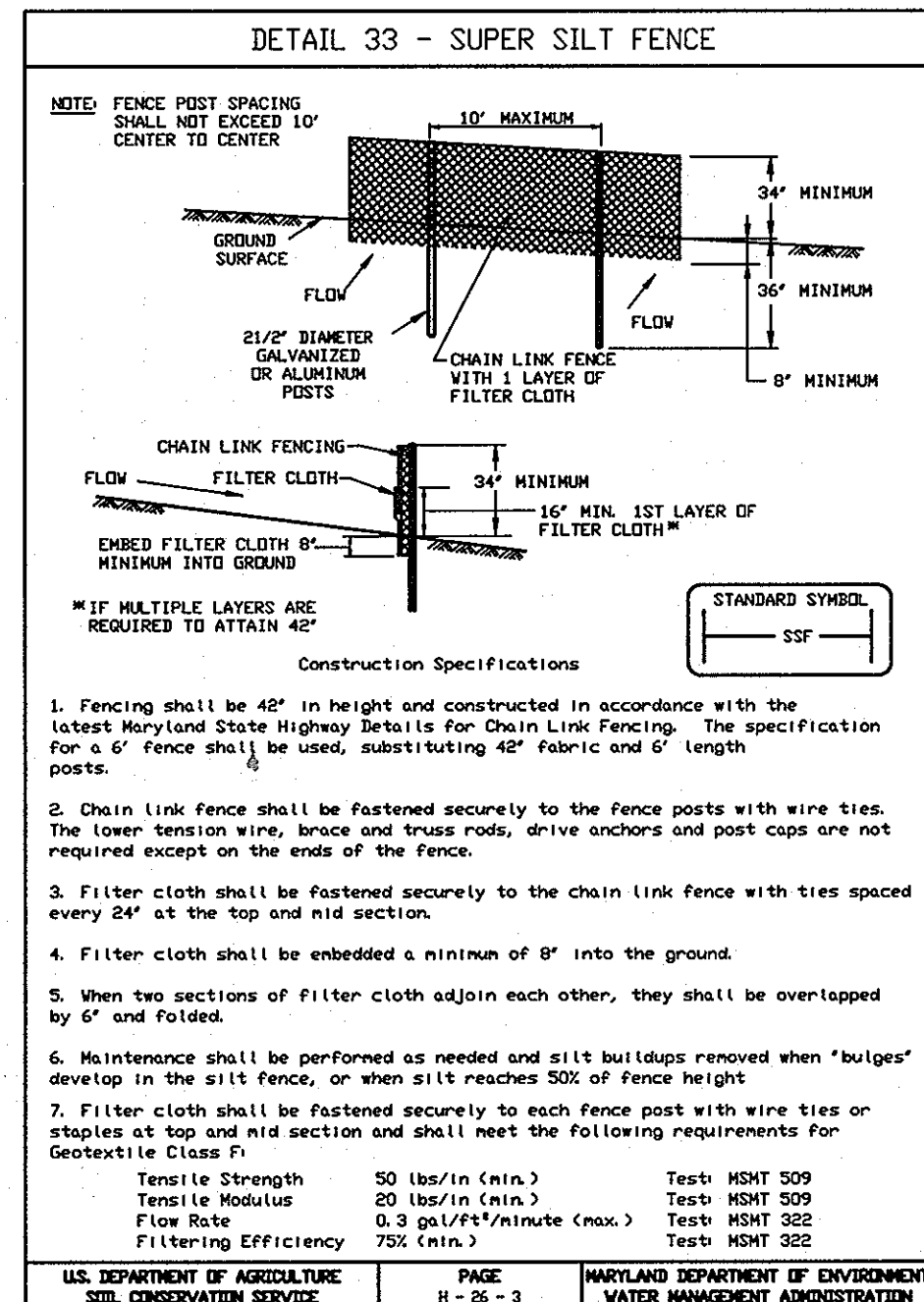
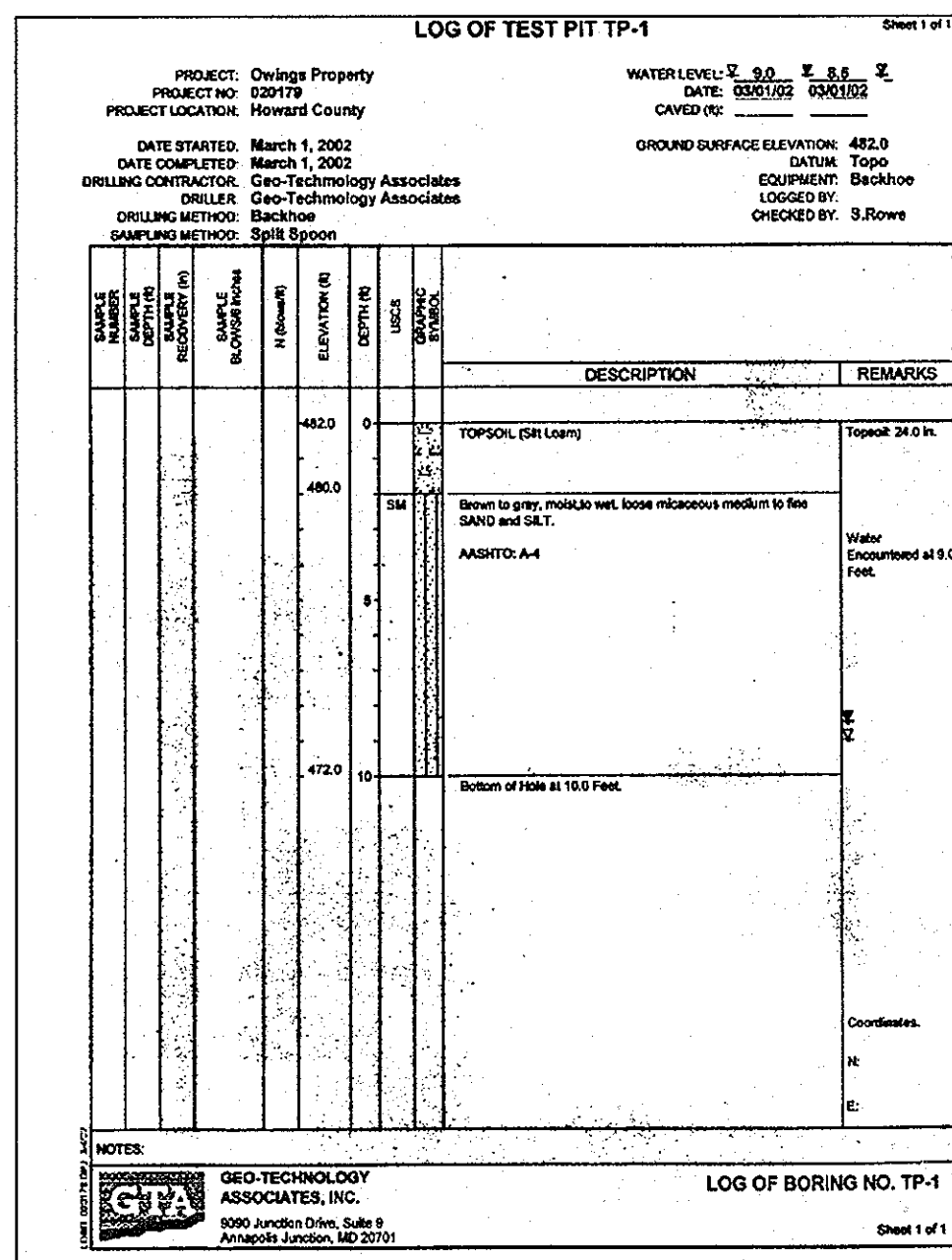
LEGEND

- EXISTING 2 FOOT CONTOURS
- EXISTING 10 FOOT CONTOURS
- LIMITS OF DISTURBANCE
- S- SILT FENCE
- SF- SUPER SILT FENCE
- SIP- STANDARD INLET PROTECTION
- A-2- EARTH DIKE
- [Symbol] STABILIZED CONSTRUCTION ENTRANCE
- [Symbol] EROSION CONTROL MATTING W/ SEED

NOTE: EROSION CONTROL MATTING W/ SEED OR SOD IS TO BE PROVIDED IN ALL AREAS OF CONCENTRATED FLOW SUCH AS SWALE, OPEN SECTION ROAD DITCH, ETC.

NOTE: GREEN HOLLOW WAY AND ROCKWOOD LANE ARE PUBLIC ACCESS PLACES

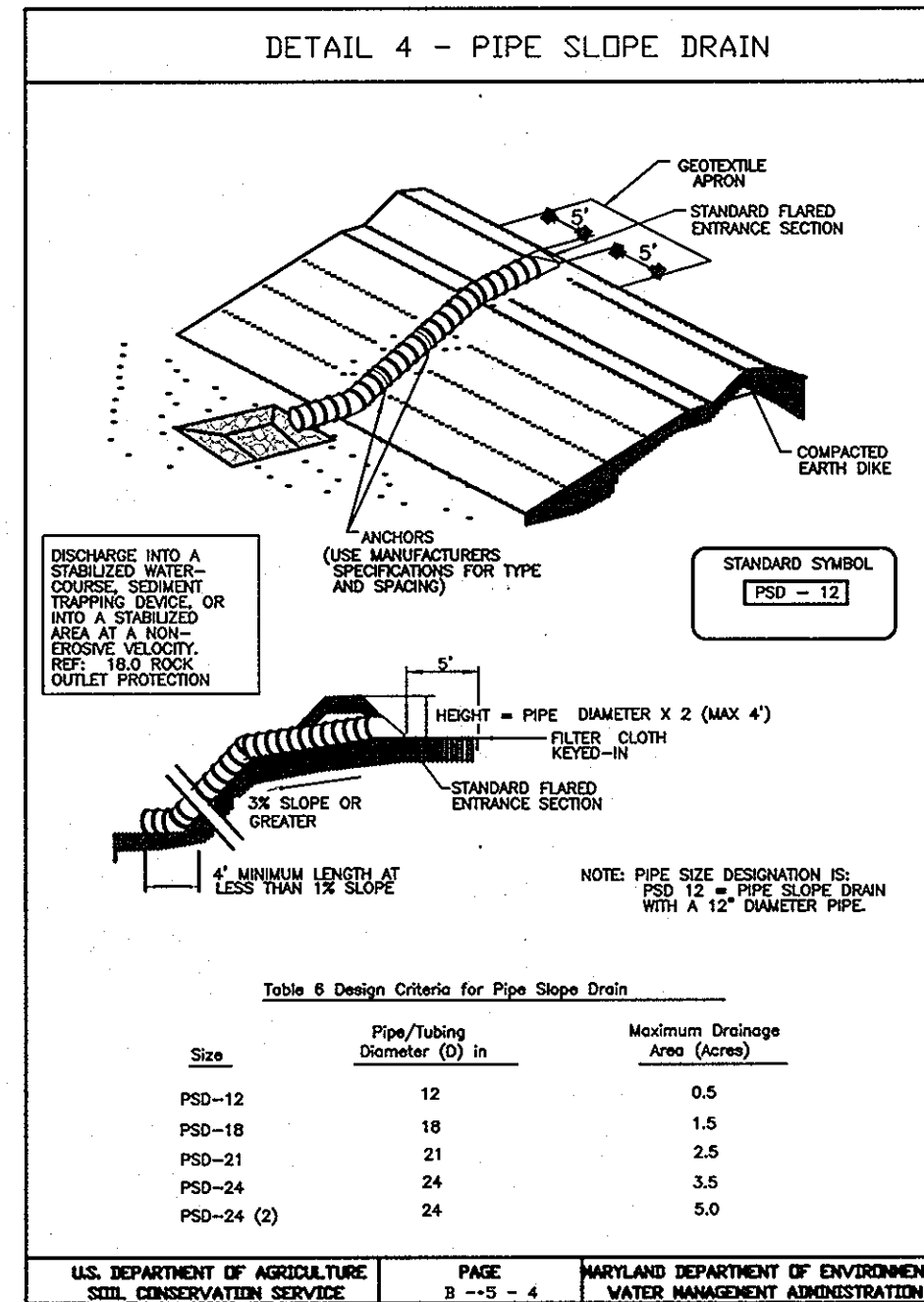
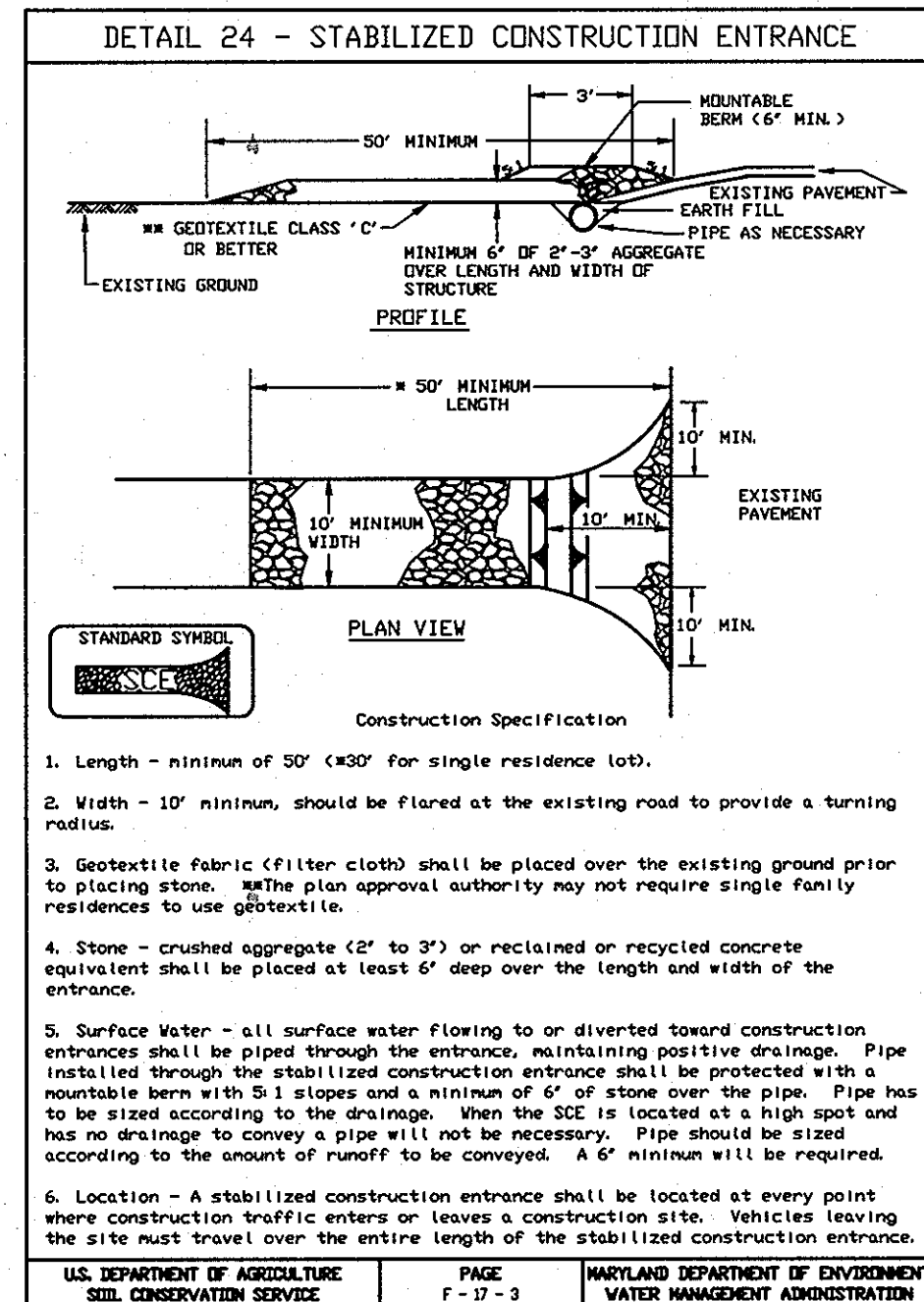
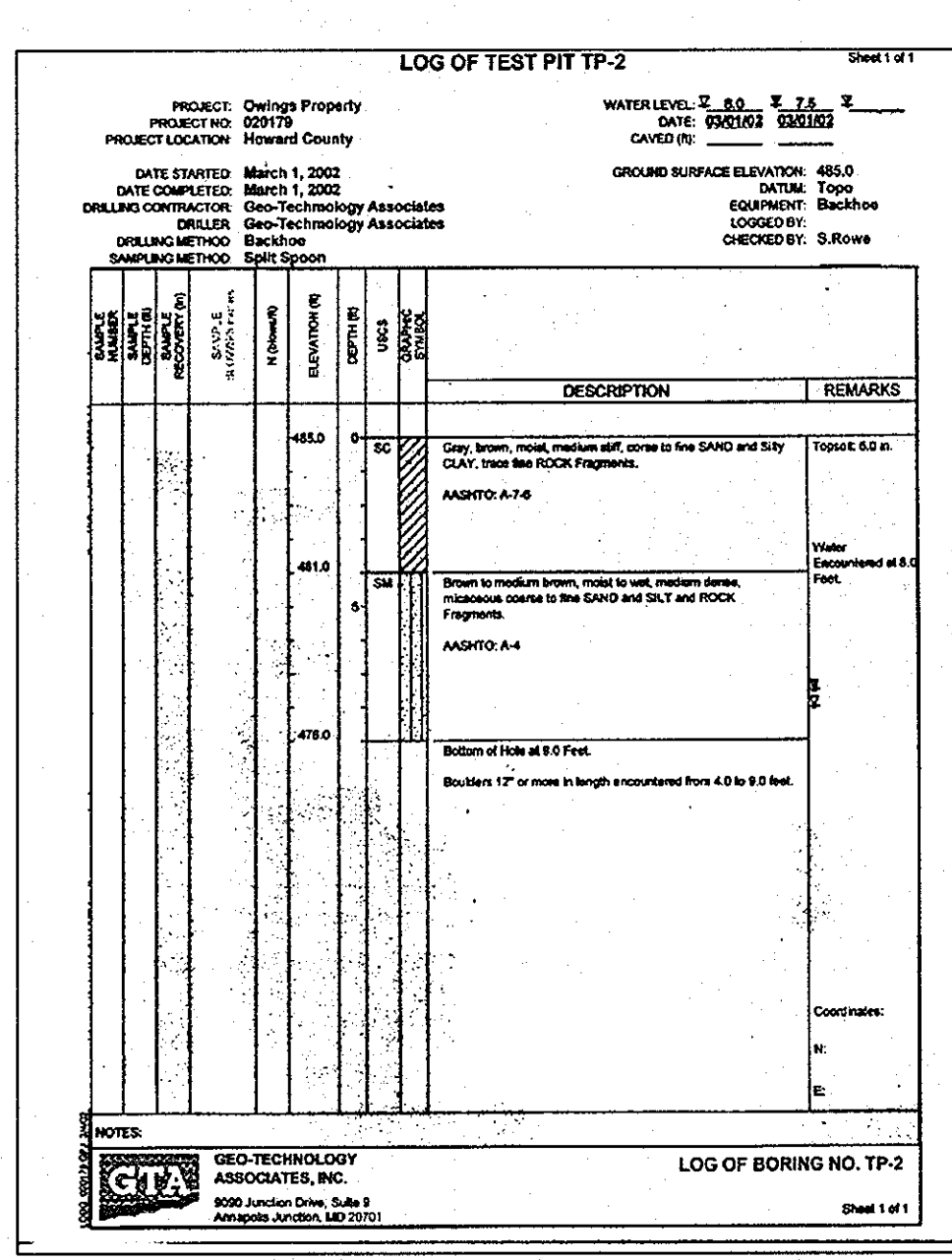
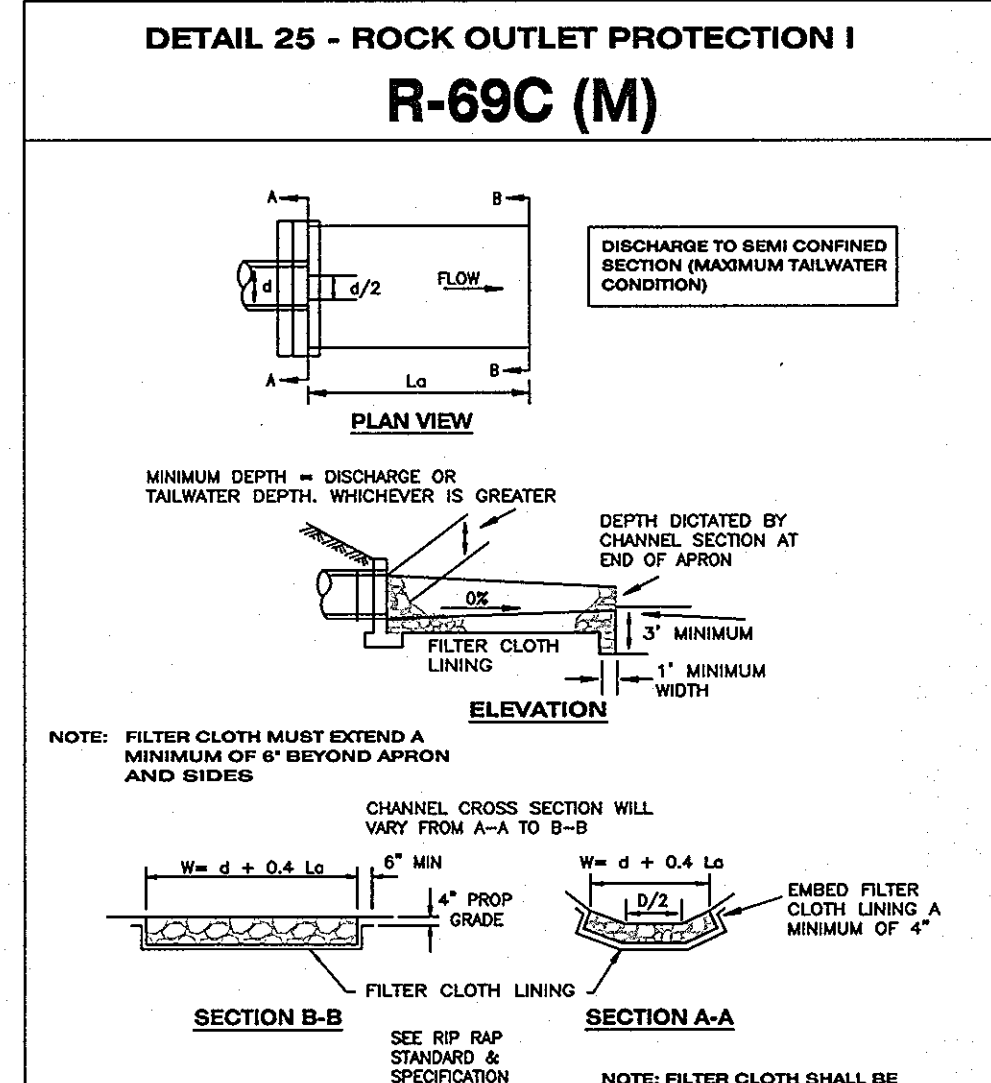
NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE SEDIMENT CONTROL-PHASE 2 S-01-18 P-02-018 F-03-133		OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY : Dewberry & Davis LLC 203 PERRY PARKWAY GAITHERSBURG, MD 20877 TEL: (301) 949-8300 FAX: (301) 258-7807	DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 361-8747	DES. : IEV JOB : XXX DRW. : SGB PROJ. : OZ745 CHK. : MM DATE : DEC. 2003
SCALE : 1" = 50'		SHEET 22 OF 29



ROCK OUTLET PROTECTION CLASS I (HC SCD STANDARD AND SPECIFICATIONS 18.0)

OUTFALL STRUCTURE NO.	Q10	TW	DISCHARGE VELOCITY	PIPE SIZE	La	W
HW-1	9.47	TW>=0.5	8.91	18"	6' MIN. USE 22"	11.5'
HW-12	6.40	TW>=0.5	6.44	15"	8'	5.0'
HW-26	3.0	TW>=0.5	5.32	18"	4' MIN. USE 25"	11.5'
RISER	27.79	TW>=0.5	13.10	42"	31'	10.5'

NOTE: USE MD SHA CLASS I RIPRAP
D₅₀ = 9.5"
THICKNESS = 19"



PIPE SLOPE DRAIN

Construction Specifications - Pipe Slope Drain

- The Pipe Slope Drain (PSD) shall have a slope of 3 percent or steeper.
- The top of the earth dike over the inlet pipe shall be at least 2 times the pipe diameter measured at the invert of the pipe.
- Flexible tubing is preferred. However, compacted metal pipe or equivalent PVC pipe can be used. All connections shall be watertight.
- A flared end section shall be attached to the inlet and end of pipe with a watertight connection. Filter cloth shall be placed under the inlet of the pipe slope drain and shall extend out 2' from the inlet. The filter cloth shall be "lapped" on all sides.
- The Pipe Slope Drain shall be securely anchored to the slope by staking at the grommets provided. Spacing for anchors shall be provided by manufacturer's specification. In no case shall less than two (2) anchors be provided, equally spaced along the length of pipe. These details shall be provided by pipe supplier.
- The soil around and under the pipe and end section shall be hand tamped in 4 inch lifts to the top of the earth dike.
- All pipe connections shall be watertight.
- Whenever possible where a PSD drains an unstabilized area, it shall outlet into a sediment trap or basin. If this is not possible then the slope drain will discharge into a stable conveyance that leads to a sediment trap or basin. When discharging into a trap or basin the PSD shall discharge at the same elevation as the wet pool elevation. The discharge from the PSD must be as far away from the sediment control outlet as possible.
- When the drainage area is stabilized, the PSD shall discharge onto a stabilized area of a non-erosive velocity.
- Inspection and any required maintenance shall be performed periodically and after each rain event.
- The inlet must be kept open at all times.

Size	Pipe/Tubing Diameter (in)	Maximum Drainage Area (Acres)
PSD-12	12	0.5
PSD-18	18	1.5
PSD-21	21	2.5
PSD-24	24	3.5
PSD-24 (2)	24	5.0

ENGINEER'S CERTIFICATE

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

Donald M. Wijn
SIGNATURE OF ENGINEER 3/5/04 DATE

DEVELOPER'S CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Rob N. Shyne
SIGNATURE OF DEVELOPER 3/9/04 DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Nye
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE 3/12/04 DATE

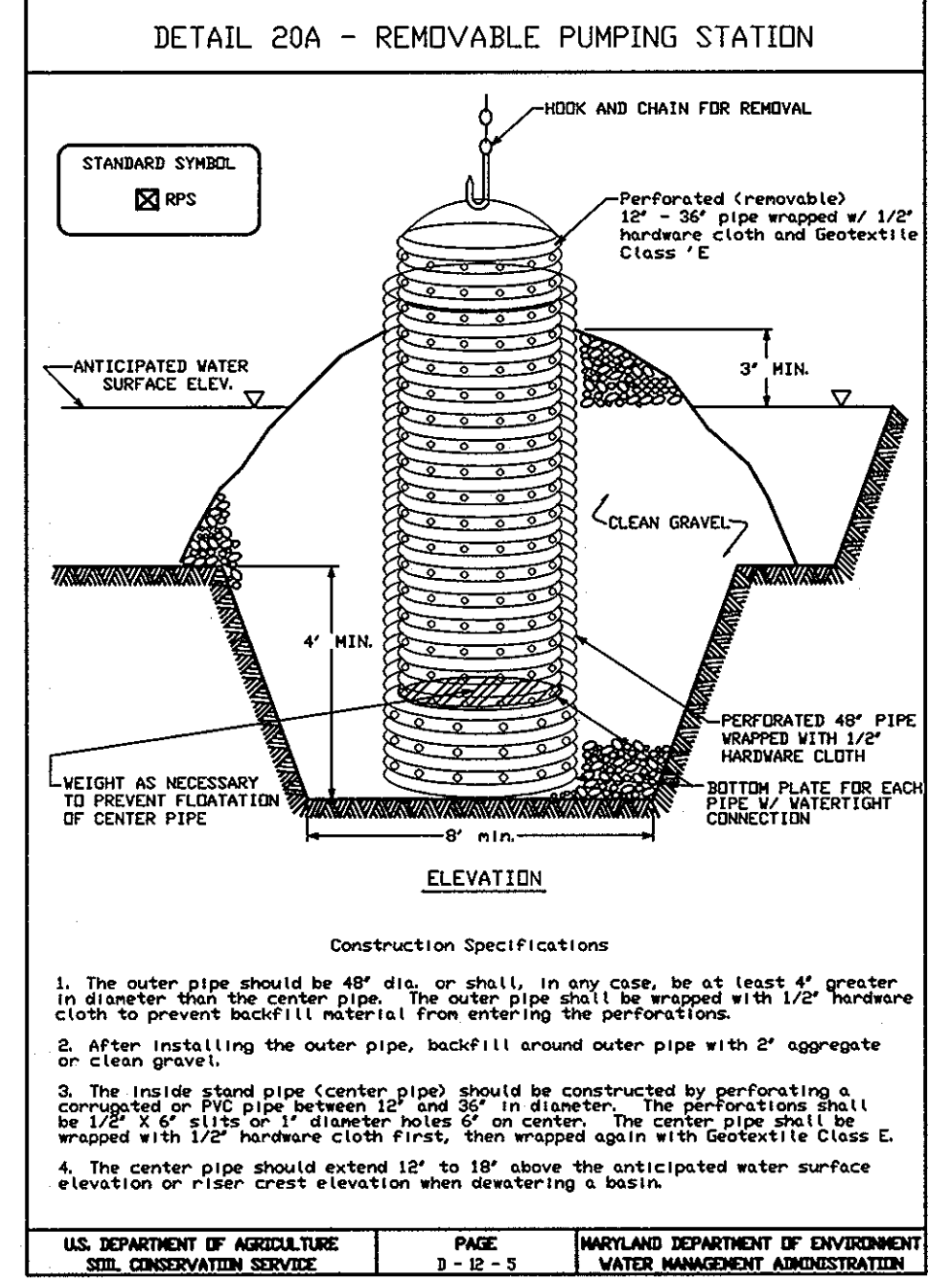
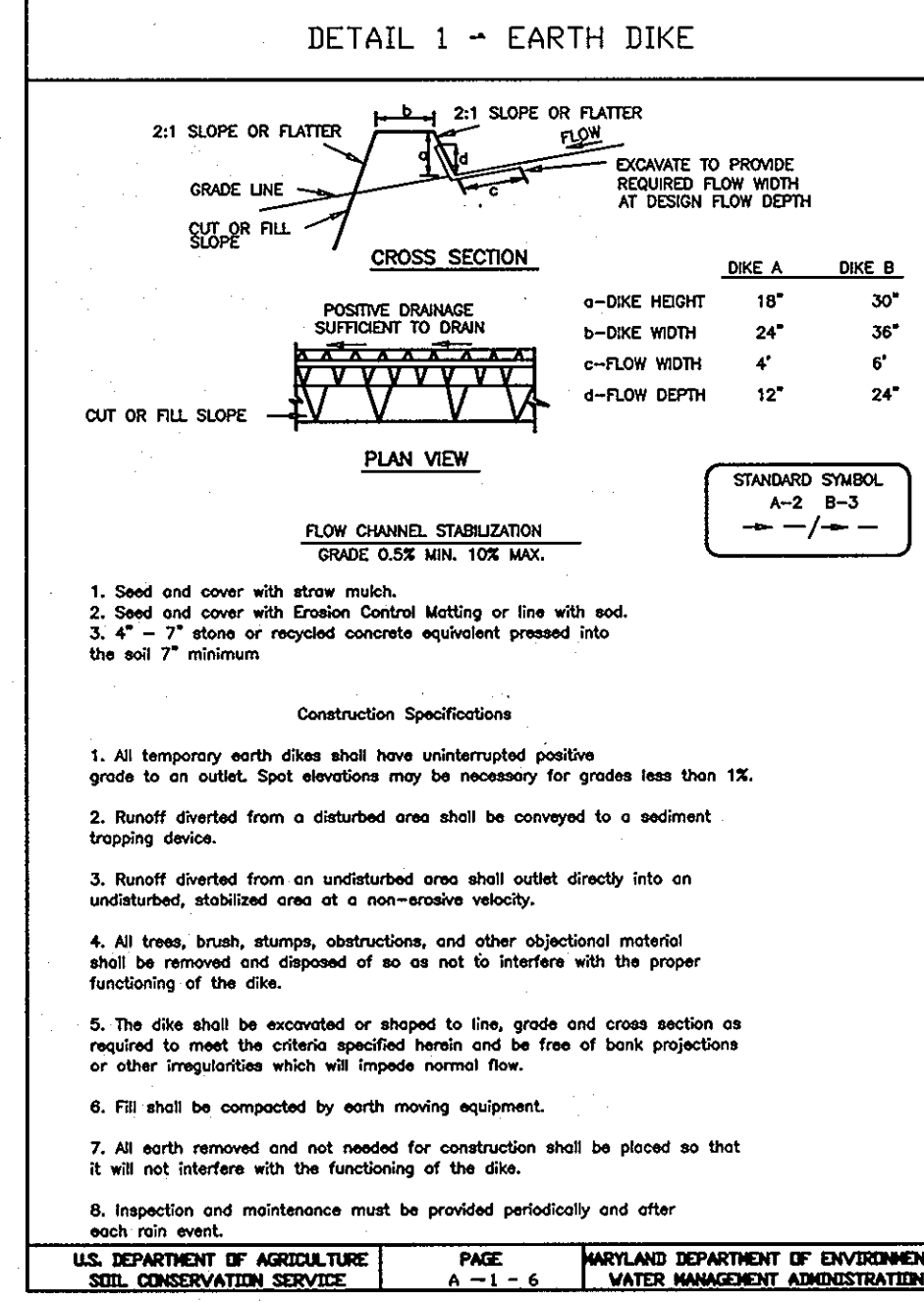
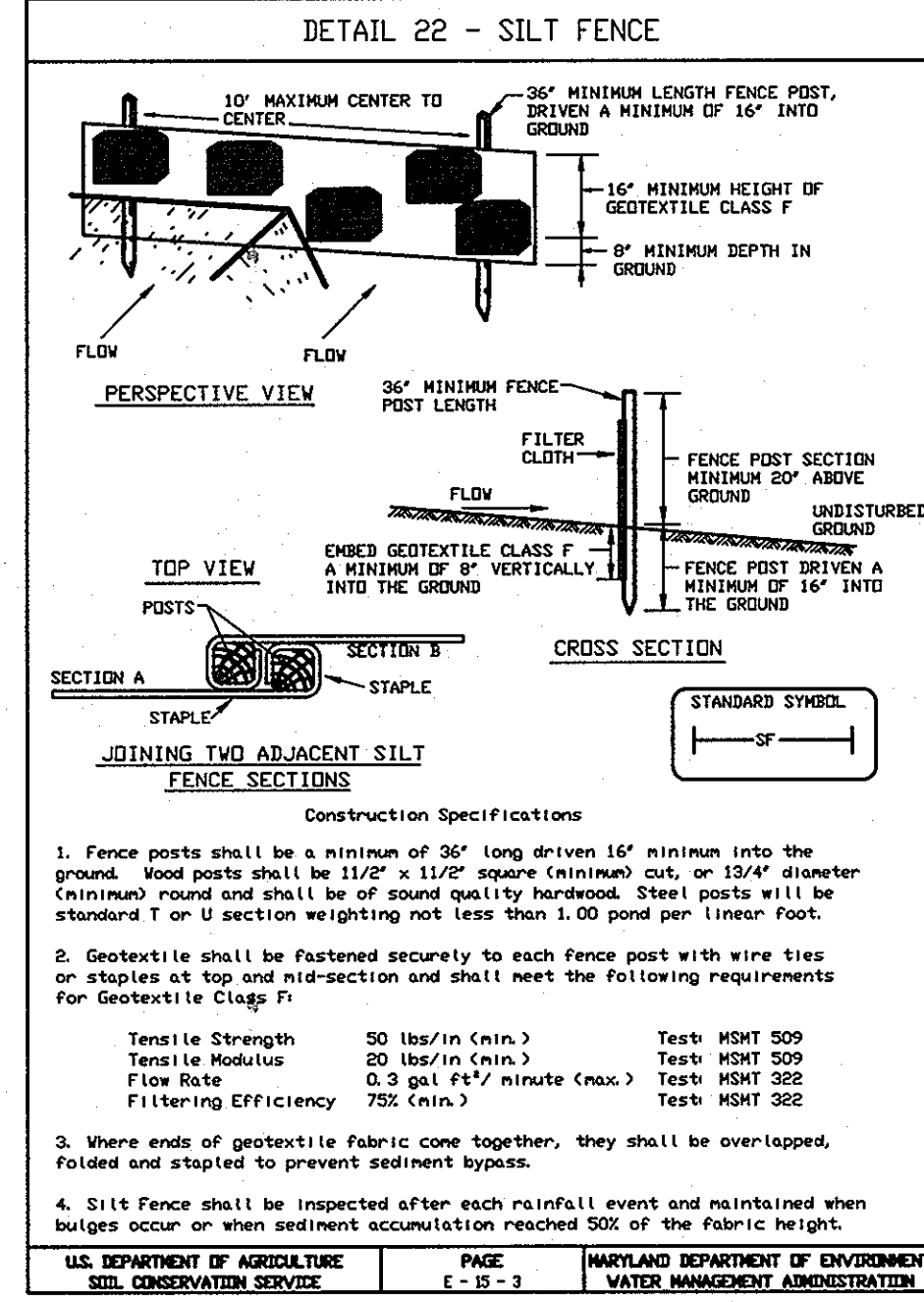
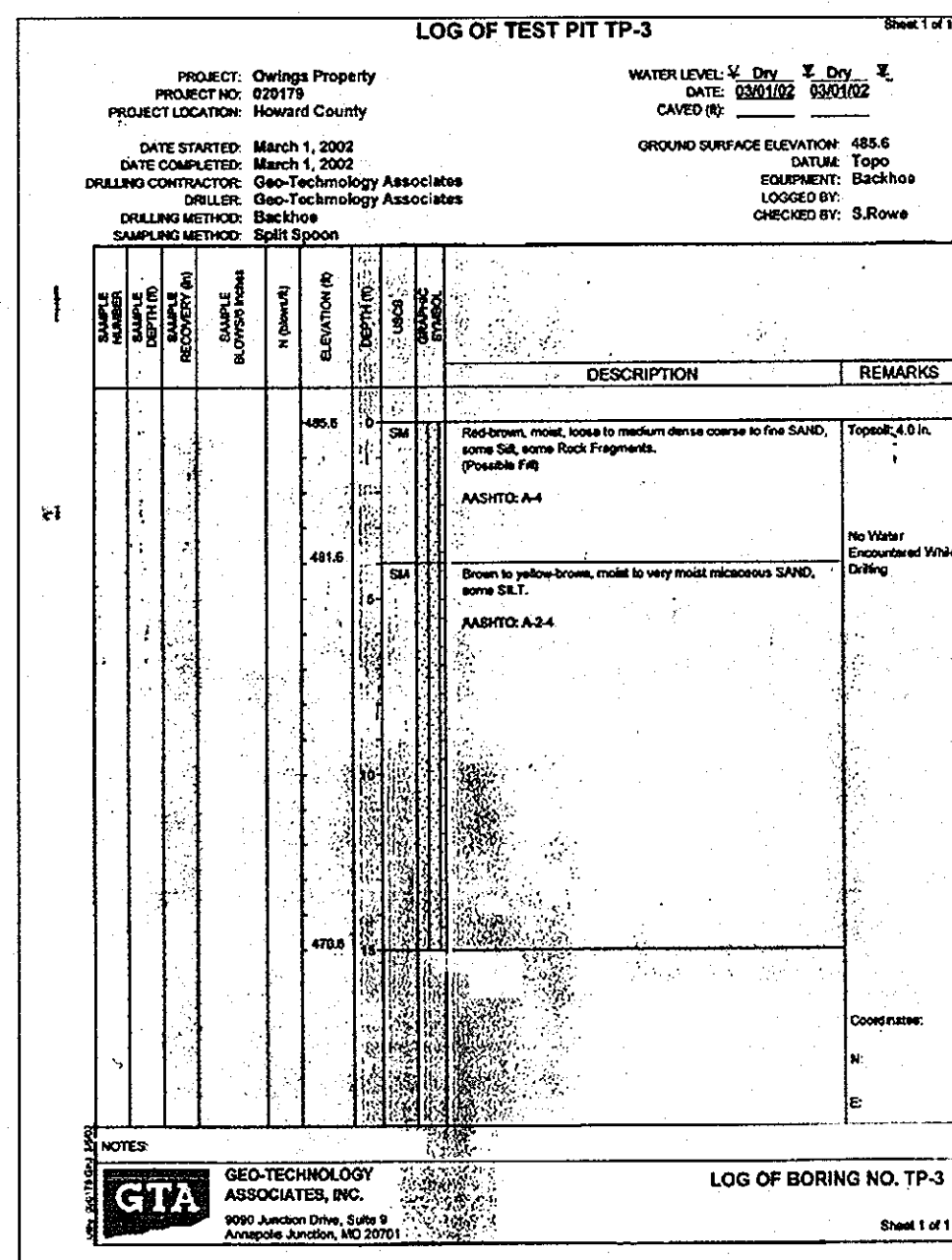
THE DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

William J. Mather
DISTRICT HOWARD SOIL CONSERVATION LIST 3/12/04 DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Mather 3-25-04 DATE
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
William J. Mather 4/1/04 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT

William J. Mather
CHIEF, DEVELOPMENT ENGINEERING DIVISION 3/22/04 DATE



LOG OF BORING NO. TP-3

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

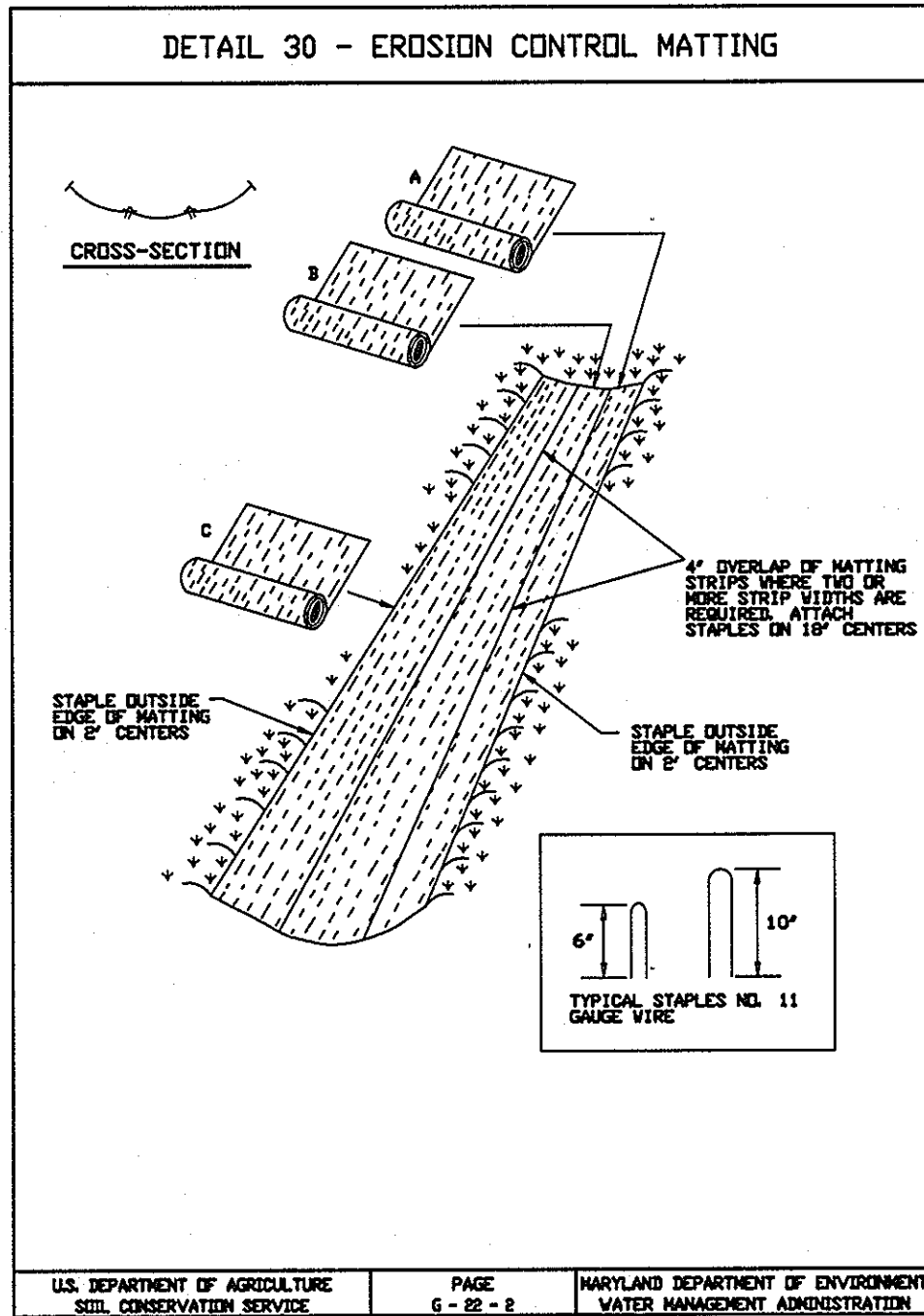
U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME		
OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E		
5th ELECTION DISTRICT TAX MAP # 40, GRID		
PARCEL 44		
HOWARD COUNTY, MARYLAND		
TITLE	OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
SEDIMENT CONTROL DETAILS AND BORING LOGS	DEVELOPER : DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 555-0735 (410) 381-8747	
S-01-18 P-02-018 F-03-133	PREPARED BY : Dewberry & Davis LLC A Dewberry Company 203 PERRY PARKWAY GATHERSBURG, MD 20787 TEL: (301) 948-8300 FAX: (301) 258-7607	
DES. : RMM	JOB : XXX	SCALE : 1" = 50'
DRW. : SGB	PROJ. : OZ745	SHEET 24 OF 29
CHK. : RMM	DATE : DEC. 2003	

P:\PROJECT\0202\Final\OZ745-Owings\Drawings\FINAL Lot 3\F-03-133-SCD\Det_BorLogs.dwg, 1/30/2004 5:02:04 PM, jrbek



EROSION CONTROL MATTING

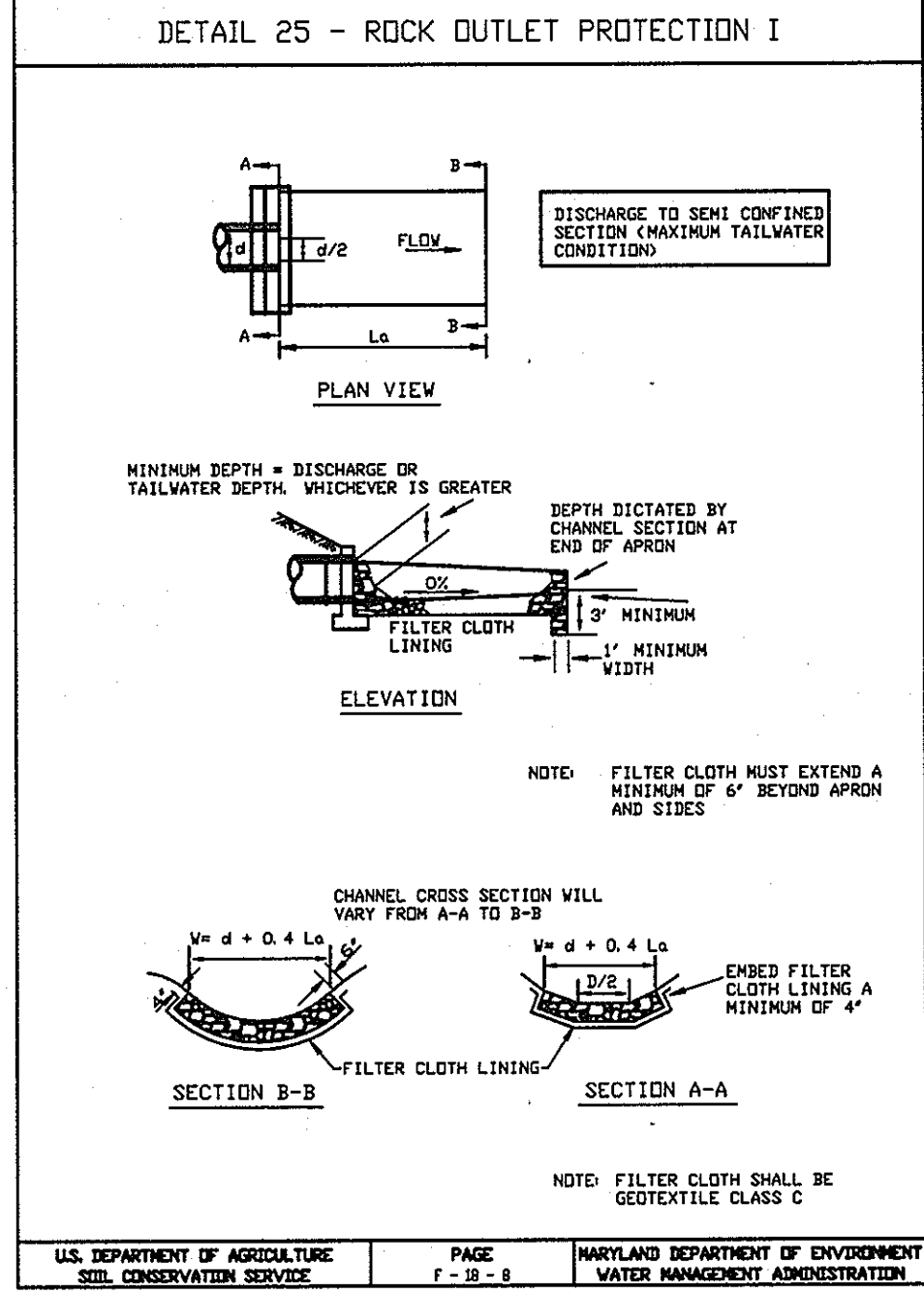
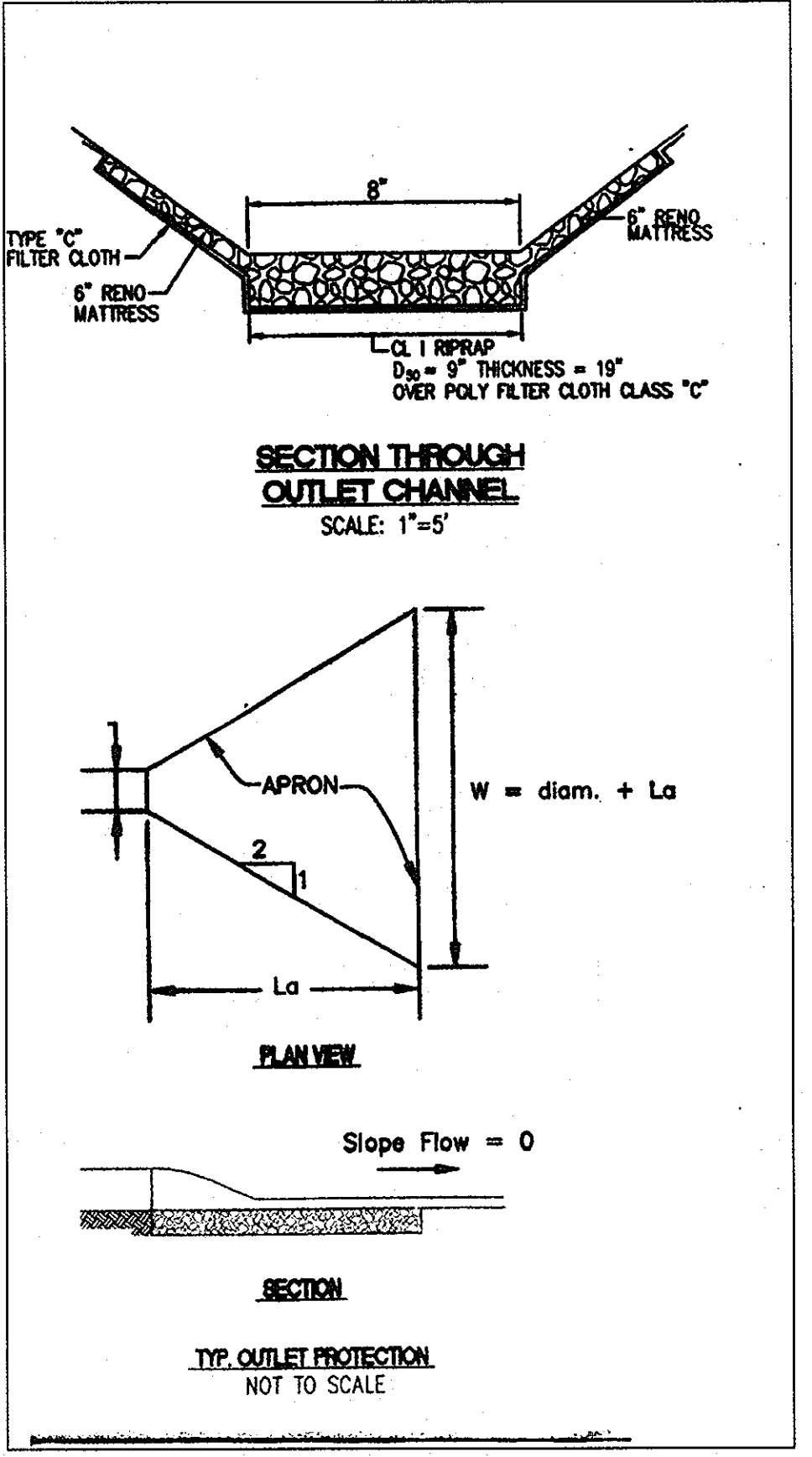
Construction Specifications

- Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
- Staple the 4" overlap in the channel center using an 18" spacing between staples.
- Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
- Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
- 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", shingle fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
- The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be key-in.

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE 6-22-2A, MARYLAND DEPARTMENT OF ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION

NOTE: EROSION CONTROL MATTING W/ SEED OR SOD IS TO BE PROVIDED IN ALL AREAS OF CONC. FLOW SUCH AS SWALES, OPEN SECTION ROAD DITCHES, ETC.



ROCK OUTLET PROTECTION

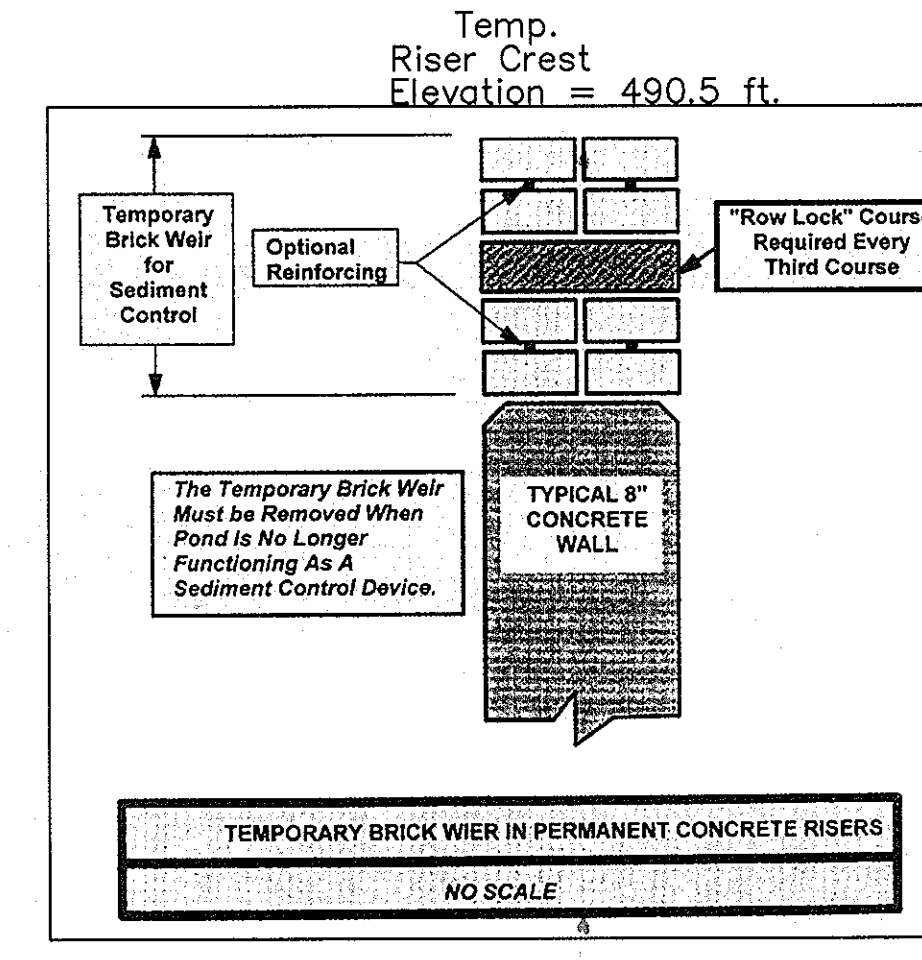
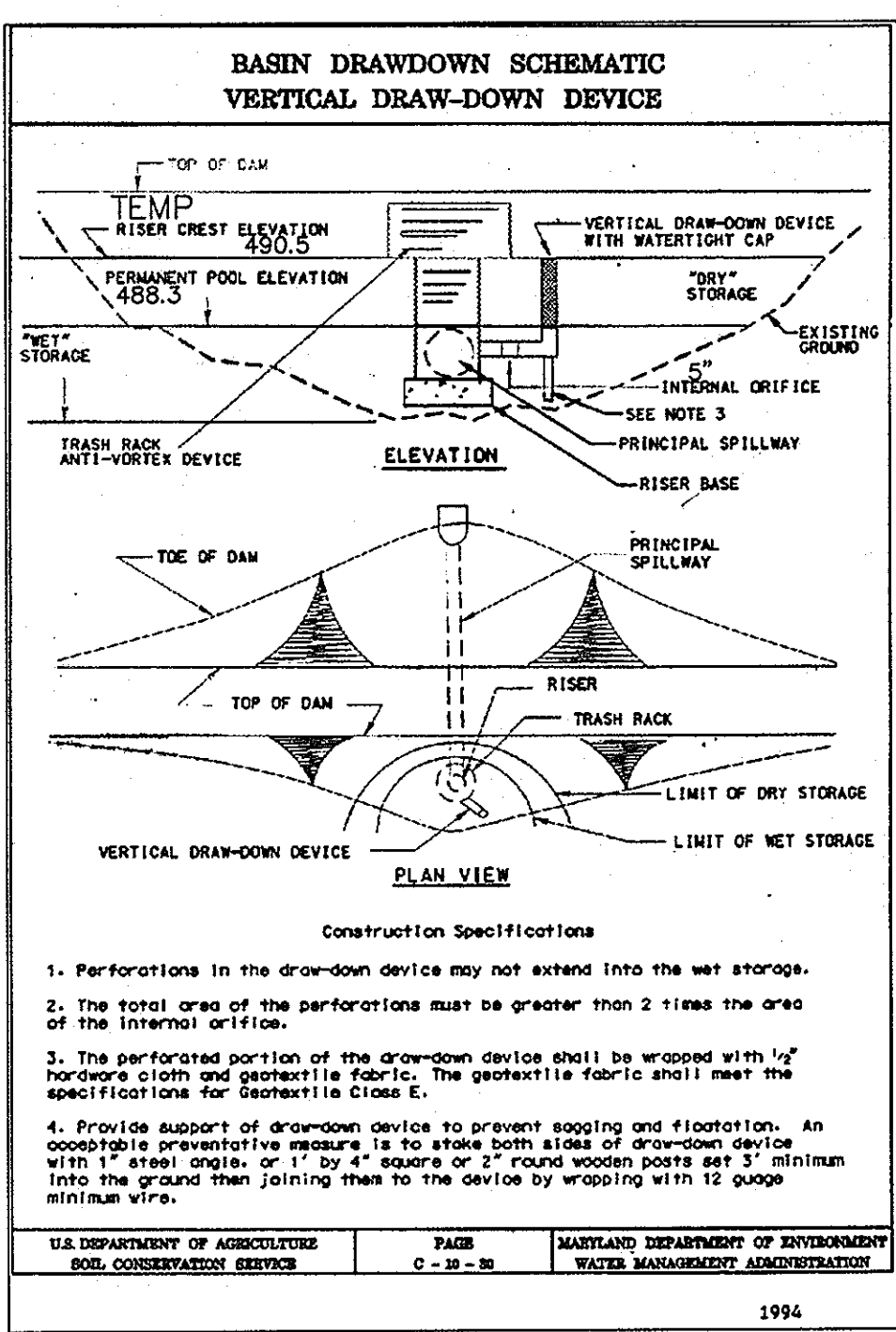
Construction Specifications

- The subgrade for the filter, rip-rap, 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.
- The rock or gravel shall conform to the specified grading limits when installed respectively in the rip-rap or filter.
- 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 two pieces of geotextile shall be a minimum of one foot.
- Stone for the rip-rap 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 rip-rap 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 voids between the larger stones. Rip-rap shall be placed in a manner to prevent damage to the filter, rip-rap or geotextile. Hand placement will be required to the extent necessary to prevent damage to the permanent works.
- 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.

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, PAGE 7-23-2A, MARYLAND DEPARTMENT OF ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION

BASIN 1

EXISTING DRAINAGE AREA	15.5 Ac.
PROPOSED DRAINAGE AREA	15.5 Ac.
STORAGE REQUIRED (3600 x 15.5)	55,800 cf
WET STORAGE REQUIRED/ PROVIDED	27,900/ 27,900 cf
DRY STORAGE REQUIRED/ PROVIDED	27,900/ 28,427 cf
CLEAN OUT VOLUME REQUIRED/ PROVIDED	13,950/ 15,000 cf
DEPTH WET/ DRY	4.30 / 1.7'
BASE DIMENSION	SEE PLAN
TOP OF EMBANKMENT ELEVATION	494.0 ft.
CREST ELEVATION/TOP OF DRY STORAGE	490.5 ft./490.0 ft.
OUTFALL ELEVATION/TOP OF WET STORAGE	488.3 ft.
CLEANOUT ELEVATION	487.0 ft.
BASE ELEVATION	484.0 ft.
Q ₁ (EXISTING)	0.74 cfs
Q ₁ (PROPOSED - ROUTED)	0.60 cfs



10-YR SEDIMENT CONTROL ELEV. 491.32

TEMP. RISER CREST ELEVATION: 490.50

PROVIDE 1' 8" - 6" PERF. PVC PIPE SCH. 40 WITH 63 - 1" Ø 1" ON CENTER.

SED. CONT. PERMANENT POOL ELEVATION: 488.30

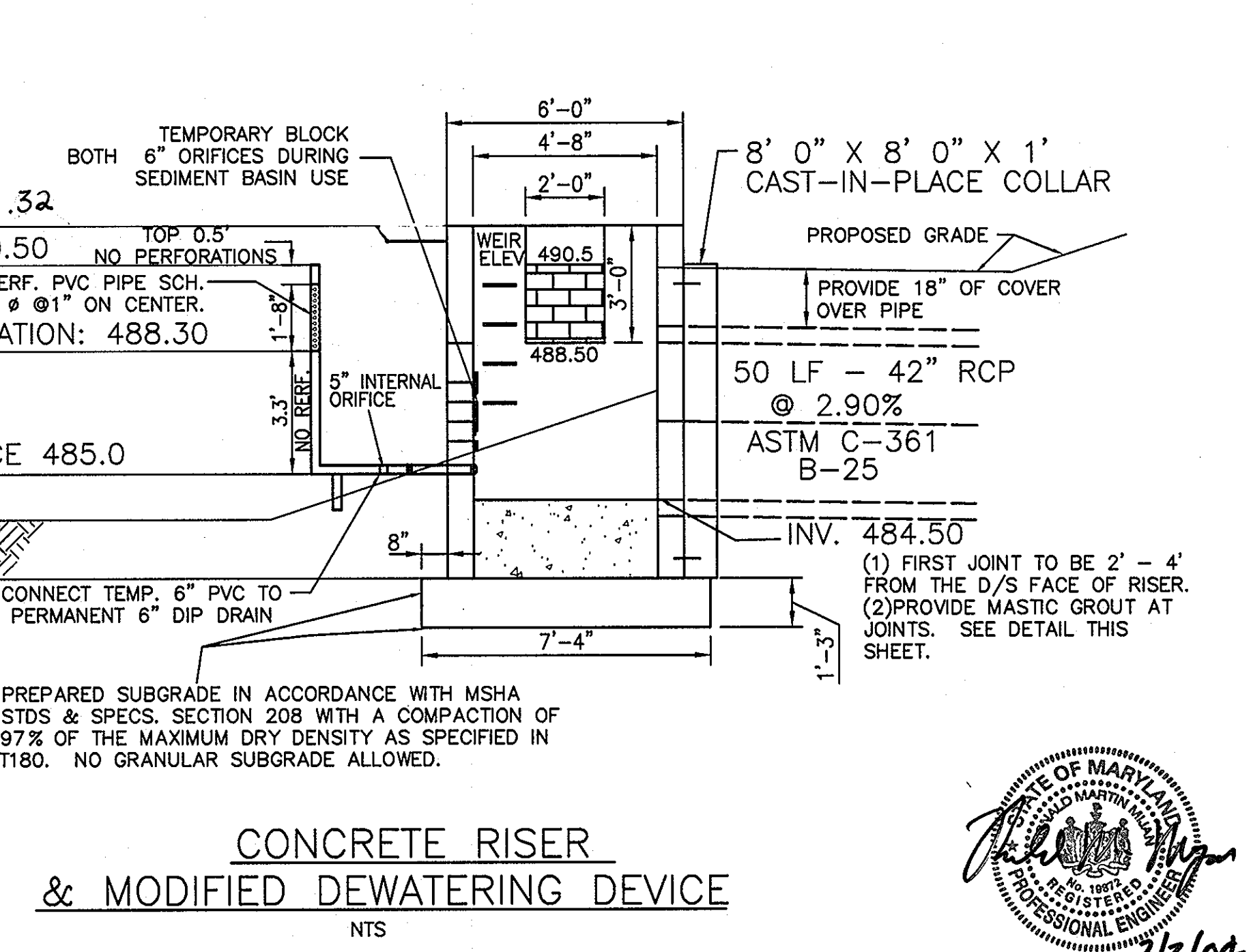
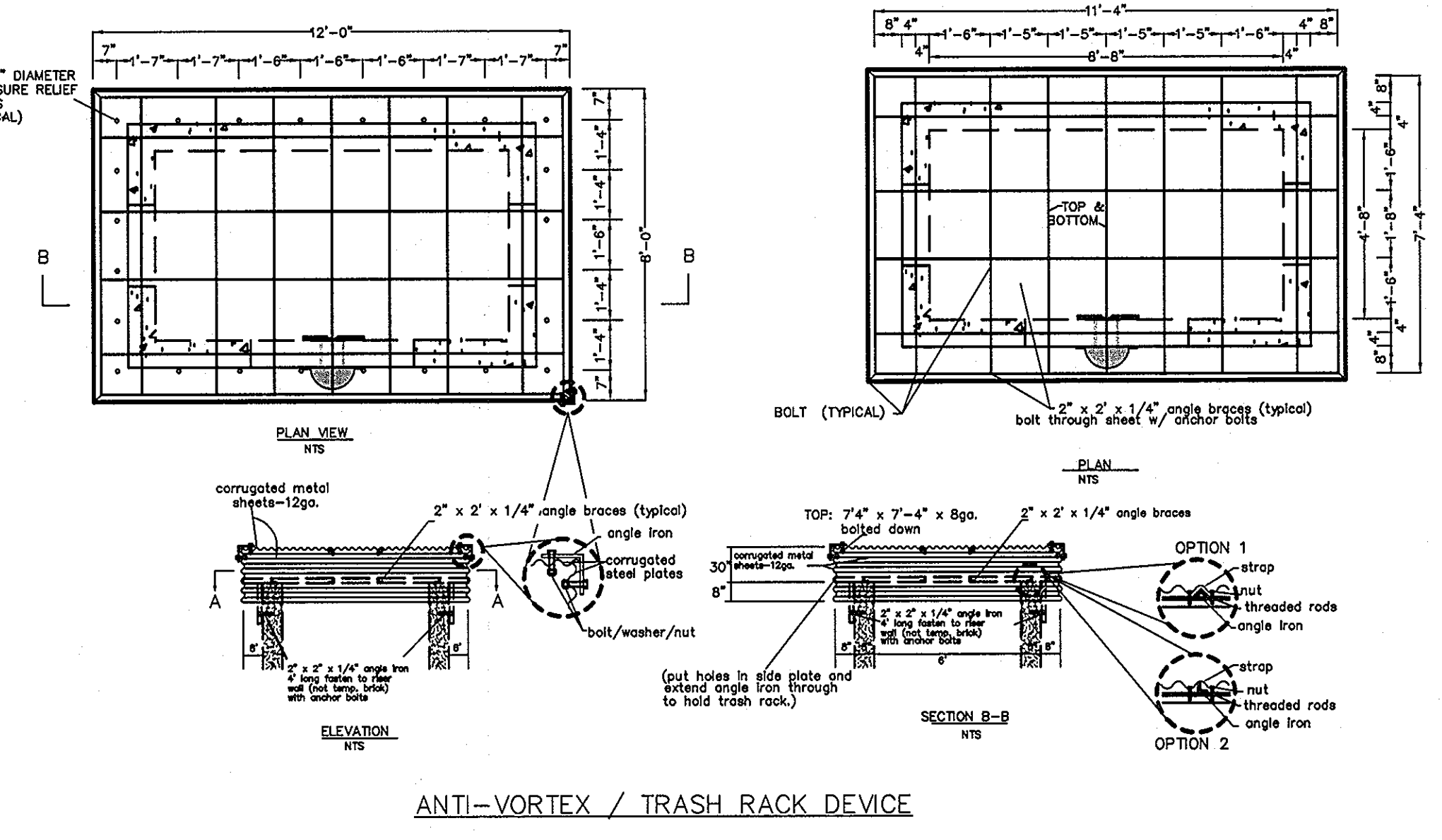
6" DIP W/ TEMP DEWATERING DEVICE 485.0

BOTTOM OF POND ELEV. 484.00

ELEV. 482.50

NOTE:

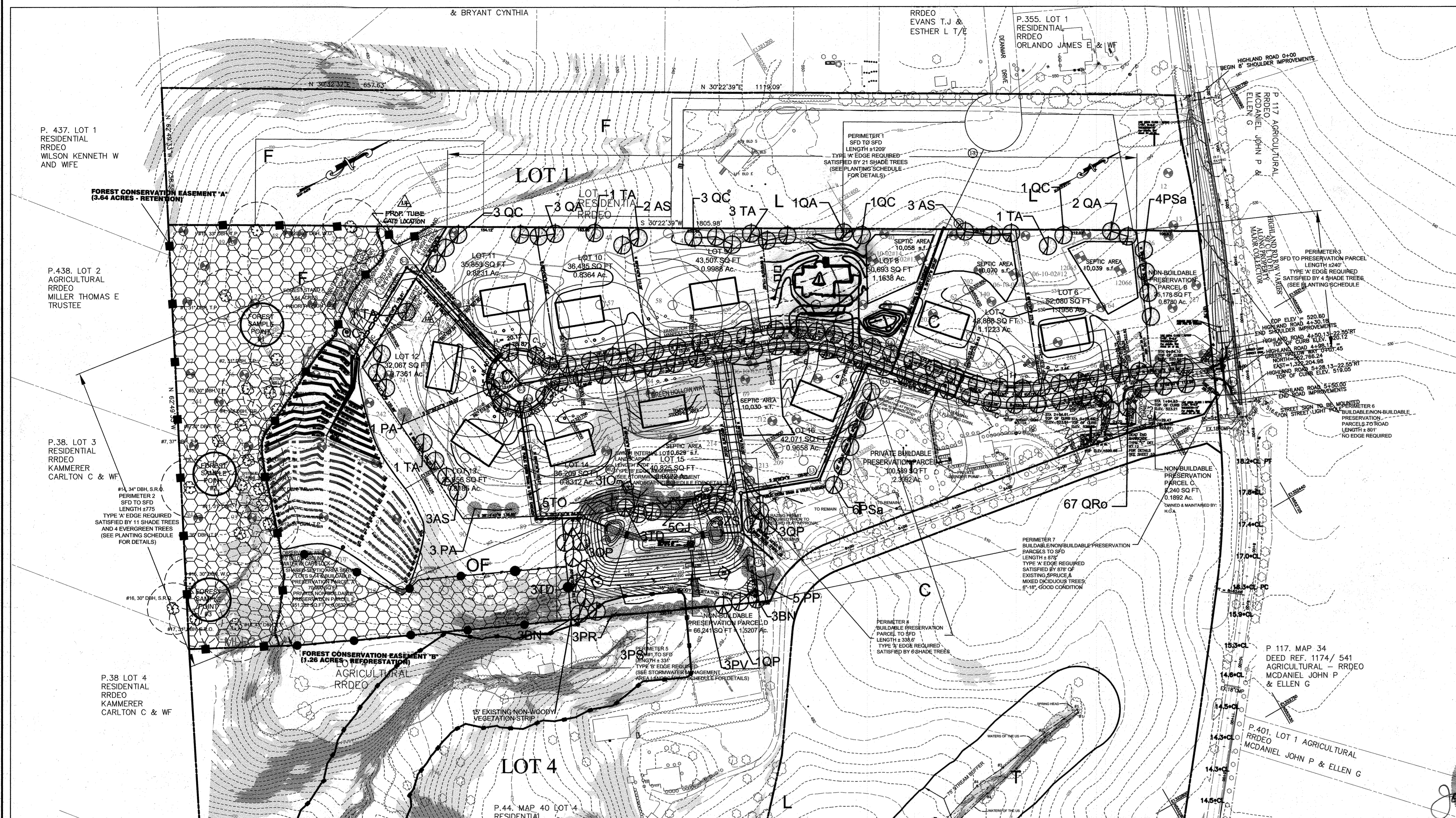
PROVIDE 7 HORIZONTAL 1" DRAIN HOLES @ 2" ± ON CENTER STARTING AT ELEVATION 488.30 AND 9 VERTICAL ROWS OF 1" DIAMETER HOLES @ 2" ON CENTER FOR A TOTAL OF 63-1" DIAMETER HOLES BETWEEN ELEVATION 488.30 AND 490.0 FOR A LENGTH AT 1.7 FEET/18 INCHES. NO PERFORATION BETWEEN ELEVATION 490.0 AND 490.5-0.5 FEET/6 INCHES



ENGINEER'S CERTIFICATE	
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.	
Signature of Engineer: <i>Thom M. Vign</i>	DATE: 3/3/04
DEVELOPER'S CERTIFICATE	
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE REEMED NECESSARY.	
Signature of Developer: <i>John W. [unclear]</i>	DATE: 3/09/04
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.	
Signature: <i>[unclear]</i>	DATE: 3/2/04
U.S.D.A. - NATURAL RESOURCES CONSERVATION SERVICE	
THE DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.	
Signature: <i>[unclear]</i>	DATE: 3/12/04
DISTRICT HOWARD SOIL CONSERVATION DISTRICT	
APPROVED: DEPARTMENT OF PUBLIC WORKS	
Signature: <i>William Z. [unclear]</i>	DATE: 3-25-04
CHIEF, BUREAU OF HIGHWAYS	
APPROVED: DEPARTMENT OF PLANNING AND ZONING	
Signature: <i>[unclear]</i>	DATE: 4/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT	
Signature: <i>[unclear]</i>	DATE: 3/2/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION	

NO.	DATE	REVISIONS
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E		
PROJECT NAME		
OWINGS PROPERTY		
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND		
TITLE	OWNERS : MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777	
SEDIMENT CONTROL DETAILS	S-01-18 P-02-018 F-03-133	
PREPARED BY:	203 PERRY FAIRWAY GAITHERSBURG, MD 20877 TEL: (301) 948-8300 FAX: (301) 258-7807	
Dewberry & Davis LLC	DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 355-6738 (410) 381-8747	
DES. : RMM	JOB : XXX	SCALE :
DRW. : SGB	PROJ. : OZ745	AS SHOWN
CHK. : RMM	DATE : DEC. 2003	SHEET 25 OF 29





- ### GENERAL NOTES
- TOTAL AREA OF TRACT: 24.50 AC.; 1,067,230± SQ.FT.
 - EXISTING ZONING: RRDEO
 - BOUNDARY FROM TAX MAP (40)
 - TOPOGRAPHY FROM SURVEY CONTOUR INTERVAL 2 FEET.
 - THERE ARE NO 100-YEAR FLOODPLAINS ON THIS SITE ACCORDING TO AVAILABLE INFORMATION (MDMERLIN.NET), AND SITE VISIT.
 - THERE ARE NO WETLANDS AND BUFFERS ON THIS SITE ACCORDING TO MDMERLIN.NET, AND SITE VISIT.
 - THE PRESENCE OF RARE, THREATENED & ENDANGERED SPECIES, OR CRITICAL HABITATS IS CURRENTLY BEING INVESTIGATED BY DNR.
 - THERE ARE NO CULTURAL OR HISTORIC FEATURES ON THIS SITE ACCORDING TO MDMERLIN.NET.
 - THE SUBJECT PROPERTY FALLS WITHIN THE ROCKY GORGE DAM SUB-WATERSHED (USE CLASS 1), OF THE PATUXENT WATERSHED.
 - THERE IS ONE FOREST STAND ON THIS SITE TOTALING 3.64 ACRES. SITE INVESTIGATIONS PERFORMED ON 2/10/02, BY DEWBERRY & DAVIS LLC.
 - THERE ARE NO HYDRIC SOILS ON THE SUBJECT PROPERTY ACCORDING TO THE HOWARD COUNTY SOIL SURVEY OF MARYLAND.

SPECIMEN TREE IDENTIFICATION LIST

BOTANICAL NAME/COMMON NAME	TRUNK Ø (d.b.h.)	TREE HEIGHT	TREE CANOPY	TREE CONDITION
1. <i>Liriodendron tulipifera</i>	31"	65'	40'	GOOD
2. <i>Liriodendron tulipifera</i>	31"	60'	30'	FAIR
3. <i>Liriodendron tulipifera</i>	32"	60'	20'	POOR
4. <i>Liriodendron tulipifera</i>	30"	50'	30'	FAIR
5. <i>Liriodendron tulipifera</i>	30"	50'	30'	GOOD
6. <i>Liriodendron tulipifera</i>	30"	55'	30'	GOOD-TWN
7. <i>Liriodendron tulipifera</i>	37"	50'	35'	GOOD
8. <i>Liriodendron tulipifera</i>	41"	60'	40'	FAIR
9. <i>Quercus falcata</i>	32"	50'	25'	FAIR
10. <i>Liriodendron tulipifera</i>	38"	45'	30'	FAIR
11. <i>Liriodendron tulipifera</i>	31"	60'	40'	GOOD-TWN
12. <i>Liriodendron tulipifera</i>	34"	45'	40'	GOOD
13. <i>Liriodendron tulipifera</i>	36"	65'	40'	EXCELLENT
14. <i>Liriodendron tulipifera</i>	34"	55'	40'	GOOD
15. <i>Quercus alba</i>	30"	60'	45'	POOR
16. <i>Quercus falcata</i>	30"	60'	40'	FAIR
17. <i>Quercus falcata</i>	31"	60'	50'	GOOD
18. <i>Liriodendron tulipifera</i>	43"	65'	40'	GOOD
19. <i>Liriodendron tulipifera</i>	31"	60'	50'	GOOD
20. <i>Quercus alba</i>	33"	65'	40'	GOOD

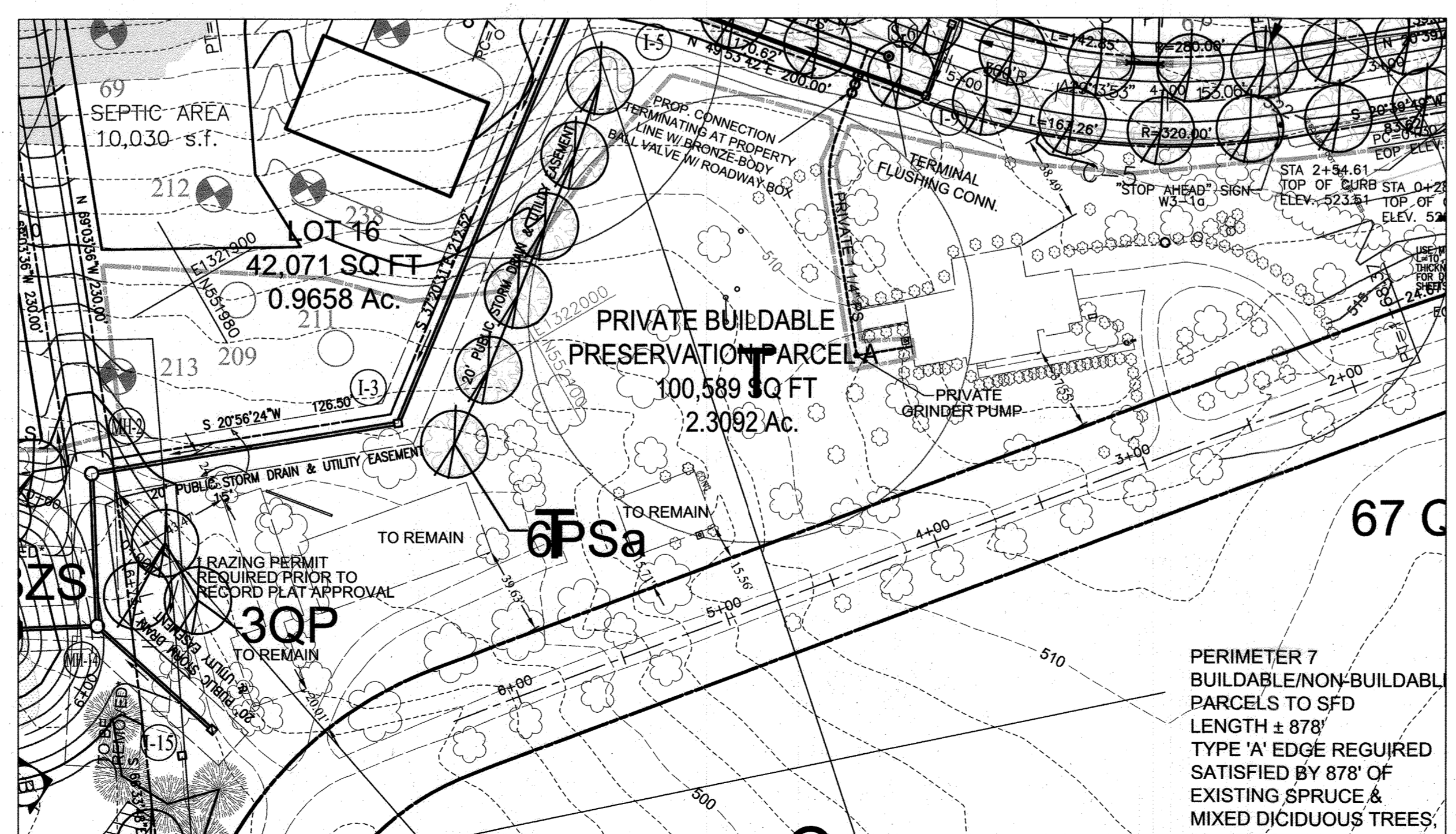
PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 2-8935, EXPIRATION DATE: 1/15/2025

THIS SEAL FOR REVISION

I certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of Howard County Code and the Landscape Manual. I further certify that upon completion a Certification of Landscape Installation, accompanied by an executed one year guarantee of plan materials will be submitted to the Department of Planning and Zoning.

3/9/04
 Owner/Developer Signature: *Charles A. ...* Date

STRUCTURES TO REMAIN FOR PRESERVATION PARCEL A (1"=50')



LEGEND

- FOREST RETENTION AREA SIGN
- AFFORESTATION AREA SIGN
- CRITICAL ROOT ZONE (CRZ) (ESTIMATED RADIUS = 1.5' X DBH)
- EXIST. TREE >24" D.B.H.
- ▨ AREAS WITH 15-25% SLOPES
- ▩ AREAS WITH 25% & GREATER SLOPES
- TREE LINE
- FOREST SAMPLE POINT #1
- C CROPS
- F FOREST
- T GROUP OF TREES
- OF OPEN FIELD

NOTE
 INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF THE MAINS BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF THE START OF EXCAVATION. CONTACT "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO THE START OF EXCAVATION. IF CLEARANCES ARE LESS THAN SHOWN ON THIS PLAN OR TWELVE (12) INCHES, WHICHEVER IS LESS, CONTACT THE ENGINEER AND THE UTILITY BEFORE PROCEEDING WITH CONSTRUCTION.

LEGEND

- LIMIT OF DISTURBANCE
- TREE PROTECTION FENCE (TO BE INSTALLED PRIOR TO CONSTRUCTION)
- REFORESTATION FENCE (TO BE INSTALLED AFTER PLANTING)
- EXIST. TREE >24" D.B.H.
- TREE >24" D.B.H. TO BE REMOVED
- ▨ FOREST CONSERVATION EASEMENTS (RETENTION AND AFFORESTATION)
- PROPOSED FOREST RETENTION AREA SIGN (TO BE INSTALLED PRIOR TO CONSTRUCTION) (9 TOTAL)
- PROPOSED REFORESTATION AREA SIGN (TO BE INSTALLED AFTER CONSTRUCTION) (11 TOTAL)

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. ... 3-25-04
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Charles A. ... 4/1/04
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Michael ... 3/22/04
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

3/1/03 **LOT 6 PLAN**
 ID-04-07 REMOVED EXISTING FENCING FROM STREET TO PROP. GATE LOCATION
 NO. DATE REVISIONS

A RESUBDIVISION OF LOT 3, CONSISTING OF LOTS 6-16 AND PARCELS A-E

PROJECT NAME: **OWINGS PROPERTY**
 LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
 5th ELECTION DISTRICT TAX MAP # 40, GRID
 PARCEL 44 HOWARD COUNTY, MARYLAND

TITLE: **LANDSCAPE / FOREST CONSERVATION PLAN**
 S-01-18 P-02-018 F-03-133

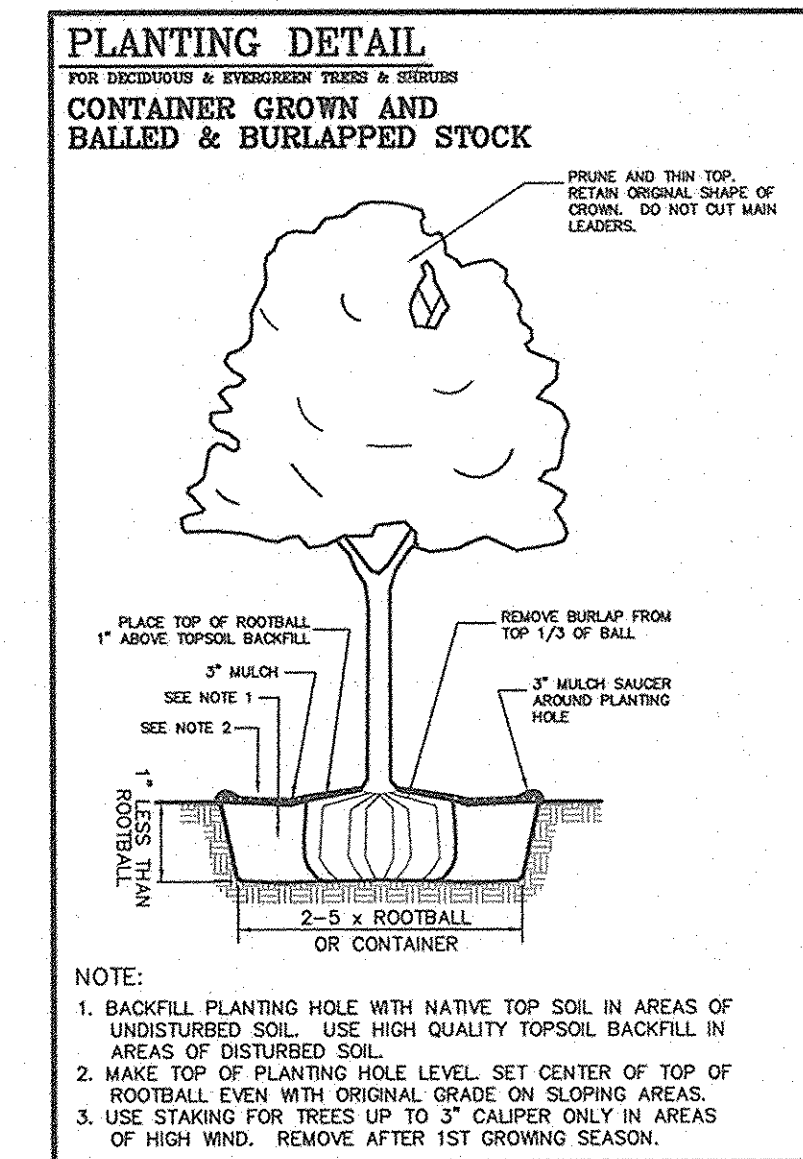
PREPARED BY: **Dewberry & Davis LLC**
 804 WEST DIAMOND AVE. GAITHERSBURG, MD 20878
 TEL: (301) 948-6300 FAX: (301) 259-7607

DEVELOPER: **MR. & MRS. HARWOOD OWINGS**
 13009 HIGHLAND ROAD
 COLUMBIA, MARYLAND 21046
 (410) 995-8736
 (410) 381-8747

DES.: IEV JOB: MR. & MRS. HARWOOD OWINGS
 DRW.: SGB PROJ.: OZ745 SCALE: 1" = 100'
 CHK.: MM DATE: DEC. 2003 SHEET 26 OF 29

SCHEDULE "A" PERIMETER LANDSCAPE EDGE (TOTAL)		
CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
LANDSCAPE TYPE	B	A
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	± 451'	± 3,162.6'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	YES, 878'
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO
NUMBER OF PLANTS REQUIRED SHADE TREES EVERGREEN TREES SHRUBS	NONE, SEE SCHEDULE "A" PERIMETER LANDSCAPE EDGE (FOR EACH PERIMETER) FOR DETAILS.	42.71 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS
NUMBER OF PLANTS PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION) SHRUBS (10:1 SUBSTITUTION) (DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	NA	43 SHADE TREES 0 EVERGREEN TREES 0 SHRUBS

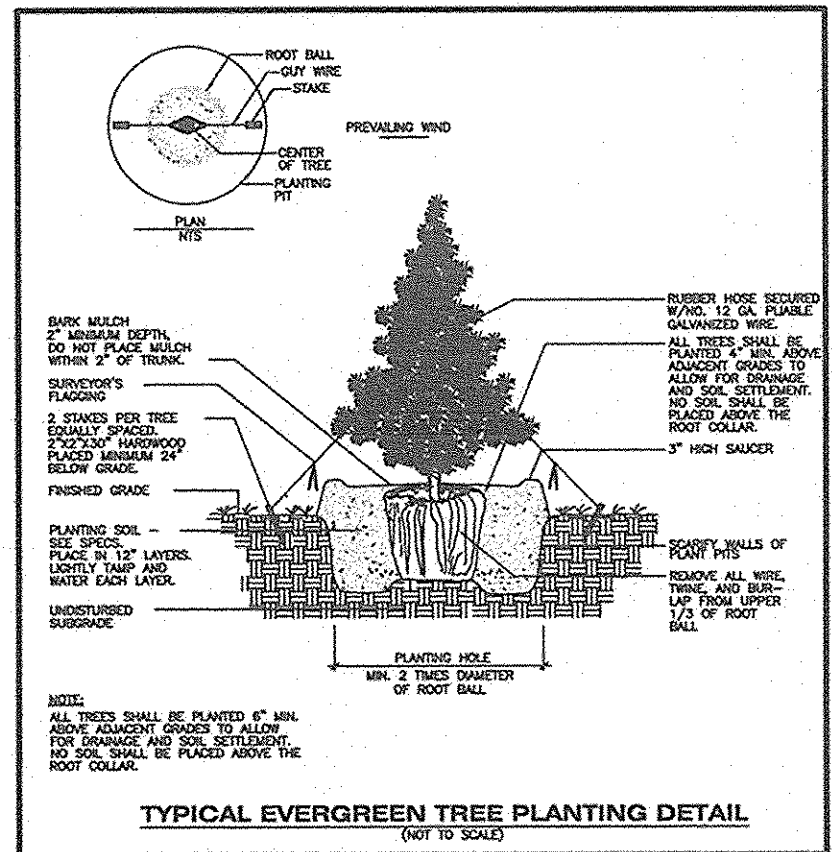
SCHEDULE "A" PERIMETER LANDSCAPE EDGE (FOR EACH PERIMETER)											
PERIMETER	CATEGORY (PROPERTIES/ROADWAYS)	LANDSCAPE TYPE	LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	SHADE TREES	EVERGREEN TREES	SHRUBS	SHADE TREES	EVERGREEN TREES	SHRUBS
1	SFD TO SFD	A	± 1209'	NO	NO	20.15	--	--	21	--	--
2	SFD TO SFD	A	± 775'	NO	NO	12.92	--	--	11	--	--
3	SFD TO NON-BUILDABLE PRESERVATION PARCEL	A	± 240'	NO	NO	4	--	--	4	--	--
4	SFD TO BUILDABLE PRESERVATION PARCEL	A	± 338.6'	NO	NO	5.64	--	--	6	--	--
5	SWM#1 TO SFD	B- SEE SCHEDULE "D" FOR DETAILS	± 331'	NO	NO	SEE SCHEDULE "D" FOR DETAILS					
6	BUILDABLE/NON-BUILDABLE PRESERVATION PARCELS TO ROAD	NONE REQUIRED	± 801'	NO	NO	--	--	--	--	--	--
7	SFD TO BUILDABLE/NON-BUILDABLE PRESERVATION PARCELS	A	± 878'	YES, 878' OF EXISTING SPRUCE AND MIXED DECIDUOUS TREES; 6" -18", GOOD CONDITION.	NO	--	--	--	--	--	--
TOTAL TABULATION FOR LOT 3:						42.71	--	--	42	--	--



PLANTING SCHEDULE FOR STREET TREE PLANTING (STREET LENGTH = ± 1,338)						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
67	ORo	QUERCUS ROBUR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	2" - 2 1/2" CAL	B & B	40' O.C. EXCEPT WHERE NOTED ON PLAN

NOTE TO REVIEWER
1. NO PLANTING SCHEDULE TYPES "B" or "C" ARE REQUIRED FOR THIS PROJECT.

NOTE TO CONTRACTOR:
1. 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 LANDSCAPE MANUAL. IN ADDITION, NO SUBSTITUTIONS OR RELOCATION 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.



SCHEDULE "D" STORMWATER MANAGEMENT AREA LANDSCAPING		
PERIMETER TYPE	ADJACENT TO INTERNAL DEVELOPMENT	ADJACENT TO PERIMETER PROPERTIES (NON-RESIDENTIAL TO SFD)
LANDSCAPE TYPE	B	B
LINEAR FEET OF PERIMETER	± 704'	± 331'
NUMBER OF TREES REQUIRED SHADE TREES EVERGREEN TREES	14.08 6.62	6.62 8.28
CREDIT FOR EXISTING VEGETATION (NO, YES, AND %)	NO	NO
CREDIT FOR OTHER LANDSCAPING (NO, YES, AND %)	NO	NO
NUMBER OF TREES PROVIDED SHADE TREES EVERGREEN TREES OTHER TREES (2:1 SUBSTITUTION)	15 18	7 9

PLANTING SCHEDULE "A" FOR PERIMETER 1--SFD TO SFD (TYPE A EDGE) (PERIMETER LENGTH = ± 1209')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
5	QC	QUERCUS COCCINEA	SCARLET OAK	2 1/2" - 3" CAL	B & B	
5	AS	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN MAPLE	2 1/2" - 3" CAL	B & B	
5	TA	TILIA AMERICANA 'REDMONT'	REDMONT LINDEN	2 1/2" - 3" CAL	B & B	
6	QA	QUERCUS ALBA	WHITE OAK	2 1/2" - 3" CAL	B & B	

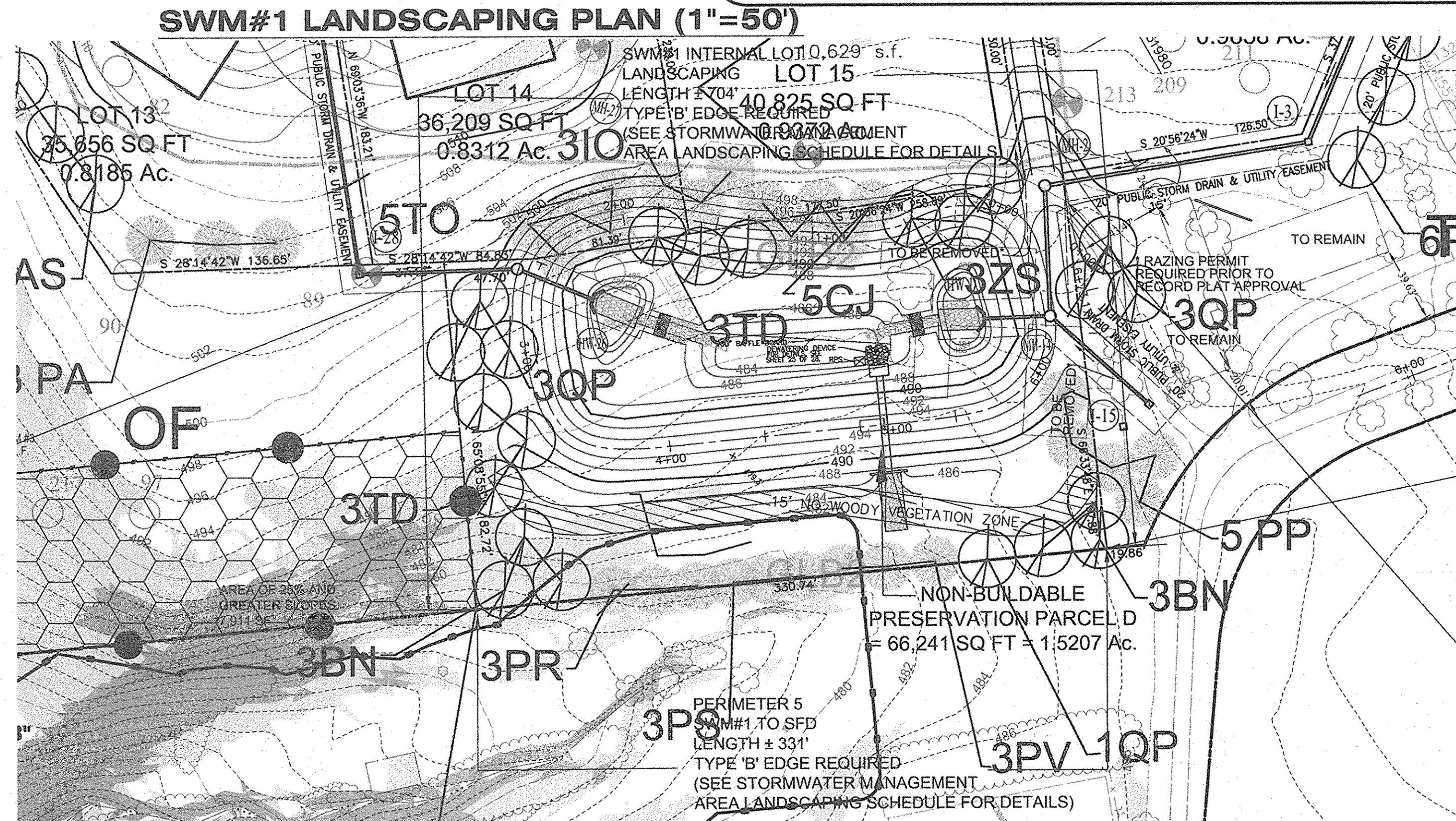
PLANTING SCHEDULE "A" FOR PERIMETER 3--SFD TO NON-BUILDABLE PRESERVATION PARCEL (TYPE A EDGE) (PERIMETER LENGTH = ± 240')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
4	PSa	PRUNUS SARGENTII	SARGENT CHERRY	2 1/2" - 3" CAL	B & B	

PLANTING SCHEDULE "A" FOR PERIMETER 2--SFD TO SFD (TYPE A EDGE) (PERIMETER LENGTH = ± 775')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
6	QC	QUERCUS COCCINEA	SCARLET OAK	2 1/2" - 3" CAL	B & B	
5	AS	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN MAPLE	2 1/2" - 3" CAL	B & B	
2	TA	TILIA AMERICANA 'REDMONT'	REDMONT LINDEN	2 1/2" - 3" CAL	B & B	
4	PA	PICEA ABIES	NORWAY SPRUCE	6" - 8"	B & B	

PLANTING SCHEDULE "A" FOR PERIMETER 4--SFD TO PRESERVATION PARCEL (TYPE A EDGE) (PERIMETER LENGTH = ± 338.6')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
6	PSa	PRUNUS SARGENTII	SARGENT CHERRY	2 1/2" - 3" CAL	B & B	

PLANTING SCHEDULE "D" FOR PERIMETER 5--SWM#1 TO SFD (TYPE B BUFFER) (PERIMETER LENGTH = ± 331')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
6	BN	BETULA NIGRA 'HERITAGE'	HERITAGE CLUMP BIRCH	10'-12" HEIGHT	B & B	
1	QP	QUERCUS PHELLOS	WILLOW OAK	2 1/2" - 3" CAL	B & B	
3	PR	PINUS RESIDA	PITCH PINE	6" - 8"	B & B	
3	PV	PINUS VIRGINIANA	VIRGINIA PINE	6" - 8"	B & B	
3	PS	PINUS STROBUS	EASTERN WHITE PINE	6" - 8"	B & B	

PLANTING SCHEDULE "D" FOR SWM#1 TO INTERNAL LOT PERIMETERS (TYPE B BUFFER) (PERIMETER LENGTH = ± 704')						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
6	TD	TAXODIUM DISTICHUM	COMMON BALD CYPRESS	2 1/2" - 3" CAL	B & B	
6	QP	QUERCUS PHELLOS	WILLOW OAK	2 1/2" - 3" CAL	B & B	
3	ZS	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN JAPANESE ZELKOVA	2 1/2" - 3" CAL	B & B	
5	TO	THUJA OCCIDENTALIS	WHITE CEDAR	6" - 8"	B & B	
5	CJ	CRYPTOMERIA JAPONICA	JAPANESE CRYPTOMERIA	6" - 8"	B & B	
5	PP	PICEA PUNGENS	COLORADO SPRUCE	6" - 8"	B & B	
3	IO	ILEX OPACA	AMERICAN HOLLY	5" - 6"	B & B	



SUMMARY PLANTING SCHEDULE FOR OWINGS LOT 3						
QTY	KEY	BOTANICAL NAME	COMMON NAME	SIZE/TYPE	ROOT CONDITION	REMARKS
11	QC	QUERCUS COCCINEA	SCARLET OAK	2 1/2" - 3" CAL	B & B	
8	AS	ACER SACCHARUM 'GREEN MOUNTAIN'	GREEN MOUNTAIN MAPLE	2 1/2" - 3" CAL	B & B	
7	TA	TILIA AMERICANA 'REDMONT'	REDMONT LINDEN	2 1/2" - 3" CAL	B & B	
6	QA	QUERCUS ALBA	WHITE OAK	2 1/2" - 3" CAL	B & B	
6	BN	BETULA NIGRA 'HERITAGE'	HERITAGE CLUMP BIRCH	10'-12" HEIGHT	B & B	
7	QP	QUERCUS PHELLOS	WILLOW OAK	2 1/2" - 3" CAL	B & B	
6	TD	TAXODIUM DISTICHUM	COMMON BALD CYPRESS	2 1/2" - 3" CAL	B & B	
3	ZS	ZELKOVA SERRATA 'VILLAGE GREEN'	VILLAGE GREEN JAPANESE ZELKOVA	2 1/2" - 3" CAL	B & B	
67	ORo	QUERCUS ROBUR 'FASTIGIATA'	COLUMNAR ENGLISH OAK	2" - 2 1/2" CAL	B & B	
10	PSa	PRUNUS SARGENTII	SARGENT CHERRY	2 1/2" - 3" CAL	B & B	
4	PA	PICEA ABIES	NORWAY SPRUCE	6" - 8"	B & B	
3	PV	PINUS VIRGINIANA	VIRGINIA PINE	6" - 8"	B & B	
3	PS	PINUS STROBUS	EASTERN WHITE PINE	6" - 8"	B & B	
5	TO	THUJA OCCIDENTALIS	WHITE CEDAR	6" - 8"	B & B	
5	CJ	CRYPTOMERIA JAPONICA	JAPANESE CRYPTOMERIA	6" - 8"	B & B	
5	PP	PICEA PUNGENS	COLORADO SPRUCE	6" - 8"	B & B	
3	IO	ILEX OPACA	AMERICAN HOLLY	5" - 6"	B & B	

APPROVED: DEPARTMENT OF PUBLIC WORKS
William J. Mahoney Jr. 3-25-04
CHIEF, BUREAU OF HIGHWAYS

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Colleen... 4/1/04
CHIEF, DIVISION OF LAND DEVELOPMENT

APPROVED: DEPARTMENT OF ENGINEERING
... 3/29/04
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	DATE	REVISIONS
3	11/18/03	DELETED "A" FROM THE NUMBER OF PLANTS REQUIRED, EVERGREEN TREE TOTAL, TOTAL TABULATION FOR LOT 3, FROM "SCHEDULE A" PERIMETER LANDSCAPE EDGE (FOR EACH PERIMETER) TO "SCHEDULE D" PERIMETER LANDSCAPE EDGE.
2	10/15/03	CORRECTED PERIMETER 2 DISTANCE FROM 600' TO 878', REMOVED SEDIMENT CONTROL PLAN INFORMATION FROM PLAN.
1	10/6/03	DELETED "A" PERIMETER TREES FROM PERIMETER REQUIREMENT, PER COMMENTS DATED AUGUST 13, 2003 FROM THE DEPARTMENT OF PLANNING AND ZONING DIVISION AND DEVELOPMENT, HOWARD COUNTY.

PROJECT NAME: **OWINGS PROPERTY**
LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E
5th ELECTION DISTRICT, TAX MAP # 40, GRID
HOWARD COUNTY, MARYLAND

TITLE: **LANDSCAPE NOTES AND DETAILS**
S-01-18 P-02-018 F-03-133

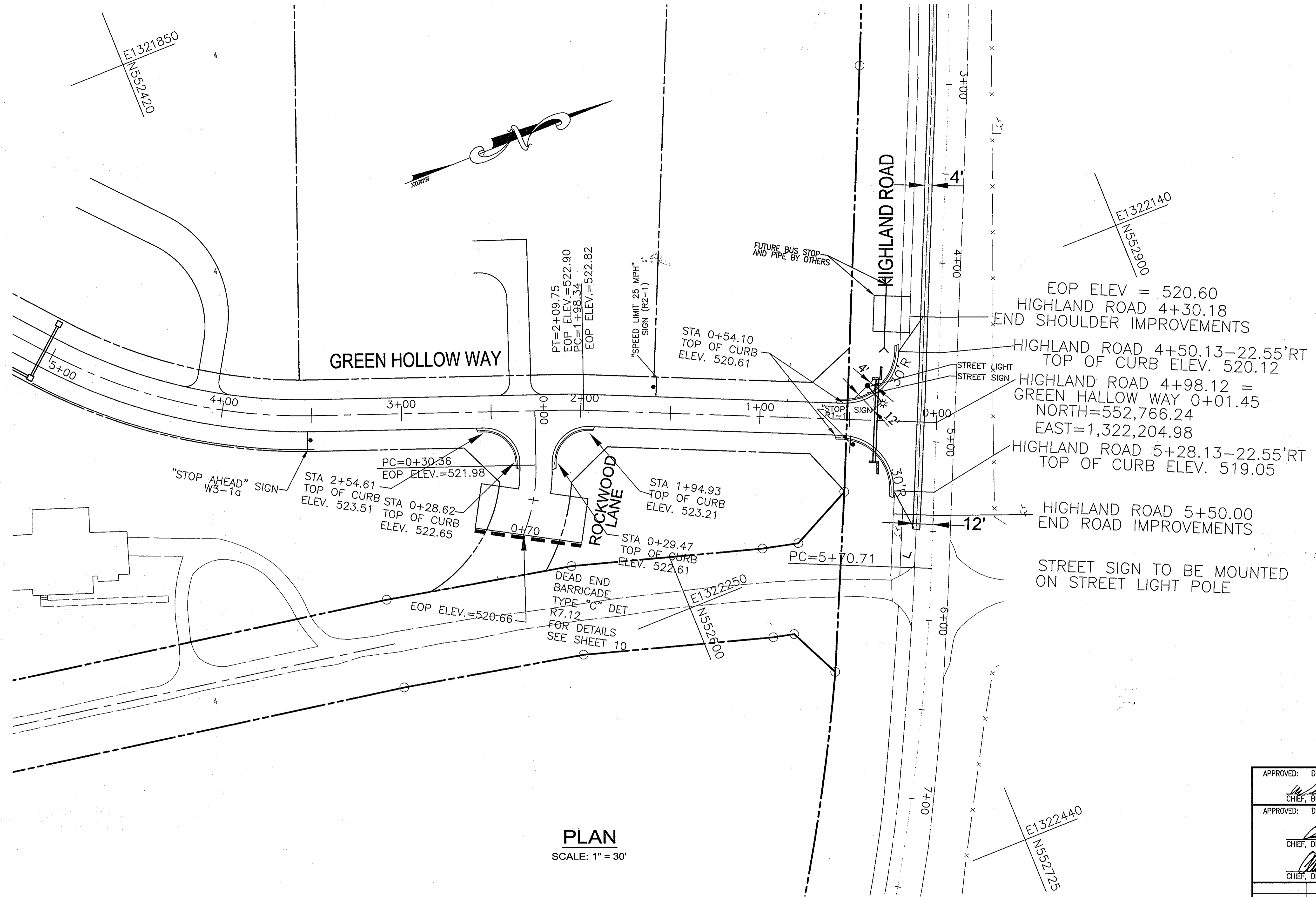
OWNERS: MR. & MRS. HARWOOD OWINGS
13008 HIGHLAND ROAD
HIGHLAND, MARYLAND 20777

PREPARED BY: **Dewberry & Davis LLC**
203 PERRY PARKWAY
GAITHERSBURG, MD 20877
TEL: (301) 949-8300
FAX: (301) 295-7607

DEVELOPER: **DALE THOMPSON BUILDERS**
6300 WOODSIDE COURT
COLUMBIA, MARYLAND 21046
(410) 995-6736
(410) 381-8747

DES.: EV JOB:
DRW.: SGB PROJ.: OZ745
CHK.: MM DATE: DEC. 2003

SCALE: 1" = 100'
SHEET 27 OF 29



PLAN
SCALE: 1" = 30'

DRAWING NO.	STREET NAME	STATION	OFFSET	FIXTURE/POLE TYPE
2	GREEN HOLLOW WAY	0+37	22' R	250-WATT HPS VAPOR PENDANT FIXTURE (SAG) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM

NOTE: STREET SIGN TO BE MOUNTED ON STREET LIGHT POLE



APPROVED: DEPARTMENT OF PUBLIC WORKS <i>William F. ...</i> CHIEF, BUREAU OF HIGHWAYS	3-25-04 DATE
APPROVED: DEPARTMENT OF PLANNING AND ZONING <i>...</i> CHIEF, DIVISION OF LAND DEVELOPMENT	4/1/04 DATE
<i>...</i> CHIEF, DEVELOPMENT ENGINEERING DIVISION	3/2/04 DATE
NO. DATE REVISIONS	
A RESUBDIVISION OF LOT 3, CONSISTING LOTS 6-16 AND PARCELS A-E	
PROJECT NAME: OWINGS PROPERTY LOTS 6 THRU 16 AND PRESERVATION PARCELS A THRU E 5th ELECTION DISTRICT TAX MAP # 40, GRID PARCEL 44 HOWARD COUNTY, MARYLAND	
TITLE: STREET LIGHT PLAN S-01-18 P-02-018 F-03-133	OWNERS: MR. & MRS. HARWOOD OWINGS 13009 HIGHLAND ROAD HIGHLAND, MARYLAND 20777
PREPARED BY:	DEVELOPER: DALE THOMPSON BUILDERS 6300 WOODSIDE COURT COLUMBIA, MARYLAND 21046 (410) 995-6736 (410) 381-8747
DES.: IEV	JOB.: XXX
DRW.: SGB	PROJ.: OZ745
CHK.: MM	DATE: DEC. 2003
SCALE: AS SHOWN SHEET 29 OF 29	