

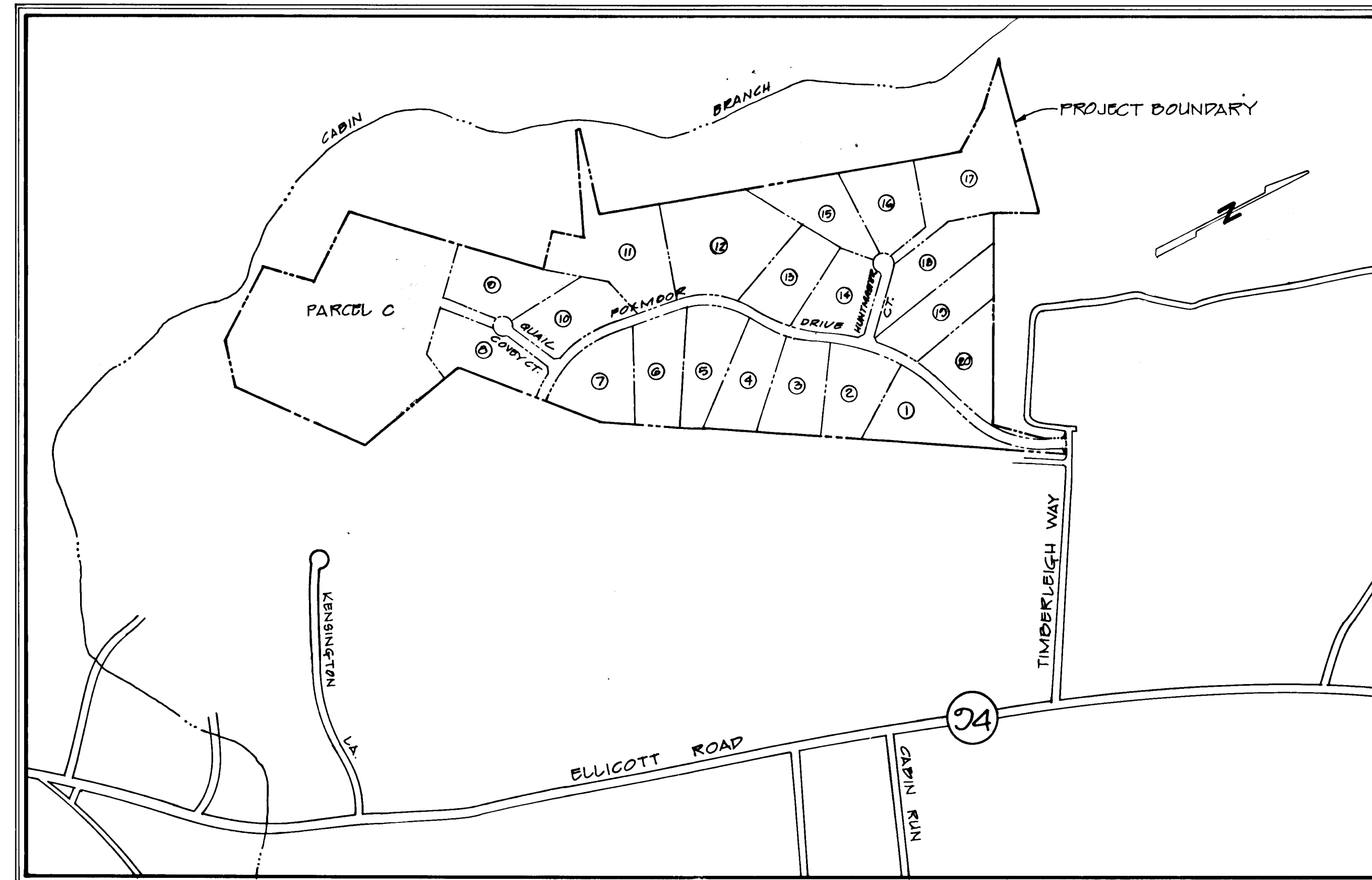
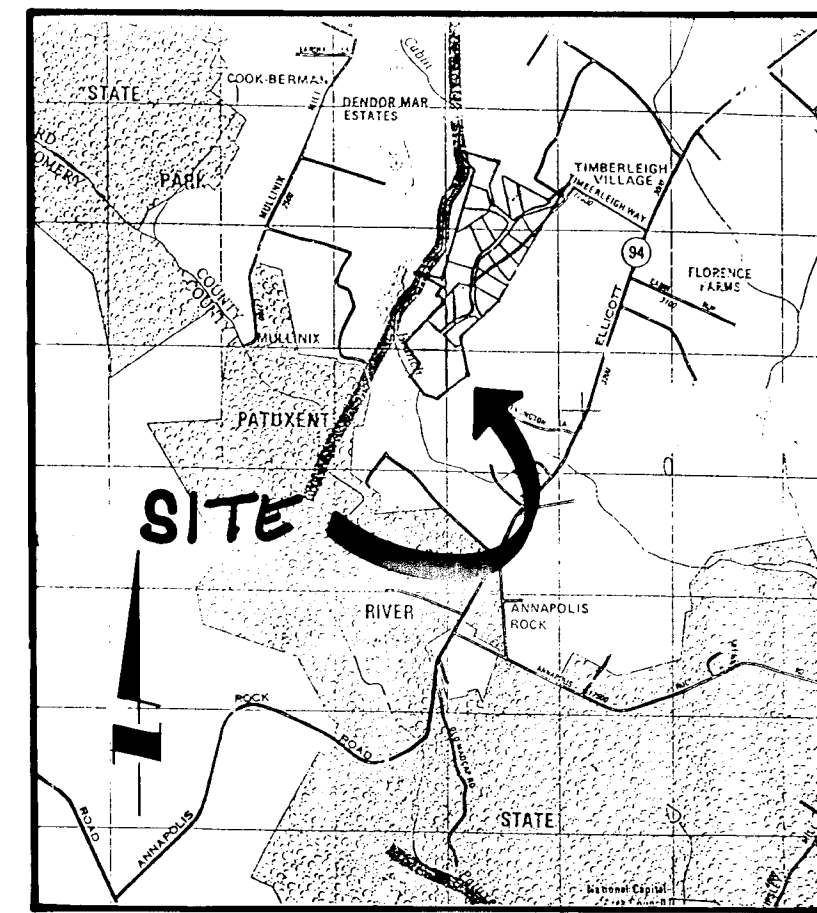
# FOXMOOR

## LOTS 1-20

STRUCTURE SCHEDULE							
NO.	TYPE	INV. IN	INV. OUT	UPPER END	LOWER END	HO.CO. STR.	LOCATION
I-2	'A' HEADWALL	601.93	---	---	---	SD-5.11	15+00 FD
I-3	DBL '6'	---	621.70	624.90	624.90	SD-4.25	11+70 FD
I-4	'A' HEADWALL	596.83	---	---	---	SD-5.11	12+50 FD
I-5	DBL '6'	---	618.86	622.00	622.00	SD-4.25	23+00 FD
I-7	SQL '5'	---	641.50	643.49	643.49	SD-4.25	1+00 QCC
M-1	MANHOLE	597.22	596.22	605.67	605.67	G-8.15	15+75 FD
M-2	MANHOLE	591.27	590.77	601.14	601.14	G-8.15	12+50 FD
E-1	END SECTION	---	585.70	---	---	SD-5.61	10+30 FD
E-2	END SECTION	---	617.50	---	---	SD-5.61	23+70 FD
E-3	END SECTION	---	640.00	---	---	SD-5.61	23+00 QCC

FD = FOXMOOR DRIVE QCC = QUAIL COVY COURT HC = HUNTMASTER COURT

PIPE SCHEDULE				
DIA.	MATERIAL	CLASS	LENGTH (L)	
18"	CMP	16 Ga.	135	
18"	CMP	16 Ga.	595	
24"	CMP	16 Ga.	45	
30"	CMP	16 Ga.	275	
36"	CMP	16 Ga.	182	



VICINITY MAP  
SCALE: 1"=500'

# PAVING AND STORM DRAIN CONSTRUCTION PLANS HOWARD COUNTY MARYLAND

### GENERAL NOTES

1. THE APPROXIMATE LOCATION OF ALL UTILITIES IS SHOWN BASED ON INFORMATION OBTAINED FROM AVAILABLE RECORDS. THE CONTRACTOR SHALL LOCATE, PROTECT AND SUPPORT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEERING/INSPECTOR, AT THE CONTRACTOR'S EXPENSE.
2. CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
3. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.
  - STATE HIGHWAY ADMINISTRATION - 531-5533
  - BALTIMORE GAS & ELECTRIC COMPANY - 561-2585 (CONTRACTOR SERVICES)
  - BALTIMORE GAS & ELECTRIC COMPANY - 234-6313 (UNDERGROUND DAMAGE CONTROL)
  - BALTIMORE GAS & ELECTRIC COMPANY - 298-9013 (TROUBLE SHOOTING)
  - "MISS UTILITY" - 800-257-7777
  - CHESAPEAKE & POTOMAC (CAP) TELEPHONE COMPANY - 725-9976
  - BUREAU OF UTILITIES/HOWARD COUNTY - 992-2366
4. ALL DETAILS NOT SHOWN ON THE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD DETAILS.
5. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND HOWARD COUNTY DESIGN MANUAL, VOLUME IV.
6. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, LATEST EDITION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
7. TREES SHALL BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT POSSIBLE. TREES SIX INCH (6") DIAMETER OR GREATER (MEASURED FOUR FEET (4') ABOVE EXISTING GRADE) ADJACENT TO THE LIMITS OF CONSTRUCTION SHALL NOT BE REMOVED OR DAMAGED BY THE CONTRACTOR.
8. ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON MARYLAND STATE PLANE COORDINATES SYSTEM PROVIDED BY HOWARD COUNTY.
9. TOPOGRAPHY TAKEN FROM MAPS PREPARED BY PHOTOGRAMMETRY BY "JODEE ASSOCIATES" IN 1988.
10. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
11. CLEAR ALL UTILITIES BY A MINIMUM OF 12" CLEAR. CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION AND SHALL BE INCLUDED IN UNIT PRICES BID FOR EXCAVATION BACKFILL.
12. ALL PIPE BEDDING SHALL BE CLASS C.
13. ROAD RIGHT OF WAY INFORMATION IS SHOWN ON THE RECORD PLATS.
14. SPOT ELEVATIONS SHOWN ARE GROUND LEVEL UNLESS OTHERWISE NOTED.
15. SHADED AREAS INDICATE UTILITY, DRAINAGE AND ACCESS EASEMENT.

### INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1.	TITLE
2.	PAVING & STORM DRAINAGE
3.	PAVING & STORM DRAINAGE
4.	PAVING & STORM DRAINAGE
5.	PAVING & STORM DRAINAGE
6.	STORM DRAIN PROFILES
7.	DRAINAGE AREA MAP
8.	DRAINAGE AREA MAP
9.	EROSION AND SEDIMENT CONTROL PLAN
10.	EROSION AND SEDIMENT CONTROL PLAN
11.	EROSION AND SEDIMENT CONTROL DETAIL
12.	EROSION AND SEDIMENT CONTROL DETAIL

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT  
 SIGNATURE: *[Signature]* DATE: 8/3/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division: *[Signature]* 8/28/89  
 Chief, Bureau of Highways: *[Signature]* 8/30/89

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

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
 Chief, Bureau of Engineering: *[Signature]* 9-1-89

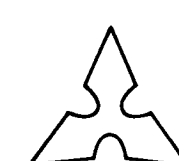
APPROVED: *[Signature]* 8/3/89  
 HOWARD SCD DATE

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
 Chief, Division of Community Planning & Land Development: *[Signature]* 7/15/89

# PHR&A

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects  
 7609 Standish Place  
 Rockville, Maryland 20855  
 301 762-2220

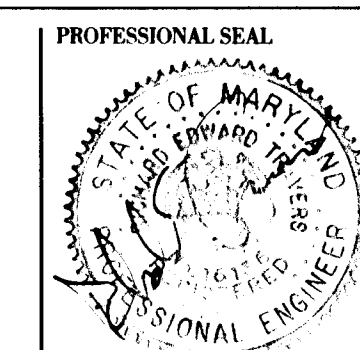
Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA



CLIENT  
 LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD, 21046

JOB  
 FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. VP-88-03  
 S-88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
 TITLE SHEET



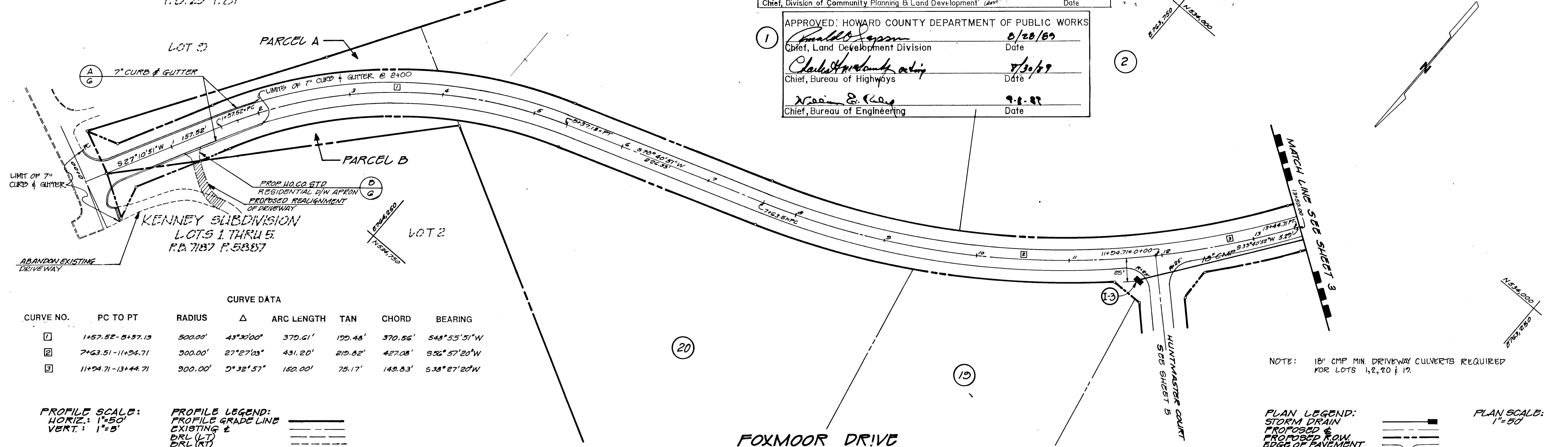
NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
1	ISSUED FOR SIGNATURE	7-31-89		PHR&A	2242-10
				DESIGN	DATE 2-17-89
				DRAWN	SCALE CI
				CHKD	NO SCALE
					SHEET 1 OF 12

F-89-165

TIMBERLEIGH VILLAGE  
P.B. 25 P. 81

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Frank S. DeAngelis*  
 Chief, Division of Community Planning & Land Development 9/13/89  
 Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 1 *Arnold J. Pappas* 8/20/89  
 Chief, Land Development Division Date  
*Charles A. Hunsbaker* 8/30/89  
 Chief, Bureau of Highways Date  
*William E. Coo* 9-8-89  
 Chief, Bureau of Engineering Date



CURVE DATA							
CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
1	1+57.52-5+37.13	500.00'	43°30'00"	370.61'	170.48'	370.56'	S48°55'51"W
2	7+63.51-11+04.71	900.00'	27°27'03"	431.20'	210.82'	427.08'	S56°57'20"W
3	11+04.71-13+44.71	900.00'	0°32'57"	180.00'	75.17'	149.83'	S38°27'20"W

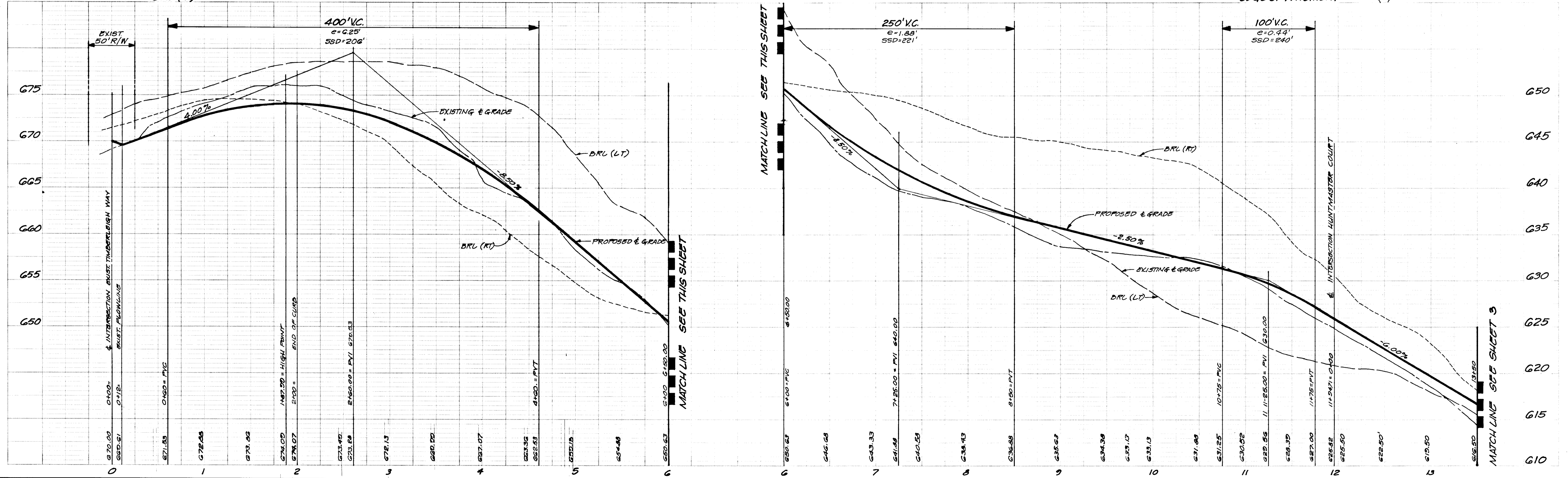
PROFILE SCALE:  
 HORIZ: 1"=50'  
 VERT: 1"=5'

PROFILE LEGEND:  
 PROFILE GRADE LINE  
 EXISTING &  
 DRL (LT)  
 DRL (RT)

PLAN LEGEND:  
 STORM DRAIN  
 PROPOSED &  
 EDGE OF PAVEMENT

PLAN SCALE:  
 1"=50'

NOTE: 18" CMP MIN. DRIVEWAY CULVERTS REQUIRED FOR LOTS 1, 2, 20 & 12.



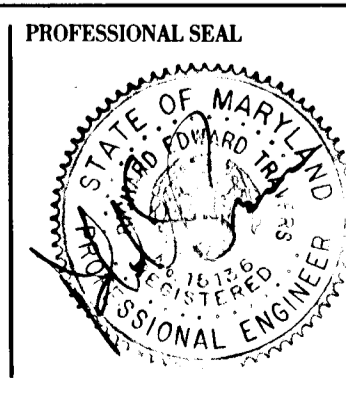
**PHR&A**  
 Patton Harris Rust & Associates, PC  
 Engineers, Surveyors, Planners, Landscape Architects  
 7609 Standish Place  
 Rockville, Maryland 20855  
 301 762-2220

Offices:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA

CLIENT  
**LONG MEADOW VENTURERS**  
 7050 OAKLAND MILLS RD  
 COLUMBIA, MD, 21046

JOB  
**FOXMOOR**  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. V.P.-88-03  
 5-88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
**PAVING & STORM DRAINAGE**



NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
1	ISSUED FOR SIGNATURE	7-31-89		PHR&A	22-12-1-0
				DESIGN	TPWB
				DRAWN	FC
				CHKD	

SCALE: AS SHOWN  
 SHEET: 2 OF 12

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

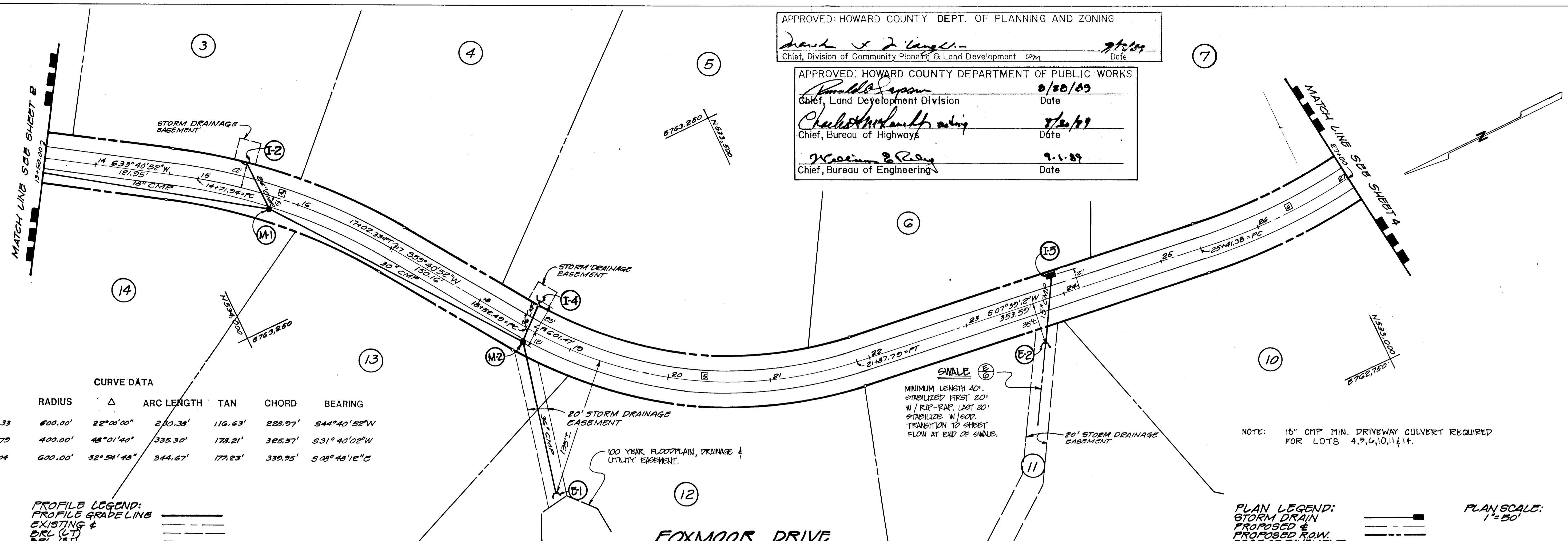
*David S. Long*  
 Chief, Division of Community Planning & Land Development  
 Date: 7/2/89

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Charles S. Long*  
 Chief, Land Development Division  
 Date: 8/20/89

*Charles H. Long*  
 Chief, Bureau of Highways  
 Date: 8/20/89

*William S. Long*  
 Chief, Bureau of Engineering  
 Date: 9-1-89



CURVE DATA

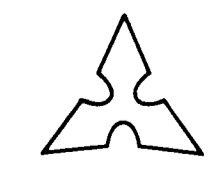
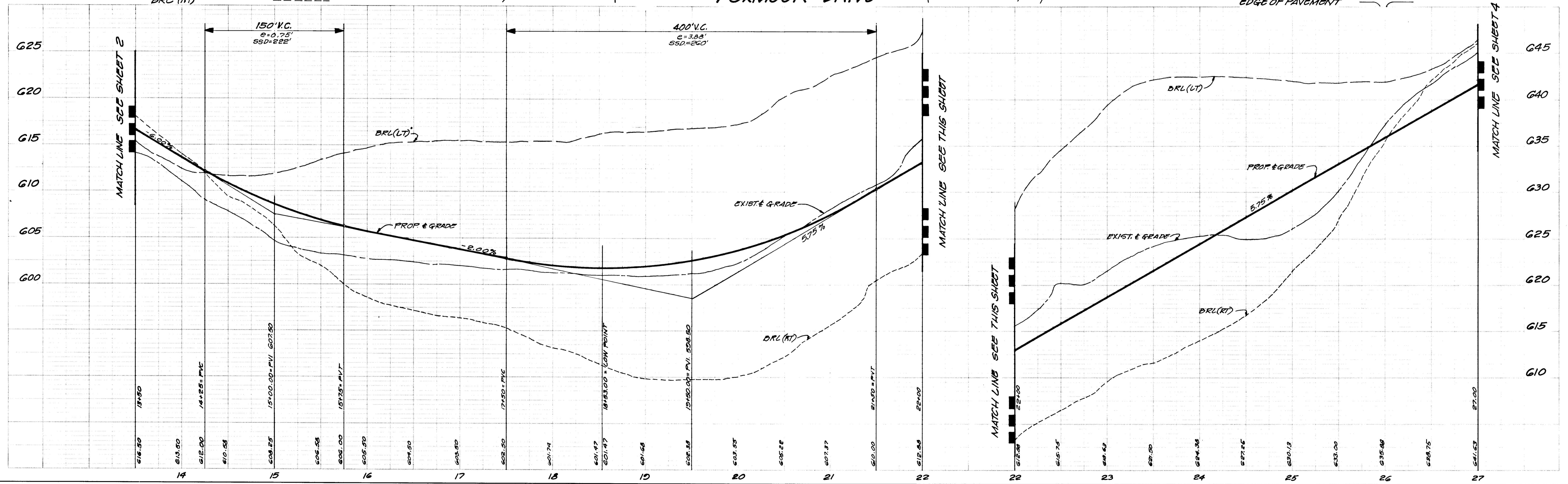
CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
1	14+71.94 - 17+02.33	600.00'	22°00'00"	230.38'	116.63'	228.97'	S44°40'52"W
2	18+58.40 - 21+57.70	400.00'	48°01'40"	335.30'	178.21'	325.57'	S31°40'02"W
3	25+41.38 - 28+86.04	600.00'	32°54'48"	344.67'	177.23'	339.95'	S08°48'16"E

PROFILE SCALE:  
 HORIZ: 1"=50'  
 VERT: 1"=5'

PROFILE LEGEND:  
 PROFILE GRADE LINE  
 EXISTING &  
 DRL (LT)  
 DRL (RT)

PLAN LEGEND:  
 STORM DRAIN  
 PROPOSED &  
 PROPOSED ROW,  
 EDGE OF PAVEMENT

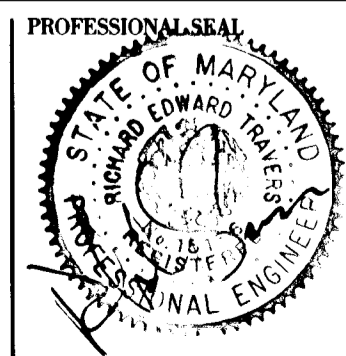
PLAN SCALE:  
 1"=50'



CLIENT  
 LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD. 21046

JOB  
 FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. V.P. = 88-03  
 S-88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
 PAVING & STORM  
 DRAINAGE



NO.	REVISIONS	DATE	BY
1	ISSUED FOR SIGNATURE	7-31-89	

DESIGN	DATE	FILE NO.
PHR&A	2-17-89	2242-10
TPWB		
FC		

SCALE: AS SHOWN  
 SHEET: 3 OF 12

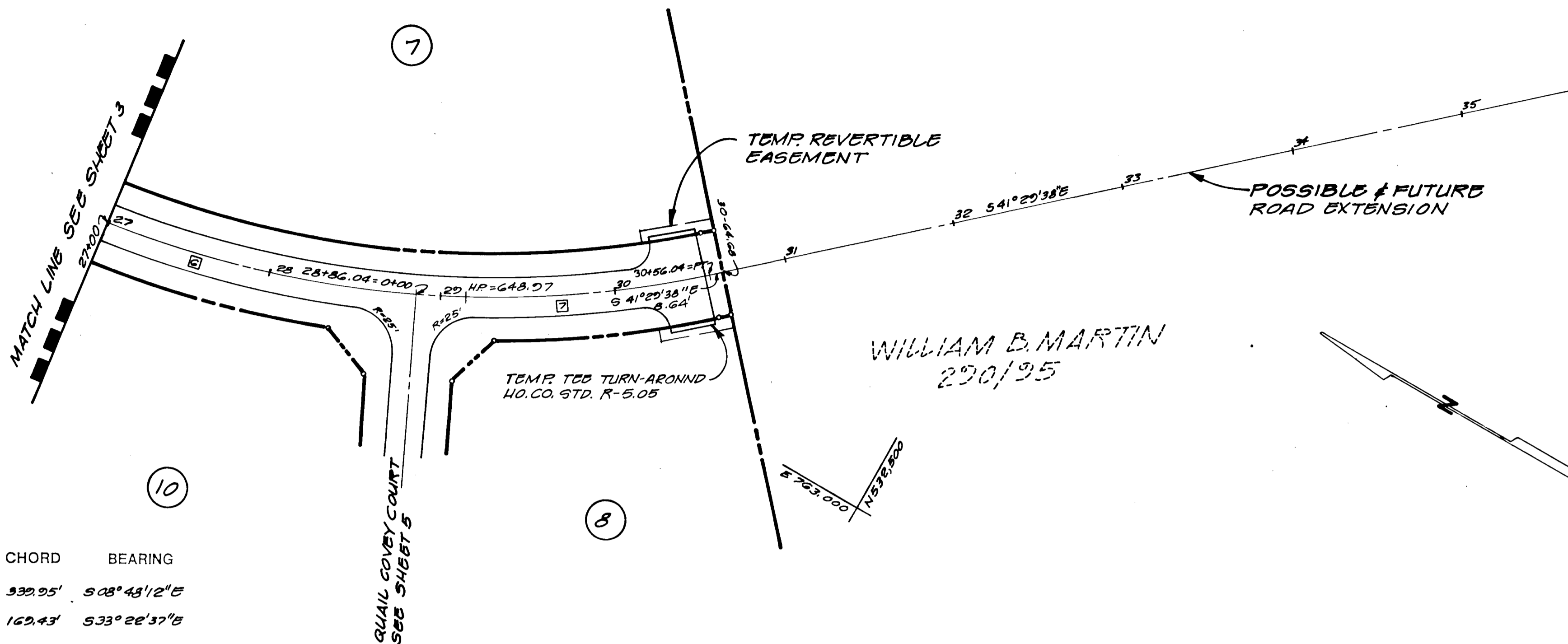
F-89-165

1468

104 301-940-3340

*David S. DeAngelis*  
 Chief, Division of Community Planning & Land Development  
 Date: 7/15/89

*Donald J. Sporn* 8/28/89  
 Chief, Land Development Division  
*Charles H. Kelly* 8/30/89  
 Chief, Bureau of Highways  
*William B. Martin* 9-1-89  
 Chief, Bureau of Engineering



CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
6	25+41.38-28+86.04	600.00'	32° 54' 48"	344.67'	177.23'	939.95'	S 08° 43' 12" E
7	28+86.04-30+36.04	600.00'	16° 14' 02"	170.00'	85.57'	162.43'	S 33° 28' 37" E

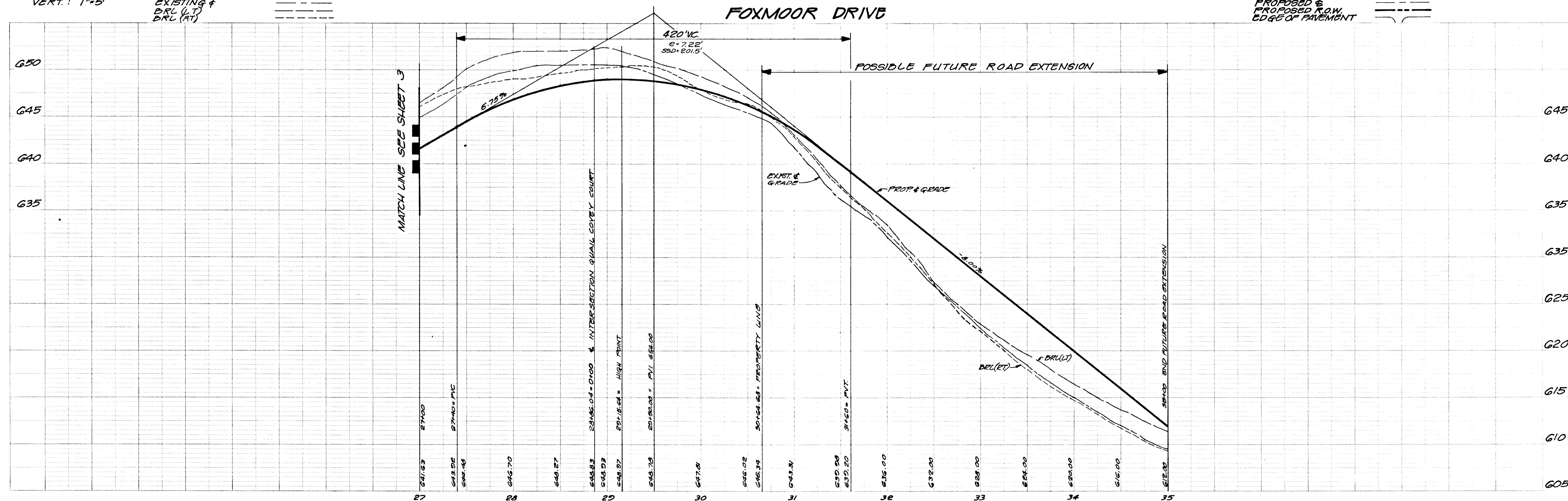
NOTE: 16" CMP MIN. DRIVEWAY CULVERT REQUIRED FOR LOT 10.

PROFILE SCALE:  
 HORIZ: 1"=50'  
 VERT: 1"=5'

PROFILE LEGEND:  
 PROFILE GRADE LINE  
 EXISTING &  
 DRL (LT)  
 DRL (RT)

PLAN LEGEND:  
 STORM DRAIN  
 PROPOSED &  
 PROPOSED R.O.W.  
 EDGE OF PAVEMENT

PLAN SCALE:  
 1"=50'



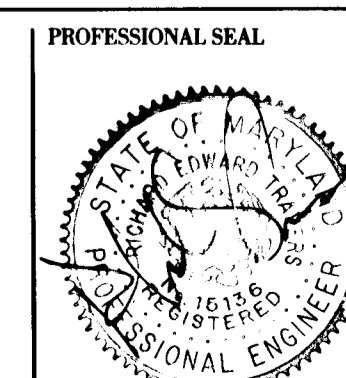
**PHR&A**



CLIENT  
**LONG MEADOW VENTURERS**  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD. 21046

JOB  
**FOXMOOR**  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. VP-88-03  
 S-88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
**PAVING & STORM DRAINAGE**



NO.	REVISIONS	DATE	BY
1	ISSUED FOR SIGNATURE	7-31-89	

DESIGN	DATE	FILE NO.
TPWB	2-17-89	2242-10
DRAWN	SCALE	
FC	AS SHOWN	
CHKD	SHEET	
	4	12

F-89-165

1468  
 Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects  
 3409 Stadium Place  
 Rockville, Maryland 20855  
 301 762-2220

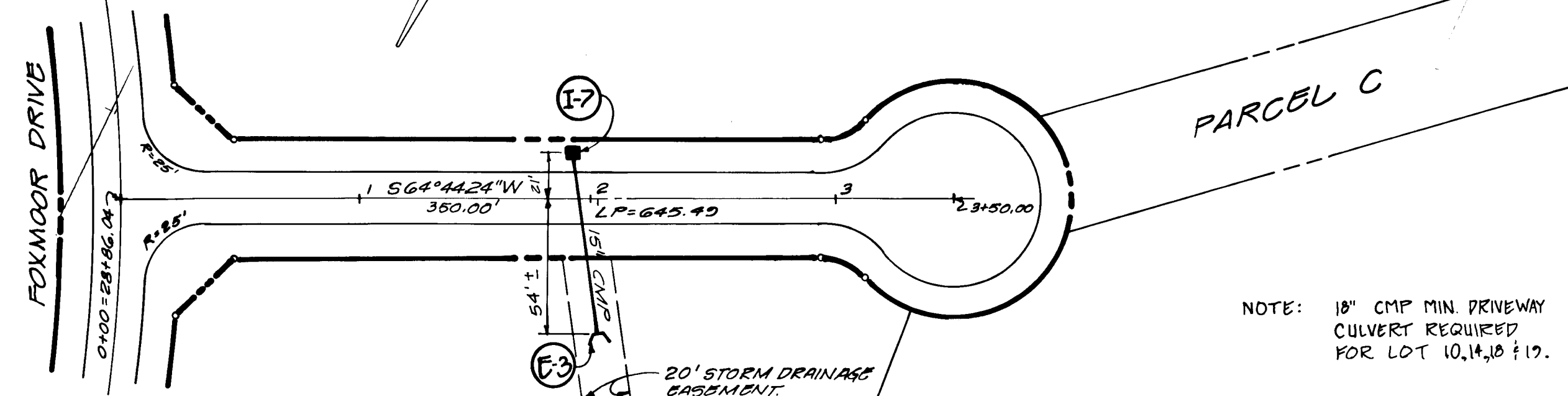
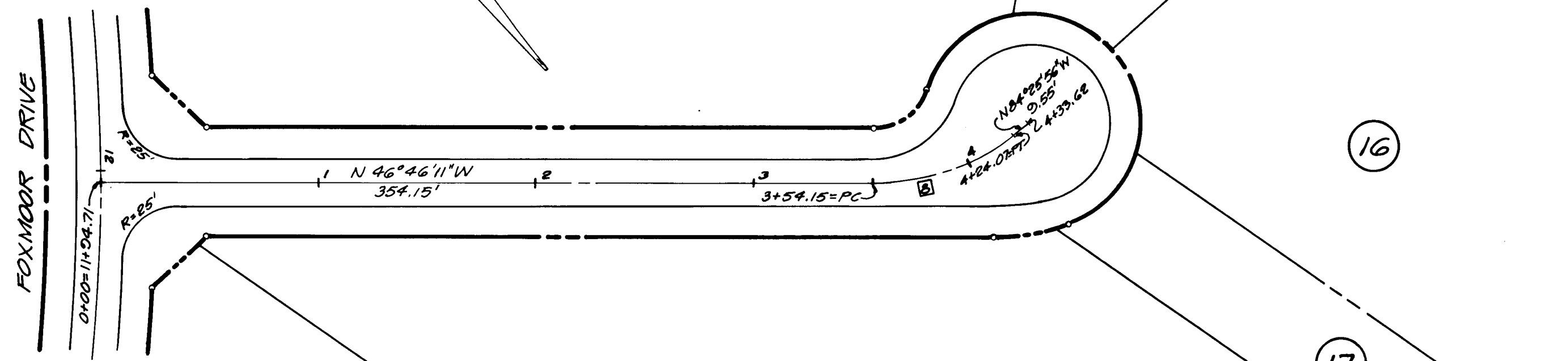
Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*March J. DeLoach* 3/5/88  
 Chief, Division of Community Planning & Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Smallwood* 6/20/89  
 Chief, Land Development Division Date

*Charles Stankovic* 5/30/89  
 Chief, Bureau of Highways Date

*William S. Pate* 9-1-89  
 Chief, Bureau of Engineering Date



**CURVE DATA**

CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
16	3+54.15 - 4+24.07	106.37	37°30'45"	69.92'	36.28'	63.67'	N 65°34'04\"/>

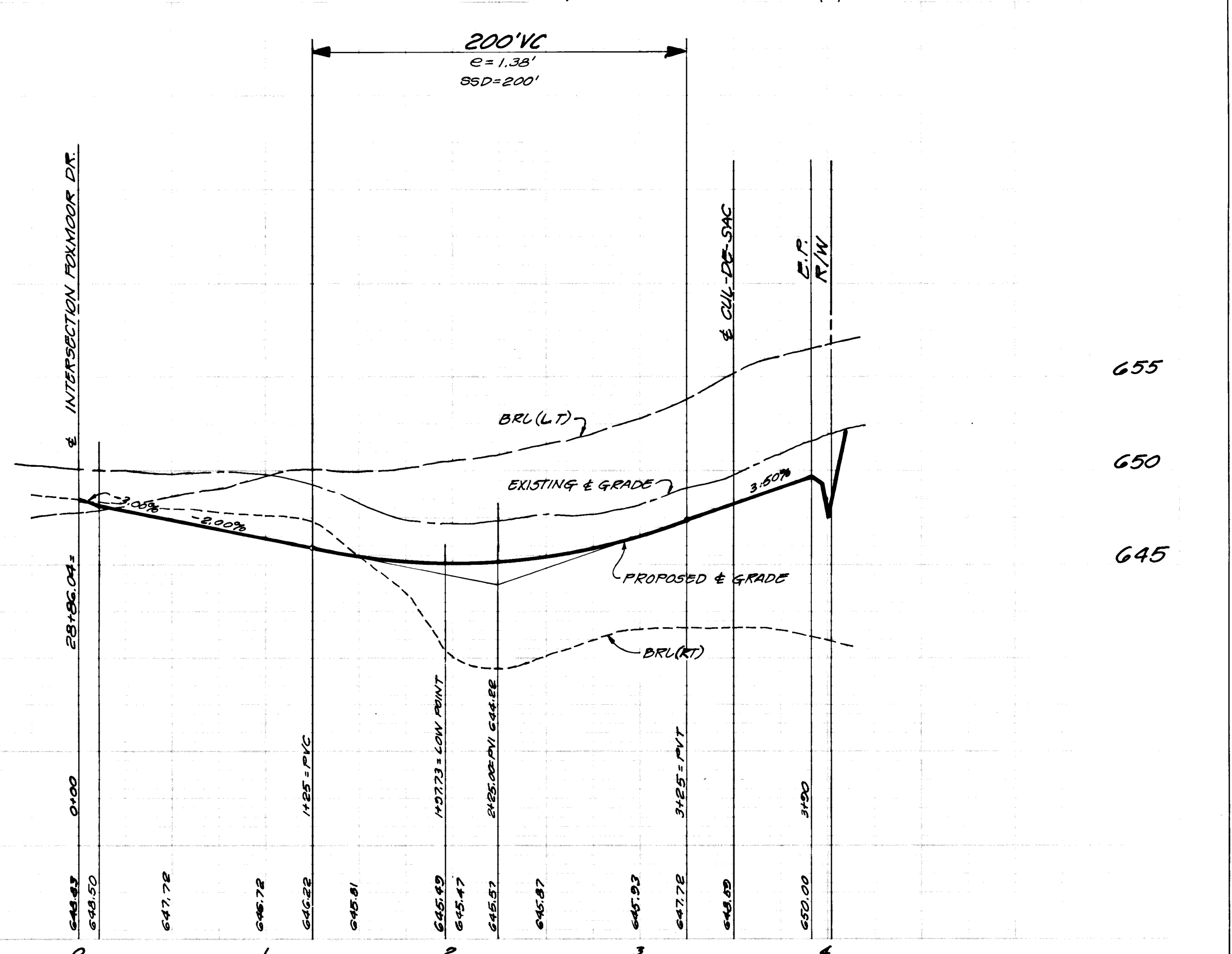
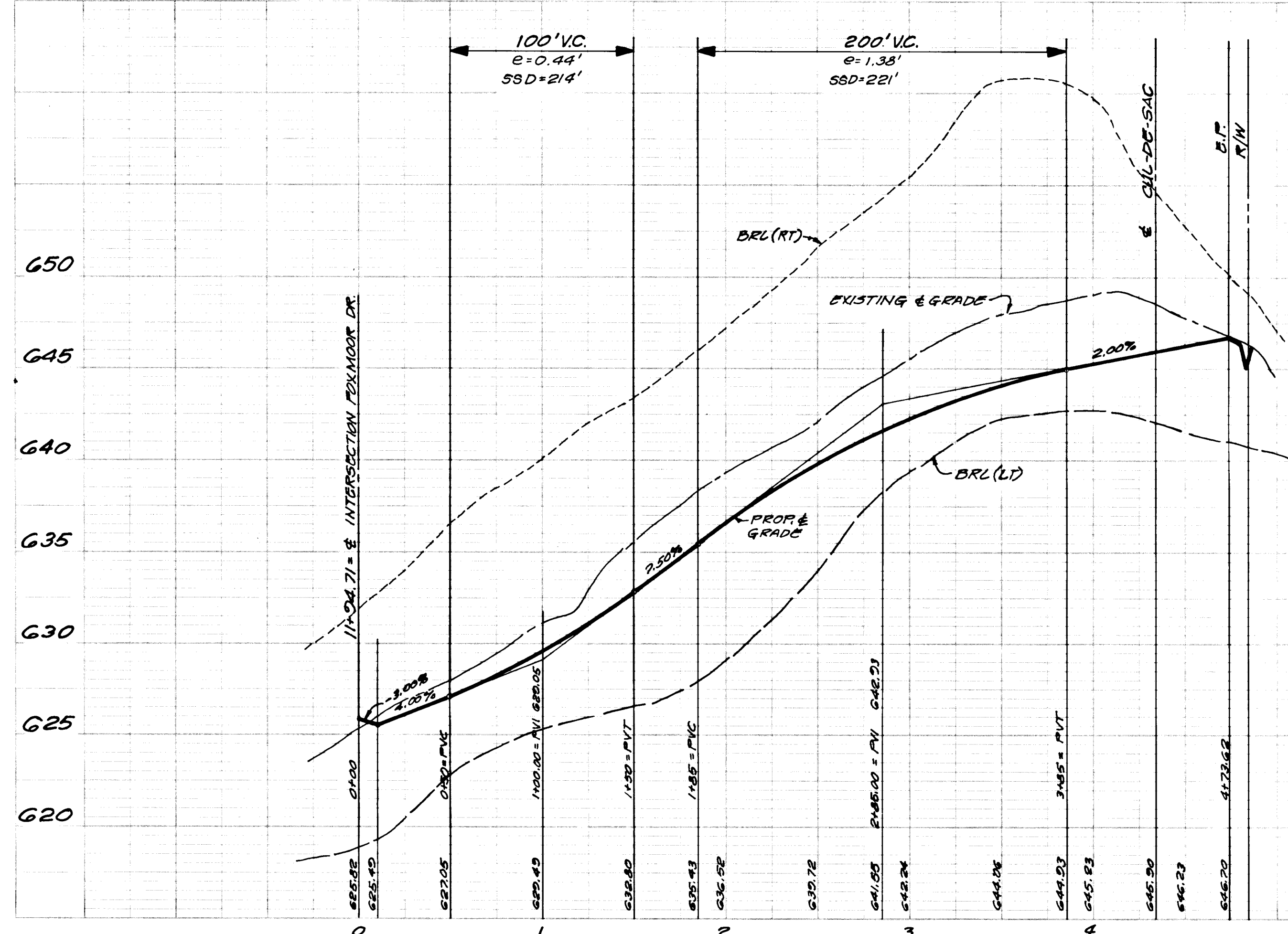
PROFILE SCALE:  
 HORIZ.: 1"=50'  
 VERT.: 1"=5'

PROFILE LEGEND:  
 PROFILE GRADE LINE  
 EXISTING &  
 BRL (LT)  
 BRL (RT)

**HUNTMASTER COURT**

PLAN LEGEND:  
 STORM DRAIN  
 PROPOSED &  
 PROPOSED R.O.W.  
 EDGE OF PAVEMENT

PLAN SCALE:  
 1"=50'



**PHR&A**

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects  
 7669 Standish Place  
 Rockville, Maryland 20855  
 301 762-2220

Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA

CLIENT  
**LONG MEADOW VENTURERS**  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD. 21046

JOB  
**FOXMOOR**  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. VP-88-03  
 S-88-24  
 TAX MAP NO. 12 PARCEL 16

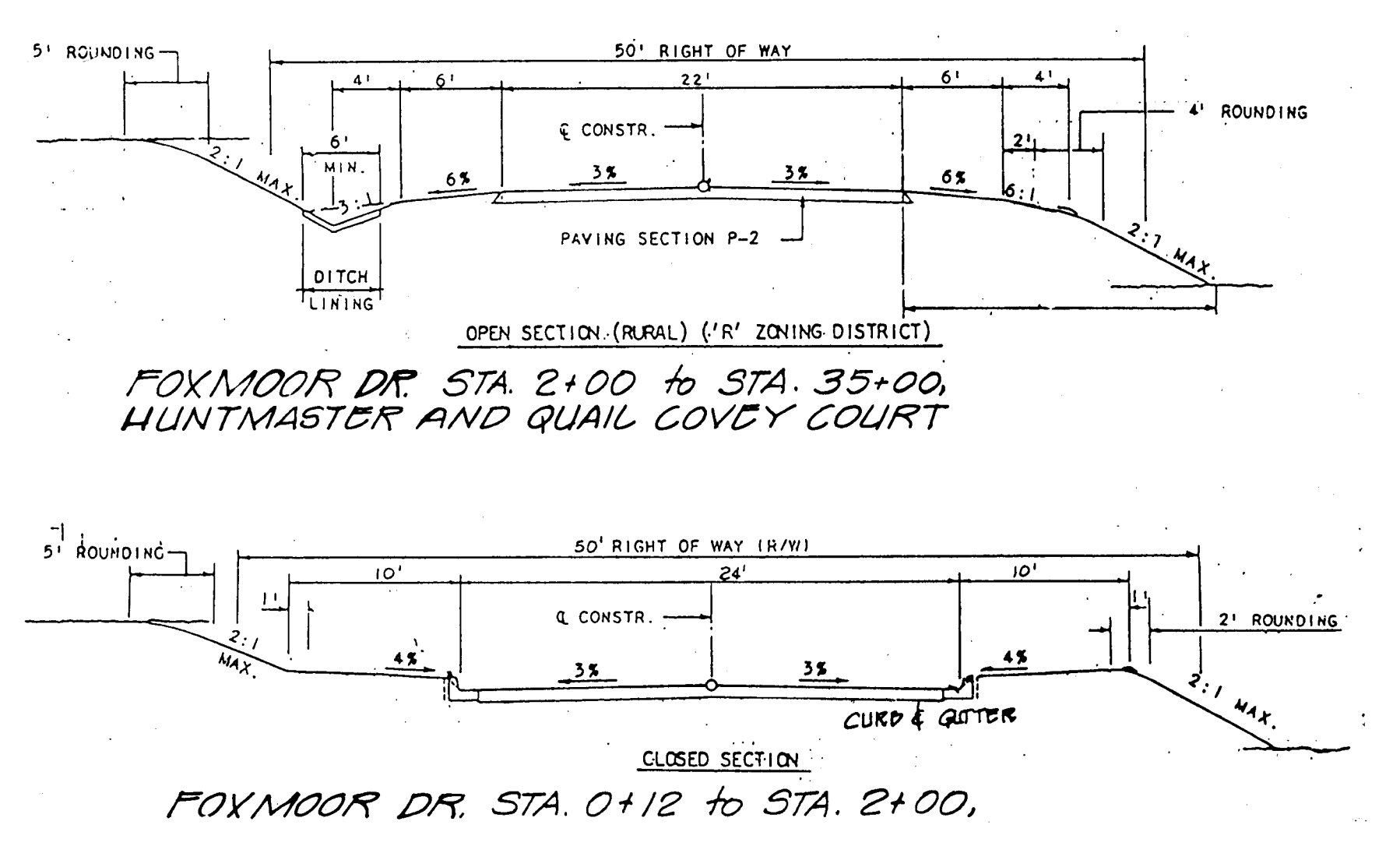
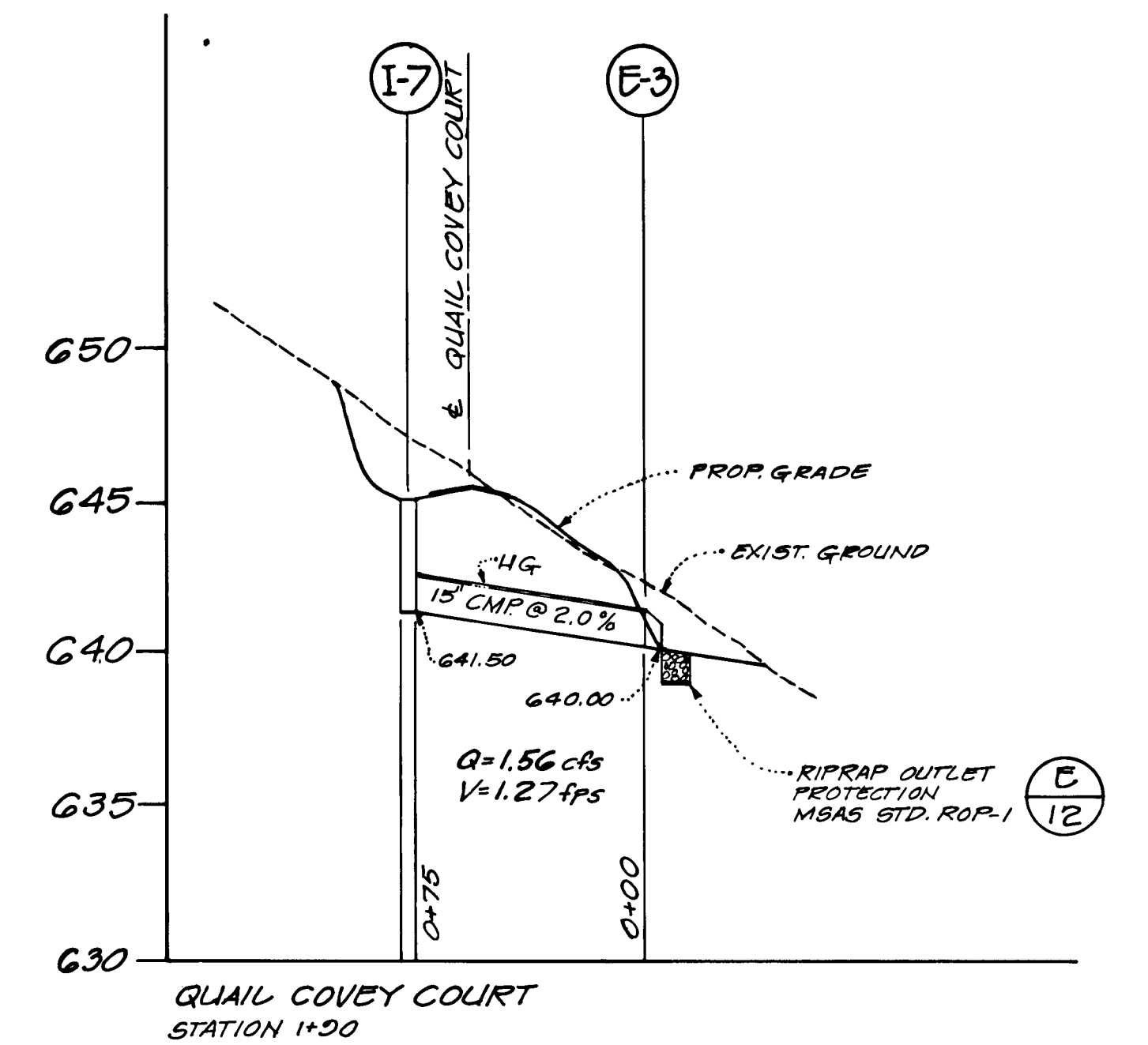
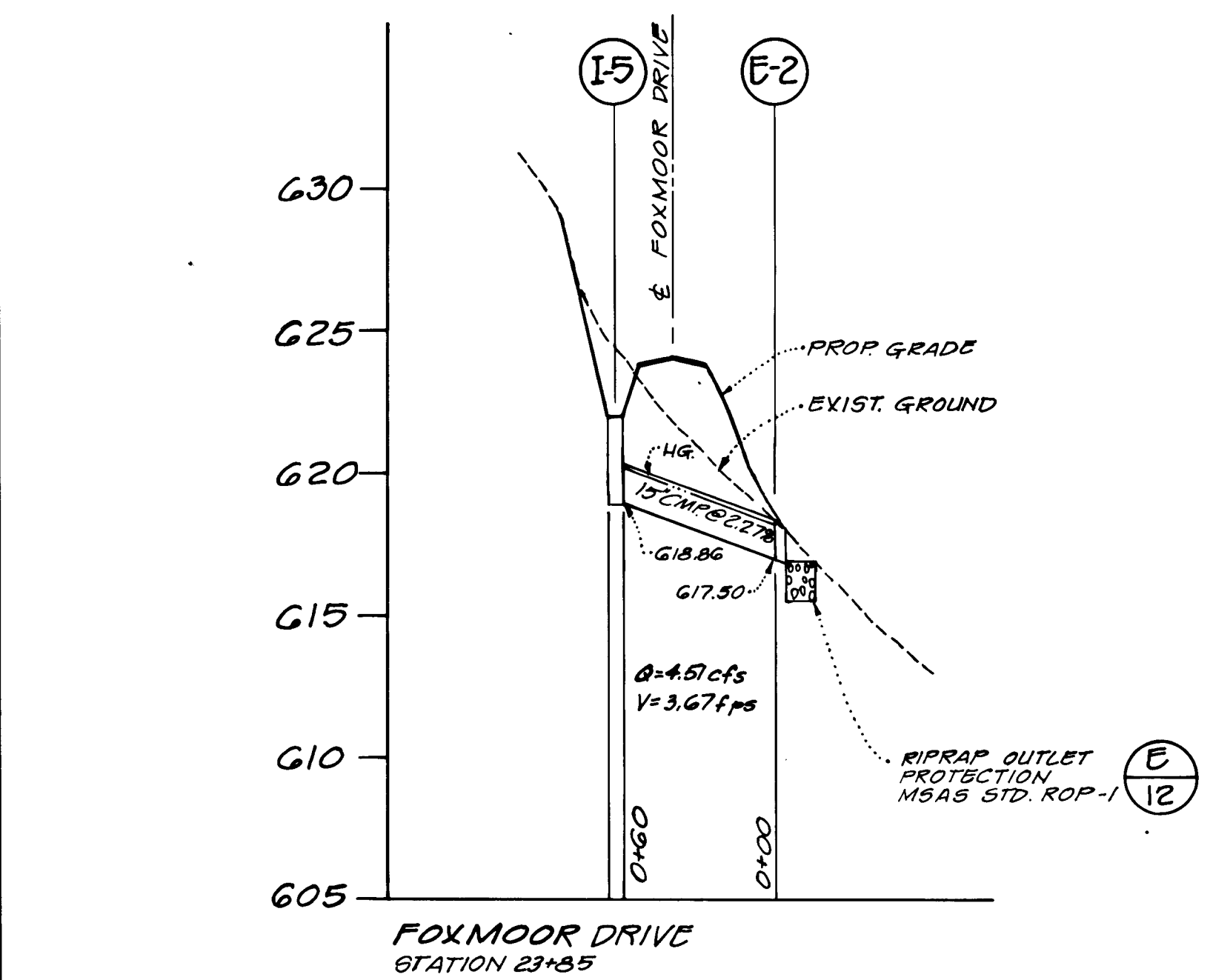
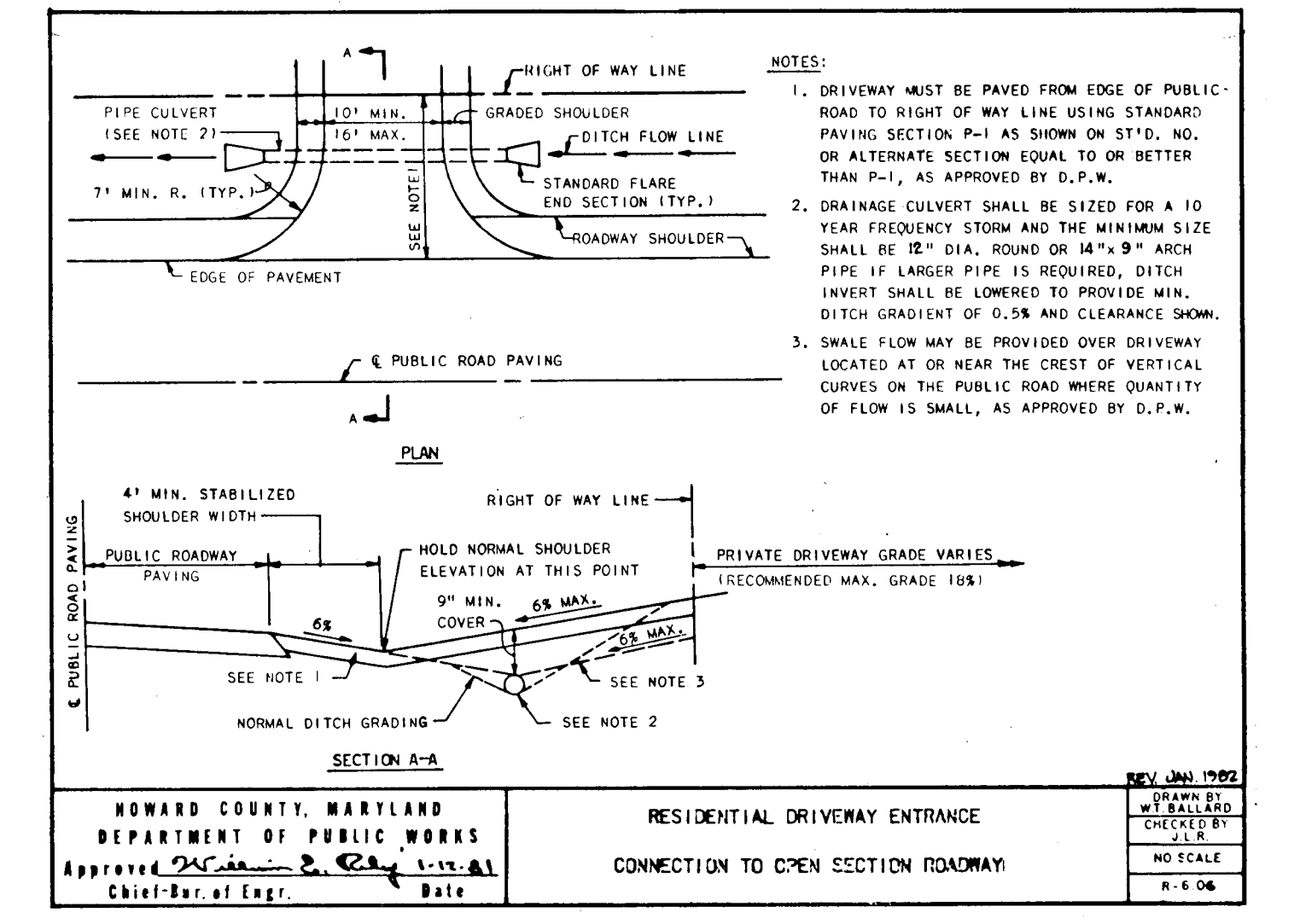
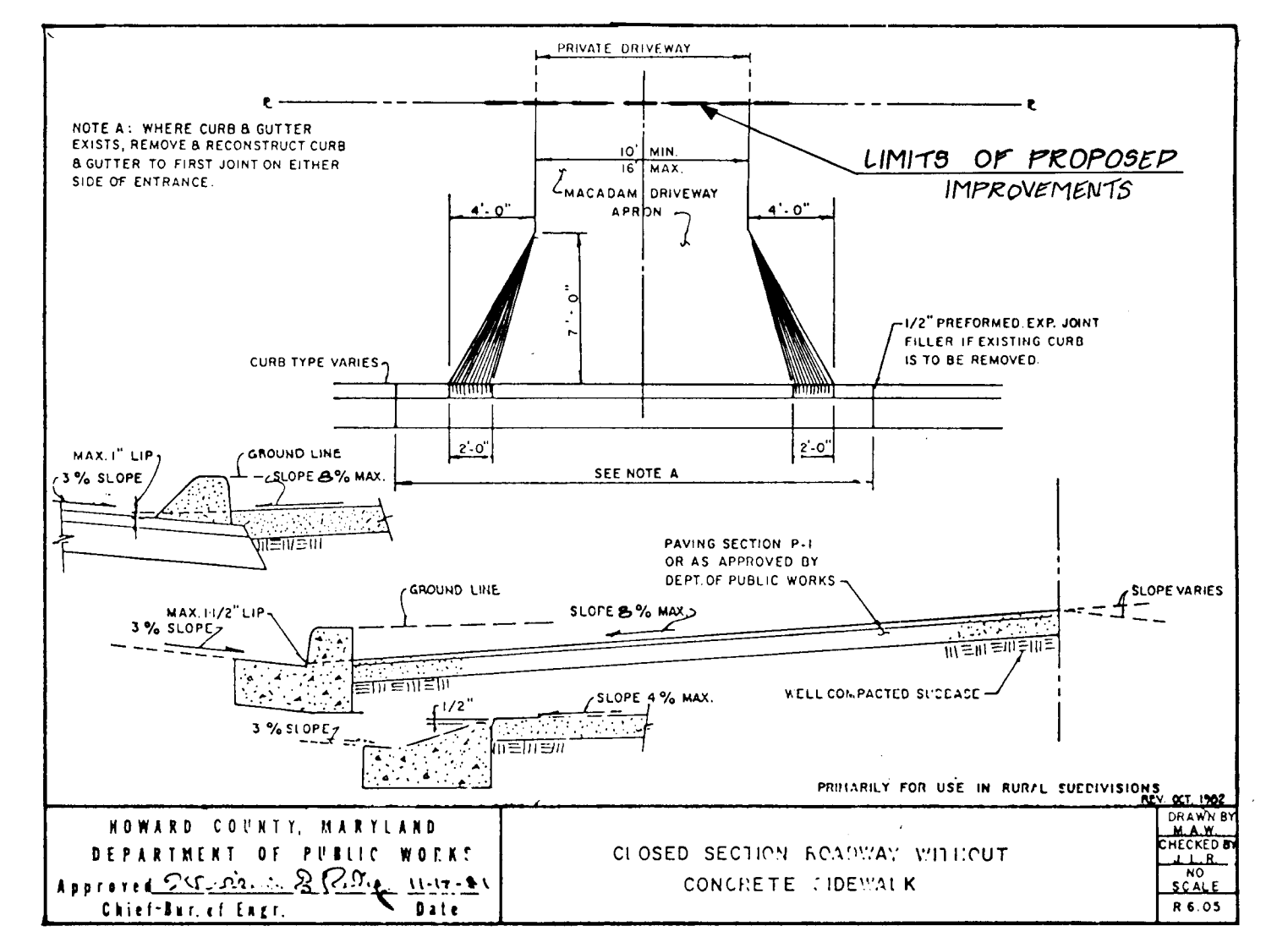
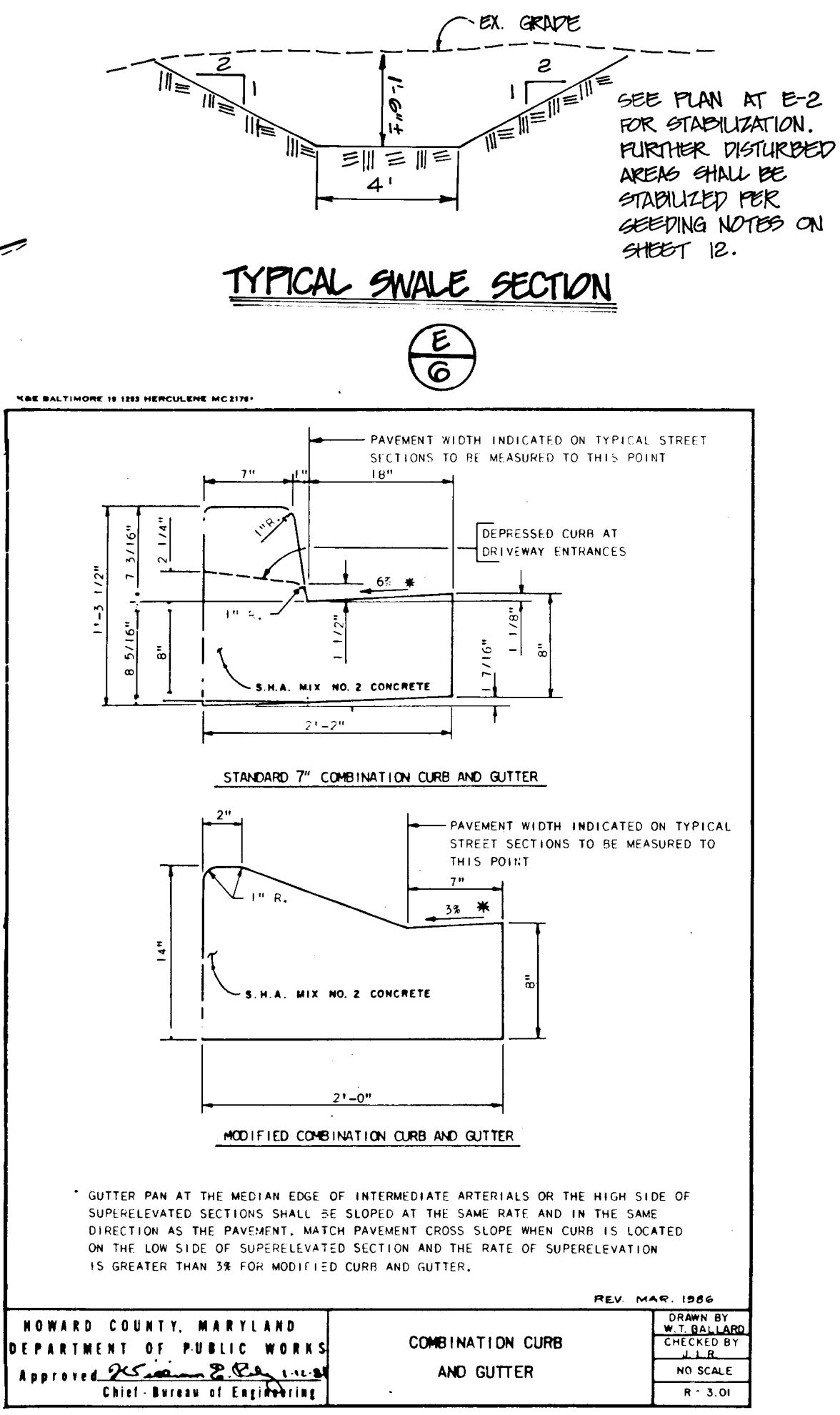
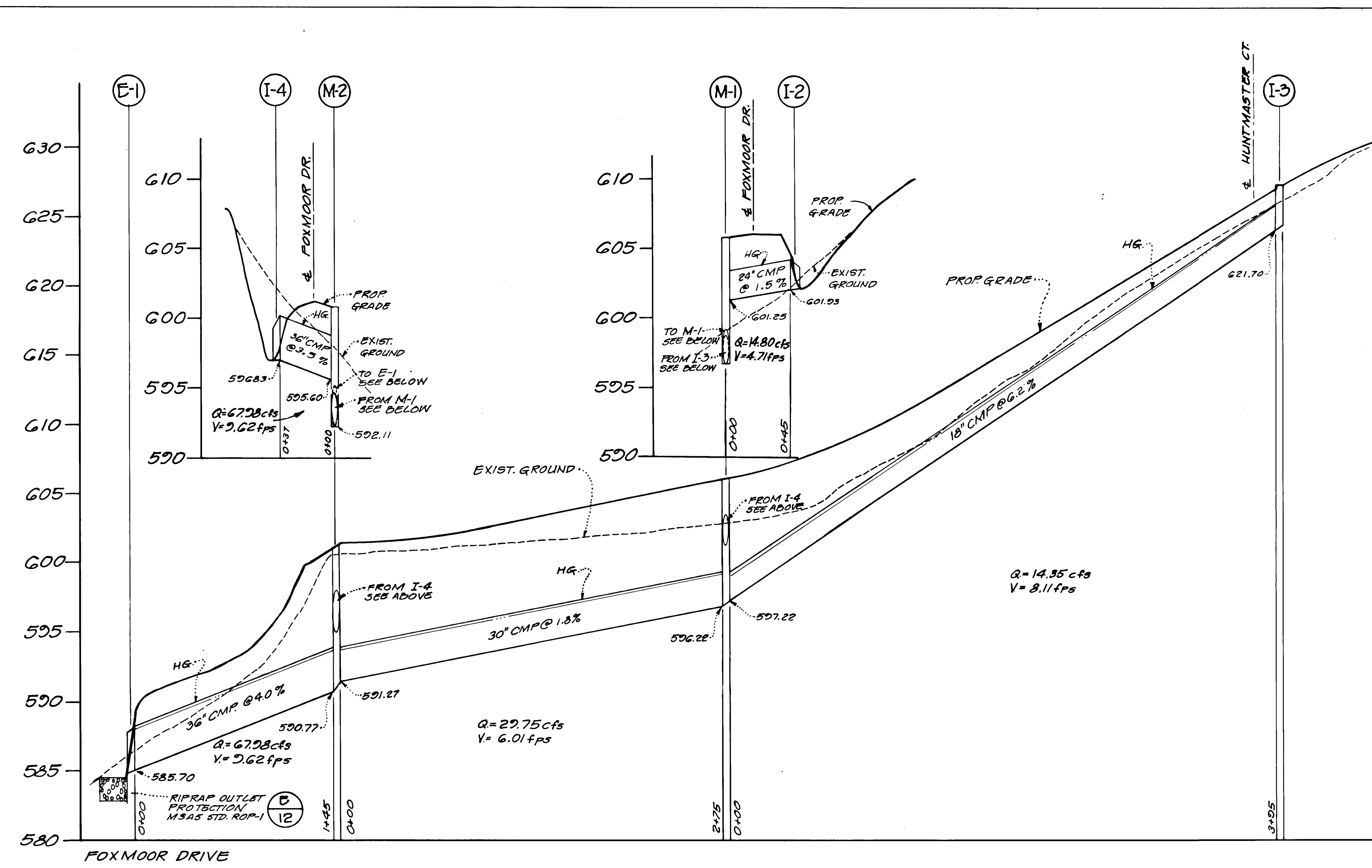
TITLE  
**PAVING & STORM DRAINAGE**



NO.	REVISIONS	DATE	BY
1	ISSUED FOR SIGNATURE	7-31-89	

SURVEY BY	FILE NO.
PHR&A	2242-1-0
DESIGN	DATE
TPWB	2-17-89
DRAWN	SCALE
FC	AS SHOWN
CHKD	SHEET
	5 OF 12

F-89-165



SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	GRANULAR BASE ALTERNATIVES
1-2	RESIDENTIAL ZONES LOCAL CURB DRIVE STS ALLEYS AND DRIVEWAYS APARTMENTS AND CONDO HOMES	FULL DEPTH BIT. CONC. ALTERNATE ASPHALT CONC. SURFACE 1\"/>	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Donald J. Brown* 8/28/89  
 Chief, Land Development Division Date  
*Charles H. Smith acting* 8/31/89  
 Chief, Bureau of Highways Date  
*William E. Ray* 9-1-89  
 Chief, Bureau of Engineering Date  
 APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
*Mark J. Clayton* 9/1/89  
 Chief, Division of Community Planning & Land Development Date



CLIENT  
 LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD. 21046

JOB  
 FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. V.P. = 88-03  
 S = 88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
 STORM DRAIN  
 DETAILS & PROFILES



NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
1	ISSUED FOR SIGNATURE	7-31-89		PHR&A	2242-1-0
				DESIGN	TP
				DRAWN	FC
				CHKD	

SCALE  
 HORZ: 1" = 80'  
 VERT: 1" = 5'

SHEET 6 OF 12

1468

P-89-165



**SOILS LEGEND**

Co	Codorus silt loam	
EKB2	Elloak silt loam, 3-8% slopes	Moderately eroded
G1B2	Glenns loam, 3-8% slopes	Moderately eroded
G1C2	Glenns loam, 8-15% slopes	Moderately eroded
G1C3	Glenns loam, 8-15% slopes	Severely eroded
G1D3	Glenns loam, 15-25% slopes	Severely eroded
MEB2	Mt. Airy channery loam, 3-8% slopes	Moderately eroded
MIC2	Mt. Airy channery loam, 8-15% slopes	Moderately eroded
MIC3	Mt. Airy channery loam, 8-15% slopes	Severely eroded
MED2	Mt. Airy channery loam, 15-25% slopes	Moderately eroded
MNF	Manor very stony loam, 25-60% slopes	

**LEGEND**

	SUB-BASIN DESIGNATION	
	ZONING	
	RUNOFF COEFF.	
	SUB-BASIN INFORMATION	
	PROPOSED R.O.W.	
	SUB-BASIN BOUNDARY (FLOW DIVIDE)	
	PROPOSED STORM SEWER	
	SOILS DIVIDE	
	DRAINAGE AREA TO SEDIMENT BASIN	

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Paul D. Korman* 8/28/89  
 Chief, Land Development Division Date

*Charles W. Adams* 8/31/89  
 Chief, Bureau of Highways Date

*William S. Riley* 9-1-89  
 Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

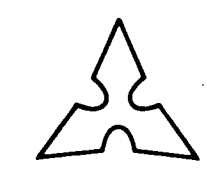
*Mark W. Cangelosi* 9/15/89  
 Chief, Division of Community Planning & Land Development Date

KENNEY SUBDIVISION  
 LOTS 1 THRU 5  
 P.B. 7187 P. 5887

1468

PHR&A  
 Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects  
 7609 Starfish Place  
 Rockville, Maryland 20855  
 301 762-2220

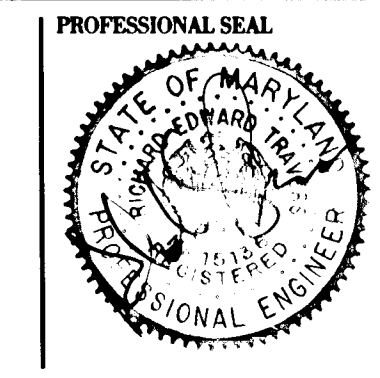
Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA



CLIENT  
 LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD.  
 COLUMBIA, MD, 21046

JOB  
 FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.R.Z. FILE NO. VP-88-03  
 S-88-24  
 TAX: MAP NO. 12 PARCEL 16

TITLE  
 DRAINAGE AREA MAP



NO.	REVISIONS	DATE	BY
2	ISSUED FOR SIGNATURE	7-31-89	
1	REVISED PER H.S.C.D. COMMENTS	7-14-89	

DESIGN	DATE	FILE NO.
PHR&A	2-17-89	2242-1-0
TP		
FC		
CHKD		
		SHEET 7 OF 12

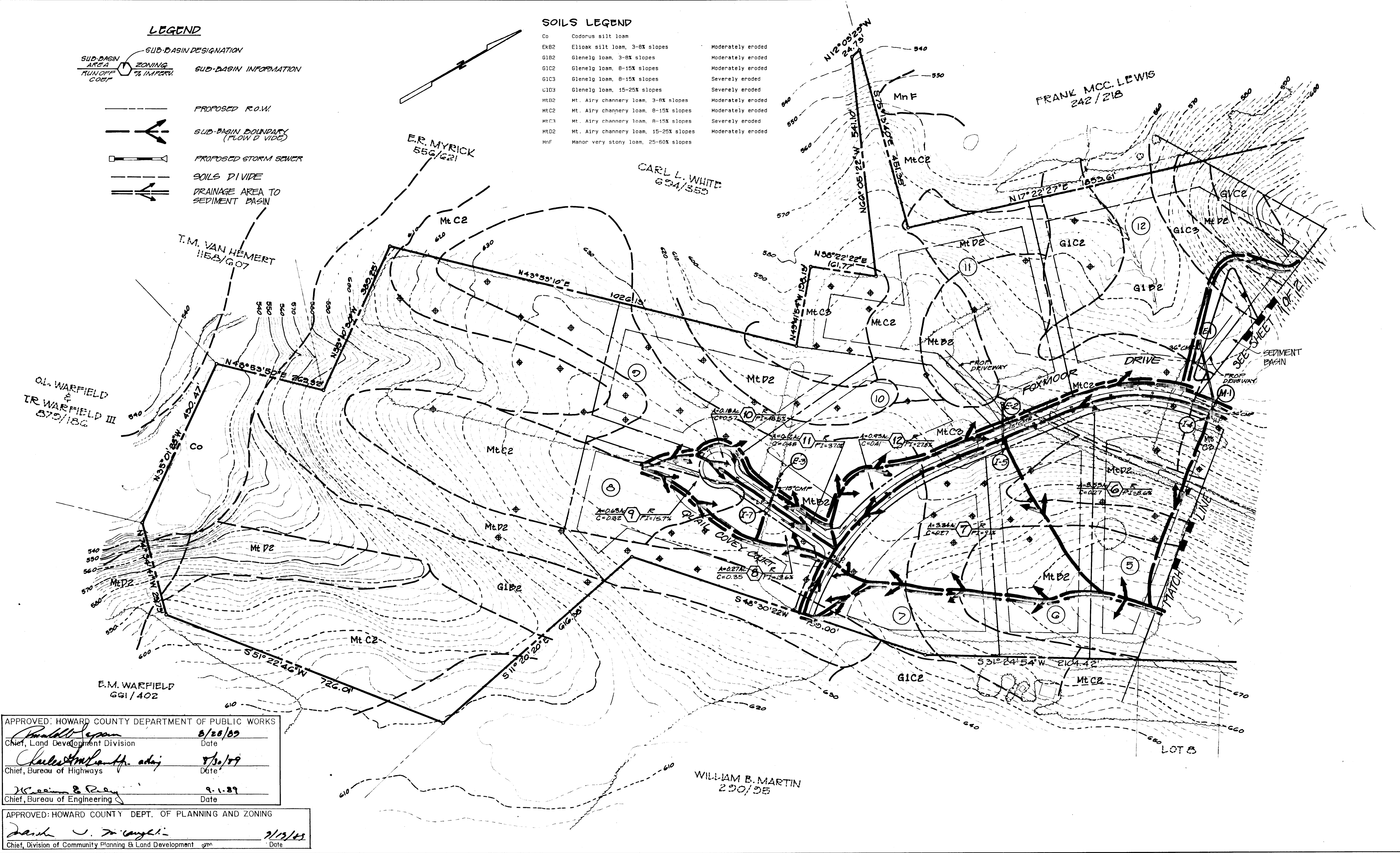
F-89-165

**LEGEND**

- SUB-BASIN DESIGNATION
- SUB-BASIN INFORMATION
- PROPOSED R.O.W.
- SUB-BASIN BOUNDARY (FLOW D VIDE)
- PROPOSED STORM SEWER
- SOILS DIVIDE
- DRAINAGE AREA TO SEDIMENT BASIN

**SOILS LEGEND**

- Co Codorus silt loam
- EkB2 Elioak silt loam, 3-8% slopes
- G1B2 Glencle loam, 3-8% slopes
- G1C2 Glencle loam, 8-15% slopes
- G1C3 Glencle loam, 8-15% slopes
- G1D3 Glencle loam, 15-25% slopes
- MtB2 Mt. Airy channery loam, 3-8% slopes
- MtC2 Mt. Airy channery loam, 8-15% slopes
- MtC3 Mt. Airy channery loam, 8-15% slopes
- MtD2 Mt. Airy channery loam, 15-25% slopes
- MnF Manor very stony loam, 25-60% slopes
- Moderately eroded
- Moderately eroded
- Moderately eroded
- Severely eroded
- Severely eroded
- Moderately eroded
- Moderately eroded
- Severely eroded
- Moderately eroded



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division 8/28/89  
 Chief, Bureau of Highways 8/30/89  
 Chief, Bureau of Engineering 9-1-89

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING  
 Chief, Division of Community Planning & Land Development 7/15/89



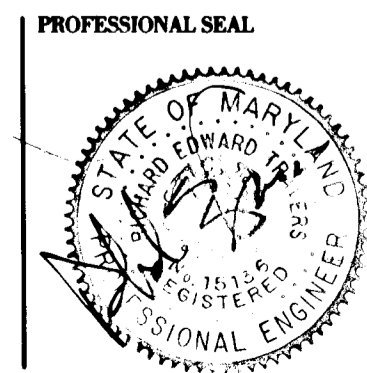
Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects  
 7609 Sandhill Place  
 Rockville, Maryland 20855  
 301 762-2220

Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA

CLIENT  
 LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD  
 COLUMBIA, MD. 21046

JOB  
 FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. Y.P. = 88-03  
 S-88-24  
 TAX MAP NO. 12 PARCEL 16

TITLE  
 DRAINAGE AREA MAP



NO.	REVISIONS	DATE	BY
2	ISSUED FOR SIGNATURE	7-31-89	
1	REVISED PER H.C.D. COMMENTS	7-14-89	

SURVEY BY	FILE NO.
PHR&A	2242-1-0
DESIGN	DATE
TP	2-17-89
DRAWN	SCALE
FC	1"=100'
CHKD	SHEET
	8 OF 12

F 89-165

1468



APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

*Mark S. J. Lange* 2/15/89  
Chief, Division of Community Planning & Land Development Date

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*Donald E. Ryan* 8/22/89  
Chief, Land Development Division Date  
*Charles A. Williams* 8/20/89  
Chief, Bureau of Highways Date  
*William S. Reim* 9-1-89  
Chief, Bureau of Engineering Date

DEVELOPER'S/BUILDER'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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*L. Halligan* 8/31/89  
Signature of Developer/Builder Date

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 conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*William S. Reim* 8/31/89  
Signature of Engineer Date

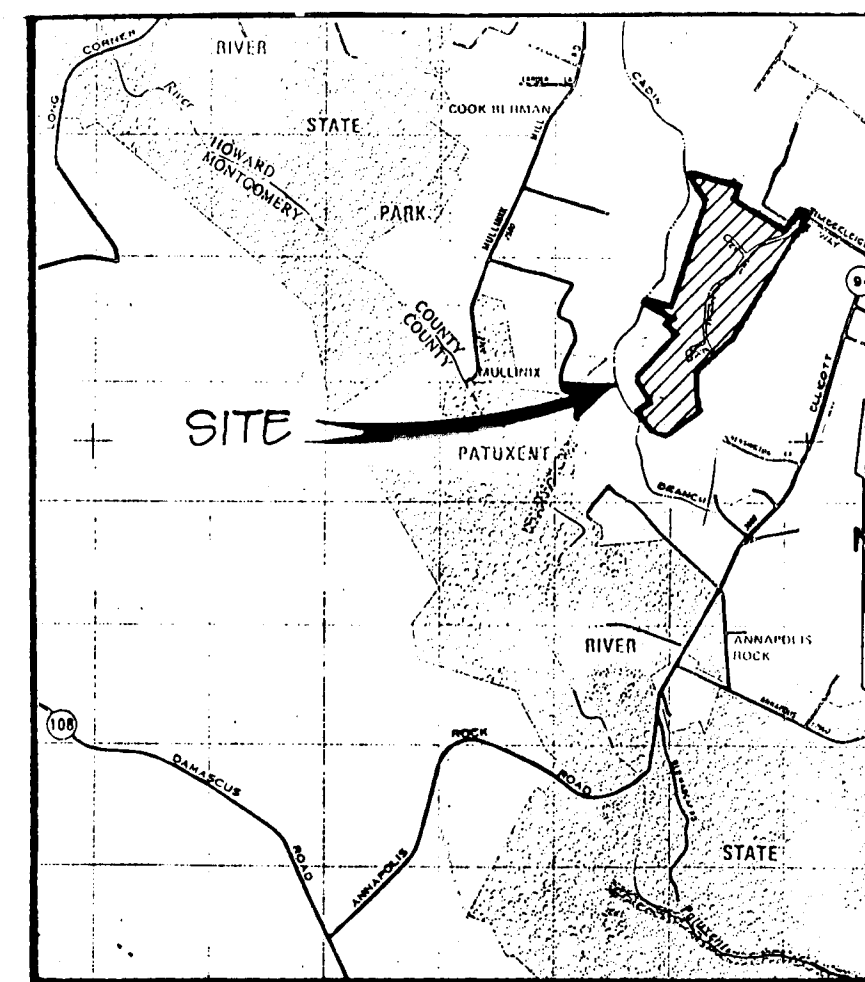
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.

*James M. Helms* 8/3/89  
U.S. Soil Conservation Service Date

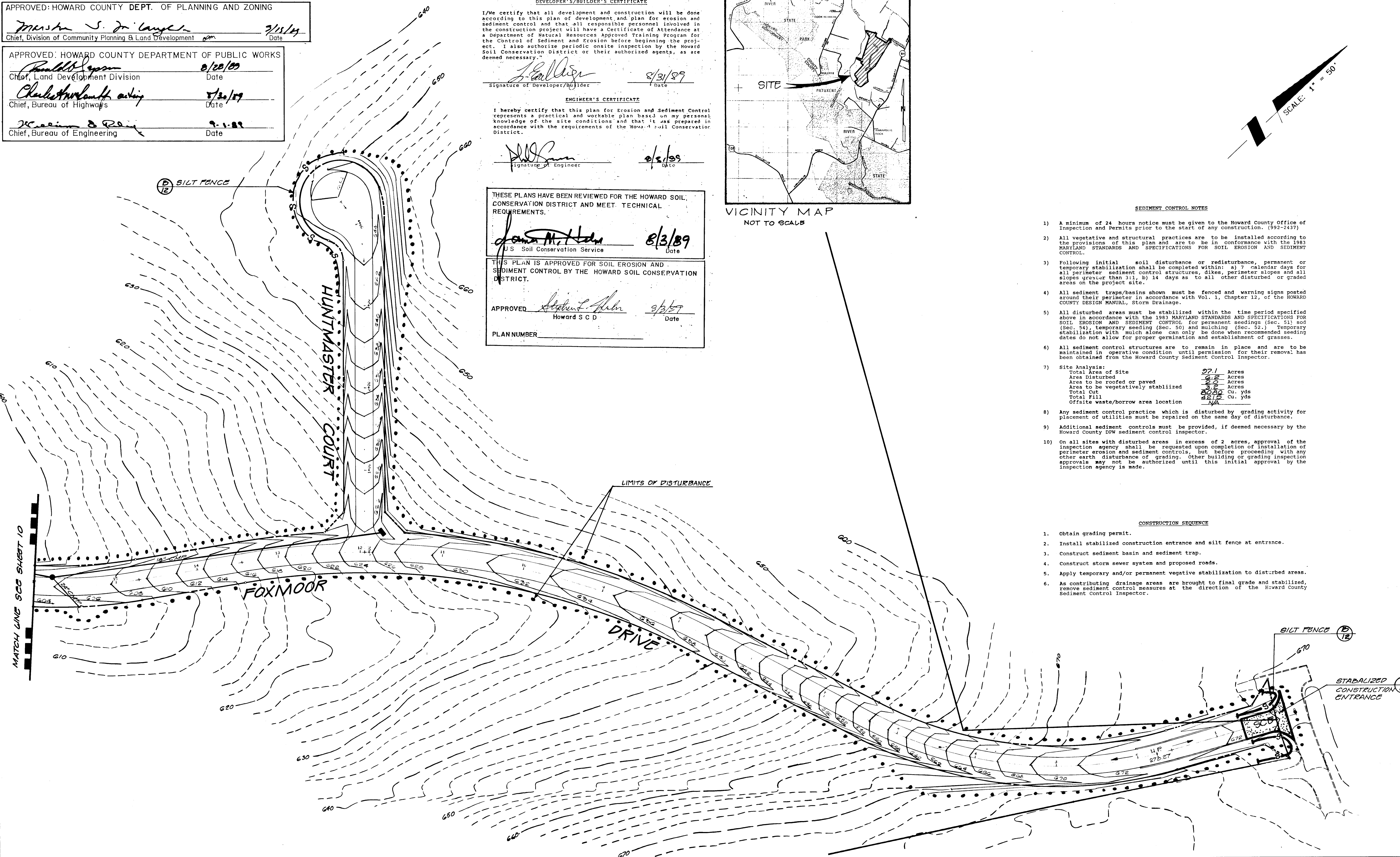
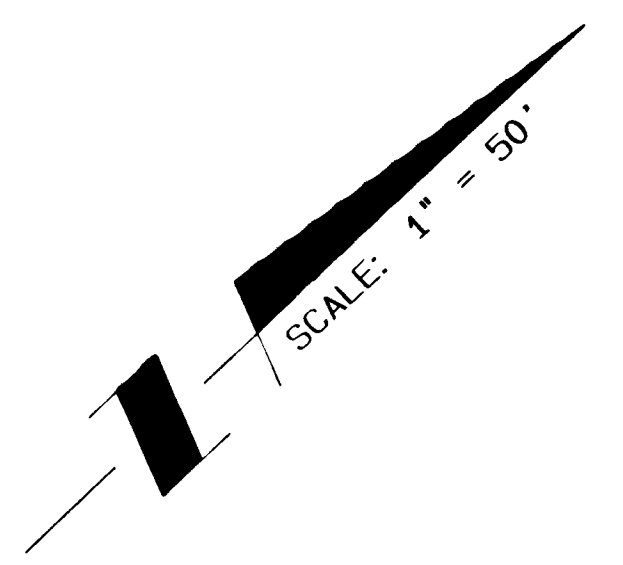
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED *Stephen L. Helm* 9/3/89  
Howard S C D Date

PLAN NUMBER \_\_\_\_\_



VICINITY MAP  
NOT TO SCALE



SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 2) All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 6) All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- 7) Site Analysis:
 

Total Area of Site	27.1	Acres
Area Disturbed	9.8	Acres
Area to be roofed or paved	2.8	Acres
Area to be vegetatively stabilized	2.6	Acres
Total Cut	8080	Cu. yds
Total Fill	4212	Cu. yds
Offsite waste/borrow area location	N/A	
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW sediment control inspector.
- 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.

CONSTRUCTION SEQUENCE

1. Obtain grading permit.
2. Install stabilized construction entrance and silt fence at entrance.
3. Construct sediment basin and sediment trap.
4. Construct storm sewer system and proposed roads.
5. Apply temporary and/or permanent vegetative stabilization to disturbed areas.
6. As contributing drainage areas are brought to final grade and stabilized, remove sediment control measures at the direction of the Howard County Sediment Control Inspector.

**PHR&A**



CLIENT  
LONG MEADOW VENTURERS  
7050 OAKLAND MILLS RD.  
COLUMBIA, MD. 21046

JOB  
FOXMOOR  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY MARYLAND  
O.P.Z. FILE NO. VP-88-03  
S-88-24  
TAX MAP NO. 12 PARCEL 16

TITLE  
EROSION AND SEDIMENT  
CONTROL PLAN



NO.	REVISIONS	DATE	BY
1	ISSUED FOR SIGNATURE	7-31-89	

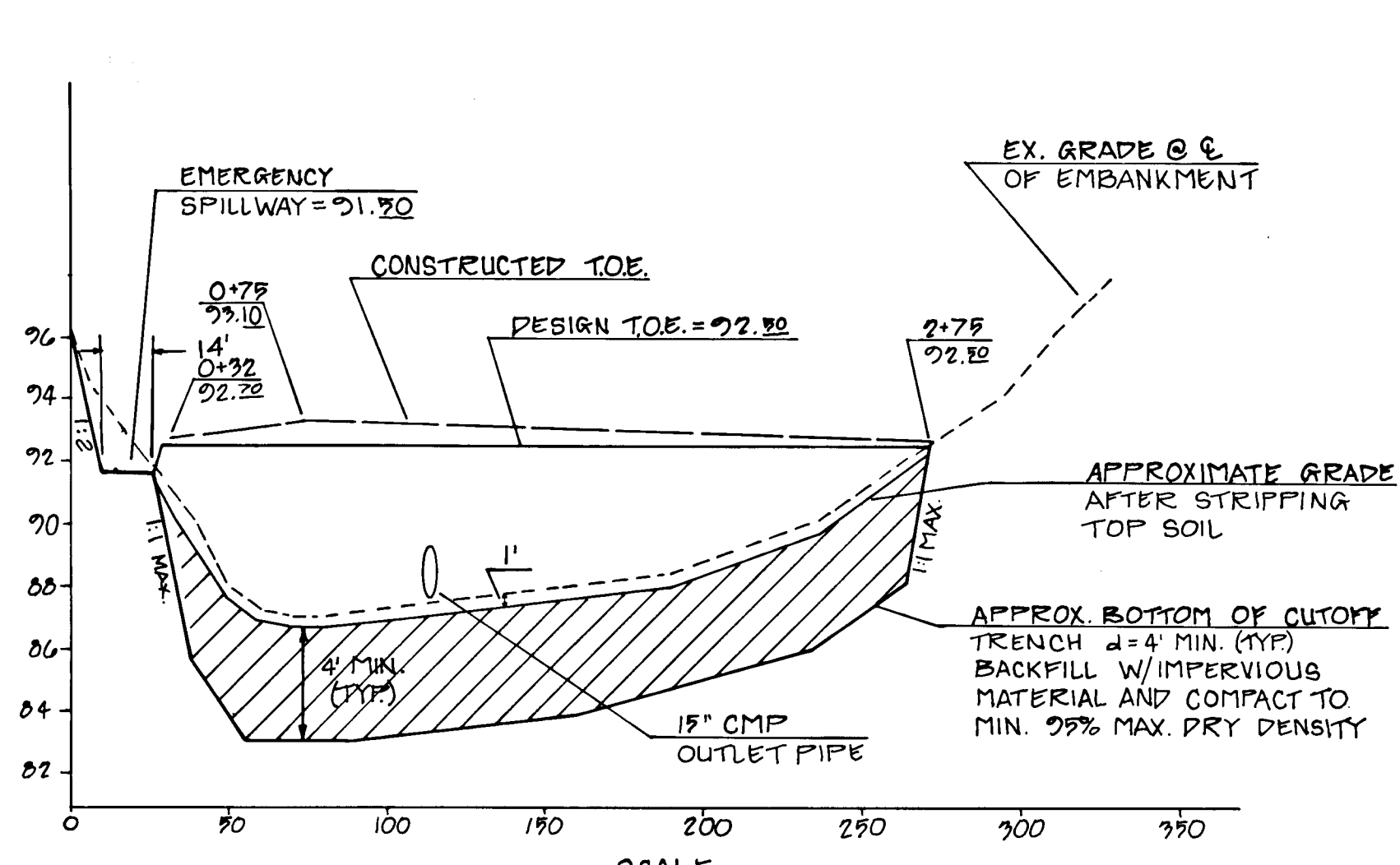
SURVEY BY	FILE NO.
PHR&A	2242-1-0
DESIGN	DATE
TP	2-17-89
DRAWN	SCALE
FC	1" = 50' CI 2'
CHECKED	SHEET
	9 OF 12

F-89-165

1468

Patton Harris Rust & Associates, PC  
Engineers, Surveyors, Planners, Landscape Architects  
7609 Standish Place  
Rockville, Maryland 20855  
301 762-2220

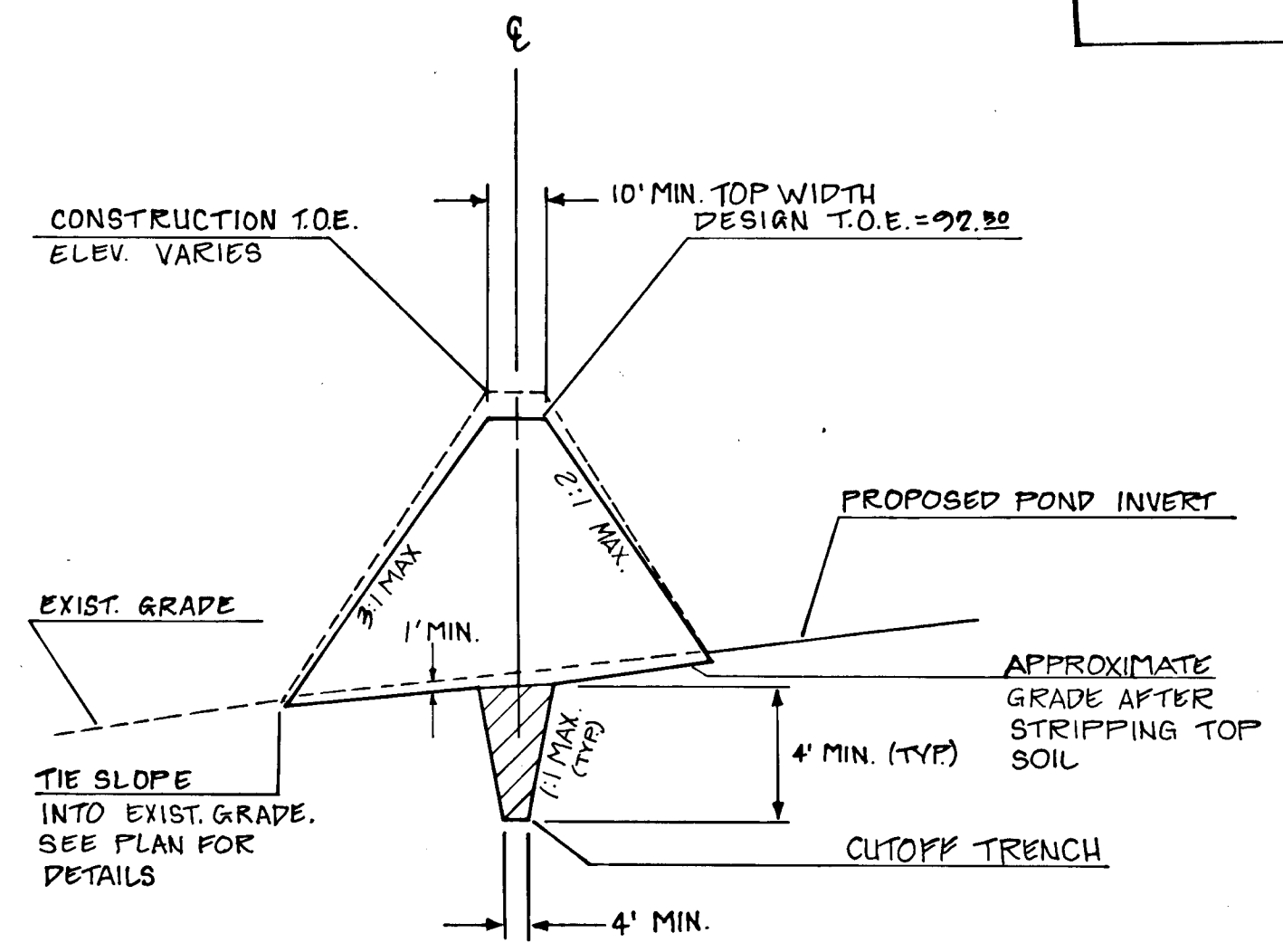
Offices:  
Fairfax, VA  
Springfield, VA  
Leesburg, VA  
Rockville, MD  
Virginia Beach, VA



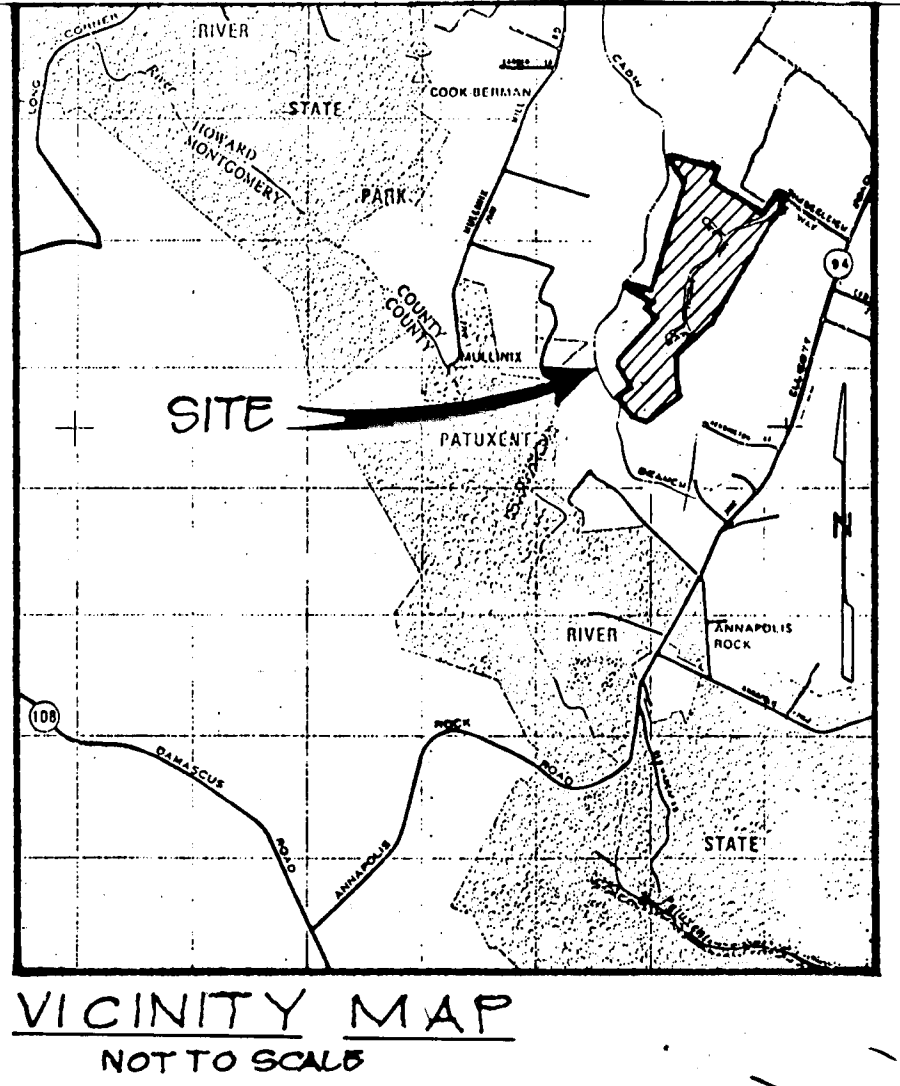
SCALE  
HOR. 1" = 50'  
VERT. 1" = 20'

**A**  
10

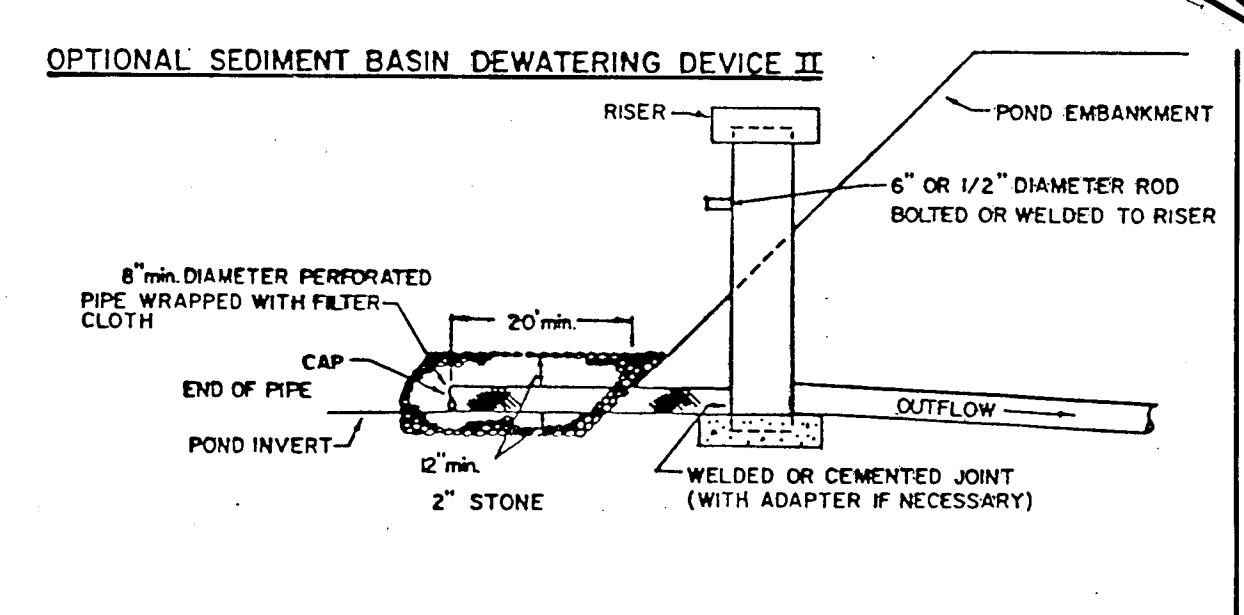
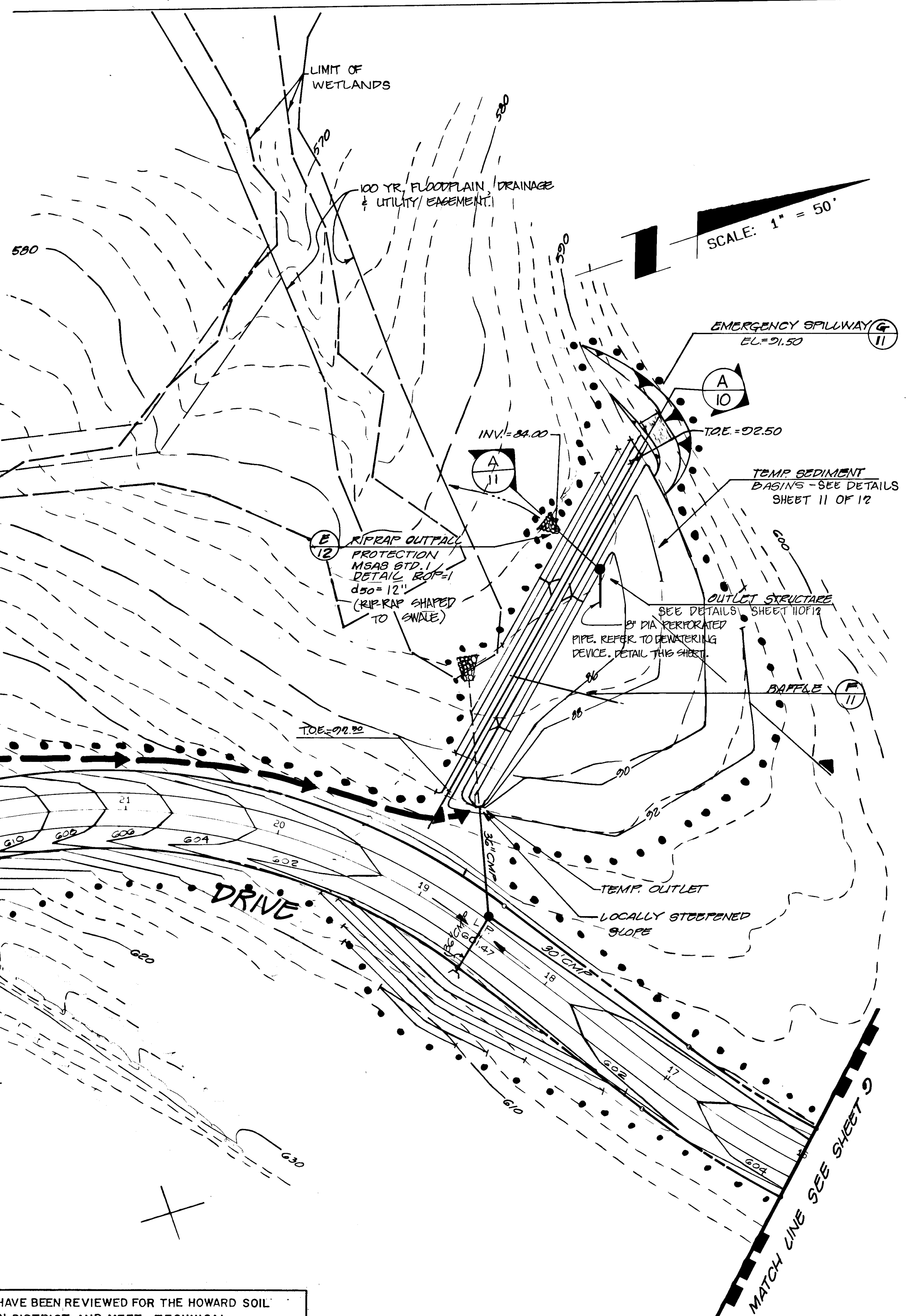
EMBRANKMENT PROFILE



TYPICAL EMBANKMENT SECTION



VICINITY MAP  
NOT TO SCALE



OPTIONAL SEDIMENT BASIN DEWATERING DEVICE II

**DEVELOPER'S/BUILDER'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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

*J. Calligan* 8/31/89  
Signature of Developer/Builder Date

**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 conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*M.S. [Signature]* 9/3/89  
Signature of Engineer Date

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

*[Signature]* 8/3/89  
U.S. Soil Conservation Service Date

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

APPROVED *[Signature]* 9/3/89  
Howard S C D Date

PLAN NUMBER

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*[Signature]* 8/28/89  
Chief, Land Development Division Date

*[Signature]* 7/31/89  
Chief, Bureau of Highways Date

*[Signature]* 9-1-87  
Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

*[Signature]* 7/23/89  
Chief, Division of Community Planning & Land Development Date



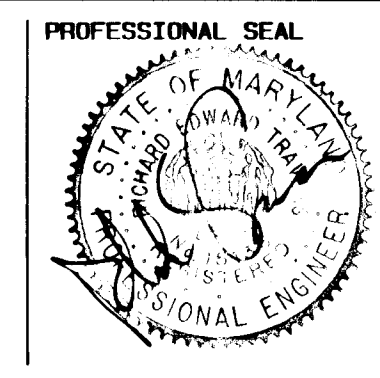
Patton Harris Rust & Associates, Inc.  
Engineers, Surveyors, Planners, Landscape Architects  
7600 Standish Place  
Rockville, Maryland 20855  
301 762-2220

Offices:  
Fairfax, VA  
Bridgewater, VA  
Leesburg, VA  
Rockville, MD  
Virginia Beach, VA

CLIENT  
LONG MEADOW VENTURERS  
7050 OAKLAND MILLS RD  
COLUMBIA, MD, 21046

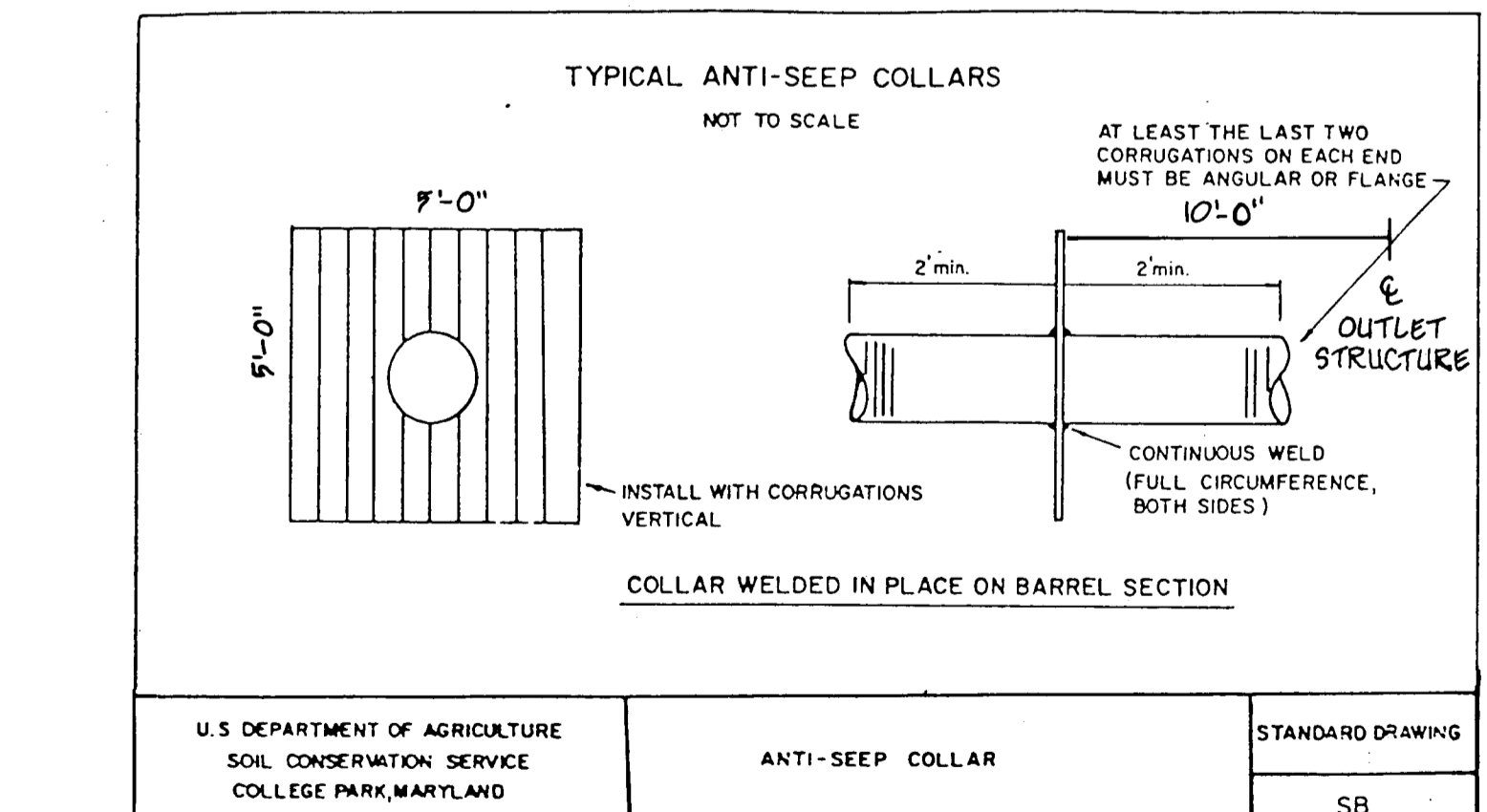
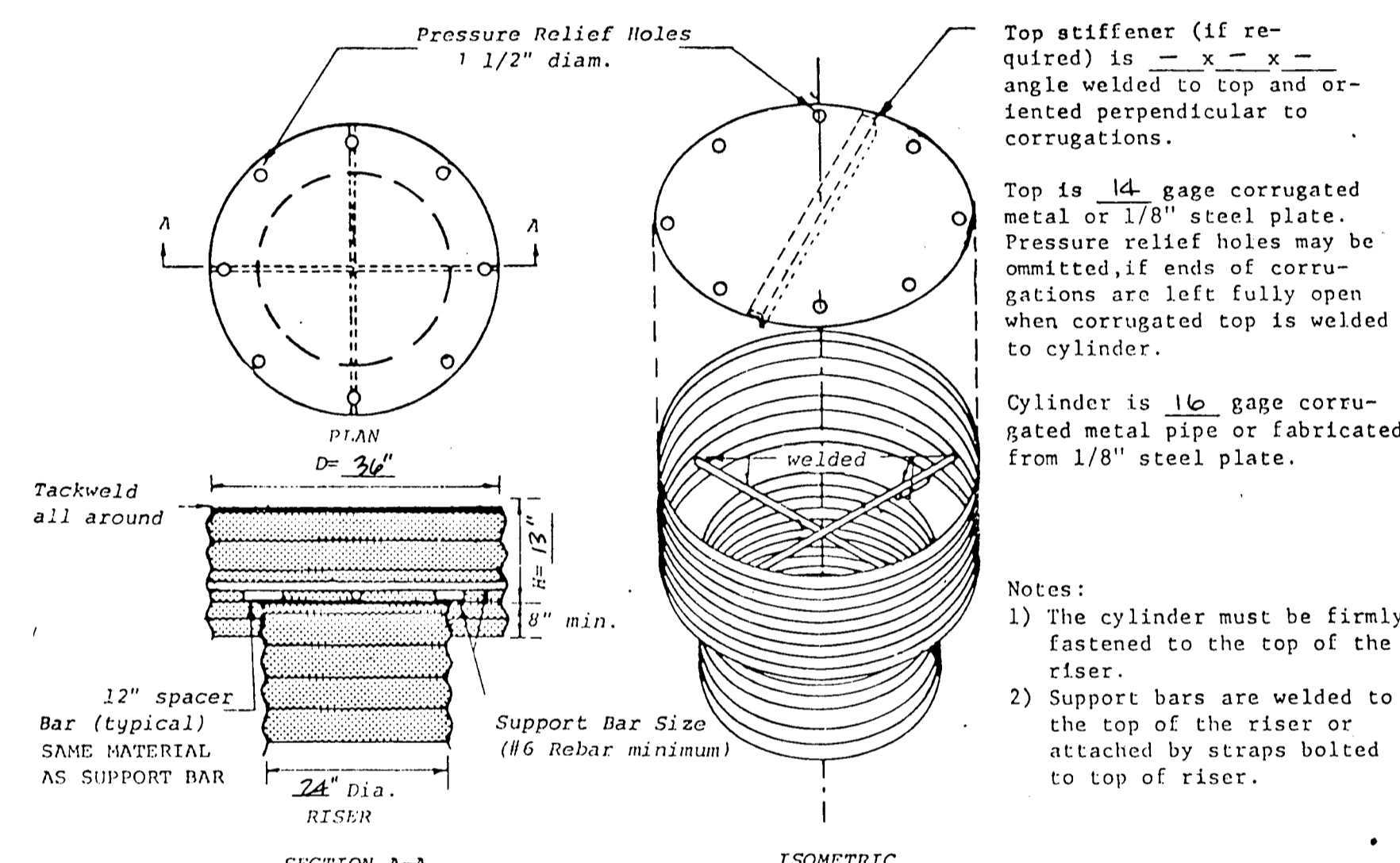
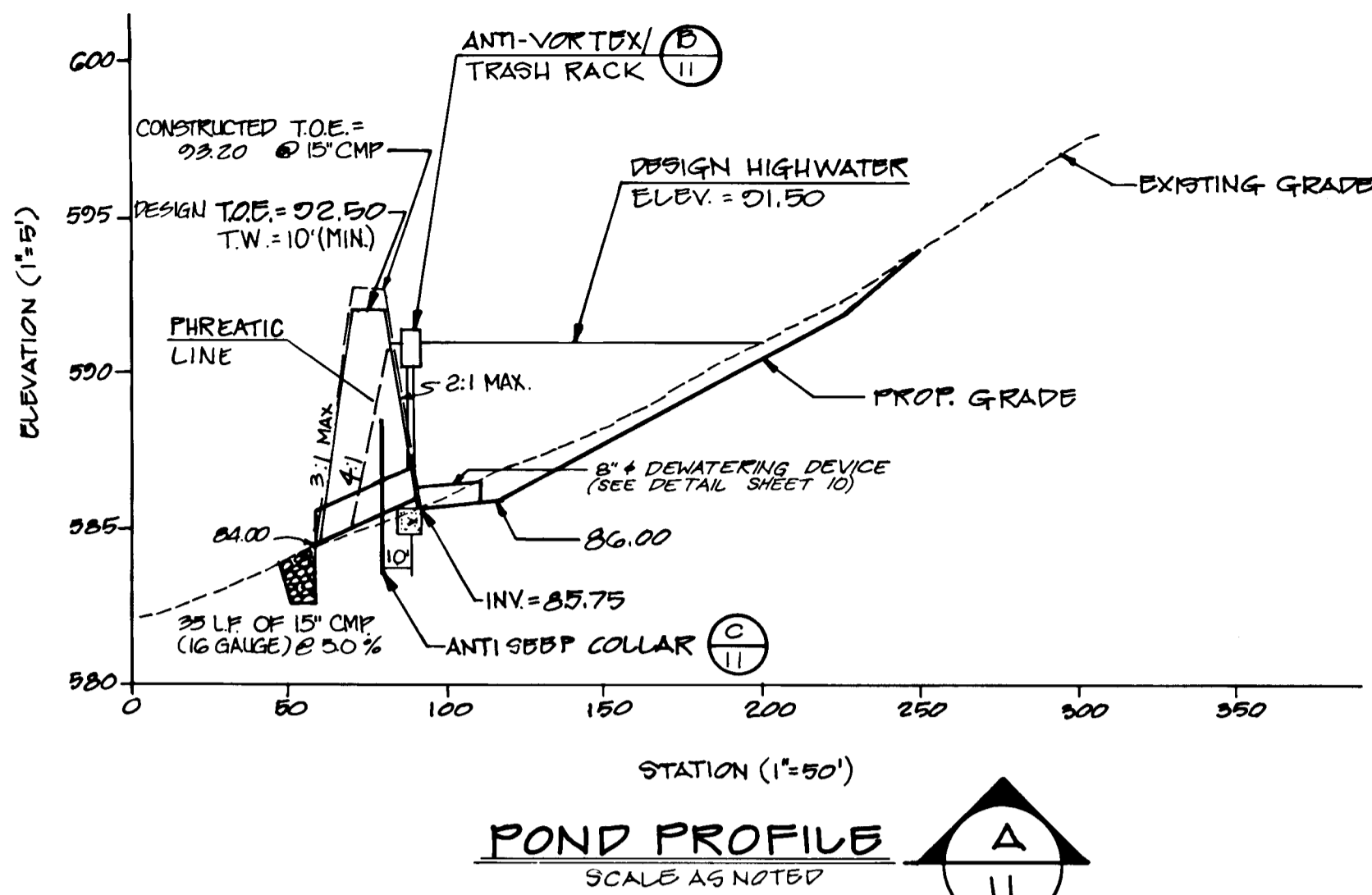
JOB  
FOXMOOR  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY MARYLAND  
O.P.Z. FILE NO. V.P. = 88-03  
S = 83-24  
TAX MAP NO. 12 PARCEL 16

TITLE  
EROSION AND SEDIMENT CONTROL PLAN



NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
2	ISSUED FOR SIGNATURE	7-31-89		PHR&A	2242-10
1	REVISED PER H.S.C.D. COMMENTS	7-14-89		TP	DATE 2-17-89
				FC	SCALE 1" = 50' CI 2'
				CHKD	SHEET 10 OF 12

F 89-165



**TEMPORARY SEDIMENT BASIN DESIGN DATA SHEET**

Computed by T.P. Date: 8/5  
Checked by \_\_\_\_\_ Date: \_\_\_\_\_

Project: FOXMOOR  
Basin Location: FOURTH ELECTION DISTRICT, PARCEL 16  
Total Area draining to basin: 32.2 Acres.

**BASIN VOLUME DESIGN**

- Min. required vol. = 67 cu. yds. x 32.2 ac. drainage = 2169 cu. yds.
- Vol. of basin = 67 cu. yds. x 32.2 ac. drainage = 2169 cu. yds.
- Excavate 1925 cu. yds. to obtain required capacity.

Min. vol. before cleanout = 27 cu. yds. x 32.2 ac. drainage = 870 cu. yds.  
Elevation corresponding to scheduled time to clean out = 89.75  
Distance below top of riser = \_\_\_\_\_

**DESIGN OF SPILLWAYS**

Runoff

- $Q_p = 40.25$  cfs (EPM, Ch. 2 or other appropriate method, attach runoff computation sheet).

**Pipe Spillway ( $Q_{ps}$ )**

- Min. pipe spillway capacity,  $Q_{ps} = 0.2 \times 32.2 \text{ ac. drainage} = 6.44 \text{ cfs}$ .
- Note: If there is no emergency spillway, then req'd.  $Q_{ps} = Q_p = 40.25 \text{ cfs}$ .
- H = 8.00 ft. Barrel length = 75 ft.
- Barrel: Diam. 12 inches;  $Q_{ps} = 10 \times 0.12 \times (\text{cor. fac.}) 11.26 = 11.5 \text{ cfs}$ .
- Riser: Diam. 24 inches; Length 49 ft.  $h = 2.125 \text{ ft}$ .
- Trash Rack: Diam. 24 inches; H = 15 inches.

**Emergency Spillway Design**

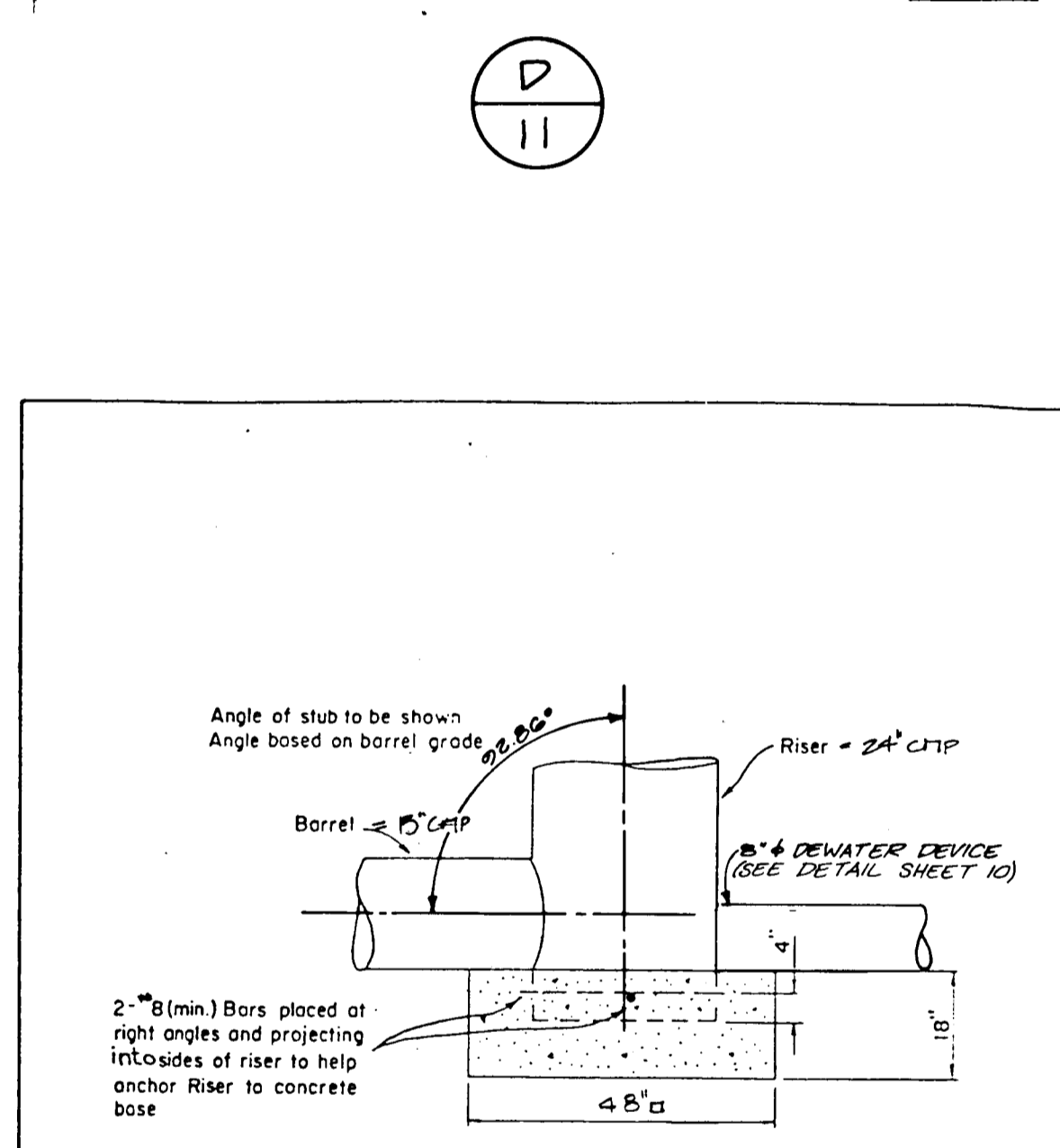
- Emergency Spillway Flow,  $Q_{ps} = Q_p - Q_{ps} = 30.0 - 11.5 = 18.5 \text{ cfs}$ .
- Width 14 ft.  $H_p = 0.8 \text{ ft}$ .
- Entrance channel slope = 5.0%
- Exit channel slope = 3.2%

**ANTI-SEEP COLLAR DESIGN (If Required)**

- $y = 7.10 \text{ ft.}; x = 4 \text{ in.};$  pipe slope = 6.0%,  $L_p = 18.67 \text{ ft}$ .  
Use 1 collars, 5" x 0" square; projection = 1.52 ft.

**DESIGN ELEVATIONS**

- Riser Crest = 91.40 Design High Water = 91.50  
Em. Spwy. Crest = 91.50 Top of Dam = 92.50



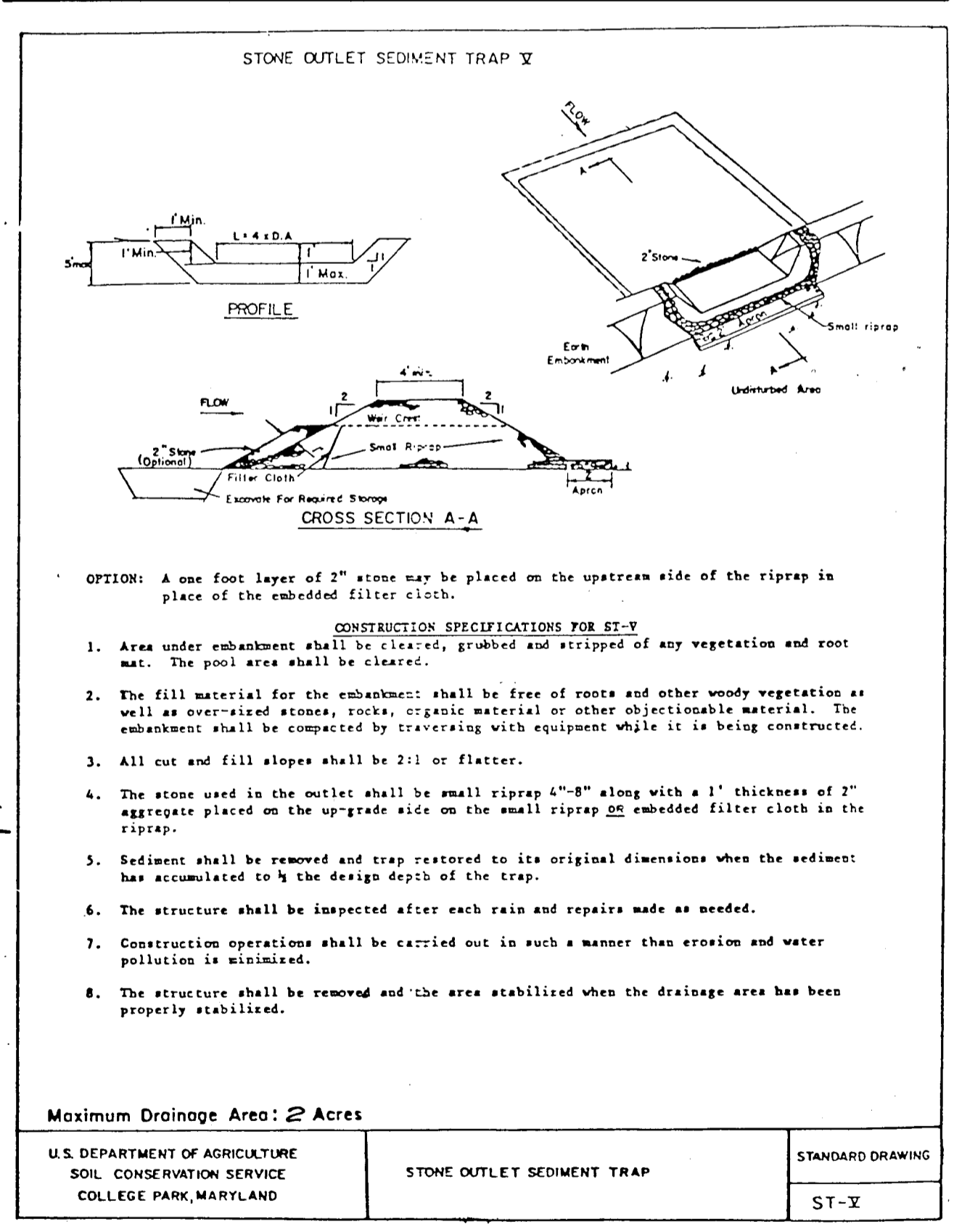
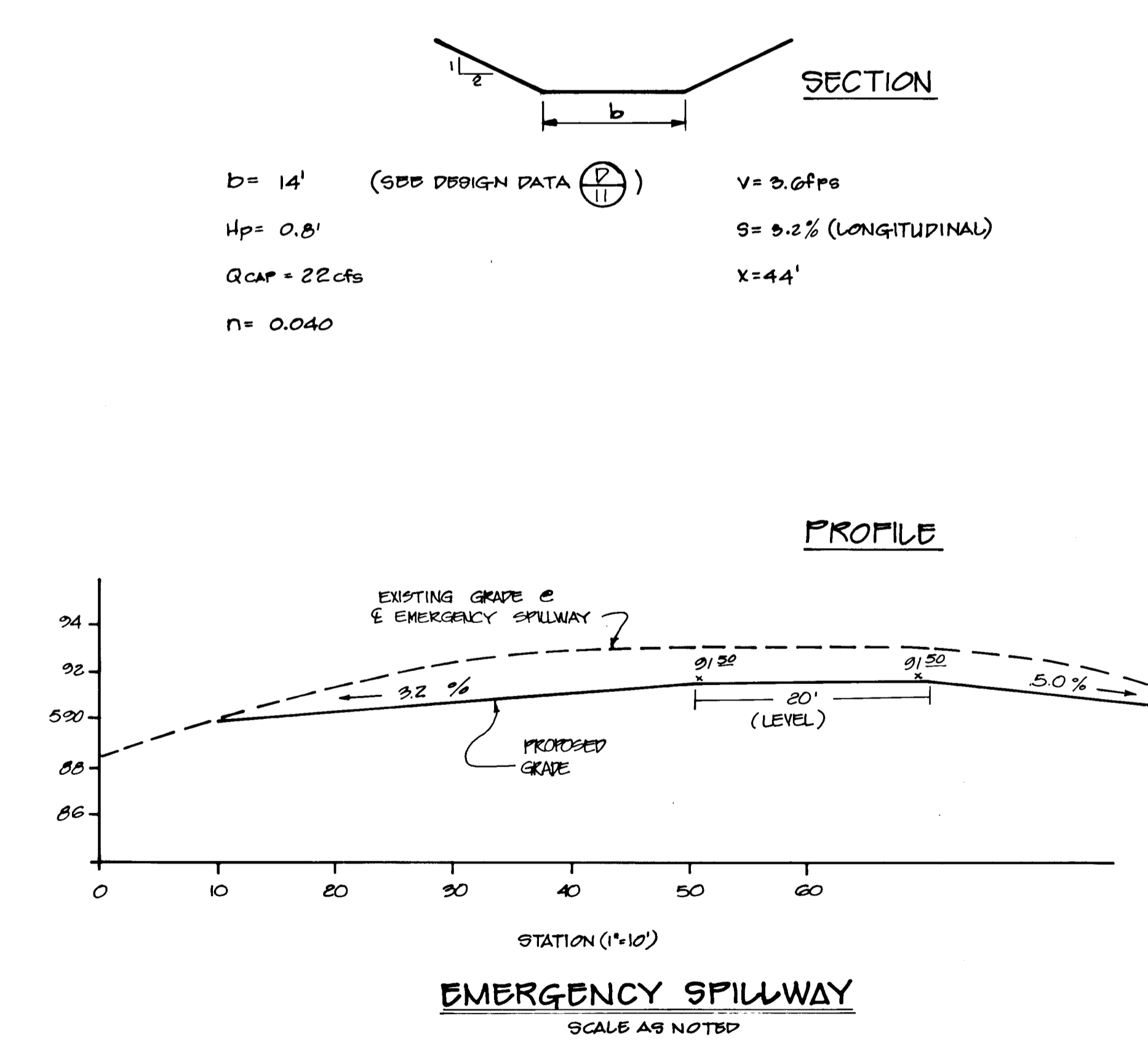
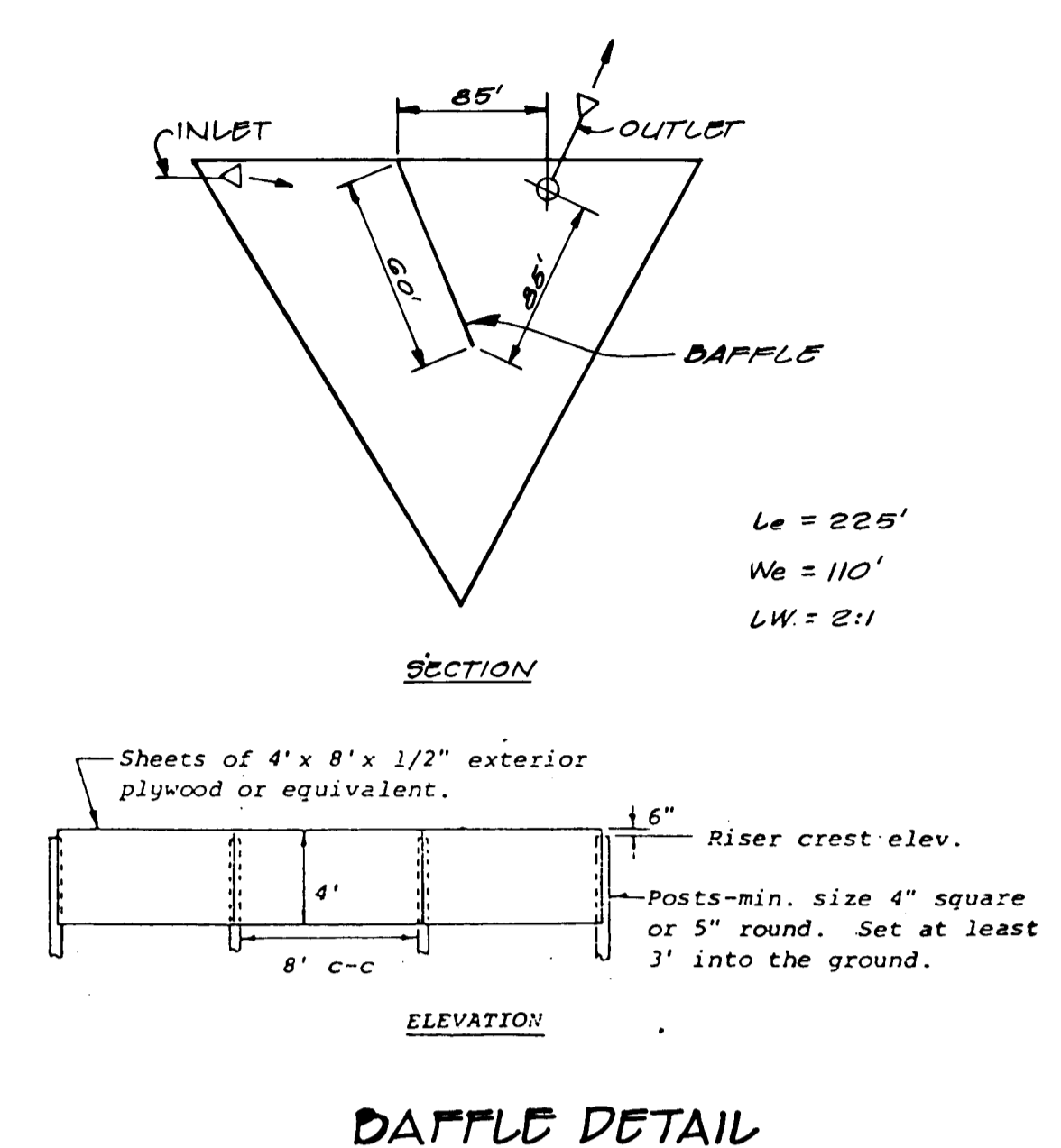
U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
COLLEGE PARK, MARYLAND

**RISER BASE DETAIL  
SEDIMENT BASIN**

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

*Mark V. ...*  
Chief, Division of Community Planning & Land Development

2/18/89  
Date



**DEVELOPER'S/BUILDER'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 Approval Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic onsite inspection by the Howard Soil Conservation District or their authorized agents, as deemed necessary.

*J. Galligan*  
Signature of Developer/BUILDER

8/31/89  
Date

**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 conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

*William S. C. D.*  
Signature of Engineer

8/31/89  
Date

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

*John H. ...*  
U.S. Soil Conservation Service

8/31/89  
Date

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

*Howard S. C. D.*  
APPROVED

8/31/89  
Date

PLAN NUMBER \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

*James ...*  
Chief, Land Development Division

8/28/89  
Date

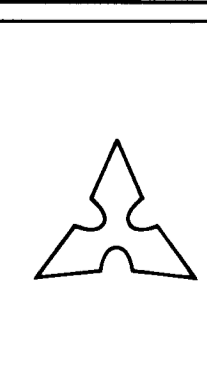
*Charles ...*  
Chief, Bureau of Highways

8/31/89  
Date

*William ...*  
Chief, Bureau of Engineering

9-1-87  
Date

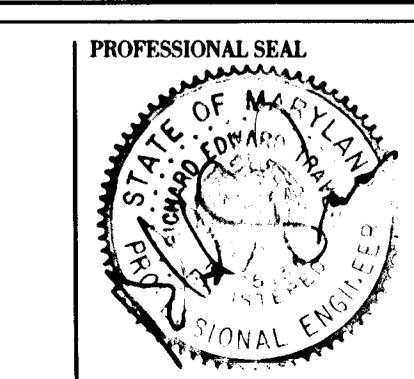
1421



CLIENT  
**LONG MEADOW VENTURERS**  
7080 OAKLAND MILLS RD  
COLUMBIA, MD. 21046

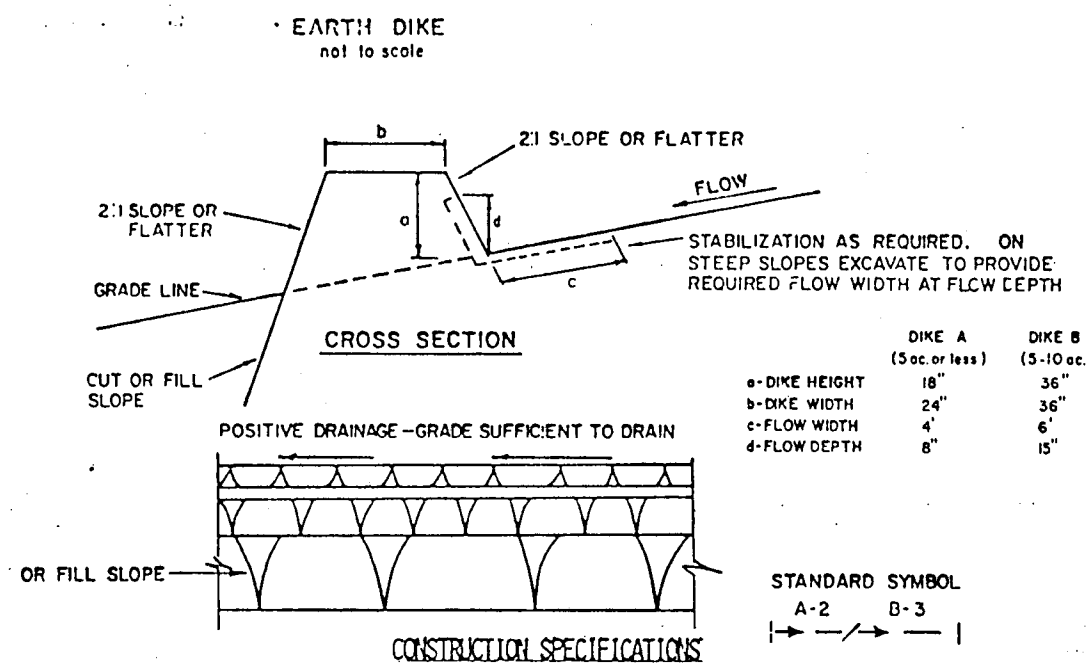
TITLE  
**FOXMOOR**  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY MARYLAND  
G.P.Z. FILE NO. VP = 88-03  
S = 88-24  
TAX MAP NO. 12 PARCEL 16

**EROSION AND SEDIMENT CONTROL DETAILS**



NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
2	ISSUED FOR SIGNATURE	7-31-87		PHR&A	2242-10
1	REVISED PER H.C.D. COMMENTS	7-14-89		TP	2-17-89
				FC	SCALE AS NOTED
				CHKD	SHEET 11 OF 12

F89-165



- ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
- ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
- FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
- EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
- STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON; (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION			
TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSTOR; SO2; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SO2; 2" STONE	LINED RIP-RAP 4-8"
4	8.1-20%	LINED RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.  
 B. TOP 1/2" TO 1" IN THICKNESS IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO SOIL.  
 C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS. 1/2", 1" TO 1 1/2" ACTING AND REINFORCING MUST BE EMBEDDED AFTER 1/2" RAIN EVENT.

A  
12

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Seedbed Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

- 1) Preferred -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 2) Acceptable -- Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Harrow or disc into upper three inches of soil.

**Seeding -** For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

**Mulching -** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring.

**Maintenance -** Inspect all seeded areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

**Seedbed Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

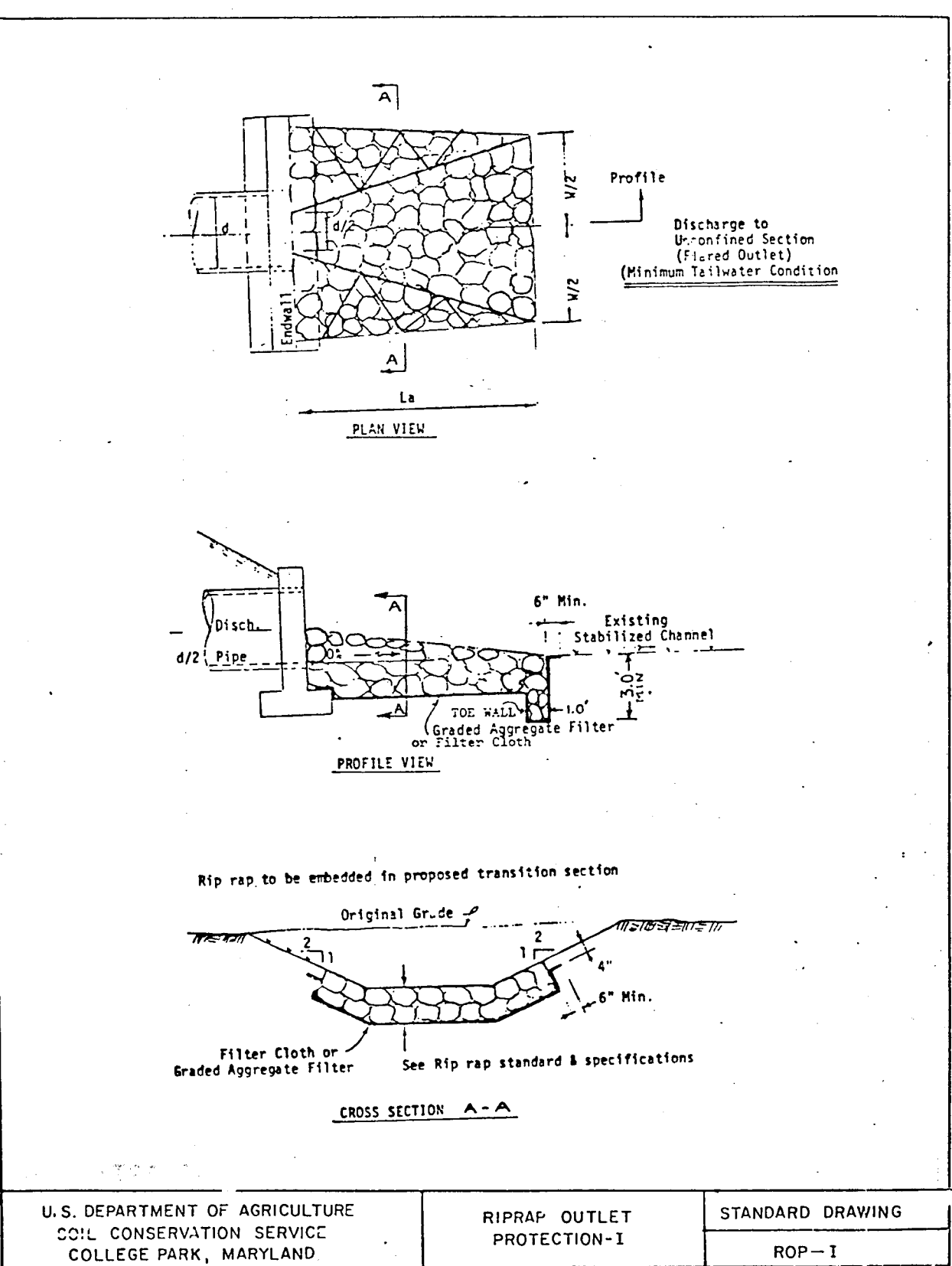
**Soil Amendments:** Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft).

**Seeding -** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 25 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 31, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq ft). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**Mulching:** Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR methods not covered.

C  
12



E  
12

CONSTRUCTION SPECIFICATIONS

**Site Preparation**  
Areas under the embankment shall be cleared, grubbed, and stripped of topsoil to remove trees, vegetation, roots or other objectionable material. In order to facilitate clean-out and restoration, the pool area (measured at the top of the pipe spillway) will be cleared of all brush, trees, and other objectionable materials.

**Out-of-Trench**  
A cut-off trench shall be excavated along the centerline of earth fill embankments. The minimum depth shall be two feet. The cut-off trench shall extend up both abutments to the riser crest elevation. The minimum bottom width shall be four feet, but wide enough to permit operation of excavation and compaction equipment. The side slopes shall be no steeper than 1:1. Compaction requirements shall be the same as those for embankment. The trench shall be dewatered during the backfilling-compaction operations.

**Embankment**  
The fill material shall be taken from approved areas shown on the plans. It shall be clean mineral soil free of roots, woody vegetation, oversized stones, rocks, or other objectionable material. Relatively pervious materials such as sand or gravel (Unified Soil Classes GW, GP, SW & SP) shall not be placed in the embankment. Areas on which fill is to be placed shall be scarified prior to placement of fill. The fill material shall contain sufficient moisture so that it can be formed by hand into a ball without crumbling. If water can be squeezed out of the ball, it is too wet for proper compaction. Fill material shall be placed six-inch to eight-inch thick continuous layers over the entire length of the fill. Compaction shall be obtained by routing and hauling the construction equipment over the fill so that the entire surface of each layer of the fill is traversed by at least one wheel or tread track of the equipment or by the use of a compactor. The embankment shall be constructed to an elevation 10 percent higher than the design height to allow for settlement.

**Pipe Spillways**  
The riser shall be securely attached to the barrel or barrel stub by welding the full circumference making a watertight structural connection. The barrel stub must be attached to the riser at the same percent (angle) of grade as the outlet conduit since the riser and the riser base shall be watertight. All connections between barrel sections must be achieved by approved watertight band assemblies. See page 18.22 for details. The barrel riser shall be placed on a firm, smooth foundation of impervious soil. Pervious materials such as sand, gravel, or crushed stone shall not be used as backfill around the pipe or anti-seep collars. The fill material around the pipe spillway shall be placed in four inch layers and compacted under and around the pipe to at least the same density as the adjacent embankment.

A minimum depth of two feet of hand compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment. Steel base plates on risers shall have at least 2-1/2 feet of compacted earth, stone or gravel placed over it to prevent flotation.

**Emergency Spillway**  
The emergency spillway shall be installed in undisturbed ground. The achievement of planned elevations, grades, design width, entrance and exit channel slopes are critical to the successful operation of the emergency spillway and must be constructed within a tolerance of ± 0.2 feet.

**Vegetative Treatment**  
Stabilize the embankment and emergency spillway in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days.

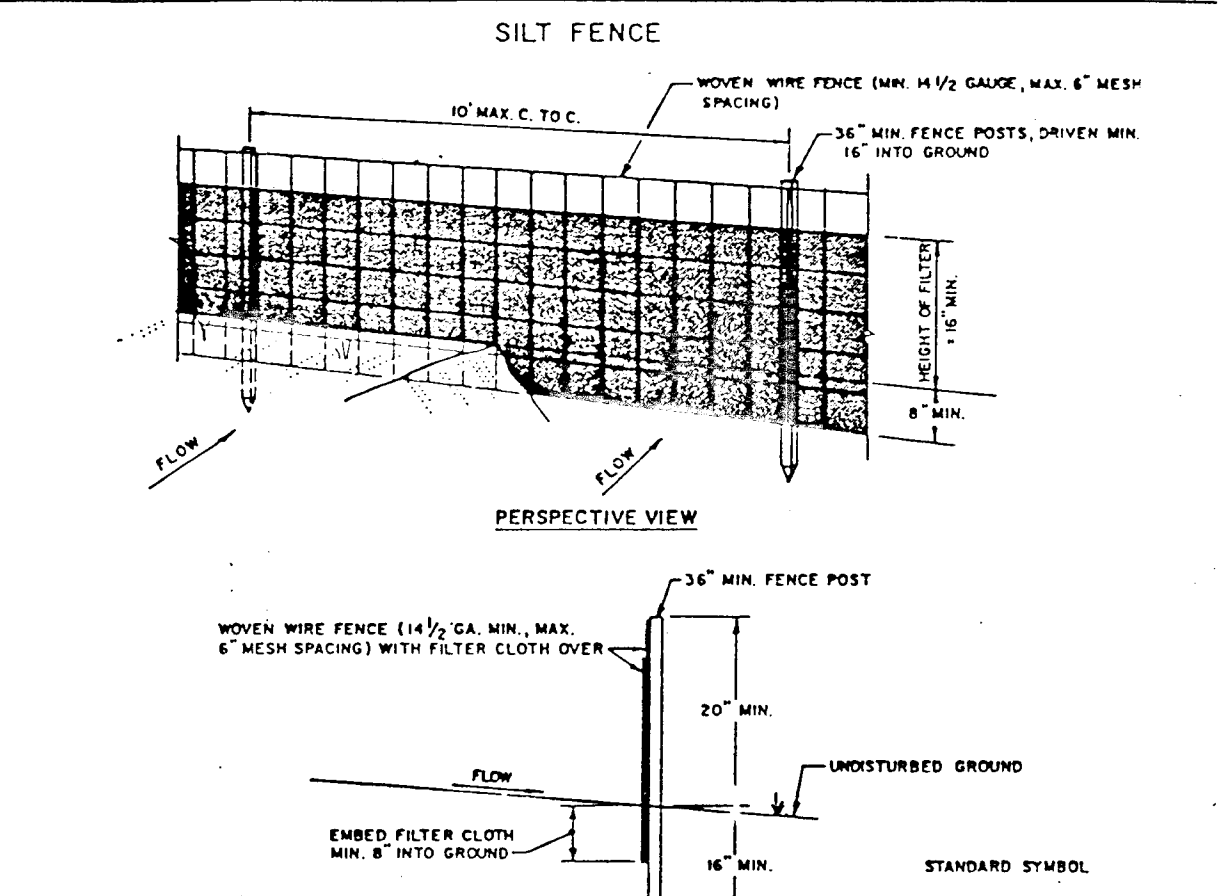
**Erosion and Pollution Control**  
Construction operations shall be carried out in such a manner that erosion and water pollution will be minimized. State and local laws shall be complied with concerning pollution abatement.

**Safety**  
State and local requirements shall be met concerning fencing and signs, warning the public of hazards of soft sediment and floodwater.

**Maintenance**  
1. Repair all damages caused by soil erosion and construction equipment at or before the end of each working day.

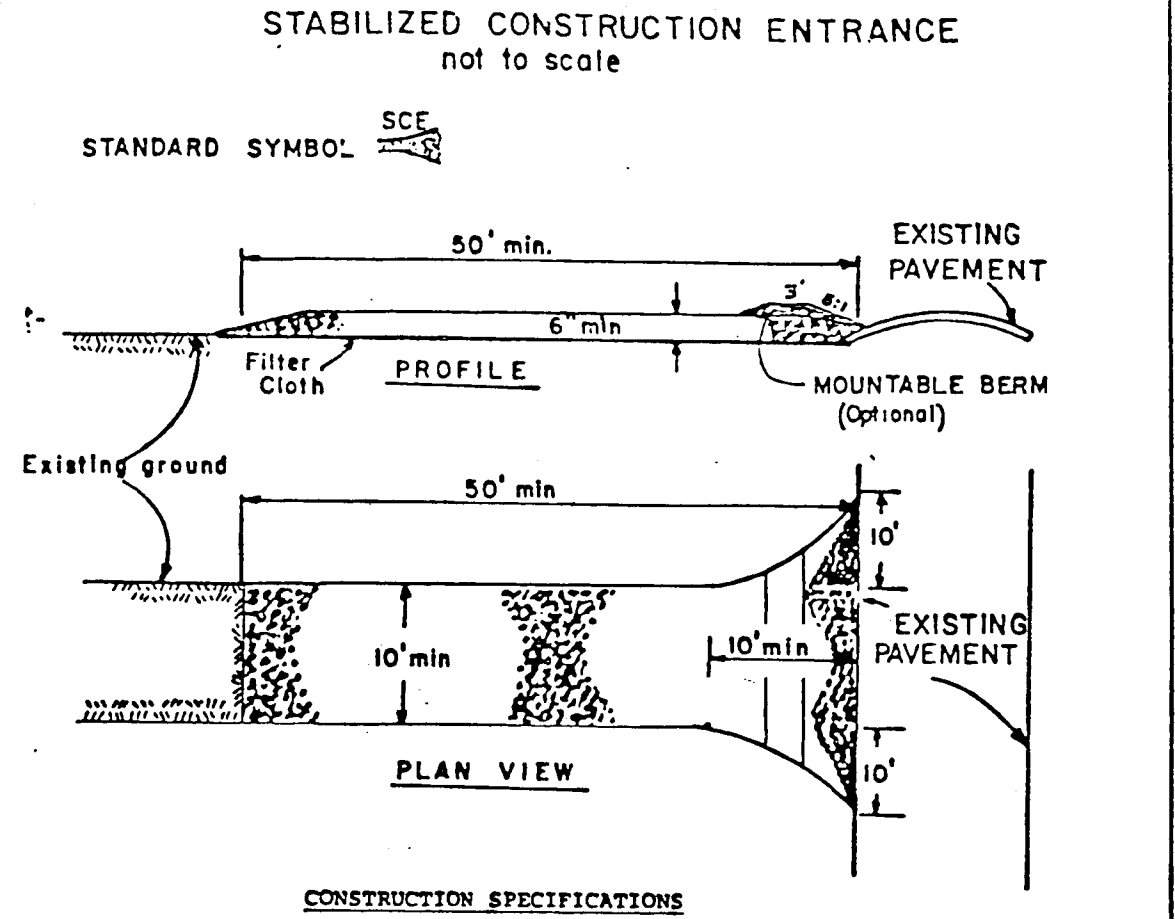
2. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or flood plain.

**Final Disposal**  
When temporary structures have served their intended purpose and the continuing drainage area has been properly stabilized, the embankment and resulting sediment deposits are to be leveled or otherwise disposed of in accordance with the approved sediment control plan. The proposed use of a sediment basin site will often dictate final disposition of the basin and any sediment contained therein. If the site is scheduled for future construction, then the basin material and trapped sediments must be removed, safely disposed of, and backfilled with a structural fill. When the basin area is to remain open space the pond may be pumped dry, graded and back filled.



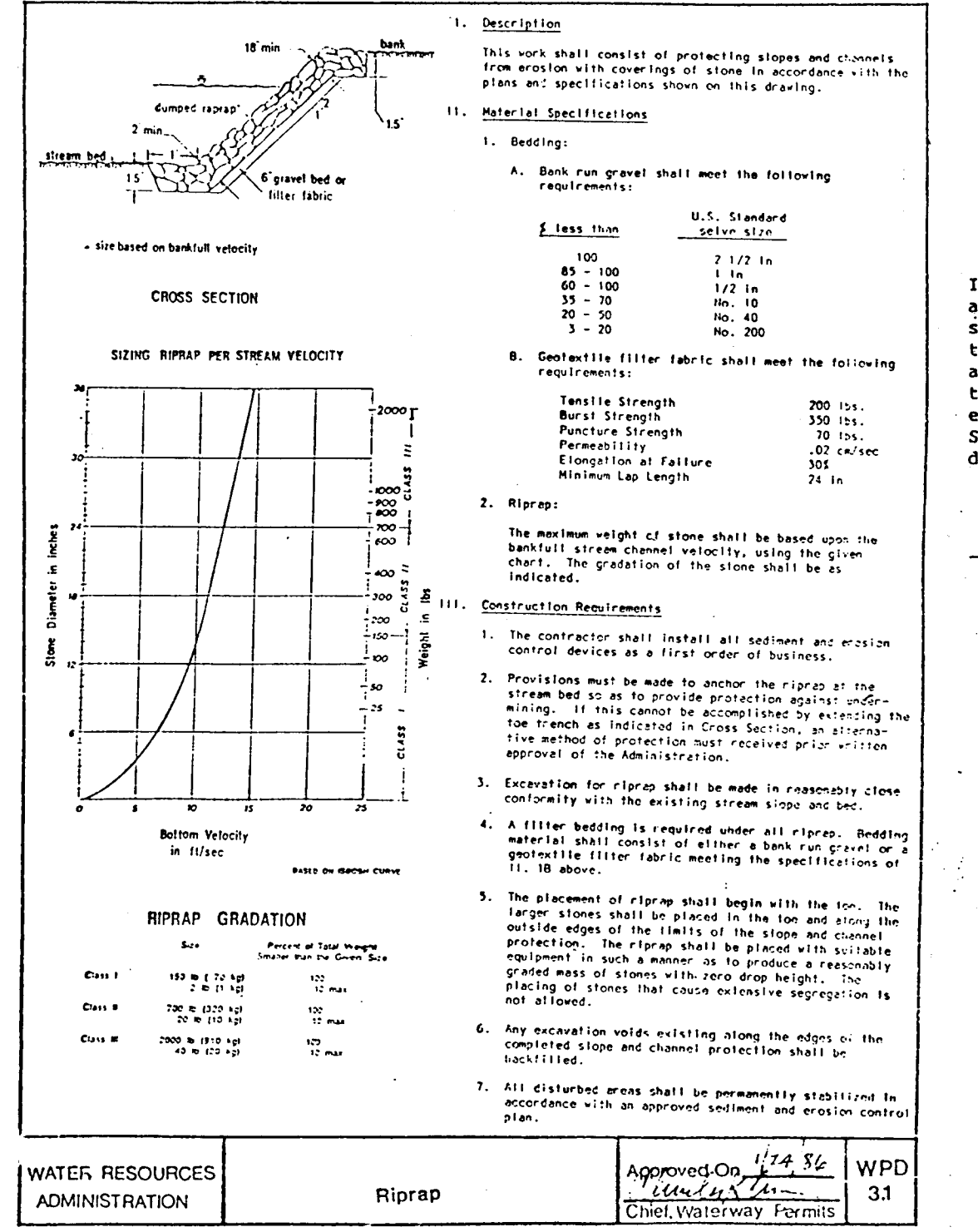
- CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  - FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS SEEDS AND MATERIAL REMOVED WHEN "BAGS" DEVELOP IN THE SILT FENCE.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD  
 FENCE: WOVEN WIRE, 1/2 GA. 6" MAX. MESH OPENING  
 FILTER CLOTH: FILTER Y, HIRAFI, JUTE, STABIL-LINKA TERN OR APPROVED EQUAL  
 PREFABRICATED UNIT: GEOTEX, DYNAPRENE, OR APPROVED EQUAL.

B  
12



- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length - As required, but not less than 30 feet except on a single residence lot where a 30 foot minimum length would apply.
- Thickness - Not less than 6" (6) inches.
- Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrances. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanup of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

D  
12



F  
12

DEVELOPER'S/BUILDER'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 onsite inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary.

Signature of Developer/Builder: *[Signature]* Date: 8/31/89

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 conditions and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Signature of Engineer: *[Signature]* Date: 9/2/89

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

Signature: *[Signature]* Date: 8/13/89  
 U.S. Soil Conservation Service

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

Signature: *[Signature]* Date: 8/3/89  
 Howard S C D

PLAN NUMBER

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

Signature: *[Signature]* Date: 8/20/89  
 Chief, Land Development Division

Signature: *[Signature]* Date: 8/30/89  
 Chief, Bureau of Highways

Signature: *[Signature]* Date: 9-1-89  
 Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY DEPT. OF PLANNING AND ZONING

Signature: *[Signature]* Date: 7/19/89  
 Chief, Division of Community Planning & Land Development

17468



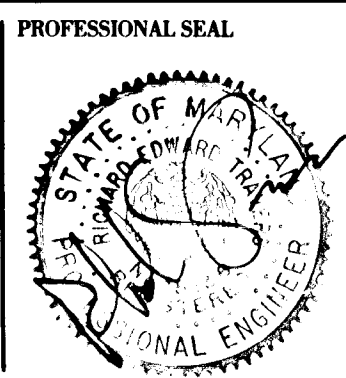
Patton Harris Rust & Associates, Inc.  
 Engineers, Surveyors, Planners, Landscape Architects  
 7609 Standish Place  
 Rockville, Maryland 20855  
 301 762-2220

Office:  
 Fairfax, VA  
 Bridgewater, VA  
 Leesburg, VA  
 Rockville, MD  
 Virginia Beach, VA

CLIENT: LONG MEADOW VENTURERS  
 7050 OAKLAND MILLS RD  
 COLUMBIA, MD, 21046

JOB: FOXMOOR  
 FOURTH ELECTION DISTRICT  
 HOWARD COUNTY MARYLAND  
 O.P.Z. FILE NO. VP-83-03  
 S-83-24  
 TAX MAP NO. 12 PARCEL 16

EROSION AND SEDIMENT CONTROL DETAILS



NO.	REVISIONS	DATE	BY	SURVEY BY	FILE NO.
1	ISSUED FOR SIGNATURE	7-31-89		PHR&A	2242-1-0
				TP	2-17-89
				FC	NO SCALE
					12 OF 12

F 89-165