

# BRITTANY MANOR

## HOWARD COUNTY, MARYLAND

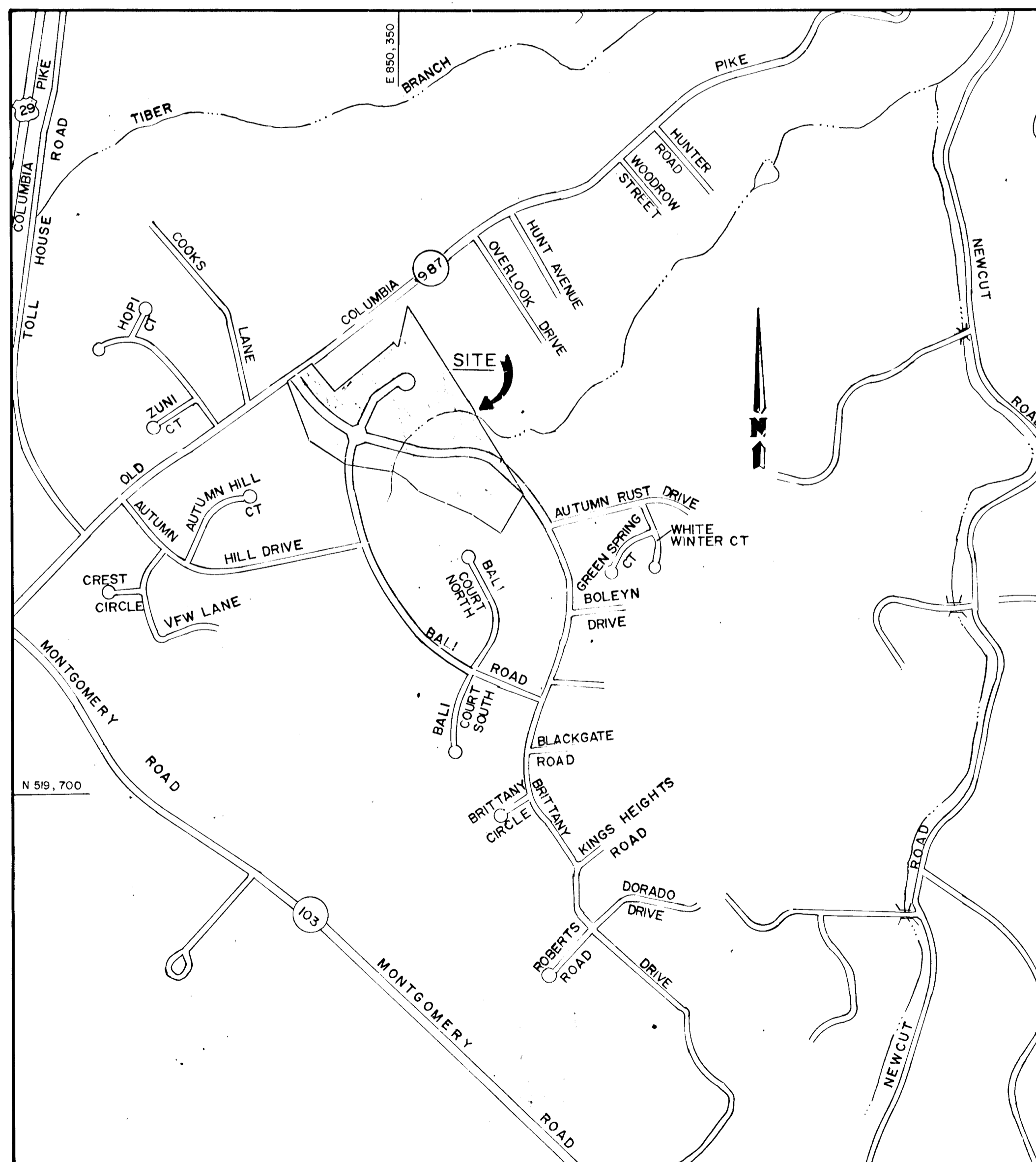
### FINAL ROAD CONSTRUCTION PLANS

#### INDEX OF SHEETS

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5. PEMBERTON COURT, PLAN AND PROFILE
6. STORM DRAIN PROFILES
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9. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
10. STREET TREE, GRADING AND SEDIMENT CONTROL PLAN
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12. DRAINAGE AREA MAP
13. DRAINAGE AREA MAP
14. MISCELLANEOUS DETAILS

#### SUMMARY OF WAIVER PETITIONS

- |  |  |               |  |              |  |             |  |
|--|--|---------------|--|--------------|--|-------------|--|
| <ol style="list-style-type: none"> <li>1. SECTION 10.3.1-4 HOWARD COUNTY DESIGN MANUAL VOLUME I, STORM DRAINAGE<br/>-STORMWATER MANAGEMENT QUANTITY CONTROL</li> <li>2. SECTION 2.3.3 HOWARD COUNTY DESIGN MANUAL VOLUME III, ROADS AND BRIDGES<br/>-REDUCTION OF DESIGN SPEED FROM 35 MPH TO 30MPH FROM STATION 14+50 TO STATION 18+49. 27 BRITTANY DRIVE</li> <li>3. SECTION 16.120 HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS<br/>-WAIVER OF PRELIMINARY PLAN SUBMISSION TO INCORPORATE THE DEVELOPMENT OF PARCEL 288 (S 88-105, PLANNING BOARD CASE #239) TO THE APPROVED PRELIMINARY PLAN (P 88-06) FOR PARCEL 651</li> </ol> | <table border="0"> <tr> <td>APPROVAL DATE</td> <td></td> </tr> <tr> <td>11 / 24 / 87</td> <td></td> </tr> <tr> <td>12 / 8 / 87</td> <td></td> </tr> </table> | APPROVAL DATE |  | 11 / 24 / 87 |  | 12 / 8 / 87 |  |
| APPROVAL DATE  |  |               |  |              |  |             |  |
| 11 / 24 / 87   |  |               |  |              |  |             |  |
| 12 / 8 / 87  |  |               |  |              |  |             |  |



VICINITY MAP  
SCALE: 1" = 600'

#### GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
2. ALL UTILITY COMPANIES MUST BE NOTIFIED 24 HRS IN ADVANCE OF ANY CONSTRUCTION. CALL "MISS UTILITY" 48 HRS IN ADVANCE OF CONSTRUCTION - 1-800-257-7777
3. STORM DRAINAGE TRENCHES WITHIN ROAD RIGHT-OF-WAYS SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS.
4. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.
5. CONTRACTOR TO NOTIFY THE HOWARD COUNTY INSPECTION DIVISION AT LEAST 3 DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS. TELEPHONE # 792-7272
6. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION, CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE.
7. ALL TRAFFIC CONTROL DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 1984 REVISED EDITION.
8. FOR LOCATION OF DRIVEWAY APRONS AND DEPRESSED CURBS, SEE SITE DEVELOPMENT PLANS.
9. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEAN, METHODS, PROCEDURES, TECHNIQUES, OR SEQUENCES OF CONSTRUCTION, NOR FOR SAFETY ON THE JOB SITE, NOR SHALL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTORS FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

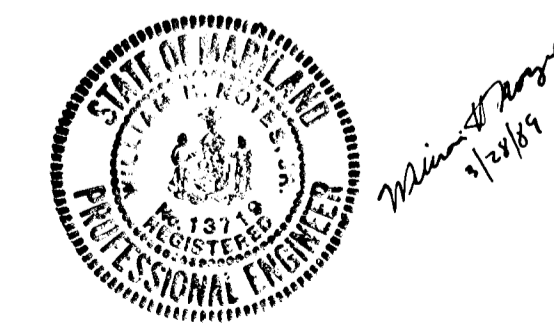
APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

<i>Charles Williams</i>	4/28/89
CHIEF, LAND DEVELOPMENT DIVISION	DATE
<i>William R. Lewis</i>	7/31/87
CHIEF, BUREAU OF HIGHWAYS	DATE
<i>Robert R. King</i>	4-28-89
CHIEF, BUREAU OF ENGINEERING	DATE

APPROVED: OFFICE OF PLANNING AND ZONING

*Mark S. Dr. Conley* 5/2/89

CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT, DATE



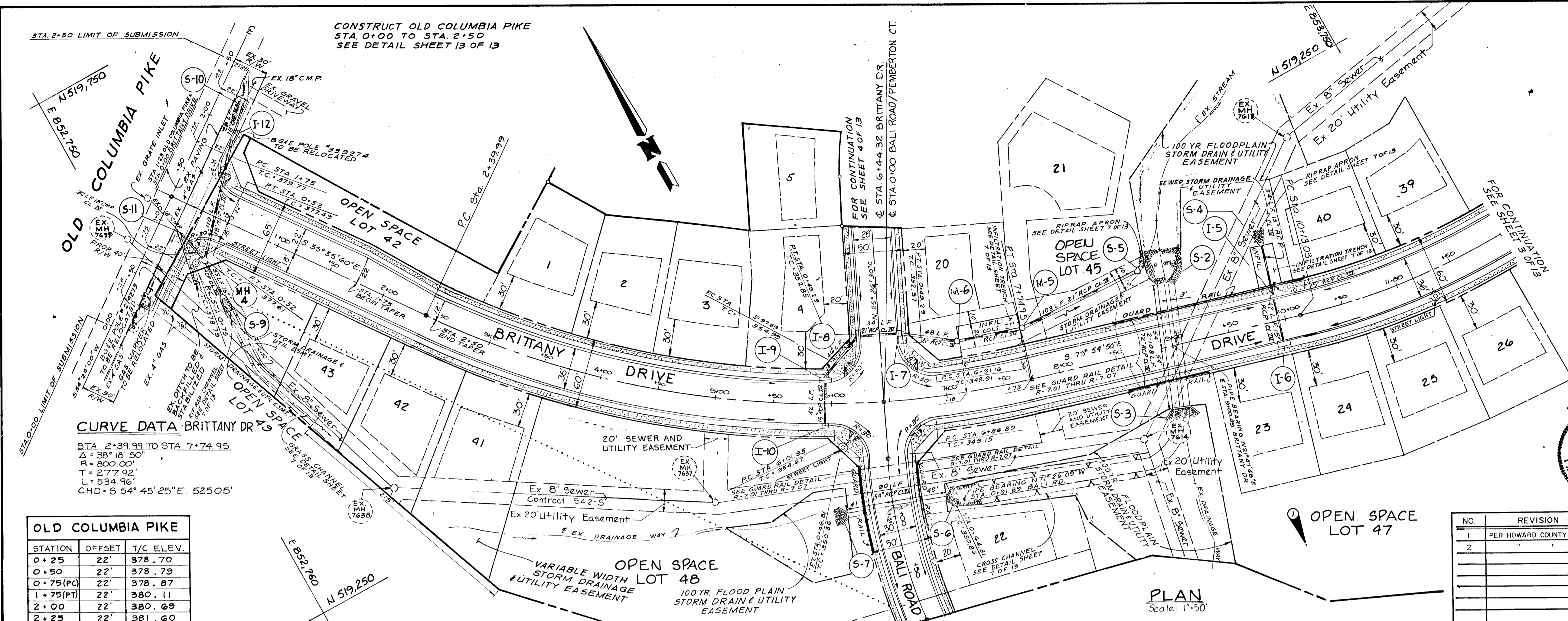
**JOHN E. HARMS JR. AND ASSOCIATES INC.**

CONSULTING ENGINEERS - PLANNERS - SURVEYORS

2 CENTRE PARK    8818 CENTRE PARK DRIVE    SUITE 208  
COLUMBIA MARYLAND 21045    TELEPHONE (301) 740-5200

PLAN	SURVEYED	BY	DATE
	NOTE BOOK	ALIGNMENT CHECKED	
		RT. OF WAY CHECKED	

PROFILE	SURVEYED	BY	DATE
	NOTE BOOK	ALIGNED CHECKED	
		RT. OF WAY CHECKED	



BENCHMARK "1" - RAILROAD SPIKE SET IN 10" OAK, ELEV. 334.62

**CURVE DATA - BRITANNY DR.**  
 STA 10+13.03 TO STA 12+22.60  
 $\Delta = 20^{\circ}00'44"$   
 $R = 600.00'$   
 $L = 105.86'$   
 $T = 209.57'$   
 $CHD = S 83^{\circ}55'12" E 208.50'$

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*Mark S. J. ...* 5/2/89  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*...* 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION  
*...* 4/17/89  
 CHIEF, BUREAU OF HIGHWAYS  
*...* 4/28/89  
 CHIEF, BUREAU OF ENGINEERING

**OLD COLUMBIA PIKE**

STATION	OFFSET	T/C ELEV.
0+25	22'	378.70
0+50	22'	378.79
0+75(PC)	22'	378.87
1+75(PT)	22'	380.11
2+00	22'	380.69
2+25	22'	381.60

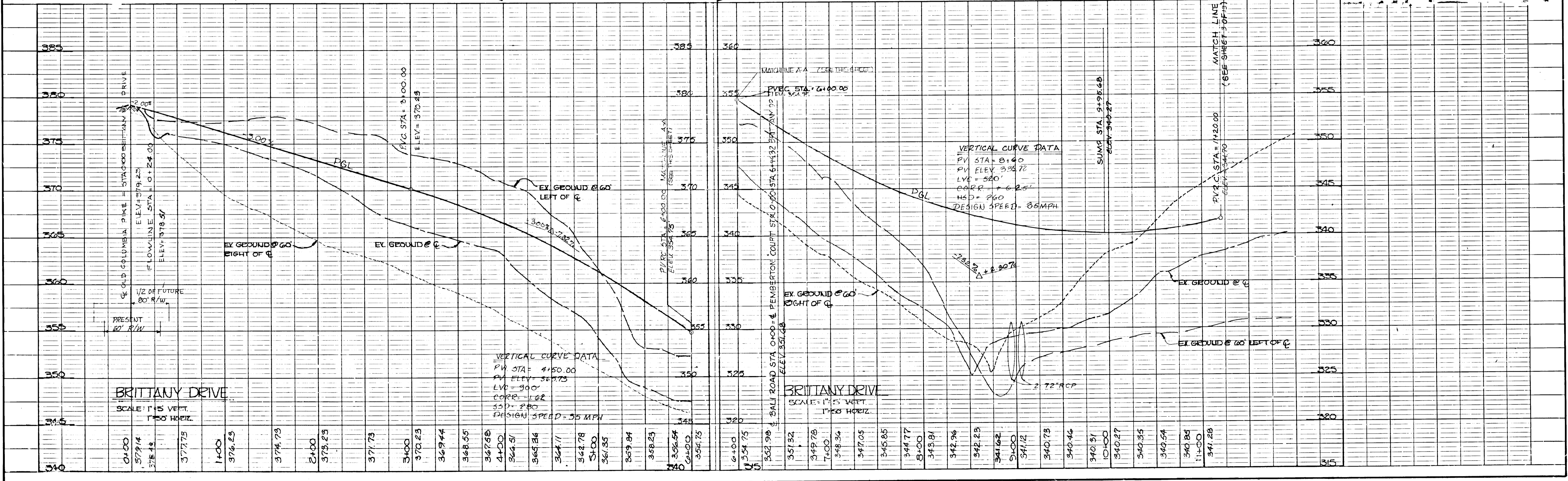
NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/DGH	
2		CAG	3/10/89

**BRITANNY MANOR**  
 LOTS 1-49  
 TAX MAP NO. 24 - PARCELS 651, 288  
 (G.P. & Z. REF. NO. P-88-06, S-88-105, S-88-99, WP-89-30)  
 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**PLAN & PROFILE**

OWNER	N.V. LAND	DEVELOPER	N.V. LAND
6820 ELM STREET		22101	
SCALE AS SHOWN	DATE: OCT. 1988	SHEET 2 OF 13	
DES. TAB	DRN. JT	CHK. RHV	

JOHN E. HARMS JR. AND ASSOCIATES, INC.  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 2 CENTRE PARK 8818 CENTRE PARK DRIVE SUITE 208  
 COLUMBIA, MARYLAND 21045 - TELE. (301) 740-9200

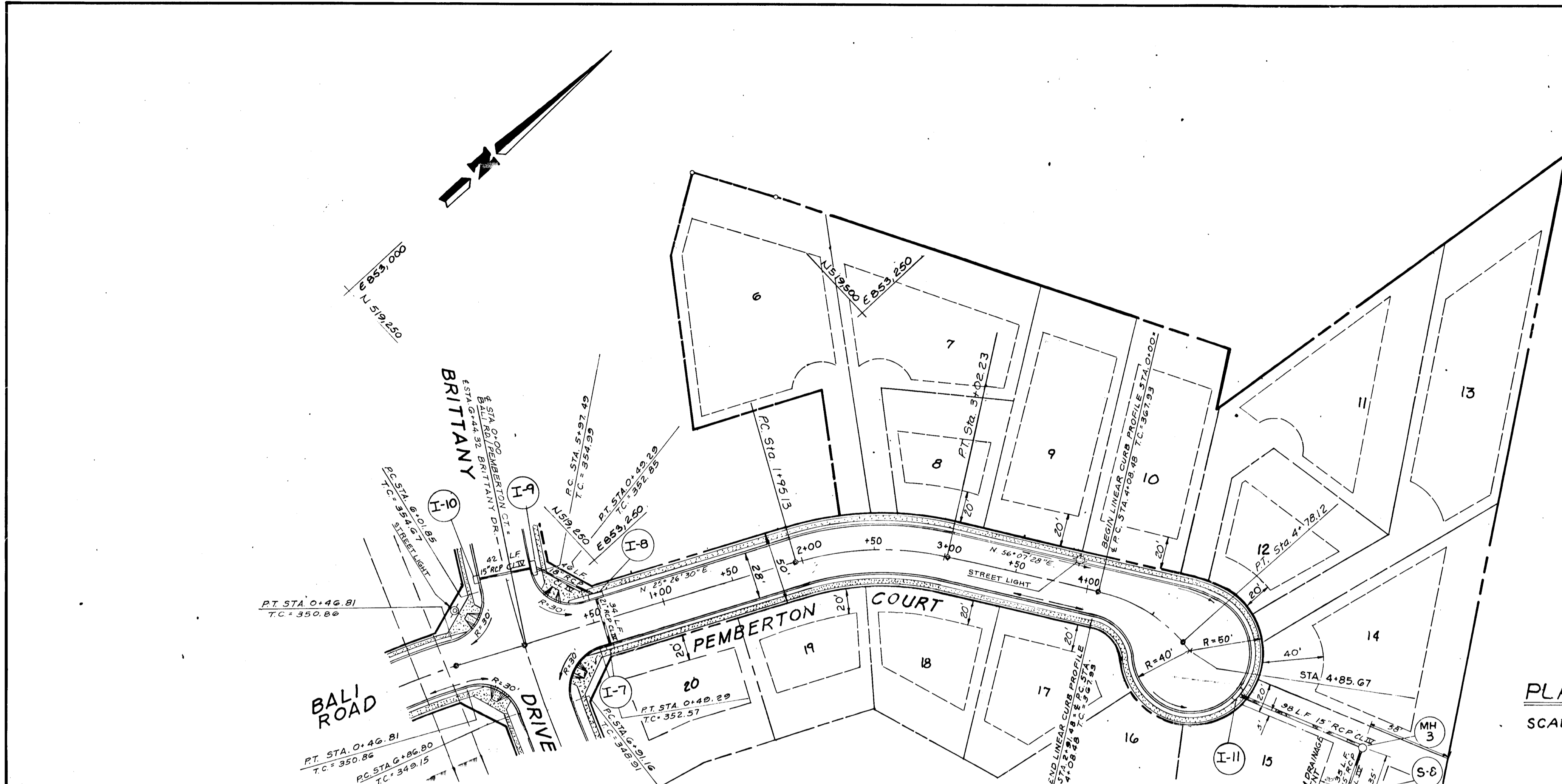


1442



DATE	
BY	
SURVEYED	
PLOTTED	
ALIGNED CHECKED	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
GRADES CHECKED	
NO.	
STRUCTURE NOTATIONS CHKD	



PLAN  
SCALE: 1" = 50'

**CURVE DATA - PEMBERTON COURT**  
 STA. 1+95.13 TO 3+02.23  
 $\Delta = 30^\circ 40' 58"$   
 $R = 200.00'$   
 $T = 54.87'$   
 $L = 107.10'$   
 $CHD = N. 40^\circ 46' 59" E. 105.83'$

**CURVE DATA - PEMBERTON COURT**  
 STA. 4+08.48 TO 4+78.12  
 $\Delta = 36^\circ 36' 11"$   
 $R = 109.00'$   
 $T = 36.05'$   
 $L = 69.64'$   
 $CHD = N. 74^\circ 25' 36" E. 68.46'$

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*Mark S. McCarty* 5/2/89  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*James W. W. W. W.* 4/2/89  
 CHIEF, LAND DEVELOPMENT DIVISION  
*James W. W. W. W.* 4/2/89  
 CHIEF, BUREAU OF HIGHWAYS  
*James W. W. W. W.* 4/2/89  
 CHIEF, BUREAU OF ENGINEERING

**BRITTANY MANOR**  
 LOTS 1-49  
 TAX MAP NO 24 PARCELS 651, 288  
 (O.P.B.Z. REF. NO. P-88-06, S-88-105, S-86-99WP-89-30)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**PLAN & PROFILE**

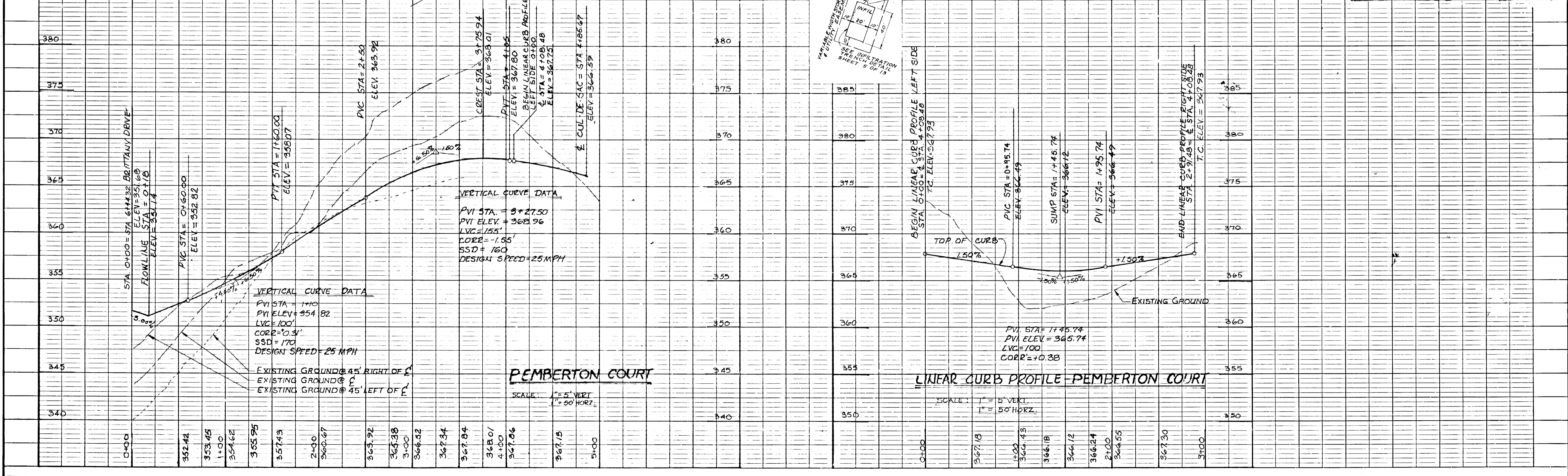
OWNER	DEVELOPER
N.V. LAND	N.V. LAND

6820 ELM STREET  
 McLEAN, VIRGINIA 22101

SCALE AS SHOWN	DATE: OCT. 1988	SHEET 4 OF 13
DES. TAB	DRN. J.T.	CHK. RHV

**JOHN E. HARMS JR. AND ASSOCIATES, INC.**  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 2 CENTRE PARK, 8518 CENTRE PARK DRIVE SUITE 238  
 COLUMBIA, MARYLAND 21045 TELE. (301) 740-5200

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	JAB/ESH	
2		CAG	3/10/89

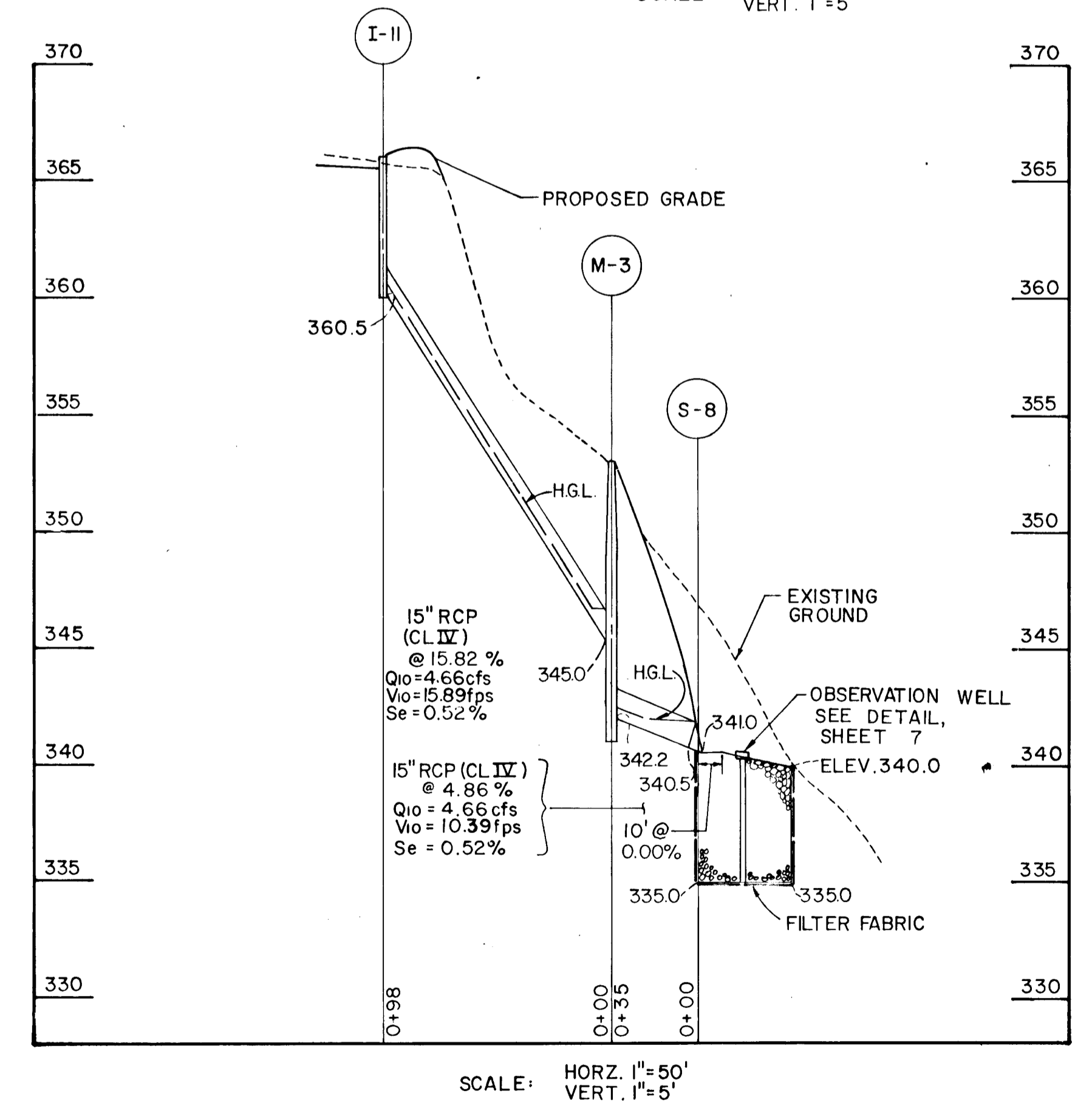
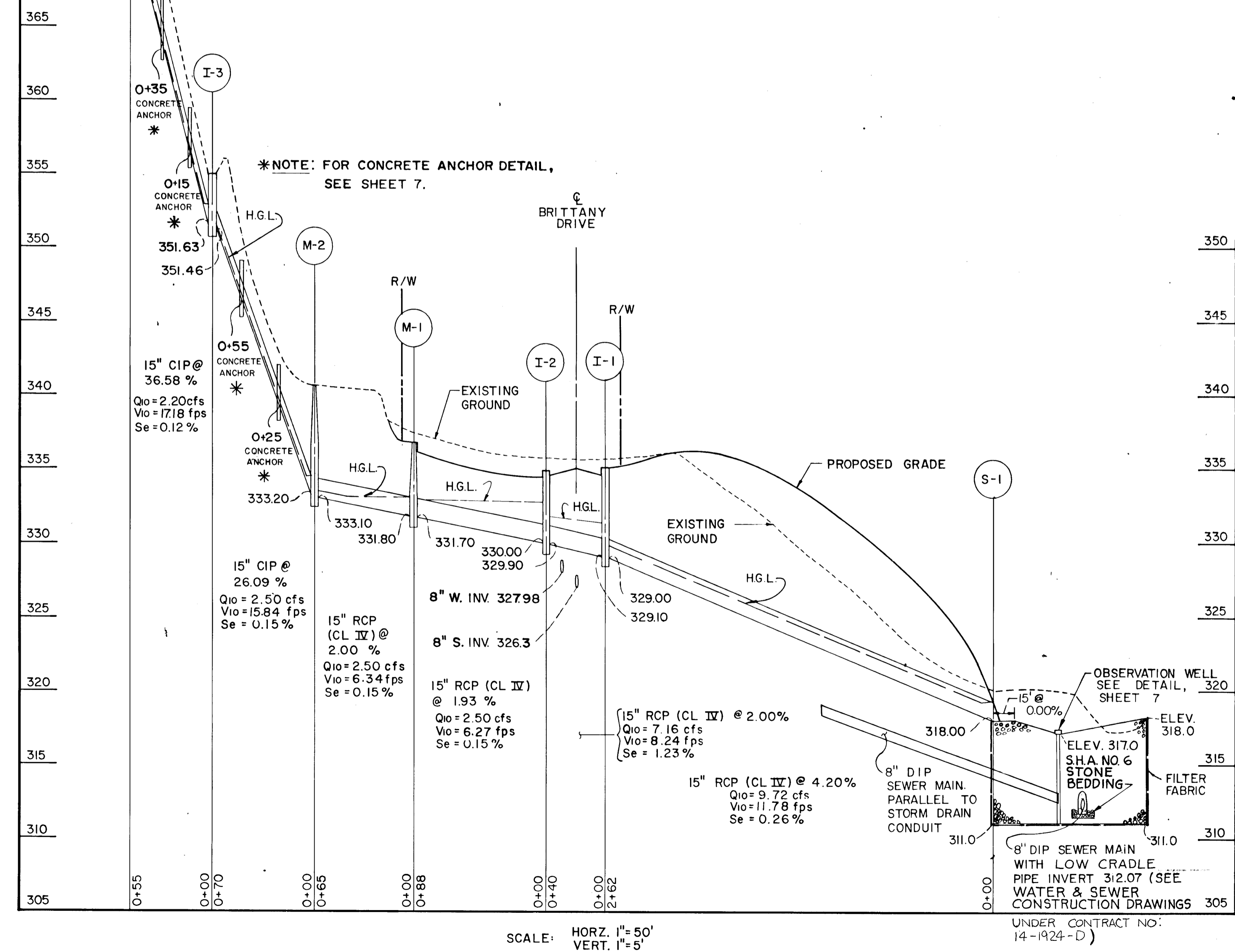
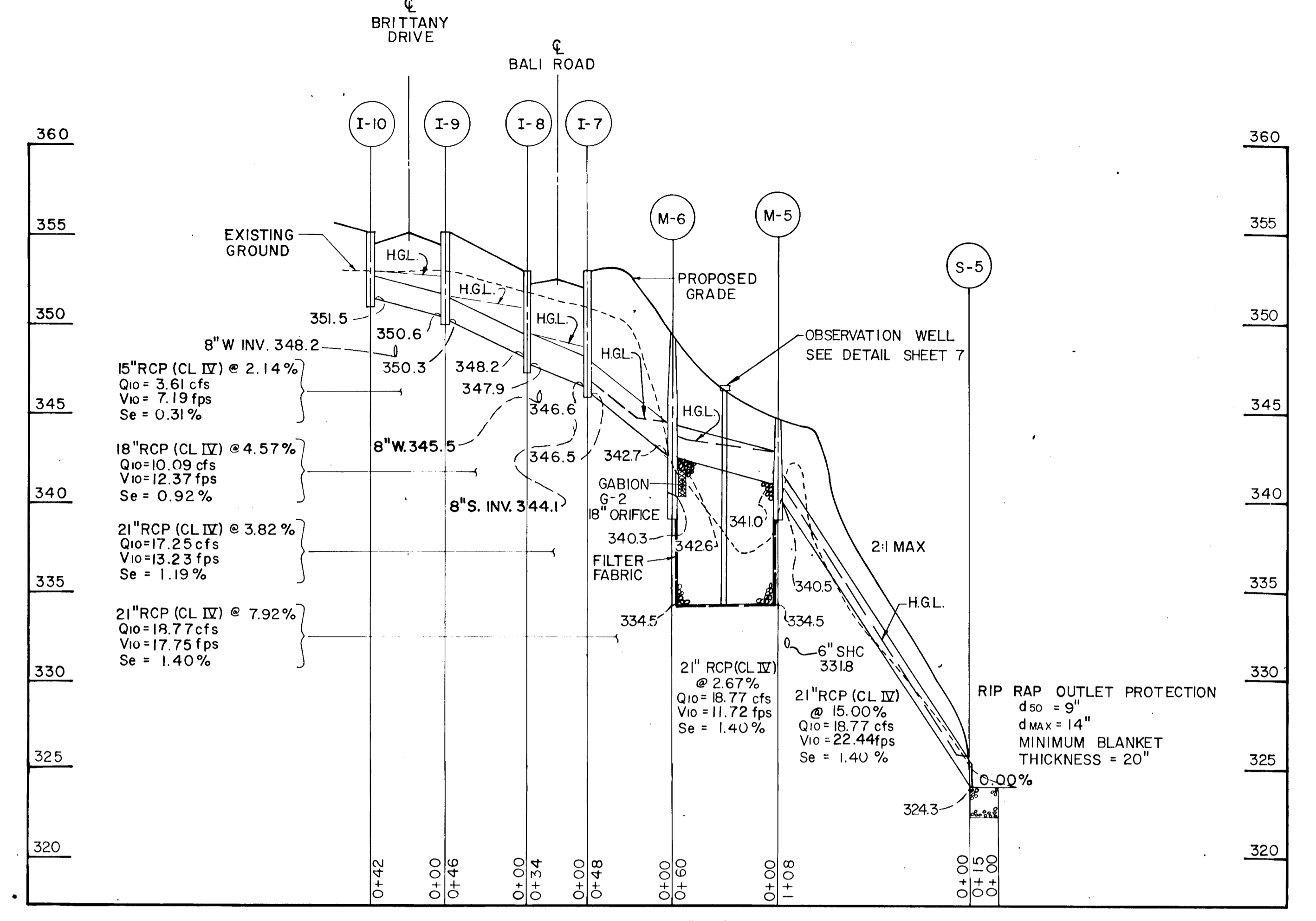
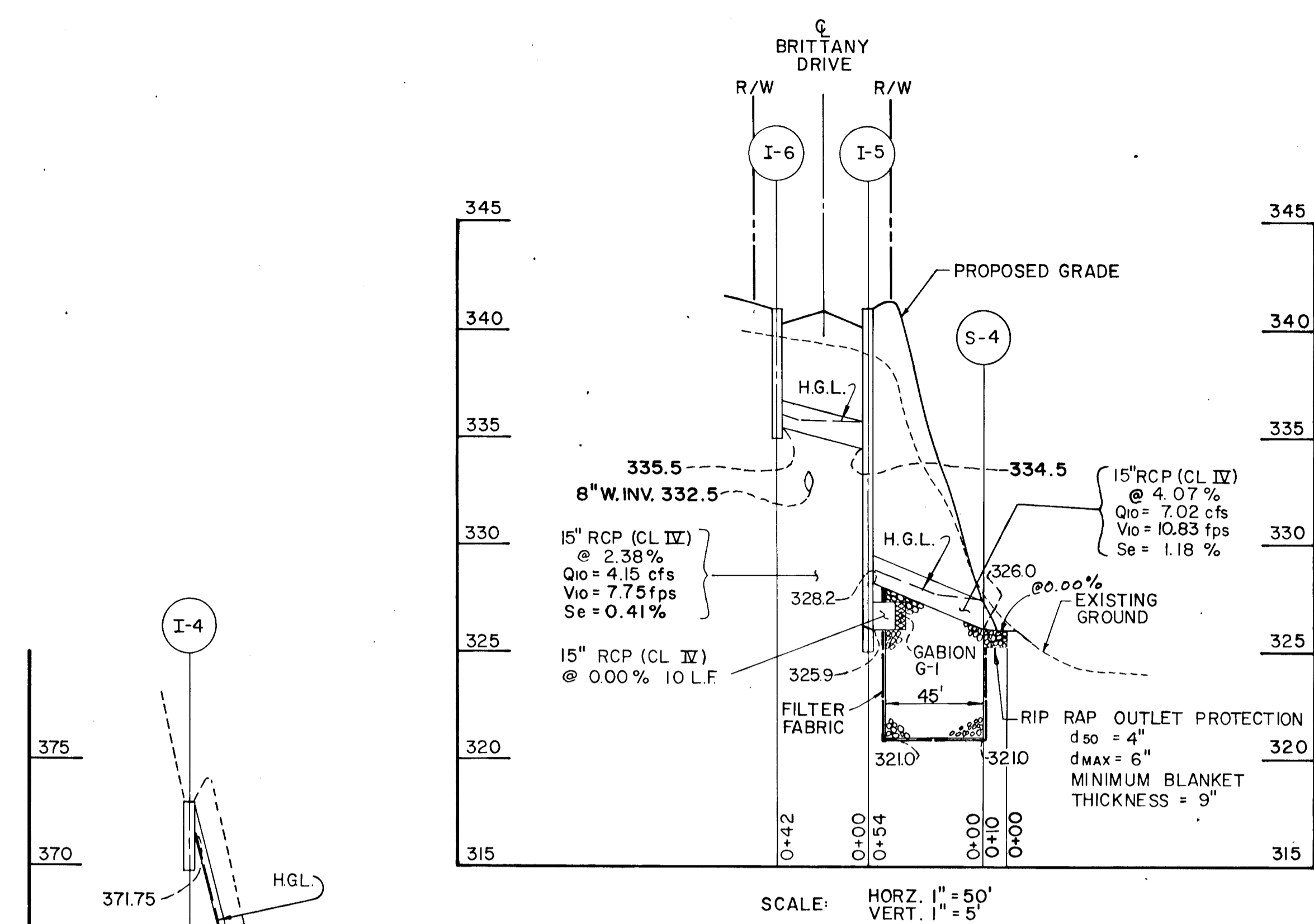


PEMBERTON COURT  
 SCALE: 1" = 5' VERT  
 1" = 50' HORIZ.

LINEAR CURB PROFILE PEMBERTON COURT  
 SCALE: 1" = 5' VERT  
 1" = 50' HORIZ.

1442

1442



OWNER / DEVELOPER  
 NV LAND  
 6820 ELM STREET  
 MCLEAN, VIRGINIA 22101  
 (703) 734-9730

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION  
 [Signature] 4/17/89  
 CHIEF, BUREAU OF HIGHWAYS  
 [Signature] 4/28/89  
 CHIEF, BUREAU OF ENGINEERING

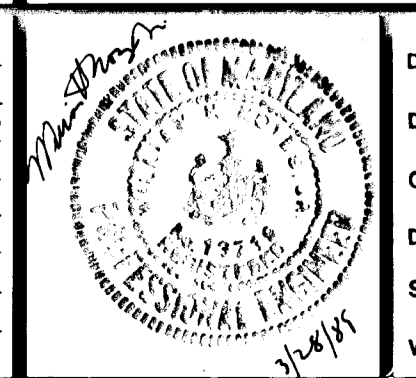
APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

[Signature] 5/2/89  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

STORM DRAIN PROFILES  
**BRITTANY MANOR**  
 LOTS 1-49  
 (O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
 TAX MAP 24 PARCEL 288(8794907) PARCEL 651(1755/213-216)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 8818 CENTRE PARK DRIVE SUITE 208  
 COLUMBIA, MARYLAND 21045 TELEPHONE 13011740-5200

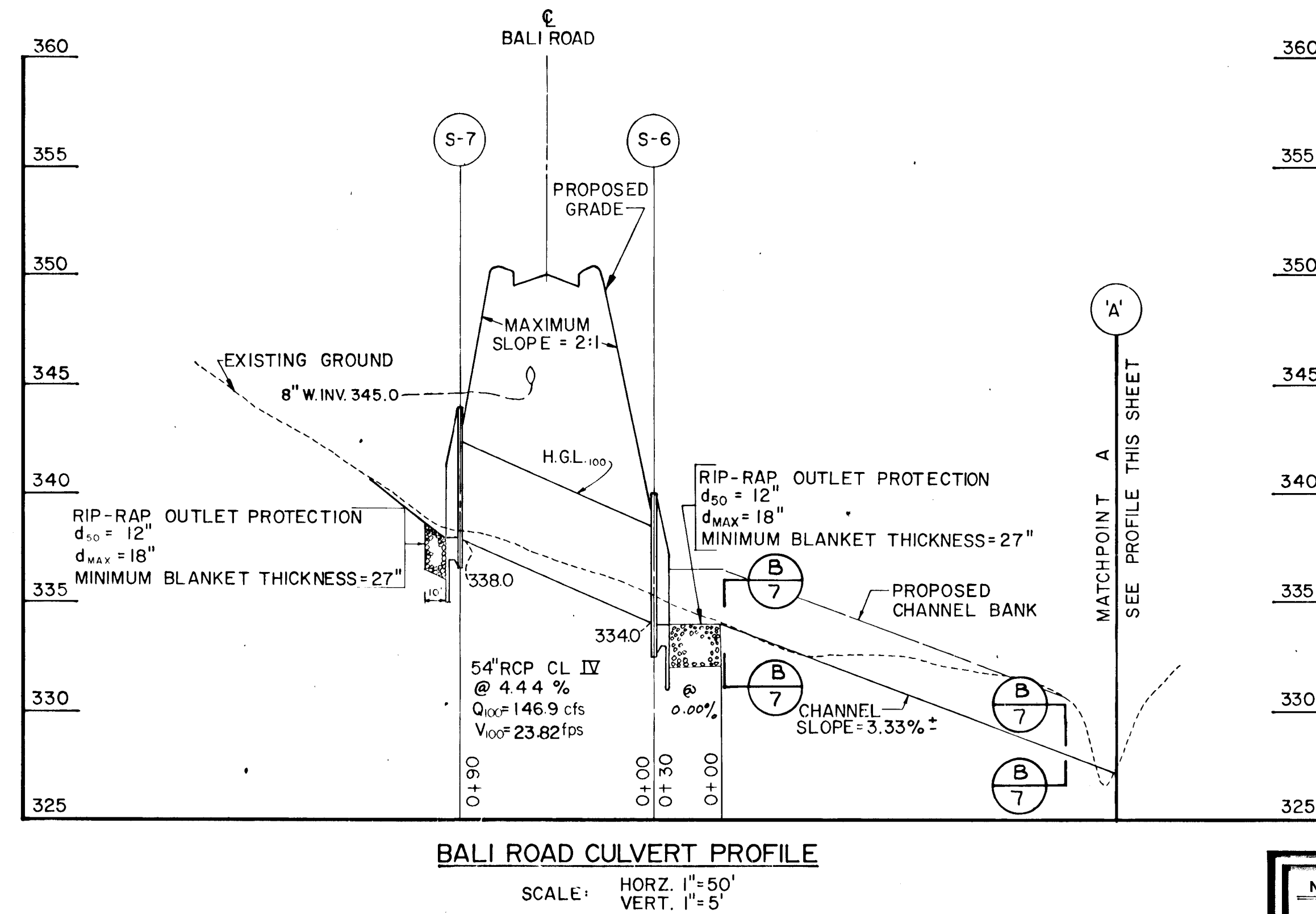
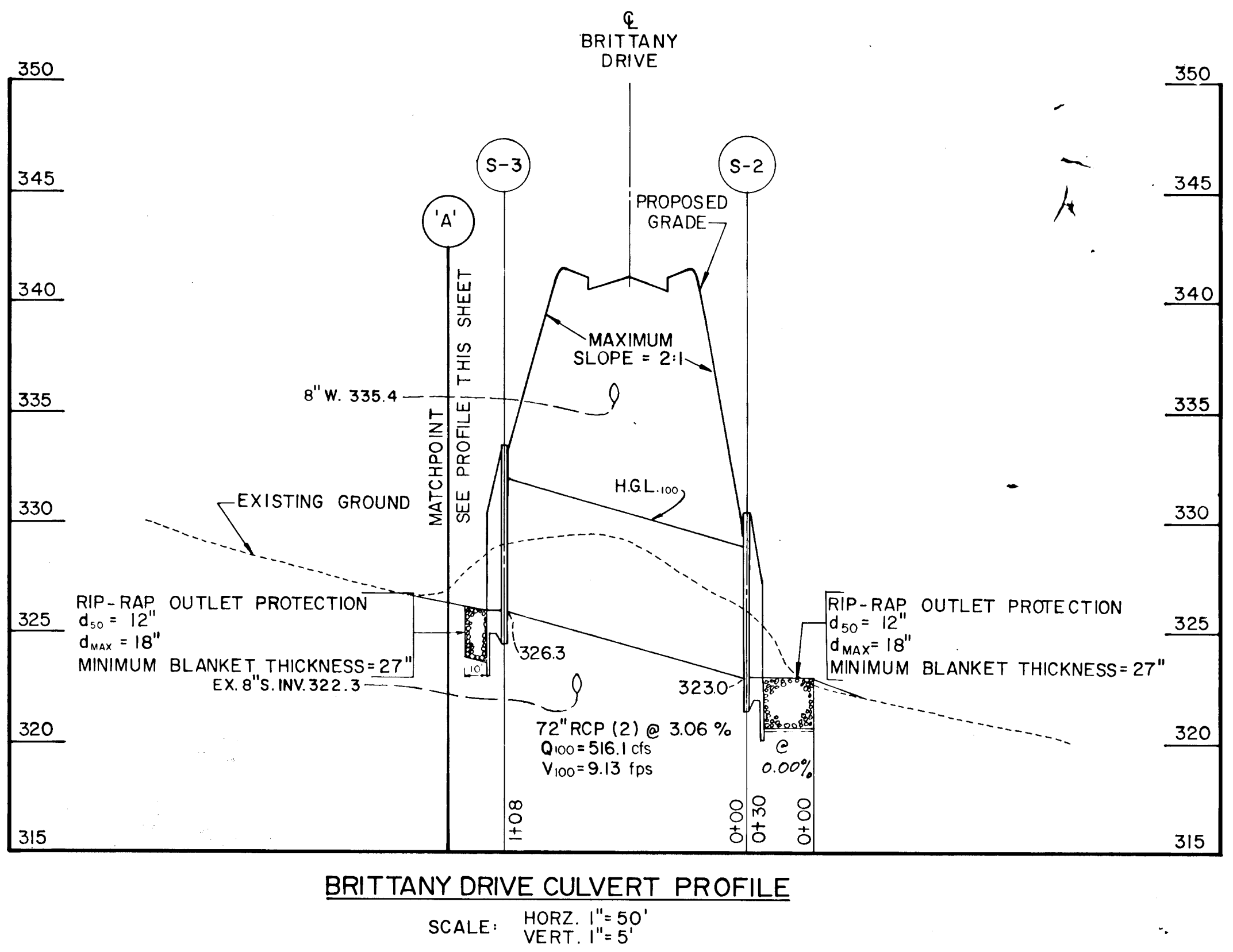
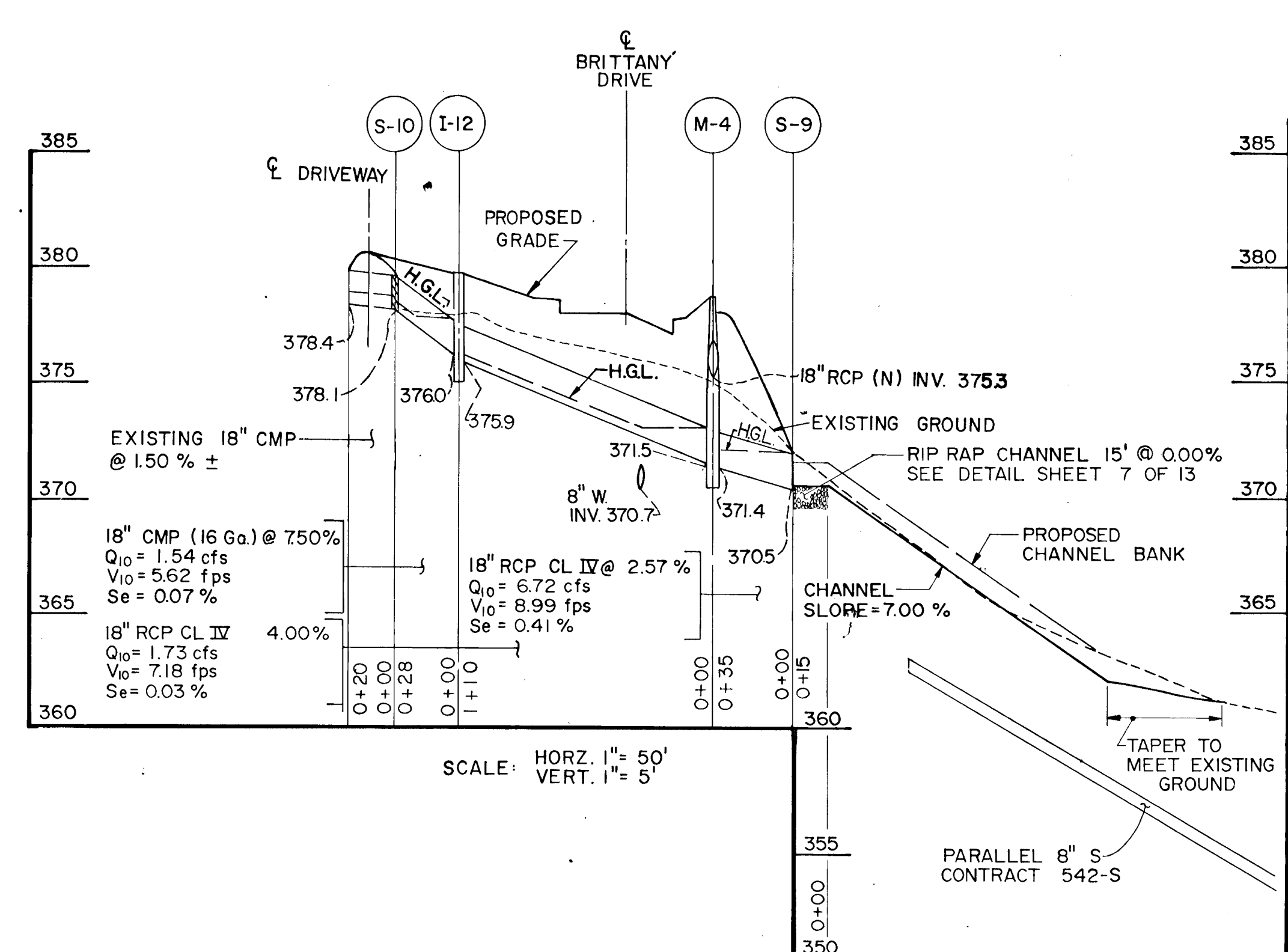
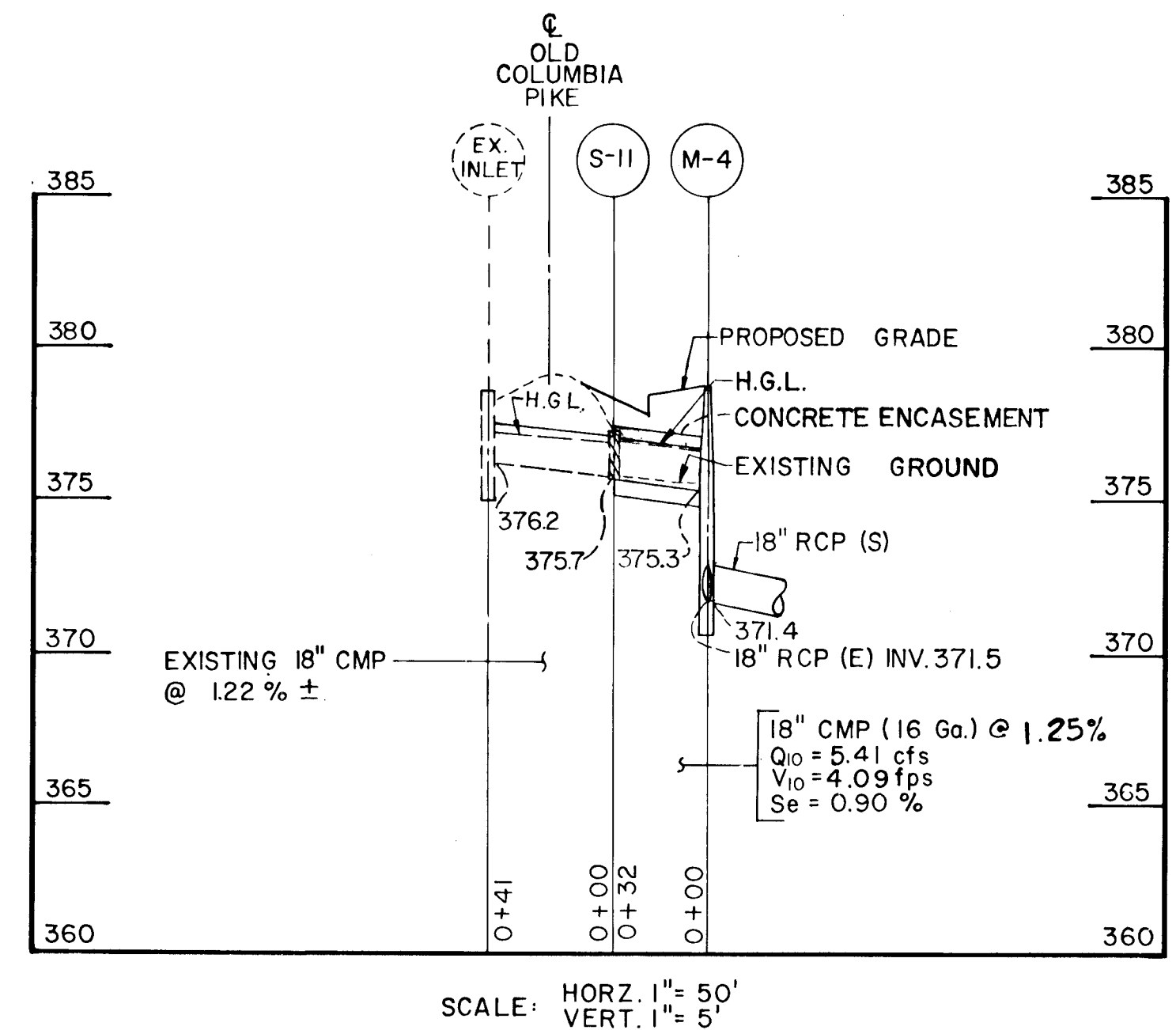
NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/DSH	
2	"	CAG	3/10/89



DESIGNED BY: TAB  
 DRAWN BY: CAG  
 CHECKED BY: R.H.V.  
 DATE: 10/17/88  
 SCALE: AS SHOWN  
 W.O. NO. 44-87-010A

STRUCTURE SCHEDULE						
NUMBER	TYPE	TOP ELEVATION	ROADWAY SLOPE	CROSS SLOPE	LOCATION	REMARKS
I-1	A-5 INLET (DEPRESSED)	335.63		3.00%	℄ STA 16+02 BRITTANY DRIVE, 18' LEFT	S.D. 4.01
I-2	A-10 INLET (DEPRESSED)	335.63		3.00%	℄ STA 16+02 BRITTANY DRIVE, 18' RIGHT	S.D. 4.02
I-3	YARD INLET	355.00	N/A	N/A	℄ STA 16+90 BRITTANY DRIVE, 157' RIGHT	S.D. 4.14
I-4	TYPE 'K' INLET	373.00	N/A	N/A	℄ STA 16+90 BRITTANY DRIVE, 212' RIGHT	S.D. 4.12
I-5	A-5 INLET (DEPRESSED)	340.33		3.00%	℄ STA 9+96 BRITTANY DRIVE, 18' LEFT	S.D. 4.01
I-6	A-10 INLET (DEPRESSED)	340.33		3.00%	℄ STA 9+96 BRITTANY DRIVE, 18' RIGHT	S.D. 4.02
I-7	A-5 INLET W/DEFLECTORS	352.76	4.00%	3.00%	℄ STA 0+54 PEMBERTON COURT, 14' RIGHT	S.D. 4.01/S.D. 4.83
I-8	A-10 INLET (DEPRESSED)	352.86		3.00%	℄ STA 0+54 PEMBERTON COURT, 14' LEFT	S.D. 4.02
I-9	A-10 INLET	355.39	7.25%	3.00%	℄ STA 5+92 BRITTANY DRIVE, 18' LEFT	S.D. 4.02
I-10	A-5 INLET W/DEFLECTORS	355.17	7.25%	3.00%	℄ STA 5+95 BRITTANY DRIVE, 18' RIGHT	S.D. 4.01/S.D. 4.83
I-11	A-10 INLET (DEPRESSED)	366.12	N/A	N/A	℄ STA 1+49 LINEAR CURB PROFILE PEMBERTON CT.	S.D. 4.02
I-12	A-5 INLET	380.40	1.40%	2.00%	℄ STA 1+91 OLD COLUMBIA PIKE, 24' RIGHT	S.D. 4.01
† TOP ELEVATIONS FOR CURB OPENING INLETS ARE GIVEN AS TOP OF INLET AT CURB LINE						
M-1	STANDARD MANHOLE	333.61	N/A	2.00%	℄ STA 16+86 BRITTANY DRIVE, 22' RIGHT	G 5.01
M-2	STANDARD MANHOLE	341.0		N/A	℄ STA 16+86 BRITTANY DRIVE, 87' RIGHT	G 5.01
M-3	DROP MANHOLE	355.0			SEE PLAN	
M-4	SHALLOW MANHOLE	378.9			℄ STA 0+49 BRITTANY DRIVE 38' RIGHT	G 5.05
M-5	SHALLOW MANHOLE	345.5			SEE PLAN	G 5.05
M-6	STANDARD MANHOLE	350.5	N/A	N/A	SEE PLAN	G 5.01
S-1	TYPE 'A' HEADWALL	N/A	N/A	N/A	SEE PLAN	S.D. 5.11
S-2	MODIFIED TYPE 'A' HEADWALL				SEE PLAN	SEE DETAIL SHEET 7
S-3	TYPE 'A' HEADWALL				SEE PLAN	
S-4	15" RCP END SECTION				℄ STA 9+96 BRITTANY DRIVE 75' LEFT	S.D. 5.51/S.D. 5.52
S-5	18" RCP END SECTION				SEE PLAN	S.D. 5.51/S.D. 5.52
S-6	TYPE 'A' HEADWALL				SEE PLAN	S.D. 5.11
S-7	TYPE 'A' HEADWALL				SEE PLAN	S.D. 5.11
S-8	15" RCP END SECTION				SEE PLAN	S.D. 5.51/S.D. 5.52
S-9	18" RCP END SECTION				℄ STA 0+77 BRITTANY DRIVE 60' RIGHT	S.D. 5.51/S.D. 5.52
S-10	18" CMP SLEEVE + BEND				℄ STA 0+96 OLD COLUMBIA PIKE 12' RIGHT	VERIFY LOCATION IN FIELD
S-11	18" CMP SLEEVE + BEND	N/A	N/A	N/A	℄ STA 2+19 OLD COLUMBIA PIKE 23' RIGHT	" "
G-1	3'X3'X6' GABION BASKET	328.0	N/A	N/A	SEE PLAN	FILL WITH 6"
G-2	3'X3'X6' GABION BASKET	342.7	N/A	N/A	SEE PLAN	RIP-RAP

CLASS C PIPE BEDDING CLASS SHALL BE UTILIZED AS PERMITTED BY FIELD CONDITIONS.



APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 DATE: 4/21/89  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 DATE: 5/2/89

STORM DRAIN PROFILES  
**BRITTANY MANOR**  
 LOTS 1-49  
 (O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
 TAX MAP 24 PARCEL 288 (1879/490) PARCEL 65 (1755/213-216)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD

OWNER / DEVELOPER  
 NV LAND  
 6820 ELM STREET  
 McLEAN, VIRGINIA 22101  
 (703) 734-9730

JOHN E. HARMS JR. AND ASSOCIATES INC.  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 8818 CENTRE PARK DRIVE  
 COLUMBIA, MARYLAND 21045  
 SUITE 208  
 TELEPHONE (301) 740-5200

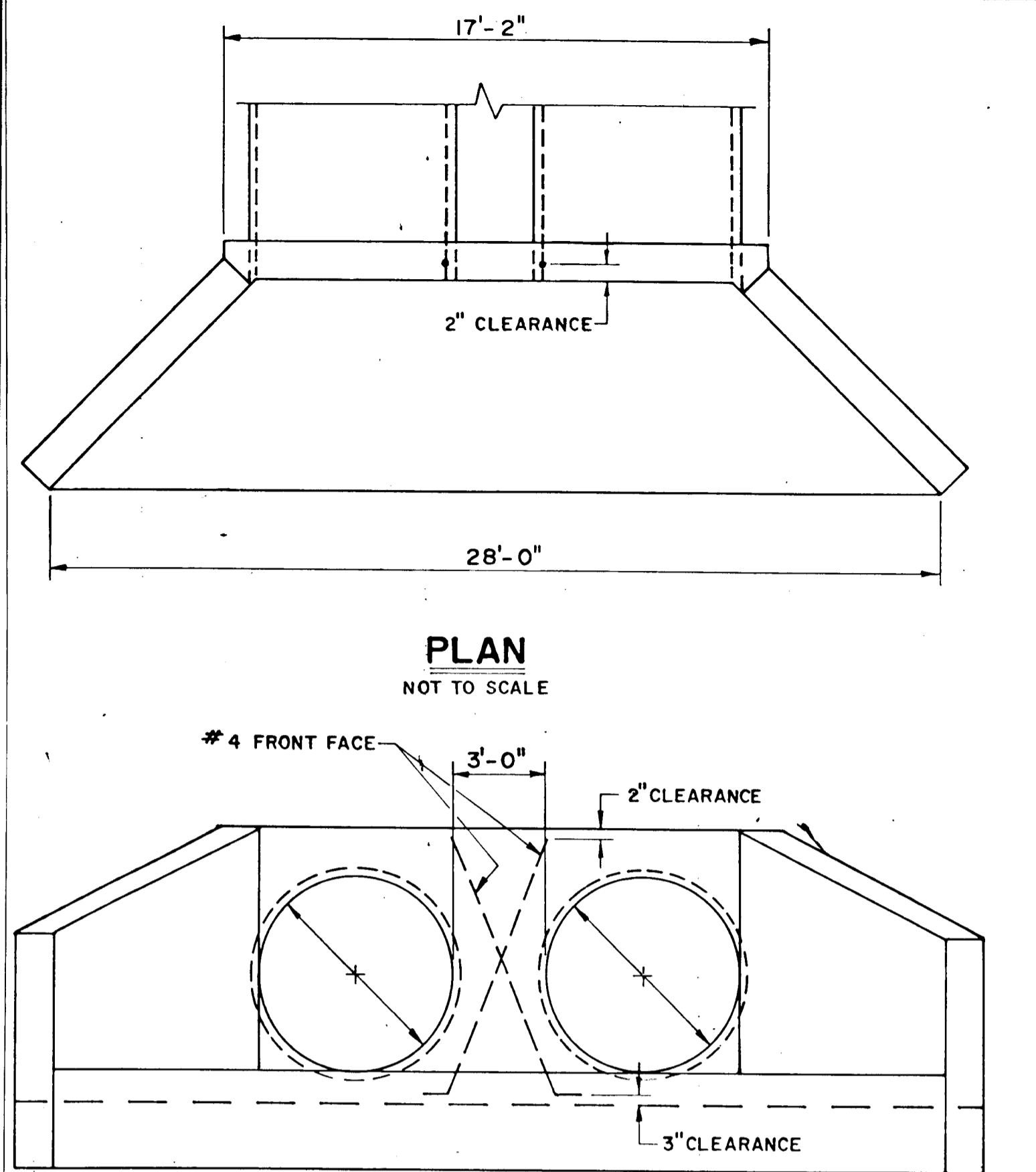
NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/dsh	
2	" " " "	CAG	3/10/89

DESIGNED BY: TAB  
 DRAWN BY: GG  
 CHECKED BY: RHV  
 DATE: 10-17-88  
 SCALE: AS SHOWN

W.O. NO. 44-87-010A  
 6 SHEET OF 13

F-89-69

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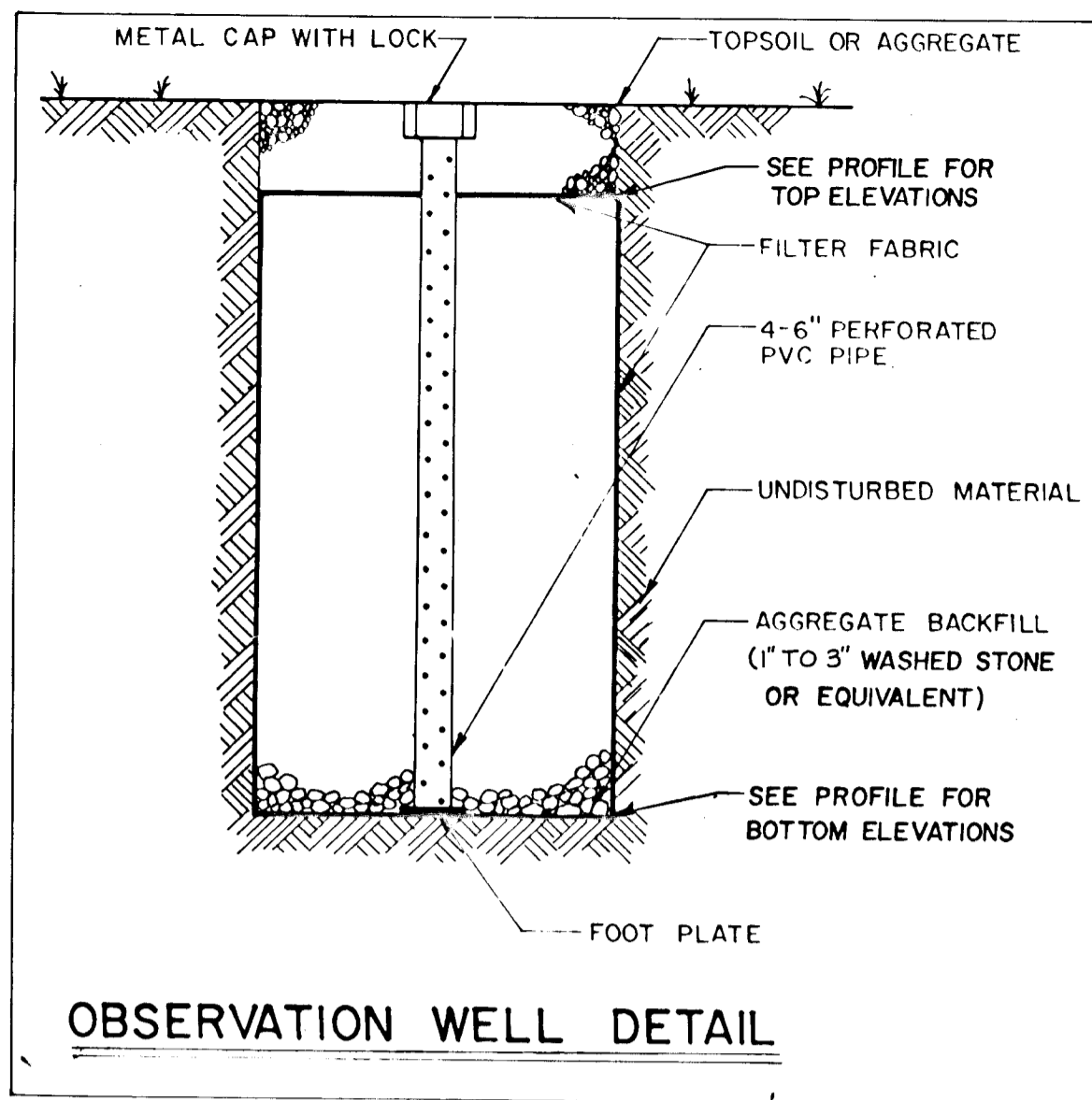


PLAN  
NOT TO SCALE

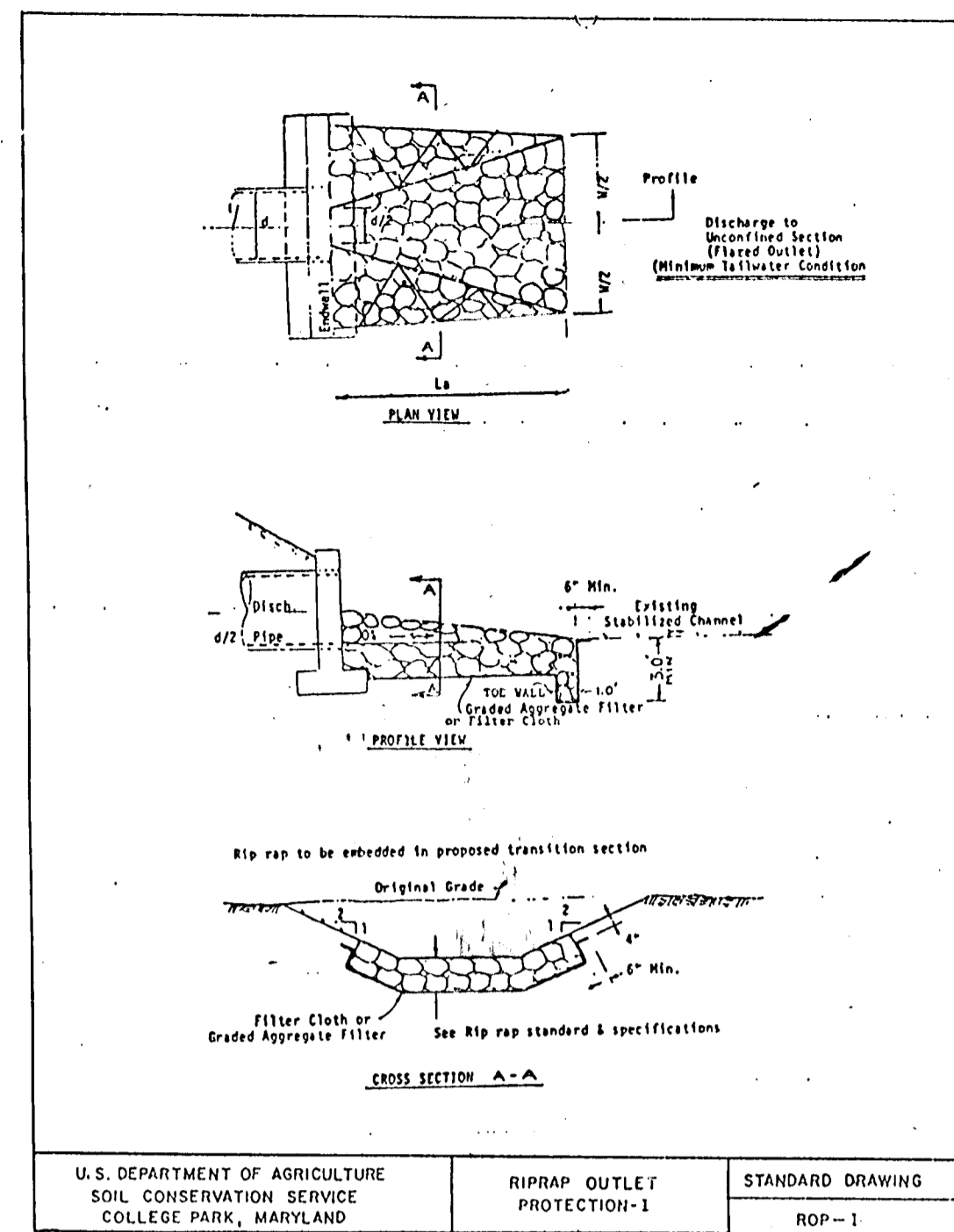
52 & 53  
FRONT ELEVATION  
NOT TO SCALE

**MODIFICATION TO TYPE 'A' HEADWALL**

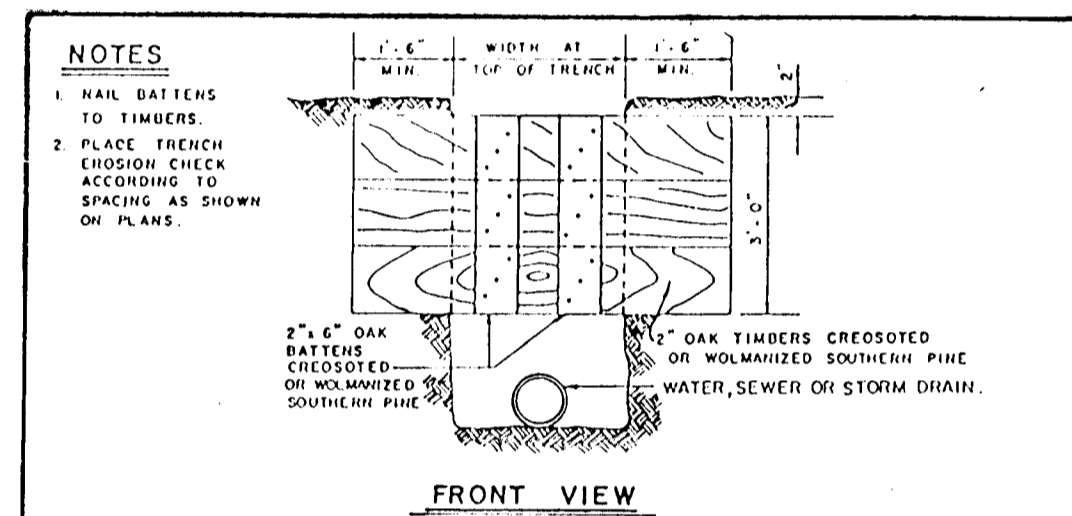
NOTE: THIS DETAIL IS PROVIDED SOLELY TO SHOW MODIFICATIONS TO THE TYPE A HEADWALL FOR CIRCULAR CONDUITS, FOR ALL OTHER CONSTRUCTION DETAILS THE CONTRACTOR SHALL REFERENCE STANDARD DETAIL 5.11 OF THE HOWARD COUNTY DESIGN MANUAL VOLUME IV STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.



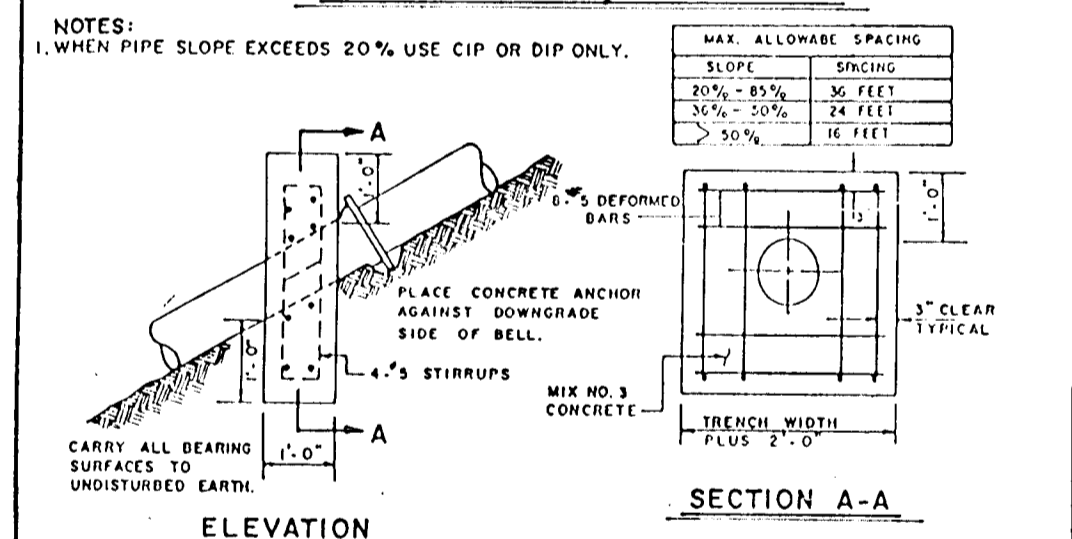
OBSERVATION WELL DETAIL



U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
COLLEGE PARK, MARYLAND  
RIPRAP OUTLET PROTECTION-I  
STANDARD DRAWING  
ROP-1

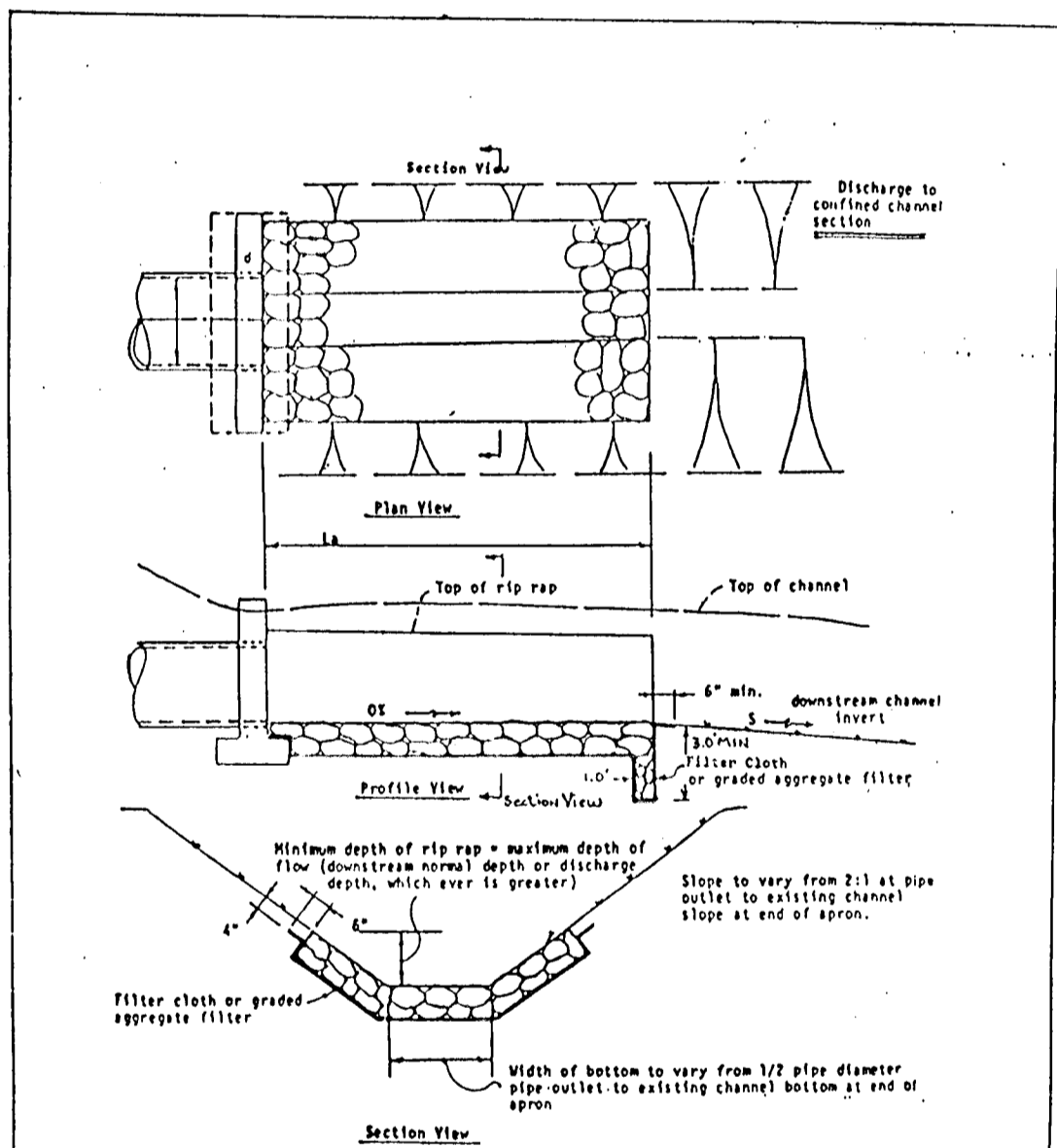


FRONT VIEW  
TRENCH EROSION CHECK  
(FOR USE IN GRANULAR SOILS)

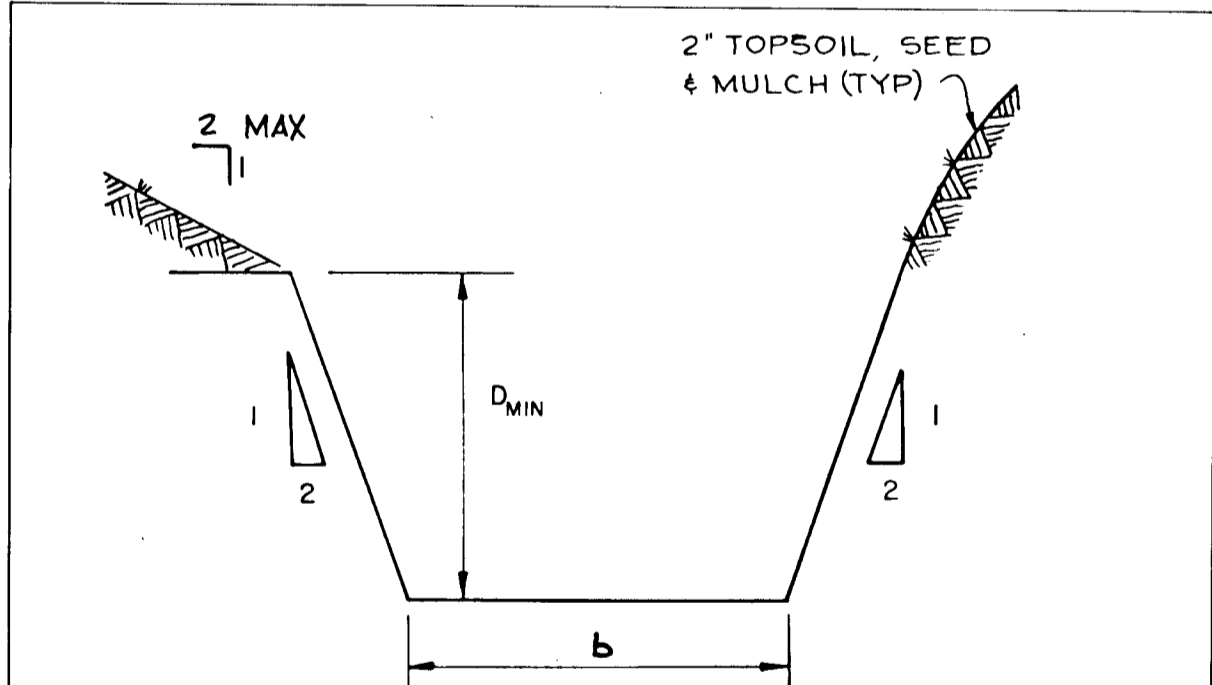


CONCRETE ANCHOR  
(FOR USE WHEN PIPE SLOPES EXCEED 20%)

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS  
Approved: [Signature] Chief - Bureau of Engineering  
TRENCH EROSION CHECK AND CONCRETE ANCHOR  
CREATED BY: J.E.H. SCALE: 1/8\"/>

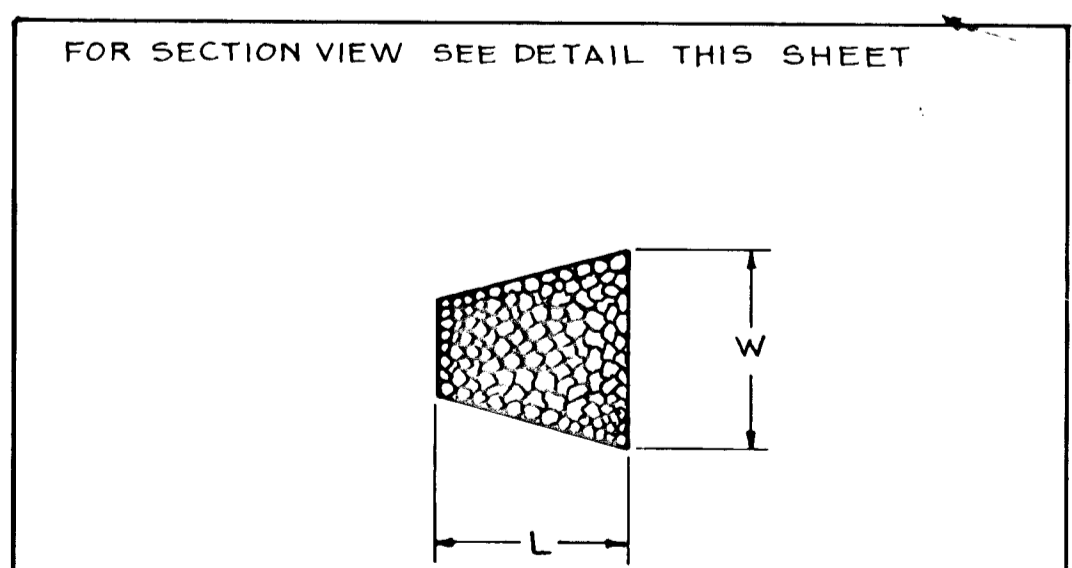


U.S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE  
COLLEGE PARK, MARYLAND  
RIPRAP OUTLET PROTECTION-II  
STANDARD DRAWING  
ROP-II



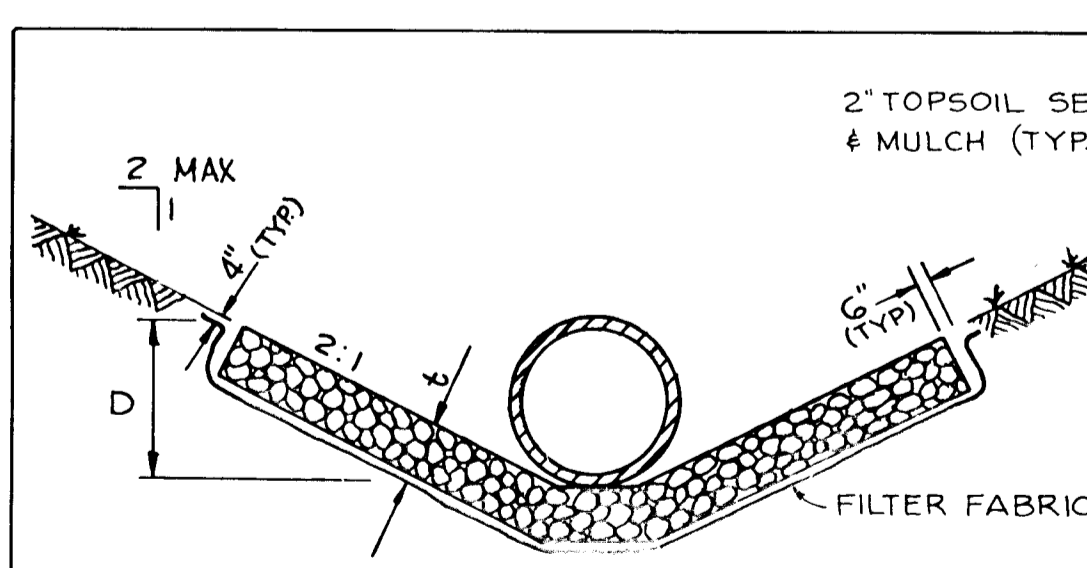
	b	D <sub>MIN.</sub>	Q	V	STABILIZATION
A	5'	1.0'	6.7 cfs	2.5 fps	GRASS - LUGUME MIXTURE
B	10'	2.5'	147 cfs	4.3 fps	REED CONARYGRASS TALL FESCUE KENTUCKY BLUEGRASS

TYPICAL CHANNEL CROSS-SECTION  
NOT TO SCALE



RIP-RAP OUTLET PROTECTION-I

STRUCTURE	W (ft)	L (ft)	d <sub>50</sub> (in)	d <sub>MAX.</sub> (in)	MIN. BLANKET THICKNESS (in)
S-2	42	30	12	18	27
S-4	12	10	4	6	9
S-5	18	15	9	14	20



RIP-RAP OUTLET PROTECTION-II

STRUCTURE	D (ft)	t (in)	L (ft)	d <sub>50</sub> (in)	d <sub>MAX.</sub> (in)	MIN. BLANKET THICKNESS (in)
S-6	2.5	27	30	12	18	27
S-9	0.5	14	15	4	9	14

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
[Signature] 4/21/89  
CHIEF, LAND DEVELOPMENT DIVISION  
[Signature] 4/17/89  
CHIEF, BUREAU OF HIGHWAYS  
[Signature] 4/23/89  
CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
[Signature] 5/2/89  
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

OWNER / DEVELOPER  
NV LAND  
6820 ELM STREET  
MCLEAN, VIRGINIA 22101  
(703) 734-9730

STORM DRAIN DETAIL SHEET  
**BRITTANY MANOR**  
LOTS 1-49  
(O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
TAX MAP 24 PARCEL 288 (879/490) PARCEL 651 (1755/213-216)  
2nd ELECTION DISTRICT HOWARD COUNTY, MD.

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
2 CENTRE PARK COLUMBIA, MARYLAND 21045  
8818 CENTRE PARK DRIVE SUITE 208 COLUMBIA, MARYLAND 21045  
TELEPHONE (301) 740-9200

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	JAR/OGH	
2	"	CAG	3/10/89

DESIGNED BY: TAB  
DRAWN BY: R.M.  
CHECKED BY: R.H.V.  
DATE: 10/17/88  
SCALE: NONE  
W.O. NO. 44-87-010A

- LEGEND**
- Infiltration Area
  - Proposed Earth Dike
  - Existing Earth Dike
  - Proposed Silt Fence
  - Existing Silt Fence
  - Limit of Disturbance
  - Wetlands To Remain Undisturbed
  - Permitted Wetlands
  - Inlet Protection Device

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*Handwritten signature* 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION DATE  
*Handwritten signature* 4/7/89  
 CHIEF, BUREAU OF HIGHWAYS DATE  
*Handwritten signature* 4/28/89  
 CHIEF, BUREAU OF ENGINEERING DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Handwritten signature* 4/13/89  
 SOIL CONSERVATION SERVICE DATE  
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *Handwritten signature* 4/13/89  
 DISTRICT HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT *Handwritten initials* DATE

DEVELOPER'S CERTIFICATE  
 "I/We certify that all development and construction will be done according to this plan, and that any 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."  
*Handwritten signature* 3/28/89  
 Signature of Developer AUTHORIZED AGENT DATE

ENGINEERING CERTIFICATE  
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District."  
*Handwritten signature* 3/28/89  
 Signature of Engineer DATE

STREET TREE GRADING AND SEDIMENT CONTROL PLAN  
**BRITTANY MANOR**  
 LOTS 1-49  
 (O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
 TAX MAP 24 PARCEL 288 (879,490) PARCEL 651 (1755,213-216)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD.

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 2 CENTRE PARK COLUMBIA, MARYLAND 21045 8818 CENTRE PARK DRIVE SUITE 208 TELEPHONE 13011 740-5200

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/DSH	
2	" " " "	CAG	3/10/89

DESIGNED BY: TAB/GM  
 DRAWN BY: R.M.  
 CHECKED BY: RHV  
 DATE: 10/88  
 SCALE: 1" = 50'  
 W.D. NO. 44-87-010A  
**8** SHEET OF **13**



- Design Data  
 Temporary Sed. Trap No. 5
1. Type Of Trap: Stone Outlet
  2. Drainage Area (Ac): 0.82 Ac
  3. Storage Req'd: 55 C.Y.
  4. Storage Provided: 56 C.Y.
  5. Storage Elev.: 346.0
  6. Storage Depth: 2.0'
  7. Weir Length: 4.0'
  8. Bottom Elev.: 344.0
  9. Cleanout Elev.: 345.0
  10. Crest Elev.: 347.0
  11. Top Elev.: 348.0
  12. Bottom Dimensions: 10' x 50'

Note: Wetland Fill Permits have been Filed and Approved for the Areas Shown as Permitted Wetlands. No Grading or Disturbing of Wetlands Shall be Performed Outside These Limits.

SEE SHEET 9 OF 13

OWNER / DEVELOPER  
 NV LAND  
 6820 ELM STREET  
 McLEAN, VIRGINIA 22101  
 (703) 734-9730

1442



**LEGEND**

	Infiltration Area
	Proposed Earth Dike
	Existing Earth Dike
	Proposed Silt Fence
	Existing Silt Fence
	Limit of Disturbance
	Wetlands To Remain Undisturbed
	Permitted Wetlands
	Inlet Protection Device

**PLANT LIST**

KEY	QUAN.	BOTANICAL NAME / COMMON NAME	SIZE	ROOT	REMARKS
AP	82	ACER PLATANOIDES / NORWAY MAPLE	2 1/2" CAL.	BIB	
CR	75	CORNUS RACEMOSA / GRAY DOGWOOD	3'-4" HT.	BIB	PLANT AT 4' OC
CV	-	CORONILLA VARIA / CROWN VETCH	-	-	HYDROSEED*
EU	66	ELEAGNUS UMBELLATA / AUTUMN OLIVE	3'-4" HT.	BIB	PLANT AT 5' OC
FP	74	FRAXINUS LANCEOLATA 'NEWPORT' / NEWPORT ASH	2 1/2" CAL.	BIB	
QR	48	QUERCUS RUBRA / RED OAK	2 1/2" CAL.	BIB	
AV	102	VIBURNUM DENTATUM / ARROWWOOD VIBURNUM	3'-4" HT.	BIB	PLANT AT 5' OC

\* MIX NO. 6, TABLE 51-1 OF 1983 MD STD'S & SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION DATE  
 APPROVED: *[Signature]* 4/17/89  
 CHIEF, BUREAU OF HIGHWAYS DATE  
 APPROVED: *[Signature]* 4/28/89  
 CHIEF, BUREAU OF ENGINEERING DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEE'S TECHNICAL REQUIREMENTS.  
*[Signature]* 4-13-89  
 U.S. SOIL CONSERVATION SERVICE DATE  
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 APPROVED: *[Signature]* 4/13/89  
 DISTRICT HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
*[Signature]* 5/1/89  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

DEVELOPER'S CERTIFICATE  
 "I/we certify that all development and construction will be done according to this plan, and that any 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."  
*[Signature]* 3/24/89  
 Signature of Developer Date

ENGINEERING CERTIFICATE  
 "I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District."  
*[Signature]* 3/24/89  
 Signature of Engineer Date  
 MD REG. 12714

1442

OWNER / DEVELOPER  
 NV, LAND  
 6820 ELM STREET  
 MCLEAN, VIRGINIA 22101  
 (703) 734-9730

STREET TREE GRADING AND SEDIMENT CONTROL PLAN  
**BRITTANY MANOR**  
 LOTS 1-49  
 (O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
 TAX MAP 24 PARCEL 288 (1879/490) PARCEL 651 (1755/213-216)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD.

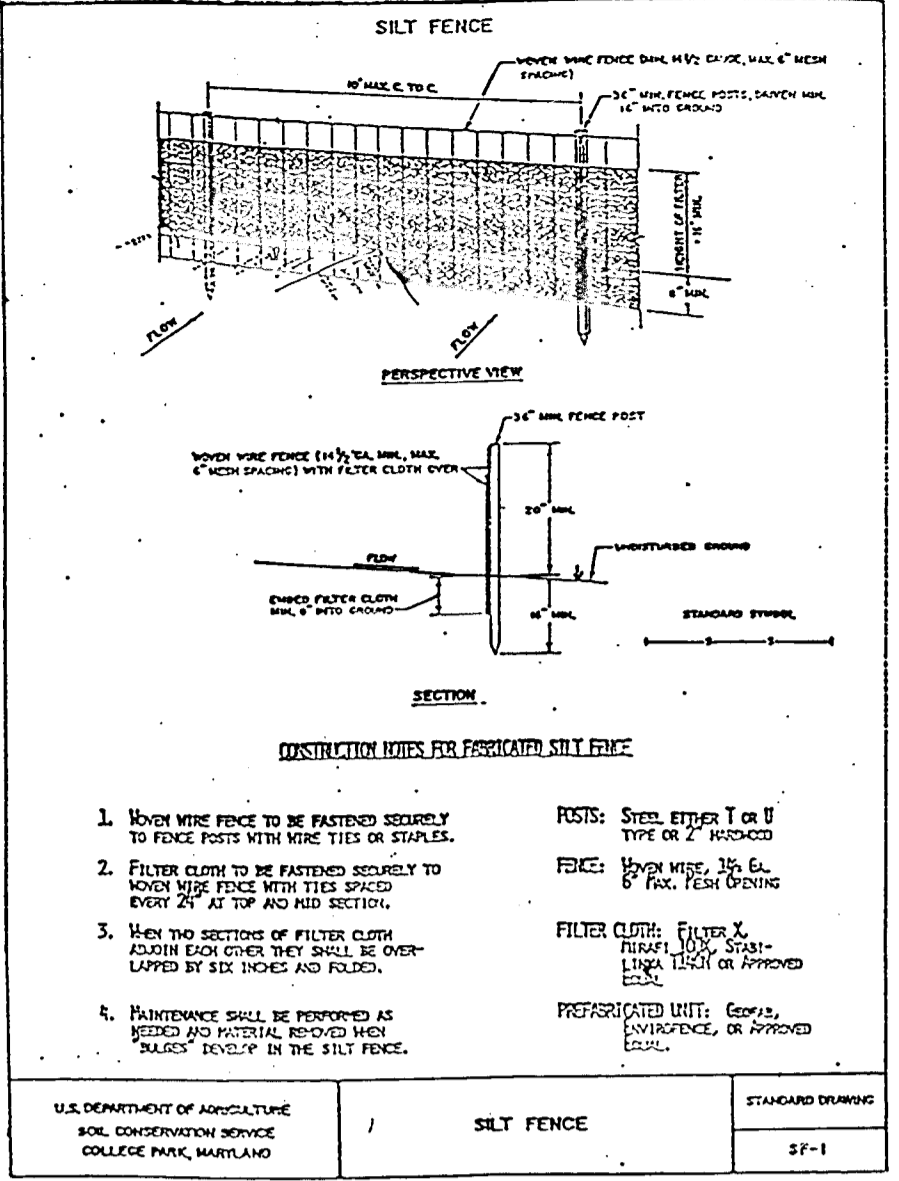
**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 2 CENTRE PARK COLUMBIA, MARYLAND 21045 8818 CENTRE PARK DRIVE SUITE 208 TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/SMH	
2	" " " "	CAG	3/10/89

DESIGNED BY: TAB/GM  
 CHECKED BY: R.M.  
 DRAWN BY: R.H.V.  
 DATE: 10/17/88  
 SCALE: 1" = 50'  
 W.O. NO. 44-87-010A

**SEDIMENT CONTROL NOTES**

- 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)
- 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.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 11, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be established 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) and temporary seedings (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:  
Total Area of Site: 21.9 Acres  
Area Disturbed: 8.4 Acres  
Area to be seeded or paved: 5.5 Acres  
Area to be vegetatively stabilized: 12.9 Acres  
Total Cut: 2,800 Cu. Yds  
Total Fill: 2,800 Cu. Yds  
Offsite waste/borrow area location: ON SITE
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.



**Sequence of Construction**

- Obtain grading permit.
- Notify Howard County, Bureau of Inspections and Permits (992-2437) at least 24 hours before starting work.
- Reconstruct/re-finish stabilized construction entrances if necessary.
- Inspect and provide necessary maintenance to temporary sediment control measures constructed and/or installed under 01-89-50.
- Construct temporary sediment trap #5 and proposed earth dike on west side of Brittany Drive, including diversion dike at proposed location of I-10.
- Install silt fence at locations specified on plan.
- Plant crownvetch and trees on slope west of Brittany as shown on sheet 9.
- Construct structures S-2 and S-3, S-6 and S-7, and their respective culverts. Backfill the culverts.
- Construct the water and sewer.
- Construct all storm drain systems except from S-5 to I-10 and S-4 to I-5 (inspect and maintain diversion dike from I-10 to sediment trap #5).
- Install inlet protection devices on the specified inlets.
- Construct infiltration trenches with associated perimeter sediment control measures.
- Construct the storm drain systems from S-5 to I-10 and S-4 to I-5. Provide temporary pipe from I-10 to temporary sediment trap no. 5 (To be removed upon stabilization of contributing drainage area).
- Install inlet protection devices on the specified inlets.
- Construct curb and lay base course.
- During construction and after each rainfall, the contractor shall inspect and provide necessary maintenance to the sediment and erosion control measures shown on this plan.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within:
  - 7 calendar days for all perimeter sediment control structures, dikes, swales, ditch perimeter slopes and all slopes greater than 3:1; b) 14 days for all disturbed or graded areas on the project site.
- Upon stabilization of graded areas, inlets shall be opened and all accumulated sediment shall be removed from the storm drain system.

**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, if not previously loosened.

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

- 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 10-0-0 ureaform fertilizer (9 lbs/1000 sq ft).
- 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 (0.5 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 redisturbed where a short-term vegetative cover is needed.

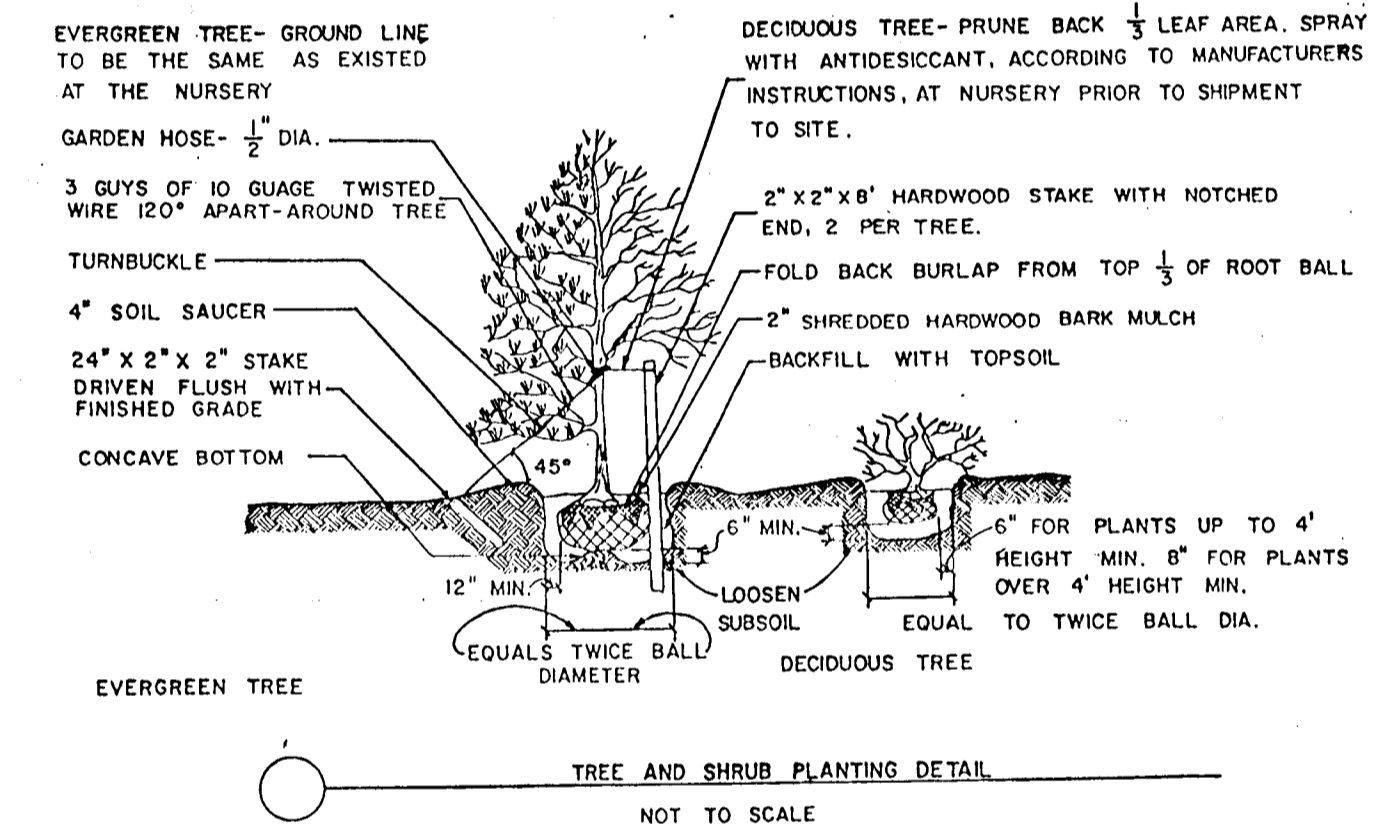
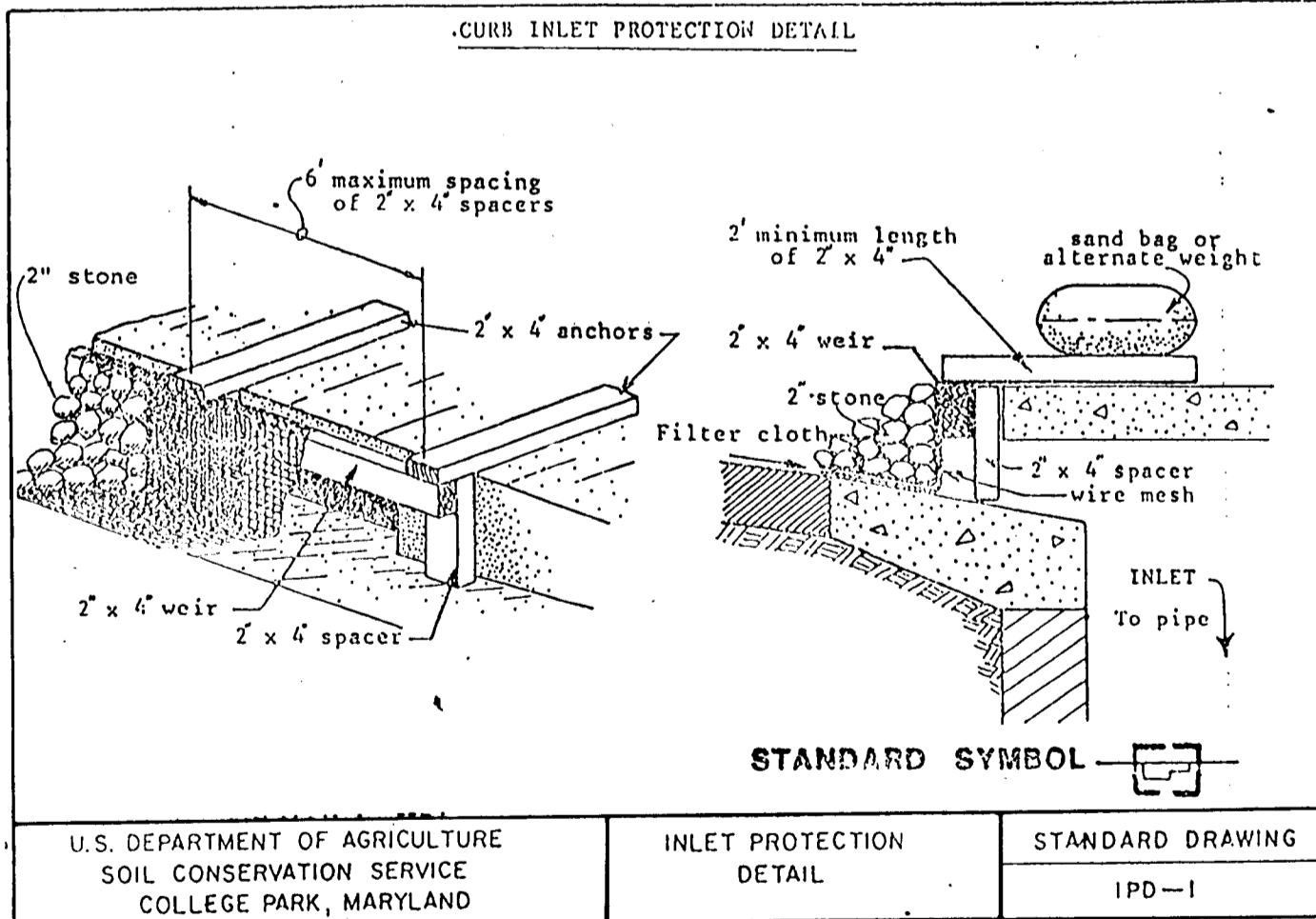
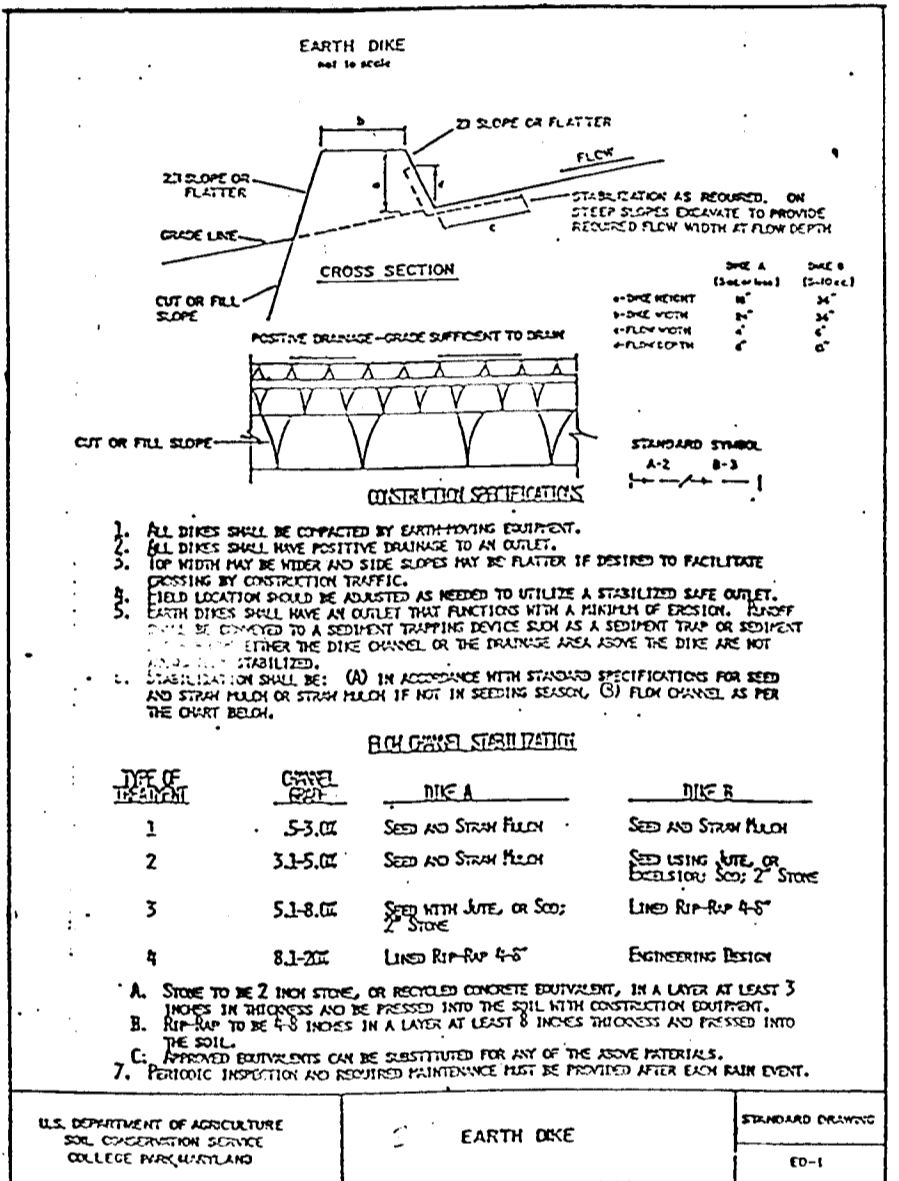
**Seedbed Preparation:** Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

**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 2 1/2 bushel per acre of annual rye (3.2 lbs/1000 sq ft). For the period May 1 thru August 14, 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 rate and methods not covered.



**SEDIMENT CONTROL AND PLANTING DETAIL SHEET**

**BRITTANY MANOR**

LOTS 1-49

(O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
TAX MAP 24 PARCEL 288(1879/490) PARCEL 651 (1755/213-26)  
2nd ELECTION DISTRICT HOWARD COUNTY, MD.

**OWNER / DEVELOPER**

NV LAND  
6820 ELM STREET  
MCLEAN, VIRGINIA 22101  
(703) 734-9730

**JOHN E. HARMS JR. AND ASSOCIATES INC.**

CONSULTING ENGINEERS - PLANNERS - SURVEYORS

2 CENTRE PARK COLUMBIA, MARYLAND 21045  
8818 CENTRE PARK DRIVE COLUMBIA, MARYLAND 21045  
SUITE 200 TELEPHONE 13011740-5200

**ENGINEERING CERTIFICATE:**

"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District."

Signature of Engineer: *Manfred D...* Date: 3/28/89  
MD PE 13719

**DEVELOPER'S CERTIFICATE**

"I/We certify that all development and construction will be done according to this plan, and that any 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."

Signature of Developer: *Kenneth G. M...* Date: 3/28/89  
AUTHORIZED AGENT

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

Signature: *James M. H...* Date: 4/13/89  
U.S. SOIL CONSERVATION SERVICE

**APPROVED FOR HOWARD COUNTY OFFICE OF PLANNING & ZONING**

Signature: *John R. R...* Date: 4/13/89  
DISTRICT CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

**APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS**

Signature: *Ronald P...* Date: 4/21/89  
CHIEF, LAND DEVELOPMENT DIVISION

Signature: *W. W. W...* Date: 4/17/89  
CHIEF, BUREAU OF HIGHWAYS

Signature: *William E. B...* Date: 4/28/89  
CHIEF, BUREAU OF ENGINEERING

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/OGH	
2	"	CAG	3/10/89

**DESIGNED BY: TAB/GM**

**DRAWN BY: R.M.**

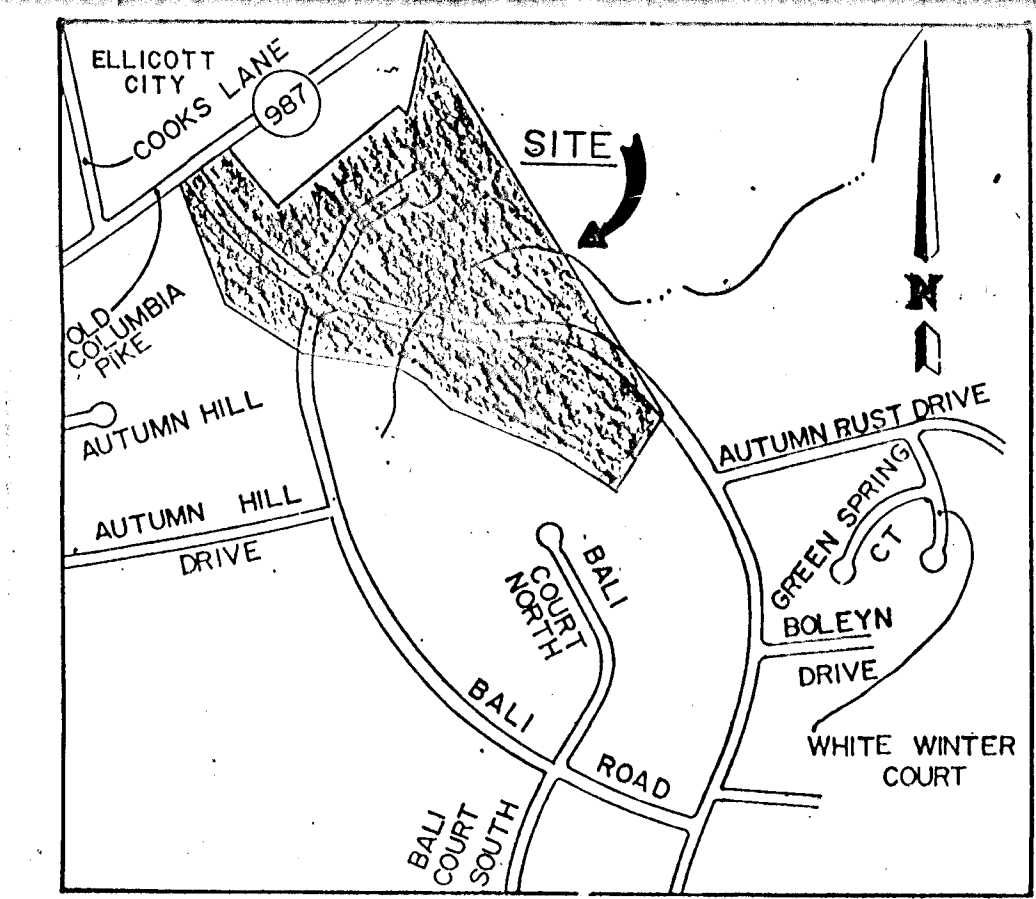
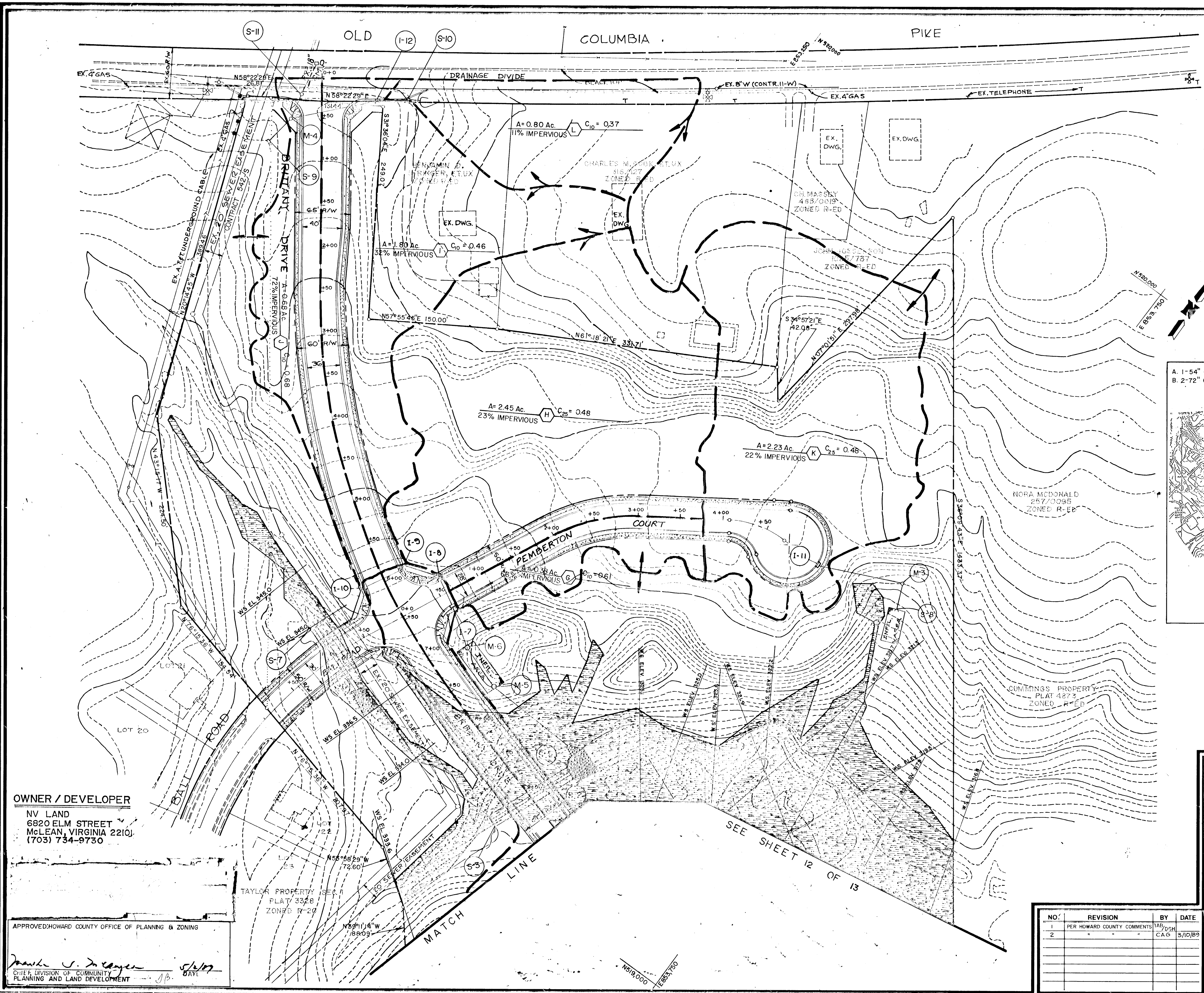
**CHECKED BY: RHV.**

**DATE: 10-17-88**

**SCALE: 1" = 50'**

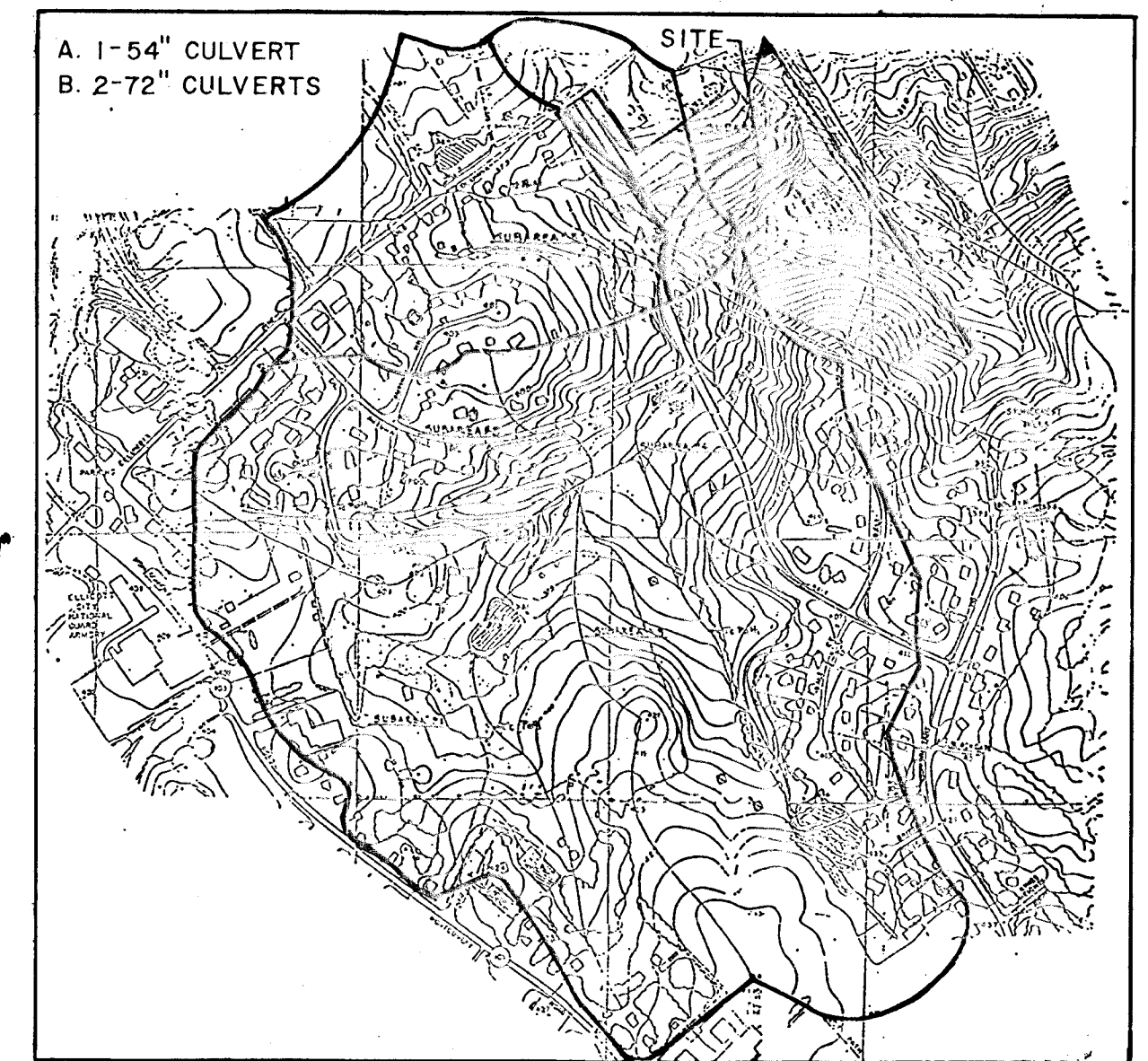
**W.O. NO. 44-87-010A**

**10 SHEET OF 13**



VICINITY MAP  
SCALE: 1"=600

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 Chief, Land Development Division DATE 4/21/89  
 Chief, Bureau of Highways DATE 4/17/89  
 Chief, Bureau of Engineering DATE 4-28-89



DRAINAGE AREA TO CULVERTS  
SCALE: 1"=660

- LEGEND
- WETLANDS
  - DRAINAGE DIVIDE
  - SUBSURFACE INFILTRATION AREA
  - 100 YEAR FLOODPLAIN
  - RIP RAP OUTLET PROTECTION

OWNER / DEVELOPER  
 NV LAND  
 6820 ELM STREET  
 MCLEAN, VIRGINIA 22101  
 (703) 734-9730

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING

Chief, Division of Community Planning and Land Development  
 DATE 5/17/89

1442

SEE SHEET 12 OF 13

DRAINAGE AREA MAP  
**BRITANNY MANOR**  
 LOTS 1-49

(OP & Z REF NO. P 88-06, S 88-105, S 86-99, WP 89-30)  
 TAX MAP 24 PARCEL 288 (1879/490) PARCEL 651 (1755/213-216)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD.

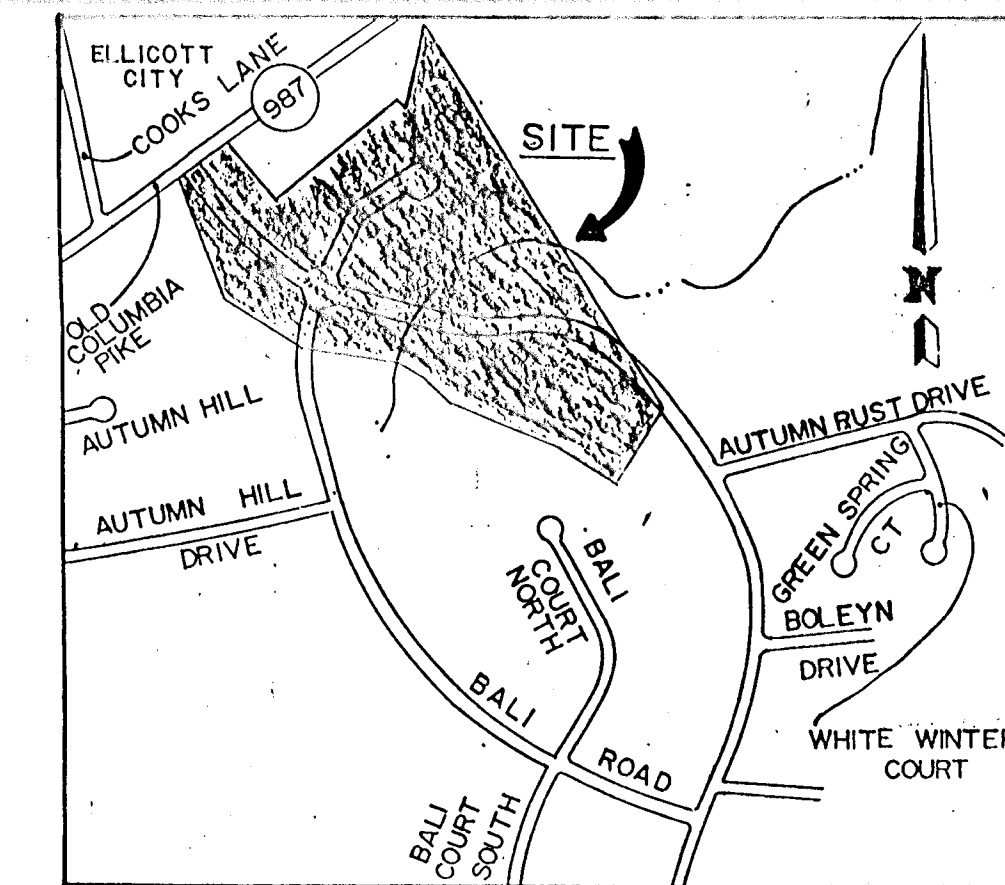
**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
 CONSULTING ENGINEERS - PLANNERS - SURVEYORS

2 CENTRE PARK COLUMBIA, MARYLAND 21045 8818 CENTRE PARK DRIVE SUITE 208 TELEPHONE 13011 740-5200

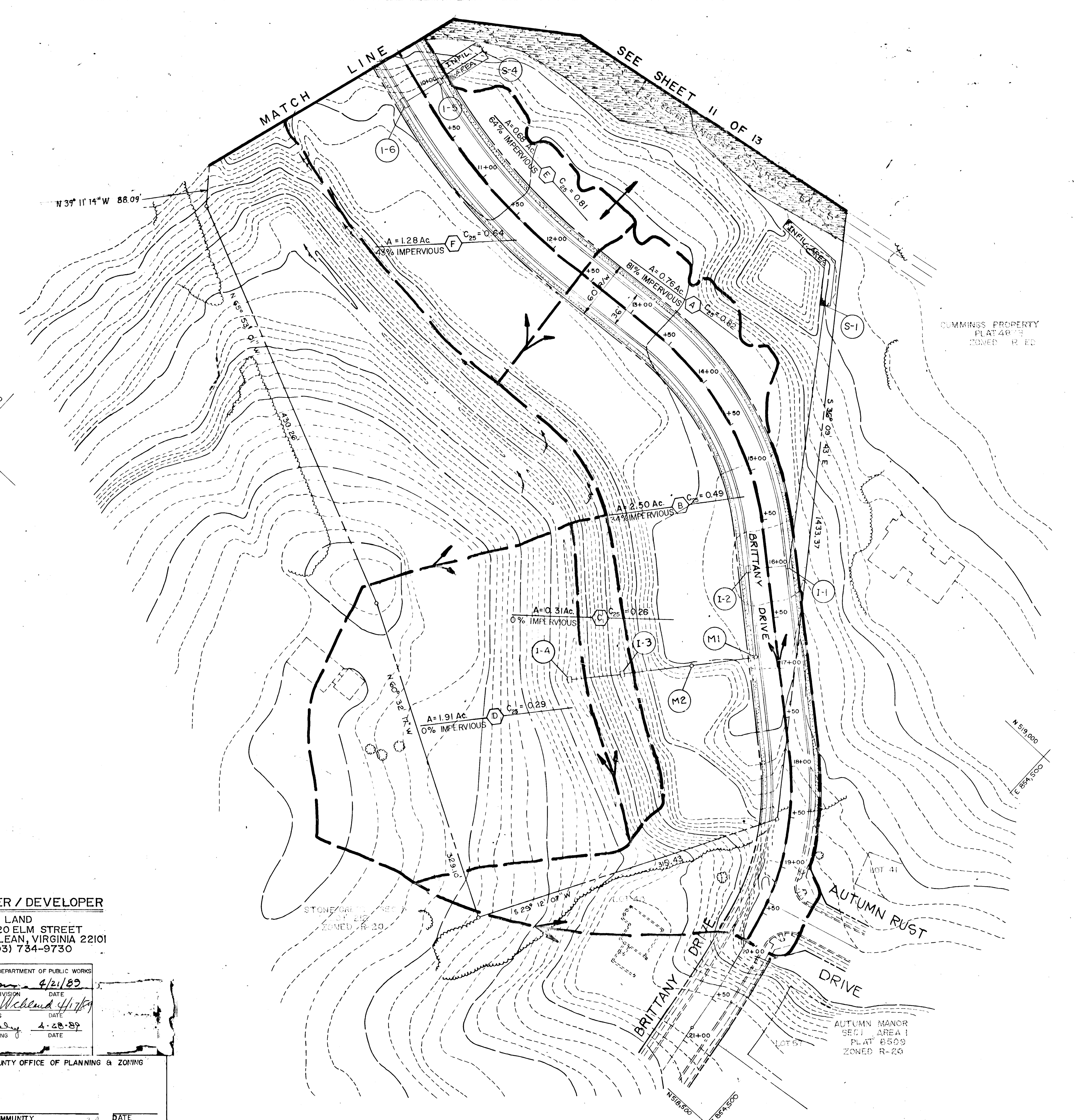
NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/DCH	
2		CAG	3/10/89

DESIGNED BY: TAB  
 DRAWN BY: R.M./R.P.E.  
 CHECKED BY: R.H.V.  
 DATE: 10/88  
 SCALE: 1"=50'  
 W.O. NO. 44-87-010AX





VICINITY MAP  
SCALE: 1"=600'



CUMMINGS PROPERTY  
PLAT 48  
ZONED R-ED

- LEGEND**
- WETLANDS
  - DRAINAGE DIVIDE
  - SUBSURFACE INFILTRATION AREA
  - 100 YEAR FLOODPLAIN

**OWNER / DEVELOPER**  
NV LAND  
6820 ELM STREET  
MCLEAN, VIRGINIA 22101  
(703) 734-9730

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION  
 [Signature] 4/17/89  
 CHIEF, BUREAU OF HIGHWAYS  
 [Signature] 4-20-89  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 [Signature] DATE

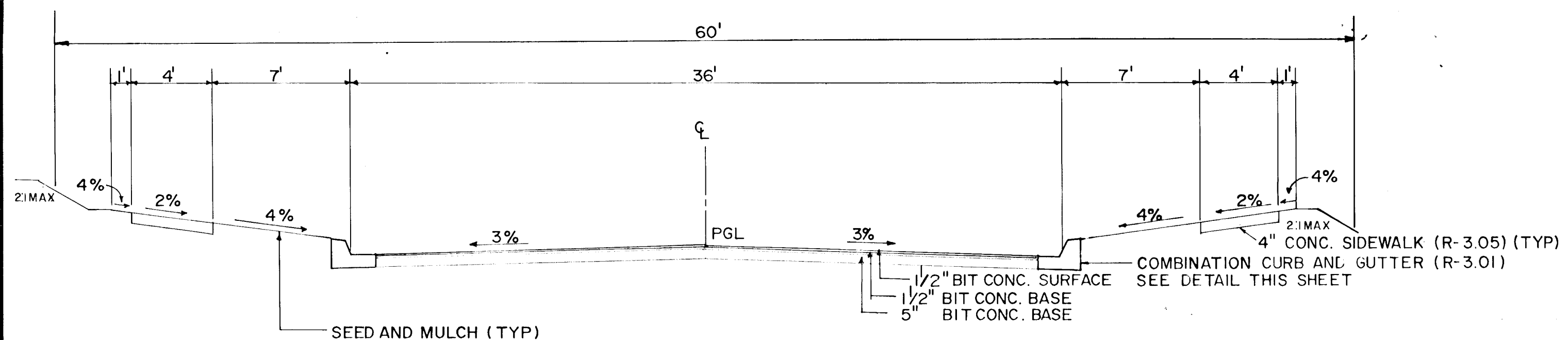
**DRAINAGE AREA MAP**  
**BRITTANY MANOR**  
LOTS 1-49  
(OP & Z REF NO. P 88-06, S 88-105, S 86-99, WP 89-30)  
TAX MAP 24 PARCEL 288 (879/490) PARCEL 651 (1755/213-216)  
2nd ELECTION DISTRICT HOWARD COUNTY, MD.

**JOHN E. HARMS JR. AND ASSOCIATES INC.**  
CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
2 CENTRE PARK 8818 CENTRE PARK DRIVE SUITE 208  
COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

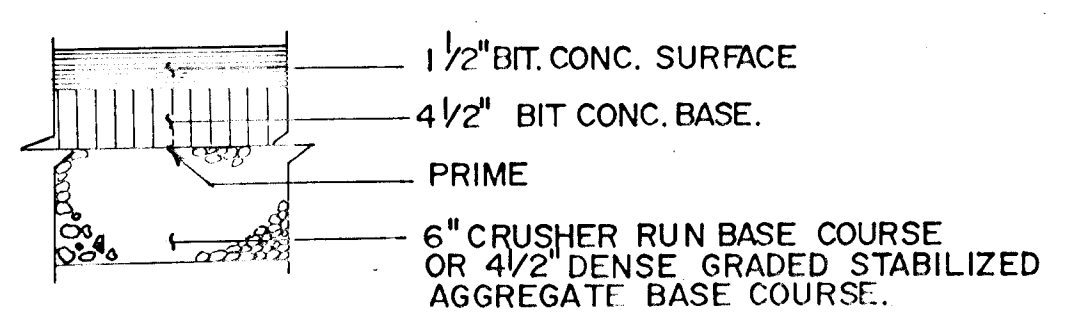
NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	TAB/DSH	
2	" " " "	CAG	3/10/89

DESIGNED BY: T.A.B.  
 DRAWN BY: R.M./R.P.E.  
 CHECKED BY: R.H.V.  
 DATE: 10-17-88  
 SCALE: 1"=50'  
 W.O. NO. 44-87-00AX

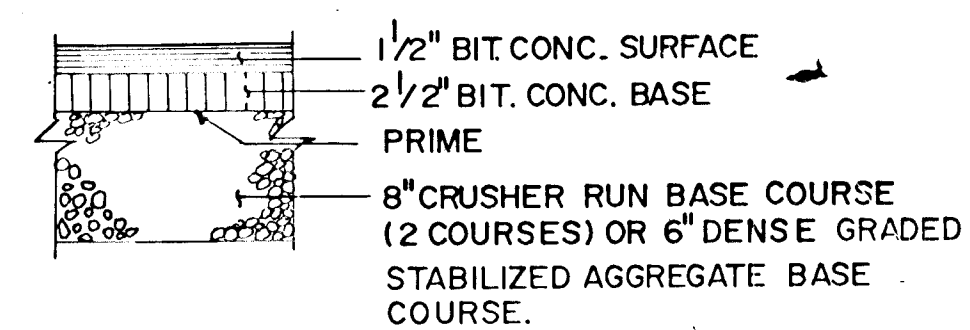
1442



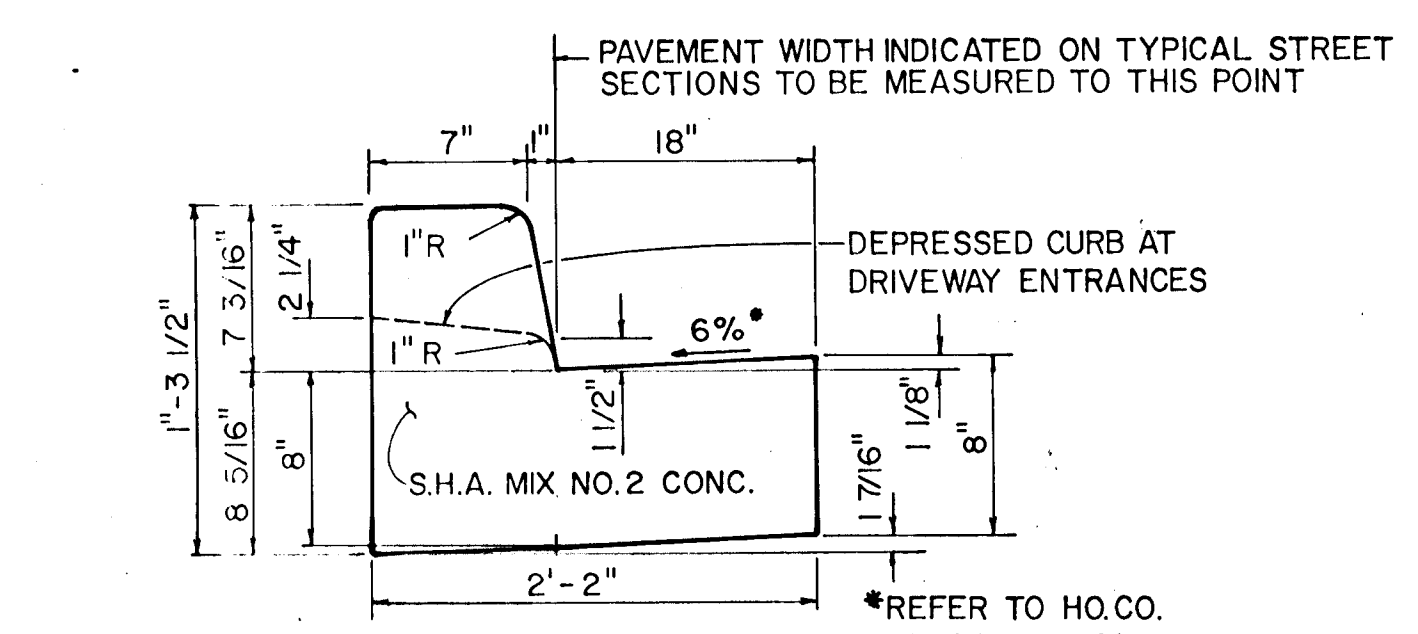
**BRITTANY DRIVE (MINOR COLLECTOR)**  
**TYPICAL PAVING SECTION**  
 DESIGN SPEED 35 M.P.H. NO SCALE  
 STA. 0+00 - STA. 14+50 DESIGN SPEED = 35 MPH  
 STA. 14+50 - STA. 18+4.927 DESIGN SPEED = 30 MPH



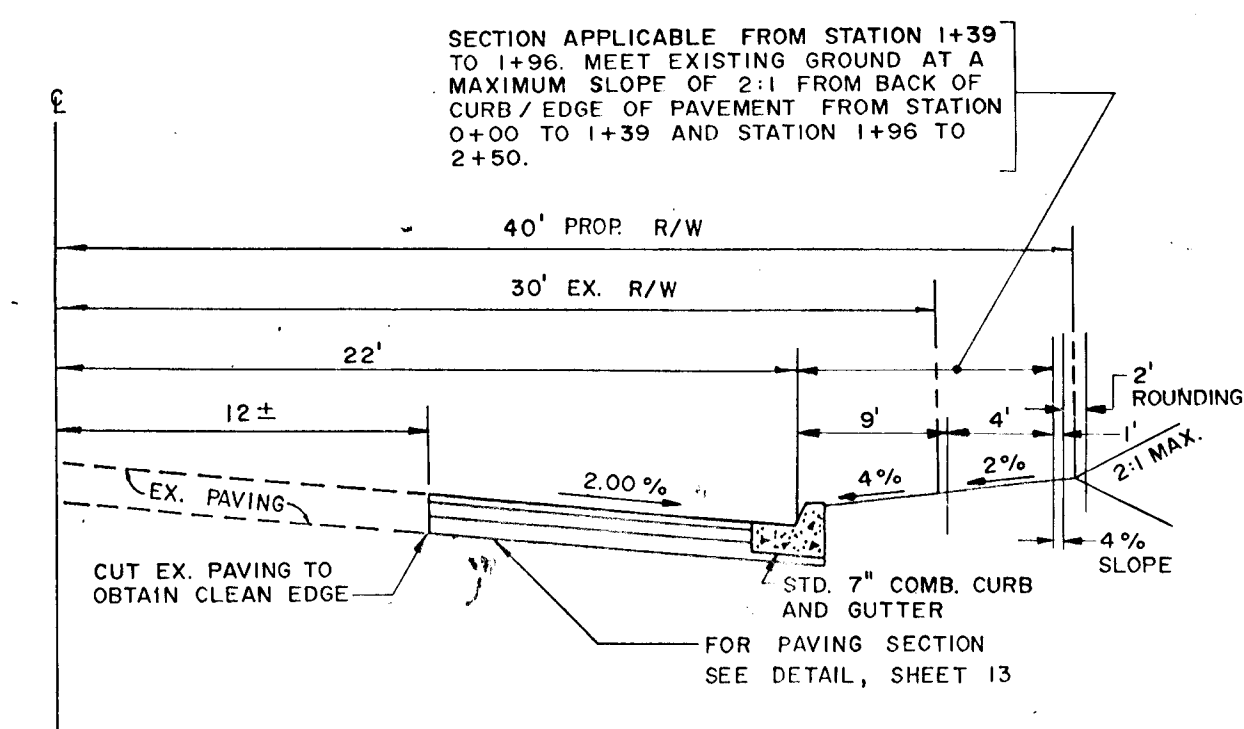
**BRITTANY DRIVE**  
**ALTERNATE PAVING SECTION P-3**  
 NO SCALE



**BALI ROAD**  
**ALTERNATE PAVING SECTION P-2**  
 NO SCALE



**STANDARD 7" COMBINATION CURB AND GUTTER**  
 NO SCALE



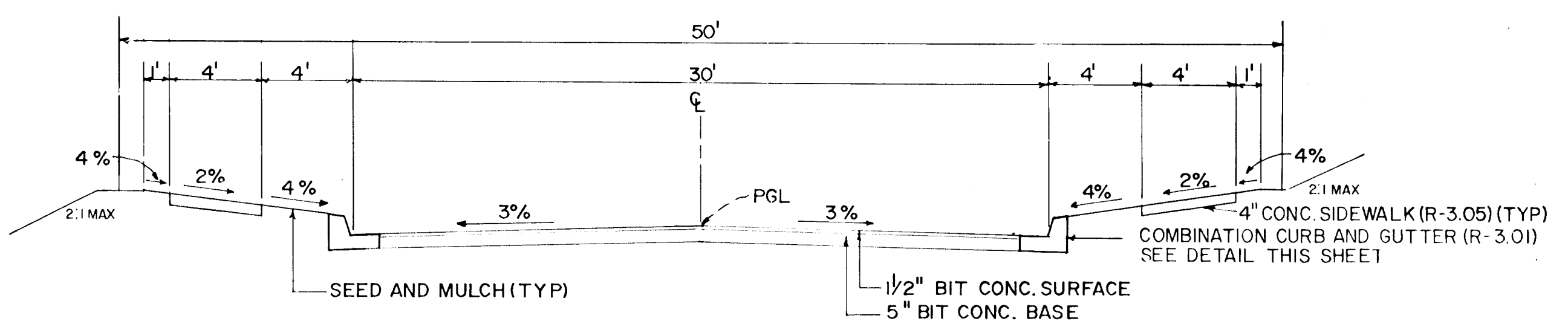
**TYPICAL SECTION**

NOTE: PLACE HOT LIQUID ASPHALT SEALER AE-5 (OR EQUIVALENT) ALONG VERTICAL FACE OF EXISTING PAVING PRIOR TO PLACING NEW MATERIAL TO INSURE CONTINUOUS BOND. UPON COMPLETION OF NEW PAVING, EXCESS LIQUID ASPHALT SHALL BE BRUSHED INTO THE JOINT BETWEEN OLD AND NEW PAVING SURFACES TO PREVENT EXCESS LIQUID ASPHALT FROM BEING TRACKED BY TRAFFIC.

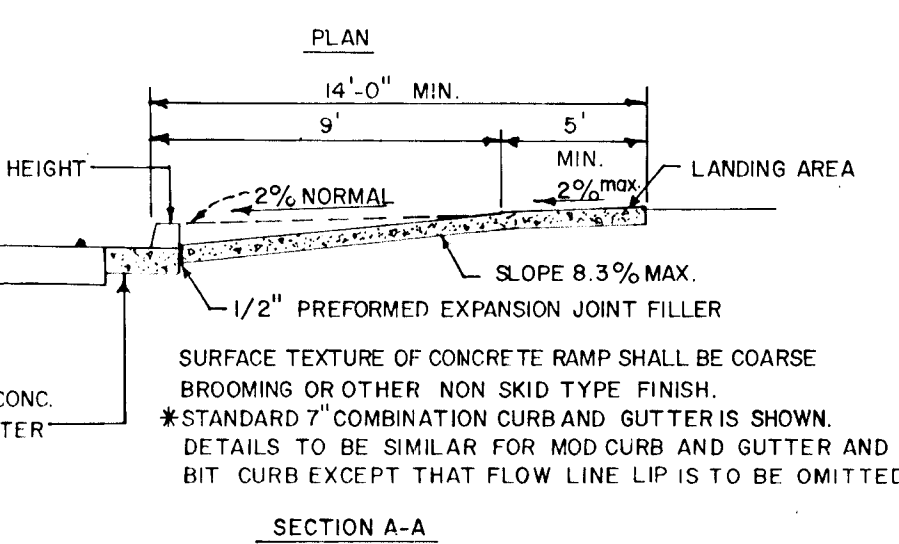
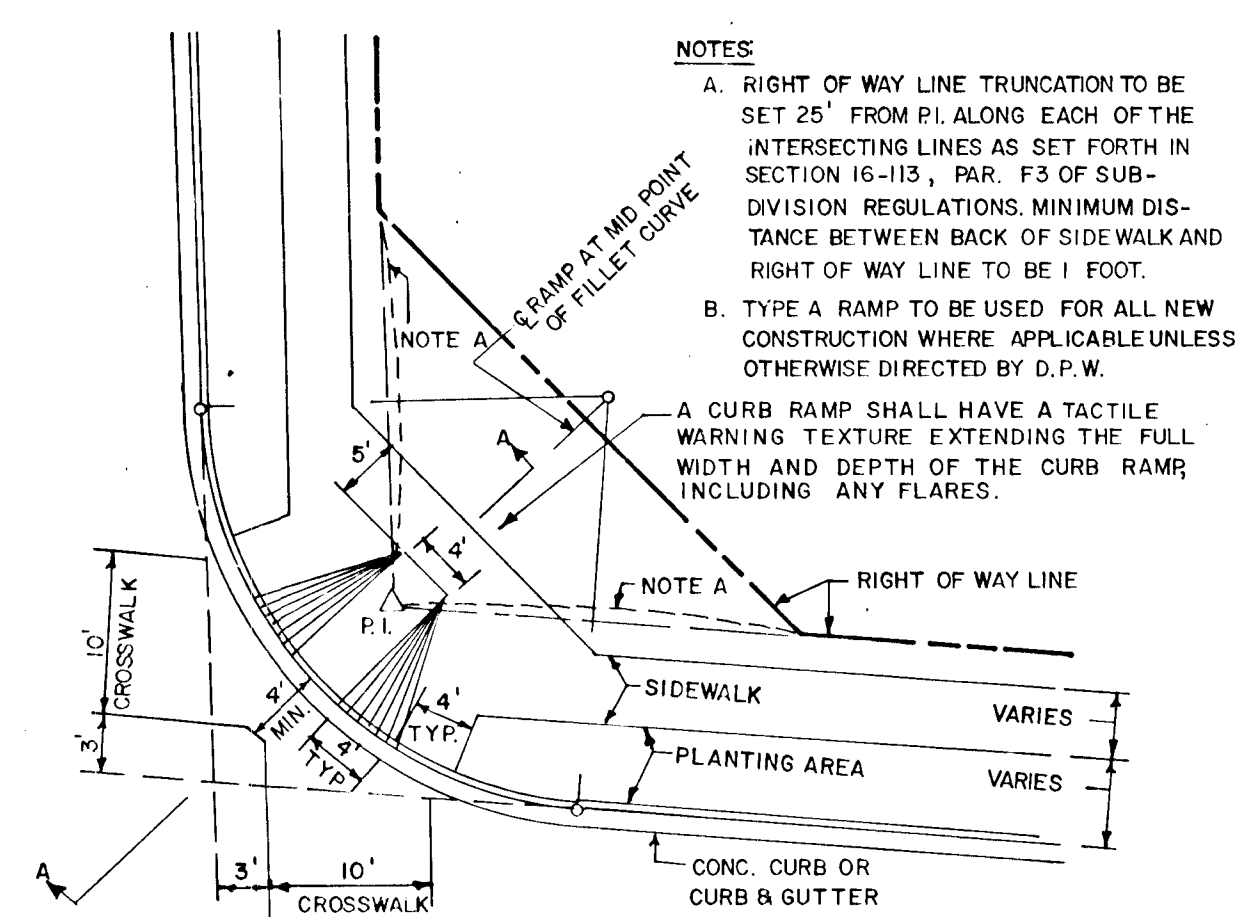
**WIDENING OLD COLUMBIA PIKE**  
 (MAJOR COLLECTOR)  
 NO SCALE

**STREET LIGHT SCHEDULE**

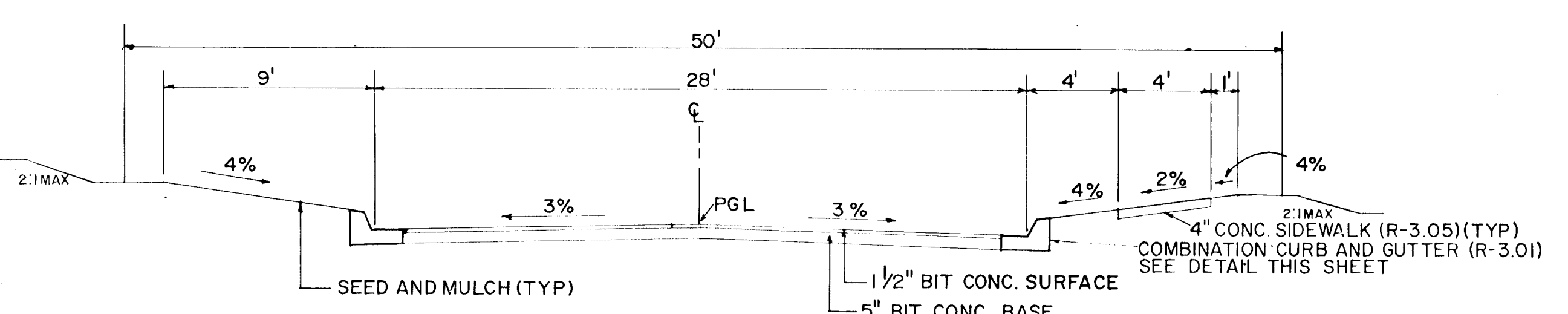
- 200-WATT HIGH PRESSURE SODIUM VAPOR LAMP PENDANT MOUNTED FIXTURES ON A 25' GALVANIZED POLE LOCATED NO LESS THAN 6' FROM THE EDGE OF PAVEMENT
  - LOCATED AT NORTHEAST SIDE OF OLD COLUMBIA PIKE AND BRITTANY DRIVE INTERSECTION.
  - LOCATED ON SOUTH SIDE OF BRITTANY DRIVE AT APPROXIMATE CENTERLINE STATION 11+30.
  - LOCATED AT SOUTHWEST SIDE OF BRITTANY DRIVE AND BALI ROAD INTERSECTION.
  - LOCATED ON NORTH SIDE OF BRITTANY DRIVE AT APPROXIMATE CENTERLINE STATION 15+35.
- 150-WATT HIGH PRESSURE SODIUM VAPOR LAMP POST TOP FIXTURES ON A 14' GREY FIBERGLASS POLE LOCATED 2'-10' FROM BACK OF CURBS
  - LOCATED AT NORTHWEST SIDE OF PEMBERTON COURT AT APPROXIMATE CENTERLINE STATION 3+90.



**BALI ROAD (LOCAL ROAD)**  
**TYPICAL PAVING SECTION**  
 DESIGN SPEED 35 M.P.H. NO SCALE



**HANDICAPPED RAMP**  
 NO SCALE



**PEMBERTON COURT (CUL-DE-SAC STREET)**  
**TYPICAL PAVING SECTION**  
 DESIGN SPEED 30 MPH NO SCALE

NOTE: FOR ALTERNATE PAVING, SEE SECTION P-2 THIS SHEET

**NOTES**  
 A. RIGHT OF WAY LINE TRUNCATION TO BE SET 25' FROM P.L. ALONG EACH OF THE INTERSECTING LINES AS SET FORTH IN SECTION 16-113, PAR. F3 OF SUB-DIVISION REGULATIONS. MINIMUM DISTANCE BETWEEN BACK OF SIDEWALK AND RIGHT OF WAY LINE TO BE 1 FOOT.  
 B. TYPE A RAMP TO BE USED FOR ALL NEW CONSTRUCTION WHERE APPLICABLE UNLESS OTHERWISE DIRECTED BY D.P.W.  
 A CURB RAMP SHALL HAVE A TACTILE WARNING TEXTURE EXTENDING THE FULL WIDTH AND DEPTH OF THE CURB RAMP INCLUDING ANY FLARES.

APPROVED: HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
 [Signature] 4/21/89  
 CHIEF, LAND DEVELOPMENT DIVISION, DATE  
 [Signature] 4/22/89  
 CHIEF, BUREAU OF HIGHWAYS, DATE  
 [Signature] 4/22/89  
 CHIEF, BUREAU OF ENGINEERING, DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING & ZONING  
 [Signature] 5/2/89  
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT - J.B., DATE

**OWNER / DEVELOPER**

NV LAND  
 6820 ELM STREET  
 McLEAN, VIRGINIA 22101  
 (703) 734-9730

**DETAIL SHEET**  
**BRITTANY MANOR**

LOTS 1-49  
 (O.P. & Z. REF. NO. P-88-06, S-88-105, S-86-99, WP-89-30)  
 TAX MAP 24 PARCELS 651(1755/213-216) 288(1879/490)  
 2nd ELECTION DISTRICT HOWARD COUNTY, MD.

**JOHN E. HARMS JR. AND ASSOCIATES INC.**

CONSULTING ENGINEERS - PLANNERS - SURVEYORS  
 2 CENTRE PARK 8818 CENTRE PARK DRIVE SUITE 208  
 COLUMBIA, MARYLAND 21045 TELEPHONE (301) 740-5200

NO.	REVISION	BY	DATE
1	PER HOWARD COUNTY COMMENTS	DAW	3/10/89
2	" " " "	C.A.G.	

DESIGNED BY: K.B.C.  
 DRAWN BY: D.E.W.  
 CHECKED BY: R.H.V.  
 DATE: 10-17-88  
 SCALE: AS SHOWN  
 W.O. NO. 44-87-010A

1442