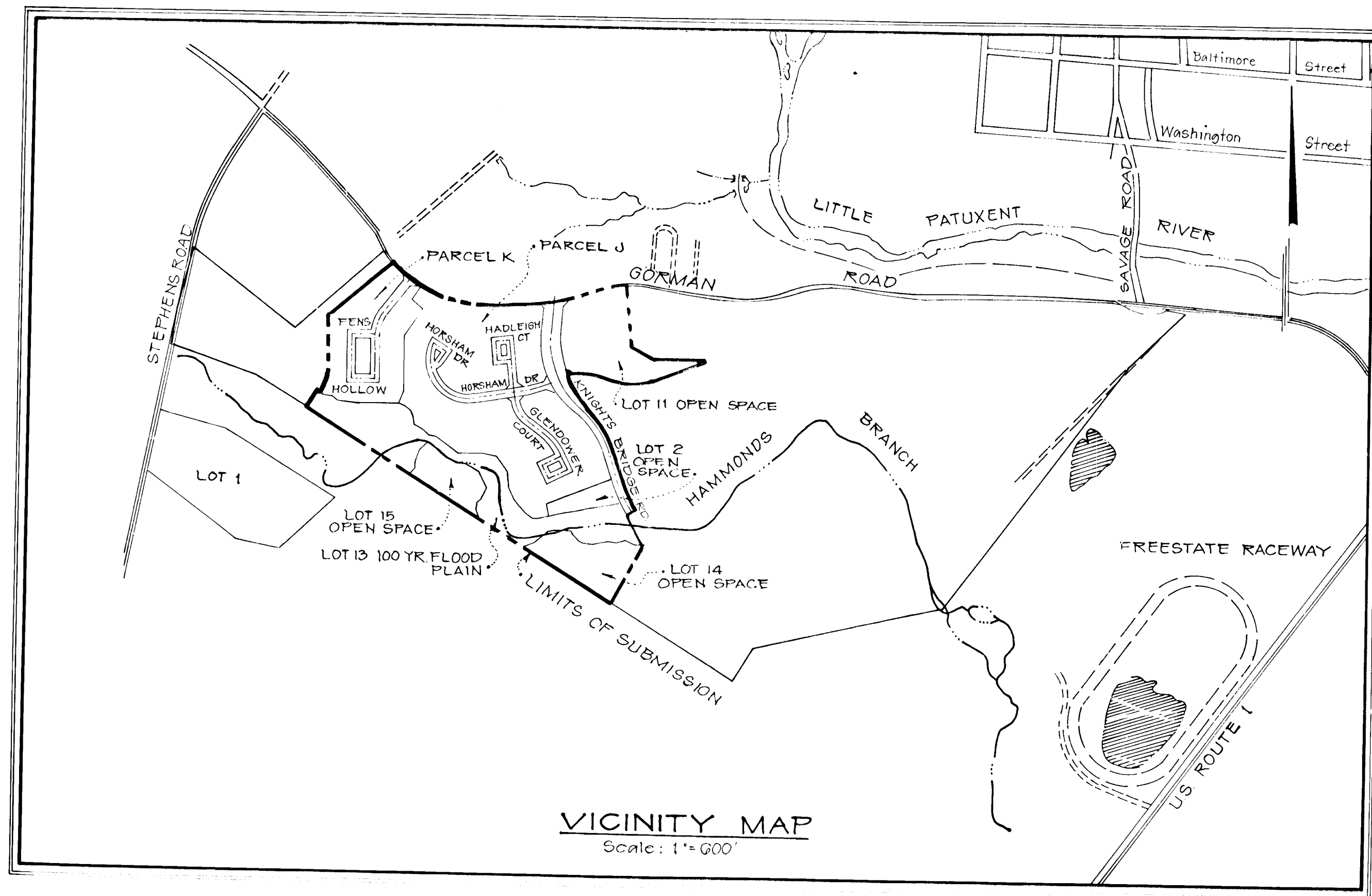


GENERAL NOTES

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 ENGINEER/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 - 298-9813 (TROUBLE SHOOTING)
 - "MISS UTILITY" - 888-257-7777
 - 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 "AERIAL SURVEYS" IN 1984. TOPOGRAPHY FIELD CHECKED 1986.
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 TOP OF CURB UNLESS OTHERWISE NOTED.
15. SHADED AREAS INDICATE WATER, SEWER, UTILITY, DRAINAGE AND ACCESS EASEMENT.

BOWLING BROOK FARMS

LOTS 3-213



STRUCTURE SCHEDULE							
NO.	TYPE	INV. IN	INV. OUT	UPPER END	LOWER END	HO.CO. STD.	LOCATION*
I-1	A-10 INLET	259.52 (NE)	257.15		263.50	SD-4.02	8+00, 32'L
I-2	A-5 INLET	257.90 (NW)	259.50	265.13	264.94	SD-4.01	8+97, 14'R
I-3	A-10 INLET	260.00 (NE)	264.66	268.95	268.49	SD-4.02	9+00, 14'L
I-4	A-10 INLET	261.62 (NW)	268.25	265.00	272.04	SD-4.02	5+76, 14'L
I-5	A-10 INLET		278.99	283.62	282.96	SD-4.02	3+02, 14'R
I-6	A-10 INLET	278.75	278.20	283.62	282.96	SD-4.02	3+02, 14'R
I-7	A-10 INLET	268.40 (NE)	267.50		272.25	SD-4.02	22+87, 32'L
I-8	A-10 INLET	267.88 (E)	268.70		272.90	SD-4.02	22+87, 32'R
I-9	YARD INLET		273.35		277.20	SD-4.14	See Plan
I-10	A-10 INLET	229.25 (NE)	222.95	231.97	231.56	SD-4.02	42+35, 19'R
I-11	A-10 INLET	229.60 (E)	226.63	231.97	231.56	SD-4.02	42+35, 19'L
I-12	A-10 INLET	241.55	240.76	247.37	246.71	SD-4.02	45+30, 10'L
I-13	A-10 INLET	242.75 (NE)	239.90	247.37	246.71	SD-4.02	45+30, 10'R
I-13A	A-10 INLET	241.31 (NE)	240.81	246.98	246.48	SD-4.02	48+69, 30'R
I-14	A-10 INLET	241.93 (NW)	243.10	249.17	249.00	SD-4.02	15+08, 15'L
I-15	A-10 INLET	245.25 (NE)	245.49	249.17	249.00	SD-4.02	15+08, 15'R
I-16	A-5 INLET	247.62	247.12	273.94	273.83	SD-4.01	17+88, 14'L
I-17	A-5 INLET	248.36	247.86	273.89	273.78	SD-4.01	17+88, 14'R
I-18	A-10 INLET	269.46	268.67	273.77	273.38	SD-4.02	0+47, 14'L
I-19	A-10 INLET		269.70	273.86	273.51	SD-4.02	4+98, 32'L
I-20	A-10 INLET		261.00	265.42	265.30	SD-4.02	0+47, 14'L
I-21	A-10 INLET		258.00		262.75	SD-4.02	5+75, 32'L
E-1	FLARED END SECT.	251.69				SD-5.51	See Plan
E-2	FLARED END SECT.	254.00				SD-5.51	See Plan
E-3	FLARED END SECT.	217.62				SD-5.51	See Plan
I-30	YARD INLET		260.24			SD-4.14	See Plan
MH-1	MANHOLE	253.02	252.02		263.75	SD-4.14	See Plan
MH-2	MANHOLE	271.85	271.35		257.50	SD-G.512	See Plan
MH-3	MANHOLE	264.85	254.24		275.33	SD-G.512	24+43, 22'L
MH4	MANHOLE	266.30	265.55		261.00	SD-G.512	See Plan
MH5	MANHOLE	256.82 (S)	254.00		272.40	SD-G.512	17+30, 19'L
MH6	MANHOLE	258.10 (NW)	218.00		263.70	SD-G.512	See Plan
I-22	A-5 INLET	262.76	262.28	267.14	266.93	SD-G.513	41+43, 55'R
I-25	A-5 INLET		263.50	267.14	266.93	SD-4.02	53+77, 36'L
E-35	FLARED END SECT.	250.1				SD-5.51	0+40, 33'R
I-36	A-5 INLET W/D	251.3	250.3	255.10	254.80	SD-4.02	0+90, 22'R
I-37	A-5 INLET W/D		269.3	273.25	273.00	SD-4.02	4+30, 22'R

* STRUCTURE LOCATION IS TO FACE OF CURB.
 ** STRUCTURE WIDTH SHALL BE 2'-6" UNLESS NOTED OTHERWISE
 ① - STRUCTURE WIDTH SHALL BE 3'-0" UNLESS NOTED OTHERWISE
 ② - STRUCTURE WIDTH SHALL BE 3'-6" UNLESS NOTED OTHERWISE

LEGEND

STORM DRAIN PROPOSED & PROPOSED R/W LIMITS OF SUBMISSION EASEMENT

HC FLARED END SECTION HCR

HANDICAP PK'G SPACE
HANDICAP RAMP

250 WATT MERCURY VAPOR LAMP PENDANT MOUNTED ON 30 FOOT GALVANIZED STEEL POLE

175 WATT MERCURY VAPOR LAMP POST TOP FIXTURE ON 14 FOOT GRAY FIBERGLASS POLE

PAVING AND STORM DRAIN CONSTRUCTION PLAN

HOWARD COUNTY, MARYLAND

PIPE SCHEDULE			
DIA.	MATERIAL	CLASS	LENGTH (FD)
15"	RCP	JV	432'
15"	RCP	V	1,302'
18"	RCP	III	368'
18"	RCP	IV	162'
21"	RCP	JV	252'
24"	RCP	III	47'
24"	RCP	IV	734'
27"	RCP	III	50'
36"	RCP	III	54'

- NOTES:
1. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO PLANTING (SEE NOTE #3 ON SHEET #1).
 2. ALL PLANT MATERIAL AND PLANTING SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARD FOR NURSERY STOCK" BY THE A.A.N.
 3. SUBSTITUTIONS MAY BE PERMITTED WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT, (762-2220).
 4. PLACE "GREEN VASE ZELKOVA" AND "SUMMER SHADE MAPLE" AT RADIUS POINTS ON THE PARKING ISLANDS AND 5' BEHIND THE SIDEWALK ALONG THE ROADWAYS.
 5. PLACE "REGENT SCHOLAR TREES", "GREENSPIRE LINDEN", AND "HEDGE MAPLE" 3' BEHIND SIDEWALK.

KEY	PLANT NAME	SIZE	QUANTITY	REMARKS
Z	ZELKOVA SERRATA "GREEN VASE"	2 1/2"-3" CAL		B & B
Z	GREEN VASE ZELKOVA	12-14' HT.		
F	ACER PLATANOIDES "SUMMERSHADE"	SUMMER SHADE MAPLE		
S	SOPHORA JAPONICA "REGENT"	REGENT SCHOLAR TREE		
T	TILIA CORDATA "GREENSPIRE"	GREENSPIRE LINDEN		
C	ACER CAMPESTRE	HEDGE MAPLE		

SHEET #	DESCRIPTION
1	TITLE SHEET
2	PAVING AND STORM DRAINAGE - FENS HOLLOW
3	PAVING AND STORM DRAINAGE - HORSHAM DRIVE
4	PAVING AND STORM DRAINAGE - HADLEIGH COURT
5	PAVING AND STORM DRAINAGE - GLENDOWER COURT
6	PAVING AND STORM DRAINAGE - KNIGHTS BRIDGE ROAD
7	PAVING AND STORM DRAINAGE - KNIGHTS BRIDGE ROAD
8	STORM DRAIN PROFILES
9	STORM DRAIN PROFILES
10	DRAINAGE AREA MAP
11	PAVING AND STORM DRAINAGE SECTIONS AND DETAILS
12	EROSION AND SEDIMENT CONTROL PLAN - DETAIL SHEET
13	EROSION AND SEDIMENT CONTROL PLAN - FENS HOLLOW DRIVE
14	EROSION AND SEDIMENT CONTROL PLAN - HORSHAM DRIVE AND HADLEIGH COURT
15	EROSION AND SEDIMENT CONTROL PLAN - KNIGHTS BRIDGE ROAD
16	EROSION AND SEDIMENT CONTROL PLAN - GLENDOWER COURT
17	PAVING AND STORM DRAINAGE - STEPHENS ROAD

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT

James M. Nelson
SIGNATURE
DATE 7-30-87

U.S. SOIL CONSERVATION SERVICE

SEDIMENT CONTROL MEASURE FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE STANDARD SPECIFICATIONS AND ROAD CONSTRUCTION PLAN F 85 151 AND SDP 85 202

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

APPROVED: Stephen L. Nelson
DATE 7/30/87

HOWARD SCD

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY MARYLAND

9/24/87
DATE

John W. Washburn
CHIEF, BUREAU OF ENGINEERING
DATE 9-4-87

Chief, Division of Land Development & Zoning Administration

OWNER/DEVELOPER
GORMAN ROAD LIMITED PARTNERSHIP
C/O JAMES F. KNOTT DEVELOPMENT CORPORATION
118 WEST ROAD, SUITE 203
TOWSON, MARYLAND 21284
(801) 321-6436

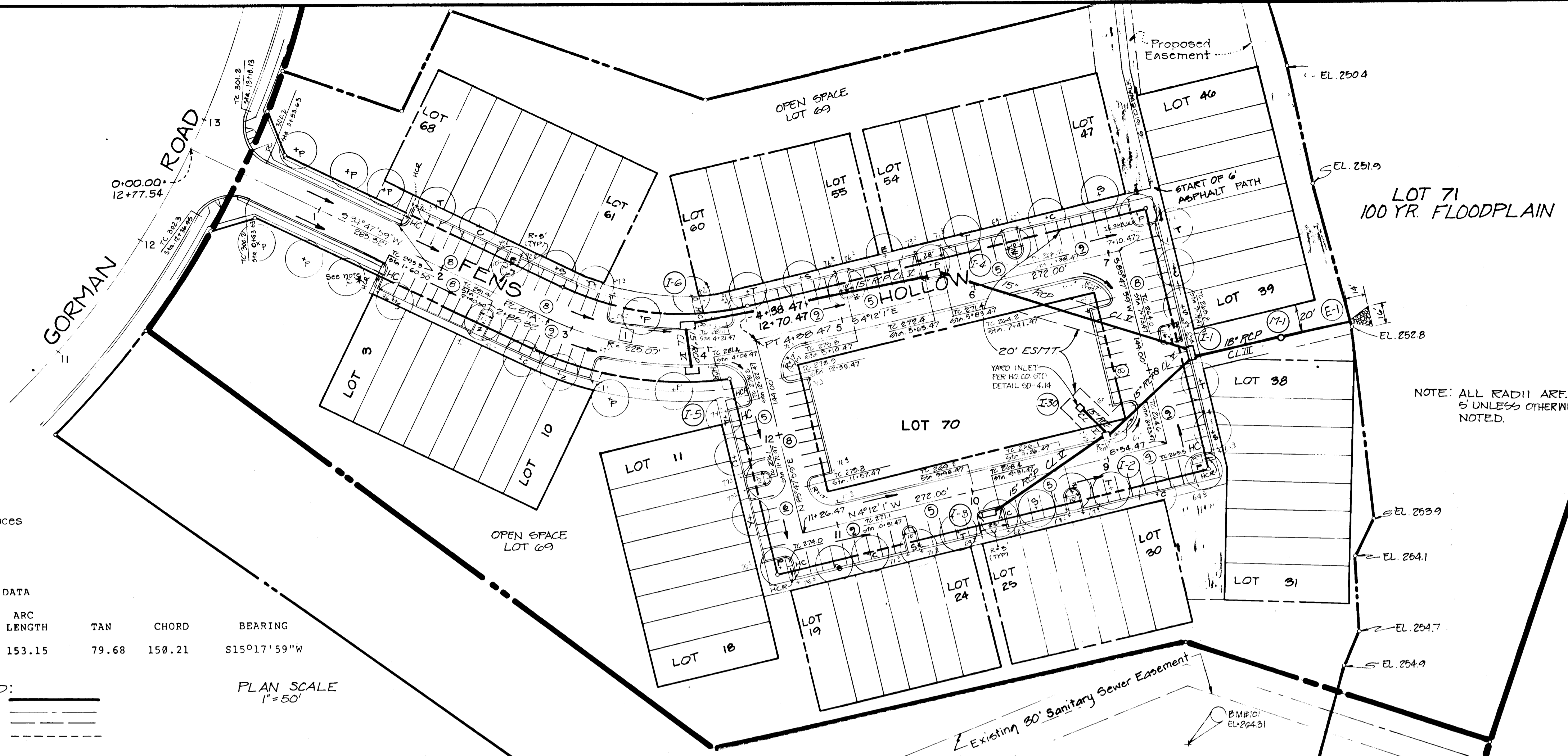


NO.	REVISION	DATE	APPROVED
1			
2			
3			

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
Fairfax, Va./Bridgewater, Va./Leesburg, Va./Rockville, Md./Tidewater, Va.

BOWLING BROOK FARMS
LOTS 3 THRU 213
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN	3-9-87
DRAWN GEB	SHEET
CHECKED	1 OF 17
SCALE	FILE NO.
C.I. AS SHOWN	2184-110



B.M.#101
R.R. SPIKE IN 16" TULIP POPLAR
TREE LOCATED ABOUT 120'
SOUTHEAST OF Δ 1020.

B.M.#105
CHISELED X IN RIM OF EXIST
M.H.#1014.

NOTE: ALL RADII ARE
AS UNLESS OTHERWISE
NOTED.

B.M.#105
EX. M.H.#1014
EL. = 252.62

**LIMITS OF SUBMISSION
(TYP.)**

* See Sections & Detail Sheet for MCR & Handicap parking spaces

CURVE DATA

CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
1	2+85.32 to 4+38.47	225.00	39°00'00"	153.15	79.68	150.21	S15°17'59"W

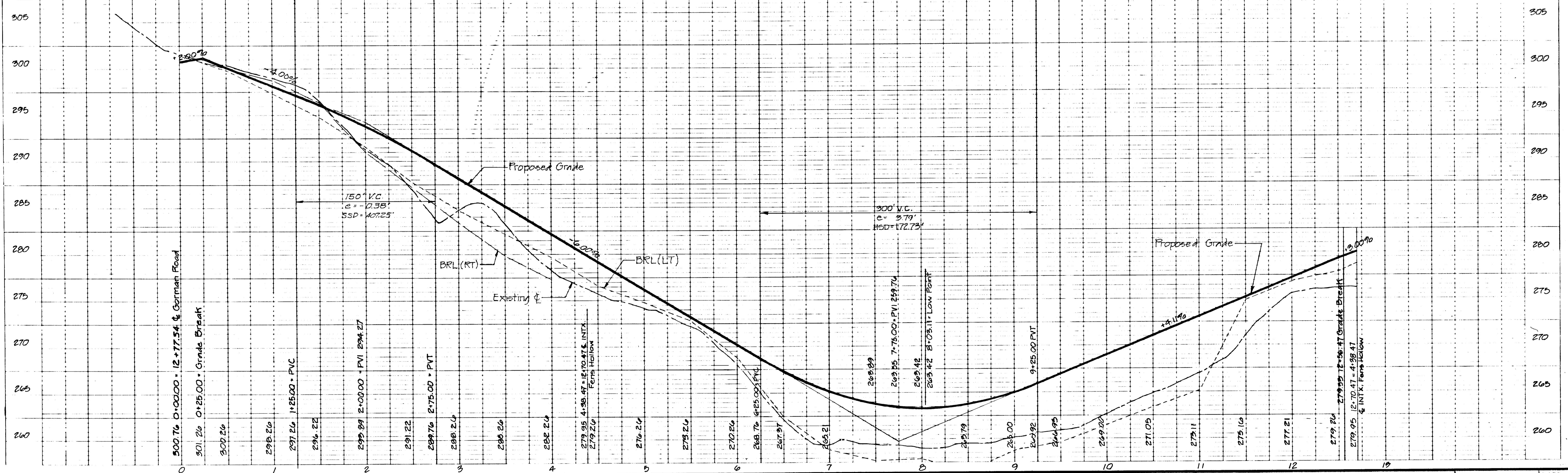
PROFILE SCALE
HORIZ: 1" = 50'
VERT: 1" = 5'

PROFILE LEGEND:
Profile Grade Line _____
Existing & B.R.L. (Rt) _____
B.R.L. (Lt) _____

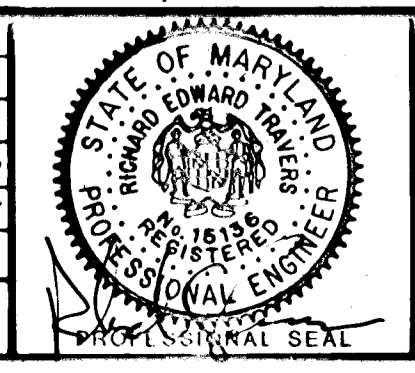
PLAN SCALE
1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 8-3-87
Chief, Bureau of Engineering

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[Signature] 8-4-87
Chief, Division of Land Development & Zoning Administration



NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISION APPROVED BY			

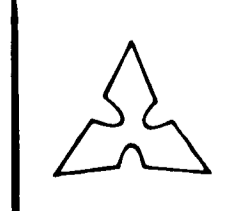


REVISD

PAVING & STORM DRAINAGE CONSTRUCTION PLANS

FENS HOLLOW

BOWLING BROOK FARMS

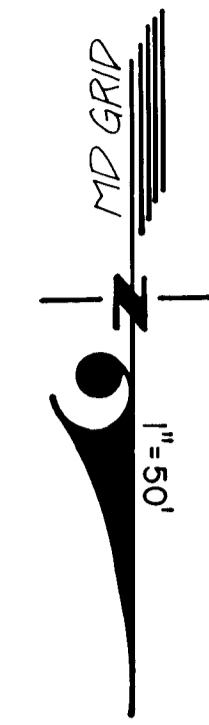


Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
LOTS 3 THRU 213
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY DATE: 3/9/87
DESIGN SHEET: 2 OF 17
DRAWN JDW
CHECKED JPC
SCALE AS SHOWN
FILE NO. 2184-1-0

CURVE NO.	PC TO PT	RADIUS	ARC LENGTH	TAN	CHORD	BEARING
1	14+99.65 to 15+60.85	350.00	10 01'07"	61.20	30.68	61.12 S69 11'44"W
2	16+69.45 to 17+46.30	350.00	12 34'49"	76.85	38.58	77.00 S70 28'35"W
3	19+85.59 to 25+00.38	240.00	122 53'53"	514.79	441.09	421.63 N41 47'04"W
4	26+72.05 to 27+04.88	40.00	47 01'41"	32.83	17.40	31.92 S52 16'51"W
5	12+29.50 to 14+19.51	400.00	27 13'01"	190.01	96.83	188.23 S87 48'48"W



SEE SHEET G FOR CONTINUATION

LIMITS OF SUBMISSION

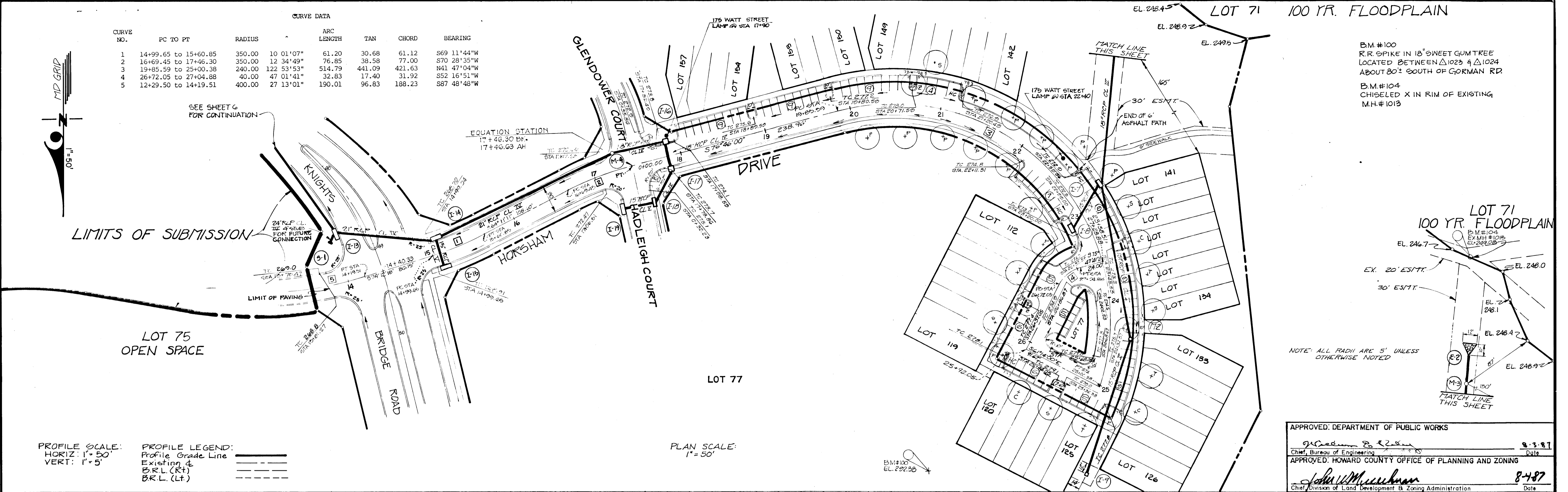
LIMIT OF PAVING

LOT 75 OPEN SPACE

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

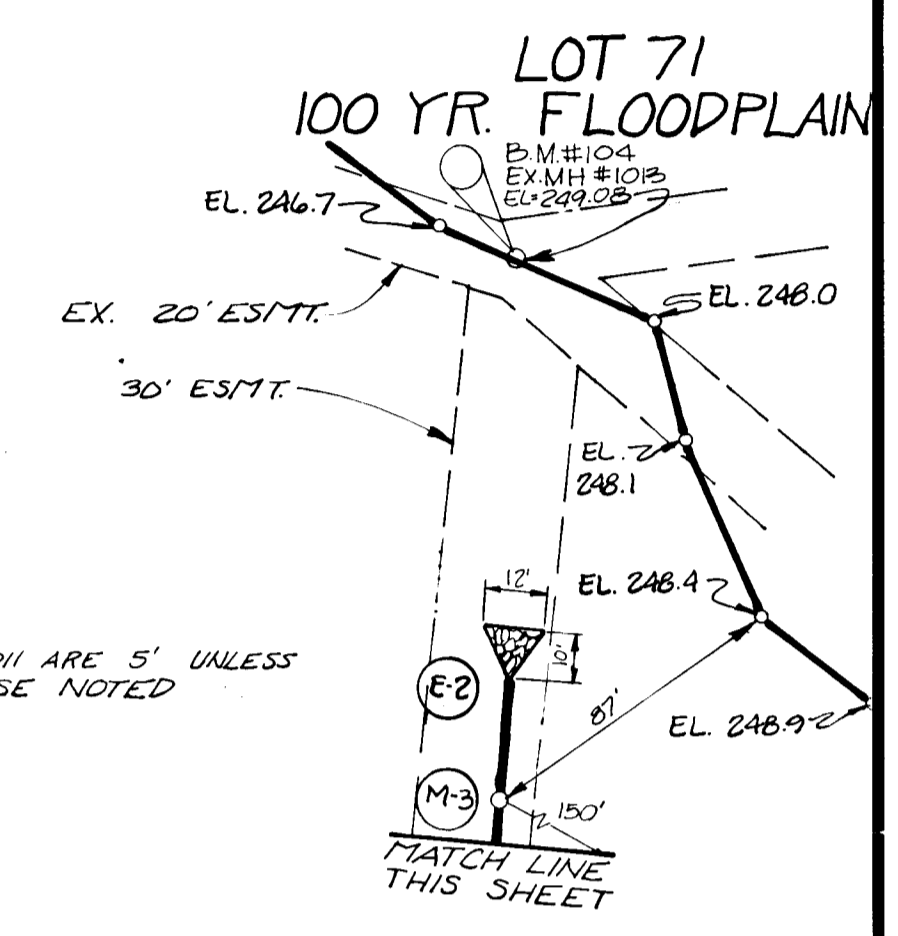
PROFILE LEGEND:
Profile Grade Line
Existing & B.R.L. (Rt)
B.R.L. (Lt)

PLAN SCALE: 1"=50'



BM #100
R.R. SPIKE IN 18" SWEET GUM TREE
LOCATED BETWEEN Δ1023 & Δ1024
ABOUT 80' SOUTH OF GORMAN RD.

BM #104
CHISELED X IN RIM OF EXISTING
M.H. #1013

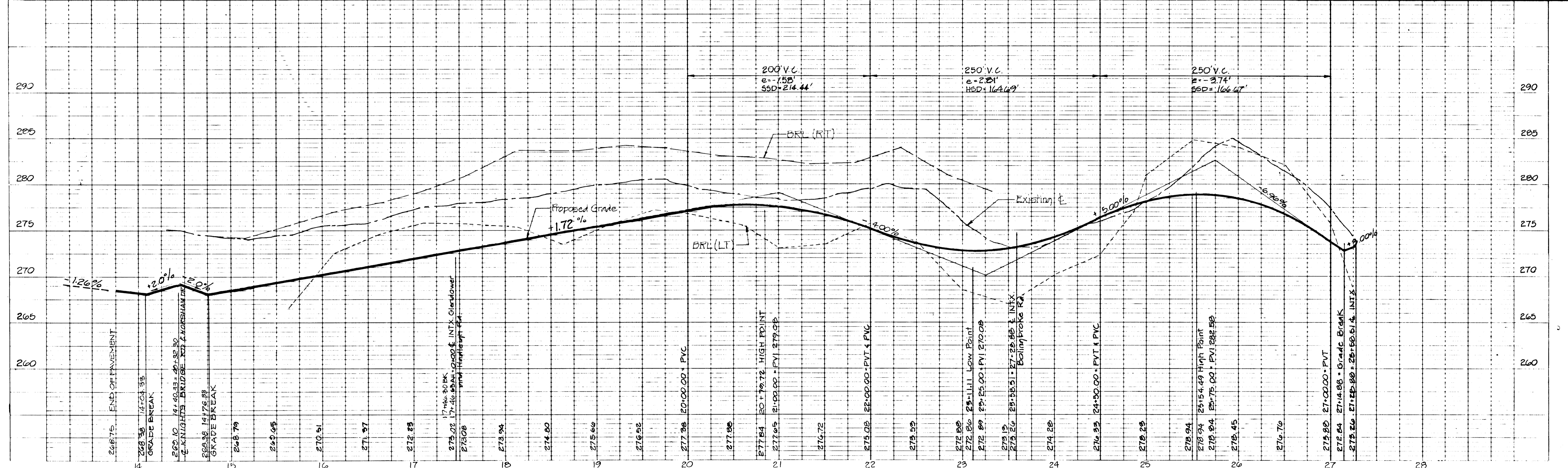


APPROVED: DEPARTMENT OF PUBLIC WORKS

William B. R. [Signature] 8-3-87
Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. [Signature] 8-4-87
Chief, Division of Land Development & Zoning Administration Date



NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISED PER PRICE REVIEW COMMENTS	8/24/87		
2	REVISED - 20' ADDED TO LAYOUT LINE	8/27/87		

REVISION APPROVED BY

REVISOR

PAVING & STORM DRAINAGE CONSTRUCTION PLANS

HORSHAM DRIVE

BOWLING BROOK FARMS

Patton Harris Rust and Associates

A Professional Corporation

Engineers, Surveyors, Planners and Landscape Architects

7609 Standish Place Rockville, Md. 20855 (301) 762-2220

BOWLING BROOK FARMS

LOTS 3 THRU 213

A RESUBDIVISION OF BOWLING BROOKE, LOT 2

TAX MAP 47 PARCEL 141

SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY DATE 3/9/87

DESIGN SHEET 3 OF 17

DRAWN JDW

CHECKED JPC

SCALE AS SHOWN

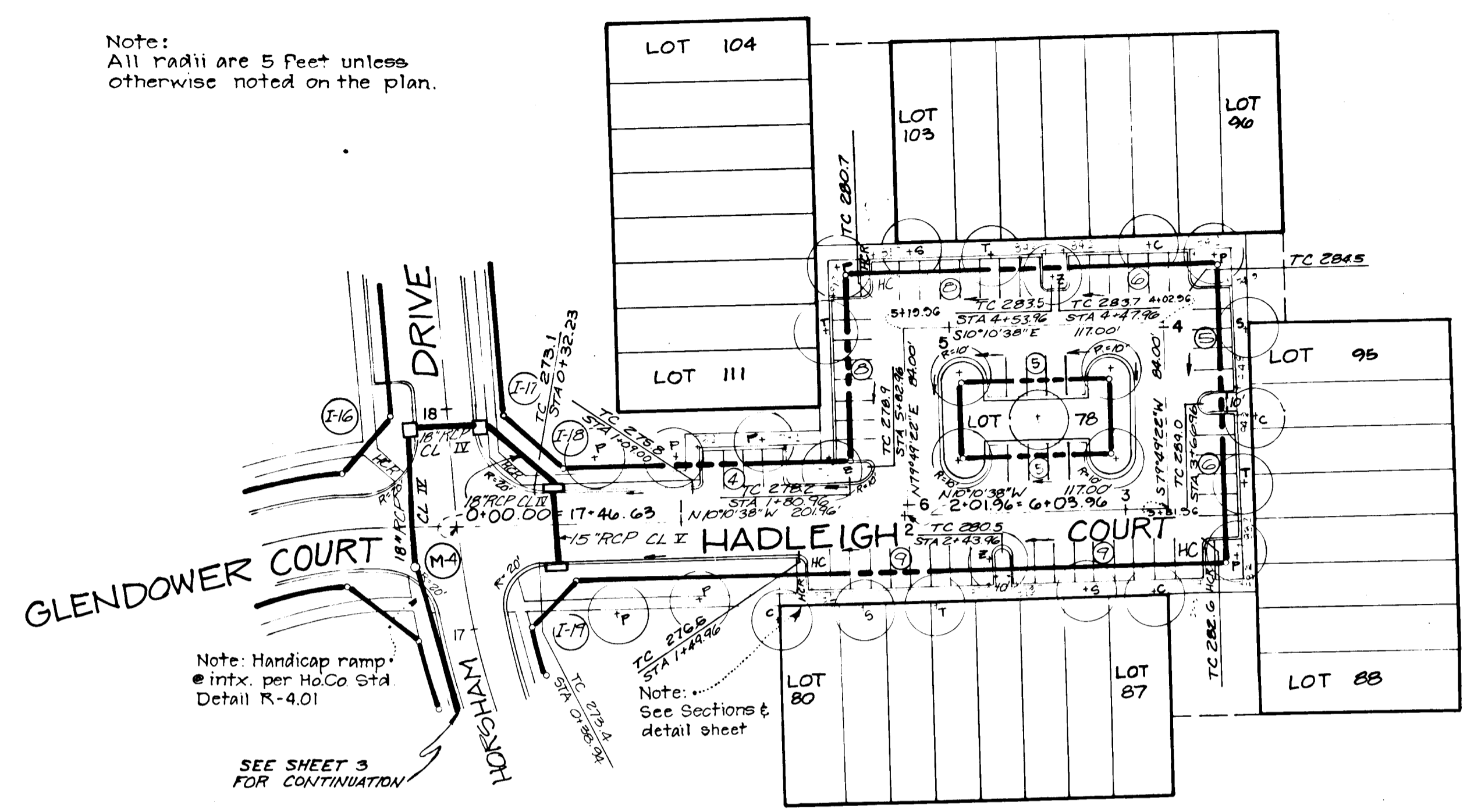
FILE NO. 2184-1-0



Note:
All radii are 5 Feet unless
otherwise noted on the plan.

BM#100
EL: 222.26

B.M.#100
R.R. SPIKE IN 18" SWEET GUM TREE
LOCATED BETWEEN Δ 1023 & Δ 1024
ABOUT 80' SOUTH OF GORMAN RD.



Note: Handicap ramp
@ intx. per Ho.Co Std
Detail R-4.01

Note: See Sections &
detail sheet

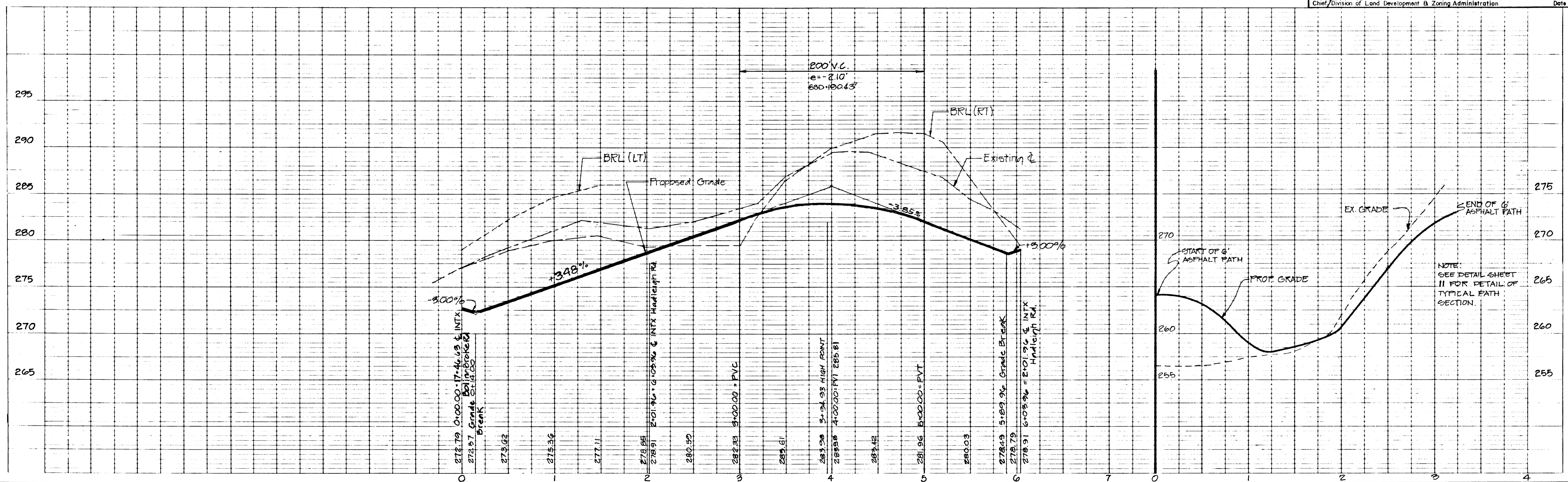
SEE SHEET 3
FOR CONTINUATION

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

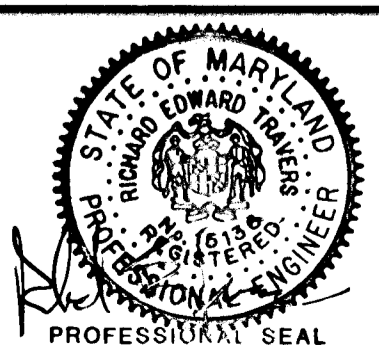
PROFILE LEGEND:
Profile Grade Line _____
Existing & B.R.L. (Rt) - - - - -
B.R.L. (Lt) - - - - -

PLAN SCALE:
1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] Chief, Bureau of Engineering 8-3-87
Date
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[Signature] Chief, Division of Land Development & Zoning Administration 8-4-87
Date



NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISION PER NO. 02			5/26/87
2	REVISION PER NO. 03			3/27/87
3	REVISION PER NO. 04			
4	REVISION PER NO. 05			
5	REVISION PER NO. 06			
6	REVISION PER NO. 07			
7	REVISION PER NO. 08			
8	REVISION PER NO. 09			
9	REVISION PER NO. 10			
10	REVISION PER NO. 11			
11	REVISION PER NO. 12			
12	REVISION PER NO. 13			
13	REVISION PER NO. 14			
14	REVISION PER NO. 15			
15	REVISION PER NO. 16			
16	REVISION PER NO. 17			
17	REVISION PER NO. 18			
18	REVISION PER NO. 19			
19	REVISION PER NO. 20			
20	REVISION PER NO. 21			
21	REVISION PER NO. 22			
22	REVISION PER NO. 23			
23	REVISION PER NO. 24			
24	REVISION PER NO. 25			
25	REVISION PER NO. 26			
26	REVISION PER NO. 27			
27	REVISION PER NO. 28			
28	REVISION PER NO. 29			
29	REVISION PER NO. 30			
30	REVISION PER NO. 31			
31	REVISION PER NO. 32			
32	REVISION PER NO. 33			
33	REVISION PER NO. 34			
34	REVISION PER NO. 35			
35	REVISION PER NO. 36			
36	REVISION PER NO. 37			
37	REVISION PER NO. 38			
38	REVISION PER NO. 39			
39	REVISION PER NO. 40			
40	REVISION PER NO. 41			
41	REVISION PER NO. 42			
42	REVISION PER NO. 43			
43	REVISION PER NO. 44			
44	REVISION PER NO. 45			
45	REVISION PER NO. 46			
46	REVISION PER NO. 47			
47	REVISION PER NO. 48			
48	REVISION PER NO. 49			
49	REVISION PER NO. 50			
50	REVISION PER NO. 51			
51	REVISION PER NO. 52			
52	REVISION PER NO. 53			
53	REVISION PER NO. 54			
54	REVISION PER NO. 55			
55	REVISION PER NO. 56			
56	REVISION PER NO. 57			
57	REVISION PER NO. 58			
58	REVISION PER NO. 59			
59	REVISION PER NO. 60			
60	REVISION PER NO. 61			
61	REVISION PER NO. 62			
62	REVISION PER NO. 63			
63	REVISION PER NO. 64			
64	REVISION PER NO. 65			
65	REVISION PER NO. 66			
66	REVISION PER NO. 67			
67	REVISION PER NO. 68			
68	REVISION PER NO. 69			
69	REVISION PER NO. 70			
70	REVISION PER NO. 71			
71	REVISION PER NO. 72			
72	REVISION PER NO. 73			
73	REVISION PER NO. 74			
74	REVISION PER NO. 75			
75	REVISION PER NO. 76			
76	REVISION PER NO. 77			
77	REVISION PER NO. 78			
78	REVISION PER NO. 79			
79	REVISION PER NO. 80			
80	REVISION PER NO. 81			
81	REVISION PER NO. 82			
82	REVISION PER NO. 83			
83	REVISION PER NO. 84			
84	REVISION PER NO. 85			
85	REVISION PER NO. 86			
86	REVISION PER NO. 87			
87	REVISION PER NO. 88			
88	REVISION PER NO. 89			
89	REVISION PER NO. 90			
90	REVISION PER NO. 91			
91	REVISION PER NO. 92			
92	REVISION PER NO. 93			
93	REVISION PER NO. 94			
94	REVISION PER NO. 95			
95	REVISION PER NO. 96			
96	REVISION PER NO. 97			
97	REVISION PER NO. 98			
98	REVISION PER NO. 99			
99	REVISION PER NO. 100			



REVISION

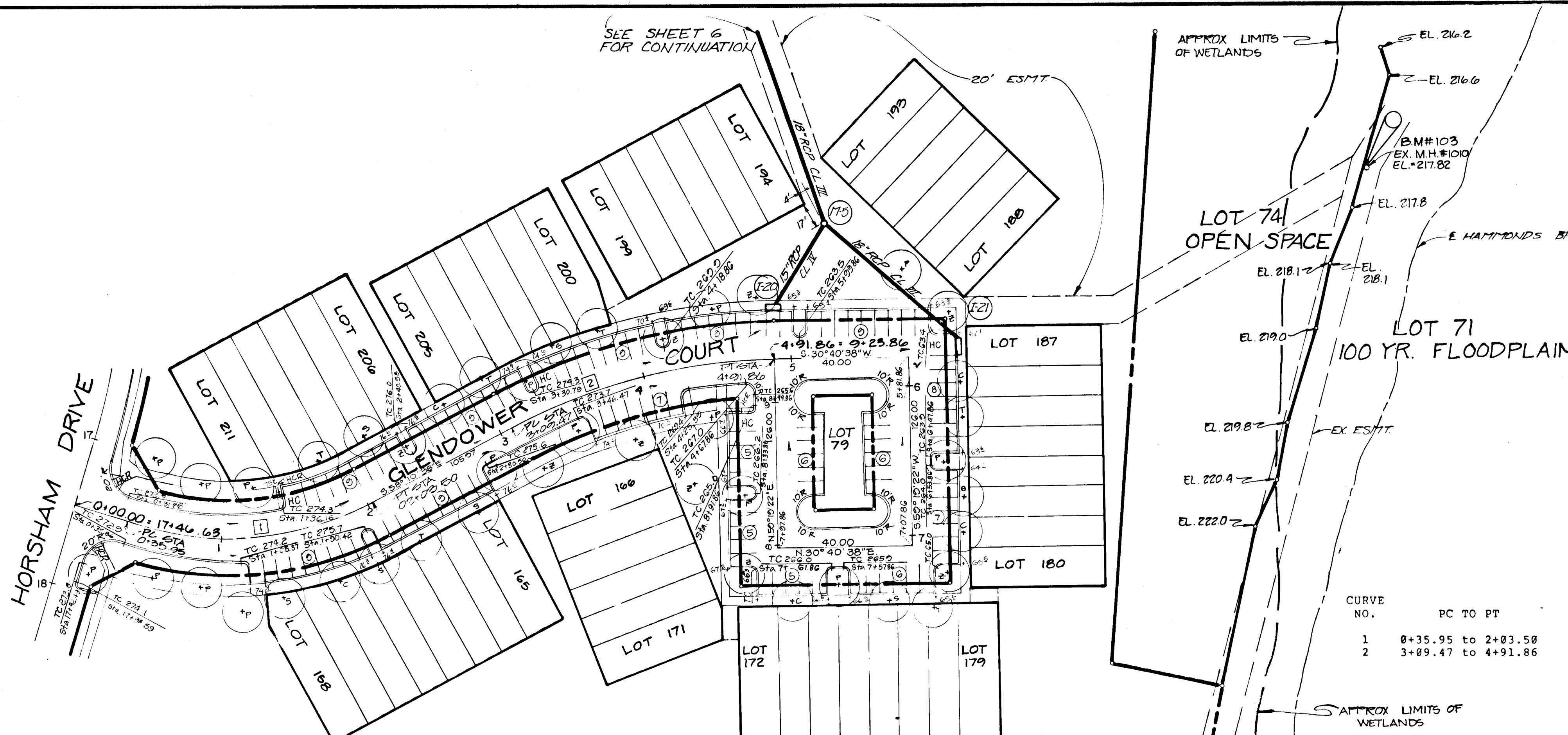
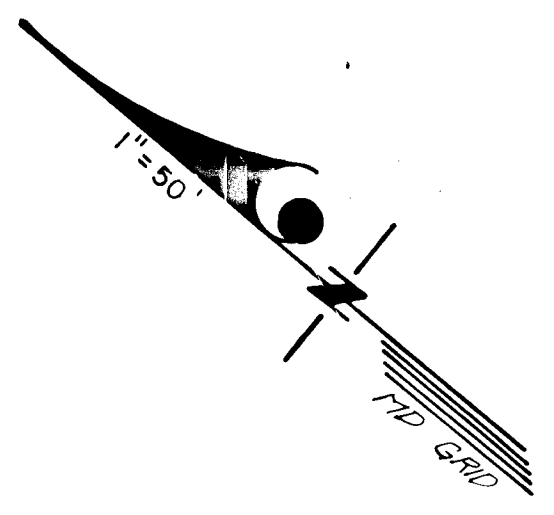
PAVING & STORM DRAINAGE CONSTRUCTION PLANS
HADLEIGH COURT
BOWLING BROOK FARMS

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
LOTS 3 THRU 213
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN	3/9/87
DRAWN JDW/PA	SHEET
CHECKED JPC	4 OF 17
SCALE AS SHOWN C.I.	FILE NO. 2184-1-0

42 232218



B.M.#103
CHISELED X IN RIM OF EXISTING
M.H.#1010

CURVE NO.	PC TO PT	RADIUS	Δ	ARC LENGTH	TAN	CHORD	BEARING
1	0+35.95 to 2+03.50	200.00	48°00'00"	167.55	89.05	162.69	S34°10'38"E
2	3+09.47 to 4+91.86	380.00	27°30'00"	182.39	92.99	180.64	S44°25'38"E

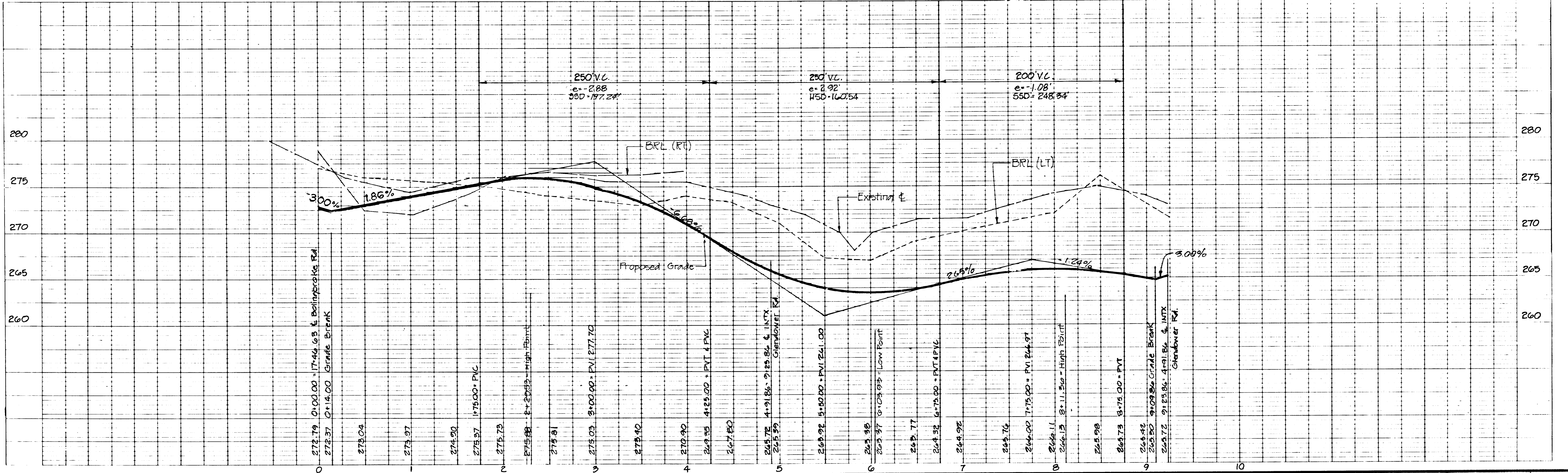
PROFILE SCALE:
HORIZ: 1" = 50'
VERT: 1" = 5'

PROFILE LEGEND:
Profile Grade Line
Existing &
B.R.L. (Rt)
B.R.L. (Lt)

PLAN SCALE: 1" = 50'

NOTE: ALL CURB RADII 500' UNLESS NOTED OTHERWISE.

APPROVED: DEPARTMENT OF PUBLIC WORKS
John W. Munchman
Chief, Bureau of Engineering
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John W. Munchman
Chief, Division of Land Development & Zoning Administration



NO.	DESCRIPTION	DATE	APPROVED	DATE
1	REVISION PER NO. 02 REVIEW COMMENTS			3/20/87
2	REVISION PER NO. 03 REVIEW COMMENTS			3/27/87



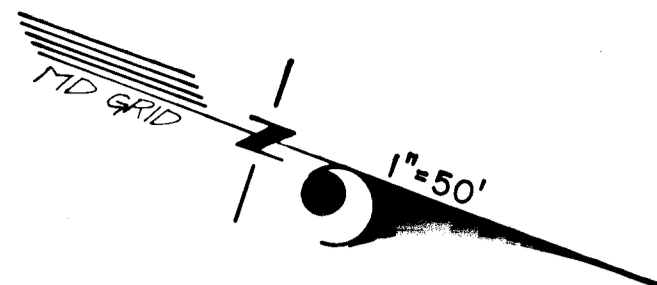
REVISOR

PAVING & STORM DRAINAGE CONSTRUCTION PLANS
GLENDOWER COURT
BOWLING BROOK FARMS

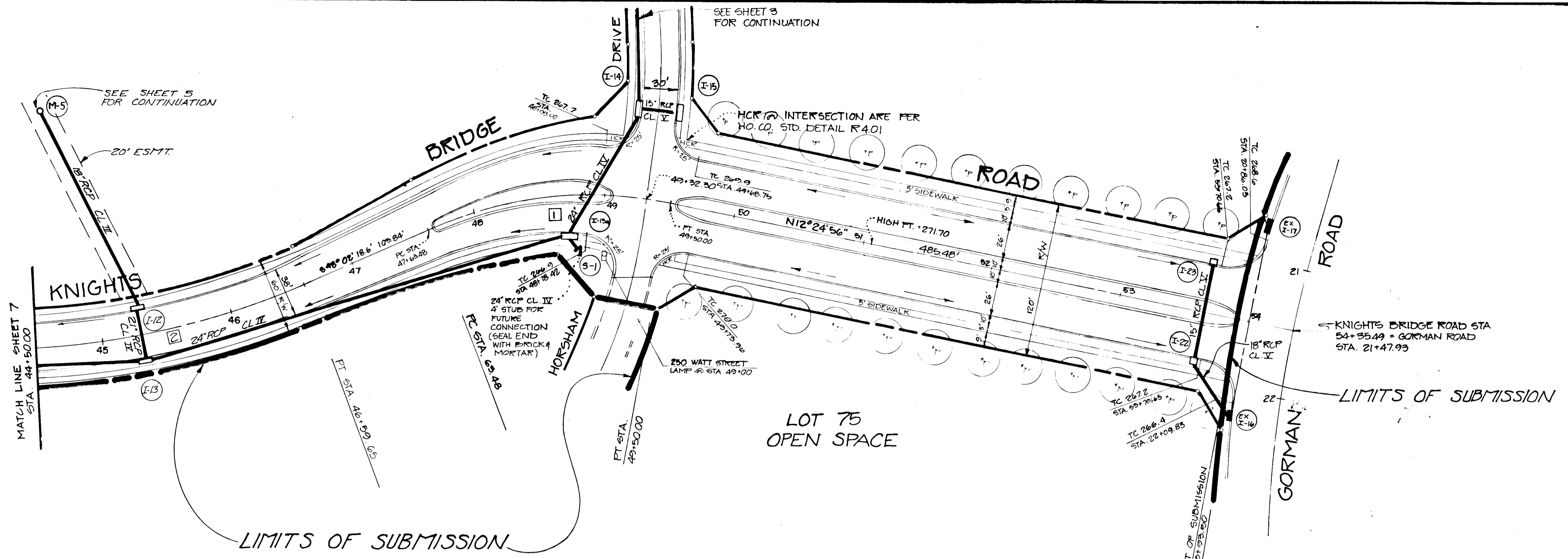
Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place Rockville, Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
LOTS 3 THRU 213
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN	3/9/87
DRAWN JDW	SHEET
CHECKED JPC	5 OF 17
SCALE AS SHOWN C.I.	FILE NO. 2184-1-0



CURVE DATA							
CURVE NO.	PC TO PT	RADIUS	ARC LENGTH	TAN	CHORD	BEARING	
1	47+63.48 to 49+50.00	300.00	35°37'22"	186.52	96.39	183.53	N30°37'22"W
2	43+82.14 to 46+59.65	600.00	26°30'00"	277.51	141.28	275.04	N34°47'19"W
3	40+13.03 to 42+13.03	650.00	17°37'46"	200.00	100.80	199.21	N30°21'12"W

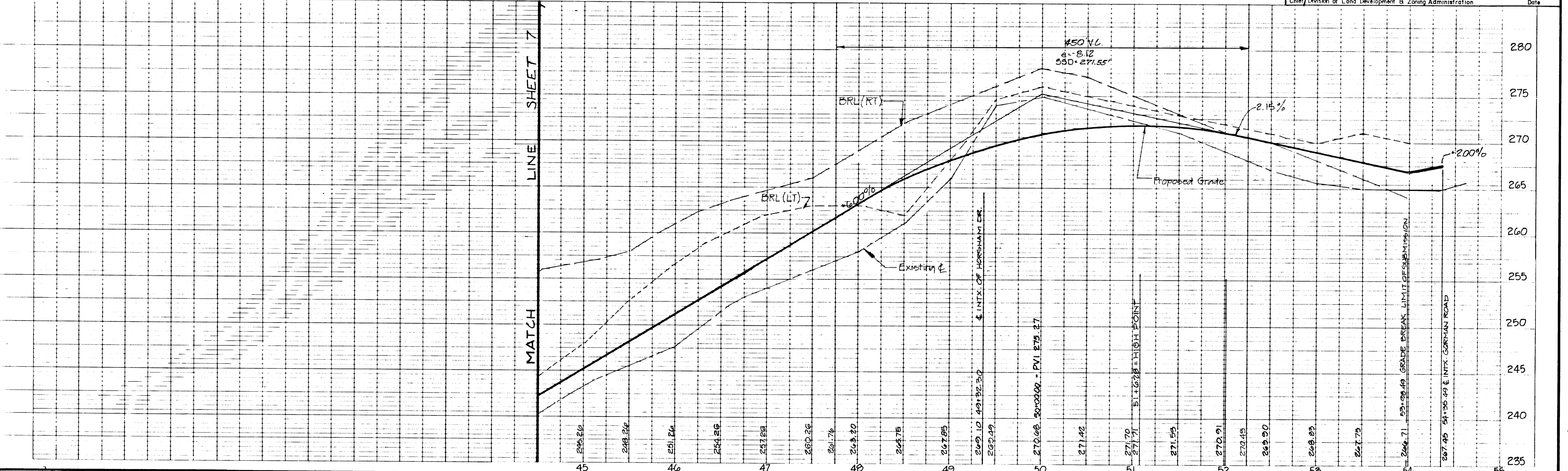


PROFILE SCALE:
 HORIZ: 1" = 50'
 VERT: 1" = 5'
PROFILE LEGEND:
 Profile Grade Line _____
 Existing Grade _____
 B.R.L. (RT) _____
 B.R.L. (LT) _____
 B.M.#102
 R.R SPIKE IN 20' TULIP POPLAR
 40' NORTHEAST OF Δ1072

PLAN SCALE:
 1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS

 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 John M. Murchman
 Chief, Division of Land Development & Zoning Administration



NO.	DESCRIPTION	DATE	APPROVED	DATE
1	DESIGNED PER HO. CO. REVIEW COMMENTS	5/26/87		
2	REVISED AND ADDED LAYOUT INFO.	8/27/87		



REVISION APPROVED BY _____
 PAVING & STORM DRAINAGE CONSTRUCTION PLANS
 KNIGHTS BRIDGE ROAD
 BOWLING BROOK FARMS

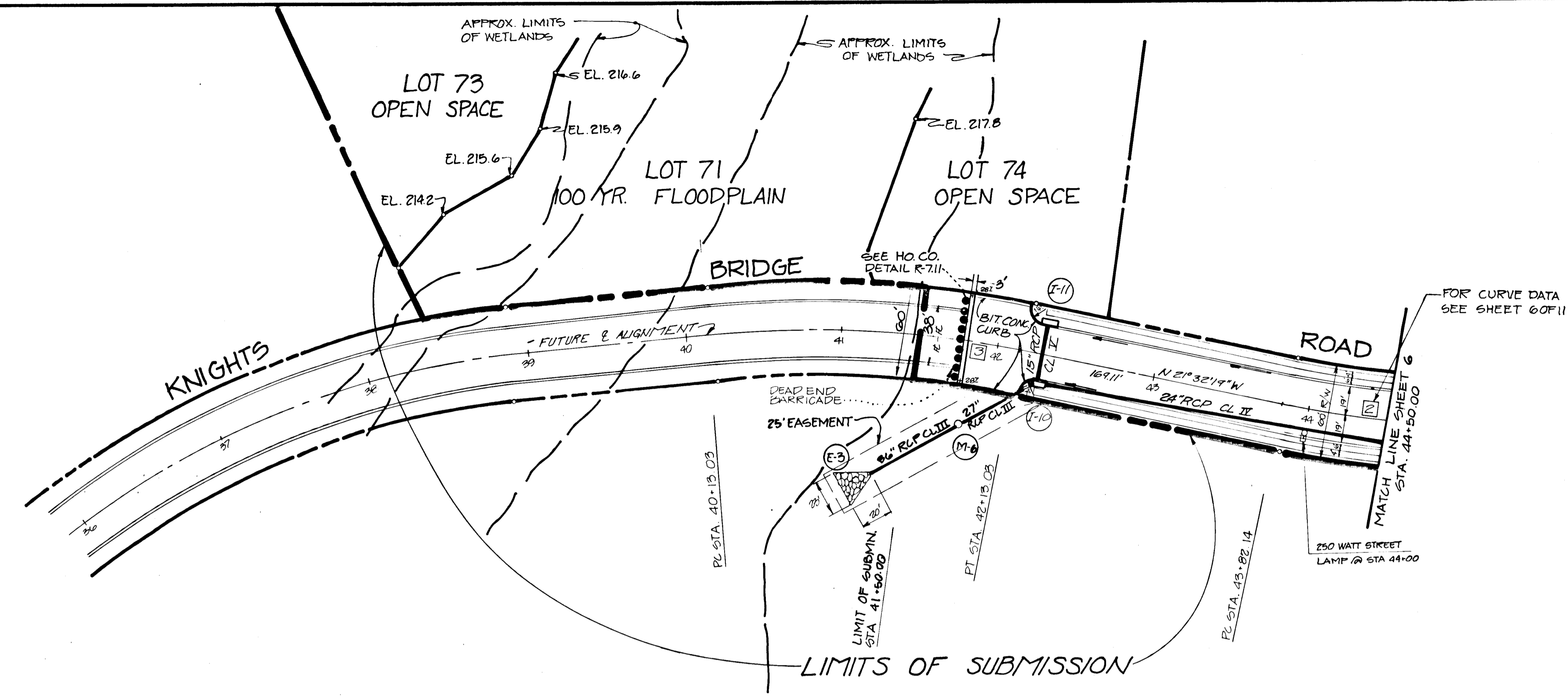
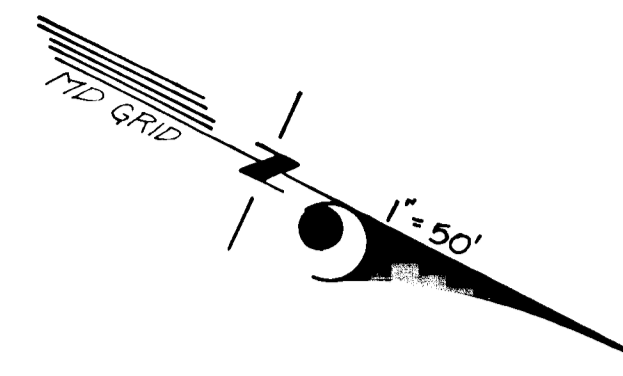
Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville, MD 20855 (301)762-2220

BOWLING BROOK FARMS
 LOTS 3 THRU 213
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN	3/9/87
DRAWN JDW	SHEET
CHECKED RET	6 OF 17
SCALE AS SHOWN	FILE NO.
C.I.	2184-1-0

12.71

F-87-142



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

PROFILE LEGEND:
 Profile Grade Line
 Existing &
 B.R.L. (RT)
 B.R.L. (LT)

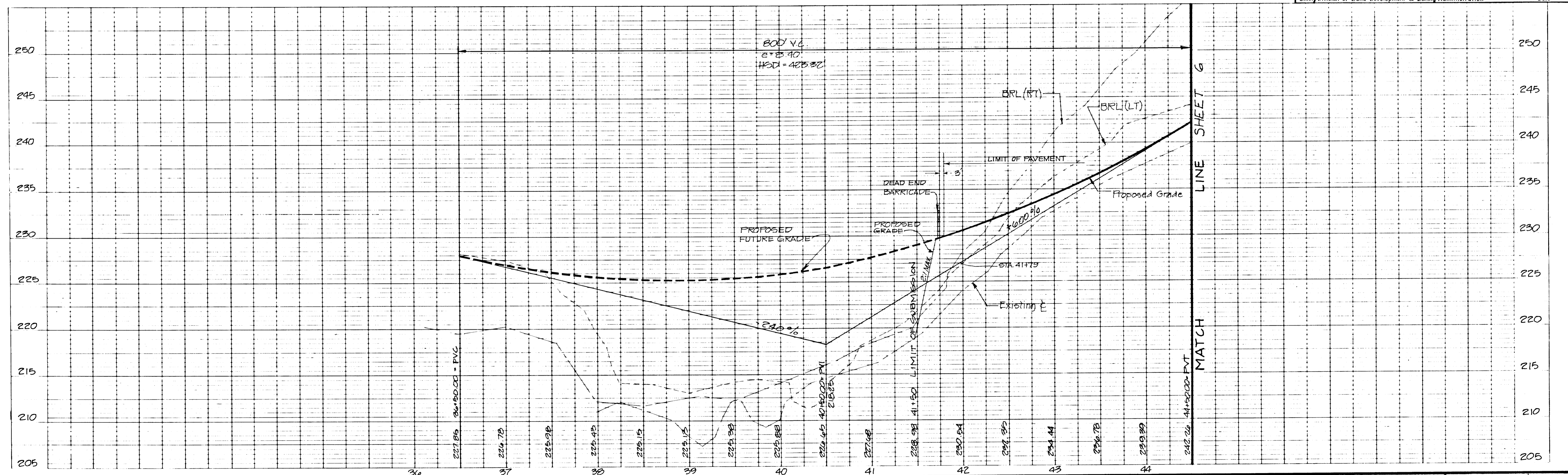
PLAN SCALE:
 1" = 50'

APPROVED: DEPARTMENT OF PUBLIC WORKS

John W. ... 8-3-87
 Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

John W. ... 8-4-87
 Chief, Division of Land Development & Zoning Administration Date



NO.	DESCRIPTION	DATE	APPROVED	DATE



REVISION

PAVING & STORM DRAINAGE CONSTRUCTION PLANS
 KNIGHTS BRIDGE ROAD
 BOWLING BROOK FARMS

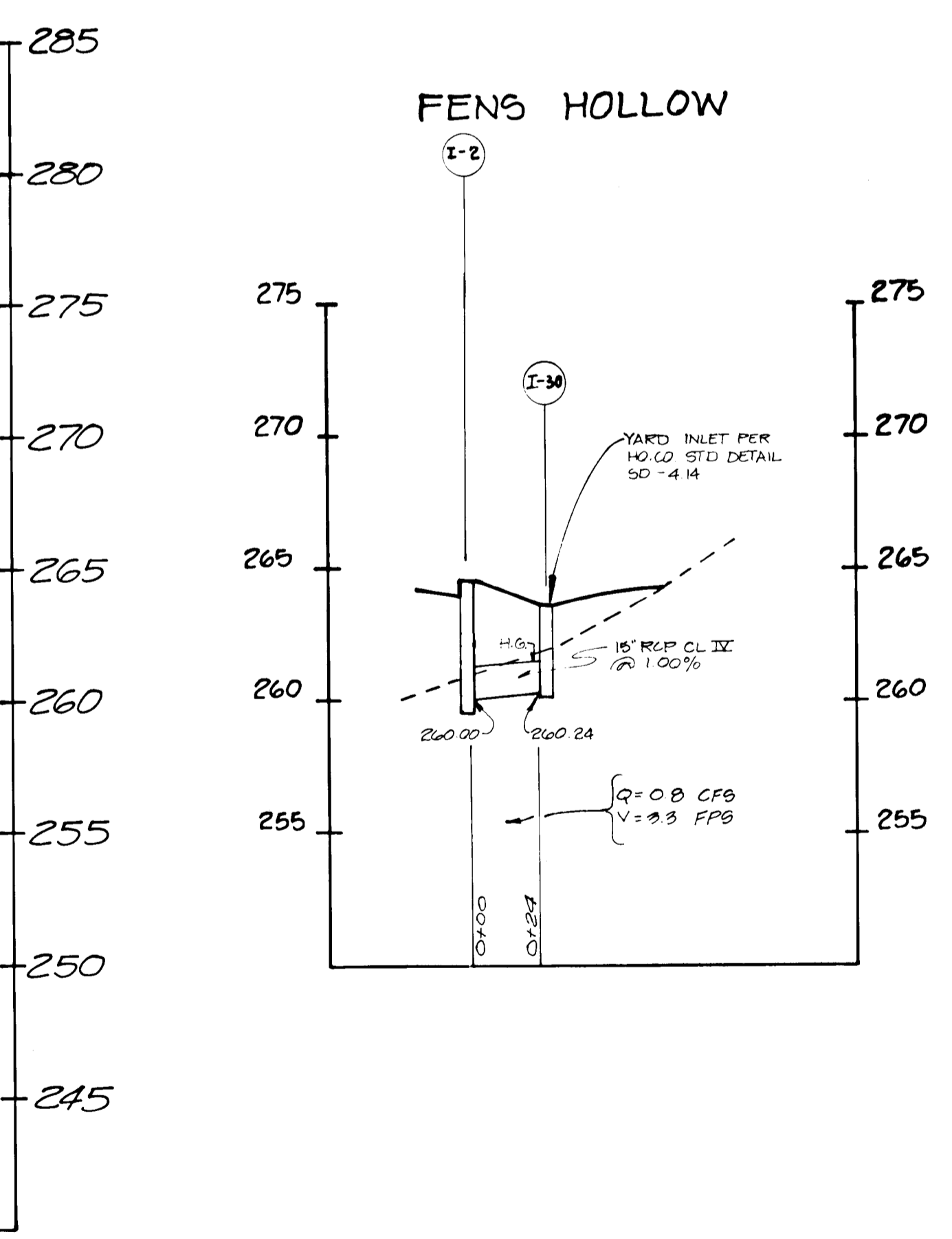
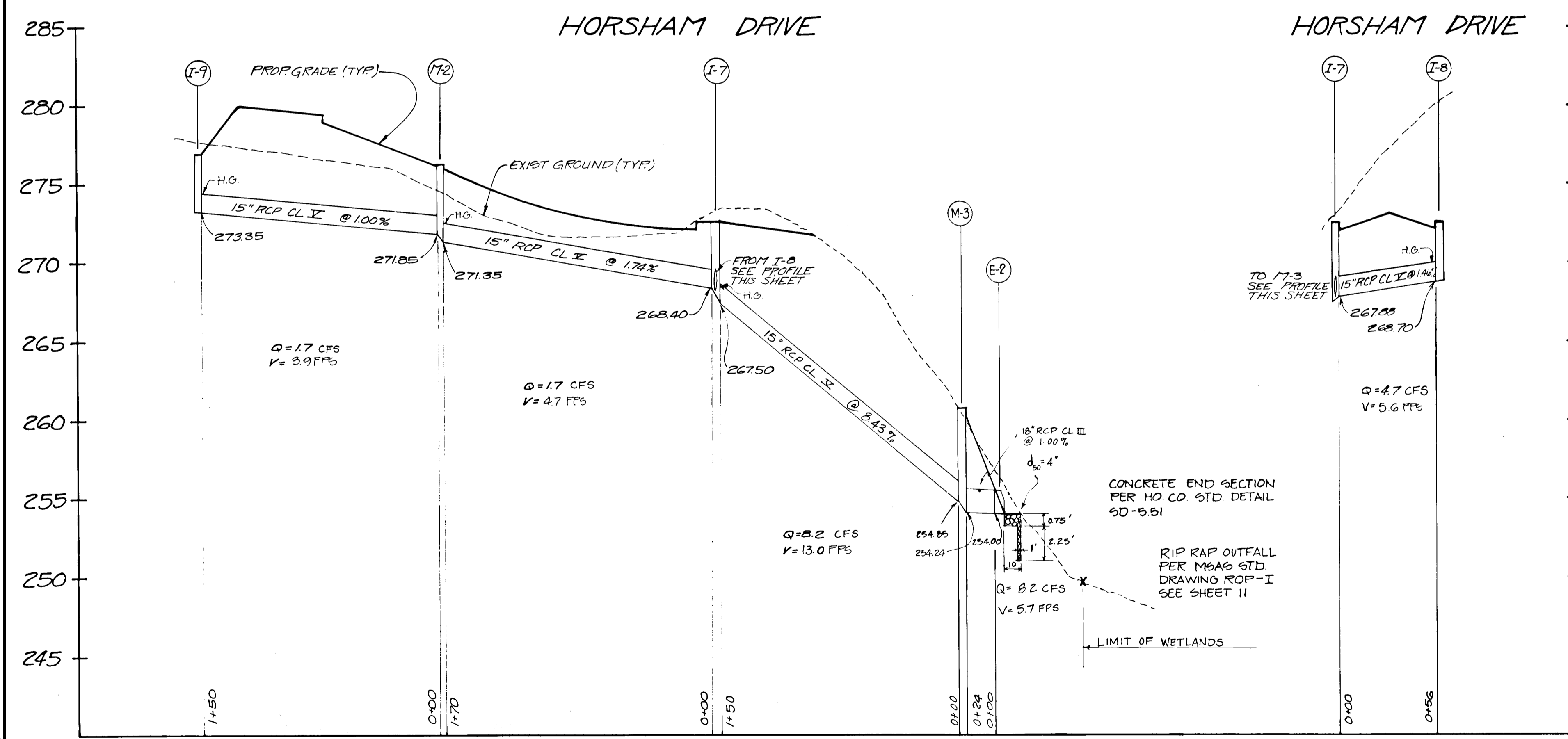
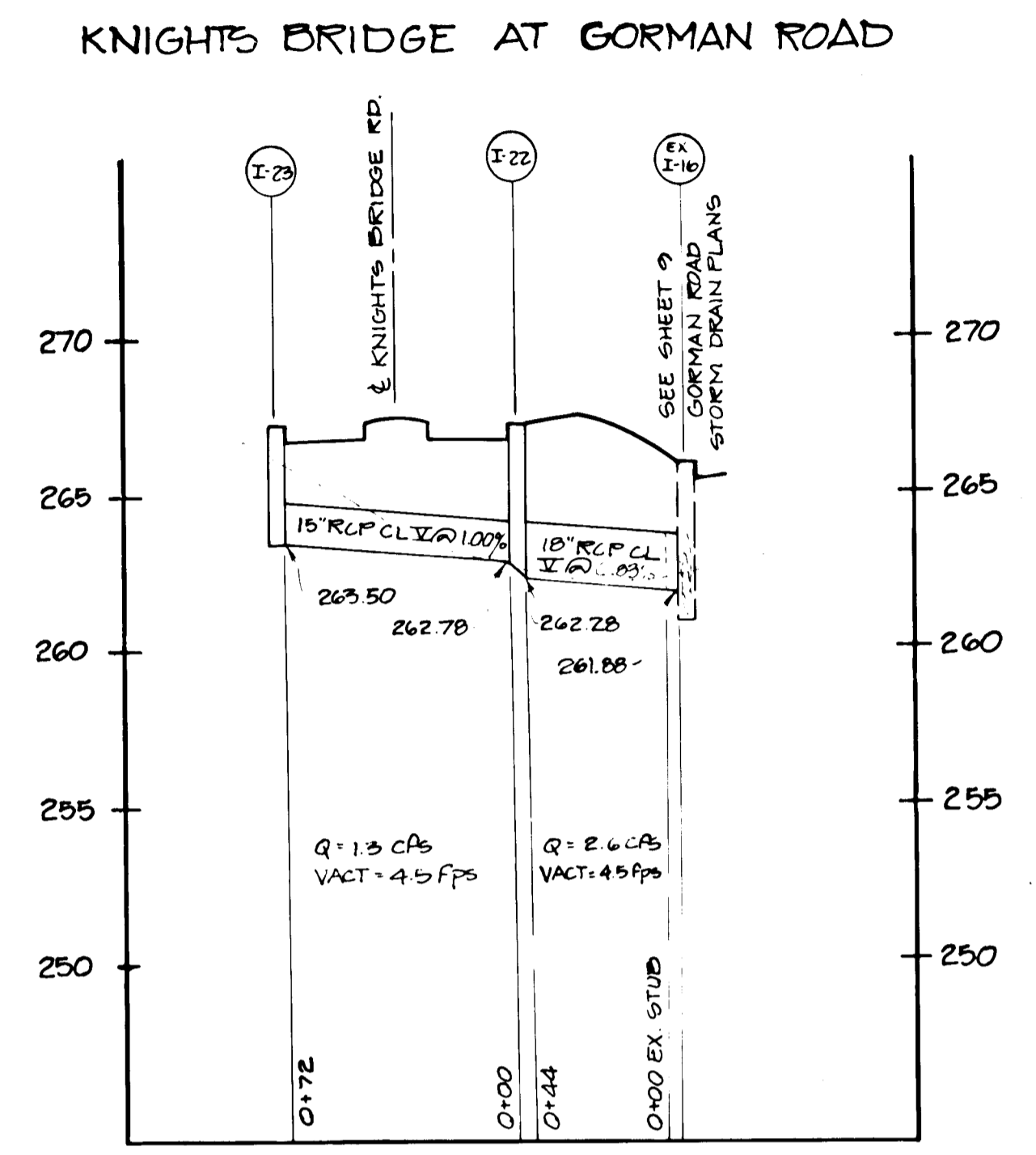
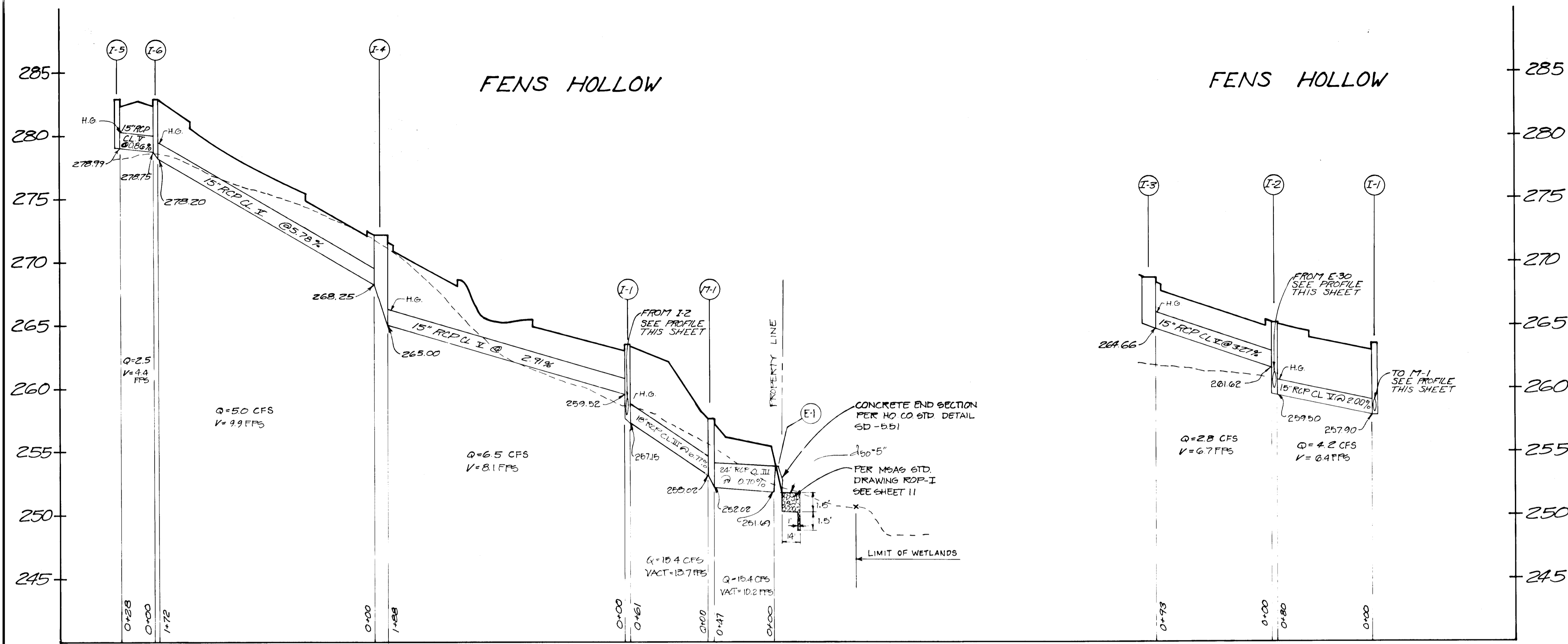
Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville, MD 20855 (301)762-2220

BOWLING BROOK FARMS
 LOTS 3 THRU 213
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL M1
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN MJK	3/9/87
DRAWN JDW	SHEET
CHECKED RET	7 OF 17
SCALE AS SHOWN	FILE NO.
C.I.	

1271

F-87-142



APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering *[Signature]* Date 8-3-87
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief/Division of Land Development & Zoning Administration *[Signature]* Date 8-4-87

NO.	DESCRIPTION	DATE	APPROVED	DATE
1	ISSUED FOR PERMITS	8/26/87		
2	REVISED	8/27/87		

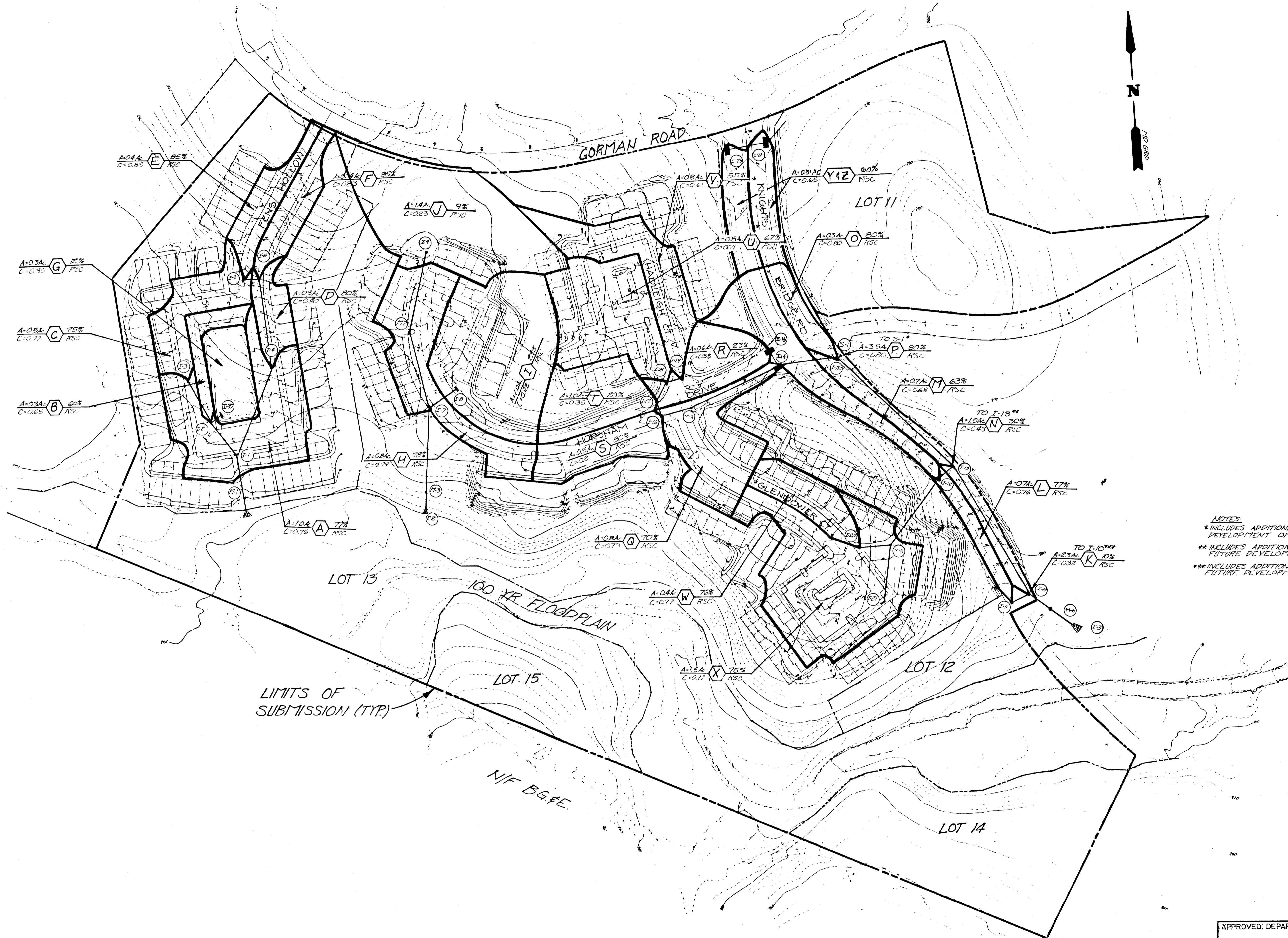


REVISED
 STORM DRAIN PROFILES
BOWLING BROOK FARMS

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville, MD 20855 (301)762-2220

BOWLING BROOK FARMS
 LOTS 3 THRU 213
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN <i>MJK</i>	3/9/87
DRAWN <i>PA</i>	SHEET
CHECKED <i>RET</i>	9 of 17
SCALE: HORIZ. 1"=50'	FILE NO.
VERT. 1"=5'	2184-11-0



NOTES:
 * INCLUDES ADDITIONAL DRAINAGE AREA FROM FUTURE DEVELOPMENT OF LOT 11
 ** INCLUDES ADDITIONAL DRAINAGE AREA FROM FUTURE DEVELOPMENT OF PARCEL G
 *** INCLUDES ADDITIONAL DRAINAGE AREA FROM FUTURE DEVELOPMENT OF PARCELS G+H

LIMITS OF SUBMISSION (TYP)

NIF B.G.#E

APPROVED: DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering: *[Signature]* 8-3-87
 Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 Chief, Division of Land Development & Zoning Administration: *[Signature]* 8-4-87
 Date

NO.	DESCRIPTION	DATE	APPROVED	DATE



REVISION D

DRAINAGE AREA MAP

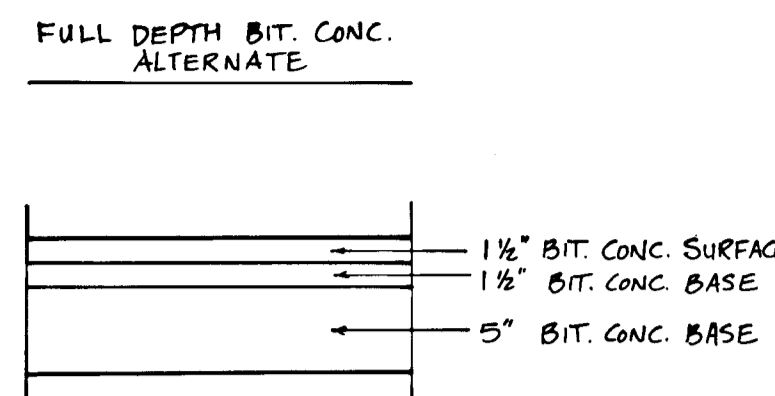
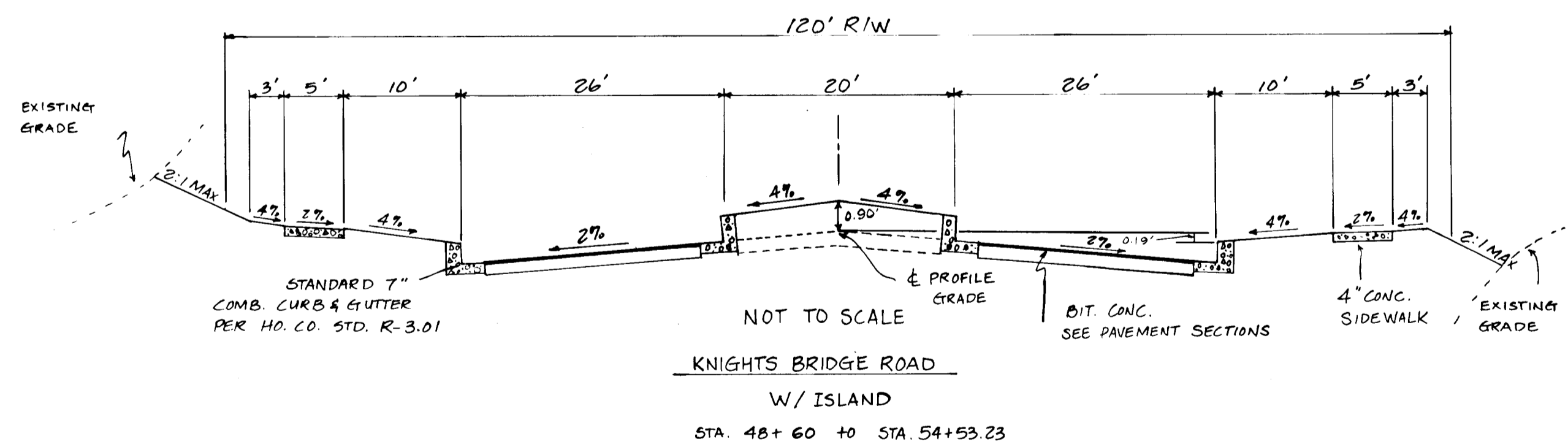
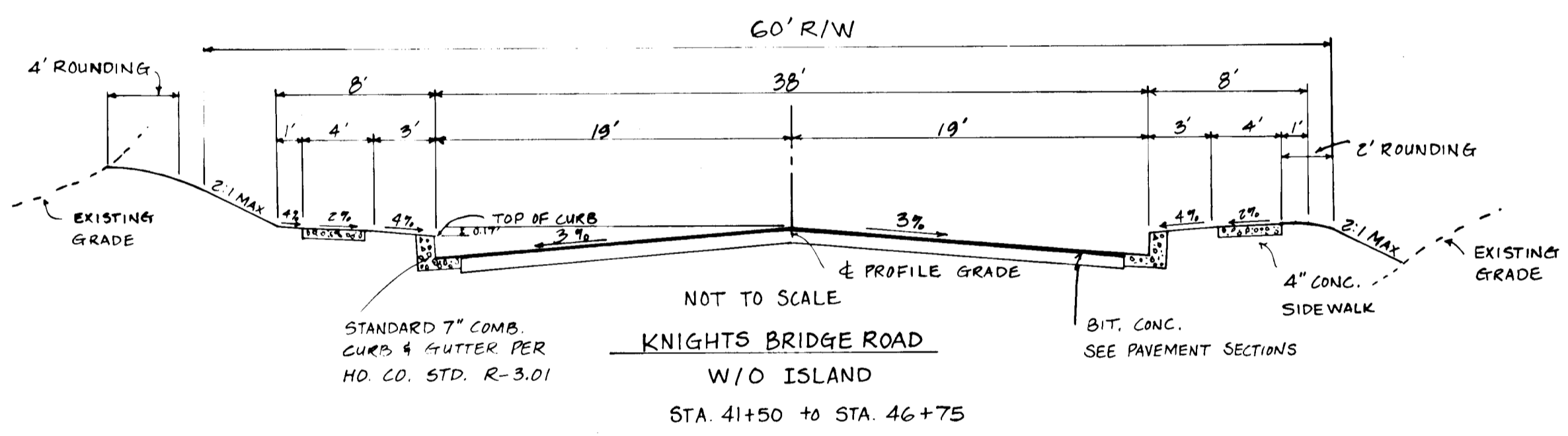
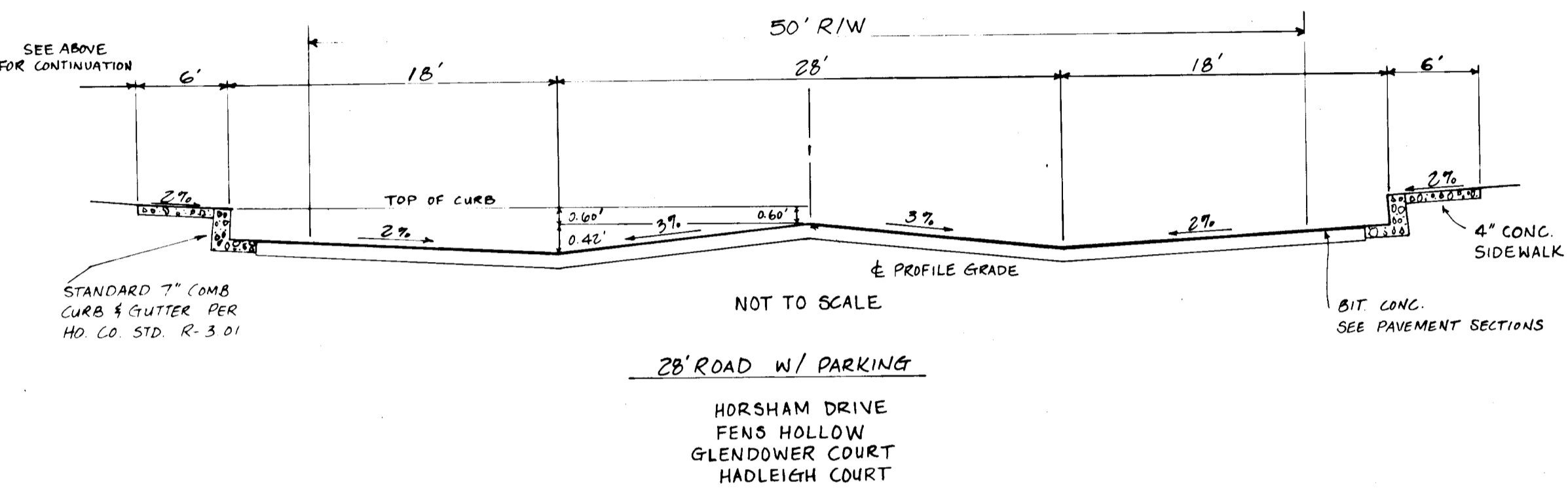
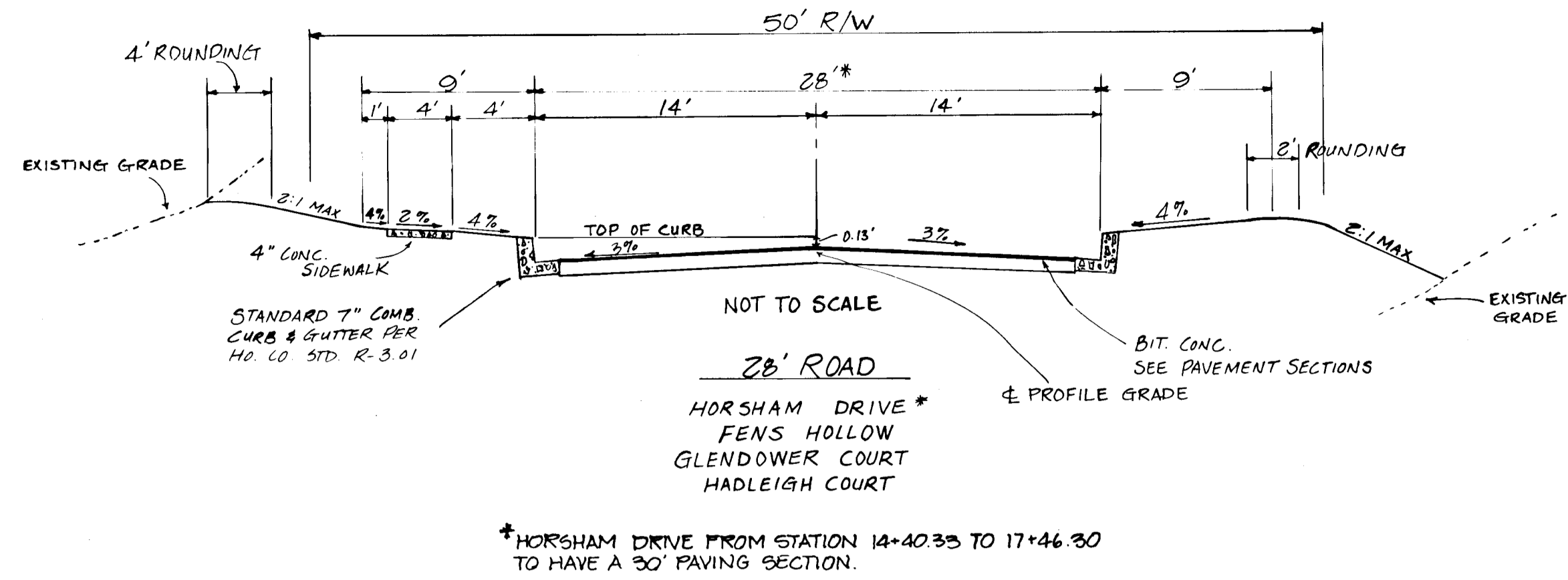
BOWLING BROOK FARMS

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville, MD 20855 (301)762-2220

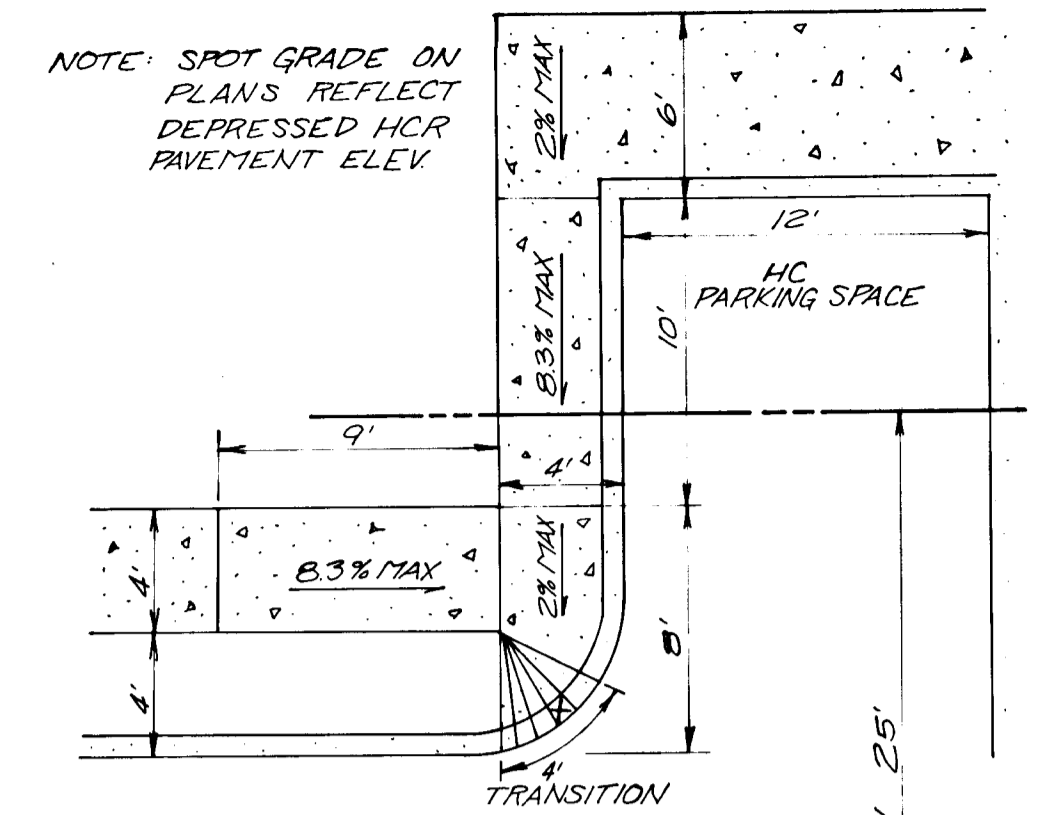
BOWLING BROOK FARMS
 LOTS 3 THRU 213
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN <i>[Signature]</i>	3/9/87
DRAWN <i>[Signature]</i>	SHEET
CHECKED <i>[Signature]</i>	10 OF 17
SCALE 1"=100' C.I. = 2'	FILE NO 218-10

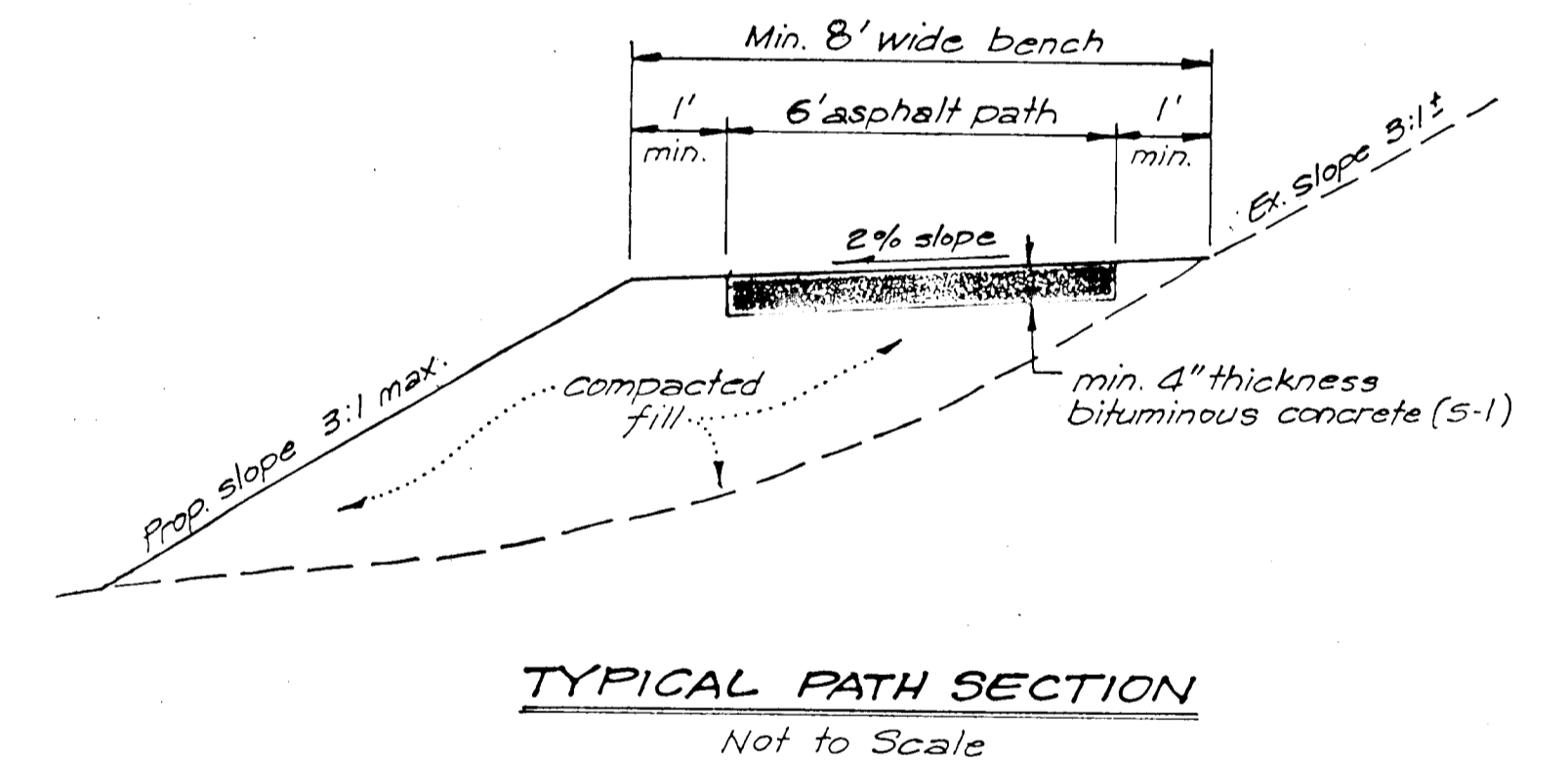
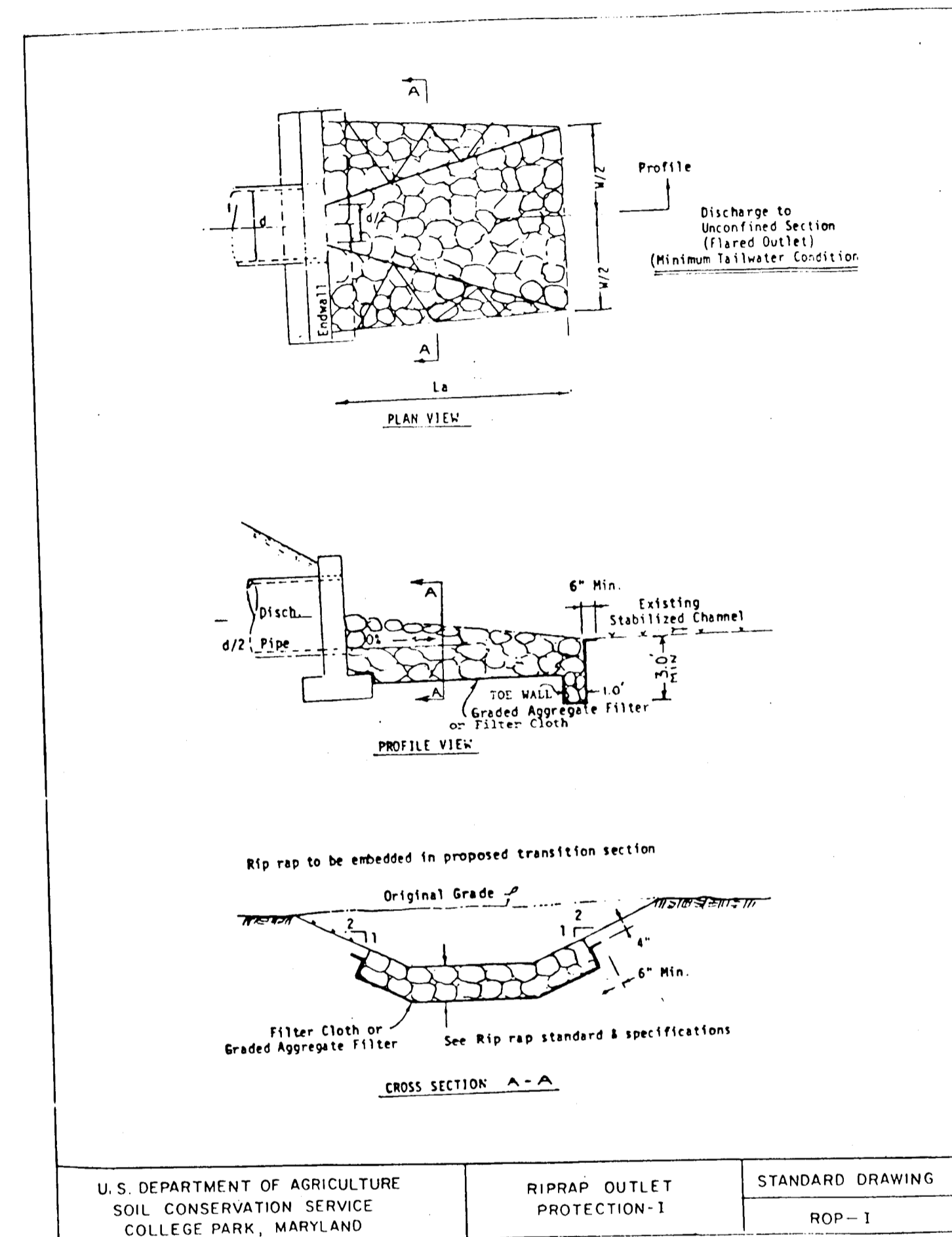
BIT. CONC. PAVEMENT SECTION (HD. CO. STD. R-2.01 P-3)



NOTE: ONE PAVEMENT SECTION SHALL BE USED THROUGHOUT THE WORK.



HANDICAP RAMP DETAIL NOT TO SCALE



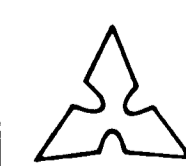
APPROVED: DEPARTMENT OF PUBLIC WORKS
 [Signature] 8-3-87
 Chief, Bureau of Engineering
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 [Signature] 8-4-87
 Chief, Division of Land Development & Zoning Administration

NO.	DESCRIPTION	DATE	APPROVED	DATE



REVISED

PAVING & STORM DRAINAGE SECTIONS & DETAILS



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place Rockville, Md 20855 (301) 762-2220

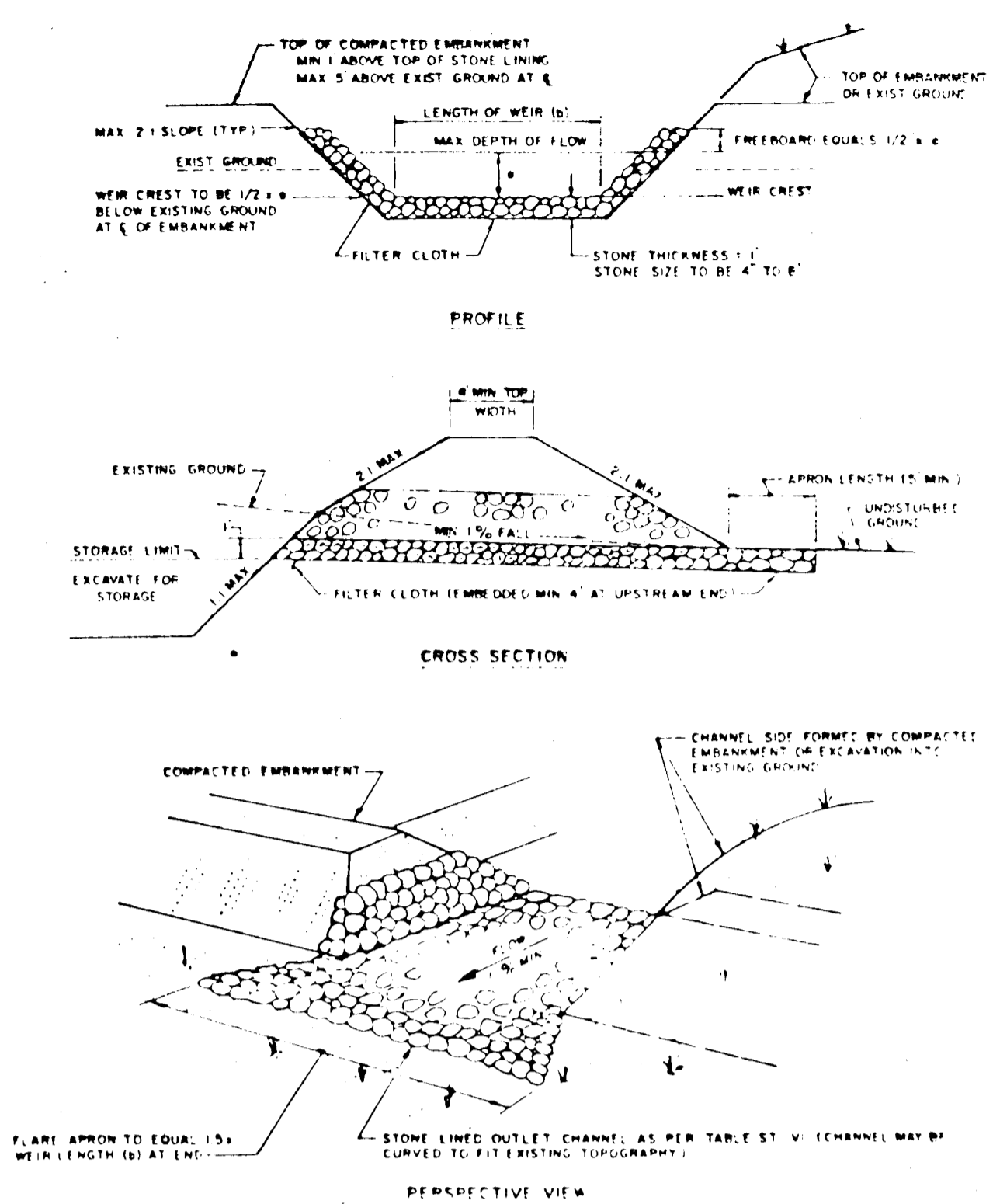
BOWLING BROOK FARMS
 LOTS 3 THRU 213
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN MJK	3-9-87
DRAWN MJK	SHEET
CHECKED	11 OF 17
SCALE AS SHOWN	FILE NO.
C.I.	2184-1-0

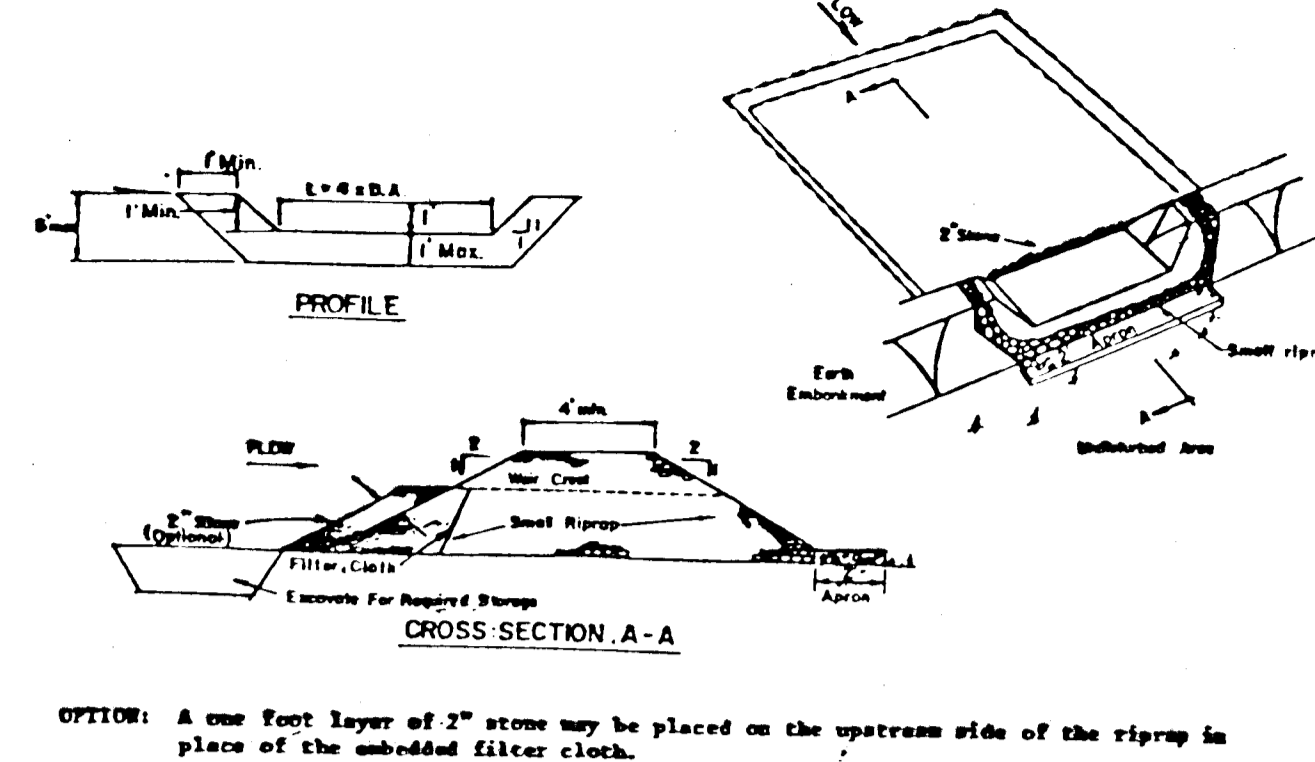
CONSTRUCTION SPECIFICATIONS FOR ST-VI

- The area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
- The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
- All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- Elevation of the top of any dike directing water into trap must equal or exceed the height of embankment.
- Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the level weir crest.
- Filter cloth shall be placed over the bottom and sides of the outlet channel prior to placement of stone. Sections of fabric must overlap at least one (1) foot with section nearest the entrance placed on top. Fabric shall be embedded at least six (6) inches into existing ground at entrance of outlet channel.
- Stone used in the outlet channel shall be four (4) to eight (8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (1) foot back into the upstream face of the outlet stone or a one (1) foot thick layer of two (2) inch or finer aggregate shall be placed on the upstream face of the outlet.
- Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The structure shall be inspected after each rain and repaired as needed.
- Construction operations shall be carried out in such a manner that erosion and water pollution are minimized.
- The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.
- Drainage area for this practice is limited to 15 acres or less.

RIPRAP OUTLET SEDIMENT TRAP ST-VI

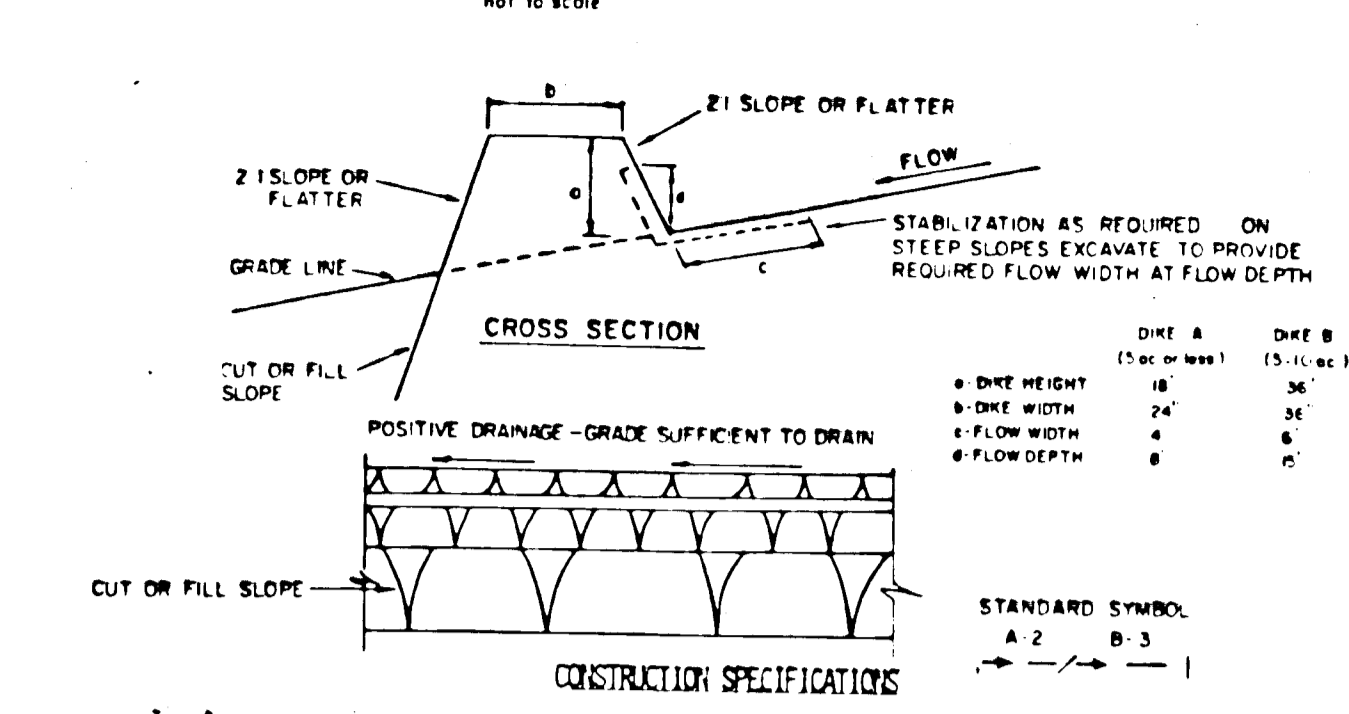


STONE OUTLET SEDIMENT TRAP V



- OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.
- CONSTRUCTION SPECIFICATIONS FOR ST-V
- Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
 - The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
 - All cut and fill slopes shall be 2:1 or flatter.
 - The stone used in the outlet shall be small riprap 4"-8" along with a 1" thickness of 2" aggregate placed on the upgrade side on the small riprap on embedded filter cloth in the riprap.
 - Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.
 - The structure shall be inspected after each rain and repairs made as needed.
 - Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
 - The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

EARTH DIKE not to scale



FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CUTSLOPE	DIKE A	DIKE E
1	5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING LIME OR EXCELSTOR; SOG; 2" STONE
3	5.1-8.0%	SEED WITH LIME OR SOG; 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 COMPRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND COMPRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

PERMANENT SEEDING NOTES

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

Seeding 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:

- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 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).
- 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 0-0-5 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 (20 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 368 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.

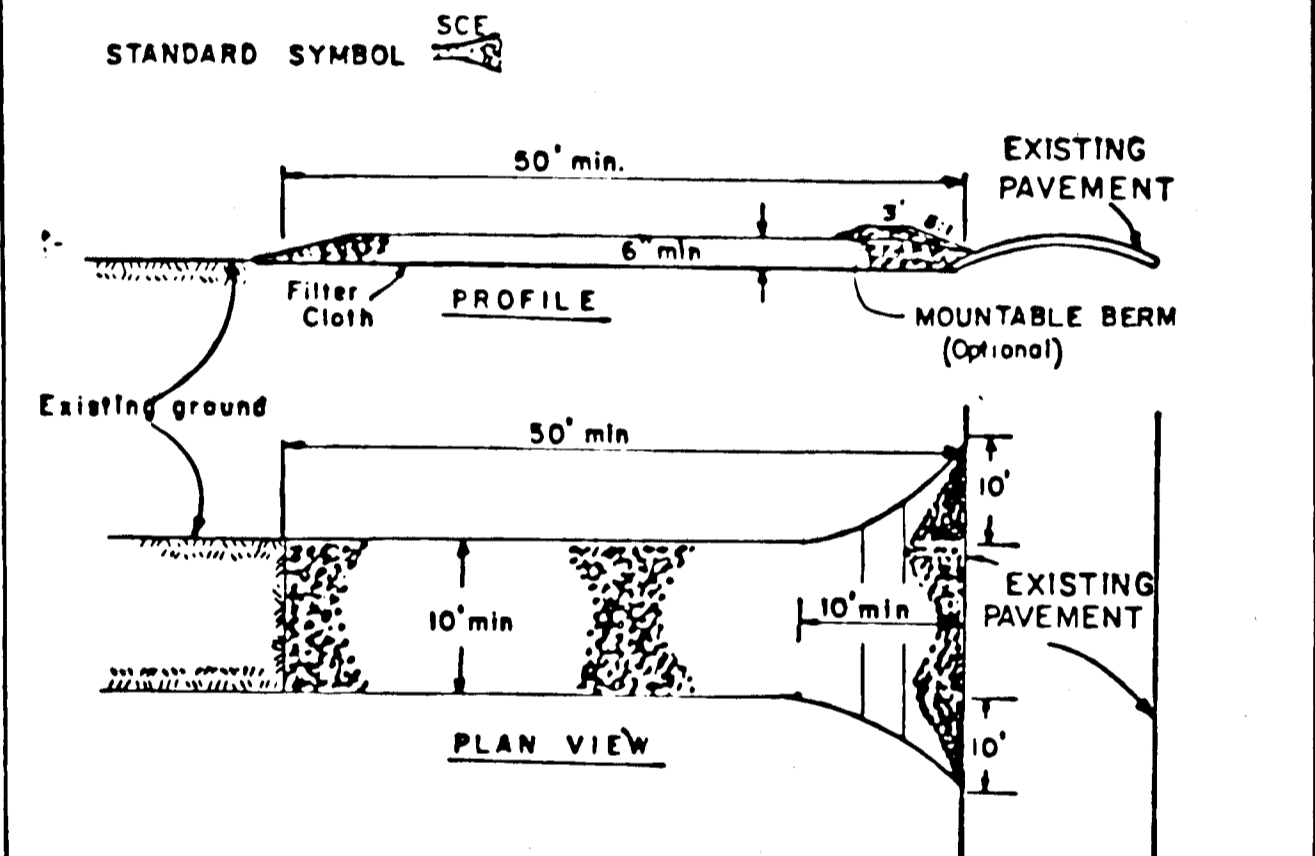
Seeding Preparation: Loosen upper three inches of soil by raking, disking or other acceptable means before seeding.

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 24 bushels per acre of Annual Ryegrass (3.2 lbs/1000 sq ft). For the period May 1 thru November 14 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 (20 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 ft or higher, use 368 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.

STABILIZED CONSTRUCTION ENTRANCE not to scale

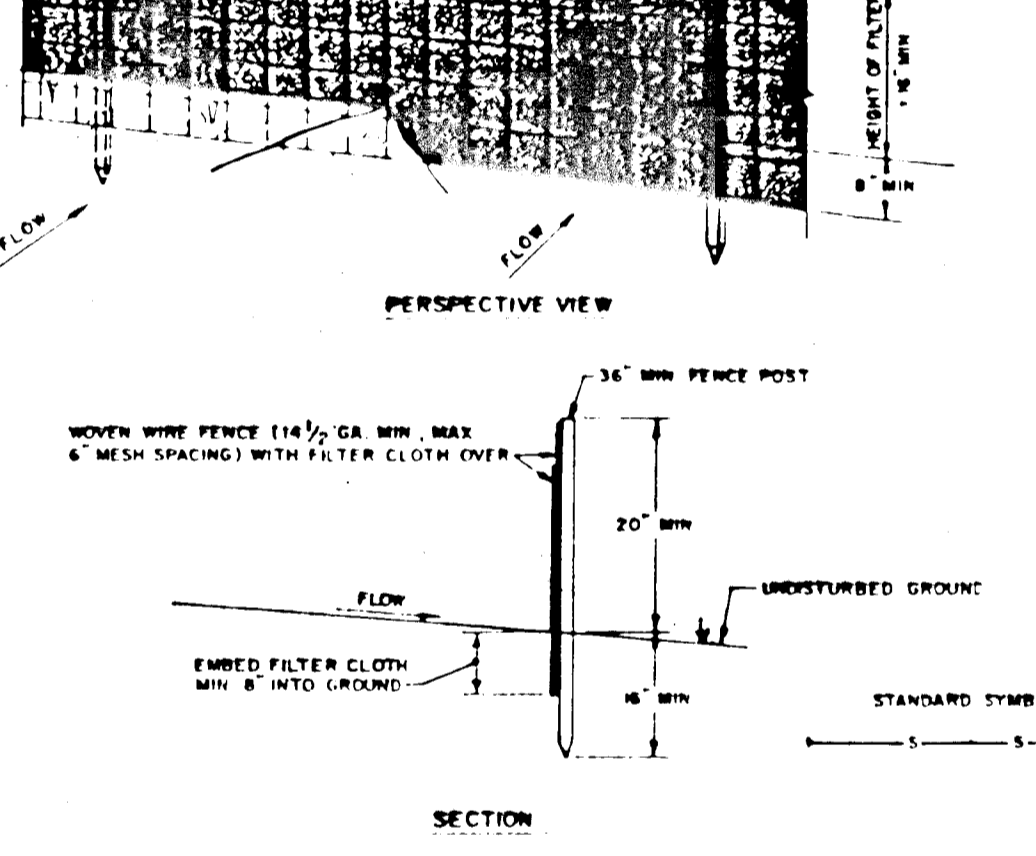


- CONSTRUCTION SPECIFICATIONS
- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
 - Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
 - Thickness - Not less than six (6) inches.
 - Width - Ten (10) foot 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 entrance. 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 cleanout of any measures used to trap sediment. All sediment applied, 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.

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE College Park, Md. STABILIZED CONSTRUCTION ENTRANCE Standard Drawing SCE-1

14 03

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 abut each other they shall be overlapped by six inches and folded.
 - Maintenance shall be performed as needed and material removed when "ICEBERG" develops in the silt fence.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
FENCE: WOVEN WIRE, 14 GA. OR MAX. MESH OPENING
FILTER CLOTH: FILTER X, TIRAFIL 1000, STABILINKA 1100N OR APPROVED EQUAL
PREFABRICATED UNIT: GEOTEX, UNIFORMITY, OR APPROVED EQUAL

U. S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND SILT FENCE STANDARD DRAWING SF-1

SEDIMENT TRAP SCHEDULE

SEDIMENT TRAP #	1	2	3	4	5
TYPE OF TRAP - STD & SPEC #	ST-VI	ST-V	ST-VI	ST-VI	ST-VI
DRAINAGE AREA (ACRES)	6.4ac	1.7ac	3.0ac	4.0ac	11.2ac
STORAGE REQUIRED (FT ³)	11,520cf	3,060cf	5,400cf	7,200cf	29,160cf
STORAGE PROVIDED (FT ³)	11,520cf	3,090cf	5,400cf	7,200cf	29,170cf
BASE DIMENSIONS & ELEV.	27' x 125' @ 247.25	18' x 46' @ 255.4	37' x 43' @ 257.75	17' x 117' @ 232.25	70' x 70' @ 214.50
WEIR LENGTH & ELEV.	16 @ 251.25	8 @ 250.0	6 @ 241.75	10 @ 236.25	14 @ 218.50
STORAGE DEPTH	3'	3'	3'	3'	3'
EMBANKMENT HT. & TOP ELEV.	8 @ 255.0	2 @ 260.0	2 @ 245.0	2 @ 250.0	3 @ 225.0
MAX. DEPTH OF FLOW OVER WEIR	1.5'		1.5'	1.5'	2.0'

SCHEDULE CONTINUED BELOW

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.

R. Peter Bossett
Signature of Developer/Builder

7/23/87
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.

Richard E. Travers
Signature of Engineer

7/23/87
Date

SEDIMENT CONTROL NOTES

- A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permitting prior to the start of any construction. (HW-2037)
- 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 redisturbance, 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, 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 17, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 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) and (Sec. 56), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area of Site	275 Acres
Area Disturbed	23.2 Acres
Area to be roofed or paved	102.3 Acres
Area to be vegetatively stabilized	172.2 Acres
Total Cut	114,200 Cu. yds
Total Fill	12,800 Cu. yds
Offsite water/borrow area location	N/A
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County DSW sediment control inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Delaying or building or grading inspection approvals may not be authorized until this written approval by the inspection agency is made.

SEDIMENT TRAP SCHEDULE

SEDIMENT TRAP #	6
TYPE OF TRAP - STD & SPEC #	ST-VI
DRAINAGE AREA (ACRES)	4.6
STORAGE REQUIRED (FT ³)	8,280
STORAGE PROVIDED (FT ³)	8,370
BASE DIMENSIONS & ELEV.	42' x 59' @ 258.25
WEIR LENGTH & ELEV.	12' @ 262.25
STORAGE DEPTH	3'
EMBANKMENT HT. & TOP ELEV.	3.5' @ 266.25
MAX. DEPTH OF FLOW OVER WEIR	1.5'

THIS PLAN FOR STREET AND UTILITY CONSTRUCTION ONLY

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

J. M. Helm
U.S. Soil Conservation Service

7-30-87
Date

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

Stephen L. Rubin
Howard SCD

7-23-87
Date

PLAN NUMBER _____

NO.	DESCRIPTION	DATE	APPROVED	DATE

REVISION APPROVED BY _____

APPROVED: DEPARTMENT OF PUBLIC WORKS

William B. R. ...
Chief, Bureau of Engineering

8-3-87
Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

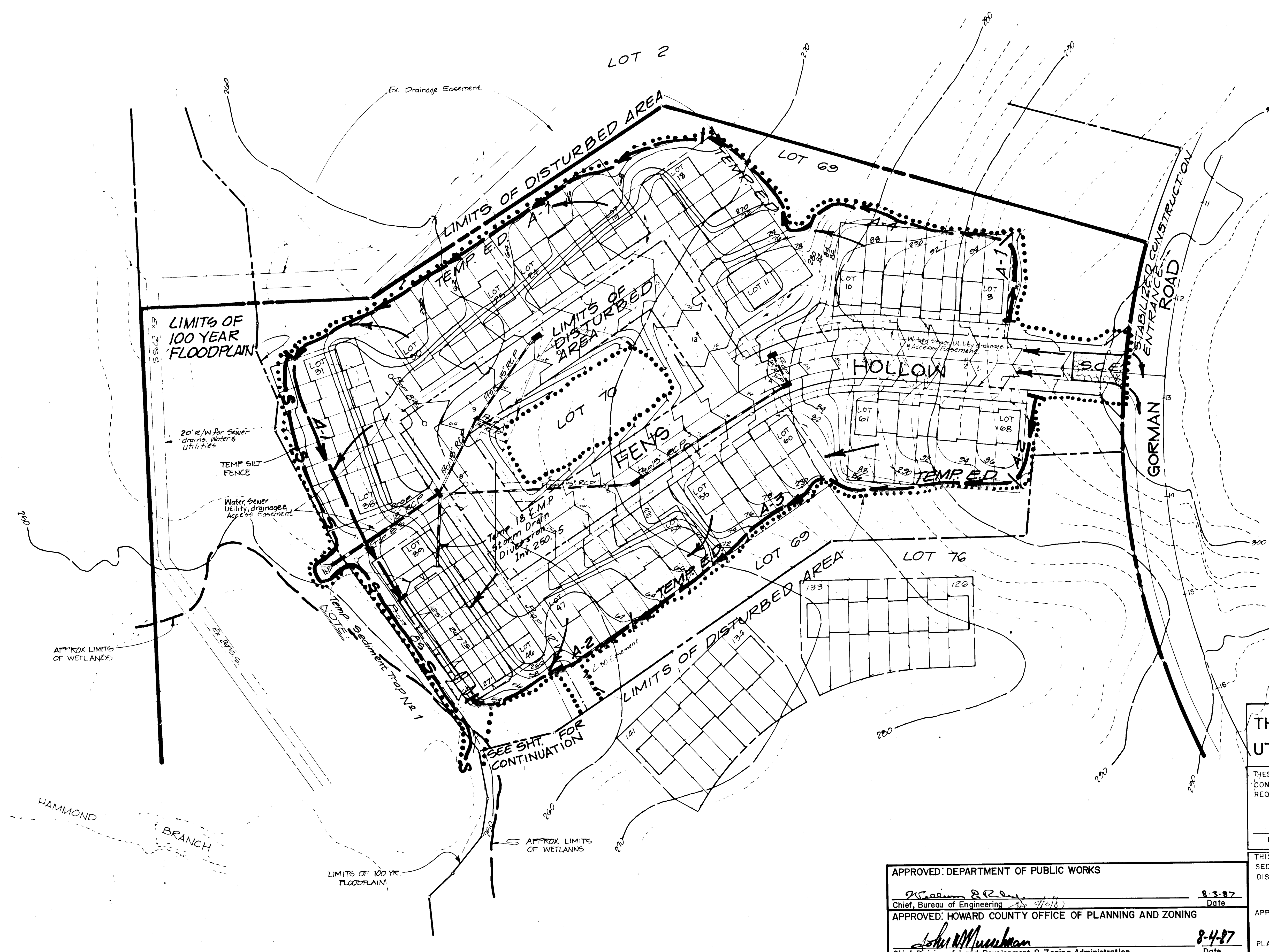
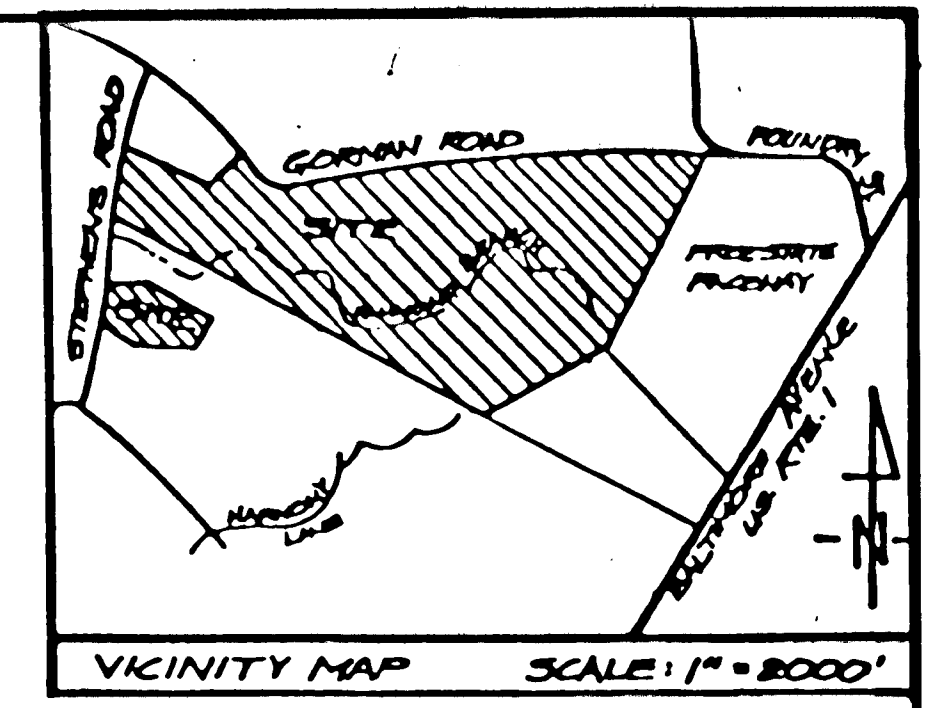
John W. ...
Chief, Division of Land Development & Zoning Administration

8-4-87
Date

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place, Rockville Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
PARCELS J AND K
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTON DISTRICT HOWARD COUNTY, MARYLAND

SURVEY _____ DATE 5-29-87
DESIGN JPC
DRAWN CSR
CHECKED JPC
SCALE _____ SHEET 12 OF 17
FILE NO. 284-10



THIS PLAN FOR STREET AND UTILITY CONSTRUCTION ONLY

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

James M. Hahn 7-30-87
 U.S. Soil Conservation Service Date

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

APPROVED *Stephen A. Hahn* 7-30-87
 Howard S.C.D. Date

APPROVED: DEPARTMENT OF PUBLIC WORKS
William R. ... 8-3-87
 Chief, Bureau of Engineering Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
John M. ... 8-4-87
 Chief, Division of Land Development & Zoning Administration Date

SURVEY F.H.R.G.A.	DATE
DESIGN JPC	5-20-87
DRAWN JDW/CSR	SHEET
CHECKED JPC	13 OF 17
SCALE 1" = 50'	FILE NO.
C.L. 2'	2184-1-0

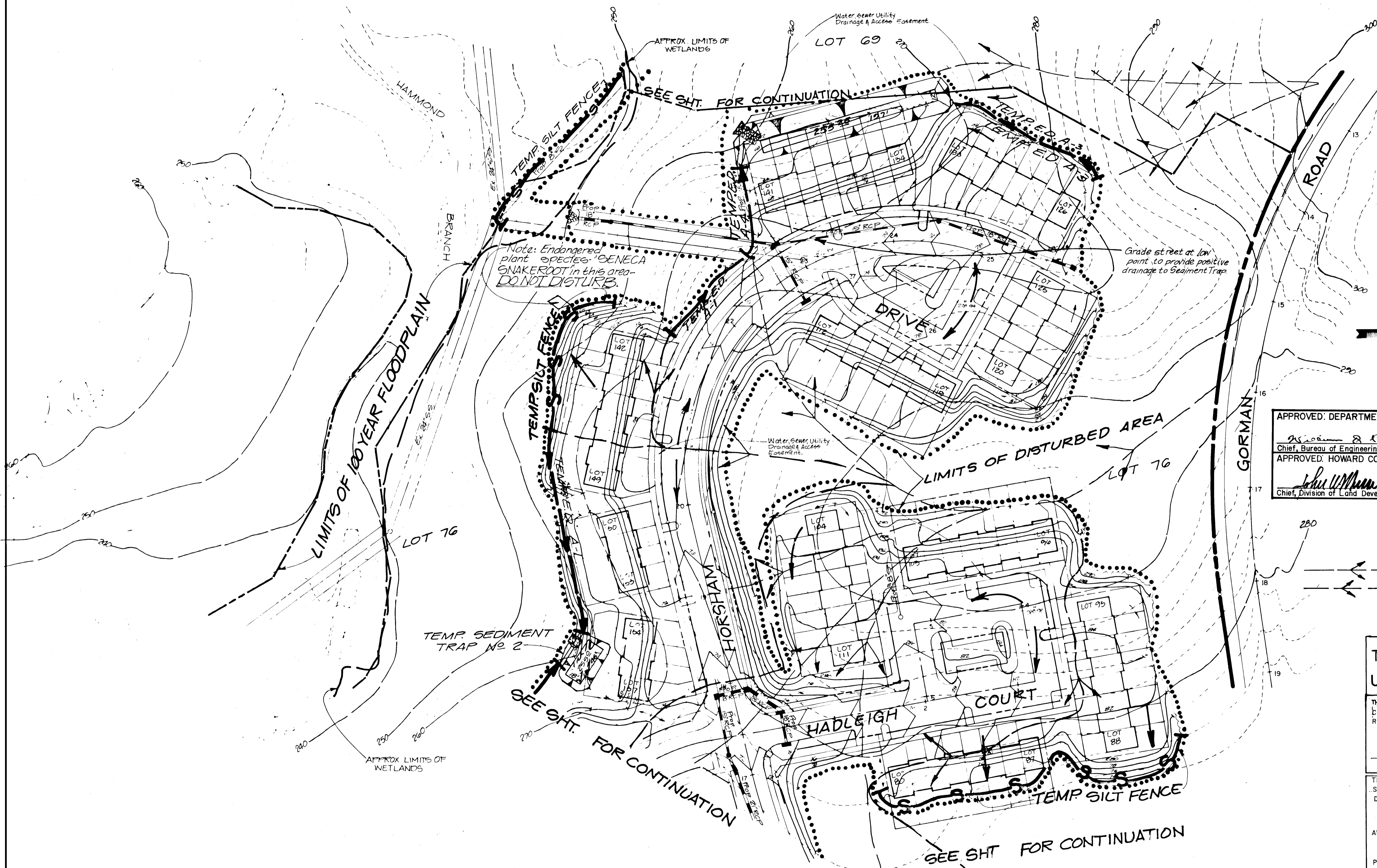
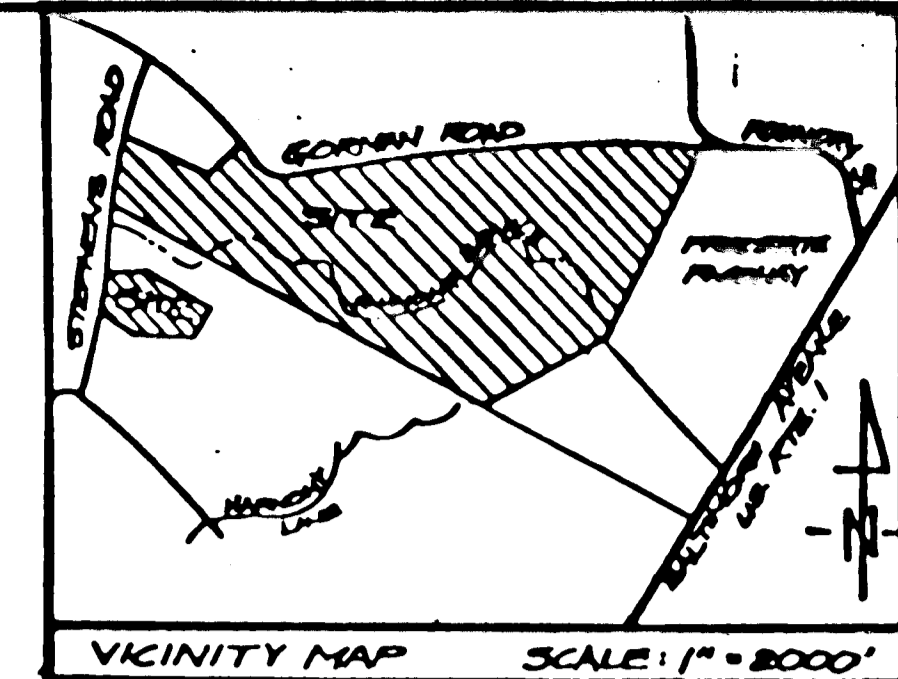
NO.	DESCRIPTION	DATE	APPROVED	DATE
REVISION APPROVED BY				



EROSION AND SEDIMENT CONTROL PLAN

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
 PARCELS J AND K
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



Note: Endangered plant species: **GENECA SNAKEROOT** in this area - **DO NOT DISTURB.**

Grade street at low point to provide positive drainage to Sediment Trap

APPROVED: DEPARTMENT OF PUBLIC WORKS
[Signature] 8-3-87
 Chief, Bureau of Engineering Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
[Signature] 8-4-87
 Chief, Division of Land Development & Zoning Administration Date

LEGEND

- Ex. Drainage divide to Sediment Trap
- Prop. Drainage divide to Sediment Trap

THIS PLAN FOR STREET AND UTILITY CONSTRUCTION ONLY

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

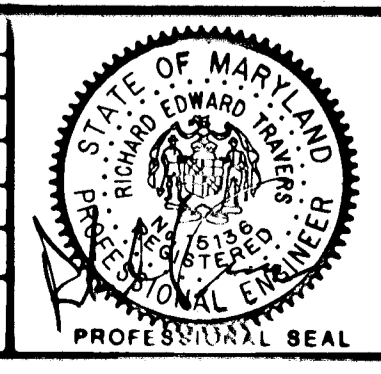
[Signature] 7-30-87
 U.S. Soil Conservation Service Date

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

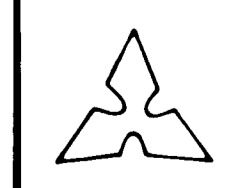
APPROVED *[Signature]* 7-30-87
 Howard S C D Date

PLAN NUMBER _____

NO.	DESCRIPTION	DATE	APPROVED	DATE



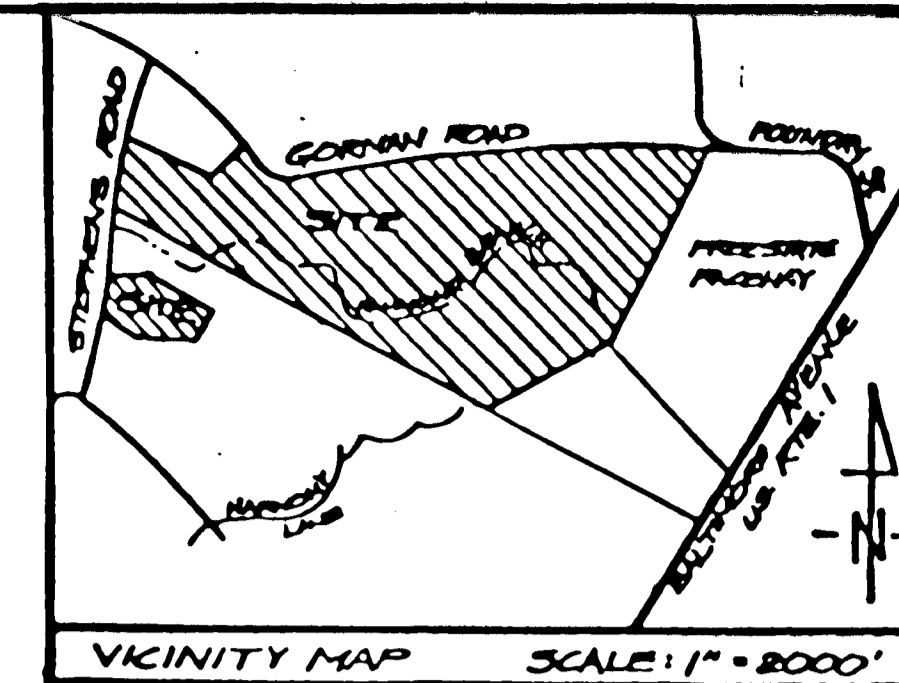
EROSION AND SEDIMENT CONTROL PLAN



Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville Md. 20855 (301) 762-2220

BOWLING BROOK FARMS
 PARCELS J AND K
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY P.H.R. & A.	DATE
DESIGN J.P.C.	5-27-87
DRAWN J.D.W./C.S.R.	SHEET
CHECKED J.P.C.	14 OF 17
SCALE 1"=50'	FILE NO.
C.I. 2'	2184-1-0



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

James McNeil
U.S. Soil Conservation Service
7-30-87
Date

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

APPROVED: *Stephen L. Akle* 7/30/87
Howard S.C.D.
Date

PLAN NUMBER

APPROVED: DEPARTMENT OF PUBLIC WORKS

William S. Kelly 8-3-87
Chief, Bureau of Engineering
Date

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

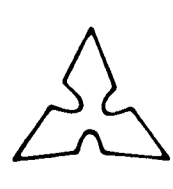
John W. Mueselman 8-4-87
Chief, Division of Land Development & Zoning Administration
Date

THIS PLAN FOR STREET AND UTILITY CONSTRUCTION ONLY

NO.	DESCRIPTION	DATE	APPROVED	DATE



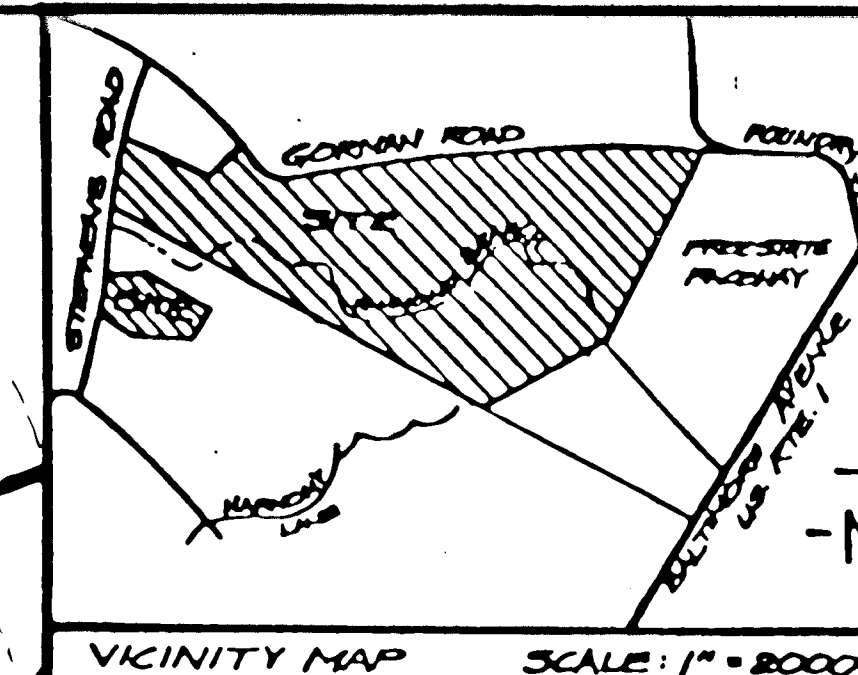
EROSION AND SEDIMENT CONTROL PLAN



Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
7609 Standish Place, Rockville Md 20855 (301) 762-2220

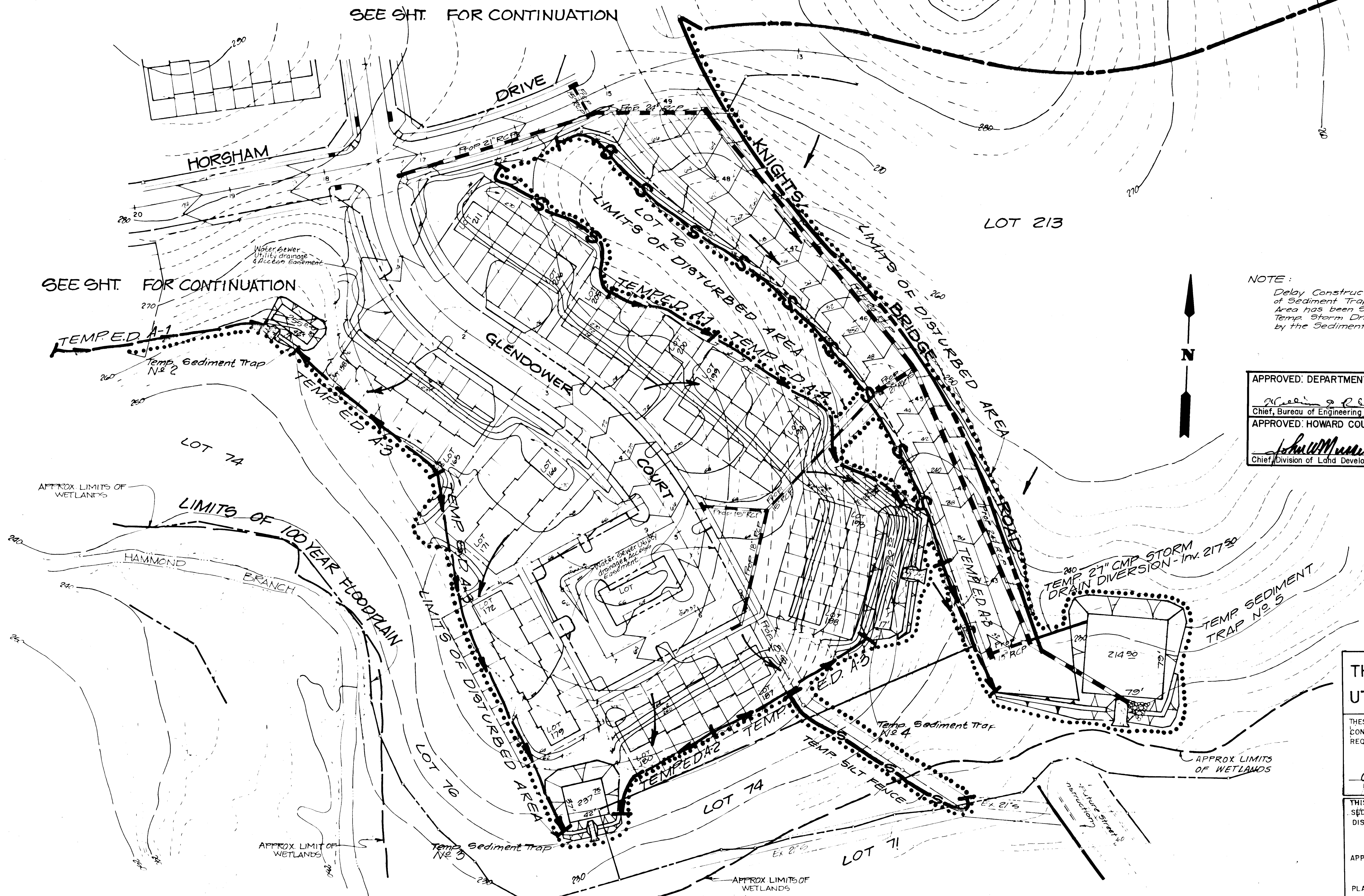
BOWLING BROOK FARMS
PARCELS J AND K
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY P.H.R.E.A.	DATE
DESIGN J.P.C.	5-29-87
DRAWN J.D.W./C.S.R.	SHEET
CHECKED J.P.C.	15 OF 17
SCALE 1"=50'	FILE NO.
C.I. 2'	2184-1-0



SEE SHT. FOR CONTINUATION

SEE SHT. FOR CONTINUATION



NOTE:
 Delay Construction of Storm Drain Outfall in Vicinity of Sediment Trap No. 5 until Contributing Drainage Area has been Stabilized and Removal of Trap and Temp. Storm Drain Diversion has been Authorized by the Sediment Control Inspector.

APPROVED: DEPARTMENT OF PUBLIC WORKS
William S. P. King 8-3-87
 Chief, Bureau of Engineering Date
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Shull Muschman 8-4-87
 Chief, Division of Land Development & Zoning Administration Date

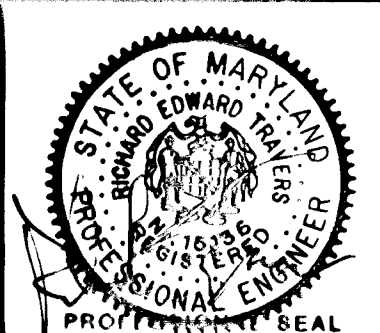
THIS PLAN FOR STREET AND UTILITY CONSTRUCTION ONLY

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET TECHNICAL REQUIREMENTS.
James McNeil 7-30-87
 U.S. Soil Conservation Service Date

THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
Stephen D. Staley 7-30-87
 HOWARD S.C.D. Date

NO.	DESCRIPTION	DATE	APPROVED	DATE

REVISION APPROVED BY

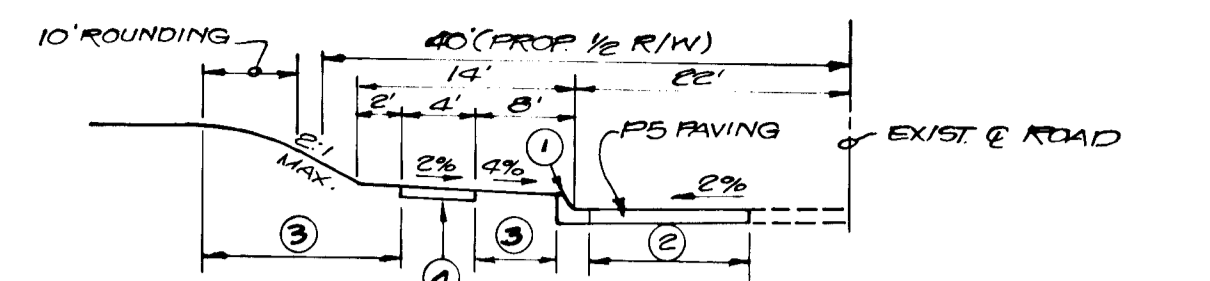
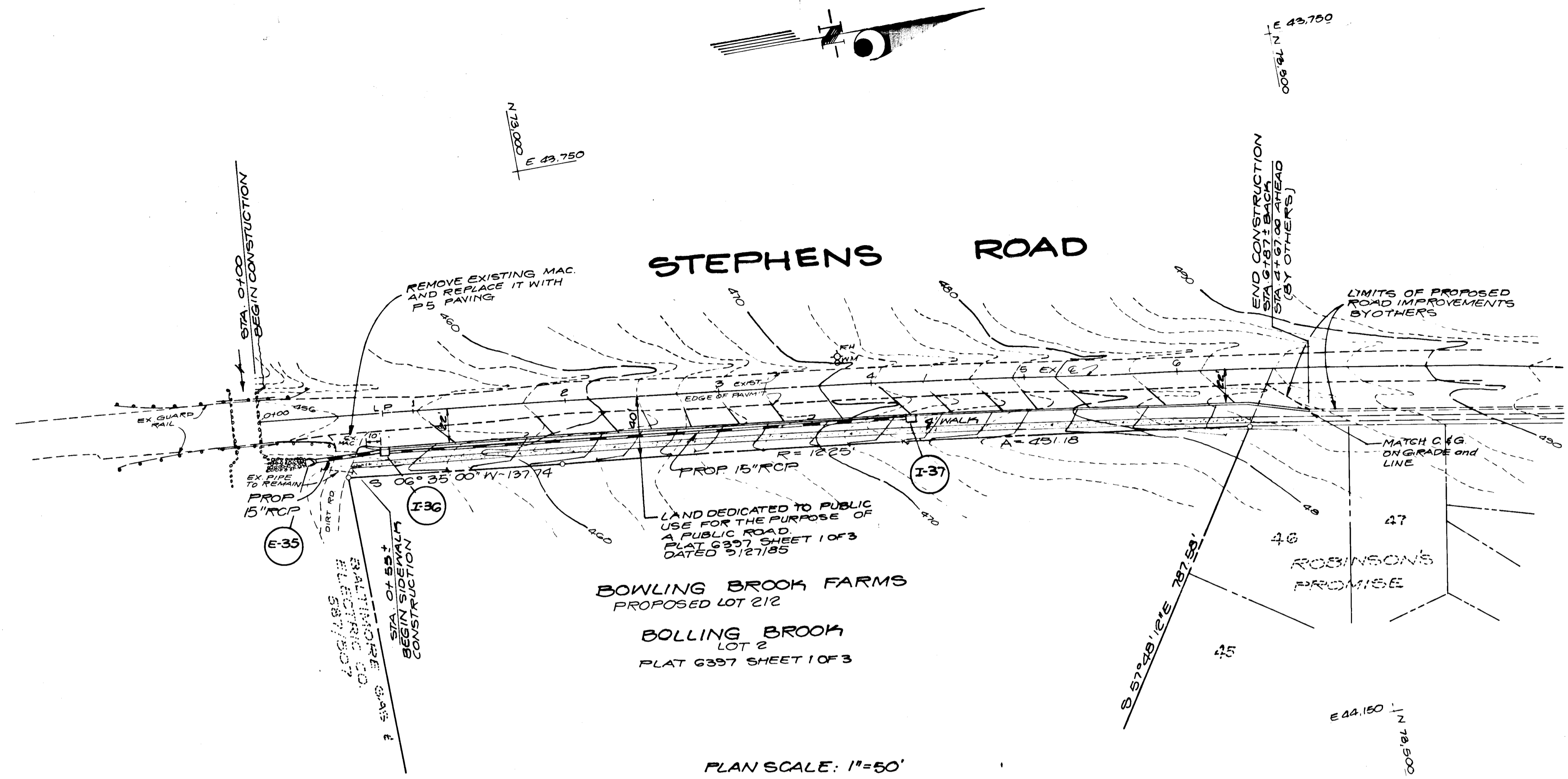


EROSION AND SEDIMENT CONTROL PLAN

Patton Harris Rust and Associates
 A Professional Corporation
 Engineers, Surveyors, Planners and Landscape Architects
 7609 Standish Place, Rockville Md 20855 (301) 762-2220

BOWLING BROOK FARMS
 PARCELS J AND K
 A RESUBDIVISION OF BOLLING BROOKE, LOT 2
 TAX MAP 47 PARCEL 141
 SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

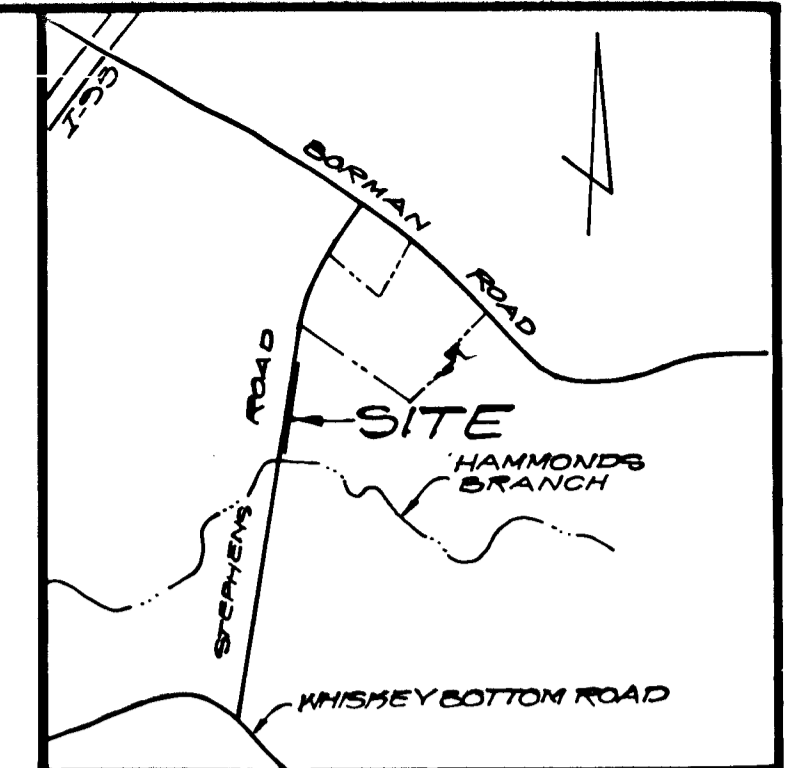
SURVEY	DATE
DESIGN JFC	5-29-87
DRAWN JDW/CSR	SHEET
CHECKED JFC	16 OF 17
SCALE 1" = 50'	FILE NO.
C.L. 2"	2184-1-0



- ① STANDARD 7" COMB. CURB & GUTTER (STD # R-3.01)
- ② 12' PROPOSED WIDENING SECTION
- ③ INDICATES 2" TOP SOIL, STRD & MULCH
- ④ 4" CONC. SIDEWALK (STD # R-3.05)

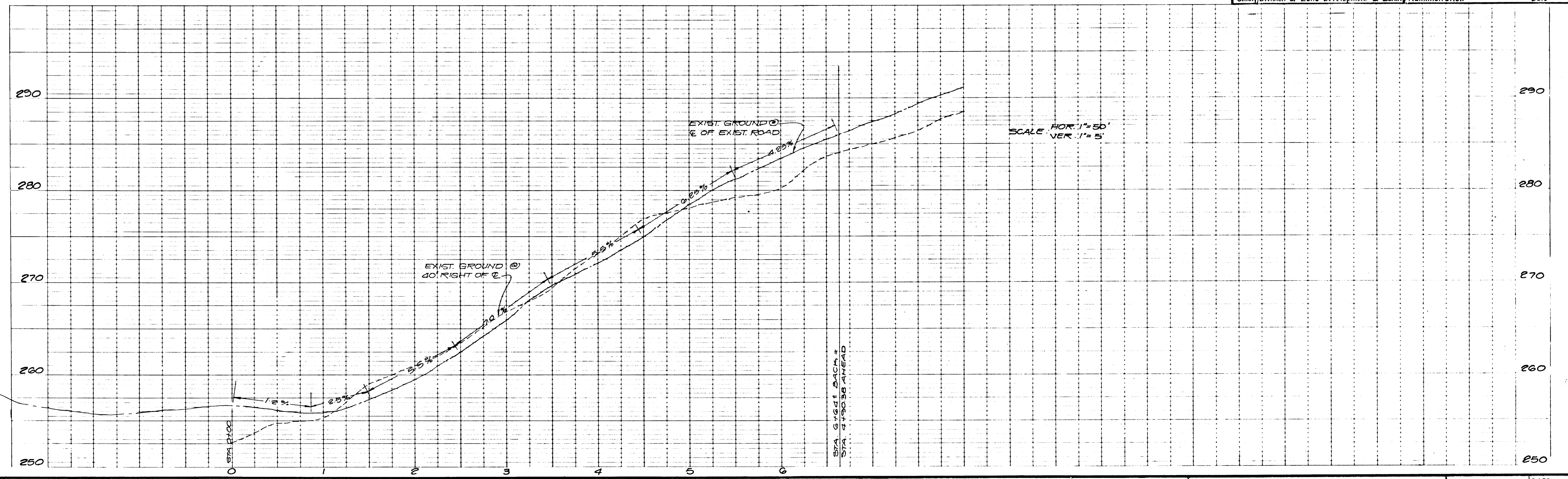
TYPICAL SECTION: PROPOSED 1/2 R/W
NO SCALE

STEPHENS RD STA 0+8 TO 6+87.2
MAJOR COLLECTOR
DESIGN SPEED = 40 MPH

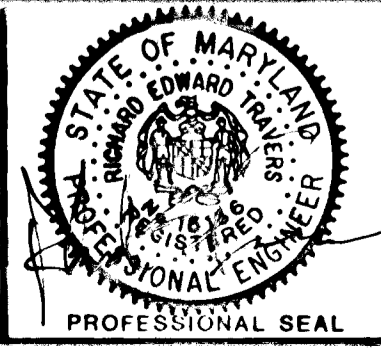


VICINITY MAP
SCALE: 1/4" = 100'

APPROVED: DEPARTMENT OF PUBLIC WORKS	
<i>[Signature]</i> Chief, Bureau of Engineering	8-3-87 Date
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING	
<i>[Signature]</i> Chief, Division of Land Development & Zoning Administration	8-4-87 Date



NO.	DESCRIPTION	DATE	APPROVED	DATE



REVISED

PAVING and STORM DRAIN PLAN
STEPHENS ROAD
BOWLING BROOK FARMS

Patton Harris Rust and Associates
A Professional Corporation
Engineers, Surveyors, Planners and Landscape Architects
10523 Main Street, Fairfax, Va. / Bridgewater, Va. / Buckhannon, W. Va. / Rockville, Md.

BOWLING BROOK FARMS
LOTS 3 THRU 213
A RESUBDIVISION OF BOLLING BROOKE, LOT 2
TAX MAP 47 PARCEL 141
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SURVEY	DATE
DESIGN E.C.	23/6/87
DRAWN E.C.	SHEET
CHECKED RT	17 OF 17
SCALE AS SHOWN	FILE NO.
G.I.	