

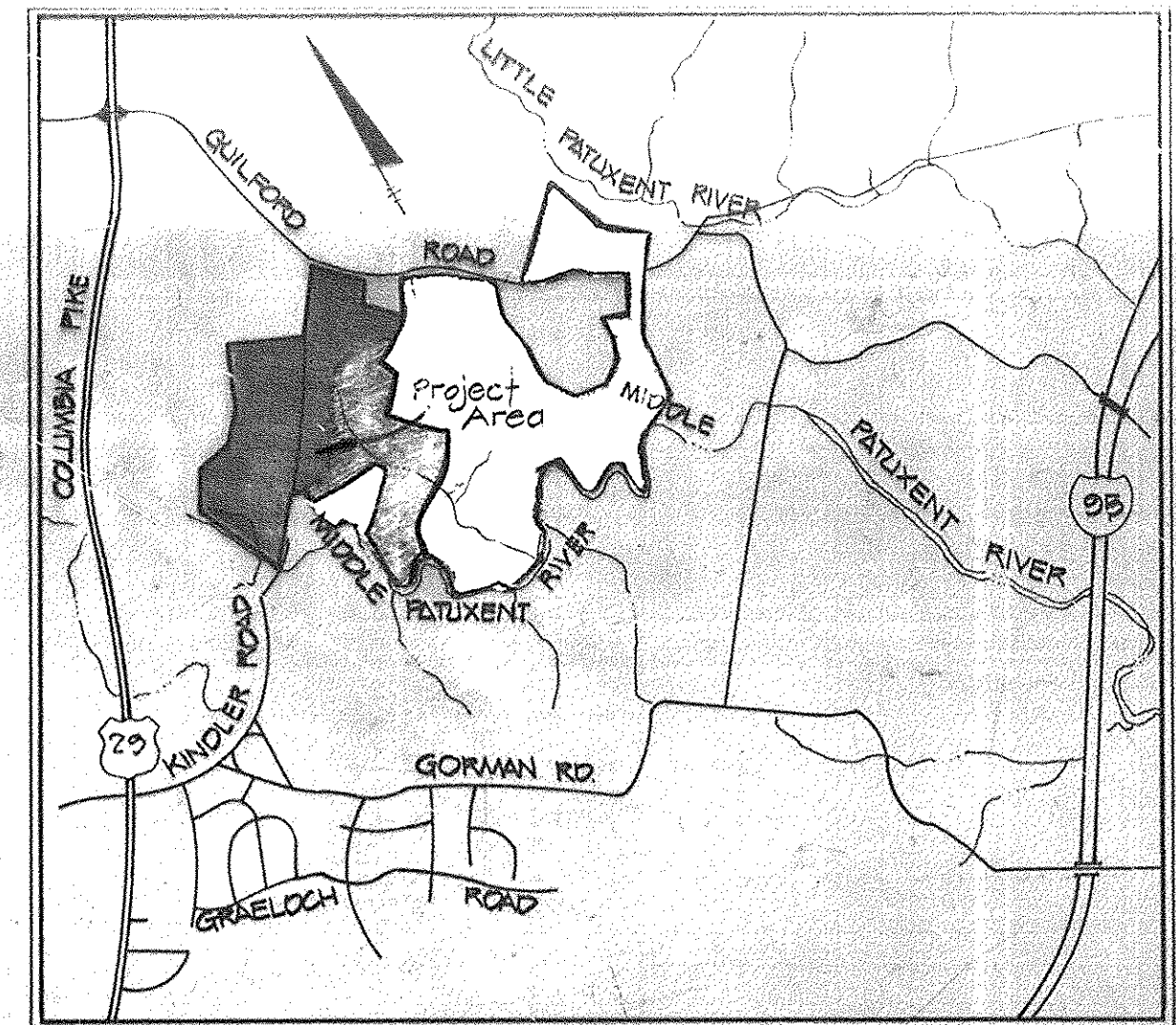
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Draw. No.	DESCRIPTION
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3	Detail Sheet
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5	Road Plan - Narrow Wind, Silent Bird, Bobolink, Farthest Thunder
6	Road Plan - First League, Artic Flower, Kindler Rd, Little Bird Path, Meadow Bee, Pink Wood
7	Road Plan - Eden Brook Dr, Weather Worn, Sandalfoot Way, First League, Pink Wood, Broadcloth Way
8	Road Plan - Weather Worn Way, Water Lily Way
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41	Storm Water Management C.S.#3, Profile & Cross Sections
42	Storm Water Management C.S.#3, Profile & Cross Sections

VILLAGE OF KINGS CONTRIVANCE

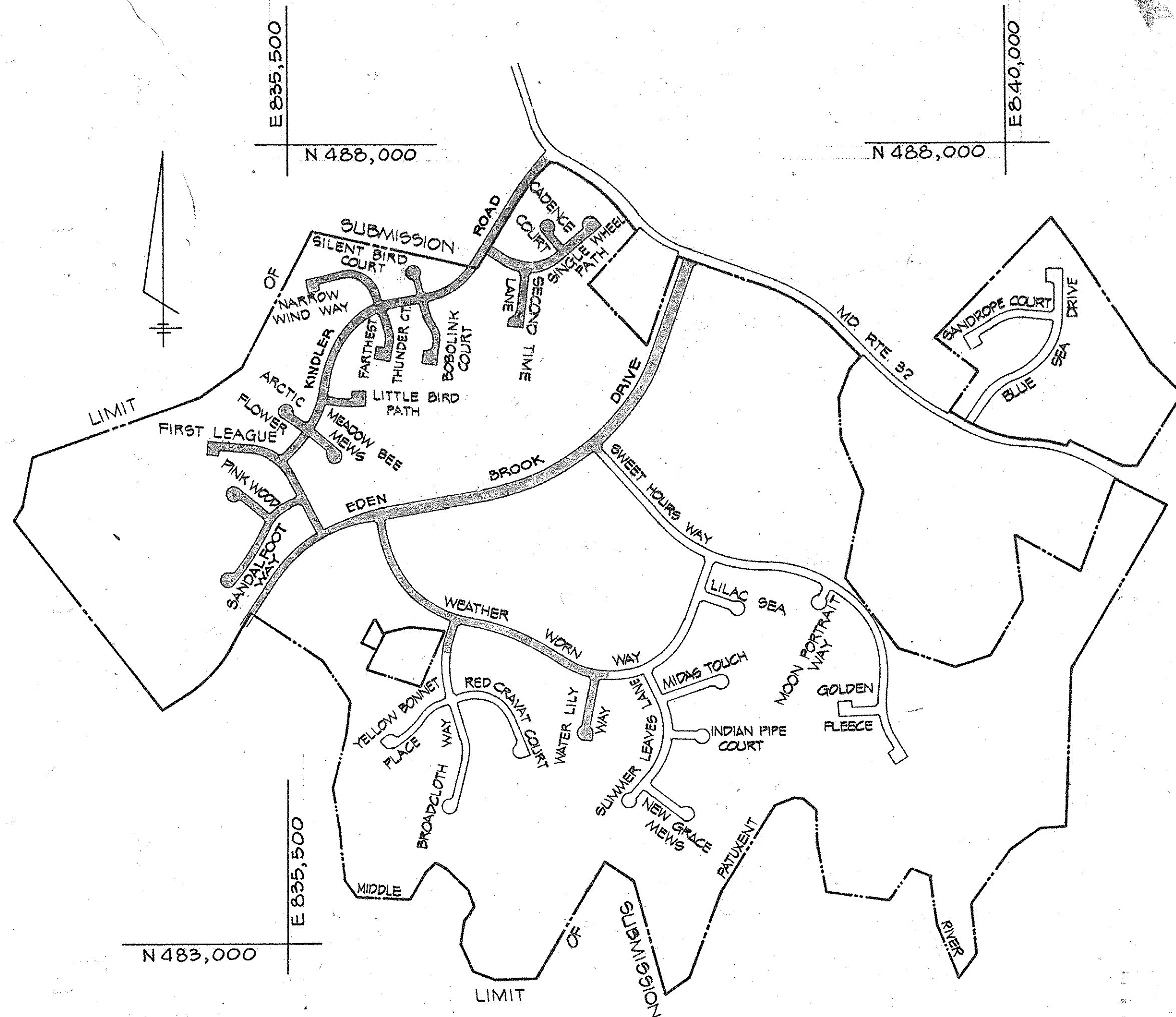
SECTION 2, AREA 3, PHASE 2

6TH. ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



VICINITY MAP
Scale: 1"=2000'



NOTE: 3/23/2016 - CAPITAL PROJECT D-169 REVISED THE CONTROL STRUCTURE AND PRINCIPAL SILLWAY UNDER SWEET HOURS WAY AT APPROX. STA. 2190 TO REMOVE THE STRUCTURE AND REPLACE THE EX. 24" RCCMP WITH A STANDARD 66" RCP CULVERT AND ASSOCIATE STANDARD HEADWALLS. ADDITIONAL GRADING TO RETURN THE STREAM TO A NATURAL STATE IS ALSO PROVIDED

GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES, WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES AT LEAST THREE DAYS BEFORE STARTING WORK SHOWN ON THIS/ THESE DRAWINGS:

BELL TELEPHONE SYSTEM	393-3649
LONG DISTANCE CABLE DIVISION	393-3553 or 3554
BALTIMORE GAS AND ELECTRIC COMPANY	539-8000 Ext. 691
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS, UNLESS OTHERWISE SHOWN.
- ALL STREET CURB RETURNS SHALL HAVE 35.0' RADII UNLESS OTHERWISE NOTED.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT-OF-WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH HOWARD COUNTY ROAD CODE.
- INSTALLATION OF TRAFFIC CONTROL DEVICES, MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES 1971 REVISED EDITION.
- DESIGNED TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS:
ALL 50' RIGHT-OF-WAYS 25 M.P.H. - 30' RIGHT-OF-WAYS 40 M.P.H.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.

PLAN
SCALE: 1"=600'

DATE	No.	DESCRIPTION
11/8/82	1	REVISED SHEET 4
11/8/82	1	REVISED TO REPLACE 24" RCCMP WITH 66" RCP AND REMOVE BRIDGE AND ADD REFERENC

DEPARTMENT OF PUBLIC WORKS
W. R. P. R. 4-24-81
 CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING
Shirley M. M... 1-28-81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

VILLAGE OF KING'S CONTRIVANCE
 SECTION 2, AREA 3, PHASE 2
 6TH ELECTION DISTRICT HOWARD COUNTY, MD.

OWNER AND DEVELOPER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 THE ROUSE COMPANY
 COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

1-12-80
 Date

AREA
 TAX MAP 41 & 42
 PARCELS 13, 54 PART OF 5,358,17

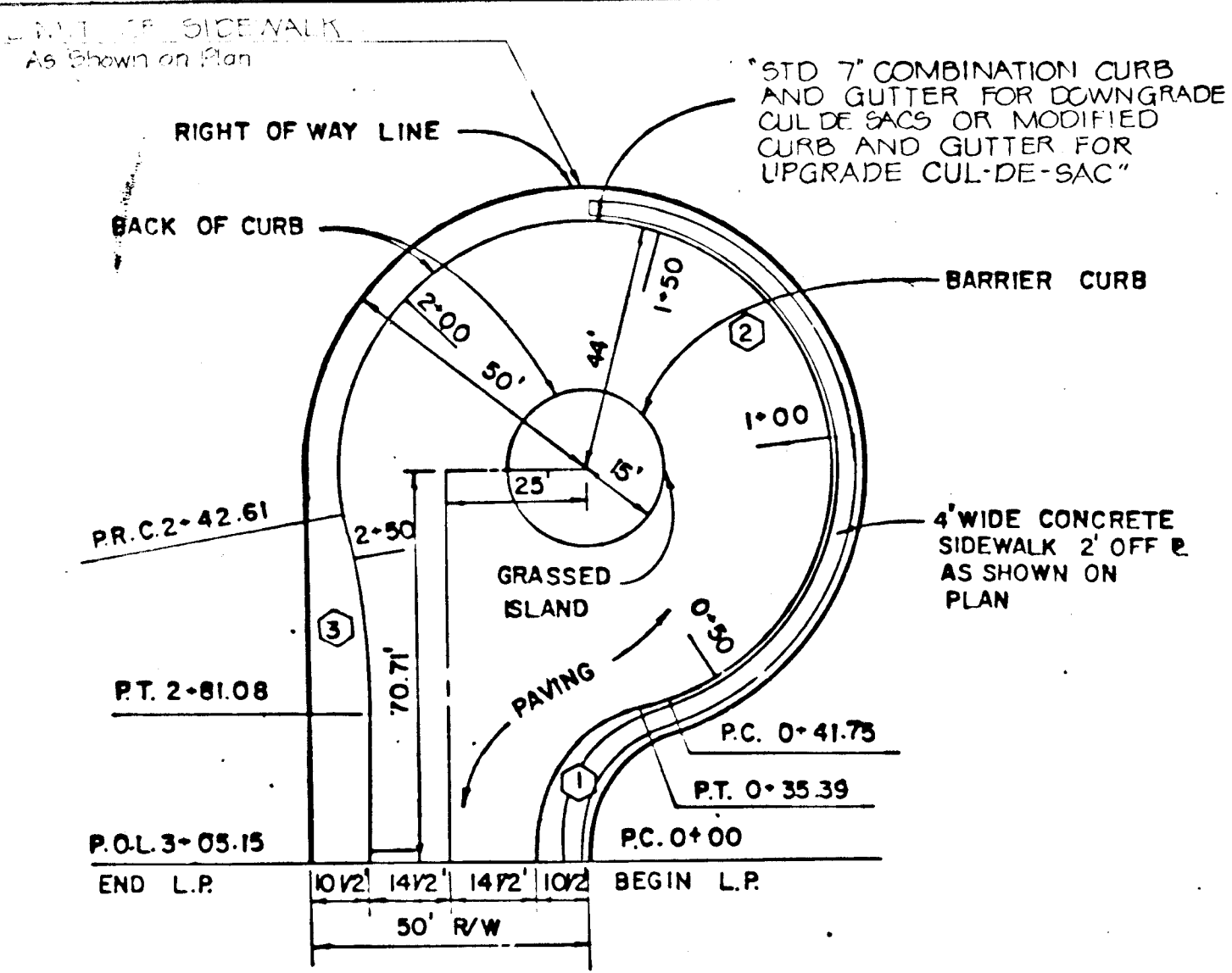
TITLE
 TITLE SHEET

Des By JWR	Scale	Proj No 0579
Drn By TD	Date 12/17/79	Drawing No.
Chk By GPM	Approved	1 OF 42

Professional Engr. No. 11432

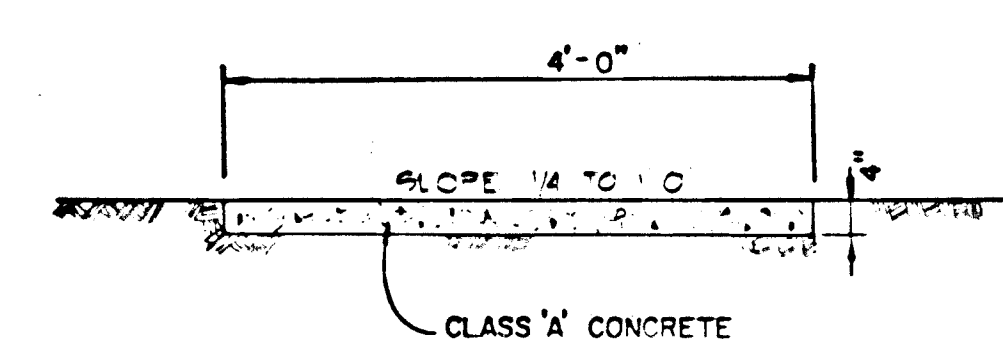
#445

BRUNING 44-132 28586

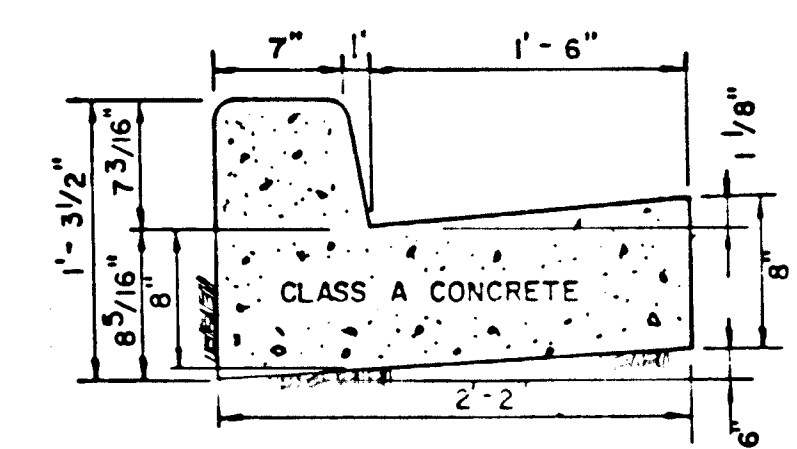


CURB CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TANGENT
1	28.75'	35.39'	70°31'44"	20.33'
2	44.00'	200.86'	261°32'59"	-
3	200.00'	38.47'	11°01'15"	19.29'

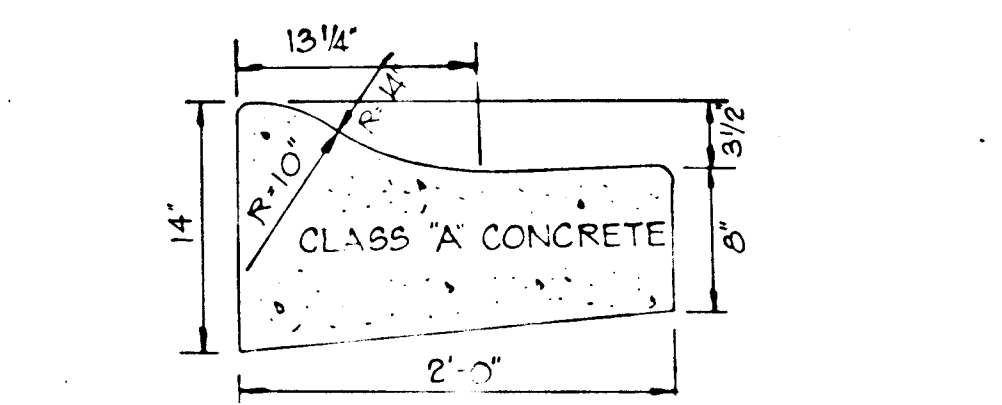
CUL DE SAC FOR A 50' R/W
SCALE: 1" = 30'



SIDEWALK DETAIL
NO SCALE

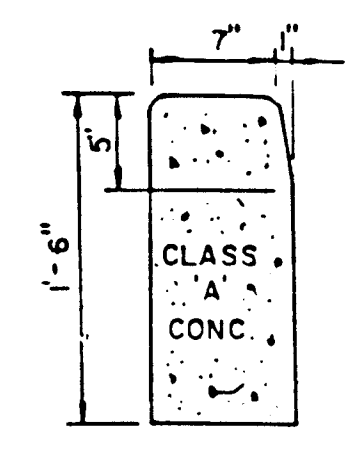


HOWARD CO. STANDARD (D-40, Pg. 95)



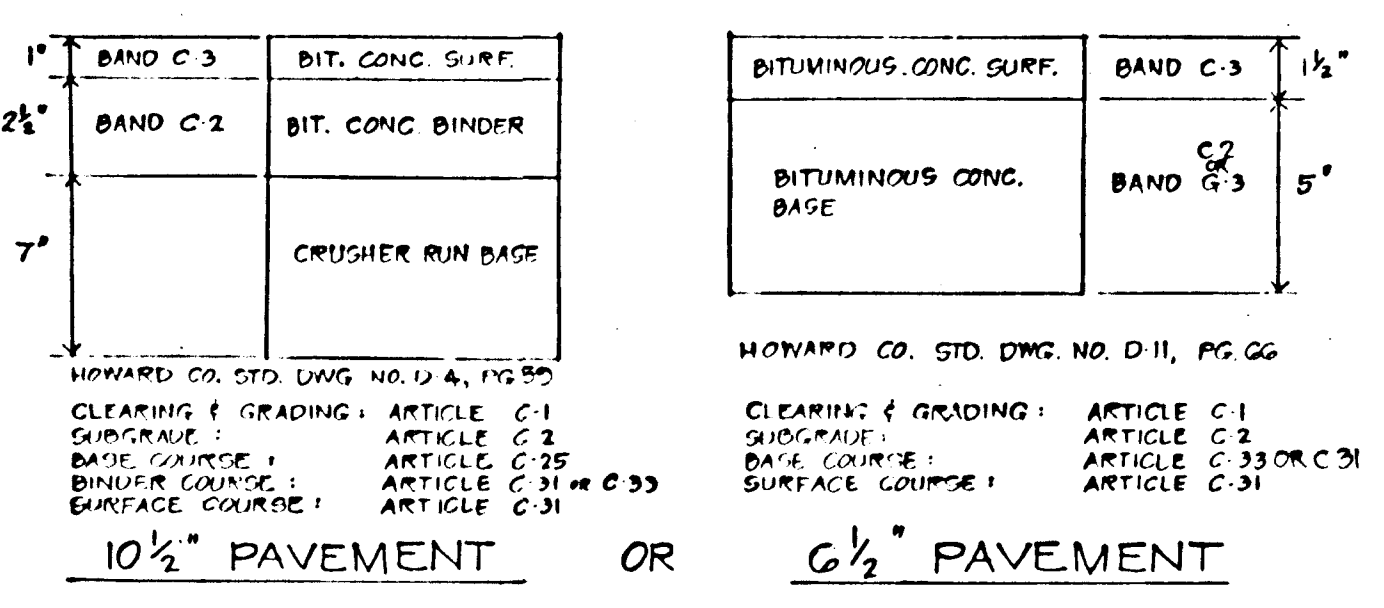
MODIFIED COMBINATION CURB & GUTTER
NO SCALE

STD. 7" COMB. CURB & GUTTER
NO SCALE

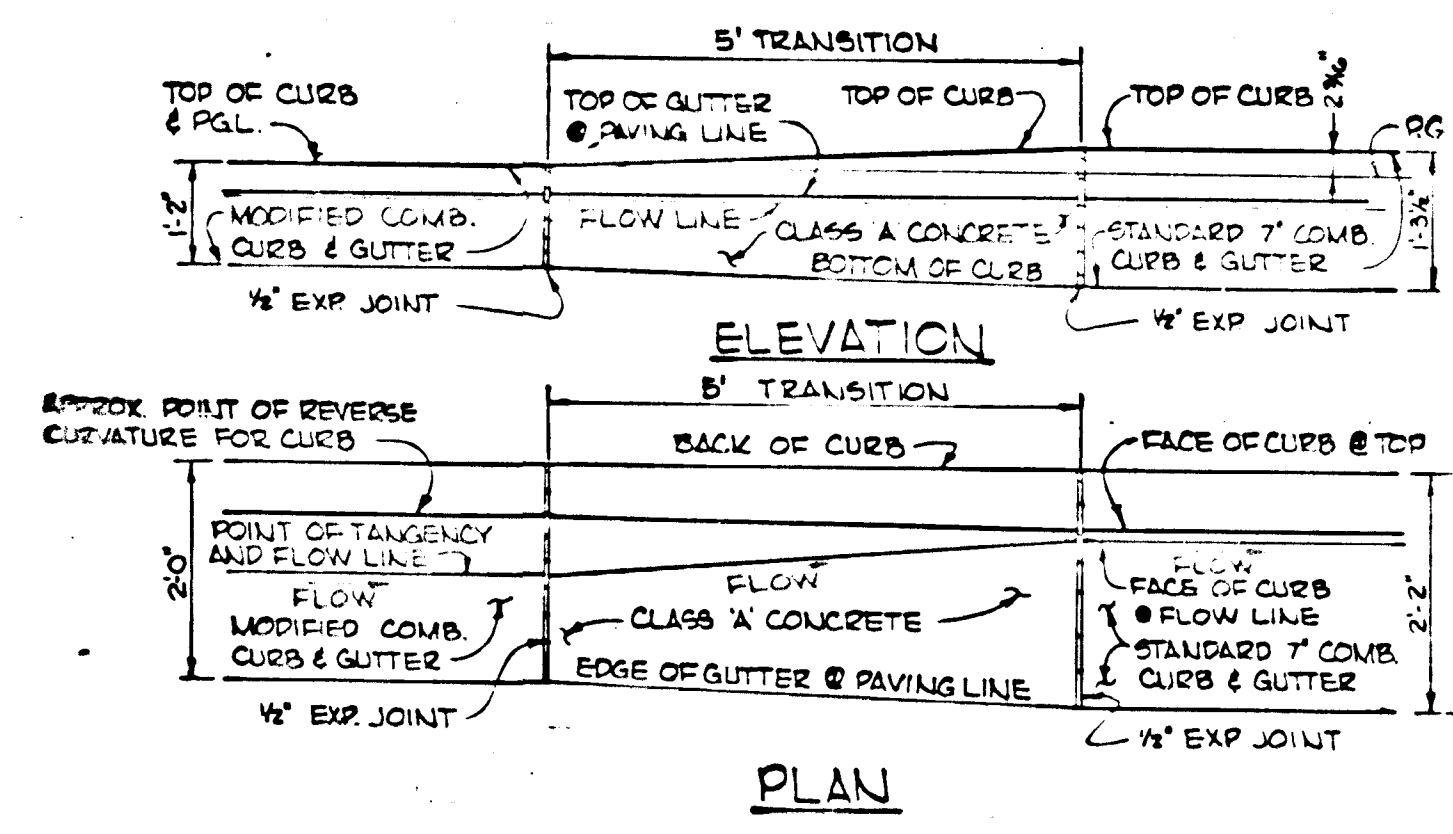


STD. BARRIER CURB
NO SCALE

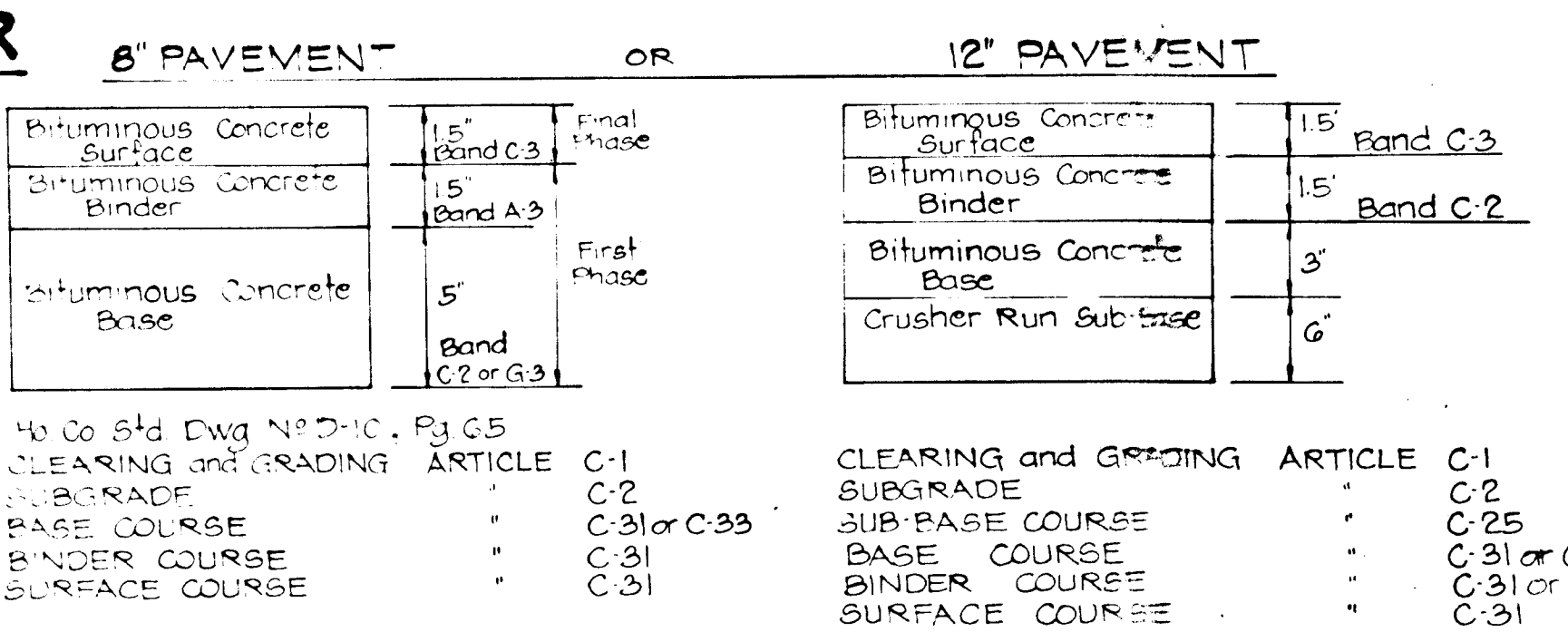
NOTE:
USE THIS CUL-DE-SAC SECTION ON THE FOLLOWING ROADS:
SINGLE WHEEL PATH
CADENCE COURT
SECOND TIME LANE
BOBOLINK COURT
NARROW WIND WAY
FARTHEST THUNDER COURT
ARCTIC FLOWER
MEADOW BEE MEWS
FIRST LEAGUE
PINK WOOD
SANDALFOOT WAY
LITTLE BIRD PATH



TYPICAL PAVING SECTION
NO SCALE
(FOR 28' WIDE PAVING)

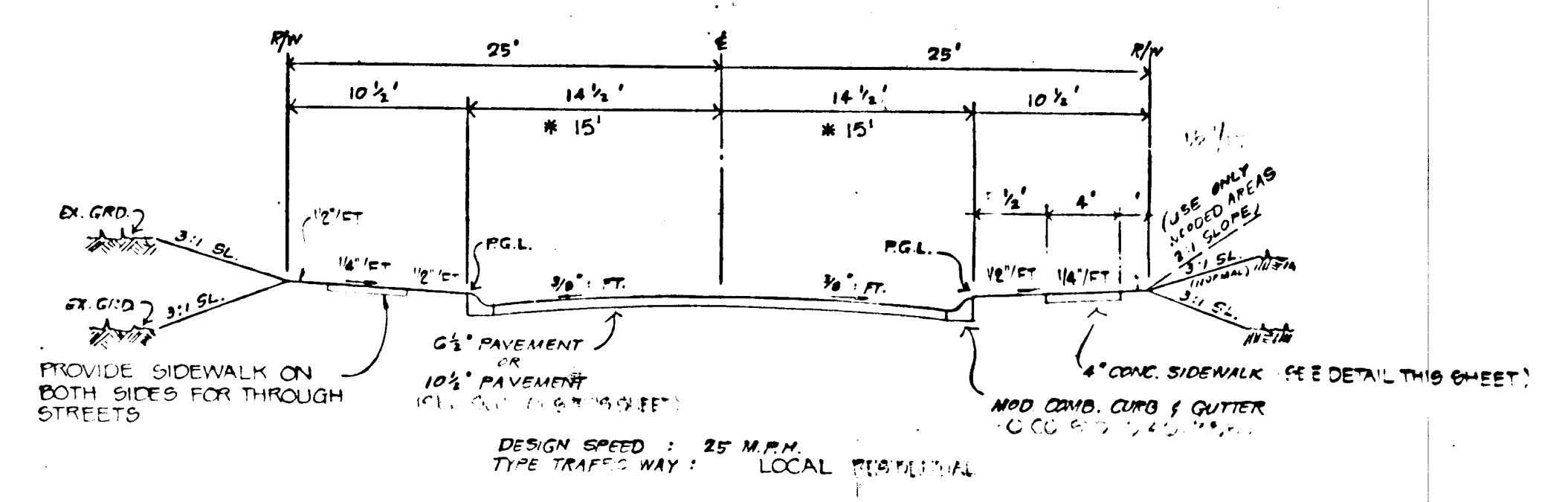


CURB TRANSITION DETAIL
NO SCALE



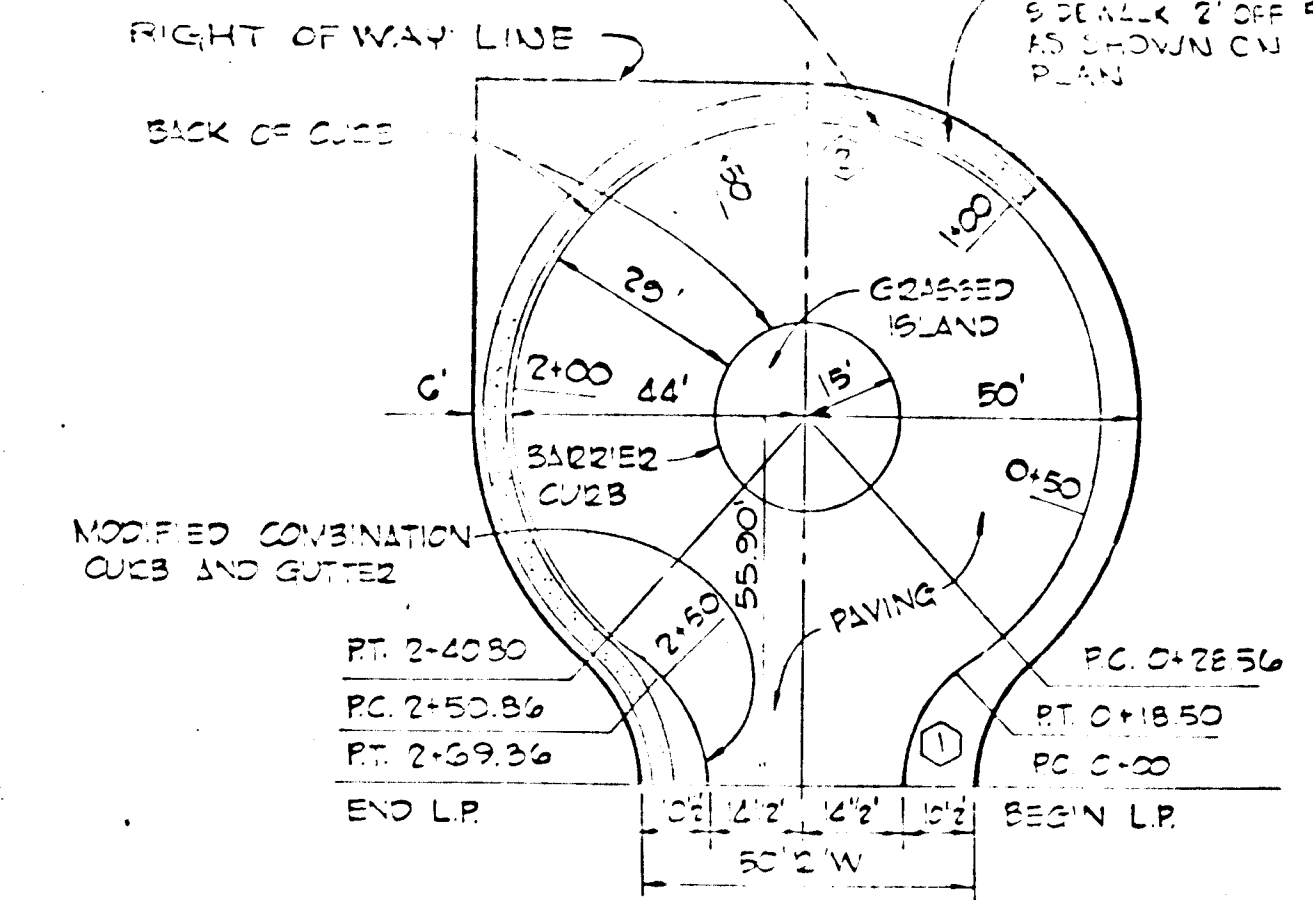
TYPICAL PAVING SECTION
FOR 36' and 44' WIDE PAVING
(See Paving Section Above for Special Notes)

NOTE:
USE THIS TYPICAL SECTION ON THE FOLLOWING ROADS:
KINDLER ROAD FROM STA. 0+00 TO STA 19+00
EDENBROOK DR. FROM STA. 12+39.36 TO STA. 15+00
CADENCE COURT
SINGLE WHEEL PATH
SECOND TIME LANE
SILENT BIRD COURT
BOBOLINK COURT
NARROW WIND ROAD
FARTHEST THUNDER COURT
LITTLE BIRD PATH
ARCTIC FLOWER
MEADOW BEE MEWS
FIRST LEAGUE
PINK WOOD
SANDALFOOT WAY
WATER LILY WAY
WEATHER WORN WAY



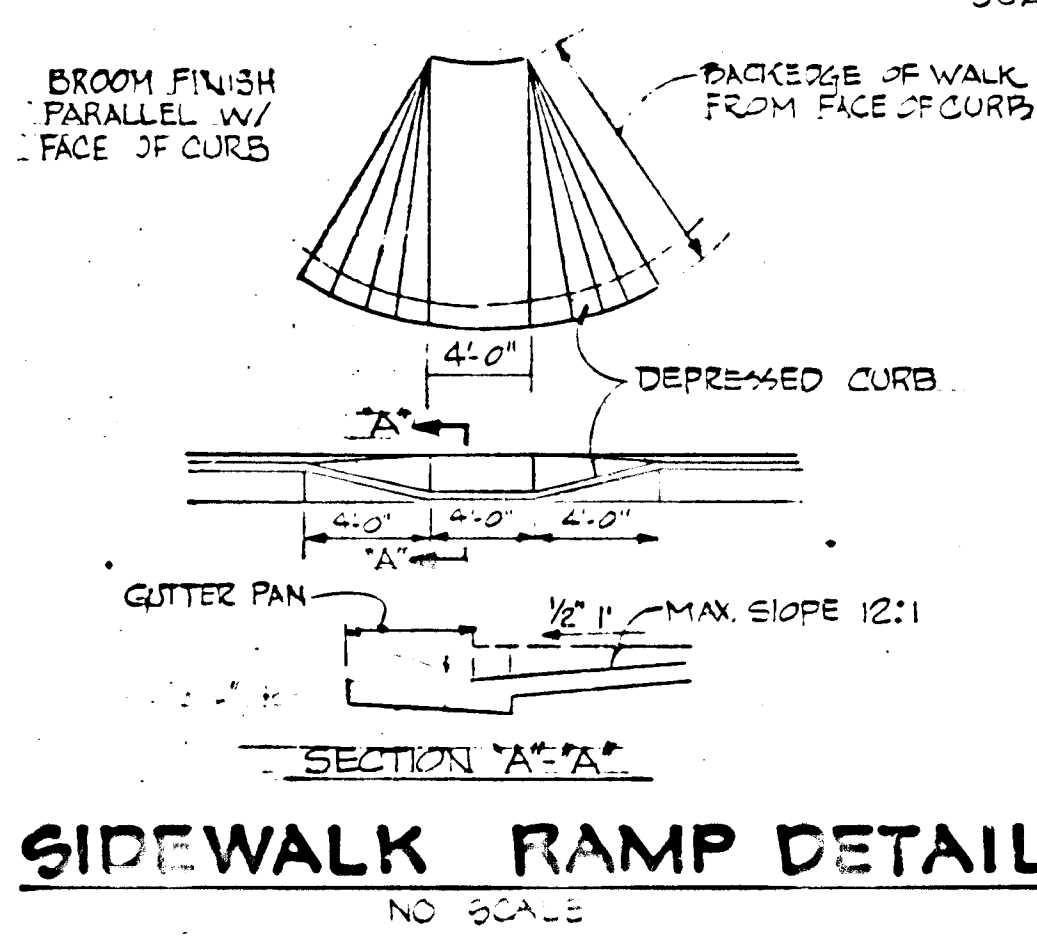
50' RW TYPICAL SECTION
NO SCALE

NOTE:
1. A TACK COAT IS REQUIRED IN ACCORDANCE WITH SECTION C-31-A OF THE HOWARD CO. ROAD CONST. CODE AND SPECIFICATIONS.
2. BASE WILL BE PRIME IN ACCORDANCE WITH SECTION C-30-3 OF THE HOWARD COUNTY ROAD CONST. CODE AND SPEC. S.
3. TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD CO. ROAD CONST. CODE AND SPECIFICATIONS.



CUL-DE-SAC FOR A 50' R/W
SCALE: 1" = 30'

CURB CURVE DATA				
CURVE	RADIUS	LENGTH	Δ	TANGENT
1	22.00'	18.50'	46°11'23"	9.64'
2	44.00'	212.24'	276°22'48"	-

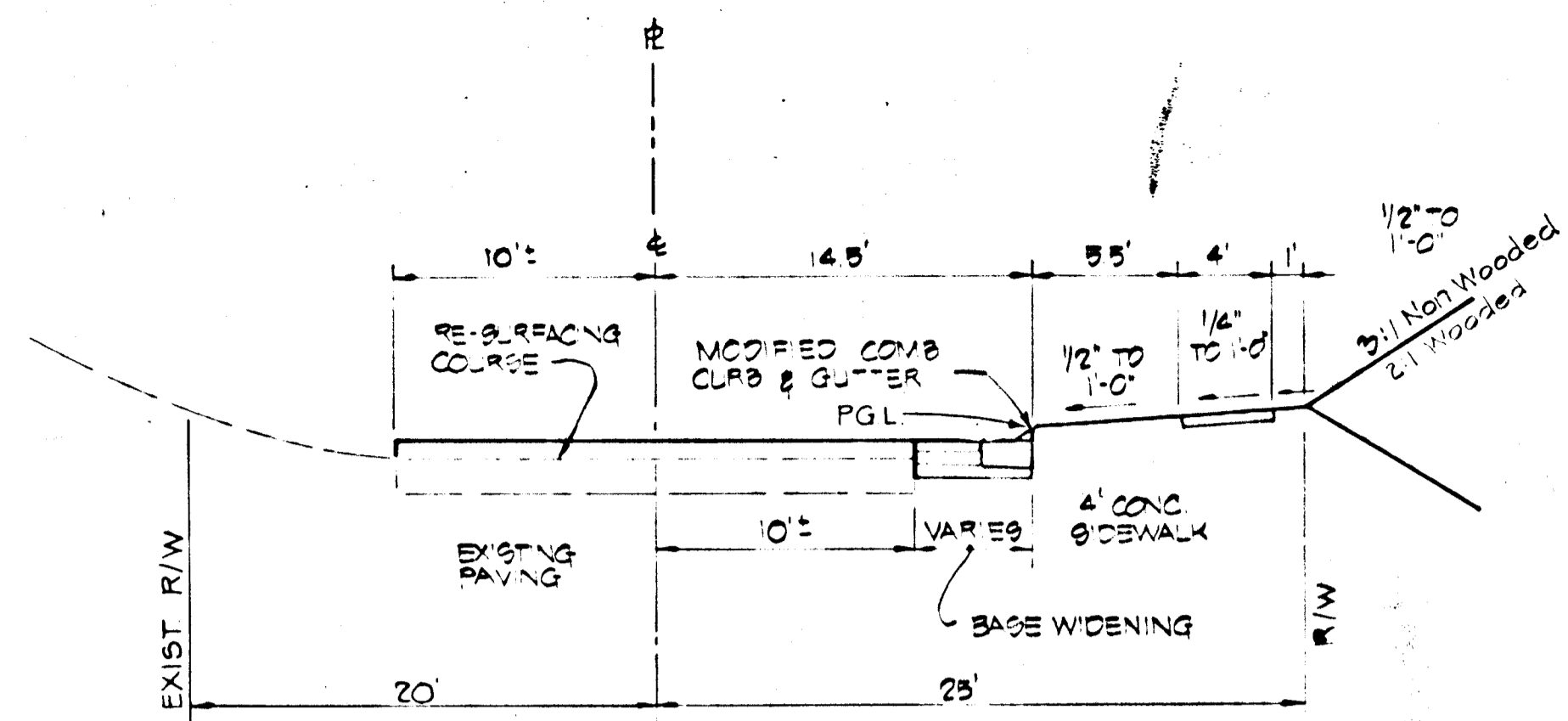


SIDEWALK RAMP DETAIL
NO SCALE

NOTE:
USE THIS CUL-DE-SAC SECTION ON THE FOLLOWING ROADS:
WATER LILY WAY
SILENT BIRD COURT

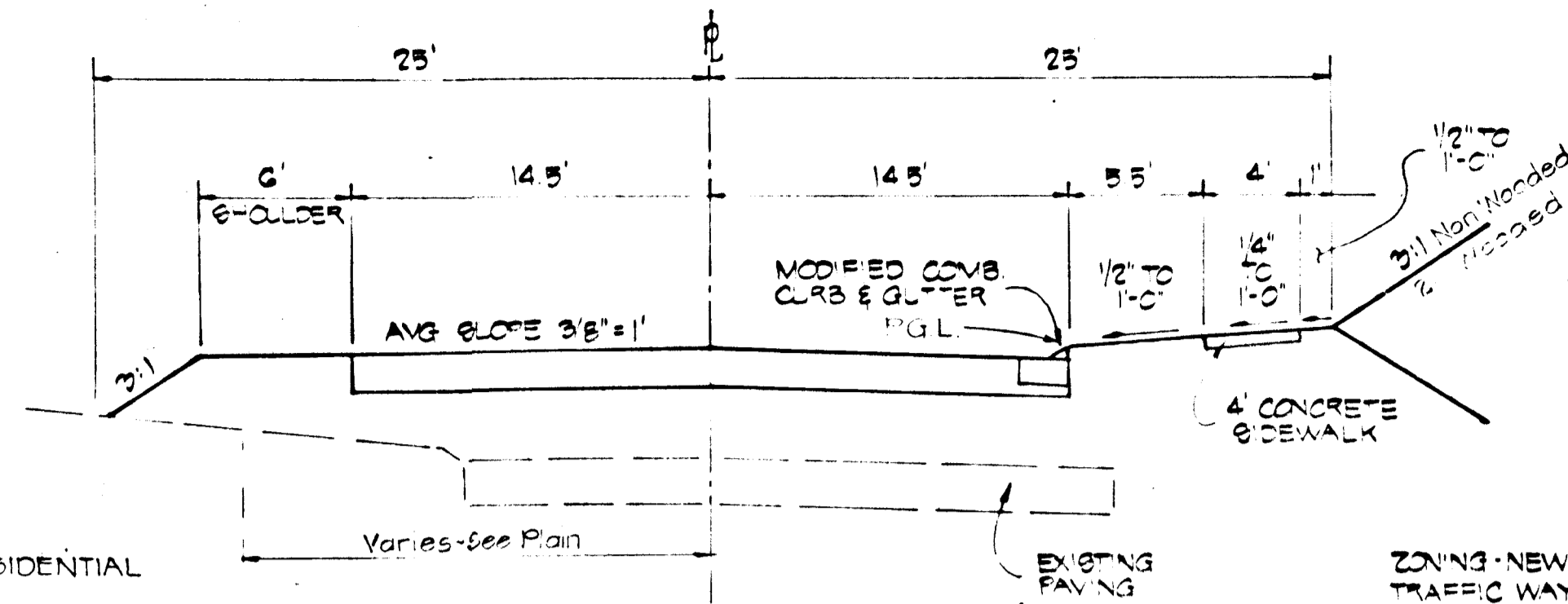
DEPARTMENT OF PUBLIC WORKS
William E. P. O... 4/27/81
 CHIEF, BUREAU OF ENGINEERING
 DEPARTMENT OF PLANNING AND ZONING
William E. P. O... 4/27/81
 CHIEF, BUREAU OF LAND DEVELOPMENT
 9/1988 * EDENBROOK- 30' PAVING WIDTH
 Date No Revision Description
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2, AREA 3, PHASE 2
 6th ELECTION DISTRICT HOWARD COUNTY, MD
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH & DEVELOPMENT CORP
 THE ROUSE COMPANY
 COLUMBIA, MARYLAND
 CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204
 AREA TAX MAP 41 & 42
 PARCELS 13, 34 PART OF 5, 355, 17
 TITLE
 DETAIL SHEET
 Des By JWR Scale 1/8" = 1'-0" Plot No. 0500
 Drn By TD Date 2/20/79 Drawing No.
 Chk By GPM Approved 2 OF 12

#445



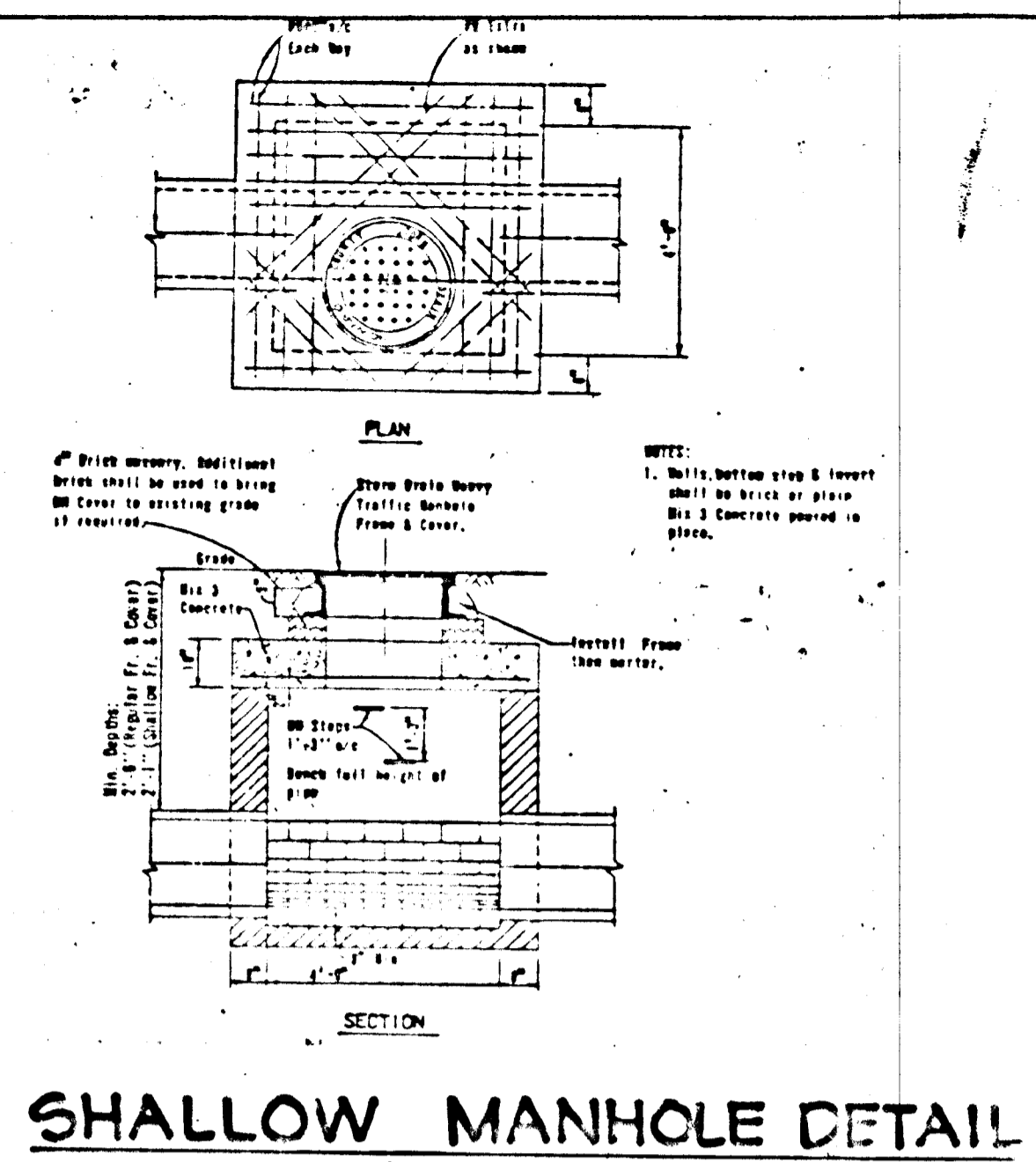
**TYPICAL SECTION KINDLER ROAD
STA. 18+40 TO 24+00**

DESIGN SPEED: 25 MPH
NOT TO SCALE



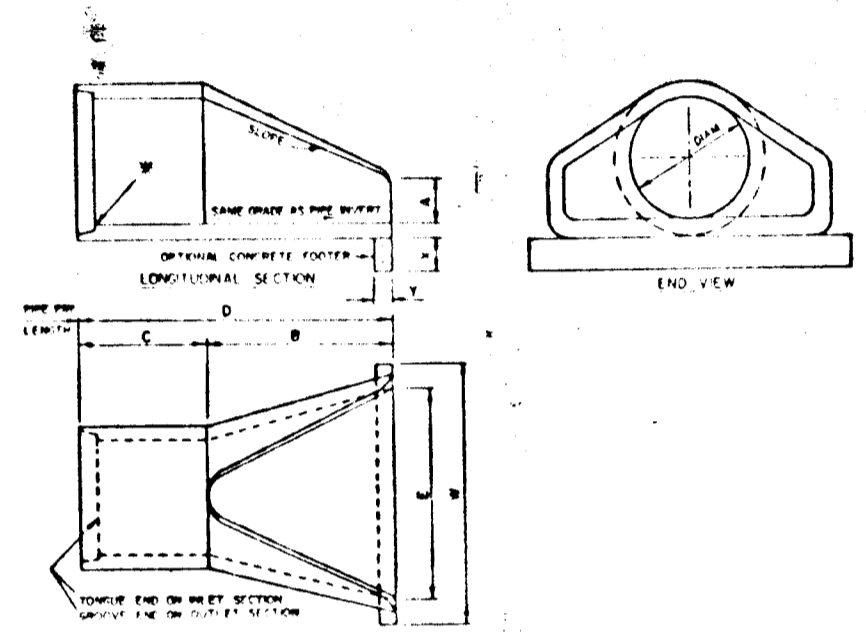
**TYPICAL SECTION KINDLER ROAD
STA. 25+00 TO STA. 27+00**

DESIGN SPEED: 25 MPH
NOT TO SCALE



SHALLOW MANHOLE DETAIL

NO SCALE



PRECAST END SECTION DETAIL

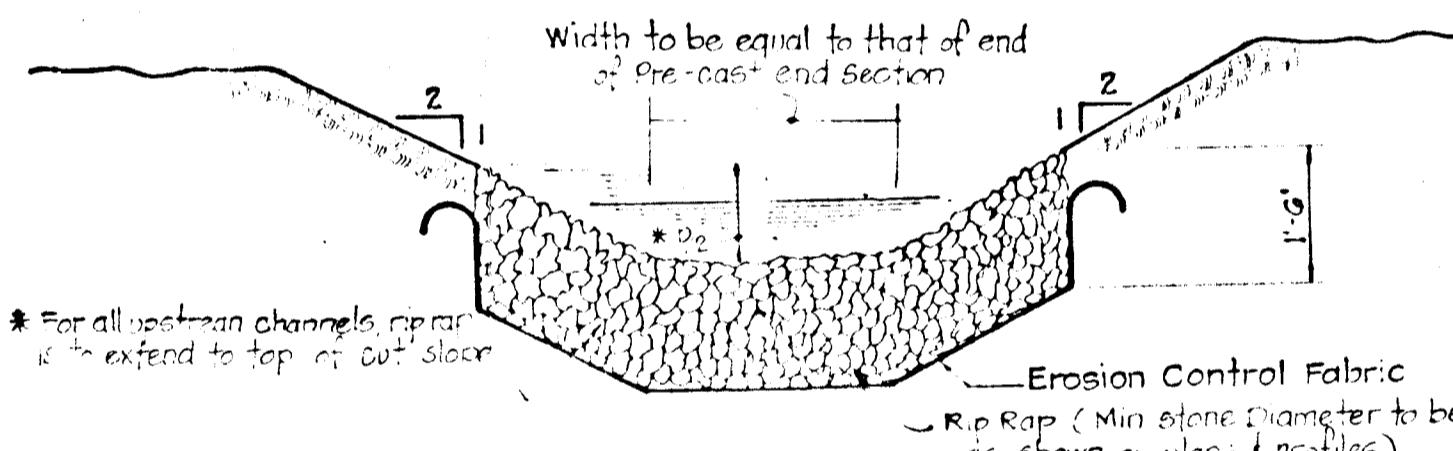
NOT TO SCALE

NOTE: 1. END SECTIONS MUST BE REINFORCED TO CORRESPOND WITH MAIN SECTIONS.

2. CONCRETE PORTLAND CEMENT SHALL BE USED UNLESS OTHERWISE SPECIFIED. ALL CONCRETE SHALL BE PLACED IN PLACE TO THE FULL DEPTH. ALL JOINTS SHALL BE REINFORCED TO BE NO LEAKS.

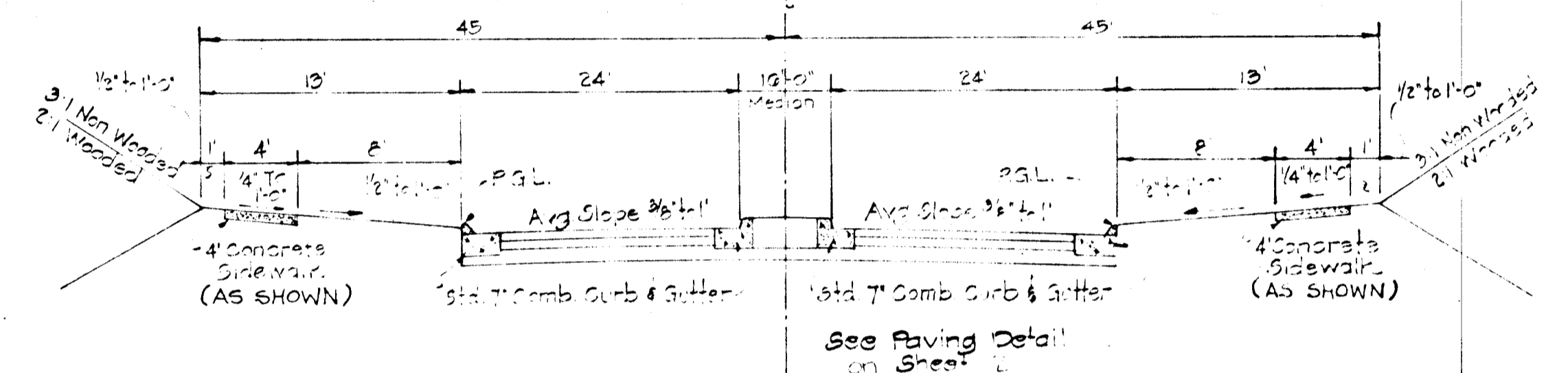
3. MINIMUM ELEVATION TO BE IN THE AREA OF THE CHANNEL SHALL BE INDICATED TO BE SHOWN ON THE DRAWING PLAN.

ITEM	QTY	UNIT	DESCRIPTION	DATE
1	1	EA	PRECAST END SECTION	1/20/81
2	1	EA	PRECAST END SECTION	1/20/81
3	1	EA	PRECAST END SECTION	1/20/81
4	1	EA	PRECAST END SECTION	1/20/81
5	1	EA	PRECAST END SECTION	1/20/81
6	1	EA	PRECAST END SECTION	1/20/81
7	1	EA	PRECAST END SECTION	1/20/81
8	1	EA	PRECAST END SECTION	1/20/81
9	1	EA	PRECAST END SECTION	1/20/81
10	1	EA	PRECAST END SECTION	1/20/81
11	1	EA	PRECAST END SECTION	1/20/81
12	1	EA	PRECAST END SECTION	1/20/81
13	1	EA	PRECAST END SECTION	1/20/81
14	1	EA	PRECAST END SECTION	1/20/81
15	1	EA	PRECAST END SECTION	1/20/81
16	1	EA	PRECAST END SECTION	1/20/81
17	1	EA	PRECAST END SECTION	1/20/81
18	1	EA	PRECAST END SECTION	1/20/81
19	1	EA	PRECAST END SECTION	1/20/81
20	1	EA	PRECAST END SECTION	1/20/81
21	1	EA	PRECAST END SECTION	1/20/81
22	1	EA	PRECAST END SECTION	1/20/81
23	1	EA	PRECAST END SECTION	1/20/81
24	1	EA	PRECAST END SECTION	1/20/81
25	1	EA	PRECAST END SECTION	1/20/81
26	1	EA	PRECAST END SECTION	1/20/81
27	1	EA	PRECAST END SECTION	1/20/81
28	1	EA	PRECAST END SECTION	1/20/81
29	1	EA	PRECAST END SECTION	1/20/81
30	1	EA	PRECAST END SECTION	1/20/81



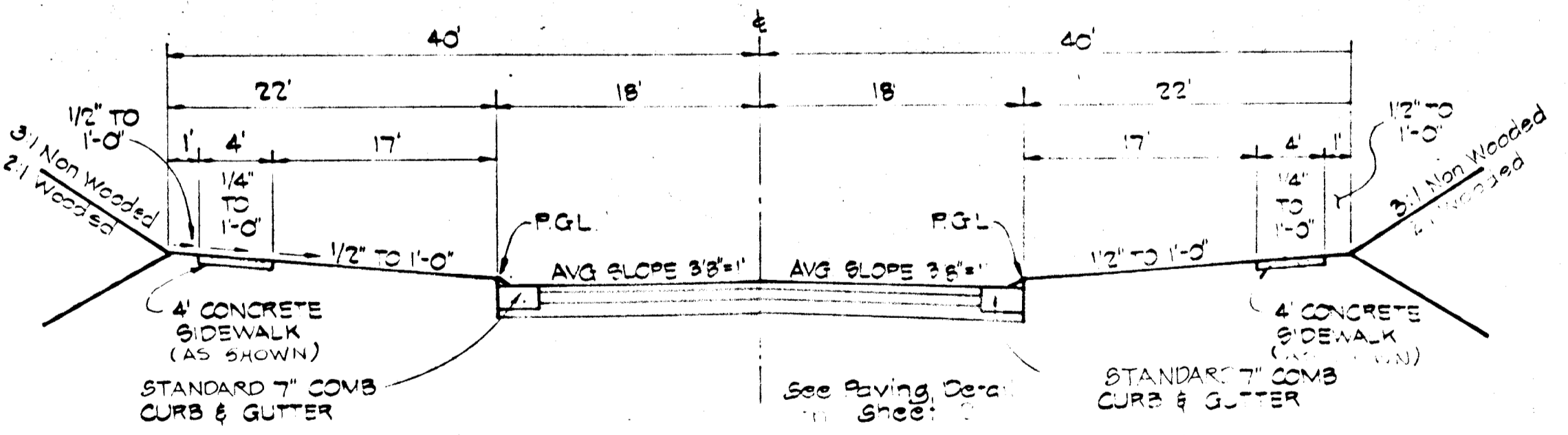
TYPICAL RIP-RAP CHANNEL

No Scale



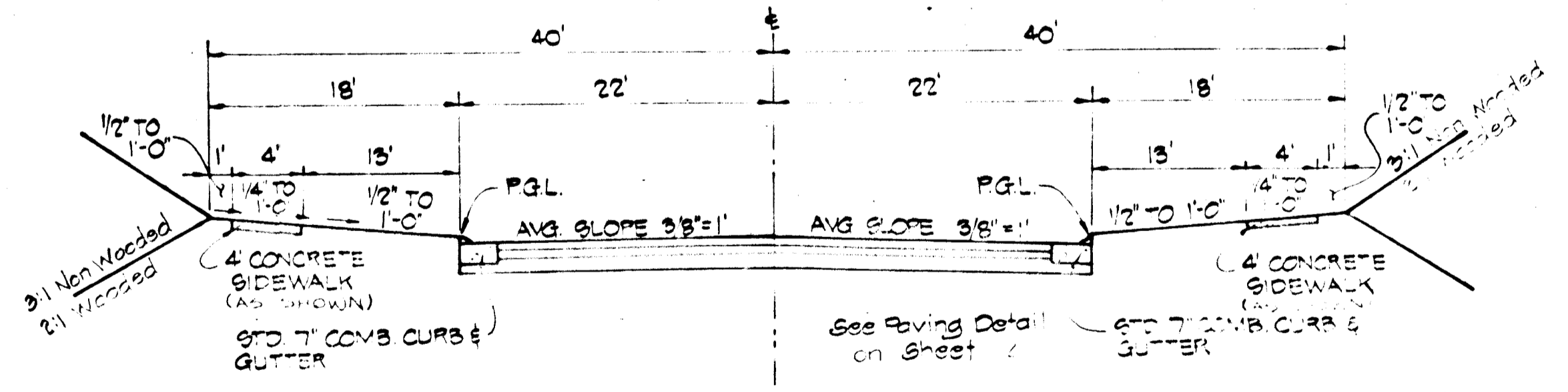
90' R/W SECTION

DESIGN SPEED: 40 MPH
NOT TO SCALE



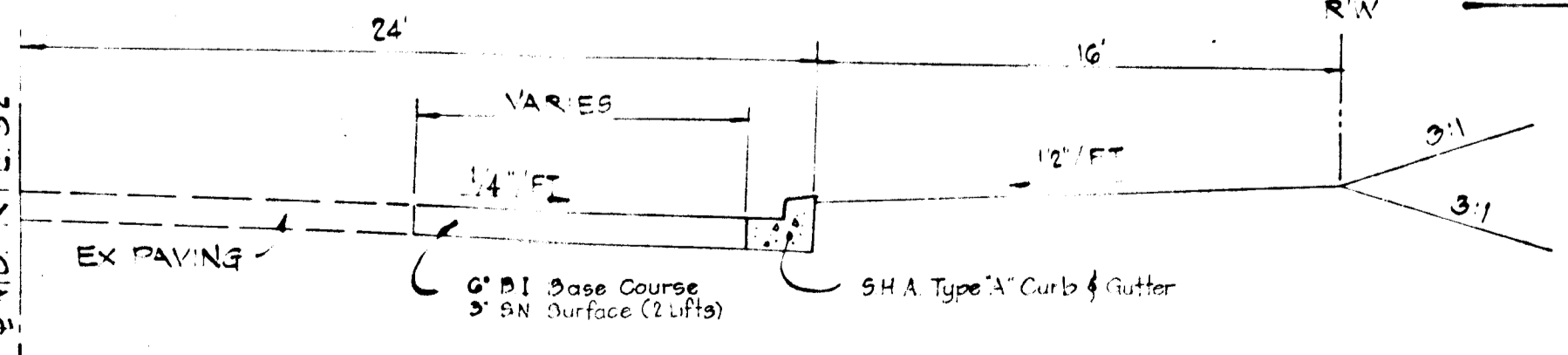
80' R/W SECTION

DESIGN SPEED: 40 MPH
NOT TO SCALE



80' R/W SECTION

DESIGN SPEED: 40 MPH
NOT TO SCALE



TYPICAL SECTION FOR IMPROVEMENTS IN MD. RTE. 32

NOT TO SCALE

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

APPROVED: *James M. Klein* 1/20/81

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

APPROVED: *Robert W. Ziehm* 1/20/81

DEPARTMENT OF PUBLIC WORKS

William S. Pyle 4/27/81
CHIEF, BUREAU OF ENGINEERING

Shelton M. ... 4/24/81
CHIEF, BUREAU OF LAND DEVELOPMENT

Date	No.	Revision Description

VILLAGE OF KING'S CONTRIVANCE
SECTION 2, AREA 3, PHASE 2
5TH ELECTION DISTRICT HOWARD COUNTY, MD

OWNER AND DEVELOPER
THE HOWARD RESEARCH & DEVELOPMENT CORP
THE ROUSE COMPANY
COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

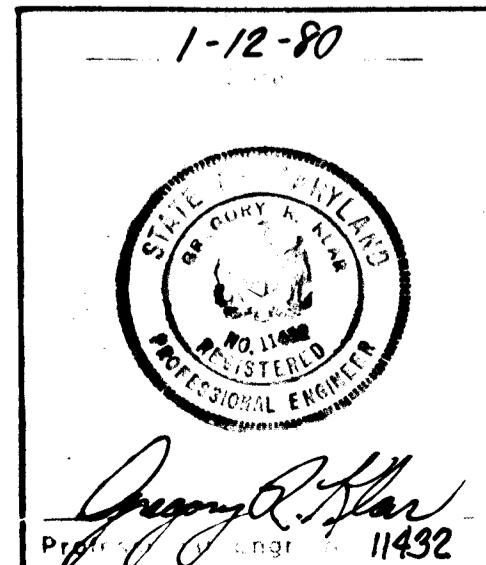
AREA:
TAX MAP 41 & 42
PARCELS: 13, 34 PART OF F. 258, 17

TITLE:
DETAIL SHEET

Des By: JWR
Drn By: TD
Chk By: GEM

Scale: AS SHOWN
Date: 12/7/79
Approved:

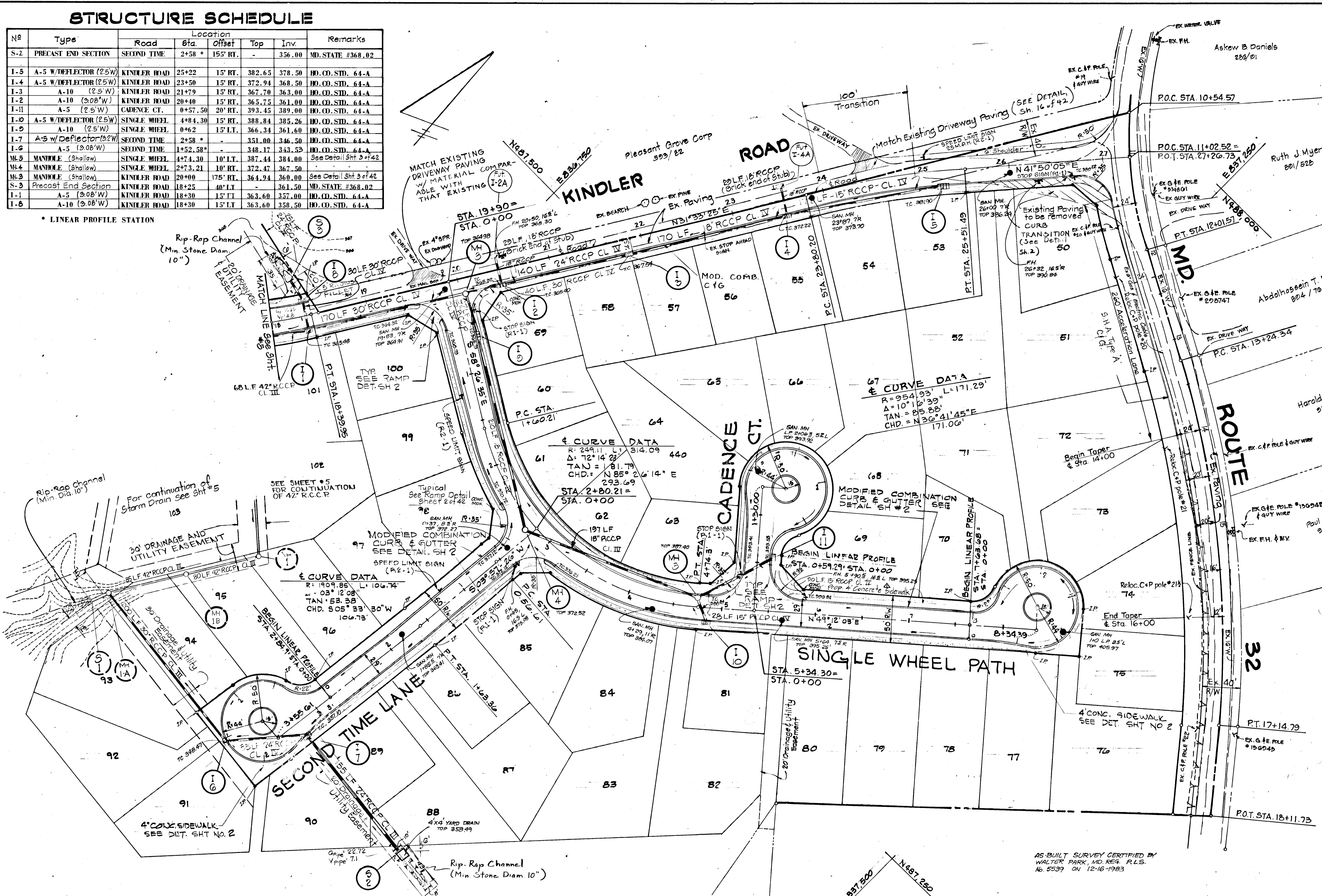
Proj. No.: 88-0
Drawing No.: 3 OF 12



STRUCTURE SCHEDULE

No	Type	Location	Location			Remarks	
			Road	Sta.	Offset		
S-2	PRECAST END SECTION	SECOND TIME	2+58 *	15' RT.	-	356.00	MD. STATE #368.02
I-5	A-5 W/DEFLECTOR (25'W)	KINDLER ROAD	25+22	15' RT.	382.65	378.50	HO. CO. STD. 64-A
I-4	A-5 W/DEFLECTOR (25'W)	KINDLER ROAD	23+50	15' RT.	372.94	368.50	HO. CO. STD. 64-A
I-3	A-10 (25'W)	KINDLER ROAD	21+79	15' RT.	367.70	363.00	HO. CO. STD. 64-A
I-2	A-10 (308'W)	KINDLER ROAD	20+40	15' RT.	365.75	361.00	HO. CO. STD. 64-A
I-11	A-5 (25'W)	CADENCE CT.	0+57.50	20' RT.	393.45	389.00	HO. CO. STD. 64-A
I-10	A-5 W/DEFLECTOR (25'W)	SINGLE WHEEL	4+84.30	15' RT.	388.84	385.26	HO. CO. STD. 64-A
I-9	A-10 (25'W)	SINGLE WHEEL	0+62	15' LT.	366.34	361.60	HO. CO. STD. 64-A
I-7	A-5 w/Deflector (25'W)	SECOND TIME	2+58 *	-	351.00	346.50	HO. CO. STD. 64-A
I-6	A-5 (308'W)	SECOND TIME	1+52.58*	-	348.17	343.53	HO. CO. STD. 64-A
MH-5	MANHOLE (Shallow)	SINGLE WHEEL	4+74.30	10' LT.	387.44	384.00	See Detail Sht. 3 of 42
MH-4	MANHOLE (Shallow)	SINGLE WHEEL	2+73.21	10' RT.	372.47	367.50	See Detail Sht. 3 of 42
MH-3	MANHOLE (Shallow)	KINDLER ROAD	20+00	175' RT.	364.94	360.00	See Detail Sht. 3 of 42
S-3	Precast End Section	KINDLER ROAD	18+25	40' LT.	-	361.50	MD. STATE #368.02
I-1	A-5 (308'W)	KINDLER ROAD	18+30	15' LT.	363.60	357.00	HO. CO. STD. 64-A
I-6	A-10 (308'W)	KINDLER ROAD	18+30	15' LT.	363.60	358.50	HO. CO. STD. 64-A

* LINEAR PROFILE STATION



DEPARTMENT OF PUBLIC WORKS:	
<i>William S. R...</i>	4-24-81
CHIEF, BUREAU OF ENGINEERING	
DEPARTMENT OF PLANNING AND ZONING:	
<i>Shelley M...</i>	12-81
CHIEF, DIVISION OF LAND DEVELOPMENT	
12/2/83	As per DPW Comments
11/1/82	Added Sidewalk on Single Wheel Path, North Side of Cadence Ct.
Date	No
Revision Description	

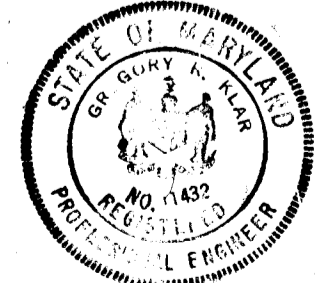
VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA	TAX MAP 41 AND 42
	PARCELS 13, 54 PART OF 5, 358, 17
TITLE	ROAD PLANS KINDLER ROAD SINGLE WHEEL PATH, SECOND TIME LANE CADENCE COURT
Des By	J. R.
Scale	1" = 50'
Proj No	
Drn By	M. C. D.
Date	Jan. 14, 80
Drawing No.	4 OF 42
Chk By	Approved

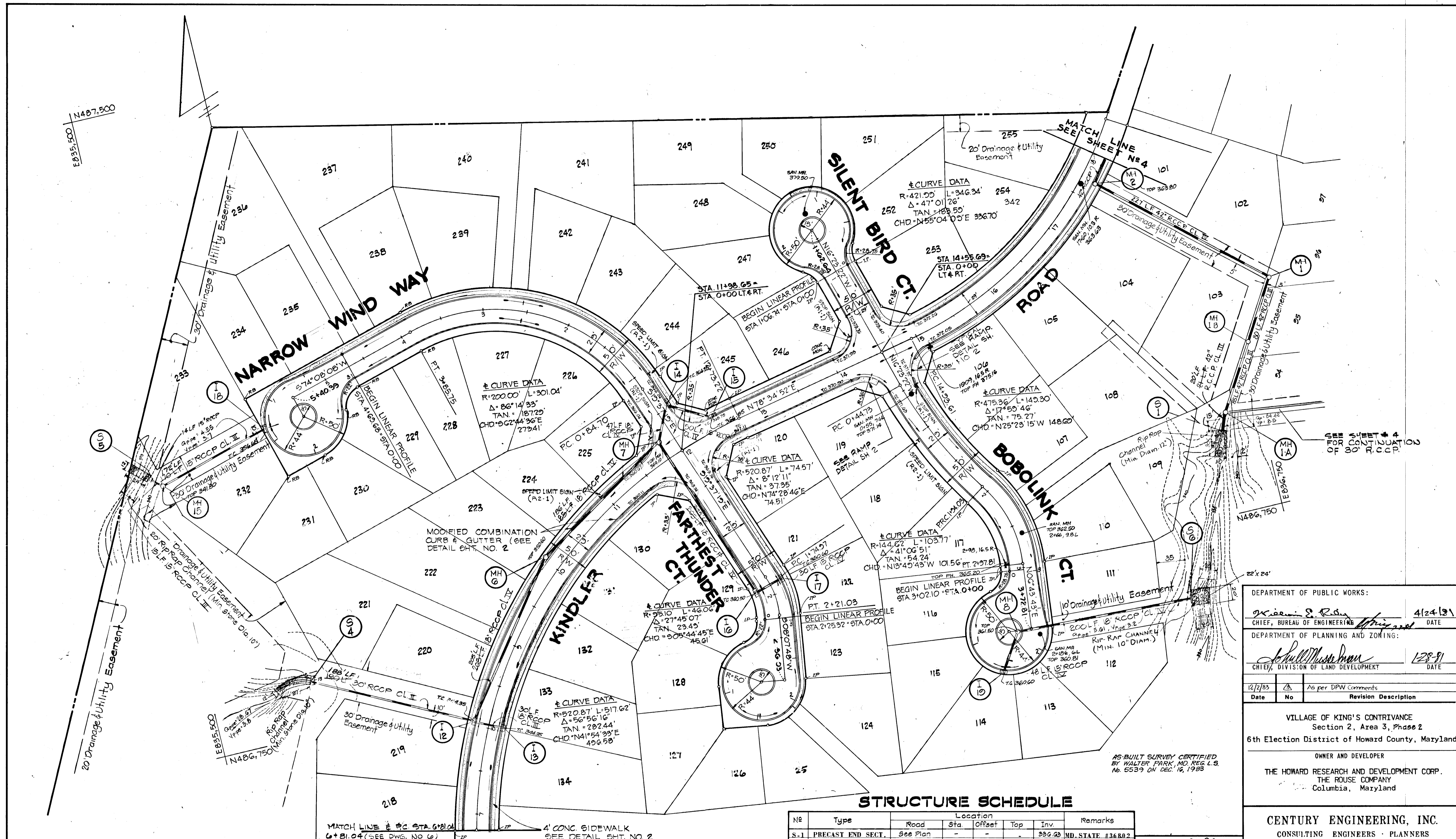
1-12-80
Date



William S. R...
Professional Engr. No. 11432

AS-BUILT SURVEY CERTIFIED BY
 WALTER PARK, MD. REG. P.L.S.
 No. 5539 ON 12-16-1983

#445



DEPARTMENT OF PUBLIC WORKS:
K. S. R. R. 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING:
Shull-Musman 1/28/81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

12/2/83	3	As per DPW Comments
Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE ROAD PLANS
 NARROW WIND WAY, SILENT BIRD COURT,
 BOBOLINK COURT, FARTHEST THUNDER COURT,
 KINDLER ROAD

Des By J. R. Scale 1"=50' Proj No
 Drn By M. C. D. Date Jan. 14, 1980 Drawing No
 Chk By Approved 5 OF 42

AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD. REG. L.S.
 No. 5539 ON DEC. 16, 1983

STRUCTURE SCHEDULE

No	Type	Road	Location			Remarks
			Sta	Offset	Top Inv.	
S-1	PRECAST END SECT.	See Plan	-	-	336.03	MD. STATE #36802
S-4	PRECAST END SECT.	KINDLER ROAD	8+04	205' LT	332.22	MD. STATE #36802
S-5	PRECAST END SECT.	NARROW WIND	1+37	170' RT	336.25	MD. STATE #36802
S-6	PRECAST END SECT.	BOBO LINK	2+20	165' RT	332.50	MD. STATE #36802

* LINEAR PROFILE STATION

No	Type	Road	Location (Continued)			Remarks
			Sta	Offset	Top Inv.	
MH-2	MANHOLE (Shallow)	KINDLER ROAD	17+70	175' RT	333.73	See Detail Sht 3 of 42
MH-1	MANHOLE	KINDLER ROAD	17+70	245' RT	341.13	
MH-7	MANHOLE	NARROW WIND	0+22	165' LT	336.02	
MH-9	MANHOLE	KINDLER ROAD	10+04	165' LT	350.51	344.50
MH-8	MANHOLE (Shallow)	BOBO LINK	2+20*	35' LT	361.52	355.75 See Detail Sht 3 of 42
MH-1A	MANHOLE	SEE PLAN	-	-	332.03	HO. CO. STD. D-103
MH-1B	MANHOLE	SEE PLAN	-	-	337.15	HO. CO. STD. D-103

1-12-80
 Date



James D. Van
 Professional Engr. No. 11432

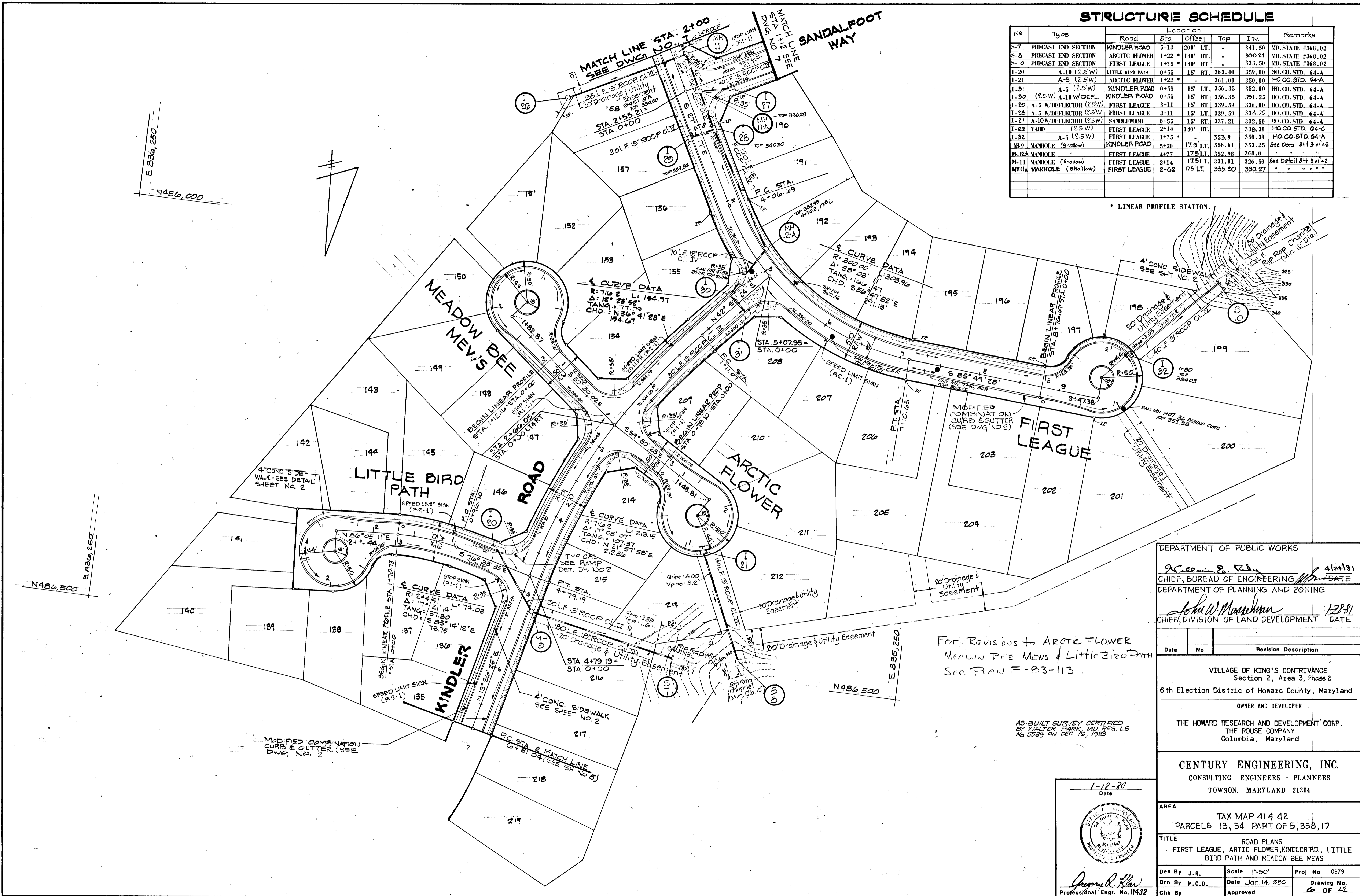
#445

BRUNING 44-132 28586

STRUCTURE SCHEDULE

No	Type	Road	Location		Top	Inv.	Remarks
			Sta	Offset			
S-7	PRECAST END SECTION	KINDLER ROAD	5+13	200' LT.	-	341.50	MD. STATE #368.02
S-8	PRECAST END SECTION	ARCTIC FLOWER	1+22	140' RT.	-	328.24	MD. STATE #368.02
S-10	PRECAST END SECTION	FIRST LEAGUE	1+75	140' RT.	-	333.50	MD. STATE #368.02
I-20	A-10 (2.5'W)	LITTLE BIRD PATH	0+55	15' RT.	363.40	359.00	HO. CO. STD. 64-A
I-21	A-5 (2.5'W)	ARCTIC FLOWER	1+22	-	361.00	350.00	HO. CO. STD. 64-A
I-21	A-5 (2.5'W)	KINDLER ROAD	0+55	15' LT.	356.35	352.00	HO. CO. STD. 64-A
I-20	(2.5'W)	A-10 w/DEFL.	0+55	15' RT.	356.35	351.25	HO. CO. STD. 64-A
I-20	A-5 w/DEFLECTOR (2.5'W)	FIRST LEAGUE	3+11	15' RT.	339.59	336.00	HO. CO. STD. 64-A
I-20	A-5 w/DEFLECTOR (2.5'W)	FIRST LEAGUE	3+11	15' LT.	339.59	334.70	HO. CO. STD. 64-A
I-27	A-10 w/DEFLECTOR (2.5'W)	SANDLEWOOD	0+55	15' RT.	337.21	332.50	HO. CO. STD. 64-A
I-20	YARD (2.5'W)	FIRST LEAGUE	2+14	140' RT.	-	338.30	HO. CO. STD. 64-C
I-20	A-5 (2.5'W)	FIRST LEAGUE	1+75	-	353.9	350.30	HO. CO. STD. 64-A
MH-9	MANHOLE (shallow)	KINDLER ROAD	5+20	17.5' LT.	358.61	353.25	See Detail Sht 3 of 42
MH-12	MANHOLE	FIRST LEAGUE	4+77	17.5' LT.	352.98	348.0	
MH-11	MANHOLE (shallow)	FIRST LEAGUE	2+14	17.5' LT.	331.81	326.50	See Detail Sht 3 of 42
MH-14	MANHOLE (shallow)	FIRST LEAGUE	2+02	17.5' LT.	335.20	330.27	

* LINEAR PROFILE STATION.



DEPARTMENT OF PUBLIC WORKS
William S. Rhy 4/24/81
 CHIEF, BUREAU OF ENGINEERING
 DEPARTMENT OF PLANNING AND ZONING
John W. Muehlman 1/28/81
 CHIEF, DIVISION OF LAND DEVELOPMENT

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 & 42
 PARCELS 13, 54 PART OF 5, 35B, 17
 TITLE
 ROAD PLANS
 FIRST LEAGUE, ARCTIC FLOWER, KINDLER RD., LITTLE BIRD PATH AND MEADOW BEE MEWS

Des By J.R. Scale 1"=50' Proj No 0579
 Drn By M.C.D. Date Jan. 14, 1980 Drawing No. 6 OF 42
 Chk By Approved

1-12-80
 Date

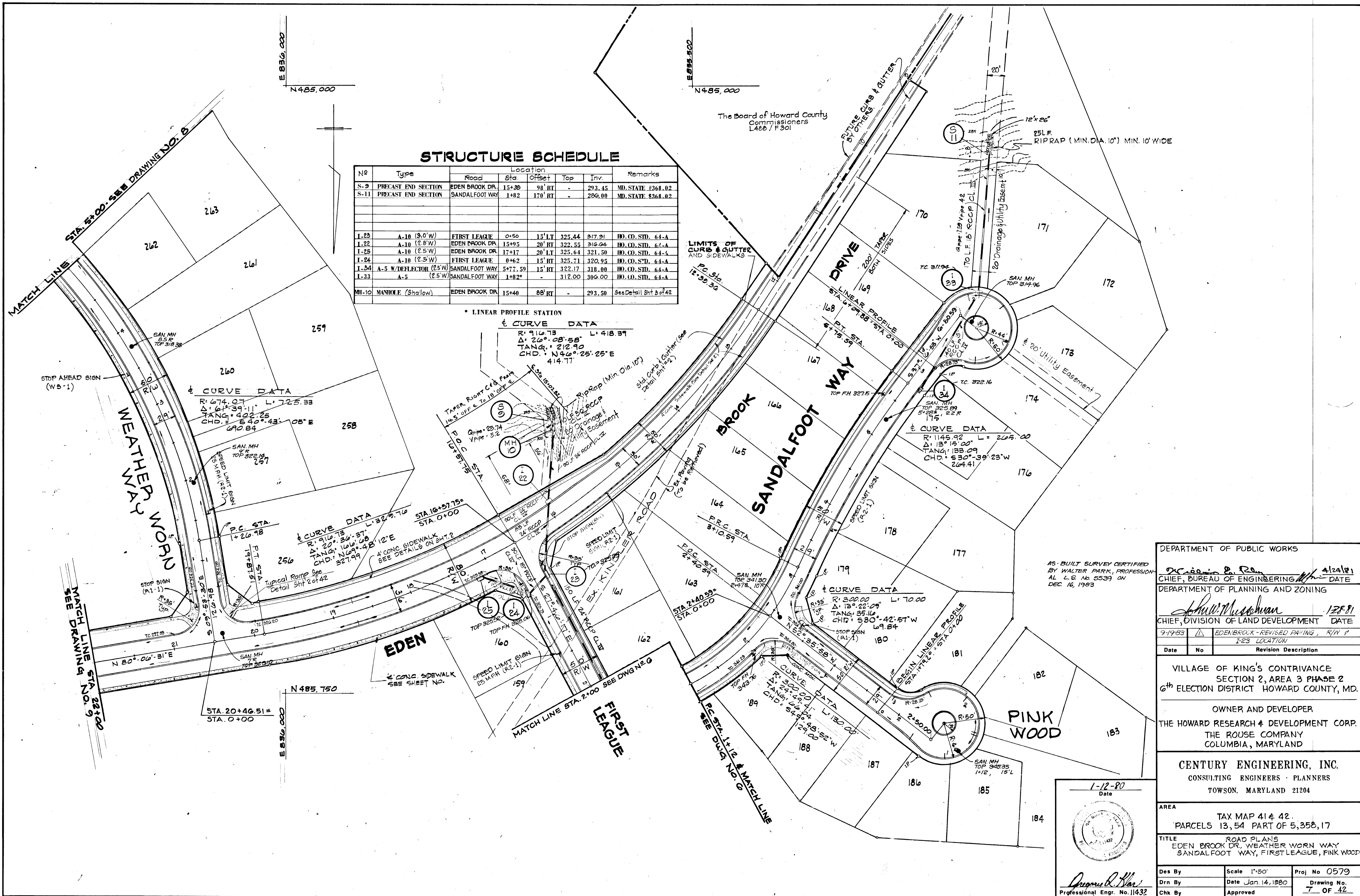
William S. Rhy
 Professional Engr. No. 11429

FOR REVISIONS TO ARCTIC FLOWER
 MEADOW BEE MEWS & LITTLE BIRD PATH
 See Plan F-83-113

AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD. REG. L.S.
 No. 5539 ON DEC. 16, 1983

#445

BRUNING 44132 28586



STRUCTURE SCHEDULE

No	Type	Road	Location	Sta	Offset	Top	Inv.	Remarks
S-9	PRECAST END SECTION	EDEN BROOK DR.		15+35	9' RT	-	293.45	MD. STATE #368.02
S-11	PRECAST END SECTION	SANDALFOOT WAY		1+82	170' RT	-	286.00	MD. STATE #368.02
I-23	A-10 (3.0' W)	FIRST LEAGUE		0+50	15' LT	325.44	317.31	HO. CO. STD. 64-A
I-22	A-10 (2.8' W)	EDEN BROOK DR.		15+95	20' RT	322.55	316.04	HO. CO. STD. 64-A
I-25	A-10 (2.5' W)	EDEN BROOK DR.		17+17	20' LT	325.64	321.50	HO. CO. STD. 64-A
I-24	A-10 (2.5' W)	FIRST LEAGUE		0+62	15' RT	325.71	320.95	HO. CO. STD. 64-A
I-24	A-5 W/DEFLECTOR (2.5' W)	SANDALFOOT WAY		5+77.59	15' RT	322.17	318.00	HO. CO. STD. 64-A
I-33	A-5 (2.5' W)	SANDALFOOT WAY		1+82	-	312.00	306.00	HO. CO. STD. 64-A
MH-10	MANHOLE (Shallow)	EDEN BROOK DR.		15+40	88' RT	-	293.50	See Detail Sht 3 of 42

* LINEAR PROFILE STATION & CURVE DATA

R: 916.73	L: 418.39
Δ: 24° 08' 58"	
TANG: 212.90	
CHD: N44° 25' 25" E	
414.77	

CURVE DATA

R: 674.07	L: 725.33
Δ: 61° 39' 11"	
TANG: 402.25	
CHD: S64° 43' 08" E	
690.84	

CURVE DATA

R: 916.73	L: 329.76
Δ: 20° 30' 37"	
TANG: 166.68	
CHD: N69° 48' 12" E	
327.99	

CURVE DATA

R: 1145.92	L: 2105.00
Δ: 13° 15' 00"	
TANG: 133.09	
CHD: S30° 39' 23" W	
264.41	

CURVE DATA

R: 300.00	L: 70.00
Δ: 13° 22' 09"	
TANG: 35.16	
CHD: S30° 42' 57" W	
69.84	

CURVE DATA

R: 300.00	L: 150.00
Δ: 24° 42' 51"	
TANG: 64.04	
CHD: S44° 59' 28" W	
28.00	

DEPARTMENT OF PUBLIC WORKS
 DEPARTMENT OF PLANNING AND ZONING

CHIEF, BUREAU OF ENGINEERING
 CHIEF, DIVISION OF LAND DEVELOPMENT

DATE: 4/24/81
 DATE: 1/28/81

9-19-83
 EDENBROOK - REVISED PAVING, R/W & I-23 LOCATION

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 SECTION 2, AREA 3 PHASE 2
 6th ELECTION DISTRICT HOWARD COUNTY, MD.

OWNER AND DEVELOPER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 THE ROUSE COMPANY
 COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 & 42
 PARCELS 13, 54 PART OF 5, 35B, 17

TITLE
 EDEN BROOK DR., WEATHER WORN WAY
 SANDALFOOT WAY, FIRST LEAGUE, PINK WOOD

Des By: [Signature]
 Drn By: [Signature]
 Chk By: [Signature]

Scale: 1"=50'
 Date: Jan. 14, 1980
 Approved

Proj No: 0579
 Drawing No: 7 OF 42

The Board of Howard County Commissioners L488 / F 301

AS-BUILT SURVEY CERTIFIED BY WALTER PARK, PROFESSIONAL L.S. No. 5539 ON DEC. 16, 1983

1-12-80
 Date

[Professional Engineer Seal]

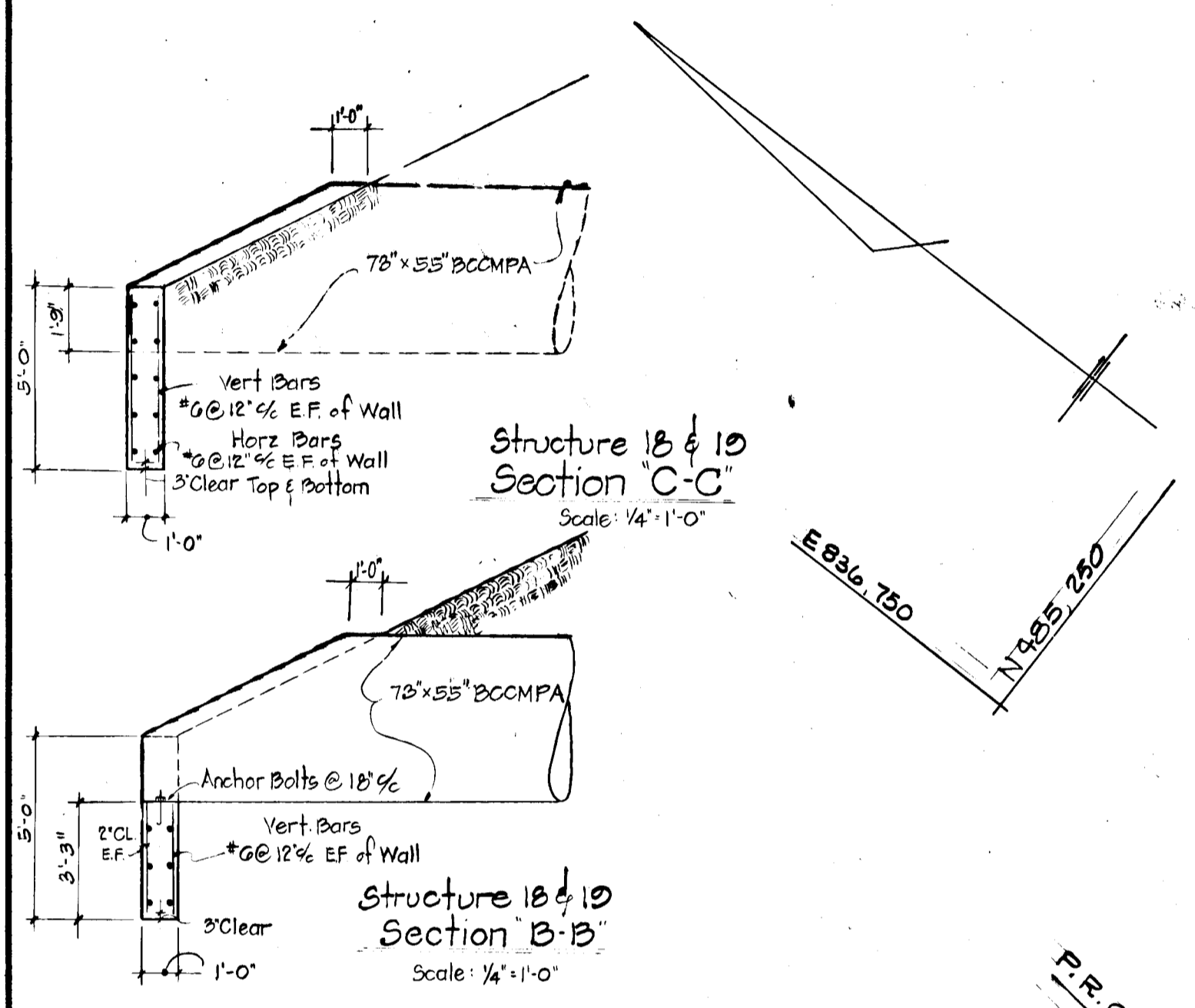
[Signature]
 Professional Engr. No. 11432

#445

STRUCTURE SCHEDULE

No	Type	Road	Location	Sta	Offset	Top	Inv.	Remarks
S-12A	PRECAST END SECTION	WEATHER WORN		7+96	36" RT	-	225.44	See Sht. 2 of 42
S-14	PRECAST END SECTION	WEATHER WORN		15+14	45" LT	-	287.80	See Sht. 3 of 42
S-12B	PRECAST END SECTION	WEATHER WORN		19+44**	16" RT	-	284.18	See Sht. 3 of 42
S-15	PRECAST END SECTION	WATER LILY WAY		1+10	16" RT	-	268.08	See Sht. 3 of 42
S-19	CUT OFF WALL	WEATHER WORN		8+33	47" LT	-	290.50	See Detail this Sheet
S-12	CUT OFF WALL	WEATHER WORN		9+00	68" RT	-	289.50	See Detail this Sheet
I-47	A-10 W/ DEFLECTOR	WEATHER WORN		6+00	15" LT	309.09	305.52	HO. CO. STD. G4-A
I-48	A-10 W/ DEFLECTOR	WEATHER WORN		6+00	15" RT	309.09	304.25	"
I-45	A-5 (2.5' W)	WEATHER WORN		7+96	15" RT	301.79	294.61	"
I-44	A-10 (2.5' W)	BROADCLOTH WAY		11+85	15" LT	301.12	296.98	"
I-48	A-5 (2.7' W)	WEATHER WORN		0+77.46	15" RT	299.59	295.00	"
I-49	(2.5' W) A-10, Depressed	WEATHER WORN		0+77.46	15" LT	299.59	293.49	"
I-50	A-5 (3.1' W)	WEATHER WORN		17+62	15" RT	291.83	285.12	"
I-51	A-5 (2.7' W)	WEATHER WORN		15+14	15" LT	294.31	286.59	"
I-52	A-5 (2.5' W)	WATER LILY WAY		1+13	-	289.00	285.25	HO. CO. STD. G4-A
MH-16	MANHOLE (Shallow)	WEATHER WORN		7+00	17.5' RT	304.83	299.97	See Detail Sht. 3 of 42
MH-19	MANHOLE (Shallow)	WATER LILY WAY		1+13	10.2' RT	-	269.24	See Detail Sht. 3 of 42
MH-14	Standard Manhole	WEATHER WORN		8+33	15" RT	300.60	292.52	HO. CO. STD. D-103

* LINEAR PROFILE STATION.
** FUTURE STA. OF WEATHER WORN WAY.



CURVE DATA

R: 1344.83 L: 622.20
 Δ : 26° 25' 23"
 TANG: 315.77
 CHD: S 67° 55' 43" E
 614.72

CURVE DATA

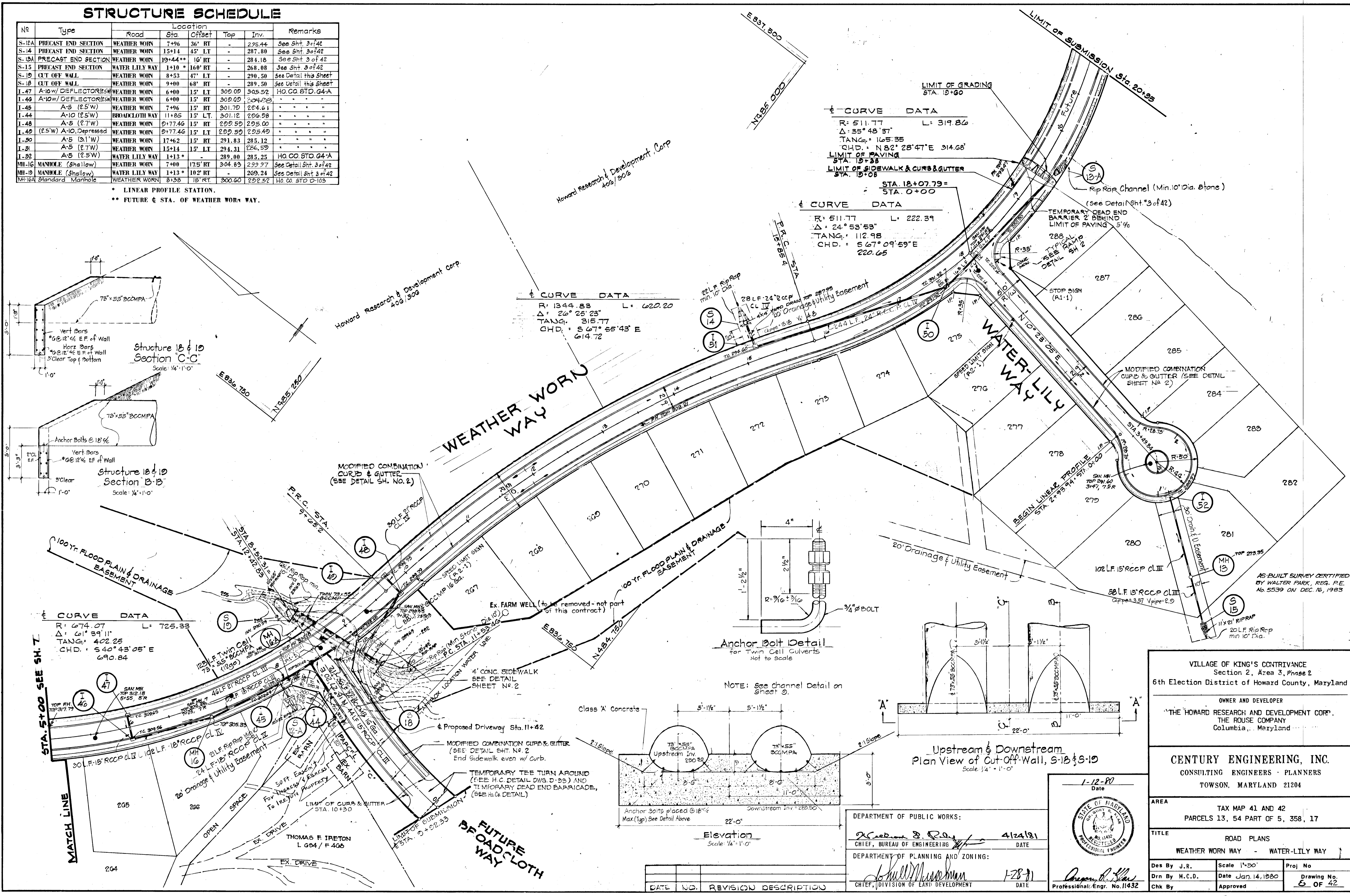
R: 511.77 L: 319.86
 Δ : 35° 48' 37"
 TANG: 165.35
 CHD: N 82° 28' 47" E 314.68
 LIMIT OF PAVING
 STA. 13+38
 LIMIT OF SIDEWALK & CURB & GUTTER
 STA. 13+08

CURVE DATA

R: 511.77 L: 222.39
 Δ : 24° 55' 53"
 TANG: 112.98
 CHD: S 67° 09' 59" E
 220.65

CURVE DATA

R: 674.07 L: 725.33
 Δ : 61° 39' 11"
 TANG: 402.25
 CHD: S 40° 43' 05" E
 690.84



VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE ROAD PLANS
 WEATHER WORN WAY - WATER LILY WAY

Des By J.R. Scale 1" = 50' Proj No.
 Drn By M.C.D. Date Jan. 14, 1980 Drawing No. 6 OF 42
 Chk By Approved

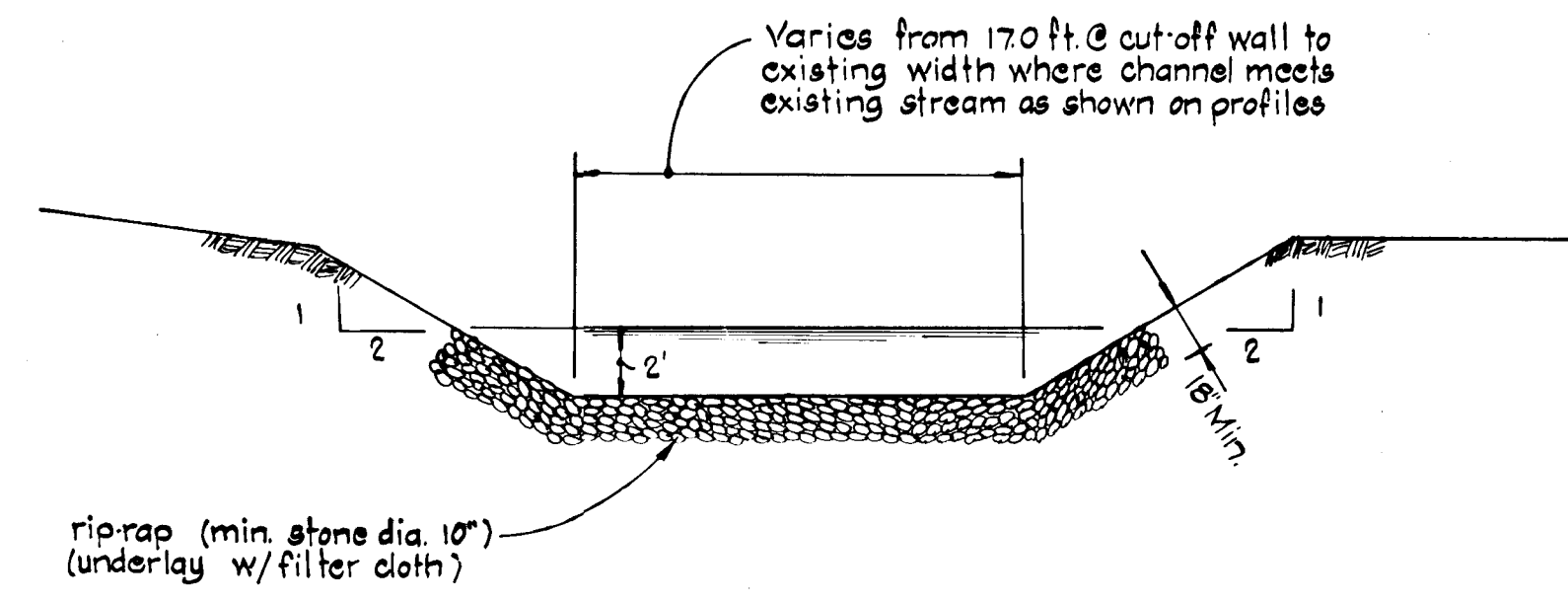
DATE NO. REVISION DESCRIPTION

#445

F-80-94C AS-BUILT DEC. 16, 1983

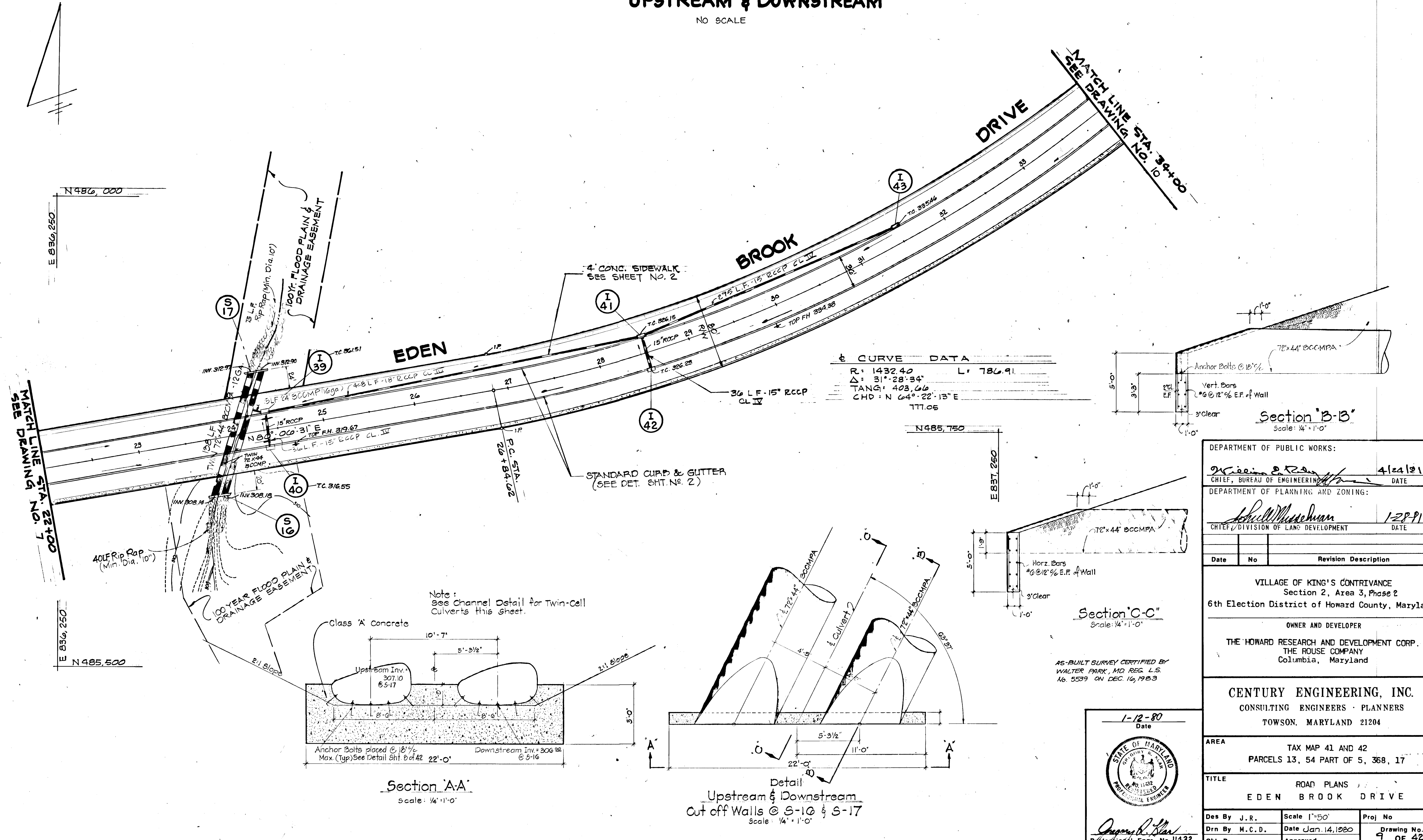
STRUCTURE SCHEDULE

No	Type	Road	Location			Remarks	
			Sta	Offset	Top Inv		
S-17	OUT OFF WALL	EDEN BROOK DR.	24+38	63' LT.	-	307.10	SEE SHT. 8 OF 37
S-16	OUT OFF WALL	EDEN BROOK DR.	23+77	60' RT.	-	306.00	SEE SHT. 8 OF 37
I-39	A-10 (2.7'W)	EDEN BROOK DR.	24+40	20' LT.	316.22	309.54	HQ. CO. STD. G4-A
I-41	(2.7'W) A-5 w/Deflec.	EDEN BROOK DR.	28+50	20' LT.	325.93	319.83	" " " "
I-43	(2.5'W) A-10	EDEN BROOK DR.	31+50	20' LT.	333.40	328.34	" " " "
I-42	(2.5'W) A-10 w/Deflec.	EDEN BROOK DR.	28+50	20' RT.	325.93	321.70	" " " "
I-40	(2.5'W) A-5	EDEN BROOK DR.	24+40	20' RT.	316.22	310.51	HQ. CO. STD. G4-A



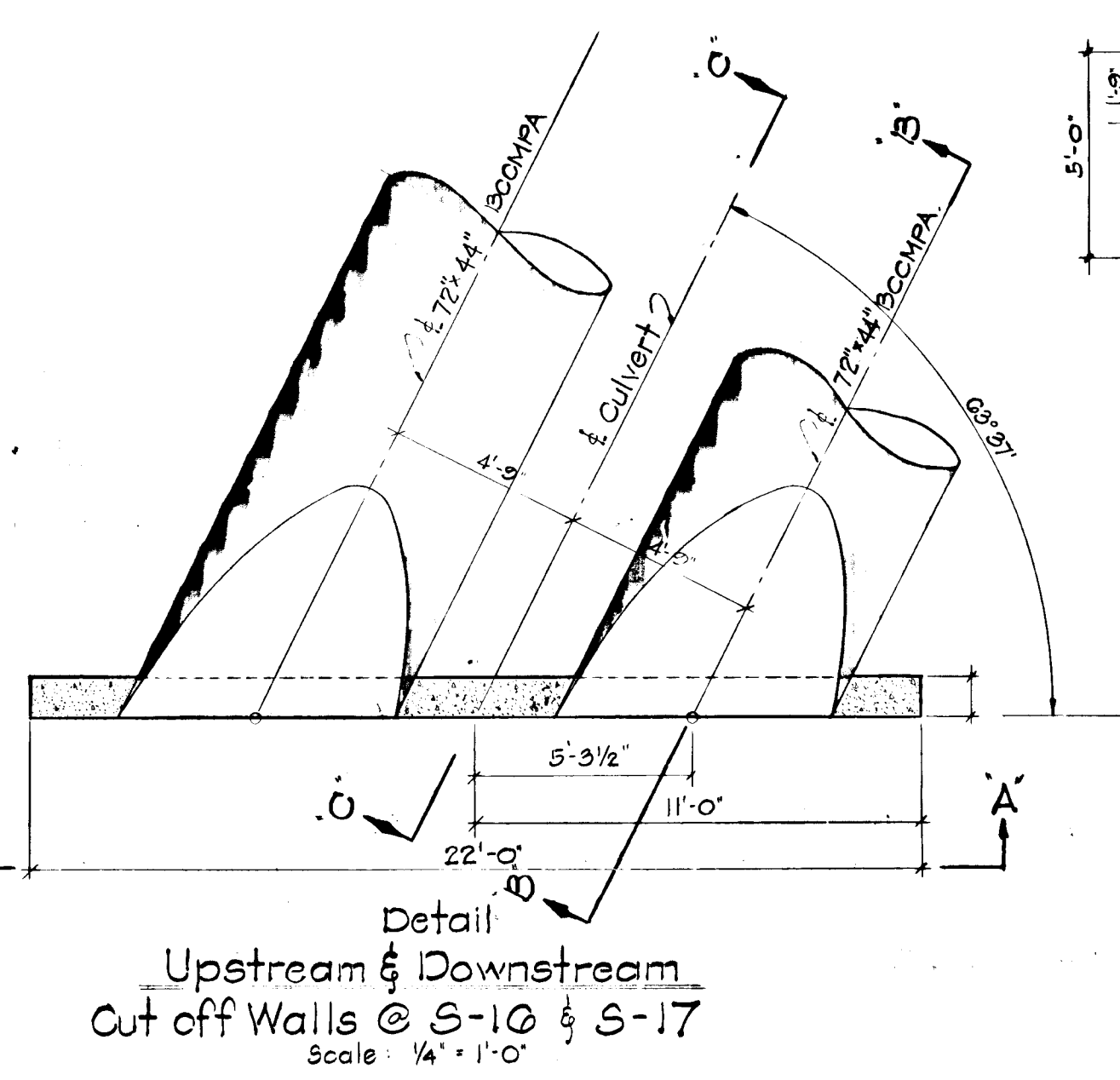
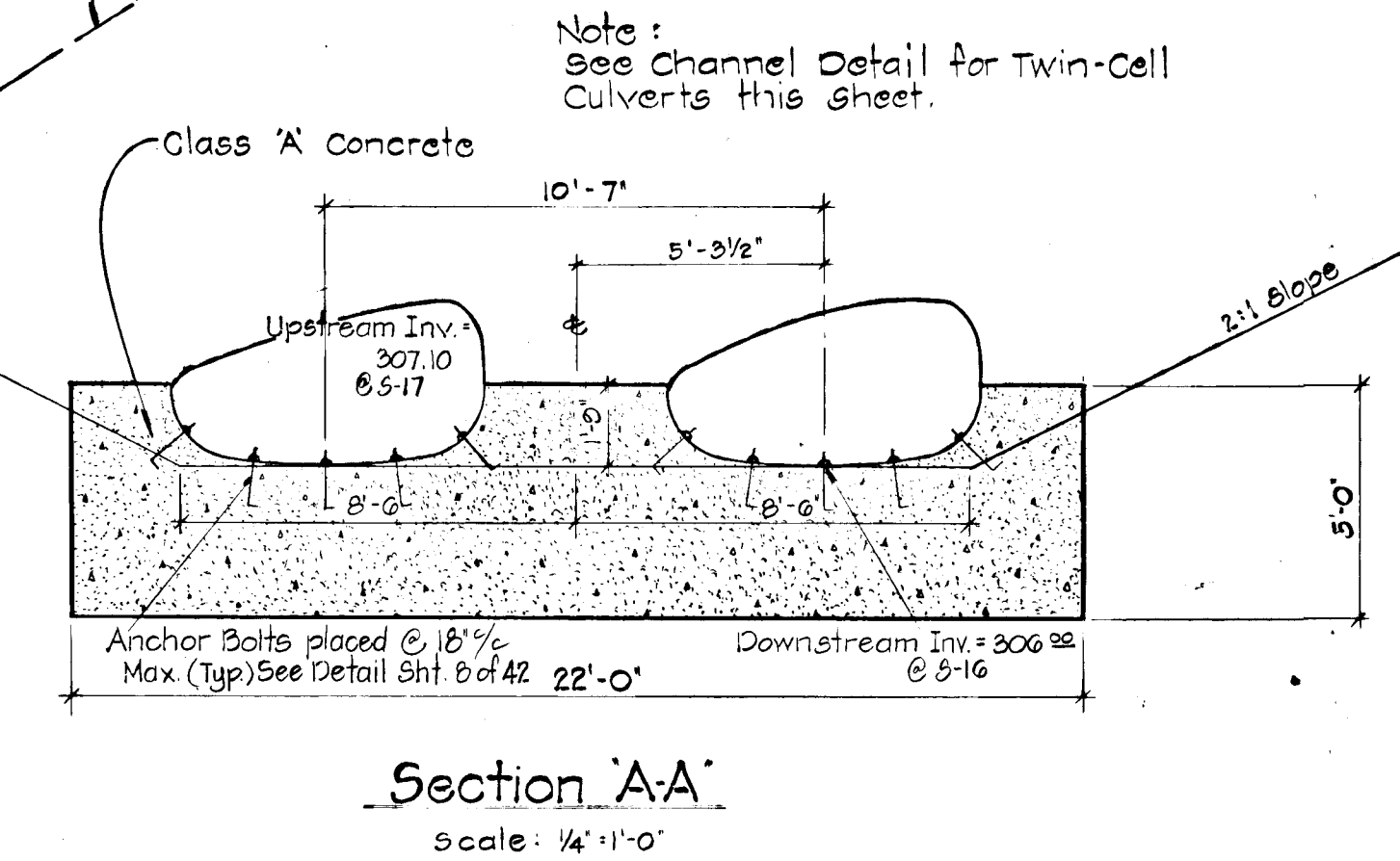
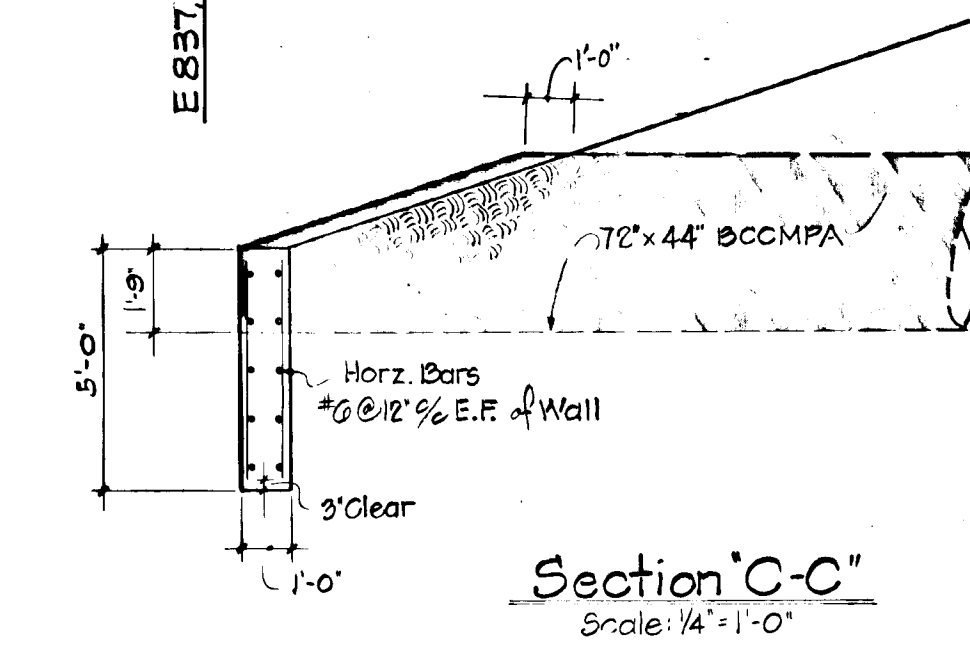
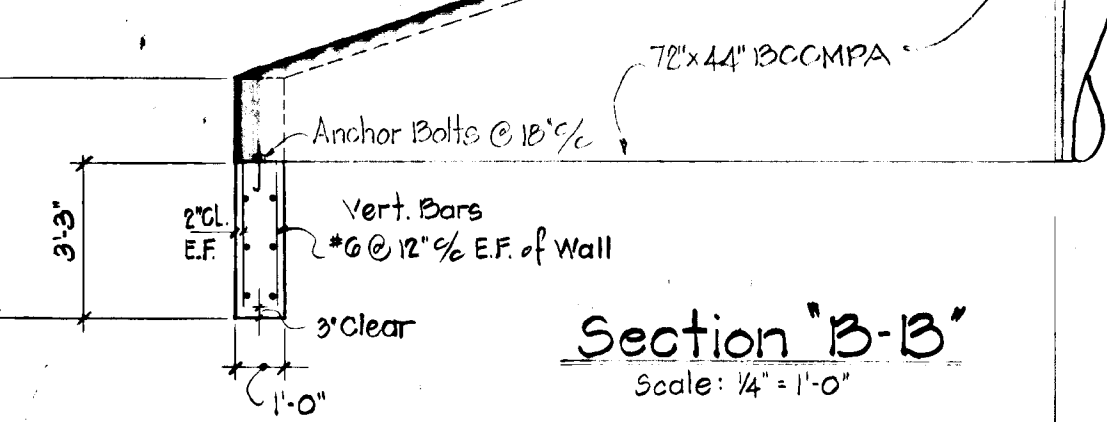
**DETAIL OF CHANNEL FOR TWIN-CELL CULVERTS
UPSTREAM & DOWNSTREAM**

NO SCALE



CURVE DATA

R: 1432.40	L: 786.91
Δ: 31° 28' 34"	
TANG: 403.66	
CHD: N 64° 22' 13" E	777.06



DEPARTMENT OF PUBLIC WORKS:
 Chief, Bureau of Engineering: *[Signature]* 4/24/81
 DEPARTMENT OF PLANNING AND ZONING:
 Chief, Division of Land Development: *[Signature]* 1/28/81

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA: TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 368, 17

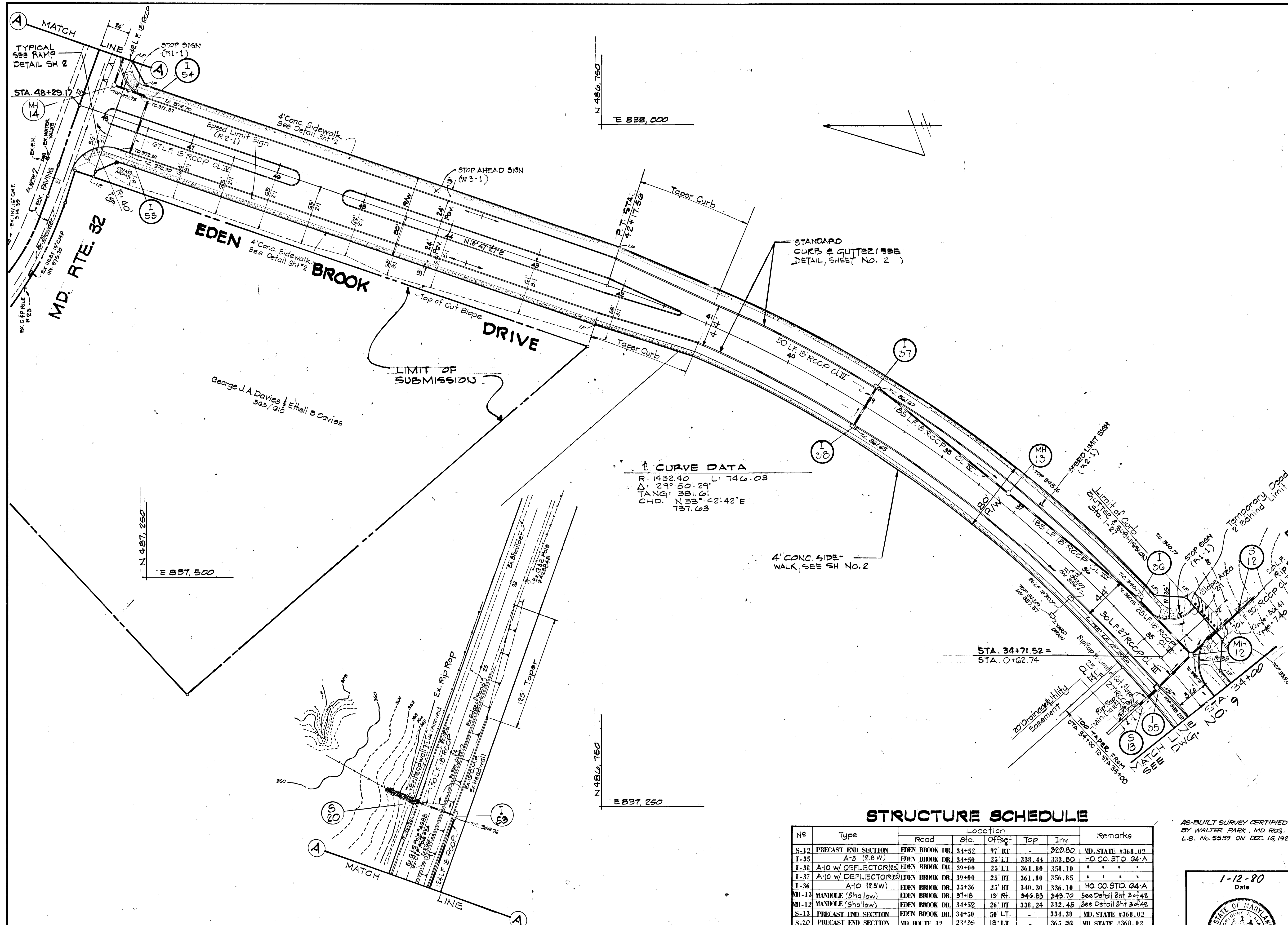
TITLE: ROAD PLANS
 EDEN BROOK DRIVE

Des By: J.R. Scale: 1"=50' Proj No:
 Drn By: M.C.D. Date: Jan. 14, 1980 Drawing No.: 9 OF 42
 Chk By: Approved

1-12-80
 Date

Professional Engr. No. 11432

#445

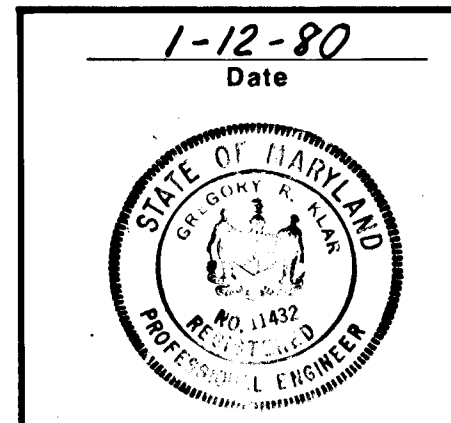


↑ CURVE DATA
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 TANG: 381.61
 CHD: N 33° 42' 42" E
 137.63

STRUCTURE SCHEDULE

No	Type	Road	Location			Remarks
			Sta	Offset	Inv	
S-12	PRECAST END SECTION	EDEN BROOK DR.	34+52	97 RT	322.80	MD. STATE #368.02
I-35	A-5 (2.8' W)	EDEN BROOK DR.	34+50	25 LT	338.44	HO. CO. STD. 64-A
I-36	A-10 w/ DEFLECTOR(S)	EDEN BROOK DR.	39+00	25 LT	361.80	358.10
I-37	A-10 w/ DEFLECTOR(S)	EDEN BROOK DR.	39+00	25 RT	361.80	356.85
I-36	A-10 (2.5' W)	EDEN BROOK DR.	35+36	25 RT	340.30	336.10
MH-13	MANHOLE (Shallow)	EDEN BROOK DR.	37+18	19 RT	346.80	342.70
MH-12	MANHOLE (Shallow)	EDEN BROOK DR.	34+52	26 RT	338.24	332.45
S-13	PRECAST END SECTION	EDEN BROOK DR.	34+50	50 LT	334.38	MD. STATE #368.02
S-20	PRECAST END SECTION	MD. ROUTE 32	23+35	18 LT	365.56	MD. STATE #368.02
I-52	A-10 (2.5' W)	MD. ROUTE 32	23+35	24 RT	369.75	365.98
I-54	A-10 w/ DEFLECTORS (2.5' W)	EDEN BROOK DR.	47+60	32 RT	372.70	368.47
I-55	A-10 w/ DEFLECTORS (2.5' W)	EDEN BROOK DR.	47+60	32 LT	372.70	369.10
MH-14	MANHOLE (Shallow)	EDEN BROOK DR.	48+00	33 RT	371.82	367.97

AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD. REG. L.S. No. 5599 ON DEC. 16, 1983



DEPARTMENT OF PUBLIC WORKS:
William B. Ray 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING:
Schell M. Muehman 1-28-81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Date	No	Revision	Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE
 ROAD PLANS
 EDEN BROOK DRIVE

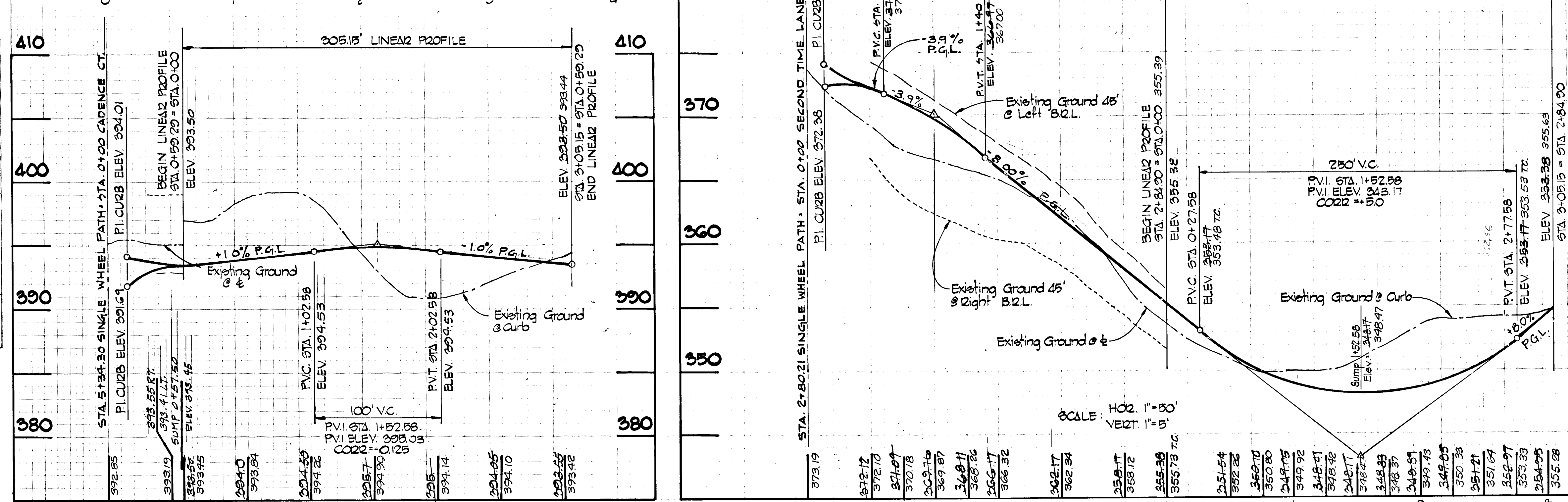
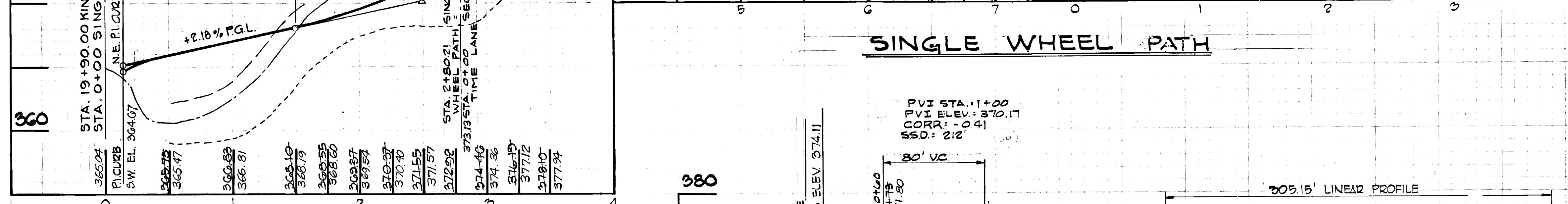
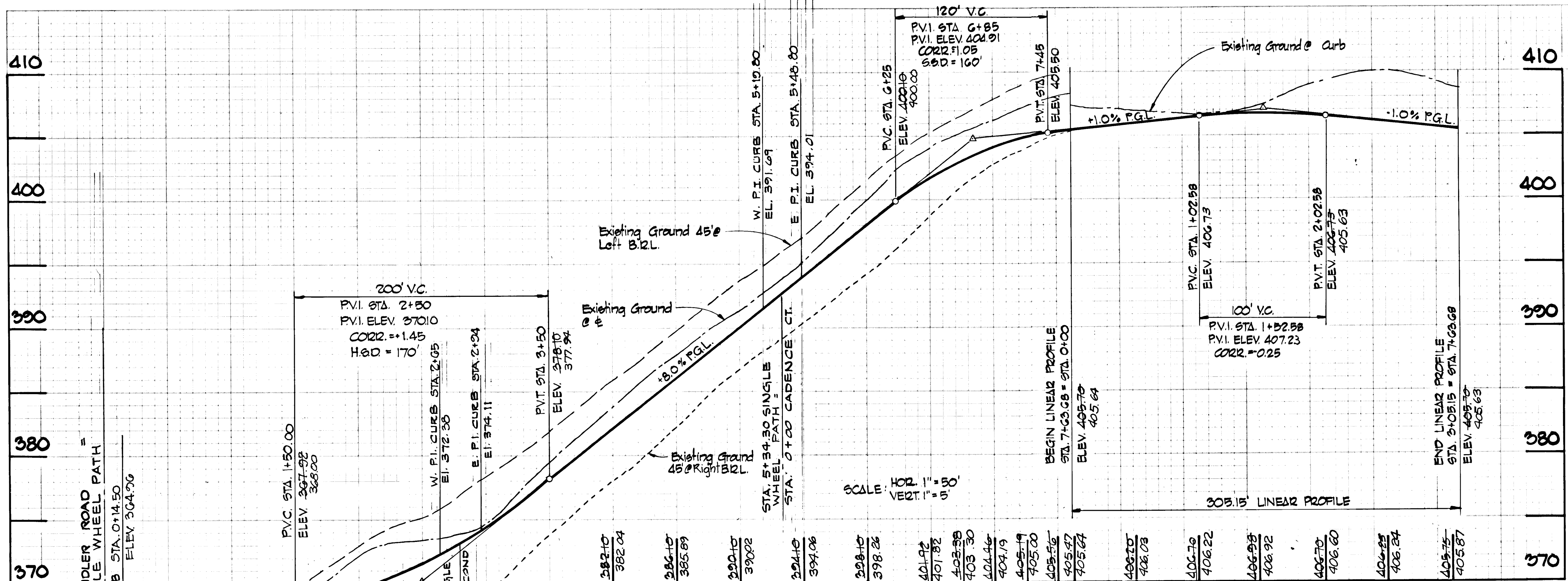
Des By J.R.	Scale 1"=50'	Proj No
Drn By M.C.D.	Date Jan. 14, 1980	Drawing No. 10 OF 42
Chk By	Approved	

FUTURE SWEET HOURS WAY

#945

FINAL SURVEY	DATE
SUBMITTED	
PLOTTED	
NOTE BOOK	
AREA SHEETS	
NO.	

ORIGINAL SURVEY	DATE
SUBMITTED	
PLOTTED	
NOTE BOOK	
AREA SHEETS	
NO.	



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

AS-BUILT SURVEY
 CERTIFIED BY WALTER
 PARK, MD. REG. L.S.
 No. 5539, 01/12/16/83

5-15-79
 Date

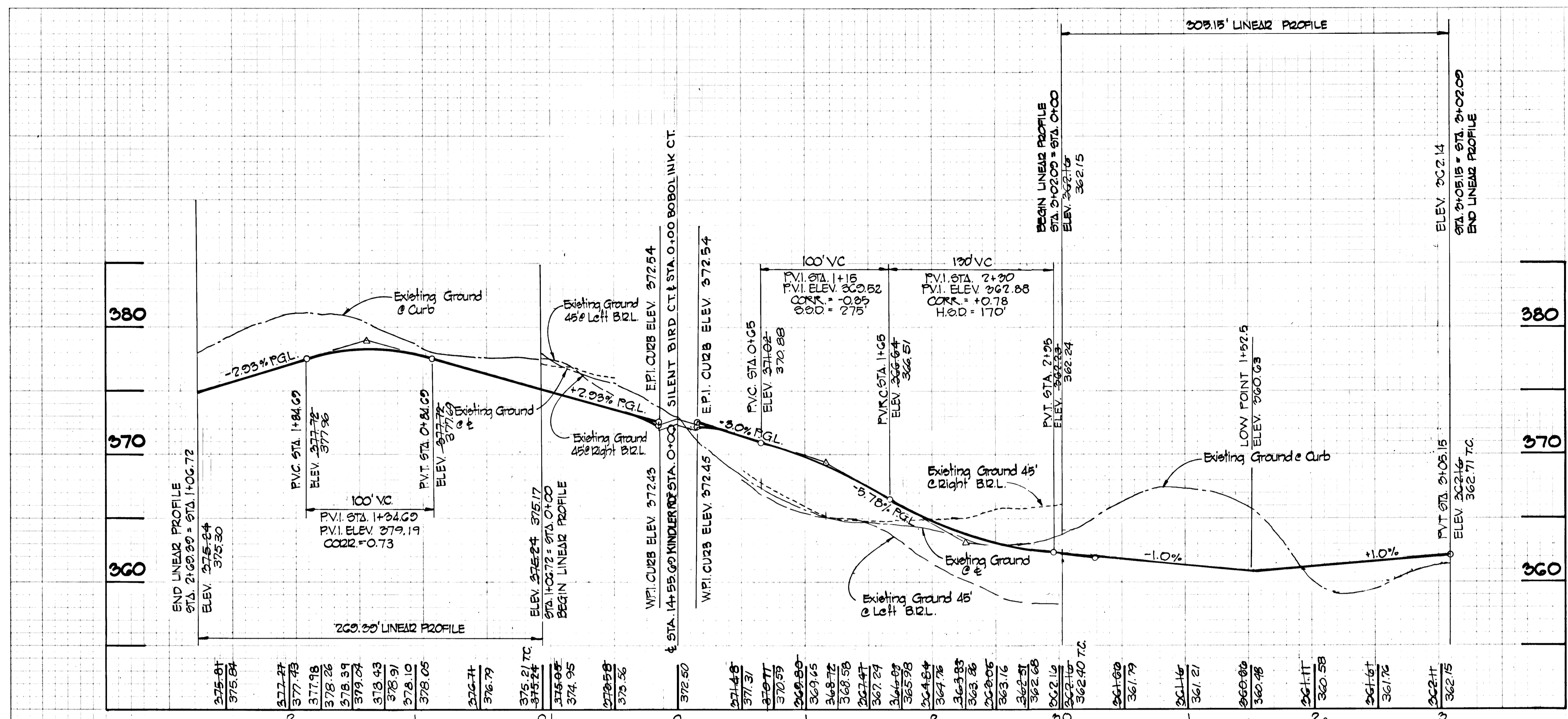
 Professional Engr. No. 3511

DEPARTMENT OF PUBLIC WORKS		
Walter Park, 4/24/81 CHIEF, BUREAU OF ENGINEERING DATE		
DEPARTMENT OF PLANNING AND ZONING		
Shirley M. Murchison, 12/8/81 CHIEF, DIVISION OF LAND DEVELOPMENT DATE		
Date	No.	Revision Description
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland		
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204		
AREA	TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17	
TITLE	ROAD PROFILES SINGLE WHEEL PATH, CADENCE COURT AND SECOND TIME LANE	
Des By T.D.	Scale AS SHOWN	Proj No 0574
Drn By T.D.	Date 5/10/79	Drawing No.
Chk By G.R.K.	Approved	11 OF 42

#445

FINAL SURVEY
 SURVEY PLOTTED
 SITE BOOK
 AREAS CHECKED
 NO.

ORIGINAL SURVEY
 SURVEY PLOTTED
 SITE BOOK
 AREAS CHECKED
 NO.



SILENT BIRD COURT

PROFILE

BOBOLINK CT.

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

AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD. REG.
 L.S. No. 5539 on 12-16-83

DEPARTMENT OF PUBLIC WORKS
William S. Riley 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE
 DEPARTMENT OF PLANNING AND ZONING
John W. Murchman 1/28/81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Date	No.	Revision Description

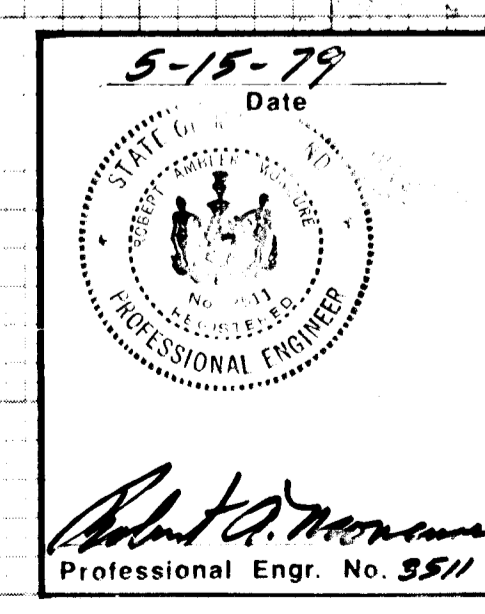
VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE
 ROAD PROFILES
 SILENT BIRD COURT, BOBOLINK COURT AND
 TYPICAL SECTION DETAILS

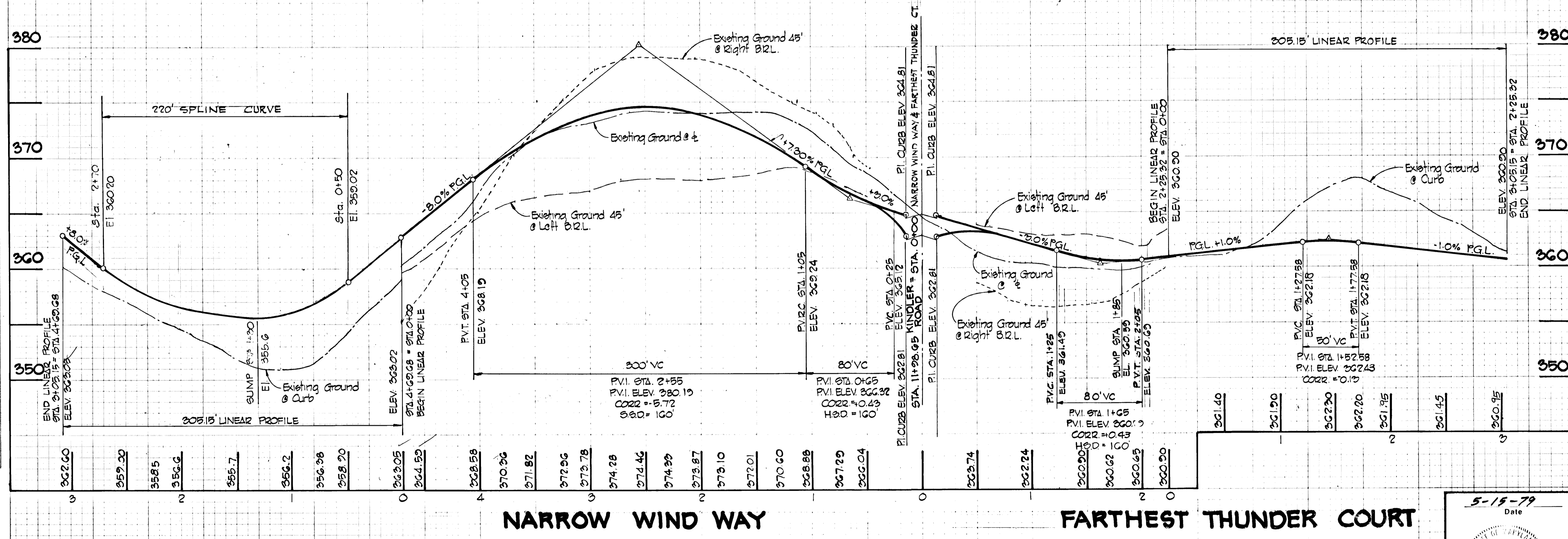
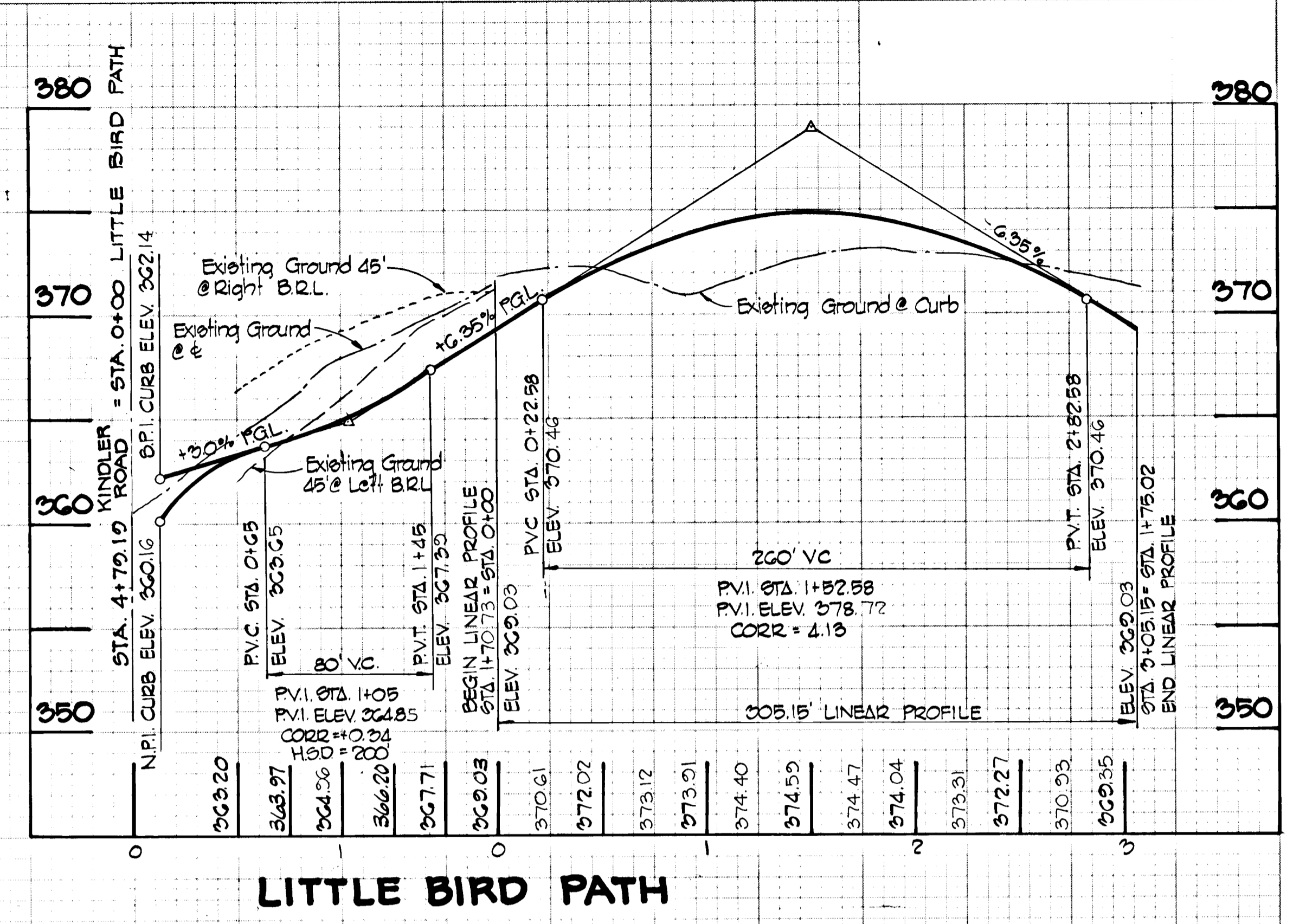
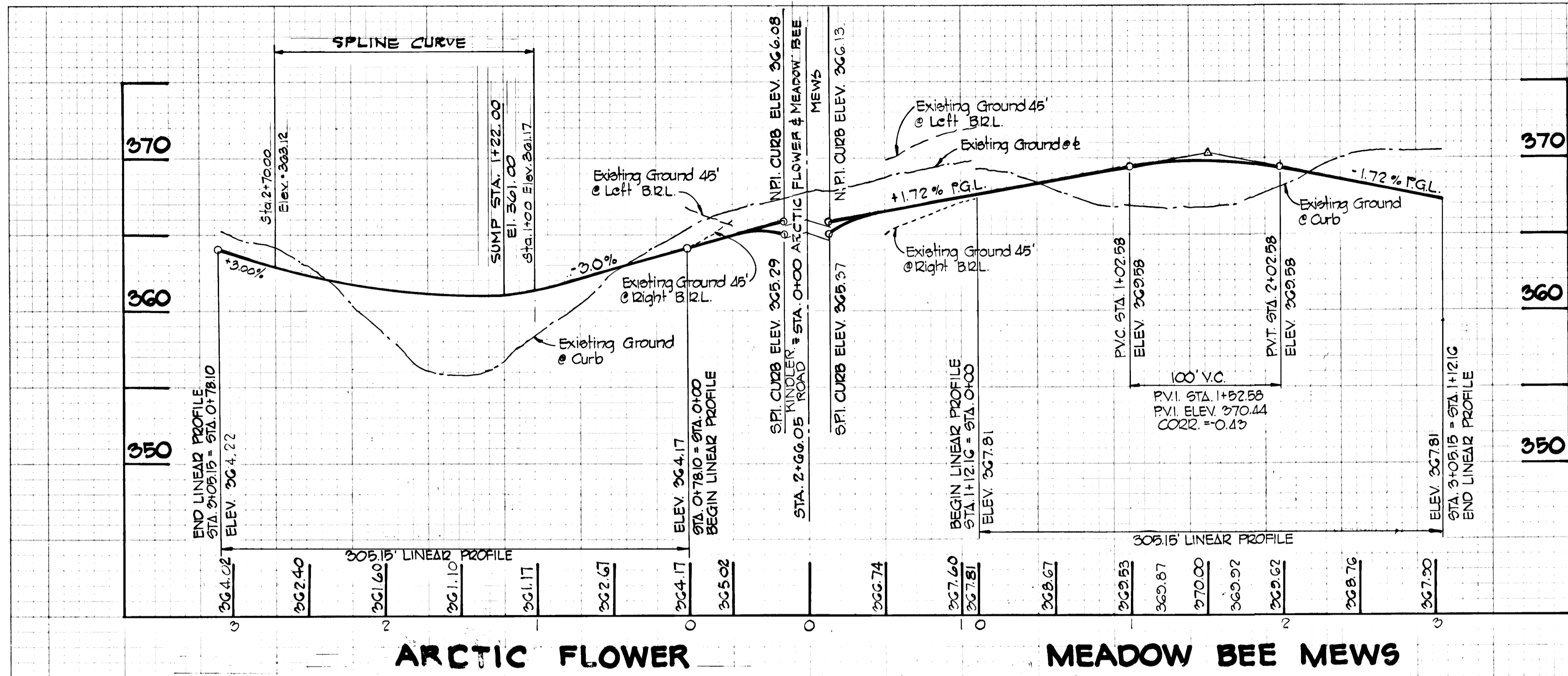
Des By T.D. Scale AS SHOWN Proj No 0579
 Drn By T.D. Date 5/10/79 Drawing No.
 Chk By G.R.K. Approved 12 OF 42



#445

DATE	BY
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS	TEMPERATURE
AREAS	AREAS
AREAS	AREAS

DATE	BY
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
AREAS	TEMPERATURE
AREAS	AREAS
AREAS	AREAS



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

DEPARTMENT OF PUBLIC WORKS
William E. Reim 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE
 DEPARTMENT OF PLANNING AND ZONING
John W. Macchman 12/8/81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Date	No	Revision	Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

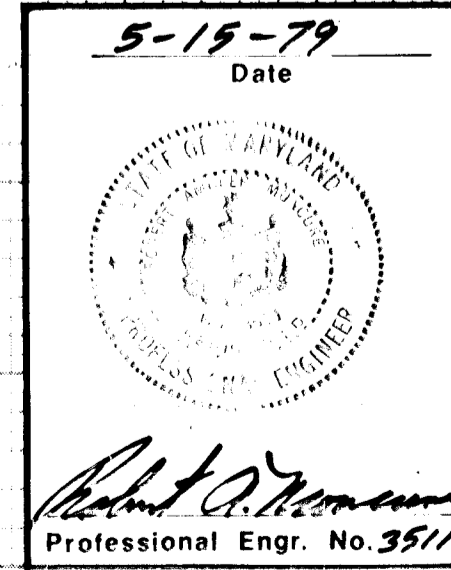
OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE
 ROAD PROFILES
 ARCTIC FLOWER - MEADOW BEE MEWS
 LITTLE BIRD PATH - NARROW WIND WAY
 FARTHEST THUNDER CT.

Des By T.D.	Scale AS SHOWN	Proj No 0579
Drn By T.D.	Date 5/10/79	Drawing No.
Chk By G.R.K.	Approved	13 OF 42

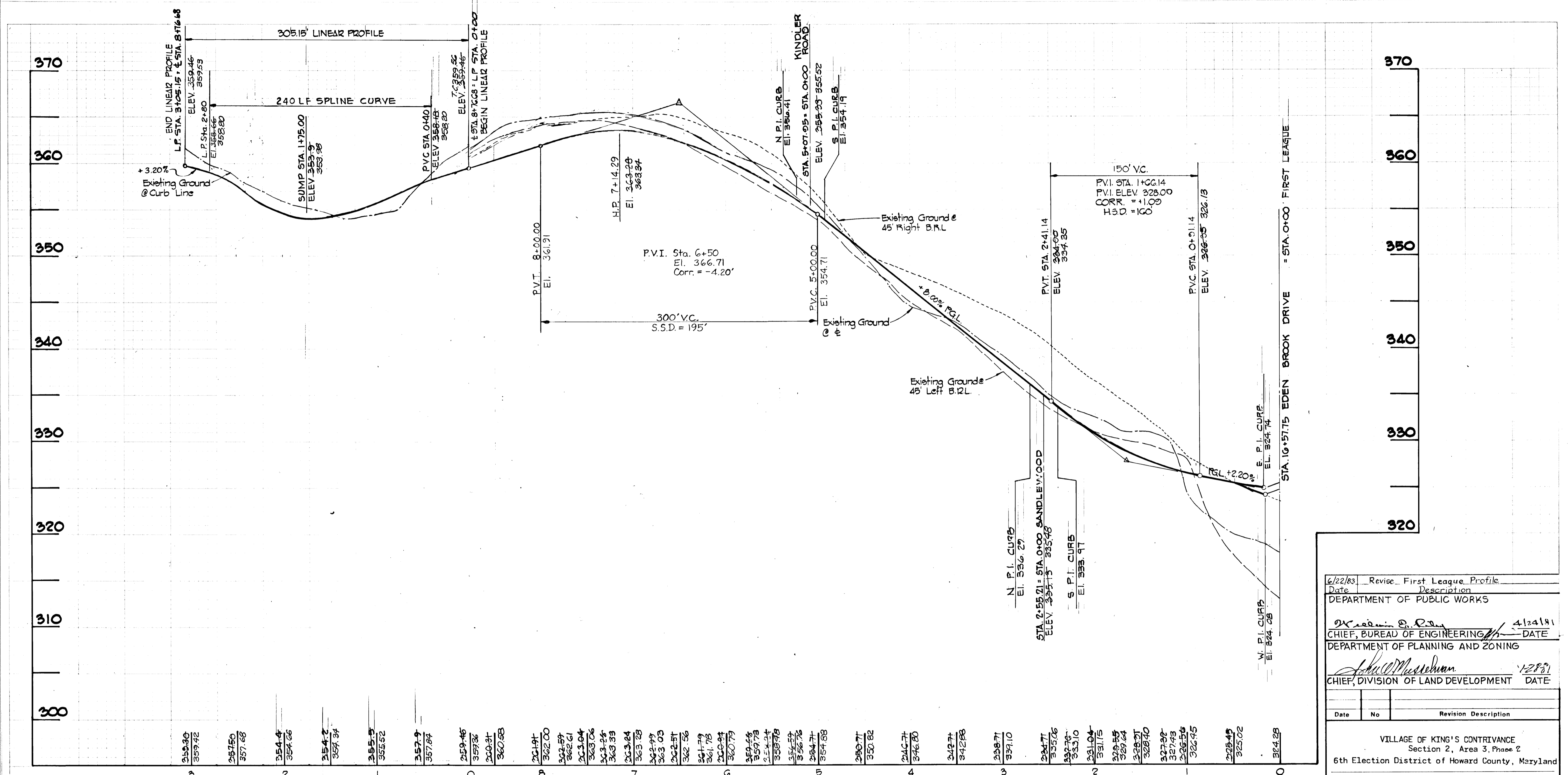


#445

F-80-76

ORIGINAL SURVEY
 DATE: 12/16/83
 BY: WALTER PARK, MD REG. L.S.
 NO. 5539

ORIGINAL SURVEY
 DATE: 12/16/83
 BY: WALTER PARK, MD REG. L.S.
 NO. 5539



FIRST LEAGUE PROFILE
 SCALE: HOR. 1" = 50'
 VERT. 1" = 5'

AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD, REG. L.S.
 No. 5539 ON 12-16-1983

6/22/83	Revise	First League Profile
Date	Description	
DEPARTMENT OF PUBLIC WORKS		
		4/24/81
CHIEF, BUREAU OF ENGINEERING		
DEPARTMENT OF PLANNING AND ZONING		
		1/28/81
CHIEF, DIVISION OF LAND DEVELOPMENT		
Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

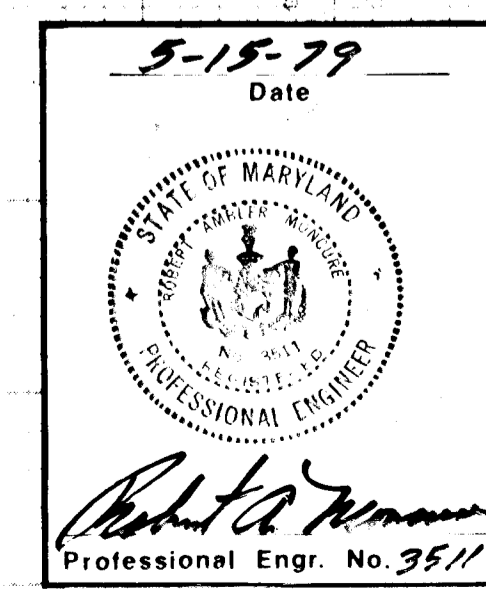
OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA
 TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE
 ROAD PROFILE
 FIRST LEAGUE AND ROAD DETAILS

Des By T.D.	Scale AS SHOWN	Proj No 0579
Drn By T.D.	Date 5/10/79	Drawing No. 14 OF 42
Chk By G.R.K.	Approved	

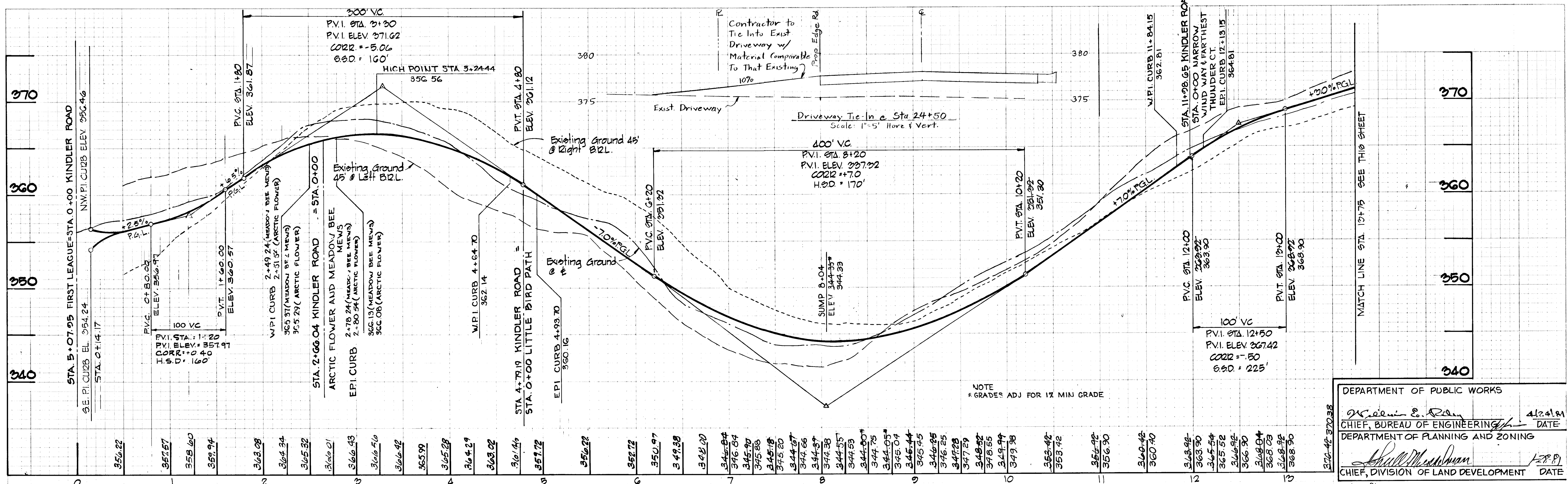


AS-BUILT DEC. 16, 1983

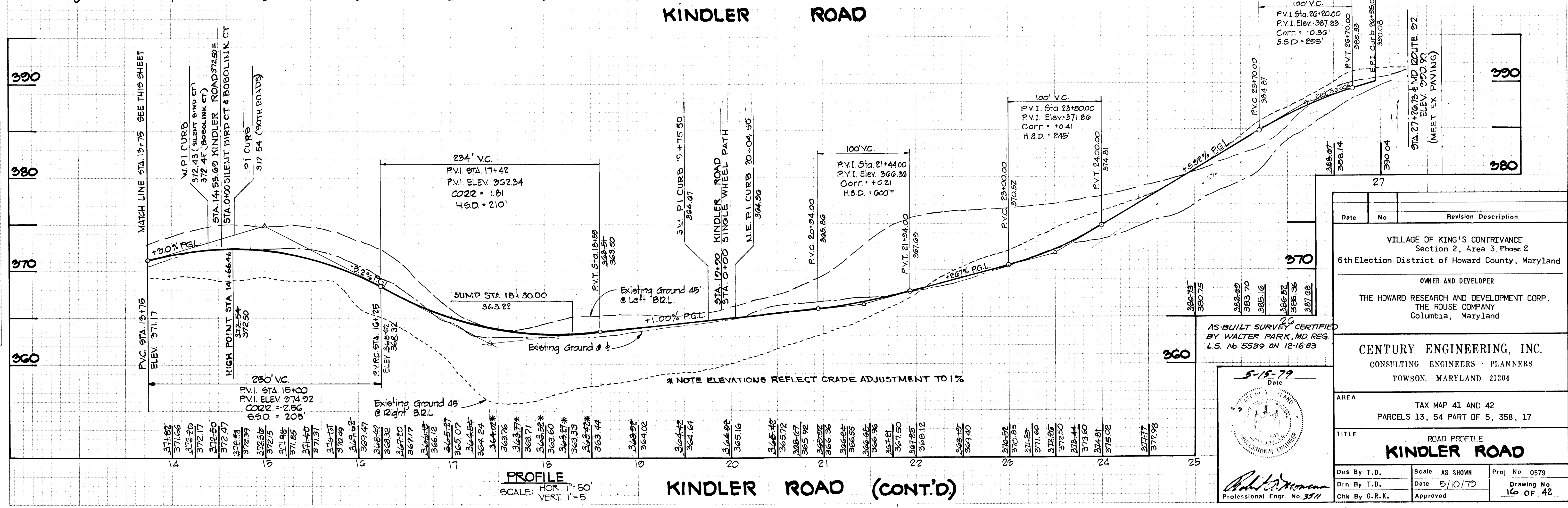
#445

FINAL SURVEY	SUBMITTED	BY	DATE
NOTED	PLOTTED		
NOTE BOOK	TEMPLATE		
AREAS			
ADJUSTMENTS			

ORIGINAL SURVEY	SUBMITTED	BY	DATE
NOTED	PLOTTED		
NOTE BOOK	TEMPLATE		
AREAS			
ADJUSTMENTS			



DEPARTMENT OF PUBLIC WORKS
 William E. Redman 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE
 DEPARTMENT OF PLANNING AND ZONING
 Chief, Division of Land Development DATE



AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD REG. L.S. No. 5539 ON 12-16-83
 5-15-79 Date
 Professional Engr. No. 3511

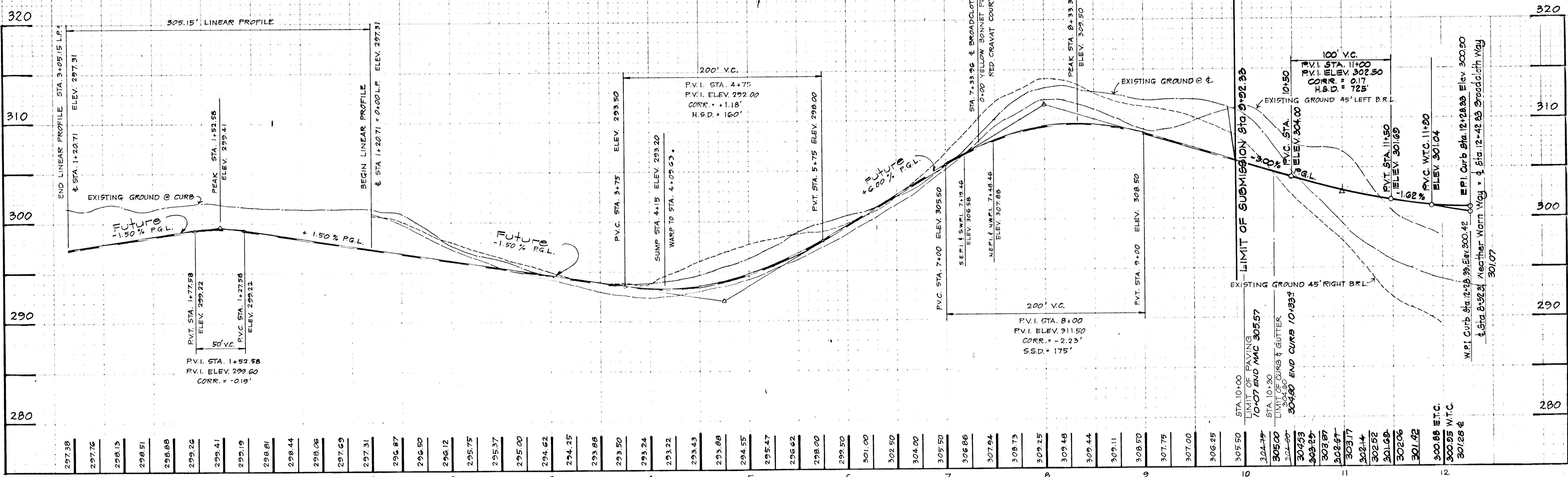
Date	No	Revision Description
		VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland
		OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland
		CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204
		TITLE ROAD PROFILE KINDLER ROAD
Des By T.D.	Scale AS SHOWN	Proj No 0579
Drn By T.D.	Date 5/10/79	Drawing No 16 OF 42
Chk By G.R.K.	Approved	

PROFILE KINDLER ROAD (CONT'D)
 SCALE: HOR. 1" = 50' VERT. 1" = 5'

#445

AS BUILT SURVEY CERTIFIED BY WALTER PARK, MD REG. L.S. No. 5539 ON 12-16-83

AS BUILT SURVEY CERTIFIED BY WALTER PARK, MD REG. L.S. No. 5539 ON 12-16-83



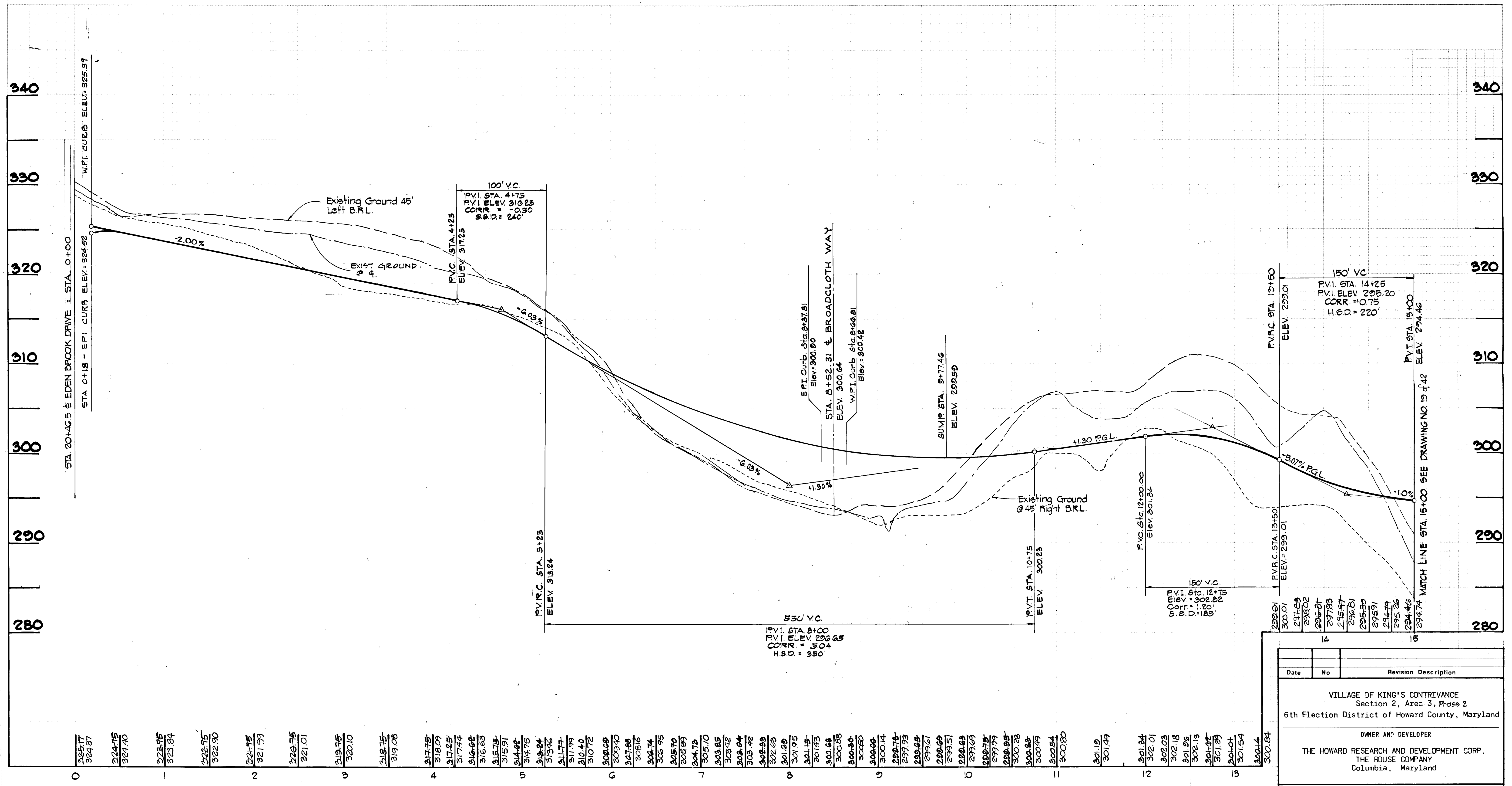
BROADCLOTH WAY PROFILE
 SCALE: HOR. 1"=50'
 VERT. 1"=5'

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS		Date	
<i>William B. Ray</i>		4/24/81	
Chief, Bureau of Engineering			
HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING		Date	
<i>John M. Mearns</i>		1/28/81	
Chief, Division of Land Development			
Date	No.	Revision Description	
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3 6th Election District of Howard County, Maryland			
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland			
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204			
AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17			
TITLE ROAD PROFILES BROADCLOTH WAY			
Des By T.D.	Scale AS SHOWN	Proj No 0578	
Chk By J.C.	Date 3-7-80	Drawing No. 17 OF 42	
Chk By G.K.	Approved		

AS BUILT SURVEY CERTIFIED BY WALTER PARK, MD REG. L.S. No. 5539 ON 12-16-83

March 7, 1980
 Date
John M. Mearns
 Professional Eng. No. 10551

FINAL SURVEY
 DATE: 5/10/79
 BY: [Signature]
 CHECKED: [Signature]



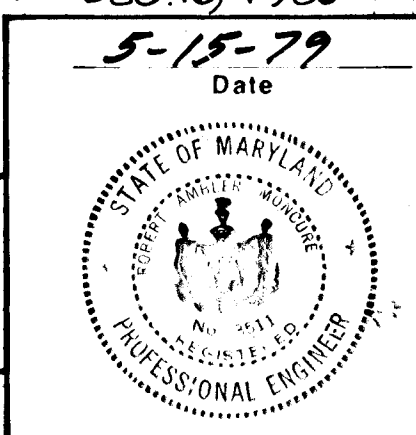
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322.75	322.90
321.75	321.97
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318.75	319.08
317.75	318.02
317.25	317.44
316.68	316.63
315.75	315.91
314.84	314.75
313.94	313.46
311.77	311.99
310.40	310.72
309.09	309.40
307.88	308.16
306.74	306.95
305.70	305.69
304.78	304.78
303.85	303.92
302.94	302.94
302.03	302.03
301.19	301.19
300.28	300.28
299.39	299.39
298.45	298.45
297.51	297.51
296.63	296.63
295.75	295.75
294.89	294.89
294.00	294.00
293.14	293.14
292.21	292.21
291.29	291.29
290.38	290.38
289.48	289.48
288.59	288.59
287.71	287.71
286.84	286.84
285.97	285.97
285.11	285.11
284.26	284.26
283.41	283.41
282.57	282.57
281.74	281.74
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WEATHER WORN WAY

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

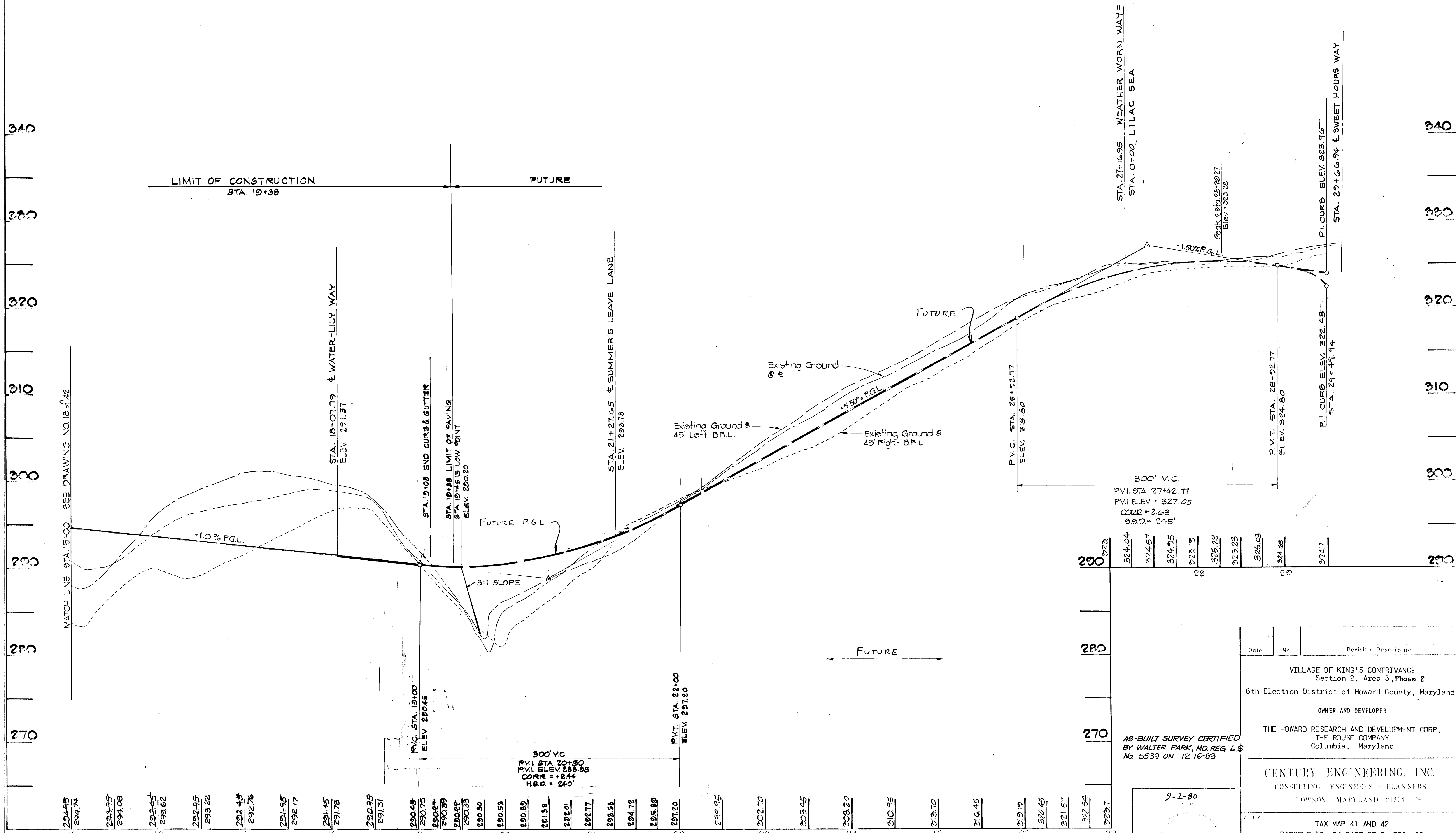
AS BUILT SURVEY CERTIFIED BY
 WALTER PARK, MD. REG. L.S. No.
 5539 ON DEC. 16, 1983

DEPARTMENT OF PUBLIC WORKS
 [Signature] 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE
 DEPARTMENT OF PLANNING AND ZONING
 [Signature] 1-28-81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



Date	No	Revision Description
		VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland
		OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland
		CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204
		AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17
		TITLE ROAD PROFILE WEATHER WORN WAY
Des By T.D.	Scale AS SHOWN	Proj No 0579
Drn By T.D.	Date 5/10/79	Drawing No.
Chk By G.R.K.	Approved	18 OF 42

#445



MATCH LINE STA. 15+00 SEE DRAWING NO. 18 OF 42

294.74	293.95	293.45	292.75	292.45	291.95	291.45	290.95	290.45	290.00	290.51	290.89	291.38	292.01	292.77	293.68	294.72	295.89	297.20	299.45	302.70	305.45	308.20	310.95	313.70	316.45	319.12	320.45	321.57	322.54	322.7
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WEATHER WORN WAY (CONT'D)

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

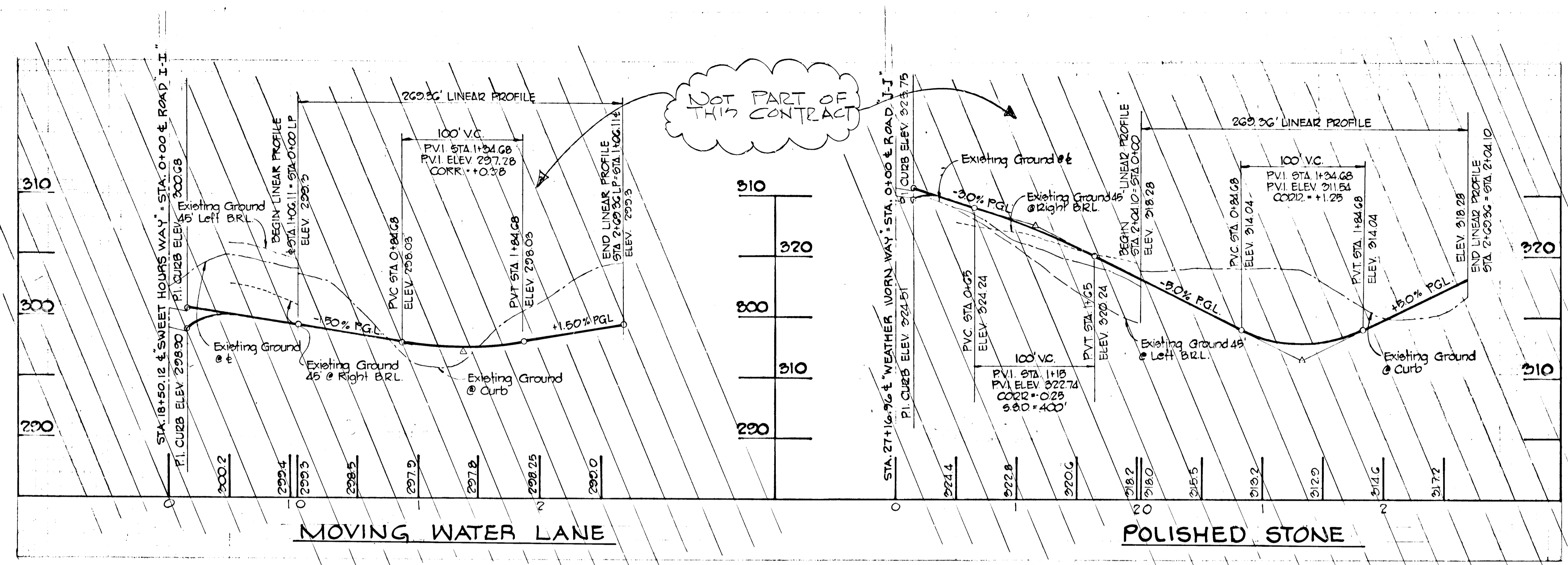
DEPARTMENT OF PUBLIC WORKS
William E. Riley 4-12-81
 CHIEF, BUREAU OF ENGINEERING
 DEPARTMENT OF PLANNING AND ZONING
John W. M... .. 1-29-81
 CHIEF, DIVISION OF LAND DEVELOPMENT

9-2-80
 AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD. REG. L.S.
 No. 5539 ON 12-16-83

Date	No.	Revision	Description
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland			
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21284			
TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17			
ROAD PROFILE WEATHER WORN WAY			
Des. By T.D.	Scale AS SHOWN	Proj. No. 0579	
Drawn By T.D.	Date 5/10/79	Drawing No.	
Chk. By G.R.K.	Approved	19 01 42	

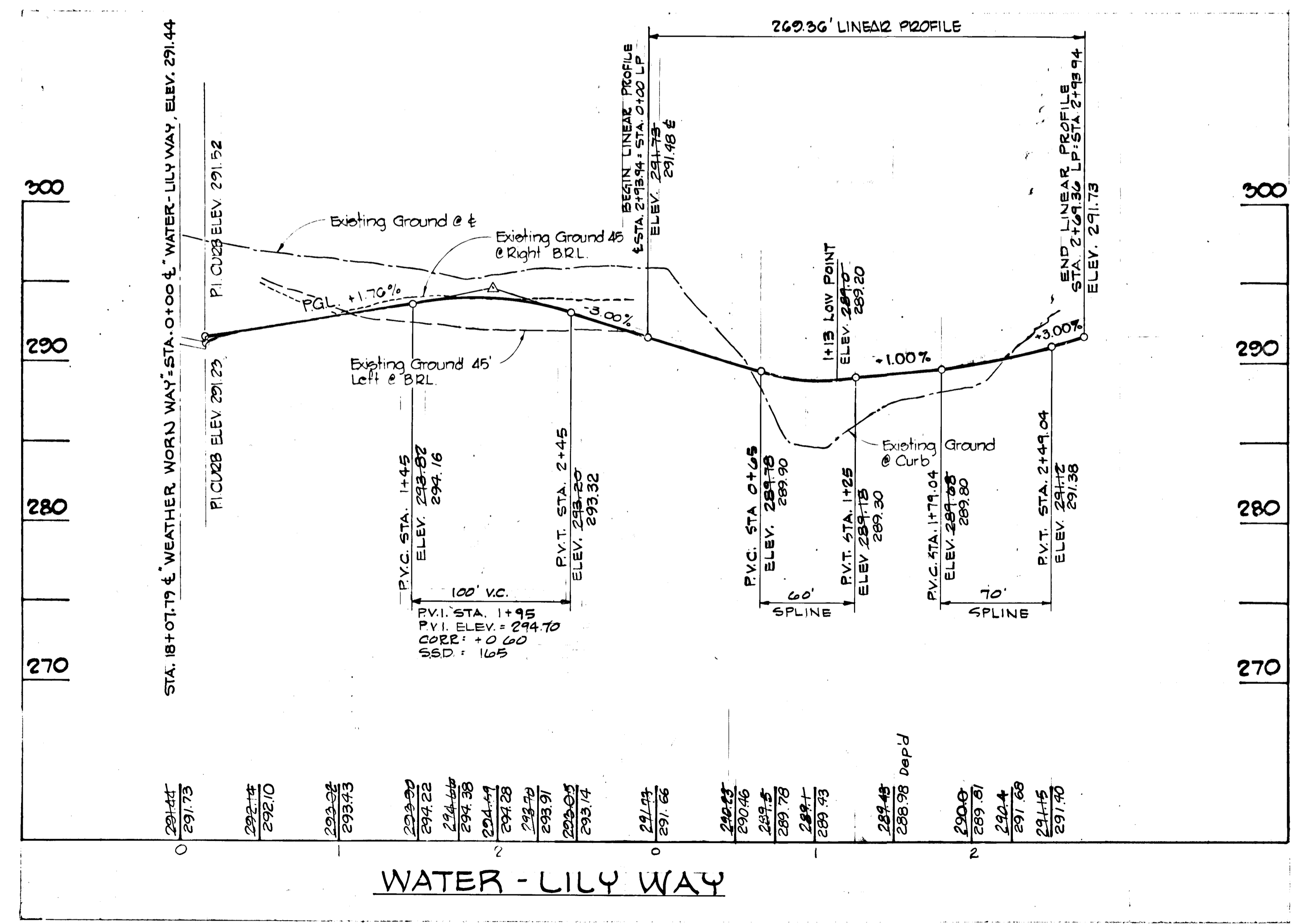
AS-BUILT DEC. 16, 1983

#445

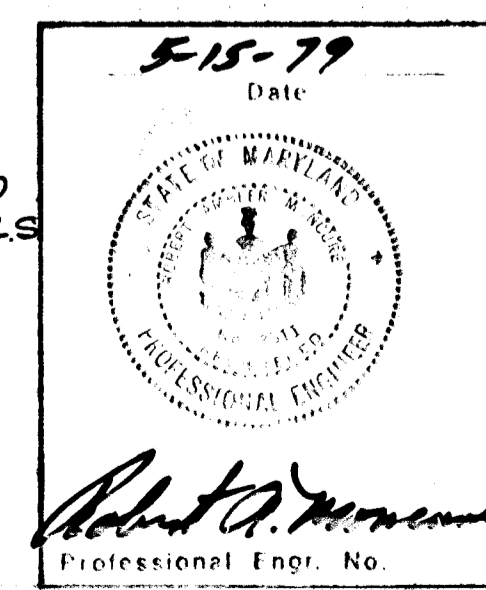


NOT PART OF THIS CONTRACT

PROFILES
SCALE: HOR 1"=50'
VERT 1"=5'



AS BUILT SURVEY CERTIFIED
BY WALTER PARK, MD REG. L.S.
No 5539 ON 12-16-83

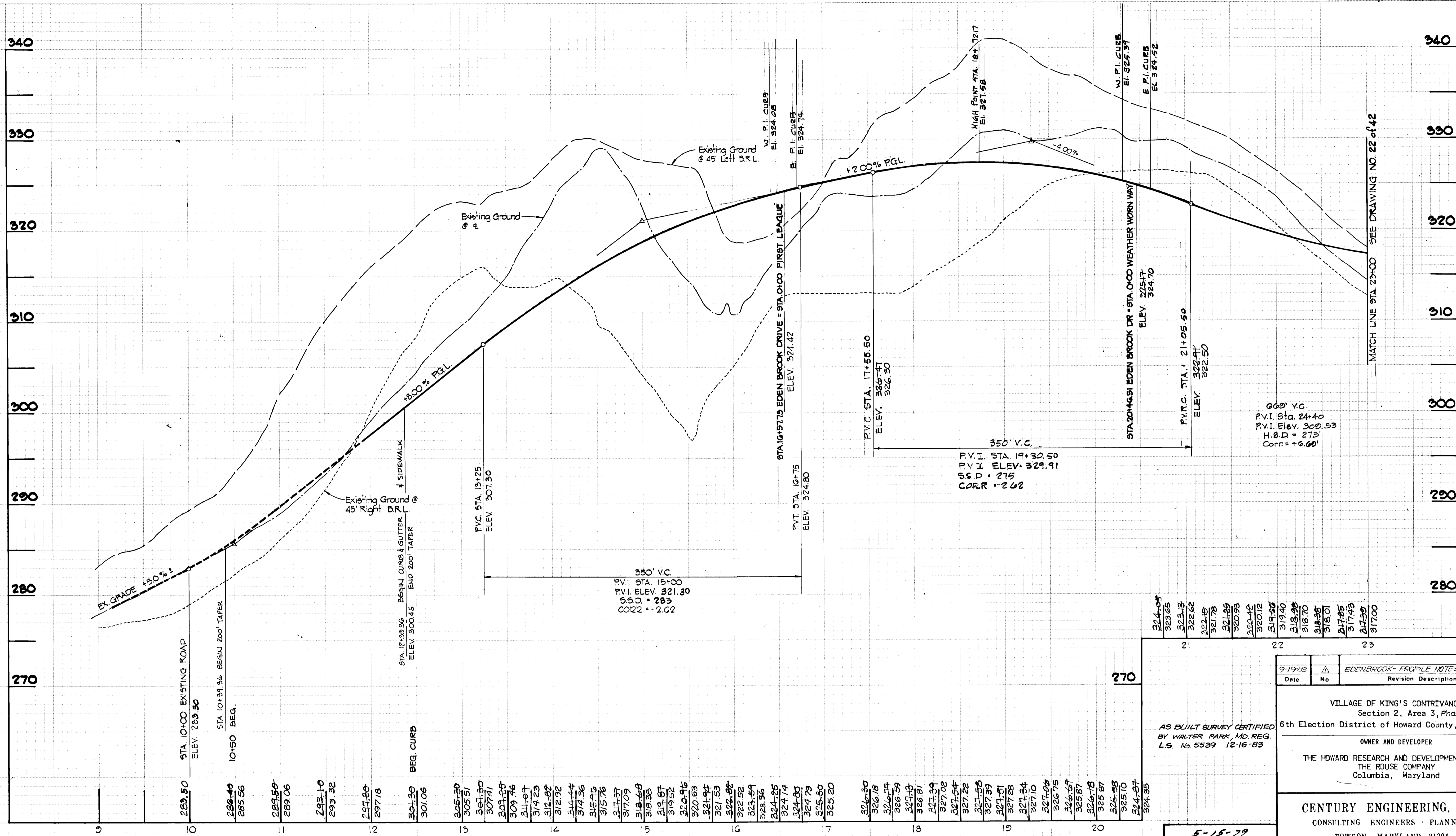


DEPARTMENT OF PUBLIC WORKS	
<i>William S. Reilly</i>	4/24/81
CHIEF, BUREAU OF ENGINEERING	DATE
DEPARTMENT OF PLANNING AND ZONING	
<i>Shelley M. ...</i>	1-28-81
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
Date	No
Revision Description	
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland	
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204	
AREA	TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17
TITLE ROAD PROFILE "WATER - LILY WAY"	
Des By T.D.	Scale AS SHOWN
Proj No 0579	Date 5/10/79
Drn By T.D.	Approved
Chk By G.R.K.	Drawing No. 20 Of 42

#445

FINAL SURVEY
 SURVEYED
 NOTE BOOK
 DATE
 BY
 AREA
 AREA
 AREA

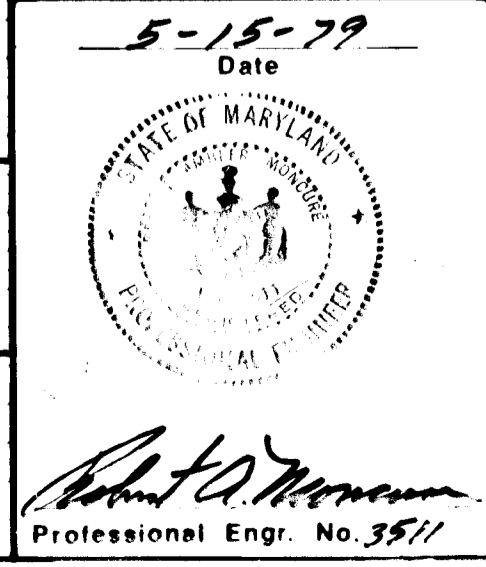
ORIGINAL SURVEY
 SURVEYED
 NOTE BOOK
 DATE
 BY
 AREA
 AREA
 AREA



EDEN BROOK DRIVE

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

DEPARTMENT OF PUBLIC WORKS
 W. C. ...
 CHIEF, BUREAU OF ENGINEERING
 DATE 4/24/81
 DEPARTMENT OF PLANNING AND ZONING
 ...
 CHIEF, DIVISION OF LAND DEVELOPMENT
 DATE 1/28/81



Date	No.	Revision Description
9-19-83	1	EDENBROOK - PROFILE NOTES REVISIONS

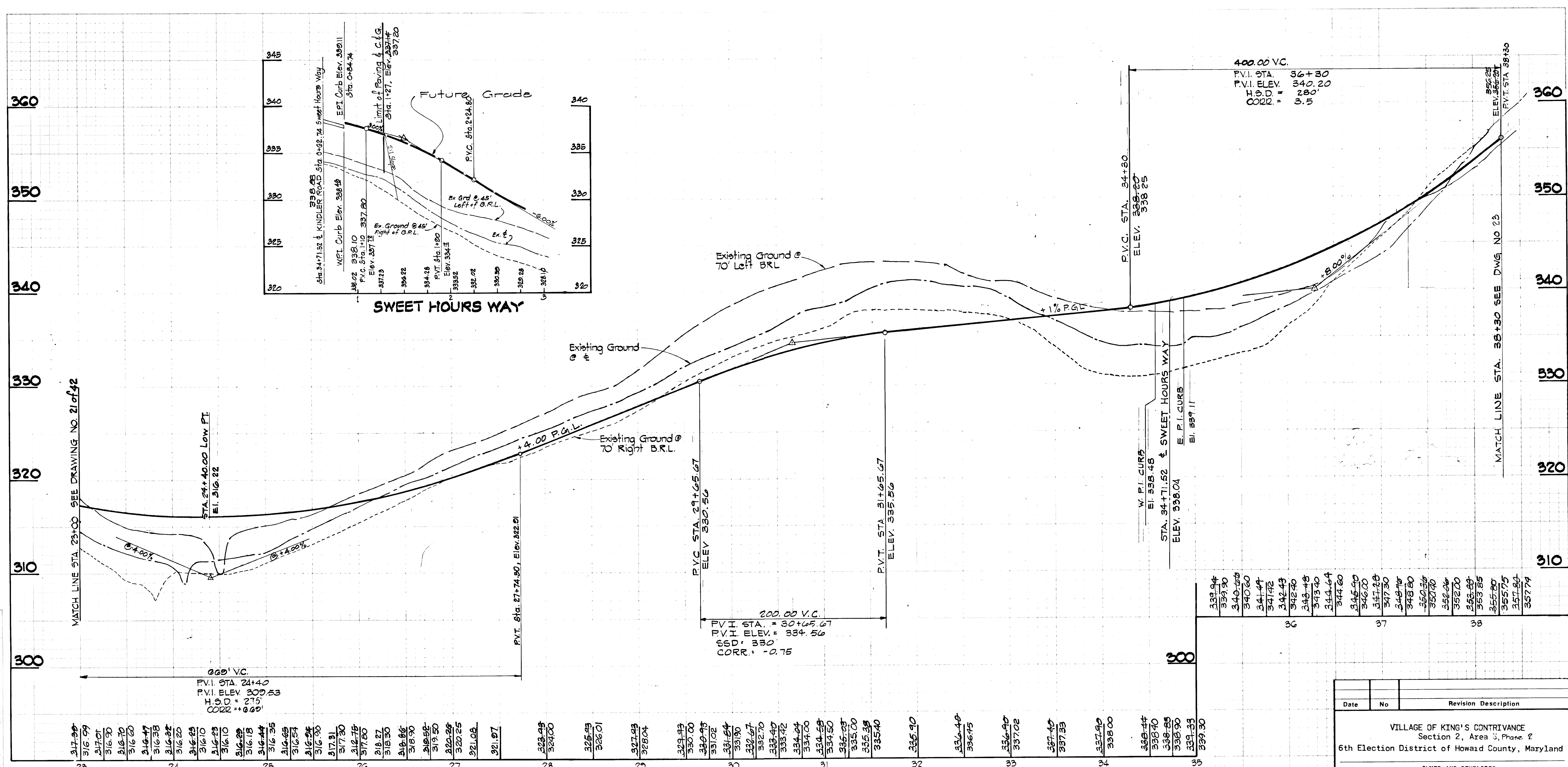
VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA	TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17
TITLE	ROAD PROFILE EDEN BROOK DRIVE
Des By T.D.	Scale AS SHOWN
Drn By T.D.	Date 5/10/79
Proj No 0579	Drawing No. 21 OF 42
Chk By G.R.K.	Approved

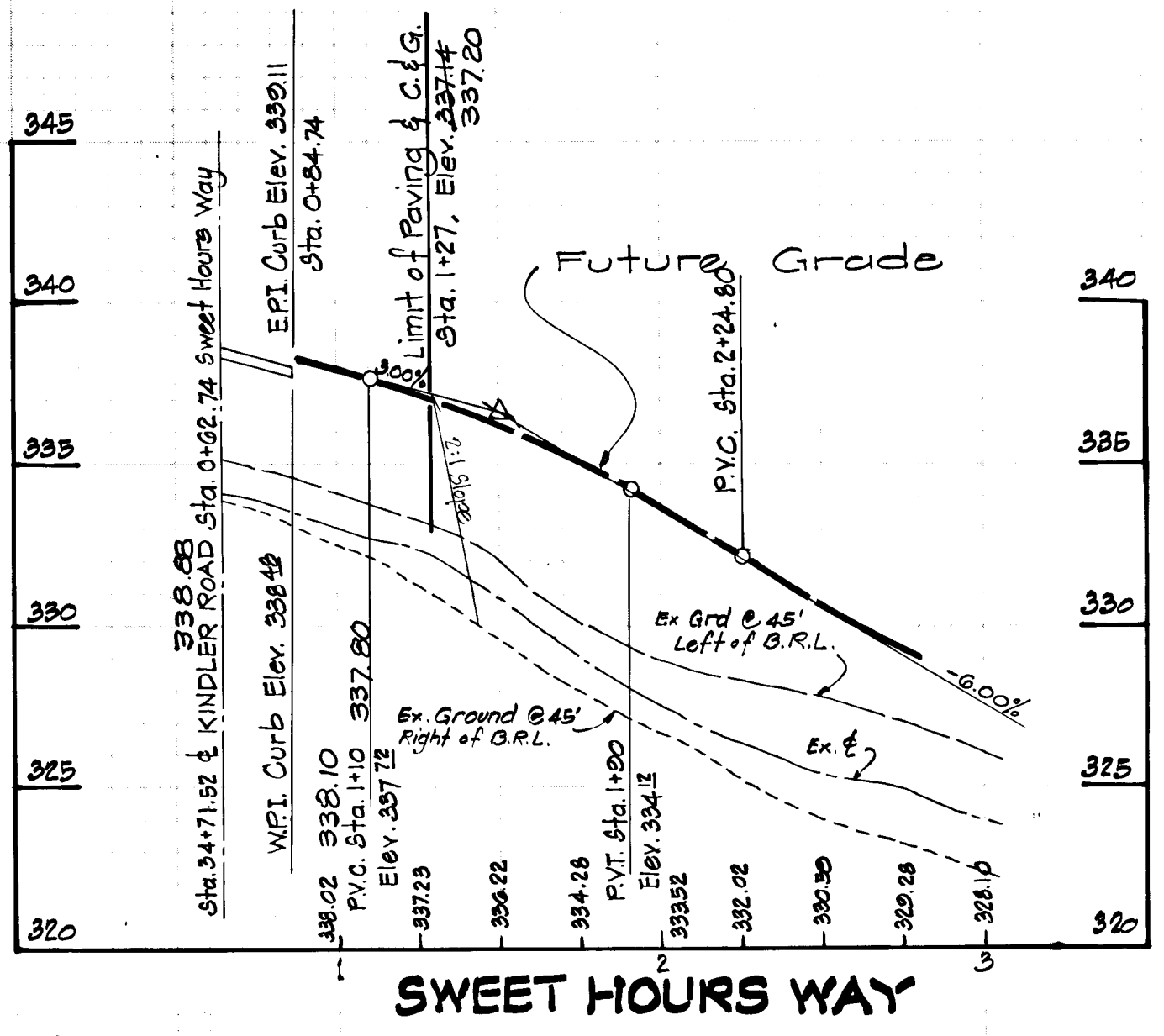
DATE	
BY	
CHECKED	
APPROVED	

DATE	
BY	
CHECKED	
APPROVED	



MATCH LINE STA. 23+00 SEE DRAWING NO. 21 OF 42

MATCH LINE STA. 35+30 SEE DWG NO 23



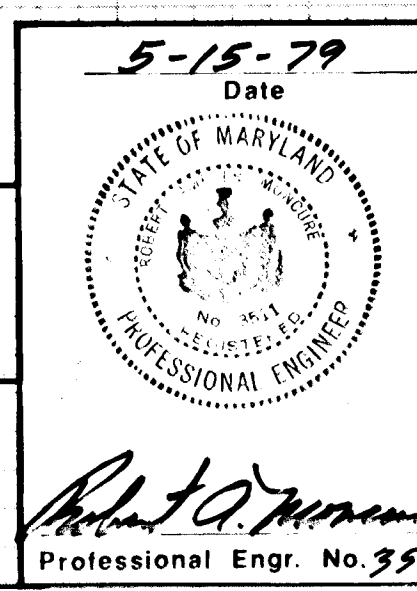
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23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

EDEN BROOK DRIVE (CONT'D)

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

AS-BUILT SURVEY CERTIFIED
BY WALTER PARK, MD. REG.
L.S. No. 5539 ON 12-16-83

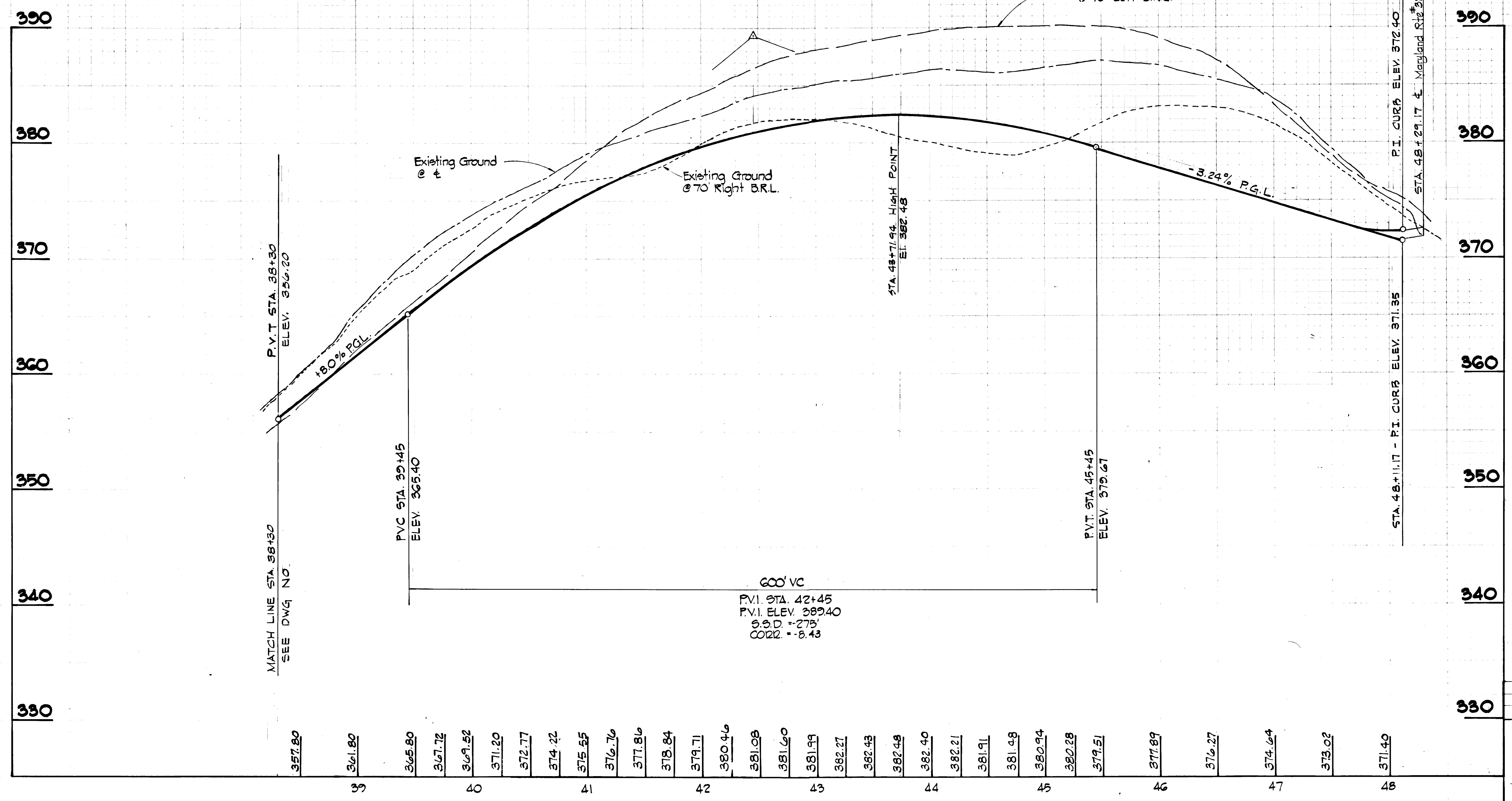
DEPARTMENT OF PUBLIC WORKS
Walter E. Rice, 4/24/81
CHIEF, BUREAU OF ENGINEERING DATE
DEPARTMENT OF PLANNING AND ZONING
M. J. McLaughlin, 6/28/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



Date	No	Revision Description
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3, Phase 2 6th Election District of Howard County, Maryland OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204 AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17 TITLE ROAD PROFILE EDEN BROOK DRIVE Des By T.D. Scale AS SHOWN Proj No 0579 Drn By T.D. Date 5/10/79 Drawing No. 22 OF 42 Chk By G.R.K. Approved		

FINAL SURVEY
 SURVEYED BY: [Blank]
 DATE: [Blank]
 NOTE BOOK: [Blank]
 AREA: [Blank]

ORIGINAL SURVEY
 SURVEYED BY: [Blank]
 DATE: [Blank]
 NOTE BOOK: [Blank]
 AREA: [Blank]

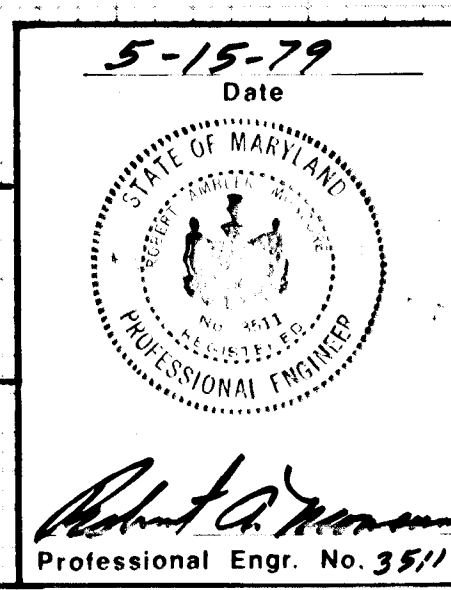


EDEN BROOK DRIVE (CONT'D)

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

AS-BUILT SURVEY CERTIFIED
 BY WALTER PARK, MD. REG.
 L.S. No. 5539 ON 12-16-83

DEPARTMENT OF PUBLIC WORKS
William S. P. [Signature]
 CHIEF, BUREAU OF ENGINEERING DATE 5/10/79
 DEPARTMENT OF PLANNING AND ZONING
[Signature]
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE 1-28-81



Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3, Phase 2
 6th Election District of Howard County, Maryland

OWNER AND DEVELOPER
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

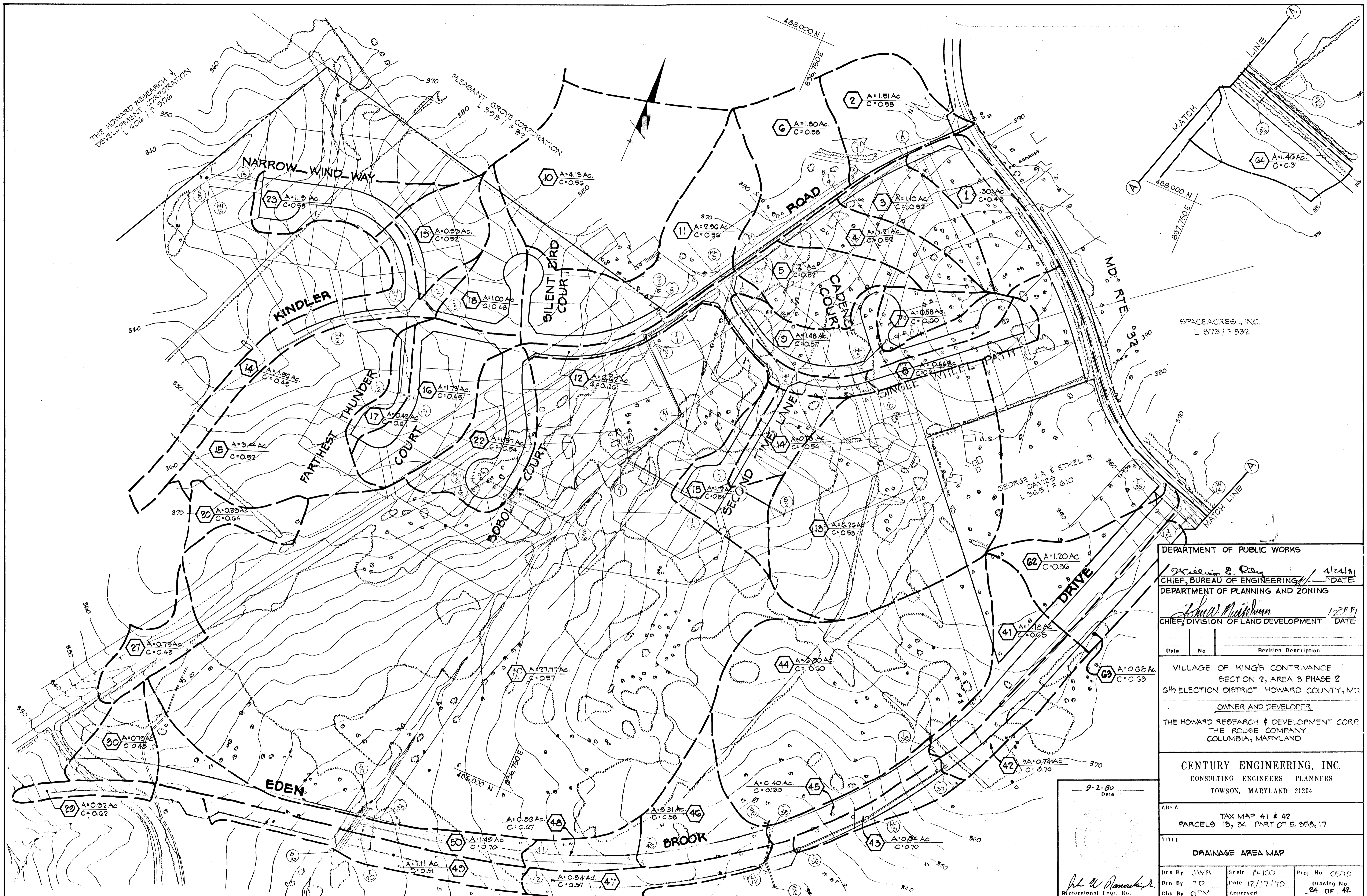
CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE ROAD PROFILE
EDEN BROOK DRIVE

Des By T.D.	Scale AS SHOWN	Proj No 0579
Drn By T.D.	Date 5/10/79	Drawing No. 23 OF 42
Chk By G.R.K.	Approved	

#445



DEPARTMENT OF PUBLIC WORKS

William E. Day 4/24/81
 CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING

Richard M. Johnson 12/8/81
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
 SECTION 2, AREA 3 PHASE 2
 6th ELECTION DISTRICT HOWARD COUNTY, MD

OWNER AND DEVELOPER
 THE HOWARD RESEARCH & DEVELOPMENT CORP
 THE ROUGE COMPANY
 COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21284

AREA TAX MAP 41 # 42
 PARCELS 13, 54 PART OF 5, 358, 17

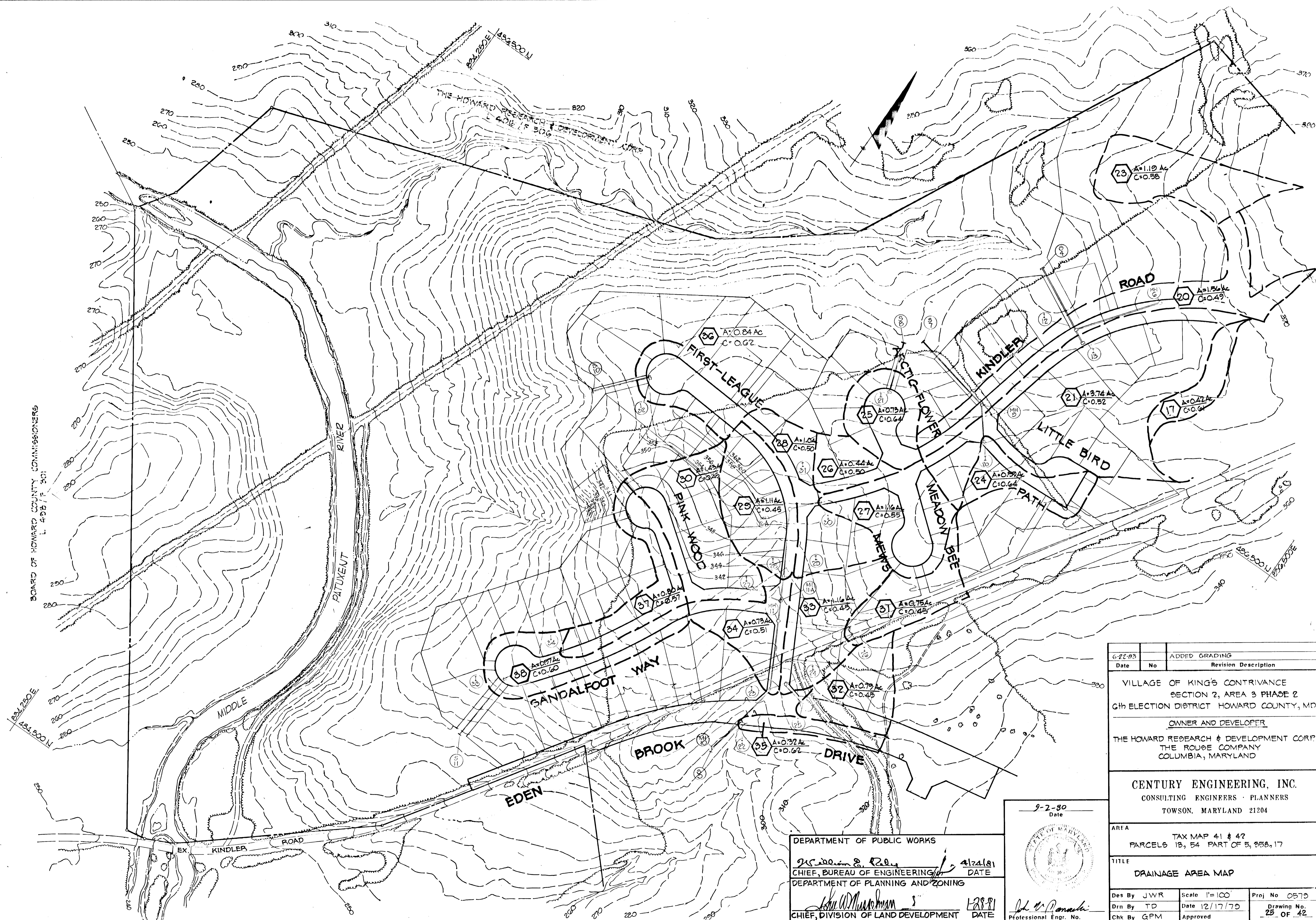
TITLE DRAINAGE AREA MAP

9-2-80
 Date

W. W. Danaher, Jr.
 Professional Eng. No.

Des. By JWR	Scale 1"=100'	Proj. No. 0579
Des. By TD	Date 12/17/79	Drawing No.
Chk. By GPM	Approved	24 OF 42

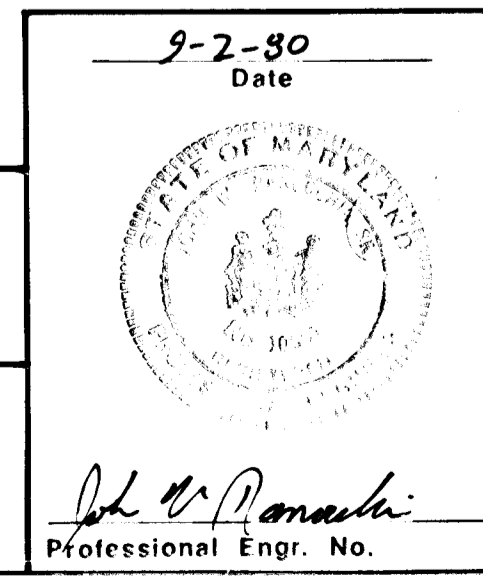
#445



BOARD OF HOWARD COUNTY COMMISSIONERS
L 4288 / P 301

831250E
484500N

6-22-83		ADDED GRADING	
Date	No	Revision	Description
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3 PHASE 2 6th ELECTION DISTRICT HOWARD COUNTY, MD			
OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP. THE ROUSE COMPANY COLUMBIA, MARYLAND			
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204			
AREA	TAX MAP 41 # 42 PARCELS 13, 54 PART OF 5, 856, 17		
TITLE	DRAINAGE AREA MAP		
Des By	JWR	Scale	1"=100'
Drn By	TD	Date	12/17/75
Proj No	0575	Drawing No.	25 OF 42
Chk By	GPM	Approved	

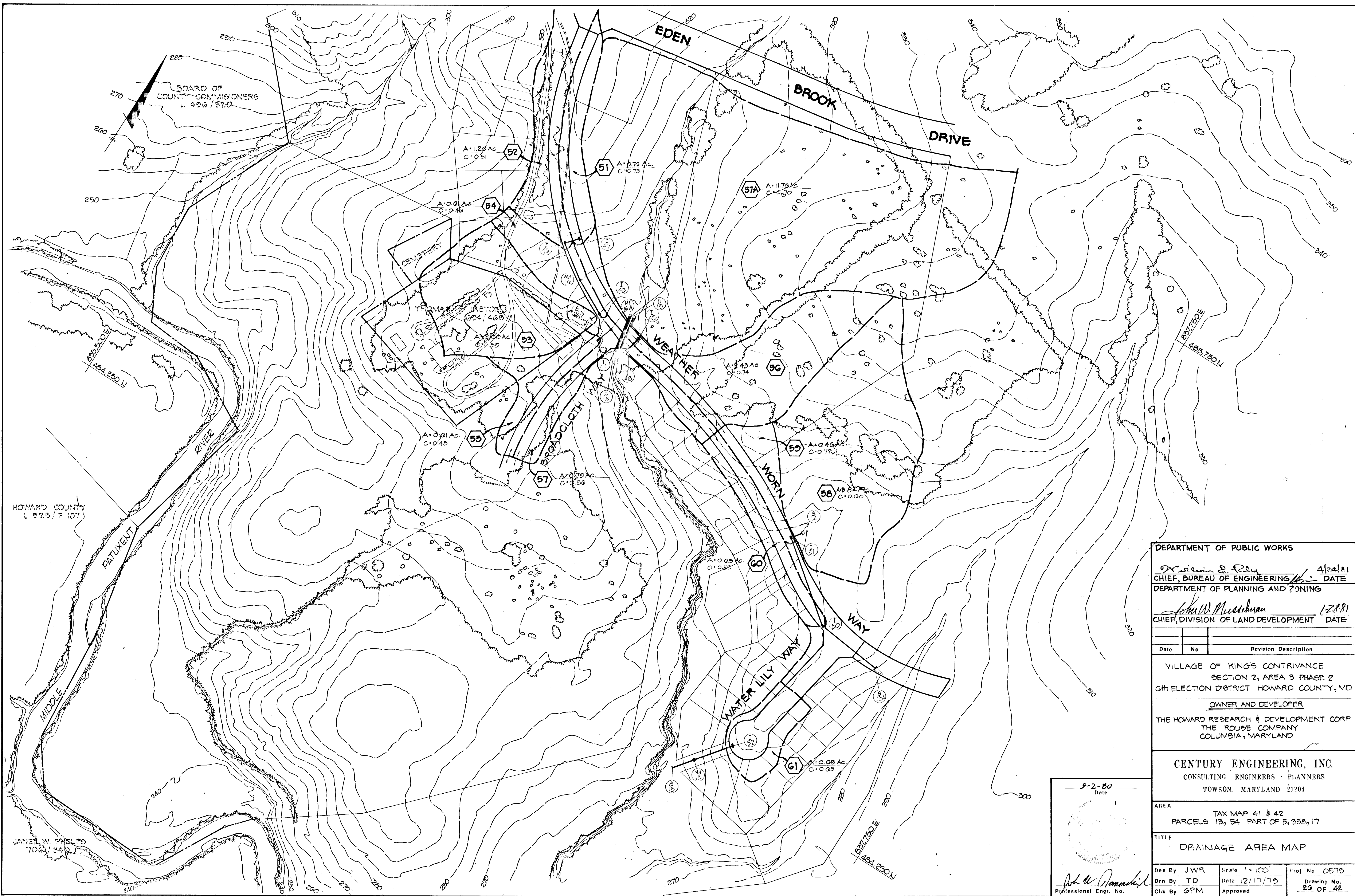


DEPARTMENT OF PUBLIC WORKS
J. C. ... 2. ... 4/24/81
CHIEF, BUREAU OF ENGINEERING DATE
DEPARTMENT OF PLANNING AND ZONING
John W. ... 5 12881
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

F-80-96- AS-BUILT 12-16-83

#445

BRUNING 44132 28586



BOARD OF COUNTY COMMISSIONERS
L 426/37.9

HOWARD COUNTY
L 525/P 107

JANET W. PHILIPS
7020/340

DEPARTMENT OF PUBLIC WORKS

William S. Riley 4/24/81
CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PLANNING AND ZONING
John W. Muschman 1/28/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
SECTION 2, AREA 3 PHASE 2
6th ELECTION DISTRICT HOWARD COUNTY, MD

OWNER AND DEVELOPER
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE COMPANY
COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

AREA TAX MAP 41 & 42
PARCELS 13, 54 PART OF 5, 358, 17

TITLE DRAINAGE AREA MAP

Des By JWR	Scale 1"=100'	Proj No 0570
Drn By TD	Date 12/17/75	Drawing No 20 OF 42
Chk By GPM	Approved	

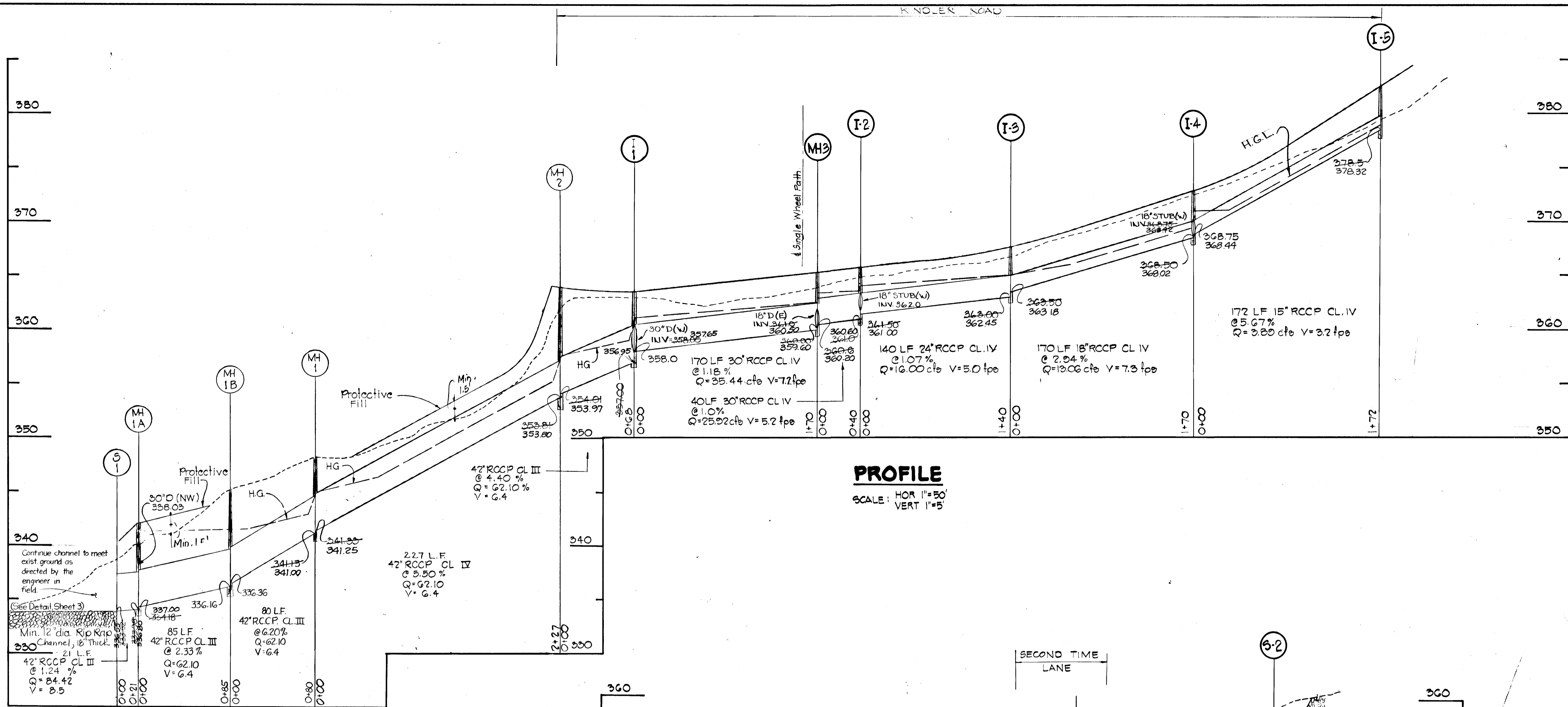
9-2-80
Date

John W. Muschman
Professional Engr. No.

BRUNING 44-132 28586

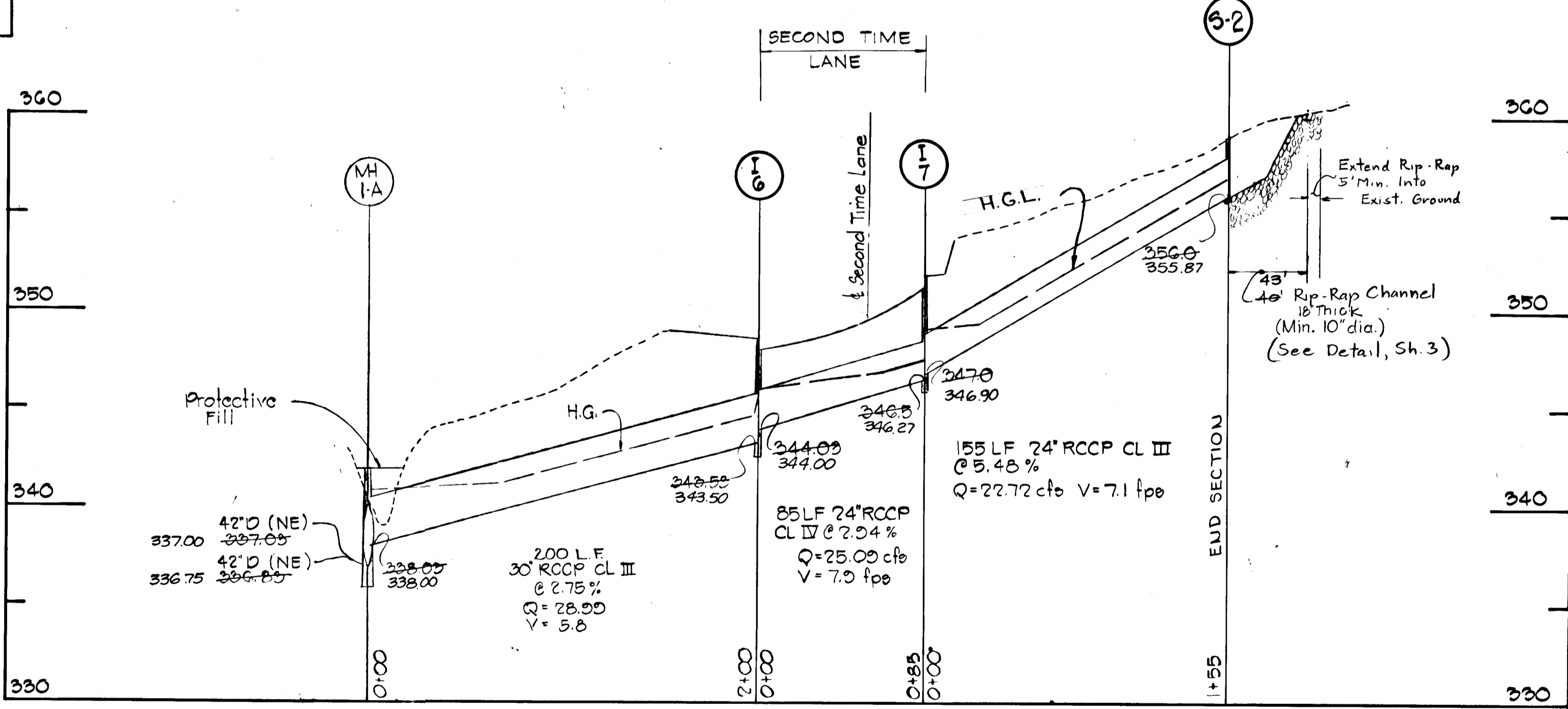
445

AS-BUILT 12-16-83



PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'

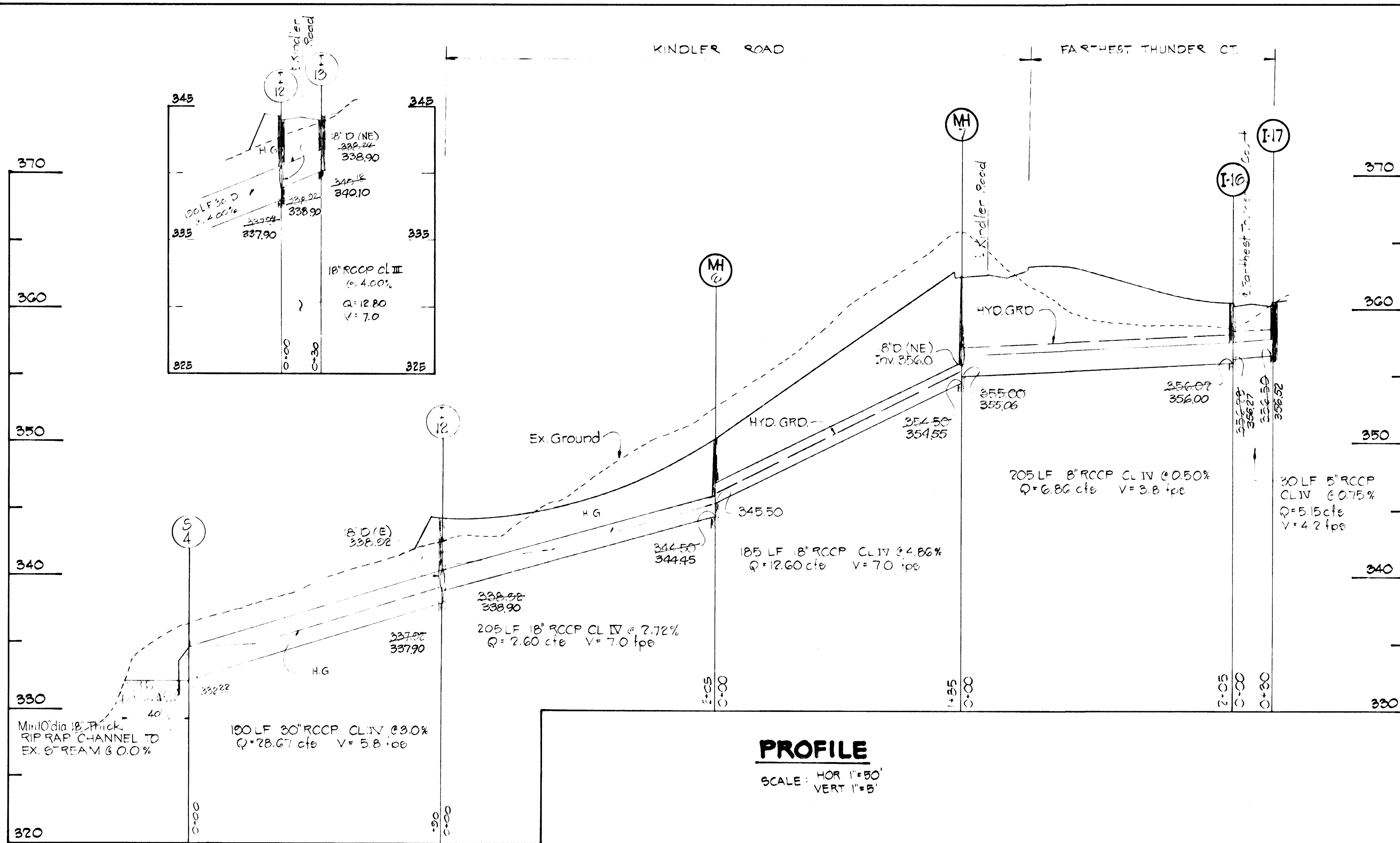
DEPARTMENT OF PUBLIC WORKS		Date 4/24/81	
Chief, Bureau of Engineering		Date 1/28/81	
DEPARTMENT OF PLANNING AND ZONING		Date	
Chief, Division of Land Development		Date	
Date 12/2/83	No 3	As per DPW Comments	
Revision Description			
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2			
6th ELECTION DISTRICT HOWARD COUNTY, MD			
OWNER AND DEVELOPER			
THE HOWARD RESEARCH & DEVELOPMENT CORP. THE ROUBE COMPANY COLUMBIA, MARYLAND			
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204			
AREA		TAX MAP 41 # 42 PARCELS 13, 54 PART OF B, 25B, 17	
TITLE STORM DRAIN PROFILES			
Des By JWR	Scale 1"=100'	Proj No 057D	
Drn By TD	Date 12/17/79	Drawing No. 27 OF 42	
Chk By GPM	Approved	Professional Engr. No. 11432	



AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD REG. L.S. No. 5539 ON DEC. 18, 1983

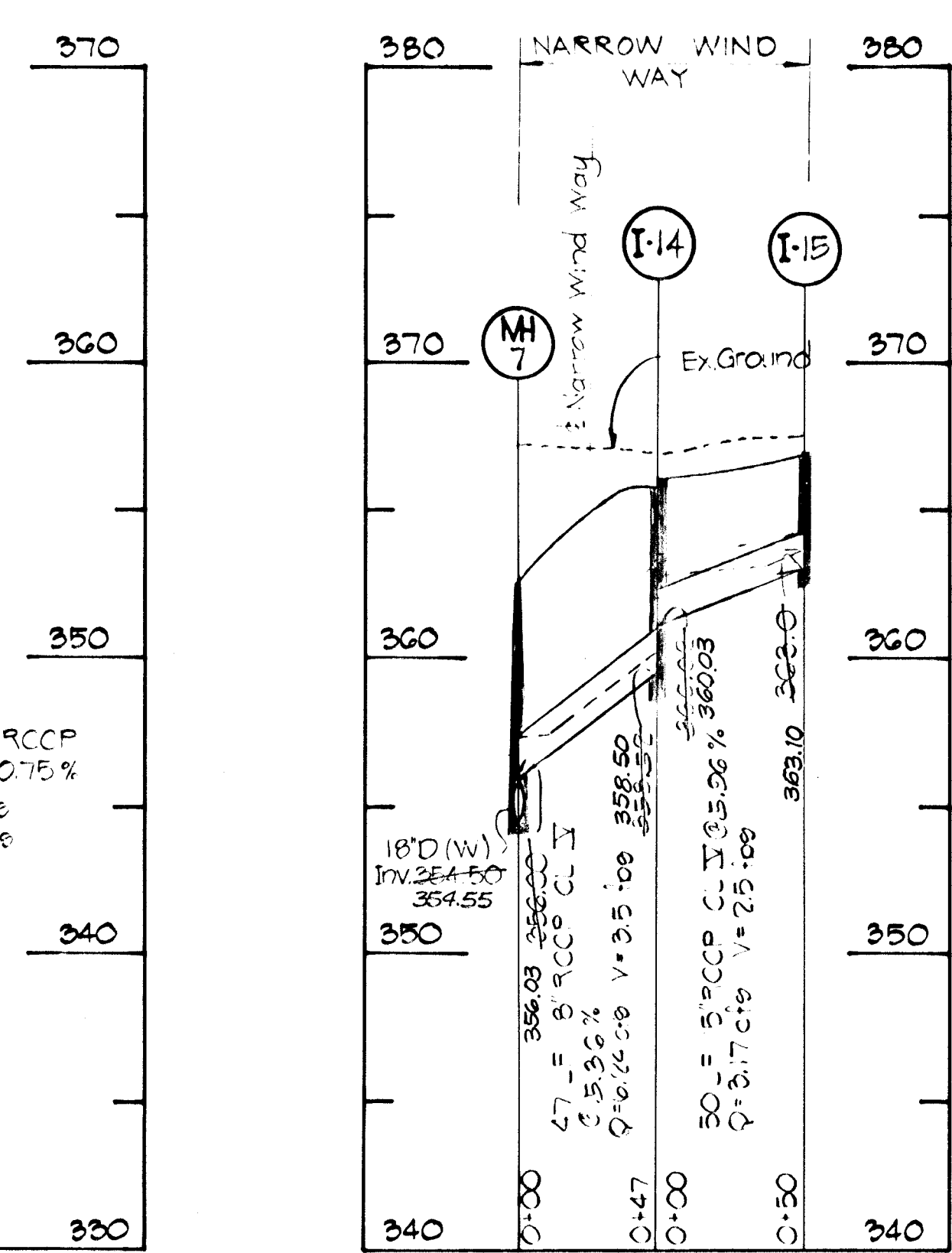
#445

BRUNING 44-132 26586



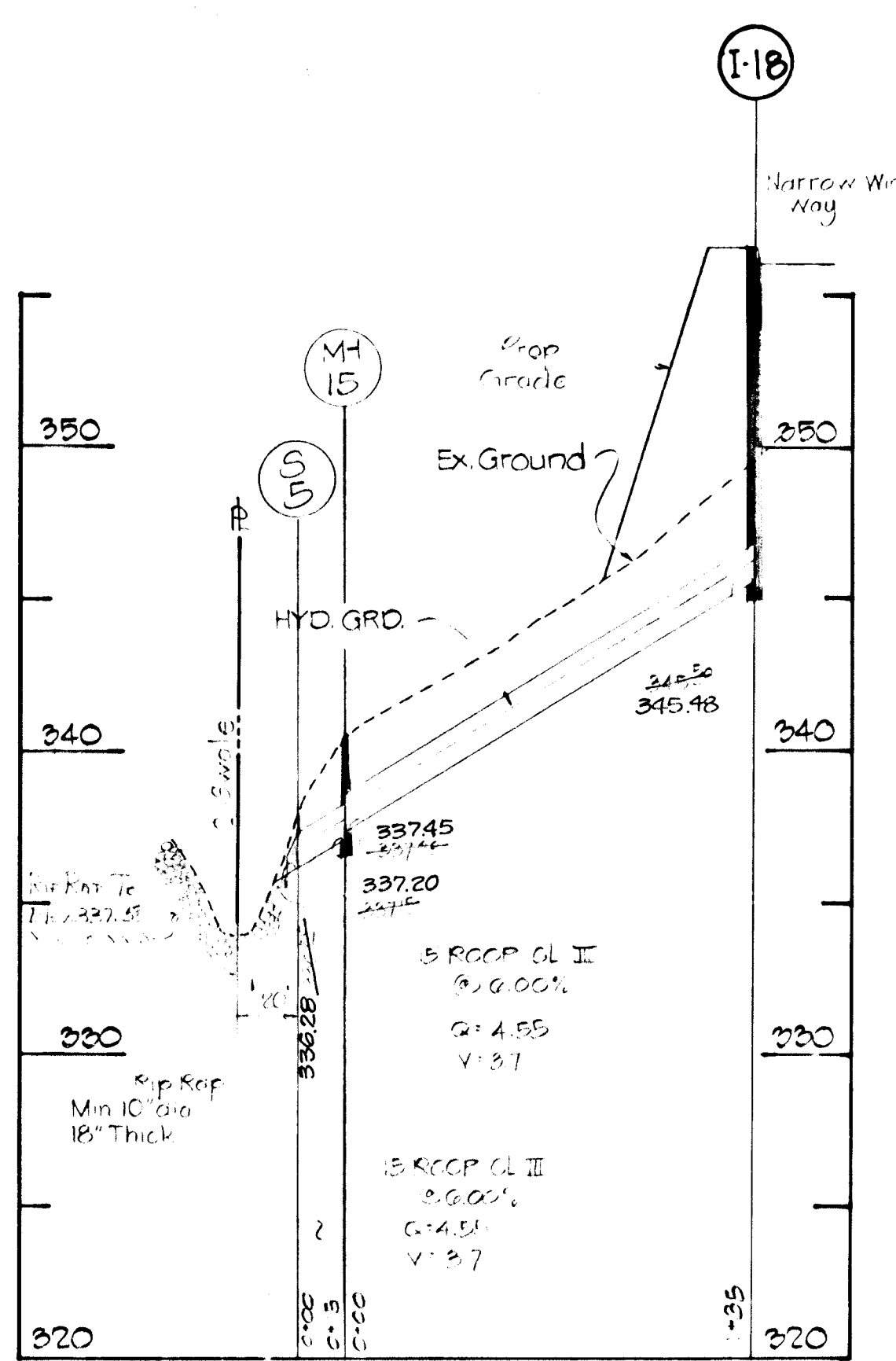
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



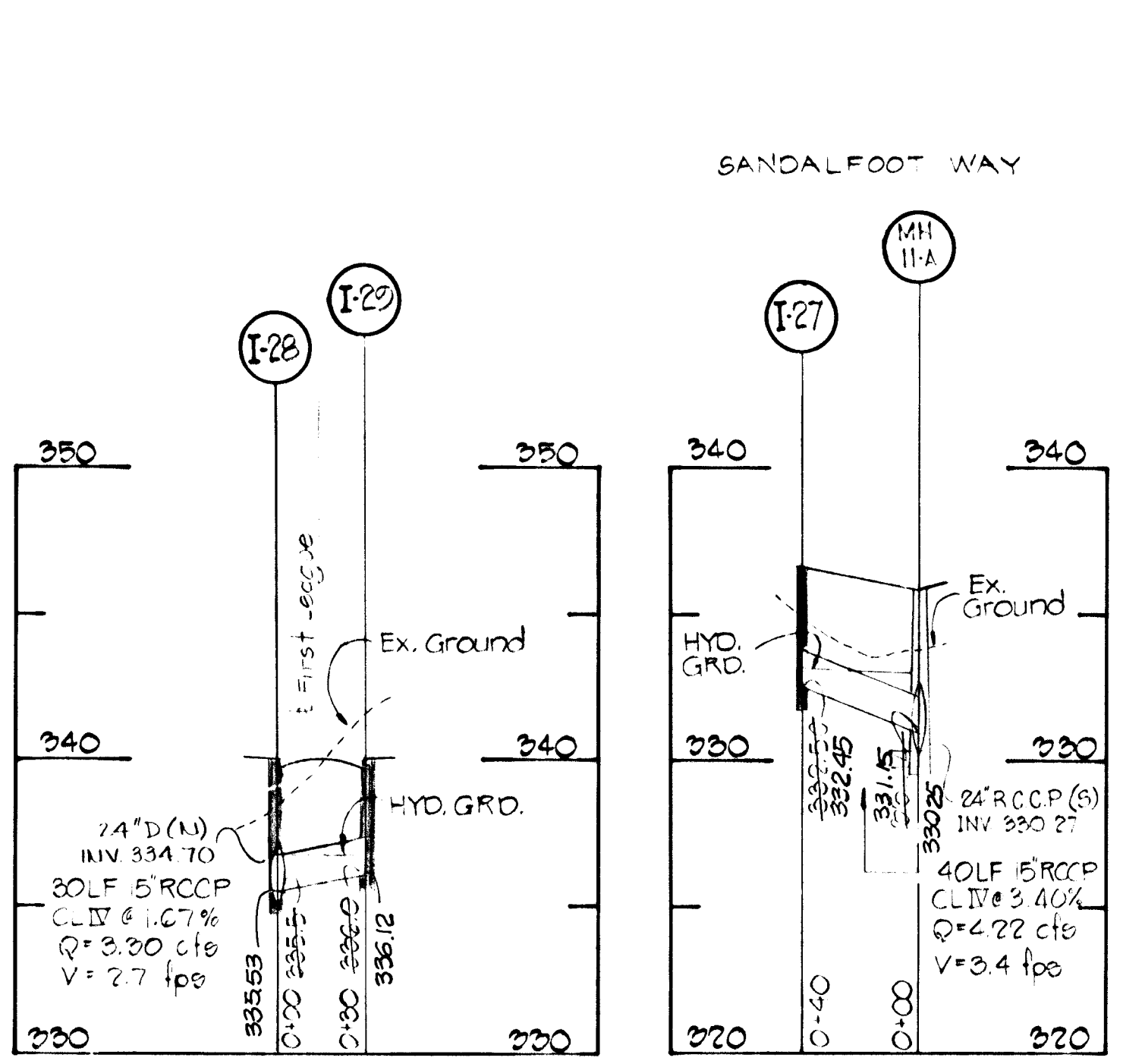
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



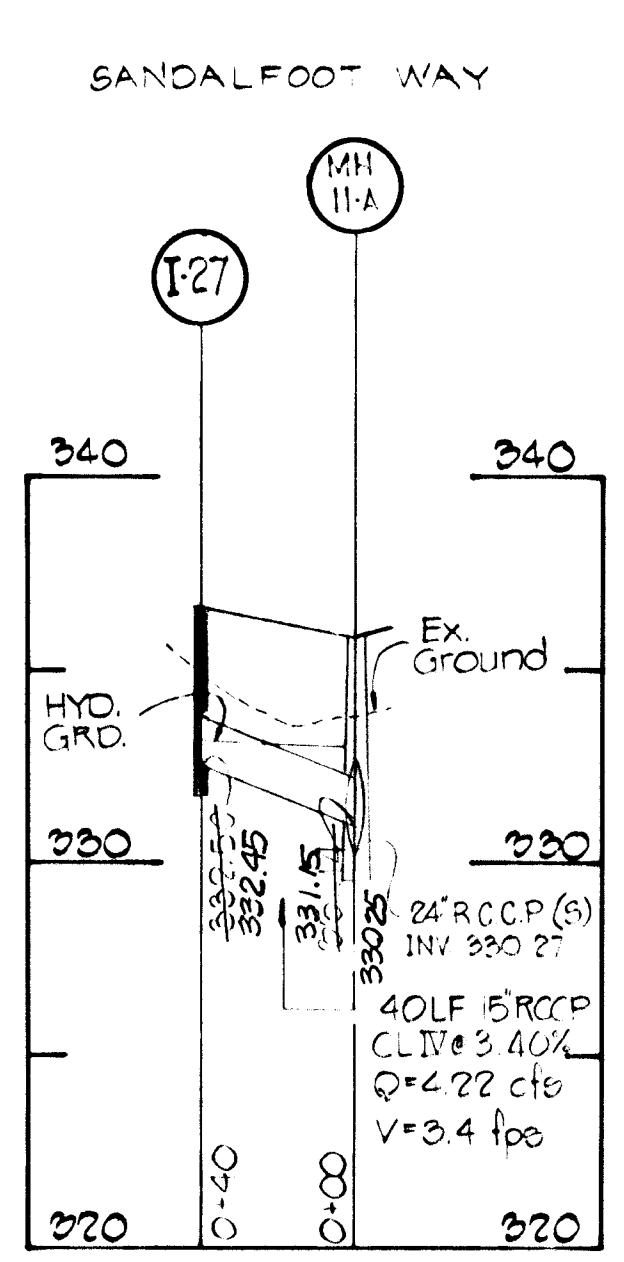
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



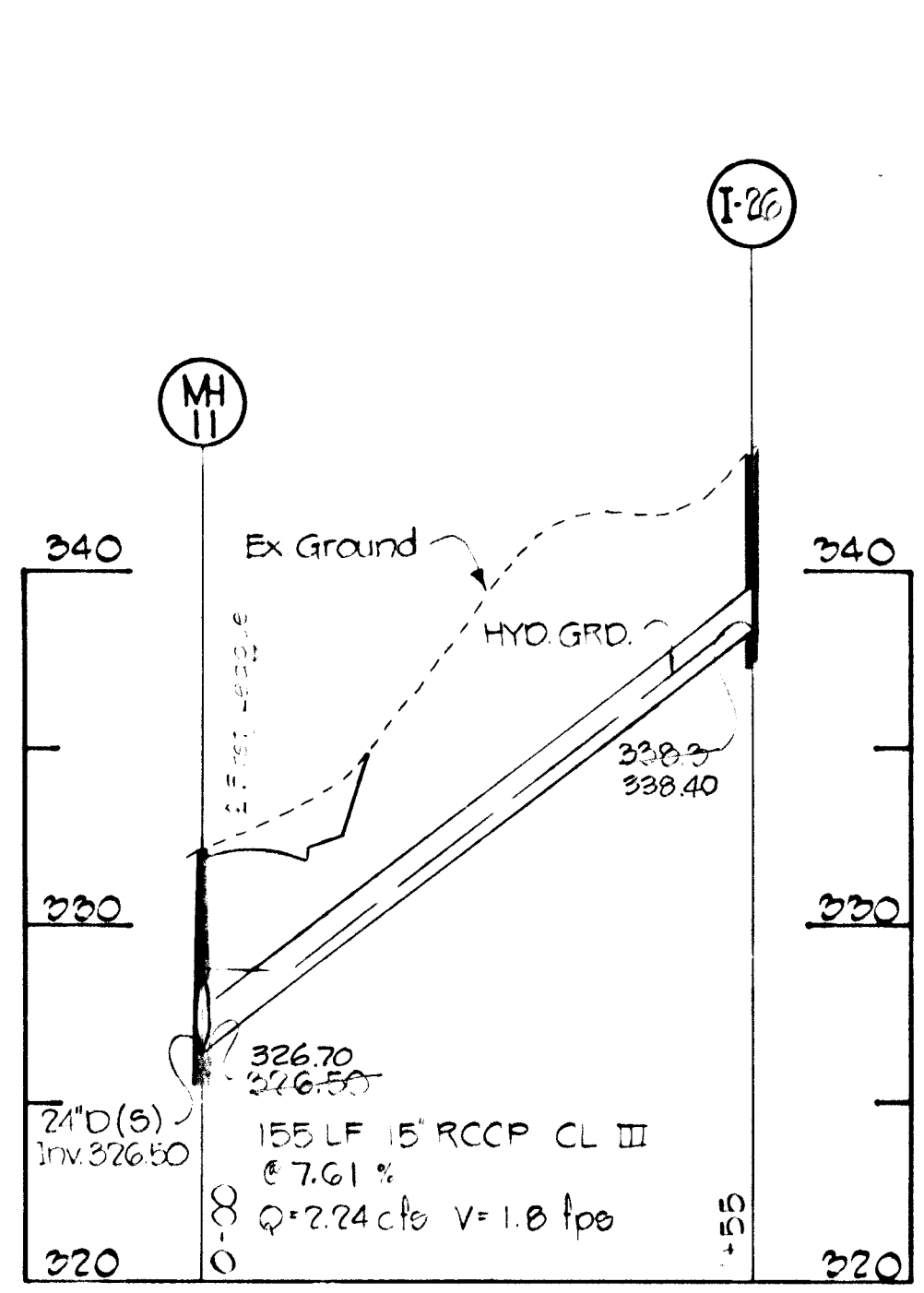
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



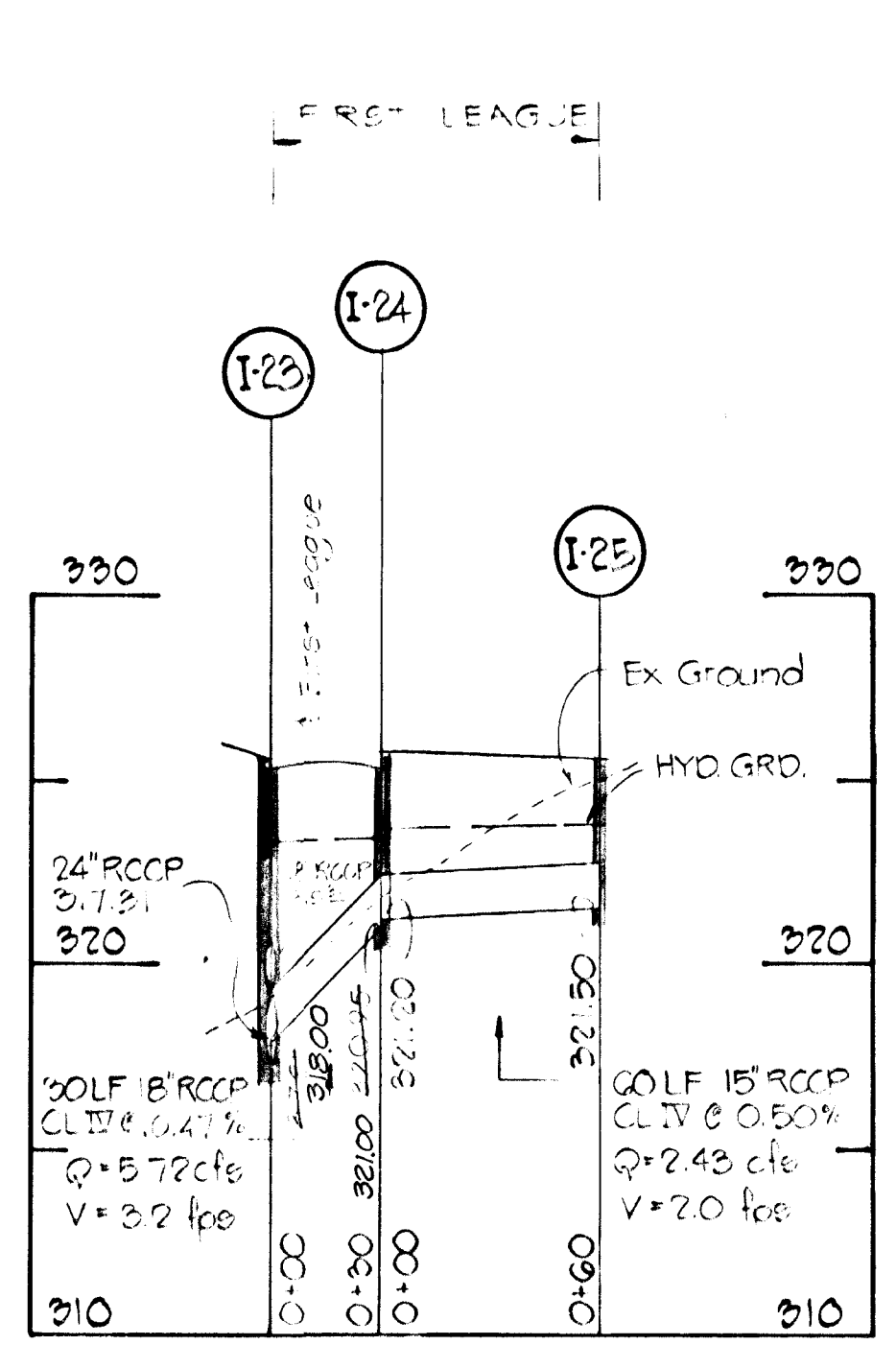
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



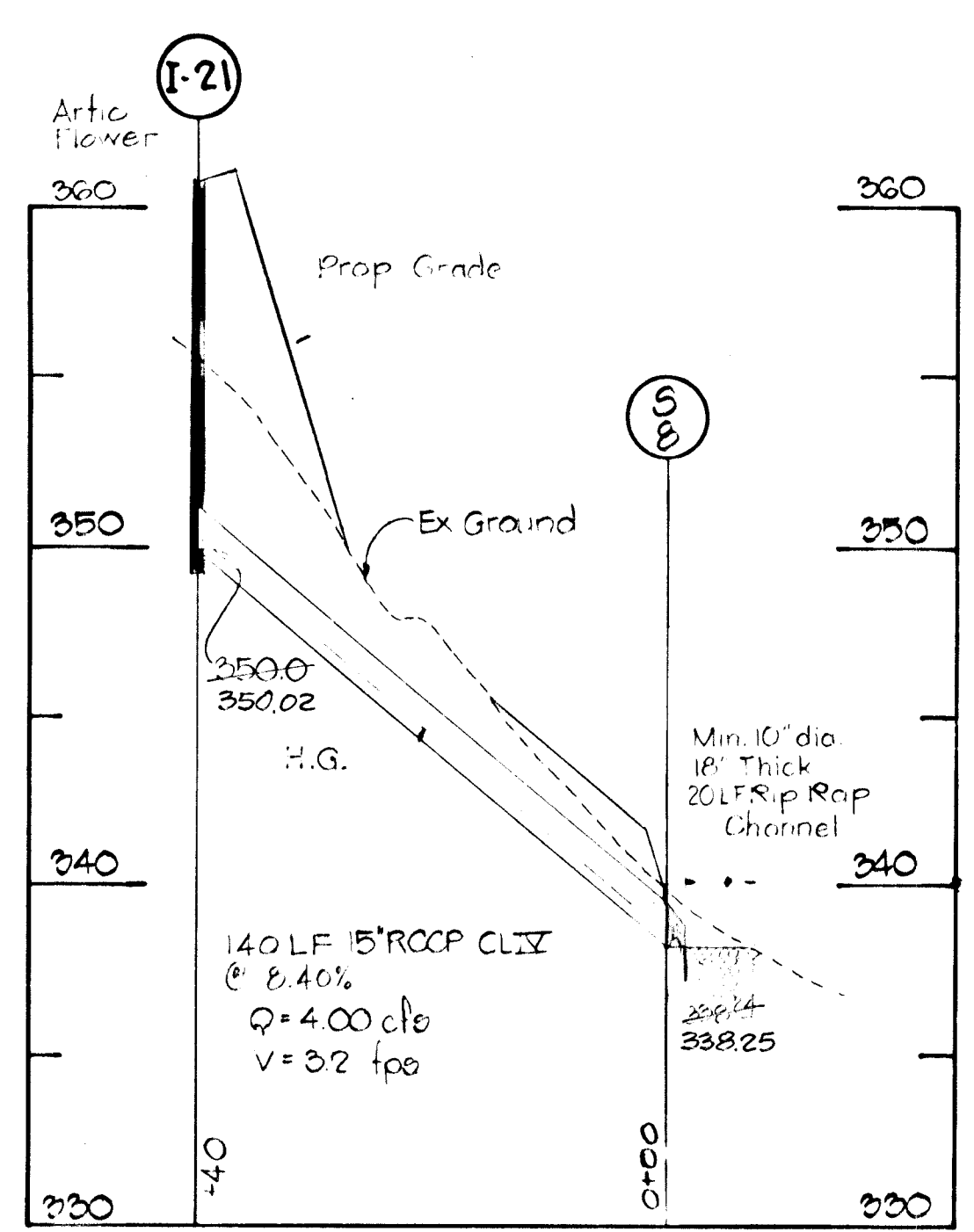
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'



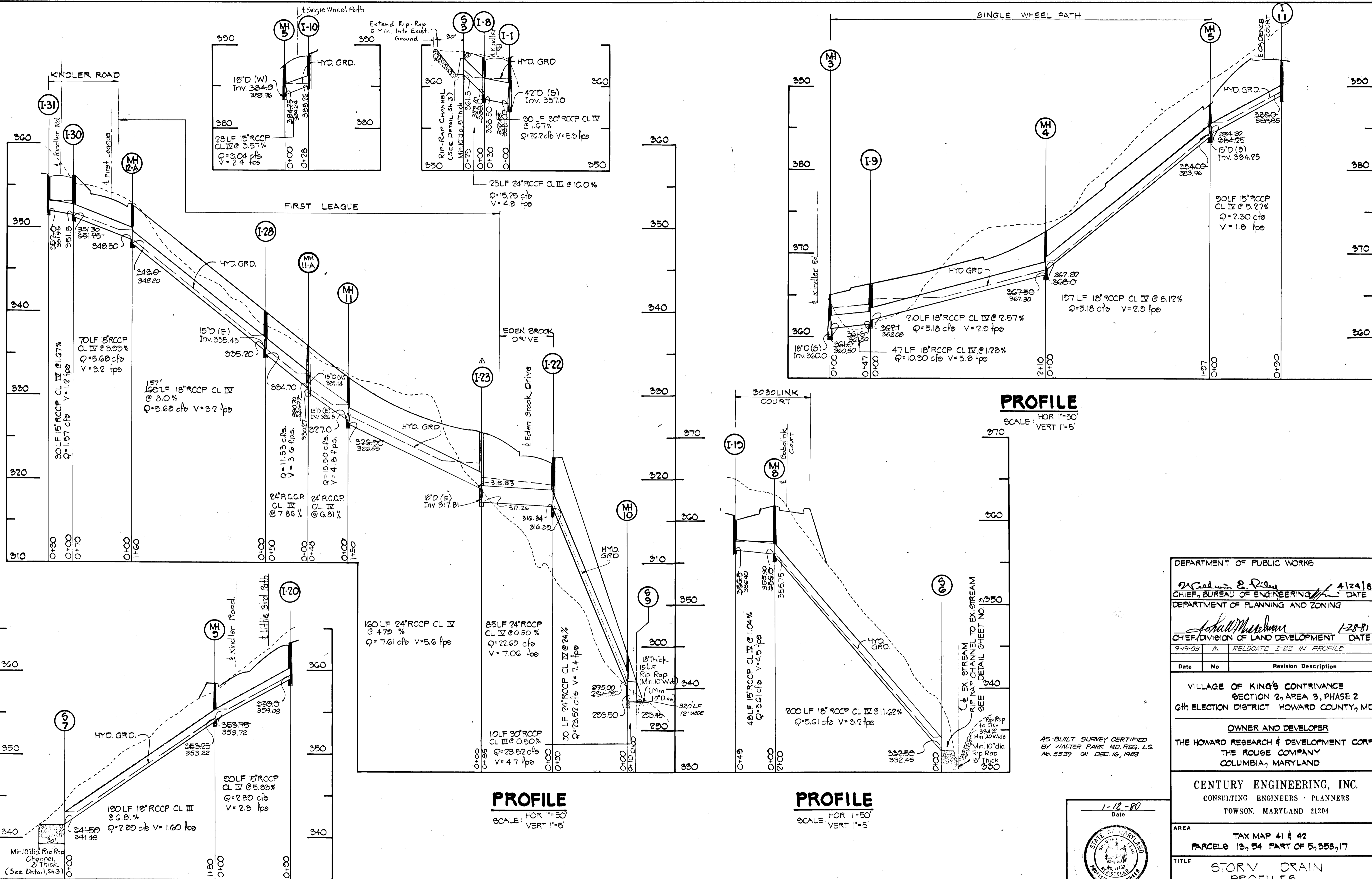
PROFILE

SCALE: HOR 1"=50'
VERT 1"=5'

AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD. REG. L.S. No. 5539 ON DEC. 16, 1983

1-12-83
Date
Professional Engr. No. 11432

DEPARTMENT OF PUBLIC WORKS	
CHIEF, BUREAU OF ENGINEERING	DATE 12/21/83
DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 12/21/83
Date	Revision Description
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2 6th ELECTION DISTRICT HOWARD COUNTY, MD.	
OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP. THE ROUGE COMPANY COLUMBIA, MARYLAND	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204	
AREA	TAX MAP 41 & 42 PARCELS 13, 34 PART OF 5, 258, 17
TITLE STORM DRAIN PROFILES	
Des By GRK	Scale AS SHOWN
Drn By TD	Date 12/20/79
Proj No 0579	Drawing No 28 OF 42
Chk By GPM	Approved



#445

BRUNING 44-132 28586

PROFILE

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

PROFILE

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

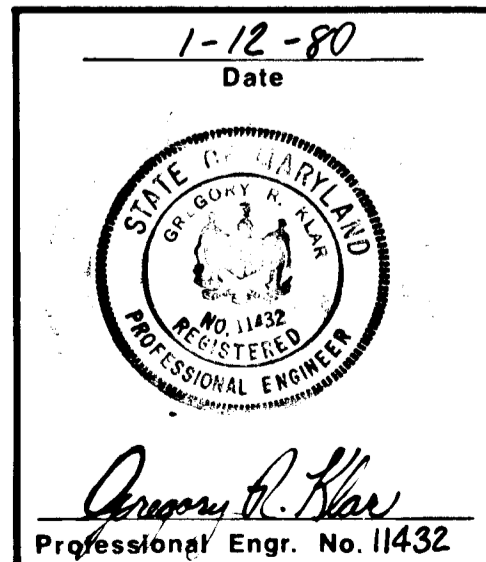
PROFILE

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

PROFILE

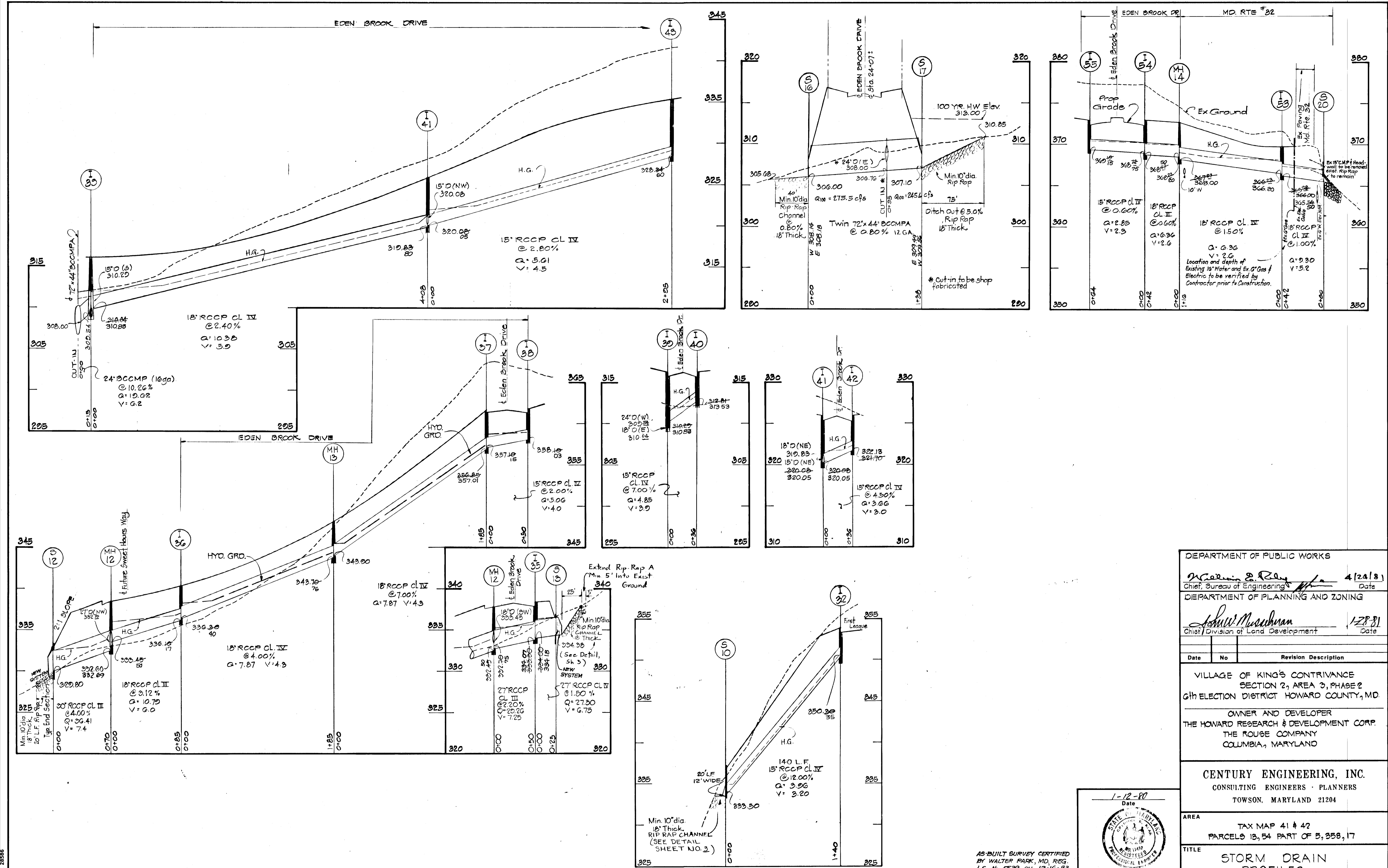
SCALE: HOR. 1"=50' VERT. 1"=5'

AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD. REG. L.S. No. 5539 ON DEC. 16, 1983

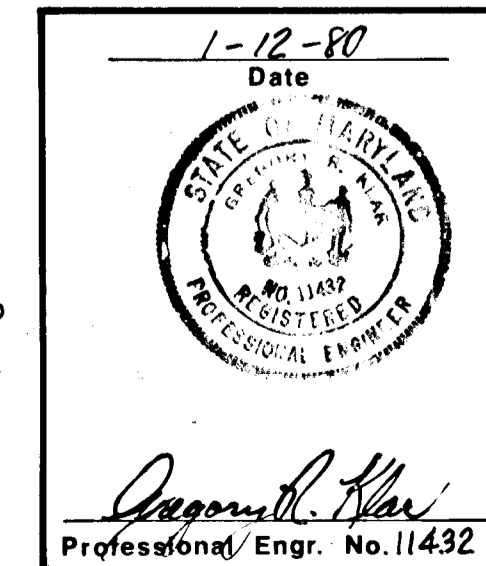


DEPARTMENT OF PUBLIC WORKS	
<i>Walter Park</i>	4/24/81
CHIEF, BUREAU OF ENGINEERING	DATE
DEPARTMENT OF PLANNING AND ZONING	
<i>John W. Mendenhall</i>	1-28-81
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
9-19-83	RELOCATE I-23 IN PROFILE
Date	Revision Description
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2 6th ELECTION DISTRICT HOWARD COUNTY, MD.	
OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP. THE ROUGE COMPANY COLUMBIA, MARYLAND	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204	
AREA	TAX MAP 41 & 42 PARCELS 13, 34 PART OF 5, 35B, 17
TITLE STORM DRAIN PROFILES	
Des By GRK	Scale AS SHOWN
Drn By TD	Date 12/20/79
Chk By GRK	Approved
Proj No 0579	Drawing No. 29 OF 42

AS-BUILT 12-16-83

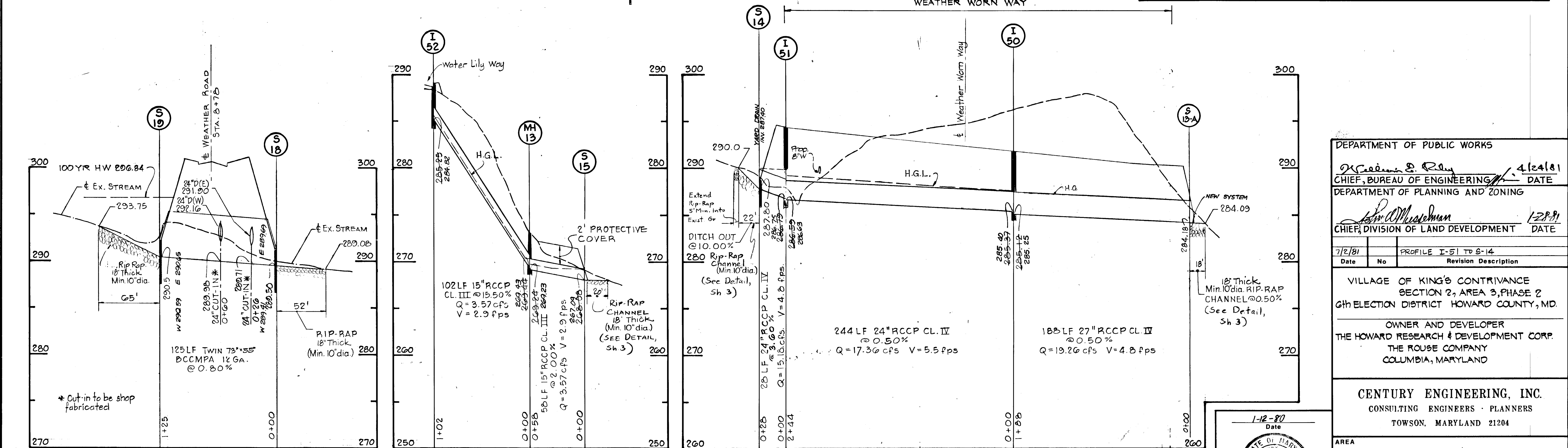
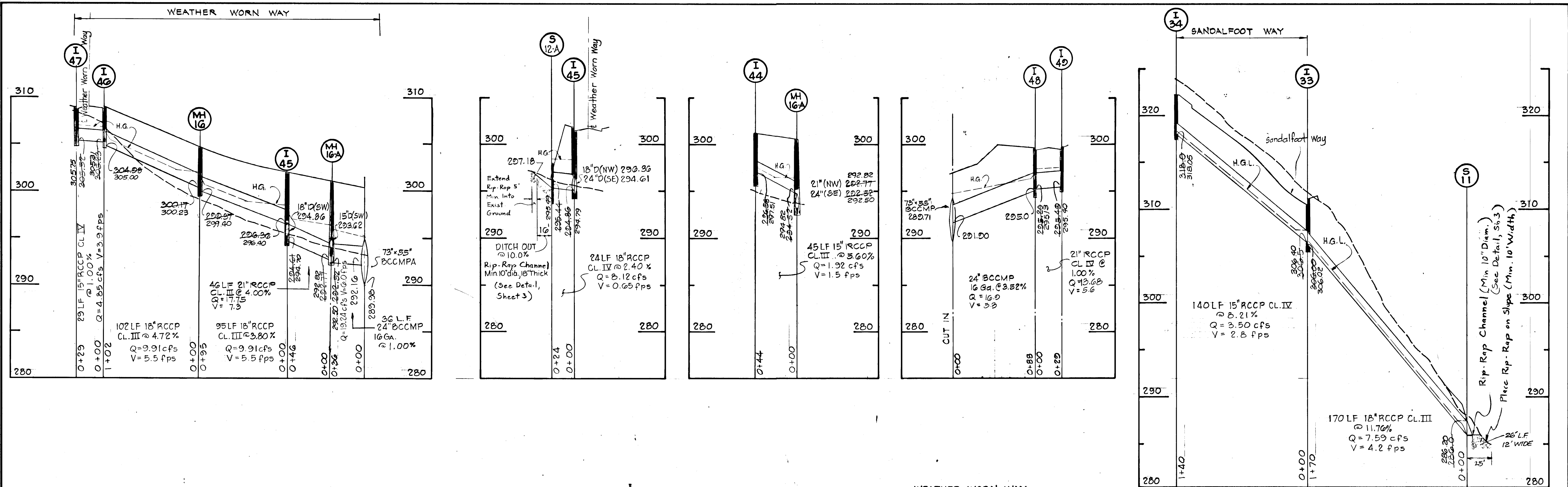


DEPARTMENT OF PUBLIC WORKS	
<i>William E. Rahn</i>	4/24/81
Chief, Bureau of Engineering	Date
DEPARTMENT OF PLANNING AND ZONING	
<i>John W. Muschman</i>	1/28/81
Chief, Division of Land Development	Date
Date	Revision Description
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2 6th ELECTION DISTRICT HOWARD COUNTY, MD.	
OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP. COLUMBIA, MARYLAND	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204	
AREA	TAX MAP 41 & 42 PARCELS 13, 54 PART OF 5, 358, 17
TITLE STORM DRAIN PROFILES	
Des By J.C.	Scale: Hgt. 1"=50' Vert 1"=5'
Drn By J.C.	Date 1/10/80
Proj No 0579	Drawing No. 20 OF 42
Chk By G.P.M.	Approved

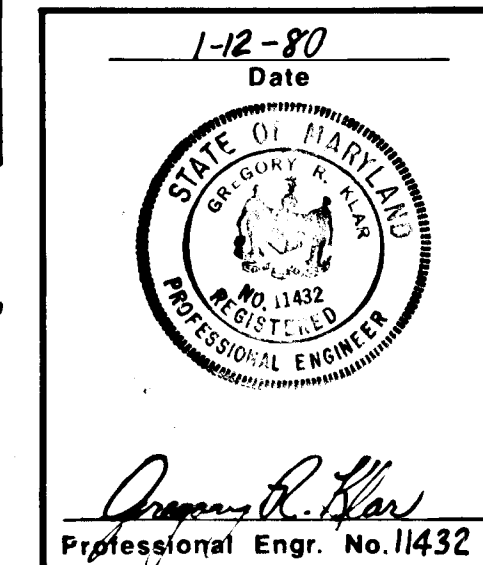


AS-BUILT SURVEY CERTIFIED BY WALTER PARK, MD, REG. L.S. No. 5539 ON 12-16-83

#445



DEPARTMENT OF PUBLIC WORKS	
<i>William S. Reilly</i>	4/24/81
CHIEF, BUREAU OF ENGINEERING	DATE
DEPARTMENT OF PLANNING AND ZONING	
<i>John M. Moseman</i>	1/28/81
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE
7/2/81	PROFILE I-51 TO I-14
Date	Revision Description
No	
VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2 6th ELECTION DISTRICT HOWARD COUNTY, MD.	
OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP. THE ROUSE COMPANY COLUMBIA, MARYLAND	
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204	
AREA TAX MAP 41 # 42 PARCELS 13, 54 PART OF 5, 388, 17	
TITLE STORM DRAIN PROFILES	
Des By GRK	Scale Hor: 1"=30' Vert: 1"=5'
Drn By GRK	Date 1/10/80
Chk By GPM	Approved
	Proj No 0579 Drawing No 21 OF 42



AS-BUILT SURVEY CERTIFIED
BY WALTER PARK, MD. REG.
L.S. No 5539 ON 12-16-83

TRAP # 1	
DRAINAGE AREA	4.91 Ac.
DISTURBED	3.2 Ac.
VOL. REQUIRED	8838
VOL. PROVIDED	8925
BASEIN SIZE	85'x30'x3.5'
BOTTOM ELEV.	338.0
CLEAN OUT ELEV.	339.75

- SEQUENCE OF CONSTRUCTION:
1. OBTAIN GRADING PERMIT.
 2. NOTIFY HOWARD COUNTY SEDIMENT CONTROL DIVISION (992-2436) AT LEAST 24 HRS. PRIOR TO BEGINNING GRADING.
 3. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
 4. CLEAR AREAS OF SEDIMENT CONTROL STRUCTURES ONLY.
 5. INSTALL SEDIMENT CONTROL PONDS, STONE OUTLET STRUCTURES, SEDIMENT TRAPS, STRAW-BALE DIKES, PERIMETER DIKES, SILT FENCES AND CLEAN WATER INLETS AND STABILIZE AS PER TEMPORARY SEEDING NOTES. INSTALL STORM DRAIN SYSTEM FROM S-10 TO I-31 (FOR PIPE SIZES AND INLET TYPES SEE DRAWING NO. 7).
 6. ROUGH GRADE SITE WITHIN LIMITS SHOWN.
 7. INSTALL SEWER, WATER AND STORM DRAINS. BLOCK ALL INLETS AND REPAIR SEDIMENT CONTROL DEVICES.
 8. ALL DISTURBED AREAS SHALL BE STABILIZED AS PER TEMPORARY SEEDING NOTES.
 9. AFTER CONSTRUCTION IS COMPLETED AND UPON APPROVAL OF HOWARD SOIL CONSERVATION DISTRICT, ALL SEDIMENT CONTROL FACILITIES SHALL BE REMOVED AND AREAS STABILIZED AS PER PERMANENT SEEDING NOTES.

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

James M. Helm 1-28-81
U.S. Soil Conservation Service

CERTIFICATION BY THE ENGINEER:
"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 SOIL CONSERVATION DISTRICT."

John W. Rancocia, Sr. 1/12/80
John W. Rancocia, Sr. (10551) Date

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

APPROVED: *William J. Rowe* 1-28-81
Howard S.C.D. Date

CERTIFICATION BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT ACCORDING TO THESE PLANS OF DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT."

Joseph H. Necker, Jr. 1-11-80
JOSEPH H. NECKER, JR. Date

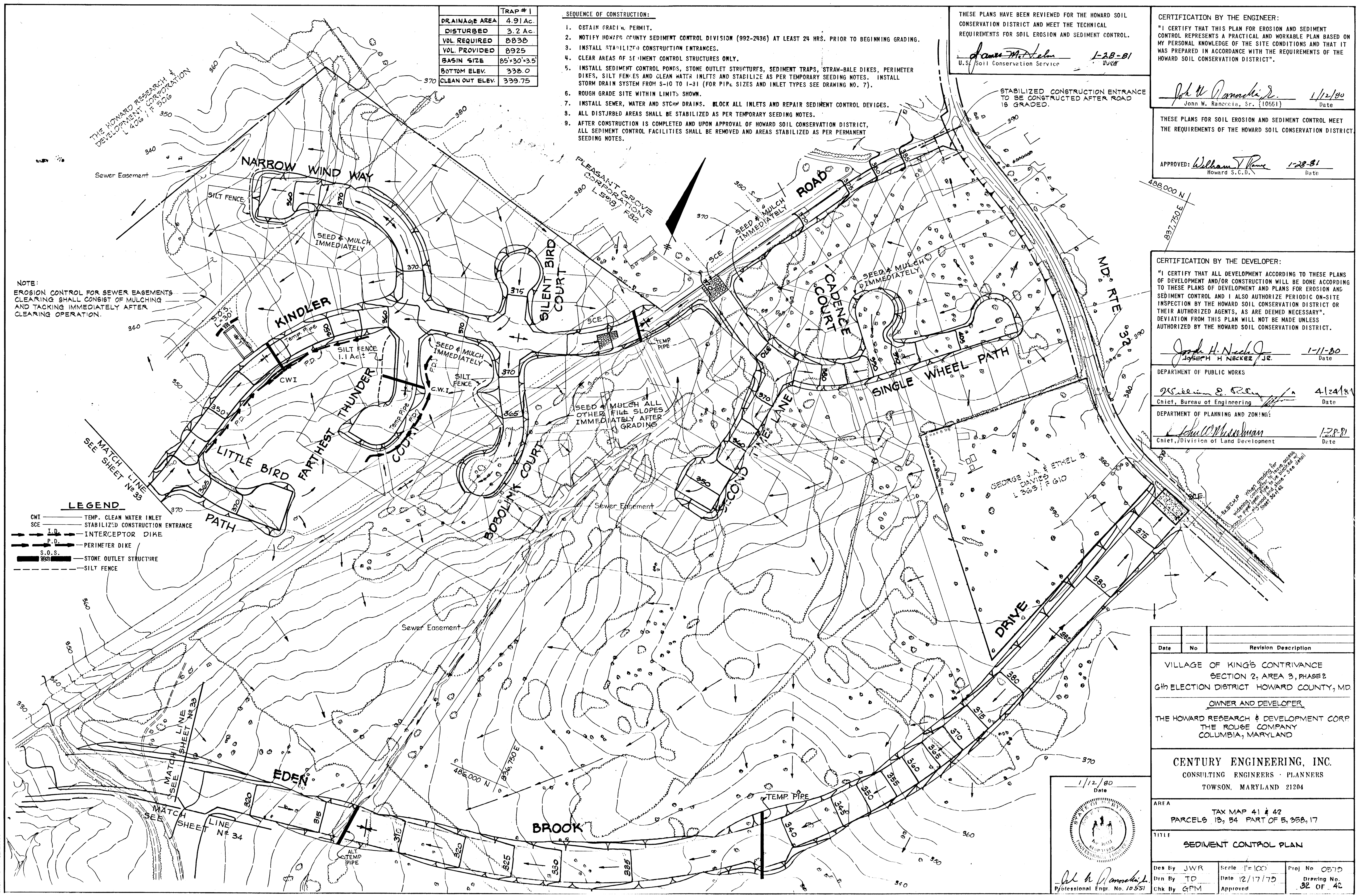
DEPARTMENT OF PUBLIC WORKS
William E. Soren 4/24/81
Chief, Bureau of Engineering Date

DEPARTMENT OF PLANNING AND ZONING:
Schull W. Johnson 1-28-81
Chief, Division of Land Development Date

NOTE:
EROSION CONTROL FOR SEWER EASEMENTS CLEARING SHALL CONSIST OF MULCHING AND TACKING IMMEDIATELY AFTER CLEARING OPERATION.

LEGEND

CWI	TEMP. CLEAN WATER INLET
SCE	STABILIZED CONSTRUCTION ENTRANCE
I.D.	INTERCEPTOR DIKE
P.D.	PERIMETER DIKE
S.O.S.	STONE OUTLET STRUCTURE
---	SILT FENCE



Date	No	Revision Description
		VILLAGE OF KING'S CONTRIVANCE SECTION 2, AREA 3, PHASE 2 GHD ELECTION DISTRICT HOWARD COUNTY, MD
		OWNER AND DEVELOPER THE HOWARD RESEARCH & DEVELOPMENT CORP THE ROUGE COMPANY COLUMBIA, MARYLAND
		CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204
		AREA TAX MAP 41 # 42 PARCELS 13, 34 PART OF 5, 358, 17
		TITLE SEDIMENT CONTROL PLAN
Des By	JWR	Scale 1"=100'
Drn By	TD	Date 12/17/79
Chk By	GPM	Approved
Proj No	0570	Drawing No. 32 OF 42

1/12/80 Date

John W. Rancocia, Sr.
Professional Engr. No. 10551

BRUNING 44132 26586

#445

CERTIFICATION BY THE ENGINEER:
 "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 SOIL CONSERVATION DISTRICT."

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: *William J. Stone* 1-28-81
 Howard S.C.D. Date

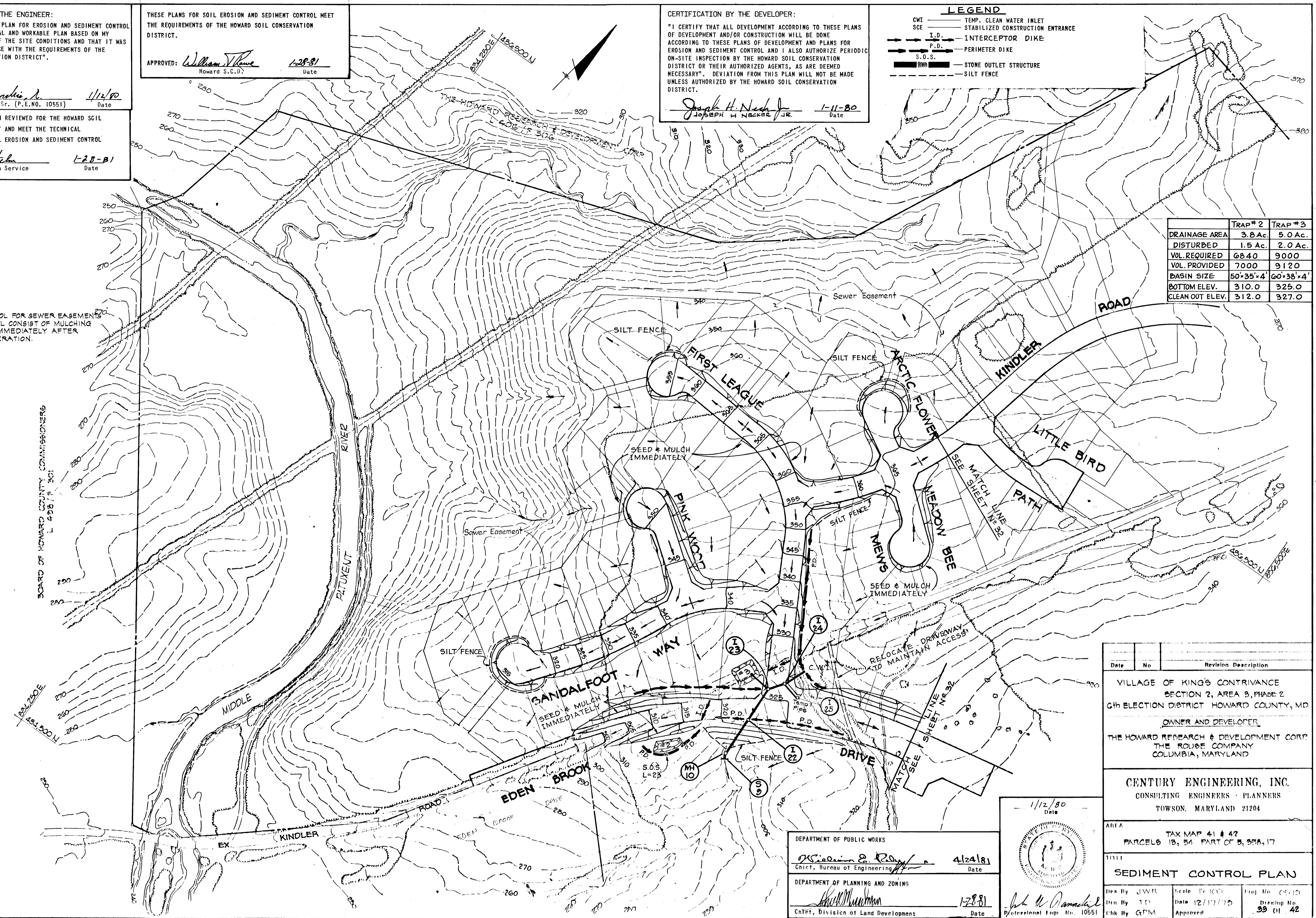
CERTIFICATION BY THE DEVELOPER:
 "I CERTIFY THAT ALL DEVELOPMENT ACCORDING TO THESE PLANS OF DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY". DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT.
Joseph H. Necker Jr. 1-11-80
 JOSEPH H NECKER JR. Date

LEGEND
 CWI ——— TEMP. CLEAN WATER INLET
 SCE ——— STABILIZED CONSTRUCTION ENTRANCE
 I.D. ——— INTERCEPTOR DIKE
 P.D. ——— PERIMETER DIKE
 S.O.S. ——— STONE OUTLET STRUCTURE
 ——— SILT FENCE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.
John W. Ranocchia, Sr. 1-28-81
 U.S. Soil Conservation Service Date

	TRAP # 2	TRAP # 3
DRAINAGE AREA	3.8 Ac.	5.0 Ac.
DISTURBED	1.5 Ac.	2.0 Ac.
VOL. REQUIRED	6840	9000
VOL. PROVIDED	7000	9120
BASIN SIZE	50'x35'x4'	60'x38'x4'
BOTTOM ELEV.	310.0	325.0
CLEAN OUT ELEV.	312.0	327.0

NOTE:
 EROSION CONTROL FOR SEWER EASEMENTS CLEARING SHALL CONSIST OF MULCHING AND TACKING IMMEDIATELY AFTER CLEARING OPERATION.



BOARD OF HOWARD COUNTY COMMISSIONERS
 L 498 / P. 501

Date No Revision Description
 VILLAGE OF KING'S CONTRIVANCE
 SECTION 2, AREA 3, PHASE 2
 6th ELECTION DISTRICT HOWARD COUNTY, MD
 OWNER AND DEVELOPER
 THE HOWARD RESEARCH & DEVELOPMENT CORP.
 THE ROUGE COMPANY
 COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

AREA TAX MAP 41 # 42
 PARCELS 13, 54 PART OF 5, 356, 17
 1111
SEDIMENT CONTROL PLAN
 Des By JWR Scale 1"=100'
 Dwn By TD Date 12/17/75
 Chk By GPM Approved
 Proj No. 05-10
 Drawing No. 33 01 42

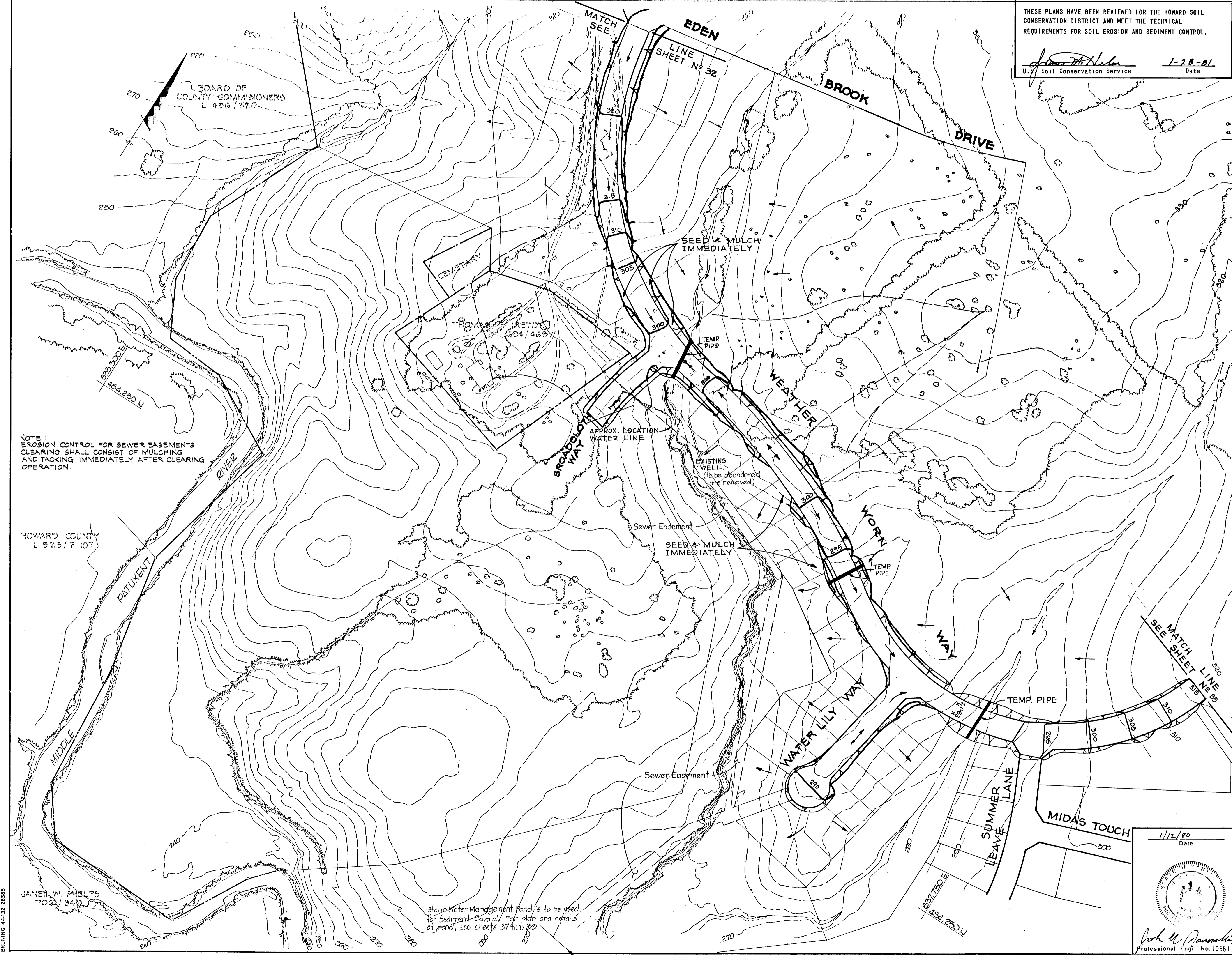
DEPARTMENT OF PUBLIC WORKS
William E. R... 4/24/81
 Chief, Bureau of Engineering Date
 DEPARTMENT OF PLANNING AND ZONING
William J. Stone 1-28-81
 Chief, Division of Land Development Date

1/12/80 Date

John W. Ranocchia, Sr.
 Professional Engr. No. 10551

445

1-80-9-C



BOARD OF COUNTY COMMISSIONERS
L 426 / 37.0

NOTE:
EROSION CONTROL FOR SEWER EASEMENTS
CLEARING SHALL CONSIST OF MULCHING
AND TACKING IMMEDIATELY AFTER CLEARING
OPERATION.

HOWARD COUNTY
L 525 / F 107

JANET W. PHELPS
7026 / 34.0

Storm Water Management Pond is to be used
for Sediment Control. For plan and details
of pond, see sheets 37 thru 39

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

John W. Ranoccia
U.S. Soil Conservation Service
Date 1-28-81

CERTIFICATION BY THE ENGINEER:
"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 SOIL CONSERVATION DISTRICT".

John W. Ranoccia 1/28/81
John W. Ranoccia, Sr. (P.E. NO. 10551) Date

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

APPROVED: *William Thorne* 1-28-81
Howard S.C.D. Date

LEGEND

CWI ——— TEMP. CLEAN WATER INLET
SCE ——— STABILIZED CONSTRUCTION ENTRANCE
I.D. ——— INTERCEPTOR DIKE
P.D. ——— PERIMETER DIKE
S.O.S. ——— STONE OUTLET STRUCTURE
— SILT FENCE

CERTIFICATION BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT ACCORDING TO THESE PLANS
OF DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING
TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND
SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE
INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR
THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".
DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS
AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT.

Joseph H. Necker 1-11-80
Joseph H. Necker, Jr. Date

DEPARTMENT OF PUBLIC WORKS
William E. Ray 4/24/81
Chief, Bureau of Engineering Date

DEPARTMENT OF PLANNING AND ZONING
John M. Dunne 1/28/81
Chief, Division of Land Development Date

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
SECTION 2, AREA 3, PHASE 2
6th ELECTION DISTRICT HOWARD COUNTY, MD

OWNER AND DEVELOPER
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE COMPANY
COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

AREA TAX MAP 41 # 42
PARCELS 13, 54 PART OF 5, 35B, 17

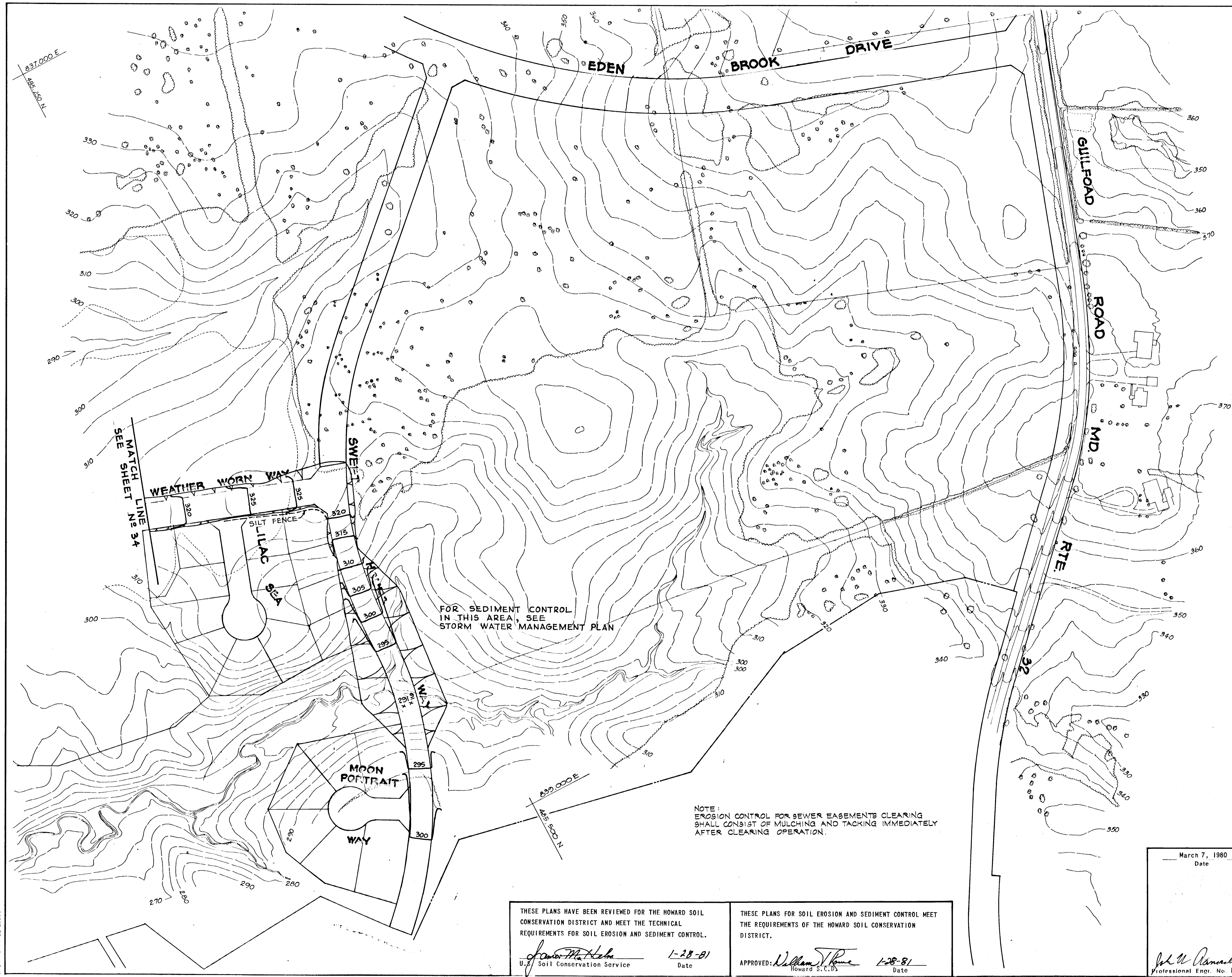
TITLE
SEDIMENT CONTROL PLAN

Des By JWR	Scale 1"=100'	Proj No 0570
Drn By TD	Date 12/17/79	Drawing No 34 OF 42
Chk By GPM	Approved	

1/12/80
Date
John W. Ranoccia
Professional Engr. No. 10551

#945

BRUNING 44132 28586



FOR SEDIMENT CONTROL
IN THIS AREA, SEE
STORM WATER MANAGEMENT PLAN

NOTE:
EROSION CONTROL FOR SEWER EASEMENTS CLEARING
SHALL CONSIST OF MULCHING AND TACKING IMMEDIATELY
AFTER CLEARING OPERATION.

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

James M. Hehn
U.S. Soil Conservation Service 1-28-81
Date

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

APPROVED: *William J. Rowe* 1-28-81
Howard S.C.D. Date

March 7, 1980
Date

John W. Ranocchia, Sr.
Professional Engr. No. 10551

CERTIFICATION BY THE ENGINEER:
"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 SOIL CONSERVATION DISTRICT".

John W. Ranocchia, Sr. 3-12-80
John W. Ranocchia, Sr. (NO. 10551) Date

CERTIFICATION BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT ACCORDING TO THESE PLANS
OF DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING
TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND
SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE
INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR
THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".
DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS
AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT.

Joseph H. Necker, Jr. 3-12-80
Joseph H. Necker, Jr. Date

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William B. Ray 4-12-81
Chief, Bureau of Engineering Date

HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING
John W. McEachern 1-28-81
Chief, Division of Land Development Date

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
SECTION 2, AREA 3, PHASE 2
6th ELECTION DISTRICT HOWARD COUNTY, MD.

OWNER AND DEVELOPER:
THE HOWARD RESEARCH & DEVELOPMENT CORP.
THE ROUSE COMPANY
COLUMBIA, MARYLAND

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

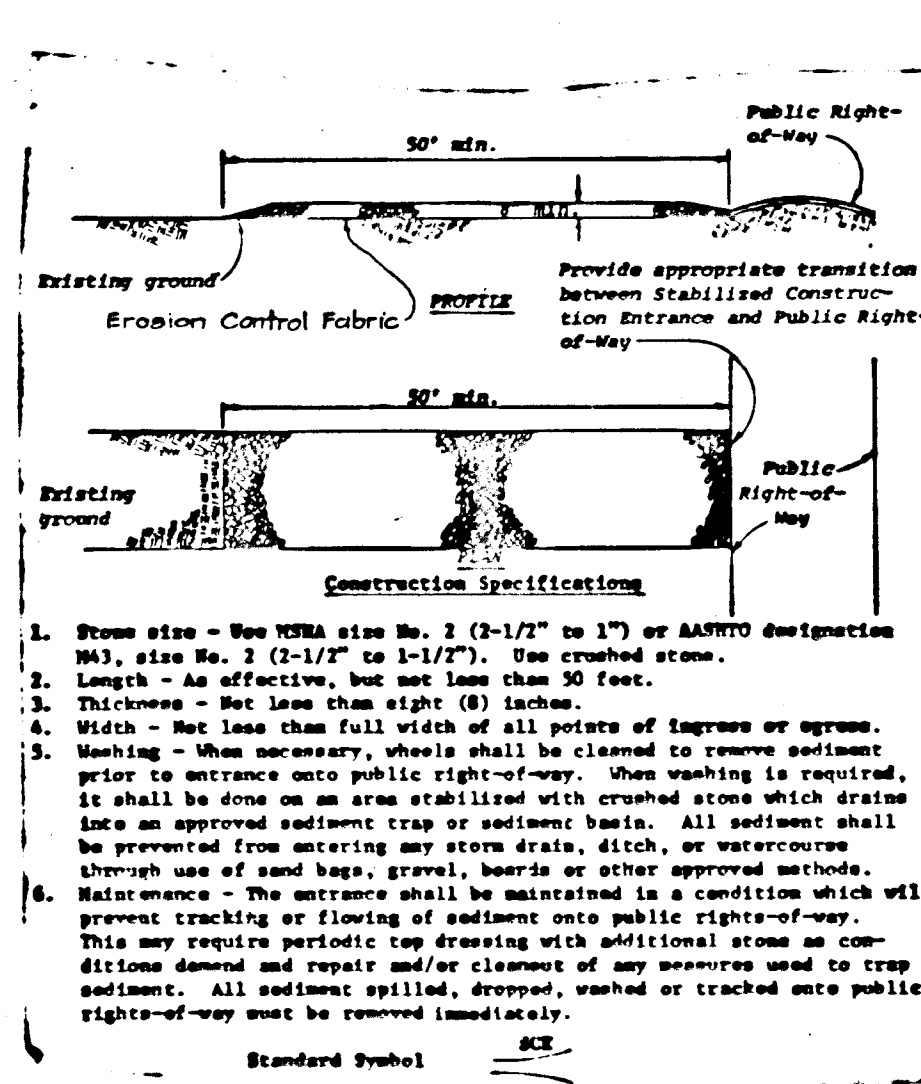
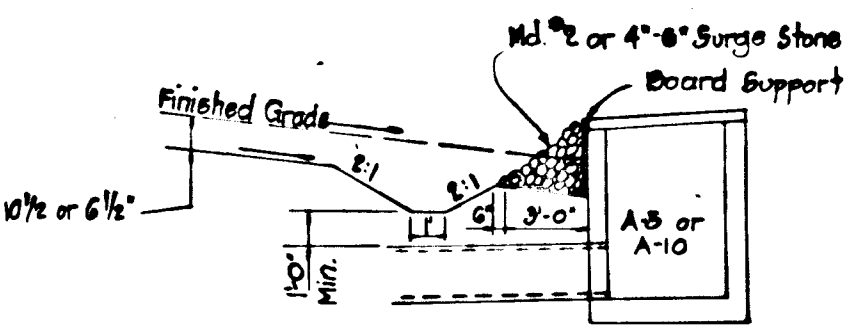
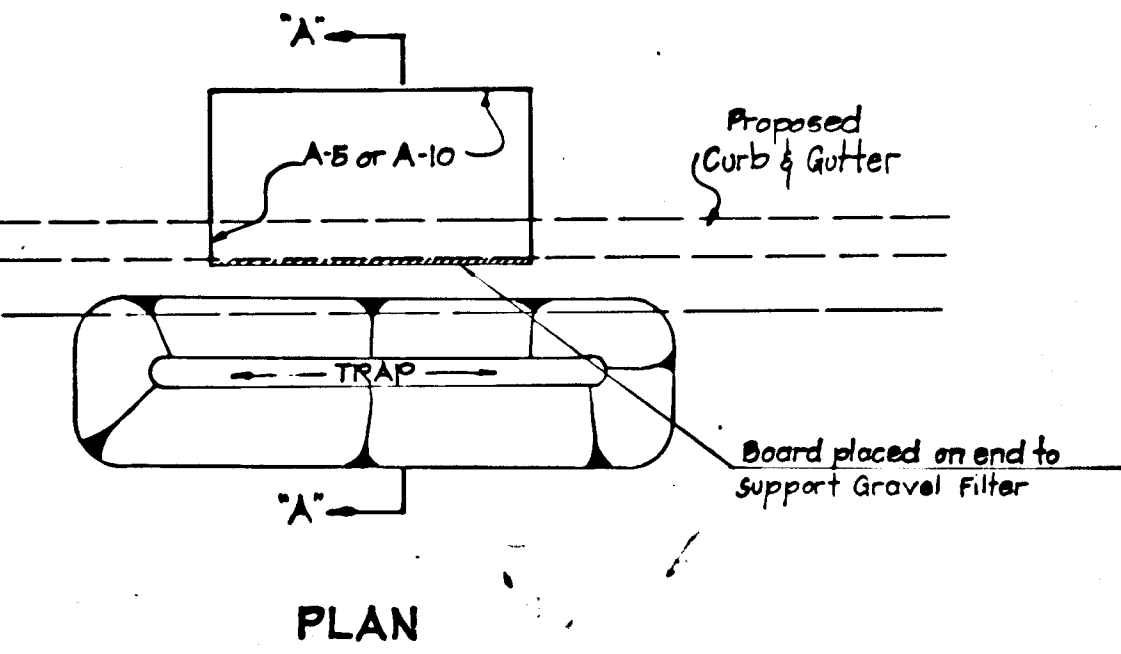
AREA TAX MAP 41 AND 42
PARCELS 13, 54 PART OF 5, 358, 17

TITLE
SEDIMENT CONTROL PLAN

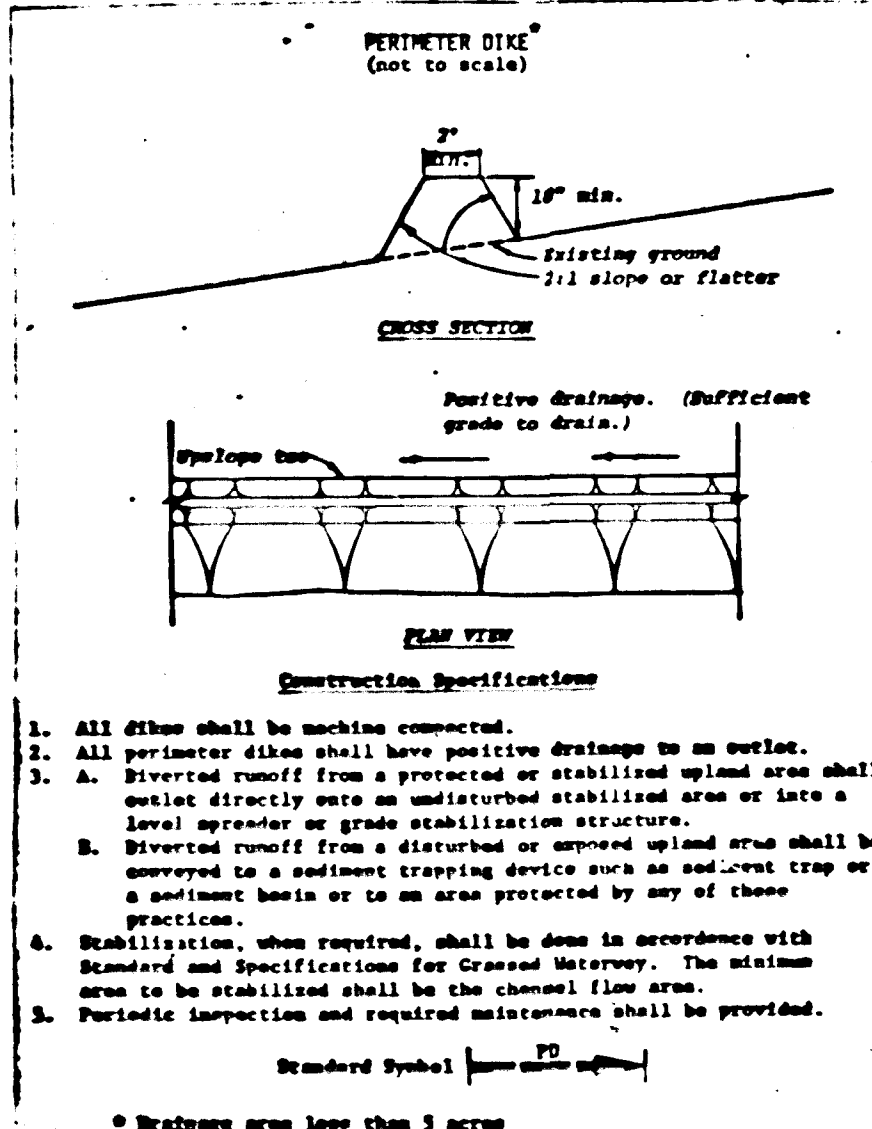
Des By T.D. Scale 1"=100' Proj No. 05779
Dwn By J.G. Date Drawing No. 35 OF 42
Chk By G.K. Approved

#4445
BRUNING 44-132-28566

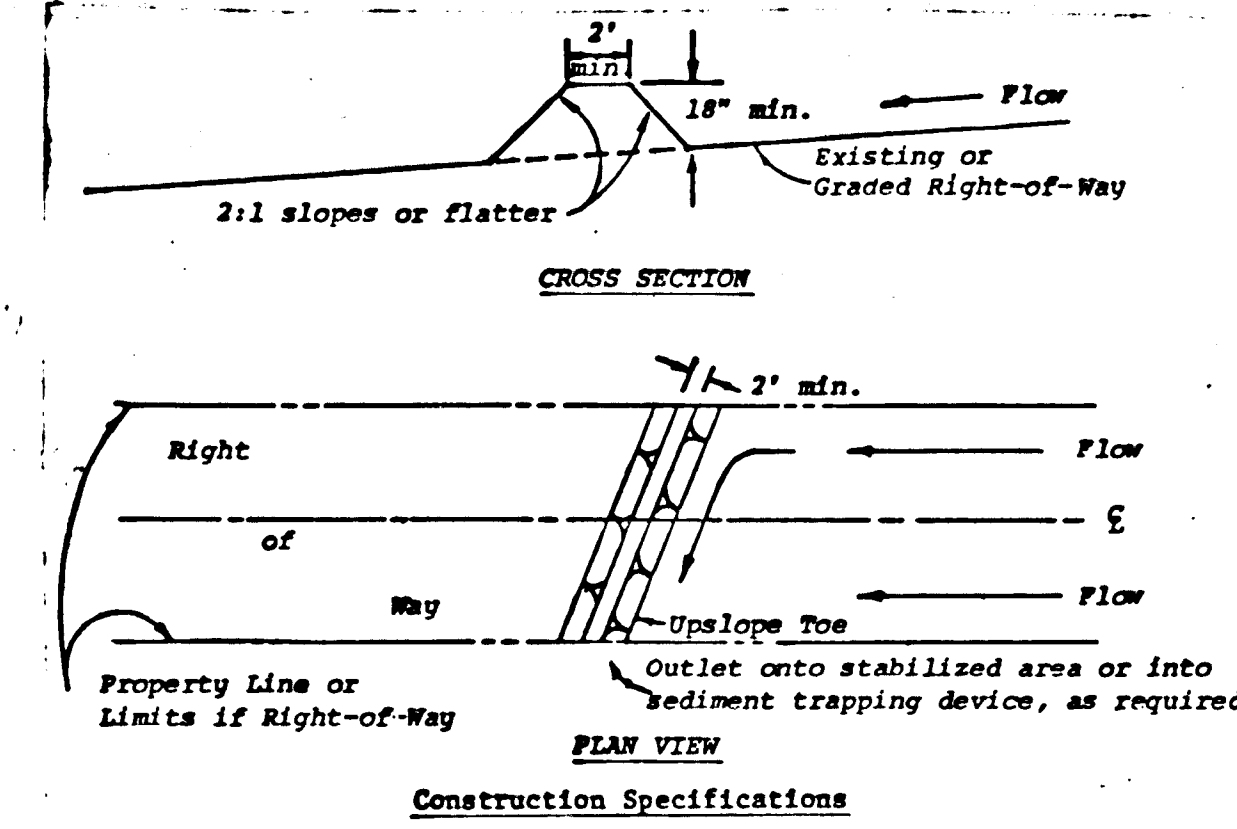
- A MINIMUM 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION (992-2070)
- ALL SEDIMENT CONTROL STRUCTURES WILL BE INSTALLED IN ACCORDANCE WITH "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS" AS PREPARED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.
- SITE GRADING WILL BEGIN ONLY AFTER PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- ALL DISTURBED AREAS ARE TO BE DRESSED AND STABILIZED ACCORDING TO THE TEMPORARY OR PERMANENT SEEDING SCHEDULES AS SOON AS PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF A PERMANENT VEGETATIVE COVER.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN THE DEPTH REACHES THE CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- FERTILIZER AND LIME RATES MAY BE CHANGED THROUGH AUTHORIZATION BY THE HOWARD SOIL CONSERVATION DISTRICT IF SOIL TESTS DETERMINE A REDUCTION IN THE SPECIFIED RATES IS JUSTIFIED.
- 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.
- REFERENCES CALLED FOR ON THE SEDIMENT CONTROL CONSTRUCTION PLAN AND DETAILS ARE MADE TO "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS".
- SEDIMENT CONTROL WILL BE INSTALLED BEFORE CLEARING AND GRUBBING REMAINDER OF SITE.
- BLOCK ALL 'A' TYPE INLETS AS SHOWN IN DETAIL.
- IF ANY TRAP OR OTHER SEDIMENT CONTROL MEASURES WHICH ARE DISTURBED BY STORM DRAIN INSTALLATIONS ARE TO BE REPAIRED AND STABILIZED ENTIRELY AFTERWARDS.



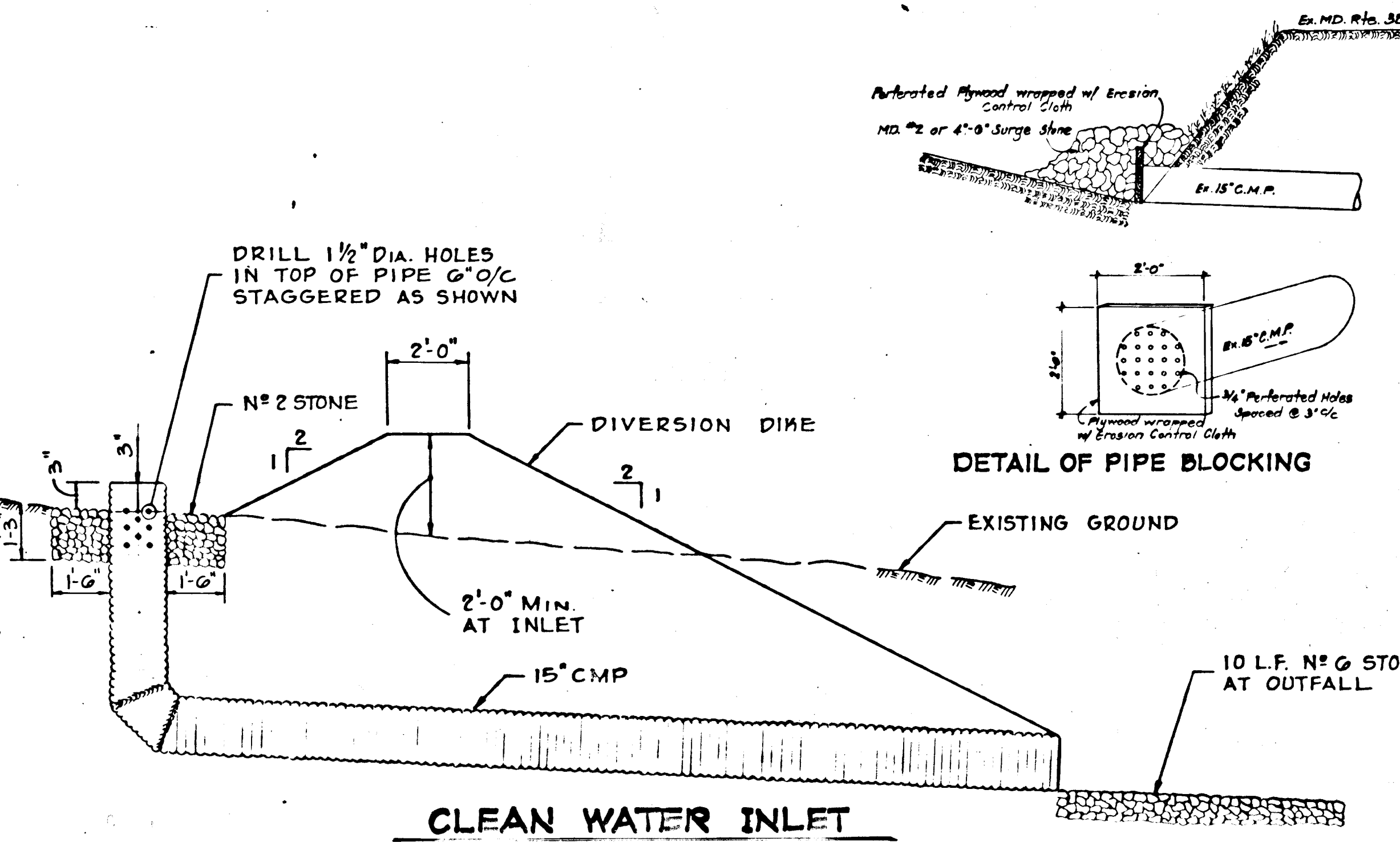
CONSTRUCTION ENTRANCE



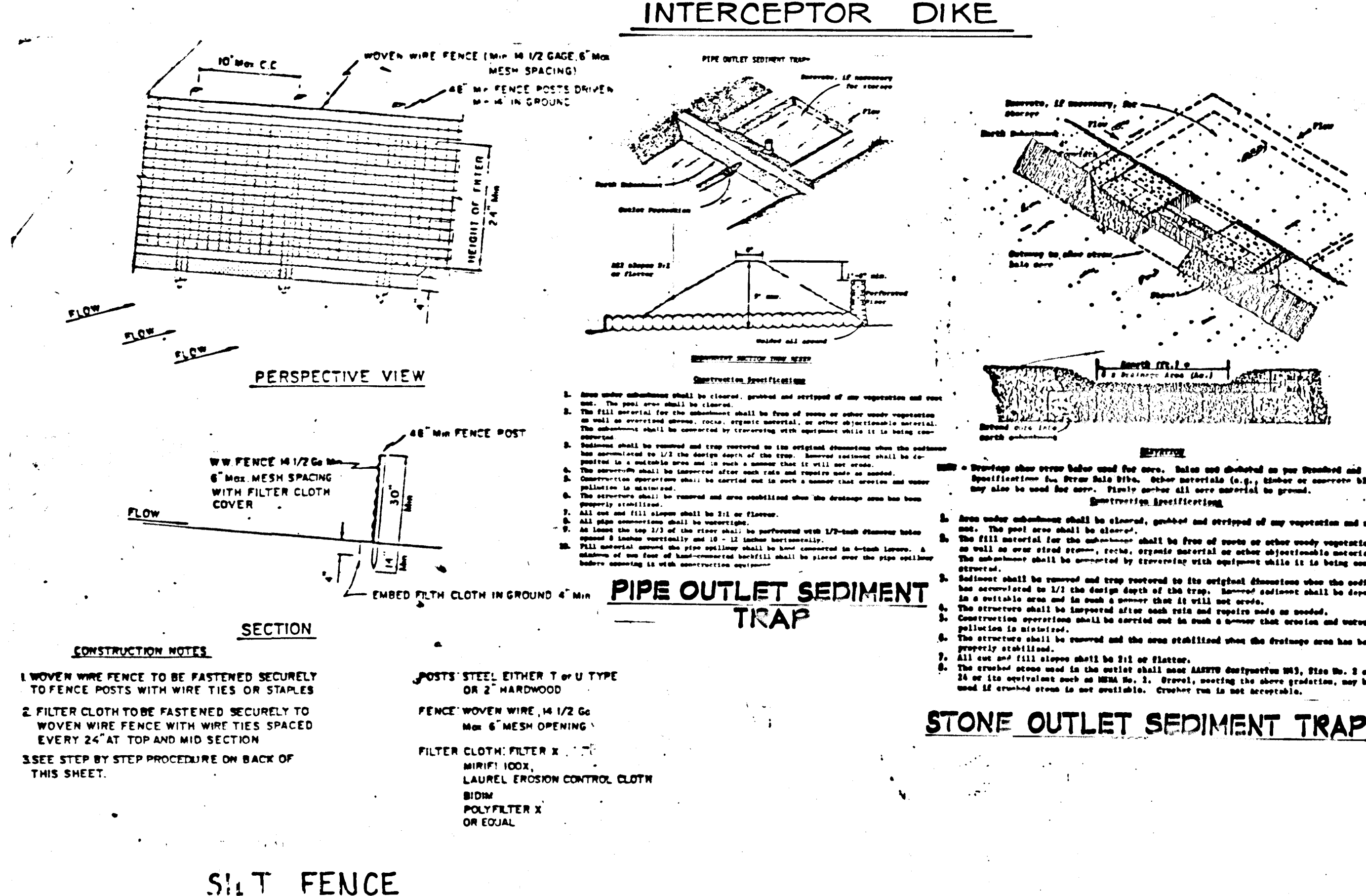
PERIMETER DIKE



- Construction Specifications
- All dikes shall be machine compacted.
 - All interceptor dikes shall have positive drainage to an outlet.
 - Top width may be wider and side slopes may be flatter if desired to facilitate crossing by construction traffic.
 - Field location should be adjusted as needed to utilize a stabilized area outlet.
 - Interceptor dikes shall have an outlet that functions with a minimum of erosion. Runoff shall be conveyed to a sediment trapping device such as a sediment trap or sediment basin when either the interceptor dike channel or the drainage area above the dike are not adequately stabilized.
 - Stabilization, as specified by the plans, shall be: (1) in accordance with Standard and Specifications for Grassed Waterway, and the area to be stabilized shall be the channel (flow area); or (2) the flow area shall be lined with stone that meets MSHA size No. 2 or AASHTO size No. 2 or 24 which is placed in a 3 inch thick layer and pressed into the soil. The area covered by the stone shall be as shown on Standard Drawing DD-1.
 - Periodic inspection and required maintenance must be provided.
- Drainage area less than 5 acres. Standard Symbol



- TEMPORARY SEEDING
- APPLY 10-20-10 FERTILIZER (OR EQUIVALENT) AT THE RATE OF 600 LBS. PER ACRE OR 15 LBS. PER 1000 SQ. FT.
 - WHERE SOIL IS KNOWN TO BE HIGHLY ACIDIC, APPLY DOLOMITIC LIMESTONE AT THE RATE OF 1 TON PER ACRE.
 - WORK BOTH INTO SOIL AND SEED WITH CYCLOPS SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY WILL INCLUDE SEED AND FERTILIZER) AT THE RATE OF 40 LBS. PER ACRE OF ITALIAN OR PERENNIAL RYEGRASS.
 - MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE AND ANCHOR WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.
- PERMANENT SEEDING
- APPLY DOLOMITIC LIMESTONE AT THE RATE OF 2 TONS PER ACRE (ONE TON PER ACRE IF APPLICATION OF ONE TON PER ACRE WAS MADE FOR TEMPORARY SEEDING).
 - APPLY 0-20-20 FERTILIZER AT THE RATE OF 600 LBS. PER ACRE. HARROW OR DISC MAINTENANCE AREAS WILL BE DRAGGED AND LEVELED WITH A YORK RAKE. AT THE TIME OF SEEDING APPLY 400 POUNDS OF 38-0-0 UREAFORM FERTILIZER AND 500 LBS. OF 10-20-00 OR EQUIVALENT FERTILIZER PER ACRE.
 - SEED WITH A MIXTURE OF CERTIFIED "MERION" KENTUCKY BLUEGRASS @ 40 LBS. PER ACRE; COMMON KENTUCKY BLUEGRASS @ 40 LBS. PER ACRE; RED FESCUE, PENNLANM OR JAMESTOWN 20 LBS. PER ACRE.
 - MULCH WITH UNWEATHERED SMALL GRAIN STRAW AT THE RATE OF 1 1/2 TO 2 TONS PER ACRE WITH A CUTBACK ASPHALT OR EMULSIFIED ASPHALT AT THE RATE OF 5 GAL. PER 1000 SQ. FT.
- FINAL STABILIZATION WILL TAKE PLACE AS SOON AS WEATHER CONDITIONS PERMIT, AS FOLLOWS:



- CONSTRUCTION NOTES
- 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 WIRE TIES SPACED EVERY 24" AT TOP AND MID SECTION
 - SEE STEP BY STEP PROCEDURE ON BACK OF THIS SHEET.
- POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD
- FENCE: WOVEN WIRE, 14 1/2 G# MAX 6" MESH OPENING
- FILTER CLOTH: FILTER # 100, MIRIFIL 100X, LAUREL EROSION CONTROL CLOTH, BIRMA POLYFILTER X OR EQUAL

DEPARTMENT OF PUBLIC WORKS

Robert W. Zehner 4/27/81
CHIEF, BUREAU OF ENGINEERING DATE

OFFICE OF PLANNING AND ZONING

Shirley M. Maschman 4/28/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

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

APPROVED: *Robert W. Zehner* 1/28/81
HOWARD S.C.D. DATE

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

Robert W. Zehner 1-28-81
S.O.S. Conservation Service DATE

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
Section 2, Area 3, Phase 2
6th Election District of Howard County, Maryland

OWNER AND DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORP.
THE ROUSE COMPANY BLDG.
Columbia, Maryland

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

AREA

TAX MAP 41 AND 42
PARCELS 13, 54 PART OF 5, 358, 17

TITLE

SEDIMENT CONTROL DETAILS

Des By G.P.M. Scale NO SCALE Proj No 0579
Drn By T.D. Date 1-14-80 Drawing No
Chk By G.P.M. Approved 96 OF 42

CERTIFICATION BY THE DEVELOPER:

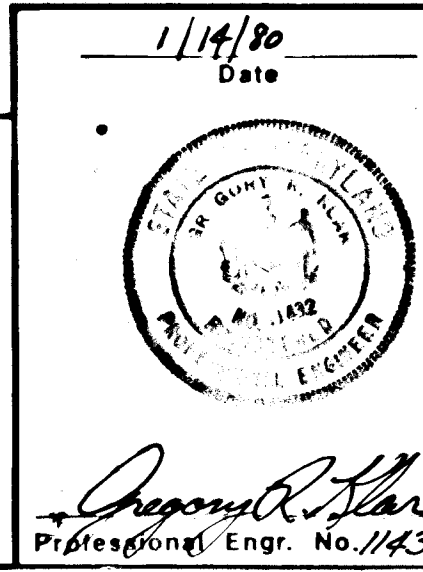
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT AND PLANS FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY".

Joseph H. Nash
DATE 9-2-80

CERTIFICATION BY THE ENGINEER:

"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 SOIL CONSERVATION DISTRICT".

Gregory A. Star
DATE 1/14/80



BRUNING 44132 28586

#445

TOPOGRAPHY TAKEN FROM:
 MAPS PREPARED BY PHOTOGRAMMETRY BY "MAPS INCORPORATED"
 FOR THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION ON
 MARCH 9, 1977. TOPOGRAPHY FIELD CHECKED DECEMBER 1979.

B.M. 113, EL. 293.81 NGVD, R.R. SPIKE IN
 30' MAPLE 60' RIGHT OF & SUMMER LEAVE LANE
 STA. 2+50.

ESTIMATED QUANTITIES:

ITEM:	QUANTITY:	UNIT:
CLEAR, GRUB, STRIP TOPSOIL	2.0	ACRES
EARTH FILL	6,200	CU. YD.
CUTOFF TRENCH	1,560	CU. YD.
BORROW REQUIRED	2,500	CU. YD.
RISER, 66" DIAMETER B.C.C.M.P., 14 GA.	13.5	L.F.
BARREL, 42" DIAMETER B.C.C.M.P., 16 GA.	74	L.F.
DRAIN, 6" GALV. STEEL PIPE	8	L.F.
COUPLING, 6" GALV. STEEL	1	EA.
CONNECTING BANDS AND GASKETS	4	EA.
PVC GATE VALVE	1	EA.
ANTI-SEEP COLLAR, 7'-0"x7'-0"	3	EA.
CONCENTRIC TRASH RACK	1	EA.
RIPRAP MEDIUM (10'-30" DIA.)	130	TONS.
STONE (S.H.A. #2)	75	TONS.
CONCRETE (BASE ONLY)	12	CU. YDS.
LIME, FERTILIZER, SEED AND MULCH	0.7	ACRES
SILT FENCE	200	L.F.
DUCTILE IRON PIPE, 10" DIA.	400	L.F.
ANTI SEEP COLLARS, CONCRETE 4'x4'x8"	2	EA.
PLASTIC FILTERCLOTH	1,350	SQ. FT.

STRUCTURE CLASSIFICATION:

STRUCTURE:	'A'
STORAGE X HEIGHT PRODUCT:	504.0
WATERSHED AREA:	153 Ac.
NORMAL POND SURFACE AREA:	1.3 Ac.
STRUCTURE LOCATION:	URBAN

HYDROLOGIC CRITERIA:

PRINCIPLE SPILLWAY ROUTING: 100 YR. FREQ.
 FREEBOARD: 2' ABOVE 50 YR. FREQ.

I SITE PREPARATION:

AREAS UNDER THE BORROW AREAS, EMBANKMENT, POND AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND THE TOPSOIL STRIPPED TO REMOVE ALL TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE DAM AND RESERVOIR. A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER AREAS TO BE SEED.

II EARTH FILL:

MATERIAL: THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREA OR AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE CONSTRUCTED TO AN ELEVATION WHICH PROVIDES FOR ANTICIPATED SETTLEMENT TO THE DESIGN ELEVATION. THE FILL HEIGHT ALL ALONG THE LENGTH OF THE EMBANKMENT SHALL BE INCREASED ABOVE THE DESIGN ELEVATION, INCLUDING FREEBOARD, AS SHOWN ON THE PLANS.

PLACEMENT: AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 8-INCH MAXIMUM THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST POROUS BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM OF THE EMBANKMENT.

COMPACTION: THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIERED OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT 95% OF THE MAXIMUM DENSITY BY A.S.T.M.-698 CAN BE OBTAINED WITH THE EQUIPMENT USED.

III STRUCTURAL BACKFILL:

BACKFILL MATERIAL SHALL BE ML-CLOD BETTER OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF THE STRUCTURE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DRIVE EQUIPMENT OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF TWENTY-FOUR INCHES OR GREATER OVER THE STRUCTURE OR PIPE.

IV CORRUGATED METAL PIPE CONDUIT:

A. MATERIALS: (STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. SPECIFICATIONS M-190 TYPE 'A' WITH WATERTIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.

V CONCRETE:

CONCRETE SHALL HAVE A MINIMUM OF 6 BAGS OF CEMENT PER CU. YD. AND WATER CONTENT NOT TO EXCEED 6 GALLONS PER BAG OF CEMENT. SLUMP SHALL RANGE 3"-4". ALL CONCRETE SHALL BE TRANSIT MIXED AND INTERNALLY VIBRATED DURING PLACEMENT.

B. CONNECTIONS:

ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE - BARREL AND BASEPLATE CONNECTION TO THE RISER SHALL BE WELDED ALL AROUND. WATERTIGHT COUPLING BANDS SHALL BE USED AT ALL JOINTS AND SHALL BE 12" STANDARD TYPE WITH 3/8"x7" NEOPRENE GASKET OR 12" ROD AND LUG TYPE WITH 2/8"x7" NEOPRENE GASKET. DIMPLED BANDS SHALL NOT BE USED. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT.

C. BEDDING:

THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.

D. LAYING PIPE:

THE PIPE SHALL BE PLACED WITH INSIDE CIRCUMFERENTIAL LAPS POINTING DOWNSTREAM AND WITH THE LONGITUDINAL LAPS AT THE SIDES.

E. BACKFILLING:

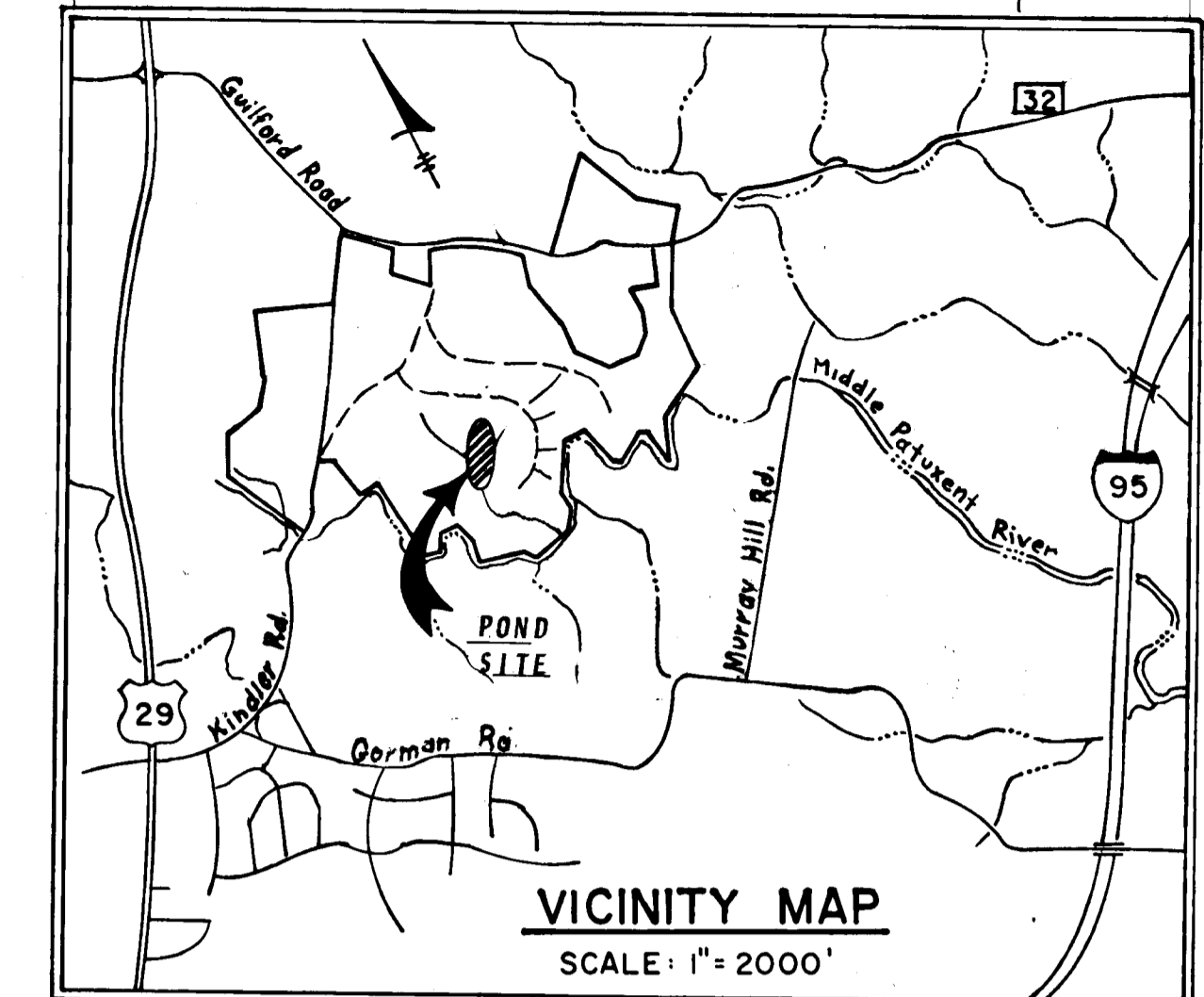
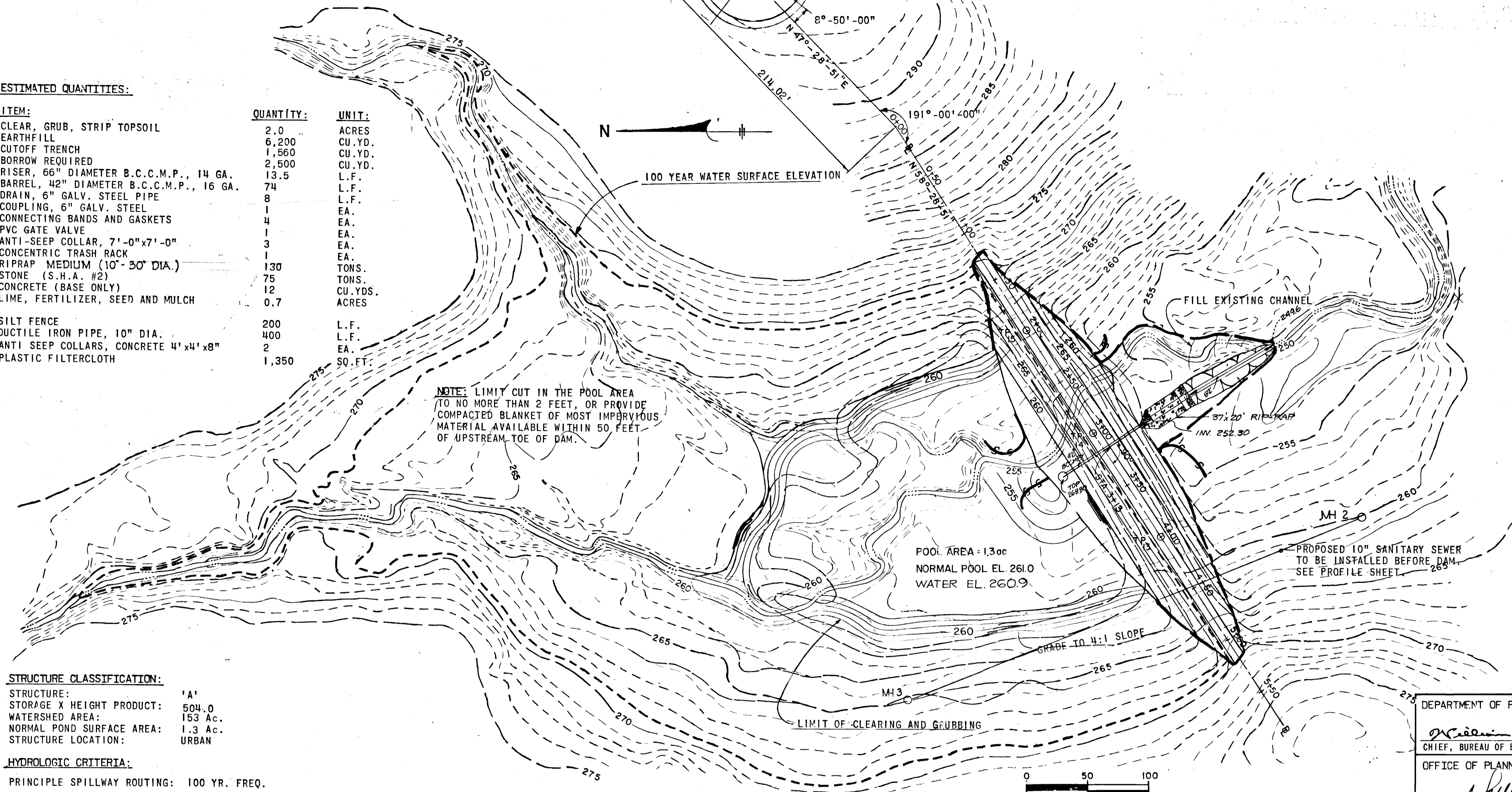
BACKFILLING SHALL CONFORM TO STRUCTURAL BACKFILL AS SHOWN ABOVE.

VI STABILIZATION:

ALL DISTURBED AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND LEFT IN A SIGHTLY CONDITION. ALL EXPOSED SURFACE OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY:
 A. SPREADING 4" OF TOPSOIL.
 B. WORKING IN 2 TONS OF GROUND LIME AND 1,000 LBS. OF 10-10-10 FERTILIZER PER ACRE.
 C. SEEDING WITH 80 LBS. PER ACRE OF KENTUCKY 31 TALL FESCUE.
 D. MULCHING WITH 1 AND 1/2 TONS STRAW PER ACRE.
 E. SPRAY 8 GALLONS OF LIQUID MULCHING BINDER PER 1000 SQ. FT. OR 348 GALLONS PER ACRE.

VII

Pond is to be used for sediment control of areas as shown on sheets 32 thru 36.



BY THE DEVELOPER:
 "I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT, POND CONSTRUCTION AND EROSION AND SEDIMENT CONTROL. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE POND WITHIN 30 DAYS OF COMPLETION."
 Joseph H. Neel
 Signature of Developer
 8-29-80
 Date

BY THE ENGINEER:
 "I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION, AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE POND WITHIN 30 DAYS OF COMPLETION."
 Richard Nieren
 Signature of Engineer
 8/3/1980
 Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
 James M. Heh
 U.S. Soil Conservation Service
 1-28-81
 Date

DEPARTMENT OF PUBLIC WORKS
 William E. Ryan
 CHIEF, BUREAU OF ENGINEERING
 4/24/81
 DATE

OFFICE OF PLANNING AND ZONING
 Richard S. C.D.
 APPROVED:
 1-28-81
 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT
 5/1/81
 DATE

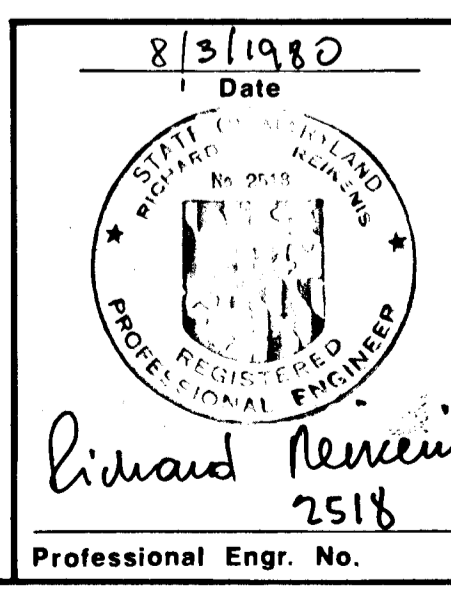
DATE: 8/3/1980
 NO: 1
 REVISION DESCRIPTION:
 VILLAGE OF KING'S CONTRIVANCE
 Section 2, Area 3
 6th Election District of Howard County, Maryland
 OWNER AND DEVELOPER:
 THE HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE ROUSE COMPANY
 Columbia, Maryland

CENTURY ENGINEERING, INC.
 CONSULTING ENGINEERS - PLANNERS
 TOWSON, MARYLAND 21204

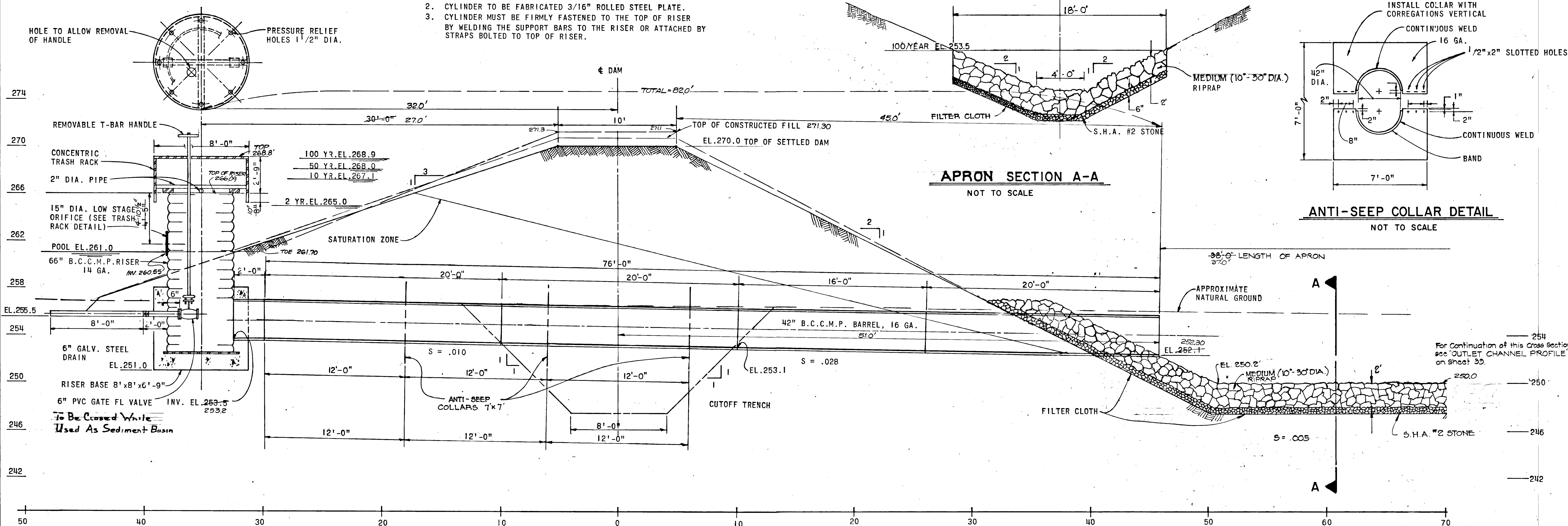
AREA: TAX MAP 41 AND 42
 PARCELS 13, 54 PART OF 5, 358, 17

TITLE: STORM WATER MANAGEMENT
 CONTROL STRUCTURE #1
 PLAN VIEW

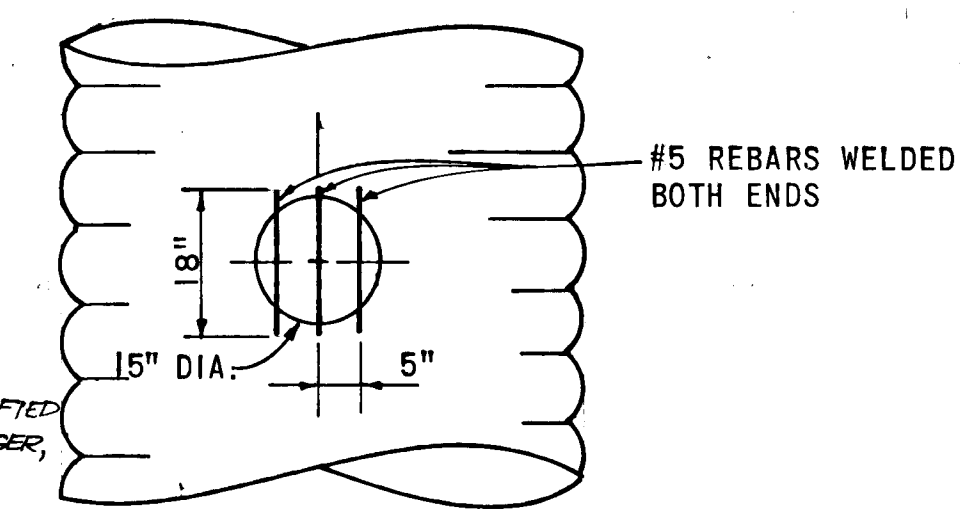
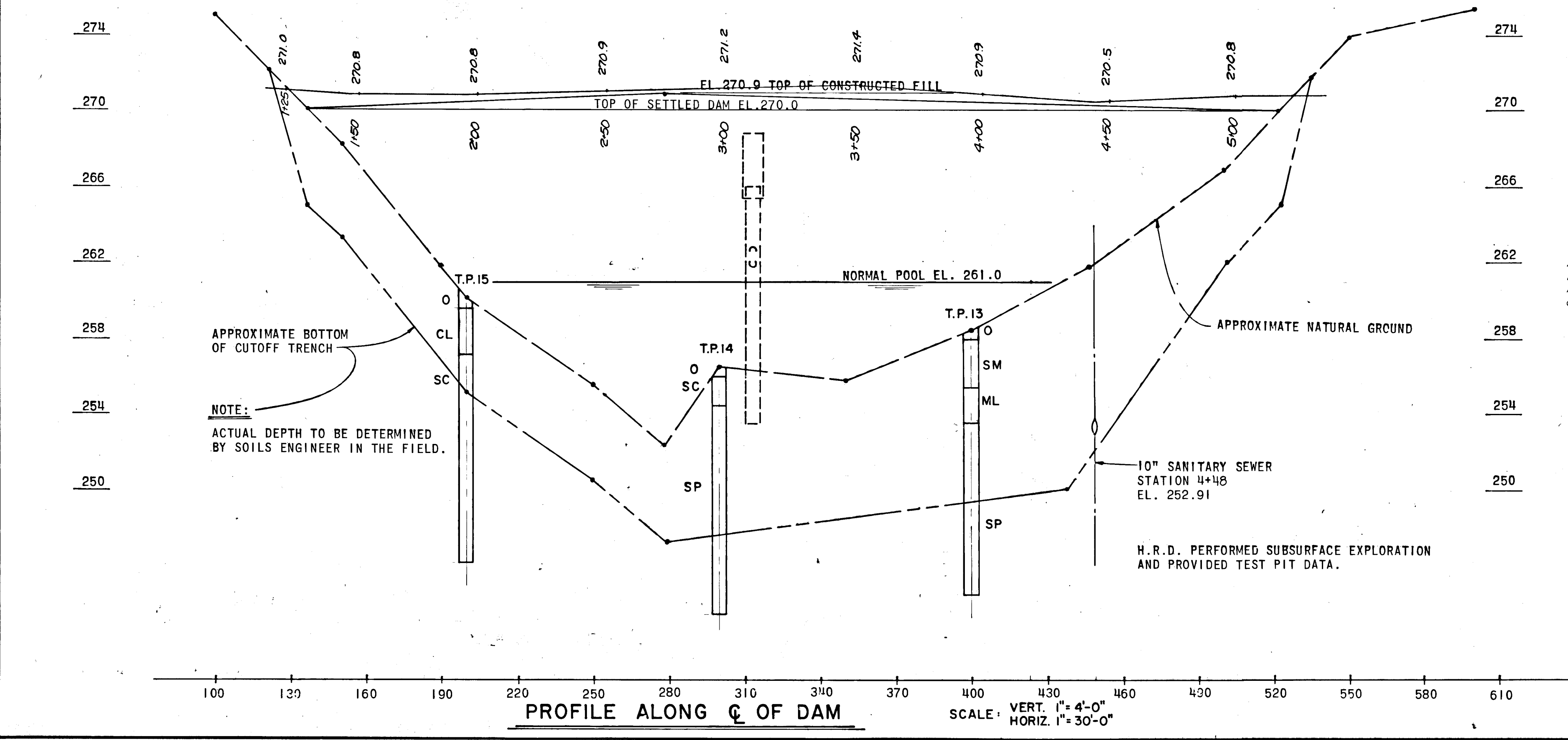
Des By S.A.K.	Scale AS SHOWN	Proj No 0579
Drn By J.H.G.	Date	Drawing No. 37 OF 42
Chk By R.L.U.	Approved	



- NOTES: 1. TOP TO BE 3/16" STEEL PLATE.
 2. CYLINDER TO BE FABRICATED 3/16" ROLLED STEEL PLATE.
 3. CYLINDER MUST BE FIRMLY FASTENED TO THE TOP OF RISER BY WELDING THE SUPPORT BARS TO THE RISER OR ATTACHED BY STRAPS BOLTED TO TOP OF RISER.



CROSS SECTION OF DAM ALONG C OF PIPE SPILLWAY, STATION 3+13
 SCALE: 1" = 4'-0"

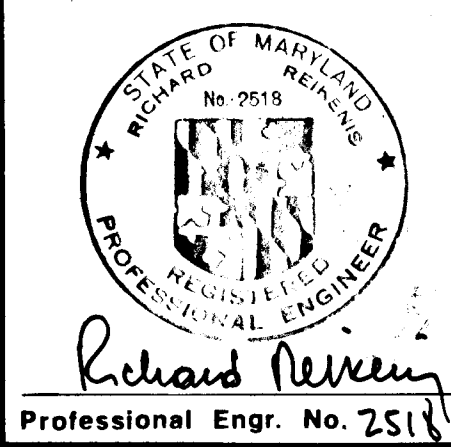


THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

APPROVED: *Robert W. Zichner* 4/16/81
 HOWARD S.C.D. DATE

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

APPROVED: *Robert W. Zichner* 4/16/81
 HOWARD S.C.D. DATE



DEPARTMENT OF PUBLIC WORKS		
Chief, Bureau of Engineering	<i>William S. R. O.</i>	4/24/81
Office of Planning and Zoning	<i>William S. R. O.</i>	5-11-81
Chief, Division of Land Development	<i>William S. R. O.</i>	DATE
Date	No.	Revision Description
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3 6th Election District of Howard County, Maryland		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland		
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204		
AREA	TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17	
TITLE	STORM WATER MANAGEMENT CONTROL STRUCTURE #1 PROFILE AND CROSS SECTIONS	
Des By S.A.K.	Scale	Proj No
Drn By J.H.G.	Date	Drawing No.
Chk By R.L.U.	Approved	32 OF 42

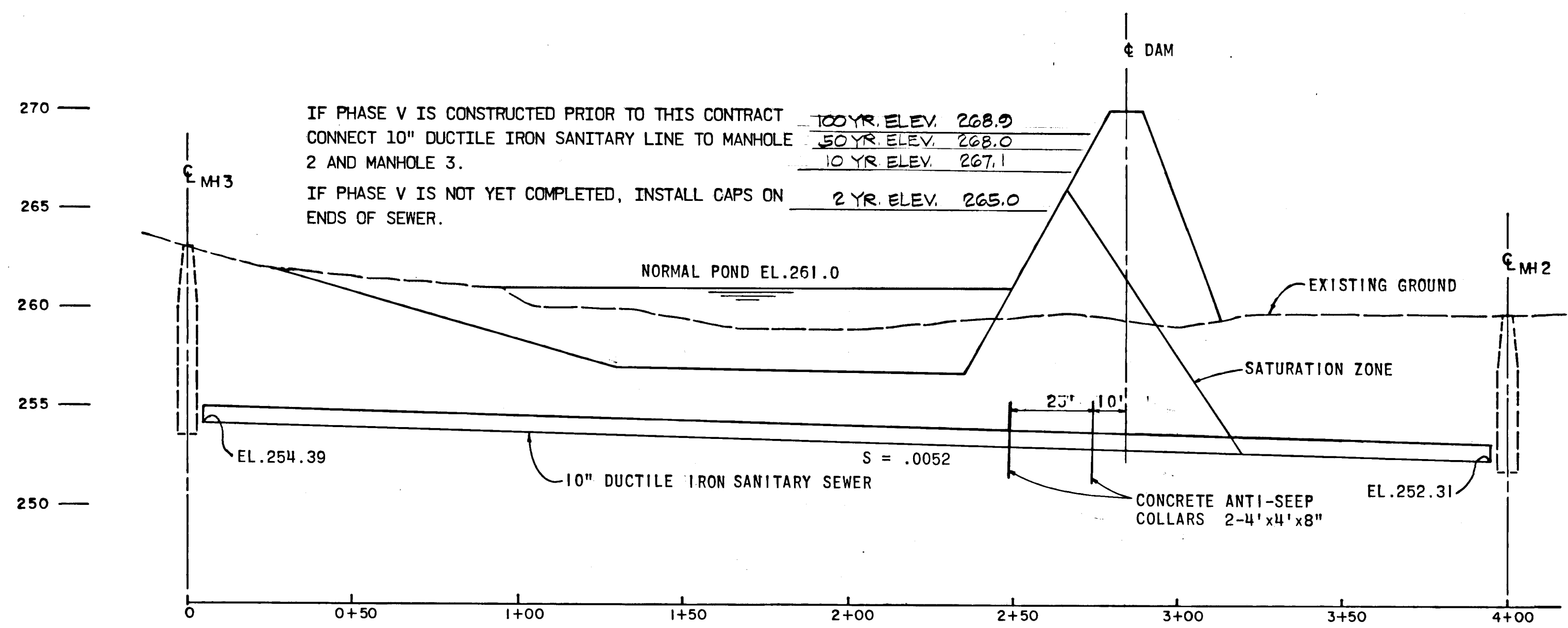
THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

James M. Adams 4-16-81
U.S. SOIL CONSERVATION SERVICE DATE

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

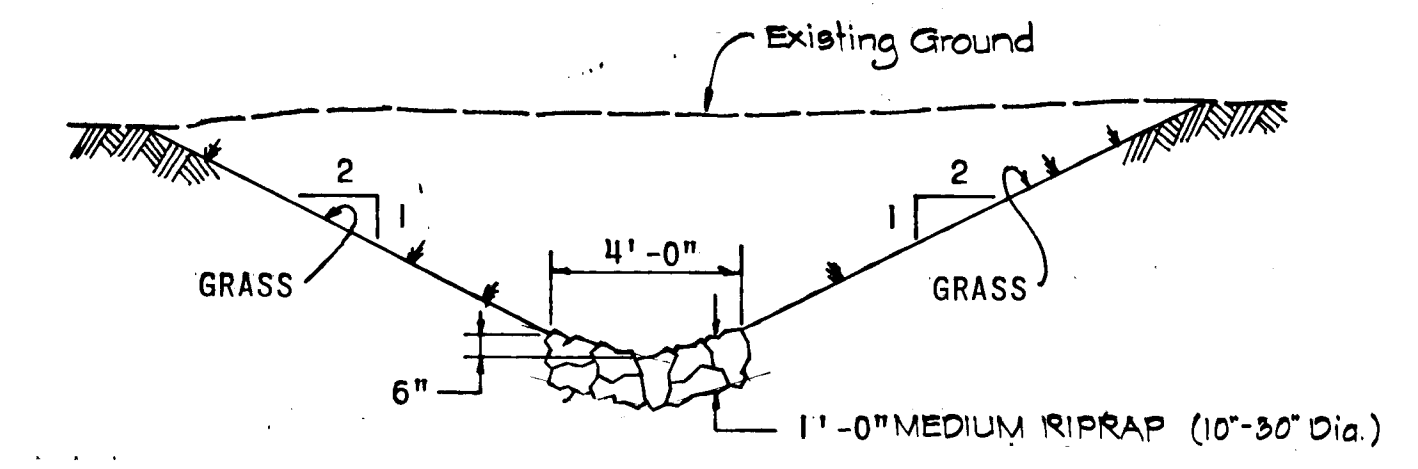
APPROVED: *Robert Z. Zielke* 4/16/81
HOWARD S.C.D. DATE

PLAN NUMBER: _____



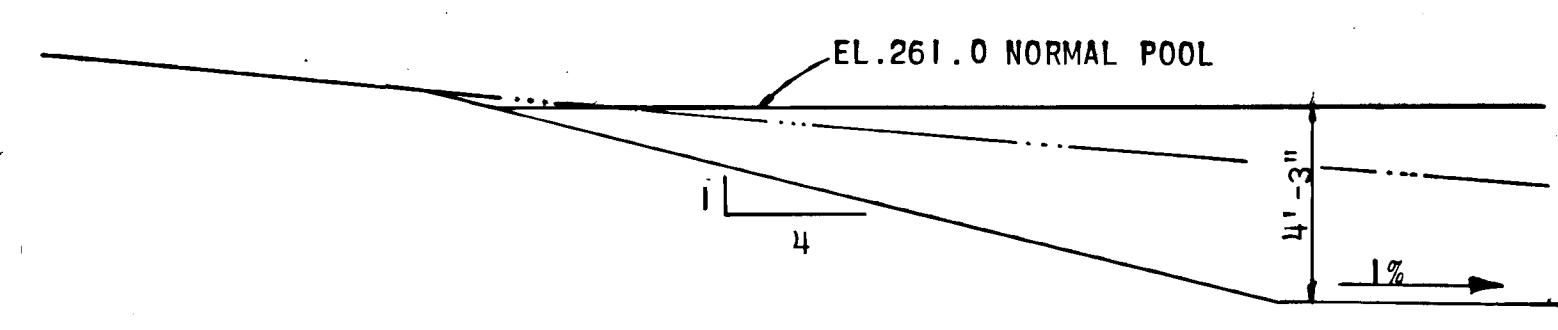
CROSS SECTION OF DAM ALONG C OF SANITARY SEWER, STATION 4+23

SCALE: VERT. 1" = 5'-0"
HORIZ. 1" = 30'-0"



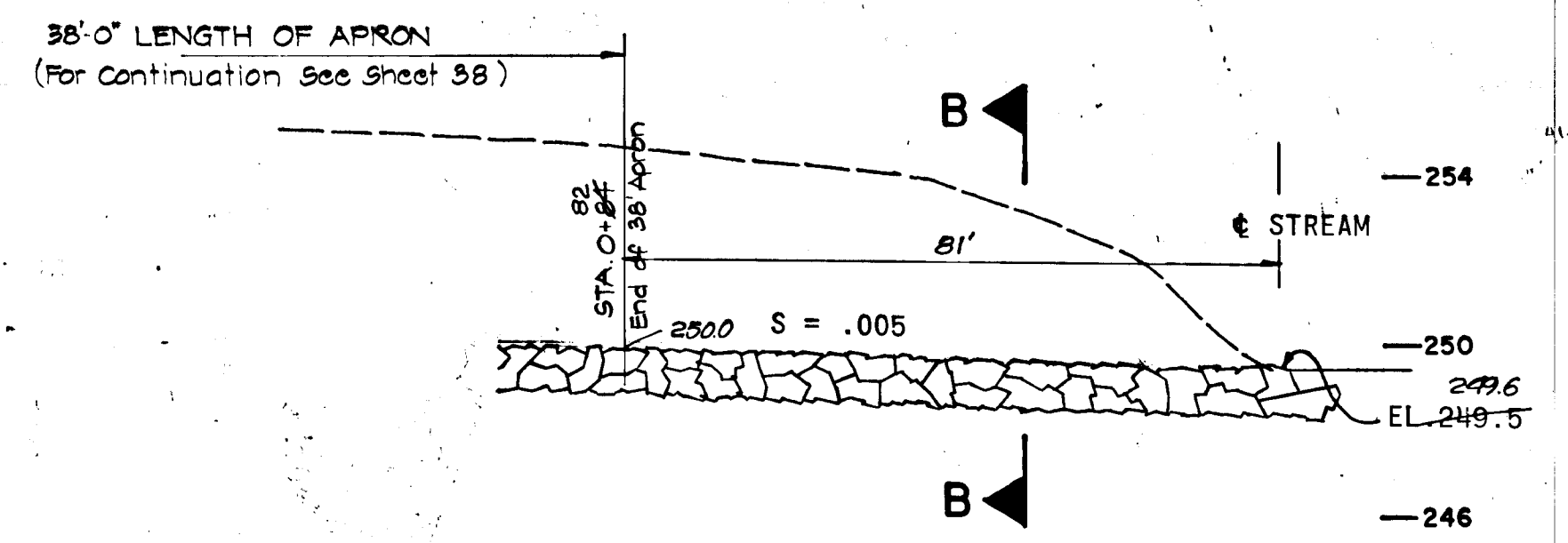
OUTLET CHANNEL CROSS SECTION B-B

SCALE: 1" = 4'-0"



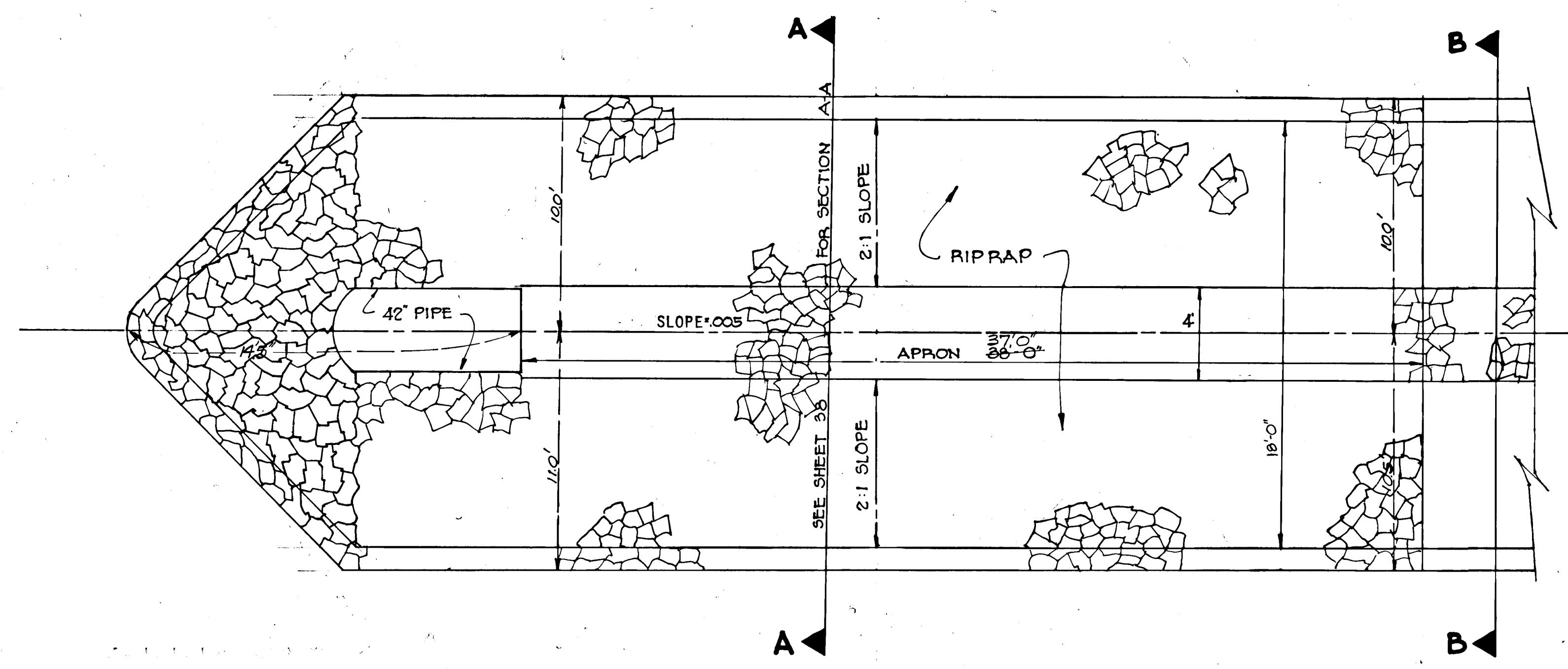
TYPICAL POOL EDGE SECTION

SCALE: 1" = 4'-0"



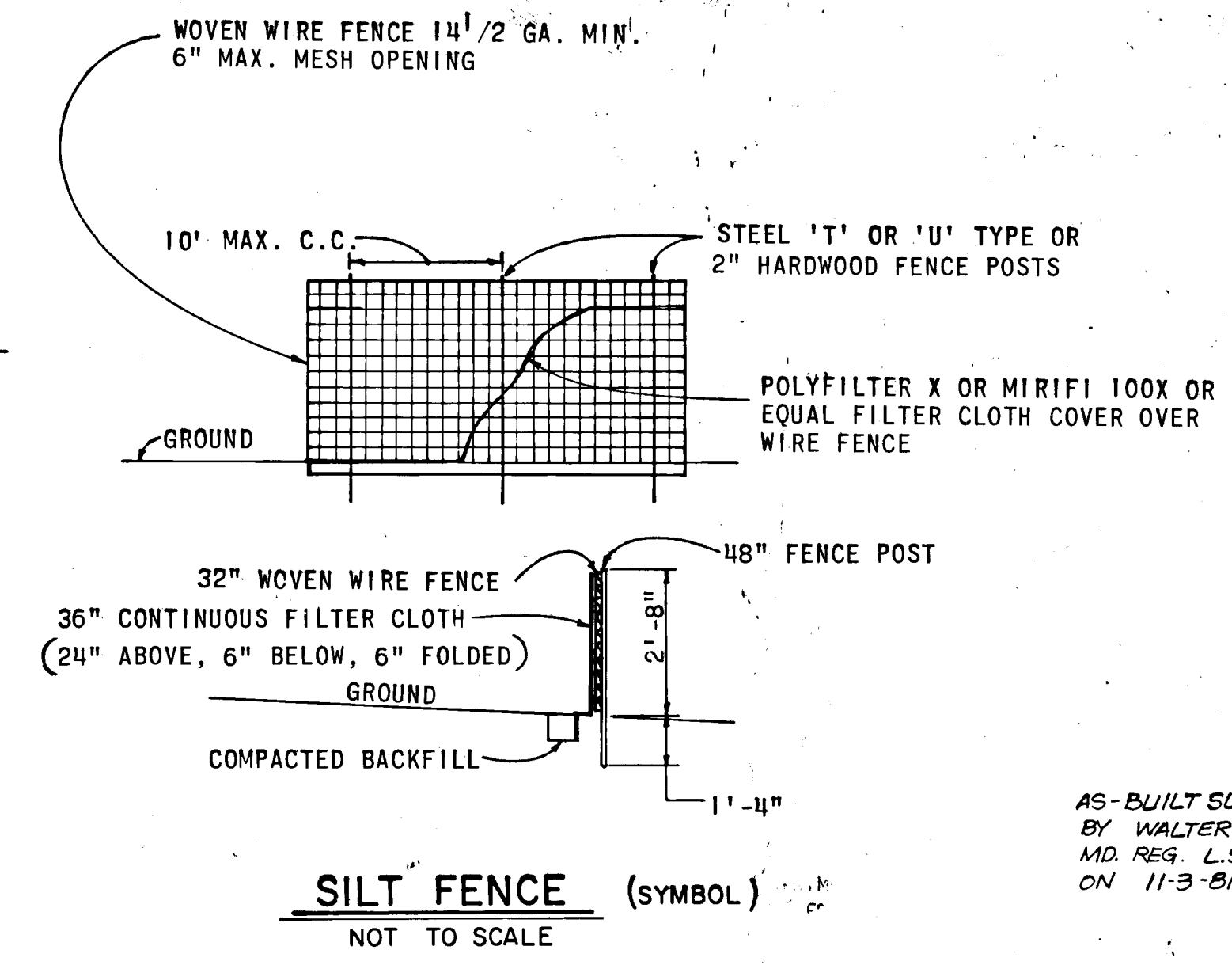
OUTLET CHANNEL PROFILE

SCALE: VERT. 1" = 4'-0"
HORIZ. 1" = 20'-0"



RIPRAP APRON AND OUTLET CHANNEL

SCALE: 1" = 4'-0"



SILT FENCE (SYMBOL)
NOT TO SCALE

AS-BUILT SURVEY CERTIFIED
BY WALTER PARK,
MD REG. L.S. No. 5539
ON 11-3-81

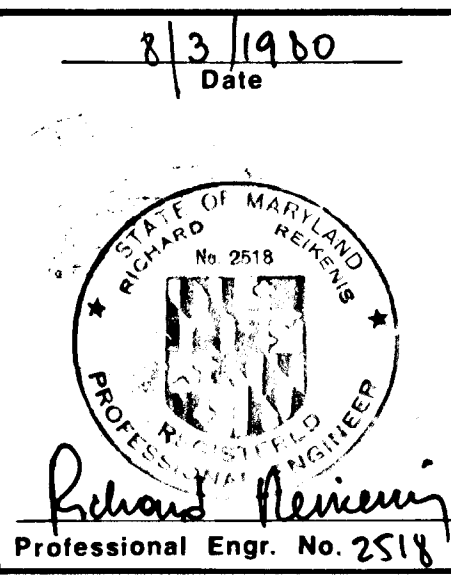
Date	No	Revision Description
		VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3 6th Election District of Howard County, Maryland
		OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland
		CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204
		AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17
		TITLE STORM WATER MANAGEMENT CONTROL STRUCTURE NO. 1 PROFILE AND CROSS SECTIONS
Des By	S.A.K.	Scale
Drn By	J.H.G.	Date
Chk By	R.L.U.	Approved
Proj No		Drawing No.
		39 OF 42

DEPARTMENT OF PUBLIC WORKS

Walter Park 4/24/81
CHIEF, BUREAU OF ENGINEERING DATE

OFFICE OF PLANNING AND ZONING

Richard M. Muehlman 5/1/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



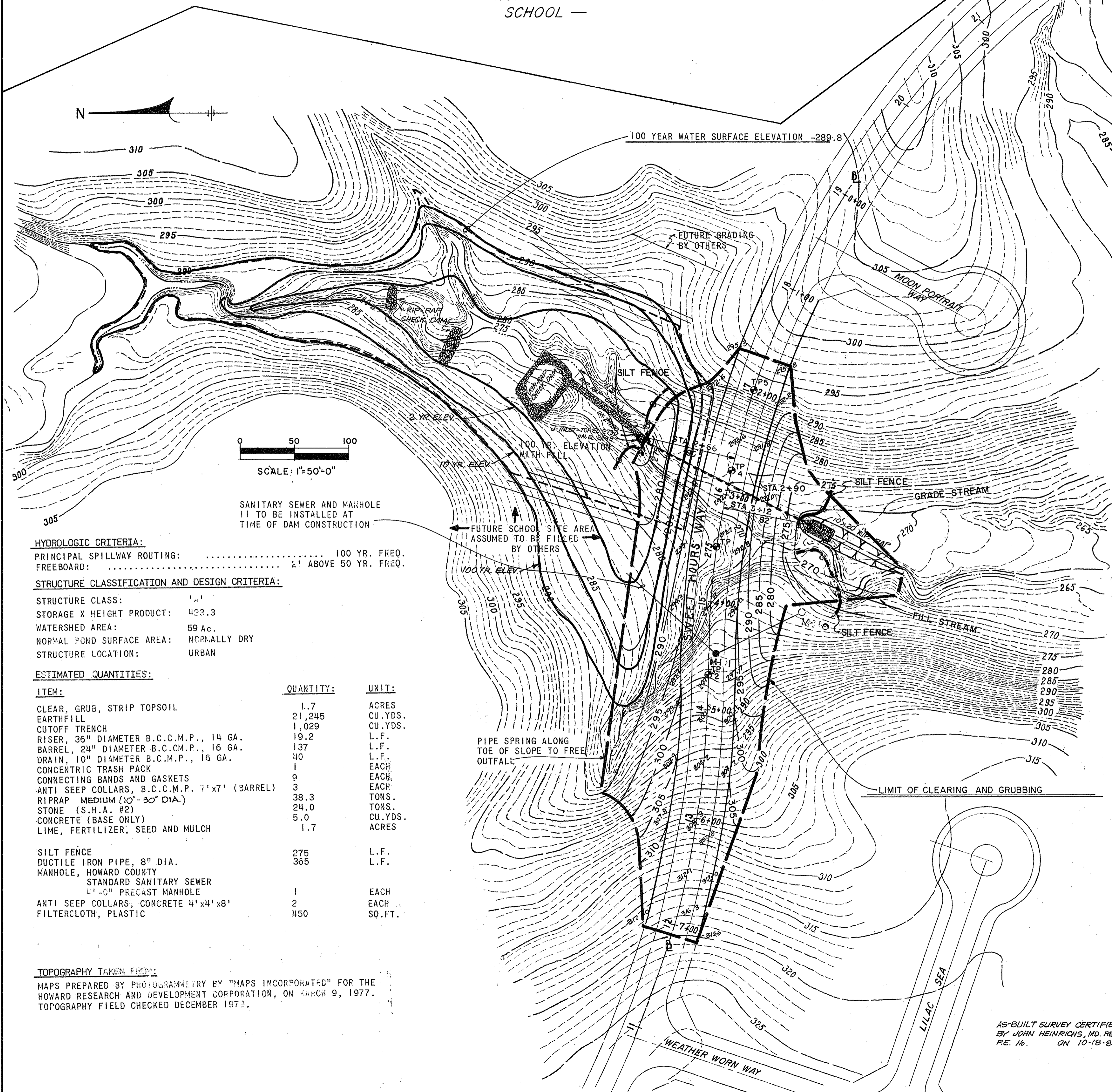
#445

BRUNING 44-132 26586

NOTE: 2/29/2016 - CAPITAL PROJECT D-1159 REVISED THE CONTROL STRUCTURES AND SPILLWAY UNDER SWEET HOURS WAY AT APPROXIMATELY STATION 2190 TO REMOVE THE STRUCTURE AND REPLACE WITH A STANDARD 60" RCP CULVERT AND ASSOCIATED STANDARD HEADWALLS. ADDITIONAL GRADING TO RETURN THE STREAM TO A NATURAL STATE IS ALSO PROVIDED

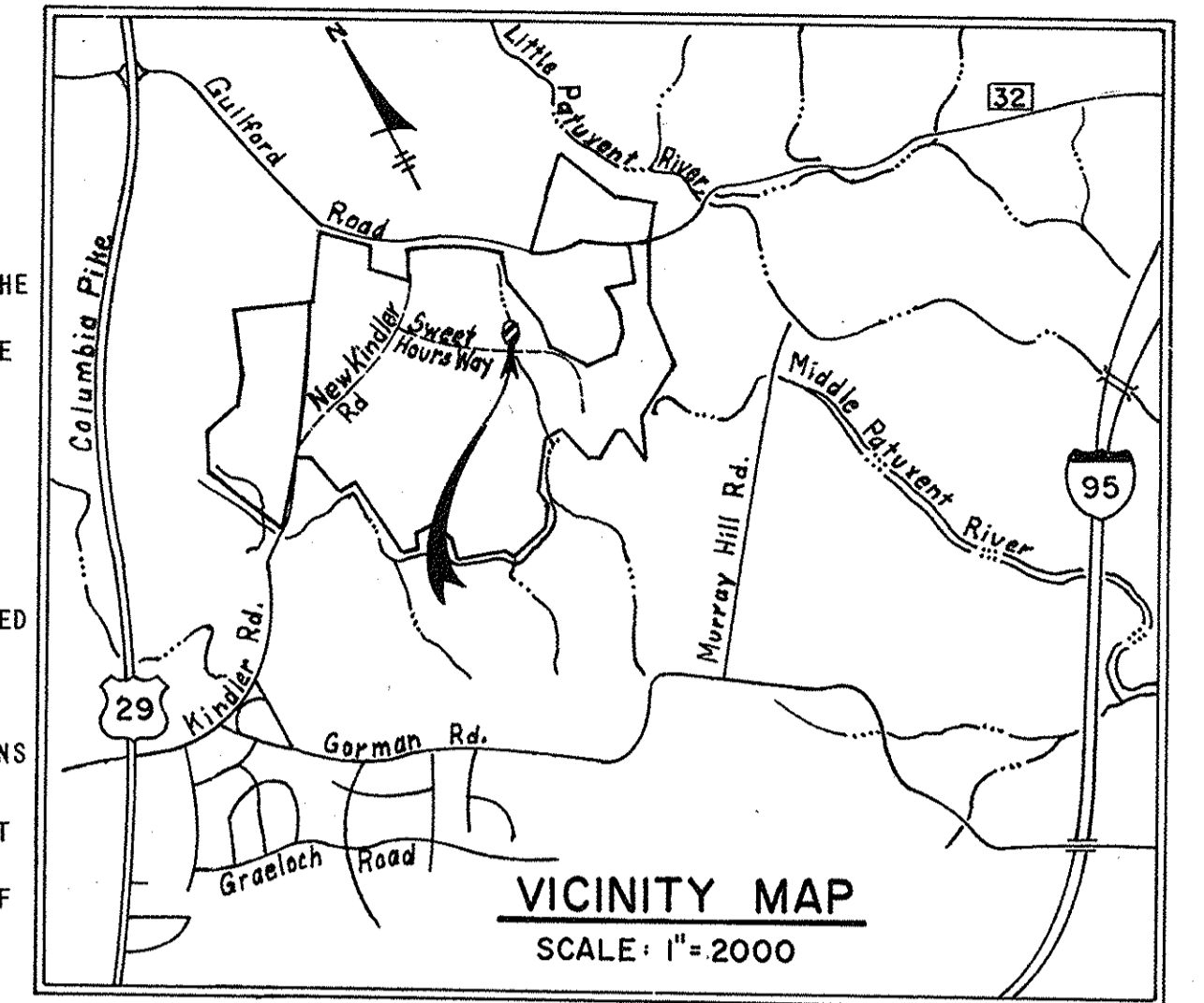
— HAMMOND HIGH SCHOOL —

BM 115 EL. 305.797 (FEET-NGVD) SQUARE CUT ON CORNER OF HEADWALL @ STA. 21+10 ROAD 'G', 30 FEET TO LEFT AT RIGHT ANGLE.



CONSTRUCTION SPECIFICATIONS

- I. **SITE PREPARATION:**
AREAS UNDER THE BORROW AREAS, EMBANKMENT, POND AND STRUCTURAL WORKS SHALL BE CLEARED, GRUBBED AND THE TOPSOIL STRIPPED TO REMOVE ALL TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIAL. CHANNEL BANKS AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1.
ALL CLEARED AND GRUBBED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE DAM AND RESERVOIR. A SUFFICIENT QUANTITY OF TOPSOIL WILL BE STOCKPILED IN A SUITABLE LOCATION FOR USE ON THE EMBANKMENT AND OTHER AREAS TO BE SEED.
- II. **EARTH FILL:**
MATERIAL: THE FILL MATERIAL SHALL BE TAKEN FROM APPROVED DESIGNATED BORROW AREA OR AREAS. IT SHALL BE FREE OF ROOTS, STUMPS, WOOD, RUBBISH, OVERSIZE STONES, FROZEN OR OTHER OBJECTIONABLE MATERIALS.
PLACEMENT: AREAS ON WHICH FILL IS TO BE PLACED SHALL BE SCARIFIED PRIOR TO PLACEMENT OF FILL. FILL MATERIALS SHALL BE PLACED IN 8-INCH MAXIMUM THICKNESS (BEFORE COMPACTION) LAYERS WHICH ARE TO BE CONTINUOUS OVER THE ENTIRE LENGTH OF THE FILL. THE MOST POROUS BORROW MATERIAL SHALL BE PLACED IN THE DOWNSTREAM PORTIONS OF THE EMBANKMENT.
COMPACTION: THE MOVEMENT OF THE HAULING AND SPREADING EQUIPMENT OVER THE FILL SHALL BE CONTROLLED SO THAT THE ENTIRE SURFACE OF EACH LIFT SHALL BE TRAVERSED BY NOT LESS THAN ONE TREAD TRACK OF THE EQUIPMENT OR COMPACTION SHALL BE ACHIEVED BY A MINIMUM OF FOUR COMPLETE PASSES OF A SHEEPSFOOT, RUBBER TIRE OR VIBRATORY ROLLER. FILL MATERIAL SHALL CONTAIN SUFFICIENT MOISTURE SUCH THAT 95% OF THE MAX. DENSITY BY ASTM-698 WILL BE OBTAINED WITH THE EQUIPMENT USED.
CUTOFF TRENCH: A CUTOFF TRENCH SHALL BE EXCAVATED ALONG OR PARALLEL TO THE CENTERLINE OF THE EMBANKMENT AS SHOWN ON THE PLANS. THE BOTTOM WIDTH OF THE TRENCH SHALL BE GOVERNED BY THE EQUIPMENT USED FOR EXCAVATION, WITH THE MINIMUM WIDTH BEING FOUR FEET. THE DEPTH SHALL BE AT LEAST FIVE FEET OR AS SHOWN ON THE PLANS. THE SIDE SLOPES OF THE TRENCH SHALL BE 1 TO 1 OR FLATTER. THE BACKFILL MATERIAL FOR THE CUTOFF TRENCH SHALL BE THE MOST IMPERVIOUS MATERIAL AVAILABLE (ML-CL OR BETTER) AND SHALL BE COMPACTED WITH EQUIPMENT OR ROLLERS TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY.
- III. **STRUCTURAL BACKFILL:**
BACKFILL MATERIAL SHALL BE ML-CL OR BETTER OF THE TYPE AND QUALITY CONFORMING TO THAT SPECIFIED FOR THE ADJOINING FILL MATERIAL. THE FILL SHALL BE PLACED IN HORIZONTAL LAYERS NOT TO EXCEED FOUR INCHES IN THICKNESS AND COMPACTED BY HAND TAMPERS OR OTHER COMPACTION EQUIPMENT. THE MATERIAL NEEDS TO FILL COMPLETELY ALL SPACES UNDER AND ADJACENT TO THE PIPE. AT NO TIME DURING THE BACKFILLING OPERATION SHALL DRIVEN EQUIPMENT BE ALLOWED TO OPERATE CLOSER THAN FOUR FEET, MEASURED HORIZONTALLY, TO ANY PART OF A STRUCTURE. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR DRIVE EQUIPMENT OVER ANY PART OF A CONCRETE STRUCTURE OR PIPE UNLESS THERE IS A COMPACTED FILL OF TWENTY-FOUR INCHES OR GREATER OVER THE STRUCTURE OR PIPE.
- IV. **CORRUGATED METAL PIPE CONDUIT:**
A. **MATERIALS:** (STEEL PIPE) - THIS PIPE AND ITS APPURTENANCES SHALL BE GALVANIZED AND FULLY BITUMINOUS COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-190 TYPE 'A' WITH WATERTIGHT COUPLING BANDS. ANY BITUMINOUS COATING DAMAGED OR OTHERWISE REMOVED SHALL BE REPLACED WITH COLD APPLIED BITUMINOUS COATING COMPOUND.
B. **CONNECTIONS:** ALL CONNECTIONS WITH PIPES MUST BE COMPLETELY WATERTIGHT. THE DRAIN PIPE, PADCEL AND BASEPLATE TO THE RISER SHALL BE WELDED ALL AROUND. WATERTIGHT COUPLING BANDS SHALL BE USED AT ALL JOINTS, AND SHALL BE 12" STANDARD TYPE WITH 3/8"x7" NEOPRENE GASKET OR 12" ROD AND LUG TYPE WITH 3/8"x7" NEOPRENE GASKET. DIMPLED BANDS SHALL NOT BE USED. ANTI-SEEP COLLARS SHALL BE CONNECTED TO THE PIPE IN SUCH A MANNER AS TO BE COMPLETELY WATERTIGHT.
C. **BEDDING:** THE PIPE SHALL BE FIRMLY AND UNIFORMLY BEDDED THROUGHOUT ITS ENTIRE LENGTH. WHERE ROCK OR SOFT, SPONGY OR OTHER UNSTABLE SOIL IS ENCOUNTERED, ALL SUCH MATERIAL SHALL BE REMOVED AND REPLACED WITH SUITABLE EARTH COMPACTED TO PROVIDE ADEQUATE SUPPORT.
D. **LAYING PIPE:** THE PIPE SHALL BE PLACED WITH INSIDE CIRCUMFERENTIAL LAPS POINTING DOWNSTREAM AND WITH THE LONGITUDINAL LAPS AT THE SIDES.
E. **BACKFILLING** SHALL CONFORM TO STRUCTURAL BACKFILL AS SHOWN ABOVE.
F. **OTHER DETAILS** (ANTI-SEEP COLLARS, VALVES, ETC.) SHALL BE AS SHOWN ON THE DRAWINGS.
- V. **STABILIZATION:**
ALL DISTURBED AREAS SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE AND LEFT IN A SLIGHTLY CONDITION. ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, SPOIL AND BORROW AREAS, AND BERMS SHALL BE STABILIZED BY:
A. SPREADING 4" OF TOPSOIL.
B. WORKING IN 2-TONS OF GROUND LIME AND 1,000 LBS. OF 10-10-10 FERTILIZER PER ACRE.
C. SEEDING WITH 80 LBS. PER ACRE OF KENTUCKY 31 TALL FESCUE.
D. MULCHING WITH 1 AND 1/2 TONS STRAW PER ACRE.
- VI. **CONCRETE:**
CONCRETE SHALL HAVE A MINIMUM OF 6 BAGS OF CEMENT PER CUBIC YARD AND WATER CONTENT NOT TO EXCEED 6 GALLONS PER BAG OF CEMENT. SLUMP SHALL RANGE 3"-4". ALL CONCRETE SHALL BE TRANSIT MIX AND INTERNALLY VIBRATED DURING PLACEMENT.



BY THE DEVELOPER:
"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS OF DEVELOPMENT, POND CONSTRUCTION AND EROSION AND SEDIMENT CONTROL. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY. DEVIATION FROM THIS PLAN WILL NOT BE MADE UNLESS AUTHORIZED BY THE HOWARD SOIL CONSERVATION DISTRICT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE POND WITHIN 30 DAYS OF COMPLETION."
Joseph H. Nantz 8-29-80
Signature of Developer Date

BY THE ENGINEER:
"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION, AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH A RED-LINED "AS-BUILT" OF THE POND WITHIN 30 DAYS OF COMPLETION."
Richard Rensin 8/3/1980
Signature of Engineer Date

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
James M. Hahn 1-28-81
U.S. Soil Conservation Service Date

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
Richard Rensin 1-28-81
APPROVED: Howard S.C.D. Date

PLAN NUMBER: _____

Date	No	Revision Description

VILLAGE OF KING'S CONTRIVANCE
Section 2, Area 3
6th Election District of Howard County, Maryland
OWNER AND DEVELOPER
THE HOWARD RESEARCH AND DEVELOPMENT CORP.
THE ROUSE COMPANY
Columbia, Maryland

CENTURY ENGINEERING, INC.
CONSULTING ENGINEERS - PLANNERS
TOWSON, MARYLAND 21204

AREA TAX MAP 41 AND 42
PARCELS 13, 54 PART OF 5, 358, 17
TITLE STORM WATER MANAGEMENT CONTROL STRUCTURE #3
PLAN VIEW

Des By J.K.	Scale	Proj No 0579
Drn By J.H.G.	Date	Drawing No. 40 OF 41
Chk By R.L.U.	Approved	

DATE	NO	DESCRIPTION
8/3/1980	1	REVISED TO REPLACE BY ROAD W/ 6" RCP AND 48" DIA. RISE AND ADD REFERENCE NOTE

DEPARTMENT OF PUBLIC WORKS
William B. Riley 2/22/81
CHIEF, BUREAU OF ENGINEERING DATE
OFFICE OF PLANNING AND ZONING
Shirley M. Hahn 5/1/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



AS-BUILT SURVEY CERTIFIED BY JOHN HEINRICH, MD. REG. P.E. NO. ON 10-18-86

HYDROLOGIC CRITERIA:
PRINCIPAL SPILLWAY ROUTING: 100 YR. FREQ. FREEBOARD: 2' ABOVE 50 YR. FREQ.

STRUCTURE CLASSIFICATION AND DESIGN CRITERIA:
STRUCTURE CLASS: 1st
STORAGE X HEIGHT PRODUCT: 422.3
WATERSHED AREA: 59 Ac.
NORMAL POND SURFACE AREA: NORMALLY DRY
STRUCTURE LOCATION: URBAN

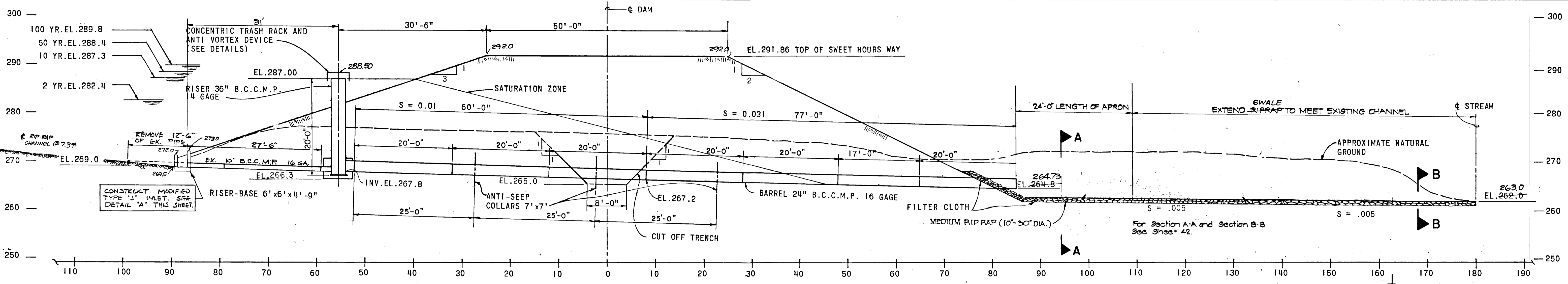
ESTIMATED QUANTITIES:

ITEM:	QUANTITY:	UNIT:
CLEAR, GRUB, STRIP TOPSOIL	1.7	ACRES
EARTH FILL	21,245	CU. YDS.
CUTOFF TRENCH	1,029	CU. YDS.
RISER, 36" DIAMETER B.C.C.M.P., 14 GA.	19.2	L.F.
BARREL, 24" DIAMETER B.C.C.M.P., 16 GA.	137	L.F.
DRAIN, 10" DIAMETER B.C.C.M.P., 16 GA.	40	L.F.
CONCENTRIC TRASH PACK	1	EACH
CONNECTING BANDS AND GASKETS	9	EACH
ANTI SEEP COLLARS, B.C.C.M.P. 7'x7' (BARREL)	3	EACH
RIPRAP MEDIUM (10'-30" DIA.)	38.3	TONS.
STONE (S.H.A. #2)	24.0	TONS.
CONCRETE (BASE ONLY)	5.0	CU. YDS.
LIME, FERTILIZER, SEED AND MULCH	1.7	ACRES
SILT FENCE	275	L.F.
DUCTILE IRON PIPE, 8" DIA.	365	L.F.
MANHOLE, HOWARD COUNTY STANDARD SANITARY SEWER 4'-0" PRECAST MANHOLE	1	EACH
ANTI SEEP COLLARS, CONCRETE 4'x4'x8'	2	EACH
FILTERCLOTH, PLASTIC	450	SO. FT.

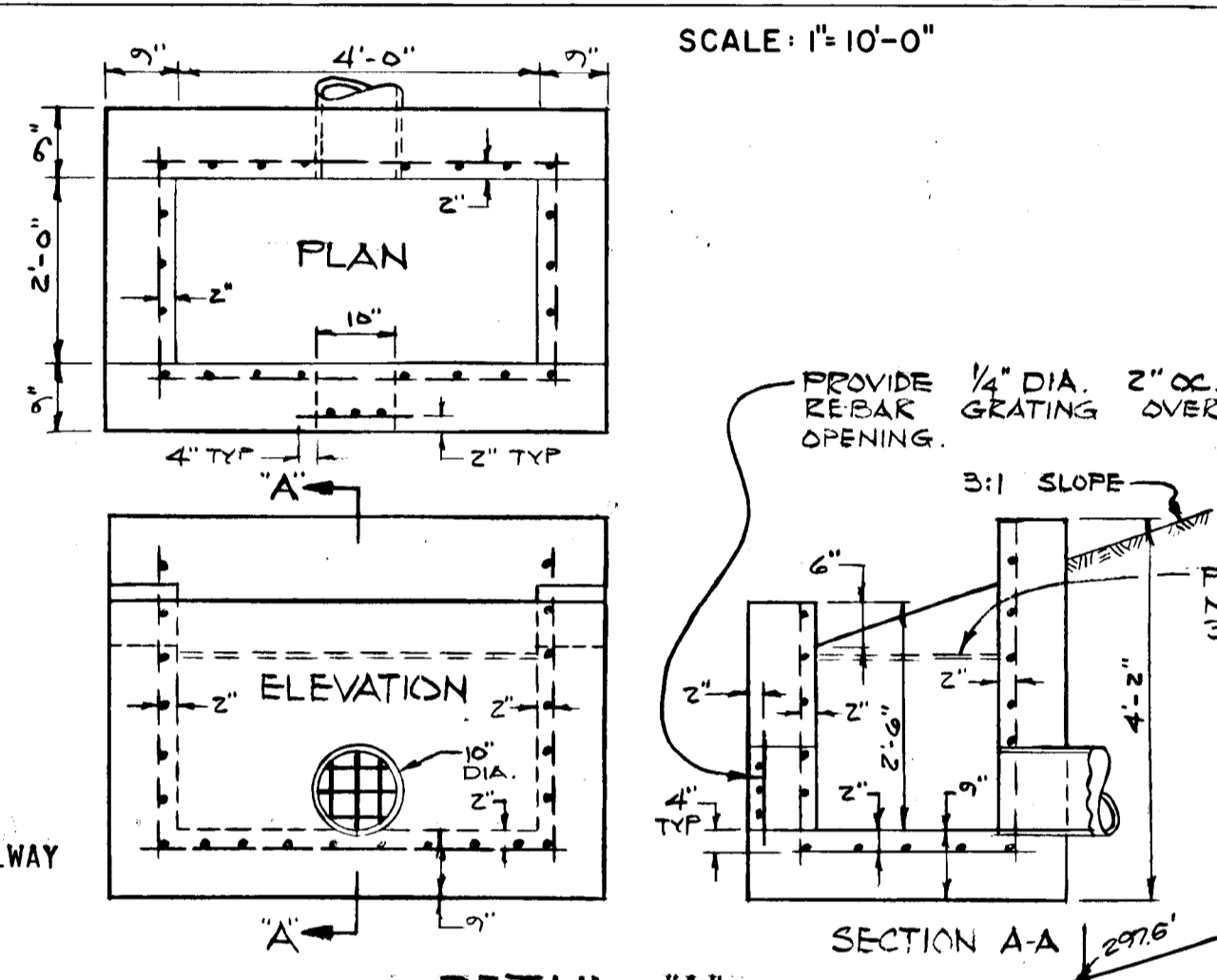
TOPOGRAPHY TAKEN FROM:
MAPS PREPARED BY PHOTOGRAMMETRY BY "MAPS INCORPORATED" FOR THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION, ON MARCH 9, 1977.
TOPOGRAPHY FIELD CHECKED DECEMBER 1973.

#445

F-80-96C AS-BUILT 10-18-86



CROSS SECTION OF DAM ALONG \bar{C} OF PIPE SPILLWAY, STATION 2+90 (ROAD STATION 16+10)



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

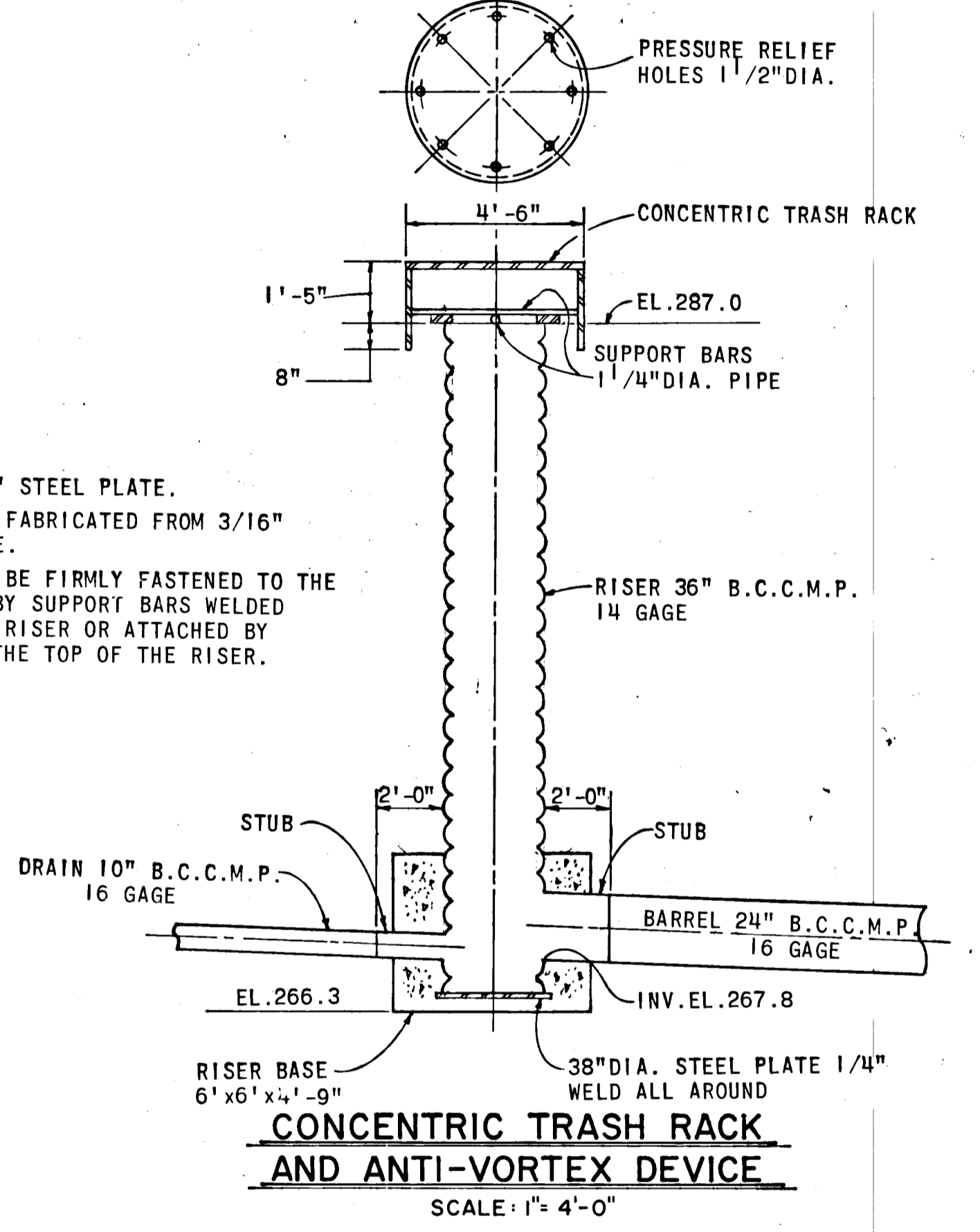
John Madala 4-16-81
U.S. SOIL CONSERVATION SERVICE DATE

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

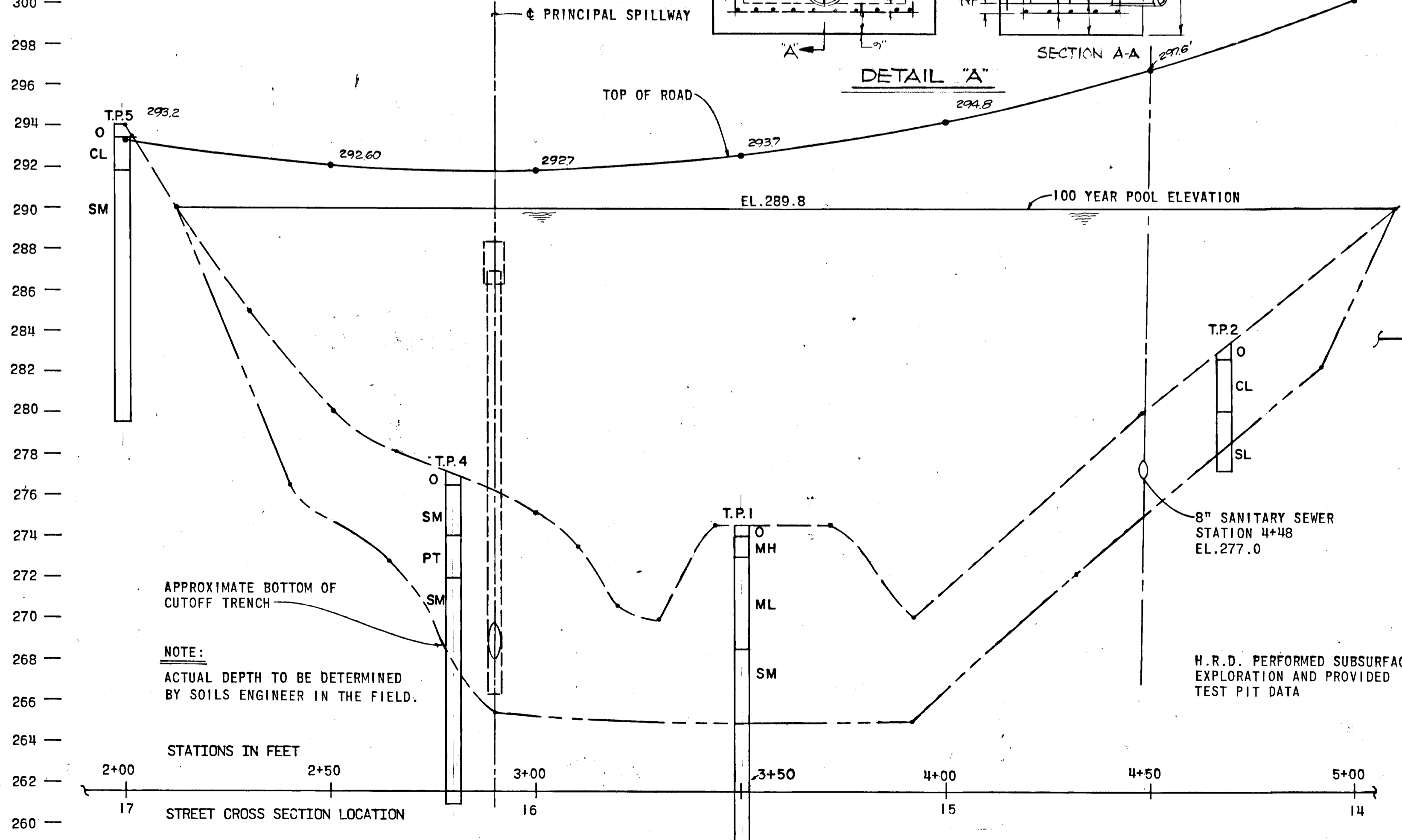
APPROVED: *Robert J. Zehn* 4/16/81
Howard S.C.D. DATE

PLAN NUMBER: _____

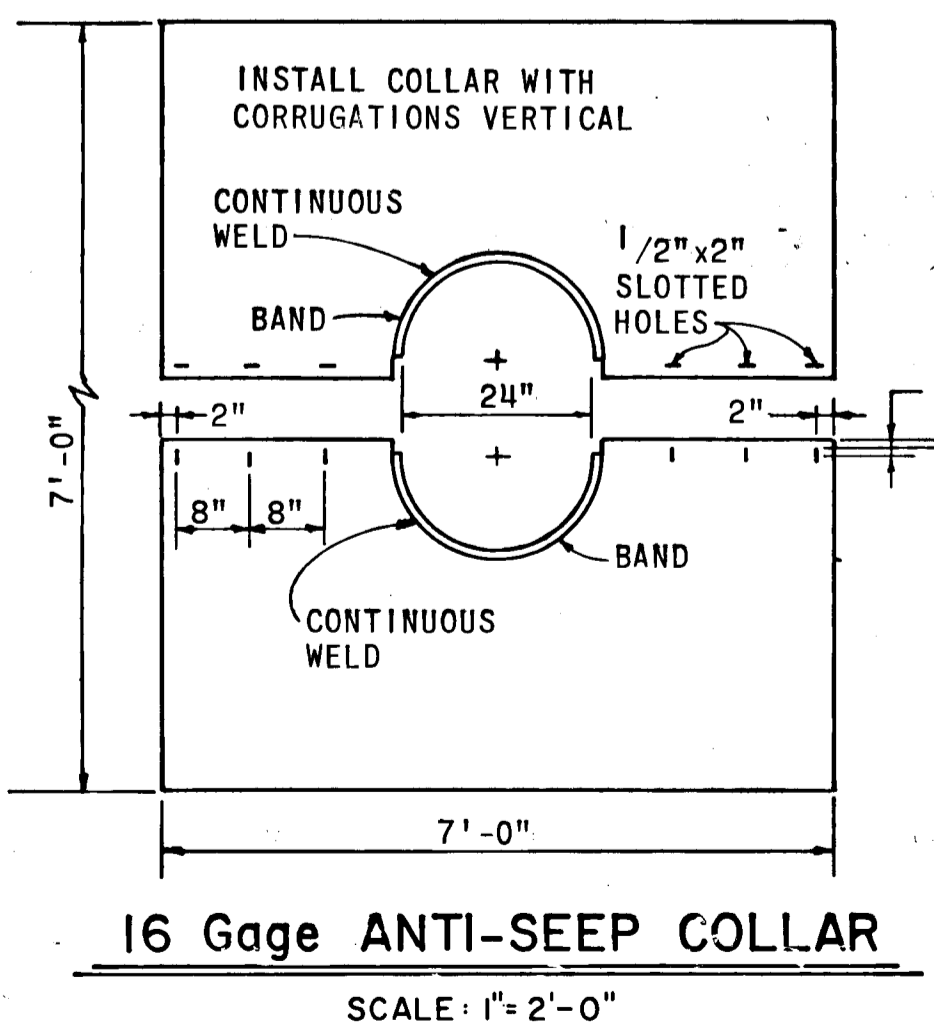
- NOTES:
1. TOP IS TO BE 3/16" STEEL PLATE.
 2. CYLINDER IS TO BE FABRICATED FROM 3/16" ROLLED STEEL PLATE.
 3. THE CYLINDER MUST BE FIRMLY FASTENED TO THE TOP OF THE RISER BY SUPPORT BARS WELDED TO THE TOP OF THE RISER OR ATTACHED BY STRAPS BOLTED TO THE TOP OF THE RISER.



CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE



PROFILE ALONG \bar{C} OF DAM



16 Gage ANTI-SEEP COLLAR

AS-BUILT SURVEY CERTIFIED BY JOHN R. HEINRICH, MD. REG. P.E. No. 011018-86

DEPARTMENT OF PUBLIC WORKS

Richard S. Reilly 4/21/81
CHIEF, BUREAU OF ENGINEERING DATE

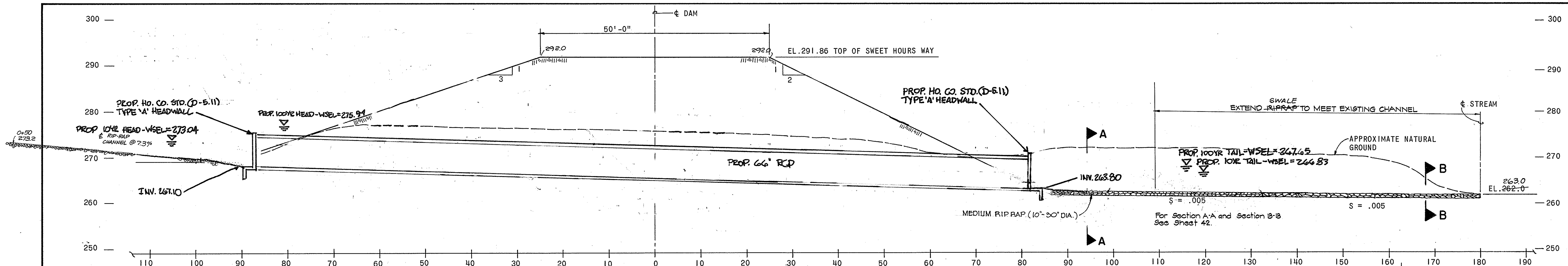
OFFICE OF PLANNING AND ZONING

Richard S. Reilly 5-11-81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

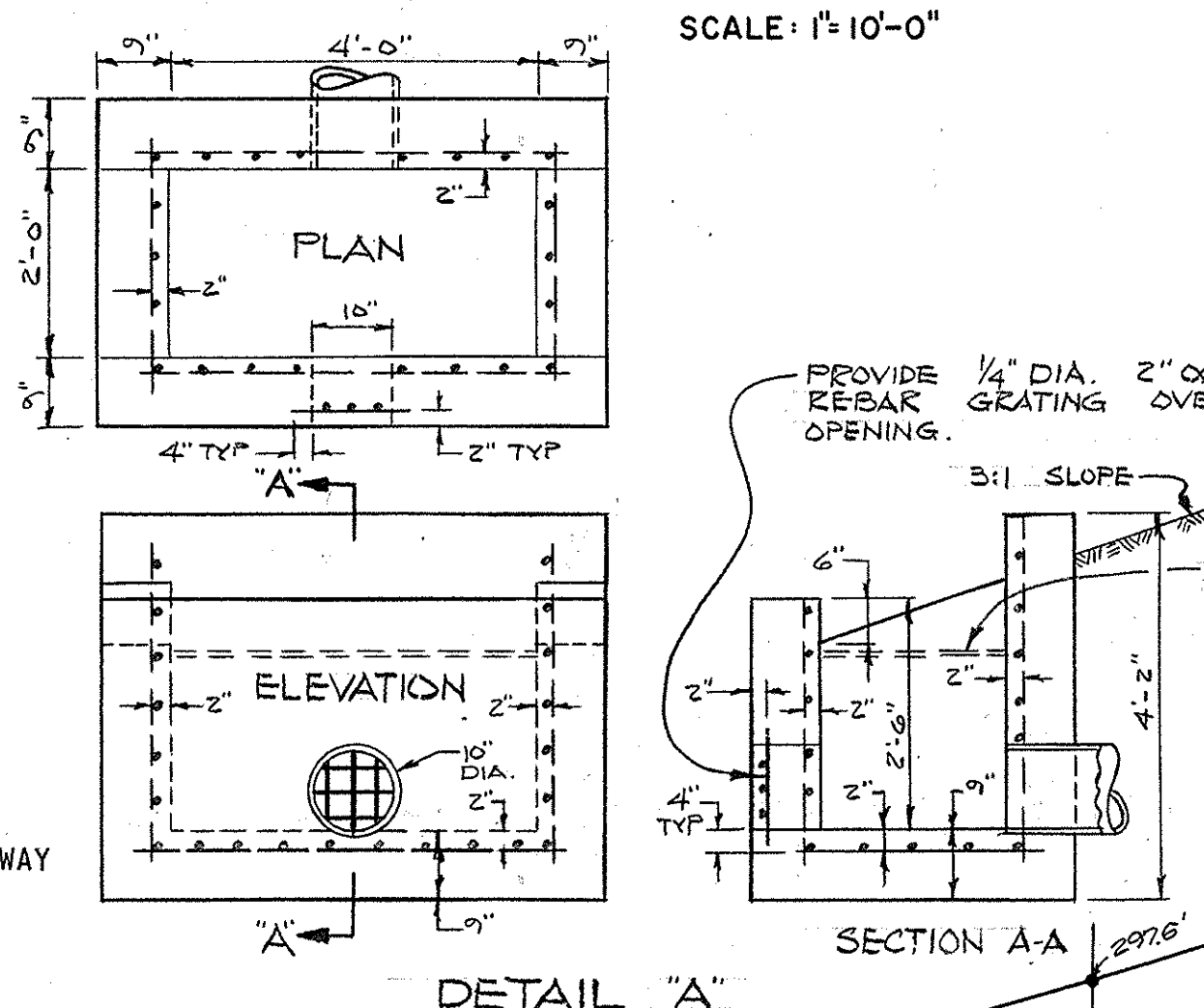
8/3/1980 Date

Richard S. Reilly
Professional Engr. No. 2518

Date	No	Revision Description
		VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3 6th Election District of Howard County, Maryland
		OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland
		CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204
		AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17
		TITLE STORM WATER MANAGEMENT CONTROL STRUCTURE #3 PROFILE AND CROSS SECTIONS
Des By J.K.	Scale	Proj No
Drn By J.H.G.	Date	Drawing No. 41 OF 42
Chk By R.L.U.	Approved	



CROSS SECTION OF DAM ALONG ϕ OF PIPE SPILLWAY, STATION 2+90 (ROAD STATION 16+10)



SCALE: 1" = 10'-0"

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

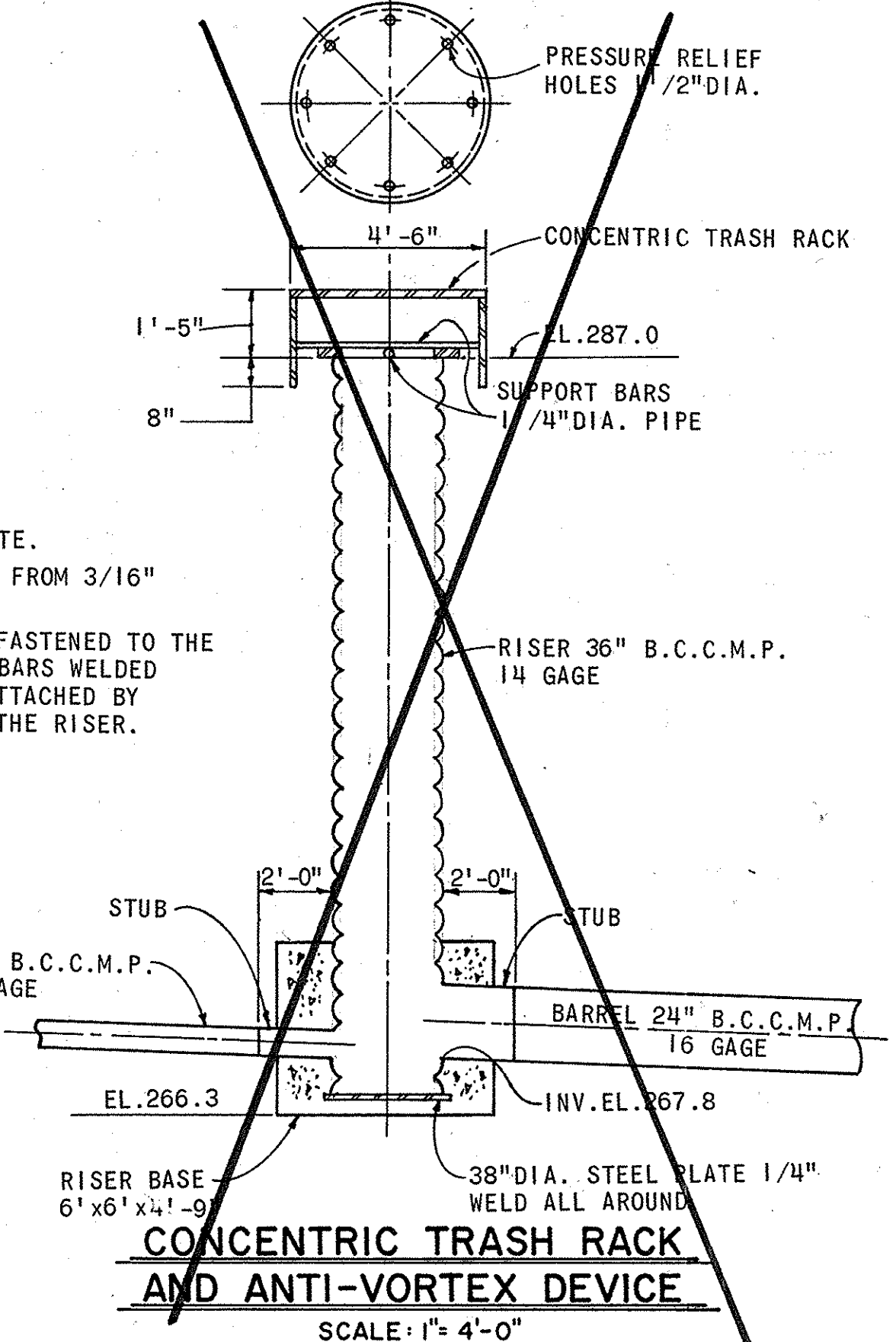
James M. Decker 4-16-81
U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED: *Robert J. Zehn* 4/16/81
Howard S.C.D. DATE

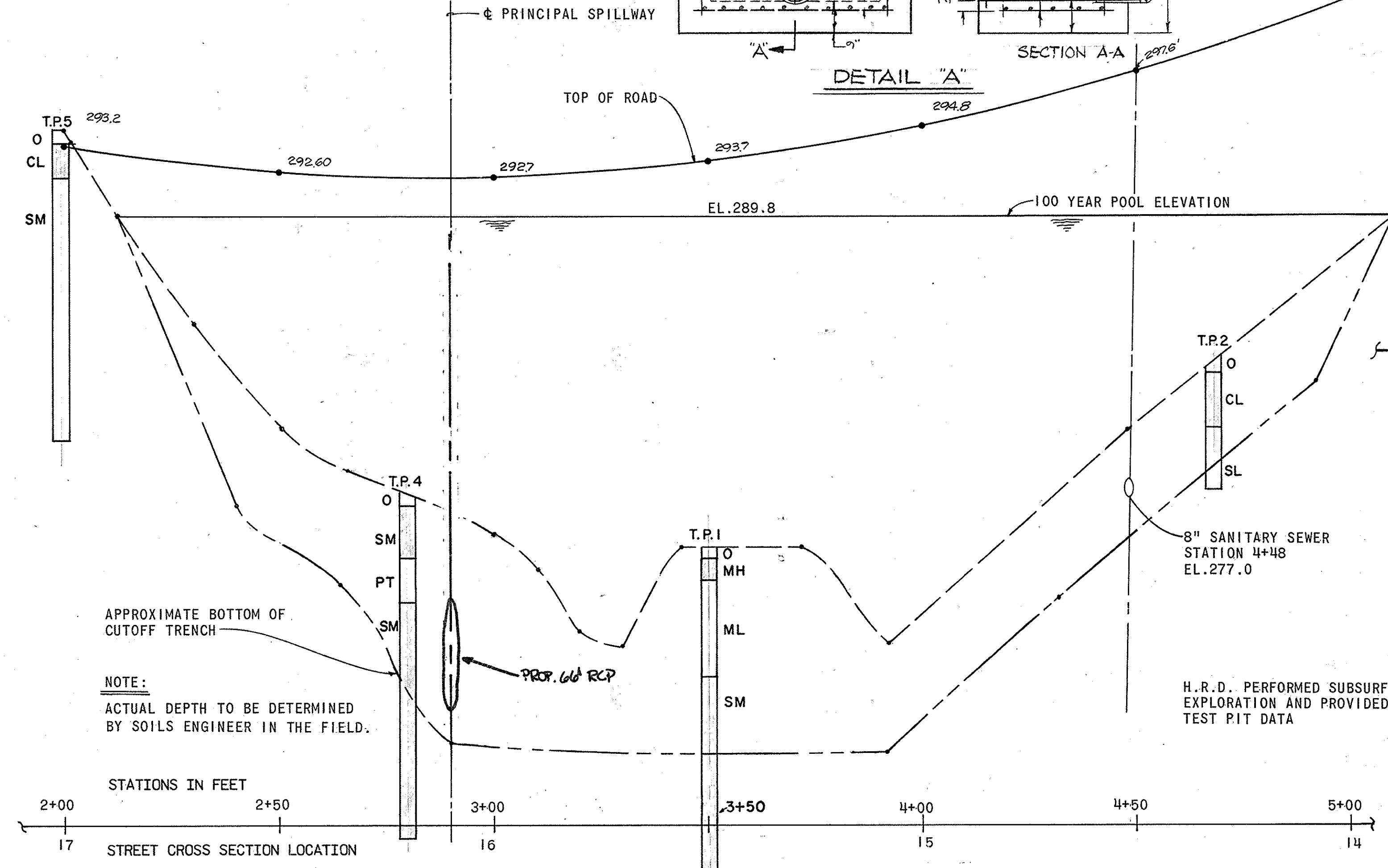
PLAN NUMBER:

- NOTES:
1. TOP IS TO BE 3/16" STEEL PLATE.
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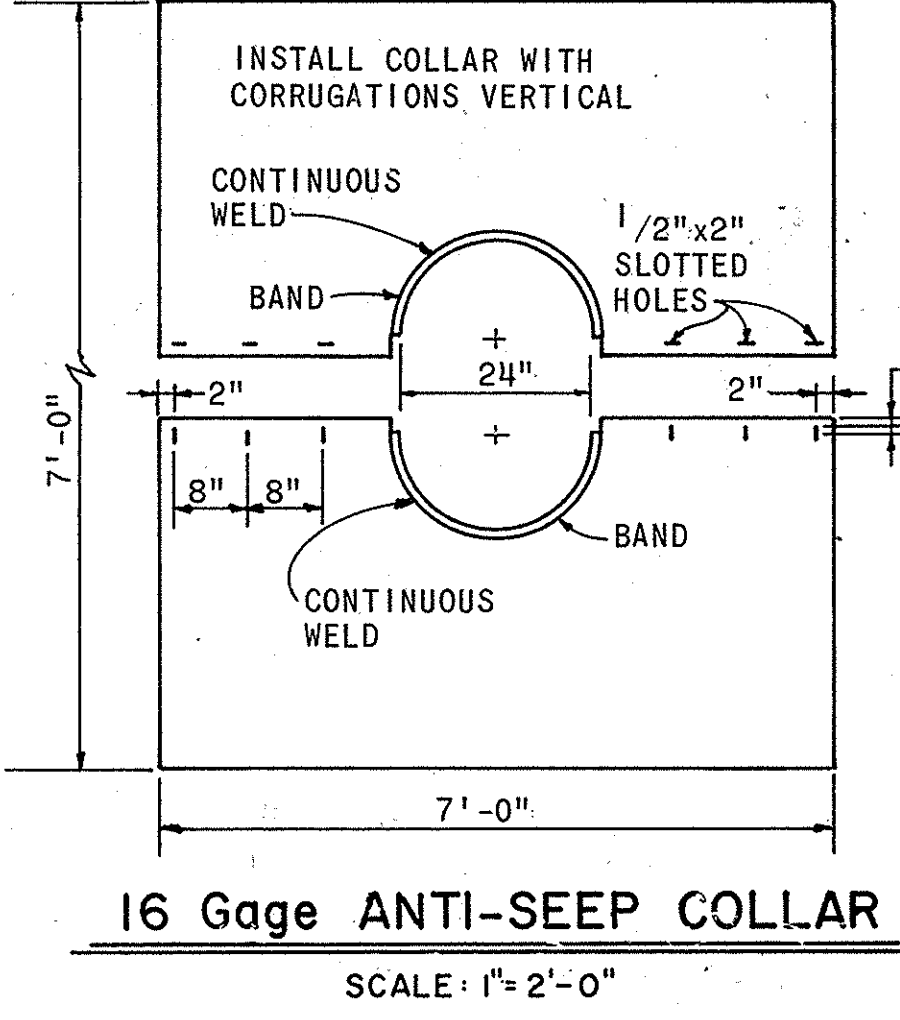


CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE
SCALE: 1" = 4'-0"

NOTE: 3/23/2016 - CAPITAL PROJECT D-1159 REVISED THE CONTROL STRUCTURE AND SPILLWAY UNDER SWEET HOURS WAY AT APPROXIMATELY STATION 2+90 TO REMOVE THE STRUCTURE AND REPLACE WITH A STANDARD 66" RCP CONDUIT AND ASSOCIATED STANDARD HEADWALLS. ADDITIONAL GRADING TO RETURN THE STREAM TO A NATURAL STATE IS ALSO PROVIDED.



PROFILE ALONG ϕ OF DAM
SCALE: VERT. 1" = 4'-0"
HORIZ. 1" = 20'-0"



16 Gage ANTI-SEEP COLLAR
SCALE: 1" = 2'-0"

AS-BUILT SURVEY CERTIFIED BY JOHN R. HEINRICH, MD. REG. P.E. No. 1018-86 ON 10-18-86

DEPARTMENT OF PUBLIC WORKS

John R. Heinrich 4/24/81
CHIEF, BUREAU OF ENGINEERING DATE

Robert J. Zehn 5/1/81
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

8/3/1980
Date

Richard Reiner
Professional Engr. No. 2518

Date	No	Revision Description
	1	REV. TO REPLACE 24" W/ 66" RCP, REMOVE 100YR, AND 100YR
VILLAGE OF KING'S CONTRIVANCE Section 2, Area 3 6th Election District of Howard County, Maryland		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORP. THE ROUSE COMPANY Columbia, Maryland		
CENTURY ENGINEERING, INC. CONSULTING ENGINEERS - PLANNERS TOWSON, MARYLAND 21204		
AREA TAX MAP 41 AND 42 PARCELS 13, 54 PART OF 5, 358, 17		
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Des By J.K.	Scale	Proj No
Drn By J.H.G.	Date	Drawing No.
Chk By R.L.U.	Approved	41 OF 42

F-80-96
AS-BUILT 10-18-86

BRUNING 44-132 28566

#445