

REVISIONS	
1.	TITLE SHEET, JULY 20, 1967
2.	TITLE SHEET, OCT. 14, 1967

SHEET INDEX	
SHEET NO.	DESCRIPTION
1.	HESPERUS DRIVE
2.	HESPERUS DRIVE
3.	HESPERUS DRIVE & FUTURE ROADWAY
4.	OPEN WINDOW & PAUL REVERE RIDE
5.	WINDMILL LANE
6.	PHANTOM CT. & CASTLE MOOR DRIVE
7.	RONDEL PLACE & OLAF COURT
8-19	CROSS SECTIONS
20-21	CONSTRUCTION DETAILS

COLUMBIA

HOWARD COUNTY, MARYLAND

CONSTRUCTION PLANS

VILLAGE OF HARPER'S CHOICE SECTION N^o 1

LONGFELLOW AREA N^o 3

ELECTION DISTRICT 5

JUNE 29, 1967

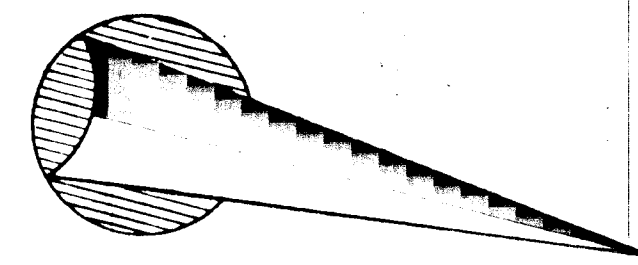
OWNER & DEVELOPER

HOWARD RESEARCH & DEVELOPMENT CORP.

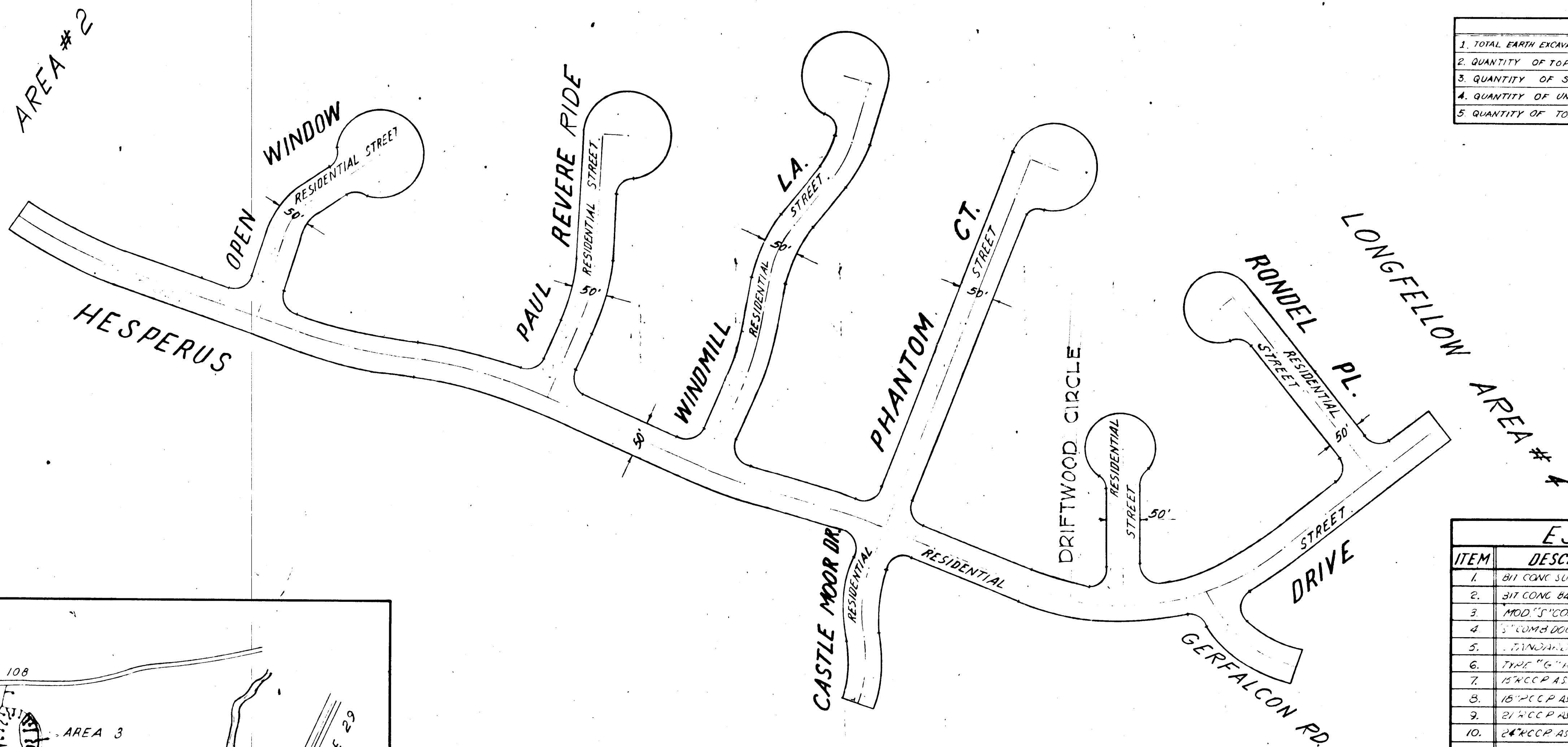
THE VILLAGE OF CROSS KEYS
BALTIMORE, MARYLAND

NOTES:

- HESPERUS DRIVE IS DESIGNED FOR 30 M.P.H. TRAFFIC SPEED. ALL OTHER ROADS WERE DESIGNED FOR 20 M.P.H. TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS STANDARDS.
- ALL DETAILS ARE FROM ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS ISSUED OR APPROVED BY COUNTY COMMISSIONERS OF THE HOWARD COUNTY ROAD DEPT.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE SPECIFICATION FOR SOFT SANDS REGARDING THE BACKFILLING OF TRENCHES BENEATH PAVEMENT, CURBS, SIDEWALK OR OTHER UTILITY LINES.
- ALL DIMENSIONS & CURVE DATA FOR THE CURB LINES ARE TO THE BACK OF THE CURB.
- T.C. IS THE ABBREVIATION FOR TOP OF CURB.

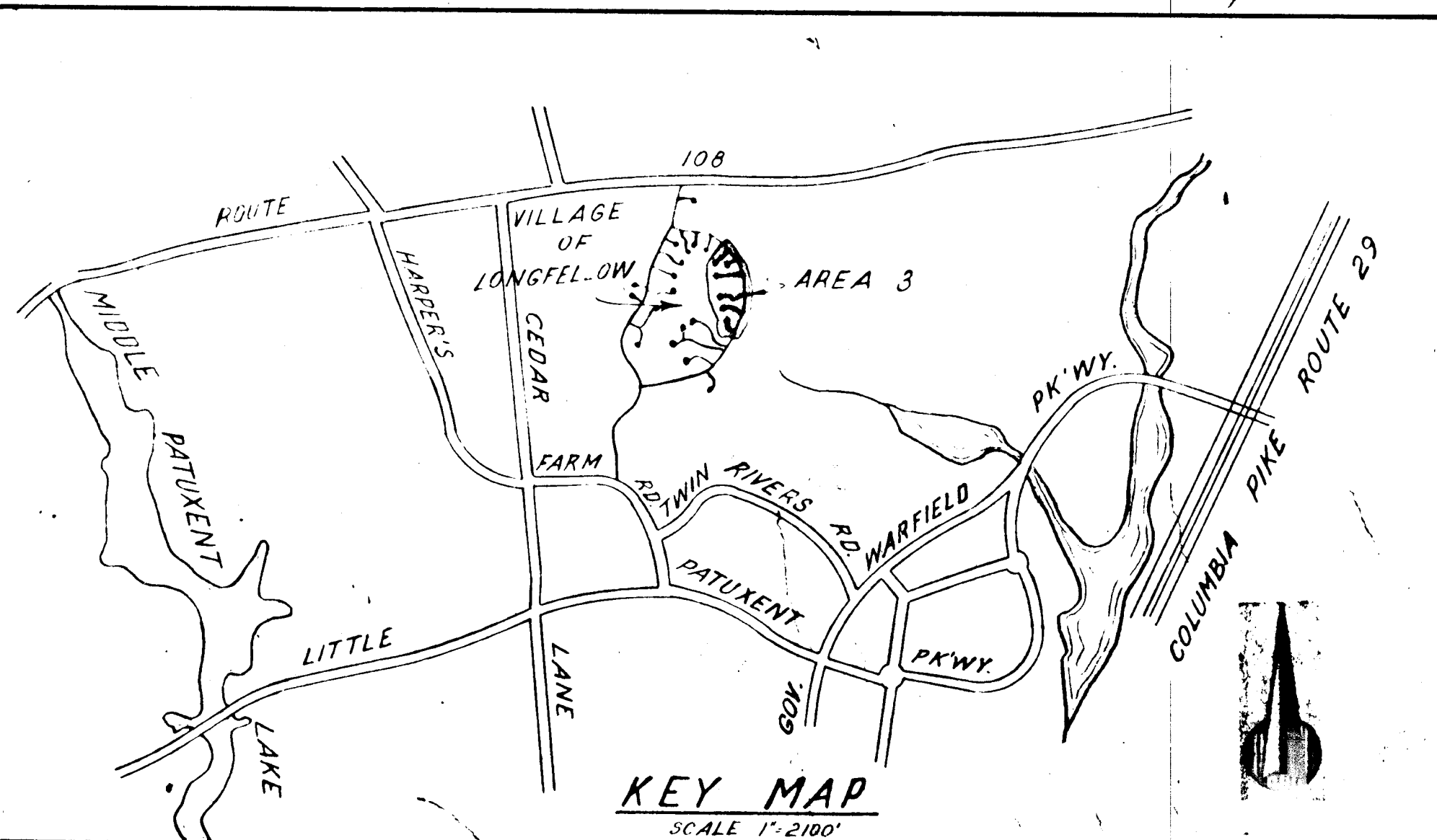


LONGFELLOW AREA # 2
HESPERUS



SUMMARY OF EARTHWORK	
1. TOTAL EARTH EXCAVATION - ROADWAY AND ADJACENT SLOPE AREAS, (EXCL. ITEM 2)	6,600 C.Y.
2. QUANTITY OF TOP 3" L TO BE STRIPPED AND STORED	7,700 C.Y.
3. QUANTITY OF SELECT BORROW (IF REQUIRED)	7,200 C.Y.
4. QUANTITY OF UNSUITABLE MATERIAL TO BE REMOVED AND DISPOSED OF	100 C.Y.
5. QUANTITY OF TOP SOIL TO BE PLACED - 4" DEEP	2,140 C.Y.

ESTIMATE OF QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
1.	8 1/2" CONC SURFACE COURSE 1 1/2" TH	S.Y.	19,890
2.	3 1/2" CONC BASE COURSE 5" TH	S.Y.	19,890
3.	MOD. 3" COMB. SINGLE GRATE INLET	EA.	16
4.	3" COMB. DOUBLE GRATE INLET	EA.	4
5.	2" VINDOLO MANHOLE	EA.	7
6.	TYPE "G" HEADWALL	EA.	2
7.	15" RCCP ASTM C76-64T CL IV	L.F.	680
8.	15" RCCP ASTM C76-64T CL IV	L.F.	867
9.	21" RCCP ASTM C76-64T CL IV	L.F.	332
10.	24" RCCP ASTM C76-64T CL IV	L.F.	1587
11.	30" RCCP ASTM C76-64T CL IV	L.F.	165
12.	CONC. MOUNTAINABLE CURB	L.F.	10,450
13.	CONC. VERTICAL CURB	L.F.	810
14.	EARTH EXCAVATION - ROADWAY	C.Y.	14,300
15.	EARTH CANAL DRAIN DITCHES	L.F.	170
16.	PLACING OF TOP SOIL 4" DEEP	S.Y.	19,236
17.	CONC. SIDEWALK - 4" THICK	S.F.	23,612
18.	CONC. SIDEWALK - 6" THICK	S.F.	3,000



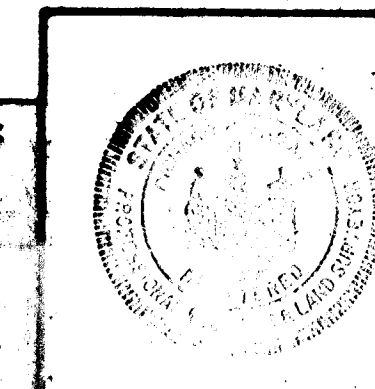
APPROVED HOWARD COUNTY PLANNING COMM.

 SENIOR ENGINEER 11-13-67
 DATE
 APPROVED HOWARD COUNTY ROADS DEPARTMENT

 ROADS SUPERINTENDENT 11-9-67
 DATE
 APPROVED HOWARD COUNTY METROPOLITAN COMM.

 CHIEF ENGINEER 11-9-67
 DATE

BROWNE-PANDOLLO & ASSOCIATES
 ENGINEERS
 400 W. BALTIMORE ST.
 BALTIMORE, MARYLAND
 PHONE NO. 5236 STATE MD.



CURB RETURN DATA

LOCATION	CURB RADIUS	P.C. STATION	P.T. STATION	T.C. ELEVATION		
				P.C.	MID PT.	P.T.
S.W. CORNER OF HESPERUS DRIVE & OPEN WINDOW	35.50'	HESPERUS DR. 27+72.00	OPEN WINDOW 0+50.00	373.39	374.80	375.77
N.W. CORNER OF HESPERUS DRIVE & OPEN WINDOW	35.50'	HESPERUS DR. 28+73.47	OPEN WINDOW 0+50.62	377.90	376.20	375.77
S.W. CORNER OF HESPERUS DRIVE & PAUL REVERE RIDE	35.50'	HESPERUS DR. 32+10.67	PAUL REVERE RIDE 0+47.03	400.00	401.50	401.93
N.W. CORNER OF HESPERUS DRIVE & PAUL REVERE RIDE	35.50'	HESPERUS DR. 33+06.57	PAUL REVERE RIDE 0+50.69	406.30	404.00	401.93

PLAN
SCALE: 1"=50'

STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	C. ELEV.	REMARKS
I-13	MOD. 15" COMB. SINGLE GRATE	27168.5 - 14.5' LT.	369.45	359.41	373.27	DEPRESSED
I-14	MOD. 15" COMB. SINGLE GRATE	27168.5 - 14.5' LT.	369.16	359.12	373.27	DEPRESSED
M-4	STANDARD	32+70.0 - 10' LT.	399.34	399.24	404.16	
I-10	MOD. 15" COMB. SINGLE GRATE	32+70.0 - 14.5' RT.	400.27	400.27	404.36	DEPRESSED

APPROVED
PLANNING COMMISSION
DATE: NOV 13 1967

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

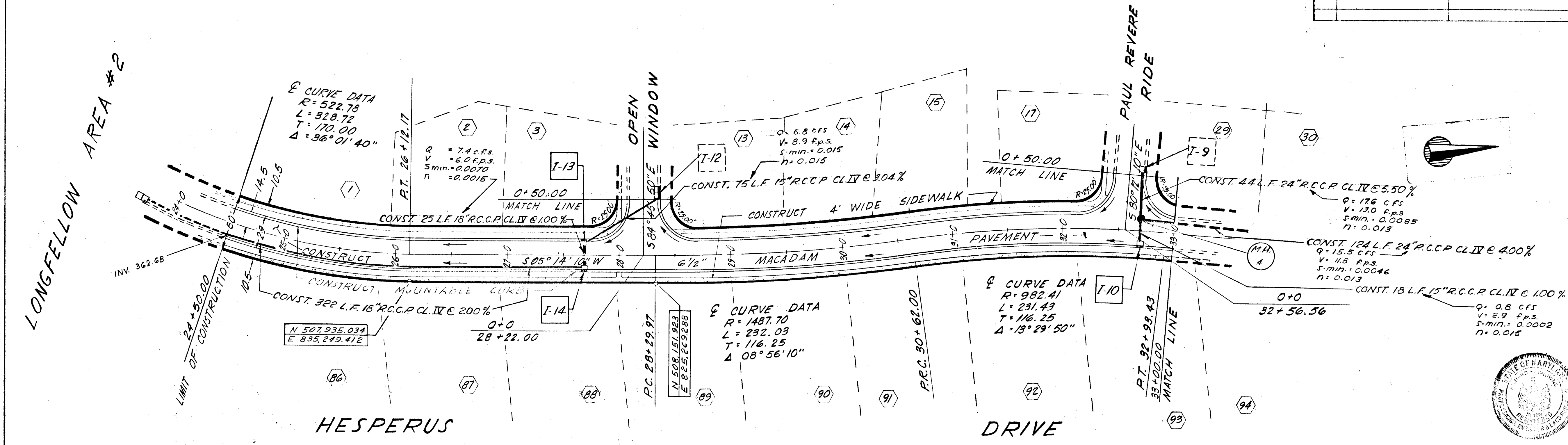
Rev. No.	Rev. Date	Revision Description
1	10/14/67	

COLUMBIA
MARYLAND
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SEC. No. 1
LONGFELLOW AREA No. 3

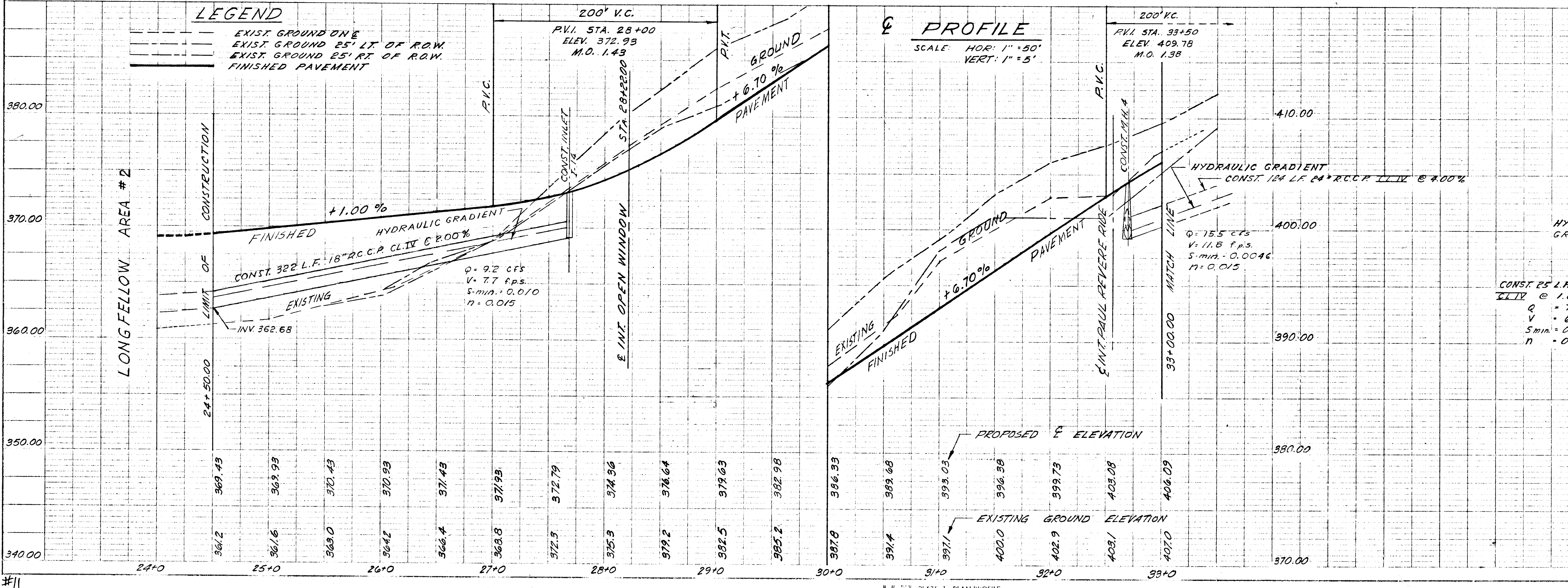
PROJECT TITLE
PLAN & PROFILE
HESPERUS DRIVE

Des. By: W.F. Date: AS SHOWN
Dwn By: J.V.M. Date: JUNE 29, 1967
Chk. By: W.F. Approved

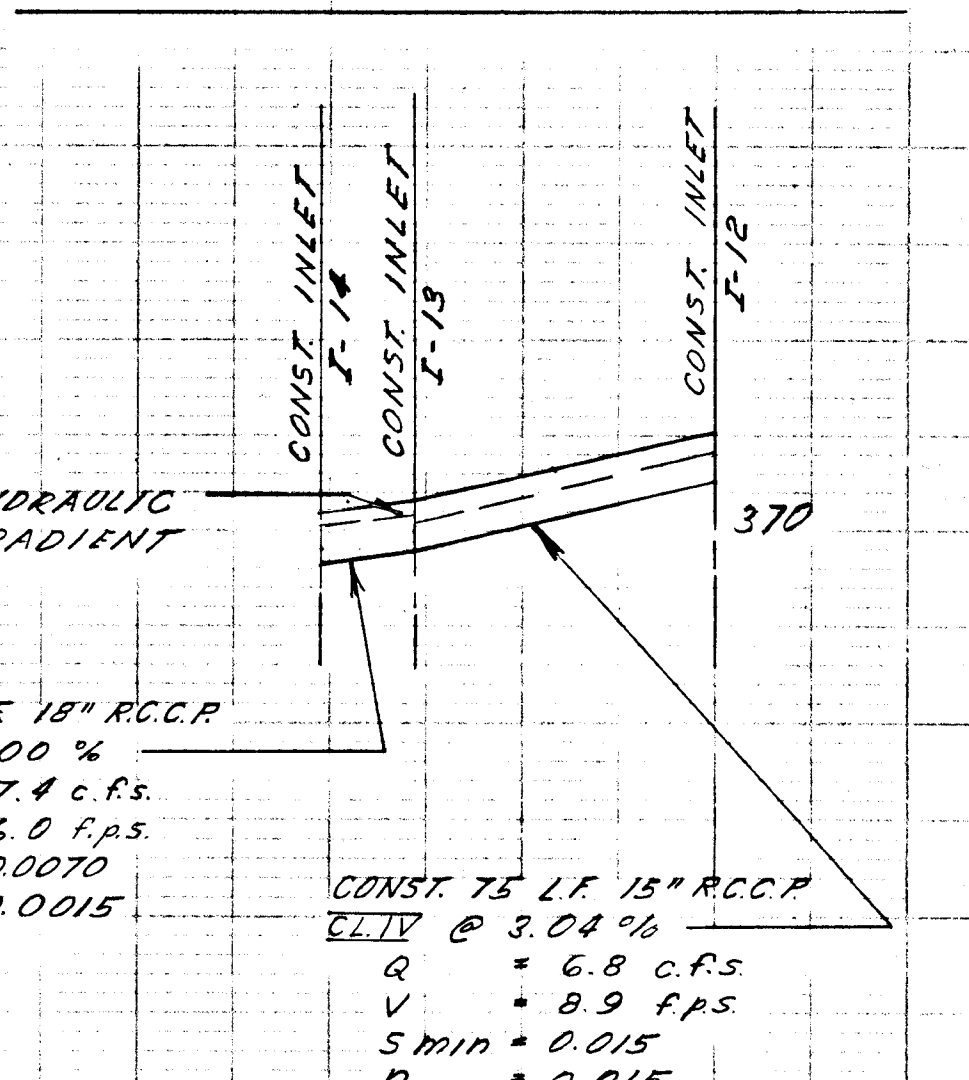


LEGEND

EXIST. GROUND ONE
EXIST. GROUND 25' LT. OF R.O.W.
EXIST. GROUND 25' RT. OF R.O.W.
FINISHED PAVEMENT



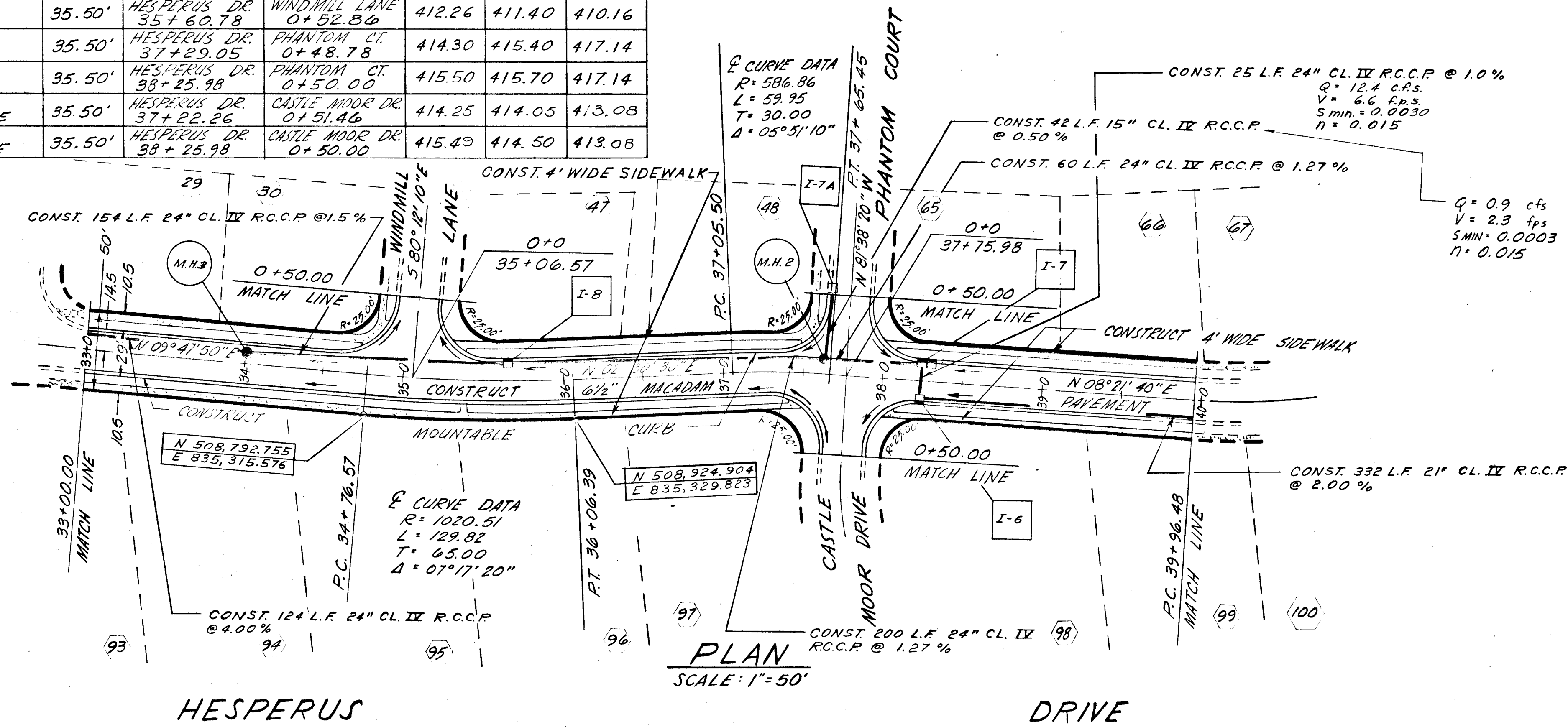
DRAINAGE SYSTEM I-12 - I-14



LOCATION	CURB RADIUS	RETURN DATA		T.C. ELEVATION		
		P.C. STATION	P.T. STATION	P.C.	MID-PT.	P.T.
S.W. CORNER OF HESPERUS DRIVE & WINDMILL LANE	35.50'	HESPERUS DR. 34+56.57	WINDMILL LANE 0+49.55	411.06	411.00	410.16
N.W. CORNER OF HESPERUS DRIVE & WINDMILL LANE	35.50'	HESPERUS DR. 35+60.78	WINDMILL LANE 0+52.86	412.26	411.40	410.16
S.W. CORNER OF HESPERUS DRIVE & PHANTOM COURT	35.50'	HESPERUS DR. 37+29.05	PHANTOM CT. 0+48.78	414.30	415.40	417.14
N.W. CORNER OF HESPERUS DRIVE & PHANTOM COURT	35.50'	HESPERUS DR. 38+25.98	PHANTOM CT. 0+50.00	415.50	415.70	417.14
S.E. CORNER OF HESPERUS DRIVE & CASTLE MOOR DRIVE	35.50'	HESPERUS DR. 37+22.26	CASTLE MOOR DR. 0+51.46	414.25	414.05	413.08
N.E. CORNER OF HESPERUS DRIVE & CASTLE MOOR DRIVE	35.50'	HESPERUS DR. 38+25.98	CASTLE MOOR DR. 0+50.00	415.43	414.50	413.08

STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OLD	T.C. ELEV.	REMARKS
I-6	MOD. 3" COMB. SINGLE GRATE	38+29.48	14.5' RT.	410.61	410.36	DEPRESSED
I-7	MOD. 3" COMB. SINGLE GRATE	38+29.48	14.5' LT.	410.01	409.97	DEPRESSED
I-8	MOD. 3" COMB. SINGLE GRATE	35+64.28	14.5' LT.	406.67	406.60	DEPRESSED
M.H.2	STANDARD	37+61.00	100' LT.	409.38	409.17	R 414.51
M.H.3	STANDARD	34+00.00	10.0' LT.	404.34	404.30	R 409.84

PLAN
 DATE
 BY
 CHECKED
 NO.



APPROVED
 PLANNING COMMISSION
 OF TOWNSHIP
 DATE NOV 13 1967

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

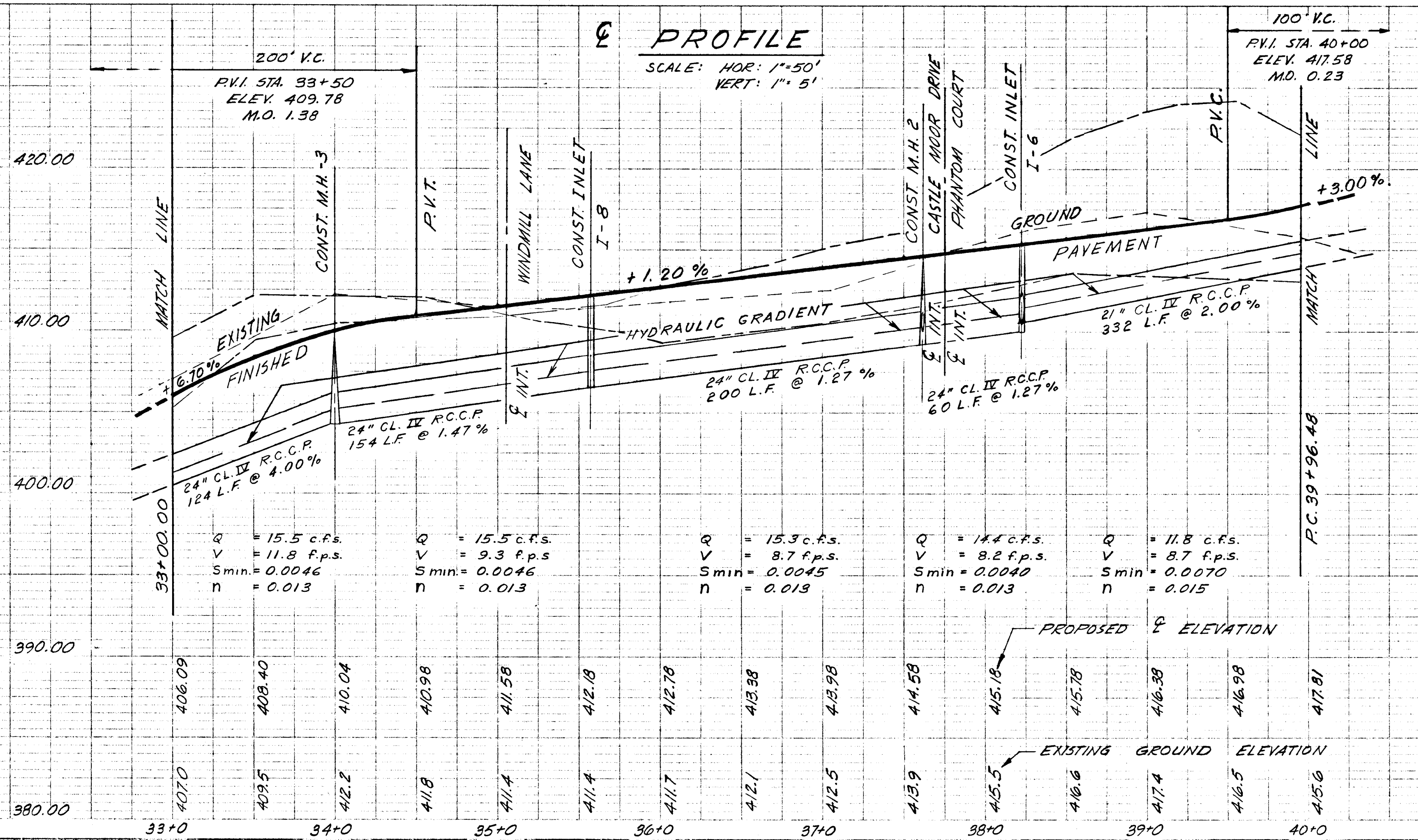
Rev Date	Rev No	Revision Description
10/11/67		

COLUMBIA MARYLAND
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. No. 1
 LONGFELLOW AREA No. 3

PROJECT TITLE
PLAN & PROFILE HESPERUS DRIVE
 Des. By: W.P. Scale: AS SHOWN Sqa. No. 2 OF 21
 Dir. By: J.V.M. Date: JUNE 29, 1967 C.T. No.
 Chk. By: W.P. Approved

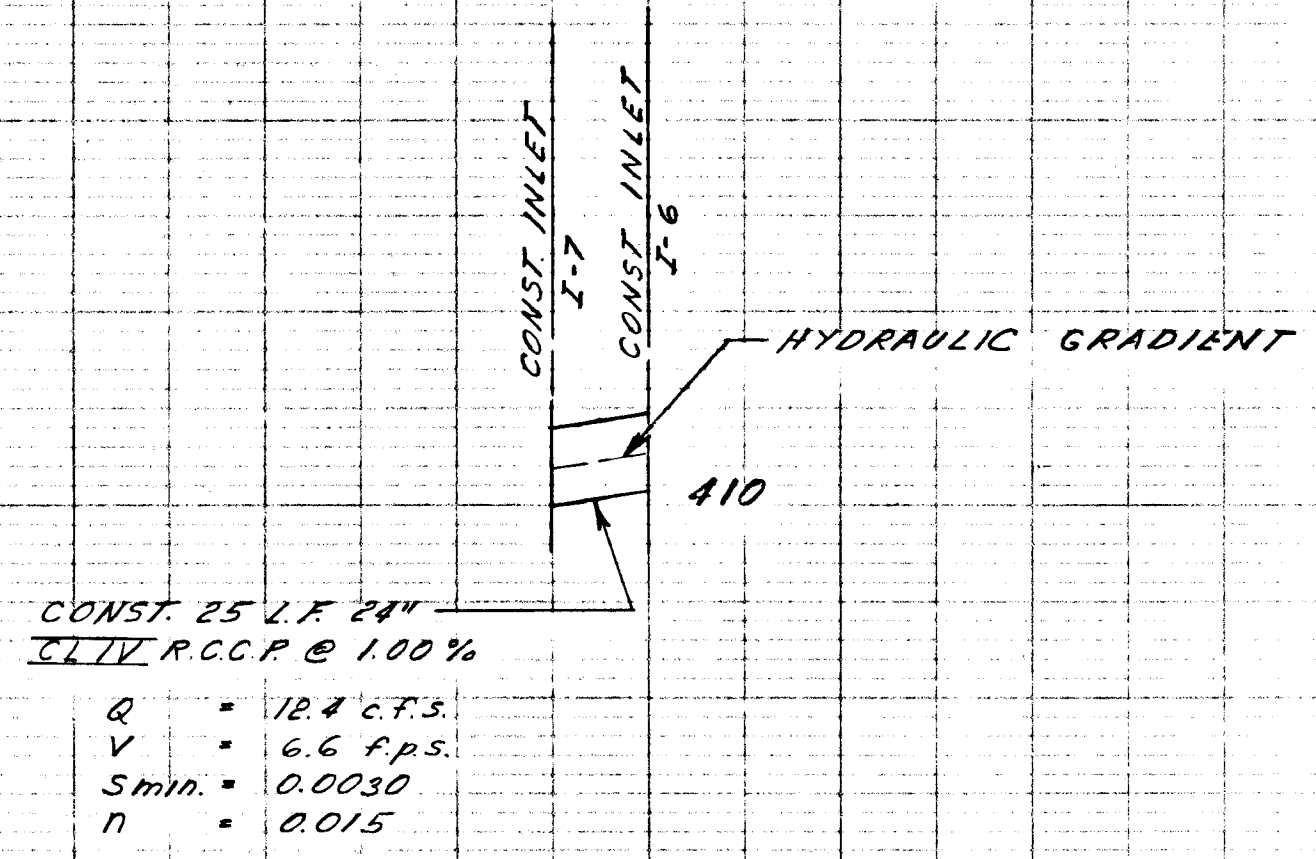
PROFILE
 DATE
 BY
 CHECKED
 NO.



LEGEND

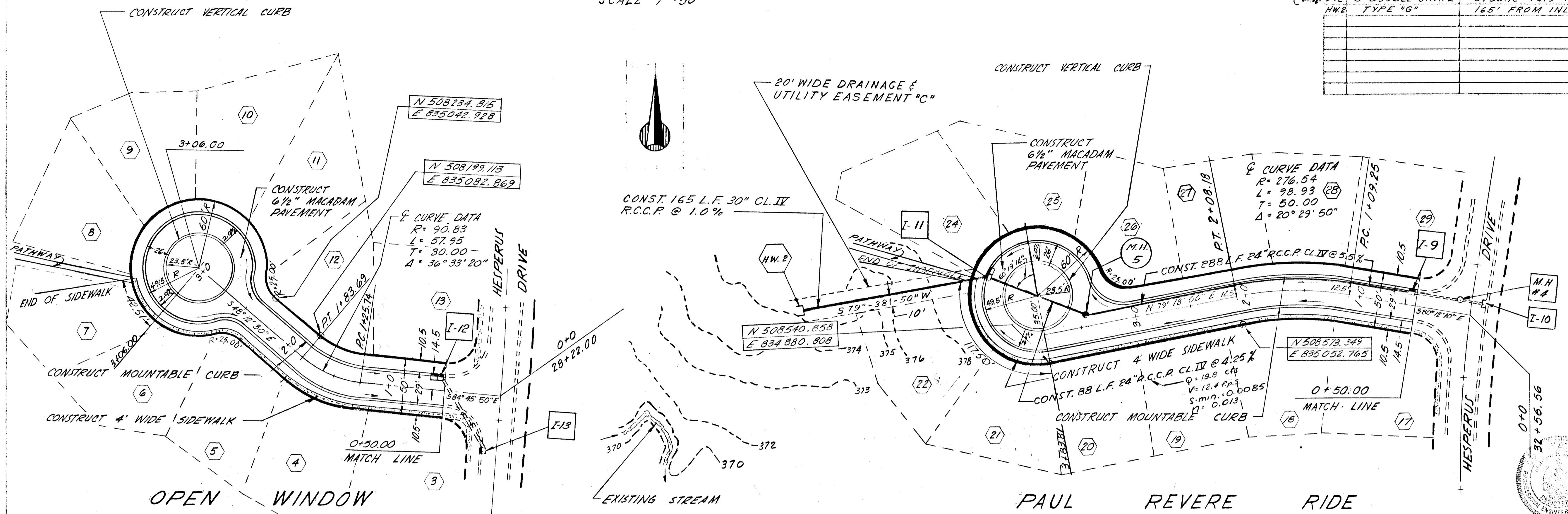
- EXIST. GROUND ON R. OF R.O.W.
- EXIST. GROUND 25' FT. OF R.O.W.
- EXIST. GROUND 25' FT. OF R.O.W.
- FINISHED PAVEMENT

DRAINAGE SYSTEM I-6 - I-7



CRP 9c #1

PLAN
SCALE 1" = 50'



STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C. ELEV.	REMARKS
I-9	MOD. "S" COMB. SINGLE GRATE	0+54.19 14.0' RT.	397.00	396.90	401.85	DEPRESSED
M.H.5	STANDARD	3+43-10' RT.	381.05	381.00		
Comb. I-11	"S" DOUBLE GRATE	L.P. 1+79.74 (CURB PROFILE)	377.26	377.20	381.92	DEPRESSED
Comb. I-12	"S" DOUBLE GRATE	0+56.12 14.5' RT.	377.73	377.81		DEPRESSED
M.H.2	TYPE "G"	165' FROM INLET-II				

APPROVED
PLANNING COMMISSION
DATE NOV 13 1967
[Signature]

BROWN, PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

10/11/67

Rev. Date	Rev. No.	Revision Description

COLUMBIA MARYLAND

OWNER AND DEVELOPER:
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

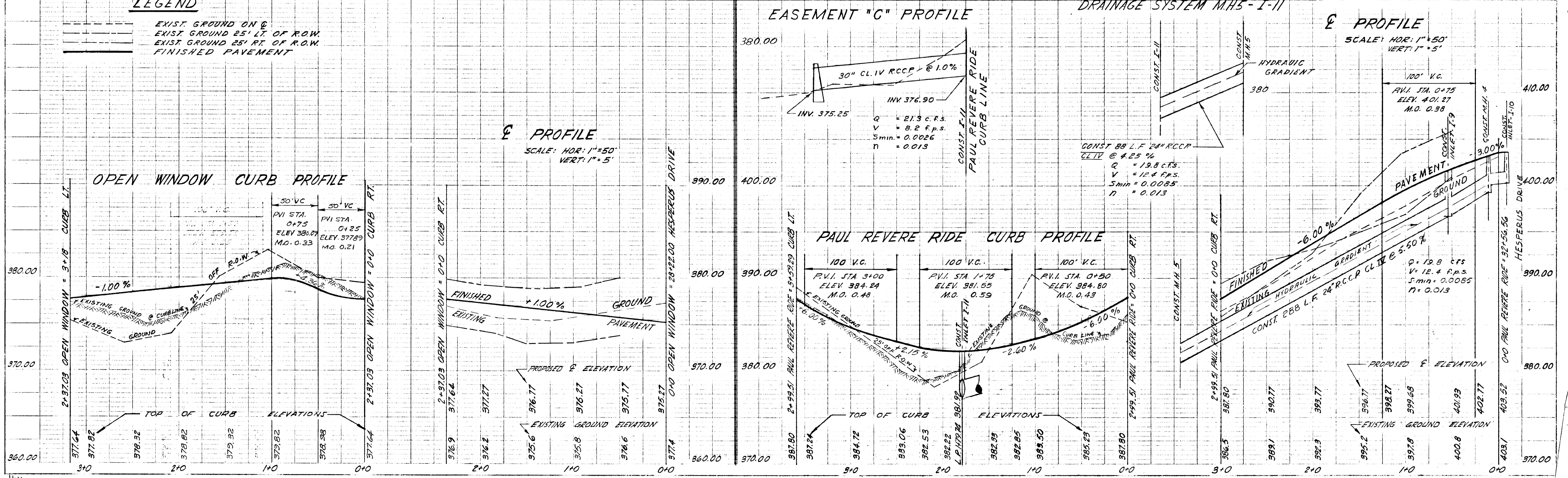
PROJECT AREA:
**VILLAGE OF HARPER'S CHOICE SEC. No. 1
LONGFELLOW AREA No. 3**

PROJECT TITLE:
**PLAN & PROFILE
OPEN WINDOW & PAUL REVERE RIDE**

Drawn By: W.P. Scale: AS SHOWN Date: JUNE 29, 1967
 Des. By: J.W.M. Date: JUNE 29, 1967
 Chk. By: W.P. Approved

LEGEND

--- EXIST. GROUND ON &
--- EXIST. GROUND 25' LT. OF R.O.W.
--- EXIST. GROUND 25' RT. OF R.O.W.
--- FINISHED PAVEMENT



#11

PLAN

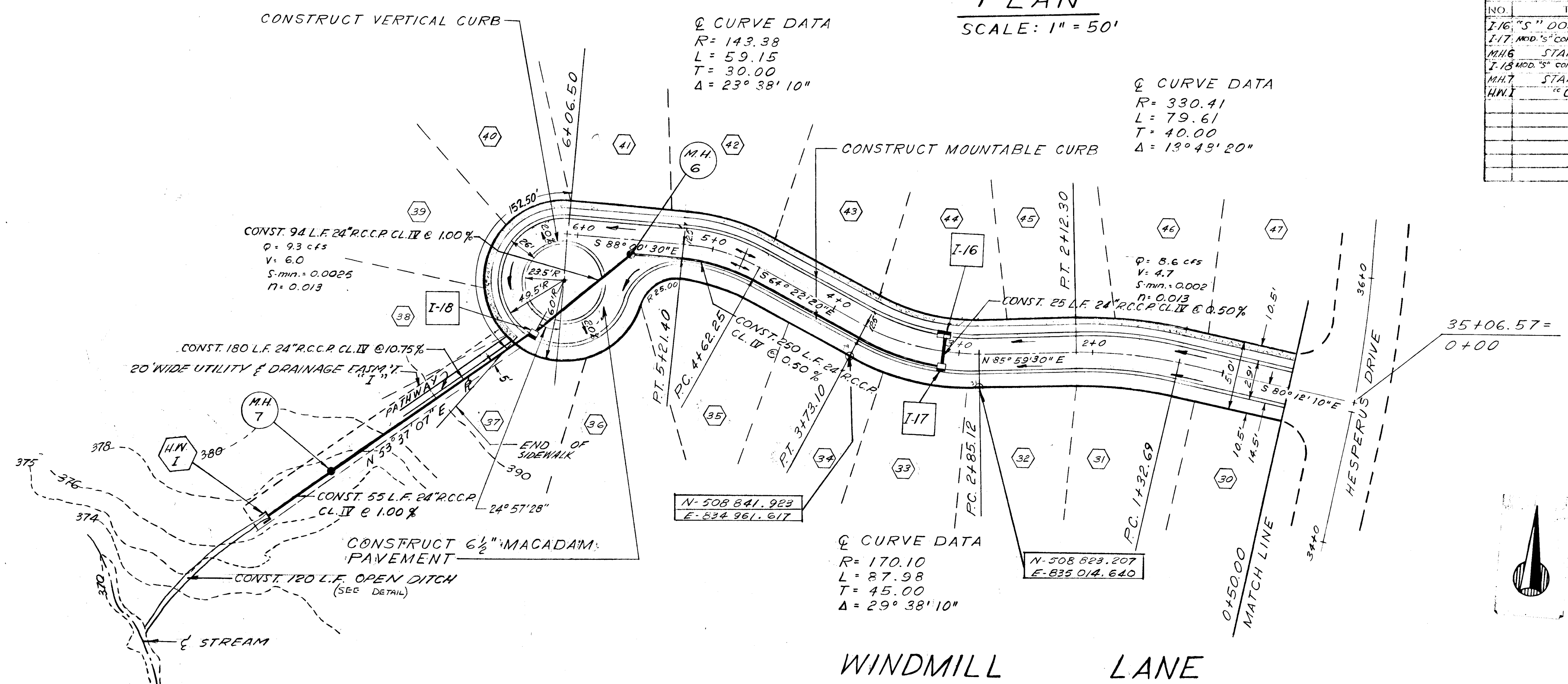
SCALE: 1" = 50'

STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPL	LOCATION	INV. IN	INV. OUT	I.C.P. ELEV.	REMARKS
I-16	5" DOUBLE GRATE	3+11 - 14.5' RT.	394.75	398.67		DEPRESSED
I-17	MOD. 5" COMB. SINGLE GRATE	3+11 - 14.5' LT.	394.62	394.50	398.67	DEPRESSED
M.H. 6	STANDARD	5+60 - 10' LT.	393.25	393.20	401.50	
I-18	MOD. 5" COMB. SINGLE GRATE	2+19.22 CURB PROFILE	392.26	392.20	396.23	DEPRESSED
M.H. 7	STANDARD	180' L.F. FROM INLET I-18	372.85	372.80		
M.H. 1	"G"	55' L.F. FROM M.H. 7		372.25		

Q CURVE DATA
 R = 143.38
 L = 59.15
 T = 30.00
 Δ = 23° 38' 10"

Q CURVE DATA
 R = 330.41
 L = 79.61
 T = 40.00
 Δ = 13° 43' 20"

Q CURVE DATA
 R = 170.10
 L = 87.98
 T = 45.00
 Δ = 29° 38' 10"



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 PLANNING COMMISSION
 DATE NOV. 3 1967

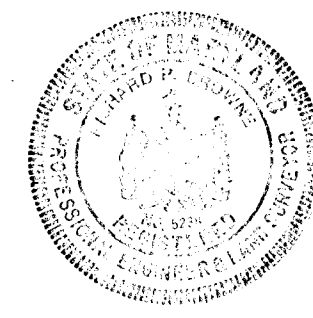
BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev. Date	Rev. No.	Revision Description
10/14/67		

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. No. 1
 LONGFELLOW AREA No. 3

PROJECT TITLE
 PLAN & PROFILE
 WINDMILL LANE

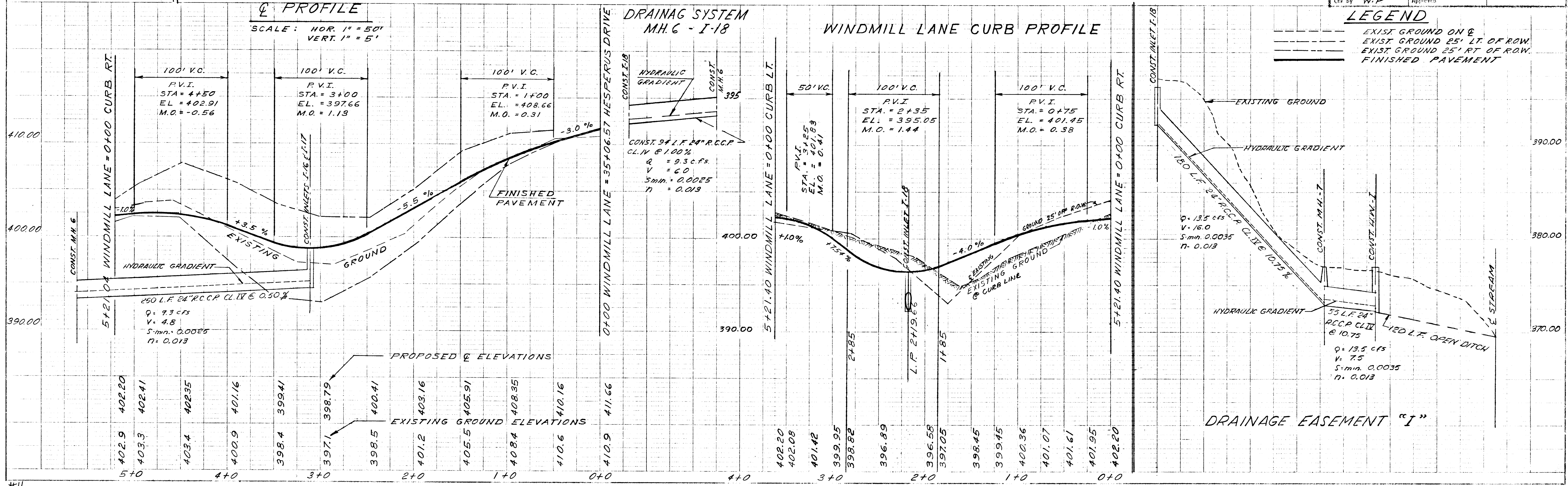
Des. By: W.P. Scale: AS SHOWN Dwg. No. 5 OF 21
 Dra. By: F.S. Date: JUNE 29, 1967 C.C.F. No.
 Chk. By: W.P. Approved



WINDMILL LANE

Q PROFILE

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

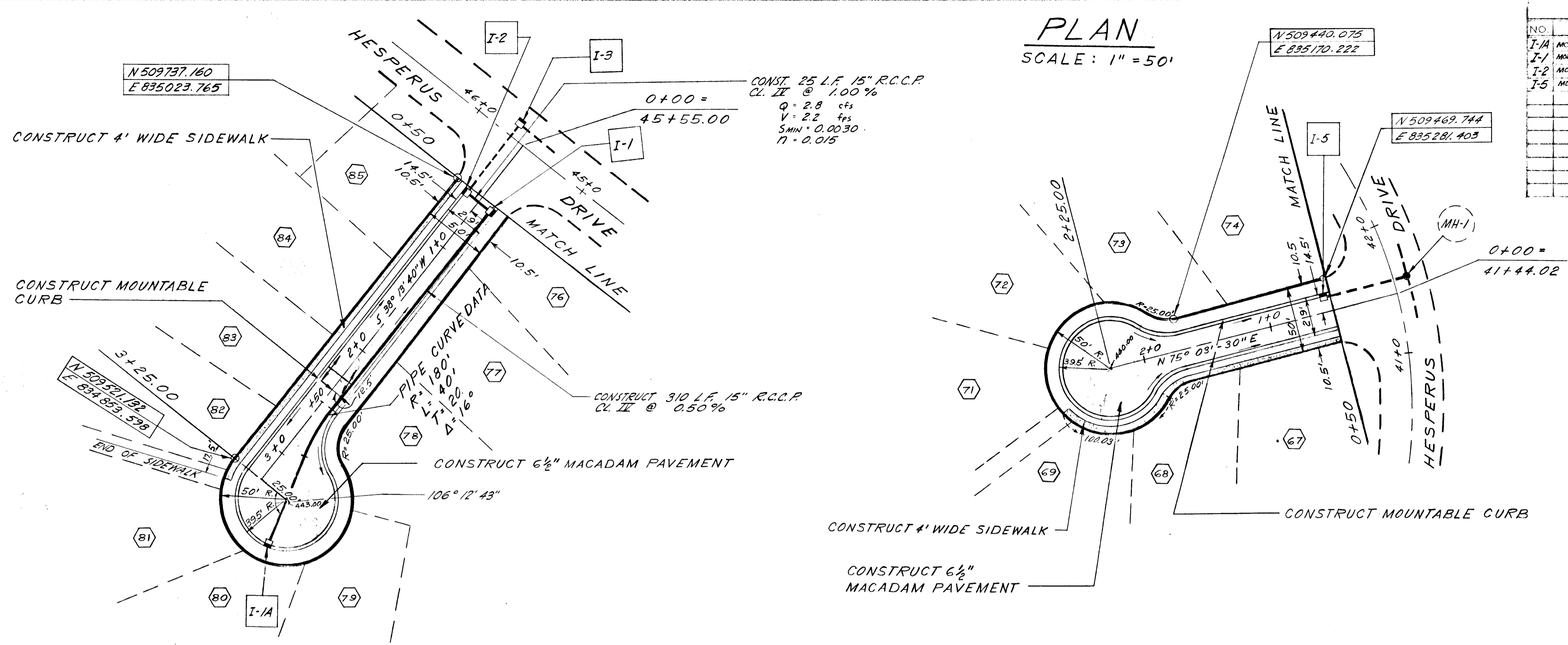


LEGEND

- EXIST. GROUND ON Q
- EXIST. GROUND 25' LT. OF ROW
- EXIST. GROUND 25' RT. OF ROW
- FINISHED PAVEMENT

DRAINAGE EASEMENT "I"

PLAN
SCALE: 1" = 50'



STORM DRAINAGE STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	C.P. ELEV.	REMARKS
I-1A	MOD. 15" COMB. SINGLE GRATE	1+45 CURB PROFILE	437.05	440.12		DEPRESSED
I-1	MOD. 15" COMB. SINGLE GRATE	0+55 14.5 LT.	435.50	435.50	439.91	DEPRESSED
I-2	MOD. 15" COMB. SINGLE GRATE	0+55 14.5 RT.	435.25	435.25	439.91	DEPRESSED
I-5	MOD. 15" COMB. SINGLE GRATE	0+57.53 14.5 RT.	418.95	423.73		DEPRESSED

APPROVED
PLANNING COMMISSION
OF HOWARD COUNTY
DATE: NOV 12 1967

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

11/14/67
Per Date: Rev No: Revision Description:

COLUMBIA
MARYLAND

HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA:
VILLAGE OF HARPER'S CHOICE SEC. N# 1
LONGFELLOW AREA N# 3

PROJECT TITLE:
PLAN & PROFILE
DRIFTWOOD CIRCLE RONDOL PLACE

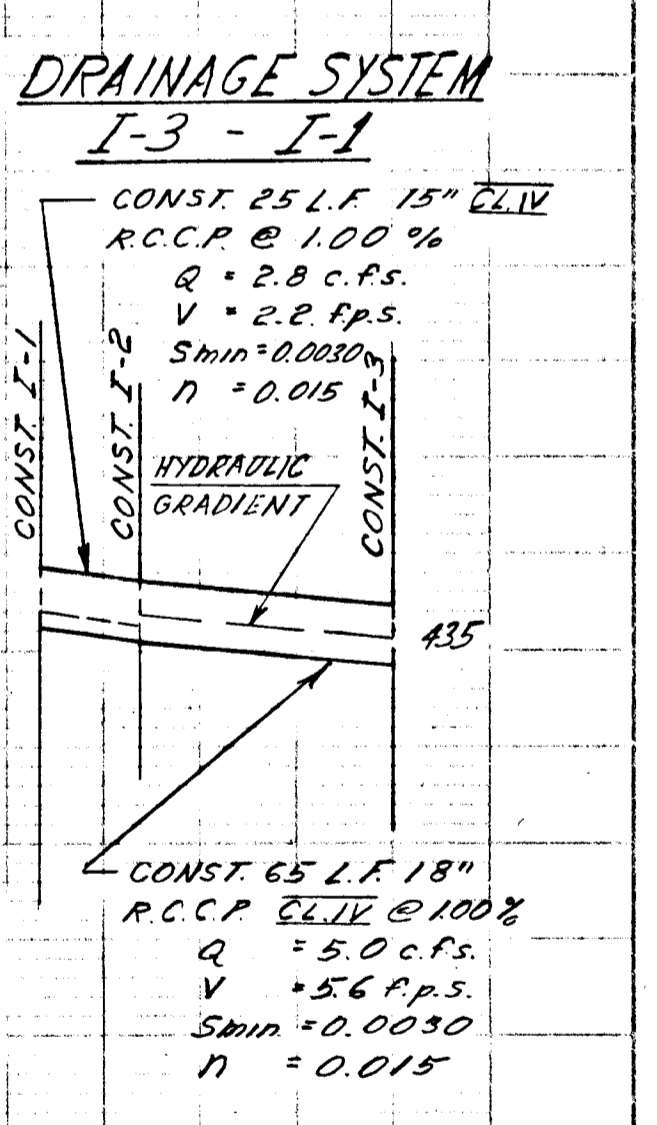
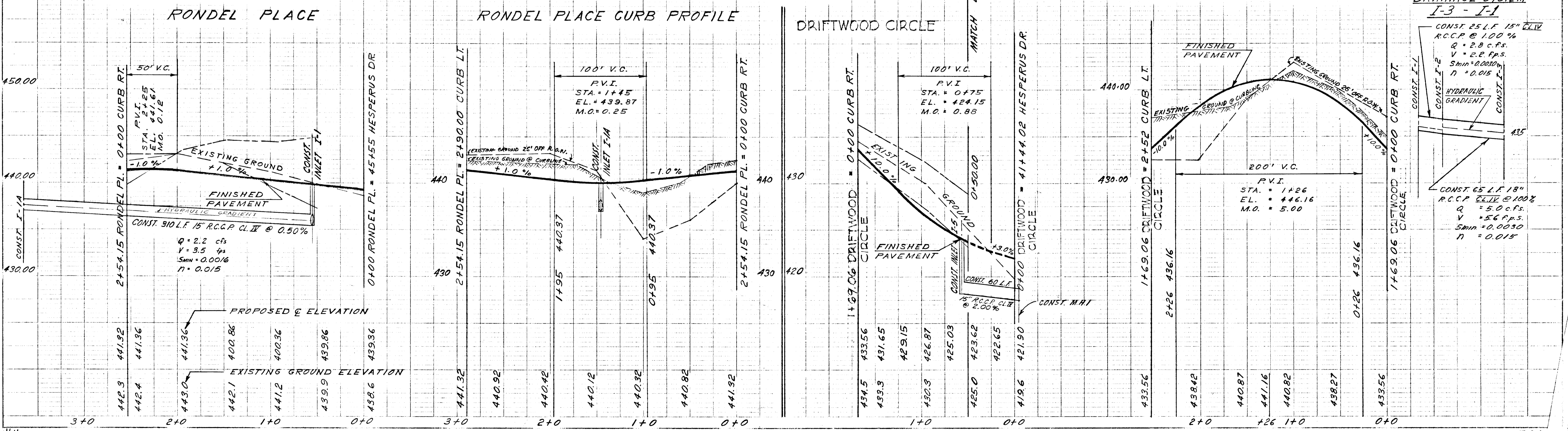
Des. By: W.R. Scale: AS SHOWN Eng. No. 7 of 21
Dwn. By: J.V.M. Date: JUNE 29, 1967 C.E. No.
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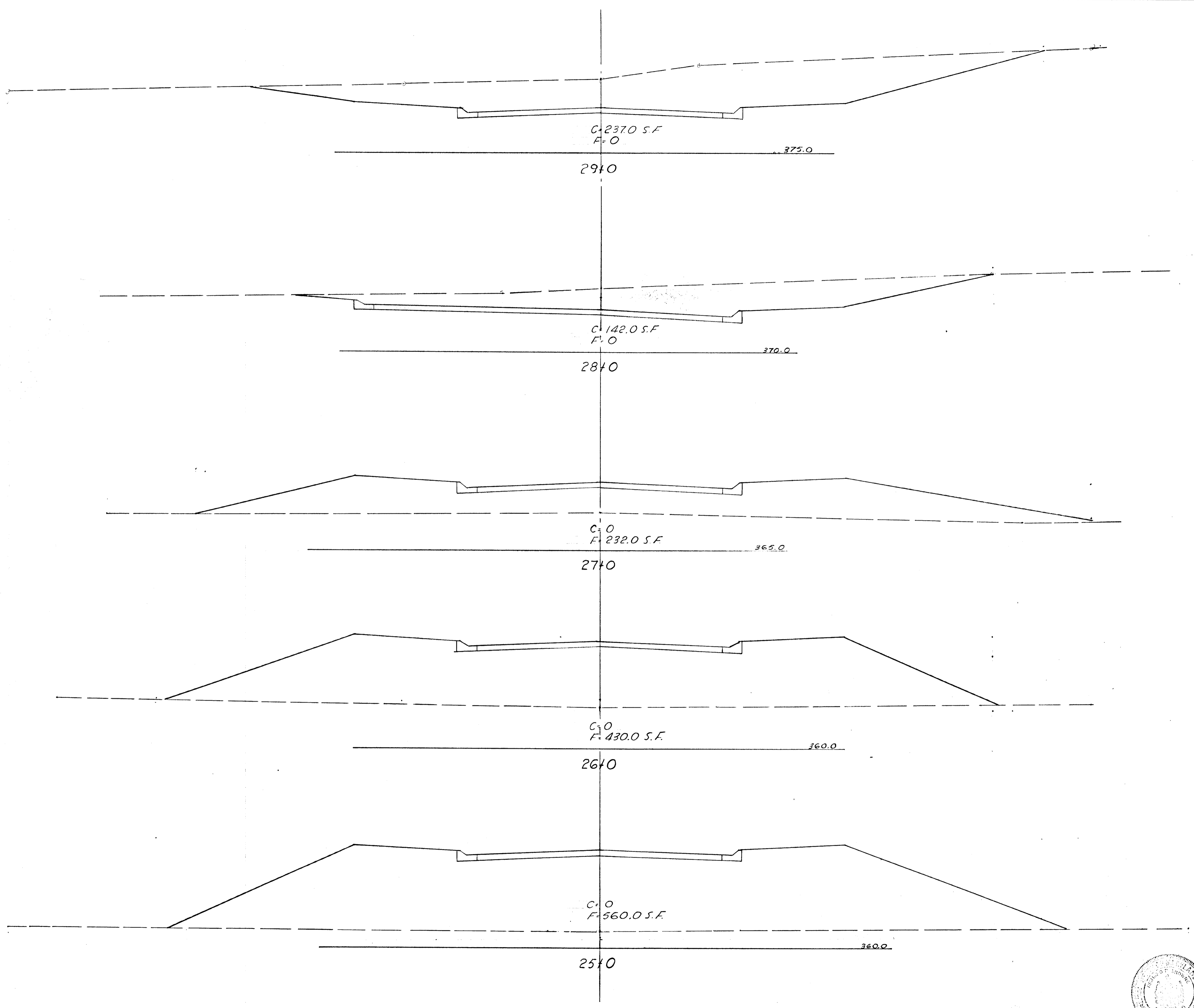
RONDOL PLACE

DRIFTWOOD CIRCLE

LEGEND
--- EXIST. GROUND ON E
--- EXIST. GROUND 25' LT. OF R.O.W.
--- EXIST. GROUND 25' RT. OF R.O.W.
--- FINISHED PAVEMENT

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





24+50

C=0 - F=542.0 S.F.

APPROVED
 J. M. [Signature]
 DATE NOV 13 1967

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

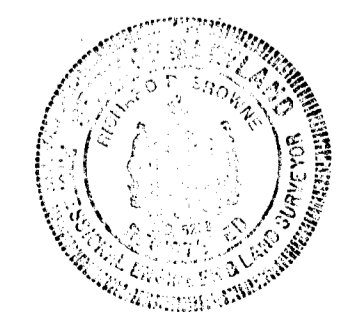
COLUMBIA
 MARYLAND

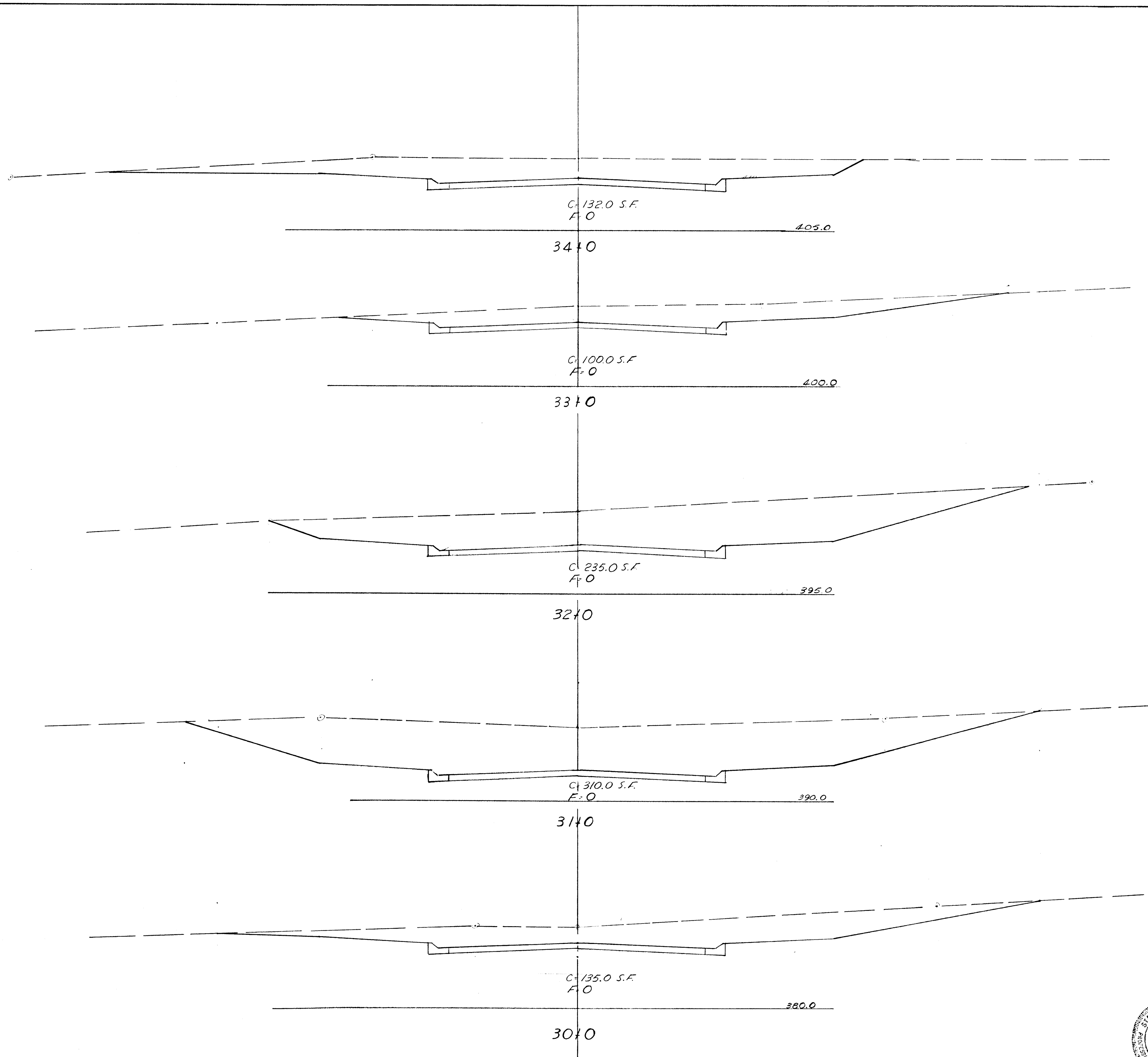
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
HESPERUS DRIVE
CROSS SECTIONS

Des By W.C.S.	Scale 1"=5'	Draw No 8 OF 21
Dir By W.C.S.	Date JUNE 29 - 1967	C.C.F. No
Chk By J.M.	Approved	





APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
JAC

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

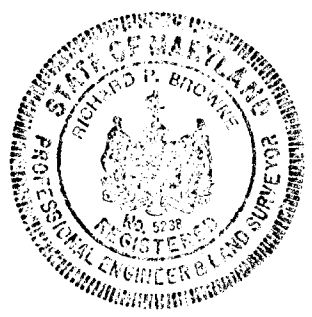
COLUMBIA
 MARYLAND
OWNER AND DEVELOPER

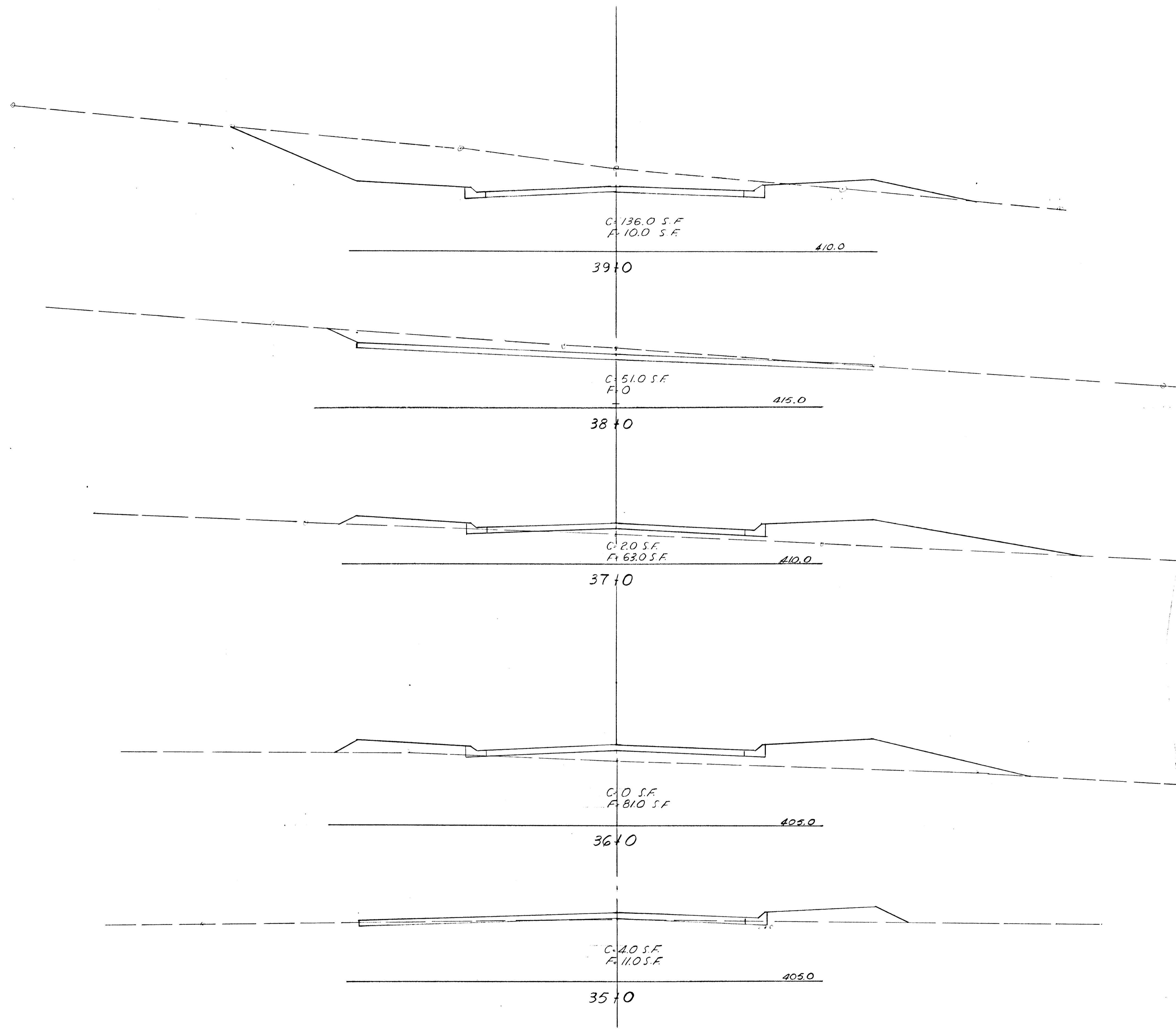
HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
**HESPERUS DRIVE
 CROSS SECTIONS**

Des By W. C. S.	Scale 1" = 5'	Dwg. No 9 OF 21
Drn By W. C. S.	Date JUNE 29-1967	C.C.F. No
Chk By I. M.	Approved	





APPROVED
 PLANNING COMMISSION
 OF DISTRICT OF COLUMBIA
 DATE NOV 13 1967
 [Signature]

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

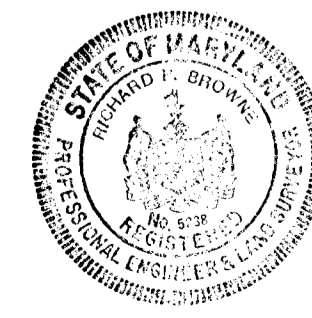
COLUMBIA
 MARYLAND

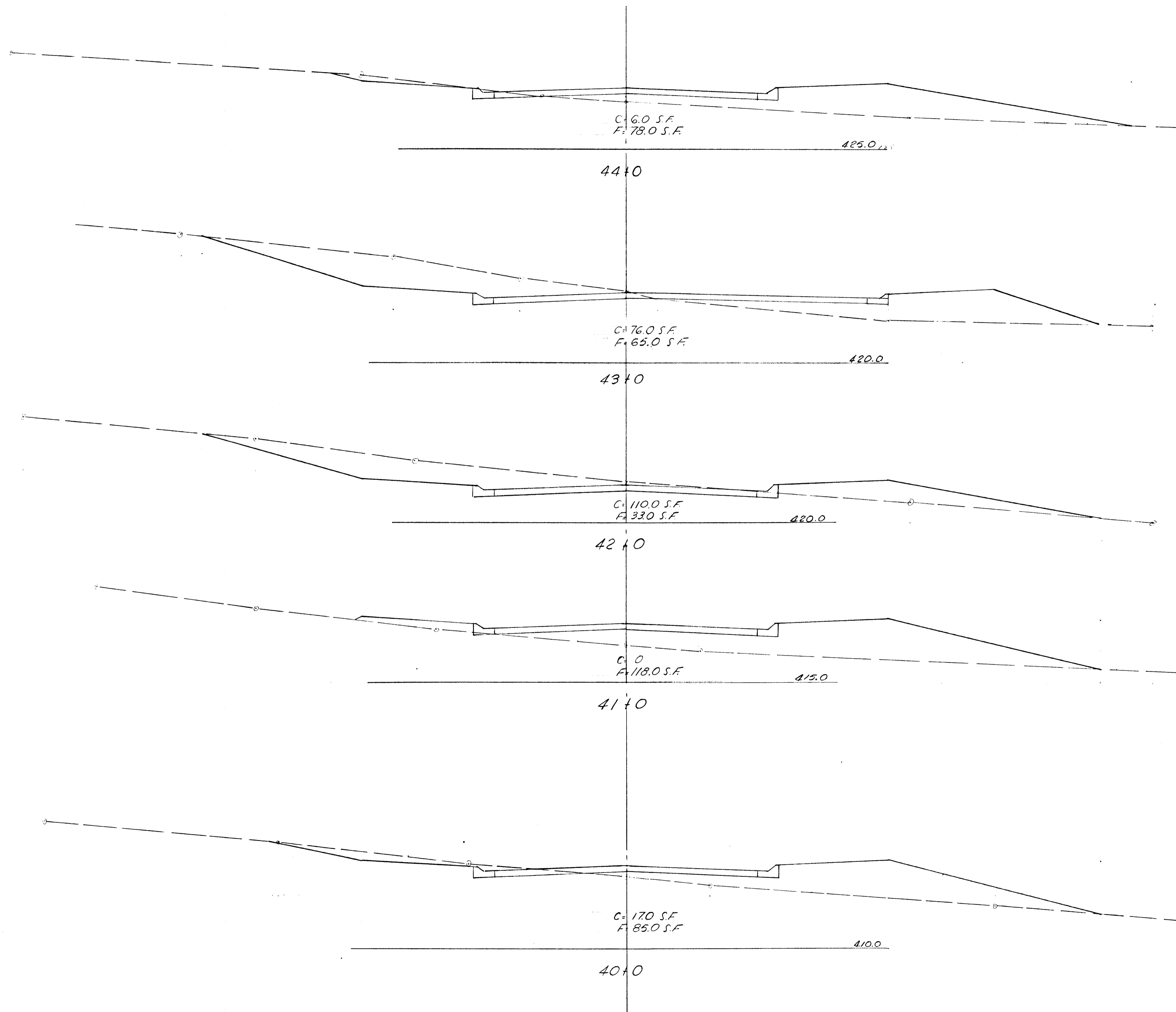
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
 HESPERUS DRIVE
 CROSS SECTIONS

Des By W. C. S. Scale 1" = 5' Draw No 10 OF 21
 Din By W. C. S. Date JUNE 29-1967 C.C.F. No
 Chk By I.M. Approved





APPROVED
 PLANNING COMMISSION
 OF BALTIMORE COUNTY
 DATE NOV 1 1967
J. M.

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

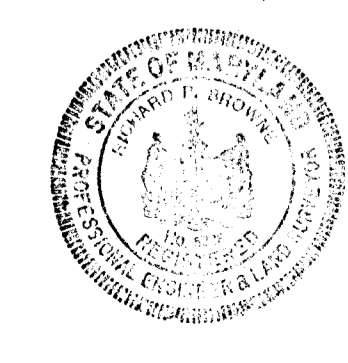
COLUMBIA
 MARYLAND

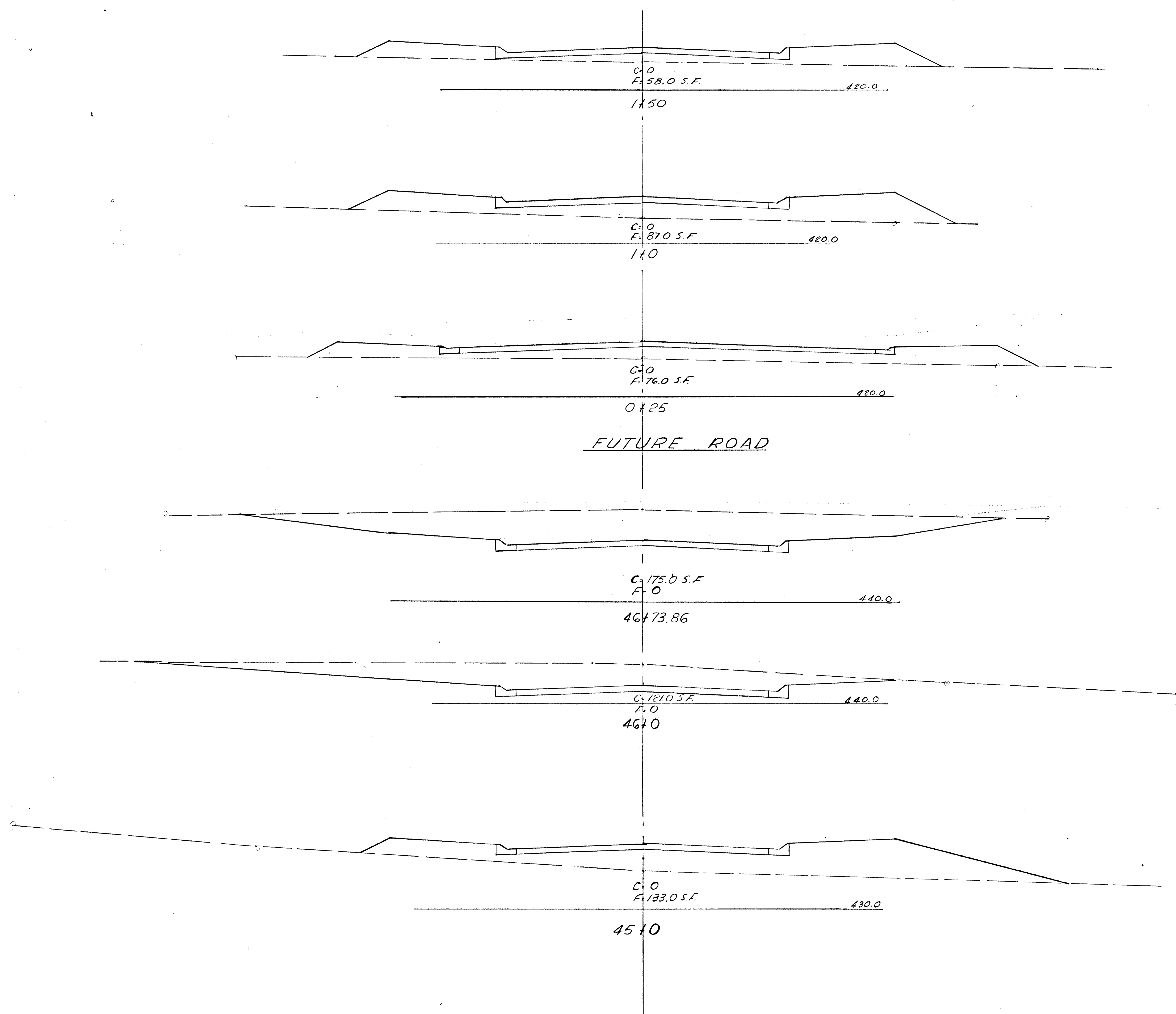
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
 HESPERUS DRIVE
 CROSS SECTIONS

Des By	W. C. S.	Scale	1" = 5'	Doc No.	11 OF 21
Drn By	W. C. S.	Date	JUNE 29-1967	C.C.F. No.	
Chk By	J. M.	Approved			





FUTURE ROAD

APPROVED
 PLANNING COMMISSION
 OF THE CITY OF BALTIMORE
 DATA NOV 23 1967
[Signature]

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA MARYLAND

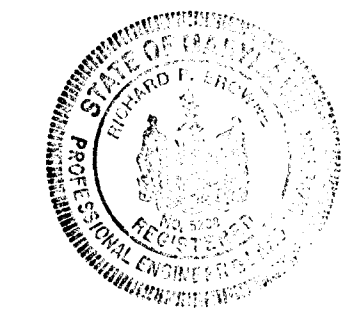
Rev Date	Rev No	Revision Description

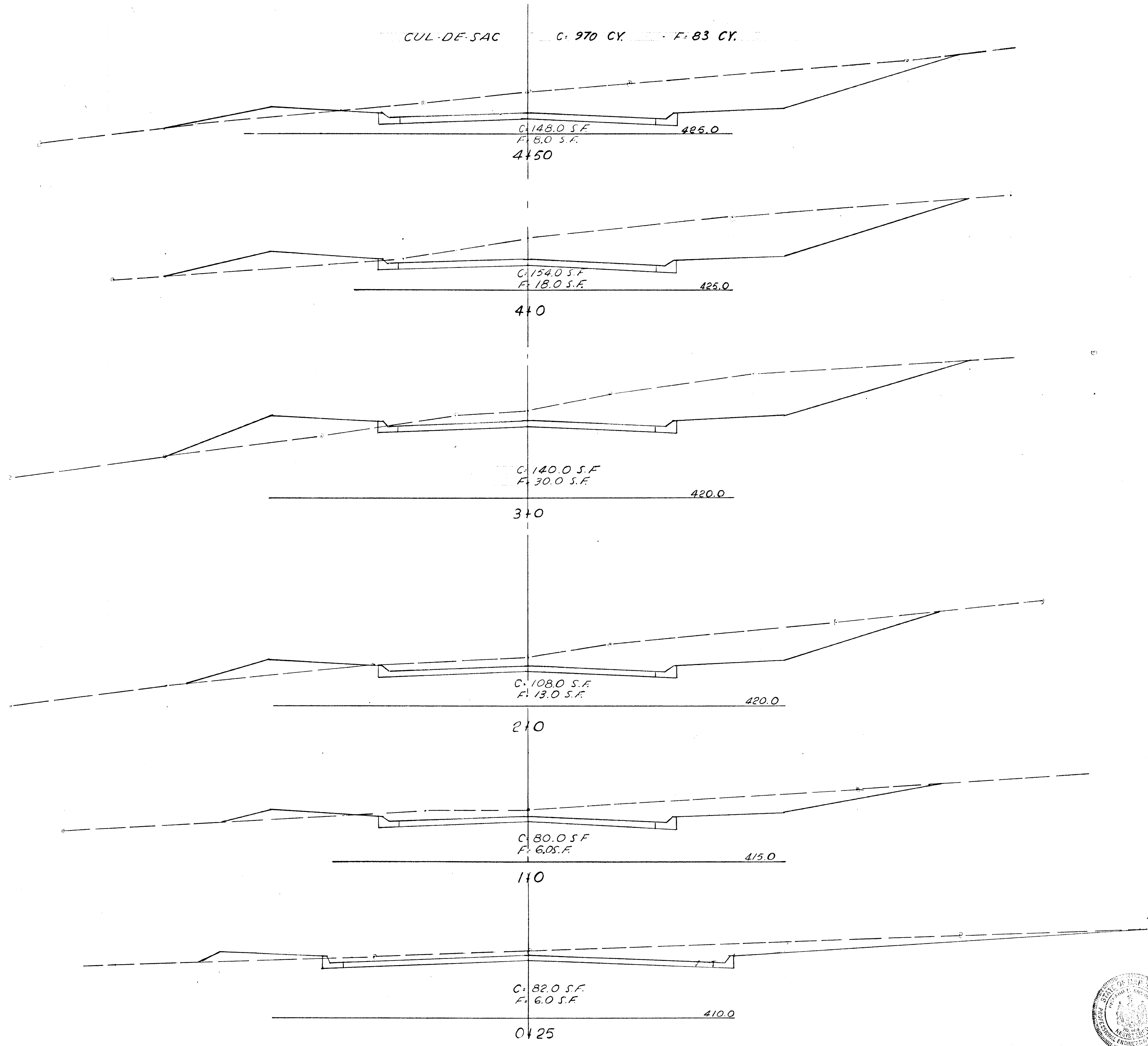
COLUMBIA
 MARYLAND
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
 HESPERUS DRIVE & FUTURE ROAD
 CROSS SECTIONS

Des By W.C.S.	Scale 1" = 5'	Dwg No 12 OF 21
Dir By W.C.S.	Date JUNE 29-1967	C.C.F. No
Chk By I.M.	Approved	





APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
[Signature]

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

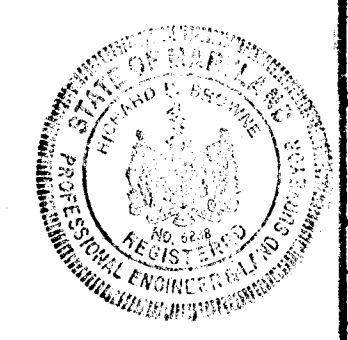
COLUMBIA
 MARYLAND
 OWNER AND DEVELOPER

HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

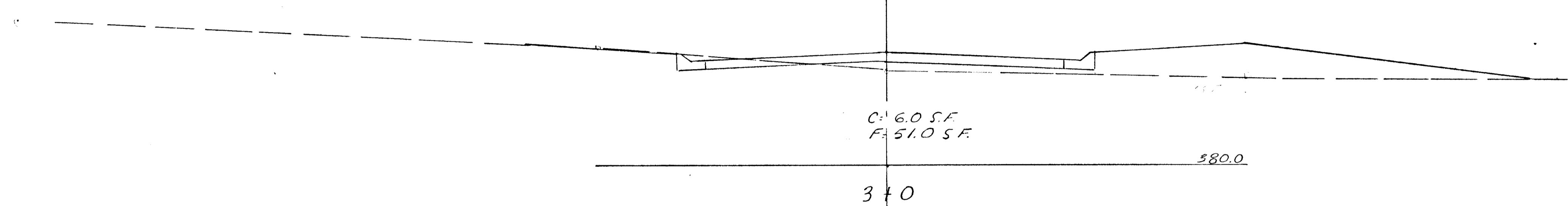
PROJECT TITLE
**PHANTOM COURT
 CROSS SECTIONS**

Des By **W.C.S.** Scale **1"=5'** Dwg. No **13 OF 21**
 Dwn By **W.C.S.** Date **JUNE 29 1967** C.C.F. No
 Chk By **J.M.** Approved



CUL-DE-SAC

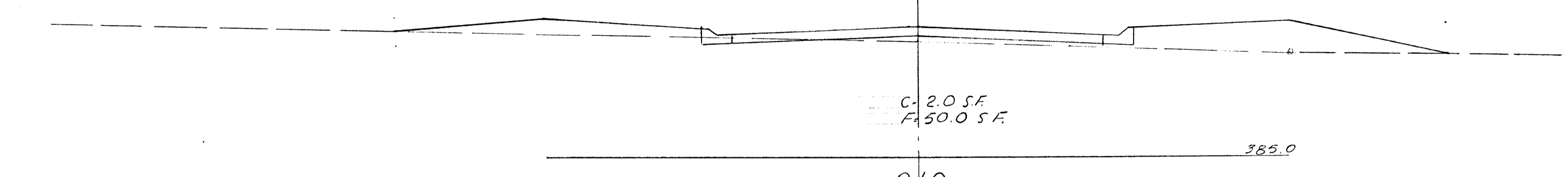
C = 222 CY. - F = 1,081 CY.



C = 60 S.F.
F = 510 S.F.

580.0

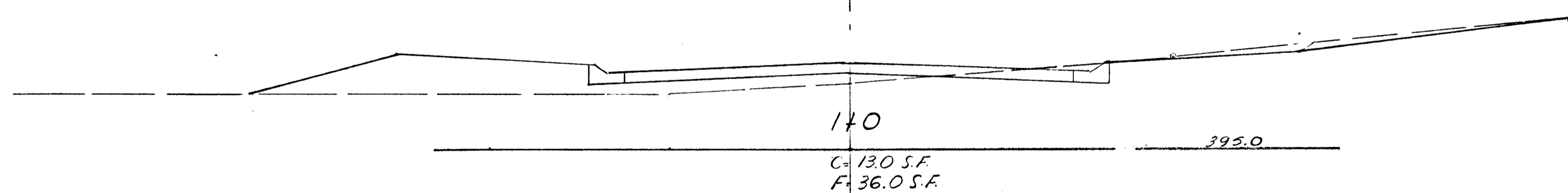
340



C = 20 S.F.
F = 50.0 S.F.

385.0

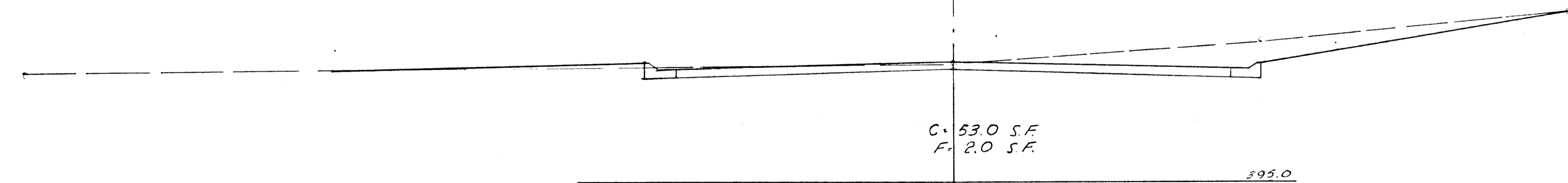
240



C = 130 S.F.
F = 36.0 S.F.

395.0

140



C = 53.0 S.F.
F = 2.0 S.F.

395.0

0425

APPROVED
PLANNING COMMISSION
DATE: NOV 13 1967

JWP

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

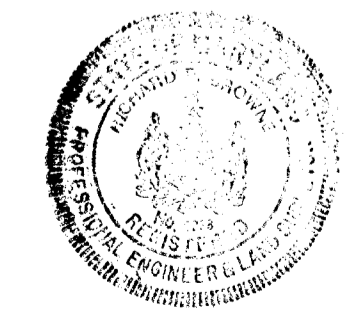
COLUMBIA
MARYLAND

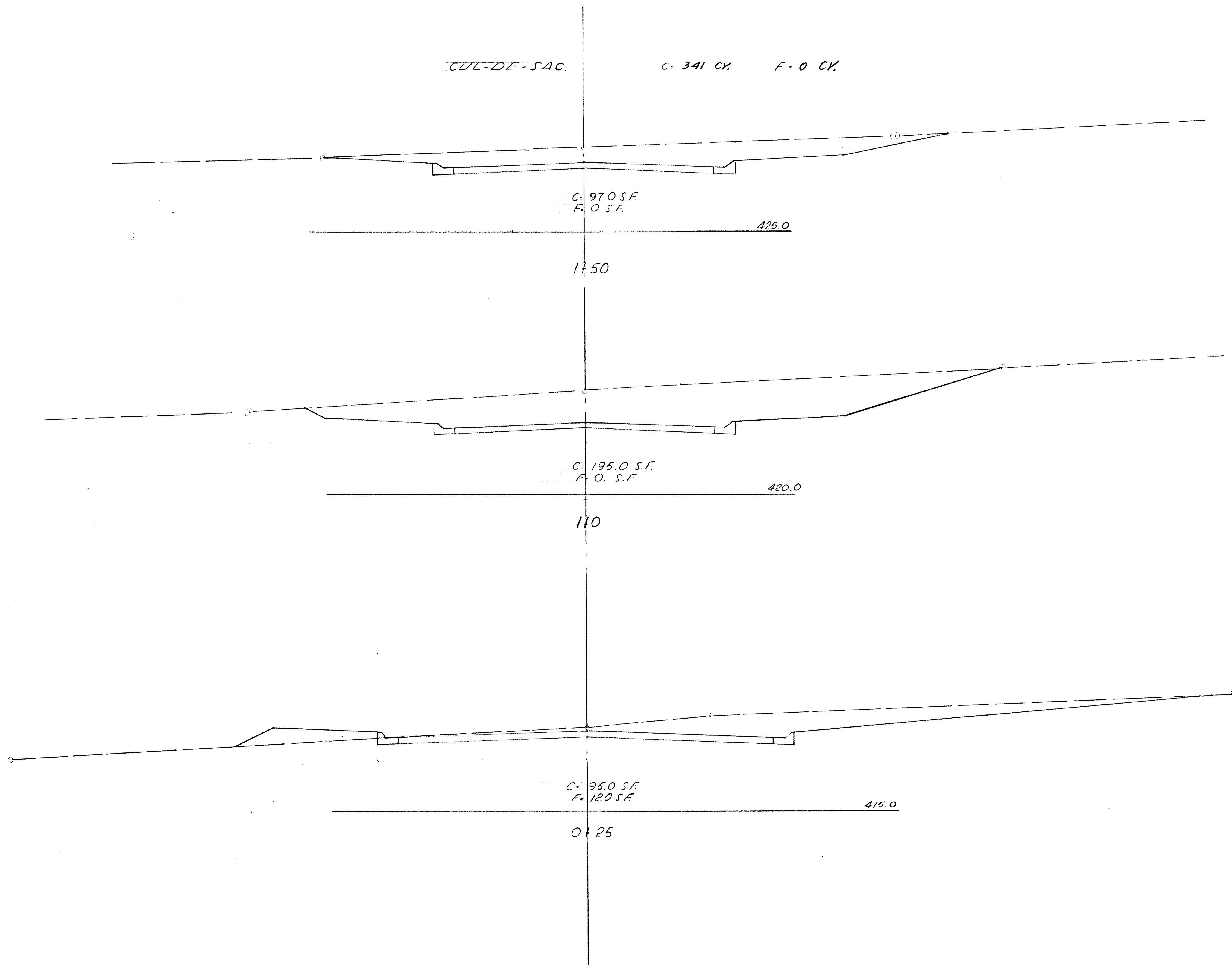
OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SECTION 1
LONGFELLOW AREA 3

PROJECT TITLE
PAUL REVERE DRIVE
CROSS SECTIONS

Des By: W.C.S.	Scale: 1"=5'	Dwg No: 14 OF 21
Des By: W.C.S.	Date: JUNE 29-1967	C.C.T. No
Chk By: I.M.	Approved	





APPROVED

PLANNING COMMISSION

DATE NOV 13 1967

J.P.C.

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

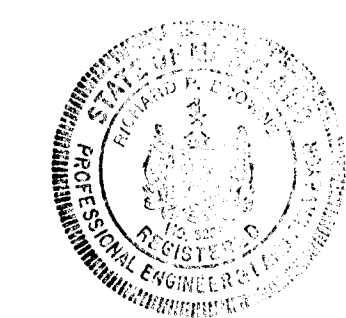
Rev Date	Rev No	Revision Description

COLUMBIA
MARYLAND
OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SECTION 1
LONGFELLOW AREA 3

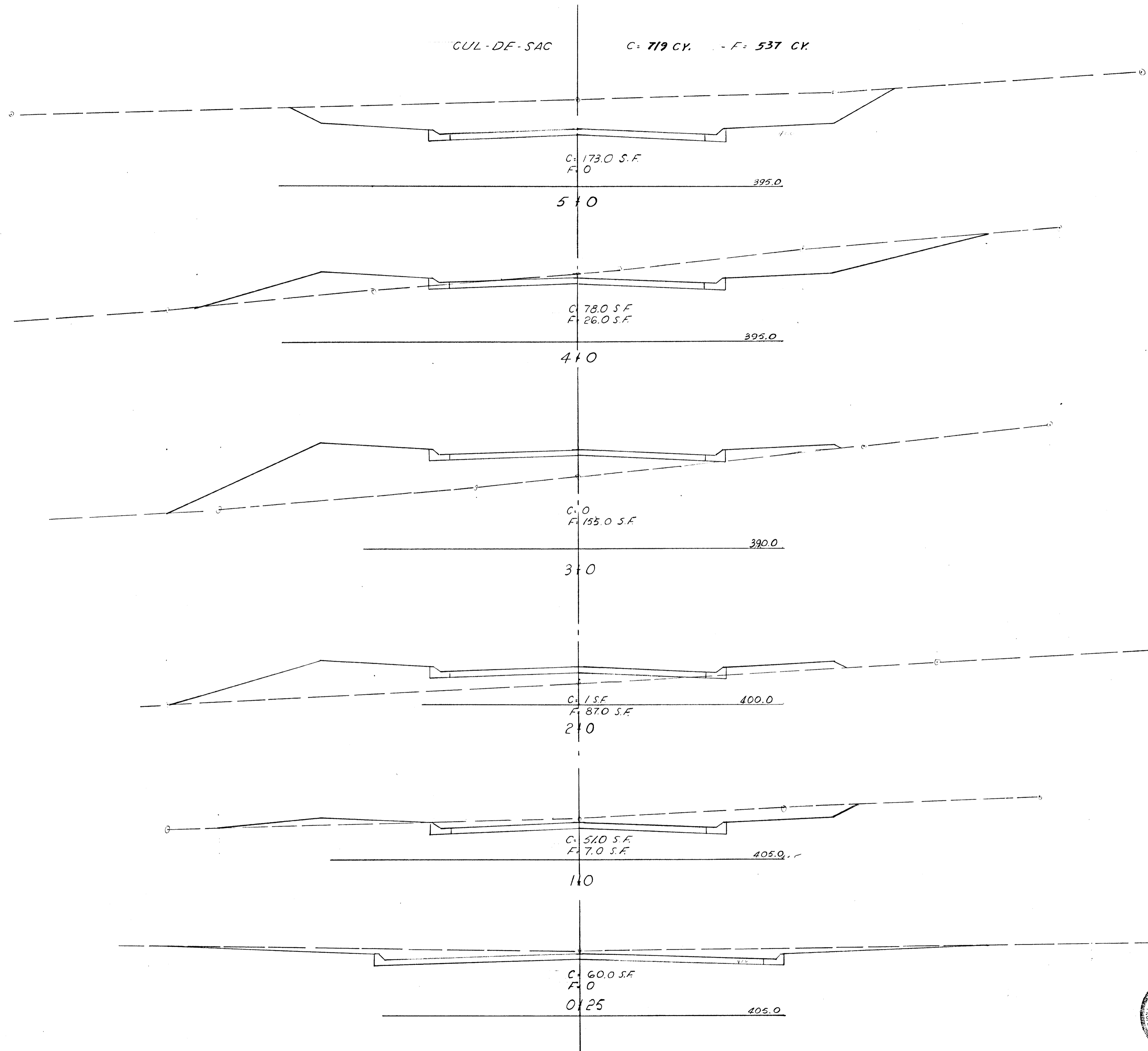
PROJECT TITLE
**OLAF COURT
CROSS SECTIONS**

Des. By W.C.S.	Scale 1"=5'	Dwg. No 15 OF 21
Dir. By W.C.S.	Date JUNE 29-1967	C.F. No
Ch. By J.M.	Approved	



CUL-DE-SAC

C = 719 CY. F = 537 CY.



APPROVED
PLANNING COMMISSION

DATE NOV 13 1967
[Signature]

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

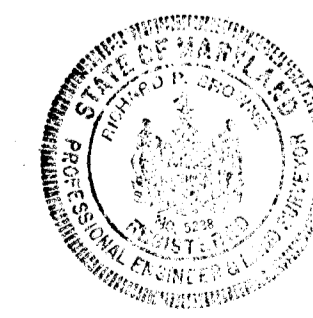
COLUMBIA
MARYLAND

OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SECTION 1
LONGFELLOW AREA 3

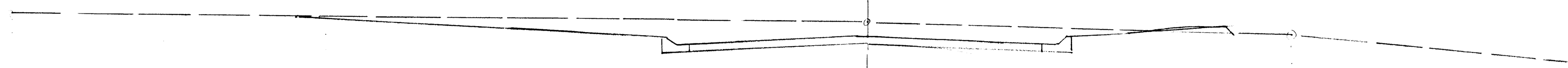
PROJECT TITLE
WINDMILL LANE
CROSS SECTIONS

Des By W. C. S.	Scale 1" = 5'	Dwg. No 16 OF 21
Dim By W. C. S.	Date JUNE 29-1967	C.C.F. No
Chk By J. M.	Approved	



CUL. DE. SAC

C = 200 CK - F = 24 C.Y



C = 650 S.F.
F = 20 S.F.

435.0

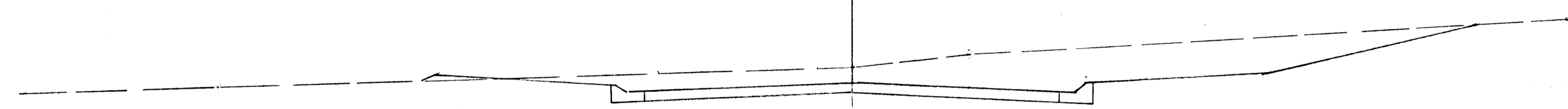
2150



C = 1120 S.F.
F = 0

435.0

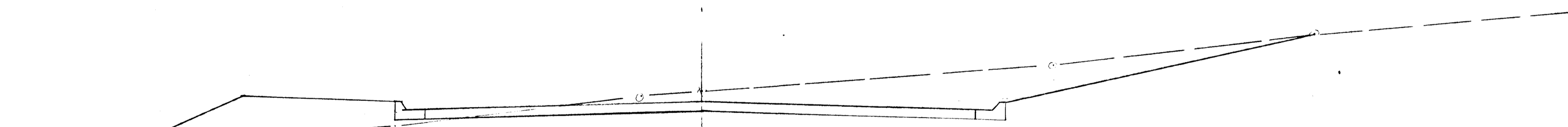
210



C = 1000 S.F.
F = 10 S.F.

435.0

110



C = 820 S.F.
F = 270 S.F.

435.0

0125

APPROVED

DATE NOV 13 1967

J. M. [Signature]

BROWNE-PANDULLO & ASSOCIATES
ENGINEERS
COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

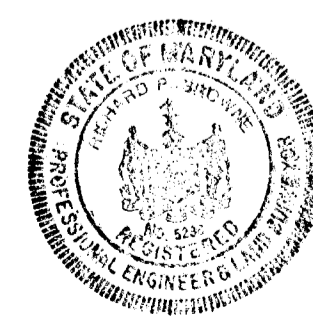
COLUMBIA
MARYLAND

OWNER AND DEVELOPER
HOWARD RESEARCH AND DEVELOPMENT CORP.
THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
VILLAGE OF HARPER'S CHOICE SECTION 1
LONGFELLOW AREA 3

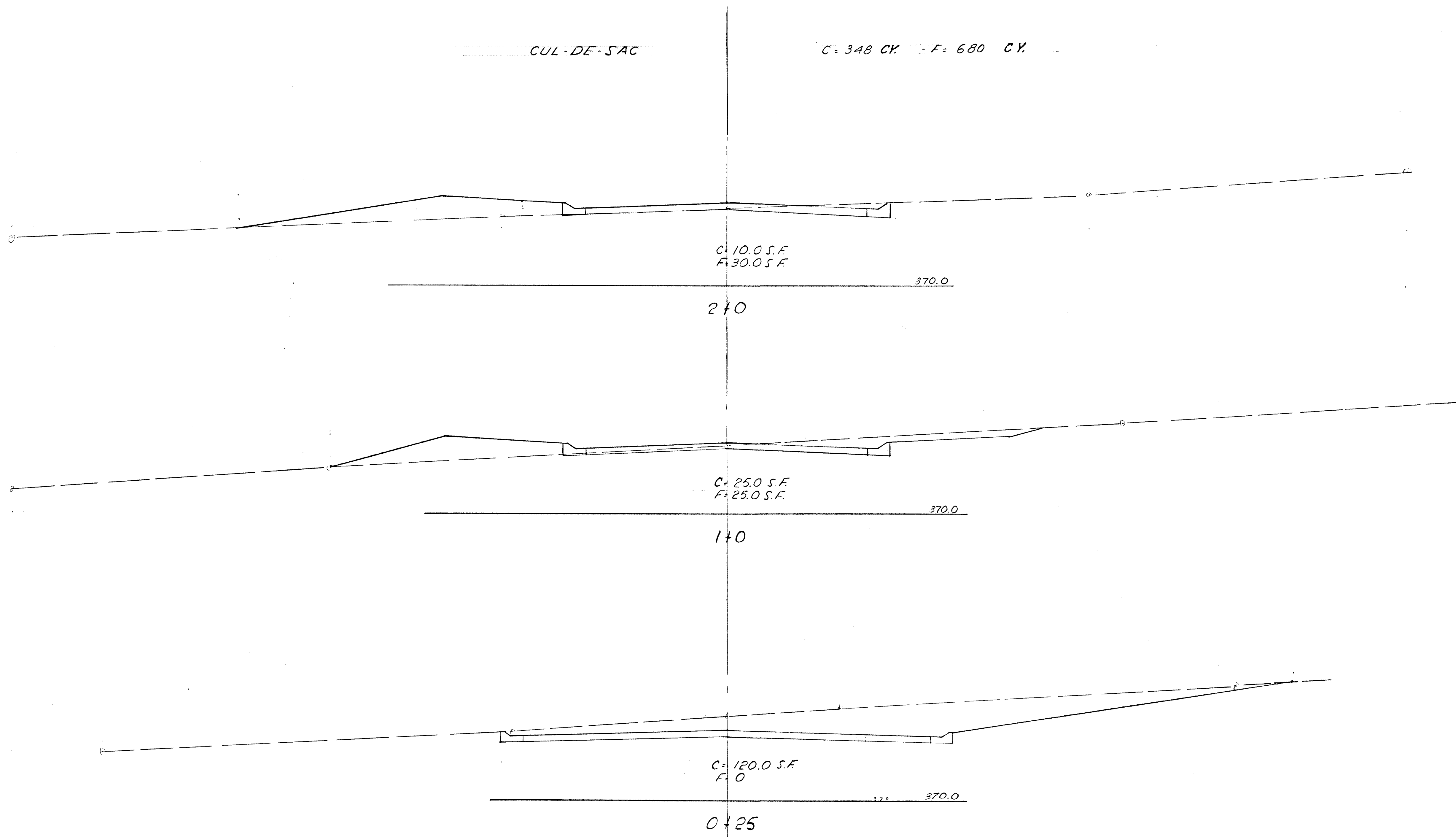
PROJECT TITLE
RONDEL PLACE
CROSS SECTIONS

Des By	W. C. S.	Scale	1" = 5'	Dwg. No	17 OF 21
Drn By	W. C. S.	Date	JUNE-29-1967	C.C.F. No	
Chk By	J. M.	Approved			



CUL-DE-SAC

C = 348 CY F = 680 CY



APPROVED
 PLANNING COMMISSION
 DATE: NOV 8 1967
[Signature]

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

Rev Date	Rev No	Revision Description

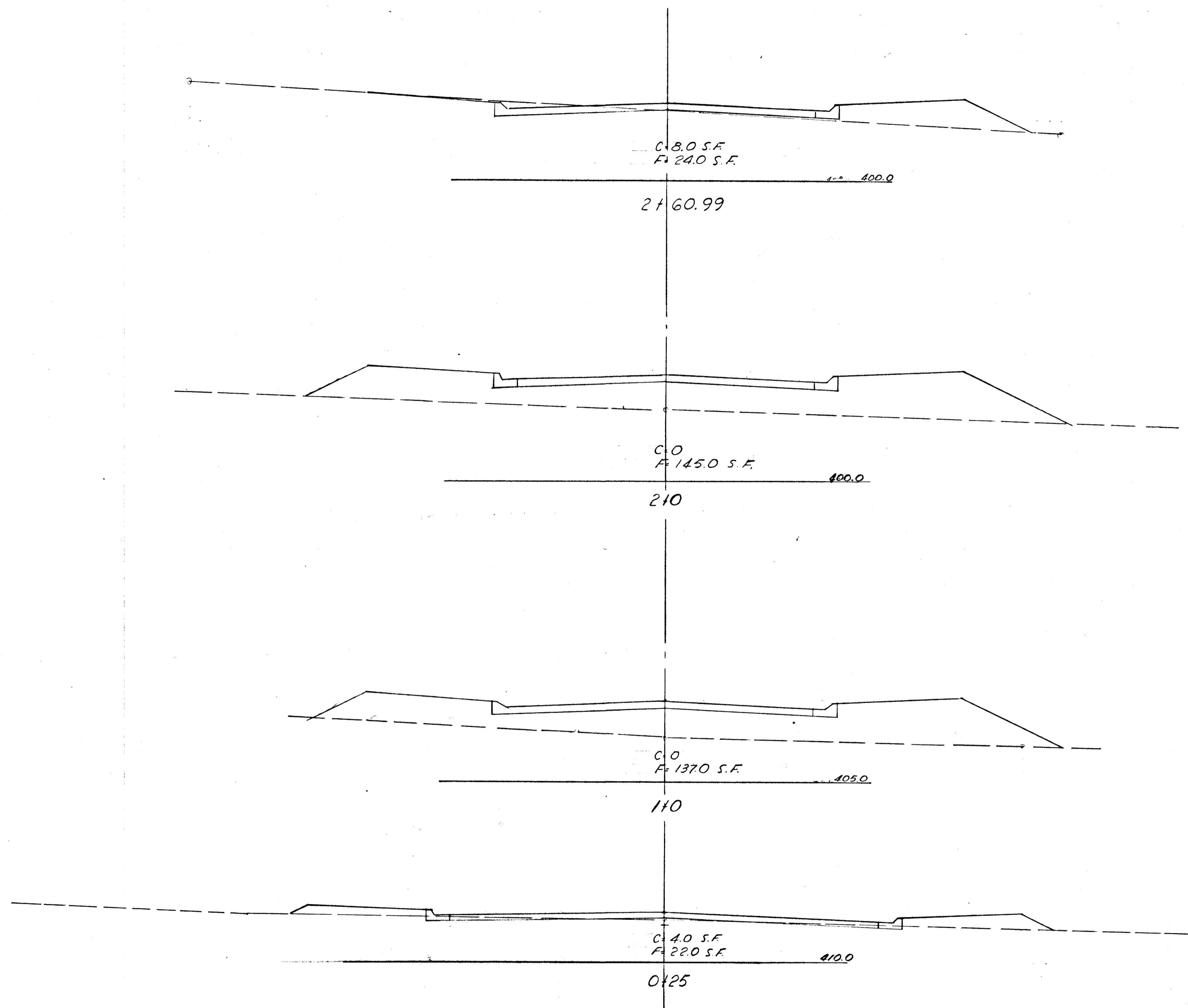
COLUMBIA
 MARYLAND
OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CO.,
THE VILLAGE OF CROSS KEYS - BALTIMORE MARYLAND 21210

PROJECT AREA
**VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3**

PROJECT TITLE
**OPEN WINDOW COURT
 CROSS SECTIONS**

Des By W.C.S.	Scale 1" = 5'	Dwg. No 18 OF 21
Drn By W.C.S.	Date JUNE-29-1967	C.C.F. No
Chk By I.M.	Approved	





APPROVED
 PLANNING COMMISSION
 DATE NOV 13 1967
[Signature]

BROWNE-PANDULLO & ASSOCIATES
 ENGINEERS
 COLUMBIA, MARYLAND

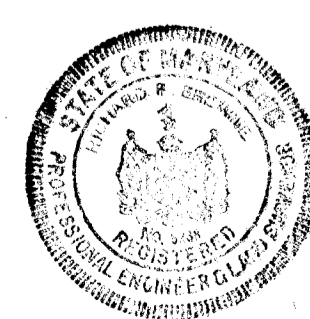
Rev Date	Rev No	Revision Description

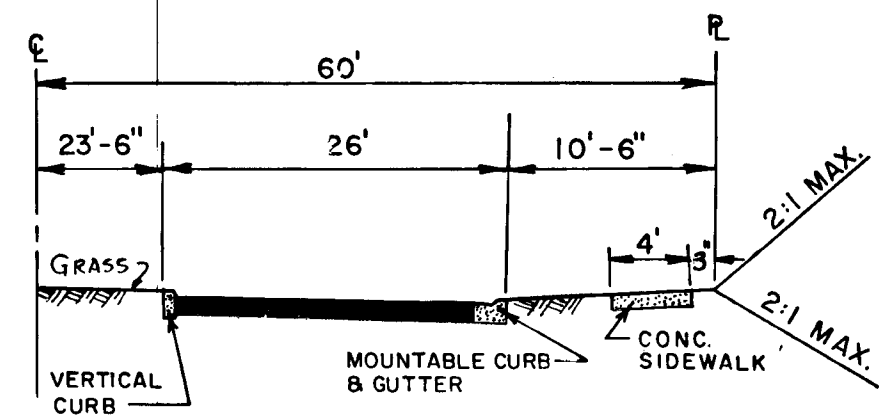
COLUMBIA
 MARYLAND
 OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SECTION 1
 LONGFELLOW AREA 3

PROJECT TITLE
 CASTLE MOOR DRIVE
 CROSS SECTIONS

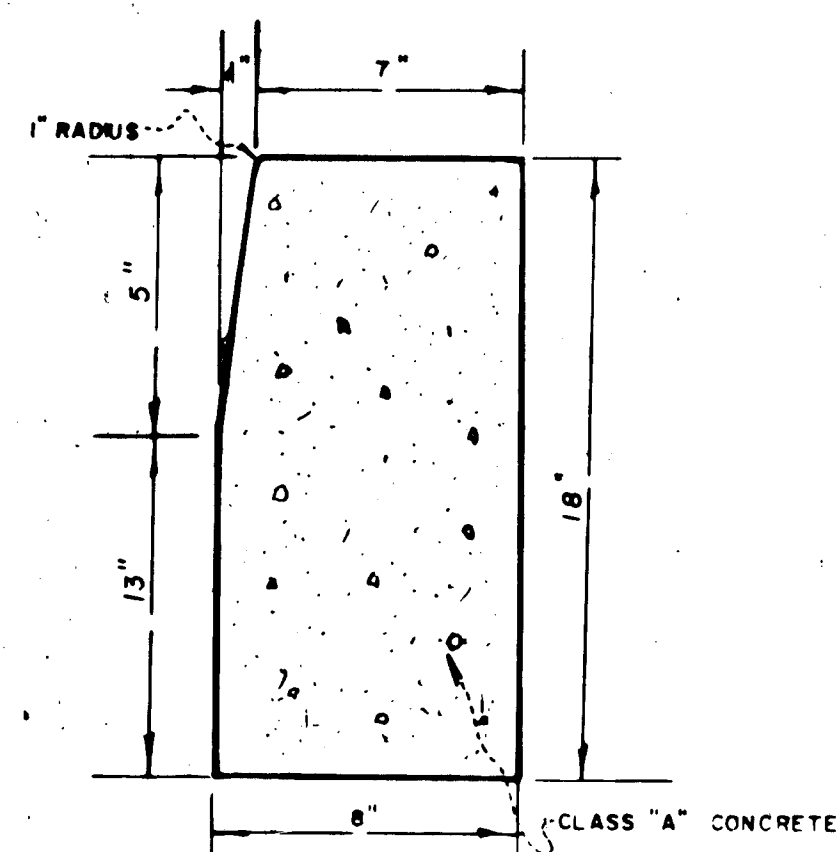
Des By	W.C.S.	Scale	1" = 5'	Ewg No	19 OF 21
Drn By	W.C.S.	Date	JUNE 29 1967	C.C.T. No	
Chk By	I.M.	Approved			





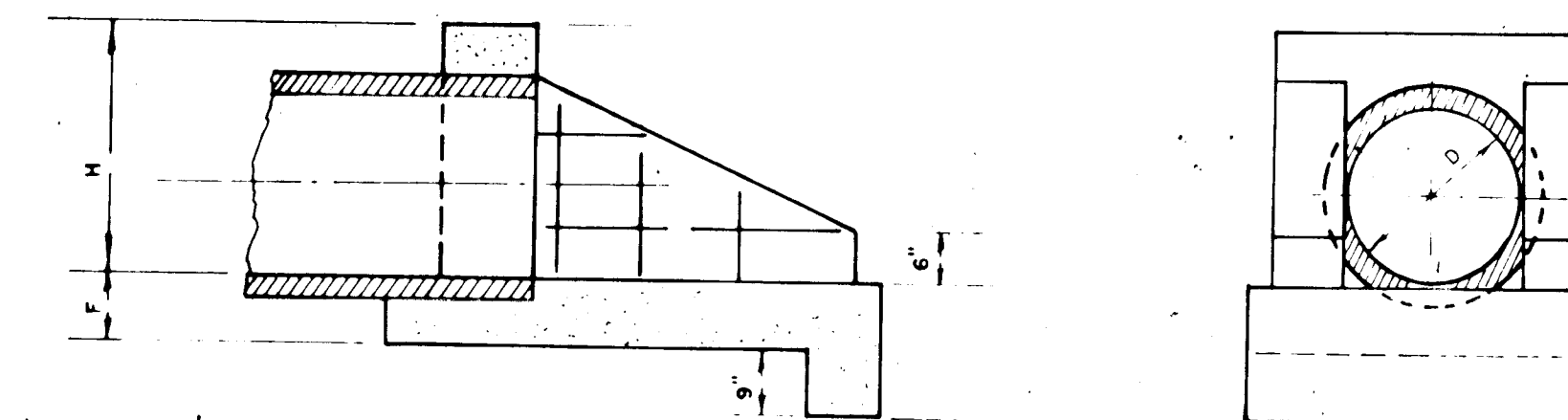
TYPICAL HALF-SECTION CUL-DE-SAC

NO SCALE



VERTICAL CURB

NO SCALE

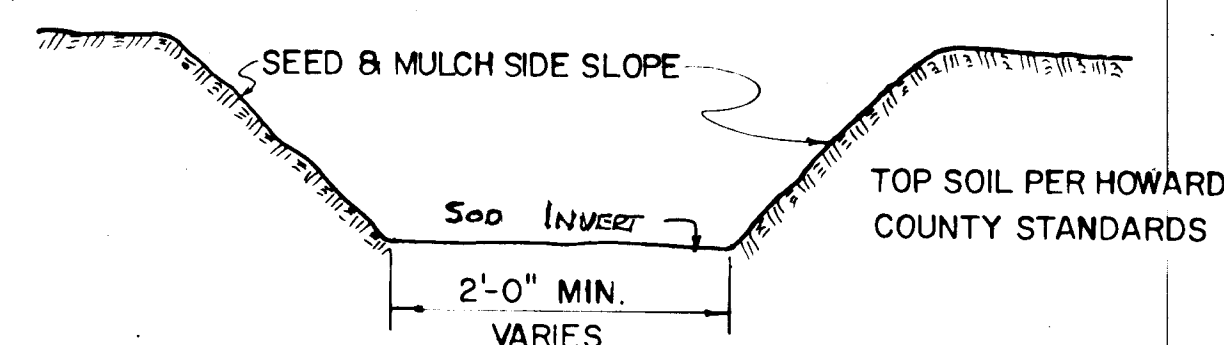
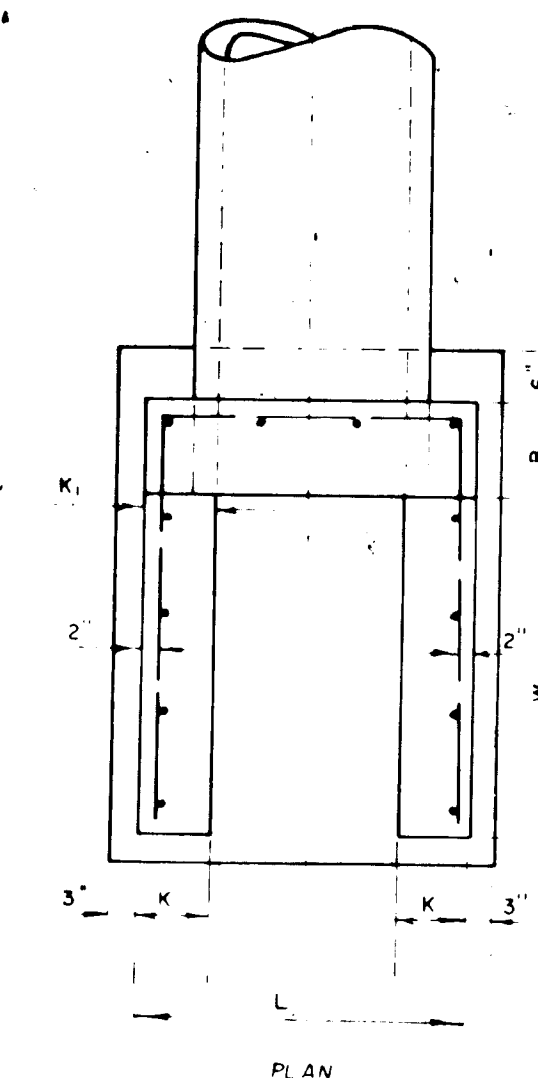


NOTE: (STEEL IN WINGS)
 VERT 3/4" BARS 12" C.C.
 HOR 1/2" BARS 12" C.C.
 HOOKED ON ONE END
 NOTE: CHAMFER ALL EXPOSED EDGES
 1" x 1" OR AS DIRECTED

OPENING DIA. IN FT.	D SOFT	DIMENSIONS FOR CONCRETE						QUANTITIES	
		L	B	H	W	K	K ₁	CONC. CU YDS	STEEL LBS
12"	0.79	2' 0"	9"	9"	1' 7"	1' 4"	6"	0.36	34
15"	1.23	2' 3"	9"	9"	1' 11"	1' 8"	6"	0.47	37
16"	1.39	2' 4"	9"	9"	1' 11"	2' 0"	6"	0.50	38
18"	1.78	2' 6"	9"	9"	2' 2"	2' 6"	6"	0.61	53
24"	3.14	3' 6"	12"	9"	2' 9"	3' 6"	9"	1.17	71
30"	4.91	4' 0"	12"	9"	3' 4"	4' 7"	9"	1.62	91
36"	7.07	4' 6"	12"	9"	3' 0"	5' 8"	9"	2.12	116
42"	9.82	5' 6"	12"	9"	4' 6"	6' 9"	12"	3.15	141
48"	12.57	6' 0"	12"	9"	4' 4"	7' 6"	12"	3.88	174

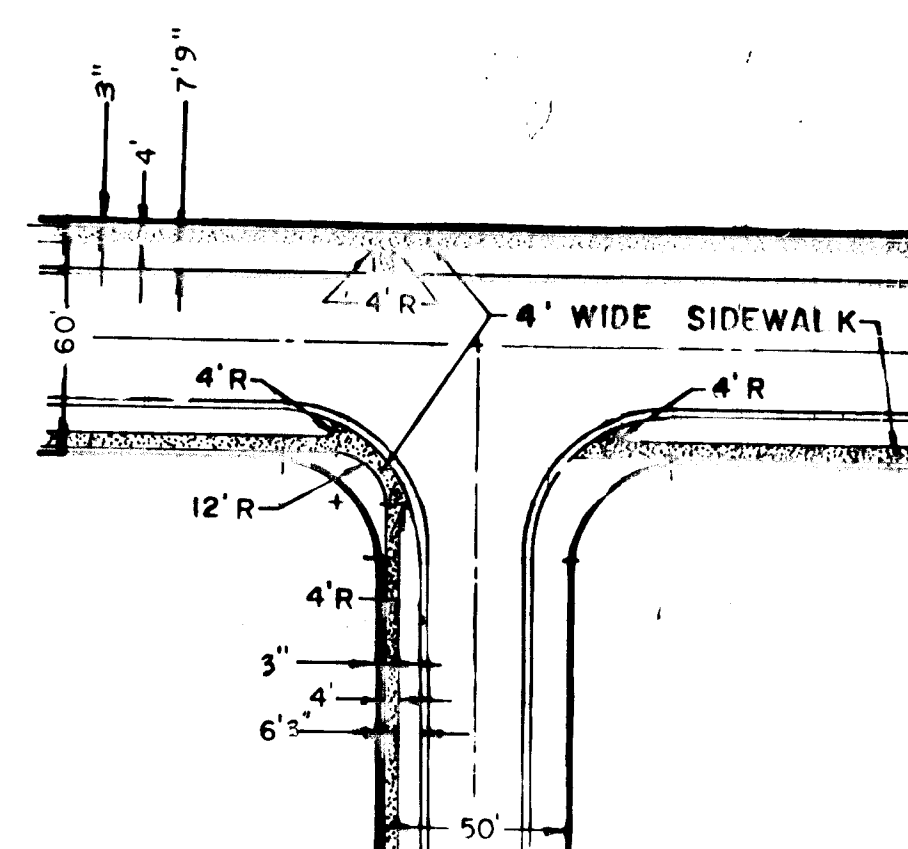
STANDARD TYPE "G" HEADWALL

D-61 Page 116



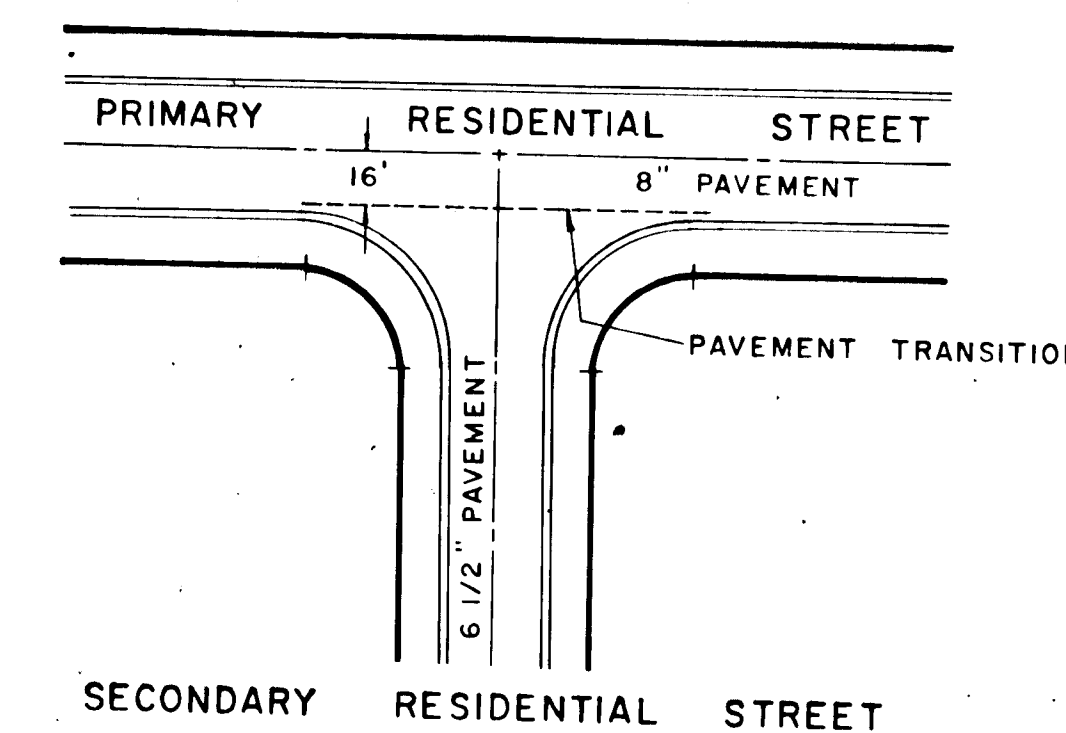
TYPICAL DRAINAGE DITCH

NOTE: ALL EXISTING DITCHES APPROACHING PROPOSED HEADWALLS SHALL BE TRIMMED IN ACCORDANCE WITH ARTICLE C-6 OF THE HOWARD CO. ROAD CONSTRUCTION CODE & STANDARD SPECIFICATIONS.



TYPICAL SIDEWALK DETAIL AT INTERSECTIONS

NO SCALE



TYPICAL PAVEMENT TRANSITION DETAIL

NO SCALE

APPROVED
 PLANNING COMMISSION

DATE: NOV 13 1967

[Signature]

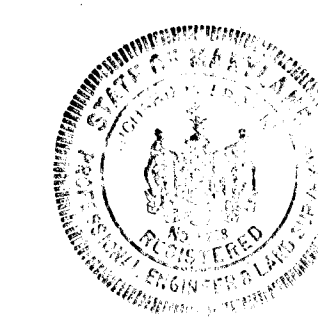
COLUMBIA
 MARYLAND

OWNER AND DEVELOPER
 HOWARD RESEARCH AND DEVELOPMENT CORP.
 THE VILLAGE OF CROSS KEYS - BALTIMORE, MARYLAND 21210

PROJECT AREA
 VILLAGE OF HARPER'S CHOICE SEC. No. 1
 LONGFELLOW AREA No. 3

PROJECT TITLE
 CONSTRUCTION DETAILS

Des By	W.P.	Scale	AS SHOWN	Dwg. No.	20 OF 21
Drn By	J.V.M.	Date	NOV 29 1967	C.C.F. No.	
Chk By	W.P.	Approved			

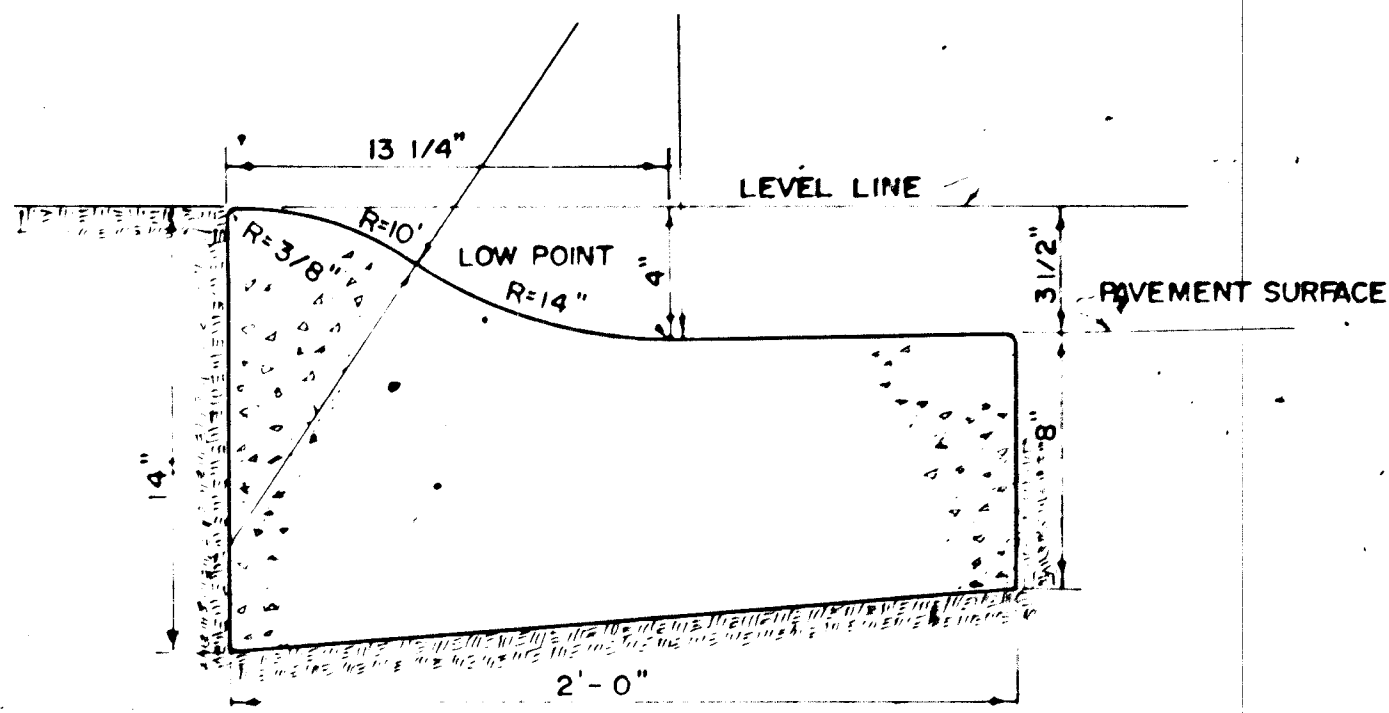


FILE NO. 1764

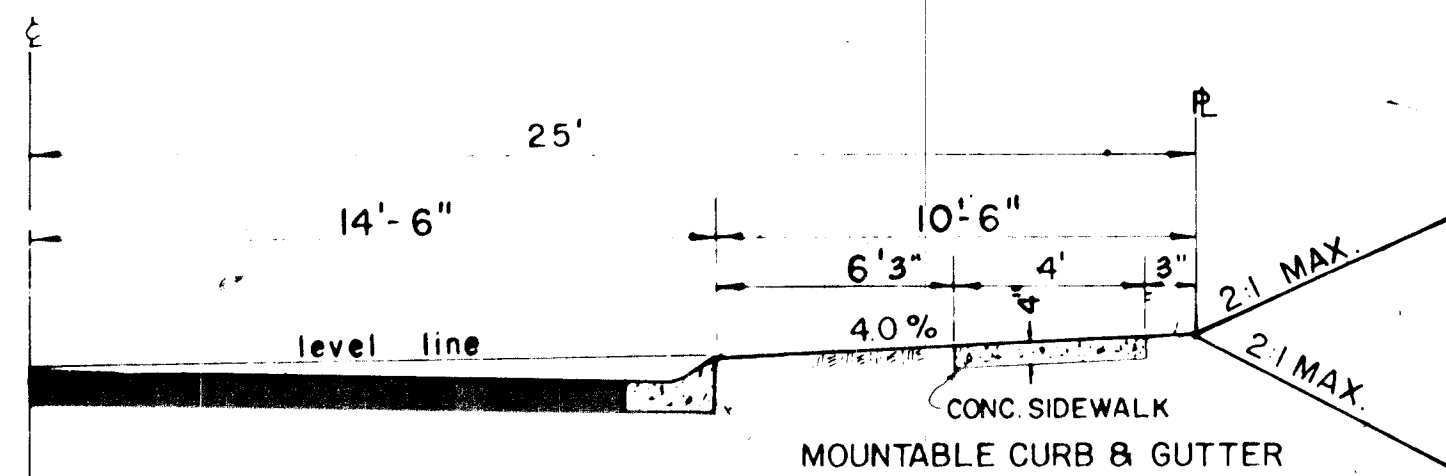
F. 67-90

REVISED 10/14/67

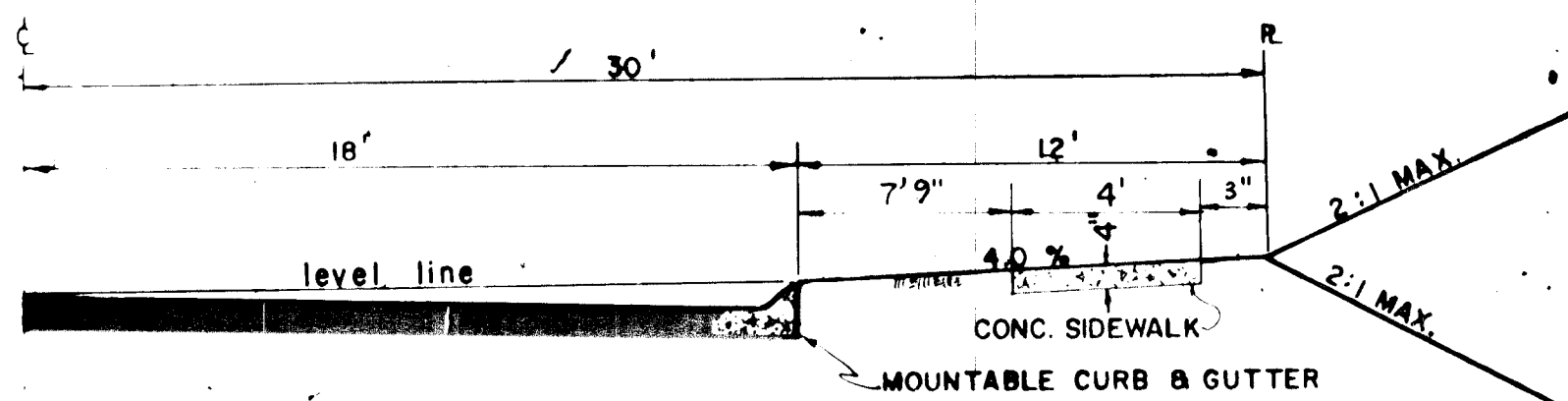
#11



MOUNTABLE CURB & GUTTER
NO SCALE

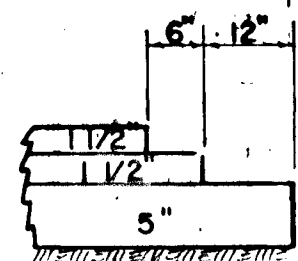


TYPICAL STREET HALF SECTION
NO SCALE

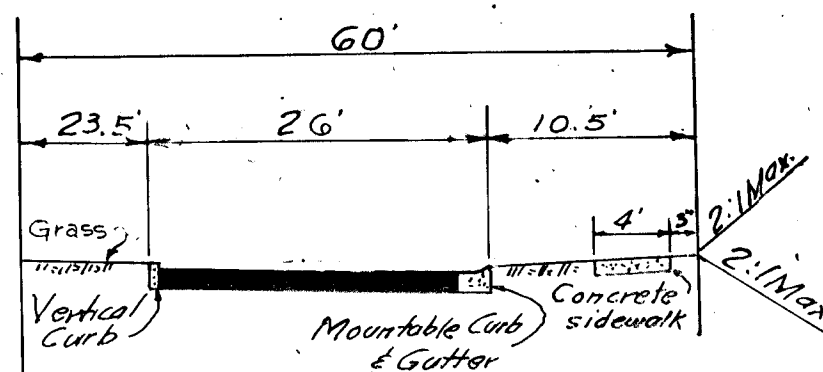


TYPICAL STREET HALF SECTION
NO SCALE

NOTE: SIDEWALK AT DRIVEWAYS IS 6" THICK



TYPICAL EDGE OF PAVEMENT
(WHERE CURB IS NOT CONSTRUCTED)
NO SCALE



TYPICAL HALF-SECTION - CUL-DE-SAC
NO SCALE

BITUMINOUS CONCRETE SURFACE	1.5"	BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BINDER	1.5"	BAND A-3	
BITUMINOUS CONCRETE BASE (PLACED IN ONE COURSE)	5"	FIRST PHASE	
		BAND C-2 OR G-3	

CLEARING AND GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 OR C-33
BINDER COURSE ARTICLE C-31
SURFACE COURSE ARTICLE C-31

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

PRIMARY RESIDENTIAL STREET
NO SCALE

BITUMINOUS CONCRETE SURFACE	1.5"	BAND C-3	FINAL PHASE
BITUMINOUS CONCRETE BASE (PLACED IN ONE COURSE)	5"	FIRST PHASE	
		BAND C-2 OR G-3	

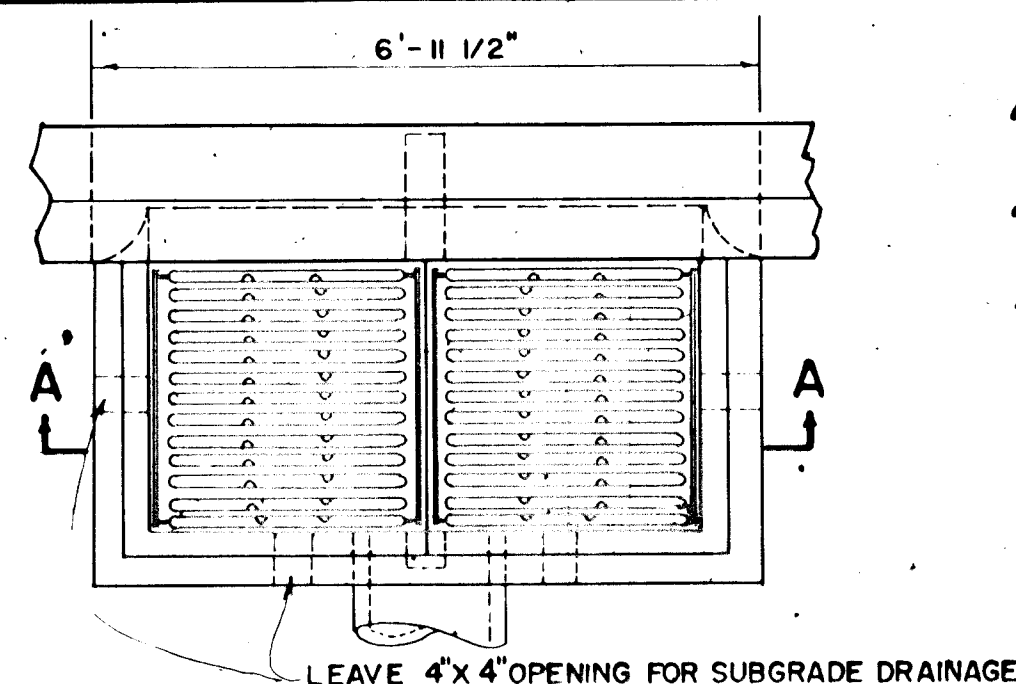
CLEARING AND GRADING ARTICLE C-1
SUBGRADE ARTICLE C-2
BASE COURSE ARTICLE C-31 OR C-33
SURFACE COURSE ARTICLE C-31

TO BE CONSTRUCTED IN ACCORDANCE WITH THE HOWARD COUNTY ROAD CONSTRUCTION CODE AND SPECIFICATIONS.

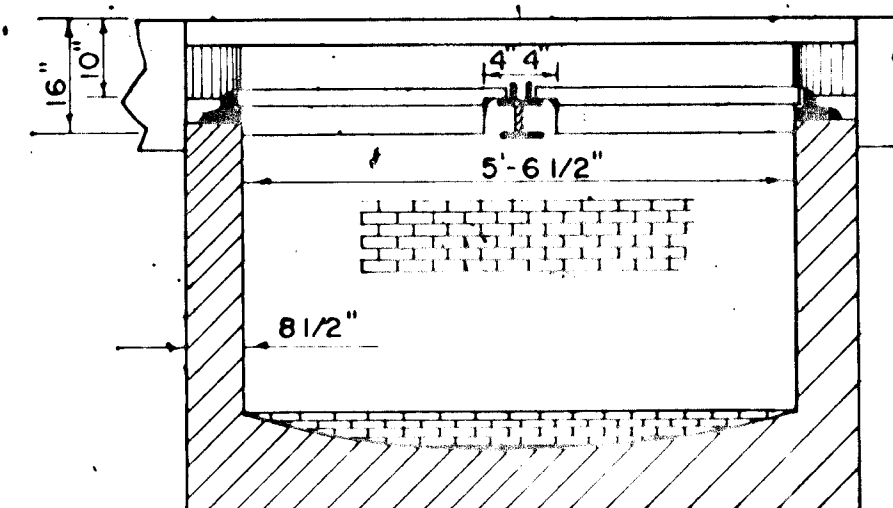
SECONDARY RESIDENTIAL STREET
NO SCALE

PAVEMENT SECTIONS

Richard R. Browne
RICHARD R. BROWNE, P.E. & L.S.
Lic. No. 5238 State MD.

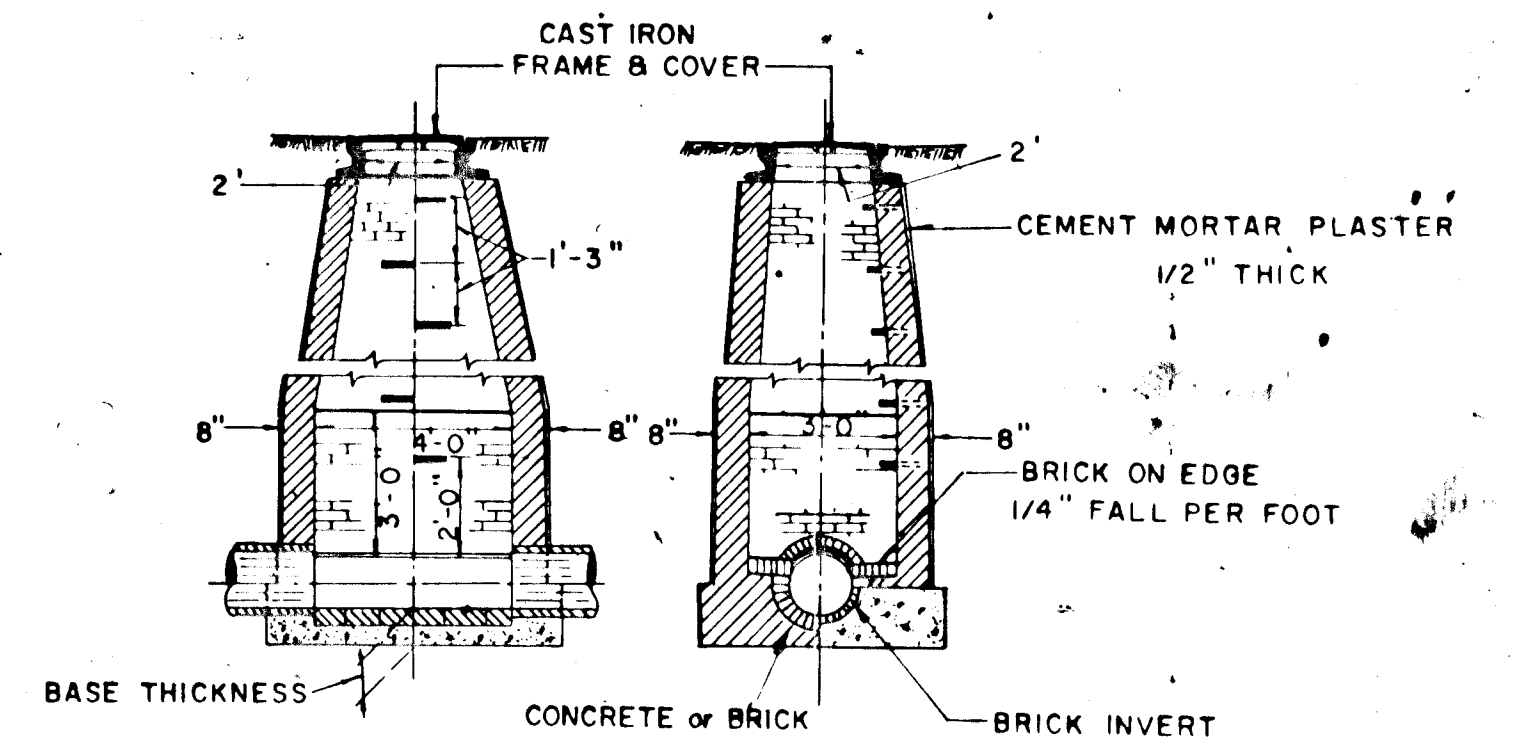


"S" COMBINATION INLET (DOUBLE GRATE)
NO SCALE



SECTION "A-A"
NO SCALE

STANDARD MANHOLE DETAIL
NO SCALE

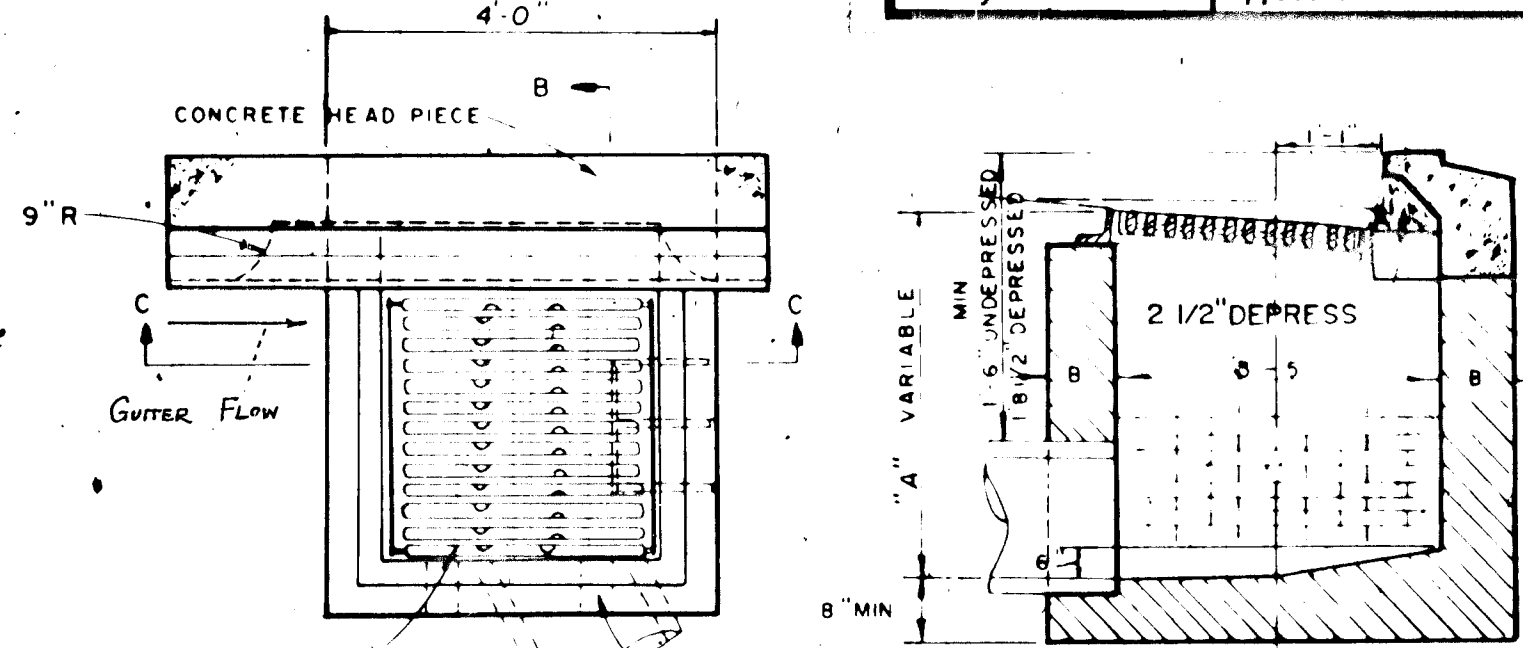
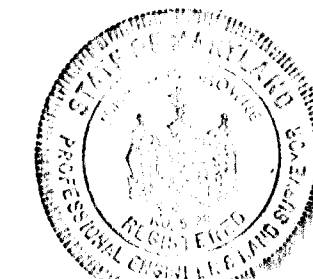


MANHOLE WALL THICKNESS:
8" to depth of 12'-0"
12" Below depth of 12'-0"
15" To depth of 24'-0"

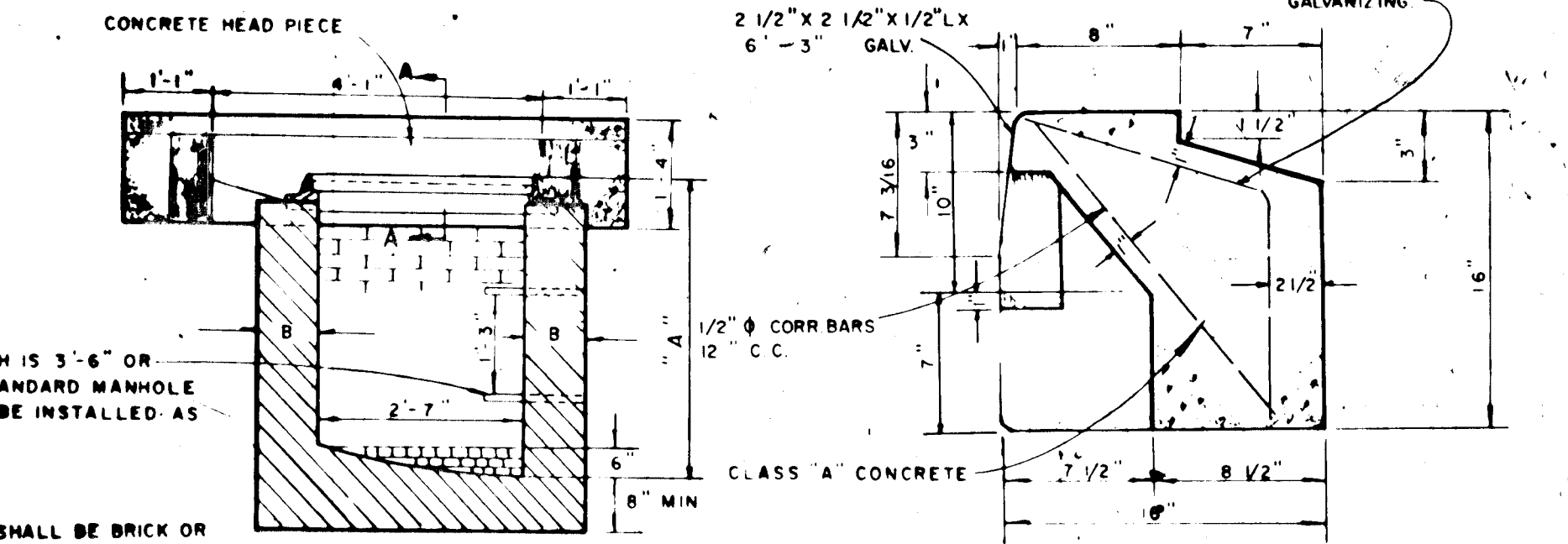
MANHOLE BASE THICKNESS:
8" Wall 12" Base
12" " 15" "

BENCH HEIGHT ABOVE OUTGOING PIPE INVERT
Storm Water: 0.5 D

Rev Date	Rev No	Revision Description
COLUMBIA MARYLAND		
THE ROUSE COMPANY THE VILLAGE OF CROSS KEYS, BALTIMORE, MARYLAND 21210		
PROJECT AREA: VILLAGES OF HARDER'S CHOICE SEC. NO. 1 LONGFELLOW AREA NO. 3		
PROJECT TITLE: CONSTRUCTION DETAILS		
Des By	Scale As Noted	Dwg No 21 of 21
Drn By	Date JUNE 29 1967	C.C.F. No
Chk By	Approved	



ALL LONGITUDINAL BARS 6' LONG 1/2" CORR. ANCHOR BARS 24" C-C 4 REQUIRED BEGINNING 7 1/2' FROM ANGLE END FASTEN TO ANGLE WITH 1/4" FILLET WELD ALL AROUND BEFORE GALVANIZING



NOTE:
1. THE WALLS AND INVERT SHALL BE BRICK OR PLAIN CLASS "A" REINFORCED CONCRETE
2. B-B WHERE A IS 7' OR LESS
3. B-B WHERE A IS 7' TO 11'
4. TOP 4" OF WALLS SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRATE TO EXISTING GRADE IF REQUIRED.
5. WHERE BRICK IS USED INVERT SHALL BE LAID ON EDGE

"S" COMBINATION INLET DETAIL (SINGLE GRATE)
NO SCALE

APPROVED
PLANNING COMMISSION
OF BALTIMORE
DATE NOV 13 1967