

**SOIL LEGEND**

	A-2 SAND & FINES		A-7-2 SANDY CLAY
	A-2-4 SILTY SAND		A-4 SILT
	A-4-2 SANDY SILT		A-7-4 SILTY CLAY
	A-2-7 CLAYEY SAND		A-5 MICA, DIATOMS DECOMPOSED ROCK

PROFILE VERTICAL SCALE: 1" = 5'  
 BORING LOCATION

# COLUMBIA

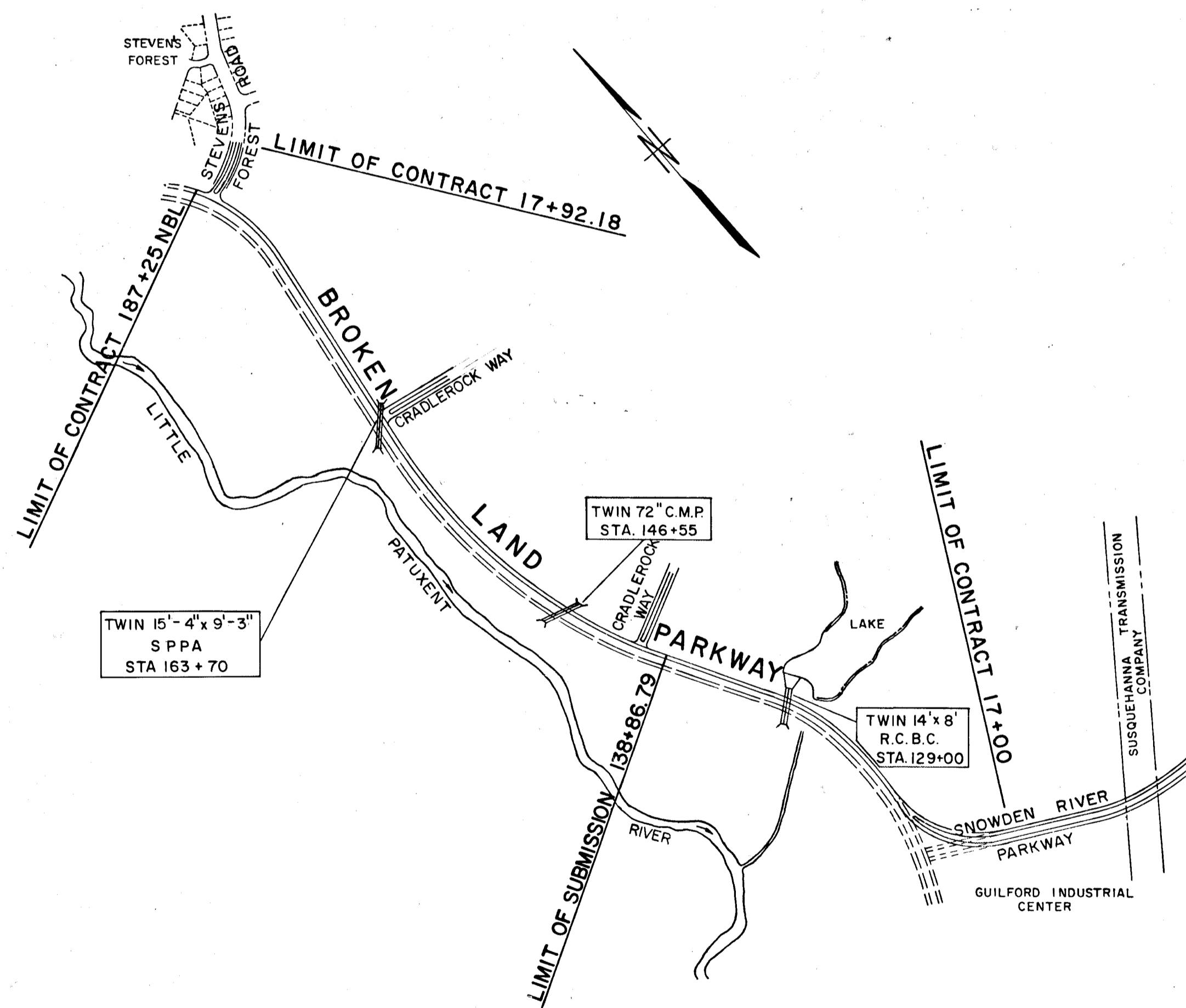
ELECTION DISTRICT 6

## BROKEN LAND PARKWAY

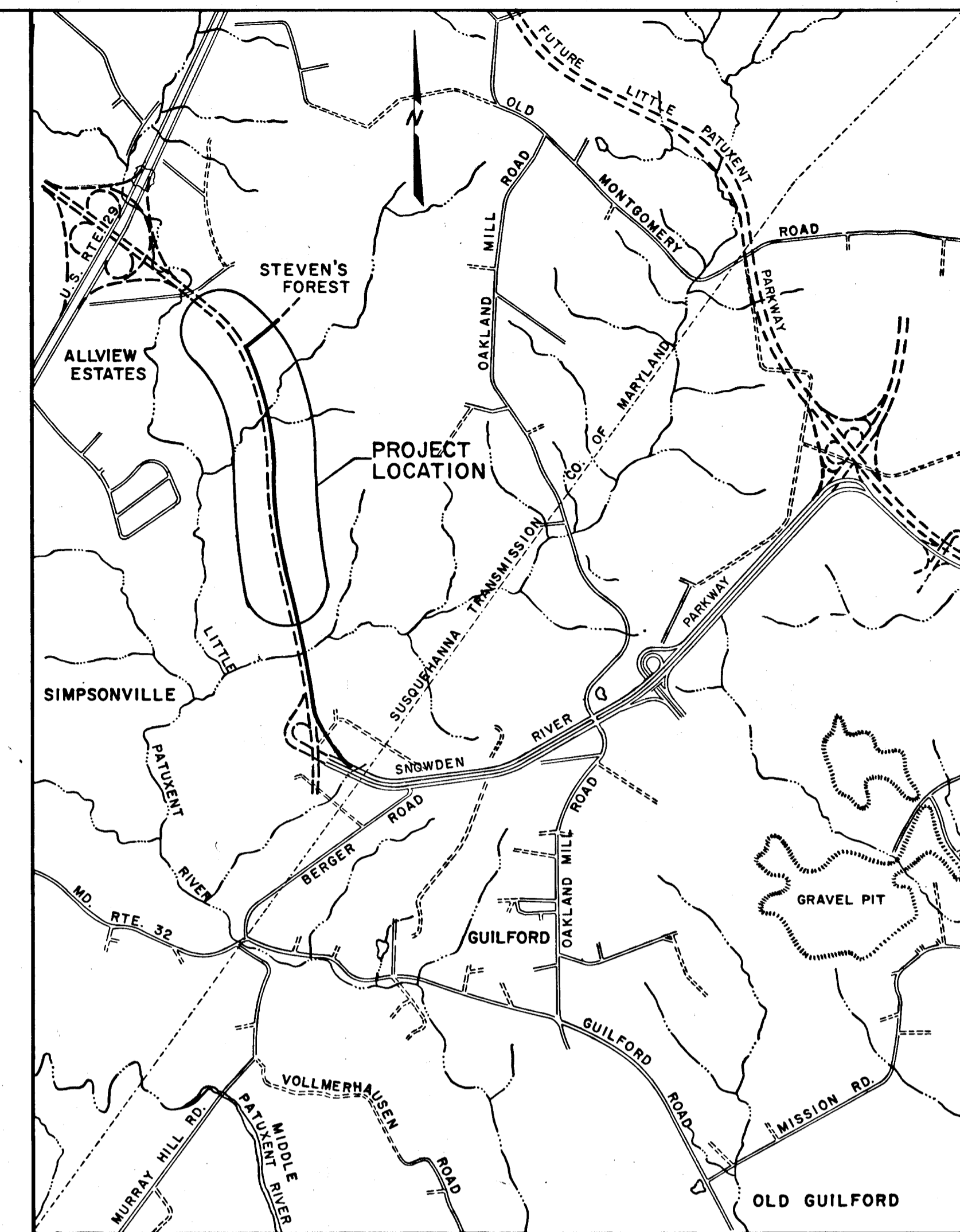
HOWARD RESEARCH & DEVELOPMENT CORP.  
 HOWARD COUNTY, MARYLAND

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1	TITLE SHEET & VICINITY MAP
2	TYPICAL SECTIONS
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7	PLAN & PROFILE STA. 11+50 RAMP 'B' TO STA. 131+00
8	PLAN & PROFILE STA. 131+00 TO STA. 143+00
9	PLAN & PROFILE STA. 143+00 TO STA. 153+00
10	PLAN & PROFILE STA. 153+00 TO STA. 164+00
11	PLAN & PROFILE STA. 164+00 TO STA. 174+00
12	PLAN & PROFILE STA. 174+00 TO STA. 184+00
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17	PROFILES STORM DRAIN
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20	DRAINAGE AREA MAP
21	PROFILE CONN. 'B' & EROSION CONTROL DETAILS
22	HEADWALL DETAILS

NOT IN CONTRACT  
 NOT IN CONTRACT



**LOCATION PLAN**  
 SCALE: 1" = 800'



**VICINITY MAP**  
 SCALE: 1" = 2000'

**GENERAL NOTES**

- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTION TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATIONS 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.
- FOR ALL DETAILS NOT SHOWN ON DRAWINGS, SEE HOWARD COUNTY ROAD CONSTR. CODE AND ST'D. SPECS. AS REVISED AUGUST 6, 1968.
- TREES ARE TO BE PROTECTED AGAINST DAMAGE TO THE MAXIMUM EXTENT REASONABLE. TREES WHICH ARE TO REMAIN IN STREETS AND OTHER RIGHTS OF WAY WILL BE MARKED BY THE ENGINEER PRIOR TO COMMENCING OF CONSTRUCTION OPERATIONS.
- DEVELOPER WILL PLACE ROADS TO SUBGRADE FOR THE FULL WIDTH OF THE RIGHT OF WAY BEFORE INSTALLATIONS OF UTILITIES.
- THE DEVELOPER SHALL ACCOMPLISH ALL GRADING WITHIN EASEMENT AREAS WHERE UTILITIES ARE TO BE INSTALLED BEFORE NOTICE TO PROCEED WILL BE ISSUED.
- 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 & ELECTRIC CO. 539-8000 EXT. 691
- ALL DETAILS ARE FROM THE "ROAD CONSTRUCTION CODE AND STANDARD SPECIFICATIONS" ISSUED OR APPROVED BY THE COUNTY COMMISSIONERS AND THE HOWARD COUNTY ROAD DEPARTMENT.
- MAINLINE ROADWAY IS DESIGNED FOR 50 M.P.H. TRAFFIC SPEED IN ACCORDANCE WITH THE AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIAL STANDARDS. STEVEN'S FOREST RD. IS DESIGNED FOR 35 MPH. TRAFFIC SPEED.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL DATUM 1929.
- ALL INLET BOXES AND MANHOLES TO HAVE A MINIMUM OF 8" CONCRETE FOOTER.

**CERTIFICATION BY THE DEVELOPER**

"I certify that all development and/or construction will be done according to this plan of development and plan of silt and sediment control."

Signature: *Richard W. Roach* Date: 5-23-72

"This development plan is approved for soil erosion and sediment control by the Howard Soil Conservation District."

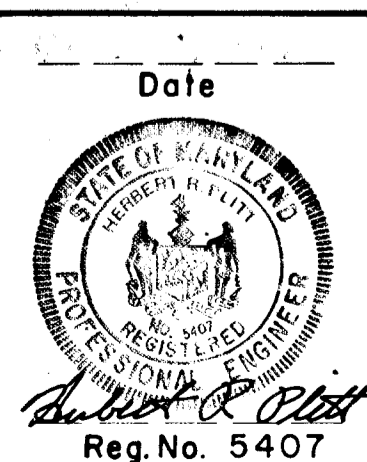
Reviewed: *Jane M. Helms* Date: 5-23-72  
 Dist. Conservation

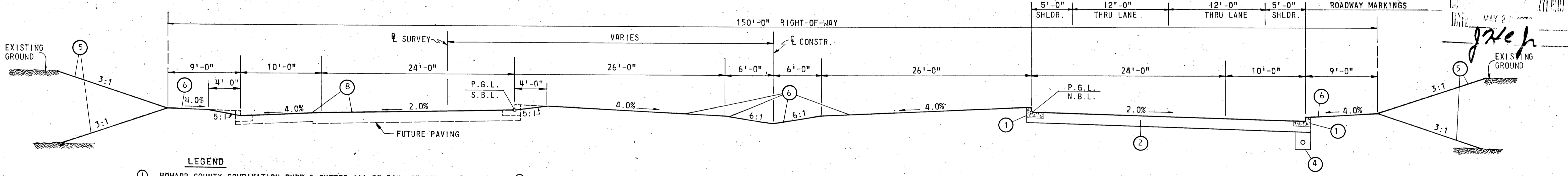
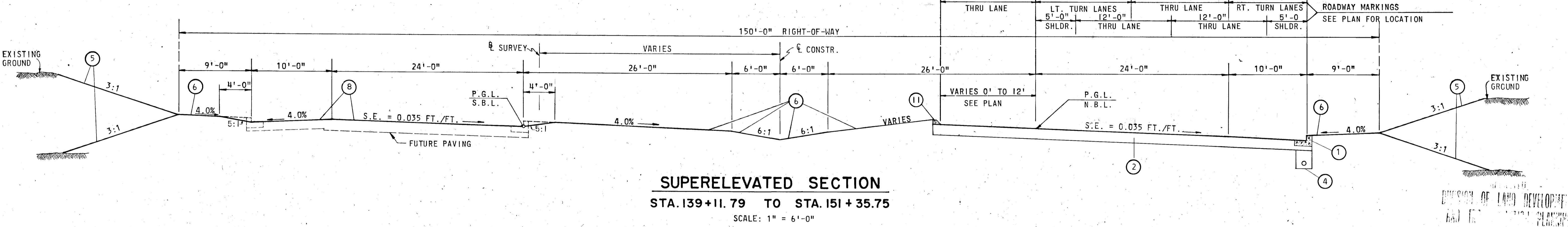
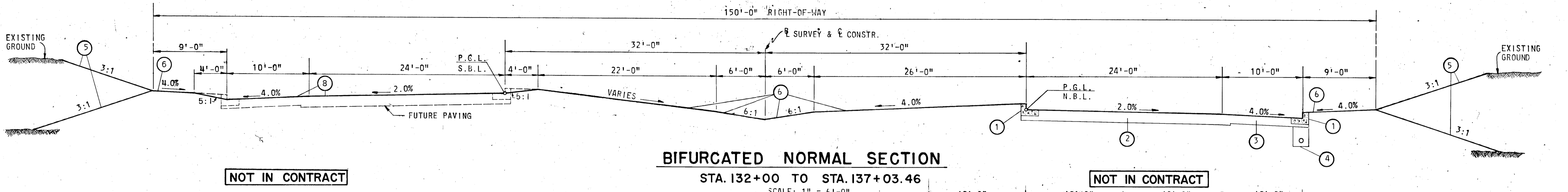
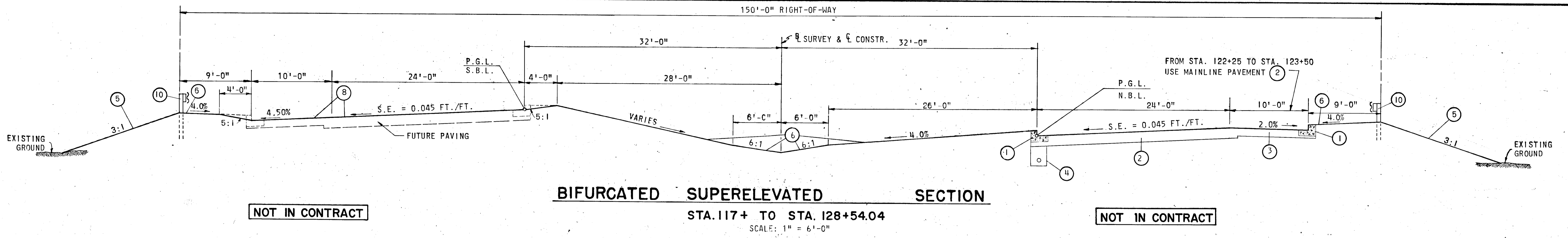
Approved: *Robert W. Roach* Date: 5-23-72  
 Howard Soil Conservation District

DEPARTMENT OF PUBLIC WORKS  
*J. N. McKeand* 5/30/72  
 CHIEF, BUREAU OF HIGHWAYS DATE

OFFICE OF PLANNING AND ZONING  
*J. H. Clawson* 5/26/72  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING DATE

GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 1130 N. CHARLES ST.  
 BALTIMORE, MARYLAND





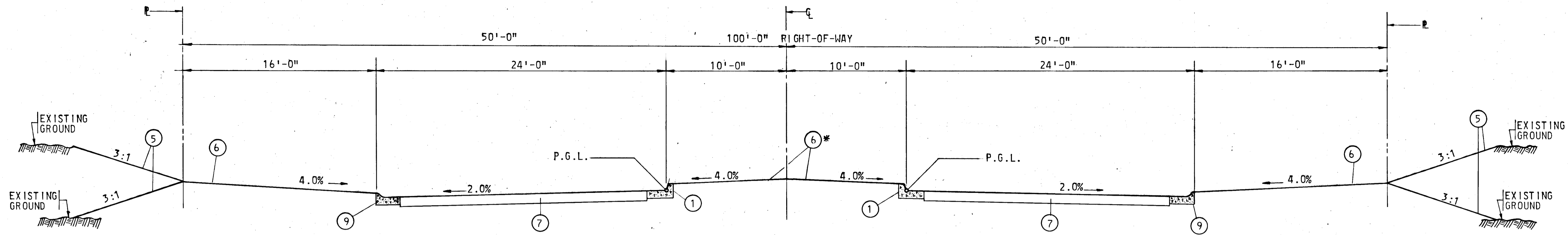
- LEGEND**
- ① HOWARD COUNTY COMBINATION CURB & GUTTER (1'-6" PAN, 8" DEPTH) (SEE SECTION ① SHEET 4)
  - ② MAINLINE ROADWAY PAVEMENT (SEE SECTION ② SHEET 4)
  - ③ SHOULDER PAVEMENT (SEE SECTION ③ SHEET 4) NOT IN CONTRACT
  - ④ SUB-BASE DRAINAGE (SEE SECTION ④ SHEET 4)
  - ⑤ 2" TOPSOIL, SEEDING & MULCHING
  - ⑥ 4" TOPSOIL, SEEDING & MULCHING
  - ⑦ STEVENS FOREST PAVEMENT
  - ⑧ TEMPORARY SEEDING
  - ⑨ HOWARD COUNTY MODIFIED COMB. CURB & GUTTER
  - ⑩ GUARD RAIL W BEAM
  - ⑪ HOWARD COUNTY MOUNTABLE CURB DWG. 39

DIVISION OF LAND DEVELOPMENT  
 MAY 2 1972  
*J. T. J.*

DEPARTMENT OF PUBLIC WORKS  
*B. W. Weisand*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE: 5/30/72

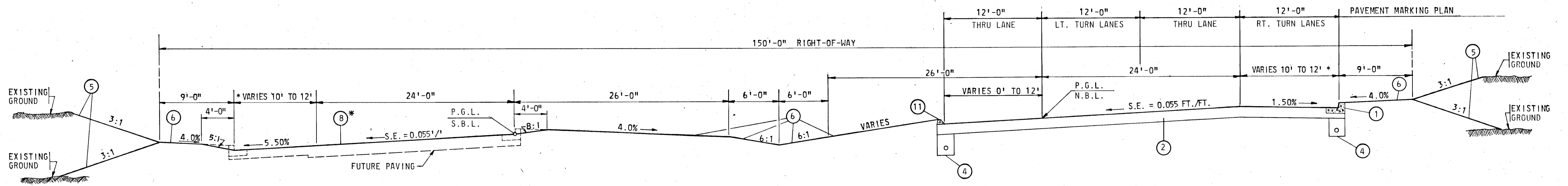
OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE:

Drawn By	Rev. No.	Revision Description
<b>GOLUMBIA</b>		
6TH ELECTION DISTRICT HOWARD COUNTY		
HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND		
PROJECT AREA <b>BROKEN LAND PARKWAY</b>		
Drawn By	Scale	Sheet No.
K.A.L.	AS SHOWN	2 OF 22
Rev. By	Date	C.C.T. No.
R.B.	MAY 1972	
Check By	Approved	
J.T.J.		



**STEVEN'S FOREST ROAD**

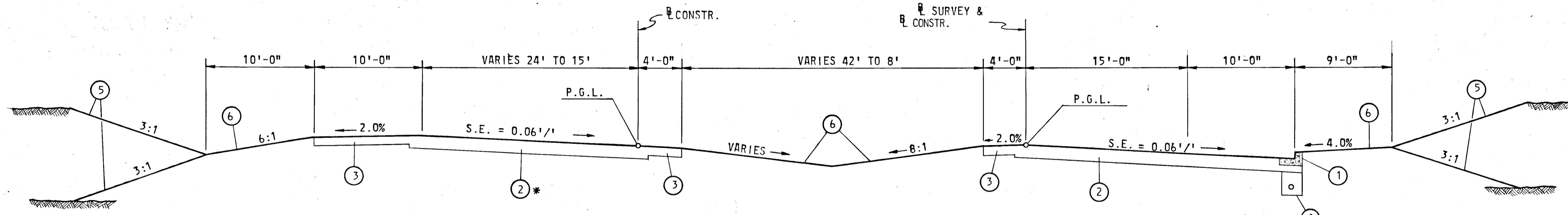
SCALE: 1" = 5'-0"



**BIFURCATED SUPERELEVATED SECTION**

STA. 181+46.22 TO STA. 187+00

SCALE: 1" = 6'-0"



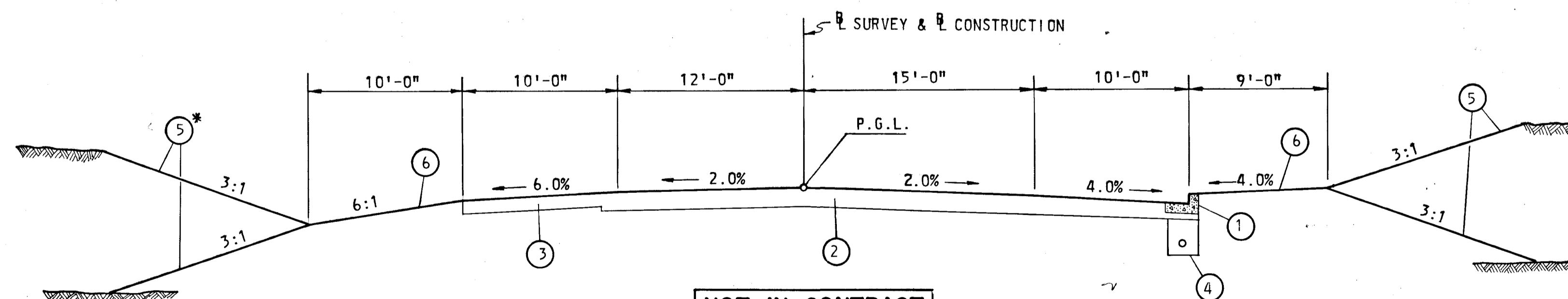
**CONNECTION 'B'**

NOT IN CONTRACT

**RAMP 'B'**

STA. 0+90 TO STA. 6+00

SCALE: 1" = 6'-0"



NOT IN CONTRACT

**RAMP 'B'**

STA. 7+00 TO STA. 9+

SCALE: 1" = 6'-0"

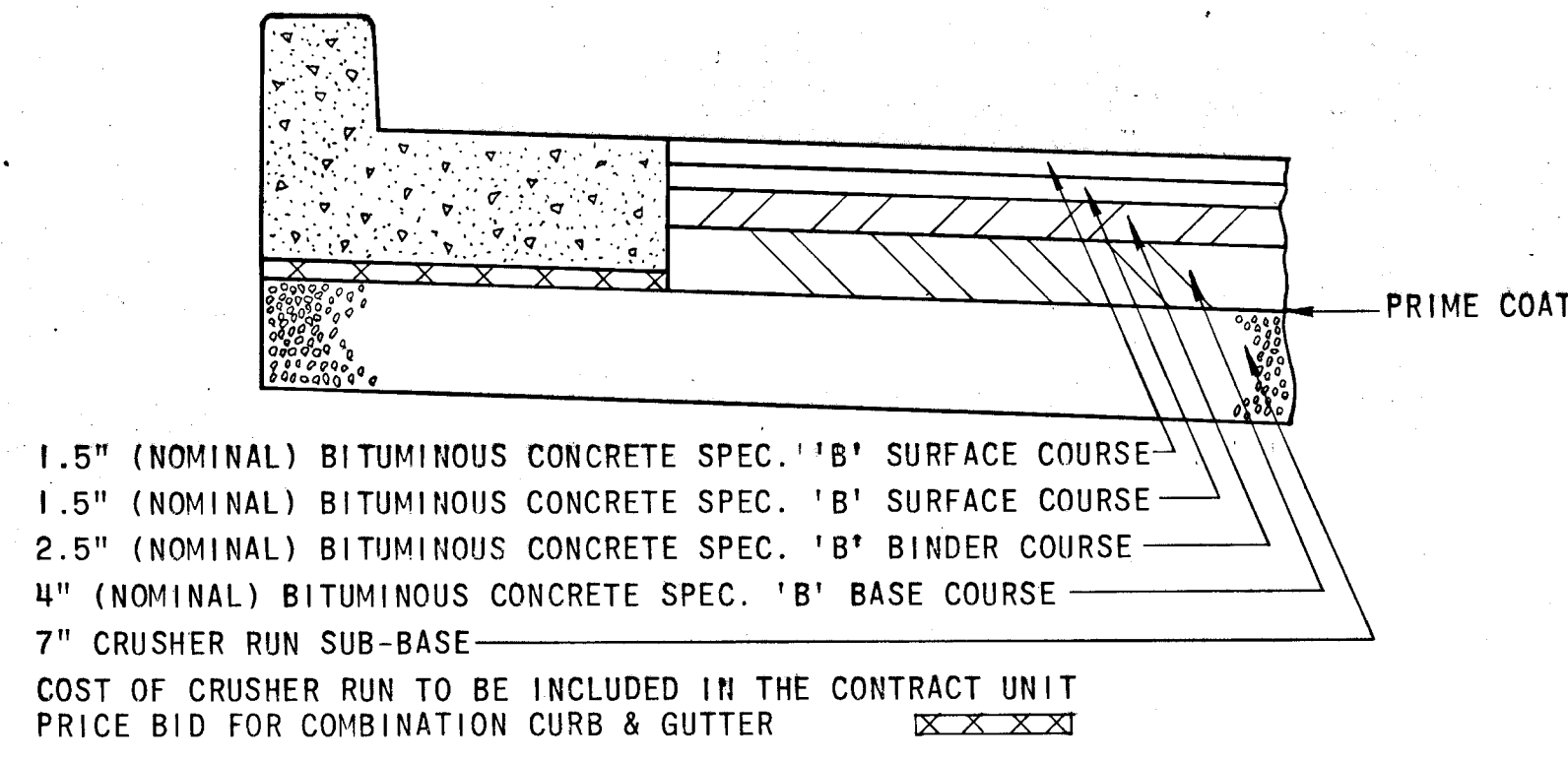
APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND TRANSPORTATION PLANNING  
HOWARD COUNTY, MARYLAND  
DATE: MAY 26 1972  
*J.H.F.*

\* FOR LEGEND SEE SHEET 2

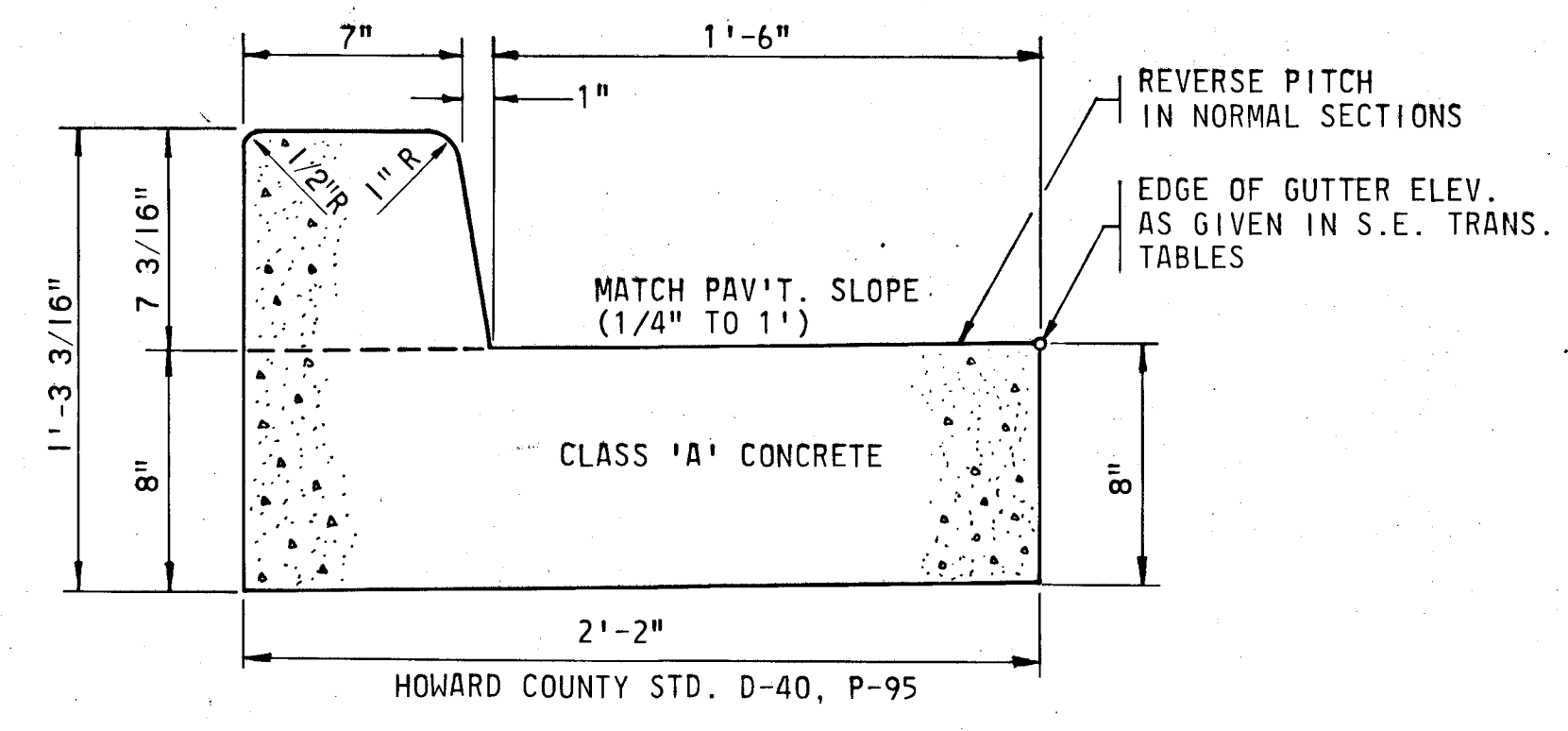
DEPARTMENT OF PUBLIC WORKS  
*D. H. McKeand* 5/30/72  
CHIEF, BUREAU OF HIGHWAYS DATE  
OFFICE OF PLANNING AND ZONING  
CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT DATE

Rev. No.	Rev. Date	Revision Description
<b>COLUMBIA</b>		
6TH ELECTION DISTRICT HOWARD COUNTY		
HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND		
PROJECT AREA <b>BROKEN LAND PARKWAY</b>		
PROJECT TITLE		
Des. By	J.H.F.	Scale: AS SHOWN
Div. By	J.B.D.	Date: MAY 1972
Chk. By	J.T.J.	Approved
		Draw. No. 3 OF 22

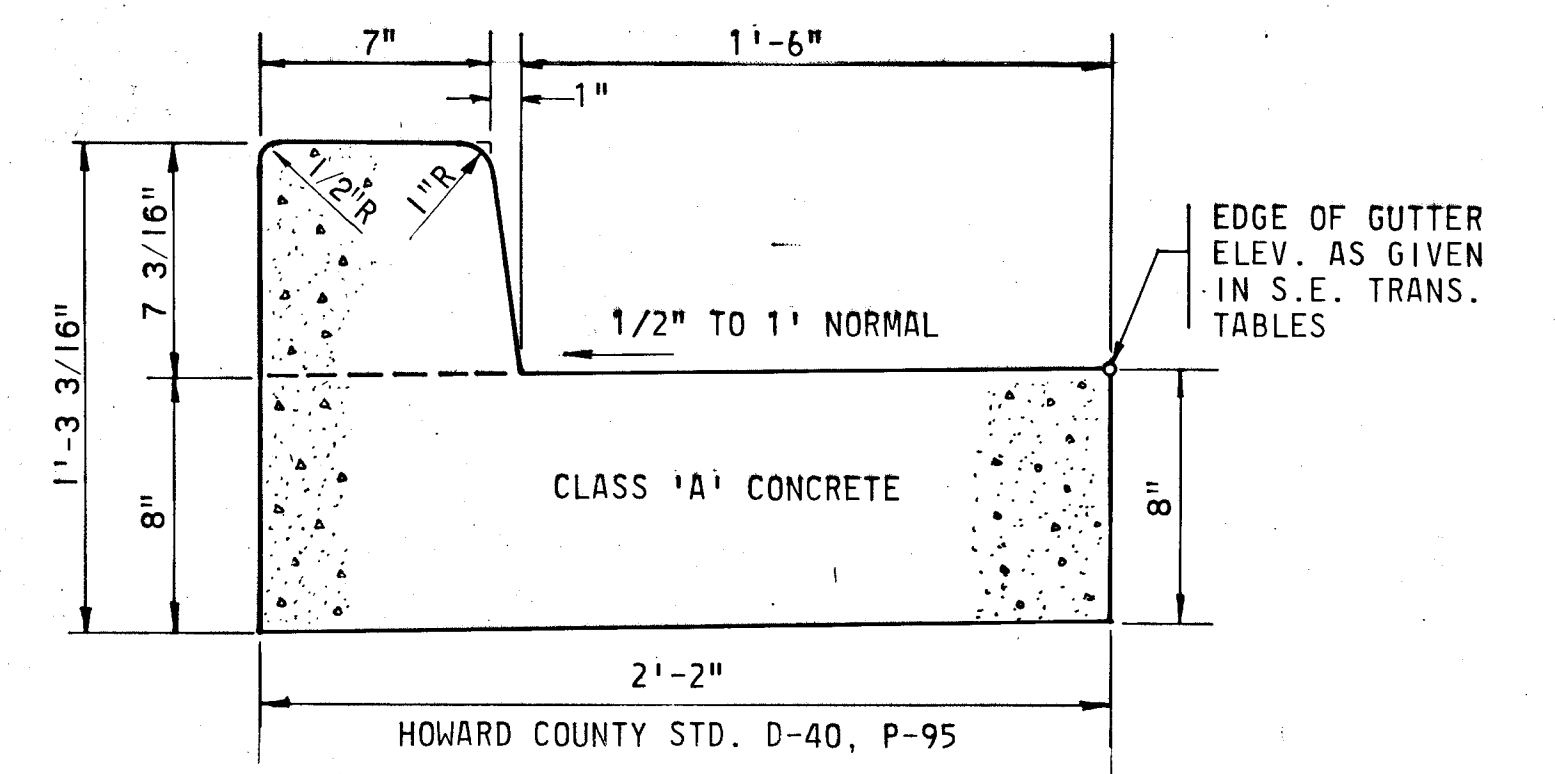




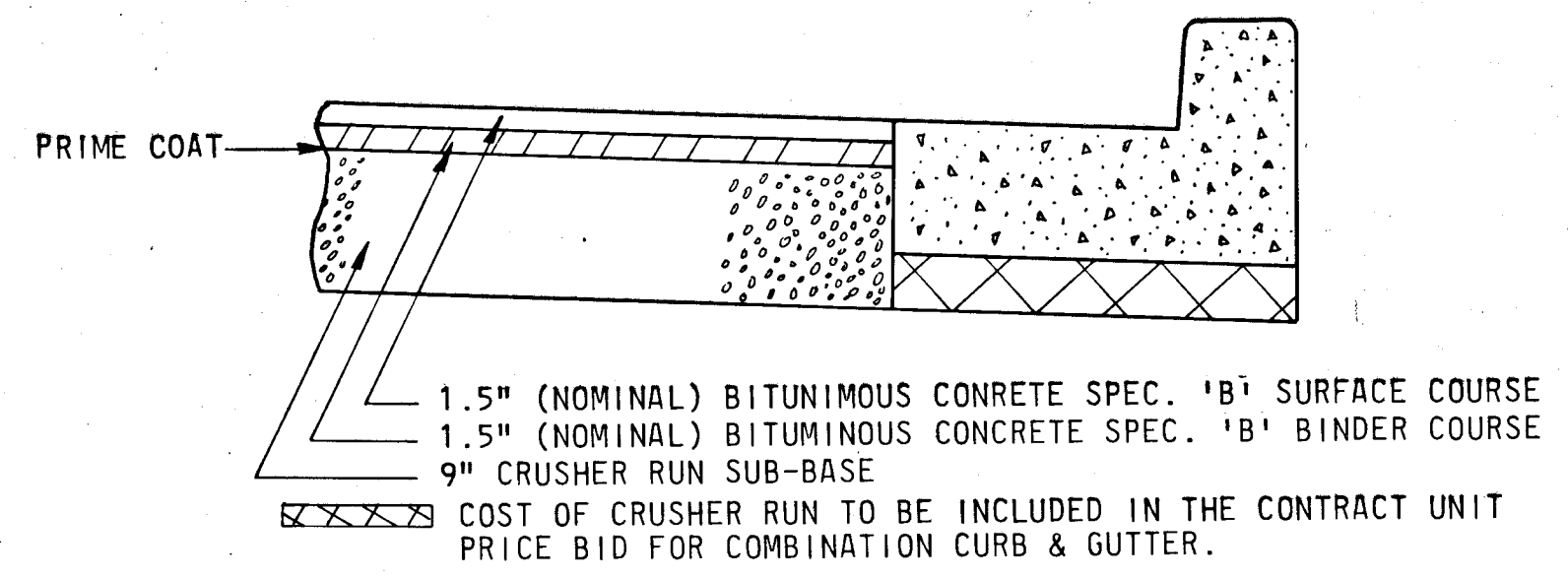
**CLOSED PAVEMENT SECTION ②**  
HOWARD COUNTY STD. D-9, P-64



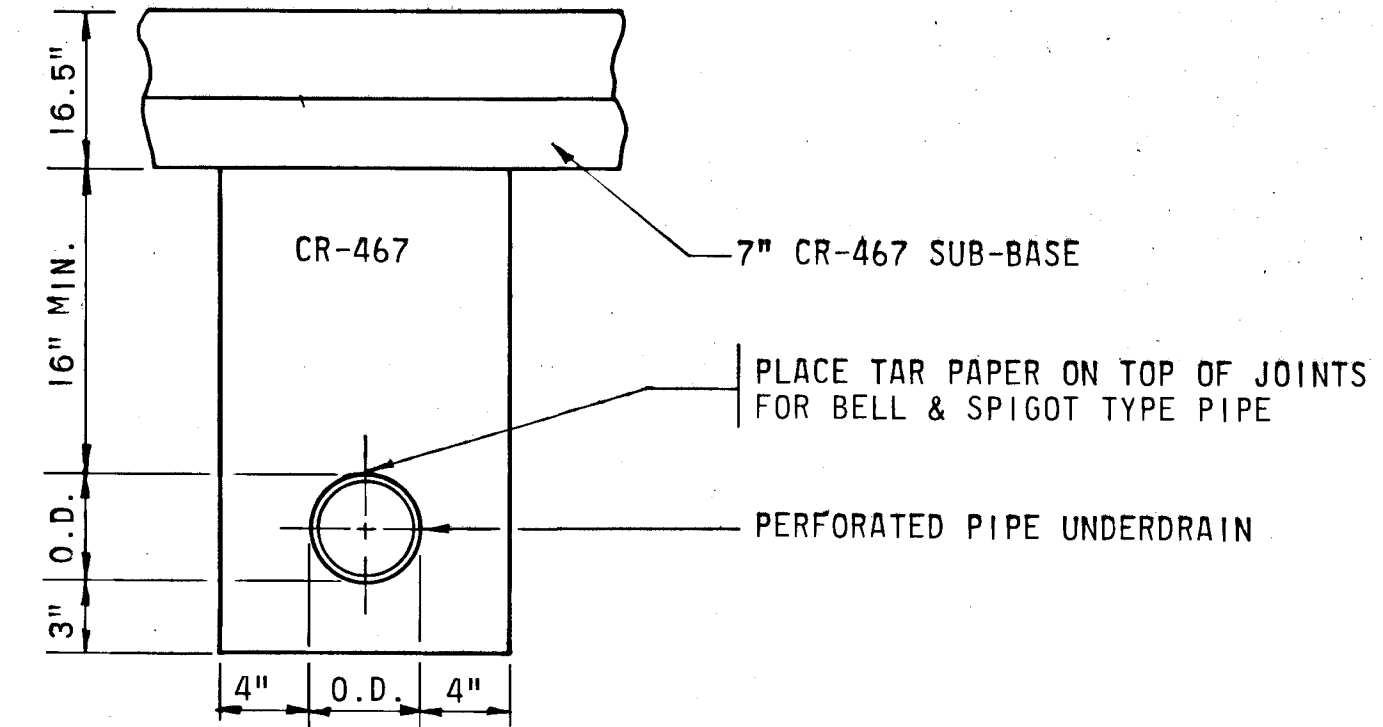
**CURB & GUTTER DETAIL ADJACENT TO MEDIAN ①**  
SCALE: 2" = 1'



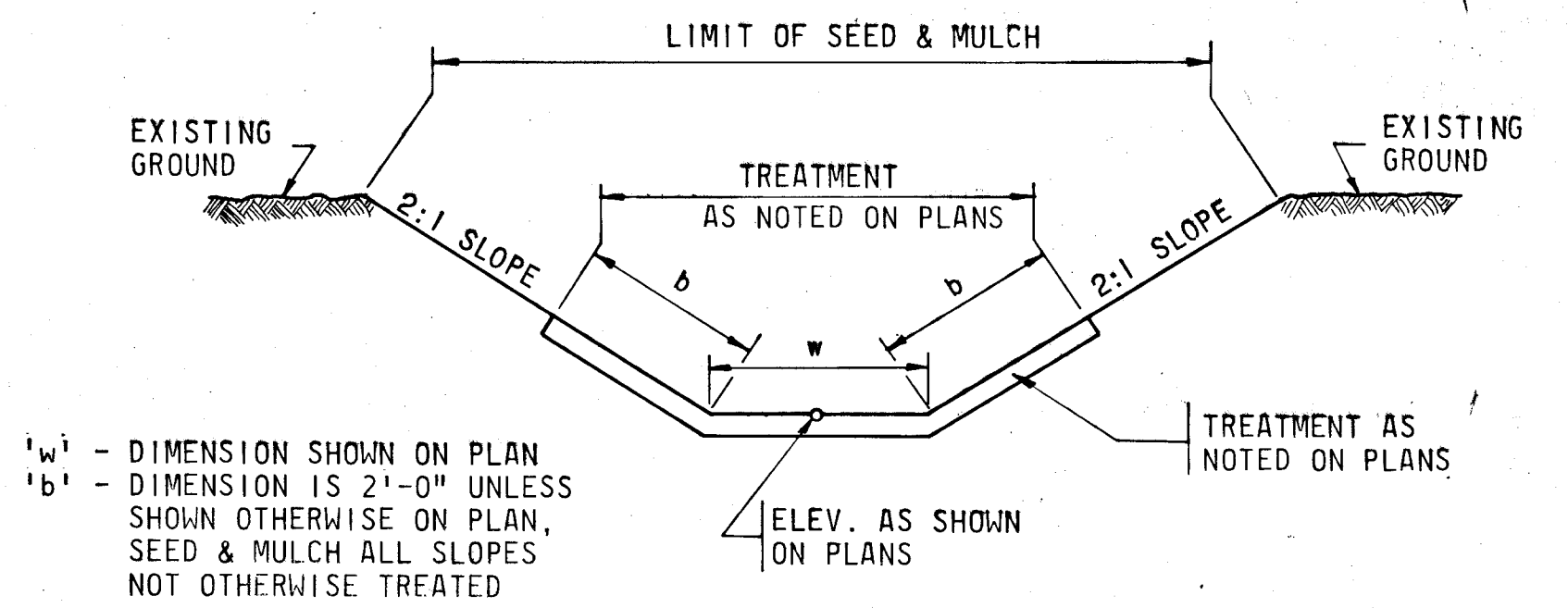
**CURB & GUTTER DETAIL ADJACENT TO SHOULDER ①**  
SCALE: 2" = 1'



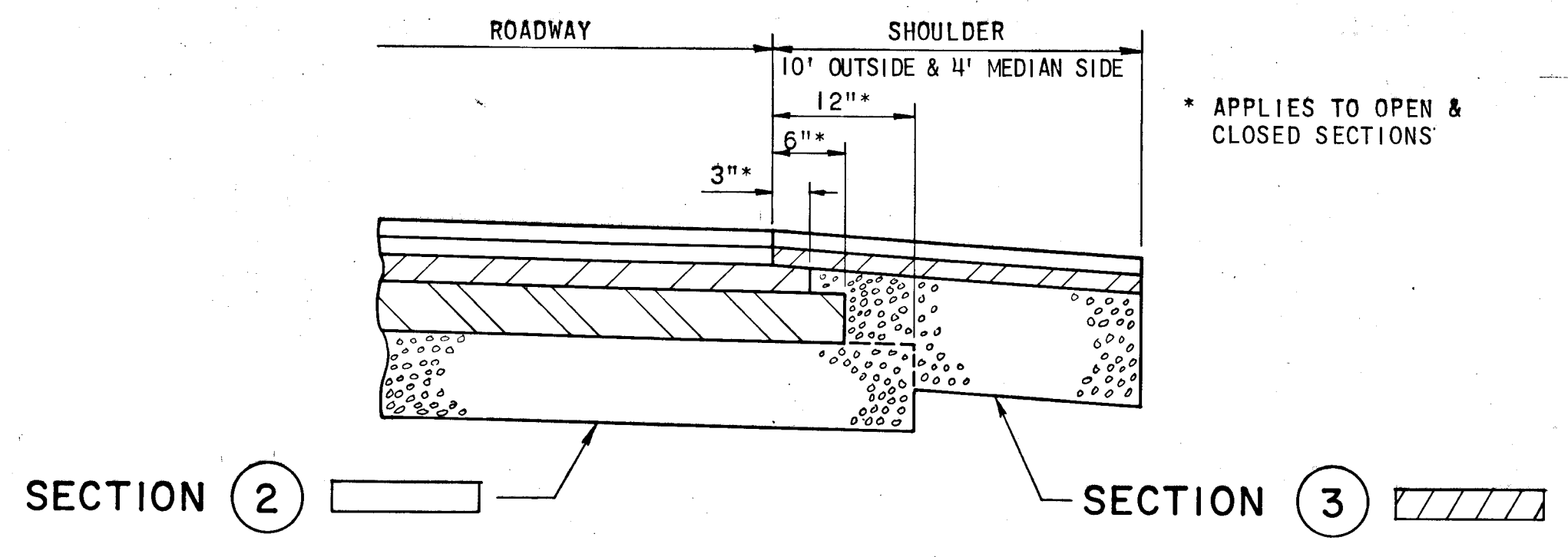
**CLOSED SHOULDER PAVEMENT SECTION ③**  
**NOT IN CONTRACT**



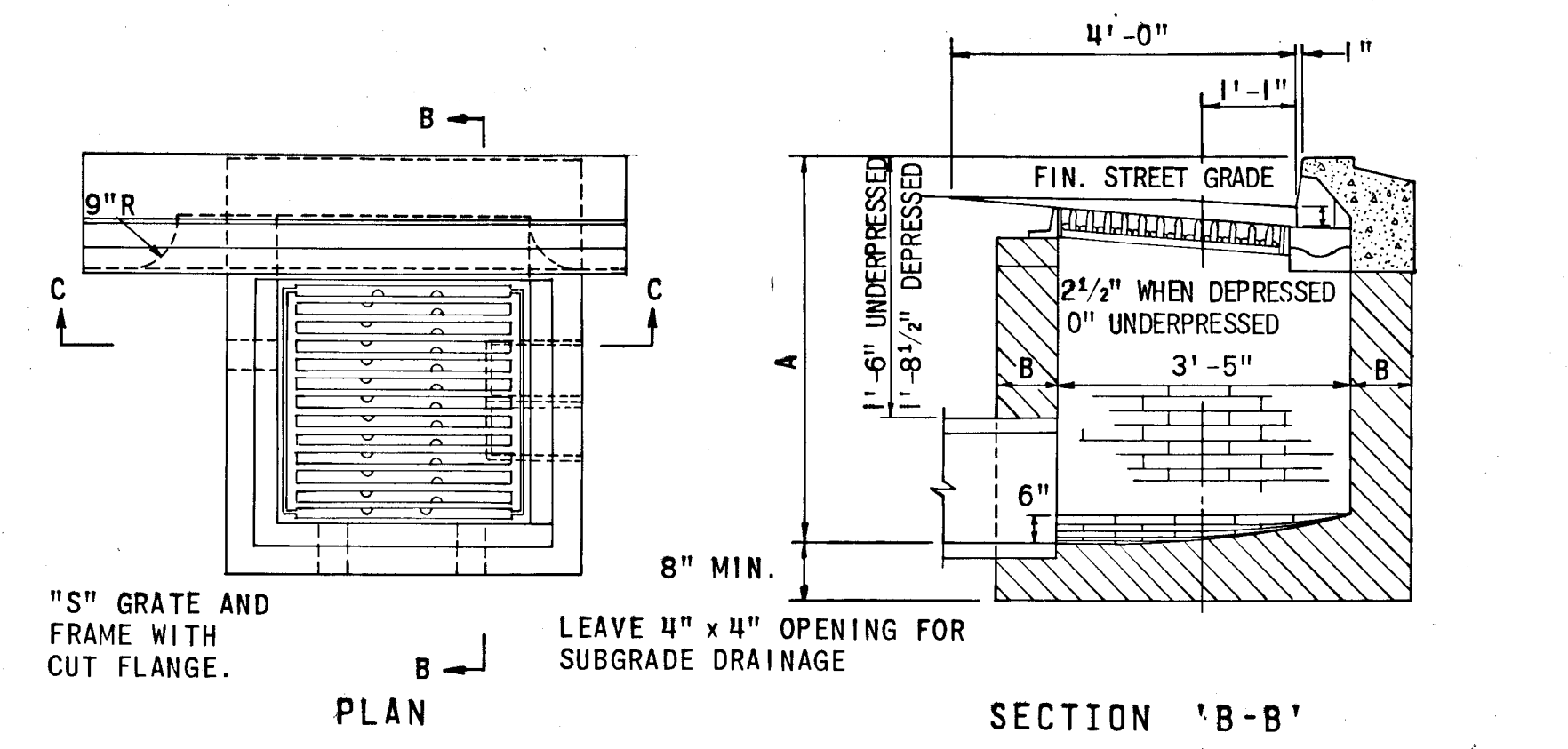
**SUB-BASE DRAINAGE DITCH SECTION ④**  
NOT TO SCALE



**SIDE DITCH, INLET & OUTLET DITCH DETAIL**  
NOT TO SCALE



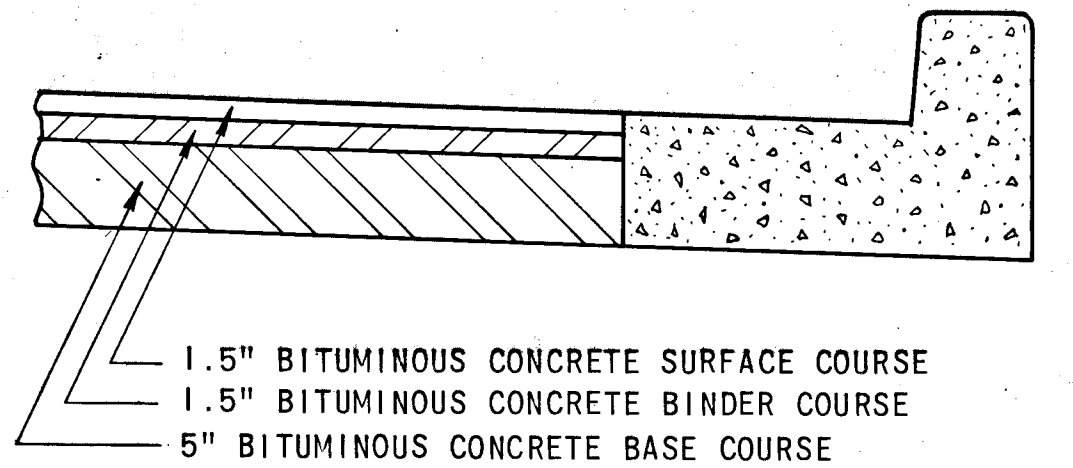
**OPEN - ROADWAY & SHOULDER SECTION**  
**NOT IN CONTRACT**



**NOTES:**

1. THE WALLS AND INVERT SHALL BE BRICK OR PLAIN CLASS "A" CONCRETE.
2. B = 8" WHERE A IS 7' OR LESS.  
B = 12" WHERE A IS 7' TO 11'.
3. TOP 4" OF WALLS SHALL BE BRICK MASONRY. ADDITIONAL BRICK SHALL BE USED TO BRING THE GRATE TO EXISTING GRADE IF REQUIRED.
4. WHERE BRICK IS USED, INVERT SHALL BE BRICK LAID ON EDGE.

**TYPE 'S' COMBINATION INLET**



**STEVENS FOREST ROAD PAVEMENT SECTION ⑦**

APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND PLANNING  
MAY 26 1972  
*J.W.C.*

DEPARTMENT OF PUBLIC WORKS  
*B. H. McNeel*  
CHIEF, BUREAU OF HIGHWAYS  
DATE 5/30/72  
OFFICE OF PLANNING AND ZONING  
CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
DATE

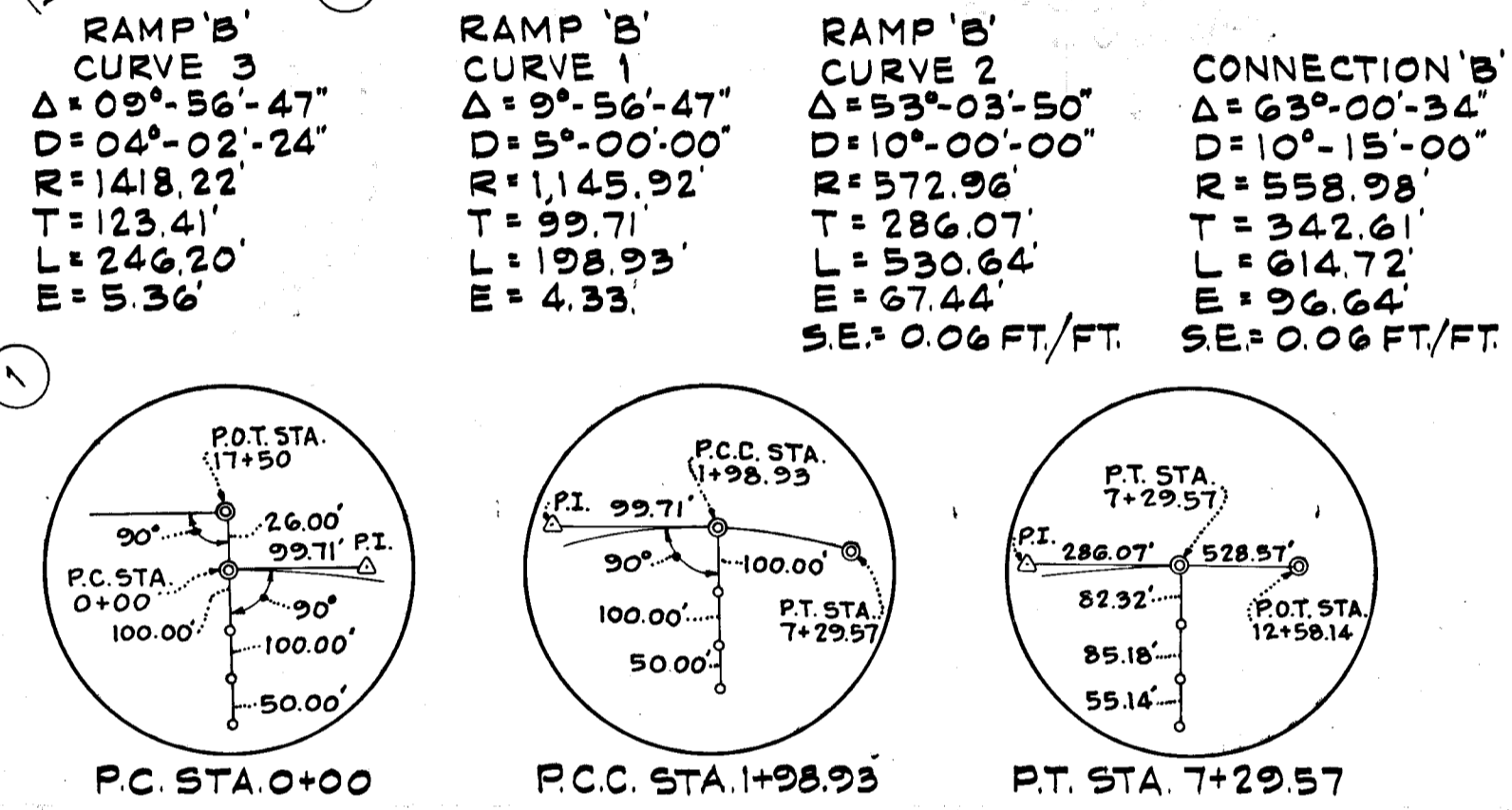
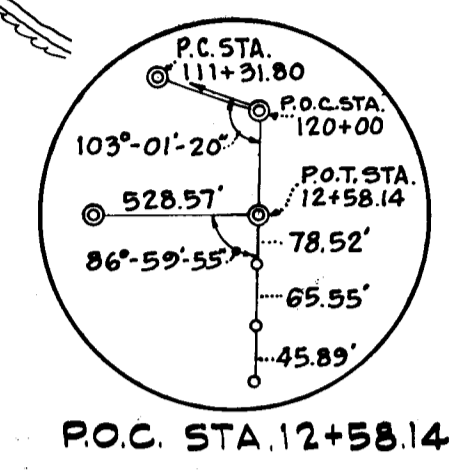
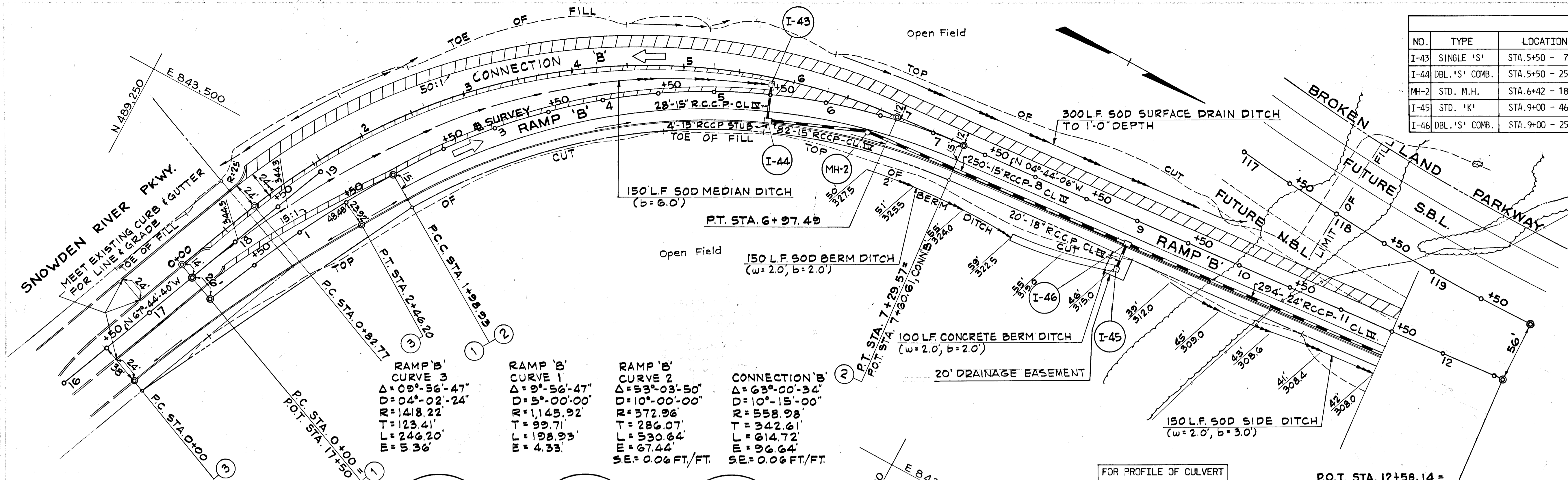
GREEN ASSOCIATES, INC.  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

Rev. Date	Rev. No.	Revision Description
<b>COLUMBIA</b>		
MARYLAND		
6TH ELECTION DISTRICT HOWARD COUNTY		
HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND		
PROJECT AREA BROKEN LAND PARKWAY		
PROJECT TITLE		
Des. By	K.A.L.	Scale AS SHOWN
Drawn By	R.B.	Date MAY 1972
Check By	J.T.J.	Approved





STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-43	SINGLE 'S'	STA. 5+50 - 7' LT.		328.01	332.00 TOP	HO.CO. DWG. 98 PG.153
I-44	DBL. 'S' COMB.	STA. 5+50 - 25' RT.	327.76	327.56	331.23	HO.CO. DWG. 99 PG.154
MH-2	STD. M.H.	STA. 6+42 - 18' RT.	321.90		326.80 TOP	HO.CO. DWG. 103 PG.158
I-45	STD. 'K'	STA. 9+00 - 46' RT.		321.03	315.00 TOP	HO.CO. DWG. 93 PG.148
I-46	DBL. 'S' COMB.	STA. 9+00 - 25' RT.	309.57	309.07	315.28	HO.CO. DWG. 99 PG.154



DEPARTMENT OF PUBLIC WORKS  
*S. P. Woodard*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE 5/30/72  
 OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE

Rev. Date:    Rev. No.:    Revision Description:

**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT    HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND

PROJECT AREA: **BROKEN LAND PARKWAY**

PROJECT TITLE:

Des. By: K.A.L.    Scale: AS SHOWN    Drawing No: 6 OF 22  
 Dra. By: J.S.    Date: MAY 1972    C.C.F. No:  
 Chk. By: J.T.J.    Approved:

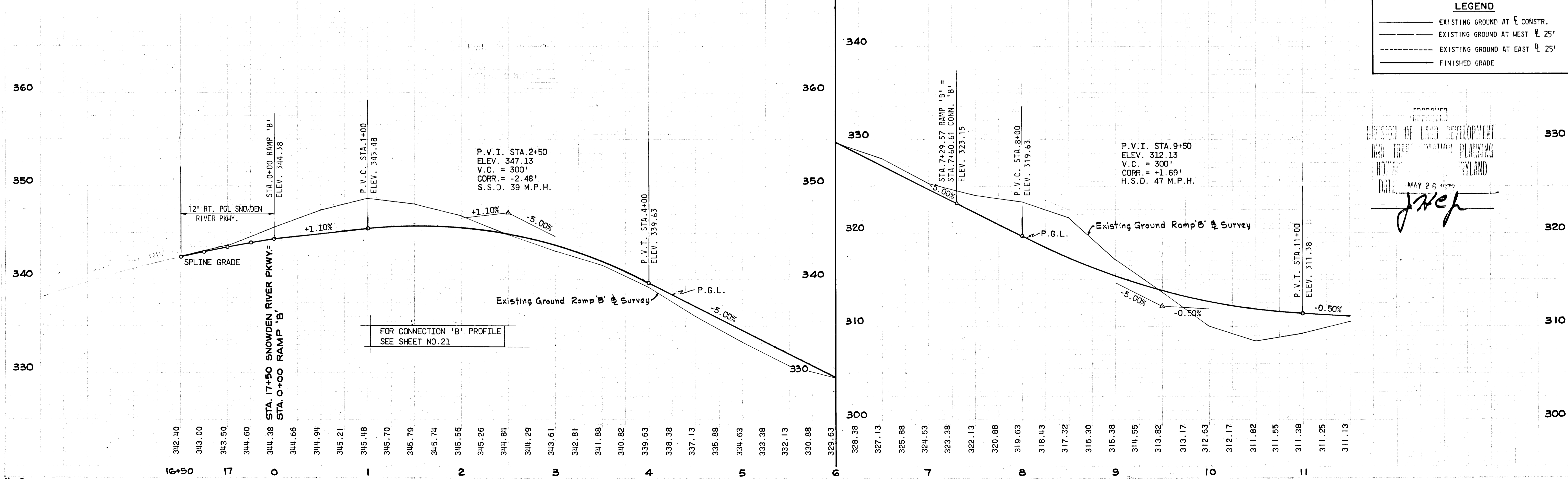
GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

NOT IN CONTRACT

**LEGEND**

- EXISTING GROUND AT E CONSTR.
- EXISTING GROUND AT WEST E 25'
- - - EXISTING GROUND AT EAST E 25'
- FINISHED GRADE

APPROVED  
 DEPARTMENT OF LAND DEVELOPMENT  
 AND TRAFFIC PLANNING  
 MARYLAND  
 DATE: MAY 26 1972  
*J. Woodard*



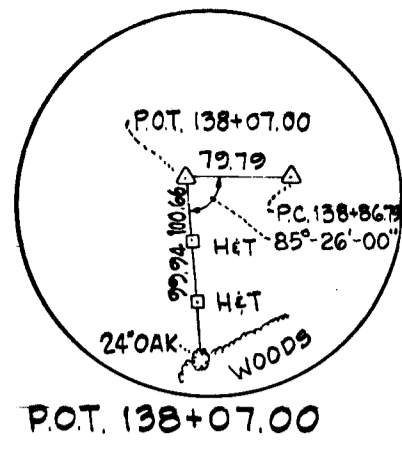






FOR PROFILE OF CULVERT  
@ STA. 132+08 SEE SHEET  
NO. 16 OF 22

B.M. #140  
S.R.C. SPIKE IN 24" BIRCH  
560' RT. @ STA. 138+07  
ELEV. = 307.09



Δ SURVEY  
Δ = 37° 34' 43"  
D = 1° 30' 00"  
R = 3819.72'  
T = 1311.95'  
L = 2527.46'  
E = 219.02'

Δ CONSTR.  
Δ = 25° 28' 46"  
D = 2° 00' 00"  
R = 2864.79'  
T = 647.70'  
L = 1273.97'  
E = 72.31'  
SE = 0.035%

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-39	DBL. 'S' COMB.	STA. 132+08 - 66' RT.	---	306.80	310.92	HO.CO.DWG. 99 PG. 154
I-40	DBL. 'S'	STA. 132+08 - 66' LT.	306.18	305.98	309.80 TOP	HO.CO.DWG. 101 PG. 154
I-41	DBL. 'S' COMB.	STA. 132+08 - 66' LT.	305.36	305.16	313.66	HO.CO.DWG. 99 PG. 154
S-12	'C' ENDWALL	STA. 132+08 - 98' LT.	---	304.81	---	HO.CO.DWG. 52 PG. 107
I-37	DBL. 'S' COMB.	STA. 140+00 - 68' RT.	---	307.55	312.33	HO.CO.DWG. 99 PG. 154
I-34	DBL. 'S' COMB.	STA. 143+00 - 66' LT.	---	308.96	303.07	HO.CO.DWG. 99 PG. 154
I-35	DBL. 'S' COMB.	STA. 143+00 - 32' LT.	298.53	298.23	302.63	HO.CO.DWG. 99 PG. 154
I-36	DBL. 'S'	STA. 143+00 - 66' LT.	297.00	296.76	300.60	HO.CO.DWG. 101 PG. 154
I-38	DBL. 'S' COMB.	STA. 143+00 - 68' RT.	296.22	295.97	301.37	HO.CO.DWG. 99 PG. 154
S-11	'C' ENDWALL	STA. 143+25 - 95' RT.	---	295.65	---	HO.CO.DWG. 52 PG. 107

FOR PROFILE OF CULVERT  
@ STA. 143+00 SEE SHEET  
NO. 16 OF 22

PAINTED ISLAND  
PAINTED LANE MARKERS

COLUMBIA  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND  
 PROJECT TITLE: GREEN LAND PARKWAY  
 DRAWN BY: K.A.L. SCALE: AS SHOWN SHEET NO. 8 OF 22  
 CHECKED BY: R.B. DATE: MAY 1972  
 DESIGNED BY: J.T.J.

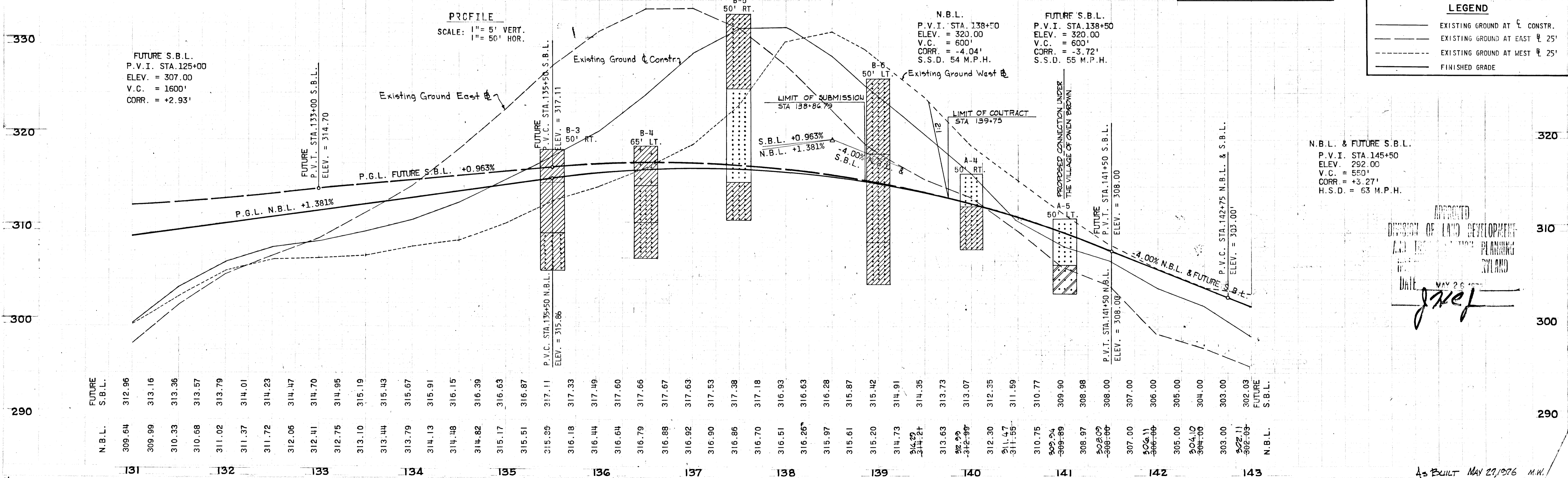
GREEN ASSOCIATES, INC.  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

LEGEND	
---	EXISTING GROUND AT Δ CONSTR.
---	EXISTING GROUND AT EAST Δ 25'
---	EXISTING GROUND AT WEST Δ 25'
---	FINISHED GRADE

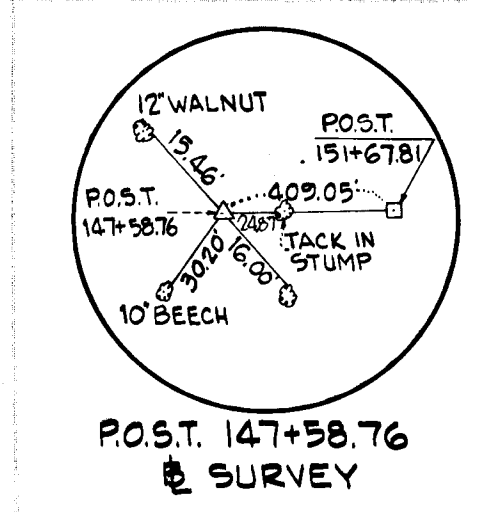
DEPARTMENT OF PUBLIC WORKS  
 P. H. Wickham  
 CHIEF, BUREAU OF HIGHWAY  
 5/30/72  
 DATE  
 OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE

PLAN  
SCALE: 1" = 50'

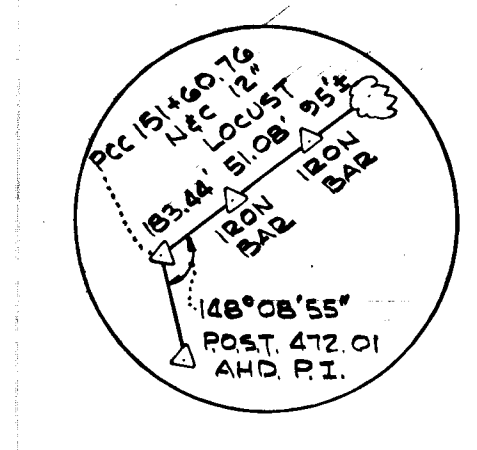
PROFILE  
SCALE: 1" = 5' VERT.  
1" = 50' HOR.







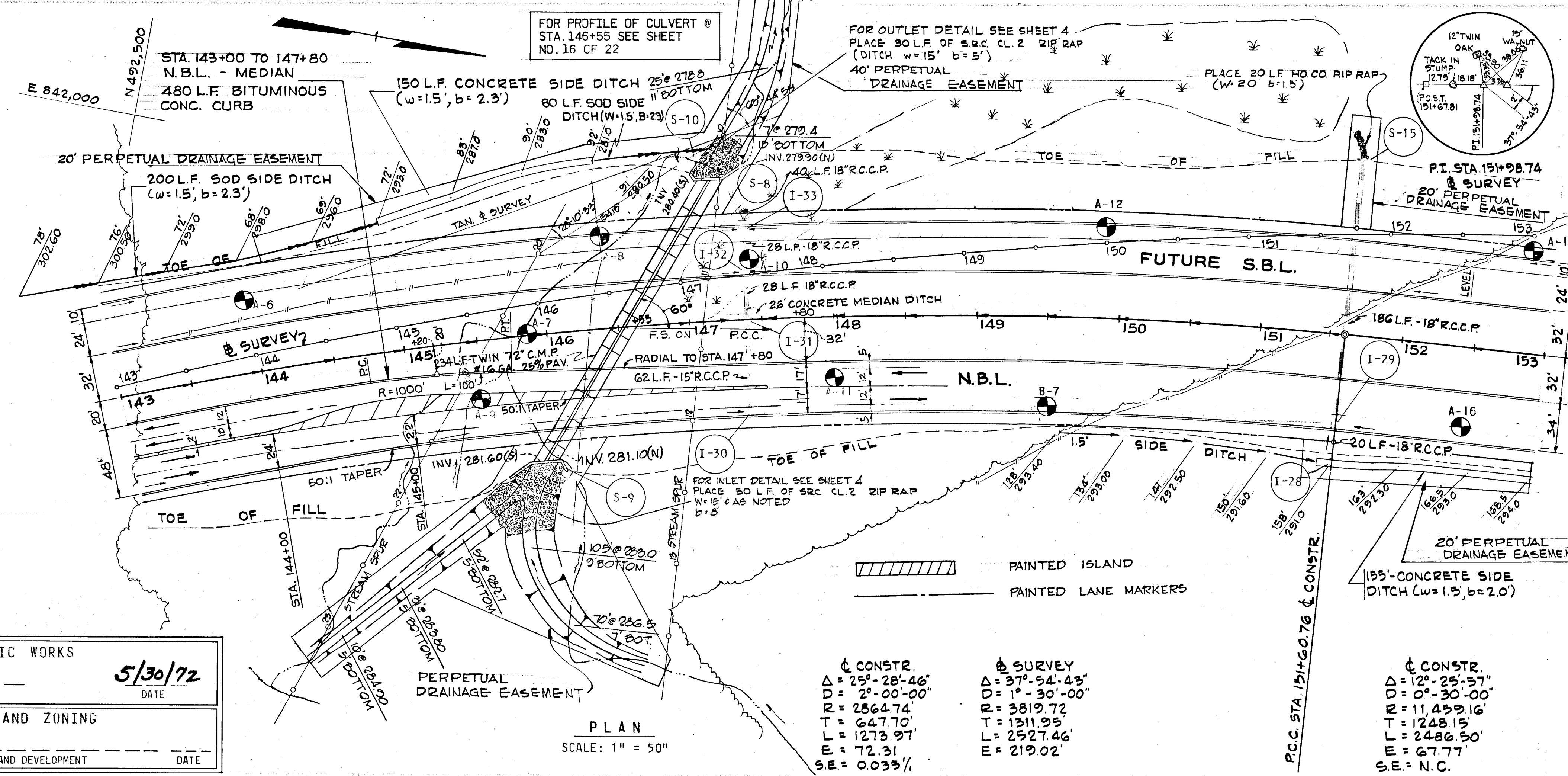
B.M. #150  
S.R.C. SPIKE IN 48" OAK  
ON FENCE LINE 110' RT.  
SURVEY STA. 150+25  
ELEV. = 294.60



REF. P.C.C. 151+60.76

DEPARTMENT OF PUBLIC WORKS  
*B. W. Weiland*  
CHIEF, BUREAU OF HIGHWAYS  
5/30/72  
DATE

OFFICE OF PLANNING AND ZONING  
CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT



CONSTR.  
Δ = 25°-28'-46"  
D = 2°-00'-00"  
R = 2864.74'  
T = 647.70'  
L = 1273.97'  
E = 72.31'  
SE = 0.035%

SURVEY  
Δ = 37°-54'-43"  
D = 1°-30'-00"  
R = 3819.72'  
T = 1311.93'  
L = 2527.46'  
E = 219.02'

STRUCTURE		SCHEDULE				
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-28	'K' W/GRATE	STA. 151+61 - 90' RT.		288.00	TOP EL. 292.50	HO. CO. DWG. 95 PG. 150
I-29	DBL. 'S' COMB.	STA. 151+61 - 66' RT.	287.40	287.20	295.99	HO. CO. DWG. 95 PG. 154
I-30	DBL. 'S' COMB.	STA. 147+38 - 66' RT.	288.16	287.86	293.16	HO. CO. DWG. 99 PG. 154
I-31	DBL. 'S'	STA. 147+38 - 6'	288.16	287.86	TOP EL. 292.30	HO. CO. DWG. 101 PG. 156
I-32	DBL. 'S' COMB.	STA. 147+38 - 32' LT.	287.85	287.55	294.34	HO. CO. DWG. 99 PG. 154
I-33	DBL. 'S' COMB.	STA. 147+38 - 66' LT.	287.12	287.17	294.78	HO. CO. DWG. 99 PG. 154
S-8	ENDWALL CONN.	STA. 147+32 - 102' LT.		281.00		
S-9	ENDWALL	STA. 145+95 - 93' RT.	281.10 (I)	281.60 (S)		SEE DETAIL SHT. 22
S-10	ENDWALL	STA. 147+20 - 98' LT.	279.90 (I)	280.40 (S)		SEE DETAIL SHT. 22
S-15	'C' ENDWALL	STA. 151+61 - 124' LT.		280.50		HO. CO. DWG. 52 PG. 107

GREEN ASSOCIATES, INC.  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

Rev Date Rev No Revision Description

**COLUMBIA**  
MARYLAND  
6TH ELECTION DISTRICT HOWARD COUNTY  
HOWARD RESEARCH AND DEVELOPMENT CORP.  
COLUMBIA, MARYLAND

PROJECT AREA: **BROKEN LAND PARKWAY**

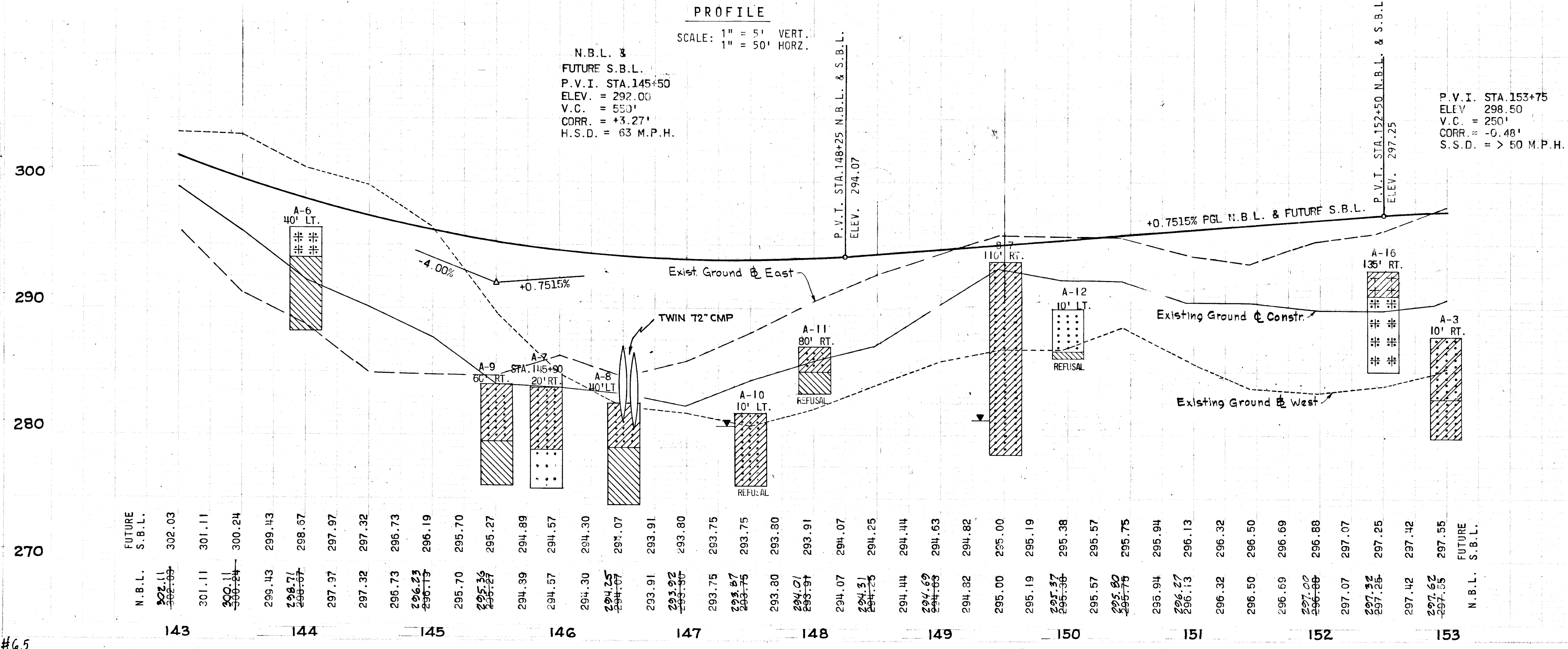
PROJECT FILE: \_\_\_\_\_

Des By: K.A.L. Scale: AS SHOWN Day No: 9 OF 22  
 Dwn By: R.B. Date: MAY 1972 C.C.T. No: \_\_\_\_\_  
 Ck By: J.T.J. Approved: \_\_\_\_\_

**LEGEND**

- EXISTING GROUND AT & CONSTR.
- - - EXISTING GROUND AT EAST & WEST
- - - EXISTING GROUND AT WEST & EAST
- FINISHED GRADE

APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND TRAFFIC PLANNING  
MAY 26 1972  
*J.W.E.*



#65

As BUILT MAY 27, 1976 M.W.



E 841,750 N 493,500

$\Delta$  SURVEY  
 $57^{\circ}54'43''$   
 $1^{\circ}-30'-00''$   
 $3819.72$   
 $1311.95$   
 $2527.46$   
 $219.02$

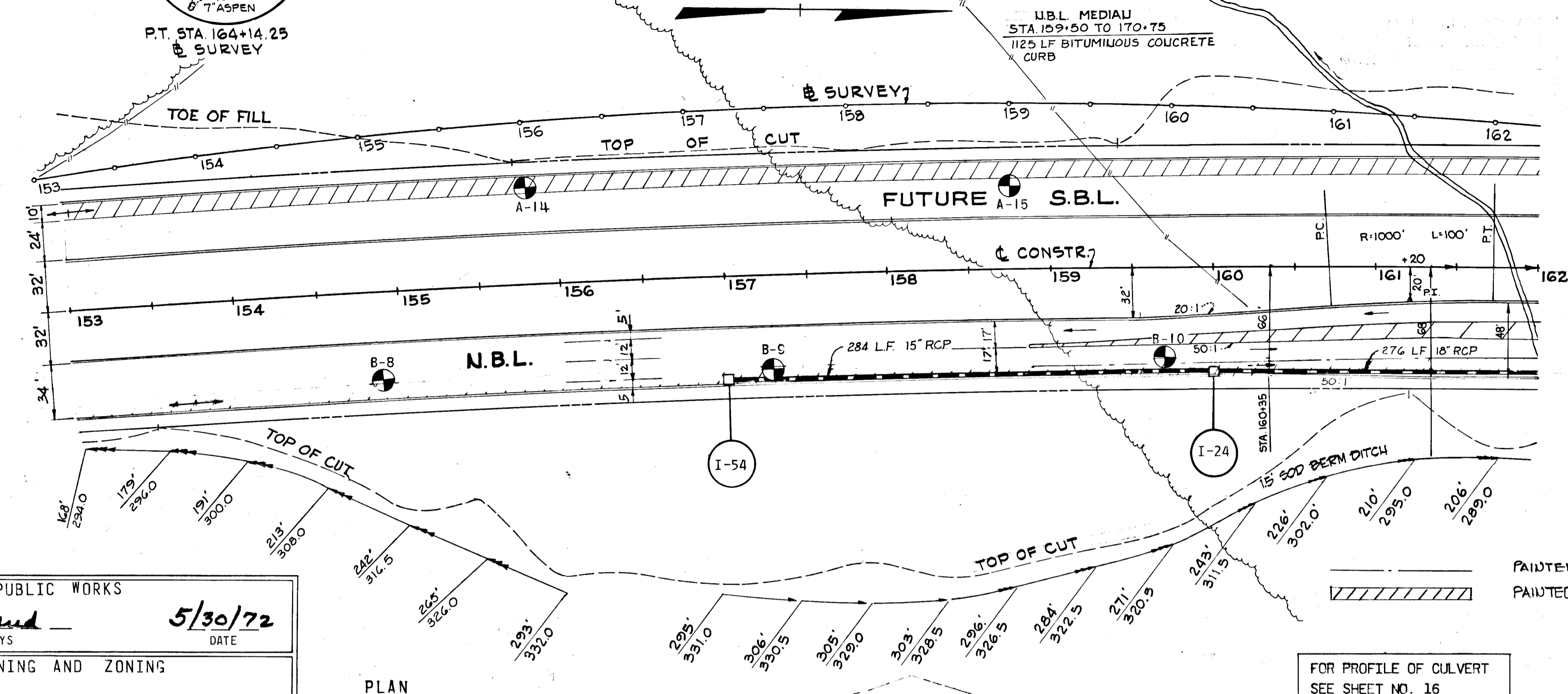
B.M.#160'  
 5/2" SPIKE IN 18" WALNUT  
 140' RT.  $\Delta$  SURVEY  
 STA. 159+88  
 ELEV. 310.76'

$\Delta$  CONSTR.  
 $12^{\circ}25'57''$   
 $0^{\circ}-30'-00''$   
 $11,459.16$   
 $1248.15$   
 $2486.50$   
 $67.77$   
 S.E. = N.C.

U.B.L. MEDIAN  
 STA 159+50 TO 170+75  
 1125 LF BITUMINOUS CONCRETE CURB

E 841,750 N 493,500

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-24	DBLE. 'S' COMB.	STA. 160+00 - 66' RT.	288.87	288.87	288.92	HO. CO. DNG. 99 PG. 154
I-54	DBLE. 'S' COMB.	STA. 157+00 - 66' RT.	299.71	299.71	295.48	HO. CO. DNG. 99 PG. 154



DEPARTMENT OF PUBLIC WORKS  
*S. H. McLeod*  
 CHIEF, BUREAU OF HIGHWAYS  
 DATE 5/30/72  
 OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE

Rev. Date	Rev. No.	Revision Description

**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND

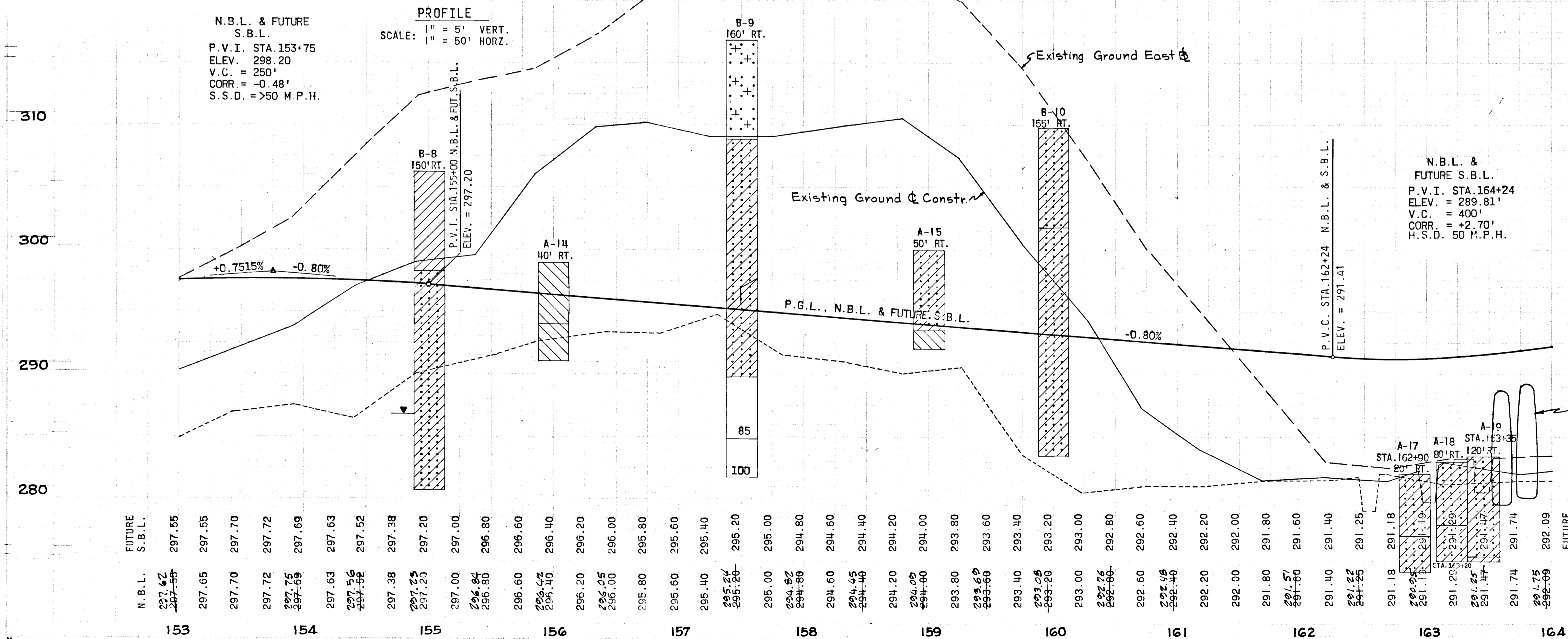
PROJECT NO. 10 OF 22  
 PROJECT TITLE: BROKEN LAND PARKWAY

Des. By: K.A.L. Scale: AS SHOWN Eng. No. 10 OF 22  
 Dra. By: R.B. Date: MAY 1972 C.C.F. No.  
 Chk. By: J.T.J. Approved

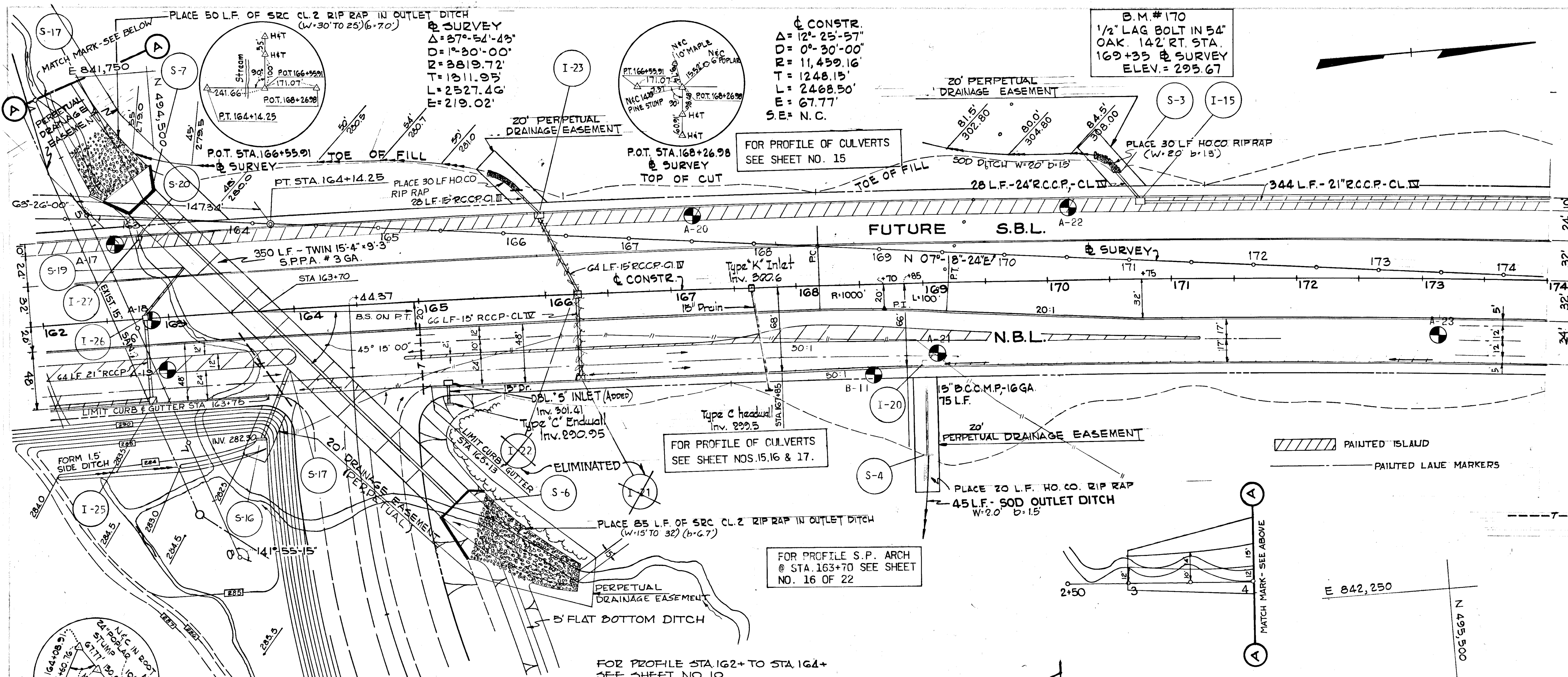
**LEGEND**

	EXISTING GROUND AT $\Delta$ CONSTR.
	EXISTING GROUND AT EAST 25'
	EXISTING GROUND AT WEST 25'
	FINISHED GRADE

APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 AND TRAFFIC CONTROL PLANNING  
 MARYLAND  
 DATE MAY 26 1972  
*J. J. J.*







STRUCTURE		SCHEDULE				
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
S-3	'C' ENDWALL	STA. 170+60 - 76' LT.	---	313.73	---	HO. CO. DWG. 52 PG. 107
I-15	DBL. 'S' COMB.	STA. 170+75 - 66' LT.	314.26	314.01	319.54	HO. CO. DWG. 99 PG. 154
I-20	DBL. 'S' COMB.	STA. 169+00 - 66' RT.	---	307.20	311.62	HO. CO. DWG. 52 PG. 154
S-4	'C' ENDWALL	STA. 170+00 - 126' RT.	---	289.00	---	HO. CO. DWG. 52 PG. 107
I-21	DBL. 'S' COMB.	STA. 166+25 - 68' RT.	---	294.76	298.93	HO. CO. DWG. 99 PG. 154
I-22	DBL. 'S'	STA. 166+25	293.80	293.60	297.50	HO. CO. DWG. 101 PG. 156
I-23	DBL. 'S' COMB.	STA. 166+00 - 66' LT.	---	292.96	298.64	HO. CO. DWG. 99 PG. 154
S-5	'C' ENDWALL	STA. 165+75 - 86' LT.	---	290.07	---	HO. CO. DWG. 52 PG. 107
S-16	'E' ENDWALL	STA. 167+70 - 103' RT.	282.30	---	---	HO. CO. DWG. 54 PG. 109
I-25	DBL. 'S' COMB.	STA. 162+83 - 68' RT.	286.00	285.75	291.05	HO. CO. DWG. 99 PG. 154
I-26	DBL. 'S'	STA. 162+83 - 83'	284.95	284.15	289.70	HO. CO. DWG. 101 PG. 156
I-27	DBL. 'S' COMB.	STA. 162+83 - 66' LT.	---	286.79	290.89	HO. CO. DWG. 99 PG. 154
S-19	PIPE CONN.	STA. 163+15 - 40' LT.	---	282.38	---	---
S-17	PIPE CONN.	STA. 163+95 - 50' RT.	---	281.70	---	---
S-6	ENDWALL	STA. 165+20 - 160' RT.	280.55	---	---	SEE DETAIL SHEET 22
S-7	ENDWALL	STA. 162+85 - 96' LT.	---	278.80	---	SEE DETAIL SHEET 22
S-20	PIPE CONN.	STA. 162+85 - 73' LT.	---	285.50	---	---

Rev. Date:    Rev. No:    Revision Description:

**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT - HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP  
 COLUMBIA, MARYLAND

PROJECT AREA: **BROKEN LAND PARKWAY**

PROJECT TITLE:

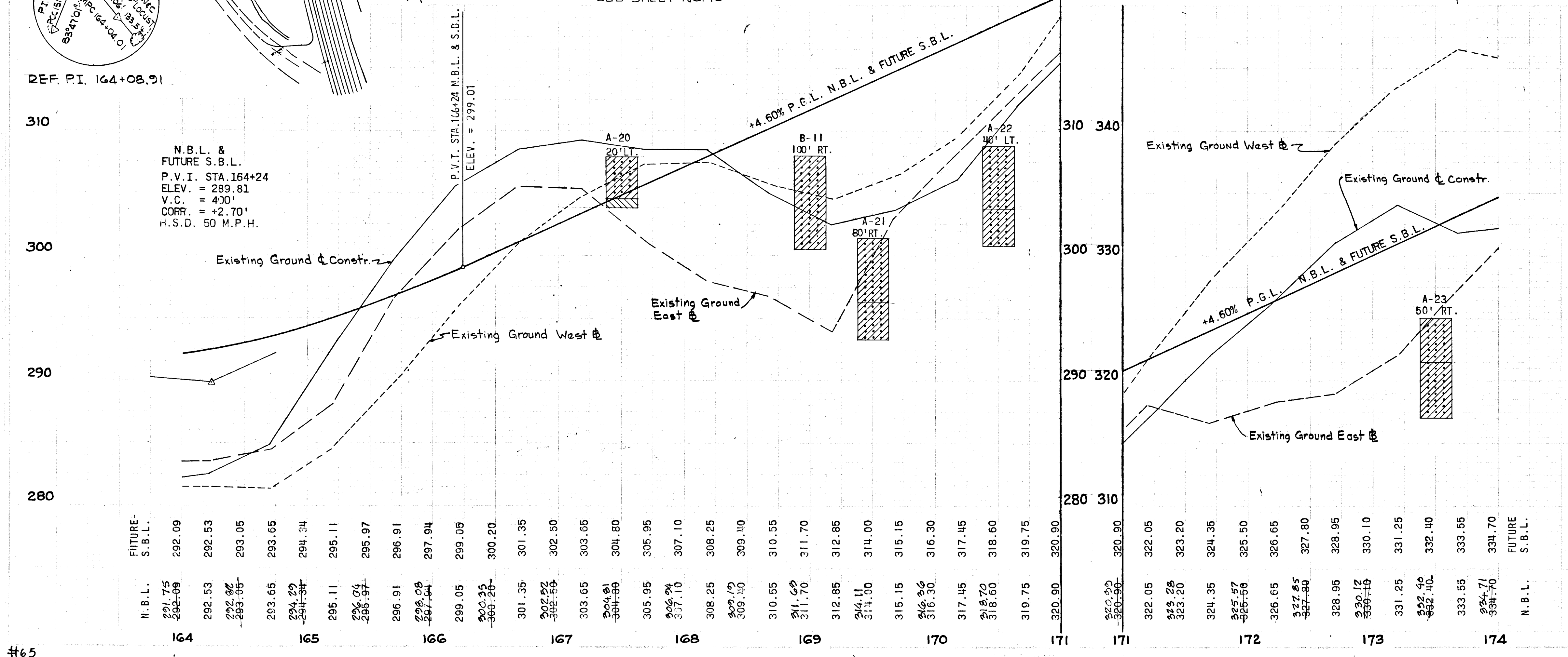
DESIGNED BY: K.A.L.    SCALE: AS SHOWN    DRAWING NO: 11 OF 22  
 DRAWN BY: R.B.    DATE: MAY 1972    C.C.T. NO:  
 CHECKED BY: J.T.J.    APPROVED:

GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

**LEGEND**

- EXISTING GROUND AT E. CONSTR.
- EXISTING GROUND AT EAST @ 25'
- EXISTING GROUND AT WEST @ 25'
- FINISHED GRADE

APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 MARYLAND  
 DATE: MAY 26 1972  
*J. Keef*

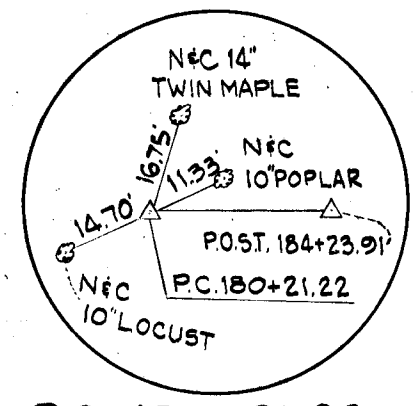




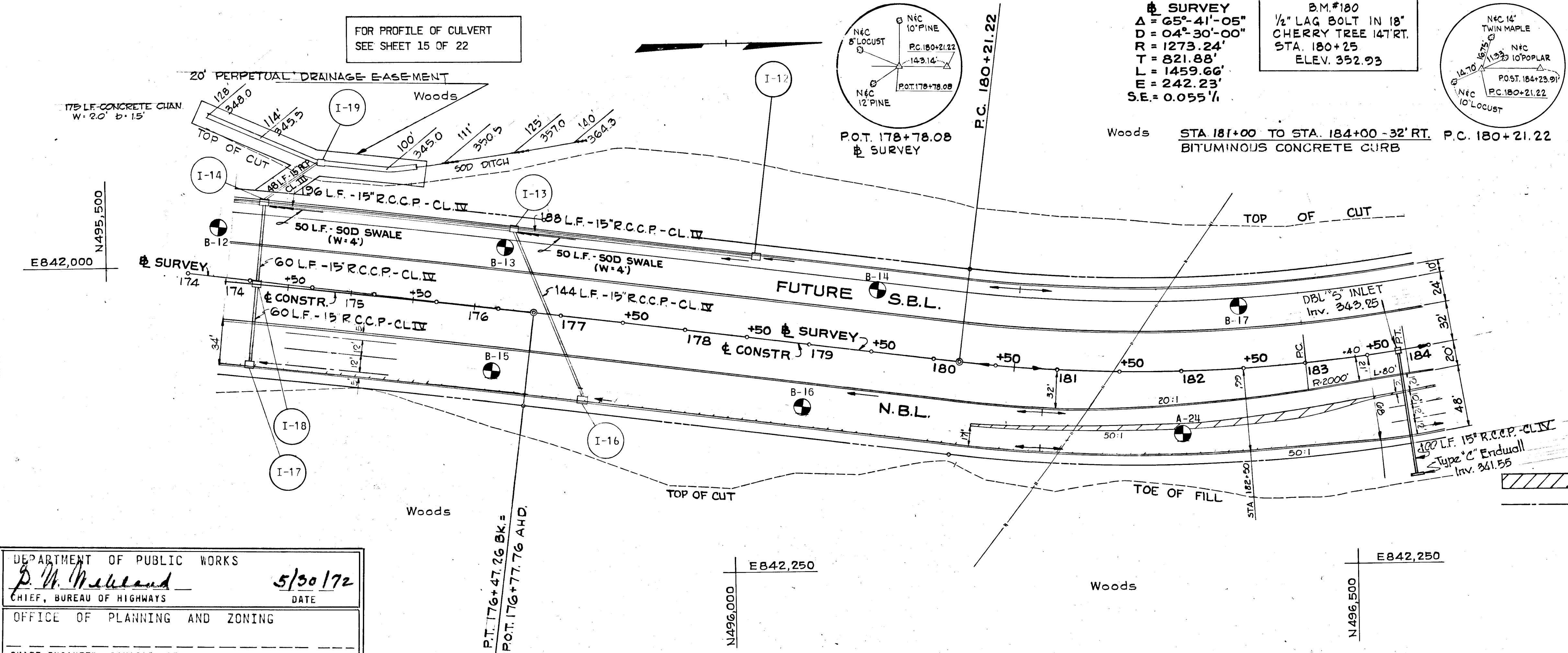
FOR PROFILE OF CULVERT  
SEE SHEET 15 OF 22

**SURVEY**  
 $\Delta = 65^{\circ}41'05''$   
 $D = 04^{\circ}30'00''$   
 $R = 1273.24'$   
 $T = 821.88'$   
 $L = 1459.66'$   
 $E = 242.23'$   
 $S.E. = 0.0551'$

B.M.#180  
 $\frac{1}{2}$ " LAG BOLT IN 18"  
 CHERRY TREE 147 RT.  
 STA. 180+25  
 ELEV. 352.93



STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-12	DBL. 'S' COMB.	STA. 178+50 66' LT. E		346.39	351.39	HO. CO. DWG. D-99 PG. 154
I-13	DBL. 'S' COMB.	STA. 176+25 66' LT. E	340.00	339.60	344.84	HO. CO. DWG. D-99 PG. 154
I-14	DBL. 'S' COMB.	STA. 174+25 66' LT. E	330.58	330.08	335.64	HO. CO. DWG. D-99 PG. 154
I-16	DBL. 'S' COMB.	STA. 174+25 66' RT. E	314.26	314.01	348.10	HO. CO. DWG. D-99 PG. 154
I-17	DBL. 'S' COMB.	STA. 174+25 66' RT. E		331.98	335.84	HO. CO. DWG. D-99 PG. 154
I-18	DBL. 'S' INLET	STA. 174+25 @ E	331.38	331.18	334.48	HO. CO. DWG. D-102 PG. 157
I-19	TYPE K INLET	STA. 174+75 100' LT. E		338.98	344.33	HO. CO. DWG. D-93 PG. 148



DEPARTMENT OF PUBLIC WORKS  
*P. W. Ireland*  
 CHIEF, BUREAU OF HIGHWAYS  
 OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE: 5/30/72

Rev. Date: Rev. No: Revision Description

**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND

PROJECT AREA: BROKEN LAND PARKWAY

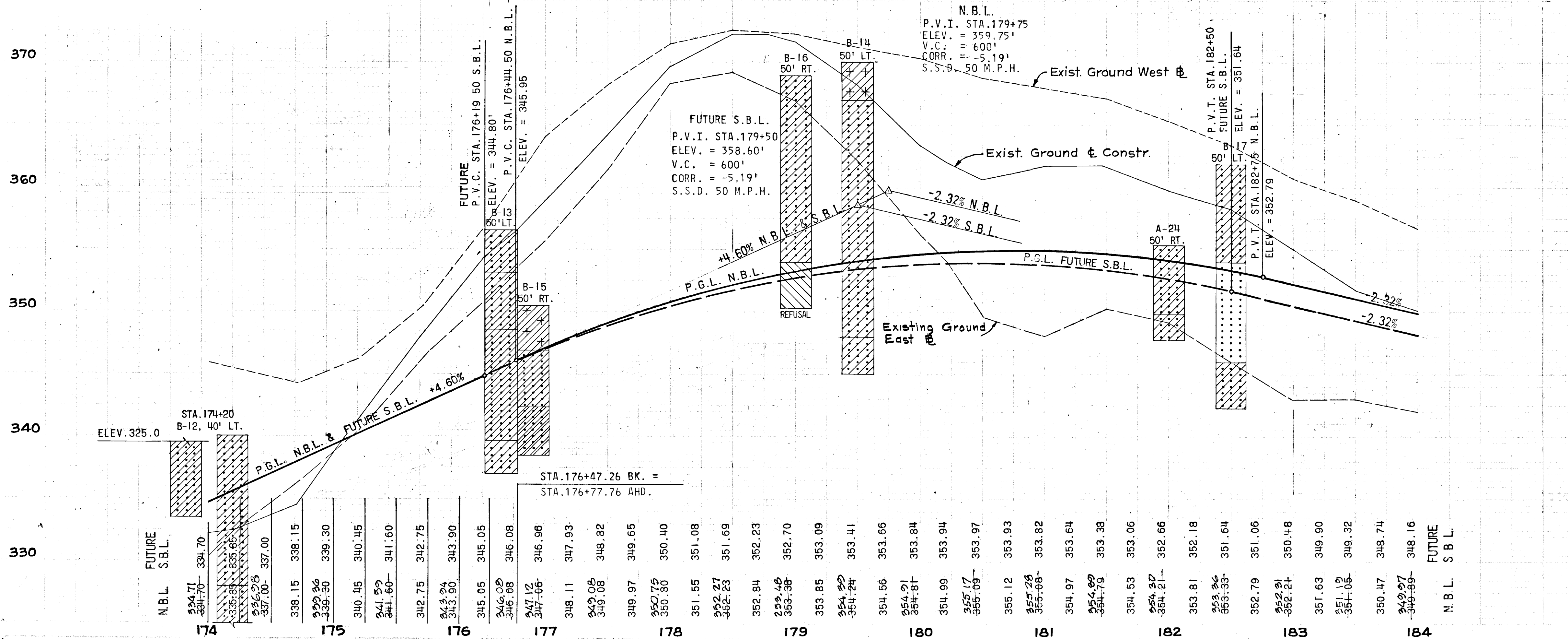
PROJECT TITLE:

Des. By: K.A.L. Scale: AS SHOWN Draw No: 12 OF 22  
 Dra. By: J.S. Date: MAY 1972 C.E. No:  
 Chk. By: J.T.J. Approved:

GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

**LEGEND**

- EXISTING GROUND AT E CONSTR.
- EXISTING GROUND AT EAST E 25'
- EXISTING GROUND AT WEST E 25'
- FINISHED GRADE

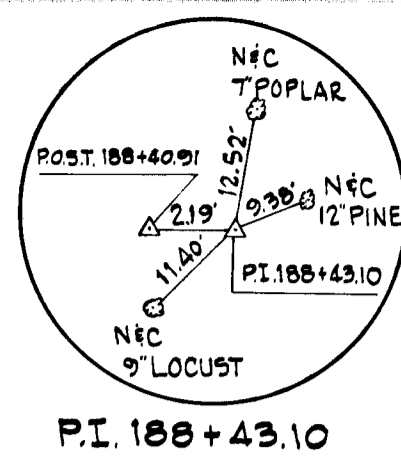


APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 DATE: MAY 26 1972  
*J. W. H.*

AS BUILT 5-2-76 M.W.



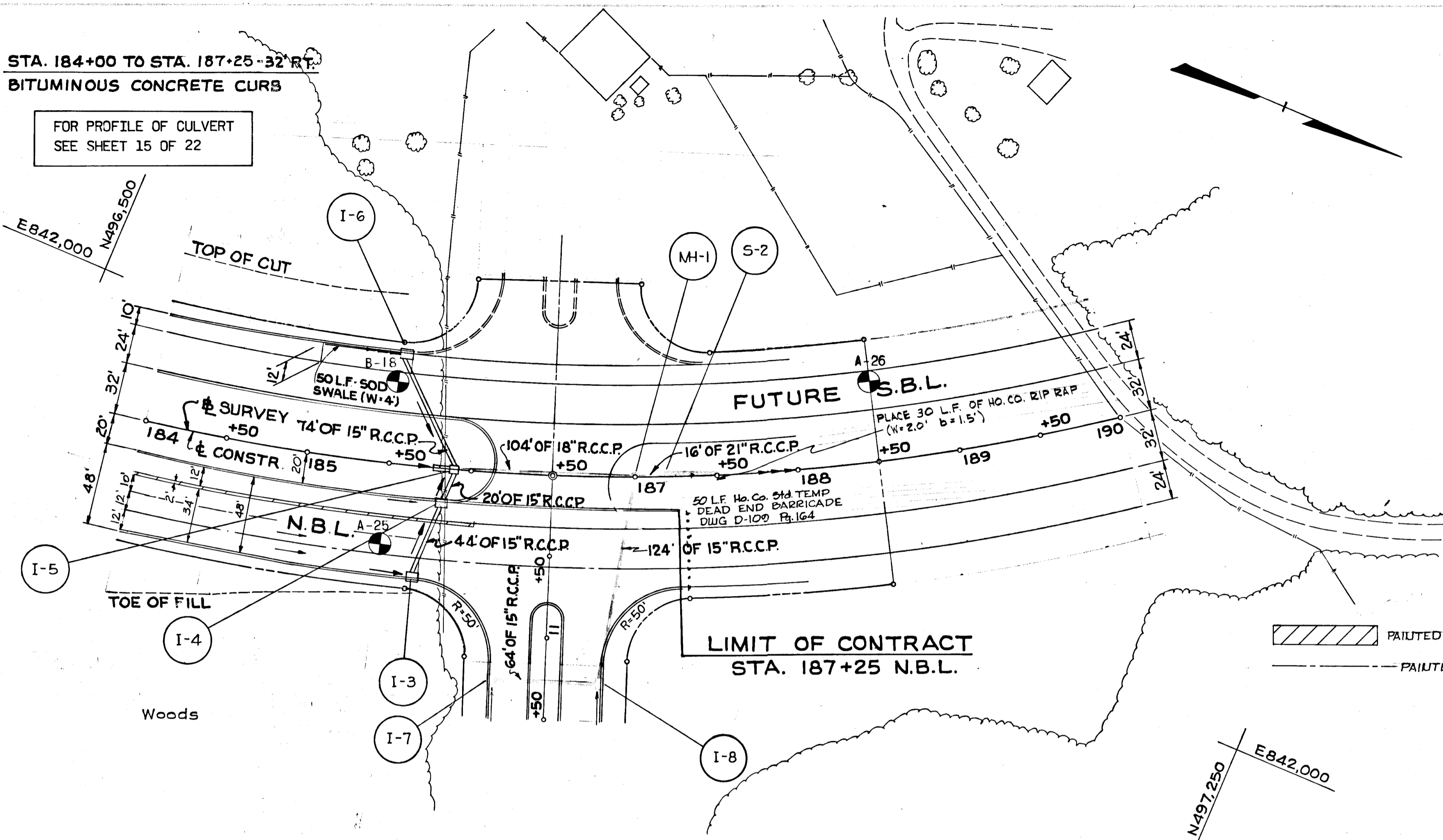
B.M.# 190  
SPIKE IN BASE 48"  
POPLAR 300' RT.  
STA. 100+20  
ELEV. 325.30



☉ SURVEY  
Δ = 65°-41'-05"  
D = 04°-30'-00"  
R = 1273.24'  
T = 821.88'  
L = 1459.66'  
E = 242.23'  
S.E. = 0.055 1/ft.

STA. 184+00 TO STA. 187+25-32 RT.  
BITUMINOUS CONCRETE CURS

FOR PROFILE OF CULVERT  
SEE SHEET 15 OF 22



		STRUCTURE		SCHEDULE		
NO.	TYPE	LOCATION	INV. IN	INV. OUT	T.C.P. ELEV.	REMARKS
I-3	SIN. 'S' COMB.	STA. 185+70 - 68' RT.	—	344.30	347.76	SEE DETAIL
I-4	DBL. 'S' COMB.	STA. 185+85 - 20' RT.	341.70	341.50	345.61	HO.CO.DWG. 99 PG. 154
I-5	SINGLE 'S'	STA. 185+92 ☉	338.80	338.55	344.10 TOP	HO.CO.DWG. 98 PG. 154
I-6	SIN. 'S' COMB.	STA. 185+55 - 68' LT.	—	339.54	343.29	SEE DETAIL
I-7	SIN. 'S' COMB.	STA. 11+25 - 34' RT.	—	340.94	346.50	SEE DETAIL
I-8	SIN. 'S' COMB.	STA. 11+25 - 34' LT.	340.30	340.10	346.50	SEE DETAIL
MH-1	ST'D. MANHOLE	STA. 187+00 ☉	336.68	336.43	341.50 TOP	HO.CO.DWG. 103 PG. 158
S-2	'C' ENDWALL	STA. 187+16 ☉	—	336.27	—	HO.CO.DWG. 52 PG. 107

DEPARTMENT OF PUBLIC WORKS  
*S. N. McLeod*  
CHIEF, BUREAU OF HIGHWAYS  
DATE 5/30/72

OFFICE OF PLANNING AND ZONING  
CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
DATE

GREEN ASSOCIATES, INC.  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

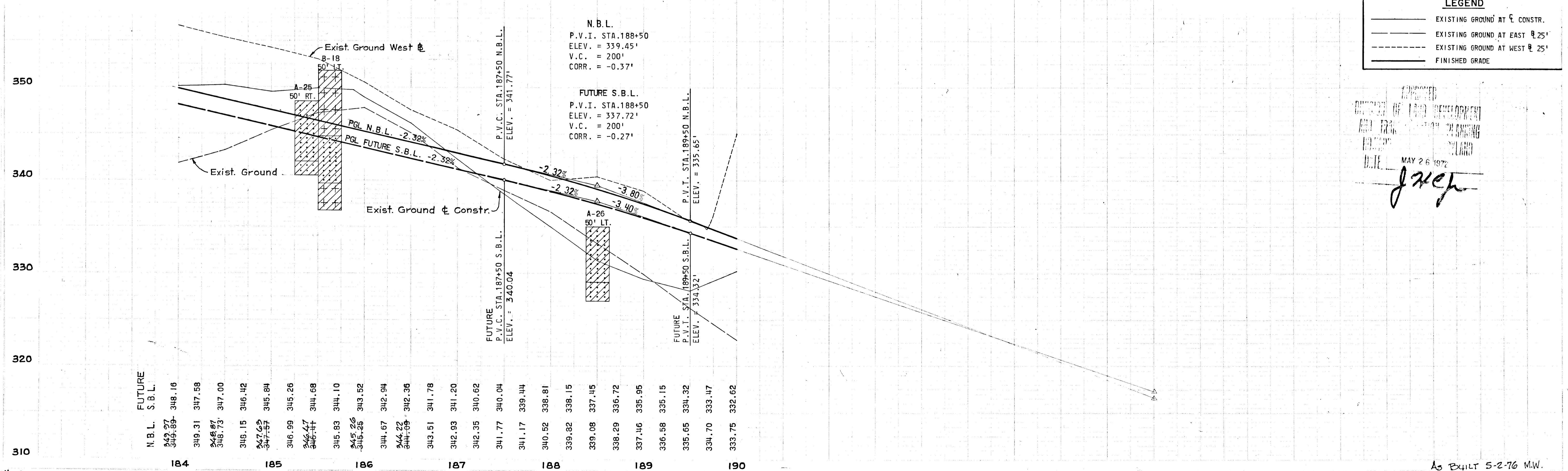
Rev. Date: Rev. No.: Revision Description:

**COLUMBIA**  
6TH ELECTION DISTRICT HOWARD COUNTY  
HOWARD RESEARCH AND DEVELOPMENT CORP.  
COLUMBIA, MARYLAND

PROJECT AREA: BROKEN LAND PARKWAY

PROJECT DATE:

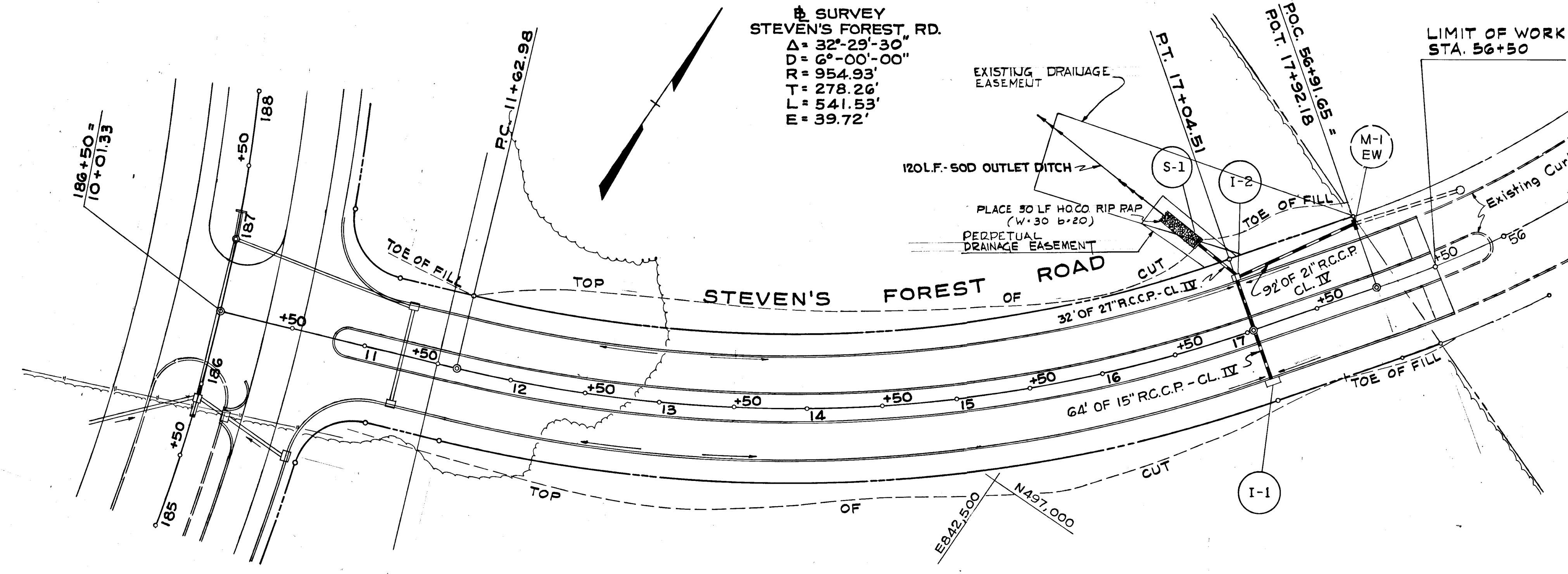
Des. By: K.A.L. Scale: AS SHOWN Date: 13 OF 22  
 Des. By: J.S. Date: MAY 1972  
 Chk. By: J.T.J. Approved:



APPROVED  
DIVISION OF LAND DEVELOPMENT  
AND PLANNING  
MAY 26 1972  
*J. J. J.*

AS BUILT 5-2-76 M.W.

EA841,750  
NA96,750



**Δ SURVEY**  
**STEVEN'S FOREST RD.**  
 $\Delta = 32^{\circ}29'30''$   
 $D = 6^{\circ}00'00''$   
 $R = 954.93'$   
 $T = 278.26'$   
 $L = 541.53'$   
 $E = 39.72'$

NO.	TYPE	LOCATION	STRUCTURE		SCHEDULE		REMARKS
			INV. IN	INV. OUT	T. C. P. ELEV.		
I-1	A-10	STA. 17+05.14 - 34' RT.	—	338.53	342.44		HO. CO. DWG. D-64A PG. 11 9A
I-2	A-5	STA. 17+05.14 - 34' LT.	337.25	335.83	342.44		HO. CO. DWG. D-64A PG. 11 9A
S-1	'C' ENDWALL	STA. 16+85 - 67' LT.	—	335.45	—		HO. CO. DWG. D-52 PG. 107

STA. 56+50  
 MEET EXISTING CURB  
 FOR LINE f GRADE

DEPARTMENT OF PUBLIC WORKS  
*B. N. McShane*  
 CHIEF, BUREAU OF HIGHWAYS  
 5/30/72  
 DATE  
 OFFICE OF PLANNING AND ZONING  
 CHIEF ENGINEER, DIVISION OF LAND DEVELOPMENT  
 DATE

FOR PROFILE OF CULVERTS  
 SEE SHEET NO. 15

Rev. Date Rev. No. Revision Description

**COLUMBIA**  
 MARYLAND  
 6TH ELECTION DISTRICT HOWARD COUNTY  
 HOWARD RESEARCH AND DEVELOPMENT CORP.  
 COLUMBIA, MARYLAND

PROJECT: BROKEN LAND PARKWAY

PROJECT TITLE:

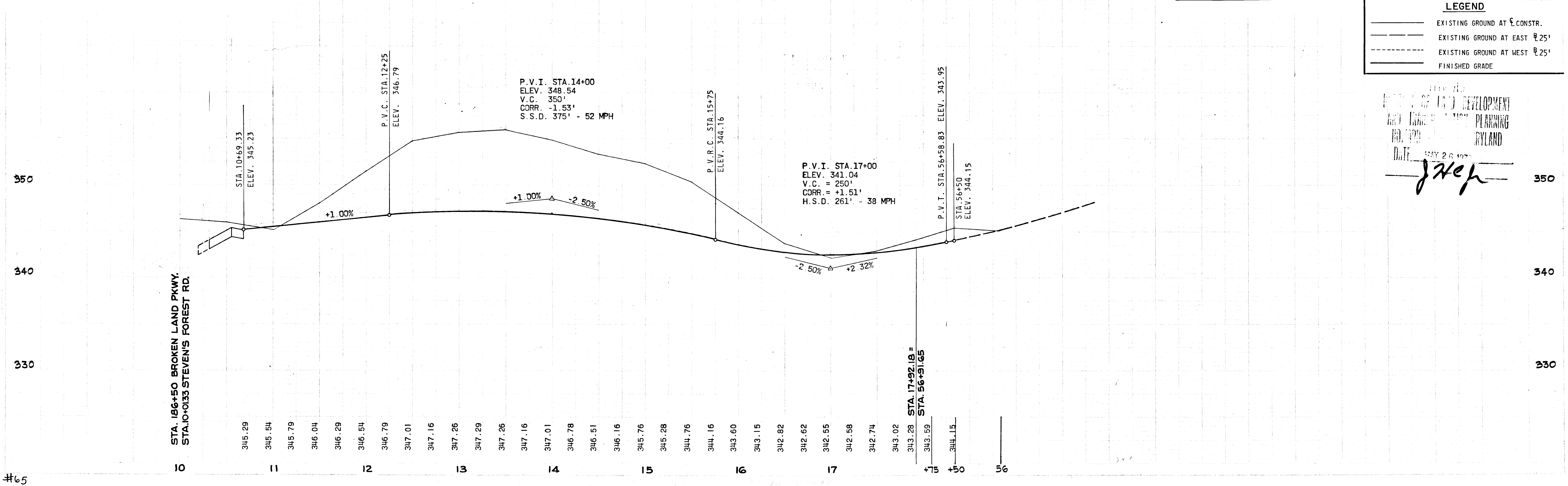
GREEN ASSOCIATES, INC.  
 CONSULTING ENGINEERS  
 BALTIMORE, MARYLAND

Drawn By: K.A.L. Scale: AS SHOWN Date: 14 OF 22  
 Des. By: J.S. Date: MAY 1972  
 Chk. By: J.T.J. Approved:

**LEGEND**

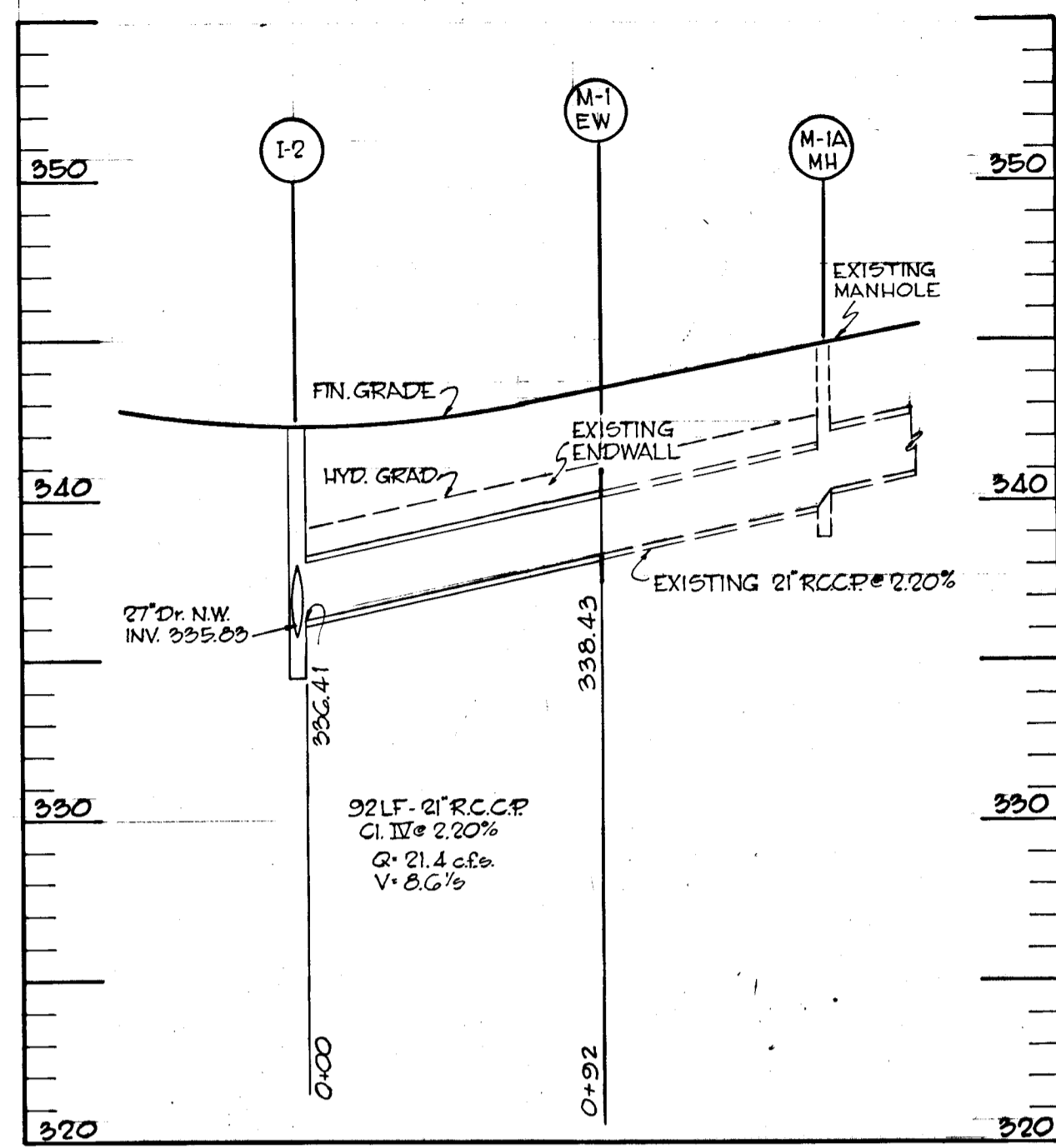
	EXISTING GROUND AT E. CONSTR.
	EXISTING GROUND AT EAST E 25'
	EXISTING GROUND AT WEST E 25'
	FINISHED GRADE

DATE: MAY 26 1972  
*J. H. H.*

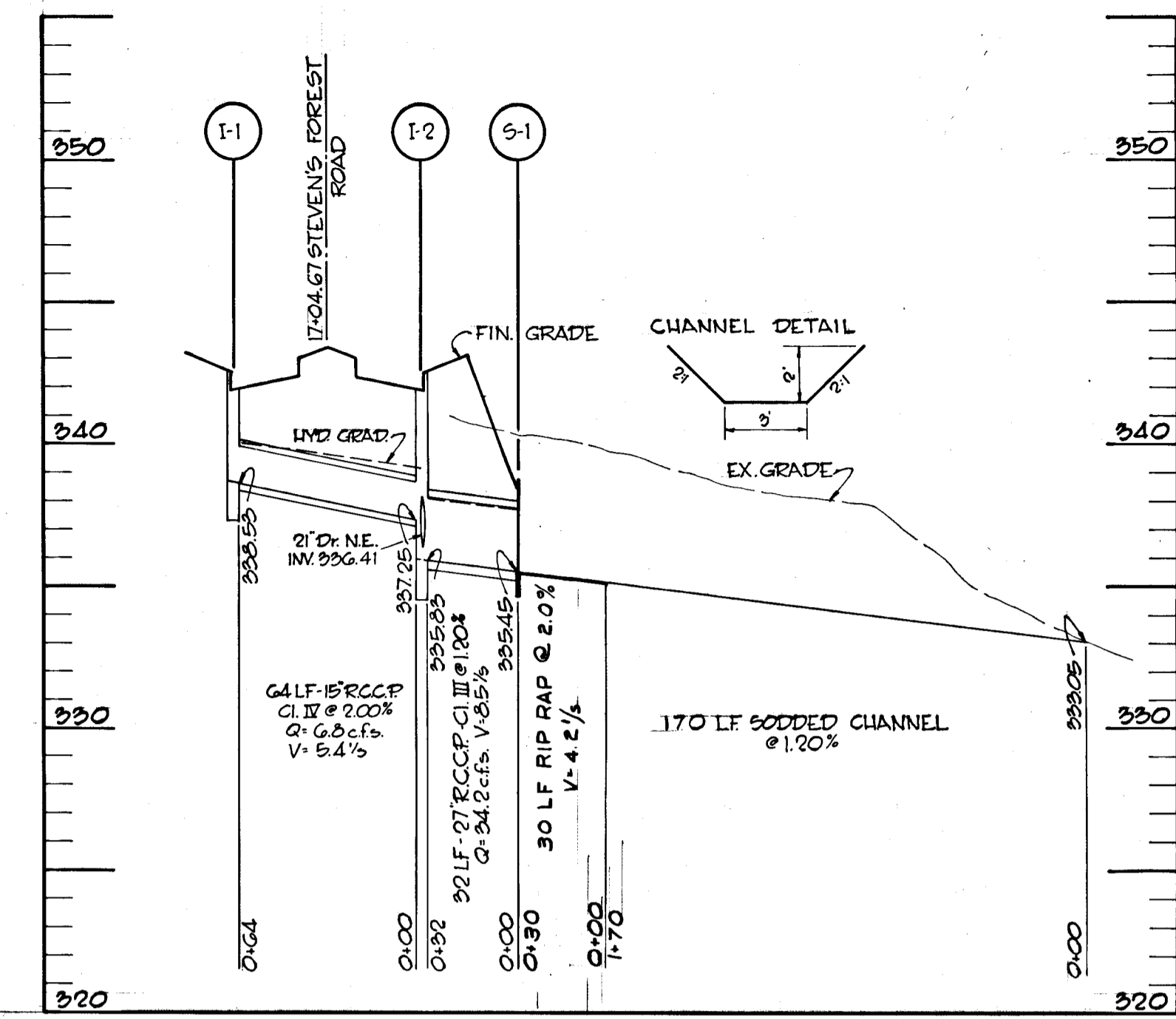


#65

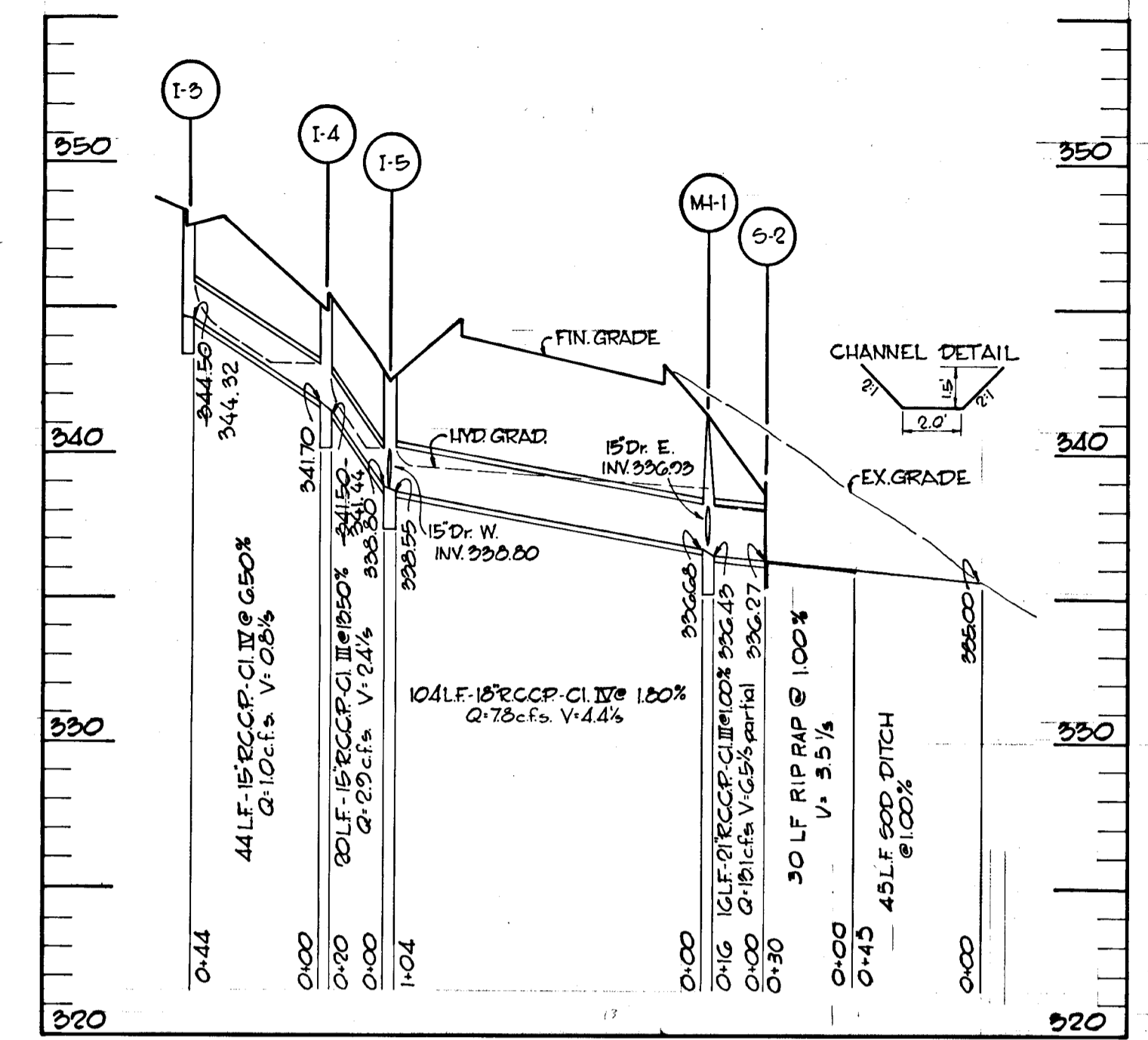




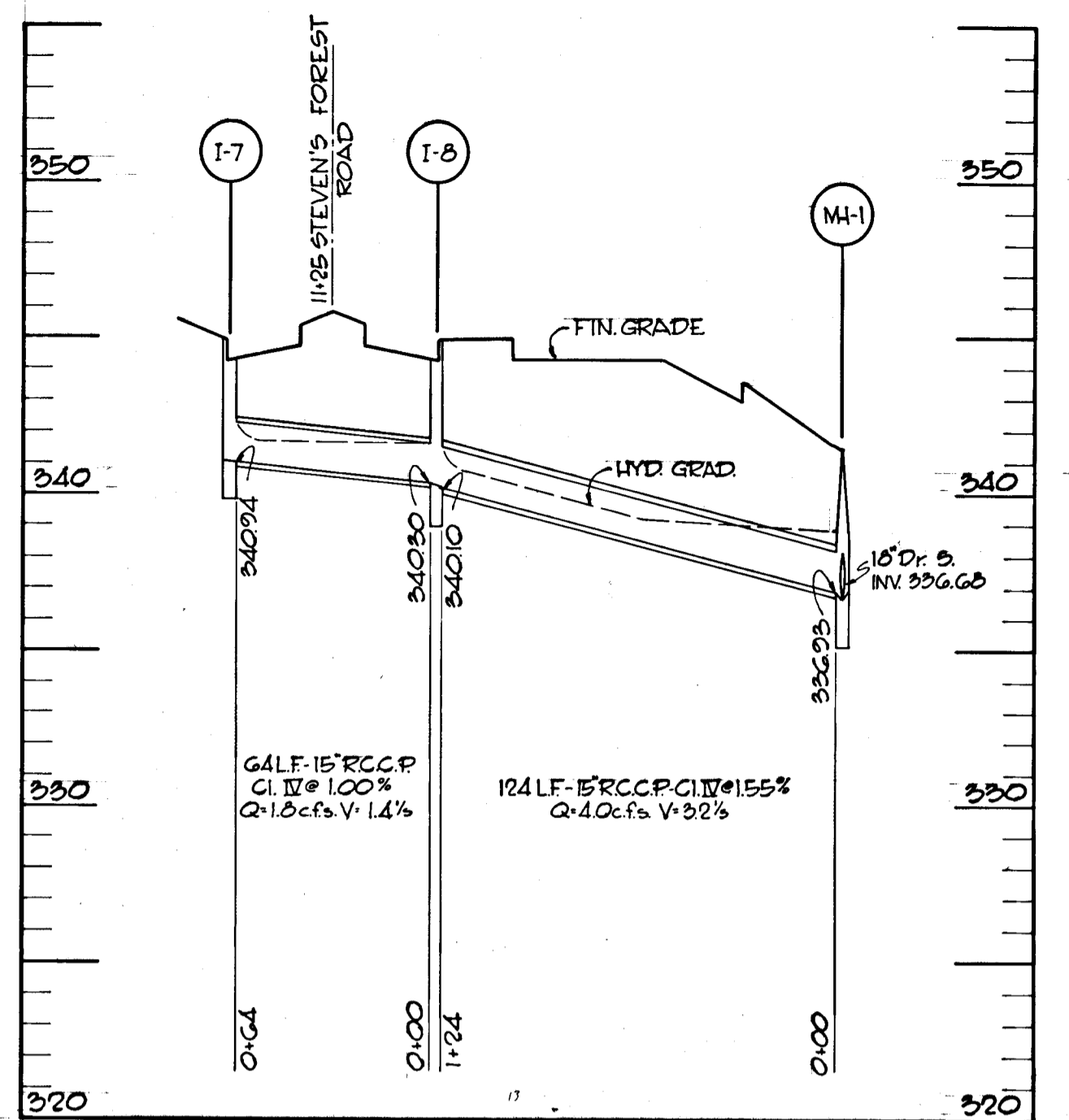
SEE SHEET 14 FOR PLAN



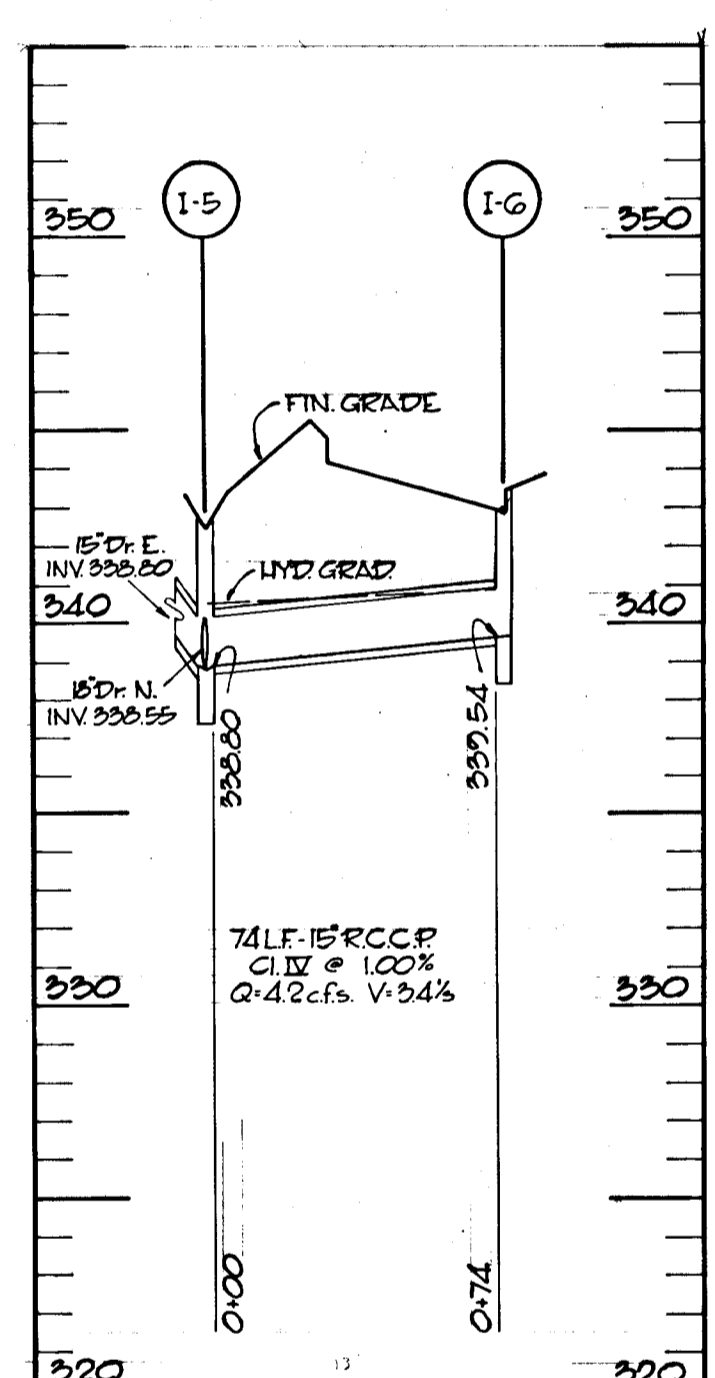
SEE SHEET 14 FOR PLAN



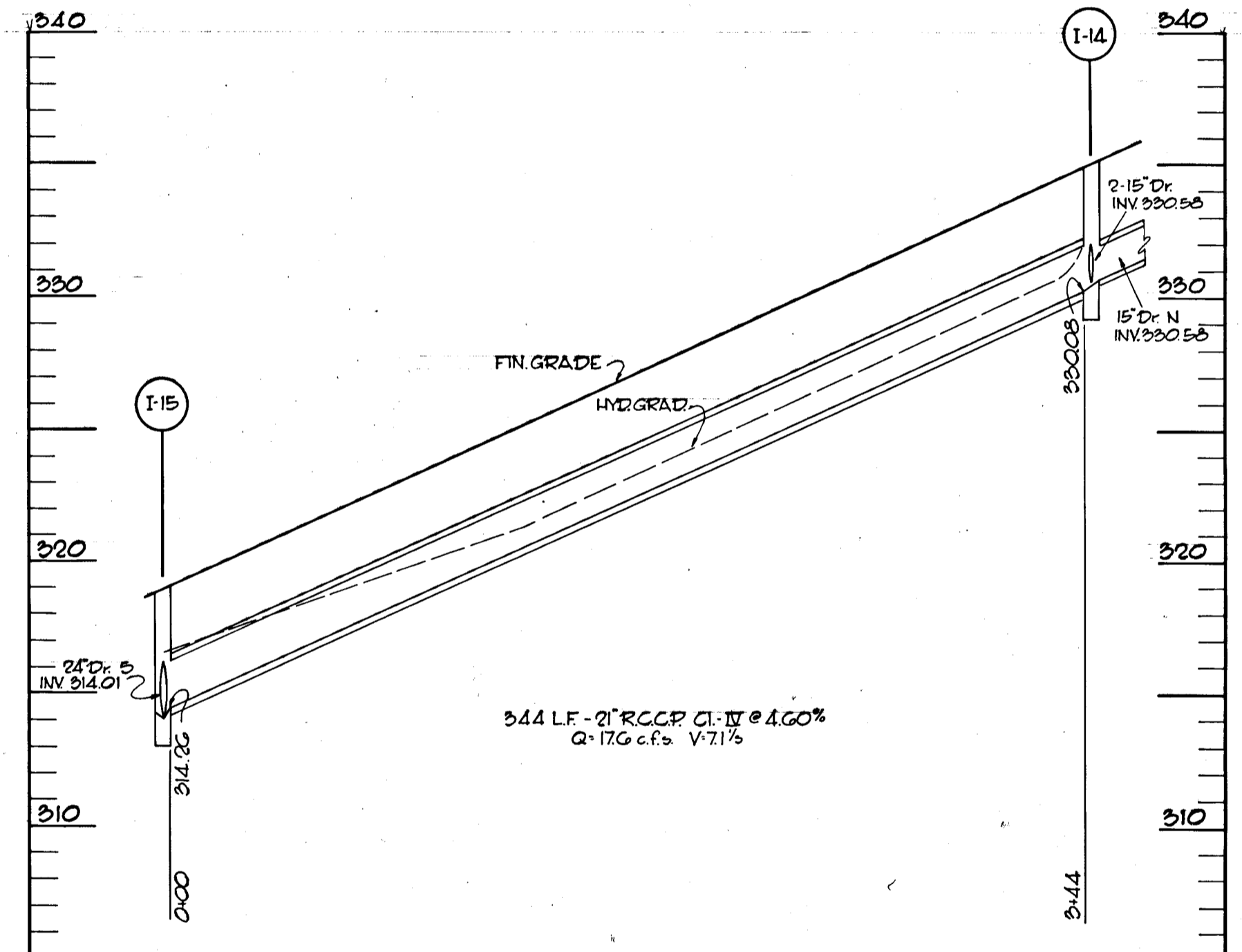
SEE SHEET 13 FOR PLAN



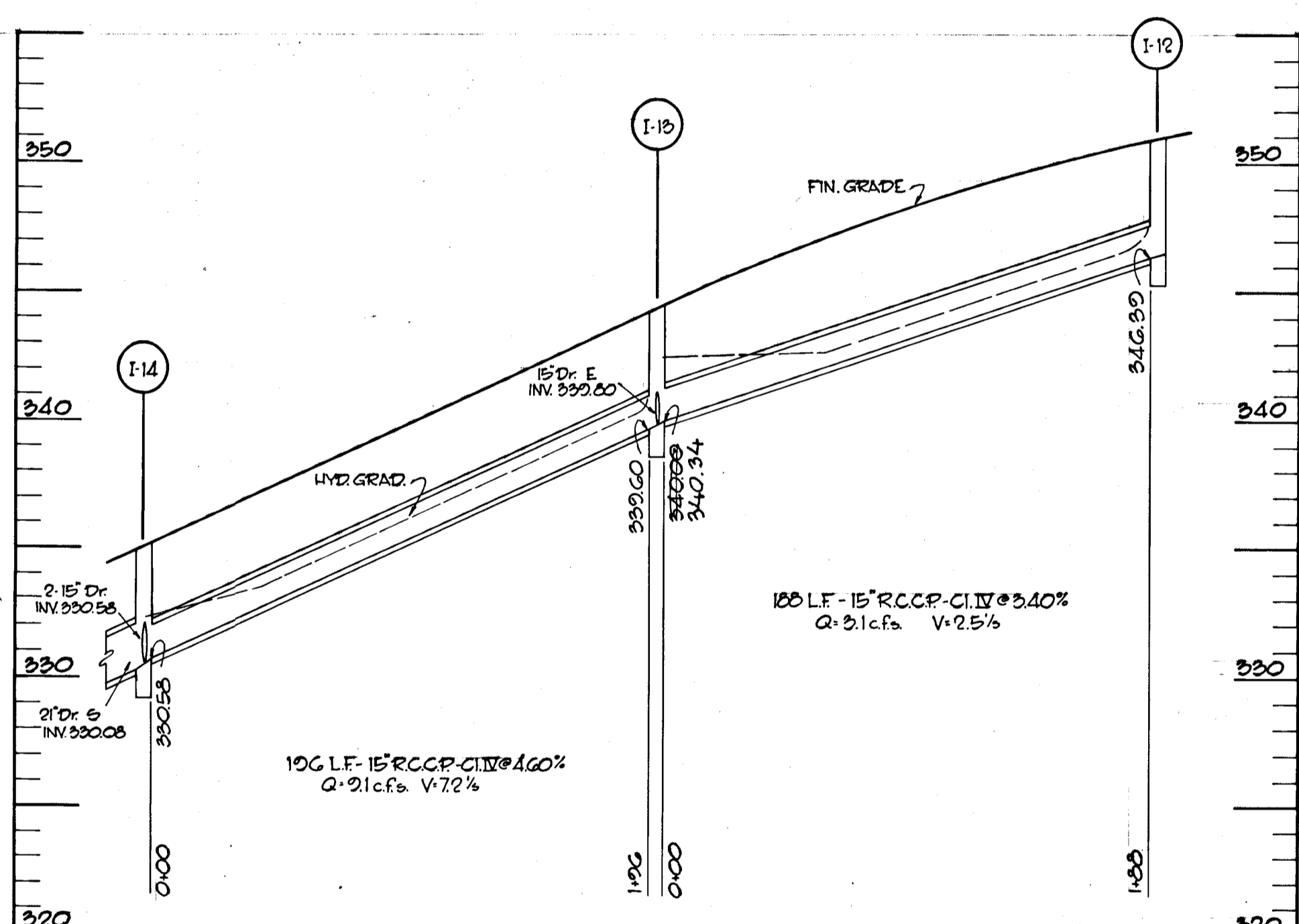
SEE SHEET 13 FOR PLAN



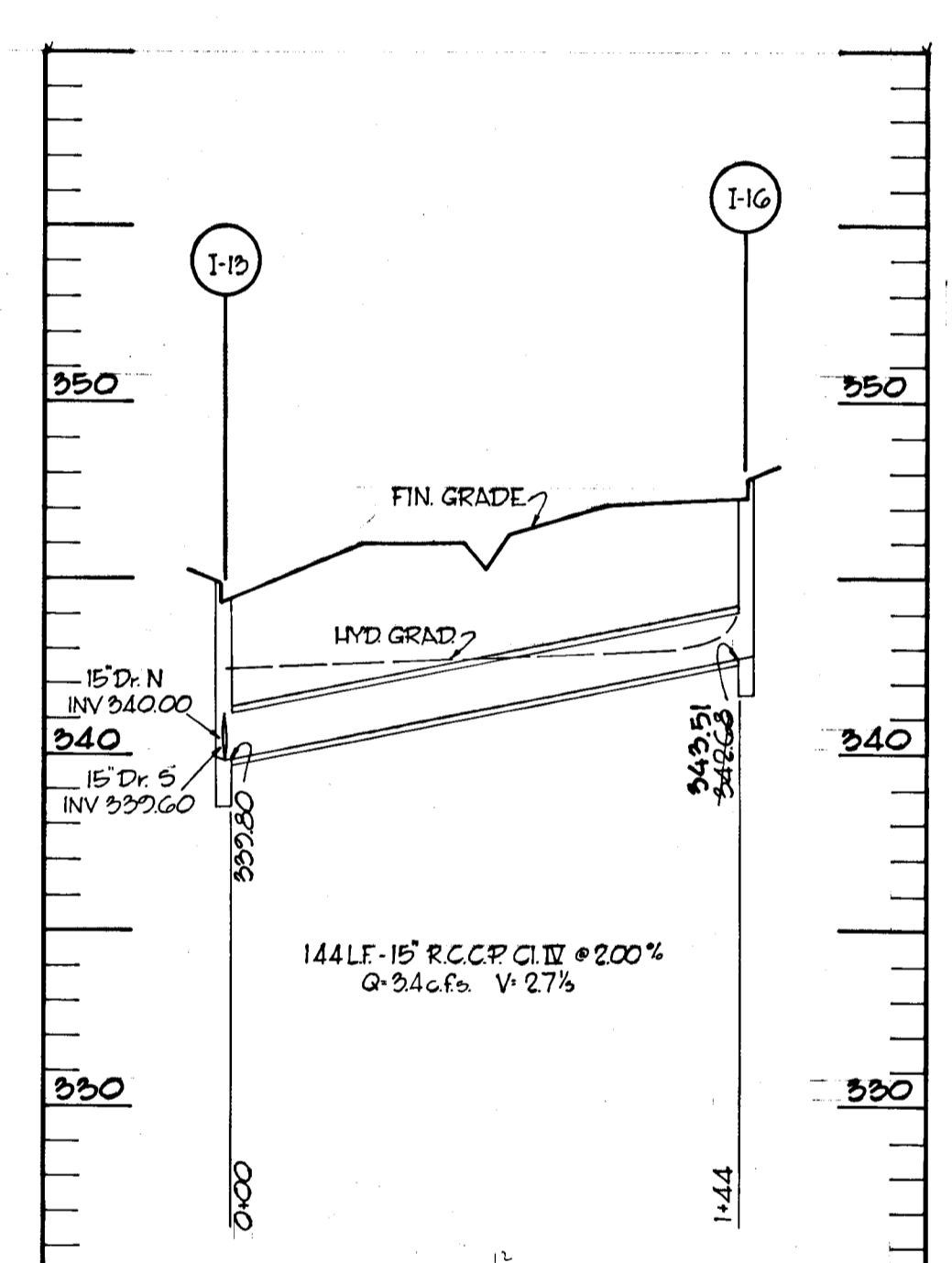
SEE SHEET 13 FOR PLAN



SEE SHEET 11 & 12 FOR PLAN

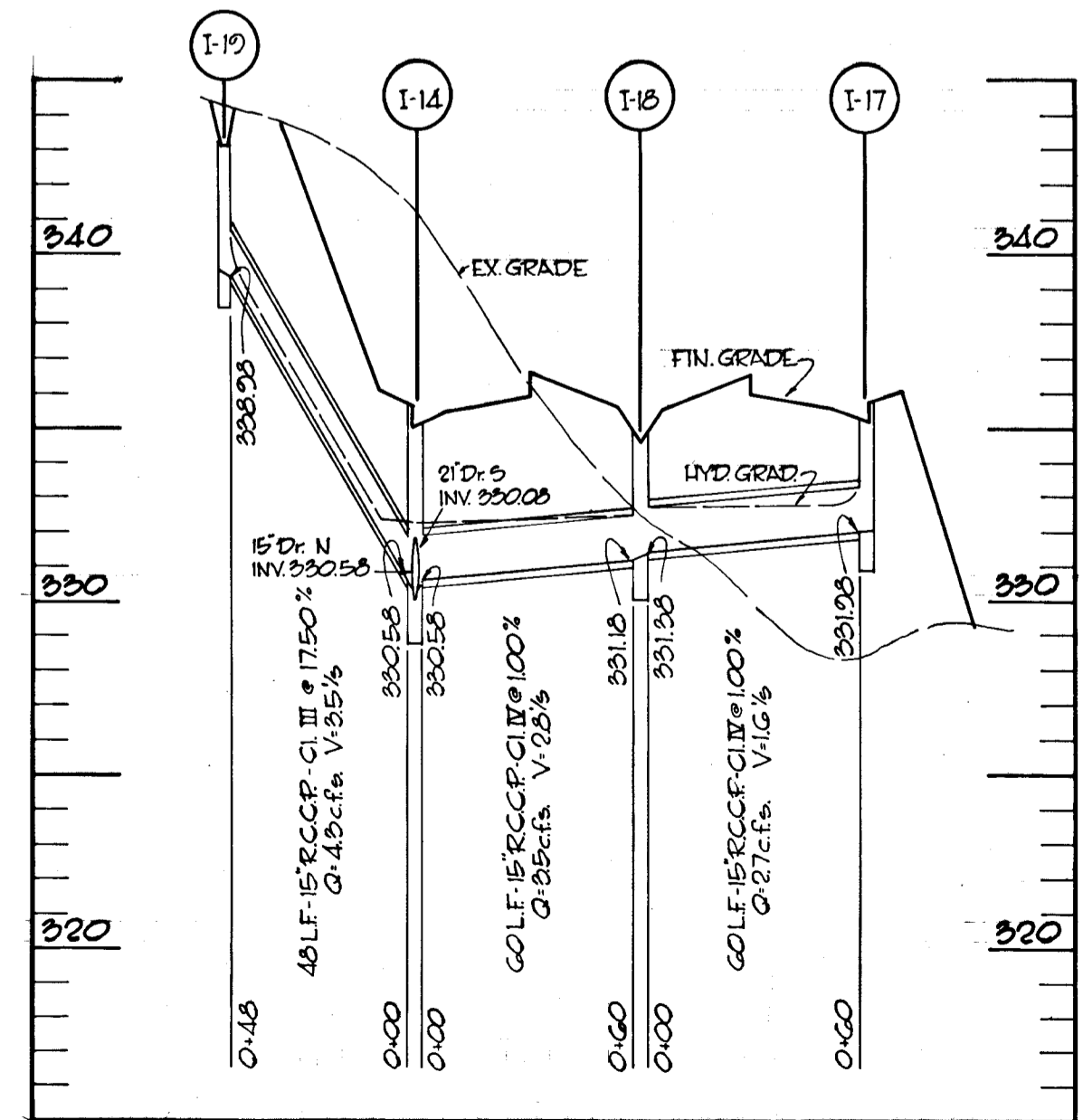


SEE SHEET 12 FOR PLAN

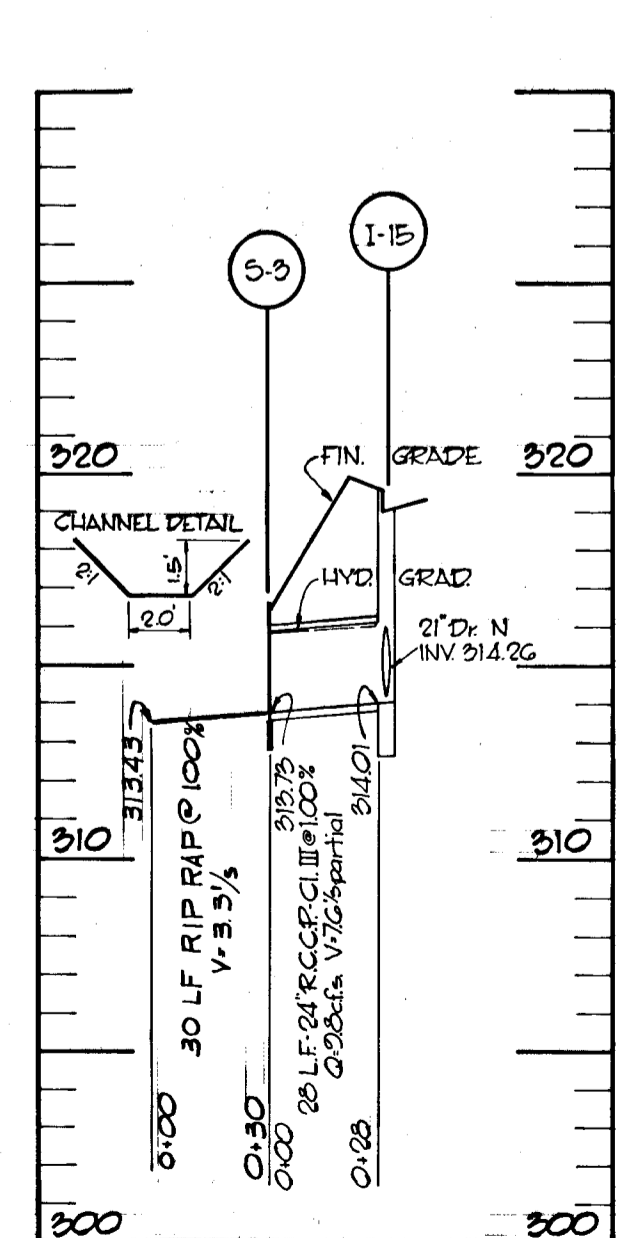


SEE SHEET 12 FOR PLAN

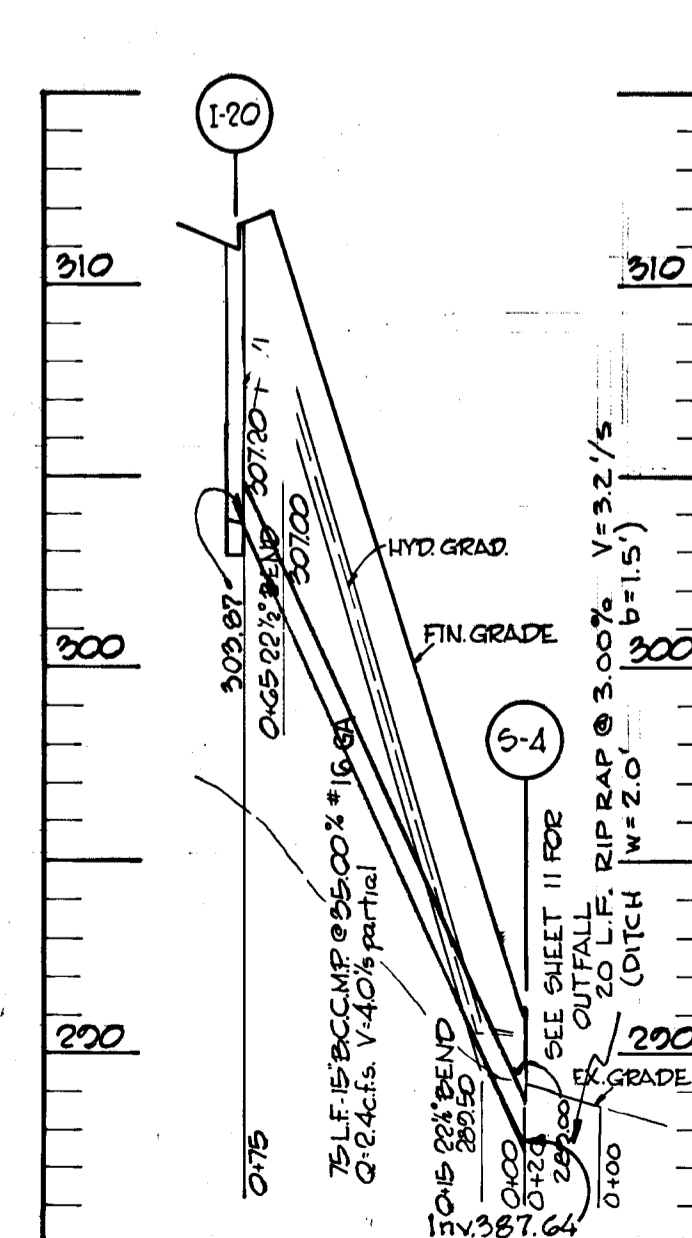
APPROVED  
 DEPARTMENT OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 MARYLAND  
 DATE MAY 26 1972  
*J.T.L.*



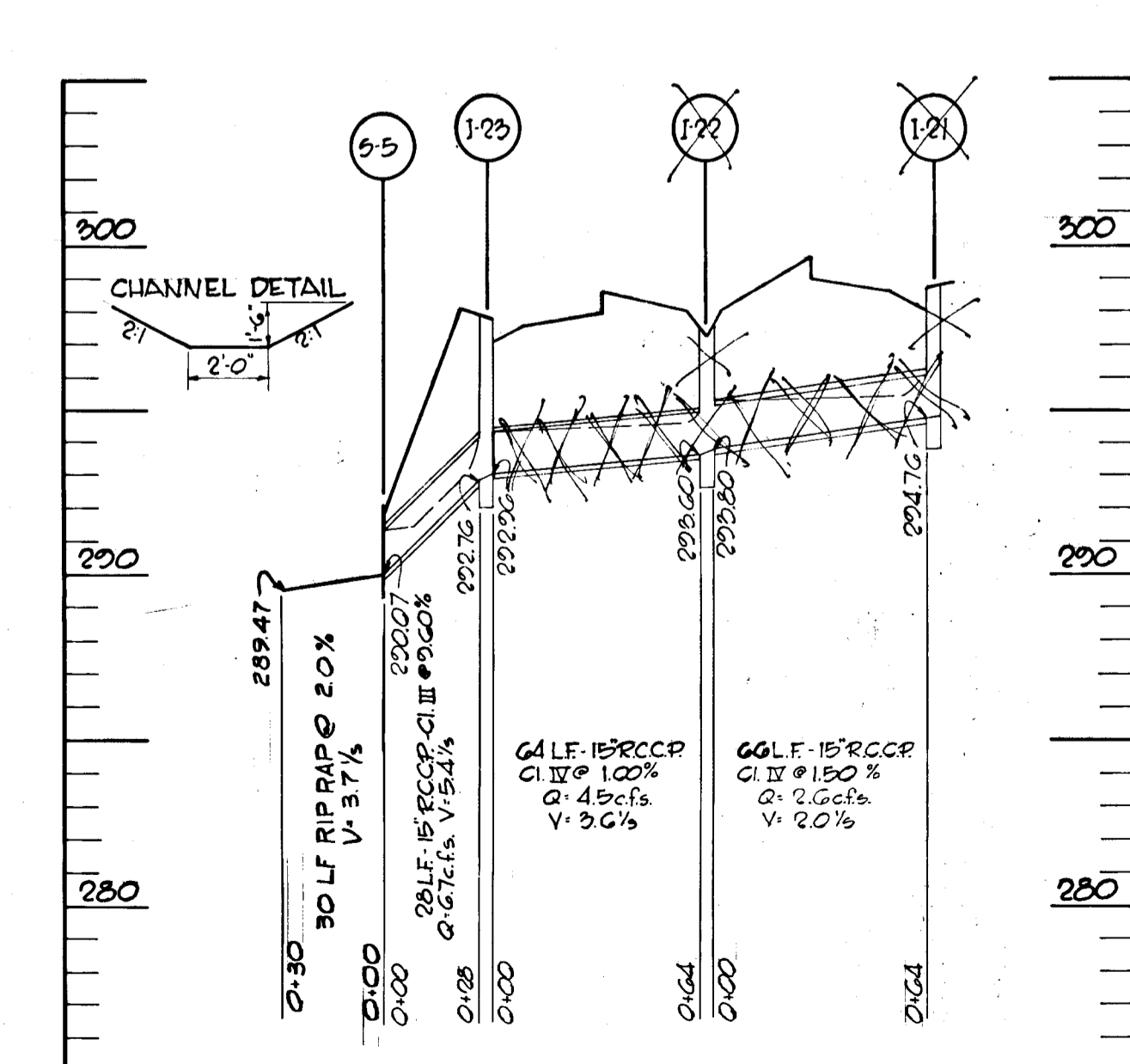
SEE SHEET 12 FOR PLAN



SEE SHEET 11 FOR PLAN

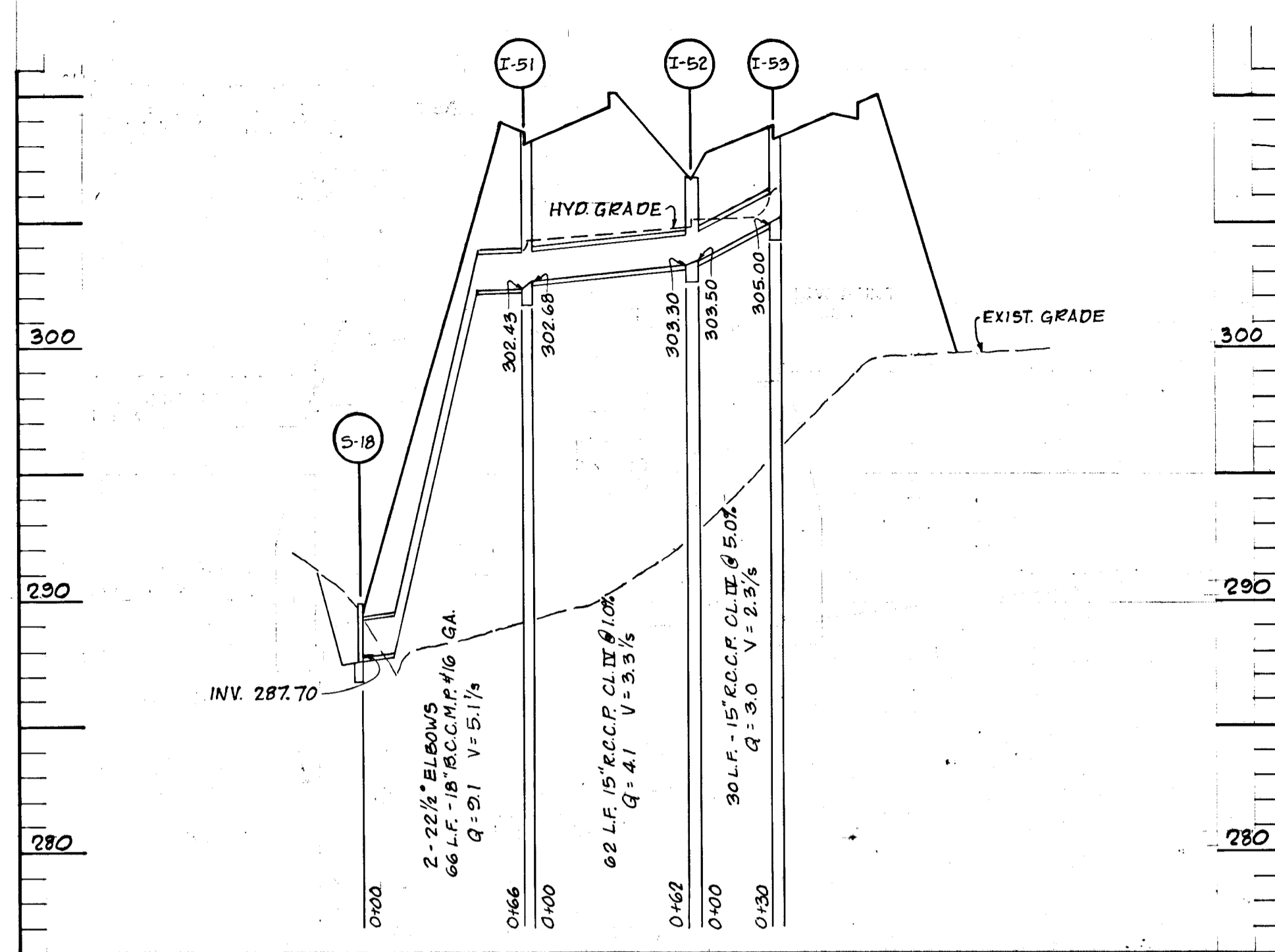


SEE SHEET 11 FOR PLAN

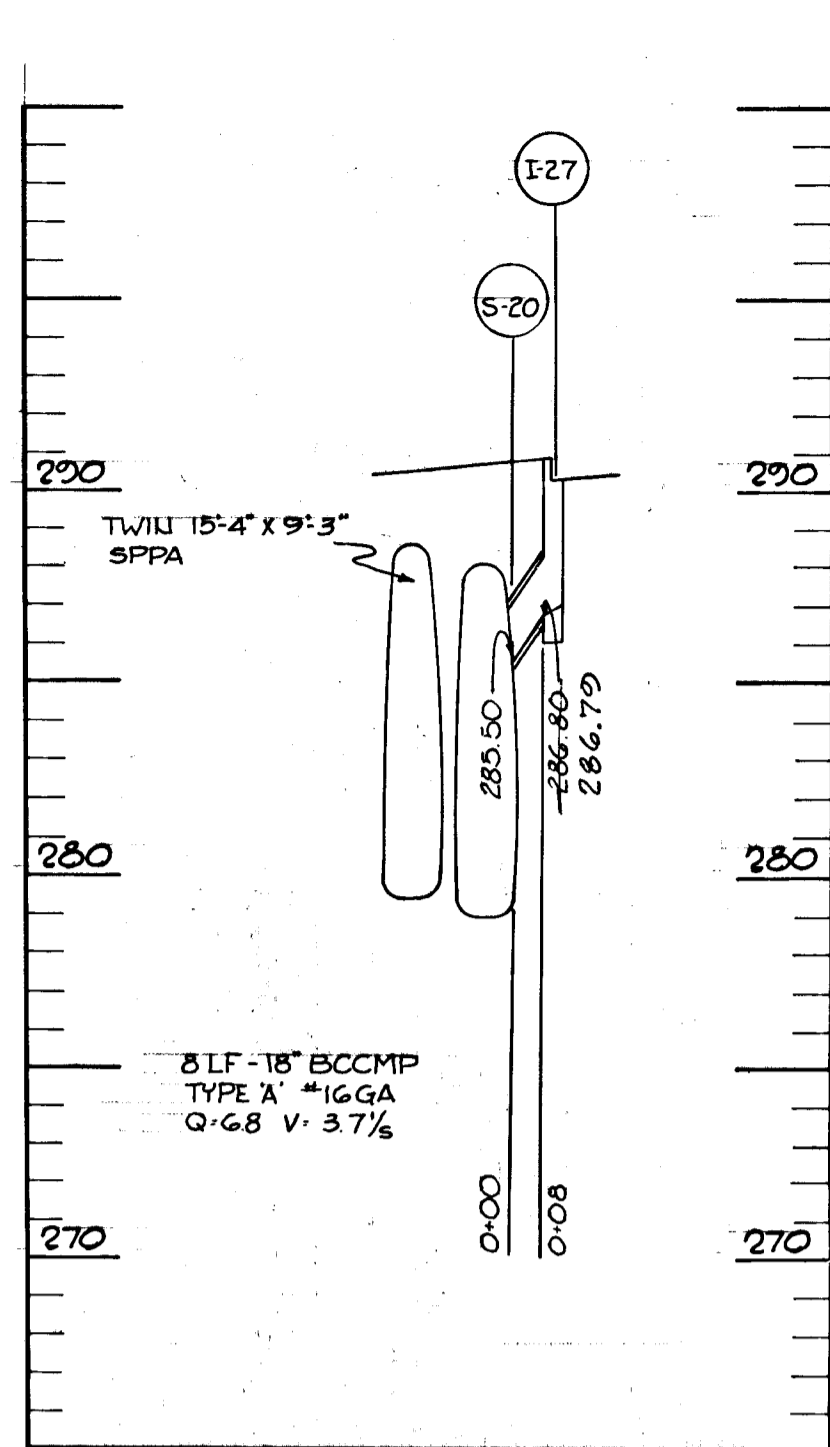


SEE SHEET 11 FOR PLAN

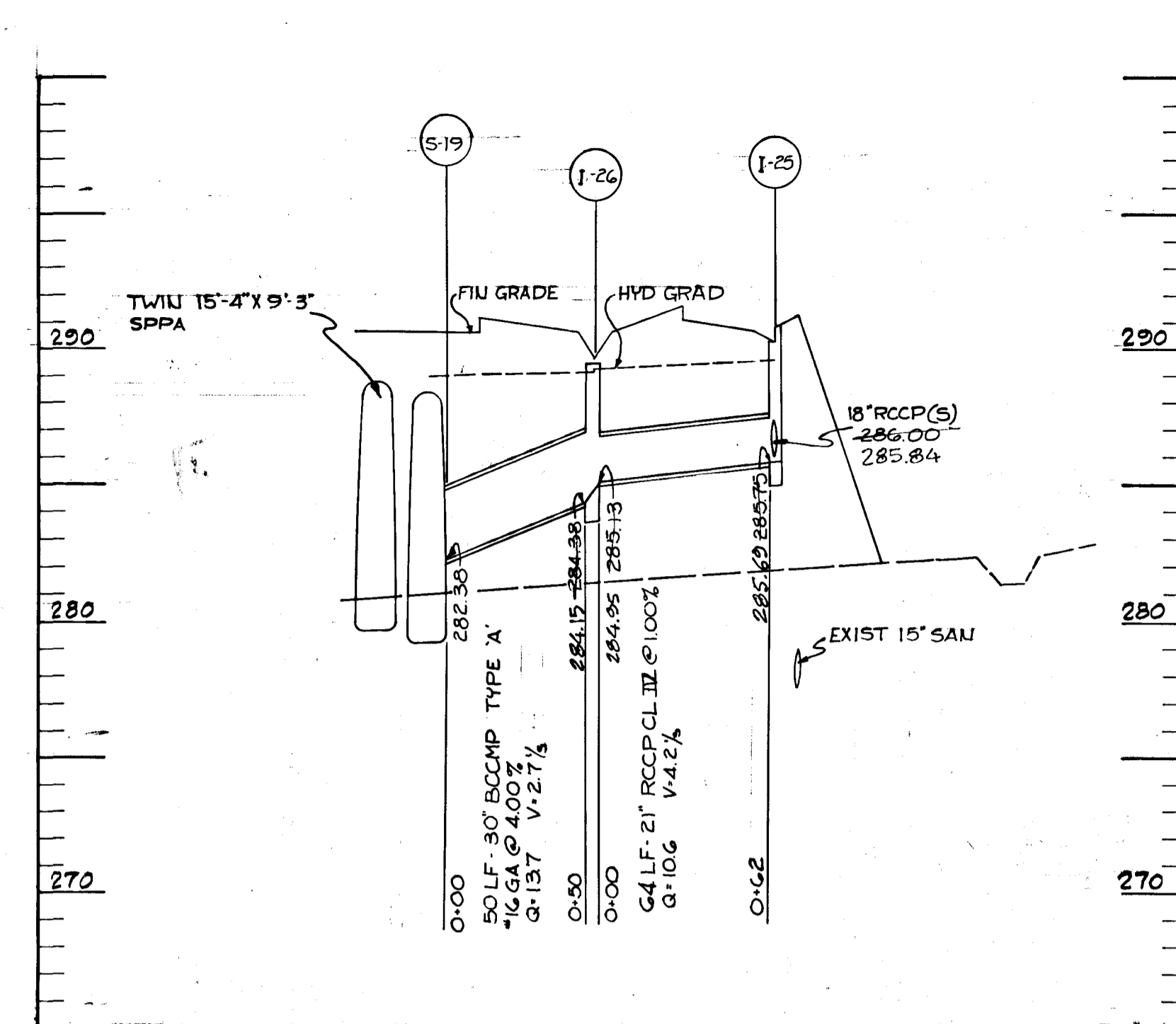
<b>GREEN ASSOCIATES, INC.</b> CONSULTING ENGINEERS BALTIMORE, MARYLAND	Rev. Date: _____ Rev. No: _____ Revision Description: _____
	<b>COLUMBIA</b> MARYLAND 4TH ELECTION DISTRICT HOWARD COUNTY HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND
	<b>BROKEN LAND PARKWAY</b>
	Drawn By: F.T. Scale: 1" = 50' HORIZ. 1" = 5' VERT. Page No: 15 OF 22 Date: MAY 1972 Check: J.T.L.



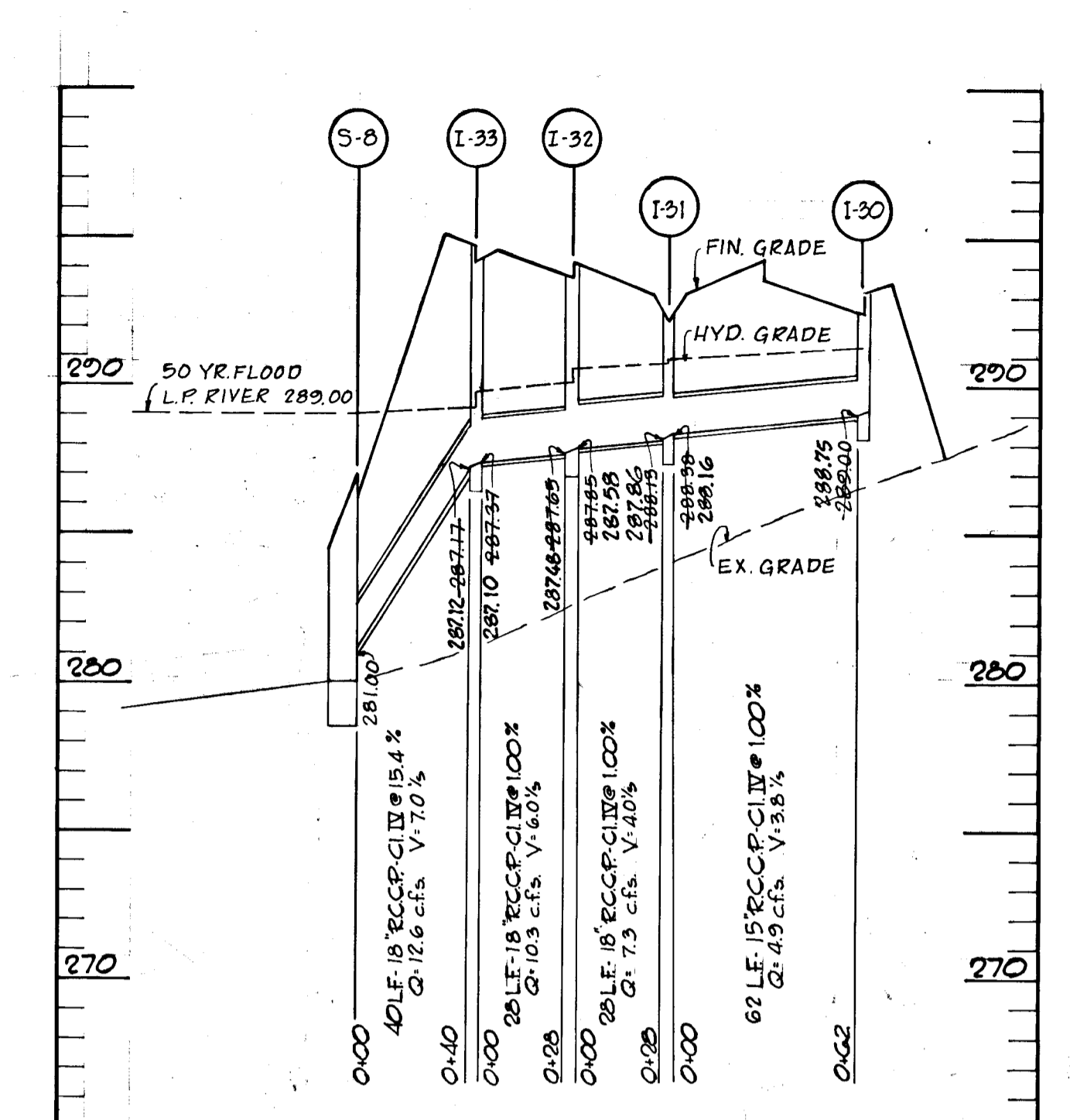
SEE SHEET 7 FOR PLAN



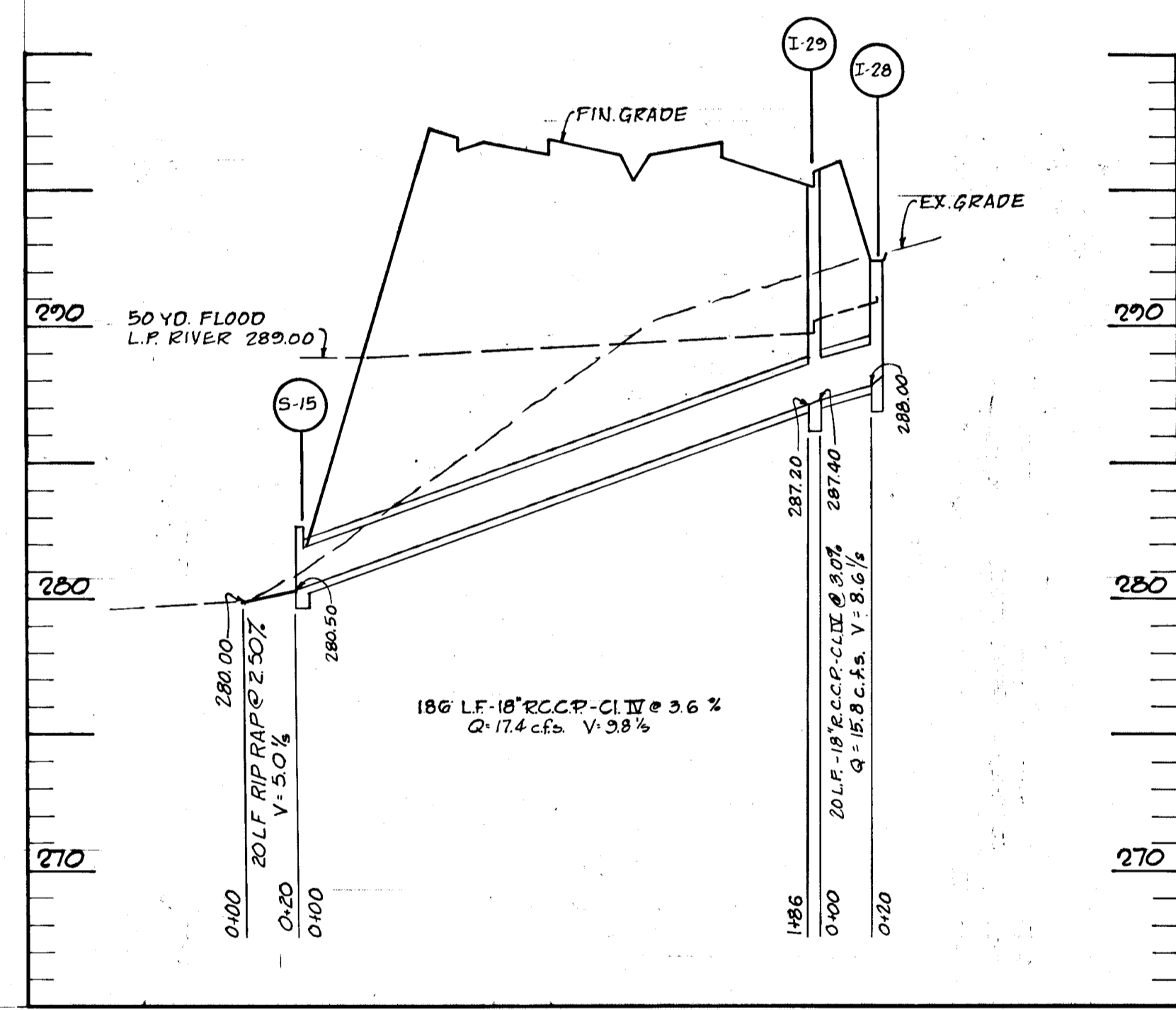
SEE SHEET 11 FOR PLAN



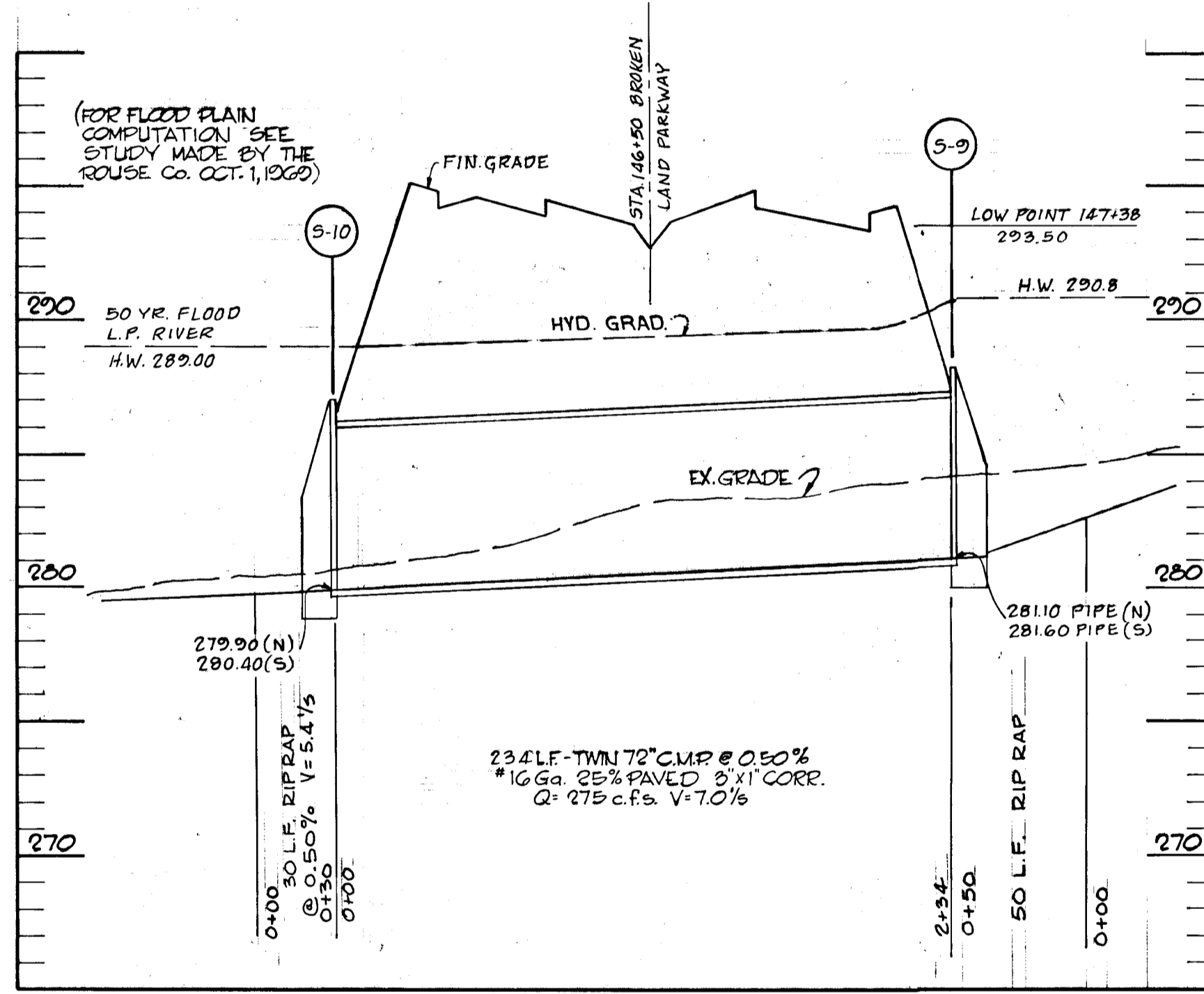
SEE SHEET 11 FOR PLAN



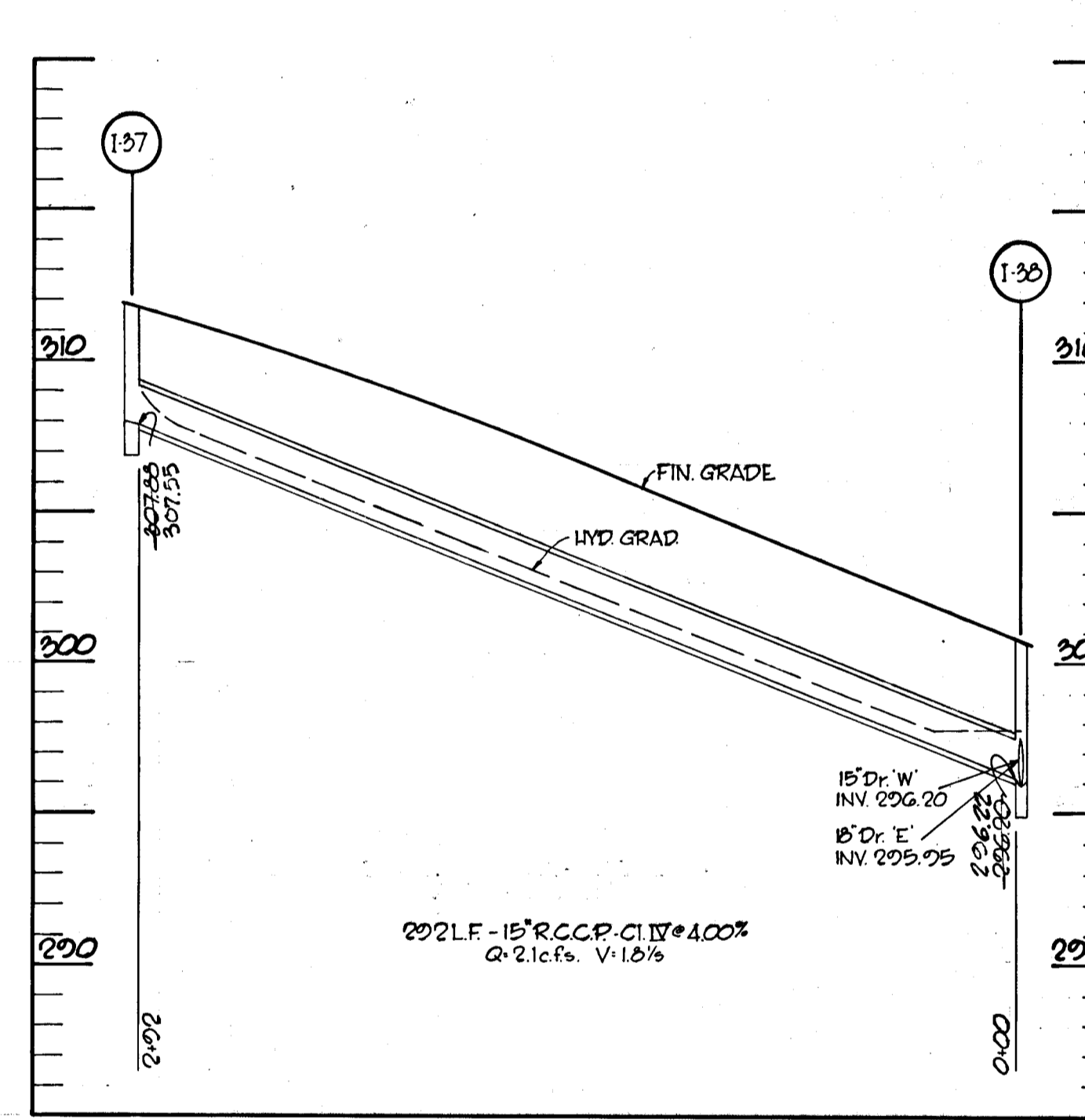
SEE SHEET 9 FOR PLAN



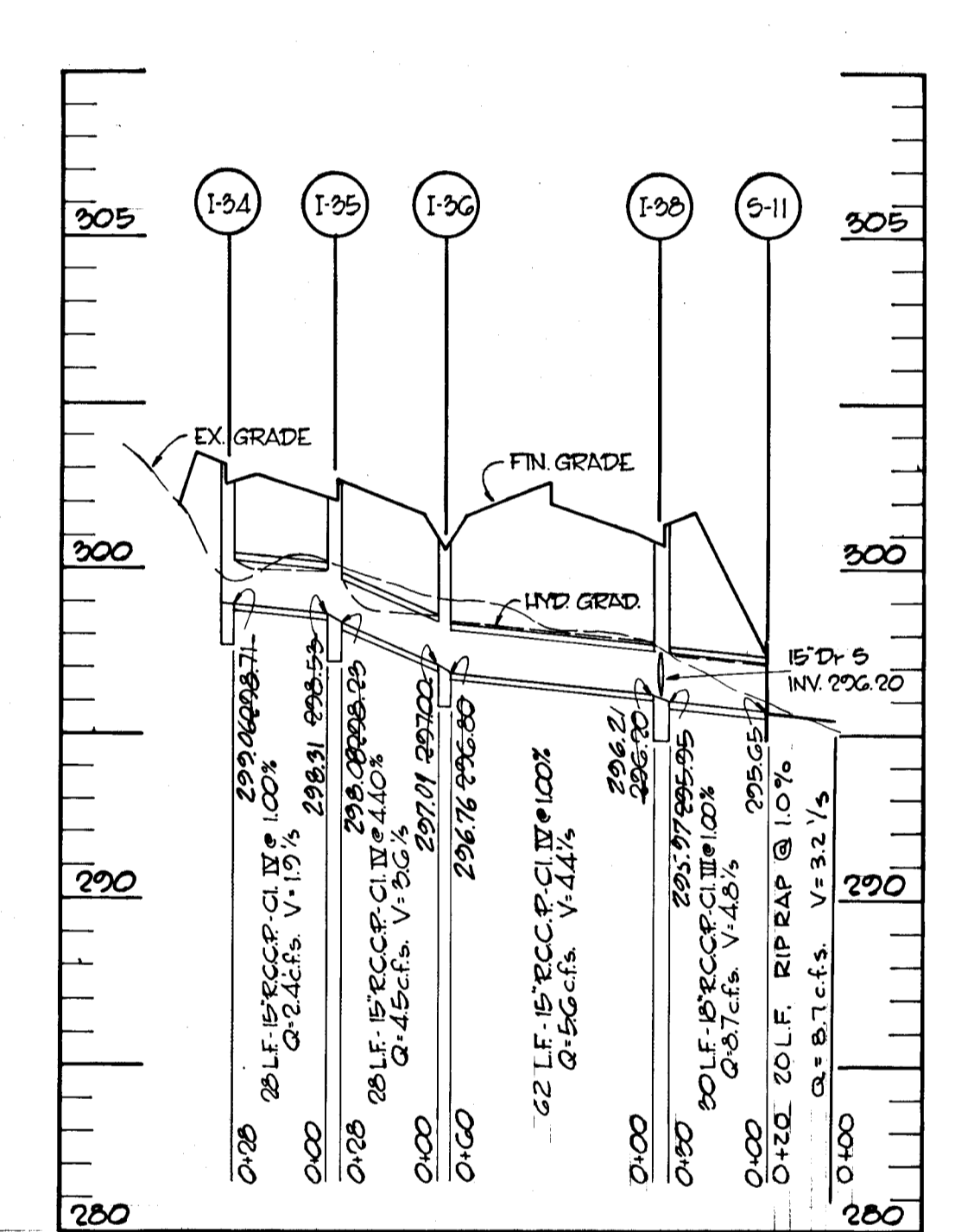
SEE SHEET 9 FOR PLAN



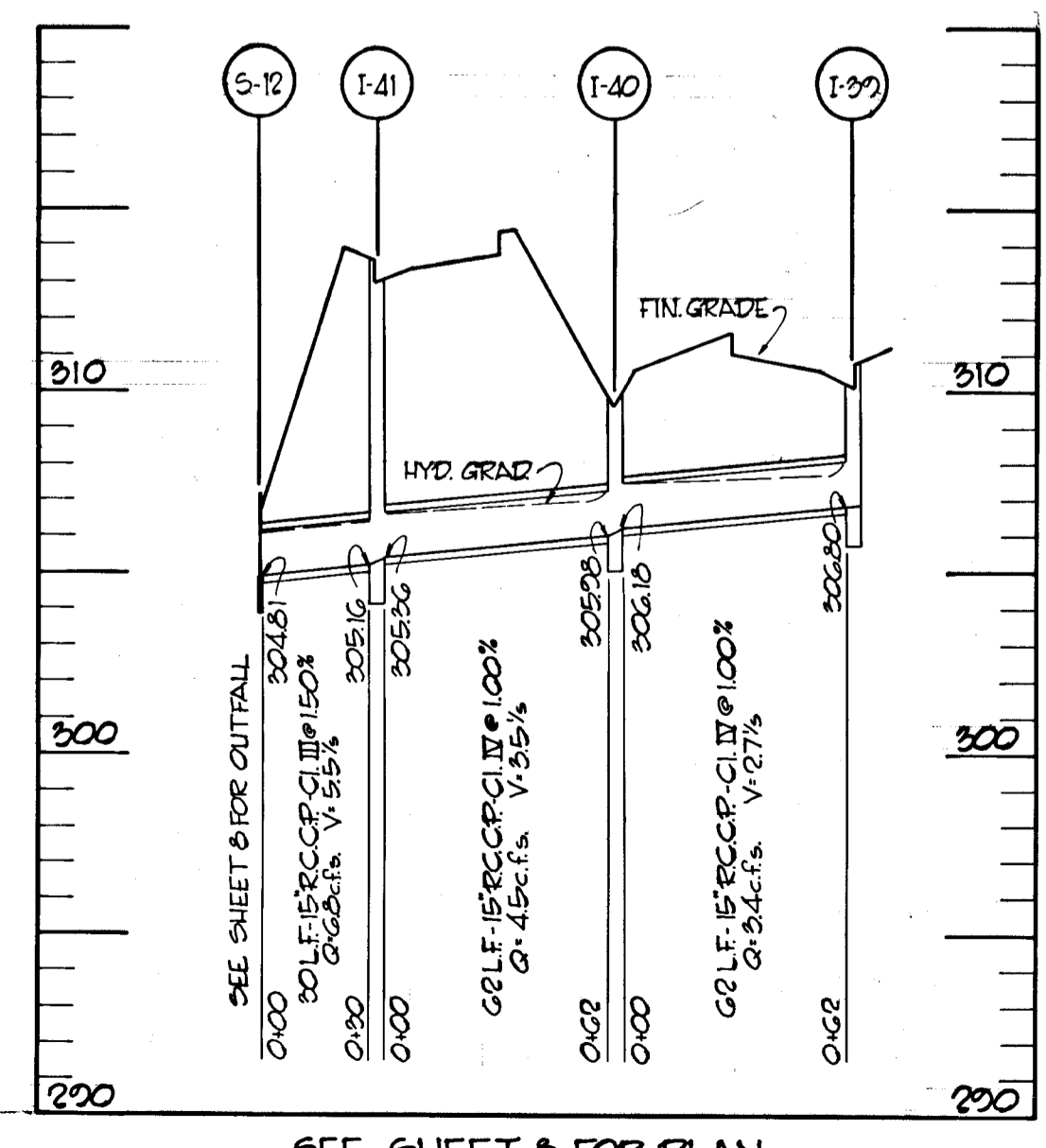
SEE SHEET 9 FOR PLAN



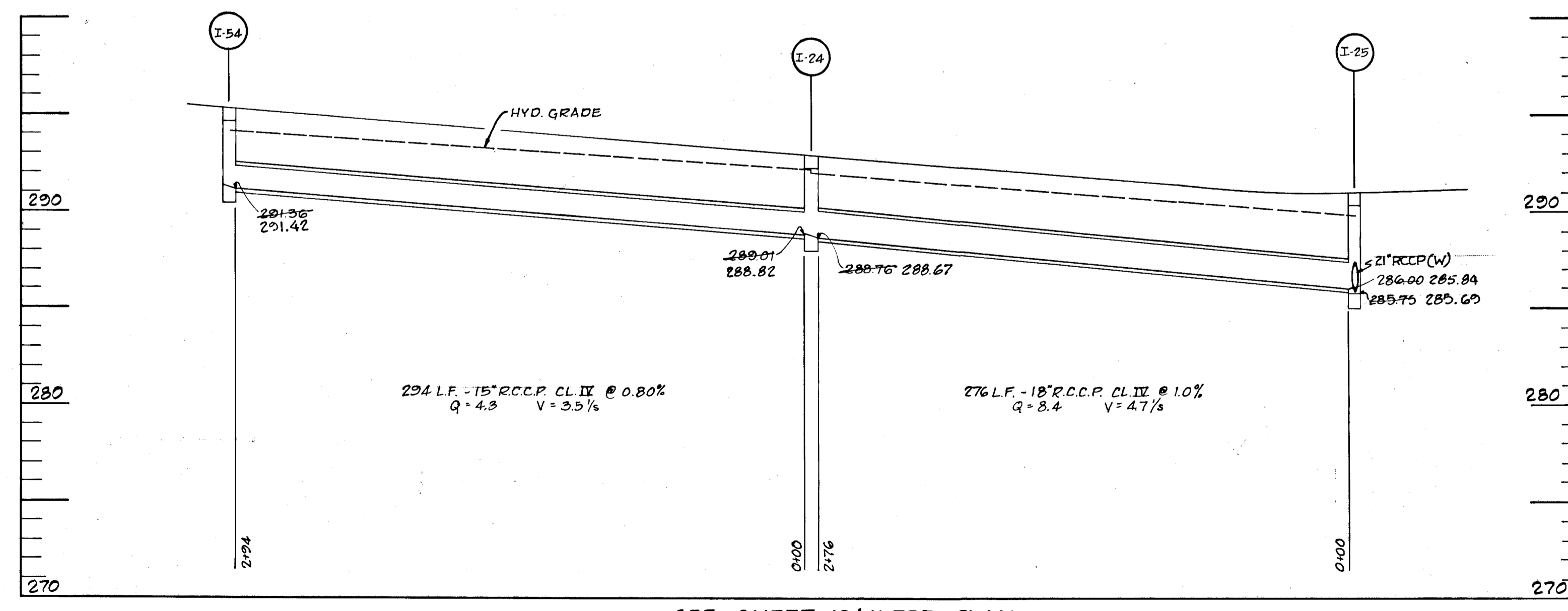
SEE SHEET 8 FOR PLAN



SEE SHEET 8 FOR PLAN



SEE SHEET 8 FOR PLAN

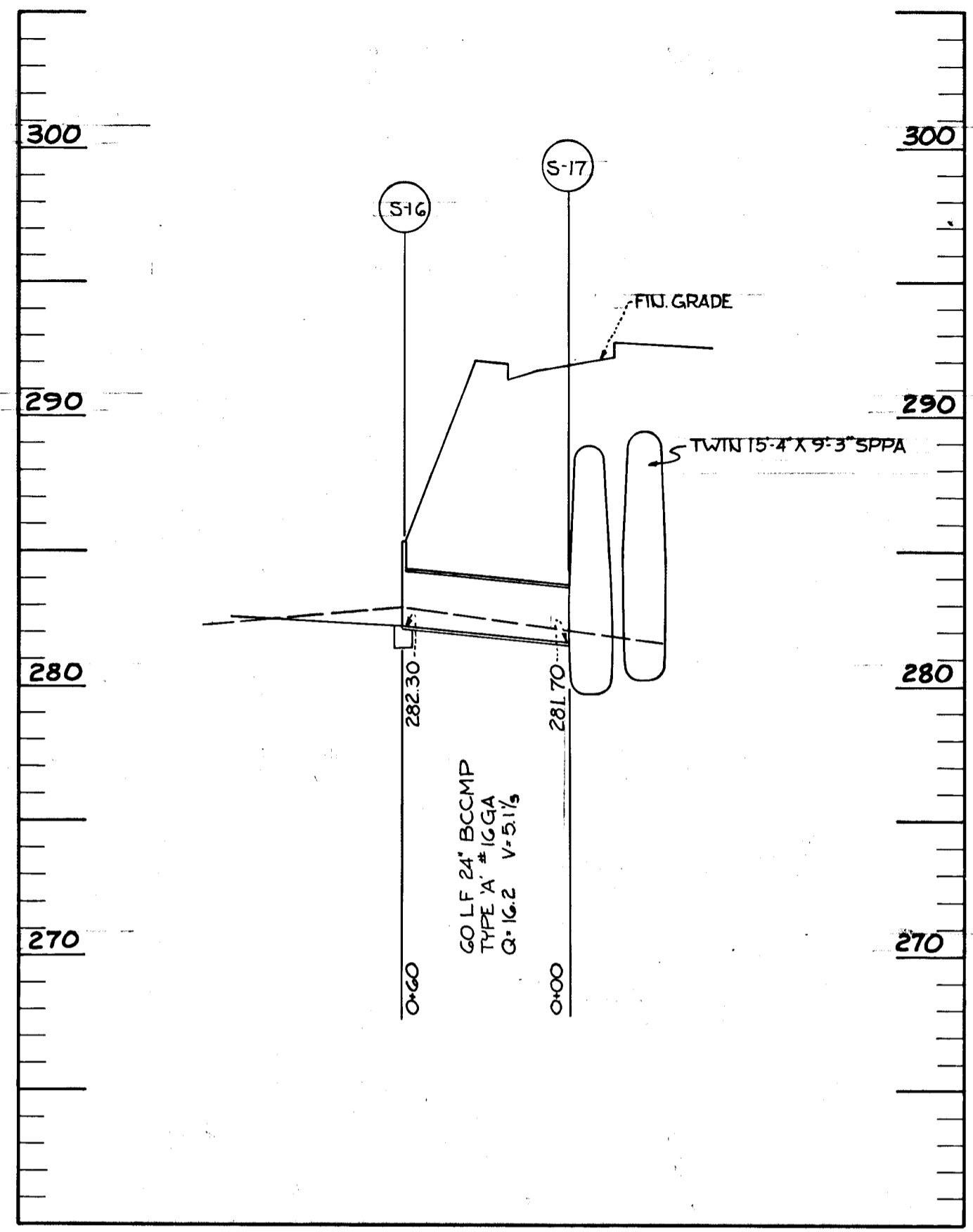


SEE SHEET 10 & 11 FOR PLAN

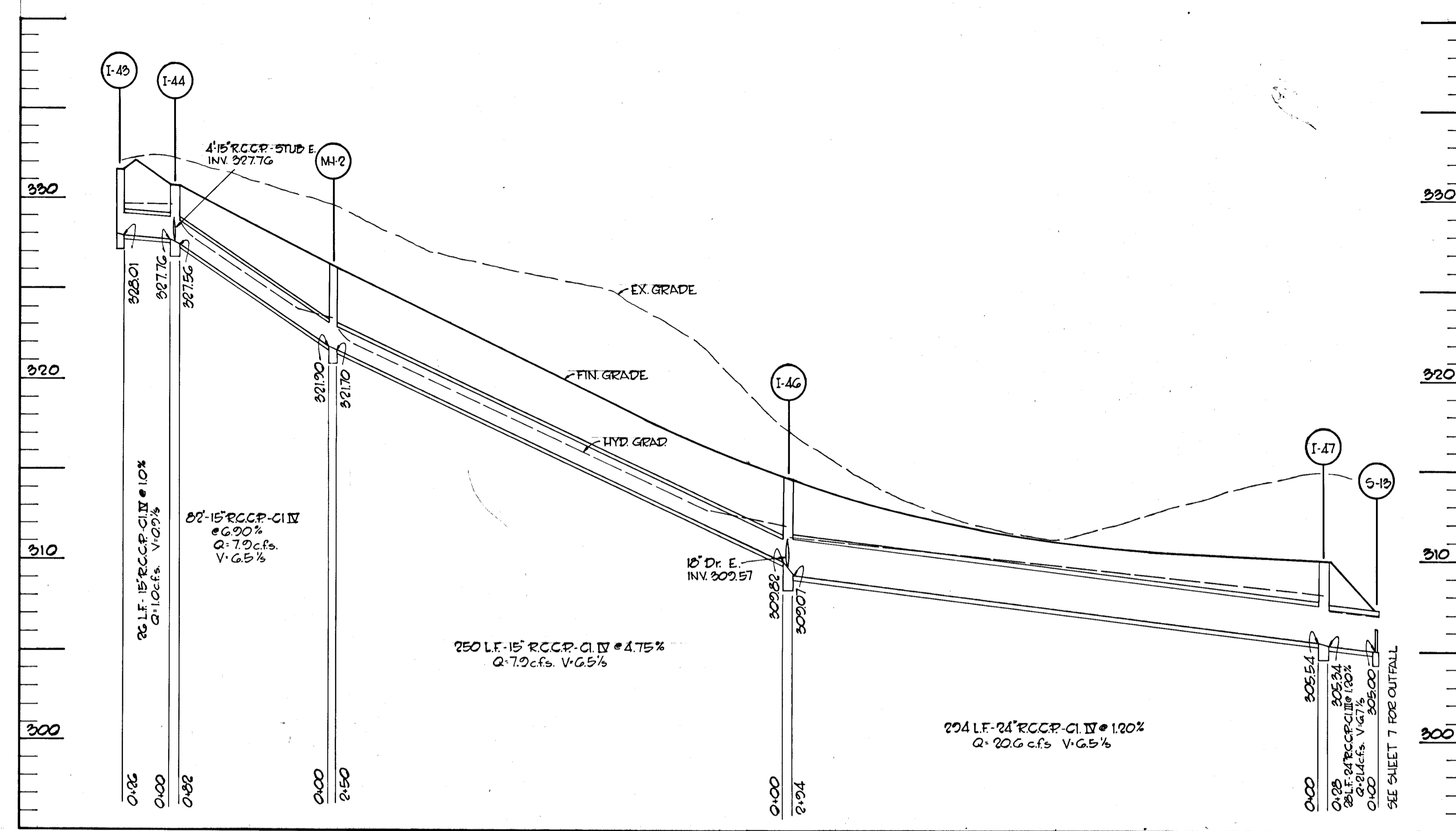
APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 HO. 702  
 MARYLAND  
 DATE: MAY 26 1972  
*J. J. J.*

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	PROJECT AREA <b>BROKEN LAND PARKWAY</b>	
	PROJECT TITLE	
	Des. by F. T.	Scale 1" = 50' HORZ. 1" = 10' VERT.
	Div. by F. T.	Date MAY 1972
PROJECT NO. 15 OF 22		C. E. J. No.
C. E. J. No.		Date

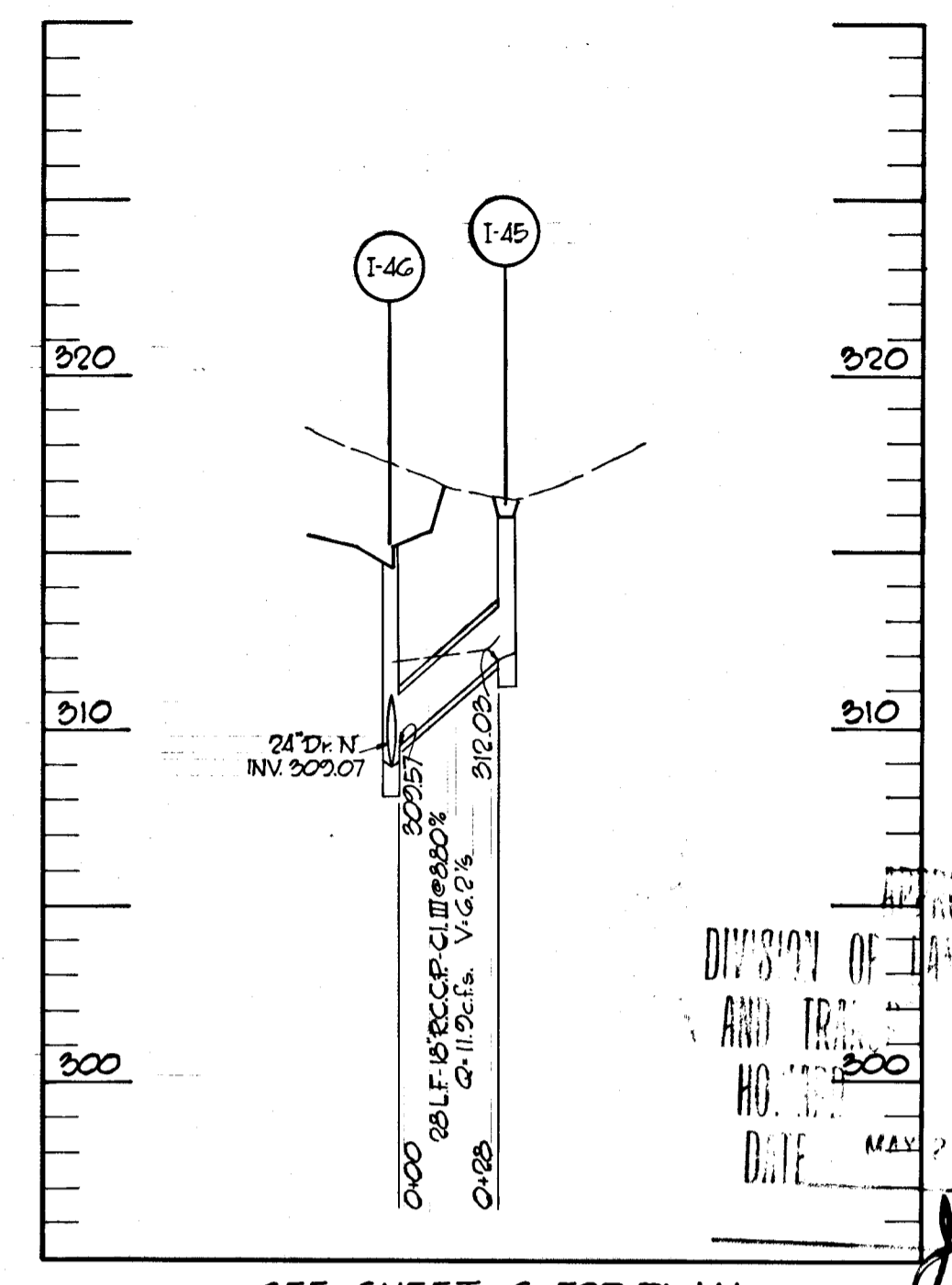




SEE SHEET FOR PLAN

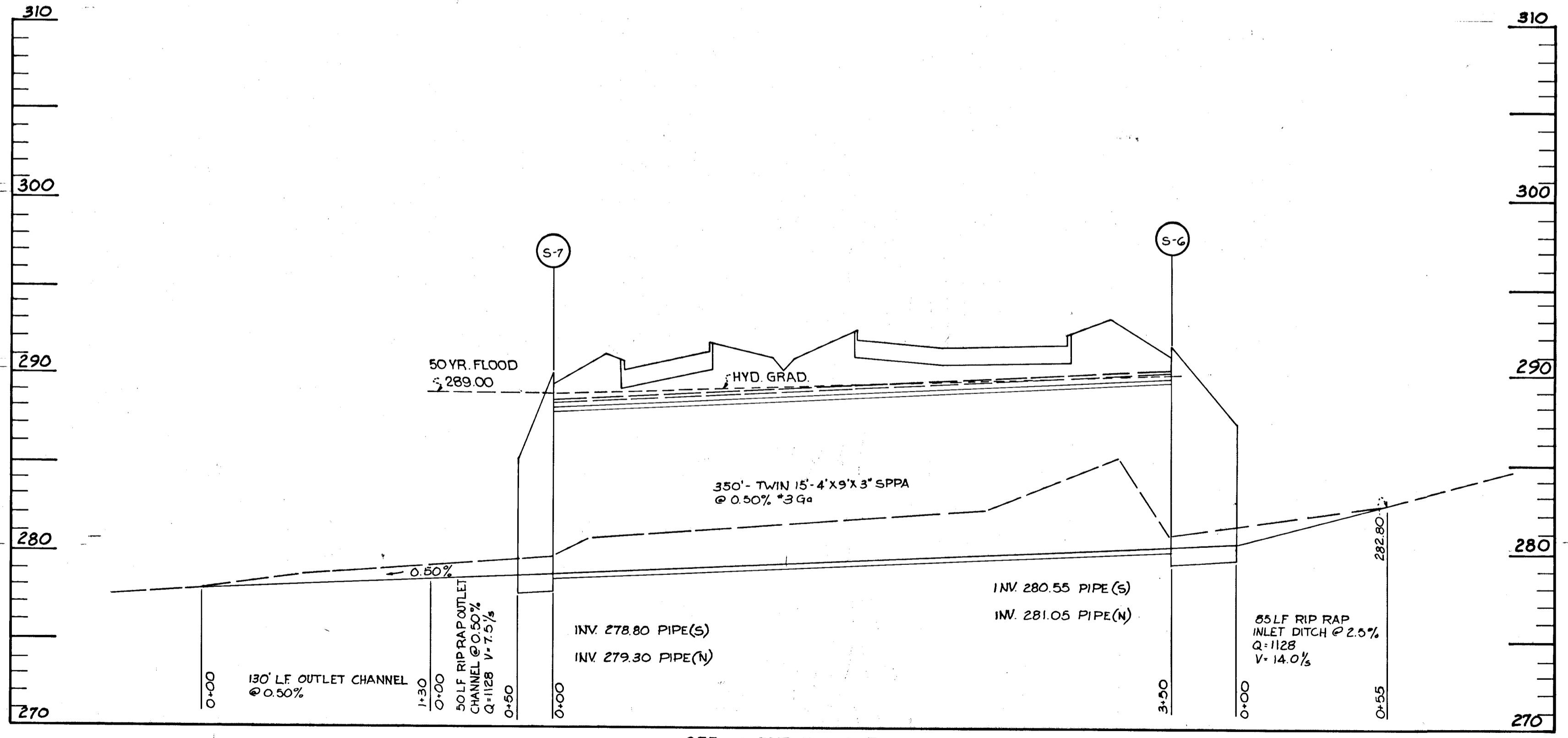


SEE SHEET G & 7 FOR PLAN

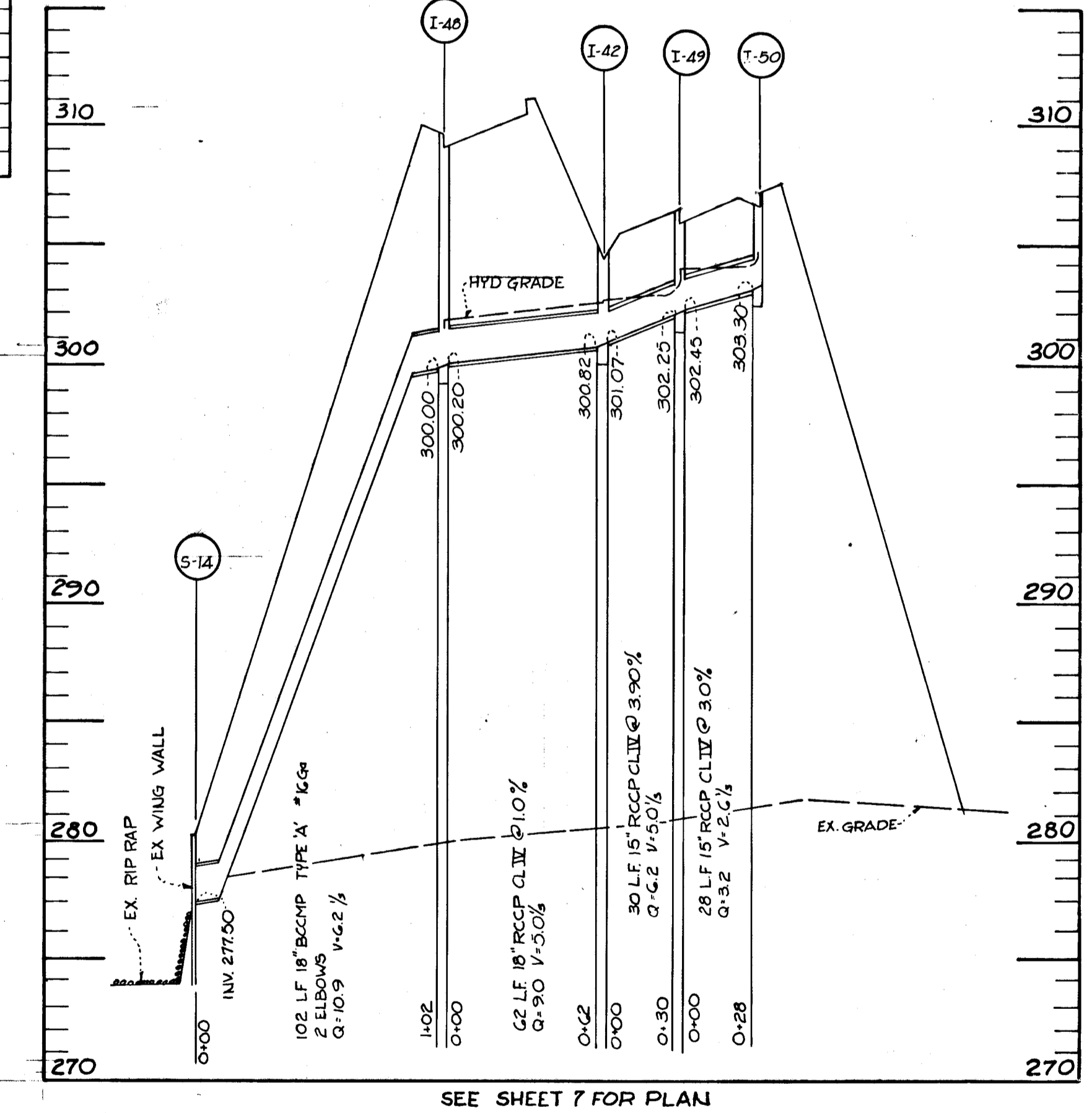


SEE SHEET G FOR PLAN

APPROVED  
 DIVISION OF PLANNING AND TRAFFIC DEVELOPMENT  
 HO. NO. 300  
 DATE MAY 20 1972  
 J. T. J.

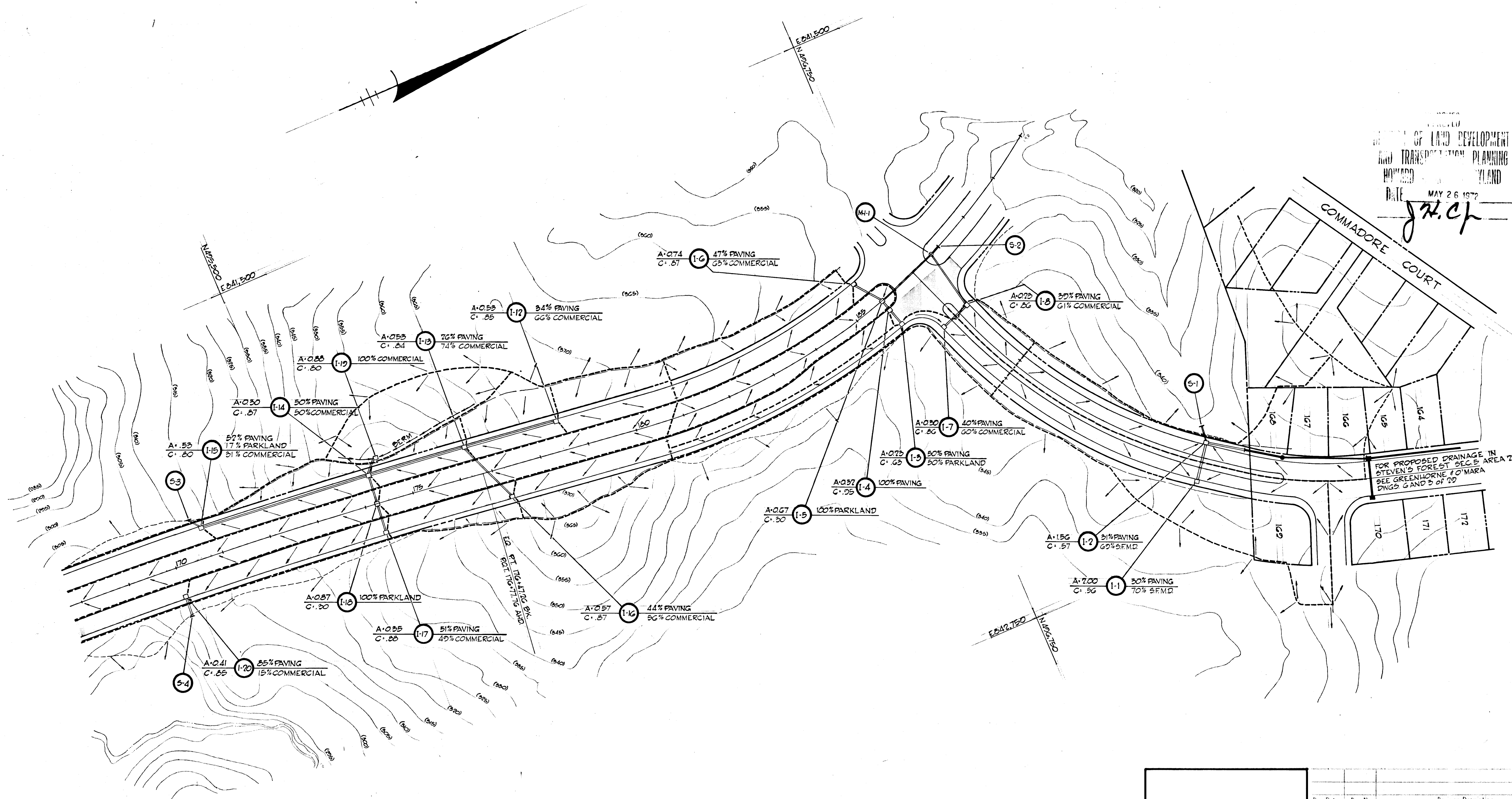


SEE SHEET 11 FOR PLAN



SEE SHEET 7 FOR PLAN

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	PROJECT AREA <b>BROKEN LAND PARKWAY</b>		
	PROJECT TITLE		
Rev. Date Rev. No. Revision Description	PROJECT AREA <b>BROKEN LAND PARKWAY</b>		
PROJECT TITLE			
Des. By Date	F.T. MAY 1972	Scale 1" = 50' HORIZ. 1" = 5' VERT.	Draw. No. 17 OF 22
CIB. By J. T. J.	Date MAY 1972	S.C.F. No.	Date



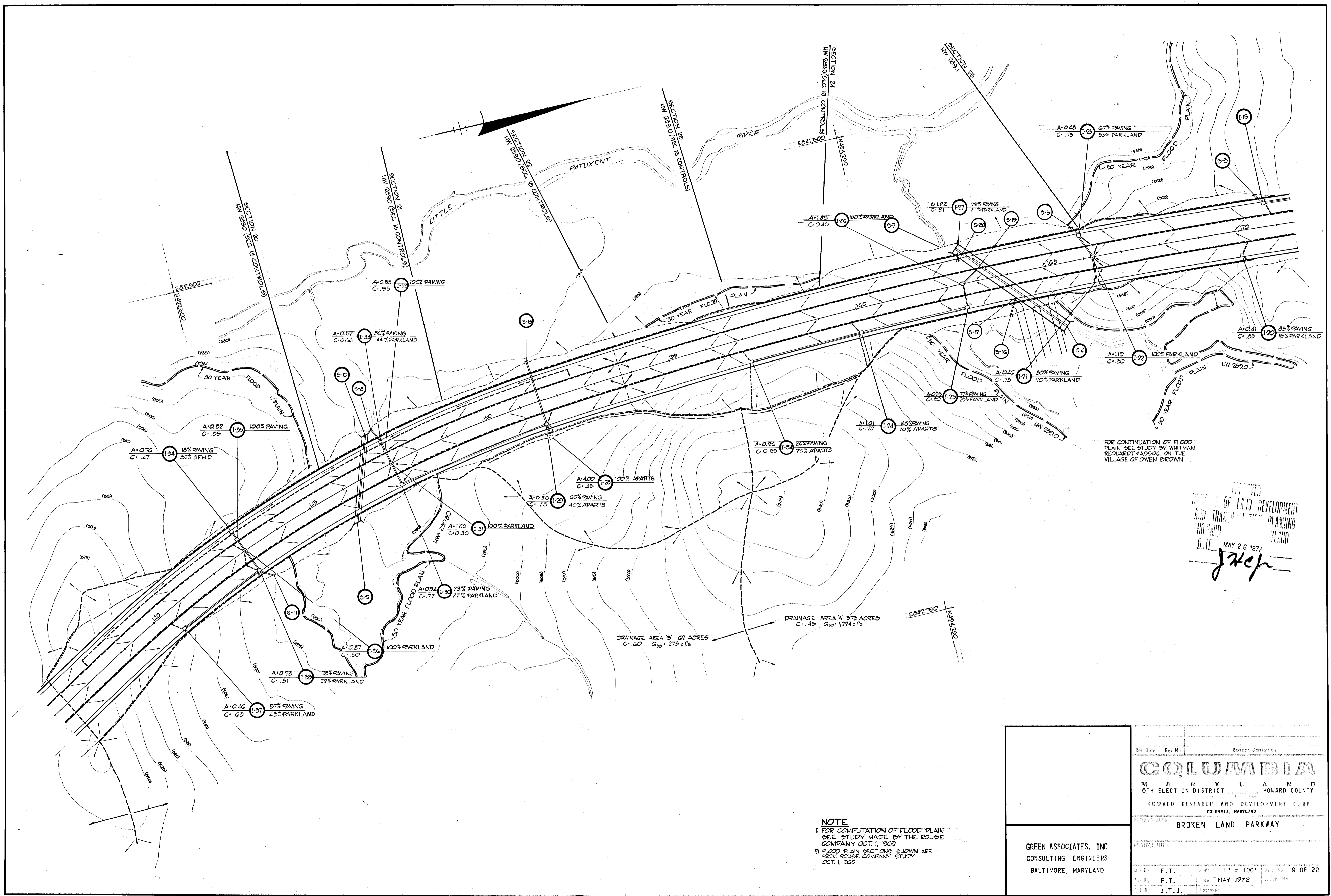
PROPOSED DRAINAGE PLAN OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING HOWARD COUNTY, MARYLAND DATE MAY 26 1972

FOR PROPOSED DRAINAGE IN STEVEN'S FOREST SEC. 5 AREA 2 SEE GREENHORNE & O'MARA DWGS. G AND D OF 22

**NOTE**  
FOR COMPUTATION OF FLOOD PLAIN SEE STUDY MADE BY THE ROUSE COMPANY OCT. 1, 1969

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	Rev. Date Rev. No. Revision Description
	<b>COLUMBIA</b> MARYLAND 6TH ELECTION DISTRICT HOWARD COUNTY HOWARD RESEARCH AND DEVELOPMENT CORP.
PROJECT TITLE <b>BROKEN LAND PARKWAY</b>	STORY AREA
DESIGNED BY F.T.	SCALE 1" = 100'
CHECKED BY F.T.	DATE MAY 1972
DRAWN BY J.T.J.	SHEET NO. 18 OF 22





FOR CONTINUATION OF FLOOD PLAN SEE STUDY BY WHITMAN REQUARDT & ASSOC. ON THE VILLAGE OF OWEN BROWN

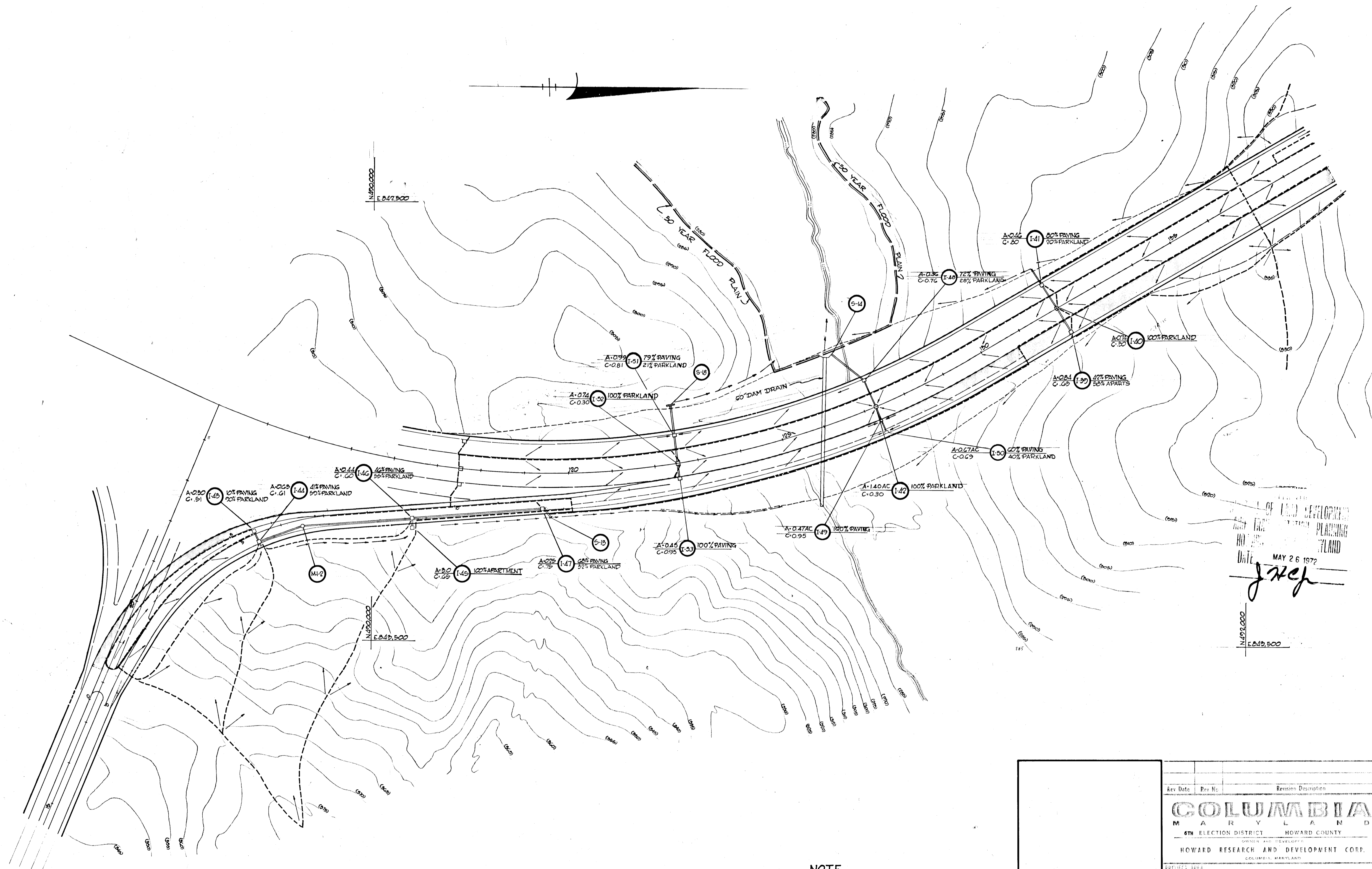
RECEIVED  
 DEPT. OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 DIVISION  
 DATE MAY 26 1972  
*J. J. J.*

DRAINAGE AREA 'A' 573 ACRES  
 C. 45 Q<sub>50</sub> = 1,224 c.f.s.

DRAINAGE AREA 'B' 67 ACRES  
 C. 60 Q<sub>50</sub> = 279 c.f.s.

**NOTE**  
 1) FOR COMPUTATION OF FLOOD PLAN SEE STUDY MADE BY THE ROUSE COMPANY OCT. 1, 1969  
 2) FLOOD PLAN SECTIONS SHOWN ARE FROM ROUSE COMPANY STUDY OCT. 1, 1969

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	Rev. Date: _____ Rev. No: _____ Revision: _____
	<b>COLUMBIA</b> MARYLAND 6TH ELECTION DISTRICT HOWARD COUNTY HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND PROJECT AREA: BROKEN LAND PARKWAY
Proj. Title: _____ Date: _____ Scale: 1" = 100' Drawing No: 19 OF 22	Des. By: F.T. Date: MAY 1972 C.C.F. No.: _____ Appr. By: J.T.J.

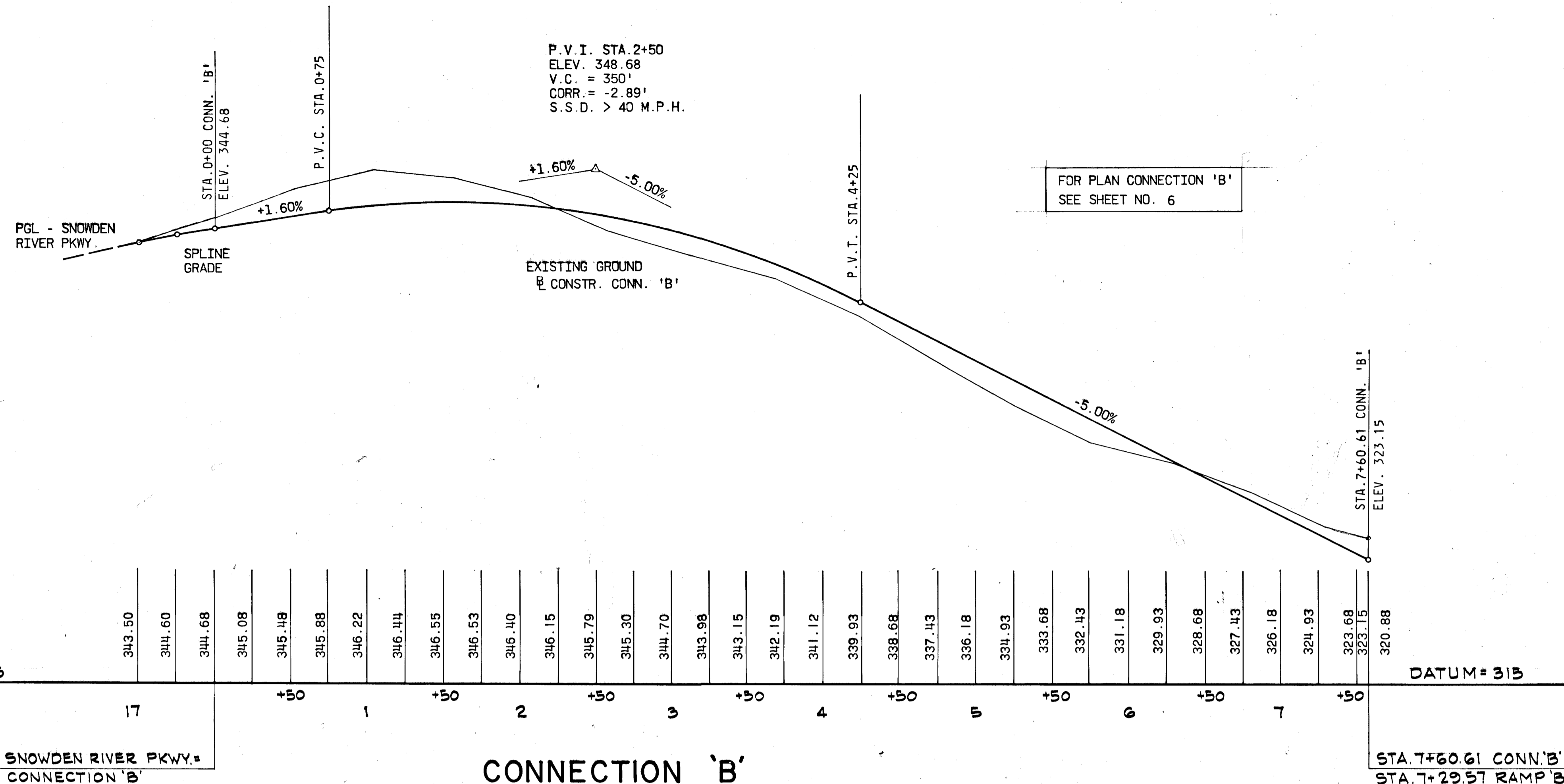


DATE MAY 26 1972  
*J. T. J.*

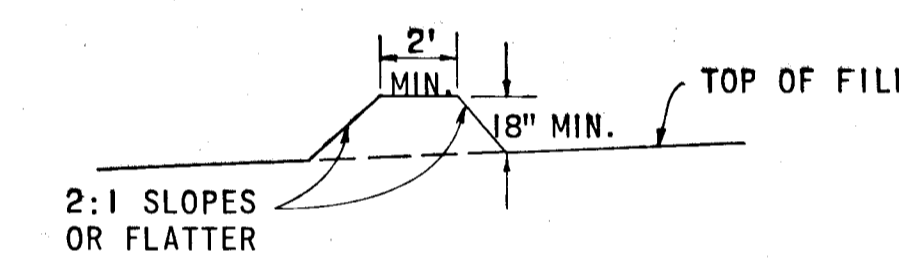
**NOTE**  
 FOR COMPUTATION OF FLOOD PLAIN  
 SEE STUDY MADE BY THE ROUSE  
 COMPANY OCT. 1, 1969

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND		<table border="1"> <tr> <th>Rev. Date</th> <th>Rev. No.</th> <th>Revision Description</th> </tr> <tr> <td colspan="3" style="text-align: center;"> <b>COLUMBIA</b>            MARYLAND            6TH ELECTION DISTRICT HOWARD COUNTY            OWNED AND DEVELOPED BY            HOWARD RESEARCH AND DEVELOPMENT CORP.            COLUMBIA, MARYLAND         </td> </tr> <tr> <td colspan="3">PROJECT AREA BROKEN LAND PARKWAY</td> </tr> <tr> <td colspan="3">PROJECT TITLE</td> </tr> <tr> <td>Des. By F.T.</td> <td>Scale 1" = 100'</td> <td>Date No. 20 OF 22</td> </tr> <tr> <td>Den. By F.T.</td> <td>Date MAY 1972</td> <td>CCF No.</td> </tr> <tr> <td>Ch. By J.T.J.</td> <td>Approved</td> <td></td> </tr> </table>		Rev. Date	Rev. No.	Revision Description	<b>COLUMBIA</b> MARYLAND 6TH ELECTION DISTRICT HOWARD COUNTY OWNED AND DEVELOPED BY HOWARD RESEARCH AND DEVELOPMENT CORP. COLUMBIA, MARYLAND			PROJECT AREA BROKEN LAND PARKWAY			PROJECT TITLE			Des. By F.T.	Scale 1" = 100'	Date No. 20 OF 22	Den. By F.T.	Date MAY 1972	CCF No.	Ch. By J.T.J.	Approved	
Rev. Date	Rev. No.	Revision Description																						
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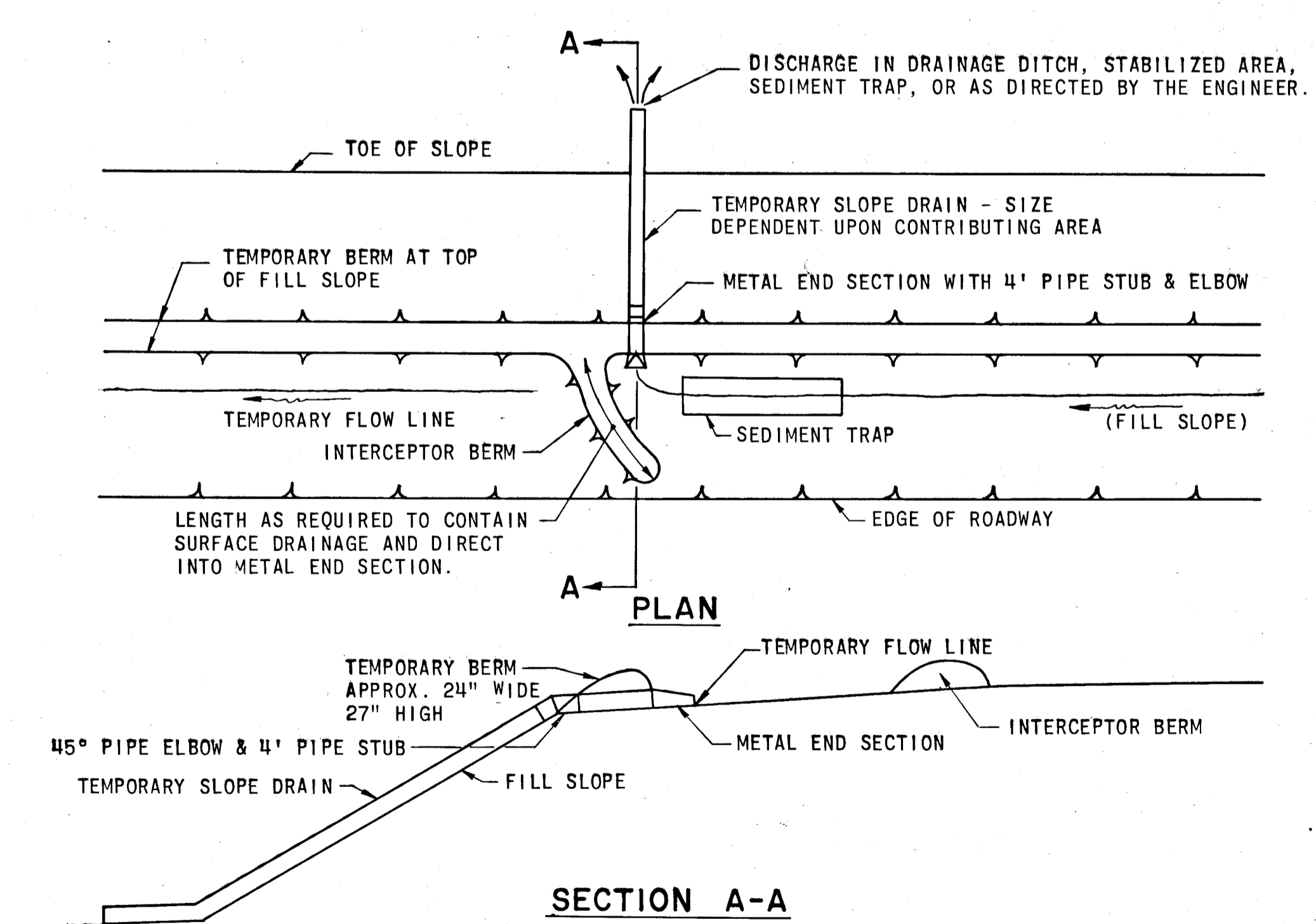




APPROVED  
 DIVISION OF LAND DEVELOPMENT  
 AND TRANSPORTATION PLANNING  
 HOWARD COUNTY, MARYLAND  
 DATE: MAY 26 1972  
*J. J. J.*

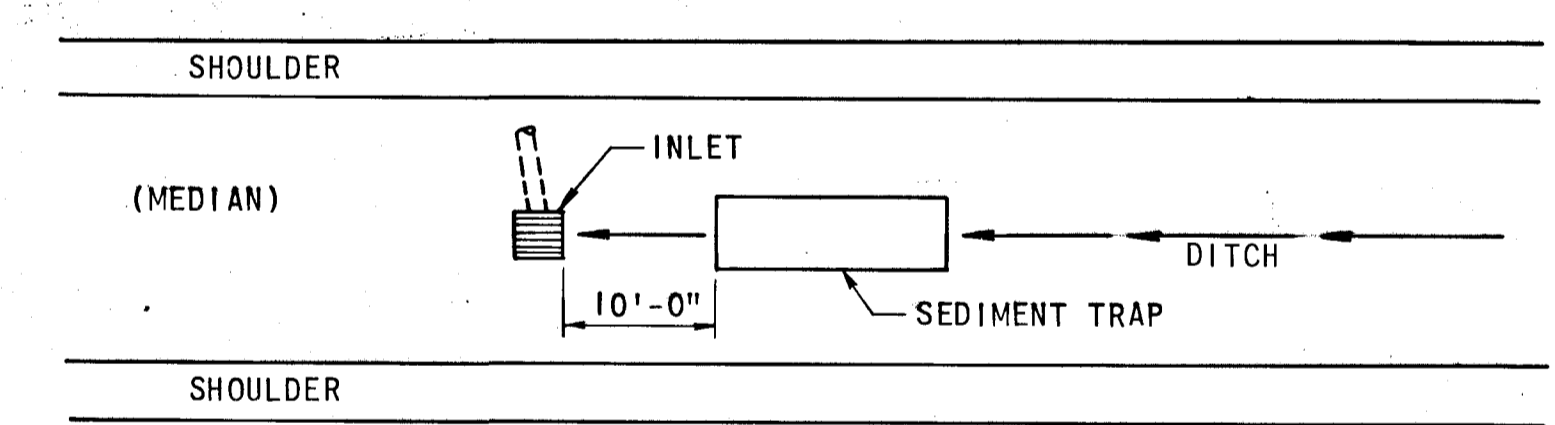


INTERCEPTOR & TEMPORARY BERM SECTION

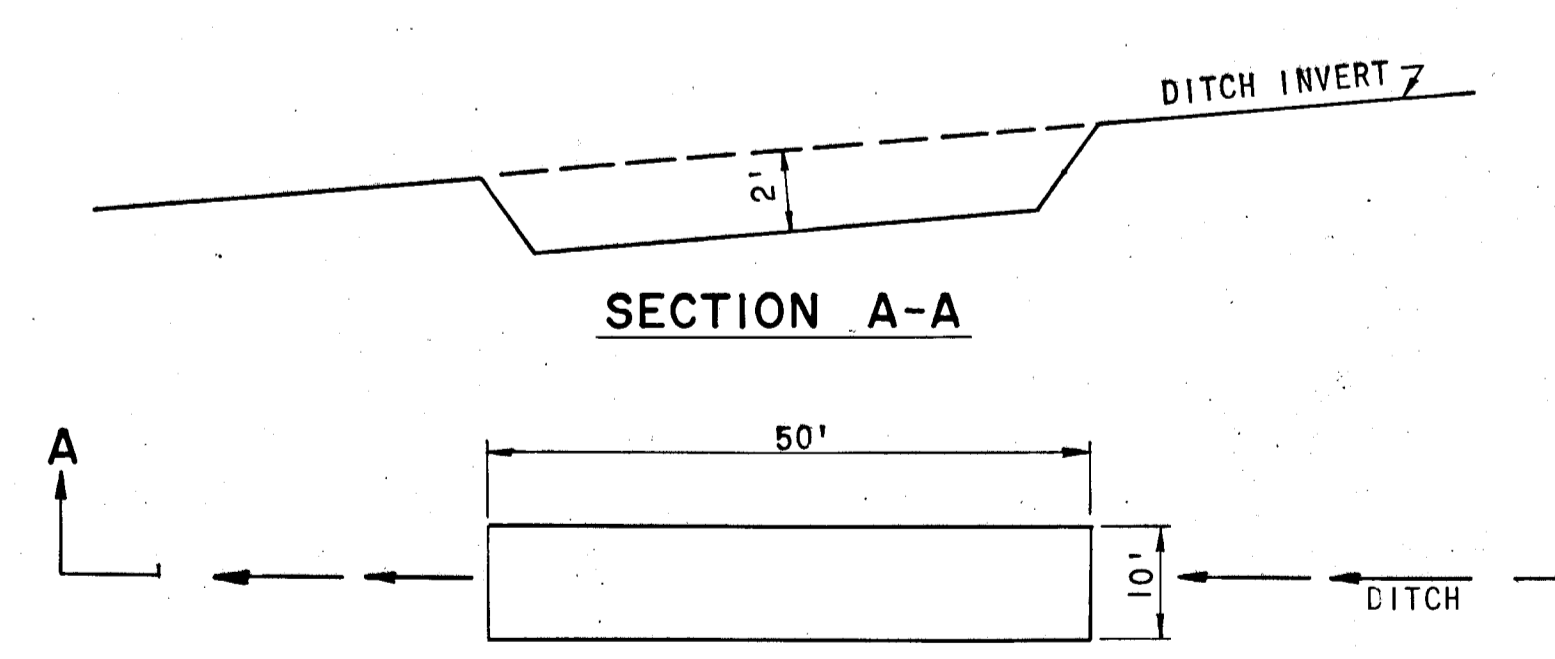


TYPICAL TEMPORARY SLOPE DRAIN  
 (FOR FILL SLOPES)

CONNECTION 'B'



MEDIAN SEDIMENT TRAP



TYPICAL STANDARD SEDIMENT TRAP

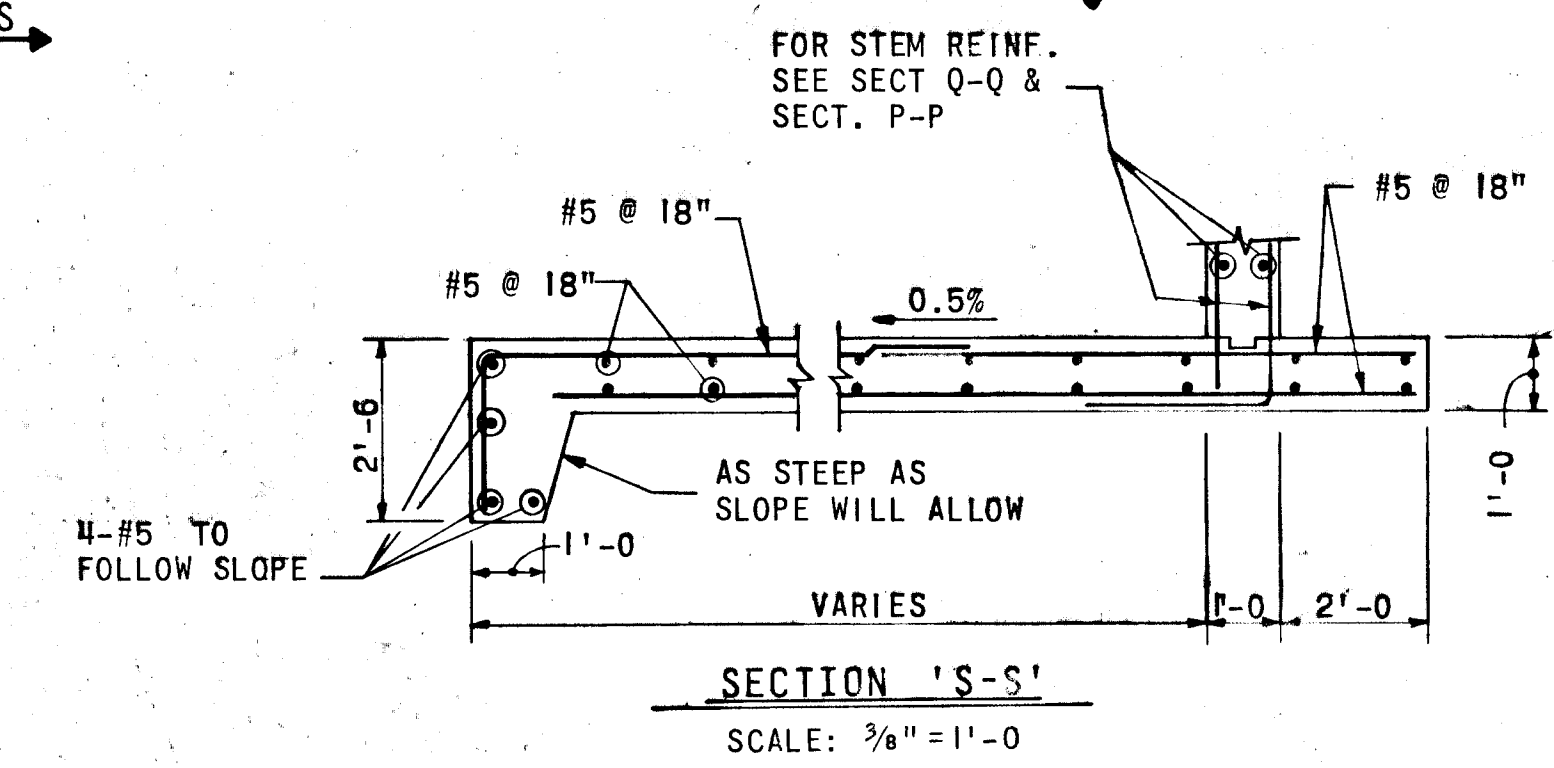
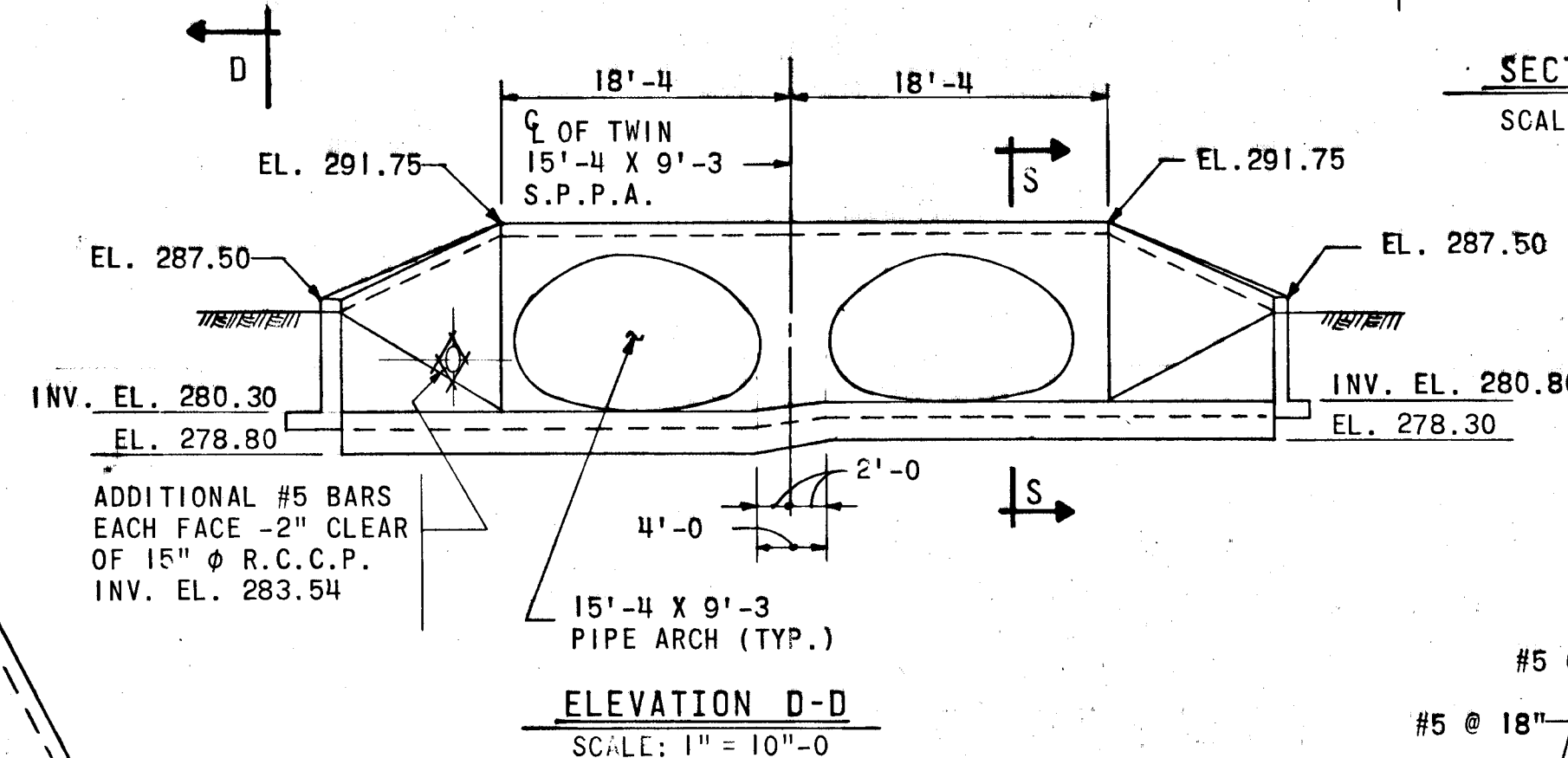
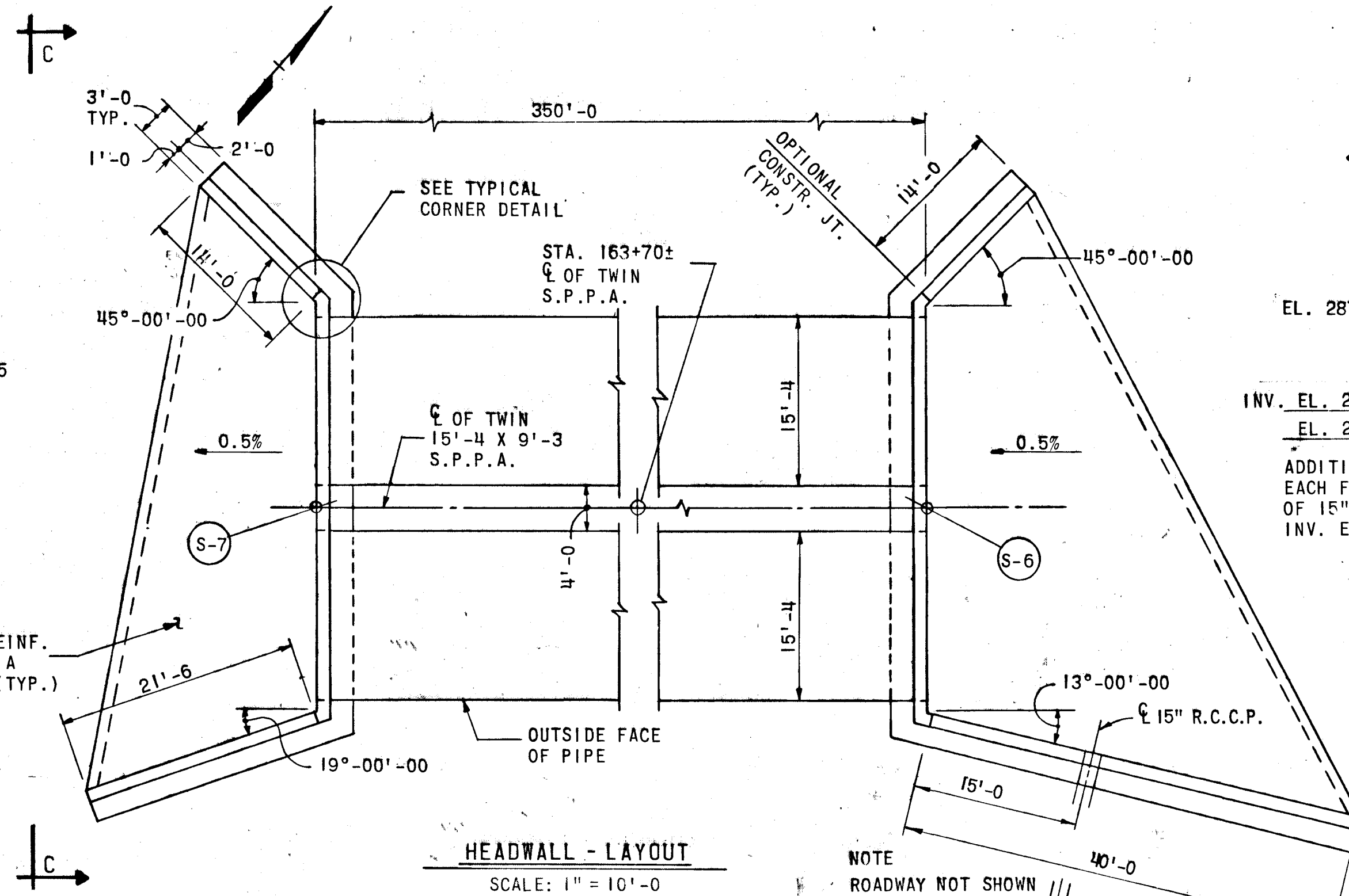
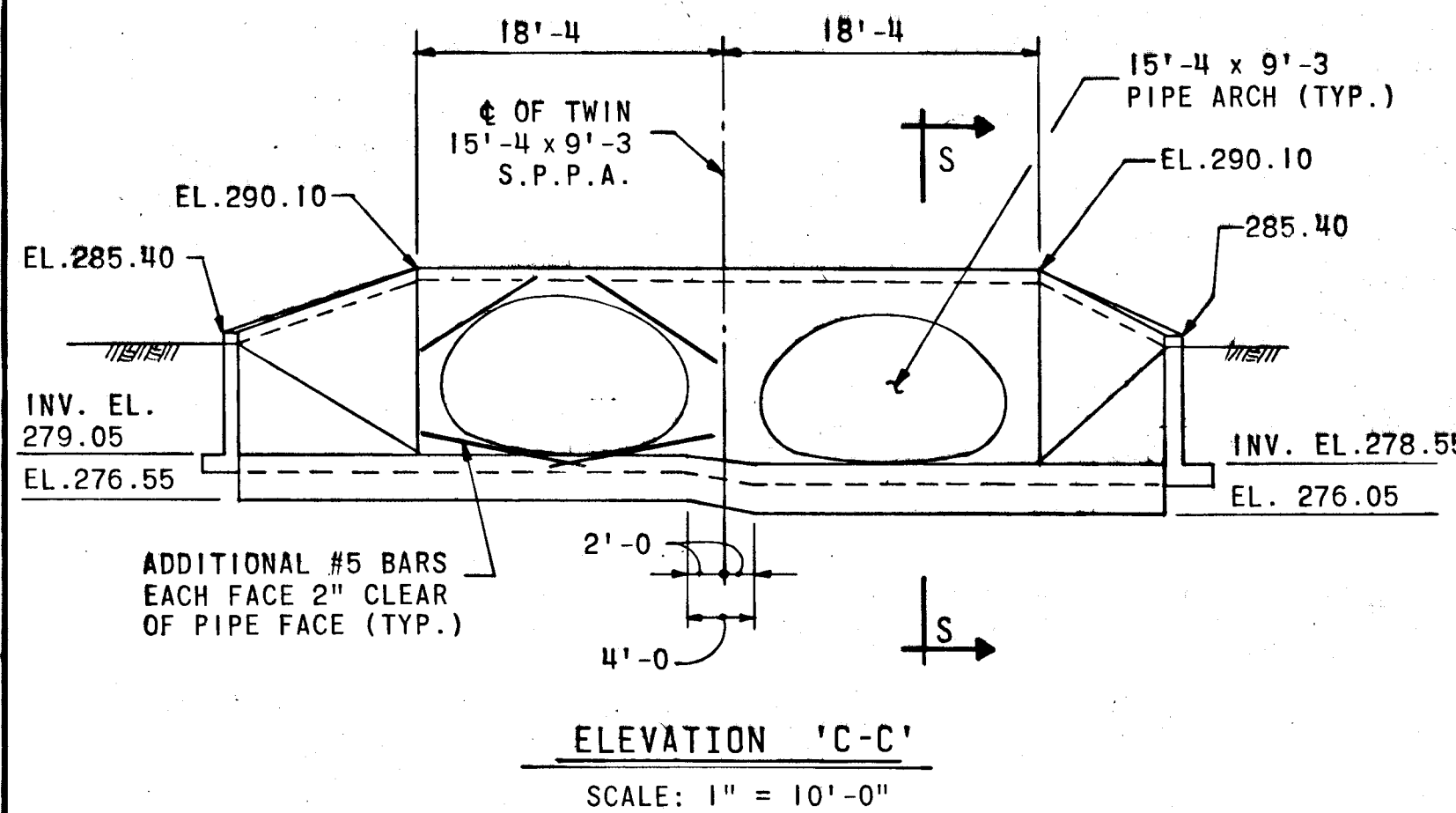
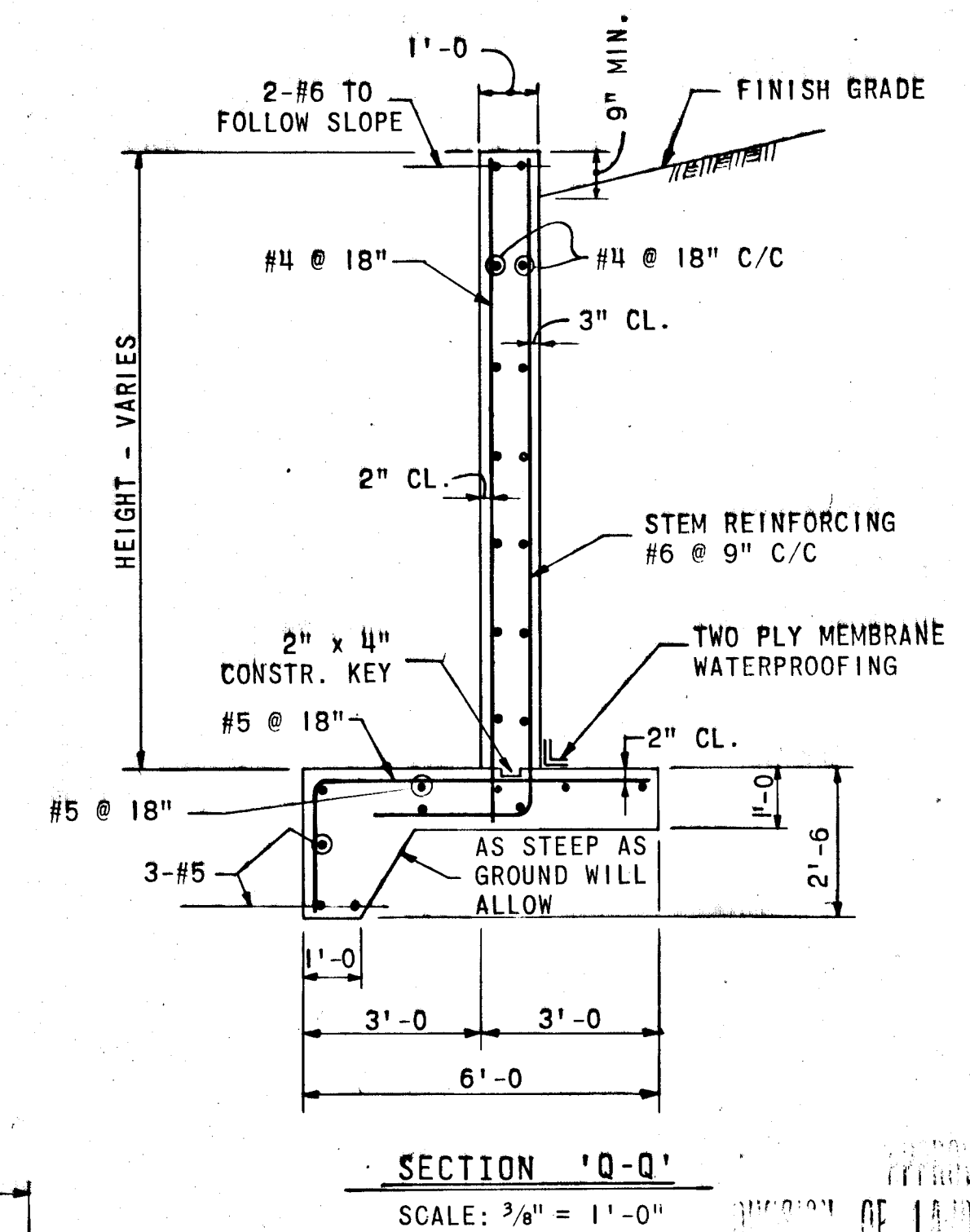
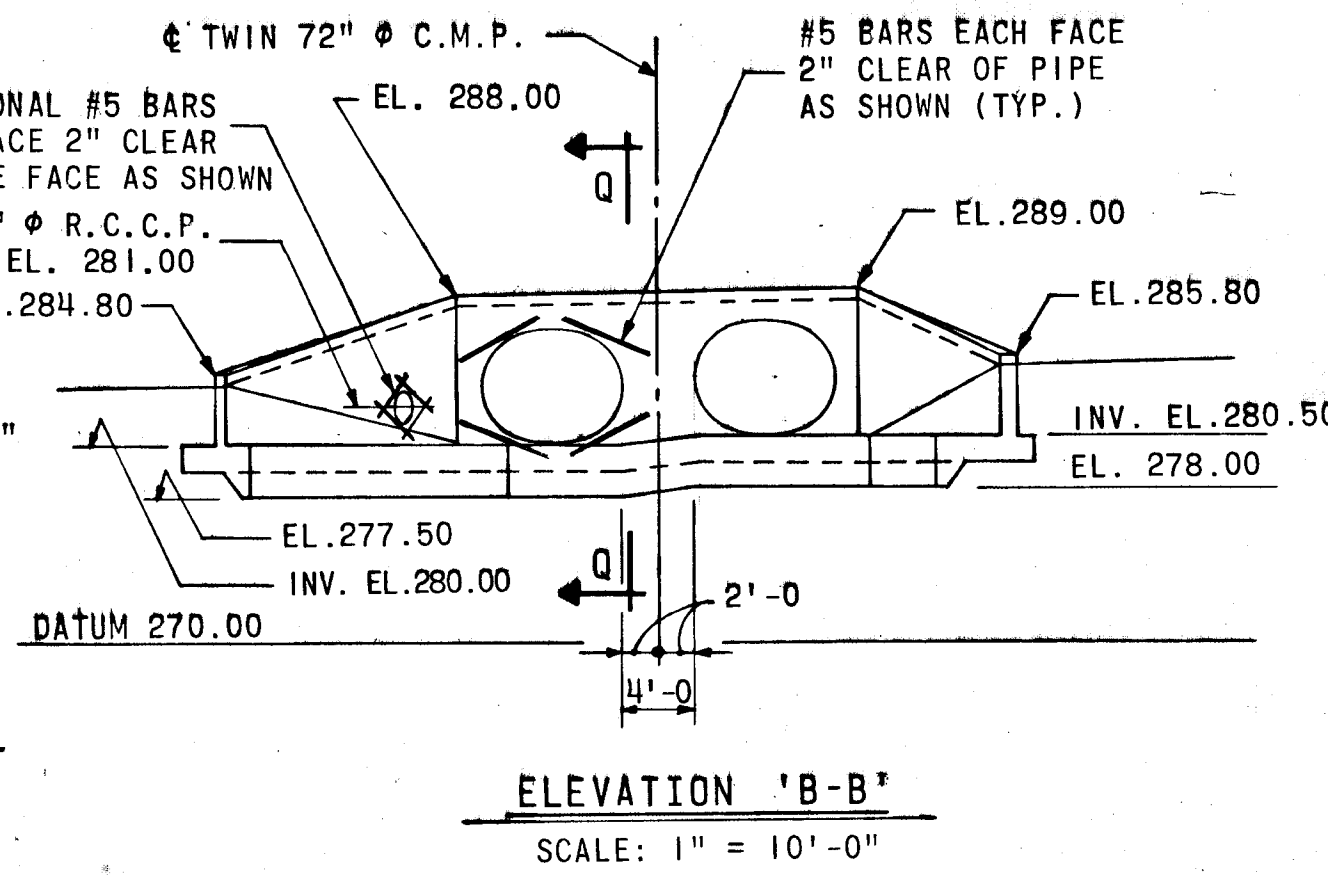
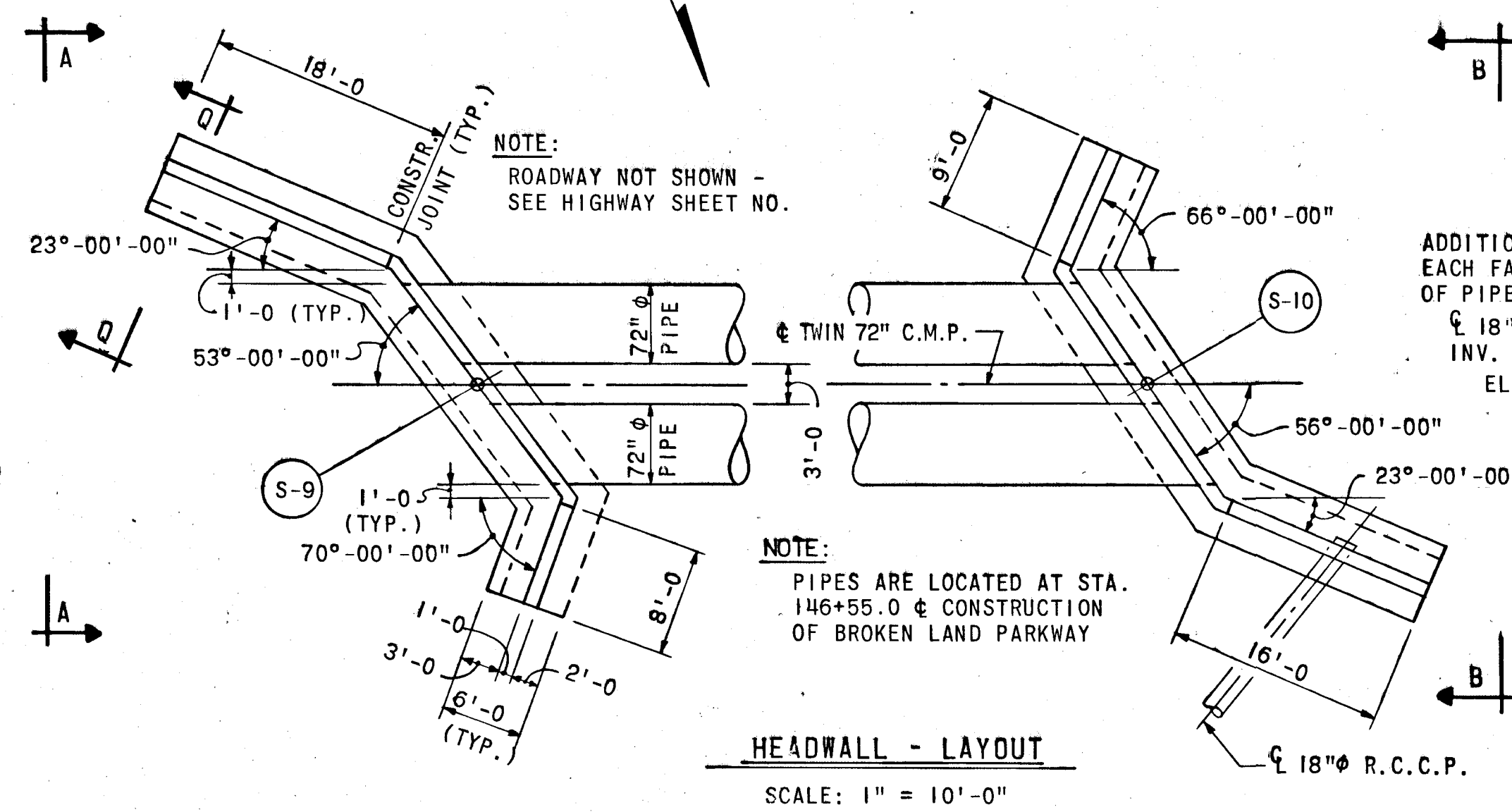
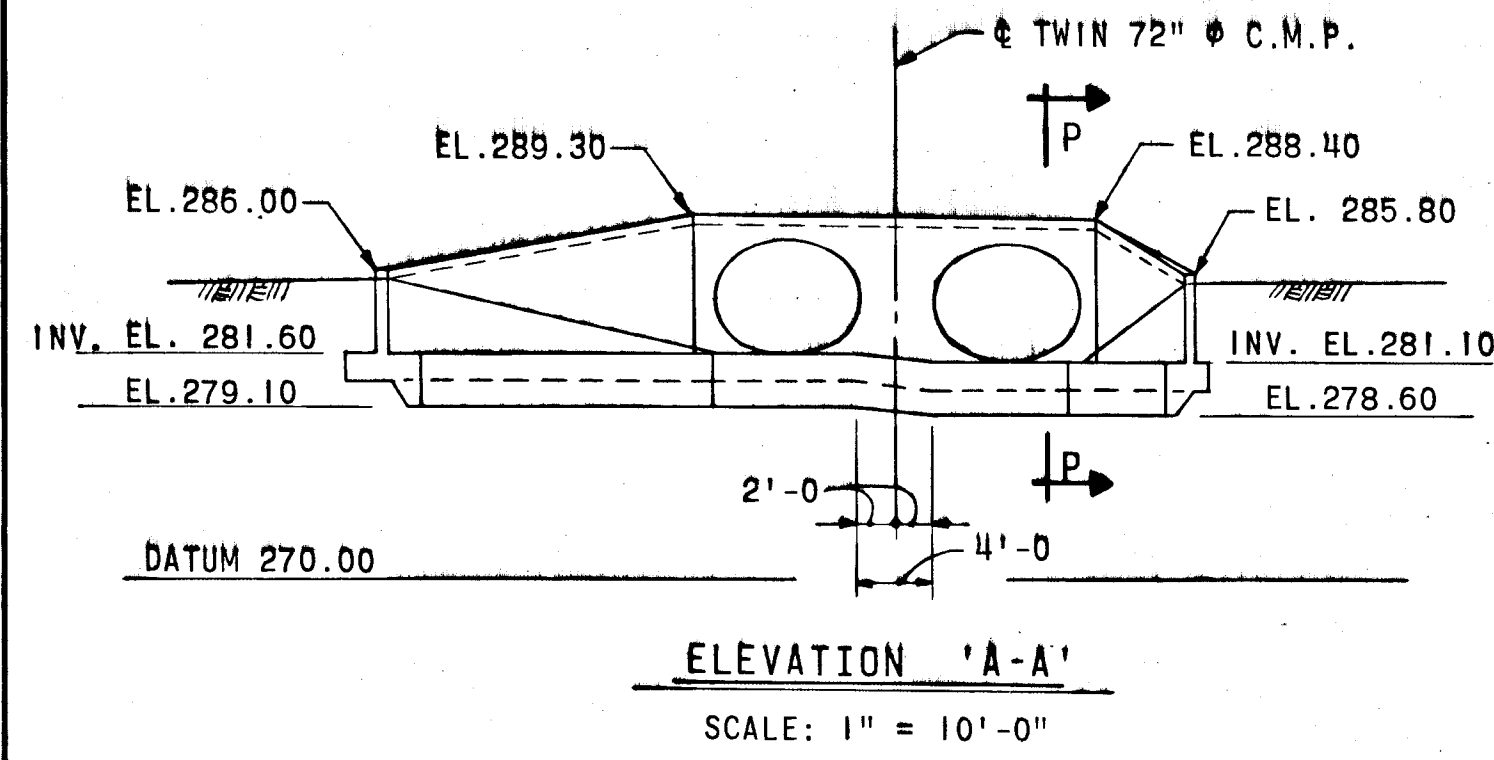
- GENERAL NOTES:
1. SEDIMENT TRAPS TO BE CLEANED OF ACCUMULATED SEDIMENT AT NECESSARY INTERVALS WHEN IT IS APPROXIMATELY 50% FILLED WITH SUCH SEDIMENT.
  2. ALL DIMENSIONS AND LOCATIONS, NOT INDICATED, FOR ITEMS APPEARING ON THIS SHEET OR ON THE PLANS SHALL BE DIRECTED BY THE ENGINEER.

SEDIMENT CONTROL NOTES

1. IMMEDIATELY FOLLOWING THE START OF GRADING OPERATIONS THE DIVERSION BERMS SHOWN ON THIS PLAN WILL BE CONSTRUCTED USING 18" FLEXIBLE TUBE DOWN DRAINS WHERE GRADE STABILIZATION STRUCTURES ARE SHOWN.
2. DIVERSION BERMS WILL BE REBUILT AS THE FILLING OPERATION PROCEEDS IN LIFTS. SILT TRAPS, SWALES AND BERMS WILL BE RETAINED AFTER FINAL LIFT.
3. DISTURBED AREAS ARE TO BE MAINTAINED IN A ROUGH GRADED CONDITION UNTIL PROPER WEATHER CONDITIONS EXIST FOR THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
4. NO SLOPES SHALL BE STEEPER THAN 1' VERTICAL ON 3' HORIZONTAL (3:1).
5. FINAL STABILIZATION WITH VEGETATIVE COVER WILL TAKE PLACE AS EARLY IN THE SPRING AS WEATHER CONDITIONS PERMIT. IT WILL BE DONE AS FOLLOWS:
  - A. APPLY GROUND AGRICULTURAL LIMESTONE AT ONE TON PER ACRE.
  - B. APPLY 10-10-10 FERTILIZER 1000 LBS. PER ACRE.
  - C. WORK BOTH INTO SOIL AND PREPARE SEEDING AREA WITH YORK RAKE.
  - D. SEEDING.
    1. SEED FLAT AREAS WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE.
    2. SEED ALL 3:1 SLOPES WITH 15 LBS. GROWN FETCH (INNOCULATED) PER ACRE 40 LBS. KENTUCKY 31 TALL FESCUE PER ACRE.
  - E. MULCHING.
    1. UNWEATHERED SMALL GRAIN STRAW WILL BE APPLIED AT 1 1/2 - 2 TONS PER ACRE. MULCH WILL BE TIED DOWN WITH ASPHALT.
6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND MAINTAINED IN EFFECTIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD SOIL CONSERVATION DISTRICT. (465-3180 OR 465-5000 EXT. 291).
7. A MINIMUM 24 HOUR NOTICE MUST BE GIVEN TO THE HOWARD CONSERVATION DISTRICT (465-3180) PRIOR TO THE START OF ANY WORK.
8. SILT TRAPS WILL BE CLEANED OUT WHENEVER SILT REACHES A DEPTH OF ONE FOOT.
9. 18" FLEXIBLE TUBE DOWN DRAIN AVAILABLE AS "RELDRAIN-NO" FROM ELPHINSTONE INC. ROUTE 16, BALTIMORE, MD. OR AS APPROVED EQUAL.

GREEN ASSOCIATES, INC. CONSULTING ENGINEERS BALTIMORE, MARYLAND	PROJECT TITLE BROKEN LAND PARKWAY	
	DISK BY: K.A.L. DATE: MAY 1972	SCALE: AS SHOWN SHEET: 21 OF 22

METHODS OF SEDIMENTATION AND EROSION CONTROL

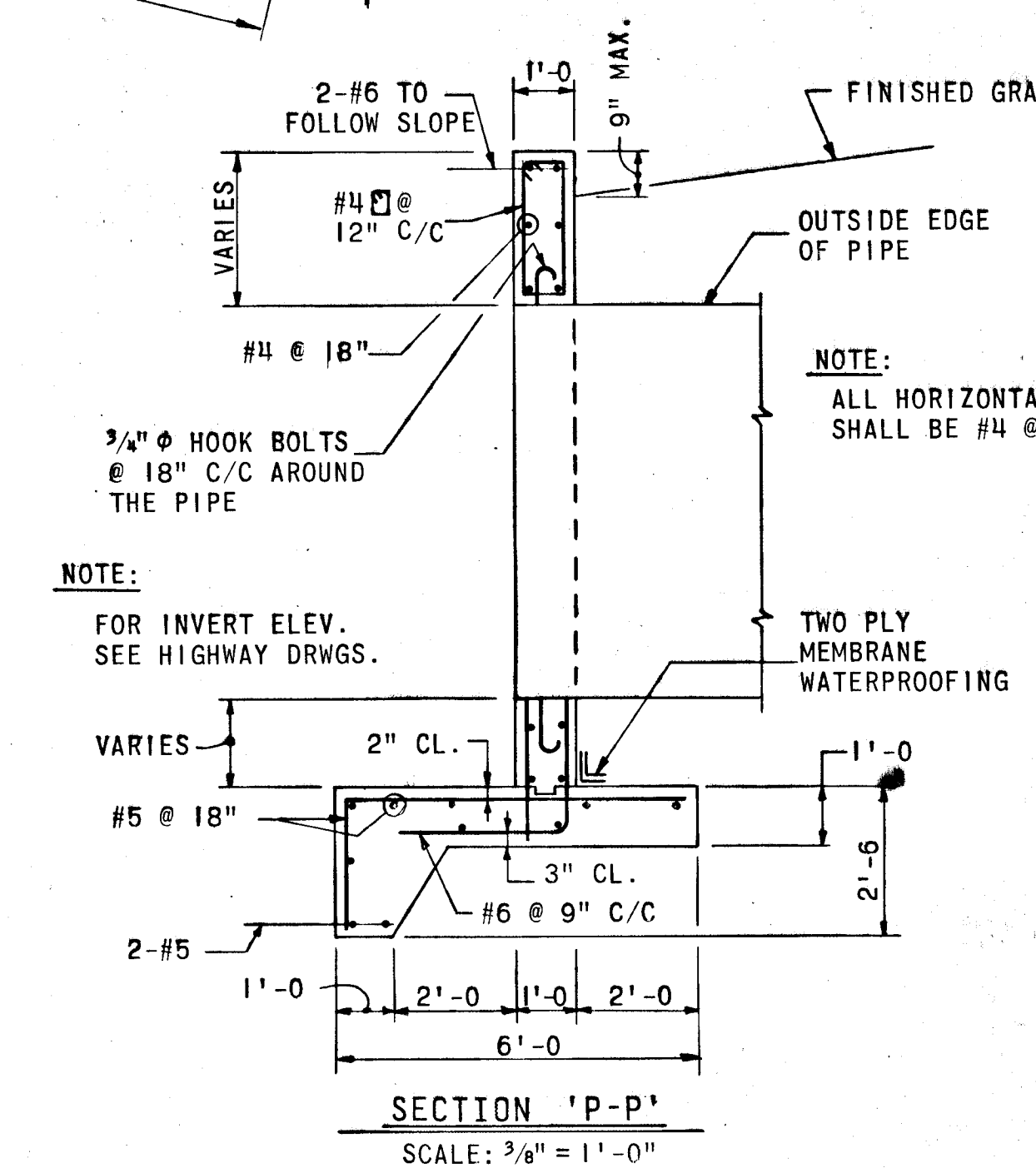
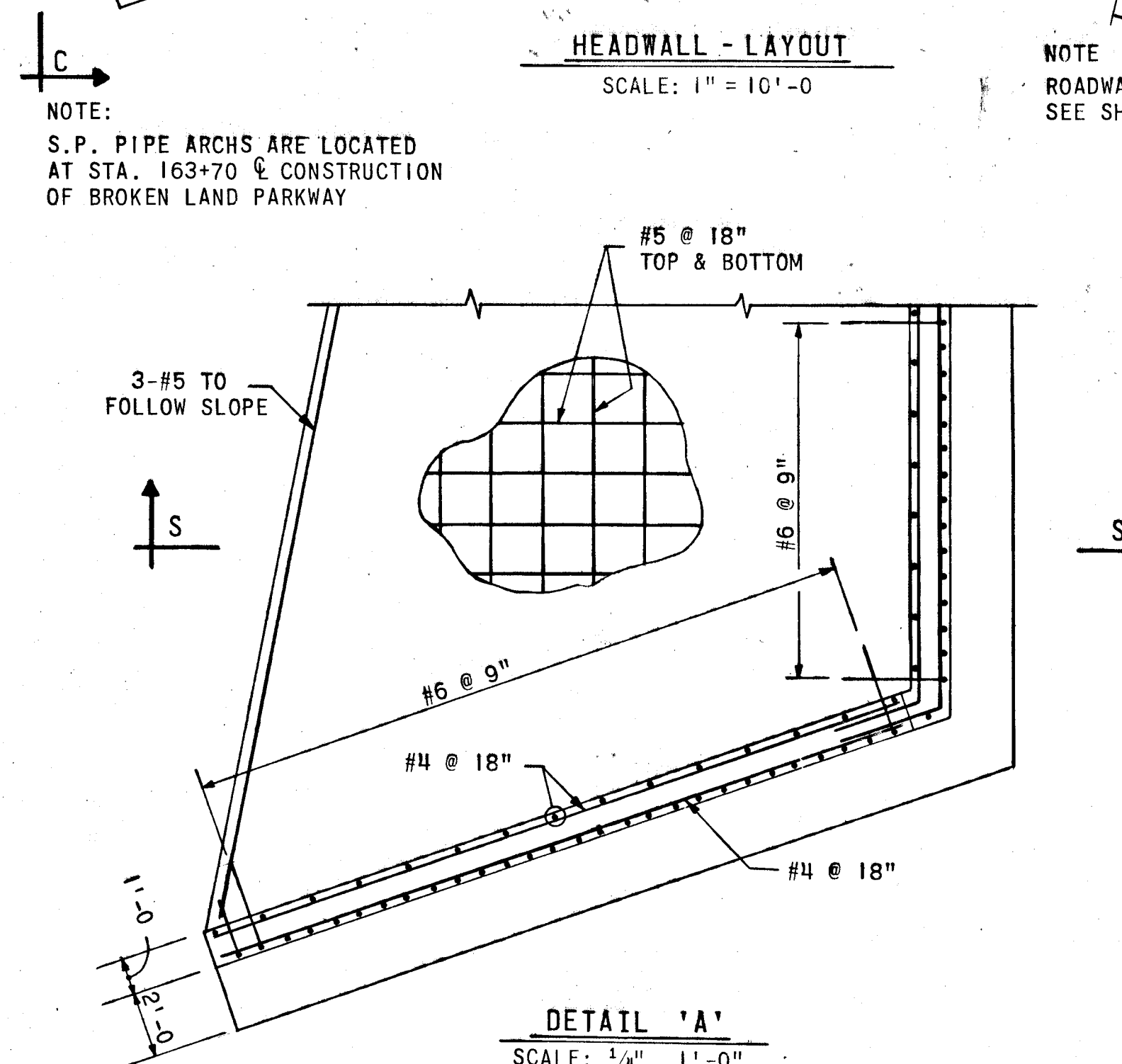
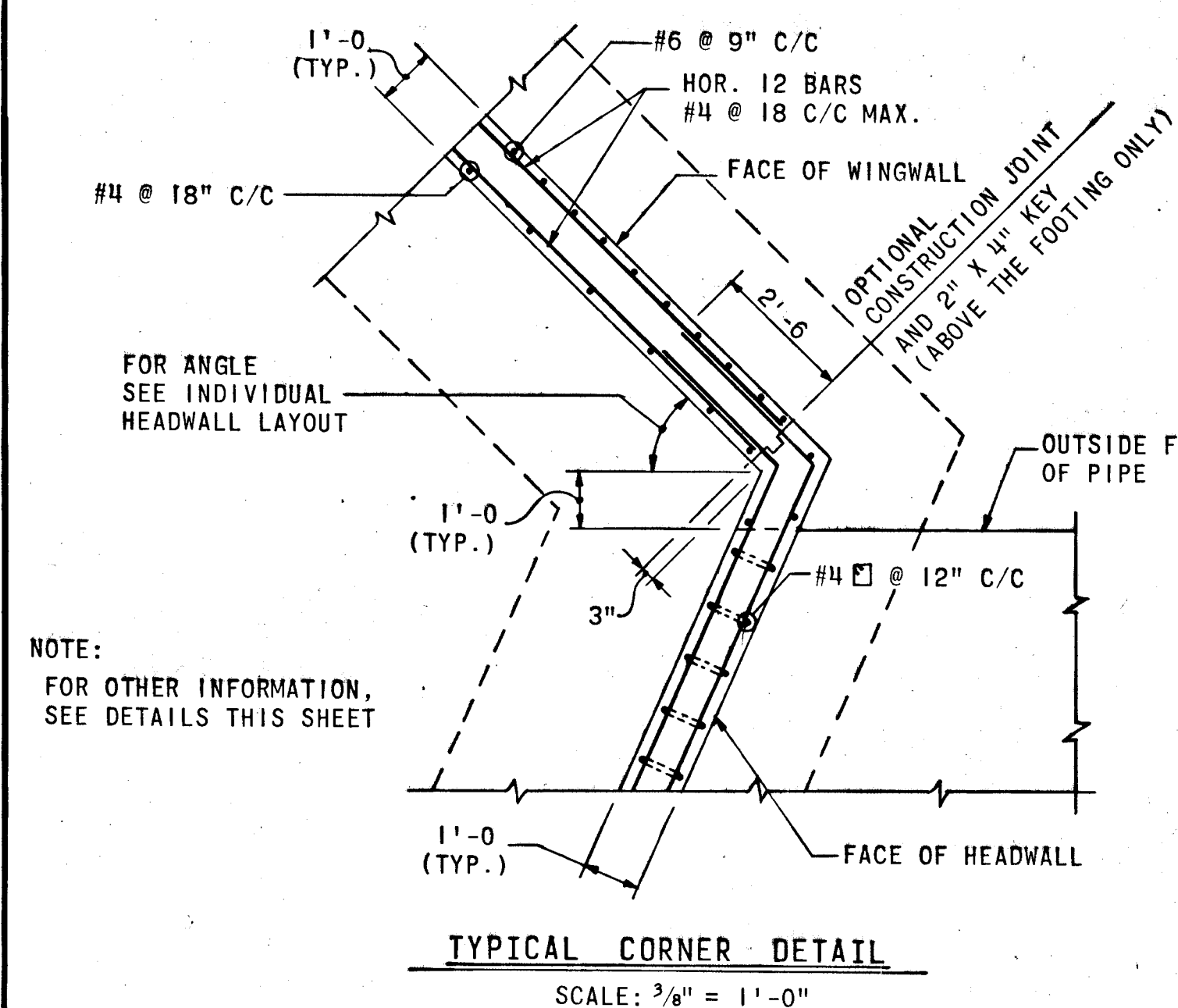


**GENERAL NOTES**

**CONCRETE:**  
CLASS A-1 CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 LBS. PER IN. AT 28 DAYS.

**CHAMFER:**  
ALL EXPOSED CORNERS OF CONCRETE SHALL BE CHAMFERED 3/4" x 3/4" WITH MILLED CHAMFER STRIPS, EXCEPT WHERE INDICATED BY THE FOLLOWING NOTATION ON THE PLANS "DO NOT CHAMFER".

**REINFORCING STEEL:**  
REINFORCING STEEL CONFORM TO A.S.T.M. DESIGNATION A-615 GRADE 40. ALL SPLICES SHALL BE LAPPED A MINIMUM OF 24 BAR DIAMETERS UNLESS OTHERWISE NOTED.  
MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED.



Rev. No.	Rev. Date	Revision Description
1		

**COLUMBIA MARYLAND**  
ELECTION DISTRICT HOWARD COUNTY  
HOWARD RESEARCH AND DEVELOPMENT CORP.  
COLUMBIA, MARYLAND

**BROKEN LAND PARKWAY**

**GREEN ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
BALTIMORE, MARYLAND

Des. By: L.J.W. Scale: AS SHOWN Draw No: 22 OF 22  
 L.: M.V.B. Date: MAY 1972 CCF  
 P.: M.J.S. Approved