

STATE OF OHIO DEPARTMENT OF HIGHWAYS

W.P.A. STATE WIDE HIGHWAY PROJECTS

STATE WIDE OFFICIAL PROJECT O.P. 665-42-1-119

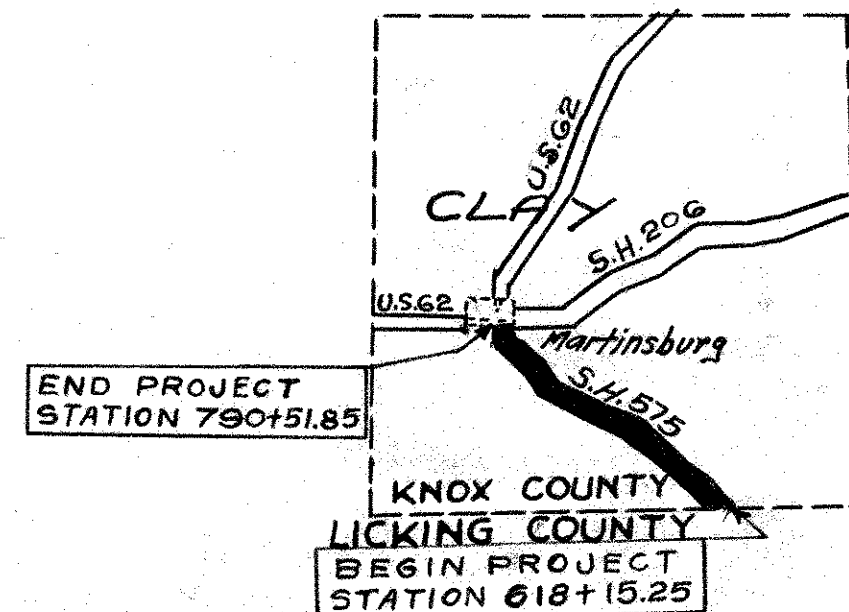
KNOX COUNTY

S.H. 575 SEC. G ROUTE 586

NET LENGTH OF PROJECT 3.264 MILES

KNOX COUNTY 1
21
S.H. 575 SEC. G
HWY. AUTHOR. No 5-42-6
W.P.A. JOB No 42-103

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DYG'S.	
DRAWING NO.	REVISIONS
S-27 R.C.3	3-1-39
SBC 34	4-21-34
LBC 33	11-15-33
WSB-35	9-6-35
WAP-35	9-6-35



SUMMARY OF QUANTITIES		
QUANTITY	UNIT	MATERIAL
517.14	Cu Yds	Roadway Excavation (Includes 1660 CY for approaches)
241	Cu Yds	Channel Excavation
79	Cu Yds	Excavation for Structures
44	lin. ft.	8" Cast Iron Pipe Remove & Store
30	lin. ft.	10" Cast Iron Pipe Remove & Store
32	lin. ft.	12" Cast Iron Pipe Remove & Store
16	lin. ft.	18" Corrugated Metal Pipe Remove & Store
64	lin. ft.	12" Corrugated Metal Pipe in Roadway Remove & Relay
160	lin. ft.	12" Corrugated Metal Pipe in Driveways Remove & Relay
47	lin. ft.	12" Cast Iron Pipe in Driveways Remove & Relay
14	lin. ft.	15" Corrugated Metal Pipe in Driveways Remove & Relay
18	lin. ft.	18" Corrugated Metal Pipe in Driveways Remove & Relay
16	lin. ft.	20" Corrugated Metal Pipe in Driveways Remove & Relay
18	lin. ft.	24" Corrugated Metal Pipe in Driveways Remove & Relay
4840	Cu Yds	T-110 Traffic Bound Base Course
100	Cu Yds	Gravel or Lime Stone for Driveways & Approaches
34804	Sq. Yds	T-31 Bituminous Surface Treatment
62.2	Cu Yds	Concrete (Class "C")
6510	Lbs	Reinforcing Steel
114	lin. ft.	12" Pipe for Roadway Culverts
138	lin. ft.	18" Pipe for Roadway Culverts
270	lin. ft.	12" Corrugated Metal Pipe for Drives
40	lin. ft.	24" Corrugated Metal Pipe for Drives
Lump	Sum	Removal of Existing Structure
Lump	Sum	Temporary Bridge and Approaches
120	Lin. Ft.	18" Corrugated Metal Pipe for Drives
21300	Lin. Ft.	Remove & Reset Fence
35	Ea.	Trees Remove
See sheet No 21 for quantities on BR-KN-586-05 Sta. 647+70		
634	Lin. Ft.	12" Pipe for Roadway Drainage

The right of way necessary for this improvement will be provided by the State of Ohio

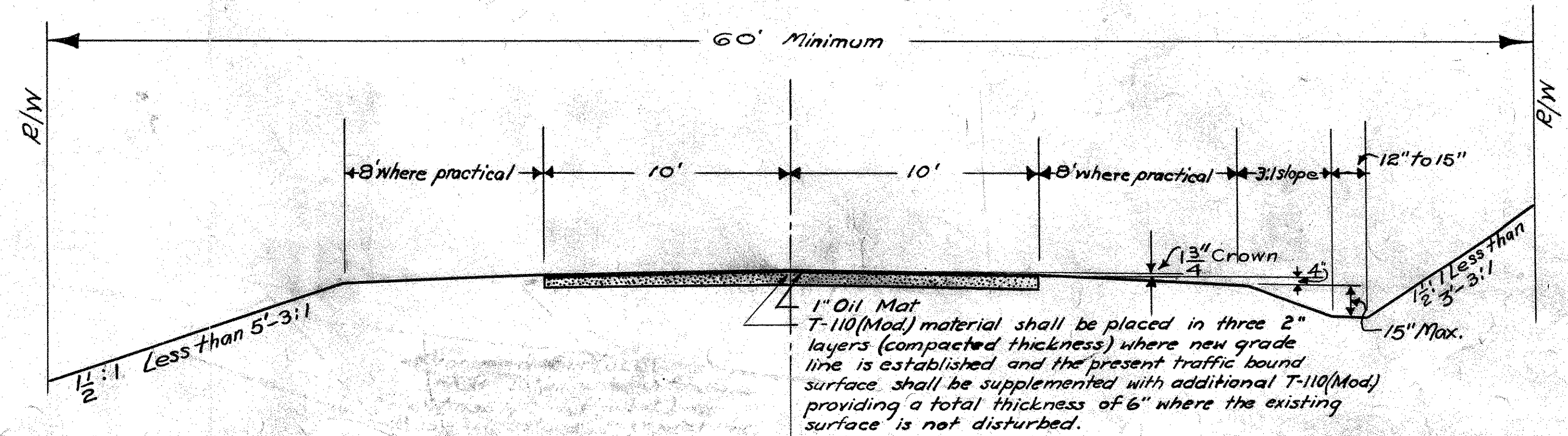
I hereby approve these plans and declare that provision for maintenance and safety of traffic will be made as herein described: Traffic will be maintained at all times and all necessary lights, signs, barricades and flag men will be provided.

Approved *E. L. Miller*
Date 5/13/40 Resident Division Deputy Director

Approved *W. D. Minter*
Date 5/17/40 Chief Engineer, Bureau of Maintenance

Approved *F. B. Jones*
Date 5/21/40 First Asst. Director Chief Engineer

Approved *Robert A. Beightler*
Date 5/13/40 Director, of Highways

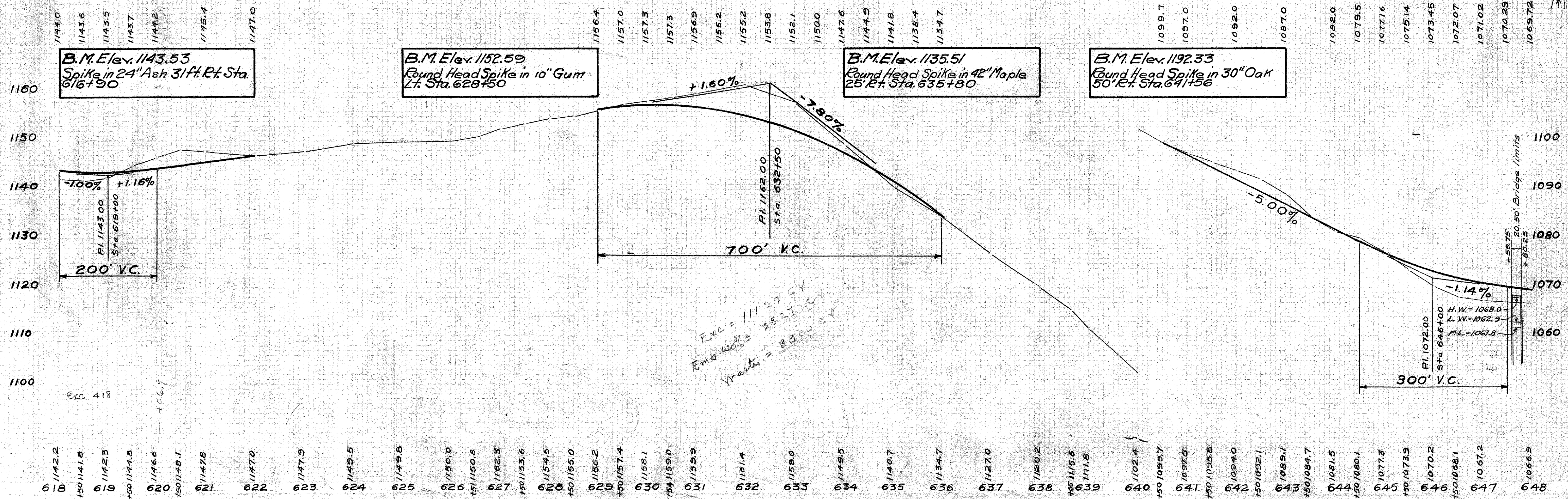
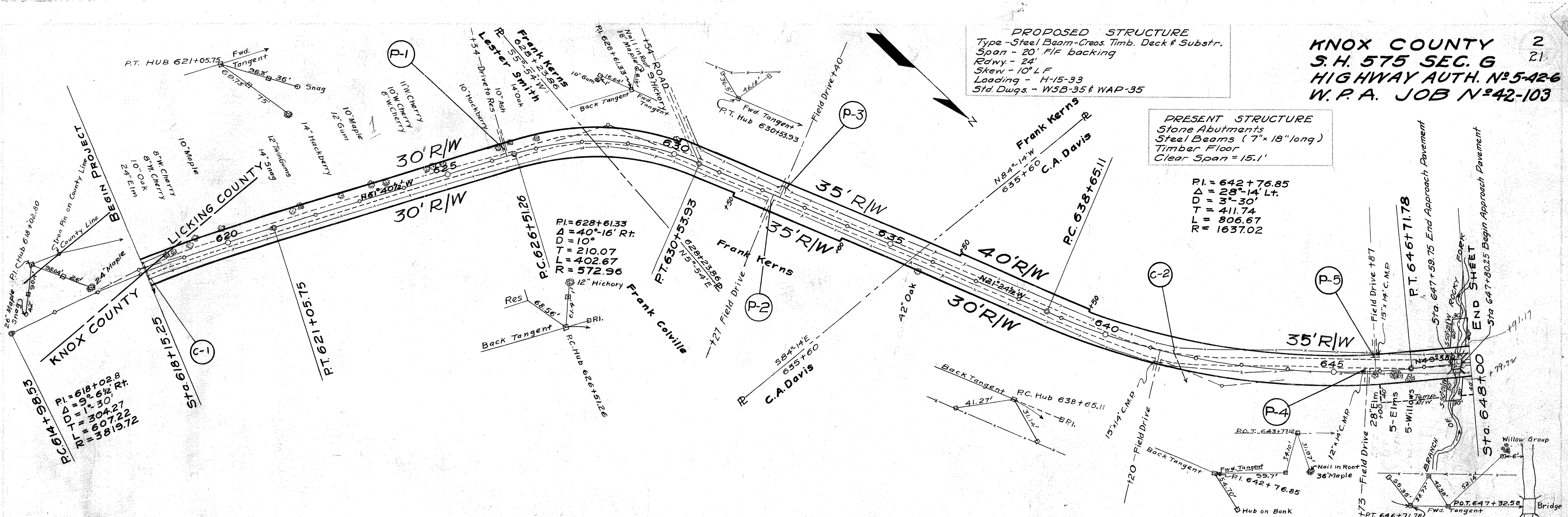


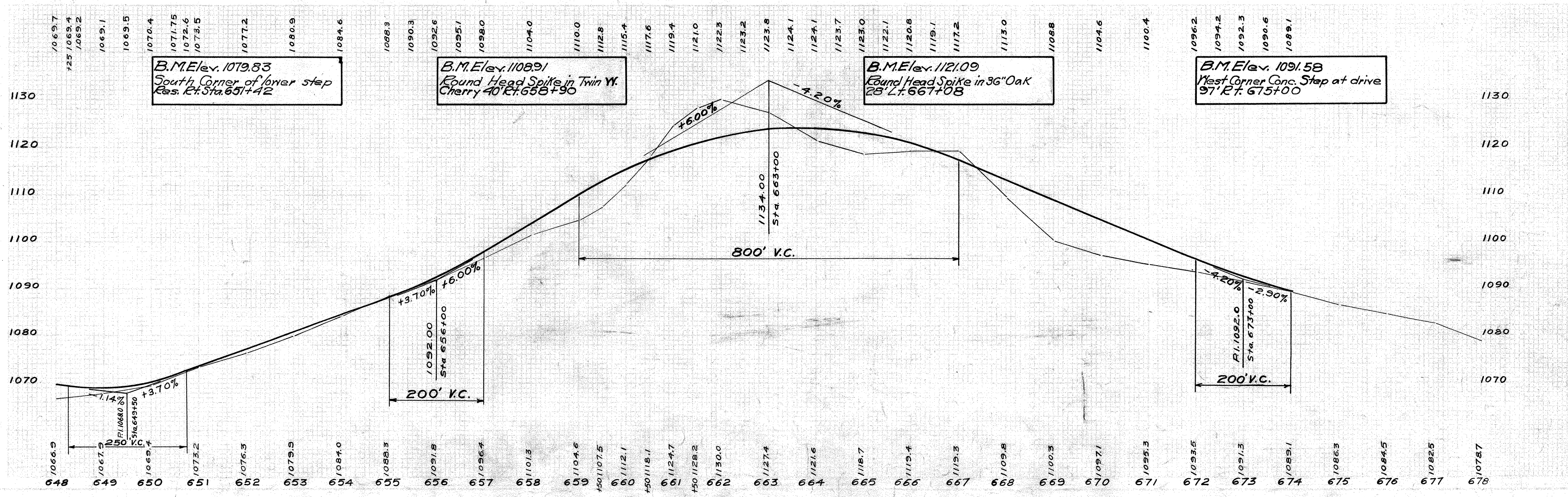
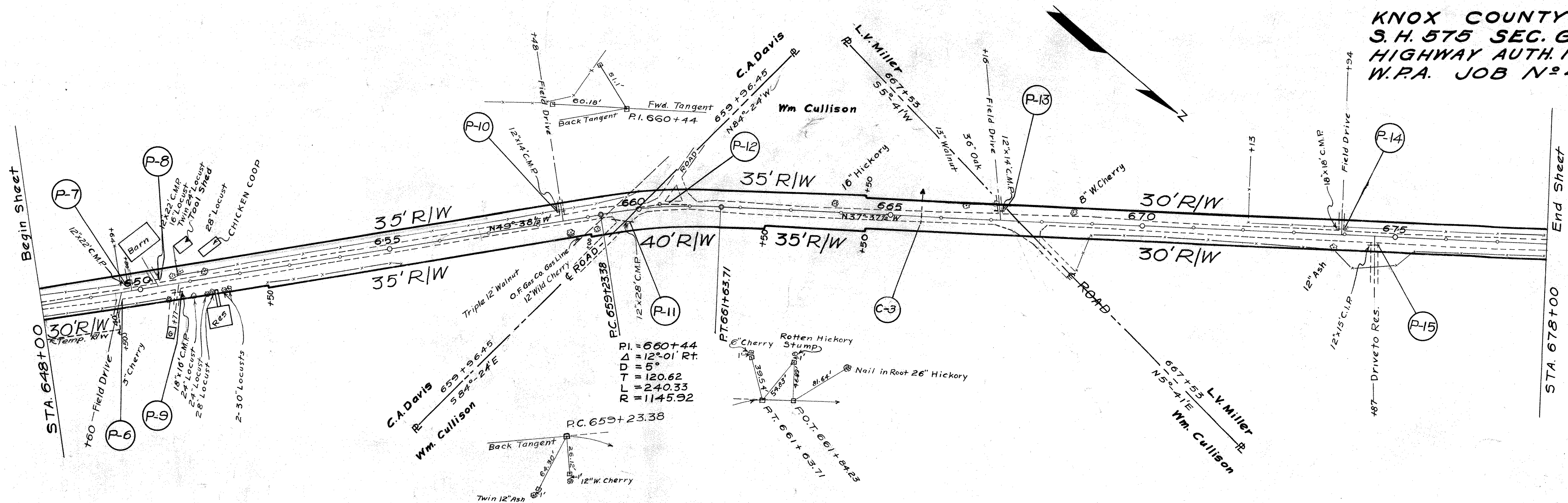
Martinsburg 575 G

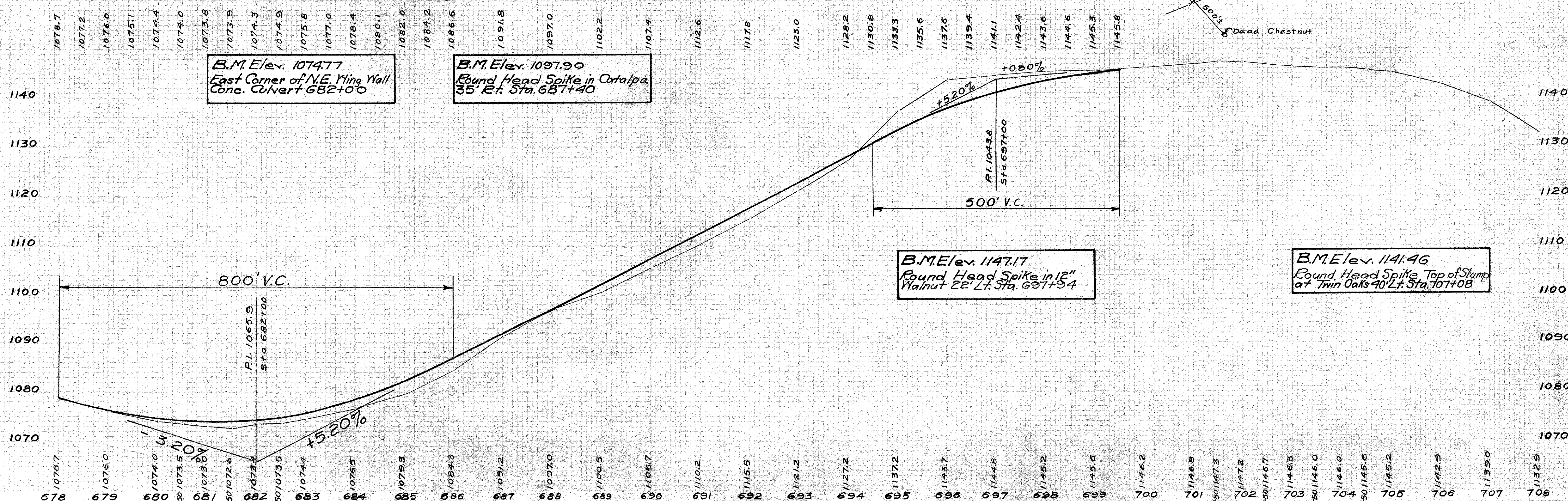
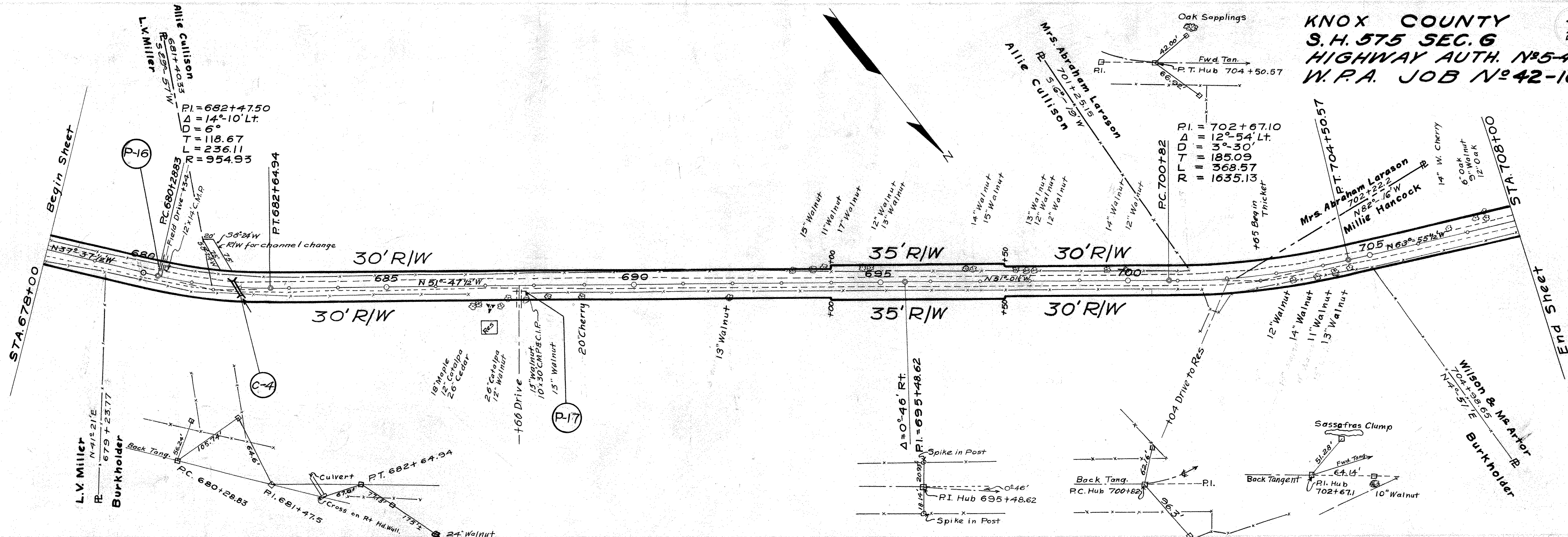
PROPOSED STRUCTURE
Type - Steel Beam-Creos. Timb. Deck & Substr.
Span - 20' F.F. backing
Rdwy - 24'
Skew - 10° L.F.
Loading - H-15-33
Std. Dwgs - W5B-35 & WAP-35

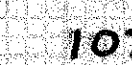
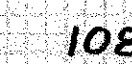
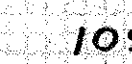
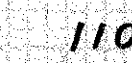
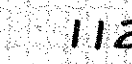
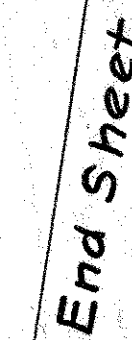
PRESENT STRUCTURE
Stone Abutments
Steel Beams (7' x 18" long)
Timber Floor
Clear Span = 15.1'

PI = 642+76.85
Δ = 28°-14' Lt.
D = 3°-30'
T = 411.74
L = 806.67
R = 1637.02



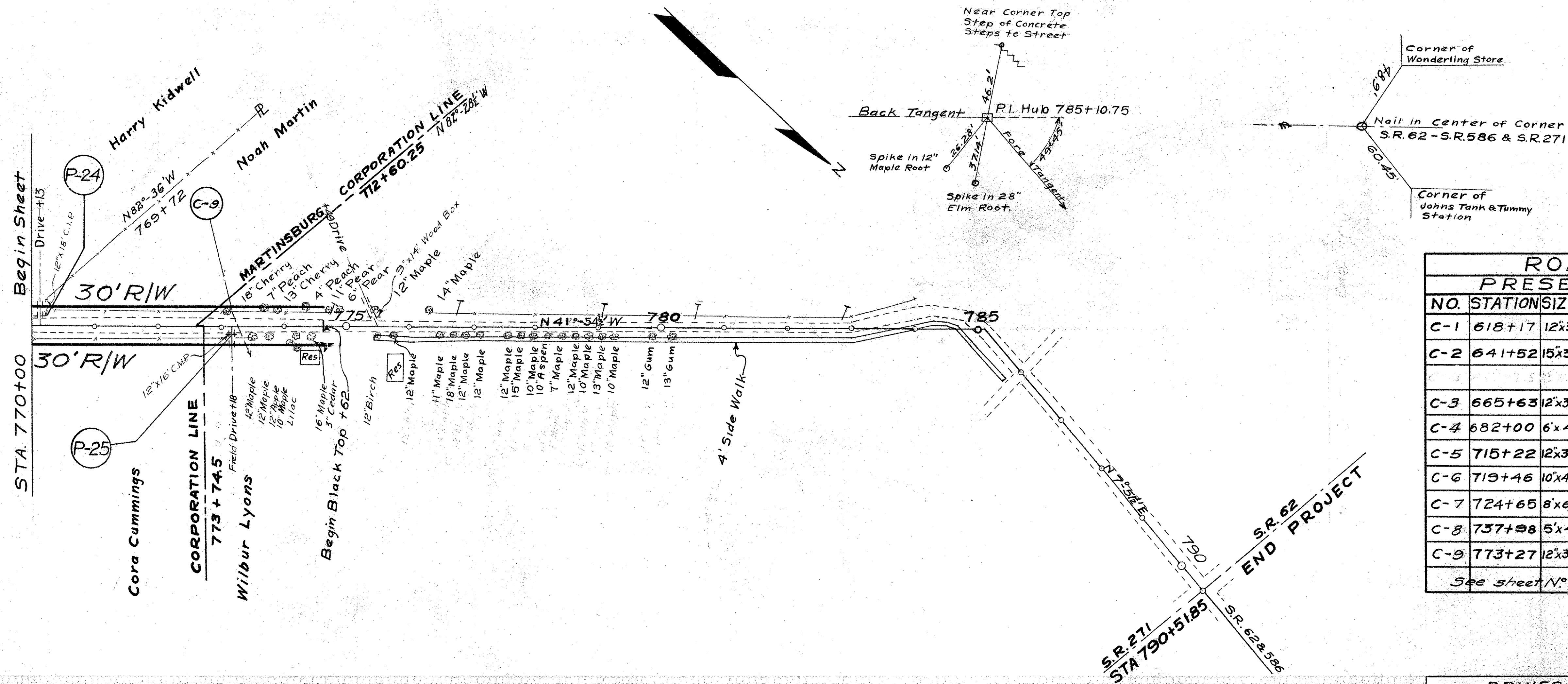




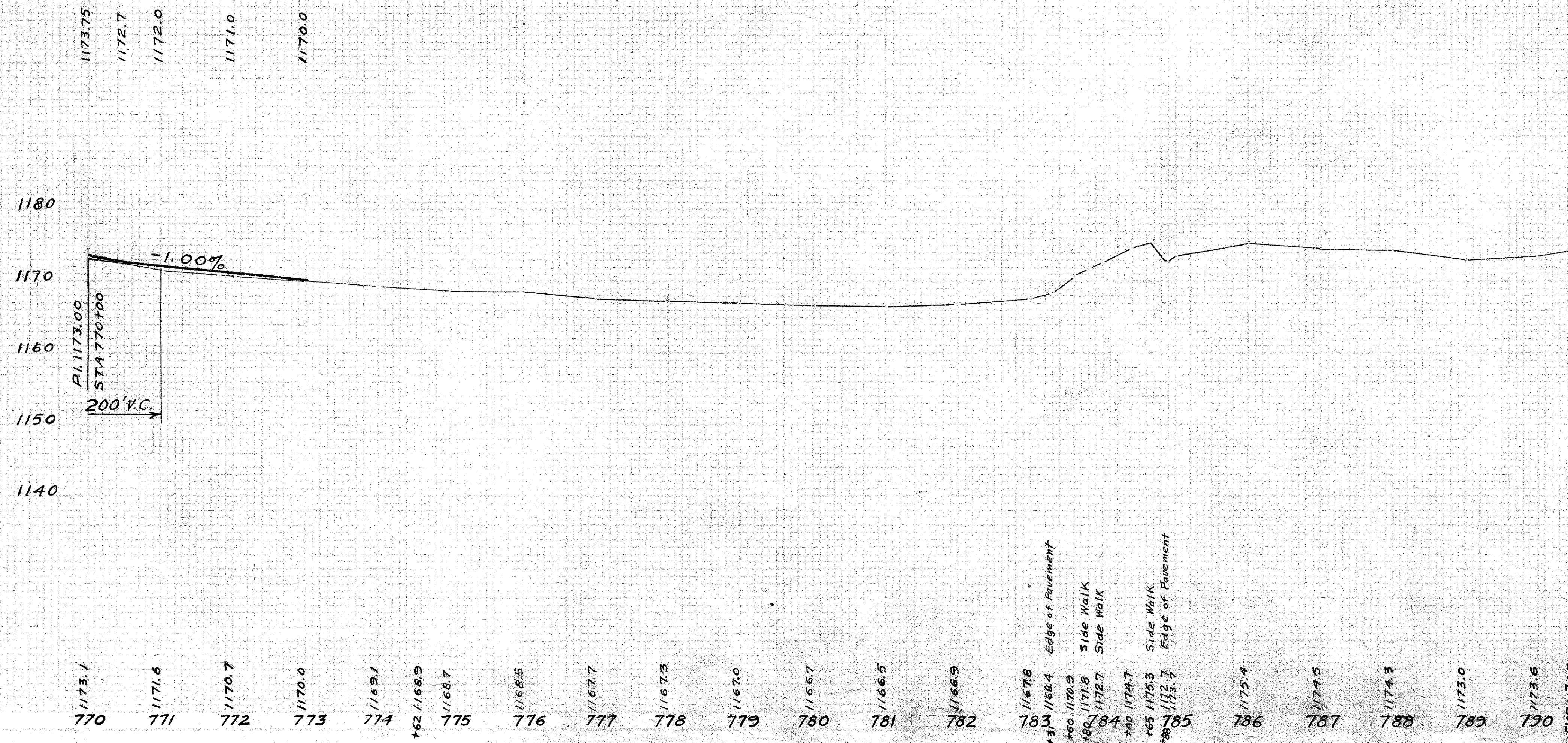




KNOX COUNTY 7
S.H. 575 SEC. 6 21
HIGHWAY AUTH. N° 5-42-6
W.P.A. JOB N° 42-103



ROADWAY STRUCTURES									
PRESENT					PROPOSED				
NO.	STATION	SIZE	TYPE	SIZE	TYPE	REMARKS	NEW PIPE	12"	18"
C-1	618+17	12x30	C.M.P.	12x52	C.M.P.	Extend Present Culvert 12' Lt. & 10' Rt.	22'		
C-2	641+52	15x36	C.M.P.	18x72	C.M.P.	Remove Present Pipe and use for Drives.			72'
C-3	665+63	12x32	C.M.P.	12x50	C.M.P.	Remove & Relay Present Pipe. Extend 18'	18'		
C-4	682+00	6' x 4'	Conc. Box Culvert			Extend Present Structure Clean Inlet Channel Cut new Out-let Channel			
C-5	715+22	12x32	C.M.P.	12'x44'	C.M.P.	Remove Present Pipe. Relay with 0° skew at Sta 715+10.	12'		
C-6	719+46	10'x40'	C.I.P.	12'x62'	C.M.P.	Remove & Store Present Pipe. Relay with 12' Pipe	62'		
C-7	724+65	8'x6'	Conc. Slab Top			Extend Present Structure with 8'x5' Box Culvert			
C-8	737+98	5'x4'	Conc Box Culvert			Extend Present Structure.			
C-9	773+27	12x36	C.I.P.	18x66	C.M.P.	Remove Present Pipe & use for Drives. Relay with 18' Pipe.			66'
See sheet N ^o 21 for Quantities on Bridge at Sta. 647+70									



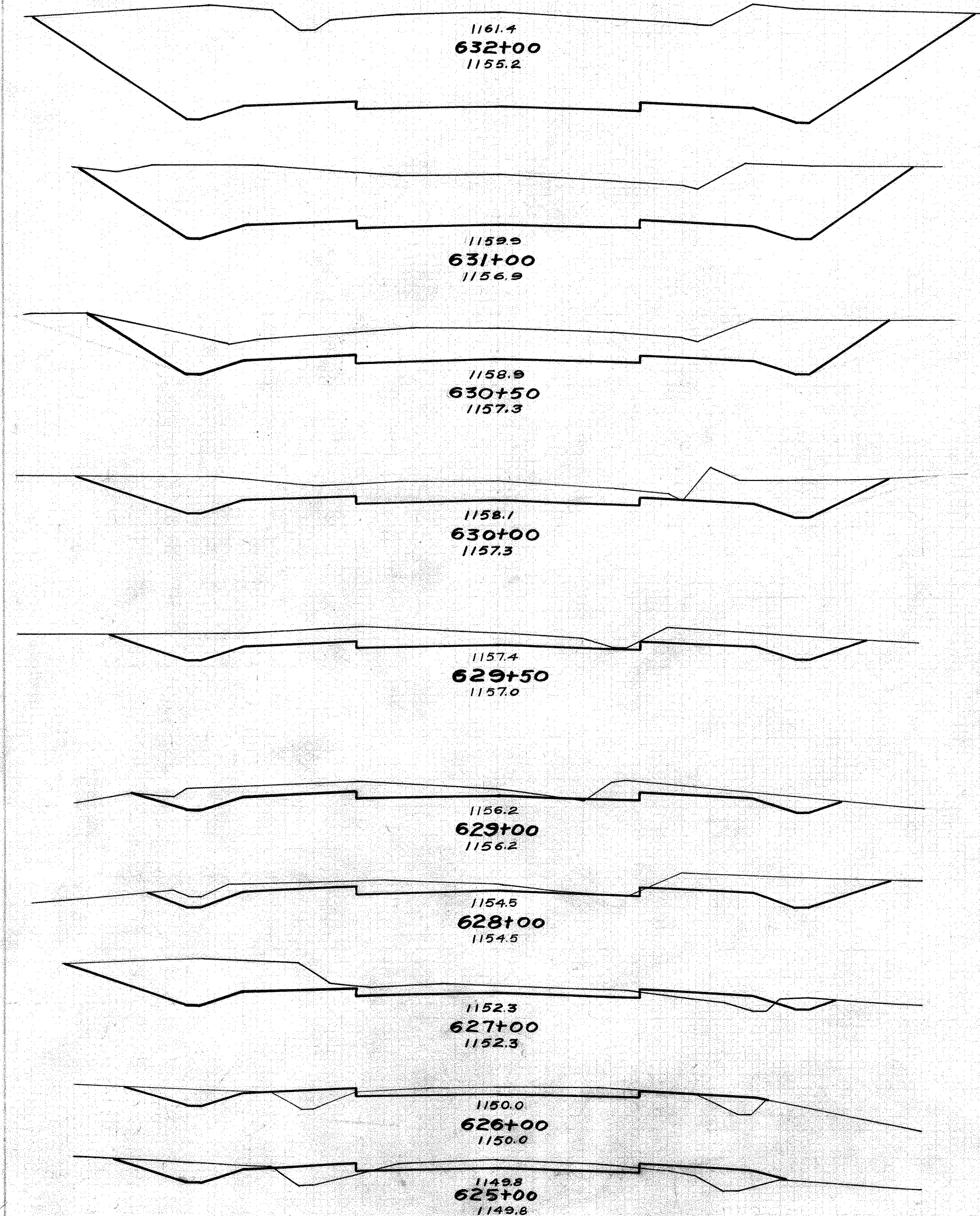
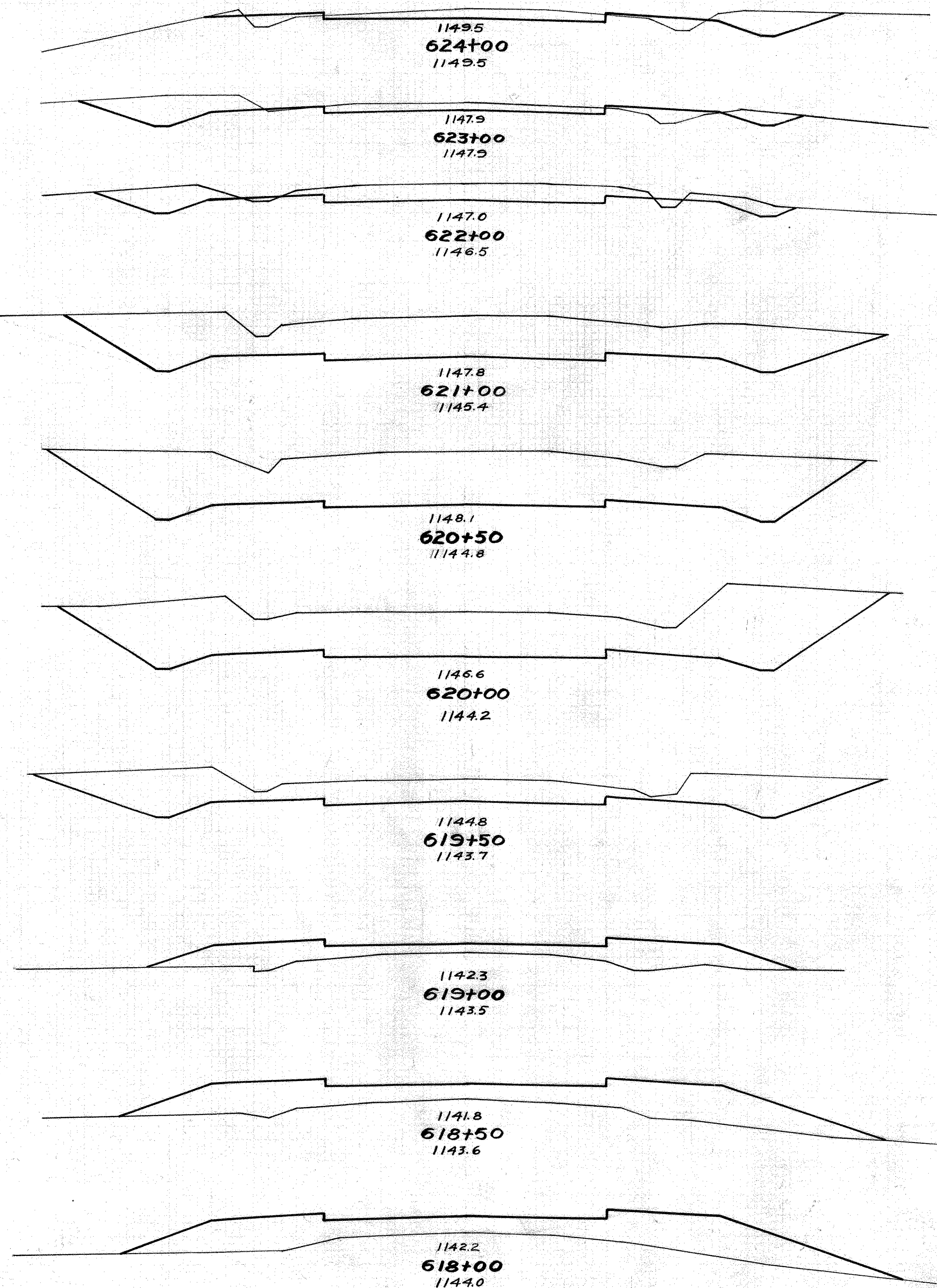
DRIVES & SIDE ROAD STRUCTURES							Pipe for Rdwy. Drains.			
PRESENT				PROPOSED						
NO.	STATION	SIZE	TYPE	SIZE	TYPE	REMOVE & STORE	NEW PIPE	PE		
							12"	18"	24"	
P-1	626+34	None	12"x20	C.M.P.			20			
P-2	632+27	None	12"x20	C.M.P.			20			
P-3	632+40	None	12"x20	C.M.P.			20			
P-4	645+73	12"x14	C.M.P.	12"x20	C.M.P.		6'			
P-5	645+87	15"x14	C.M.P.	15"x14	C.M.P.					
P-6	649+60	None	24"x20	C.M.P.					20'	
P-7	649+80	12"x22	C.M.P.	12"x22	C.M.P.					
P-8	650+34	12"x22	C.M.P.	12"x22	C.M.P.					
P-9	650+77	18"x16	C.M.P.	24"x20	C.M.P.	18"x16" C.M.P.			20'	
P-10	658+48	12"x14	C.M.P.	12"x20	C.M.P.		6'			
P-11	659+96	12"x28	C.M.P.	12"x30	C.M.P.		2			
P-12	660+50	None	12"x100	C.M.P.			20		80	
P-13	667+16	12"x14	C.M.P.	12"x20	C.M.P.		6			
P-14	673+94	18"x18	C.M.P.	18"x38	C.M.P.			120		
P-15	674+87	12"x15	C.I.P.	12"x15	C.M.P.	12"x15" C.I.P.	20		100	
P-16	680+34	12"x14	C.M.P.	12"x20	C.M.P.		6'			
P-17	687+66	10"x30	C.I.P.	12"x18	C.M.P.	10"x30" C.I.P.	30		120	
P-18	717+71	8"x18	C.I.P.	12"x20	C.M.P.	8"x18" C.I.P.	20			
P-19	726+22	12"x14	C.I.P.	12"x20	C.M.P.	12"x14" C.I.P.	20		100	
P-20	726+22	24"x18	C.M.P.	24"x18	C.M.P.					
P-21	738+80	20"x16	C.M.P.	20"x16	C.M.P.					
P-22	750+86	12"x16	C.M.P.	12"x20	C.M.P.		4'			
P-23	765+27	8"x26	C.I.P.	12"x30	C.M.P.	8"x26" C.I.P.	30			
P-24	770+13	12"x18	C.I.P.	12"x20	C.M.P.	12"x18" C.I.P.	20		100	
P-25	773+18	12"x16	C.M.P.	12"x16	C.M.P.		20		134	
TOTAL							270	120	40'	634

30 20 10 0 10 20 30

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KNOX COUNTY
S.H. 575 SEC. 6
Hwy. AUTHOR. NO 5-42-6
W.P.A. JOB NO 42-103

END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
19	5		
		94	15
32	3		
		144	9
46	2		
		380	4
159	0		
		332	0
199	0		
		364	0
194	0		
		274	0
102	0		
		94	50
0	54		
		0	132
0	88		
		0	167
0	93		
		1682	377



END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
395	0		
		1111	0
205	0		
		317	0
138	0		
		204	0
83	0		
		103	0
28	0		
		60	0
37	0		
		139	0
38	0		
		170	11
54	6		
		130	24
16	7		
		65	37
19	13		
		70	33
		2369	105

Sta 618+00-632+00

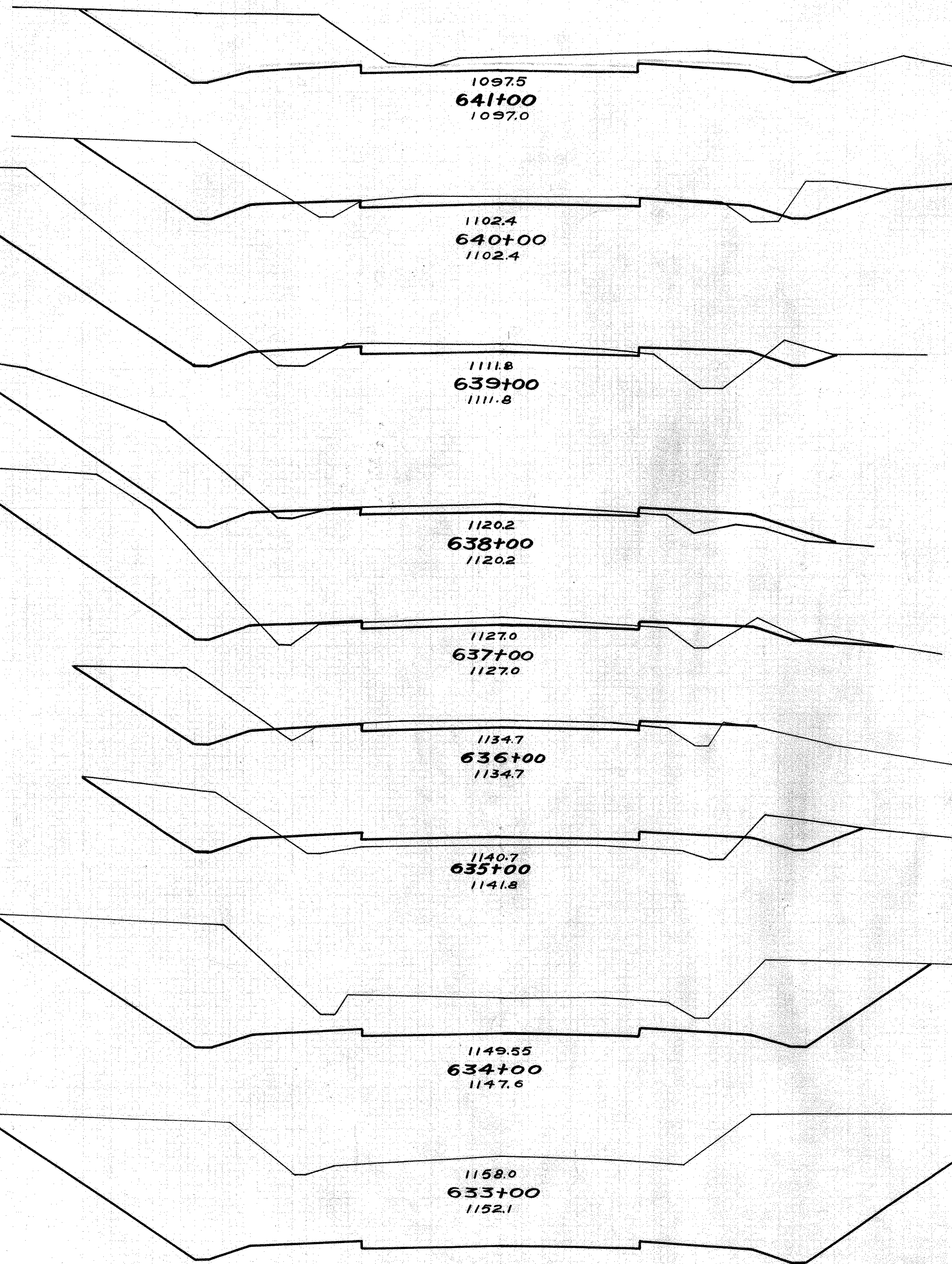
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30 20 10 ± 10 20

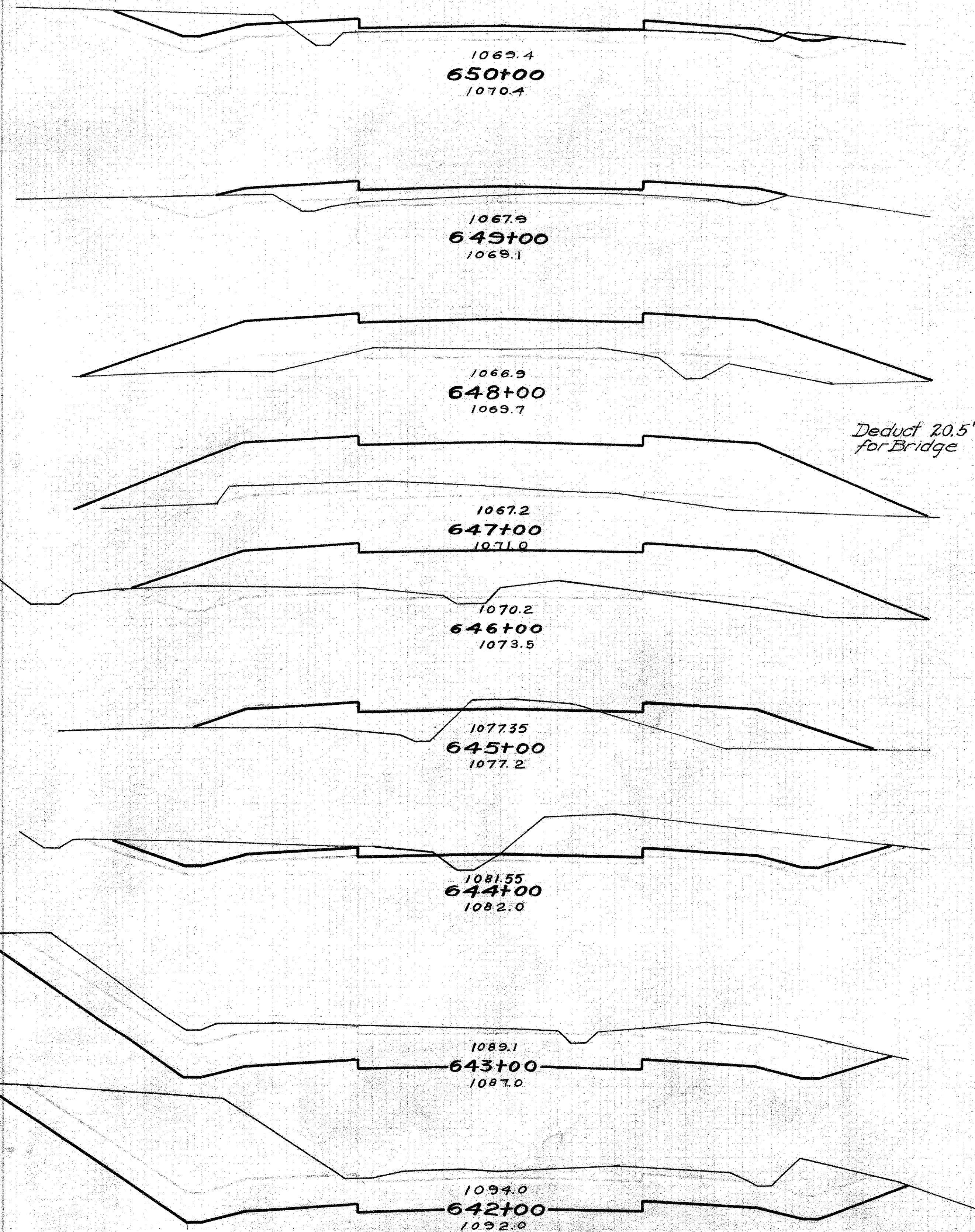
KNOX COUNTY 9
S.H. 575 SEC. 6
HWY. AUTHOR. NO 5-42-6
K.P.A. JOB NO 42-103

END AREA CU. YDS.
CUT FILL CUT FILL

END AREA CU. YDS.
CUT FILL CUT FILL



113 0
335 9
68 5
357 46
125 20
409 57
96 11
404 39
122 10
326 30
54 6
185 63
46 28
543 52
247 0
1326 0
469 0
1600 0



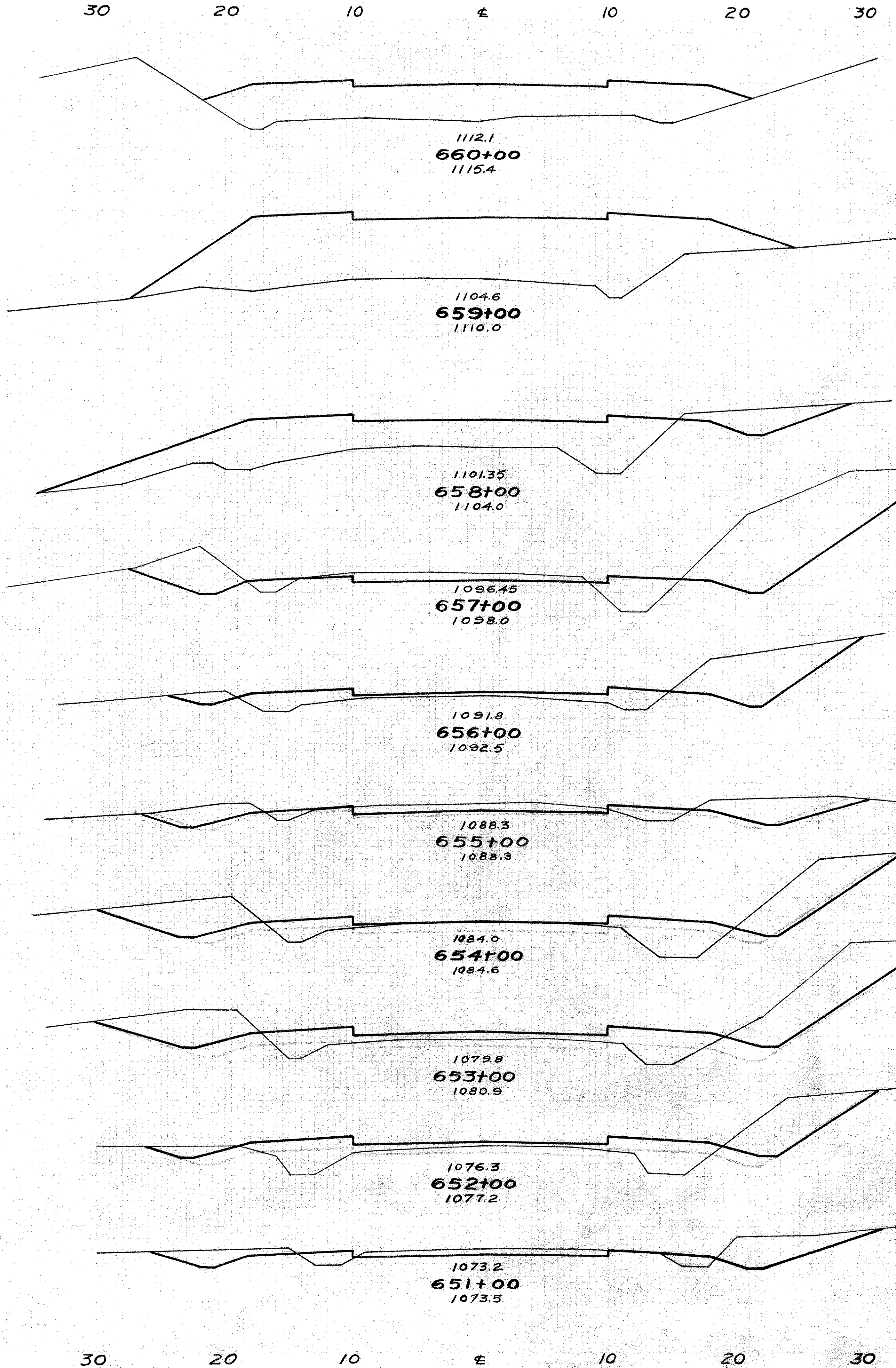
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24 87
0 34
0 341
0 150
0 474
0 172
0 596
0 150
9 391
5 61
137 119
69 3
465 6
182 0
763 0
230 0
635 0

30 20 10 ± 10 20 30

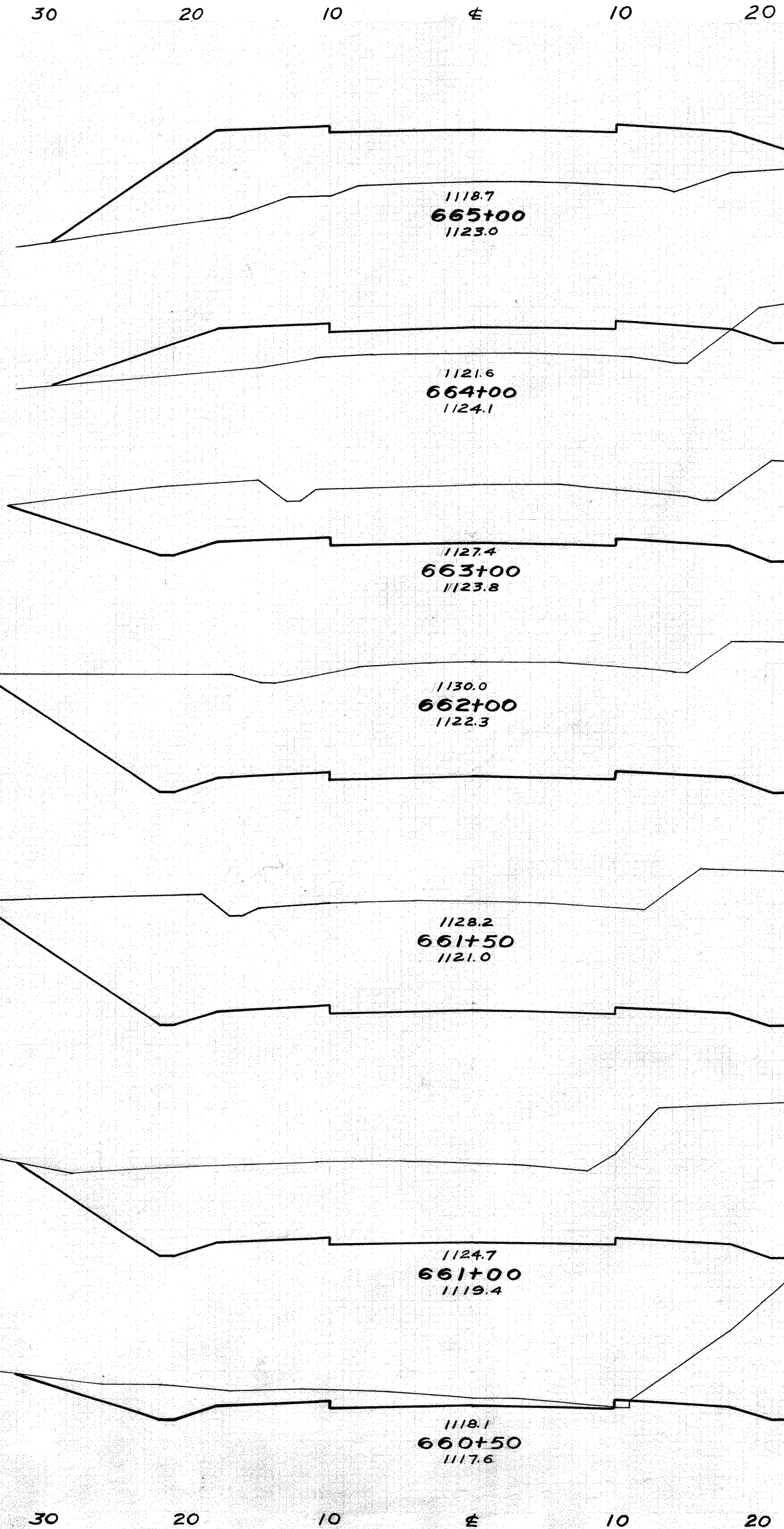
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5485 296

STA 633+00-650+00



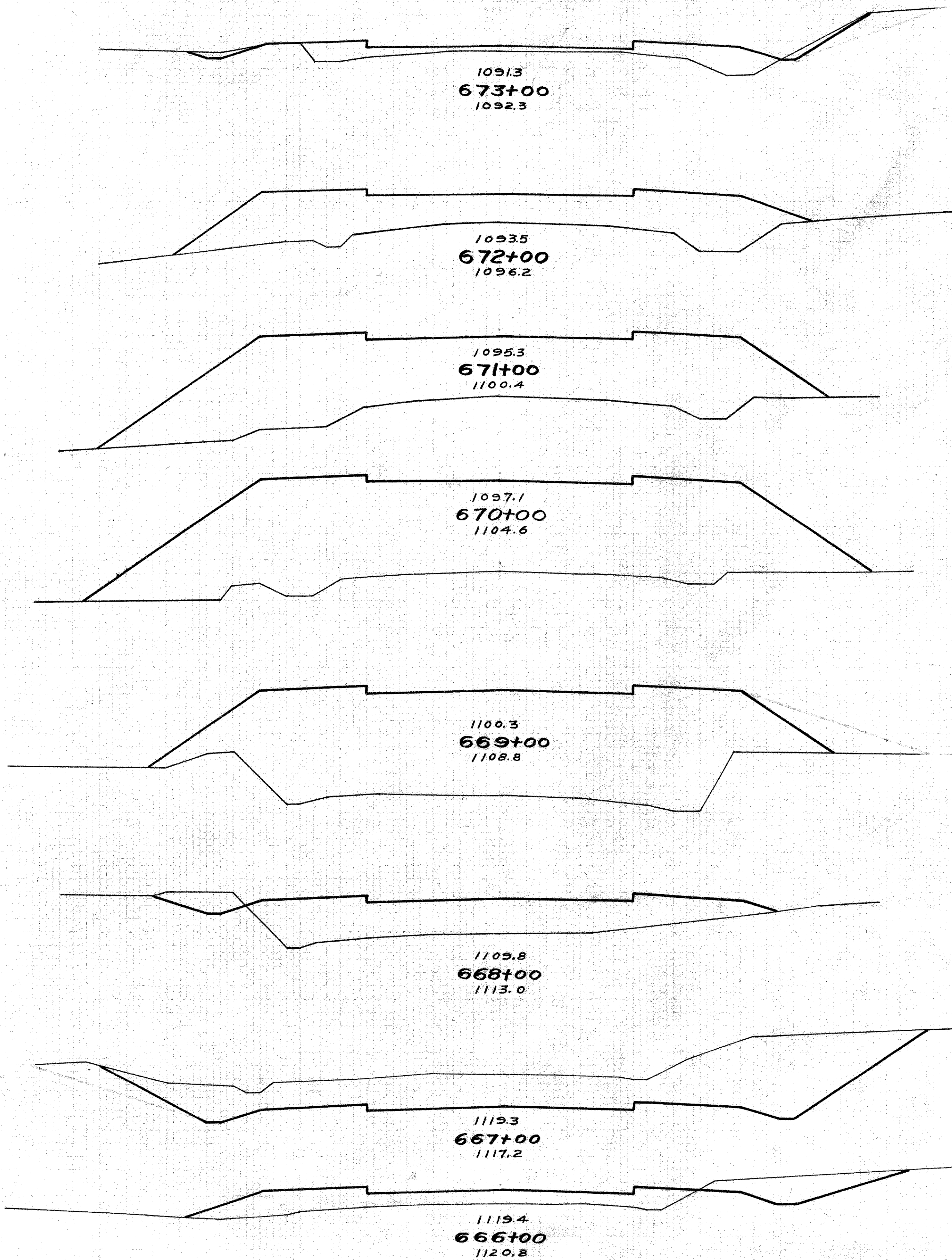
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	118		
	0	624	
0	219		
	30	628	
16	120		
	233	255	
110	16		
	281	81	
42	28		
	131	65	
29	7		
	181	70	
59	31		
	235	131	
68	40		
	187	157	
33	45		
	102	102	
22	10		
	65	43	
13	13	445	2156



KNOX COUNTY 10 21
S.H. 575 SEC. 6
Hwy. AUTHOR. NO 5-42-6
M.P.A. JOB NO 42-103

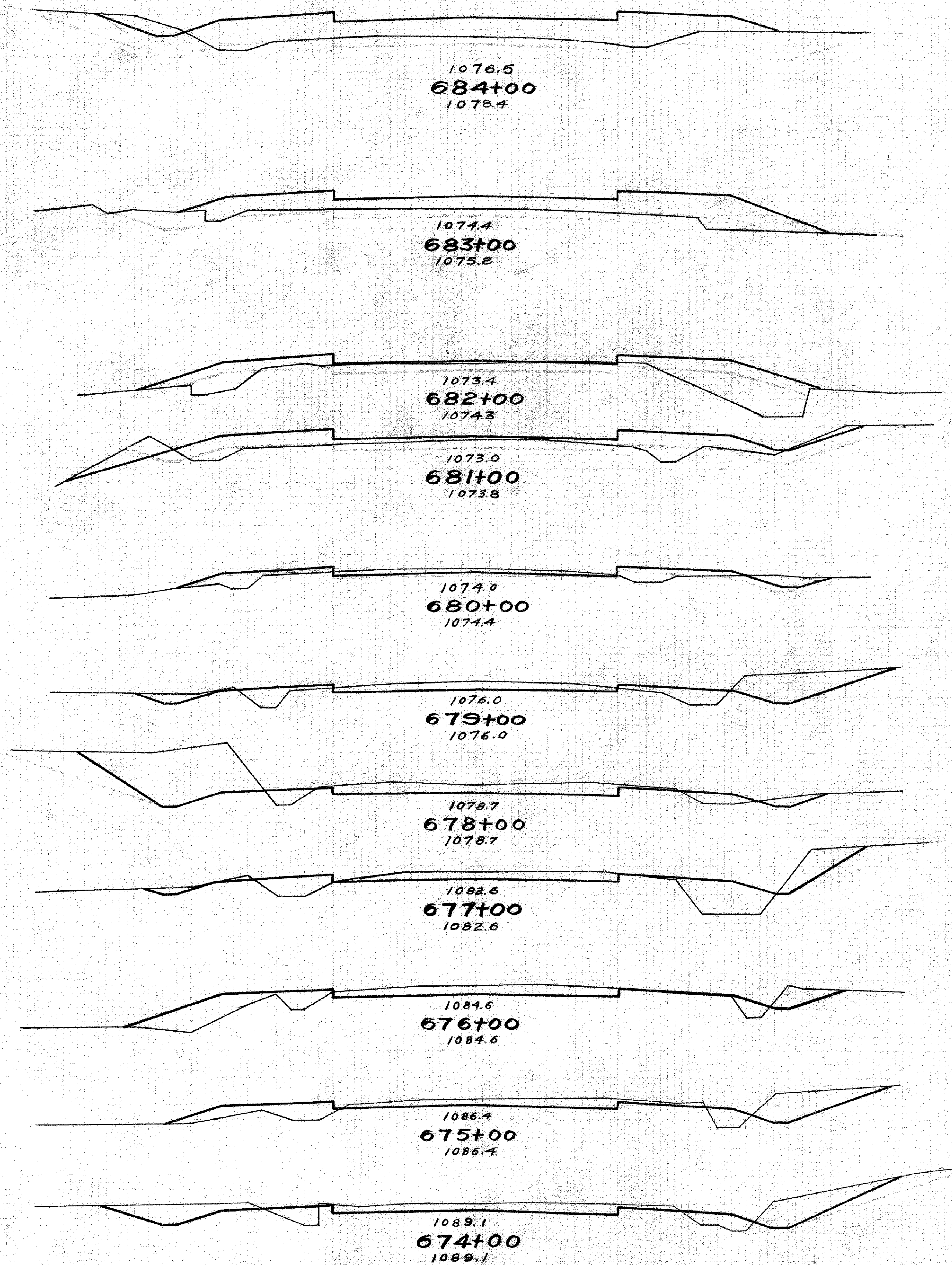
END AREA		CU. YDS.	
CUT	FILL	CUT	FILL
0	206		
	52	565	
28	99		
	502	183	
243	0		
	1383	0	
504	0		
	964	0	
537	0		
	879	0	
412	0		
	200		

30 20 10 ± 10 20 30



END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
13	31		
		24	296
0	129		
		0	733
0	267		
		0	1169
0	364		
		0	1330
0	354		
		13	844
7	102		
		356	189
185	0		
		378	89
19	48		
		35	470
806 5120			

30 20 10 ± 10 20



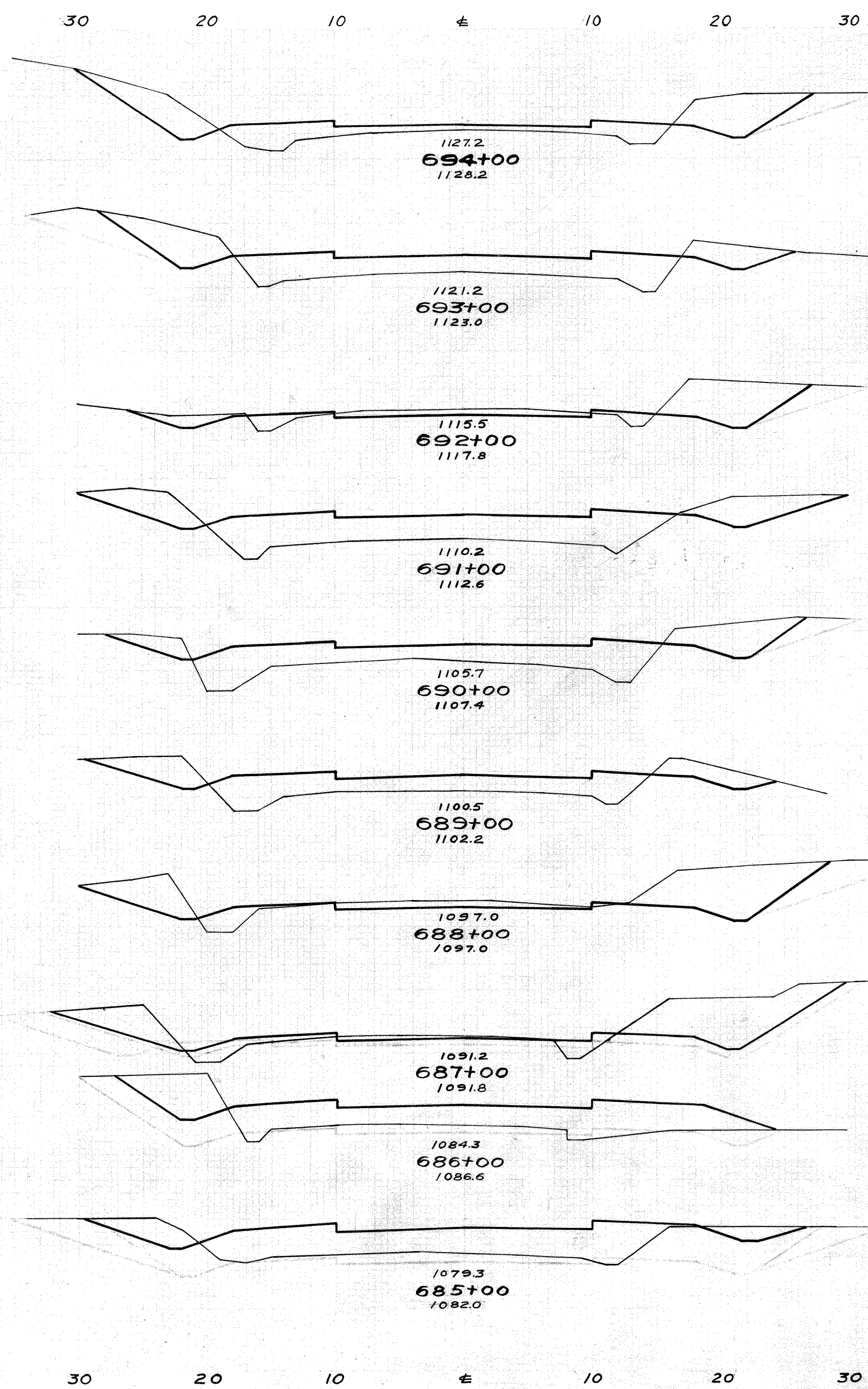
KNOX COUNTY 11
S.H. 575 SEC. G 21
HWY. AUTHOR. NO 5-42-G
K.P.A. JOB NO 42-103

END AREA		Cu. Yds.	
CUT	FILL	CUT	FILL
3	65		
		6	220
0	54		
		0	180
0	43		
		15	146
8	36		
		35	89
11	12		
		91	39
28	9		
		169	26
63	5		
		170	44
29	19		
		85	70
17	19		
		80	56
26	11		
		128	31
43	6		
		104	69
883 970			

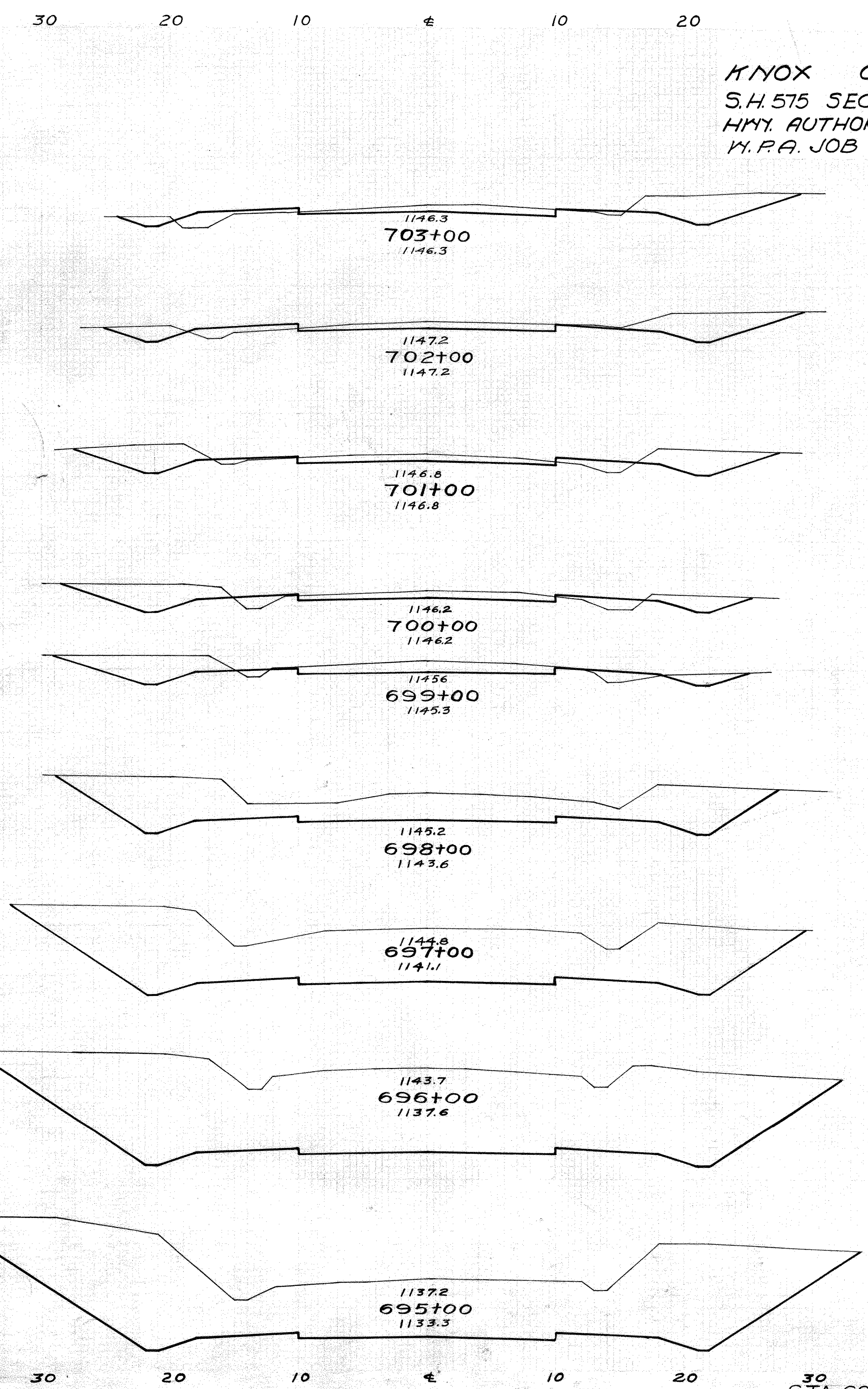
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30 20 10 ± 10 20

STA 666+00-684+00



END AREA		Cu. Yds	
CUT	FILL	CUT	FILL
54	29		
		185	167
46	61		
		180	126
51	7		
		154	161
32	80		
		120	274
33	68		
		107	233
25	58		
		200	120
83	7		
		263	37
59	13		
		146	176
20	82		
		652	91
15	75		
		33	259
3	3	453	1841

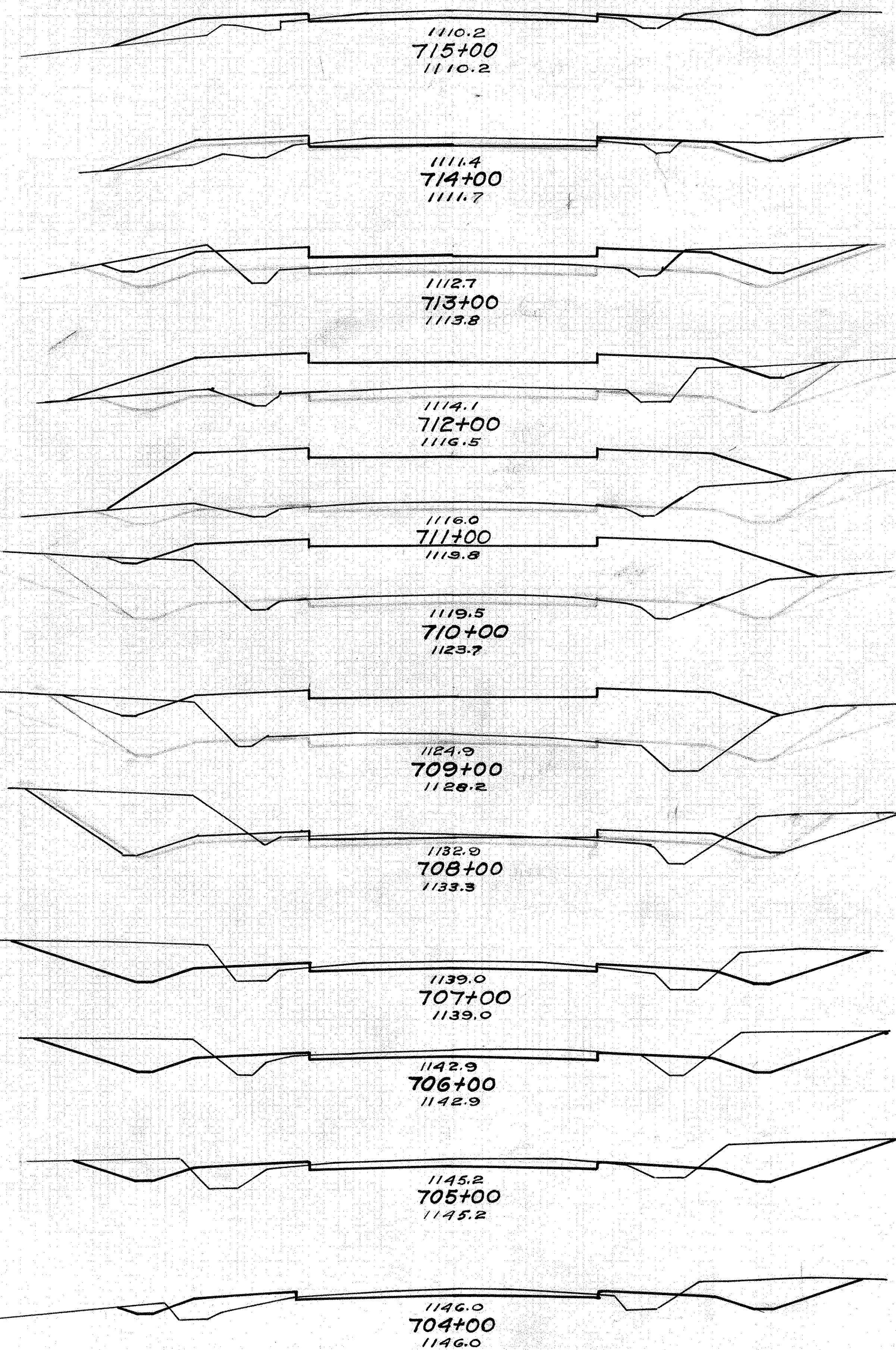


KNOX COUNTY 12
S.H. 575 SEC. 6 21
Hwy. AUTHOR. No 5-42-6
W.P.A. JOB No 42-103

END AREA		Cu. Yds	
CUT	FILL	CUT	FILL
34	7		
		131	24
37	6		
		137	20
37	5		
		135	22
36	7		
		143	20
41	4		
		320	7
132	0		
		693	0
242	0		
		1169	0
389	0		
		1365	0
348	0		
		744	54
3	3	4837	147

STA. 685+00 - 703+00

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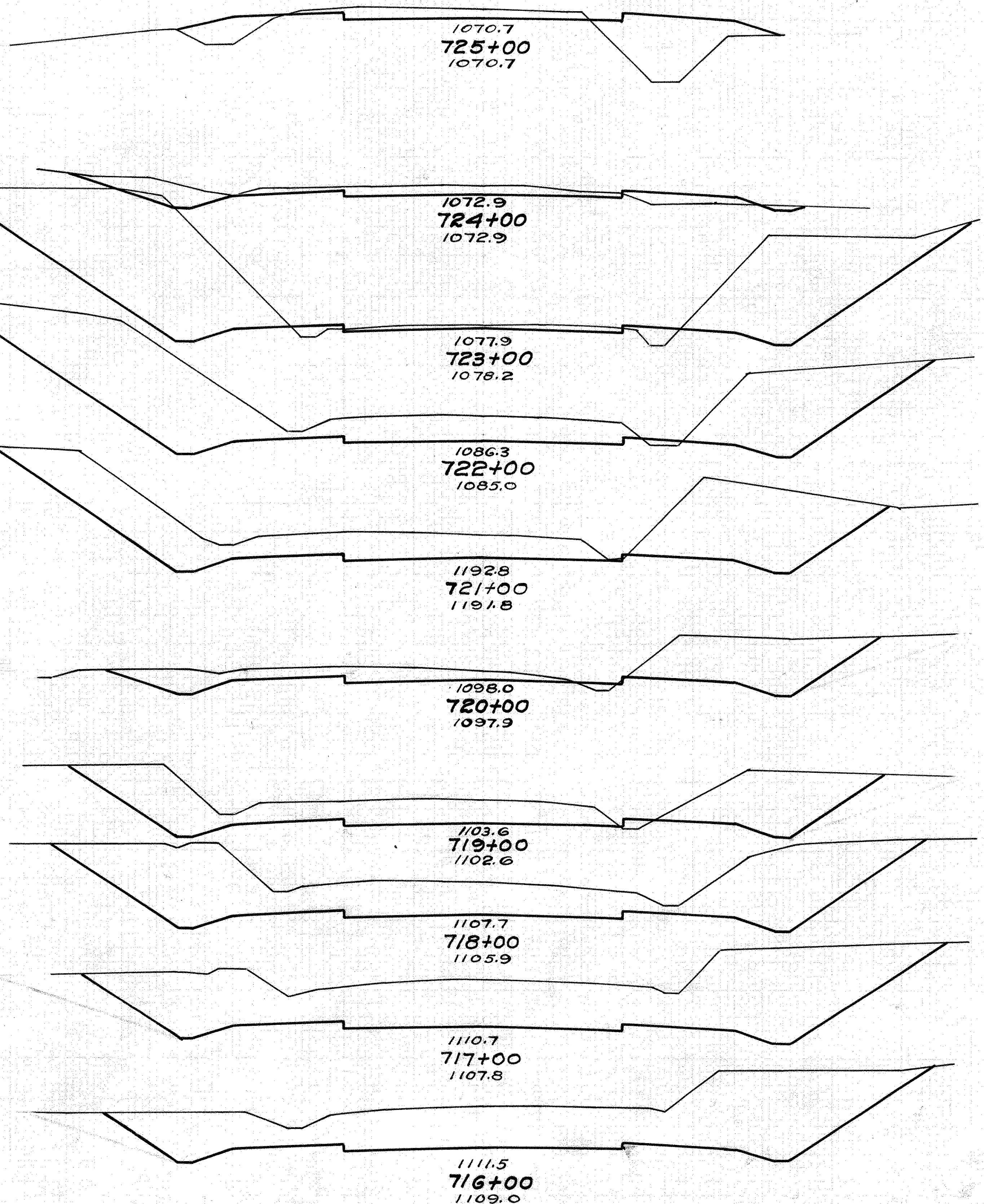
30 20 10 0 10 20 30

E. AREA CU. YDS.
CUT FILL CUT FILL

33	3		
		76	39
8	18		
		46	87
17	29		
		37	226
3	33		
		6	448
0	149		
		2	557
1	152		
		13	513
6	125		
		119	267
58	19		
		200	56
50	11		
		180	33
47	7		
		143	31
30	10		
		107	41
28	12		
		115	35

30 20 10 0 10 20 30

30 20 10 0 10 20 30



30 20 10 0 10 20 30

KNOX COUNTY 13
S.H. 575 SEC. 6 21
HWY. AUTHOR. NO 5-42-6
K.P.A. JOB NO 42-103

E. AREA CU. YDS.
CUT FILL CUT FILL

15	43		
		80	91
28	6		
		454	20
217	5		
		796	11
213	1		
		706	2
168	0		
		478	2
90	1		
		404	4
128	1		
		569	2
179	0		
		774	0
239	0		
		809	0
198	0		
		428	6

30 20 10 0 10 20 30

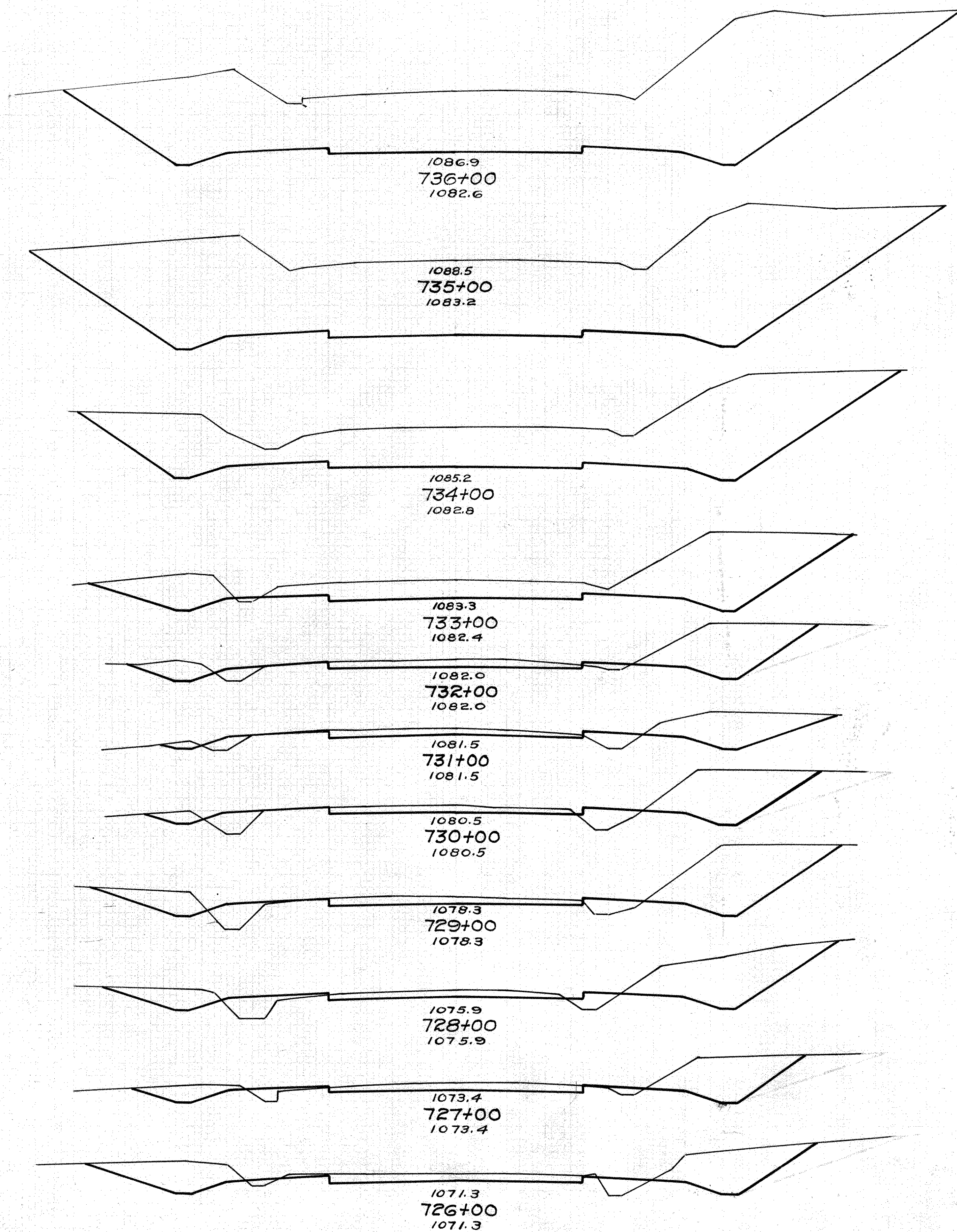
STA 704+00-725+00

30 20 10 0 10 20 30

AREA CU.YDS.
CUT FILL CUT FILL

20 10 0 10 20

KNOX COUNTY 14
S.H. 575 SEC. G 21
HWY. AUTHOR. NO 5-42-G
N. P.A. JOB NO 42-103



379 0

1515 0

439 0

1237 0

229 0

648 2

121 1

350 11

68 5

194 20

37 6

176 30

58 10

226 37

64 10

230 39

60 11

213 26

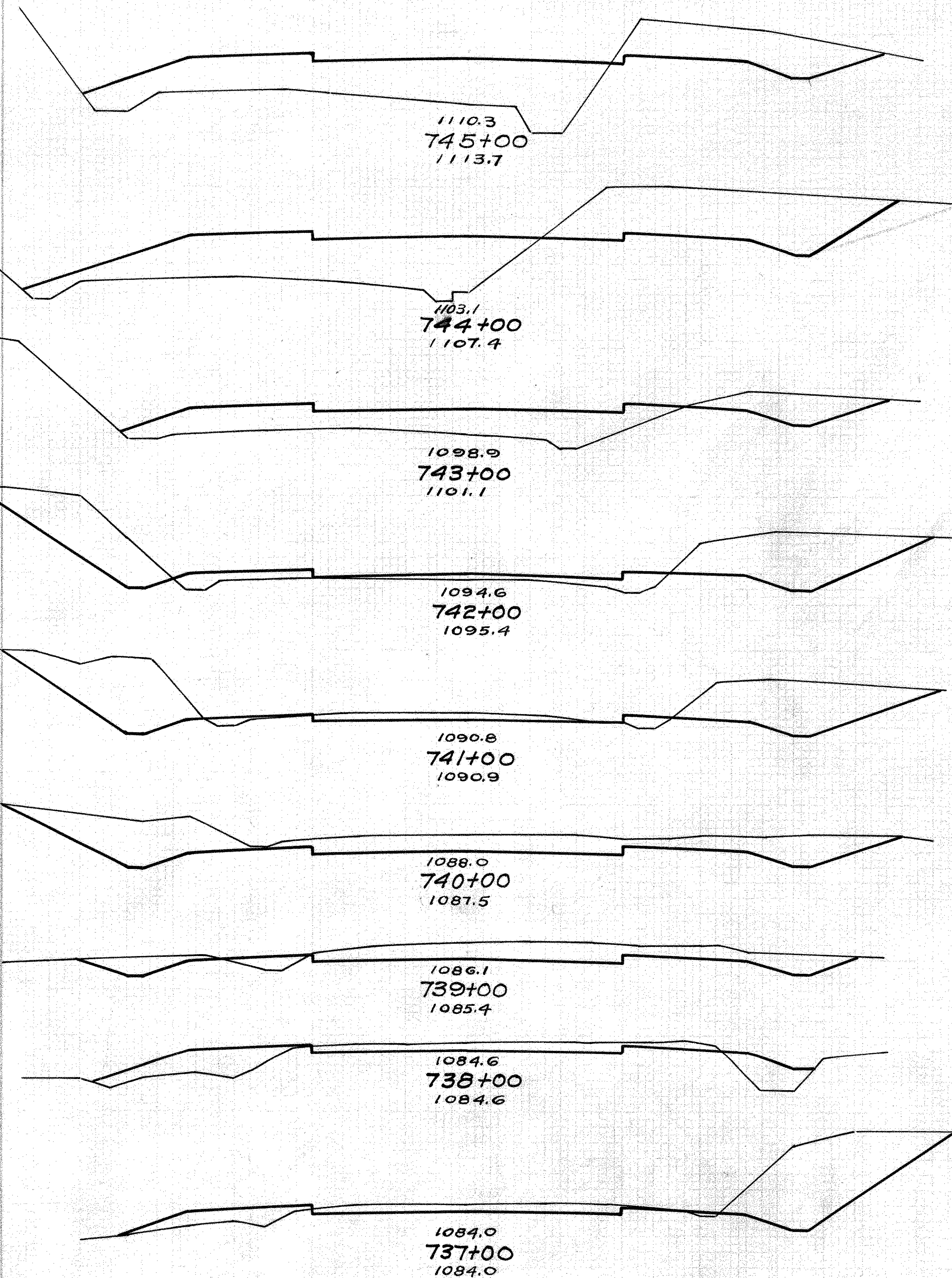
55 3

237 15

73 5

163 89

5189 263



AREA CU.YDS.
CUT FILL CUT FILL

40 86

215 313

76 83

169 261

15 58

159 143

71 19

287 43

84 4

289 7

72 0

213 7

43 4

109 56

16 26

161 50

71 1

833 2

30 20 10 0 10 20 30

20 10 0 10 20

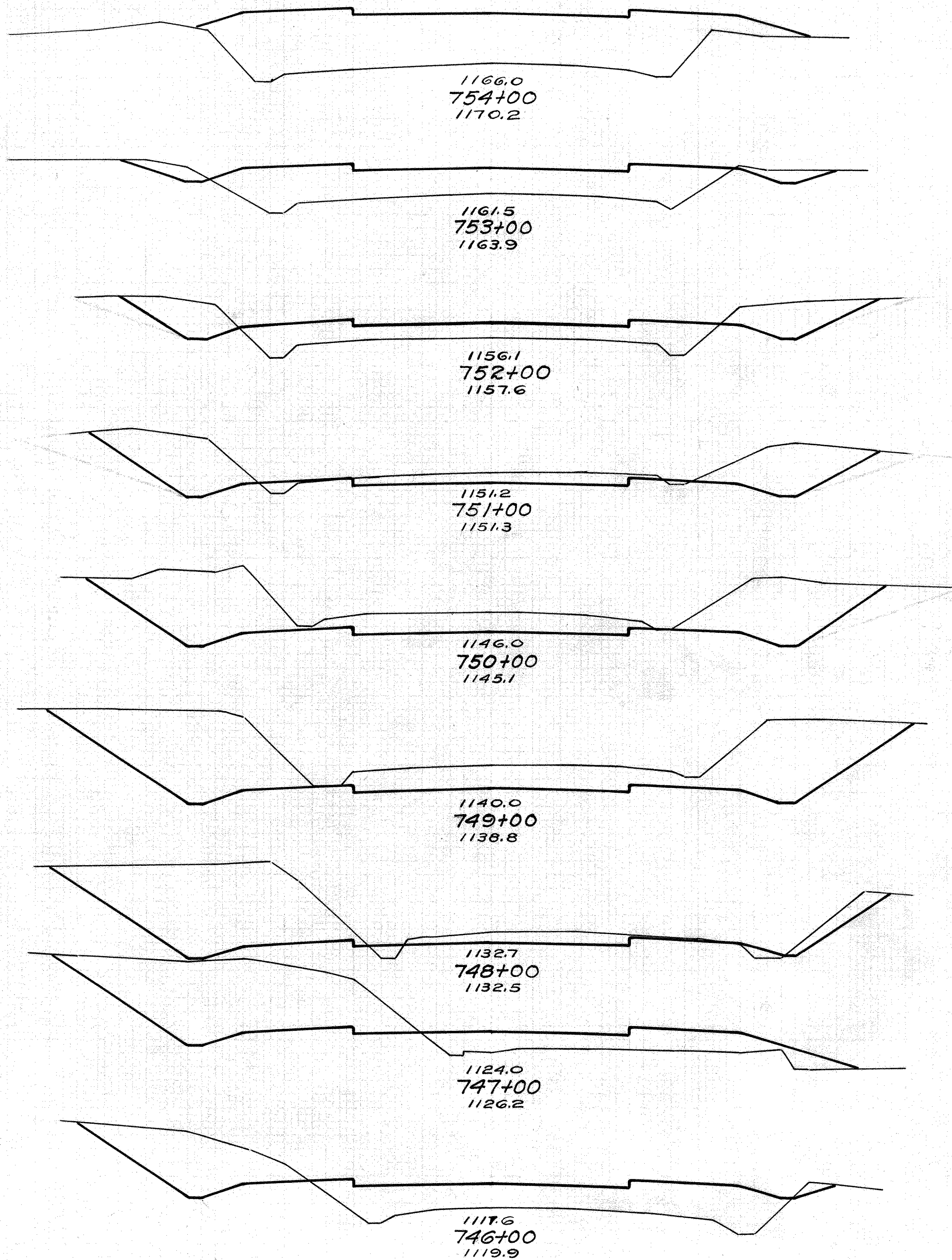
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30 20 10 0 10 20 30

E. AREA CU. YDS.
CUT FILL CUT FILL

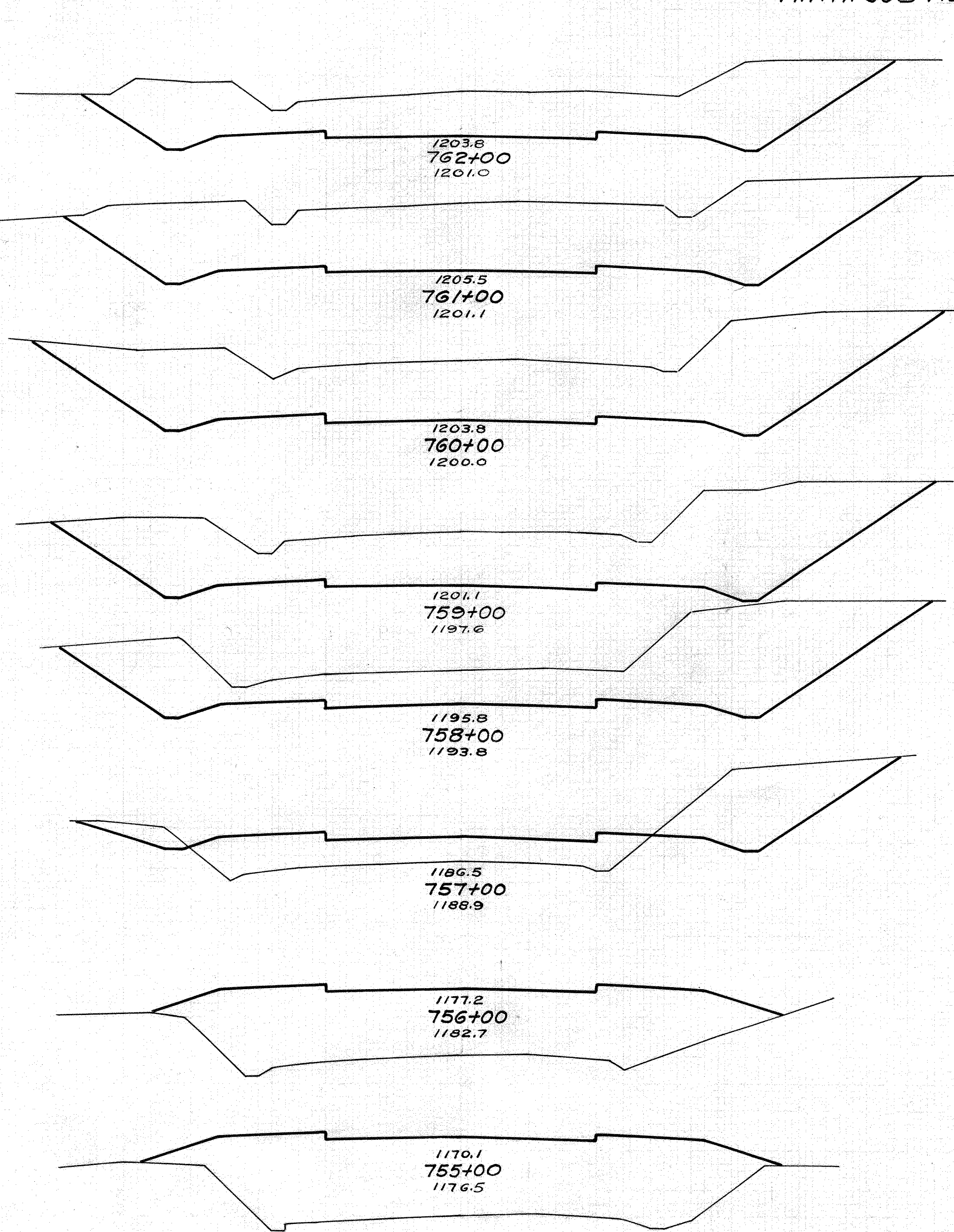
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KNOX COUNTY 15
S.H. 575 SEC. G 21
HWY. AUTHORITY NO 5-42-6
M.P.A. JOB NO 42-103



0	153
17	439
9	84
91	241
40	46
284	91
94	3
430	6
138	0
554	0
161	0
515	7
117	4
406	85
102	42
272	215
45	74
157	285

2726 1369



E. AREA CU. YDS.
CUT FILL CUT FILL

208	0
941	0
299	0
1107	0
299	0
1070	0
279	0
937	0
227	0
550	133
70	72
130	524
0	211
0	835
0	240
0	728

4735 2220

STA. 746+00-762+00

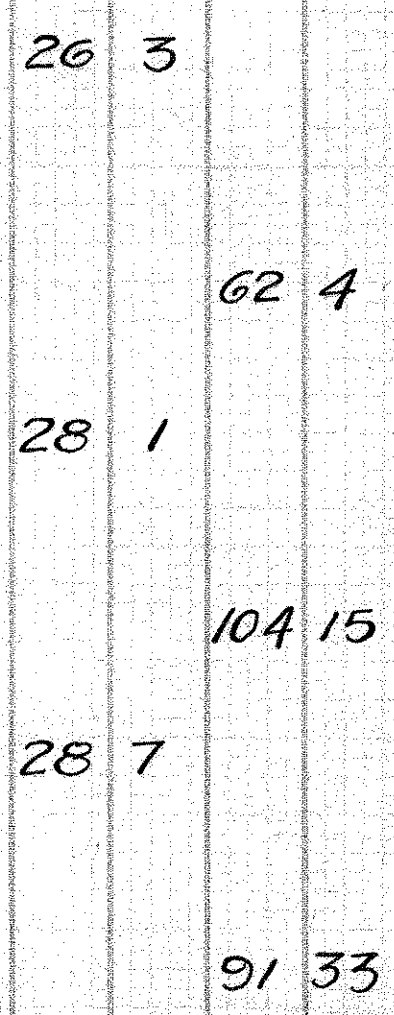
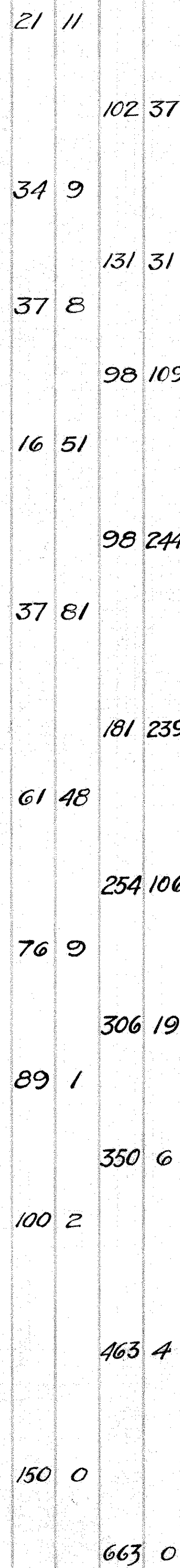
30 20 10 0 10 20 30

30 20 10 0 10 20 30

16
21

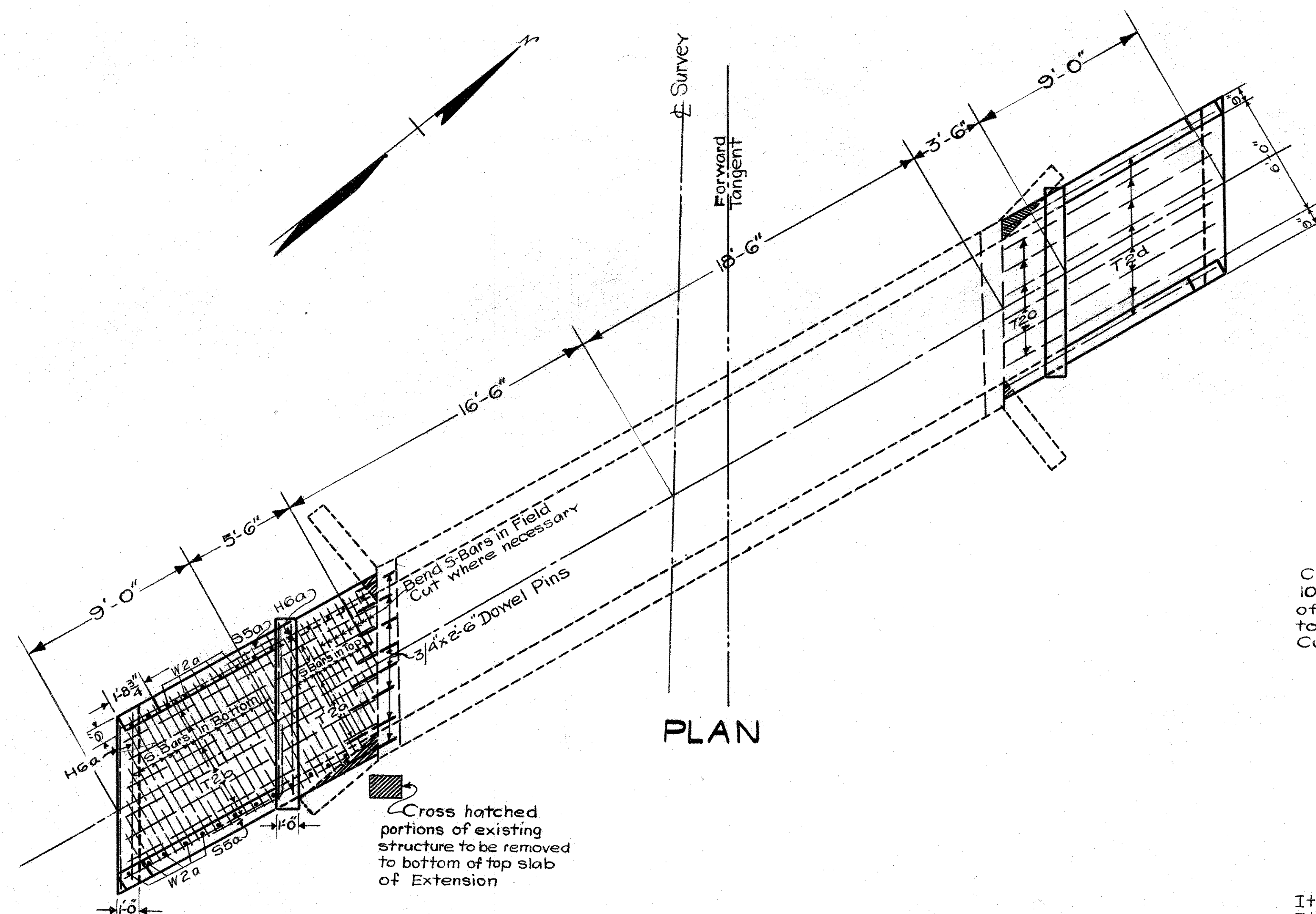
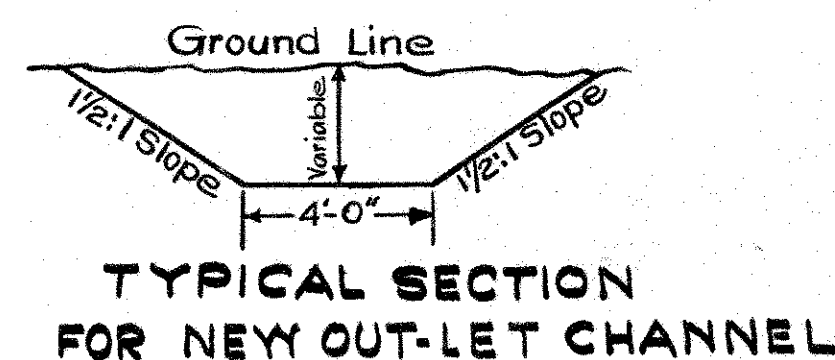
26	3		
		62	4
28	1		
		104	15
28	7		
		91	33

96
166
51.71



STA. 763 + 00 - 774 + 62

STEEL LIST				
MARK	SIZE	LENGTH	NUMBER	WEIGHT
C2a	1/2" φ	3'-3"	16	35
C2b	1/2" φ	8'-6"	4	23
D5a	3/4" φ	2'-6"	48	180
H6a	7/8" φ	8'-6"	8	139
S5a	3/4" φ	7'-3"	114	1241
T2a	1/2" φ	5'-0"	6	20
T2b	1/2" φ	14'-0"	12	112
T2c	1/2" φ	3'-0"	6	12
T2d	1/2" φ	12'-0"	12	96
T2e	1/2" φ	9'-0"	2	12
T2f	1/2" φ	11'-0"	2	15
T2g	1/2" φ	7'-0"	2	9
T2h	1/2" φ	8'-6"	2	11
W2a	1/2" φ	5'-3"	52	182
TOTAL				2087#

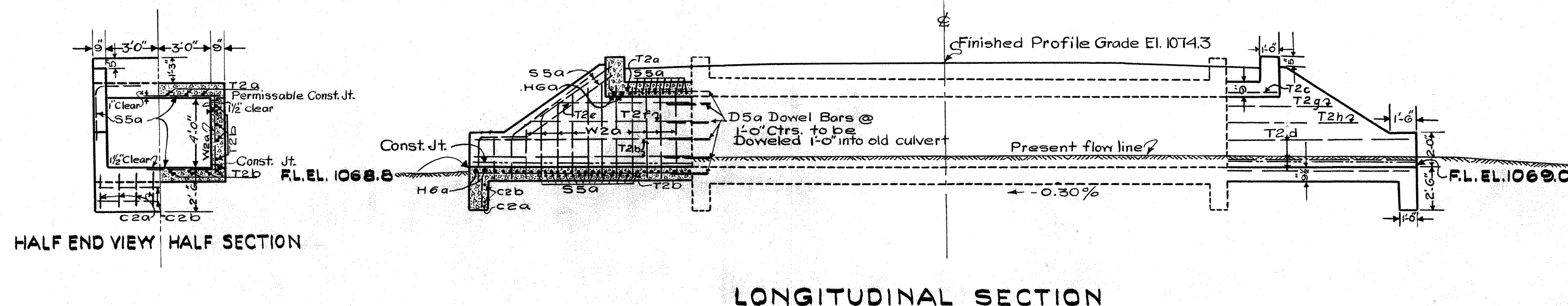


WORK REQUIRED

Cut new Out-let Channel from End of Culvert approximately 100' to present Creek Channel. Remove Headers and portions of Wing Walls from Existing Structure. Build 14'-6" Extension to left end of Culvert and 12'-6" Extension to right end of Culvert as per Plan and Std. Const. Drwg. No. S.B.C.-34

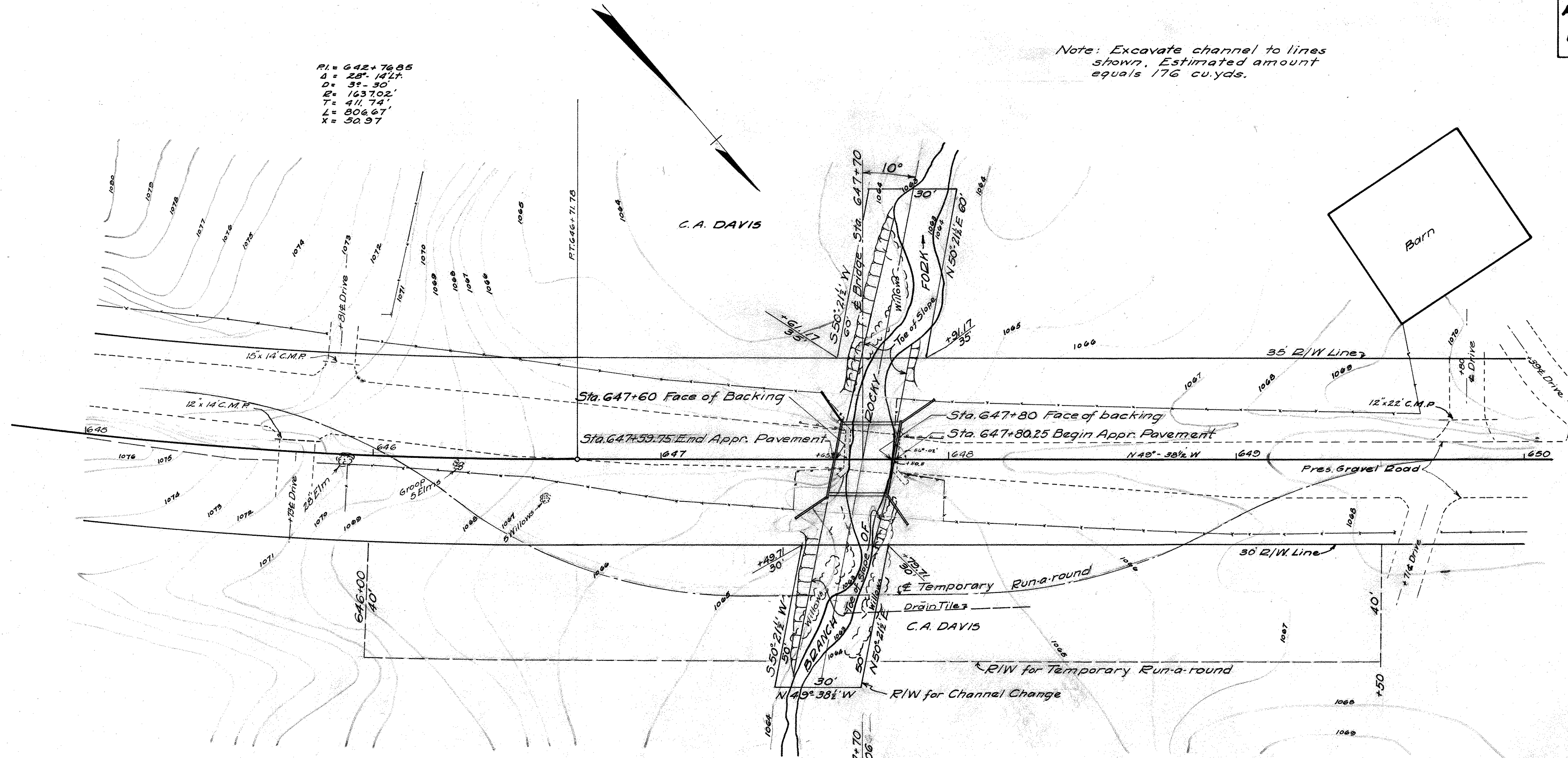
ESTIMATED QUANTITIES

ESTIMATED QUANTITIES			
Item	E-2	Excavation for Structure	18 Cu.Yds.
Item	E-3	Channel Excavation	65 Cu.Yds.
Item	S-1	Concrete for Structure (Class "C")	13.8 Cu.Yds.
Item	S-4	Reinforcing Steel	2087 lbs.



PI = 642+76.85
 Δ = 28° 14' 11"
 D = 3° 30'
 R = 1637.02'
 T = 411.74'
 L = 804.67'
 X = 50.97'

Note: Excavate channel to lines shown. Estimated amount equals 176 cu.yds.



PRES. BRIDGE
 Stone Abutments
 Steel Beams (7x18 Long)
 Timber Floor
 Clear Span = 15'

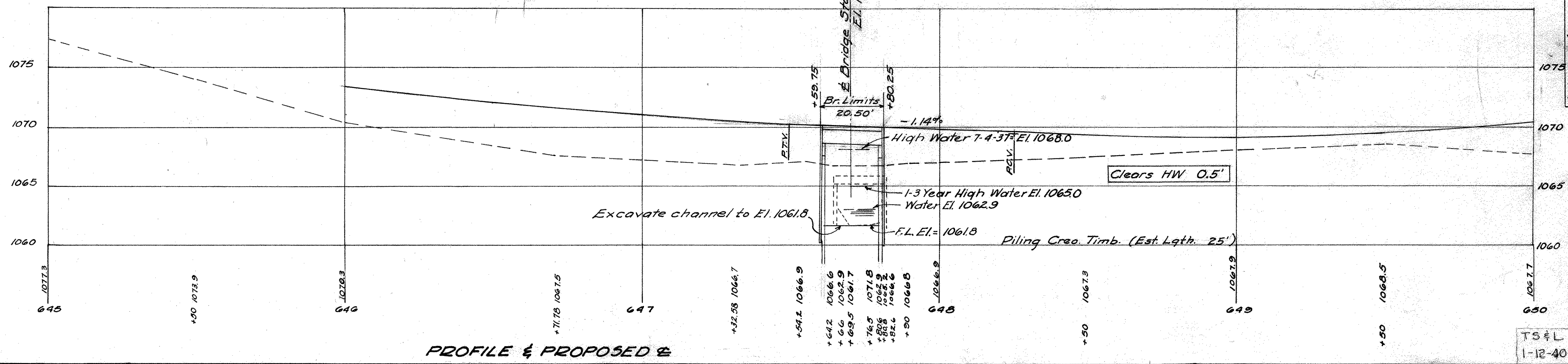
DRAINAGE AREA = 1.2 SQ. MI.

PROPOSED STRUCTURE
 Type - Steel Beam with Creos. Timb. Deck & Substr.
 SPAN - 20' FIF backing
 RDWY - 24'
 SKEW - 10° LF
 LOADING - H-15-33
 STD. DRWG. - WSB-35 & WAP-35

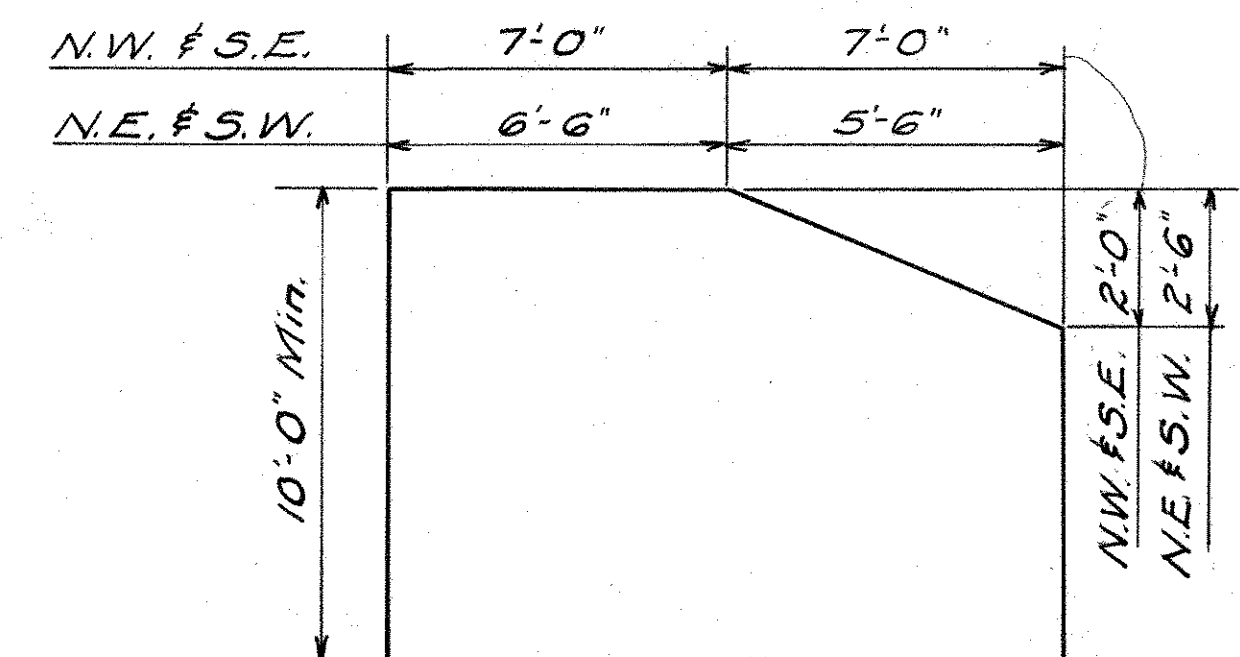
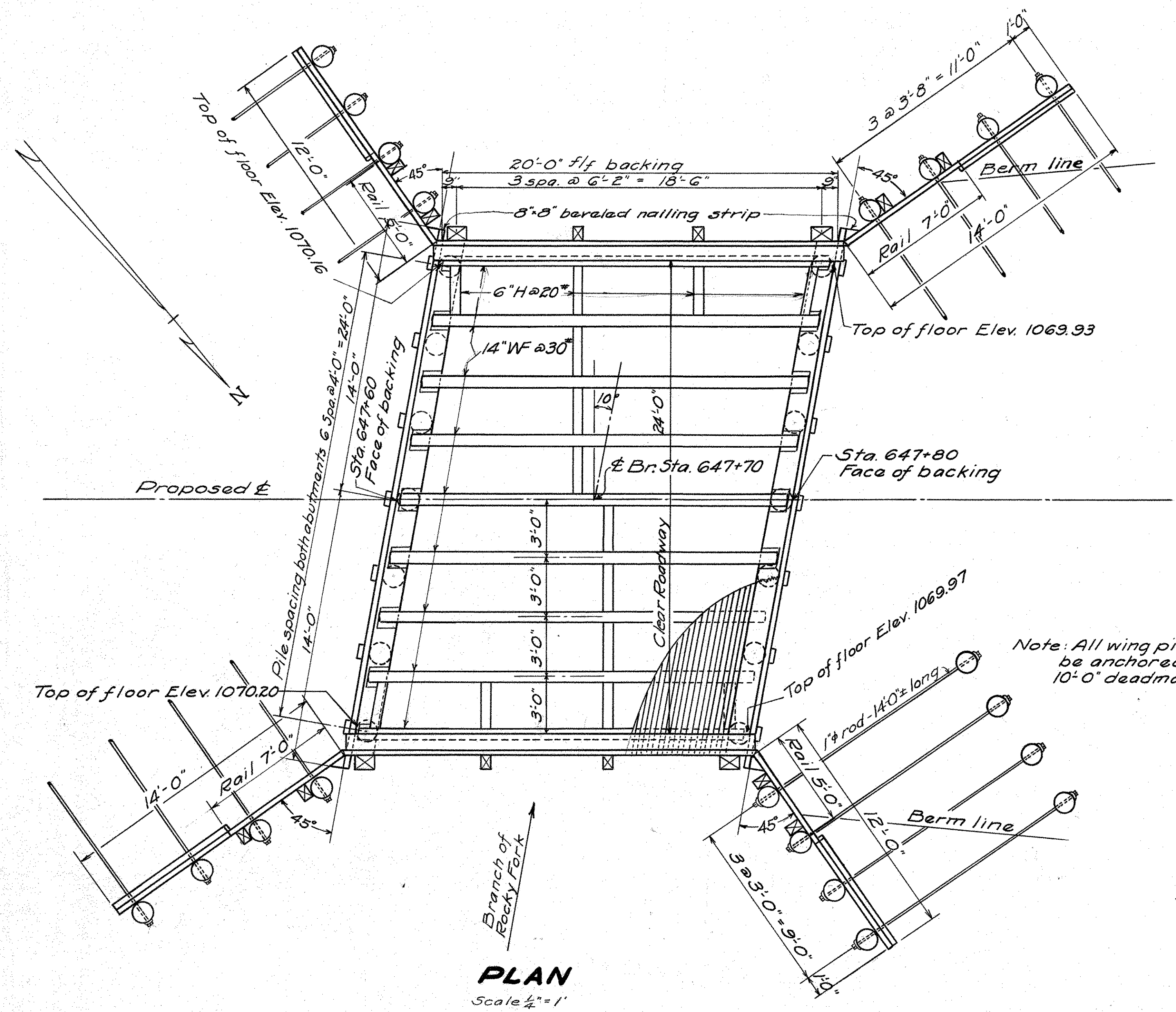
Co. Line - 618+15.25
SITE PLAN
 BR No. KN-586-05
 OVER
 BRANCH OF ROCKY FORK
 S.H. 575 SEC. G
KNOX COUNTY
 STATE OF OHIO
 SCALE 1" = 20' STA. 647+70

SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED

TS & L
 1-12-40



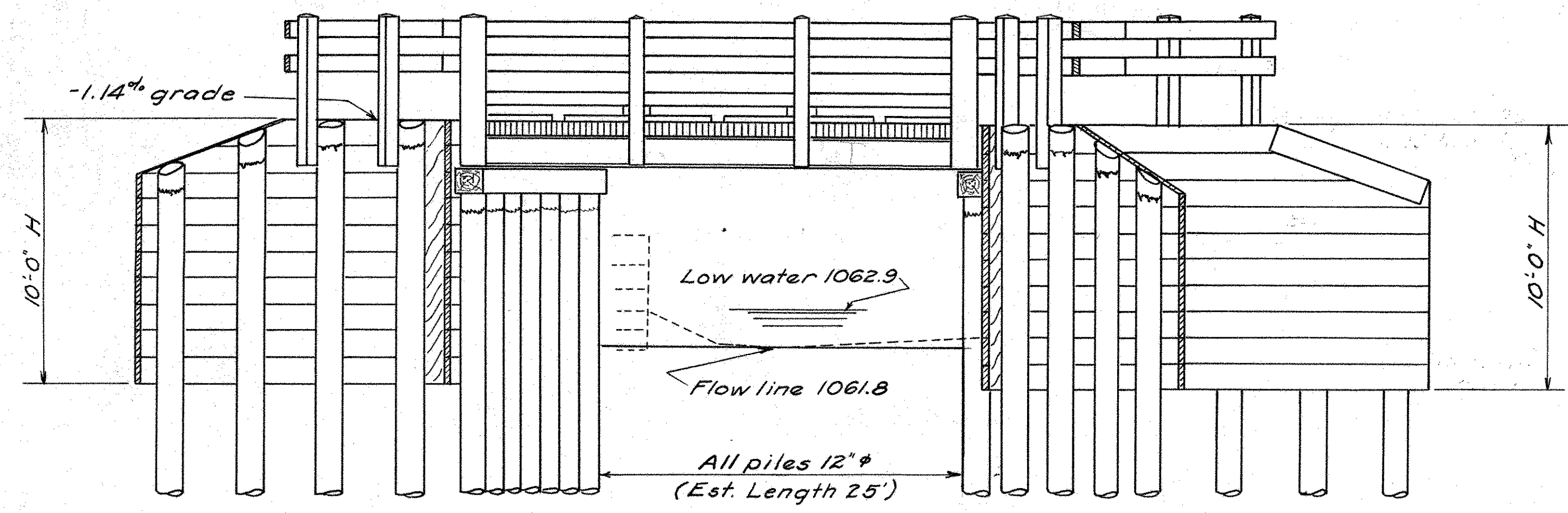
PROFILE & PROPOSED



WING DIMENSIONS

GENERAL NOTES

- PROPOSED STRUCTURE:** Type steel beam with creosoted timber deck and substructure, 20'-0" span face to face of backing, 24' roadway, 10° L. F. skew, and on a -1.14% grade.
- LOADING:** Bridge is designed for H-15-33 loading.
- FOR DETAILS** not shown on this drawing see Standard Drawings W5B-35 and WAP-35.
- CAMBER:** No camber required.
- PILING:** All piling, except anchor piles, shall be driven to a minimum bearing capacity of 15 tons and preferably 18 tons.
- TREATMENT:** All piling and timber shall be creosoted except railing rails.



ELEVATION

ESTIMATED QUANTITIES

- | | | |
|------|--|--------------|
| E-2 | Excavation for Structures (Unclassified) | 60 cu. yds. |
| S-7 | Structural Steel | 8200 lbs. |
| S-8 | Field Painting of Structural Steel | 8200 lbs. |
| S-13 | Creosoted Bridge Timber | 4900 F.B.M. |
| S-13 | Creosoted Timber Strip Flooring | 468 sq. ft. |
| S-14 | Bridge Railing (Timber) | 65 lin. ft. |
| S-16 | First Test Pile | Lump sum |
| S-17 | 12" Creosoted Timber Piling (est. lengths 25' and 10') | 910 lin. ft. |

Channel excavation, temporary runaround, and removal of existing structure are summarized with roadway quantities.

GENERAL PLAN & ELEVATION					
BR. NO. KN-586-05					
OVER					
BRANCH OF ROCKY FORK					
S.H. 575 SEC. G					
KNOX COUNTY					
STATE OF OHIO					
STA. 647+70					
Surveyed	Drawn	Traced	Checked	Reviewed	Revised
	C.L.	C.L.			