

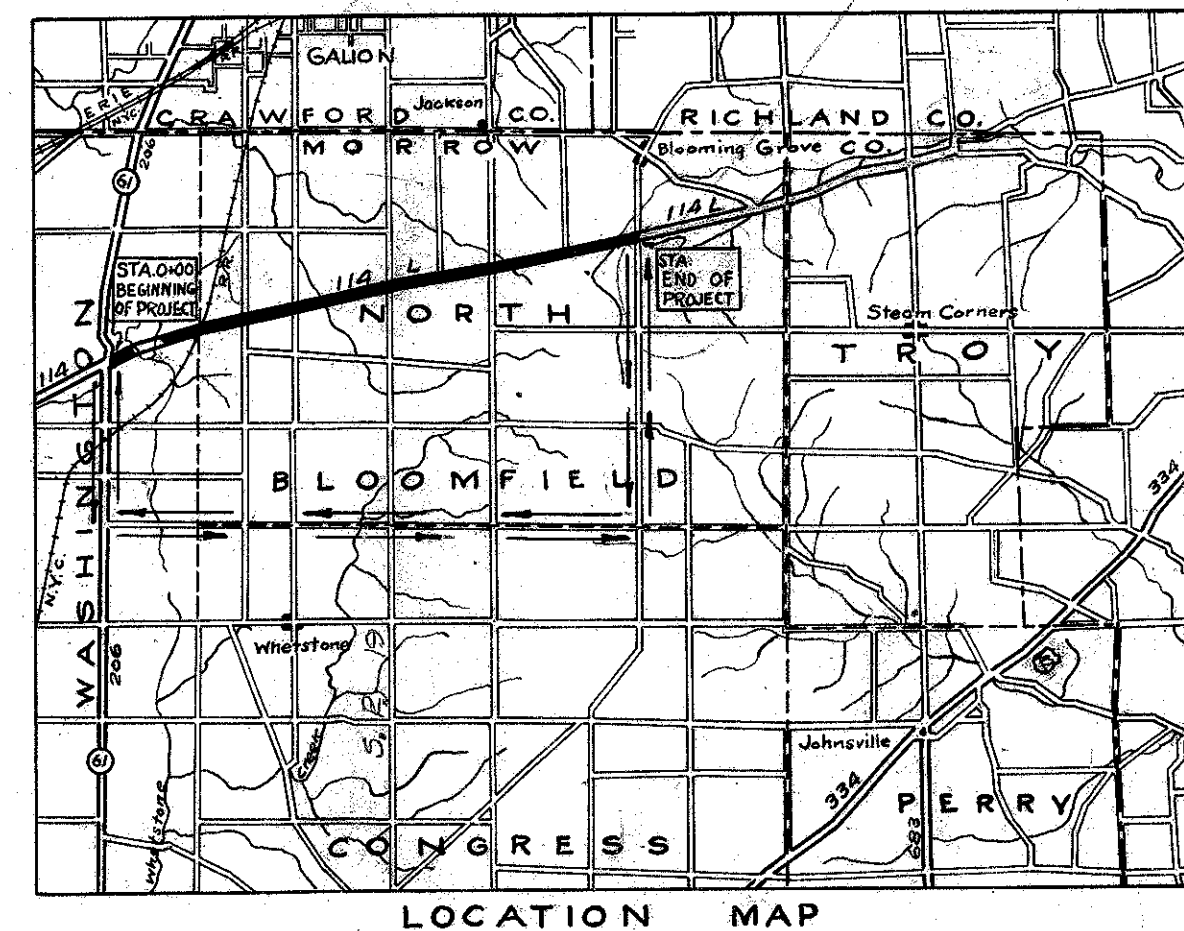
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
W.P.A. STATE WIDE HIGHWAY PROJECTS  
STATE WIDE OFFICIAL PROJECT O.P. 665-42-1-119  
**MORROW COUNTY**  
S.H. 114 SEC. L (PT.) ROUTE-545  
NET LENGTH OF PROJECT 5.504 MILES

MORROW COUNTY  
S.H. 114 SEC. L (PT.) 36  
Hwy. AUTHORIZATION No. 6-59-1  
W.P.A. Job No. 6-59-101

REVISED 2-13-40

E-5

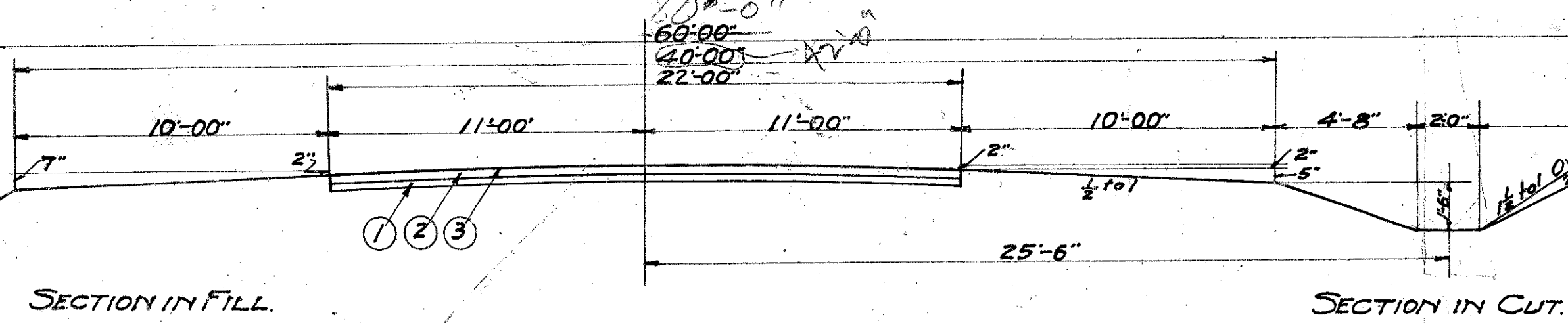
SUPPLEMENTAL PRINTS OF  
STANDARD CONSTRUCTION DWG'S.



SUMMARY OF QUANTITIES		
QUANTITY	UNIT	MATERIAL
F-1	130052	Cu Yds. Roadway Excavation
F-4	17184	Cu Yds. Berms
F-9	30	Each. Trees & Stumps removed & Disposed of
F-1	1104	Lin. Ft. 12" Carr. Metal Pipe For Driveways
F-6	46	Lin. Ft. 12" Carr. Metal Pipe For Driveways, Relay
F-3	1203	Lin. Ft. 12" Side Road Drainage
F-3	754	Lin. Ft. 12" Roadway Drainage
F-3	152	Lin. Ft. 18" Roadway Drainage
F-3	525	Lin. Ft. 20" Roadway Drainage
F-5	1	Each. 18" 45° Elbow
F-4	14000	Lin. Ft. French Drains
F-10	78	Sq Yds. 12" Rip Rap
F-4	90000	Sq Yds. Stripping Sod & Grubbing & 850 Hedge Removal
F-1	48000	Lbs. Fence Removal
F-1	24000	Lin. Ft. Finishing Shoulders, Slopes & Ditches
F-15	3630	Lin. Ft. Guard Rail - Type "S"
F-15	66	Each. Driveways
F-11	14	Each. Mail Box Approaches
F-11	64533	Sq Yds. 5" Course Bank Run Gravel Surface Treated with 1 lb. Calcium Magnesium Chloride Per Sq Yd.
F-12	64533	Sq Yds. 4" Course of Crushed Gravel Surface Treated with 1 1/2 lbs. Sodium Chloride Per Sq Yd.
F-13	64533	Sq Yds. Surface Treatment H.O. 0.40 Gal. 50 lbs. No. 46 Gravel Per Sq Yd.
F-6	52	Lin. Ft. 6" Pipe Removed & Stored
F-6	48	Lin. Ft. 8" Pipe Removed & Stored
F-1	18	Lin. Ft. 15" Carr. Metal Pipe For Driveways
STRUCTURES		
F-2	1588	Cu Yds. Excavation For Structures
S-1	69	Cu Yds. Concrete Class "C"
S-1	755	Cu Yds. Concrete Class "E"
S-4	40432	Lbs. Reinforcing Steel
F-3	3623	Cu Yds. Channel Excavation
S-4	4	Each. Removal of Existing Structures
S-27	364	Lin. Ft. 15" Pipe Roadway Culvert
S-27	56	Lin. Ft. 18" Pipe Roadway Culvert
S-27	366	Lin. Ft. 24" Pipe Roadway Culvert
S-27	54	Lin. Ft. 30" Pipe Roadway Culvert
S-27	204	Lin. Ft. 36" Pipe Roadway Culvert
S-27	40	Lin. Ft. 48" Pipe Roadway Culvert
F-10	44	Sq Yds. Rip Rap 12" Hand Laid
F-6	208	Lin. Ft. 12" Pipe Removed & Stored
F-6	65	Lin. Ft. 15" Pipe Removed & Stored
F-6	40	Lin. Ft. 18" Pipe Removed & Stored
F-6	36	Lin. Ft. 20" Pipe Removed & Stored
F-6	36	Lin. Ft. 36" Pipe Removed & Stored
F-6	32	Lin. Ft. 15" Pipe To Be Relaid
F-6	33	Lin. Ft. 24" Pipe To Be Relaid
F-6	282	Lin. Ft. 10" Pipe Underdrains
F-6	252	Lin. Ft. 12" Pipe Underdrains
F-6	30	Lin. Ft. 24" Pipe Removed & Stored
S-14	36	Lin. Ft. Concrete Railing Type RR-12
S-1	41	Sq Ft. 4" Preformed Expansion Joint
S-306	18	Sq Yds. Water Proofing Type "B"
S-20	35	Perch Stone Masonry
F-8	2	Each. Std. Catch Basin #1-2
F-8	2	Each. Std. Catch Basin #2-2
F-4	1015	Lin. Ft. 6" Drain Tile Underdrain
F-4	4760	Lin. Ft. 8" Drain Tile Underdrain
F-4	1500	Lin. Ft. 10" Drain Tile Underdrain
F-4	1650	Lin. Ft. 4" Perforated C.M. Pipe Underdrain
S-29	100	Cu Yds. Porous Backfill (Pit Run Gravel)

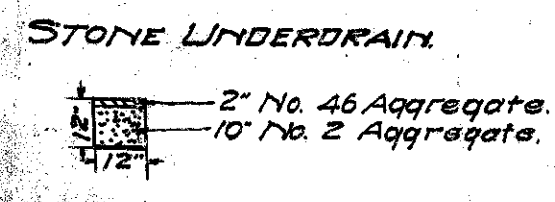
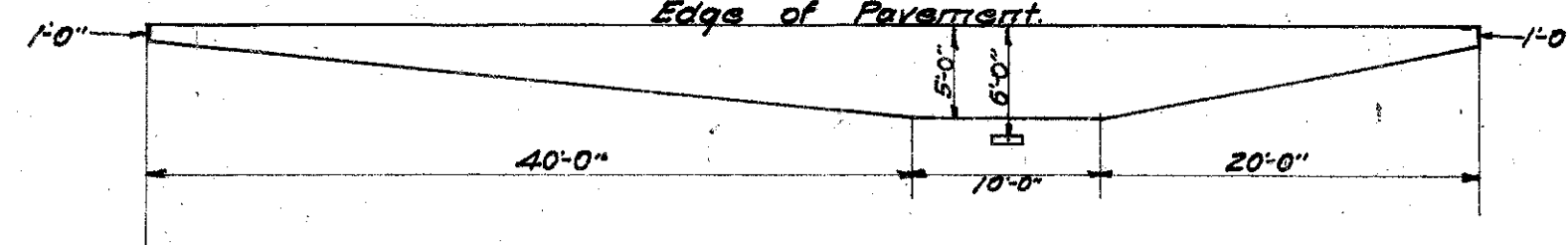
VOID - SEE SHEET #1-A

TYPICAL SECTION (Except as Shown on Cross Sections)



- ① 5" Course Bank Run Gravel, Shaped, Rolled, Surface Treated with 1 lb. Calcium Magnesium Chloride Per Sq Yd.
- ② 4" Course Crushed Gravel, Shaped, Rolled, Surface Treated with 1 1/2 lbs. Sodium Chloride Per Sq Yd.
- ③ Surface Treatment: H.O. 0.40 Gal. 50 lbs. No. 46 Crushed Gravel Per Sq Yd.

TYPICAL MAIL BOX APPROACH



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: The Road will be closed during Construction and Detours will be provided as shown.

Approved [Signature]  
Date \_\_\_\_\_ Resident Division Deputy Director

Approved [Signature]  
Date 7/24/39 Chief Engineer, Bureau of Maintenance

Approved [Signature]  
Date 7/26/39 First Asst. Director - Chief Engineer

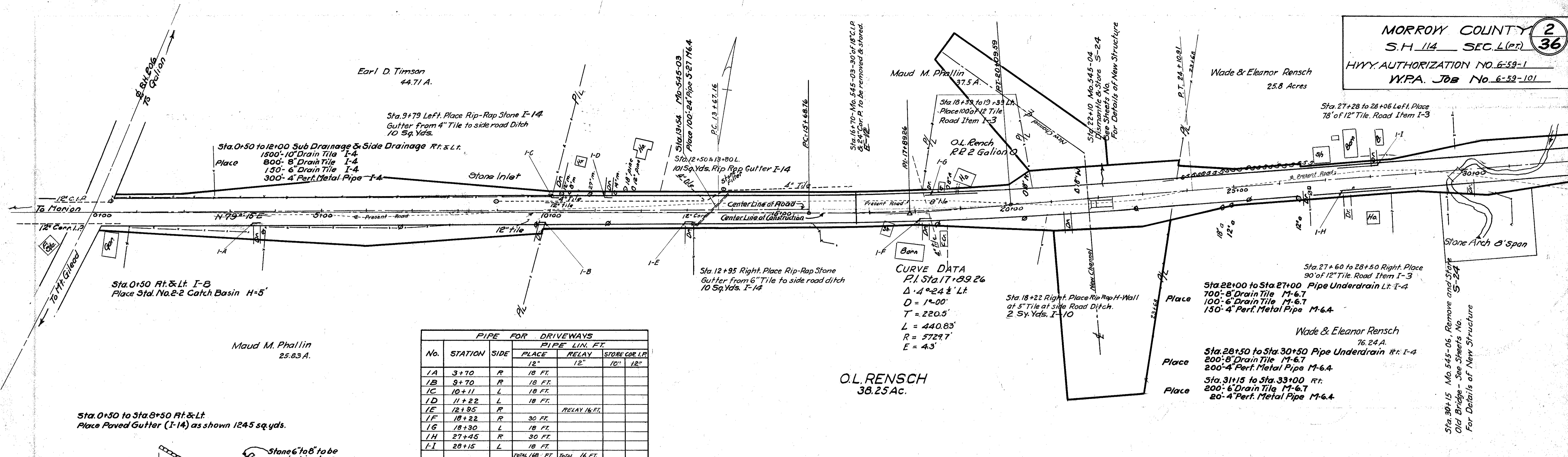
Approved [Signature]  
Date 7/24/39 Director of Highways

Approved [Signature]  
Date 10/13/39 Chief Engineer of Bridges

CONSTRUCTION  
GROUND PLOT

SUMMARY OF QUANTITIES							
ROADWAY				STRUCTURES			
ITEM	QUANTITY	UNIT	MATERIAL	ITEM	QUANTITY	UNIT	MATERIAL
E-1	145660	Cu.Yds.	Roadway Excavation	E-2	1635	Cu.Yds.	Excavation For Structures
E-9	215	Each	Removal of Trees And Stumps	E-3	6599	Cu.Yds.	Channel Excavation
E-1	48000	Lin.Ft.	Removal of Fence And Rebuilt	S-1	317.7	Cu.Yds.	Concrete Class "C"
E-1	29000	Lin.Ft.	Finishing Shoulders, Slopes And Ditches	S-1	671.9	Cu.Yds.	Concrete Class "E"
E-1	145000	Sq.Yds.	Removal of Sod, etc. 850' Hedge	S-4	92777	Lbs.	Reinforcing Steel
I-9	14000	Lin.Ft.	French Drains	S-29	100	Cu.Yds.	Structural Drainage - Back Fill
I-15	5630	Lin.Ft.	Guard Rail Type "S"	S-14	56	Lin.Ft.	Concrete Railing
				S-9	41	Sq.Ft.	1/2 Expansion Joint
				S-3	56	Sq.Yds.	Waterproofing Type "B"
I-10	2	Sq.Yds.	12" Rip Rap	I-10	254	Sq.Yds.	12" Rip Rap Type "A"
I-14	1532	Sq.Yds.	Paved Stone Gutters, etc.	I-14	115	Sq.Yds.	Paved Stone Gutters
T-110	70820	Sq.Yds.	5" Course Bank Run Gravel	S-20	34.8	Perch	Stone Masonry
				S-24	4	Each	Removal of Existing Structures
T-110	70820	Sq.Yds.	4" Course Crushed Gravel or Crushed Limestone	S-5	111	Sq.Yds.	Approach Slab Class "C" Concrete
T-31	70820	Sq.Yds.	Surface Treatment H.O.-0.40 Gal., 50 Lbs. No. 46 Gravel Per Sq.Yd.	S-7	98000	Lbs.	Structural Steel
	14	Each	Mail Box Approaches (350 Sq.Yds.)	S-8	6540	Sq.Ft.	Painting Structural Steel
	66	Each	Driveways (4400 Sq.Yds.)	S-19	528	Lin.Ft.	Piles - Concrete 12" Cast in Place
I-1	1104	Lin.Ft.	12" Pipe For Driveways	I-10	500	Tons	Rock Fill
I-1	18	Lin.Ft.	15" Pipe For Driveways	E-2	1	Each	Coffer Dam
I-4	850	Lin.Ft.	6" Pipe Underdrains	S-27	338	Lin.Ft.	15" Pipe
I-4	4925	Lin.Ft.	8" Pipe Underdrains	S-27	56	Lin.Ft.	18" Pipe
I-4	1506	Lin.Ft.	10" Pipe Underdrains	S-27	366	Lin.Ft.	24" Pipe
I-4	1710	Lin.Ft.	4" Pipe Underdrains - Perforated C.M.P.	S-27	54	Lin.Ft.	30" Pipe
I-3	2057	Lin.Ft.	12" Storm Sewers	S-27	232	Lin.Ft.	36" Pipe
I-3	120	Lin.Ft.	15" Storm Sewers	S-27	40	Lin.Ft.	48" Pipe
I-3	52	Lin.Ft.	18" Storm Sewers	I-6	18	Lin.Ft.	15" Relaying Pipe
I-3	524	Lin.Ft.	20" Storm Sewers	I-6	18	Lin.Ft.	24" Relaying Pipe
I-2	246	Lin.Ft.	10" Storm Sewers Under Pavement	E-12	20	Lin.Ft.	8" Removal of Pipe
I-2	118	Lin.Ft.	12" Storm Sewers Under Pavement	E-12	188	Lin.Ft.	12" Removal of Pipe
I-6	54	Lin.Ft.	10" Relaying Pipe	E-12	151	Lin.Ft.	15" Removal of Pipe
I-6	158	Lin.Ft.	12" Relaying Pipe	E-12	70	Lin.Ft.	18" Removal of Pipe
I-6	60	Lin.Ft.	15" Relaying Pipe	E-12	36	Lin.Ft.	20" Removal of Pipe
E-12	52	Lin.Ft.	6" Removal of Pipe	E-12	38	Lin.Ft.	24" Removal of Pipe
E-12	48	Lin.Ft.	8" Removal of Pipe	E-12	36	Lin.Ft.	36" Removal of Pipe
I-8	1	Each	45" L. - 18"	S-28	100	Lin.Ft.	90"x47 1/2" Steel Plate Arch
I-8	2	Each	Std. Catch Basins No. J-2	S-28	80	Lin.Ft.	179"x80 1/2" Steel Plate Arch
I-8	2	Each	Std. Catch Basins No. 22				
L-7	48	Sq.Yds.	Rip Rap For Tree Protection				
S-1	103	Cu.Yds.	Concrete Class "E" (Retaining Wall)				
E-2	185	Cu.Yds.	Excavation (Retaining Wall)				
S-4	1835	Lbs.	Reinforcing Steel				

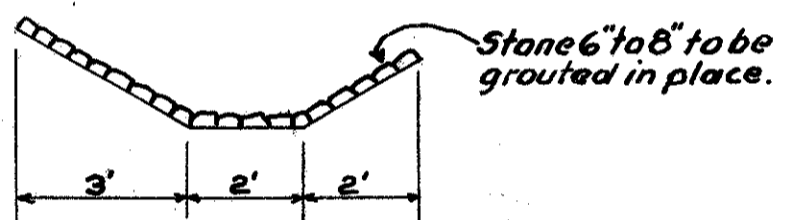
Pavement Calculations  
 \* 70820 x (.5208 6 1/4" loose gravel) x 9 = 12296 Cu. Yds.; 12296 x 2850 Lbs. = 17522 Tons T-110 5" Base  
 \*\* 70820 x .0575 x 4 = 16289 Tons T-110 4" Base



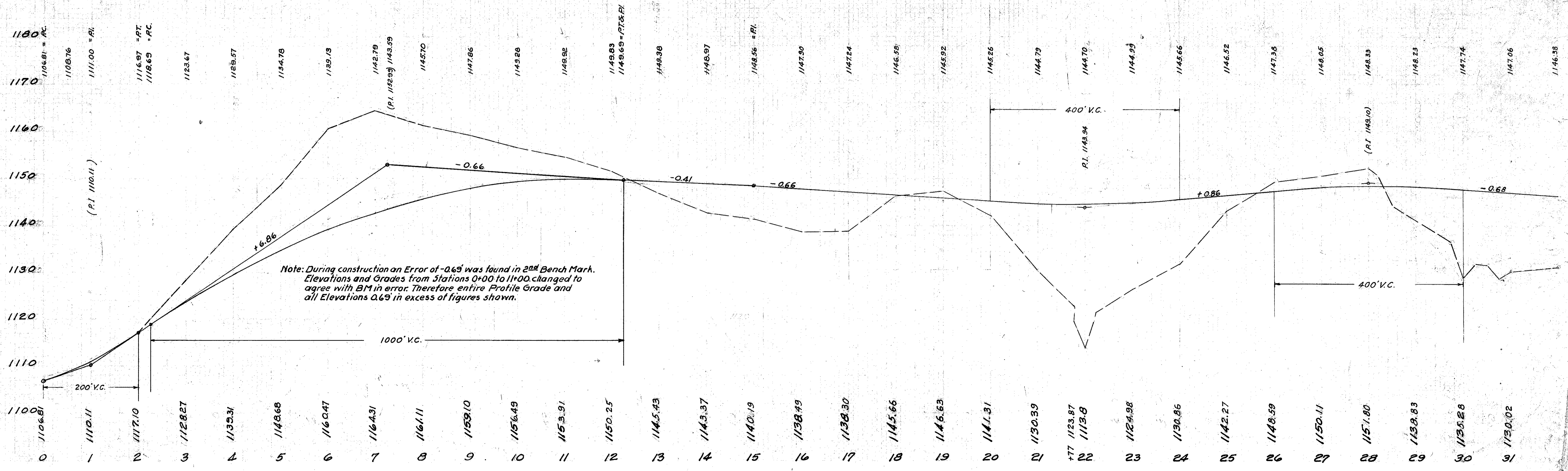
**CURVE DATA**  
 P.I. Sta. 17+29.26  
 $\Delta = 4^{\circ}24' \frac{1}{2} \text{ L.T.}$   
 $D = 1^{\circ}00'$   
 $T = 220.5'$   
 $L = 440.83'$   
 $R = 5729.7'$   
 $E = 4.3'$

PIPE FOR DRIVEWAYS

No.	STATION	SIDE	PIPE LIN. FT.		
			PLACE	RELAY	STORE COR. L.P.
			12"	12"	10" 12"
I-A	3+70	R	18 FT.		
I-B	9+70	R	18 FT.		
I-C	10+11	L	18 FT.		
I-D	11+22	L	18 FT.		
I-E	12+95	R		RELAY 1/6 FT.	
I-F	18+22	R	30 FT.		
I-G	18+30	L	18 FT.		
I-H	27+45	R	30 FT.		
I-I	28+15	L	18 FT.		
			TOTAL 168 FT.	TOTAL 16 FT.	

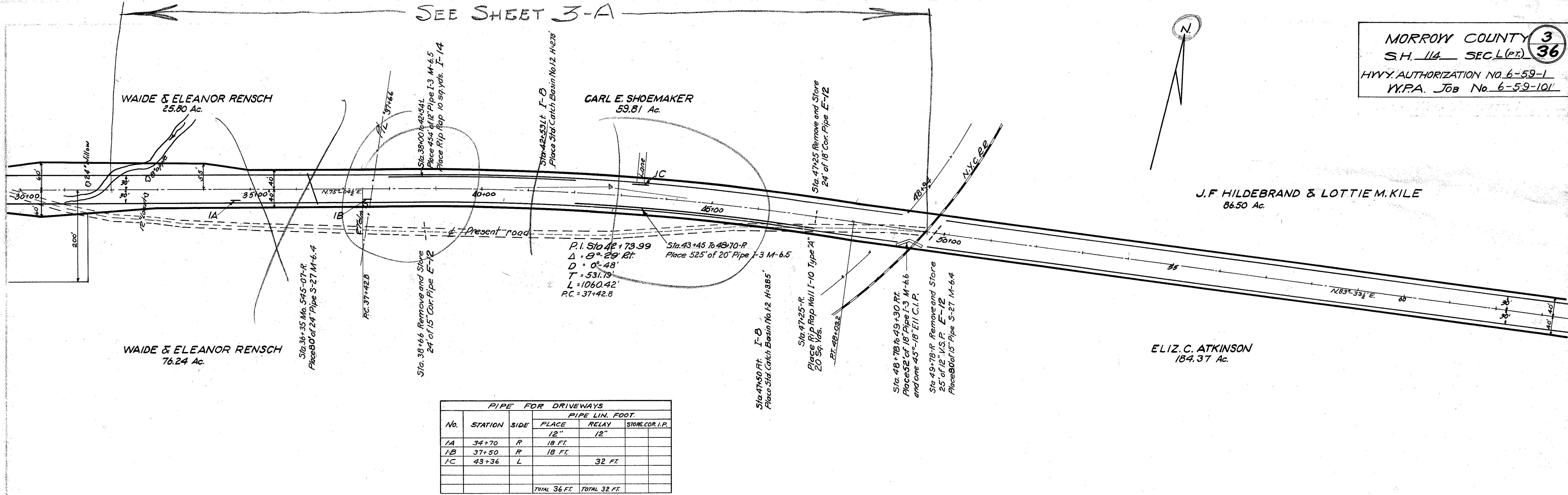


Sta. 0+50 to Sta. 8+50 Rt. & Lt.  
 Place Paved Gutter (I-14) as shown 1245 sq. yds.

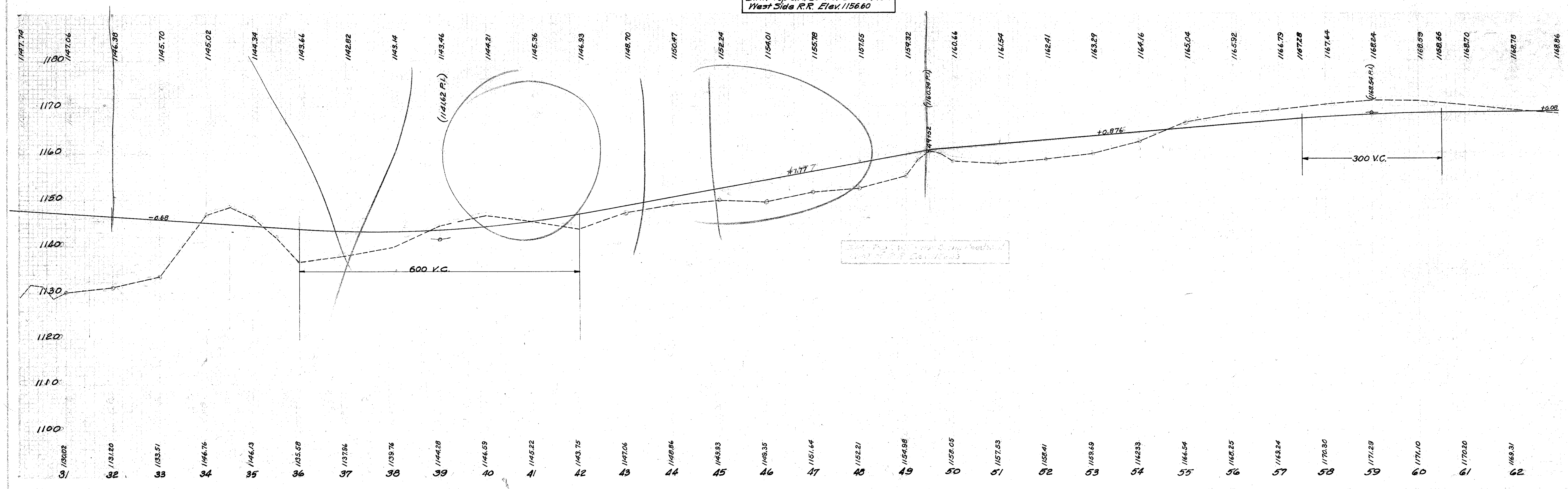


SEE SHEET 3-A

MORROW COUNTY 3  
 S.H. 114 SEC. 1 (P. 36)  
 HWY. AUTHORIZATION NO. 6-59-1  
 W.P.A. JOB No. 6-59-101



PIPE FOR DRIVEWAYS				
No.	STATION	SIDE	PIPE LIN. FOOT	
			PLACE	RELAY
			12"	12"
IA	34+70	R	18 FT.	
IB	37+50	R	18 FT.	
IC	43+36	L		32 FT.
			TOTAL 36 FT.	TOTAL 32 FT.

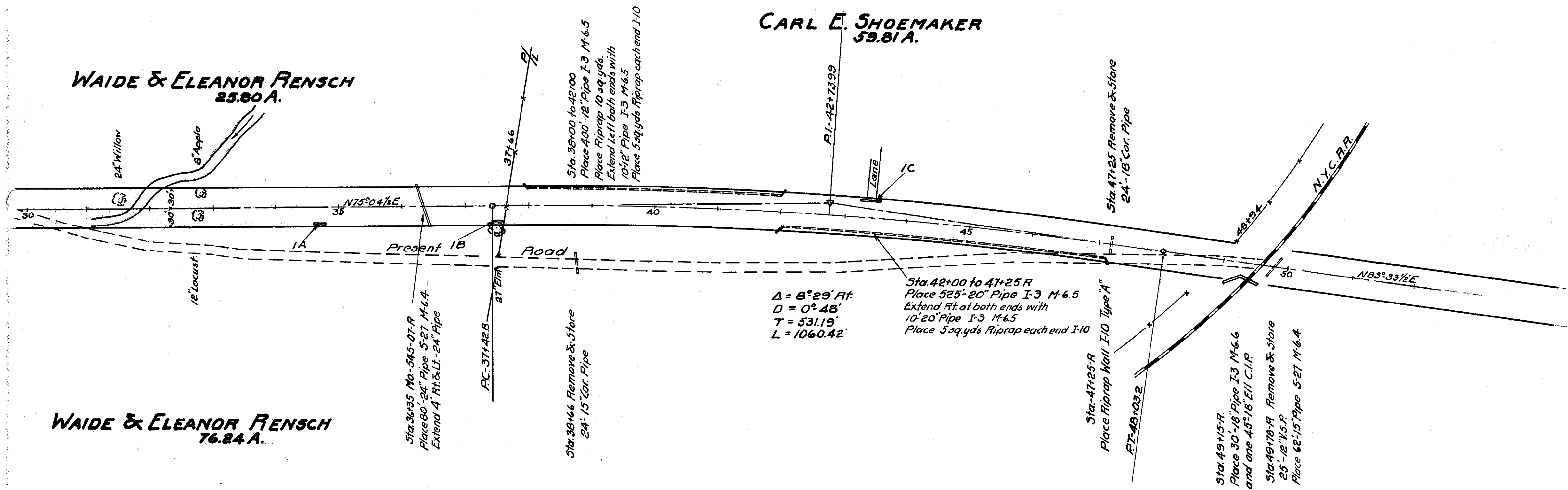


**MORROW COUNTY** 3A  
**S.H. 114 SEC. A.** 36  
 HWY. AUTHORIZATION No. 6-59-1.  
 W.P.A. JOB No. 6-59-101.

CHANGE IN GRADE STA. 32+00 TO 49+52  
 REVISION 8-7-40

**J.F. HILDEBRAND & LOTTIE M. KILE**  
 86.50 A.

**ELIZ. C. ATKINSON**  
 184.37 A.



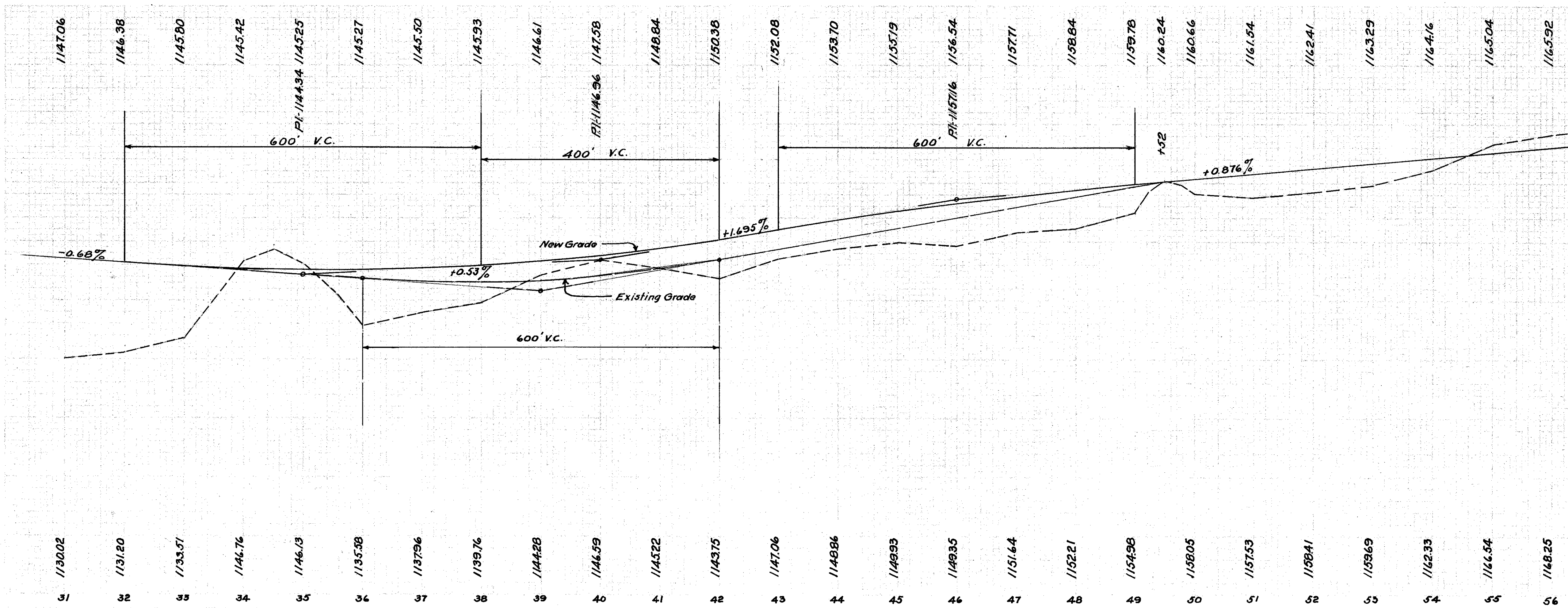
PIPE FOR DRIVEWAYS

No.	Station	Side	Dir. Ft. Relay
I-A	34+70	R	18
I-B	37+30	R	18
I-C	43+36	L	32
TOTAL			68

ADDITIONAL QUANTITIES DUE TO CHANGE IN GRADE FROM STA. 32+00 TO STA. 49+52.

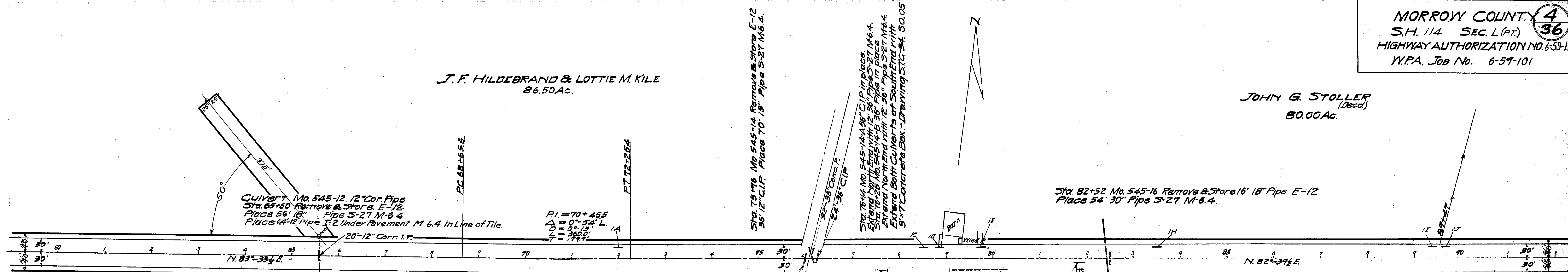
20 lin. ft. 12" Pipe at Sta's 38 & 42 Lt.	I-3	M-6.5
20 " " 20" " " " 42 & 47+25 Rt.	I-3	M-6.5
8 " " 24" " " " 36+35	S-27	M-6.4
10 sq. yds. Riprap " " 42 & 47+25 Rt.	I-10	Type A
8496 cu. yds. Roadway Embankment	E-1	
68 lin. ft. 12" Pipe Relay - Driveways	I-6	

B.M. - Top S.W. Corner Stone Wall  
 West Side R.R. Ele. - 1156.60



J. F. HILDEBRAND & LOTTIE M. KILE  
 86.50 Ac.

JOHN G. STOLLER  
 (Deed)  
 80.00 Ac.



Culvert No. 545-12, 12" Cor. Pipe  
 Sta. 65+00 Remove & Store E-12  
 Place 56' 18" Pipe S-27 M-6.4  
 Place 44' 12" Pipe I-2 Under Pavement M-6.4 In Line of Tile.

P.I. = 70+45.5  
 $\Delta = 0^{\circ} 54' L$   
 $D = 0^{\circ} 15'$   
 $S = 380.0'$   
 $T = 179.7'$

Sta. 75+76 Mo. 545-14 Remove & Store E-12  
 36' 12" C.I.P. Place 70' 15" Pipe S-27 M-6.4.  
 Sta. 78+44 Mo. 545-14A 36" C.I.P. in place.  
 Existing North Side of Road with 15' 30" Pipe S-27 M-6.4.  
 Sta. 78+44 Mo. 545-14B 36" C.I.P. in place.  
 Existing North Side of Road with 12' 18" Pipe S-27 M-6.4.  
 Extend Both Culverts to South End with  
 3-7' Concrete Box. Draining Sta. 78+34 to 80.05

Sta. 82+52 Mo. 545-16 Remove & Store 16' 18" Pipe E-12  
 Place 54' 30" Pipe S-27 M-6.4.

Sta. 65+65 to Sta. 69+15 Pipe Underdrain Lt. I-4  
 Place 350'-8" Drain Tile M-6.7  
 Place 30'-8" Drain Tile M-6.7  
 Place 120'-4" Perforated Metal Pipe M-6.4

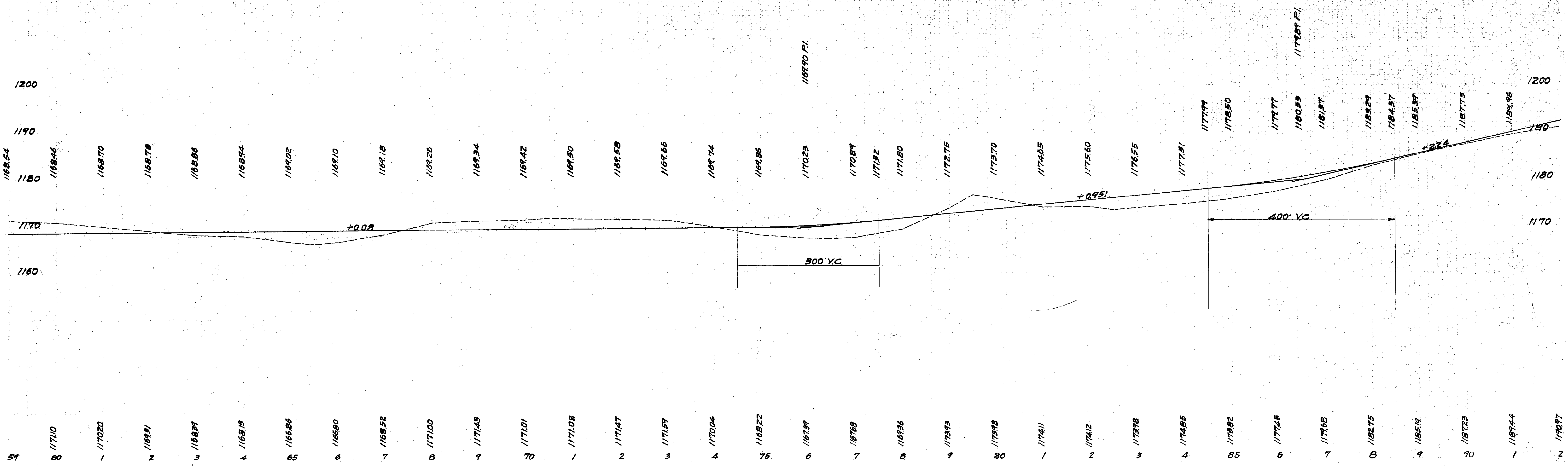
ELIZ C. ATKINSON  
 14.4.50 Ac.

Sta. 79+10 to 80+00 R. Place  
 90.0' 12" Tile Item I-3  
 Sta. 79+05 to 80+15 Rf. Place  
 Retaining Wall, 103 Cu.Yds. Class E Concrete  
 1835 Lbs. Reinf. Steel 5-0.05  
 165 Cu.Yds. Excavation

JOHN G. STOLLER  
 (Deed)  
 80.00 Ac.

Pipe For Driveways					
No.	Station	Side	Pipe	Relay	Dist. Ft.
IA	72+00	L	12"	12"	6"
IB	77+60	R	18"	16'	
IC	78+48	L	18"	16'	
ID	78+90	L	18"		20'
IE	79+74	L	18"		20'
IF	80+25	R	18"		20'
IG	81+95	R	18"		20'
IH	83+52	L	18"	16'	
IJ	87+42	L	18"		
IJ	89+67	L	18"		
Total 126'					

B.M. N.W. Corner Bottom Step of House  
 79+70 Elev. 1177.42



NAOMI GUNDRUM  
 58.75 AC.

LEVI & S. J. SEIF  
 69.25 AC.

GEORGE H. & HELLEN W. MILLER  
 21.25 AC.

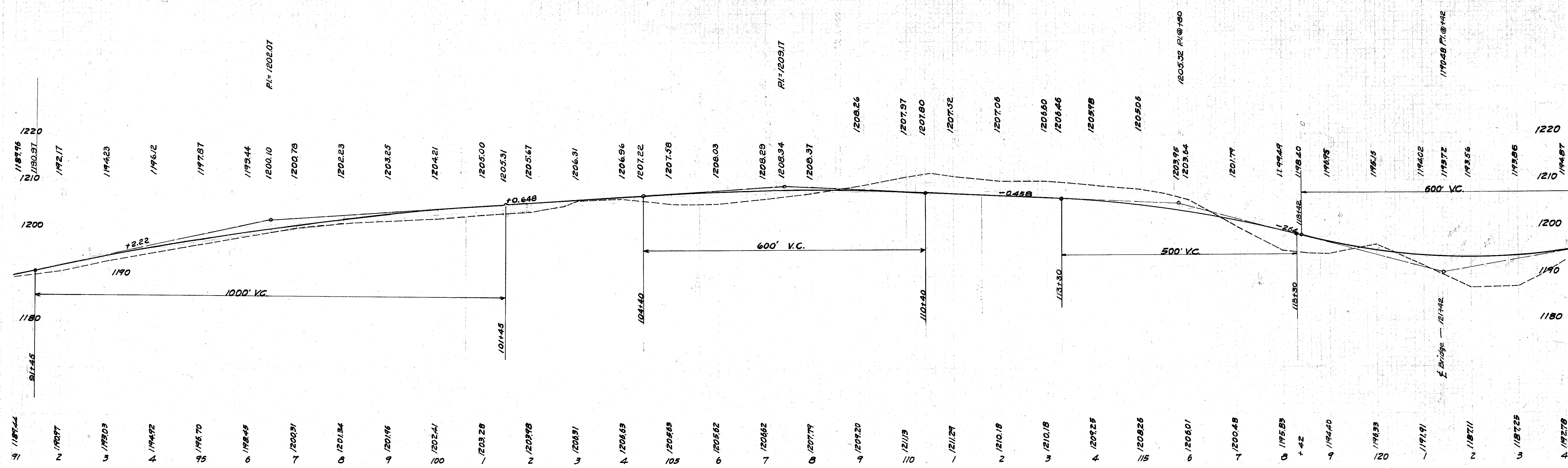
A. E. & O. E. STRICKLER  
 70.75 AC.

PI. #7  
 BL #8

PI. = 103+01.4  
 $\Delta = 2^{\circ} 02' L$   
 $D = 0^{\circ} 15'$   
 $T = 406.68$   
 $L = 813.33'$

Pipe For Driveways.

No.	Station	Side	Pipe	Relay	Store	Corr.	P
			12"				
1A	109+55	R	12"				
1B	114+98	L	12"				
1C	120+07	R	12"				
1D	121+00	R	12"				
			Total 72'				



(Sta. 118+32 to Sta. 118+80 Rt. Pipe Underdrain  
 PLACE 42'-10" C.I.P. M-6.1 (Reclaimed) I-6  
 6'-10" Drain Tile M-6.7 I-4

(Sta. 119+00 to Sta. 121+15 Rt.  
 PLACE 165'-8" Drain Tile M-6.7 I-4  
 50'-4" Perf. Metal Pipe M-6.4 I-4

Sta. 118+56 Mo. 54-F-22 34' 15" C.I.P. Remove E-12  
 Place 54'-15" Pipe 327 11'6.4

Sta. 121+41 Mo. 545-23 24' 30" Span Stone  
 Abutments Wood Floor & Extension  
 Place Conc. 5166 Bridge 25' Span  
 35' Driveway 11'6.5 548 3rd. Plan  
 S.O.-36, S-C-02

Sta. 115+07 to 115+97  
 Place 90' of 12" Pipe Item I-3

Sta. 114+82 Remove &  
 Store 20'-8" C.I.P. E-12

Extend 8' Across Road  
 Place 98'-10" Pipe  
 Item I-3  
 Under Pavement & Tile 11'6.4

Temporary

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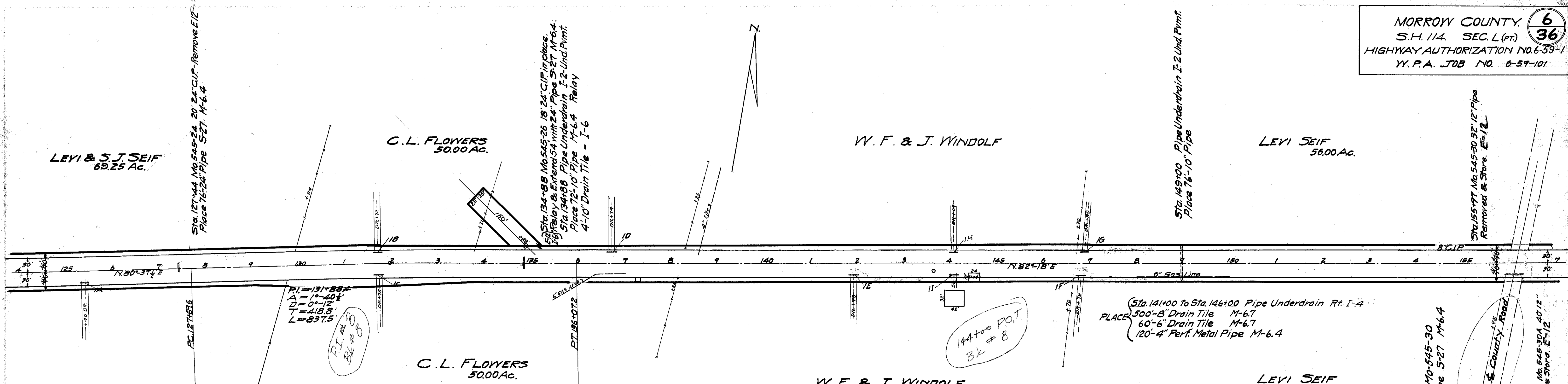
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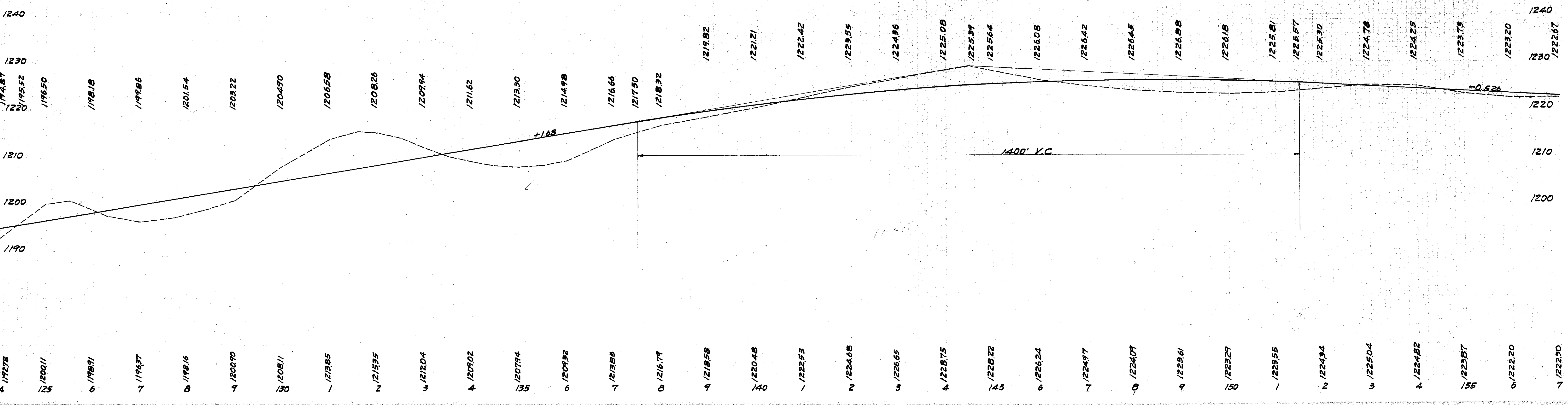


**A.E. & O.E. STRICKLER**  
 70.75 Ac.  
 PLACE { Sta. 121+50 to Sta. 126+50 Pipe Underdrain Lt. I-4  
 150'-8" Drain Tile M-6.7  
 40'-6" Drain Tile M-6.7  
 240'-4" Perf. Metal Pipe M-6.4

PLACE { Sta. 127+80 to Sta. 134+00 Pipe Underdrain Rt. I-4  
 625'-8" Drain Tile M-6.7  
 180'-6" Drain Tile M-6.7  
 270'-4" Perf. Metal Pipe M-6.4

Pipe For Driveways.

No.	Station	R/L	Pipe		Ltr. Ft.
			Place	Relay	
1A	125+40	R	12"		8"
1B	131+72	L	18"		
1C	131+75	R	18"		
1D	136+74	L	18"		16"
1E	141+93	R	18"		16"
1F	146+72	R	18"		16"
1G	146+85	L	18"		
1H	144+09	L	18"		
1I	144+07	R	18"		
			Total		162'

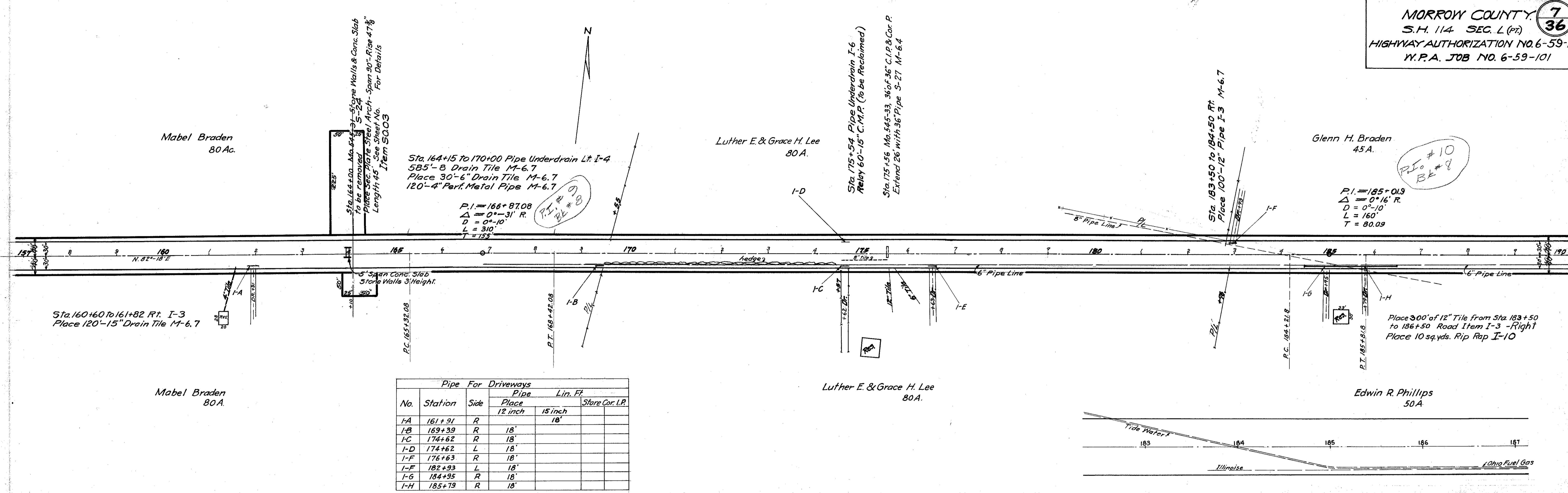


SR 19  
 County Road  
 Sta. 156+14 Mo. 545-30  
 Place 40'-6" Pipe S-27 M-6.4  
 Sta. 156+38 Mo. 545-30A 40'-12"  
 Pipe Remove Store. E-12

PLACE { Sta. 141+00 to Sta. 146+00 Pipe Underdrain Rt. I-4  
 500'-8" Drain Tile M-6.7  
 60'-6" Drain Tile M-6.7  
 120'-4" Perf. Metal Pipe M-6.4

B.M. Spk. Cap in root 30' Elm  
 21' Lt. Sta. 148+82 Elev. 1223.97'





PI #10  
 BE #8

P.I. = 185+01.3  
 $\Delta = 0^{\circ}16' R$   
 $D = 0^{\circ}10'$   
 $L = 150'$   
 $T = 80.09$

Sta. 160+60 to 161+82 Rt. I-3  
 Place 120'-15\" Drain Tile M-6.7

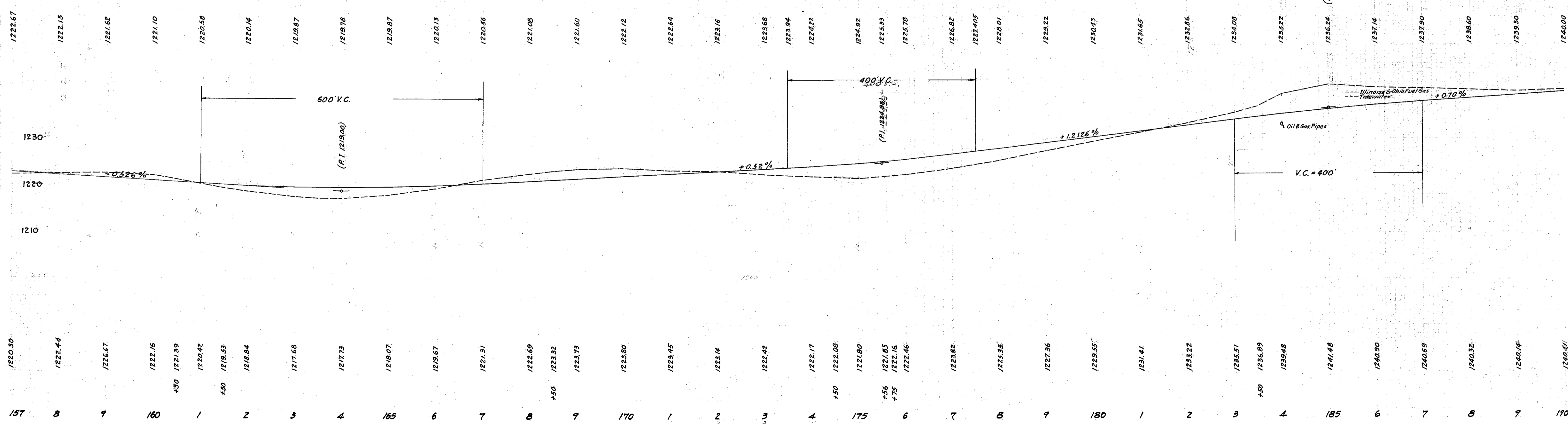
Place 300' of 12\" Tile from Sta. 183+50 to 186+50 Road Item I-3 - Right Place 10 sq. yds. Rip Rap I-10

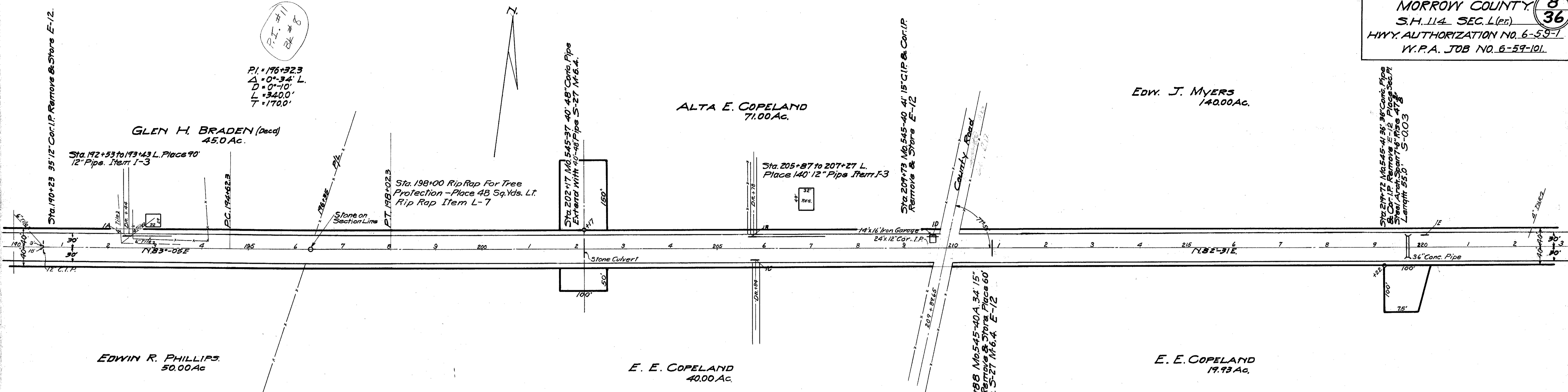
No.	Station	Side	Pipe		Store Cor. I.P.
			Place	Lin. Ft.	
HA	161+91	R	12 inch	15'	
IB	169+39	R	18'	18'	
IC	174+62	R	18'		
I-D	174+62	L	18'		
I-F	176+63	R	18'		
I-F	182+93	L	18'		
I-G	184+95	R	18'		
I-H	185+79	R	18'		

B.M. - Spike & Cap in Roof of 20\" Maple  
 30' Rt. of Sta. 161+46. Elev. 1222.88

B.M. - Spike & Cap in Roof of 12\" Maple  
 87' Rt. of Sta. 174+70 Elev. 1224.34

B.M. - Top N.E. Cor. Lower Conc. Step to Ho.  
 100' Rt. of Sta. 185+38. Elev. 1243.49





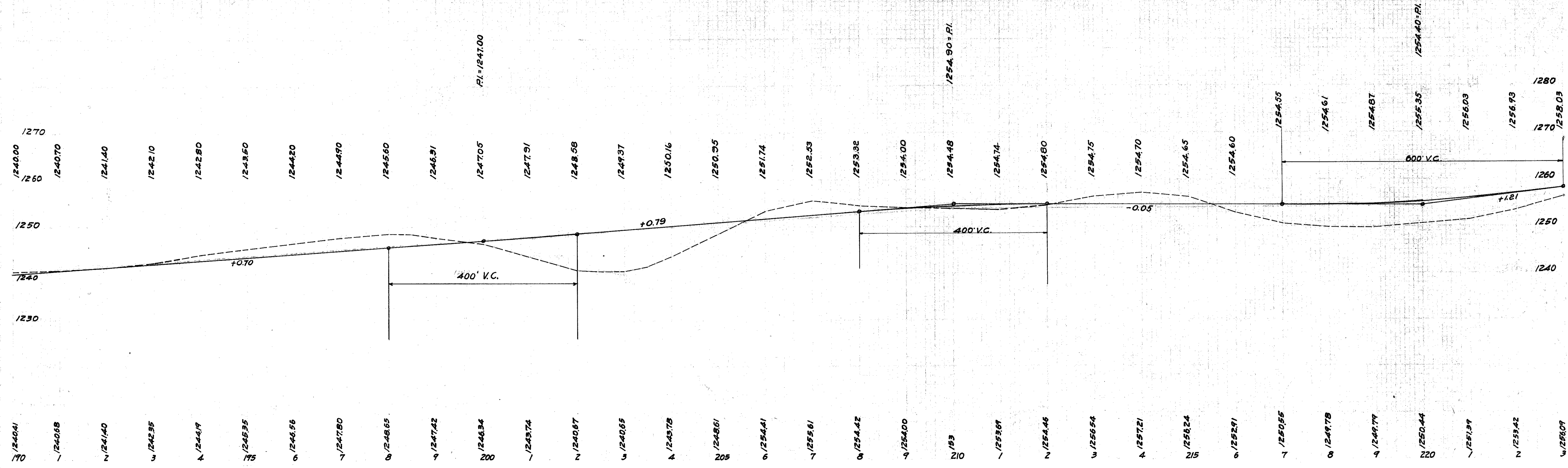
P.I. = 176+32.3  
 $\Delta = 0^{\circ} 34' L$   
 $D = 0^{\circ} 10'$   
 $L = 340.0'$   
 $T = 170.0'$

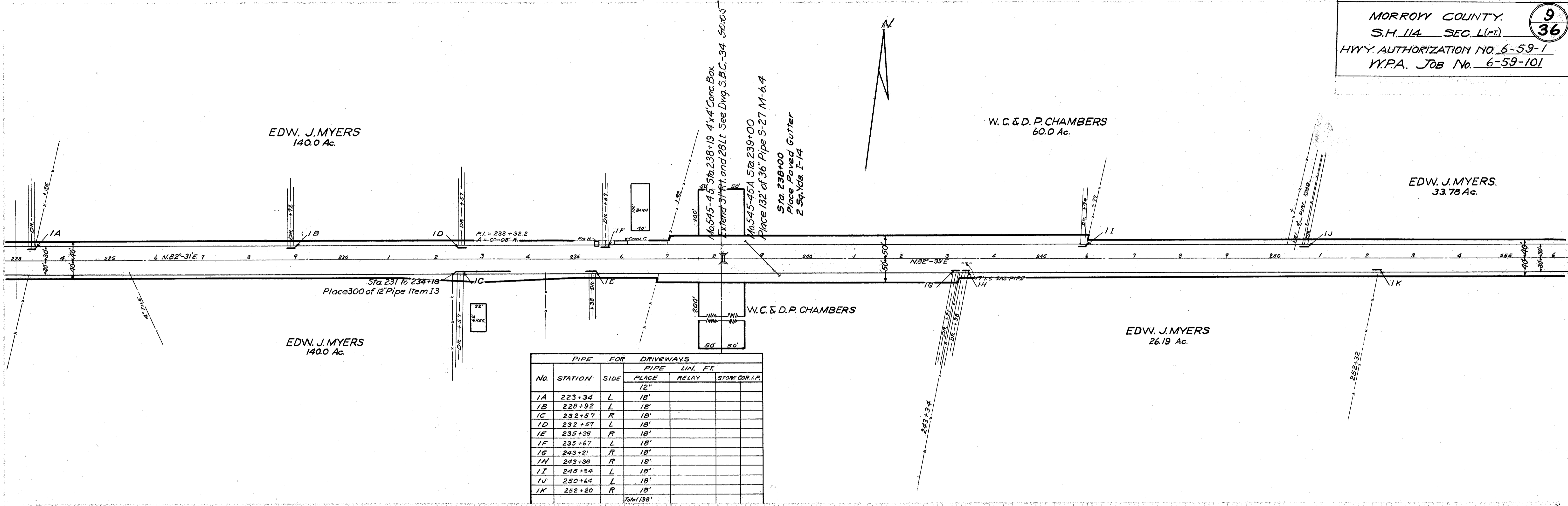
Pipe For Driveways

No.	Station	Side	Pipe Lin. Ft.		
			Place	Relay	Store Cor. I.P.
1A	192+44	L	18'		
1B	205+78	L	18'		
1C	205+84	R	18'		
1D	209+80	L	18'		
1E	220+02	L	18'		
			Total	90'	

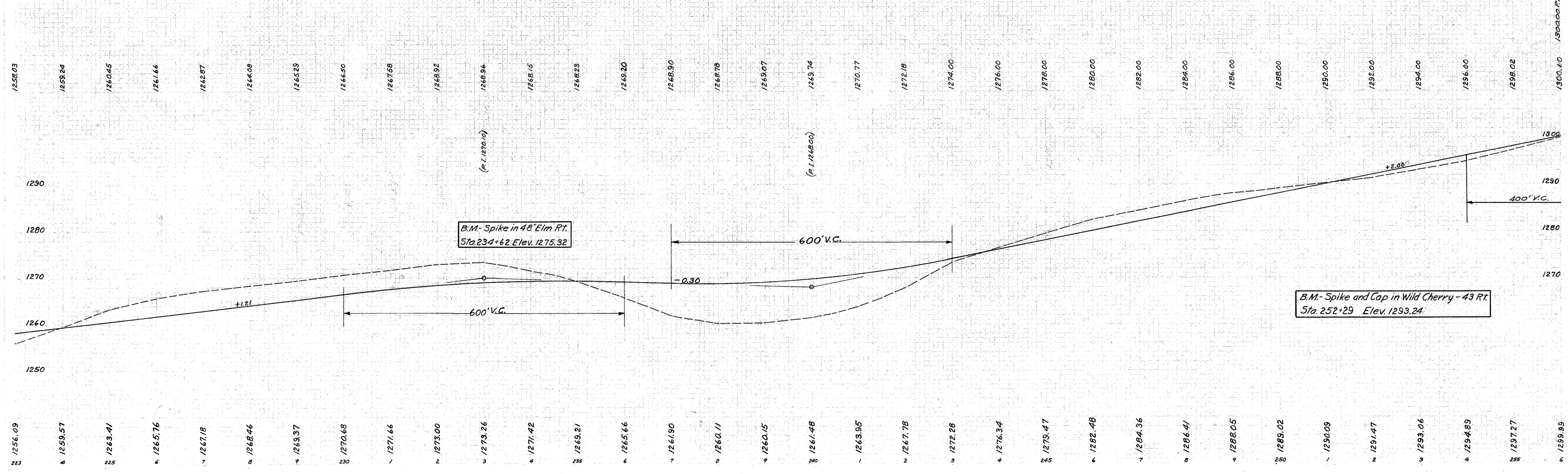
B.M. Bolt Cap in 4" Elm 24' L.  
 Sta. 198+05 Elev. 1248.94

B.M. Spike in side of 18" Elm R.  
 Sta. 202+25 Elev. 1239.25





PIPE FOR DRIVEWAYS					
No.	STATION	SIDE	PIPE LIN. FT.		
			12"	RELAY	STORE COR. I.P.
IA	223+34	L	18'		
IB	228+92	L	18'		
IC	232+57	R	18'		
ID	232+57	L	18'		
IE	235+38	R	18'		
IF	235+67	L	18'		
IG	243+21	R	18'		
IH	243+38	R	18'		
IJ	245+94	L	18'		
IK	252+64	R	18'		
			Total 198'		



EDW. J. MYERS  
 33.78 AC.

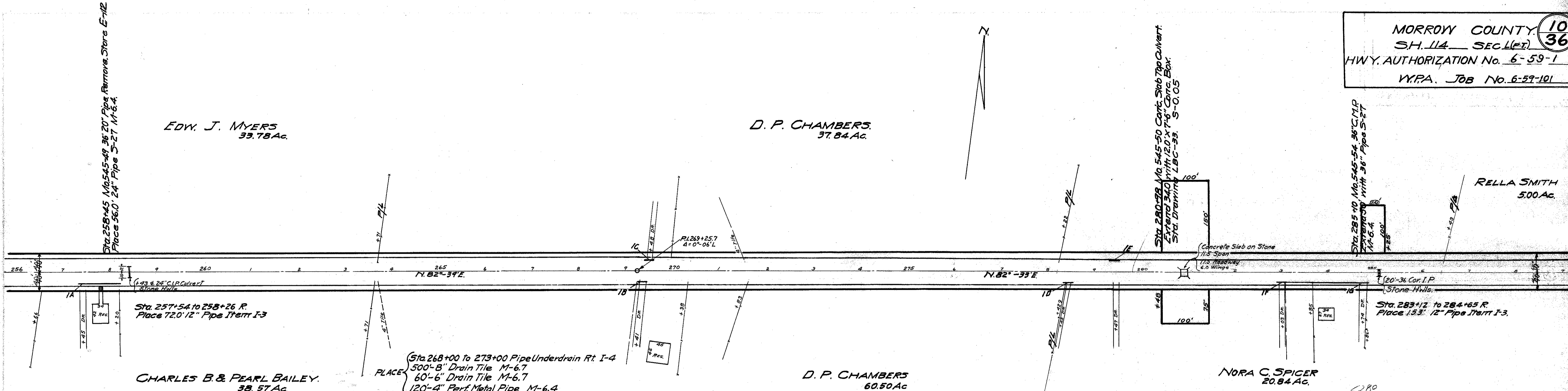
D. P. CHAMBERS  
 37.84 AC.

RELLA SMITH  
 500 AC.

CHARLES B. & PEARL BAILEY  
 38.57 AC.

D. P. CHAMBERS  
 60.50 AC.

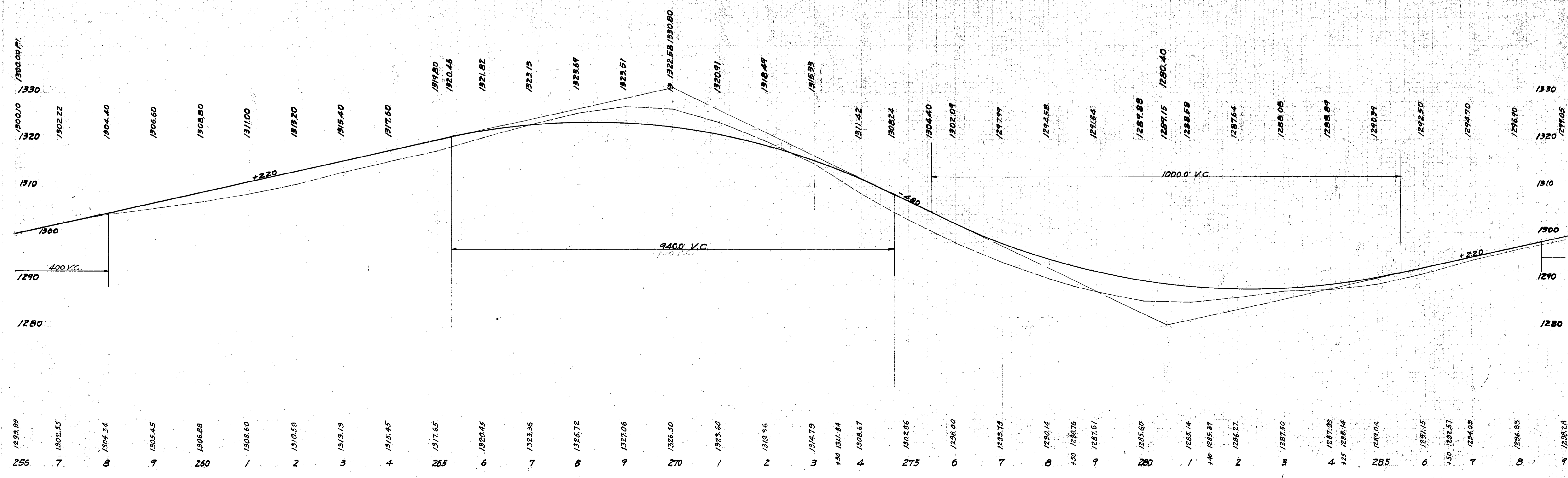
NORA C. SPICER  
 20.84 AC.

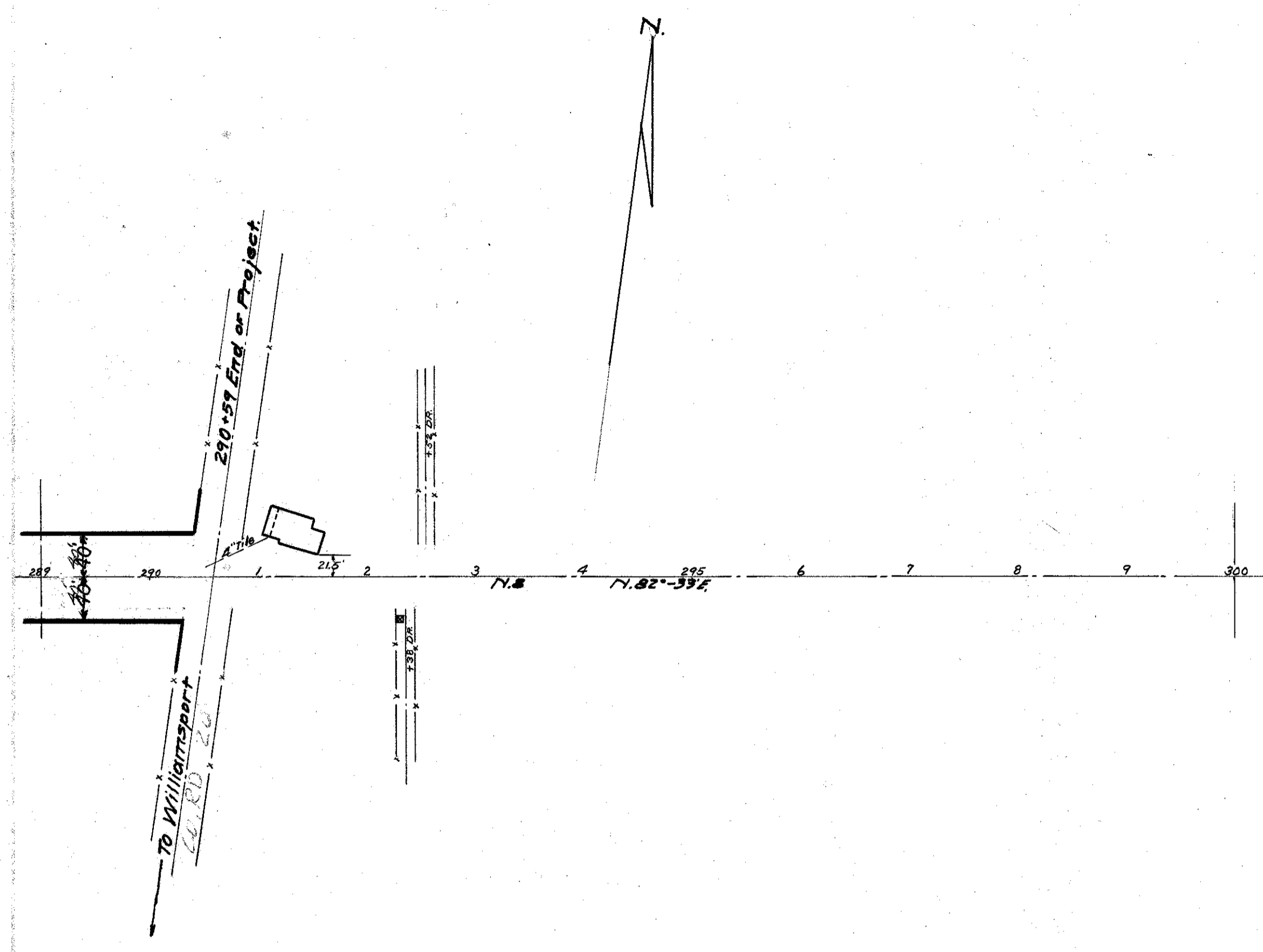


No.	Station	Side	Pipe For Driveways		
			Place	Relay	Store Gr. I.P.
1A	257+45	R	18'		
1B	269+41	R	18'		
1C	269+48	L	18'		
1D	278+45	R	18'		
1E	279+47	L	18'		
1F	283+03	R	18'		
1G	284+74	R	18'		
			Total	126 FT.	

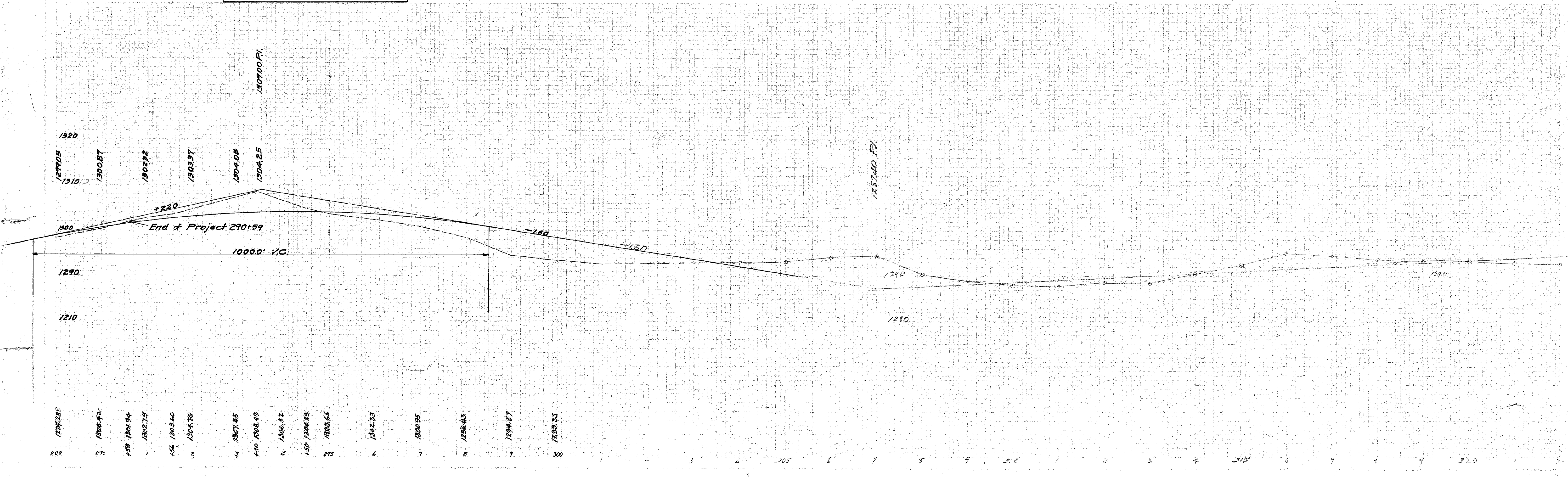
B.M. Spk Cap in 26" Pipe 100'  
 R Sta. 269+75 Elev. 1391.41

B.M. Spk Cap in 14" Maple 33' R  
 Sta. 284+67 Elev. 1286.18

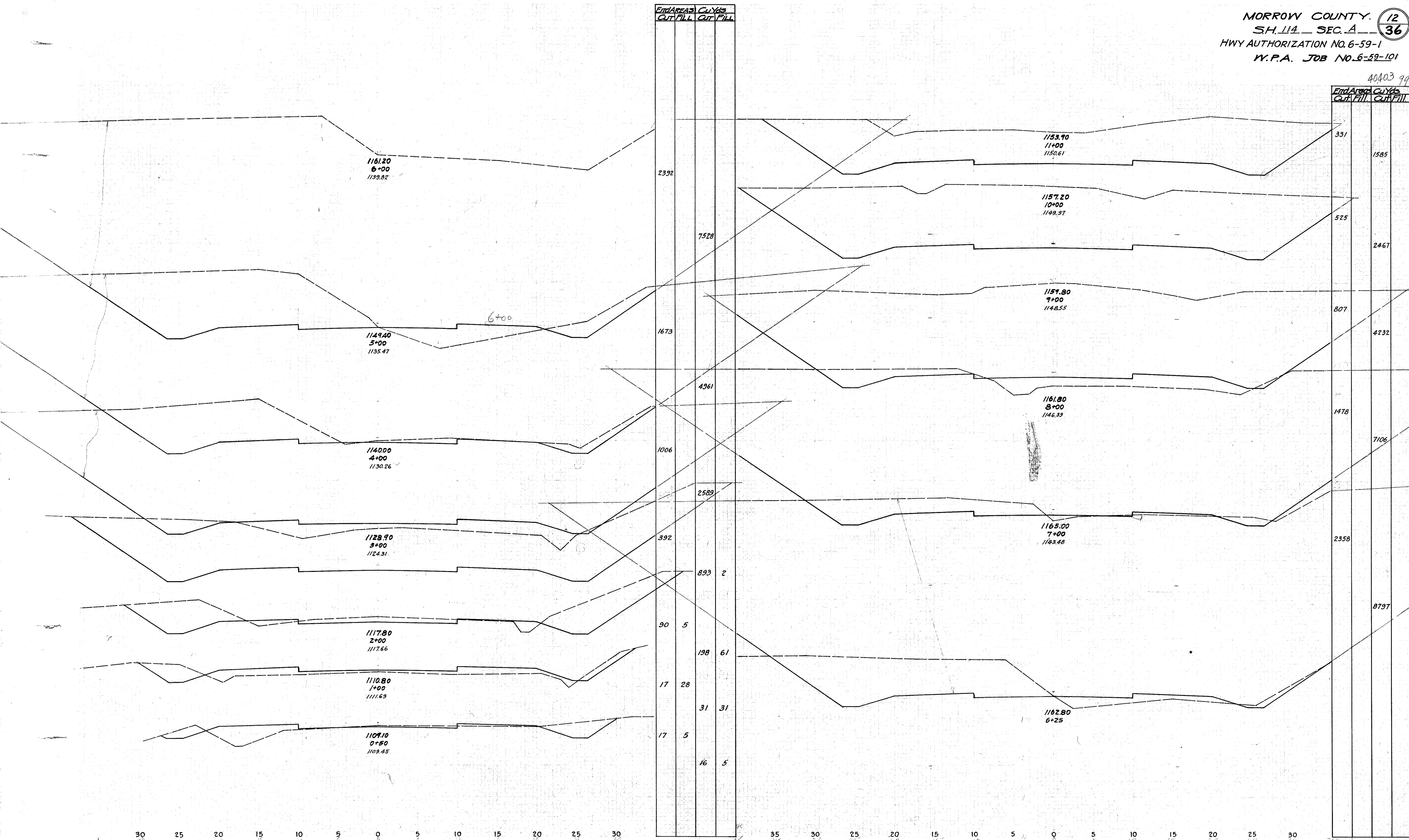


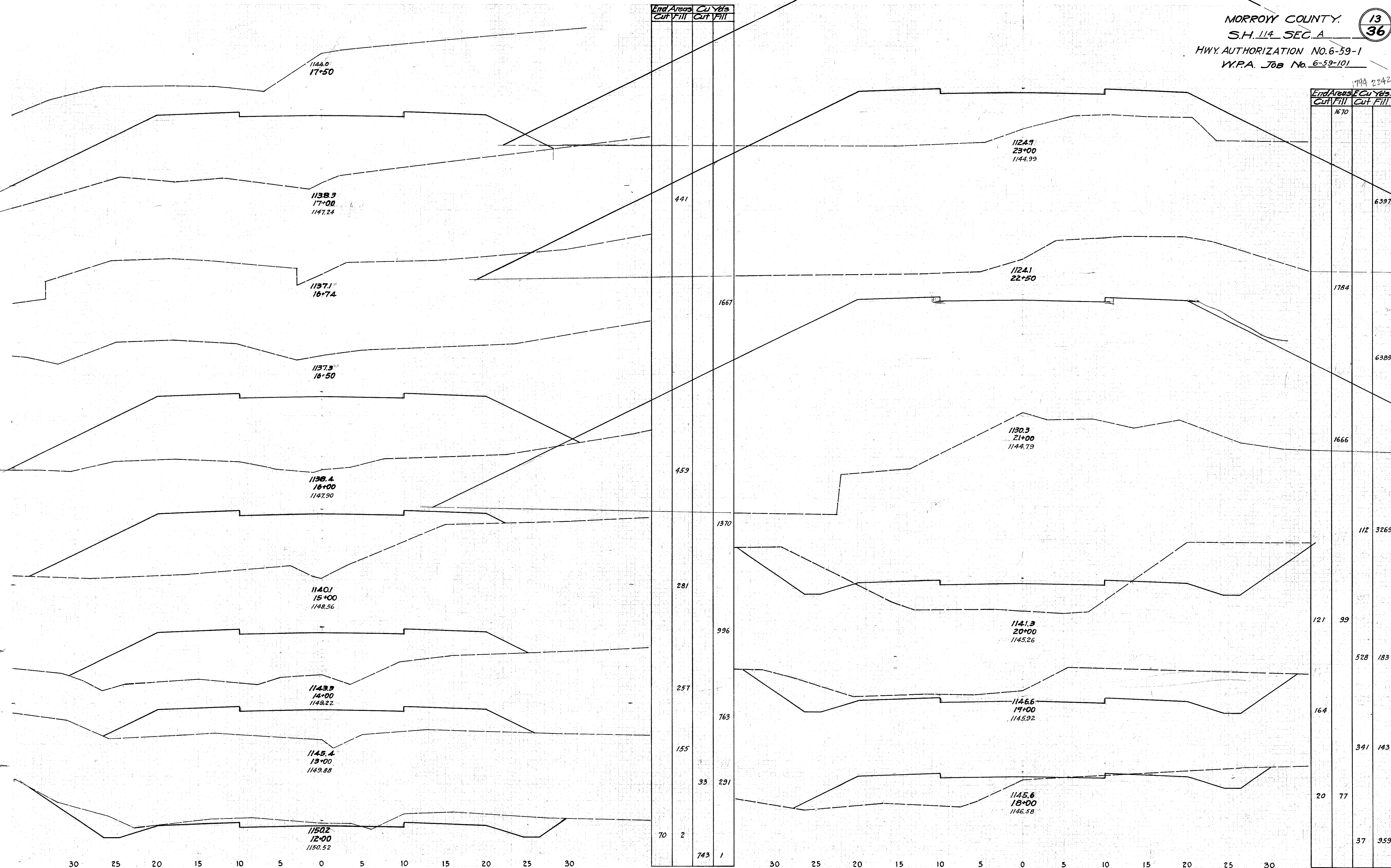


B.M. Spk. Cap in Foot 18" Maple 62' L.  
 Sta. 299+12 Elev. 1298.06



40403 99

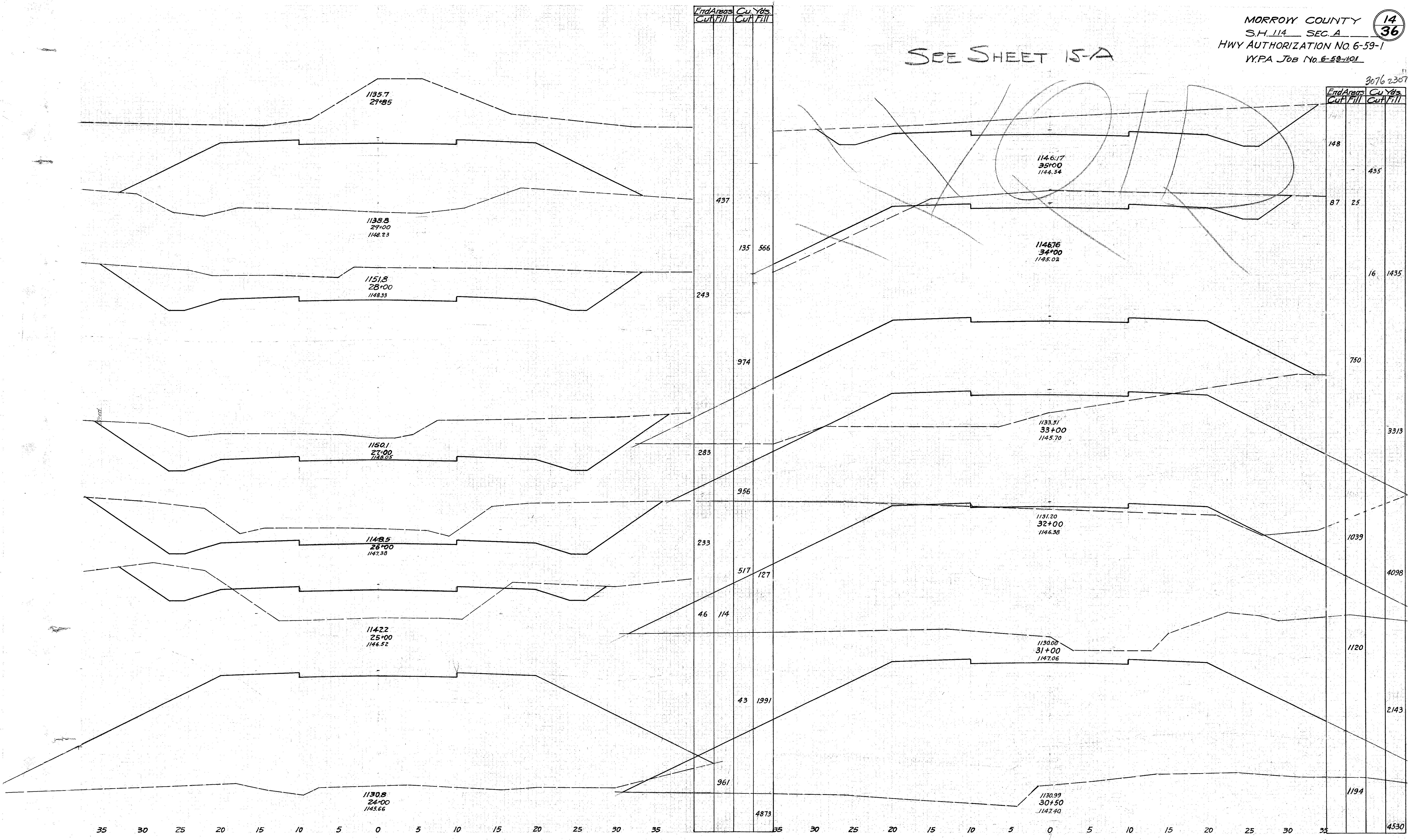




End Area (Cut/Fill)	Cu Yds	End Area (Cut/Fill)	Cu Yds
1670			
	6397		
1784			
	6389		
1666			
	112	3269	
121	99		
	528	183	
164			
	341	143	
20	77		
	37	959	

SEE SHEET 15-A

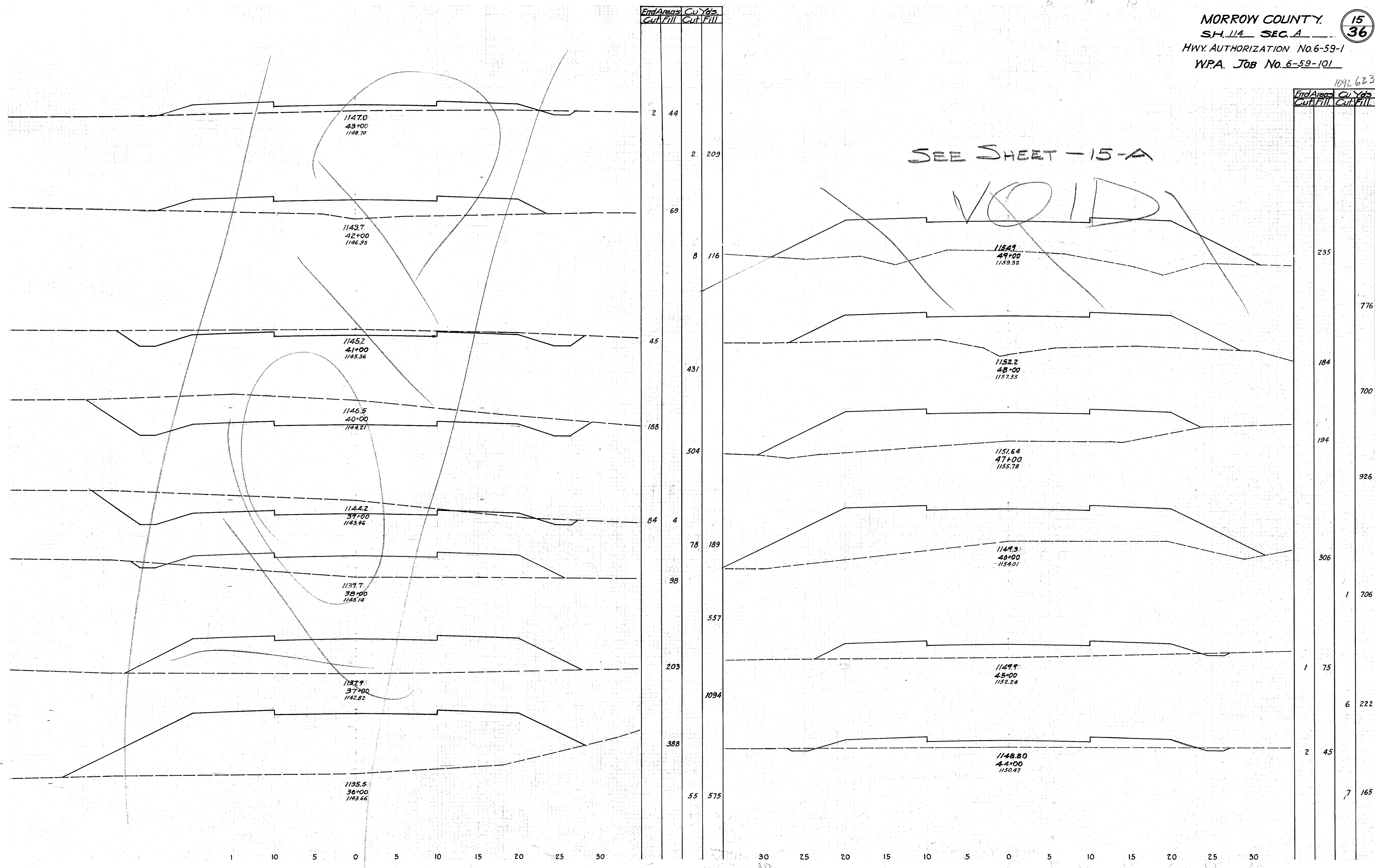
3076 2307





5 10 15

1092.6235



SEE SHEET - 15-A

VOID

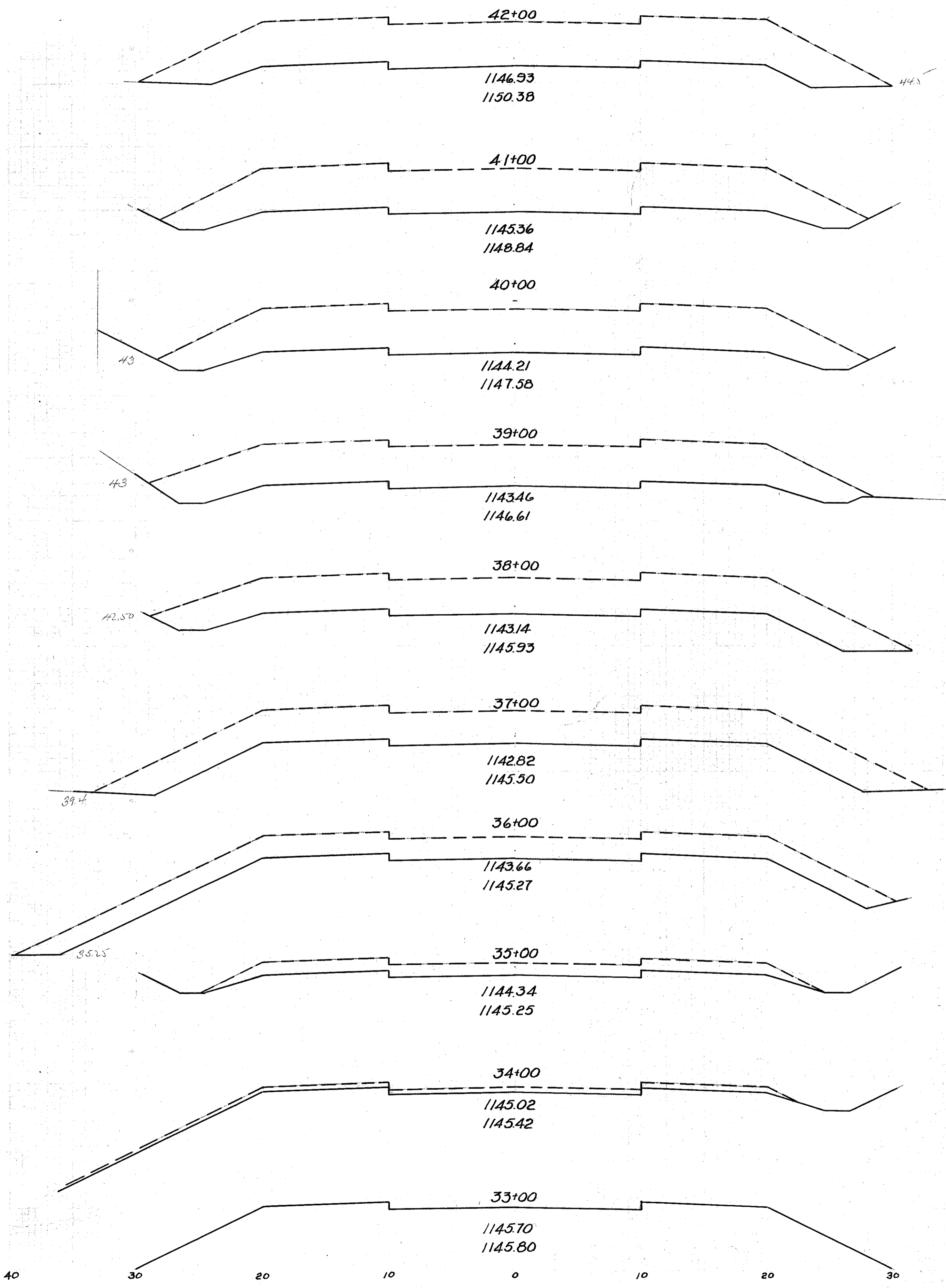
1 10 5 0 5 10 15 20 25 30 30 25 20 15 10 5 0 5 10 15 20 25 30

CHANGE IN GRADE STA. 32+00 TO 49+52  
REVISION 8-7-40

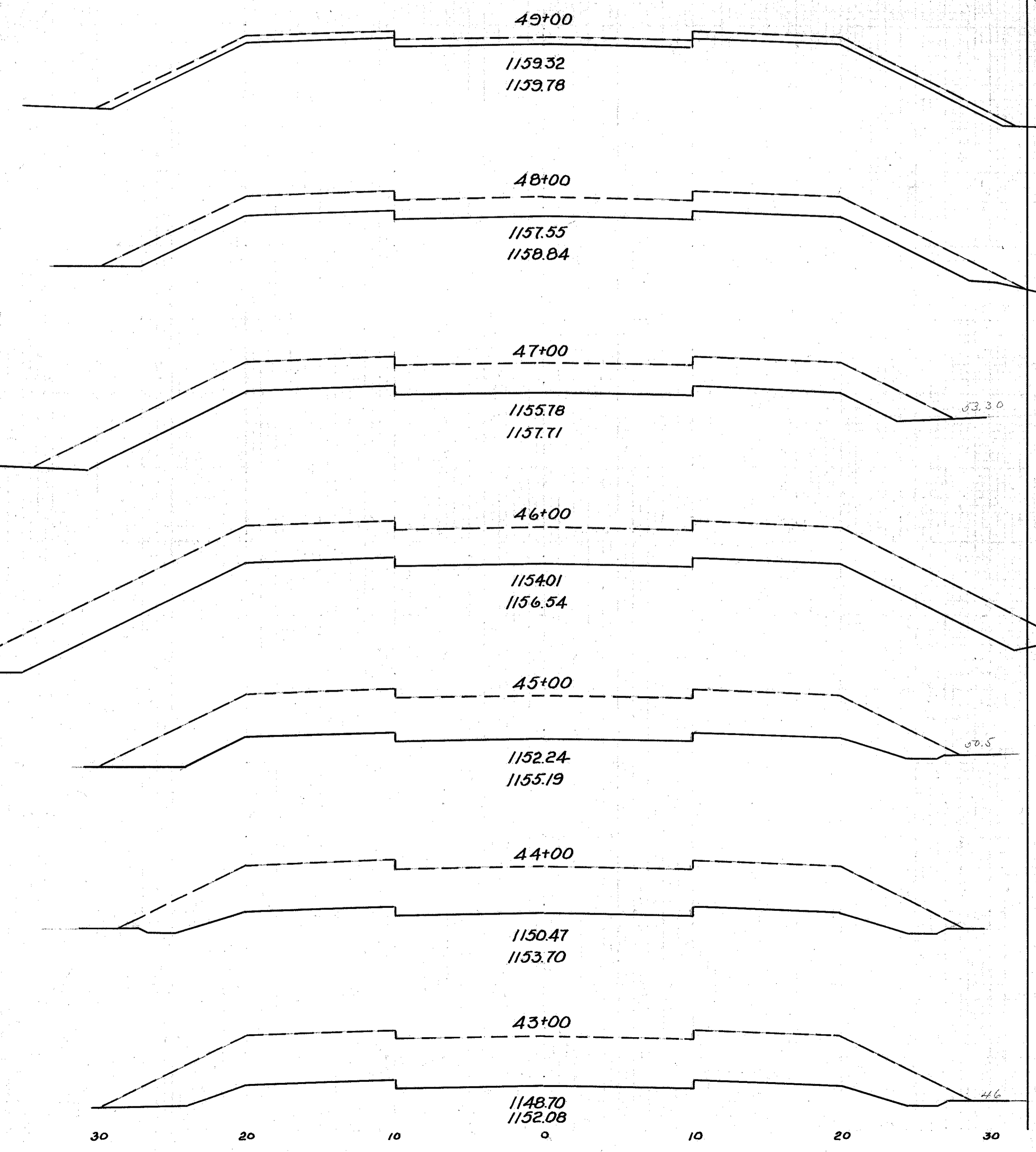
MORROW COUNTY 15A  
S.H. 114 SEC. A. 36  
HWY. AUTHORIZATION No. 6-59-1.  
W.P.A. JOB No. 6-59-101.

QUANTITIES.

Fill ————— 8091 cu.yds.  
Shrinkage 5% — 405 " "  
TOTAL ————— 8496 " "

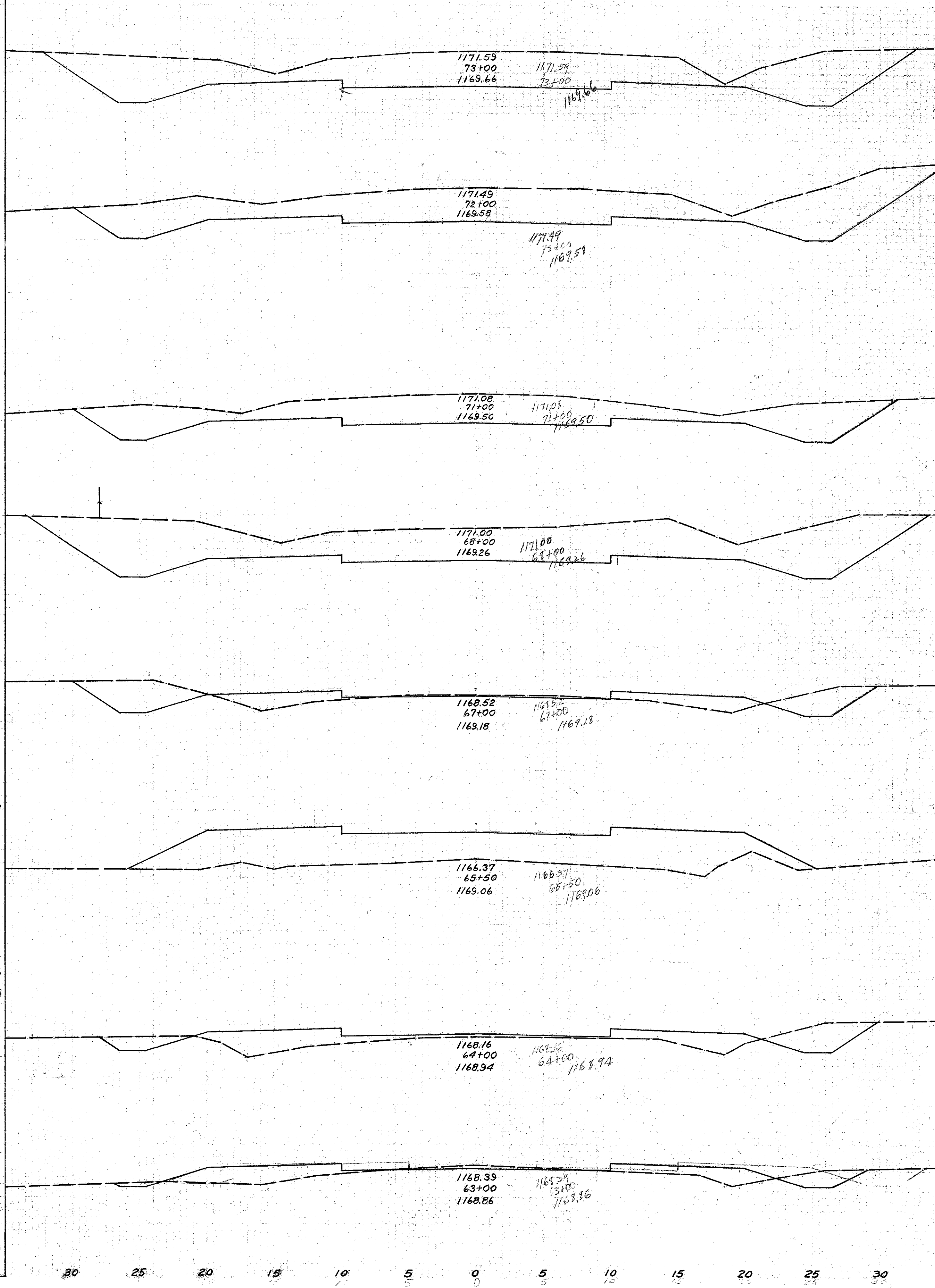
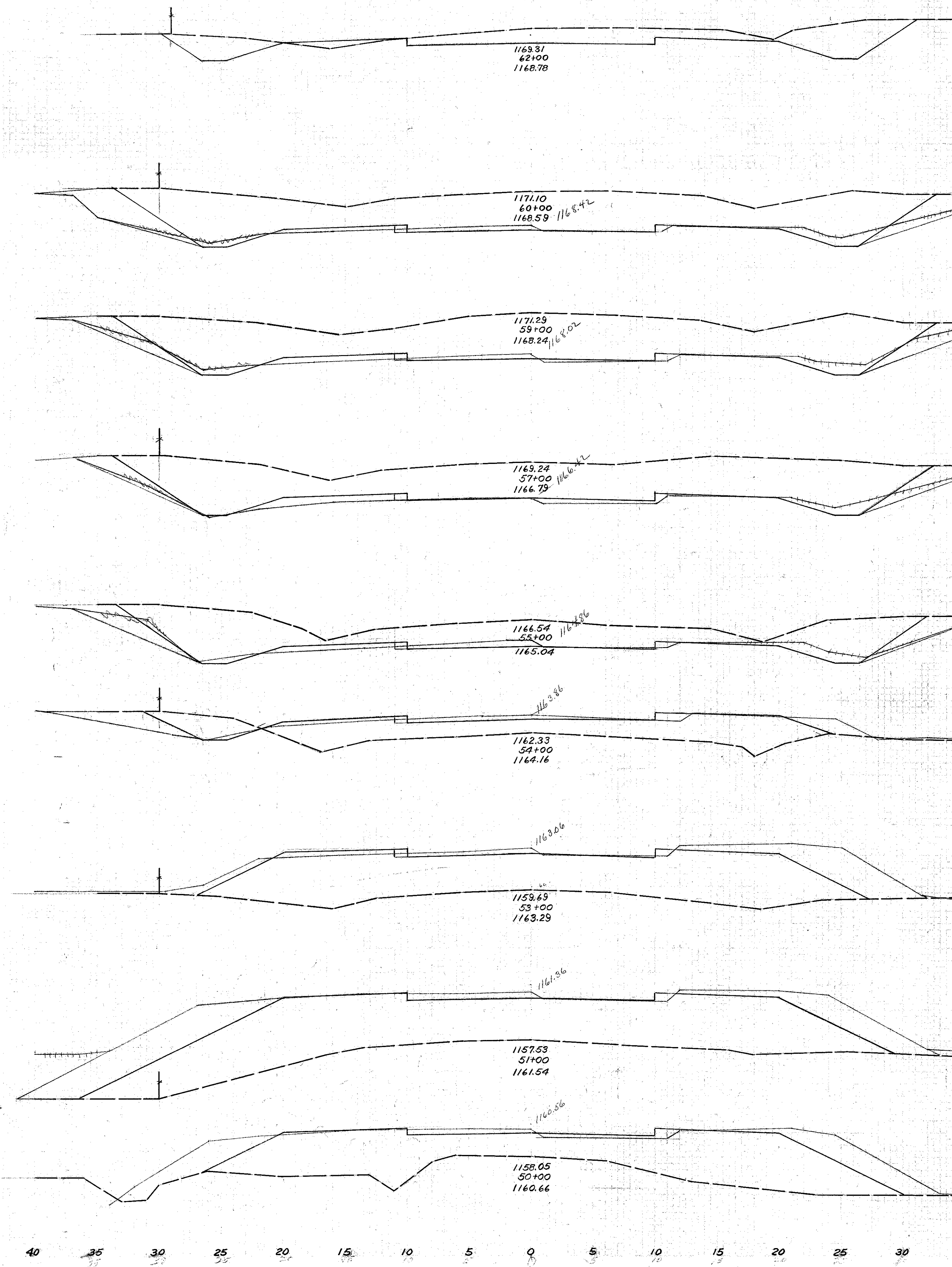


End Areas	Cu. Yds.
Cut	Fill
192	665
167	648
183	661
174	607
154	596
168	528
117	291
40	111
20	37
0	



End Areas	Cu. Yds.
Cut	Fill
TOTAL FILL	8091
49+52	0
	28
	29
	196
	77
	370
	123
	596
	199
	741
	201
	687
	167
	644
	181
	691

End Areas		Cu Yds.	
Cut	Fill	Cut	Fill
54	6		
		893	2
187			
217		722	819
209			
225		1448	1612
188			
210		1111	1344
133			
153		267	88
		320	150
111	79		
20	81		
		10	480
		37	533
180			
207			
		1566	1308
243			
308			
		756	344
165			
202			



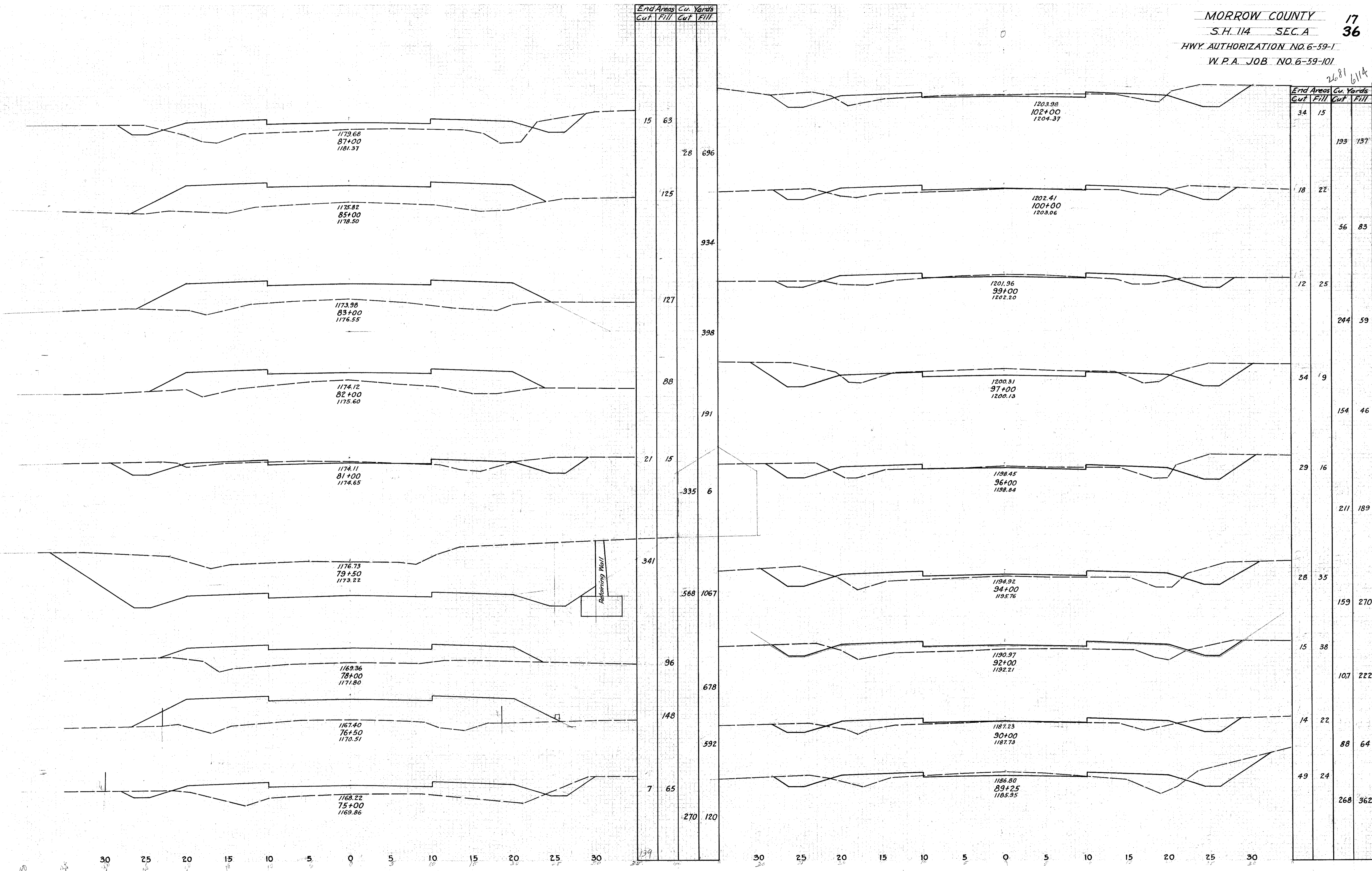
End Areas		Cu Yds.	
Cut	Fill	Cut	Fill
139	511		
137	511		
		431	431
96	96		
		1489	1489
172			
		372	372
29	19		
		364	364
		112	
		408	408
18	35		
		48	135
8	18		
		117	46

40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

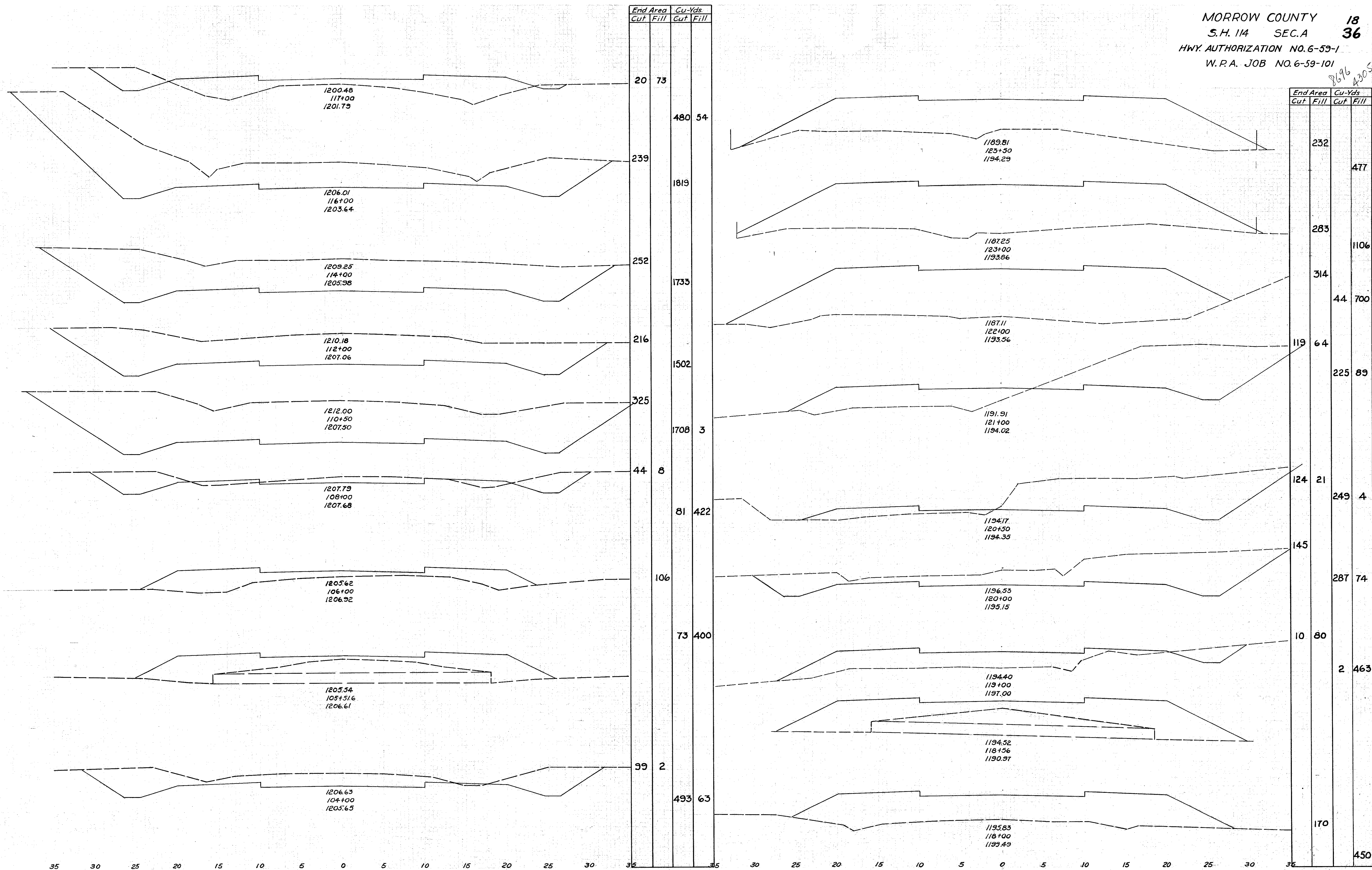
(741)

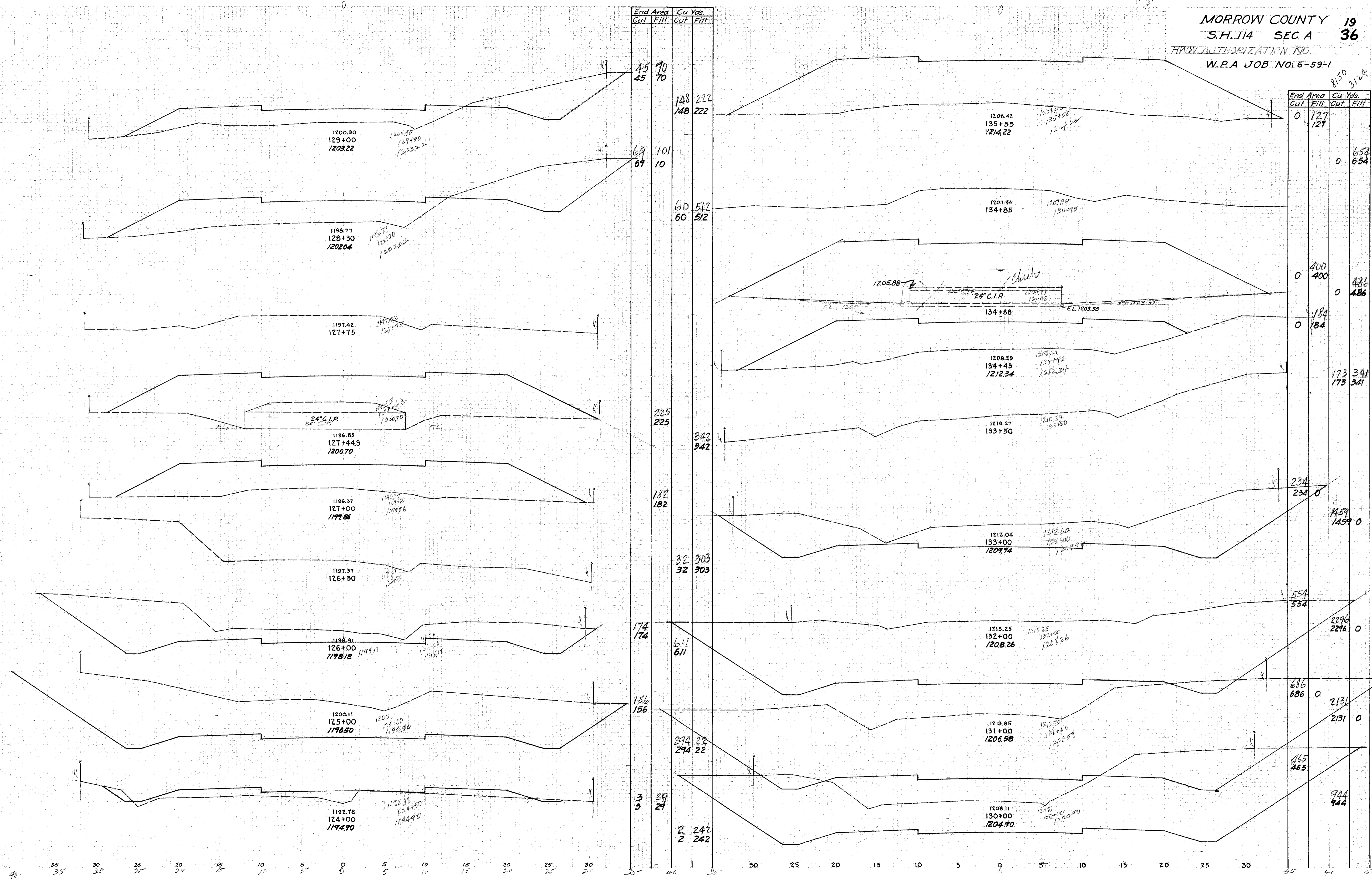
117 46

2681 6114



Retaining Wall

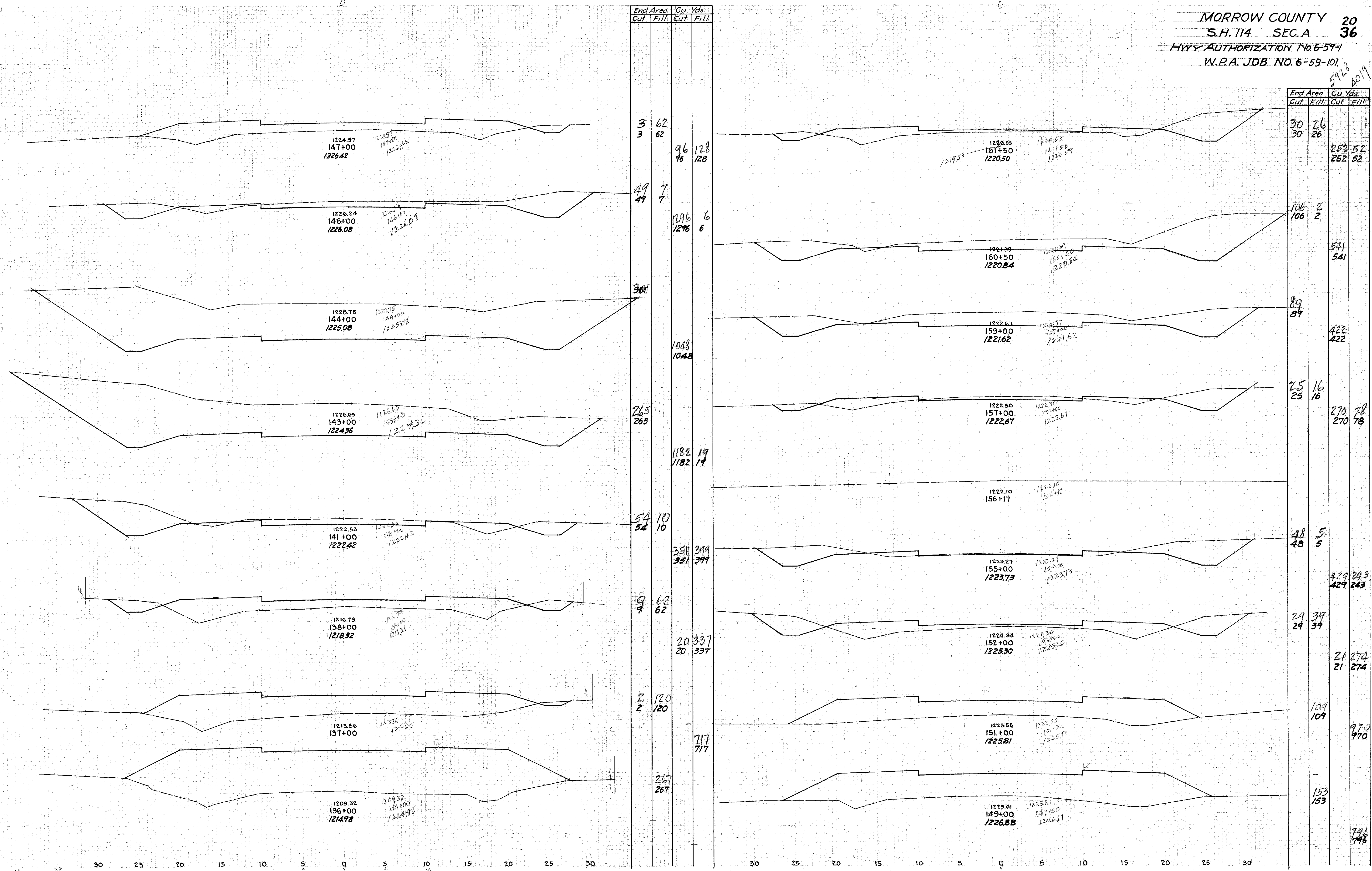




Station	End Area		Cu Yds.	
	Cut	Fill	Cut	Fill
1200.90 129+00 1203.22	0	127	0	654
1198.77 128+30 1202.04	0	127	0	654
1197.42 127+75	0	184	0	486
1196.85 127+44.3 1200.70	0	184	0	486
1196.37 127+00 1198.86	173	341	173	341
1197.57 126+30	173	341	173	341
1198.91 126+00 1198.18	234	0	234	0
1200.11 125+00 1196.50	234	0	459	1459
1192.78 124+00 1194.90	554	554	554	554
1208.42 135+55 1214.22	686	0	686	0
1207.94 134+85	686	0	2131	2131
1205.88 134+88	465	465	2131	2131
1208.29 134+43 1212.34	2	2	242	242
1210.27 133+50	2	2	242	242

8150  
3124

MORROW COUNTY 20  
 S.H. 114 SEC. A 36  
 HWY AUTHORIZATION No. 6-59-1  
 W.P.A. JOB NO. 6-59-101

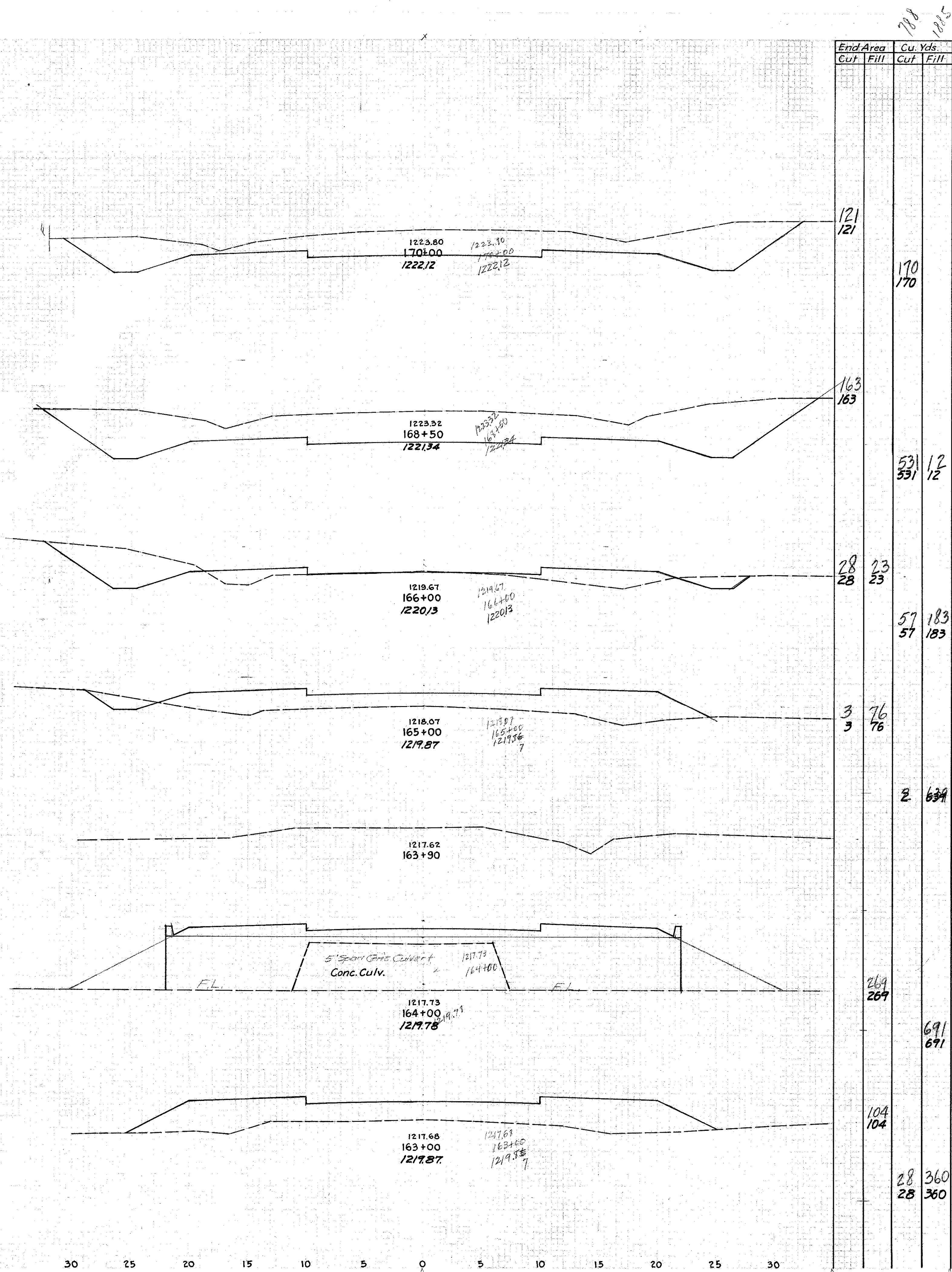


End Area		Cu Yds.	
Cut	Fill	Cut	Fill
3	62	96	128
3	62	96	128
49	7	1296	6
49	7	1296	6
301		1048	
265		1182	19
265		1182	19
54	10	351	399
54	10	351	399
9	62	20	337
9	62	20	337
2	120	717	
2	120	717	
267		267	

End Area		Cu Yds.	
Cut	Fill	Cut	Fill
30	26	252	52
30	26	252	52
106	2	541	541
106	2	541	541
89		422	
89		422	
25	16	270	78
25	16	270	78
48	5	429	243
48	5	429	243
29	39	21	274
29	39	21	274
109		970	
109		970	
153		796	
153		796	

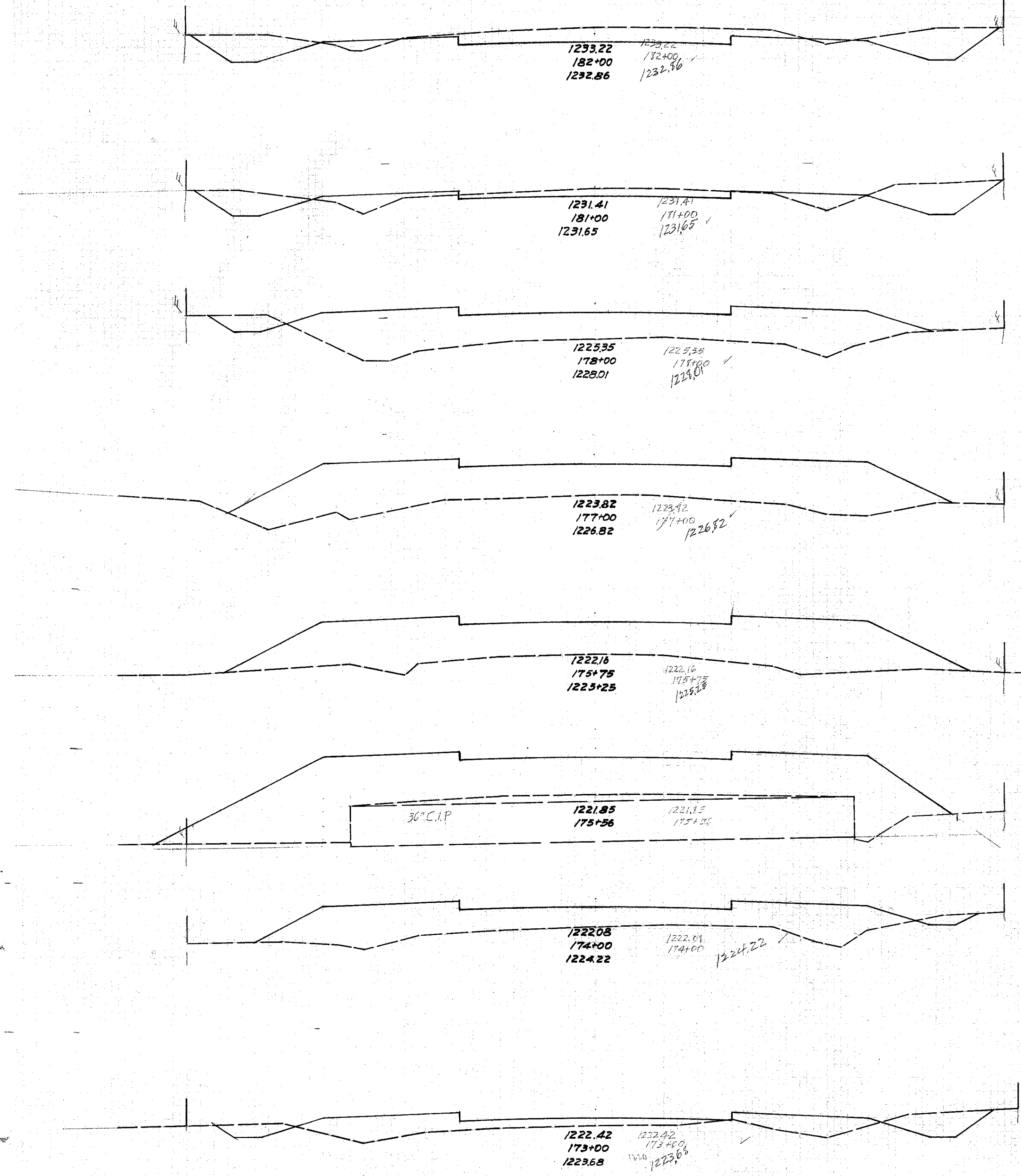
5928  
4019

40 36

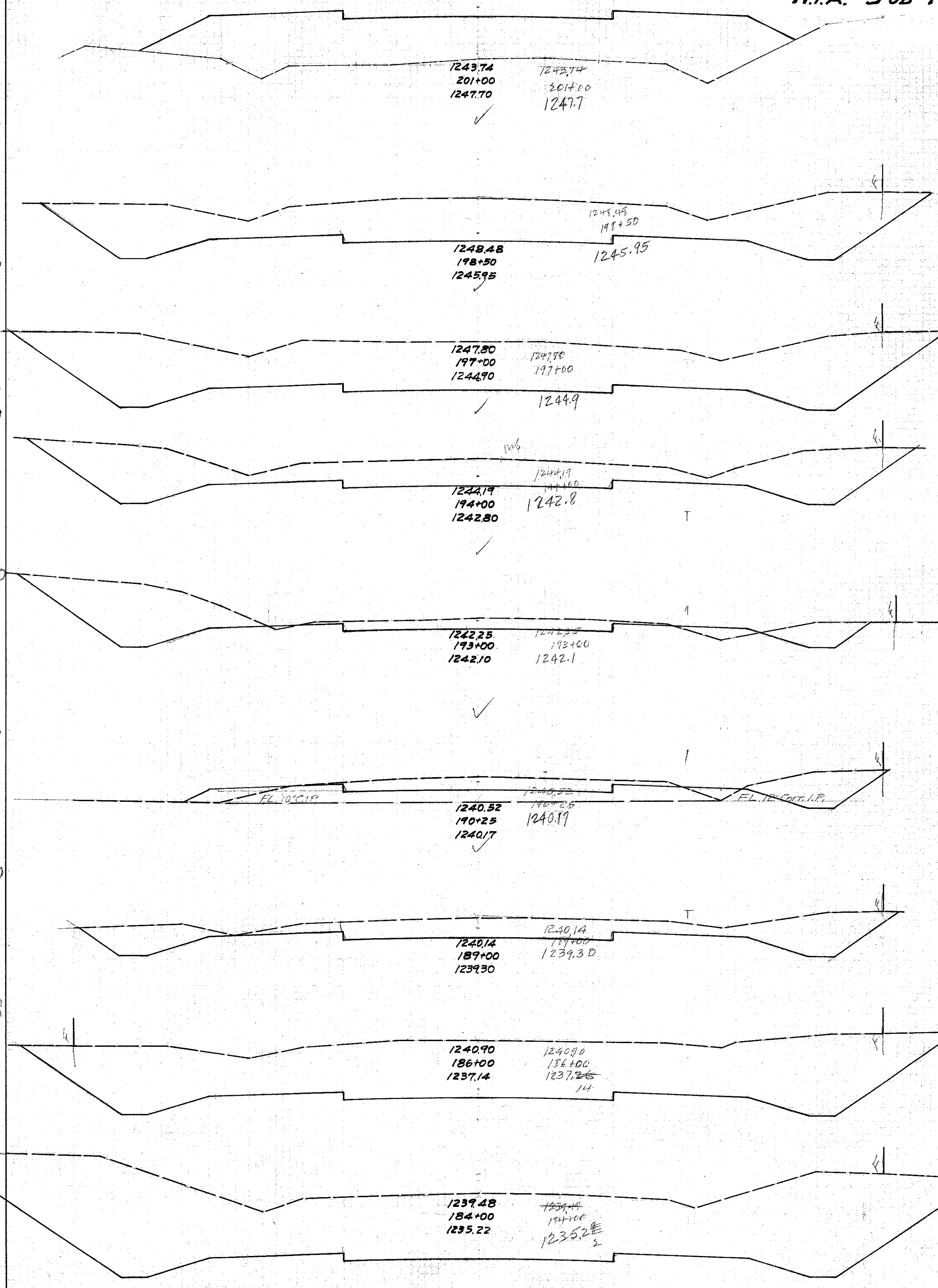


Station	End Area		Cu. Yds.	
	Cut	Fill	Cut	Fill
170+00	121	121	170	170
168+50	163	163	531	12
166+00	28	28	57	183
165+00	3	3	76	76
163+90			2	639
164+00	269	269	691	691
163+00	104	104	28	360

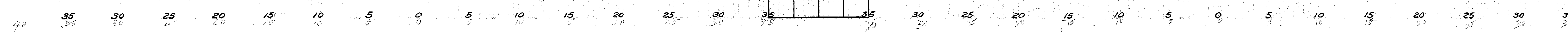


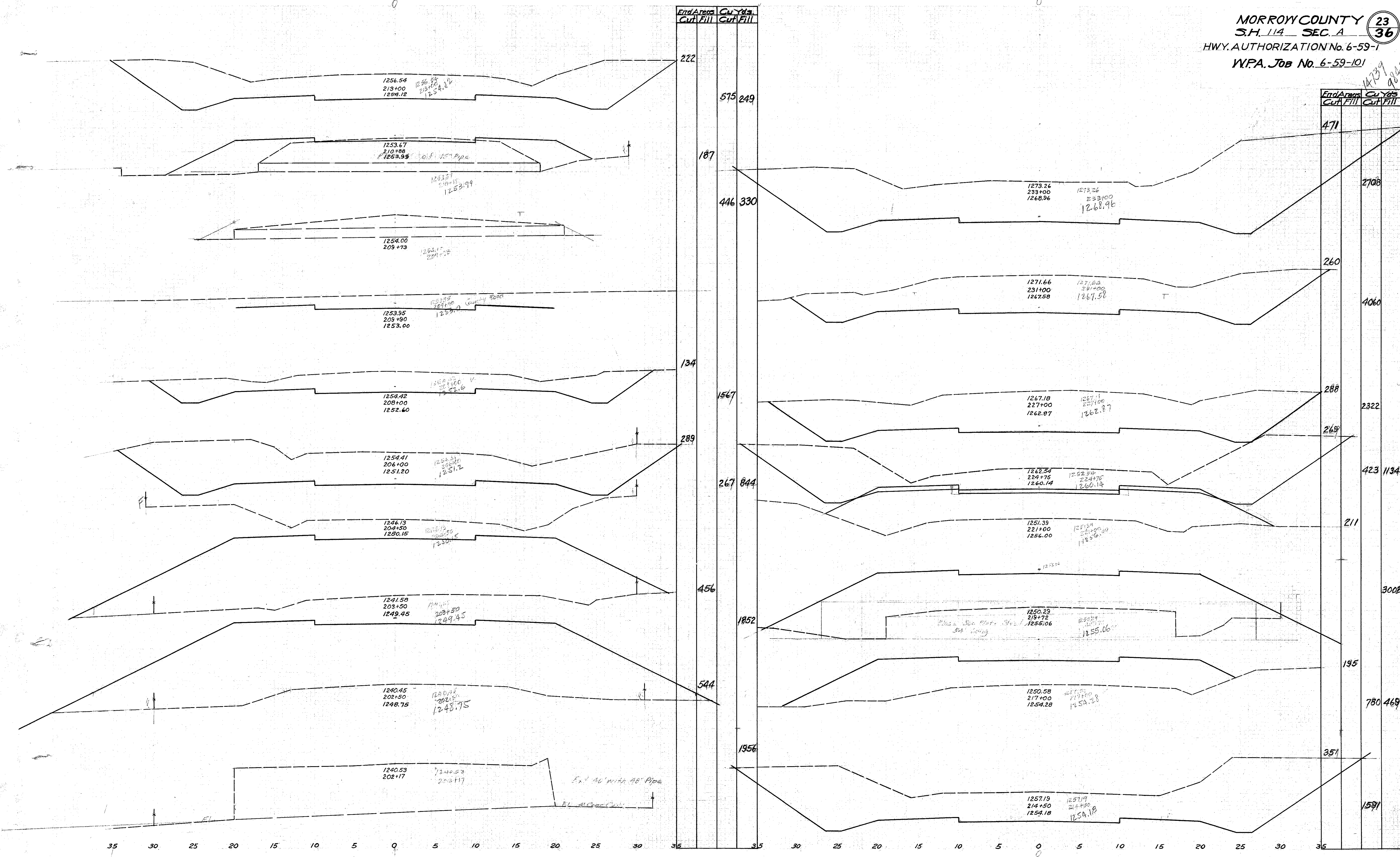


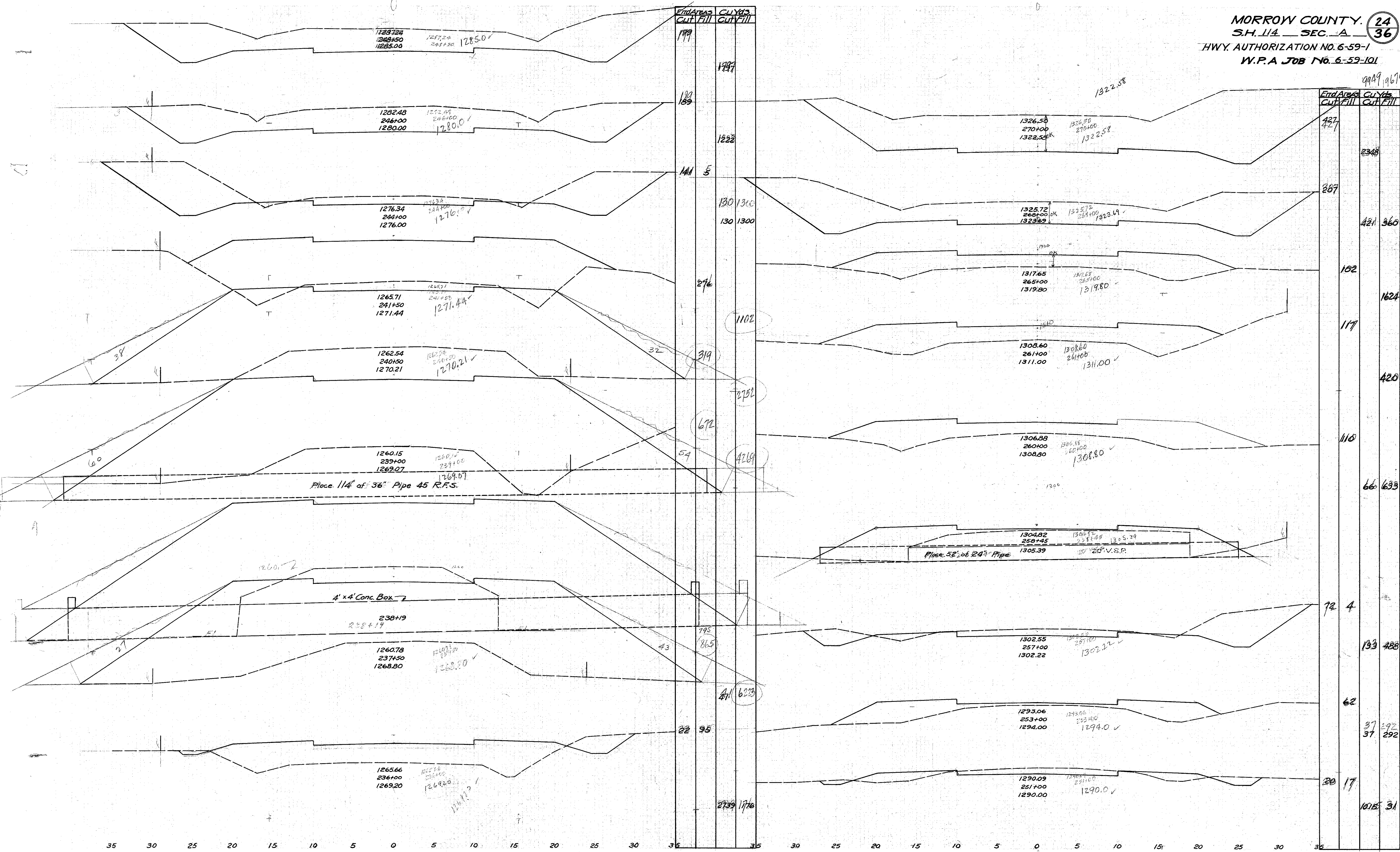
End Area	Cu Yds.	End Area	Cu Yds.
Cut	Fill	Cut	Fill
52	2	159	24
34	11	221	633
6	103	4	478
155	155	600	600
150	150	149	149
172	172	1	730
2	91	24	248
11	43	368	368



End Area	Cu Yds.	End Area	Cu Yds.
Cut	Fill	Cut	Fill
160	160	352	444
190	190	1909	1201
245	245	2106	2106
134	134	485	4
128	7	836	83
36	9	56	3
85	85	2010	2010
277	277	2388	2388
368	368	1556	2



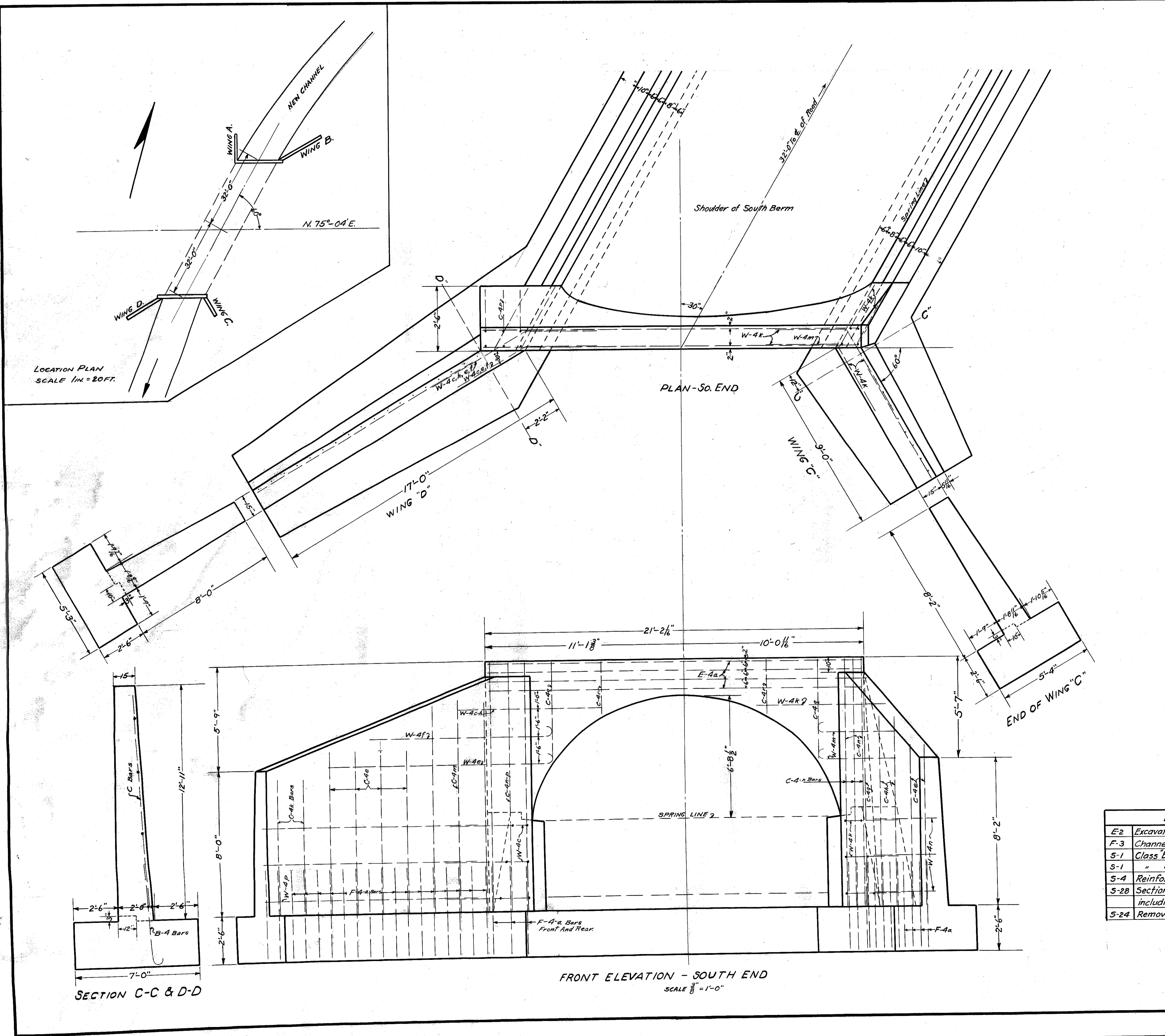




35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35

99A9, 9670  
 2348  
 267  
 421 360  
 182  
 1624  
 117  
 420  
 110  
 66 633  
 72 4  
 133 488  
 62  
 37 292  
 37 292  
 20 17  
 1015 31





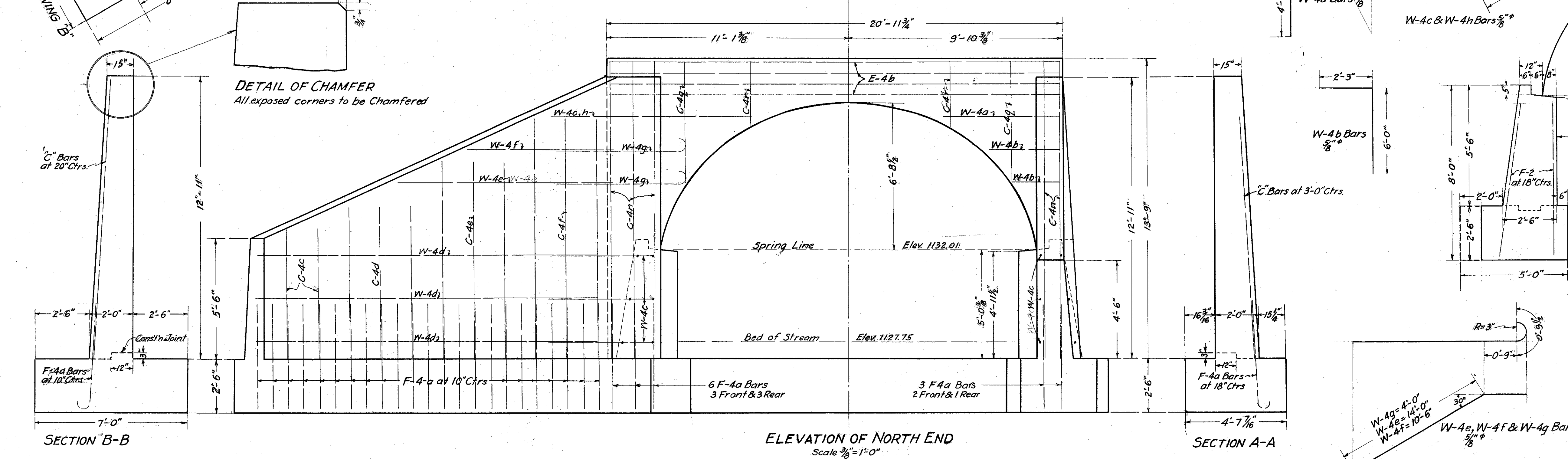
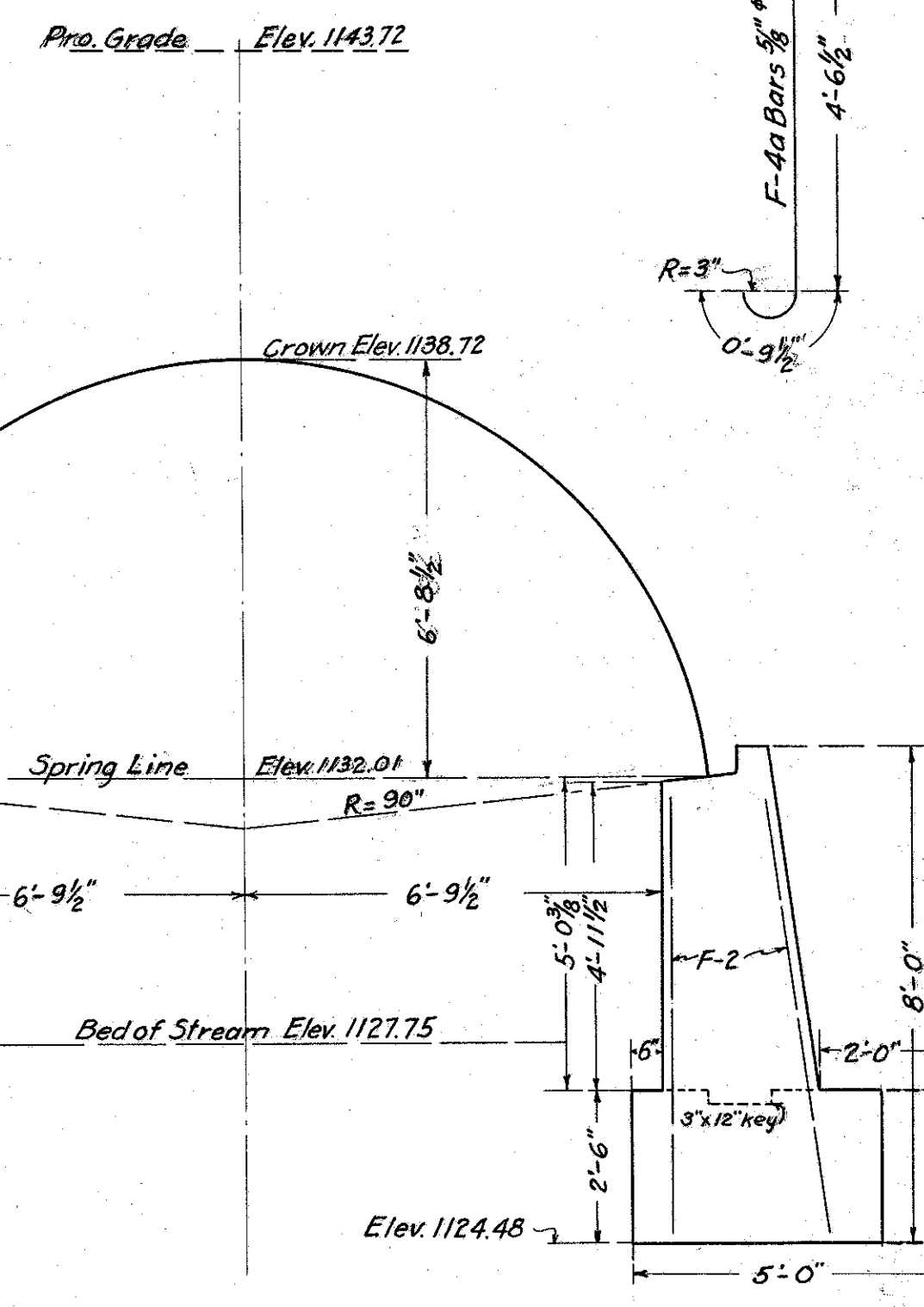
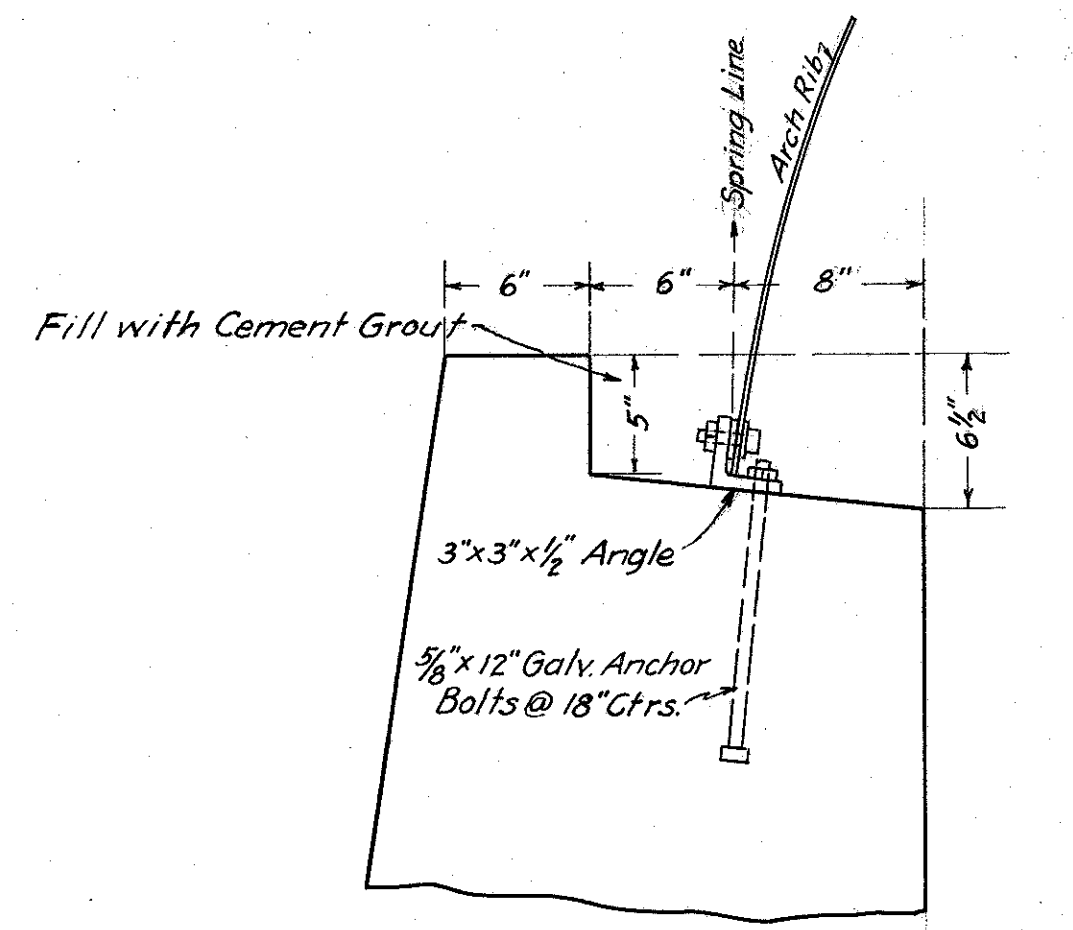
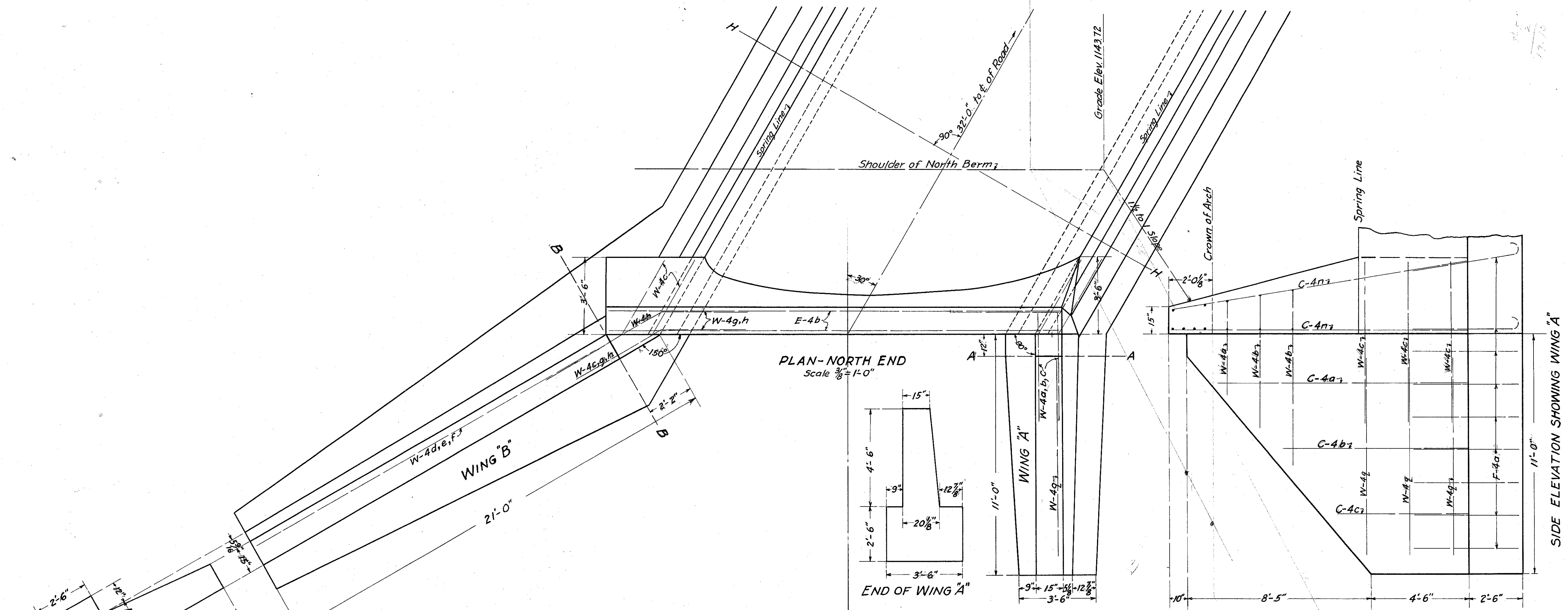
STEEL LIST				SHAPE	
MARK	SIZE	No.	LENGTH	WEIGHT	
<b>ABT. FOOTER</b>					
F2	1/2" φ	172	7'-0"	804	
<b>ABT. WALL</b>					
W4c	φ	20	8'-0"	166.9	
W4k	φ	6	8'-0"	50.1	
<b>WING FOOTER</b>					
F4a	φ	89	5'-4"	495.1	
<b>WING A</b>					
C4a	φ	1	11'-6"	12.0	
C4b	φ	1	8'-6"	8.9	
C4c	φ	1	6'-0"	6.3	
W4a	φ	2	9'-0"	18.8	
W4b	φ	4	8'-3"	34.4	
W4g	φ	3	9'-0"	28.2	
<b>WING B</b>					
C4c	φ	2	6'-0"	12.5	
C4d	φ	3	7'-0"	21.9	
C4e	φ	3	9'-0"	28.2	
C4f	φ	3	11'-0"	34.4	
W4d	φ	3	18'-0"	56.3	
W4e	φ	1	15'-6"	16.2	
W4f	φ	1	12'-0"	12.5	
W4g	φ	2	5'-6"	11.5	
W4h	φ	2	10'-0"	20.9	
<b>WING C</b>					
C4g	φ	1	12'-9"	13.3	
C4h	φ	2	10'-6"	21.9	
C4e	φ	2	9'-0"	18.8	
W4m	φ	2	5'-10"	12.2	
W4n	φ	3	7'-0"	21.9	
<b>WING D</b>					
C4k	φ	2	7'-6"	15.6	
C4e	φ	4	9'-0"	37.5	
C4m	φ	3	11'-6"	36.0	
W4p	φ	3	14'-0"	43.8	
W4e	φ	2	15'-6"	32.4	
W4f	φ	2	12'-0"	25.0	
W4h	φ	1	10'-0"	10.4	
<b>NORTH HEADWALL</b>					
C4n	φ	9	13'-7"	127.5	
C4a	φ	4	5'-6"	22.9	
C4r	φ	4	3'-0"	12.5	
E4b	φ	6	20'-6"	128.4	
<b>SOUTH HEADWALL</b>					
C4n	φ	10	13'-7"	141.7	
C4g	φ	4	5'-6"	22.9	
C4r	φ	4	3'-0"	12.5	
E4a	φ	6	20'-9"	130.0	

ESTIMATED QUANTITIES		
E2	Excavation For Structures (Unclassified)	370 Cu.Yds.
F-3	Channel Excavation	2200 "
S-1	Class E Concrete (Footers)	88 "
S-1	" " (Walls)	103 "
S-4	Reinforcing Steel	2727 Lbs.
S-28	Sectional Plate Arch No.1 Gauge including 3"x3"x1/2" L Base	64 Lin. Ft.
S-24	Removal of Existing Masonry	Lump Sum.

STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 BUREAU OF BRIDGES

**GENERAL PLAN, ELEVATION & STRUCTURE DETAILS OF SOUTH END**  
 BRIDGE No. Mo. 545-06 STA. 31+15

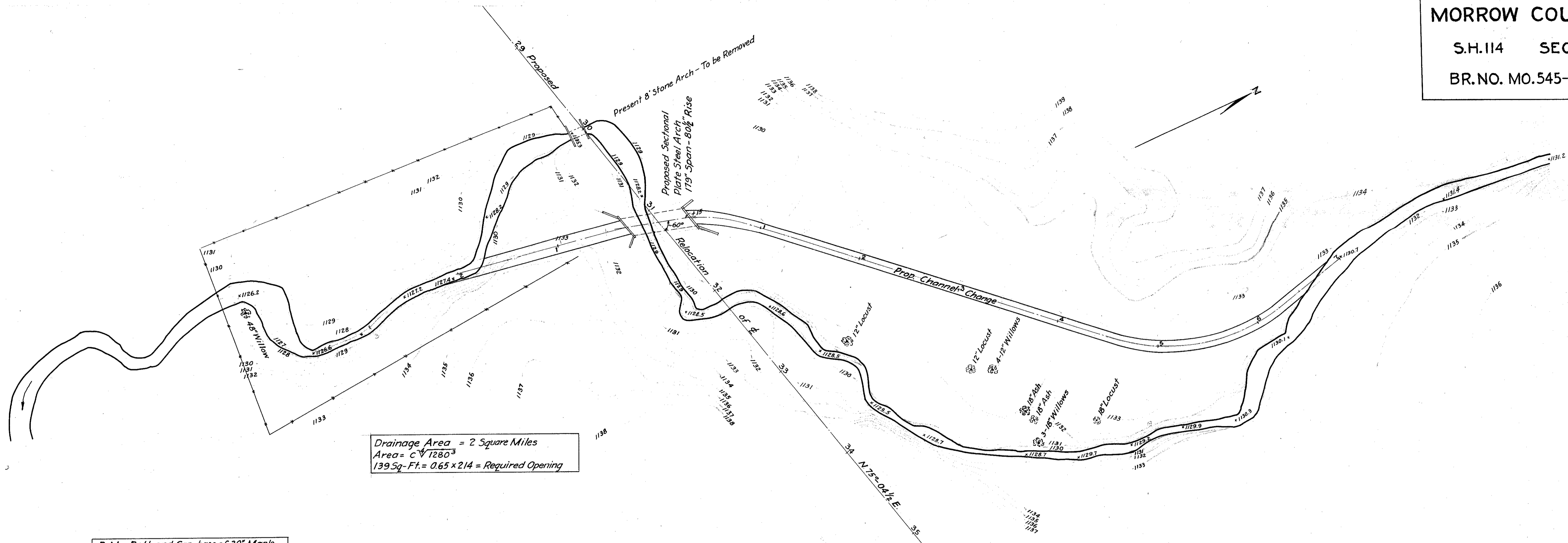
Present Topography		Proposed Work		
Surveyed	Drawn	Des.	Drn.	Rev.
		JUL 16		



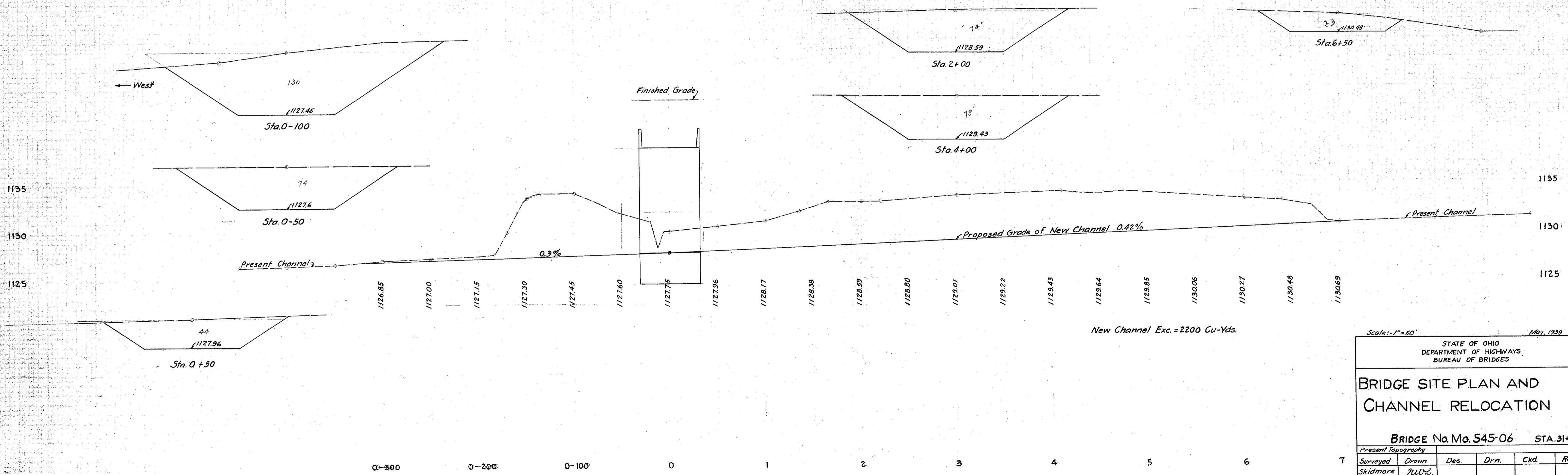
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

**GENERAL PLAN, ELEVATION & STRUCTURE DETAILS OF NORTH END**  
BRIDGE NO. MO. 545-06 STA. 31+15

Proposed Work			
Des.	Drn.	Ckd.	Rev.



B.M. - Bolt and Cap-base of 30" Maple  
 Right of Sta. 29+20, Elev. 1133.83



Scale: 1" = 50' May, 1939

STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 BUREAU OF BRIDGES

BRIDGE SITE PLAN AND  
 CHANNEL RELOCATION

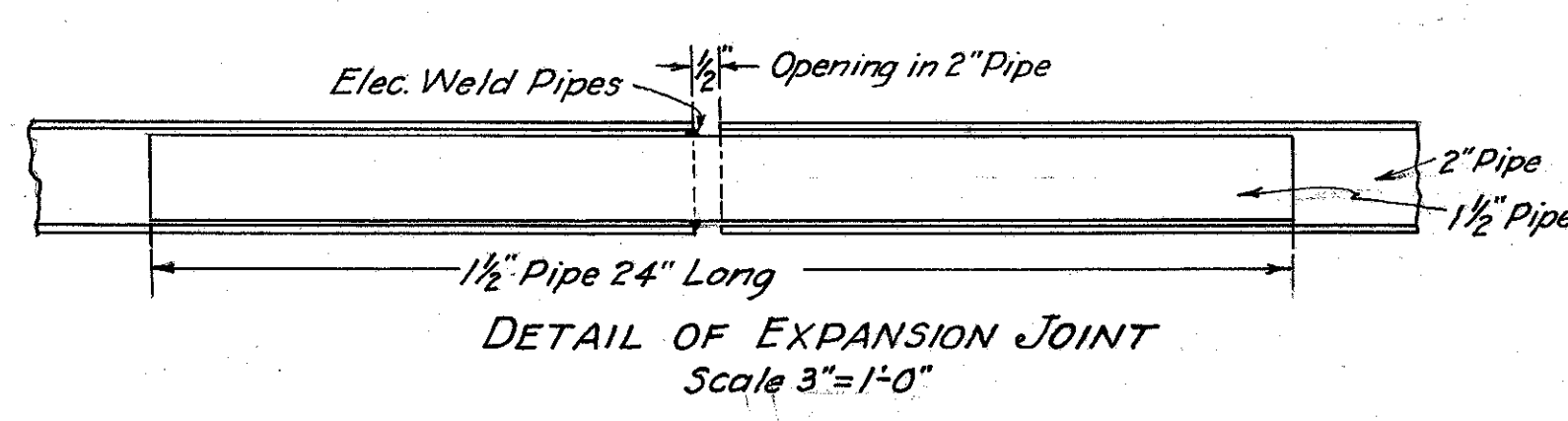
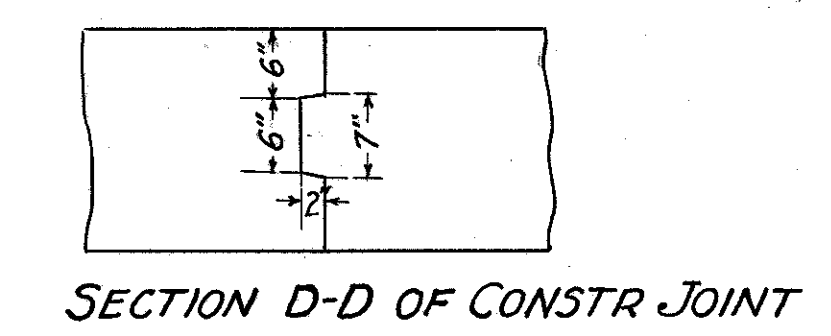
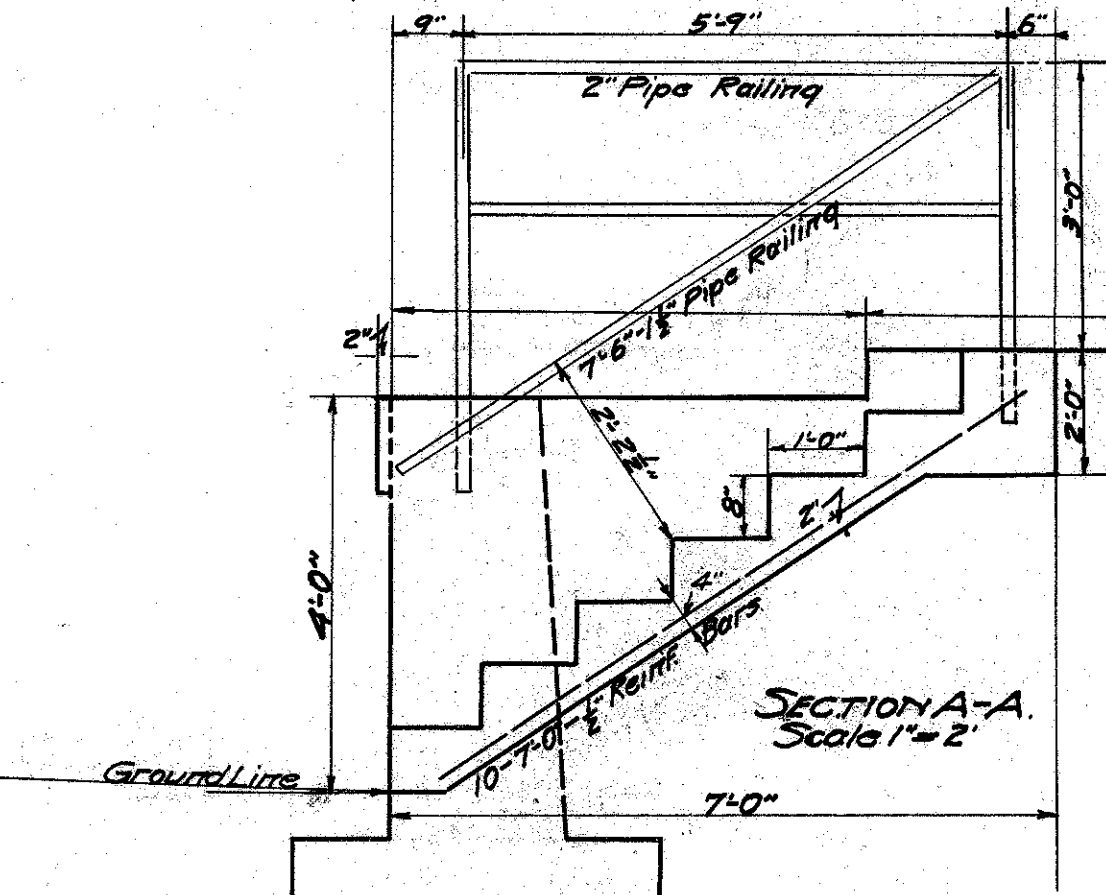
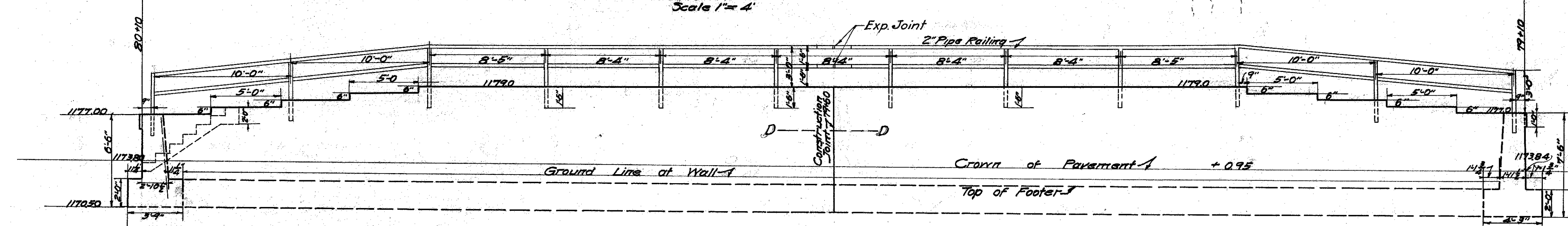
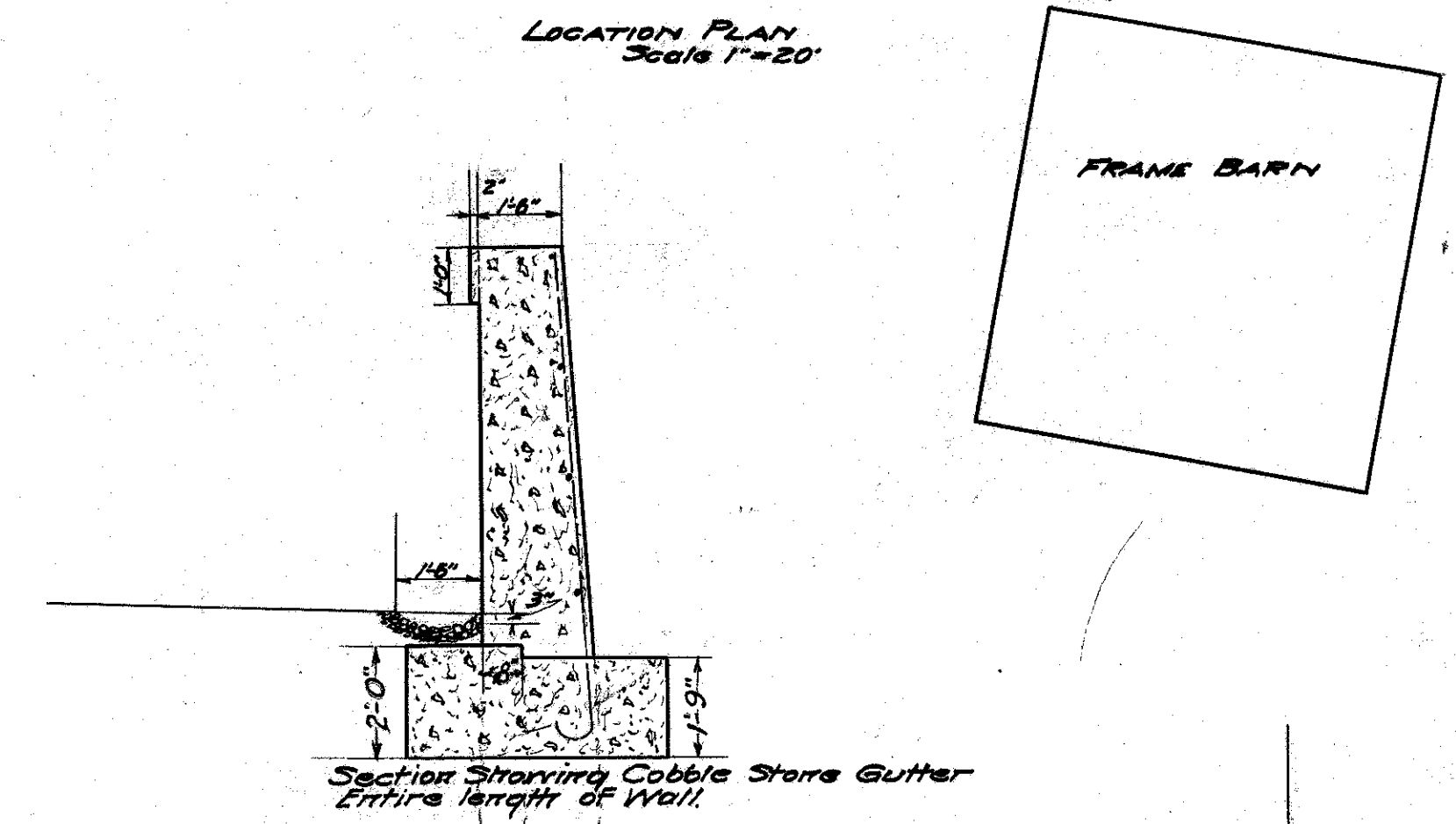
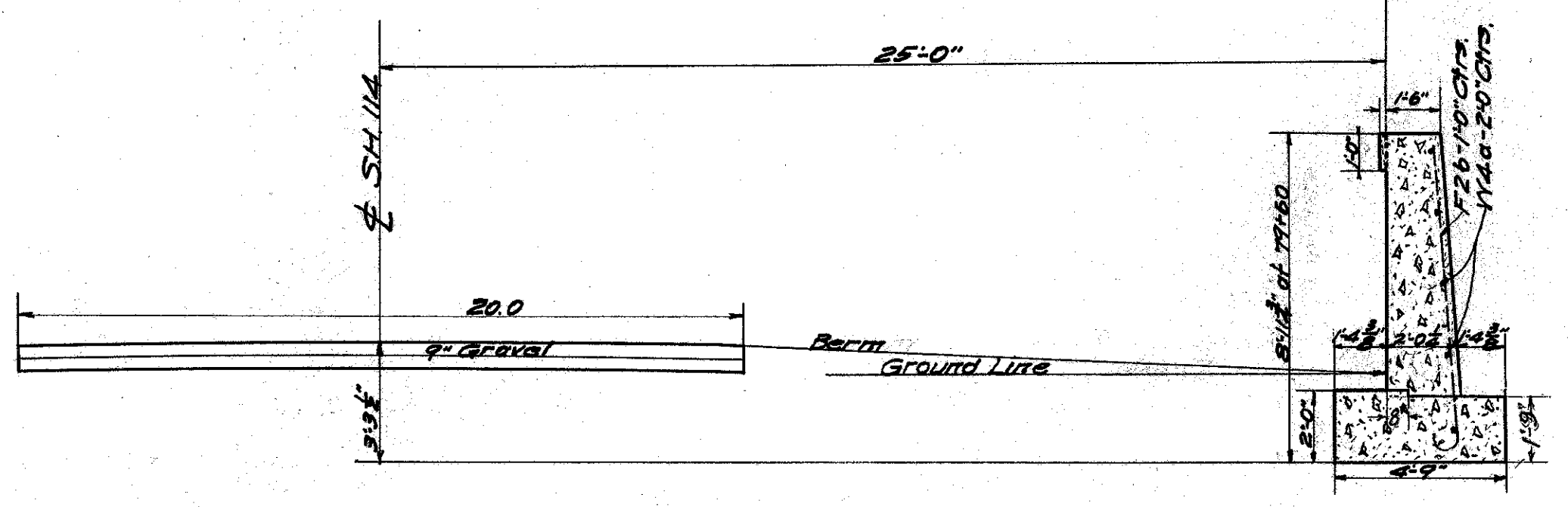
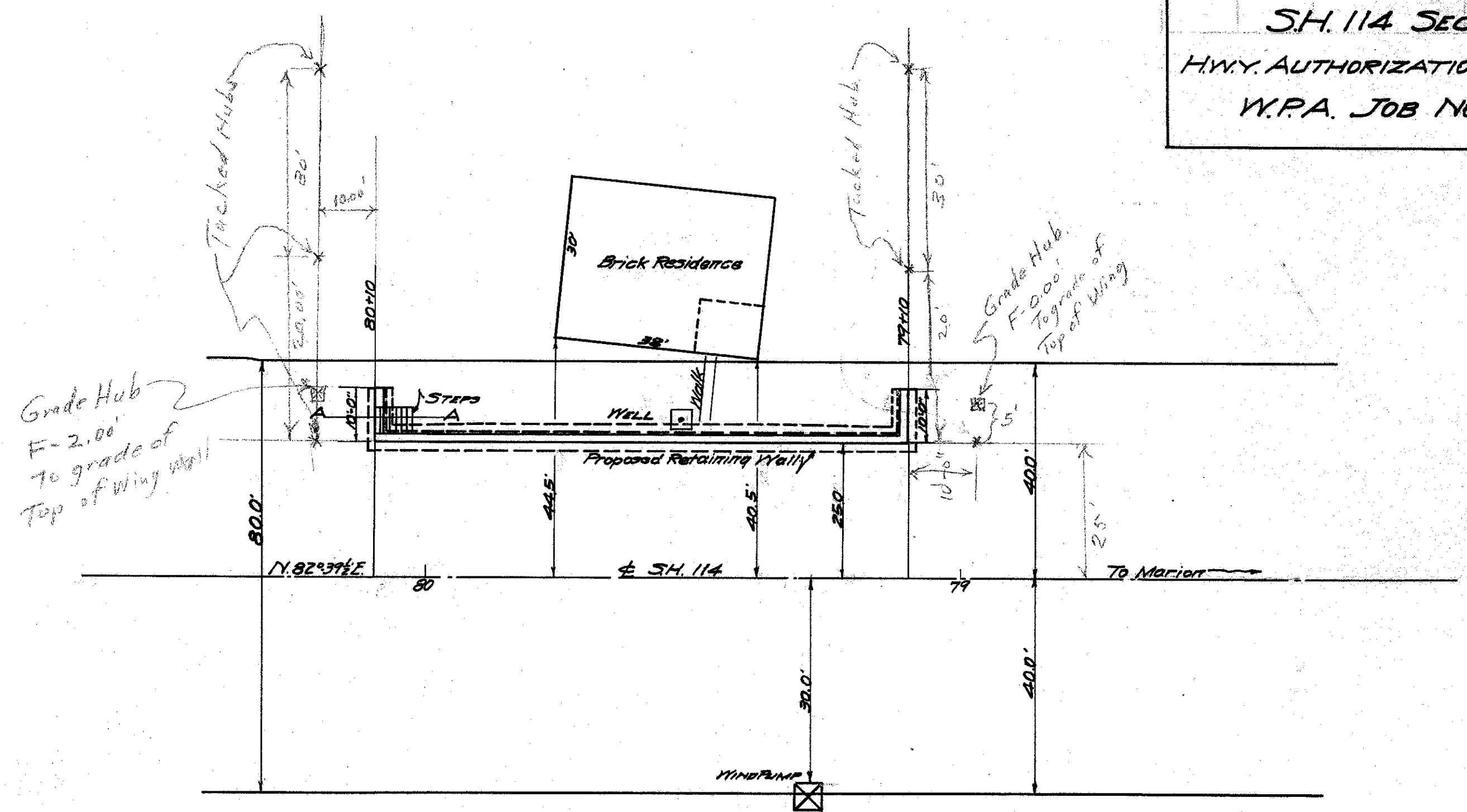
BRIDGE No. MO. 545-06 STA. 31+15

Present Topography	Drawn	Des.	Drn.	Ckd.	Rev.
Skidmore	W.L.W.				









Note:-  
 All Pipe Joints to be Elec. Welded.  
 Iron Pipe Railing to be painted with 1 coat of red lead & 2 coats of Aluminum.

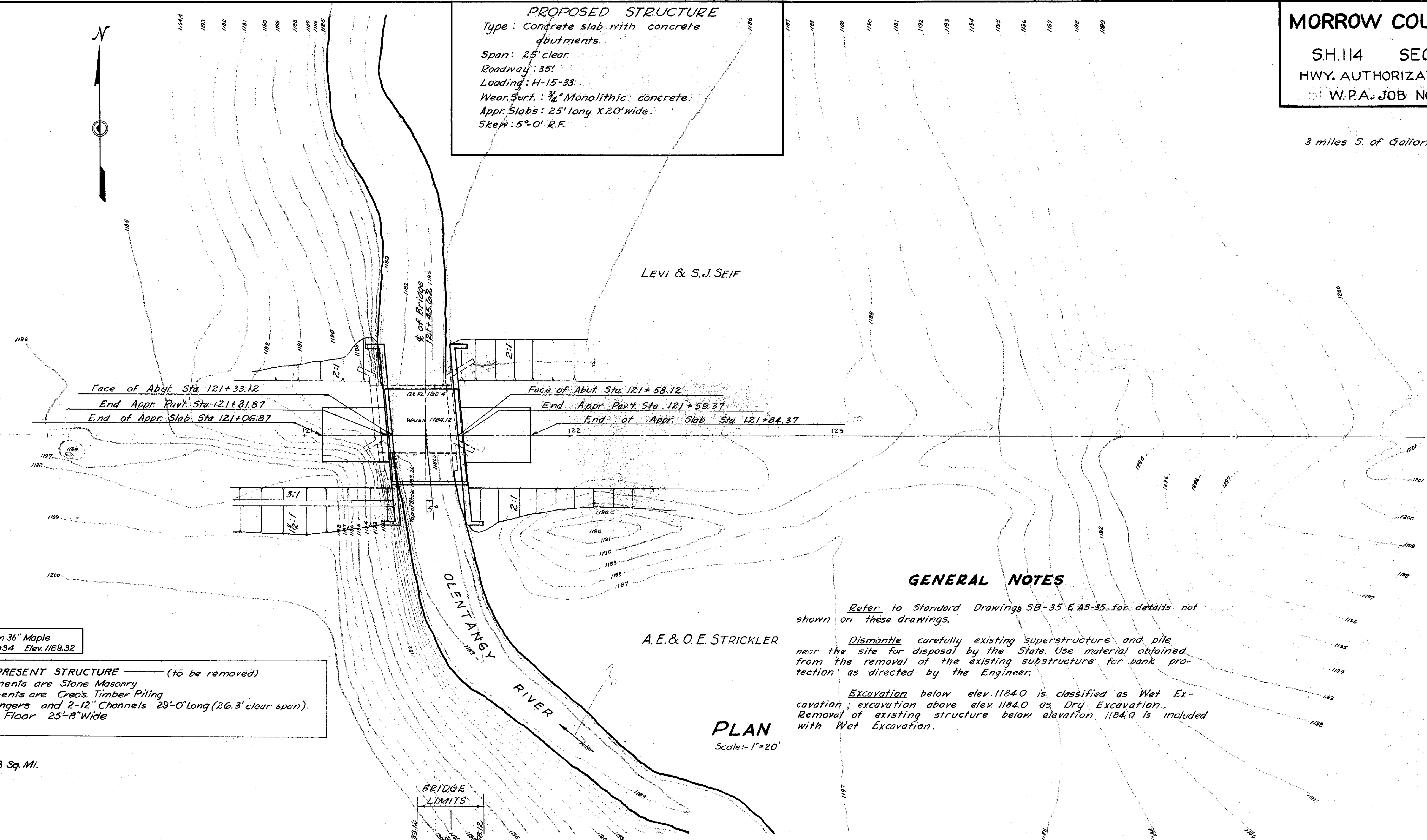
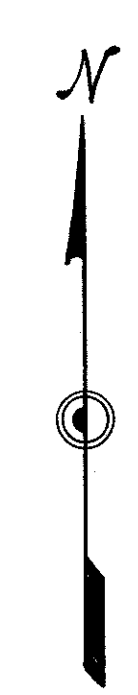
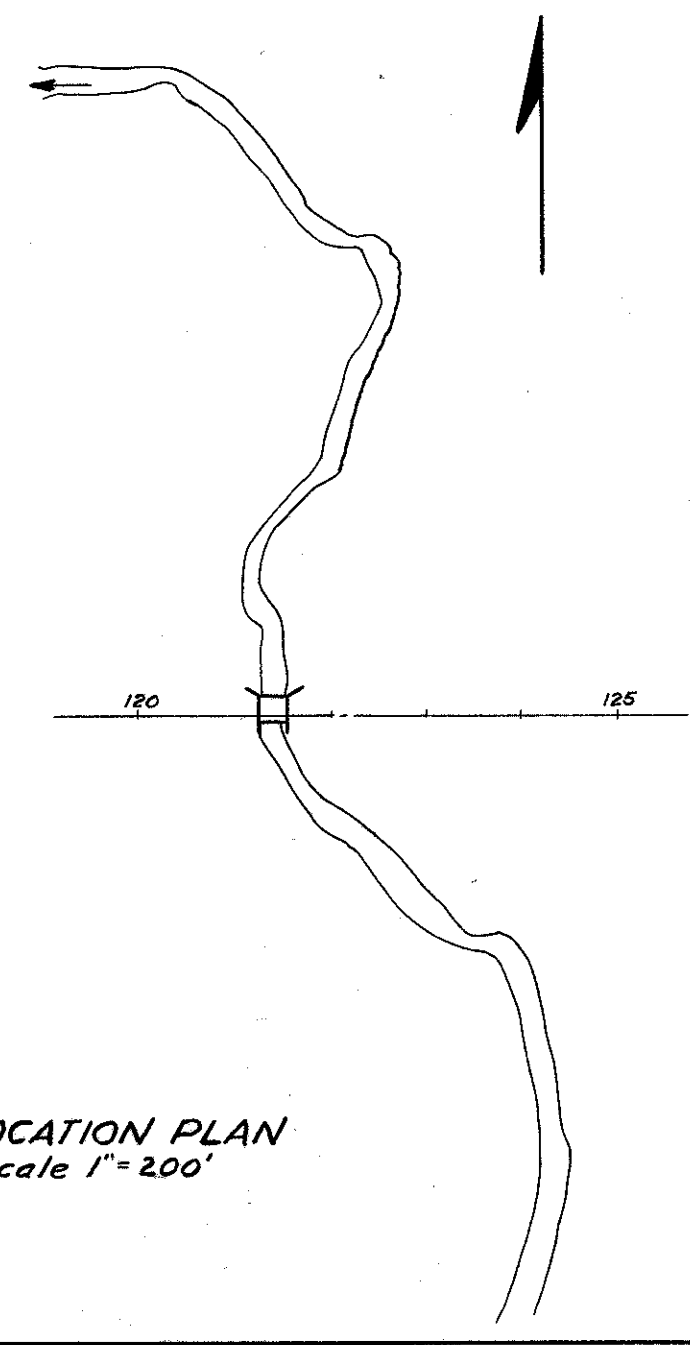
These quantities shown on general plan.  
 70 CY. Conc. (21 E)  
 1530# Steel

**DETAIL PLAN**  
 OF  
**RETAINING WALL ON RIGHT**  
 Between  
 Stations 79+10 & 80+10

3 miles S. of Gallon

**PROPOSED STRUCTURE**  
 Type: Concrete slab with concrete abutments.  
 Span: 25' clear.  
 Roadway: 35'  
 Loading: H-15-33  
 Wear Surf.: 3/4" Monolithic concrete.  
 Appr. Slabs: 25' long X 20' wide.  
 Skew: 5° 0' R.F.

LOCATION PLAN  
 Scale 1" = 200'



Rod soundings indicate a gravelly blue clay and shale foundation suitable for spread footings without piling.

B.M. - Spike & Cap 3' high in 36" Maple  
 90' Left of Sta. 122+34 Elev. 1189.32

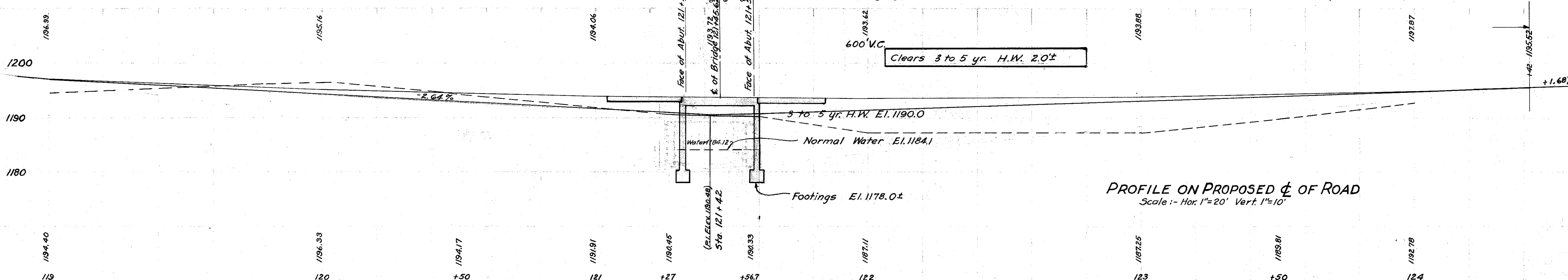
**PRESENT STRUCTURE** (to be removed)  
 North Part of Abutments are Stone Masonry  
 South Part of Abutments are Creos. Timber Piling  
 12" I-Beam Stringers and 2-12" Channels 29'-0" Long (26.3' clear span).  
 2 1/2" Creosote Wood Floor 25'-8" Wide

Drainage Area = 3 Sq. Mi.

**GENERAL NOTES**

Refer to Standard Drawings SB-35 & AS-35 for details not shown on these drawings.  
 Dismantle carefully existing superstructure and pile near the site for disposal by the State. Use material obtained from the removal of the existing substructure for bank protection as directed by the Engineer.  
 Excavation below elev. 1184.0 is classified as Wet Excavation; excavation above elev. 1184.0 as Dry Excavation. Removal of existing structure below elevation 1184.0 is included with Wet Excavation.

**PLAN**  
 Scale: 1" = 20'



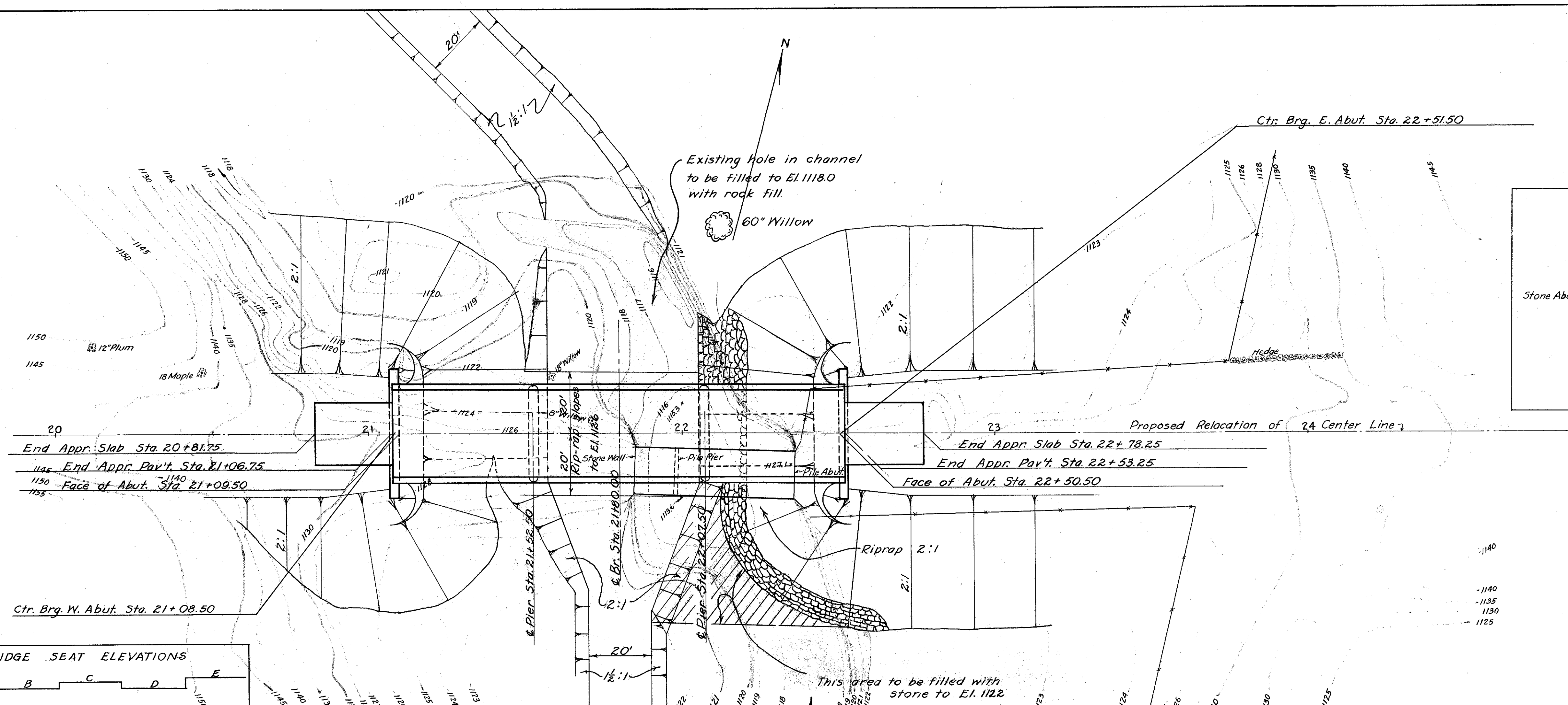
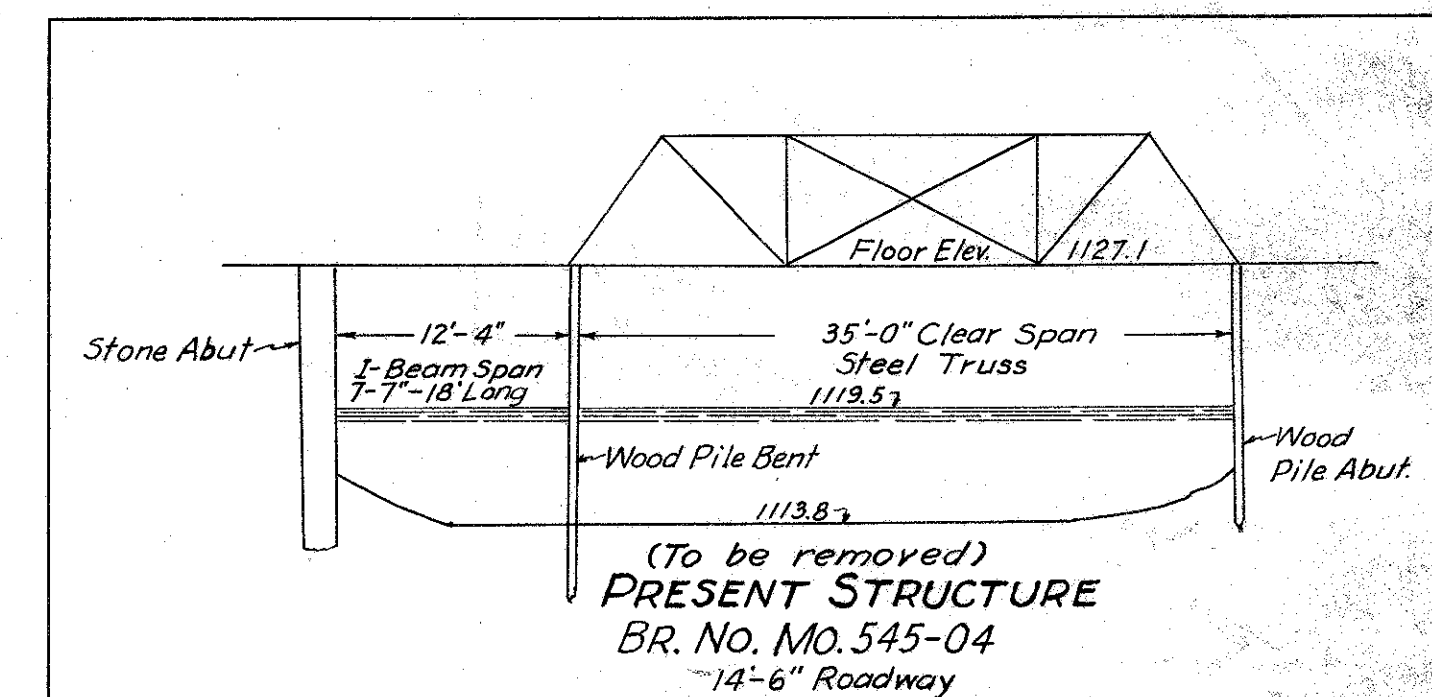
**PROFILE ON PROPOSED  $\phi$  OF ROAD**  
 Scale: - Hor. 1" = 20' Vert. 1" = 10'

STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 BUREAU OF BRIDGES

**SITE PLAN**  
 BRIDGE NO. MO-545-23  
 OVER OLENTANGY RIVER  
 S.H. 114 MORROW COUNTY  
 SEC. J. JOB NO. 6-59-101 STA. 121+45.23

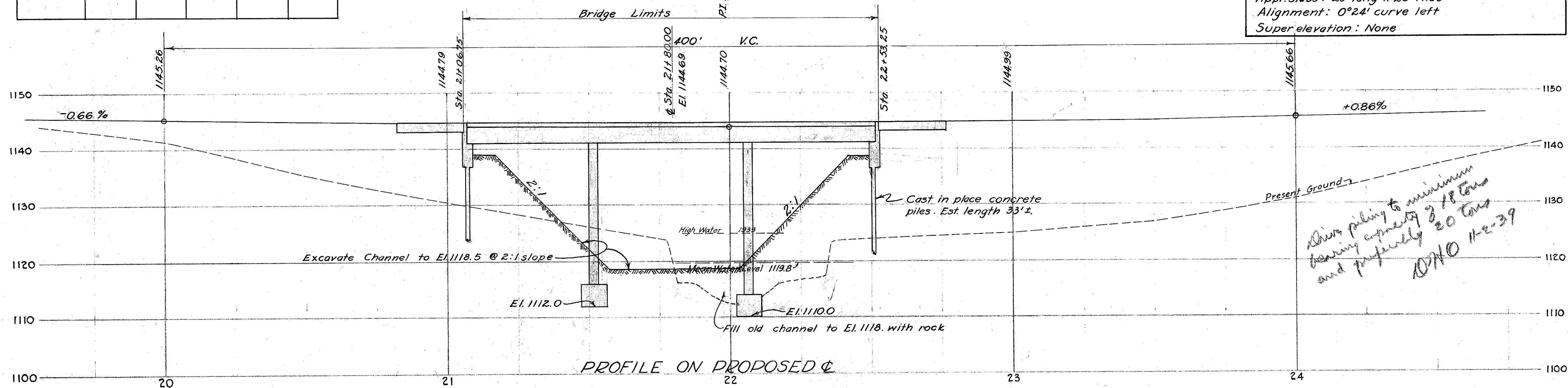
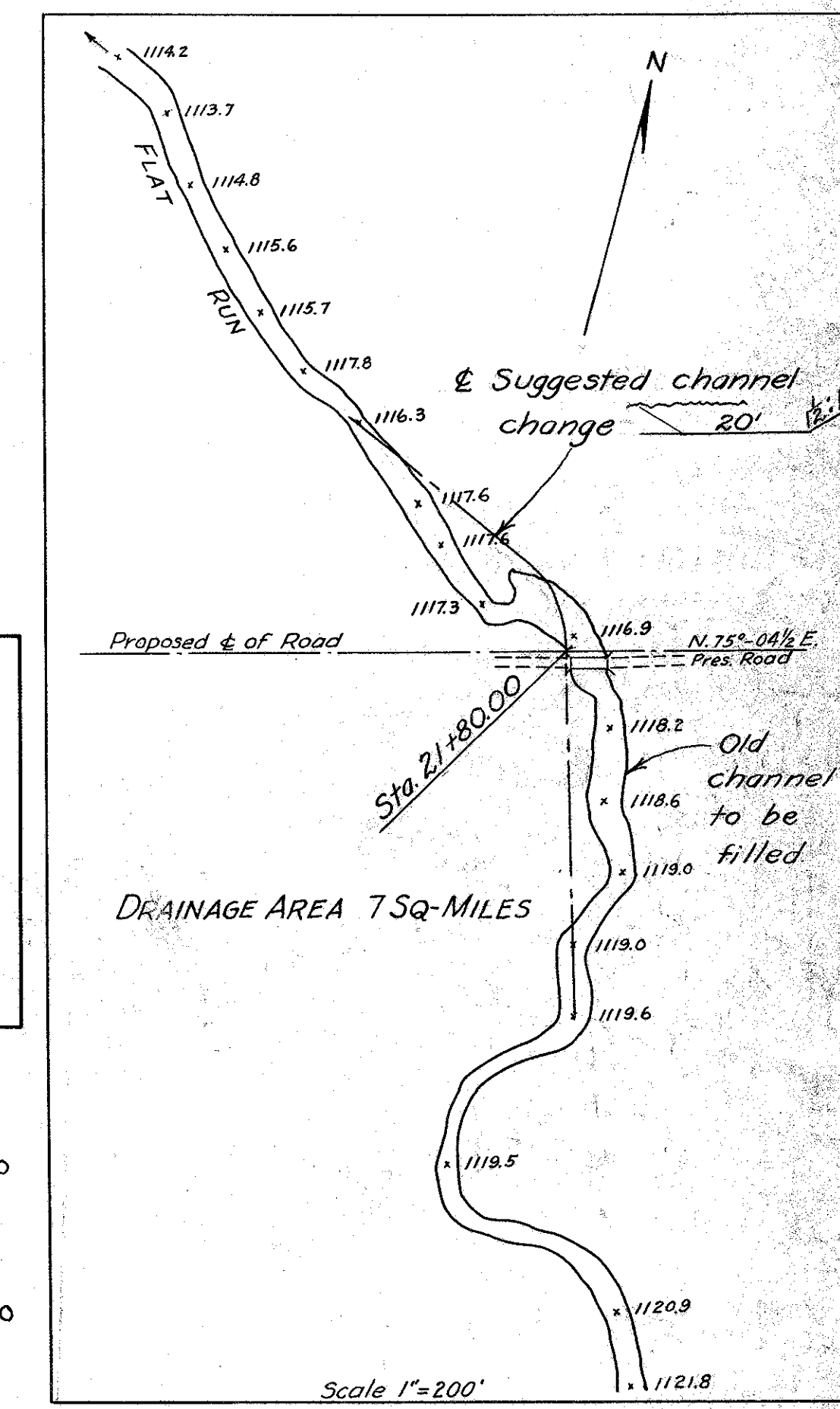
Present Topography		Proposed Work			
Surveyed	Drawn	Des.	Drn.	Ckd.	Rev.
W.R.J.	W.W.L.+F.H.	RLK	RLK	C.F. Q.	1/10/64

3 Mi. S. of Galion



BRIDGE SEAT ELEVATIONS					
	A	B	C	D	E
North					
	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E
W. Abut.	1141.81	1141.67	1141.73	1141.67	1141.81
W. Pier	1141.35	1141.21	1141.27	1141.21	1141.35
E. Pier	1141.36	1141.22	1141.28	1141.22	1141.36
E. Abut.	1141.84	1141.70	1141.76	1141.70	1141.84

**PROPOSED STRUCTURE**  
 Type: Cont. steel beams - conc. substr.  
 Spans: 44'-55'-44' % brgs.  
 Roadway: 28'  
 Loading: H-15-33  
 Skew: None  
 Wear Surf: 3/4" Monolithic concrete  
 Appr. Slabs: 25' long x 20' wide  
 Alignment: 0°24' curve left  
 Super elevation: None



*Check piling to minimum bearing capacity of 20 tons and properly 20 tons  
 ON 11-2-39*

STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 BUREAU OF BRIDGES

**SITE PLAN**  
 BRIDGE OVER FLAT RUN  
 S.H. 114-SEC. L. MORROW COUNTY  
 BR. No. Mo. 545-04 STA. 21+80  
 W.P.A. 6-59-1

Present Topography		Proposed Work	
Surveyed	Drawn	Desd.	Drwn.
Skidmore	N.W.L.	C.N.A.	C.N.A.
			CHKD. REV.
			RLK. WJC.

**ESTIMATED QUANTITIES**

Item No.	Description	West Abut.	West Pier	East Pier	East Abut.	Supr. Str.	General	Total
E-2	Channel Excavation							3000 Cu. Yds.
	Excavation for structures, unclassified.	19	100	115	19			253 Cu. Yds.
	Rock Fill							500 Ton
S-1	Class "C" Concrete, Superstructure.					111		111 Cu. Yds.
S-1	Class "C" Concrete, Walls.	24	22	24	24			94 Cu. Yds.
S-1	Class "C" Concrete, Footings.		22	22				44 Cu. Yds.
S-3	Type "B" Waterproofing.	14			14			28 Sq. Yds.
S-4	Reinforcing Steel.	3930	7220	7410	3930	25,400	170	48,060 Lbs.
S-5	Approach Slabs.					111		111 Sq. Yds.
S-7	Structural Steel (except painting).					98,000		98,000 Lbs.
S-8	Painting of Structural Steel.					98,000		98,000 Lbs.
S-19	12" Cast-in-place Reinf. Conc. Piling (est. length 33 ft.).	264			264			528 Lin. Ft.
T-10	Riprap					210		210 Sq. Yds.
T-14	Paved Gutter, grouted, 9" thick.					115		115 Sq. Yds.
	Gettardam							Lump

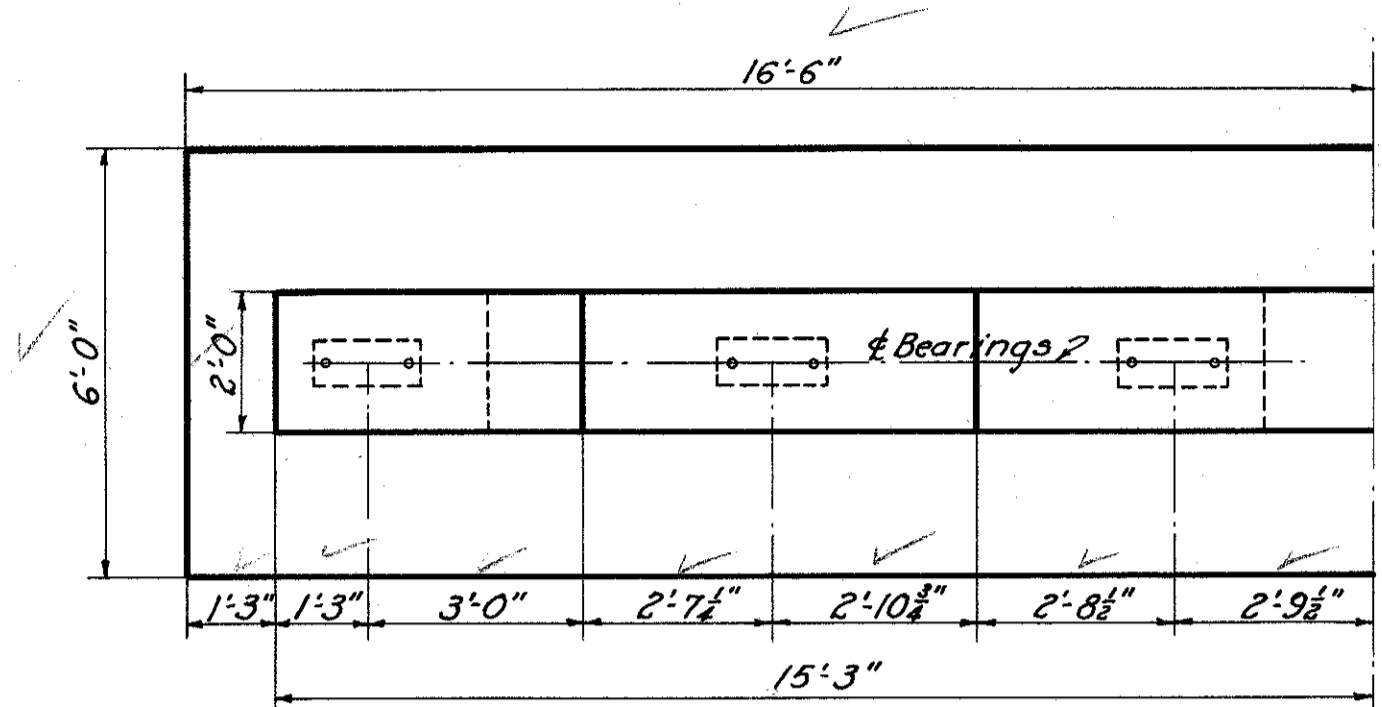
49,840  
6560 sq. ft.  
3.50  
500'

**GENERAL NOTES**

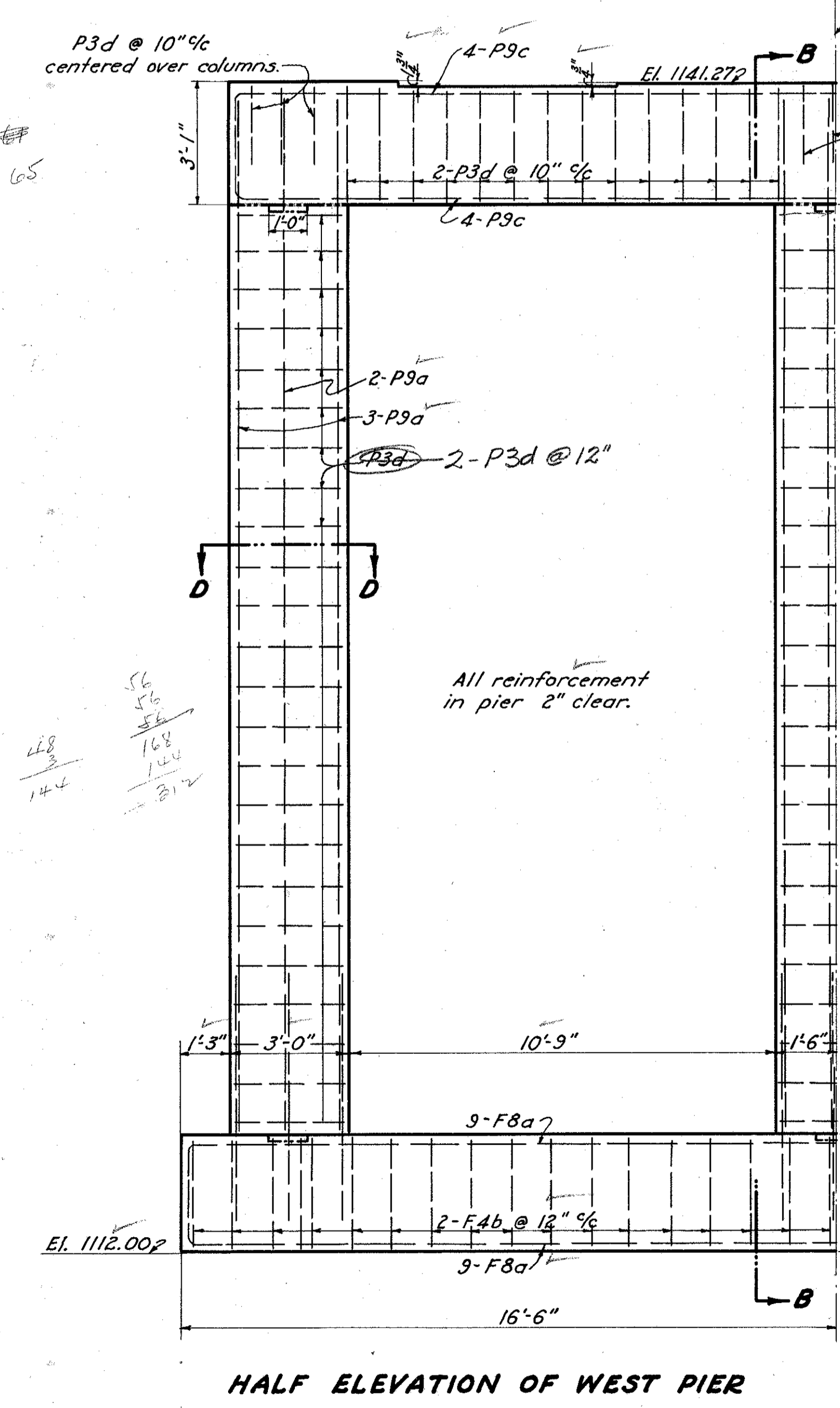
FOR DETAILS OF APPROACH SLABS, reference shall be made to Std. Dwg. No. AS-35.

EXISTING SUPERSTRUCTURE to be carefully dismantled and piled at the disposal of the State.

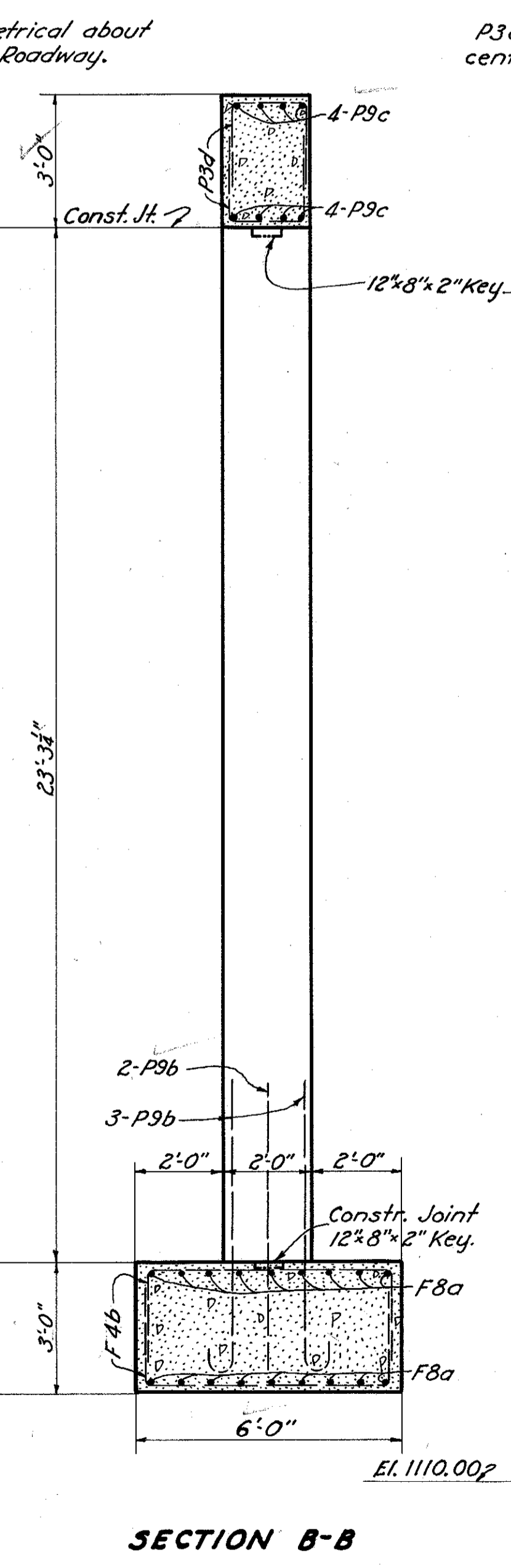
EXISTING SUBSTRUCTURE:- Pile bent and abutment to be stored near the site at the disposal of the State. Suitable masonry to be used as riprap and stone fill as shown on Site Plan.



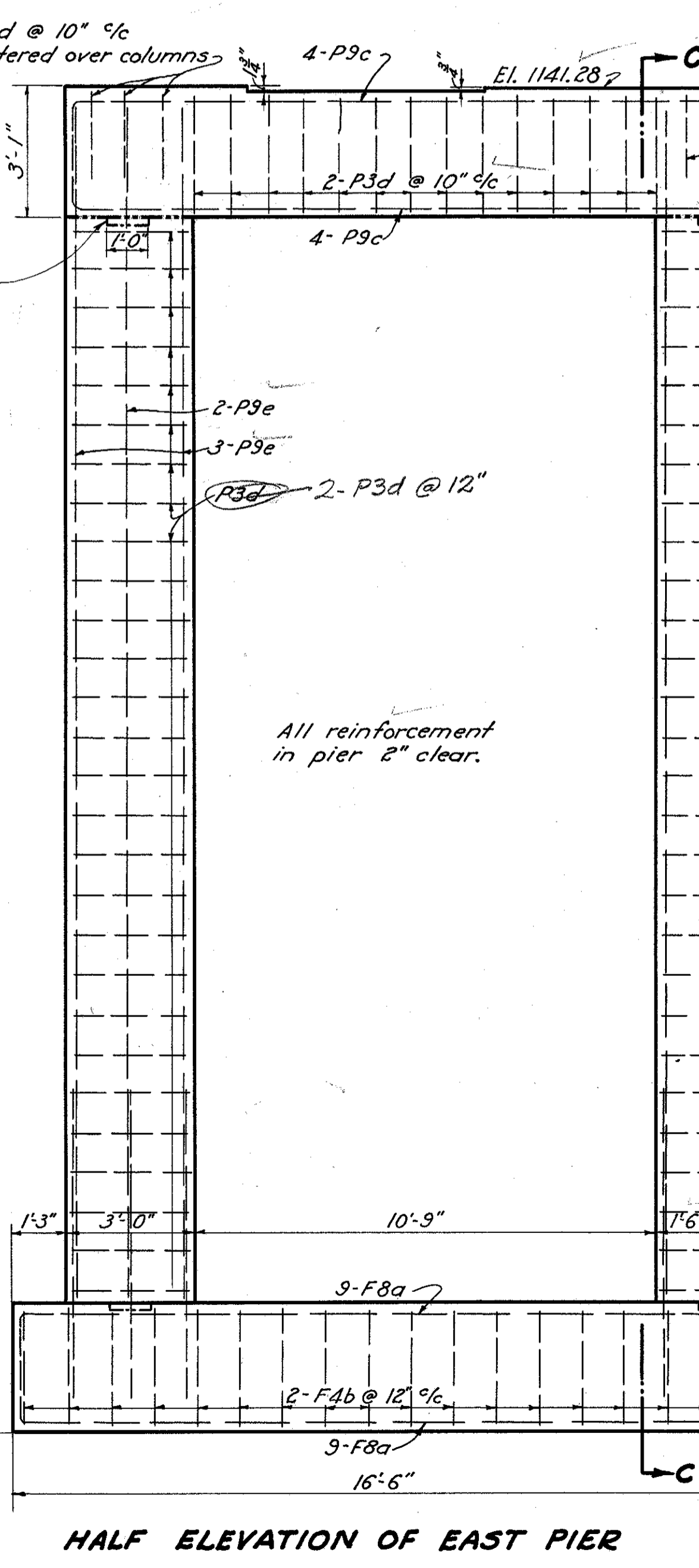
**SECTION D-D**



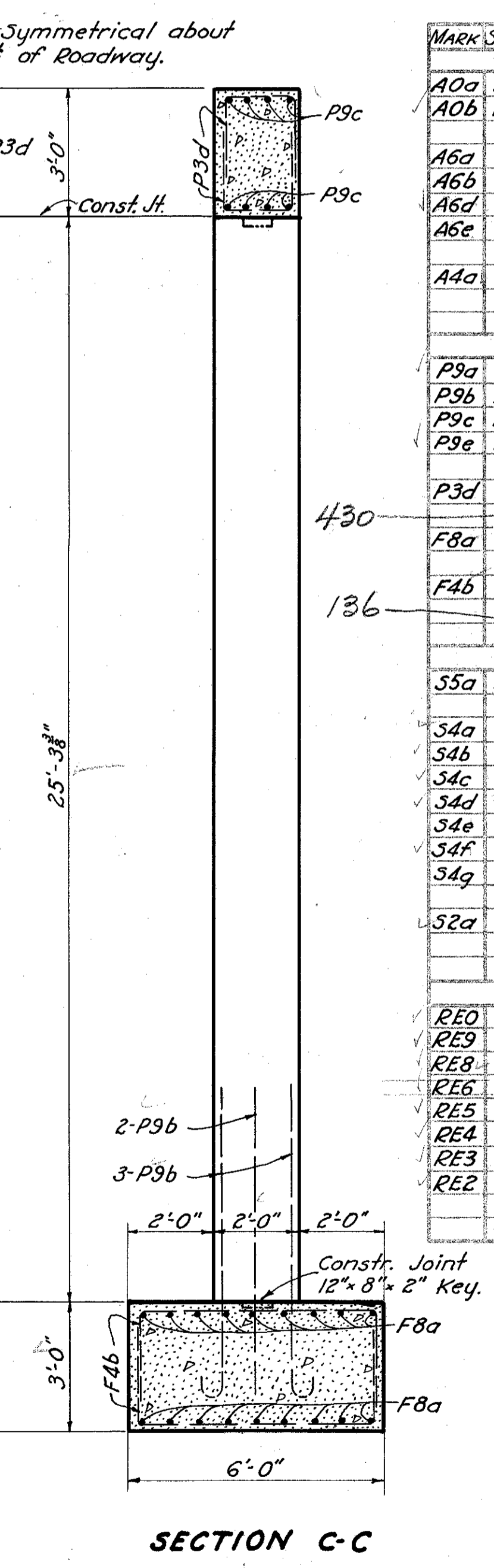
**HALF ELEVATION OF WEST PIER**



**SECTION B-B**



**HALF ELEVATION OF EAST PIER**



**SECTION C-C**

**REINFORCING STEEL LIST**

MARK	SIZE	NUMBER	LENGTH	WEIGHT	SHAPE
<b>TWO ABUTMENTS</b>					
A0a	1/2"	4	31'-9"	680	Bt.
A0b	1/2"	8	41'-8"	1760	Str.
A6a	3/8"	80	8'-0"	1310	Bt.
A6b	3/8"	112	7'-3"	1660	Bt.
A6d	3/8"	16	41'-8"	1360	Str.
A6e	3/8"	6	31'-9"	390	Bt.
A4a	3/8"	80	8'-3"	680	Bt.
<b>TWO PIERS</b>					
P9a	1/2"	24	25'-8"	2660	Str.
P9b	1/2"	48	7'-6"	1540	Bt.
P9c	1/2"	16	32'-0"	2200	Bt.
P9e	1/2"	24	27'-8"	2870	Str.
P3d	3/4"	130	5'-2"	570	Bt.
F8a	1"	36	34'-0"	4170	Bt.
F4b	3/8"	63	8'-9"	620	Bt.
<b>SUPERSTRUCTURE</b>					
S5a	3/8"	60	31'-6"	2840	Str.
S4a	3/8"	197	30'-3"	6210	Bt.
S4b	3/8"	248	30'-0"	7770	Str.
S4c	3/8"	195	30'-9"	6260	Str.
S4d	3/8"	20	25'-0"	320	Str.
S4e	3/8"	168	2'-0"	350	Bt.
S4f	3/8"	84	3'-3"	290	Str.
S4g	3/8"	84	4'-3"	370	Bt.
S2a	3/8"	280	4'-3"	790	Bt.
<b>TOTAL</b> 47,890					
<b>REPLACEMENT STEEL</b>					
RE0	1/2"	1	9'-0"	50	
RE9	1/2"	1	8'-6"	40	
RE8	1"	1	8'-0"	30	
RE6	3/8"	1	7'-6"	20	
RE5	3/8"	1	7'-0"	10	
RE4	3/8"	1	6'-6"	10	
RE3	3/8"	1	6'-0"	10	
RE2	3/8"	1	6'-0"	-	
<b>TOTAL</b> 170					

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

**PIER DETAILS  
NOTES, QUANTITIES & STEEL LIST**

BRIDGE NO. MO-545-04  
OVER FLAT RUN

MORROW COUNTY S.H. 114  
SEC. L STA. 21+80

W.P.A. 6-59-1

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
P.E.S.	P.E.S.	G.S.	J.A.B.	M.T.B.	9/13/59

### ESTIMATED QUANTITIES

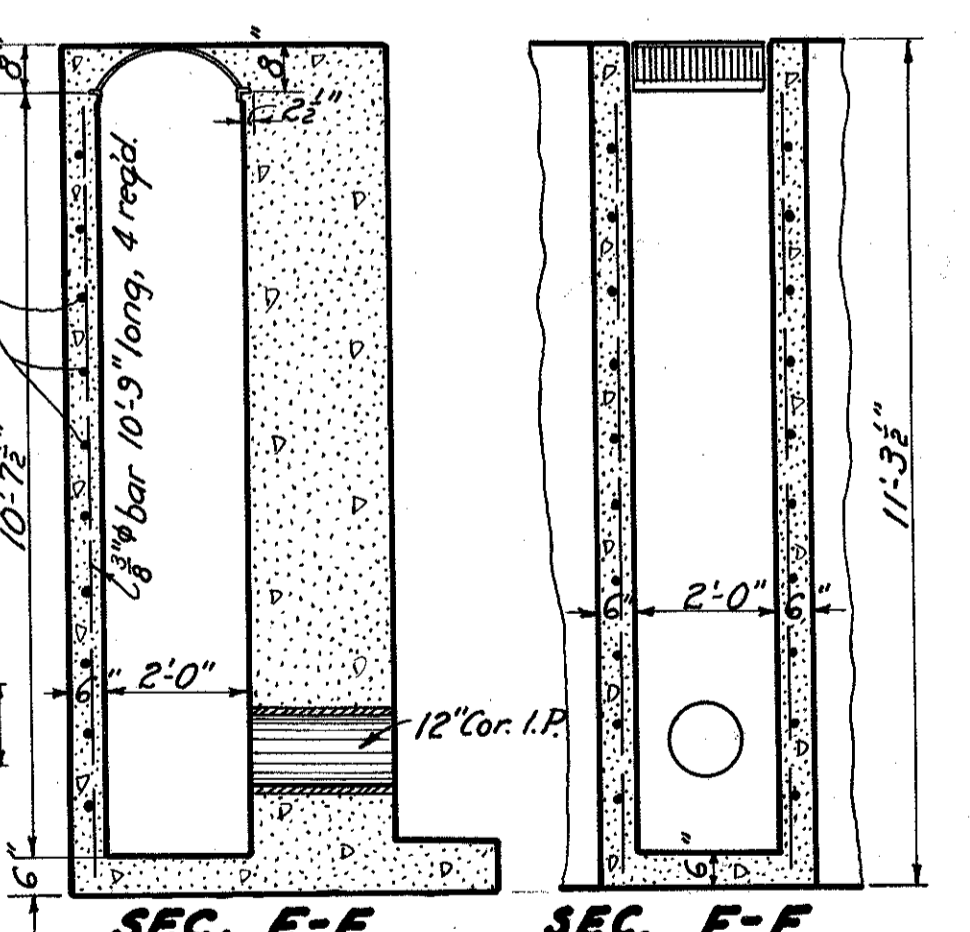
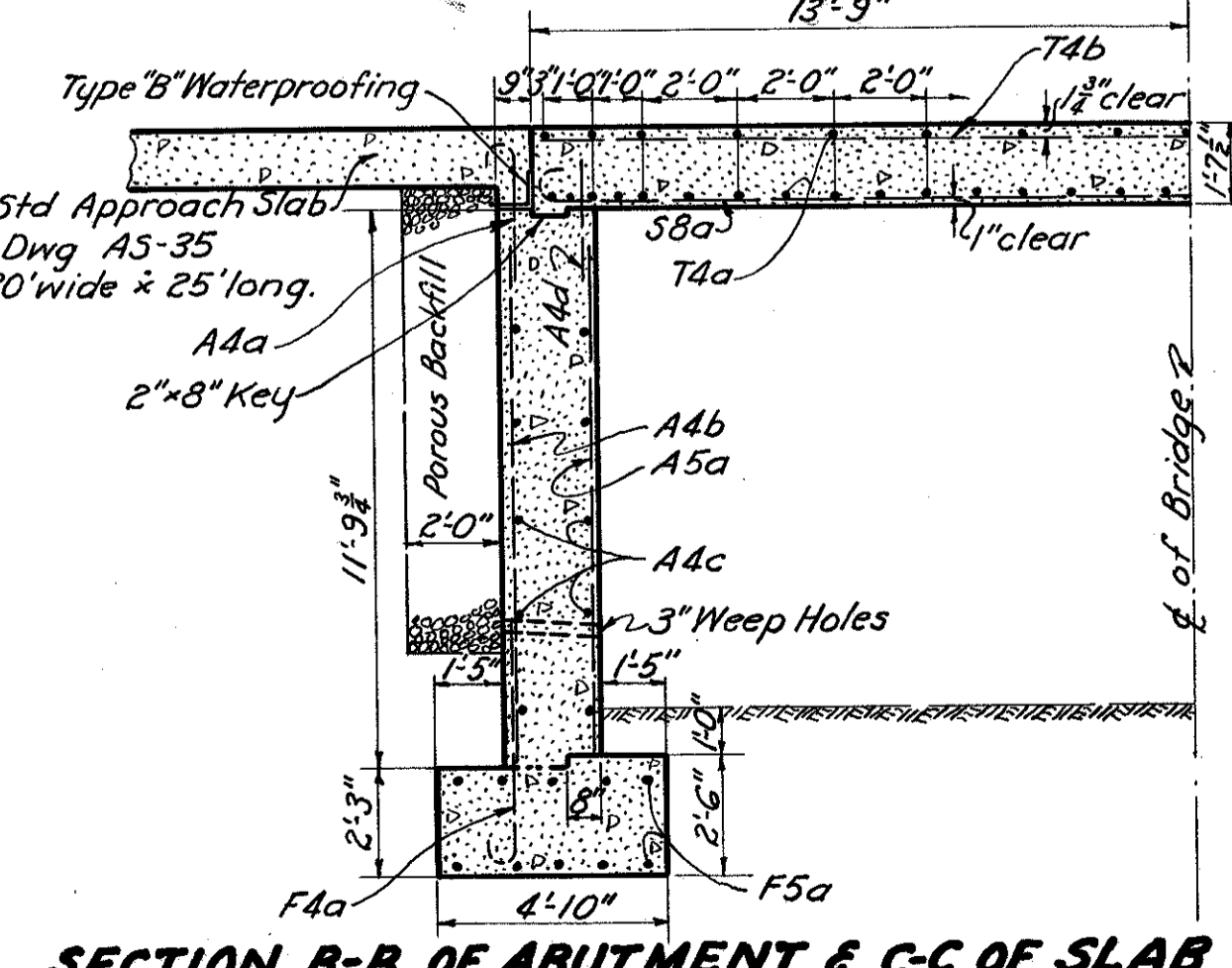
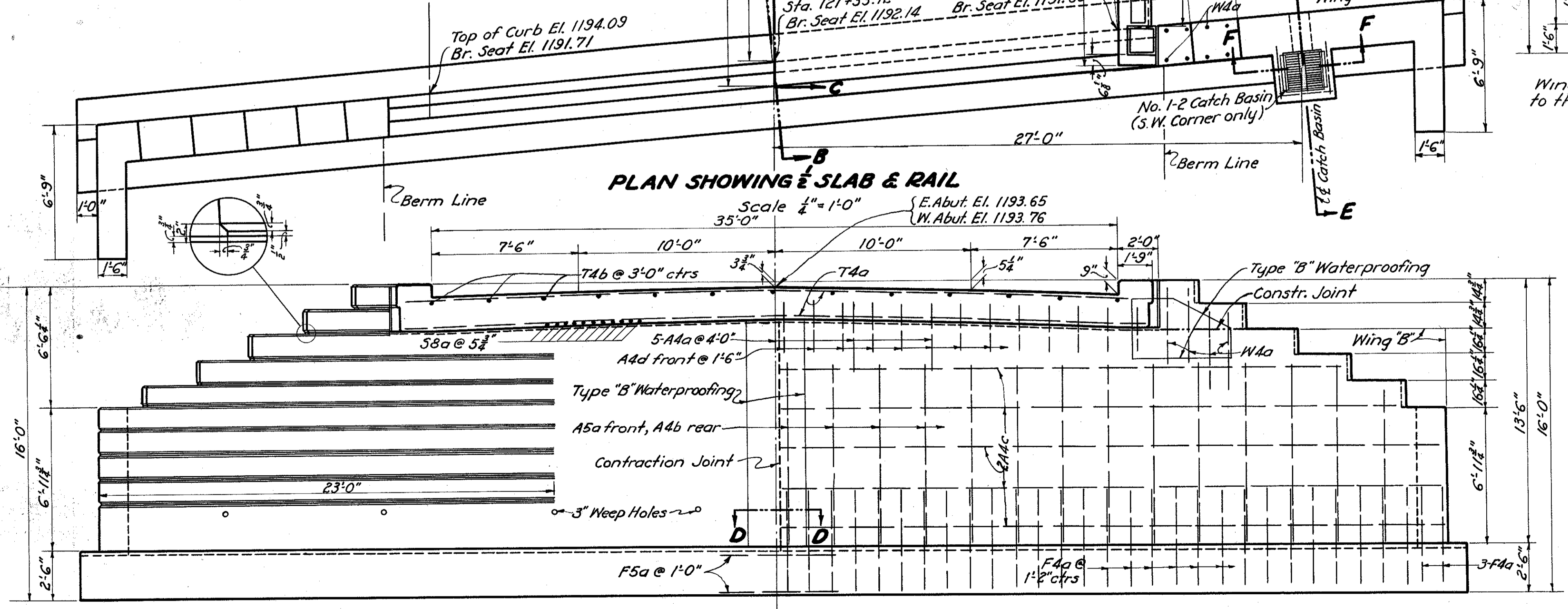
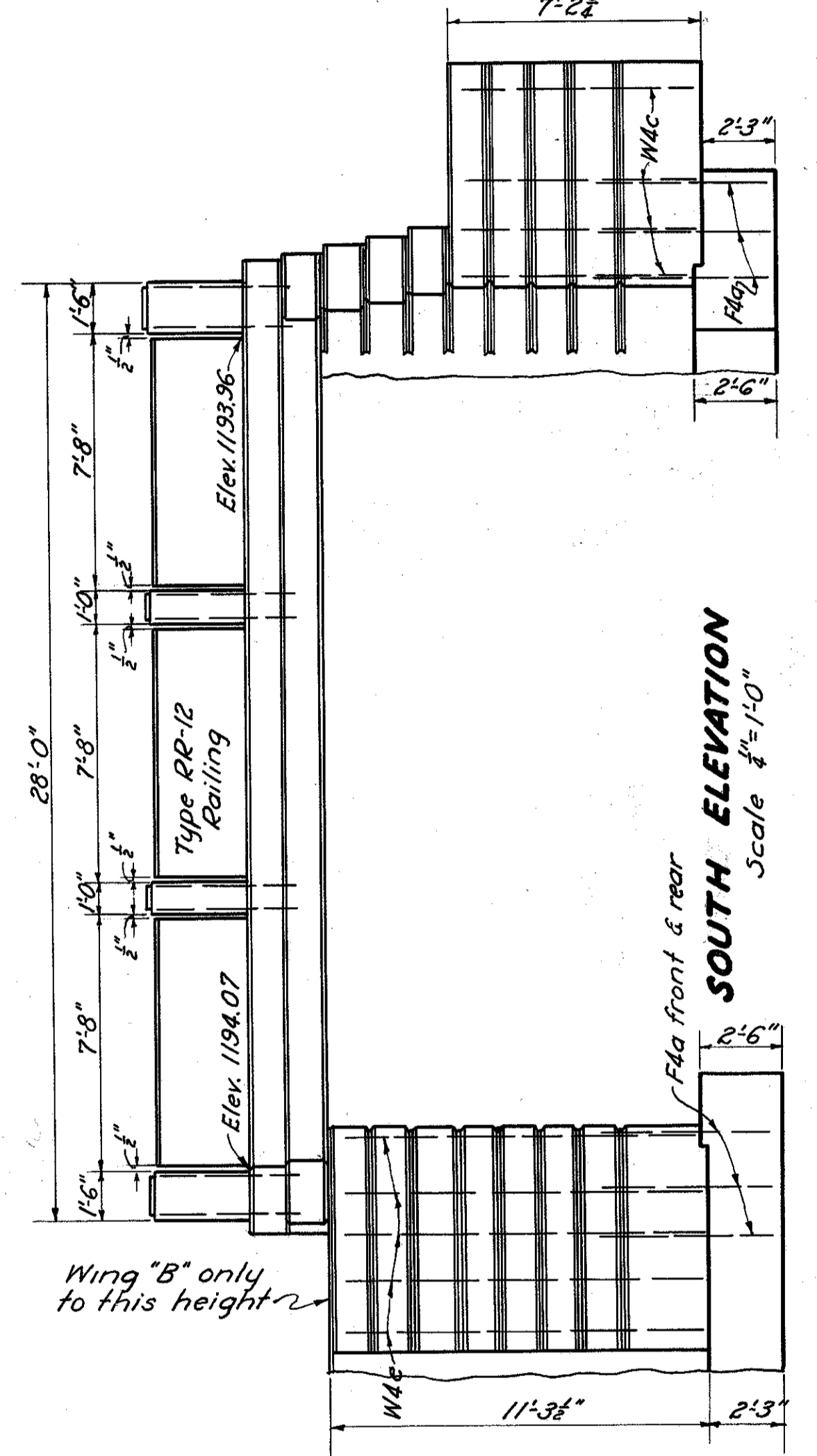
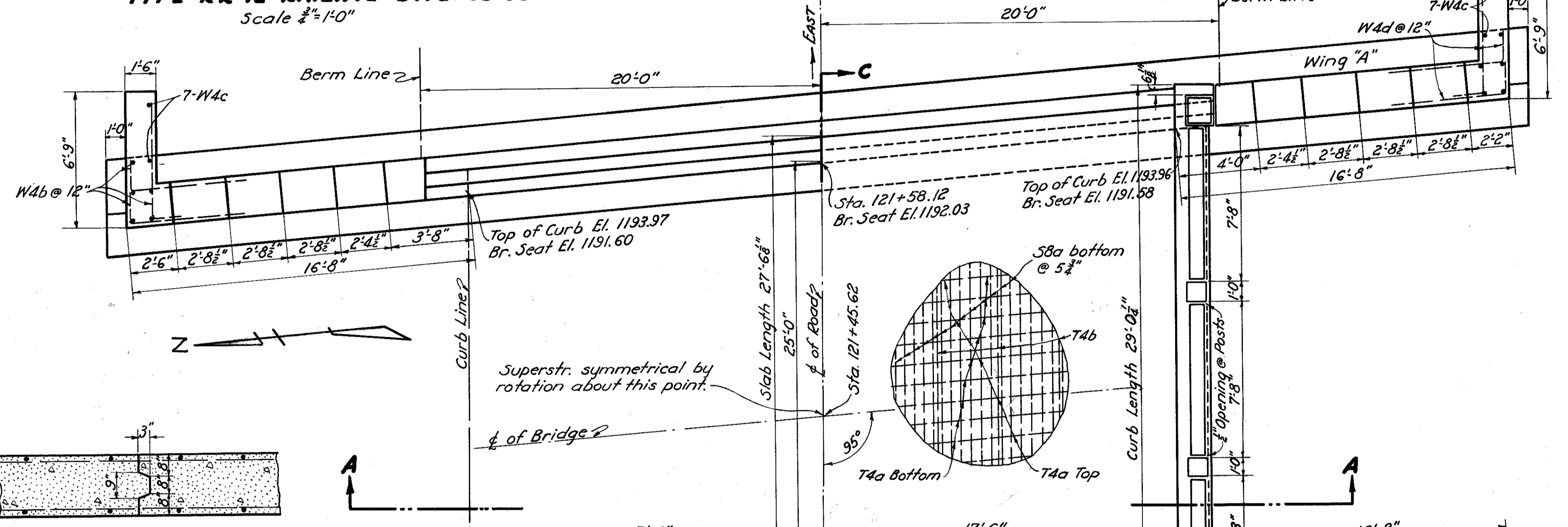
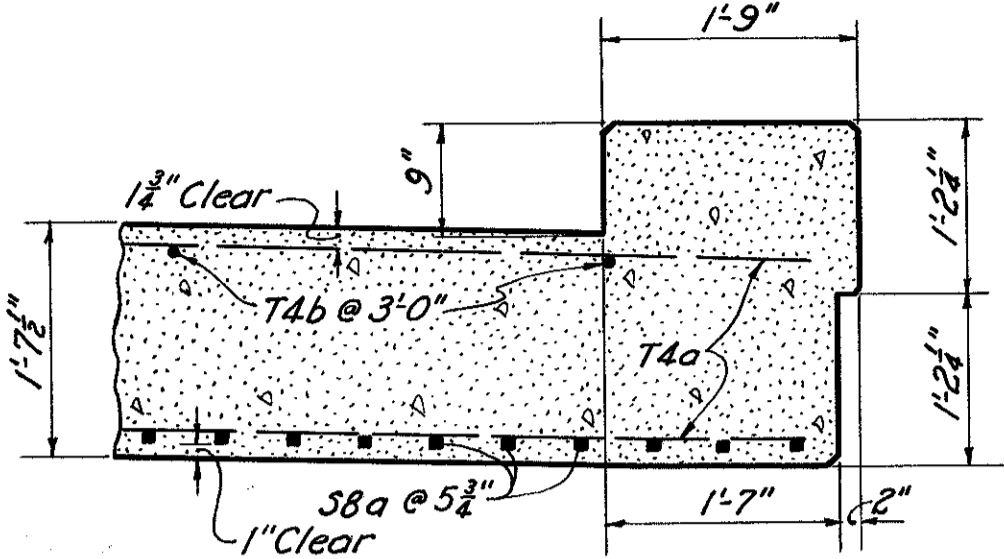
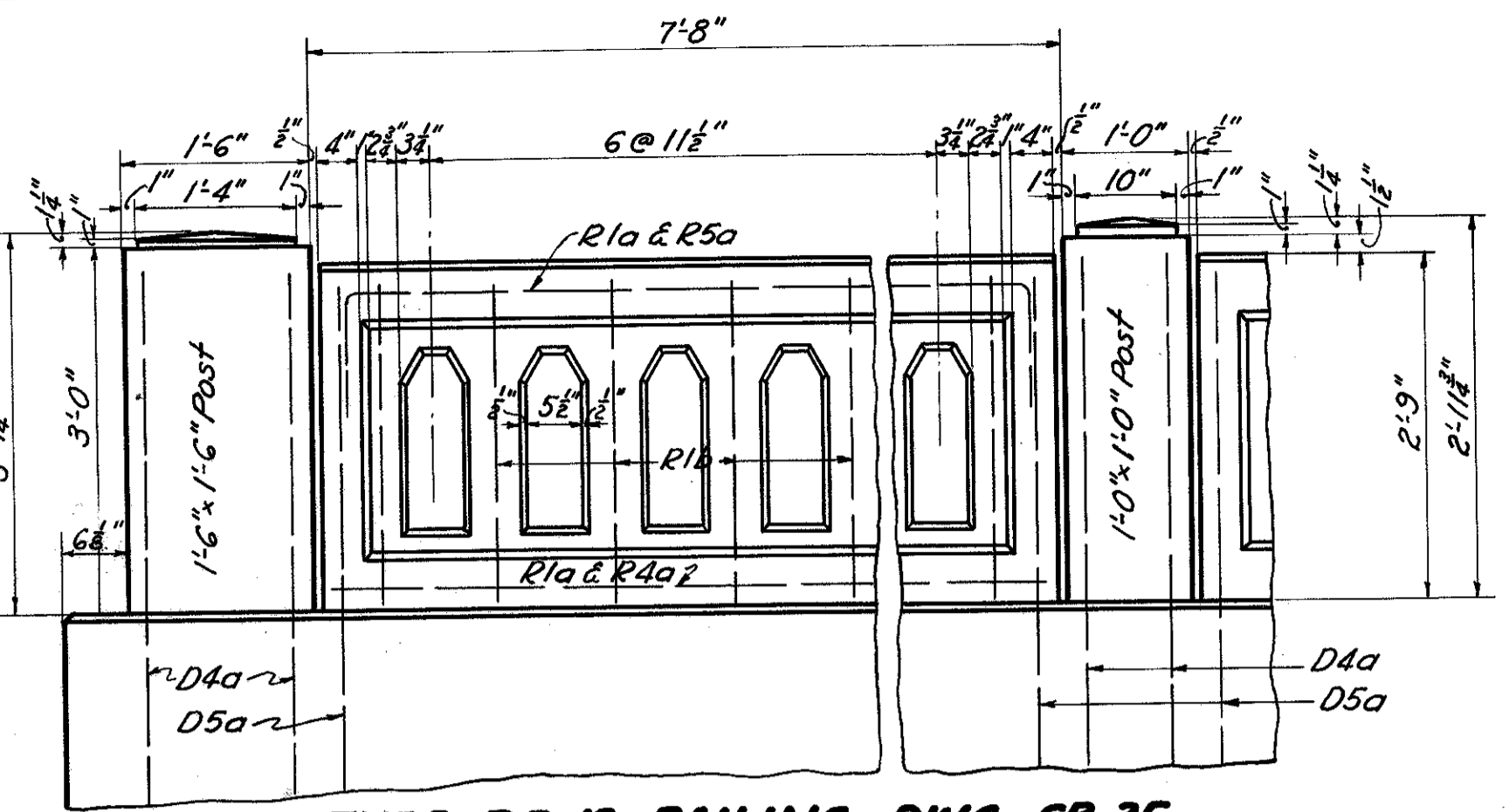
ITEM	DESCRIPTION	TOTALS
E-2	Cofferdams and Pumping.	Lump
E-2	Excavation for Structures, Wet.	225 Cu.Yds.
E-2	Excavation for Structures, Dry.	60 Cu.Yds.
S-1	Class "C" Concrete, Superstructure.	65 Cu.Yds.
S-1	Class "E" Concrete, Walls.	124 Cu.Yds.
S-1	Class "E" Concrete, Footers.	60 Cu.Yds.
S-3	Type "B" Waterproofing.	28 Sq.Yds.
S-4	Reinforcing Steel.	15,882 Lbs.
S-5	14" Reinforced Concrete Approach Slabs.	111 Sq.Yds.
S-9	1/2 Bit. Prem. Expansion Joint Filler.	41 Sq.Ft.
S-14	Concrete Bridge Railing, Type RR-12.	56 Lin.Ft.
S-24	Removal of Existing Bridge.	Lump
S-29	Porous Backfill.	Lump
T-8	Std. No. 1-2 Catch Basin Cover.	1 Pc.
T-8	12" Corrugated Iron Pipe, 2' Length.	1 Pc.

### REINFORCING STEEL

MARK	SIZE	NO.	LENGTH	WEIGHT	SHAPE
A5a	#5	56	9'-6"	799	Str.
A4a	#6	10	4'-6"	47	Bt.
A4b	#6	56	9'-6"	555	Str.
A4c	#6	40	3'-3"	1387	Str.
A4d	#6	52	2'-0"	108	Str.
F5a	#8	20	6'-0"	180	Str.
F4a	#8	136	6'-0"	851	Bt.
W4a	#8	32	4'-0"	134	Str.
W4b	#8	42	7'-3"	318	Bt.
W4c	#8	21	7'-0"	153	Str.
W4d	#8	42	7'-3"	318	Bt.
W4e	#8	7	10'-6"	77	Str.
S8a	#10	80	29'-2"	7933	Bt.
T4a	#8	49	37'-9"	1929	Str.
T4b	#8	13	27'-0"	366	Str.
D5a	#8	12	8'-3"	149	Bt.
D4a	#8	16	8'-6"	142	Bt.
R5a	#8	12	9'-4"	168	Bt.
R4a	#8	12	7'-4"	92	Str.
R1a	#8	12	7'-4"	39	Str.
R1b	#8	48	2'-6"	45	Str.
CB bars	#8	12	10'-9"	50	Str.

REPLACEMENT BARS					
RE3	#10	1	8'-0"	28	-
RE5	#6	1	7'-0"	11	-
RE4	#8	1	6'-6"	7	-
RE1	#8	1	5'-6"	2	-



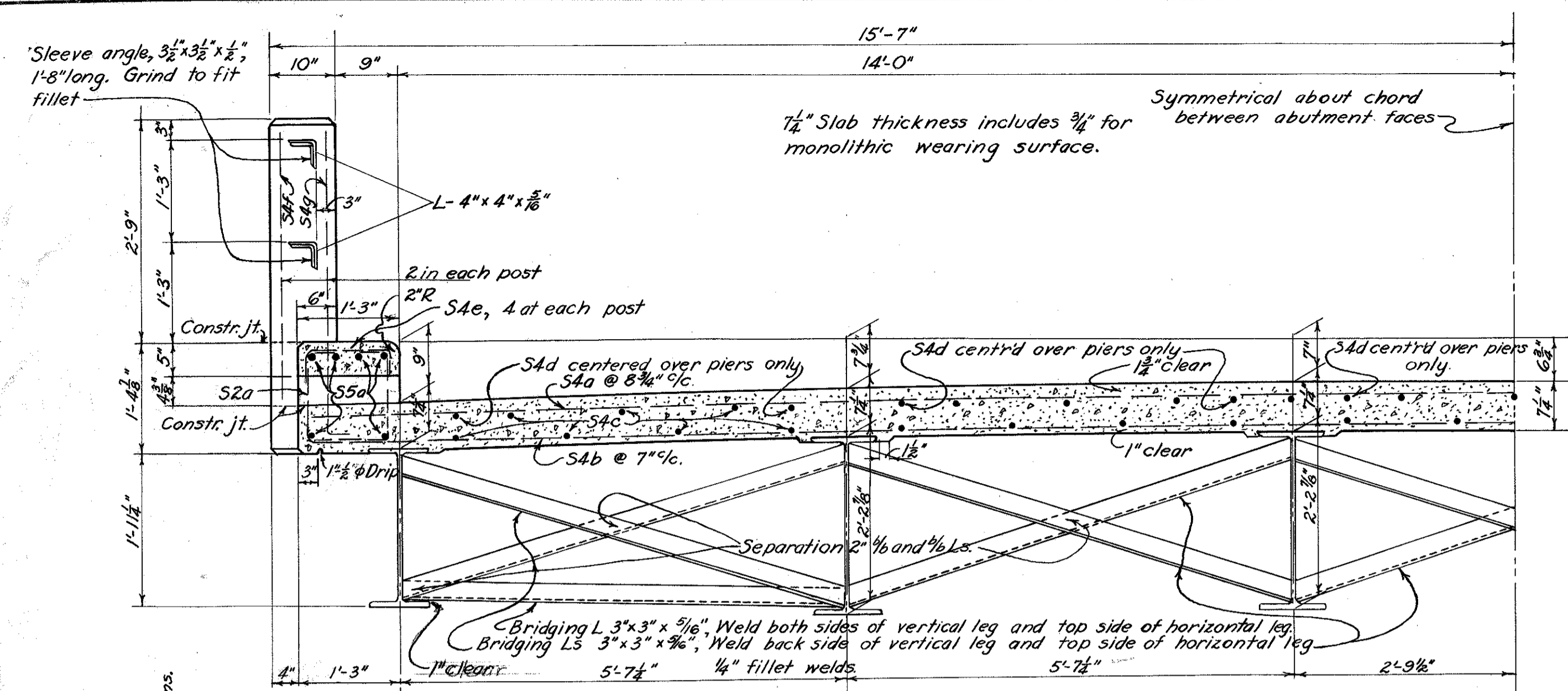
STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

### GENERAL PLAN, ELEVATION & STRUCTURAL DETAILS

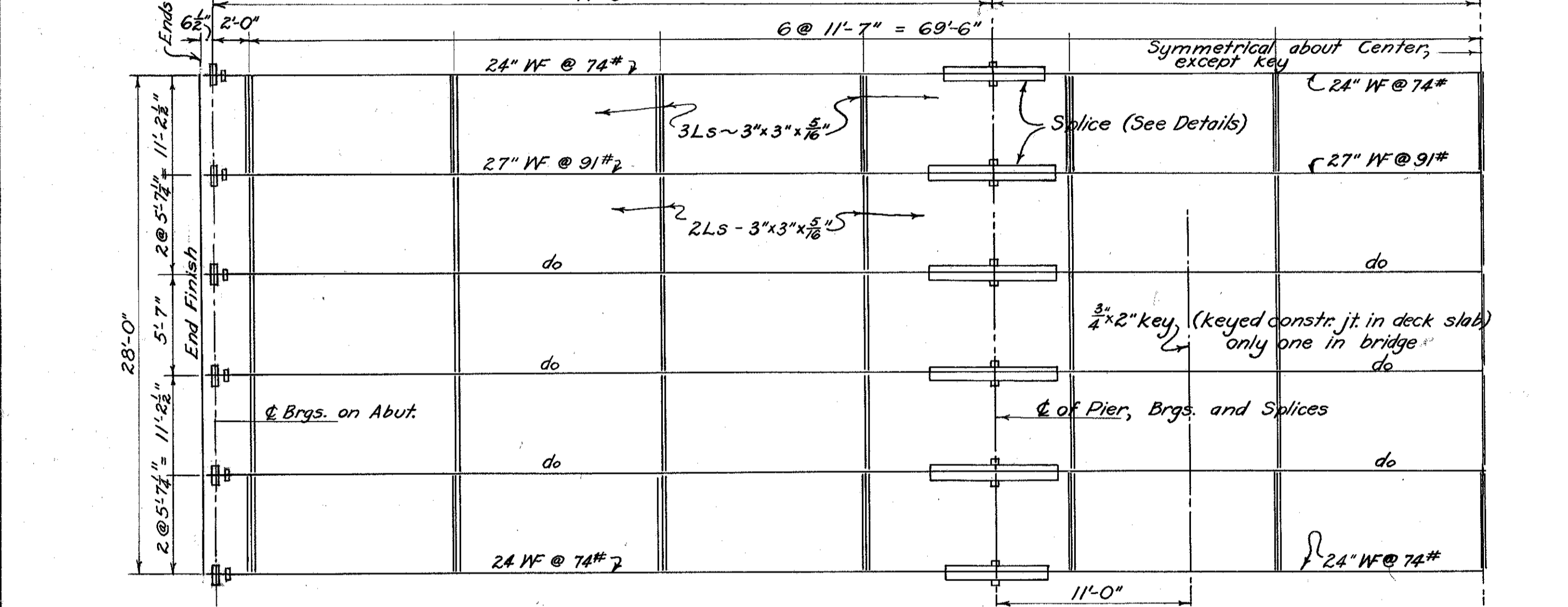
BRIDGE NO. MO-545-23  
OVER OLENTANGY RIVER  
MORROW COUNTY S.H. 114  
SEC. J W.P.A. G-59-101 STA. 121+45.62

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED

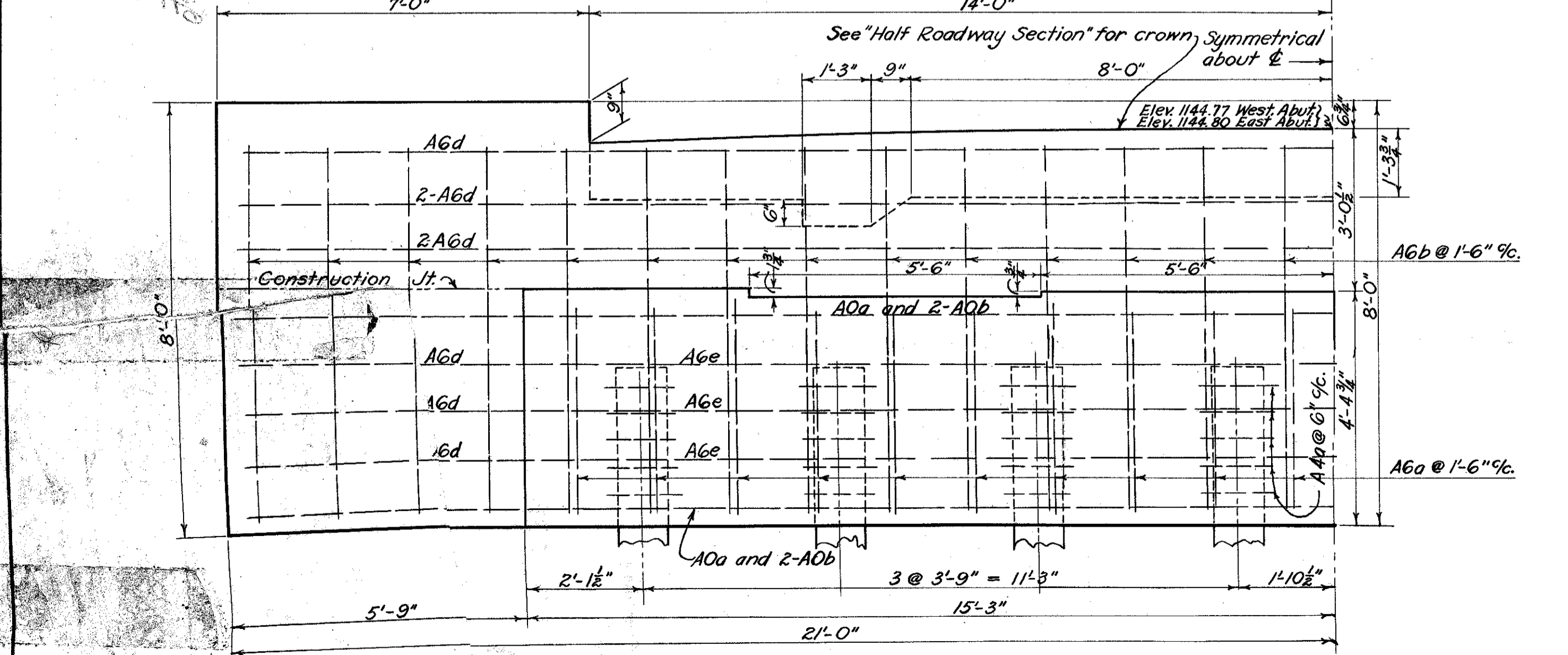
1914/59



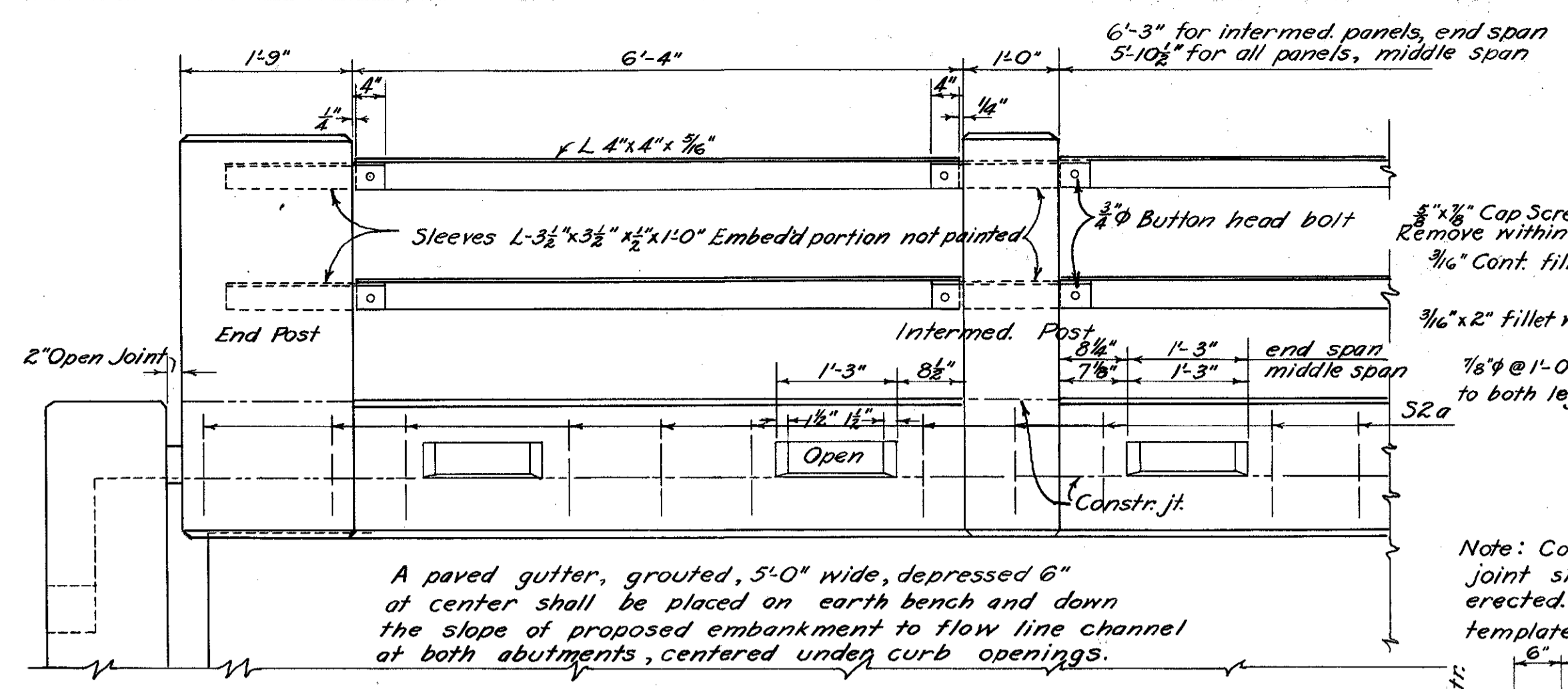
HALF ROADWAY SECTION



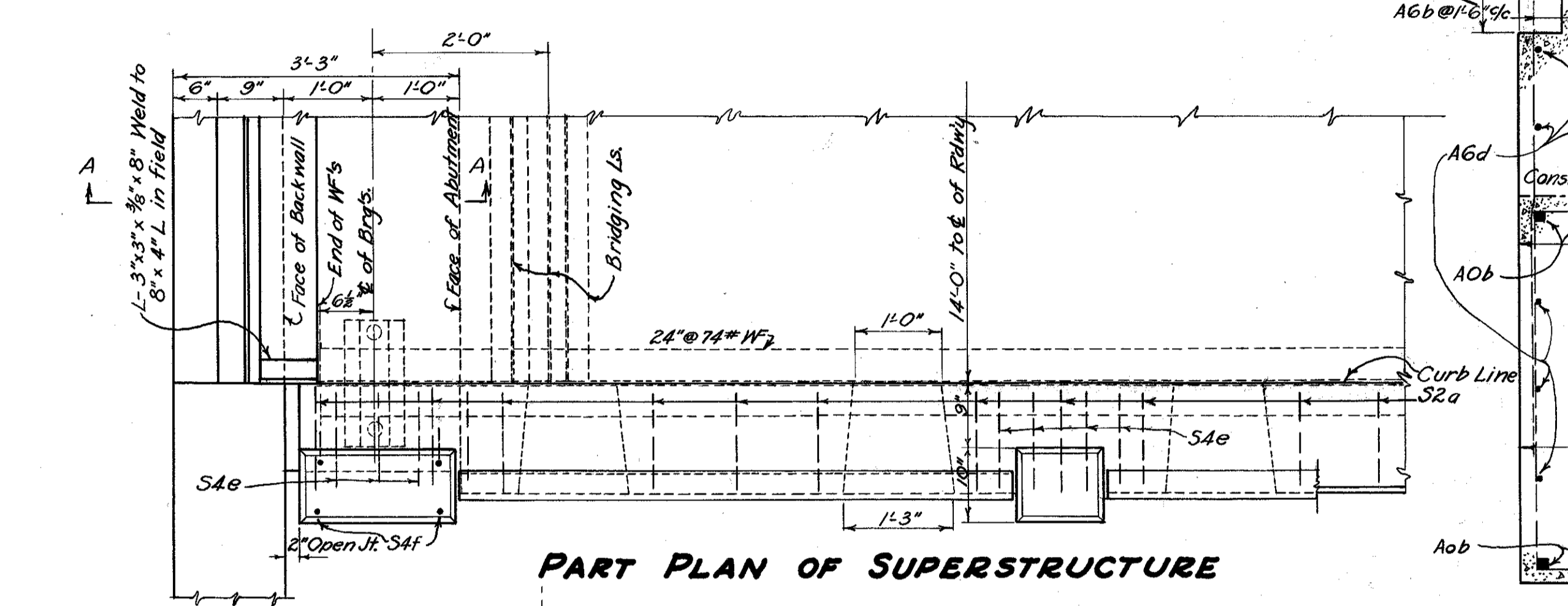
HALF STRUCTURAL LAYOUT



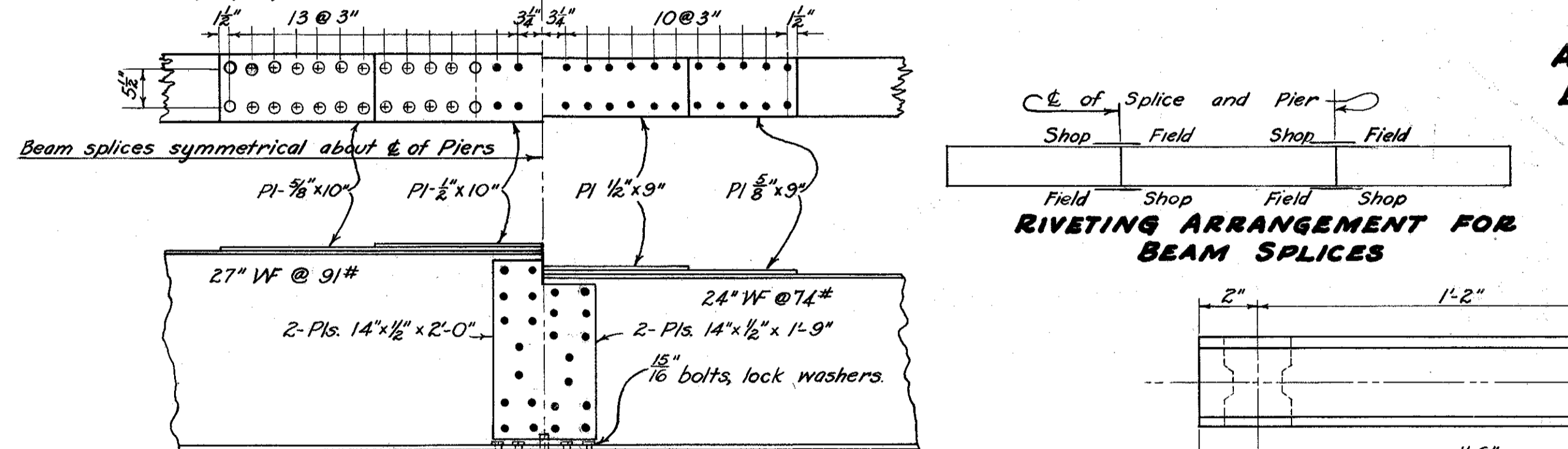
HALF FRONT ELEVATION-ABUTMENT CAP



PART ELEVATION

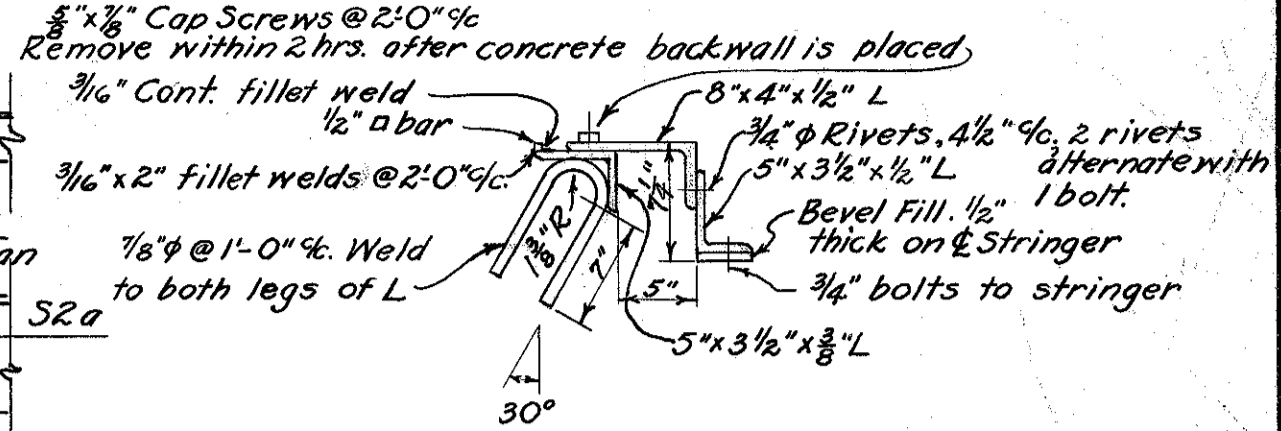


PART PLAN OF SUPERSTRUCTURE



BEAM SPLICE DETAILS

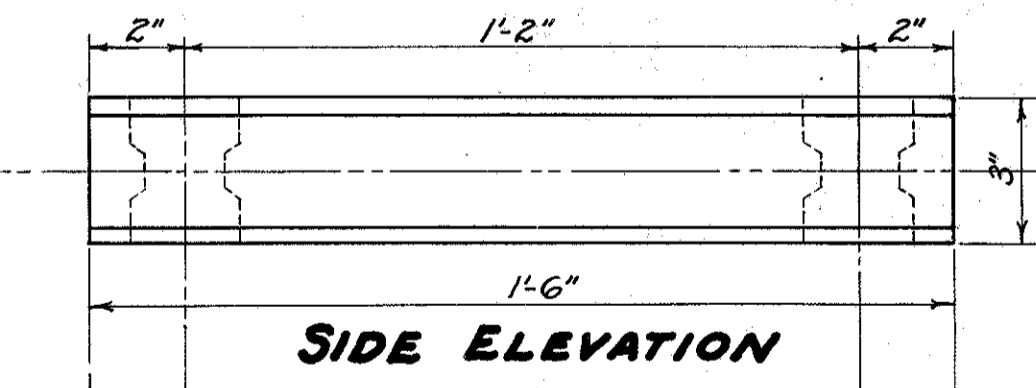
All rivets 3/8" φ except end finish which are 1/2" φ.



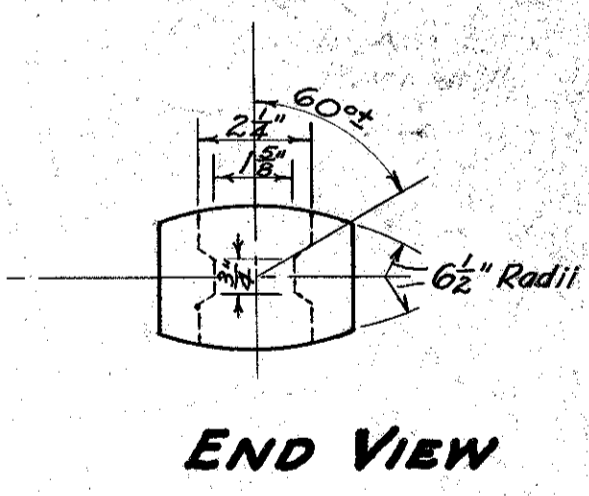
ABUTMENT BEARINGS END FINISH SECTION A-A



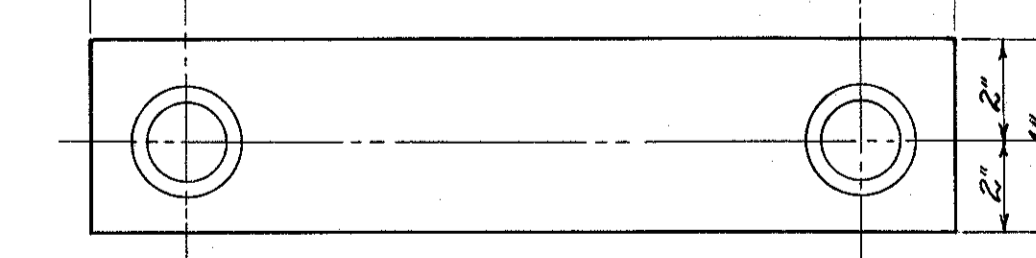
RIVETING ARRANGEMENT FOR BEAM SPLICES



SIDE ELEVATION



END VIEW



ROCKER DETAIL

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
BUREAU OF BRIDGES

**SUPERSTRUCTURE -- STEEL AND ABUTMENT DETAILS**

BRIDGE No. MO-545-04  
OVER FLAT RUN  
MORROW COUNTY S.H. 114  
SEC. L STA. 21+80.00

WPA 6-59-1

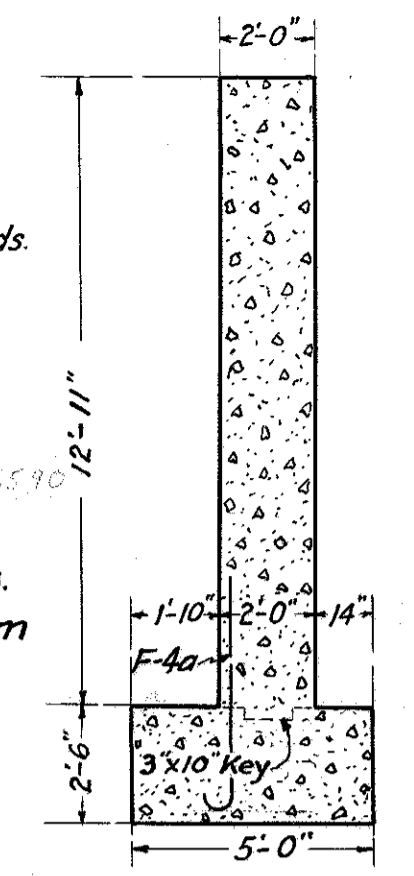
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.A.E.	M.A.E.	mau	J.H.B.	M.H.R.	9/13/39	

DRAINAGE STRUCTURE MO-545-06  
STATION 31+15

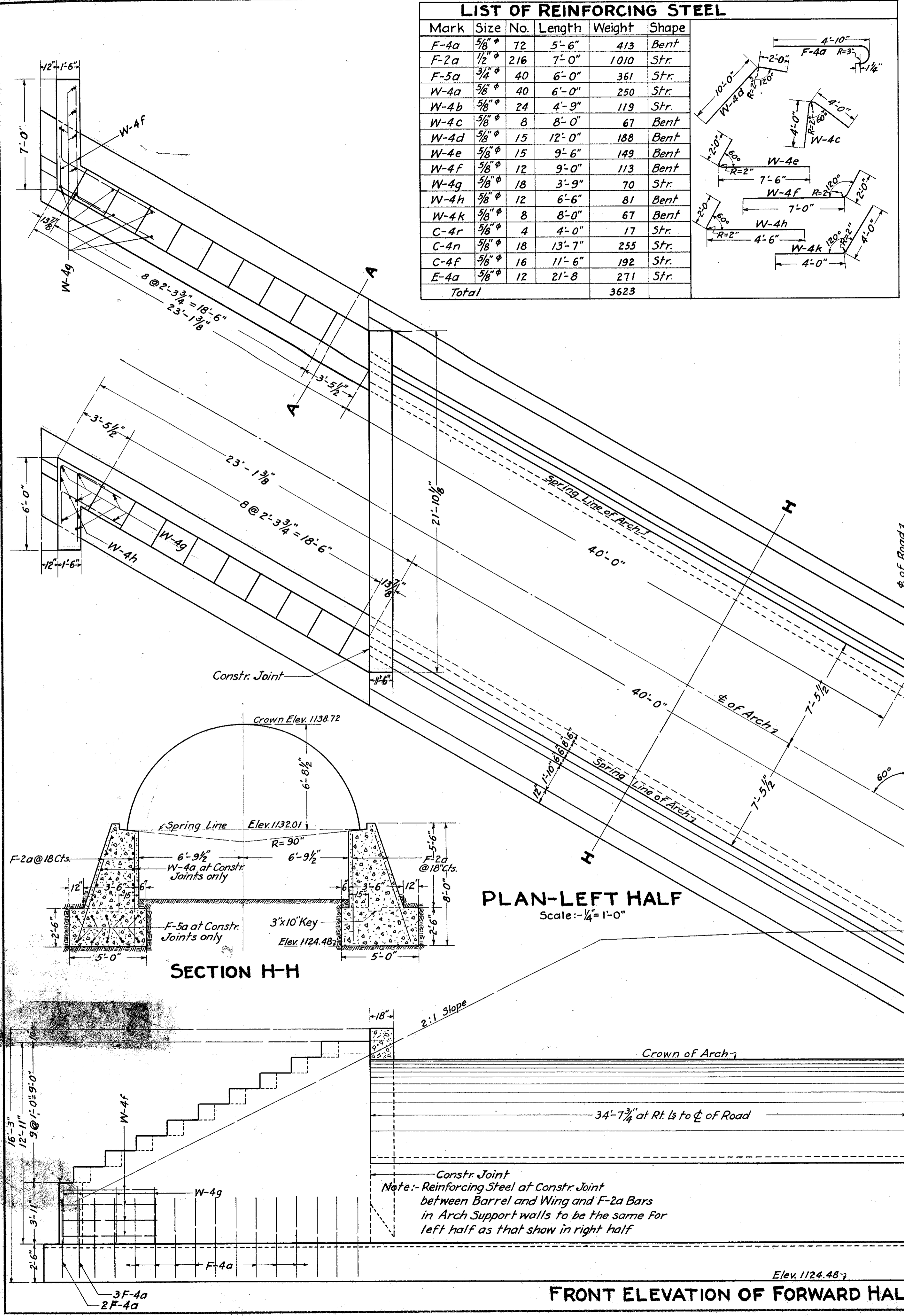
LIST OF REINFORCING STEEL					
Mark	Size	No.	Length	Weight	Shape
F-4a	5/8"	72	5'-6"	413	Bent
F-2a	1/2"	216	7'-0"	1010	Str.
F-5a	3/4"	40	6'-0"	361	Str.
W-4a	5/8"	40	6'-0"	250	Str.
W-4b	5/8"	24	4'-9"	119	Str.
W-4c	5/8"	8	8'-0"	67	Bent
W-4d	5/8"	15	12'-0"	188	Bent
W-4e	5/8"	15	9'-6"	149	Bent
W-4f	5/8"	12	9'-0"	113	Bent
W-4g	5/8"	18	3'-9"	70	Str.
W-4h	5/8"	12	6'-6"	81	Bent
W-4k	5/8"	8	8'-0"	67	Bent
C-4r	3/8"	4	4'-0"	17	Str.
C-4n	3/8"	18	13'-7"	235	Str.
C-4f	5/8"	16	11'-6"	192	Str.
F-4a	5/8"	12	21'-8"	271	Str.
Total				3623	

ESTIMATED QUANTITIES

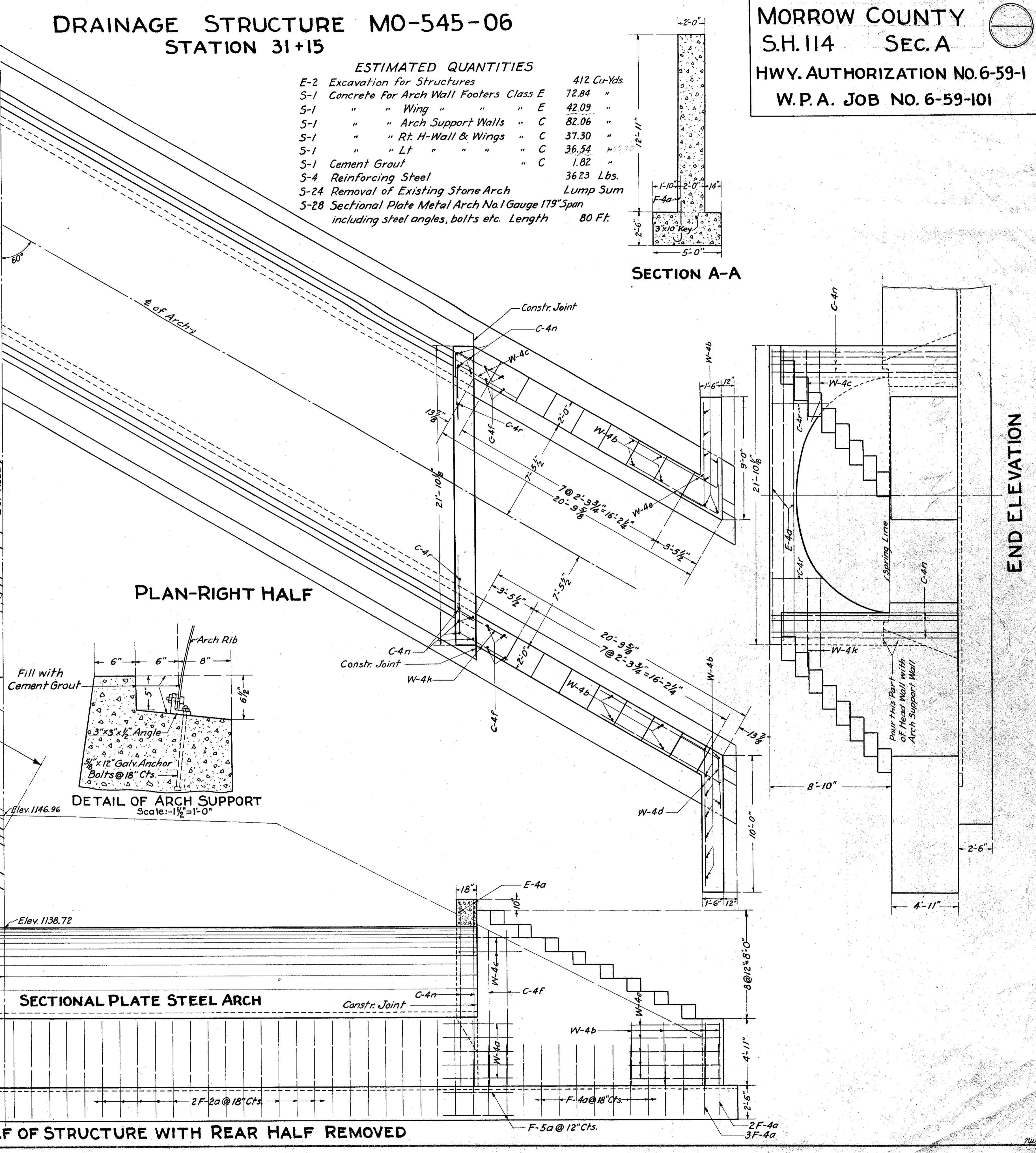
E-2	Excavation for Structures	412 Cu-Yds.
S-1	Concrete for Arch Wall Footers Class E	72.84 "
S-1	" " Wing " " " E	42.09 "
S-1	" " Arch Support Walls " " C	82.06 "
S-1	" " Rt. H-Wall & Wings " " C	37.30 "
S-1	" " Lt " " " " C	36.54 "
S-1	Cement Grout	1.82 "
S-4	Reinforcing Steel	3623 Lbs.
S-24	Removal of Existing Stone Arch	Lump Sum
S-28	Sectional Plate Metal Arch No. 1 Gauge 179" Span including steel angles, bolts etc.	Length 80 Ft.



SECTION A-A



FRONT ELEVATION OF FORWARD HALF OF STRUCTURE WITH REAR HALF REMOVED



PLAN-RIGHT HALF

DETAIL OF ARCH SUPPORT

END ELEVATION