

F.A.G.H. 182-B(I)
INDEX OF SHEETS OF SHEETS

- SET NO. 1 SKETCH MAP AND TITLE SHEET
2 TYPICAL SECTION AND SUMMARY OF QUANTITIES
3 & 3A TABULATION OF STRUCTURES
4 TO 10 DETAILS OF CONCRETE OVERPASS STA. 215 +
11 TO 13 DELETED
14 STANDARD NAME PLATE M 6 D
15 STANDARD HEADWALLS FOR C.M.P. CULVERTS M 102 E
18 STANDARD TIMBER GUARD POSTS M 19 B
19 STANDARD SEMI-RIGID METAL PLATE GUARD FENCE M 21 B
20 STANDARD FLEXIBLE METAL PLATE GUARD FENCE M 22 B
21 STANDARD WIRE FENCE (TREATED WOOD POSTS) AND MARKER POSTS M 24 F
22 STANDARD PICKET SNOW FENCE WITH STEEL POSTS M 25 B
23 STANDARD STRUCTURE NUMBER LETTERING M 10 A
24 STANDARD METHODS FOR SUPERELEVATION AND WIDENING OF CURVES M 1 B
25 TYPICAL SIDE APPROACH ROADS-ROADWAY CONSTRUCTION TRAFFIC SIGNS M 2 B
27 & 28 ALIGNMENT, PLAN AND PROFILE
34 & 59 ROADWAY CROSS SECTIONS

F.A.P. 182-C(I)
INDEX OF SHEETS

- SET NO. 1 SKETCH MAP AND TITLE SHEET
2 TYPICAL SECTION AND SUMMARY OF QUANTITIES
3 & 3A TABULATION OF STRUCTURES
15 STANDARD HEADWALLS FOR C.M.P. CULVERTS M 102 E
16 STANDARD CONCRETE BOX CULVERTS M 103 D
17 STANDARD CATTLE GUARD (16 FT. ROADWAY) M 16 A
18 STANDARD TIMBER GUARD POSTS M 19 B
21 STANDARD WIRE FENCE (TREATED WOOD POSTS) AND MARKER POSTS M 24 F
22 STANDARD PICKET SNOW FENCE WITH STEEL POSTS M 25 B
24 STANDARD METHODS FOR SUPERELEVATION AND WIDENING OF CURVES M 1 B
25 TYPICAL SIDE APPROACH ROADS-ROADWAY CONSTRUCTION TRAFFIC SIGNS M 2 B
3 TO 30 ALIGNMENT, PLAN AND PROFILE
31 TO 35 AND ROADWAY CROSS SECTIONS
36 TO 59

COLORADO STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED COMBINED FEDERAL AID GRADE CROSSING PROJECT NO. F.A.G.H. 182-B (I) AND FEDERAL AID PROJECT NO. 182-C (I) STATE HIGHWAY NO. 4 LAKE COUNTY

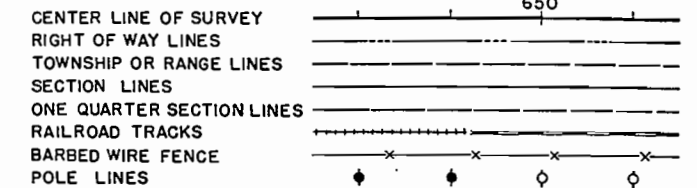
SCALES OF ORIGINAL TRACINGS

ON PLAN, 1 IN. = 100 FT.
ON PROFILE 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
F.A.P. 182-C (I) { GROSS LENGTH OF PROJECT 12343.0 FEET = 2.337 MILES
NET LENGTH OF PROJECT 9579.4 FEET = 1.814 MILES
F.A.G.H. 182-B (I) { GROSS LENGTH OF PROJECT 2763.6 FEET = 0.523 MILES
NET LENGTH OF PROJECT

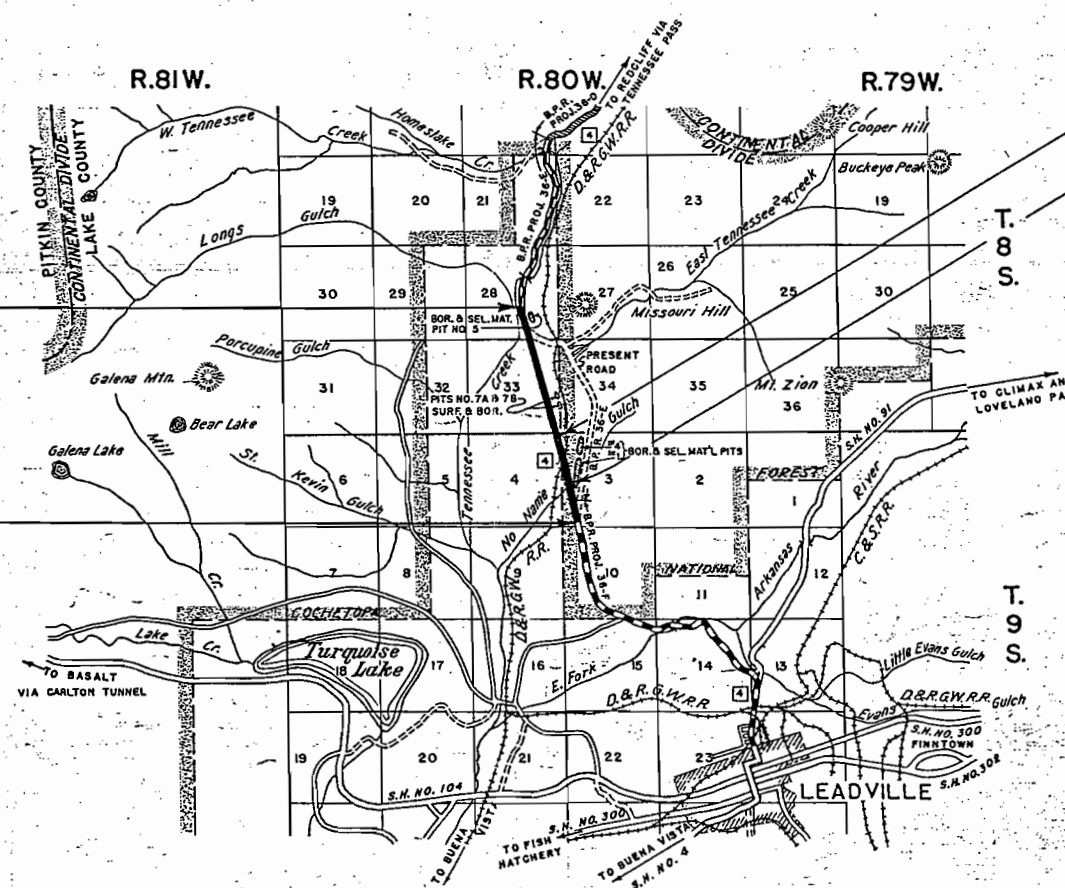
FED. ROAD DIST. NO.	STATE	F.A.G.H. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-B(I)	1	
REV. 5-27-39 E.C.P. REV. SURF. & BOR. PLAN, 7-7-39 J.R.K.		FED. AID PROJ. NO. 182-C (I)		

CONVENTIONAL SIGNS



STA. 306+53.3
END OF
F.A.P. 182-C (I)
EQUALS STA. 320+80.5
ON ORIG. B.P.R. PROJ. NO. 36-E

STA. 183+10.3
BEGINNING OF
F.A.P. 182-C (I)
EQUALS STA. 183+10.3
ON ORIG. B.P.R. PROJ. NO. 36-F



1 1/2 0 1 2 3
SCALE IN MILES

STA. 232+63.6
END OF F.A.G.H. 182-B (I) =
BEGINNING OF F.A.P. 182-C (I)

STA. 205+00
BEGINNING OF F.A.G.H. 182-B (I) =
END OF F.A.P. 182-C (I)

NOTE

IT IS RECOMMENDED THAT THE BIDDERS ON THIS PROJECT GO OVER THE PLAN DETAILS WITH ONE OF THE FOLLOWING FIELD REPRESENTATIVES OF THIS DEPARTMENT

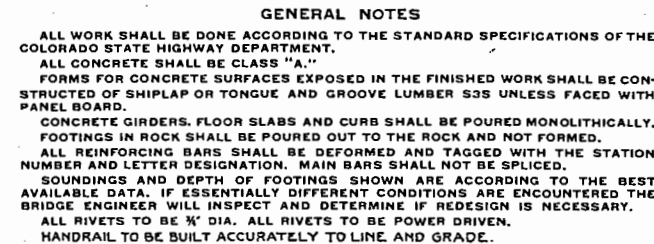
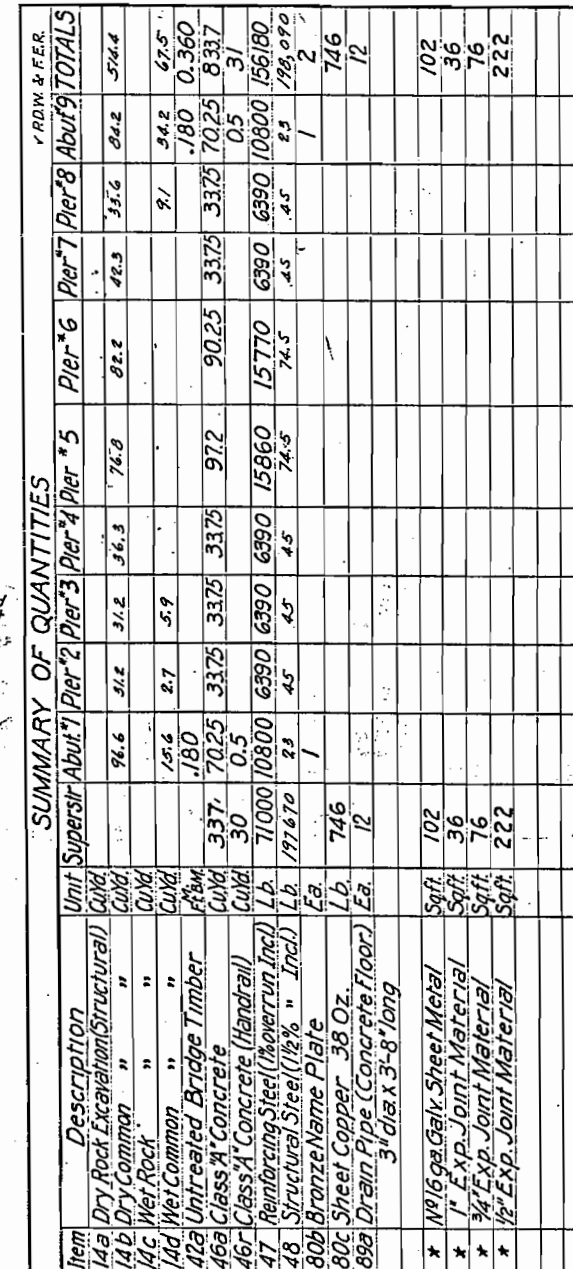
W.A. WHITNEY DIVISION ENGINEER SALIDA
E.W. OVIATT RESIDENT ENGINEER BUENA VISTA

RECOMMENDED FOR APPROVAL
[Signature] 4/1/39
ASSISTANT ENGINEER
APPROVED
[Signature]
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DIST. ENG. BUREAU PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENG. BUREAU PUBLIC ROADS
APPROVED
DIRECTOR BUREAU PUBLIC ROADS

FED. ROAD DIST. NO.	STATE	F.A.G.H.	SHEET NO.	TOTAL SHEETS
3	COLO.	182 B(1)	4	

Rev. 3-6-40 P.A.D. & A.D.N. Quanty. as constructed.

Rev. 3.6.40 P.A.D. & A.D.N. Quants. as constructed.



★ To be included in unit bid price of Class "A" Concrete.
 † Includes 5490 Lbs Wrought Iron, "USS-Corten," or "Mayari-R" alloy steel, or Inland-Hi steel for Blast Plate.
 ‡ Met Wt assumed at Elevation 9902.0

LIST OF REFERENC DRAWINGS.

LIST OF REFERENCE DRAWINGS.	
Sheet No. 5	Superstructure, typical end and interior spans
Sheet No. 6	" " skewed spans
Sheet No. 7	Details of abutments Nos. 1 and 9.
Sheet No. 8	Details of Piers 2, 3, 4, 7, and 8.
Sheet No. 9	Details of Pier 5
Sheet No. 10	Details of Pier 6

LOADING DATA.
LIVE LOAD=A. A. S. H. O. 1935 CLASS A, (H-18)
DEAD LOAD=ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 3/4 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
A.A.S.H.O. 1936 EXCEPT CONCRETE UNIT STRESSES
PER A.A.S.H.O. AUG. 1928

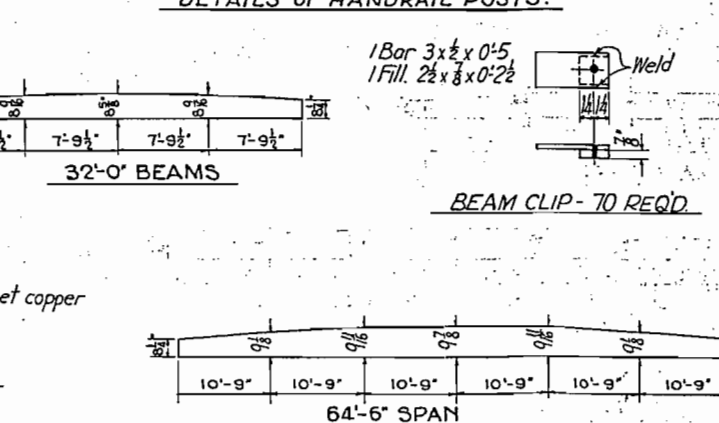
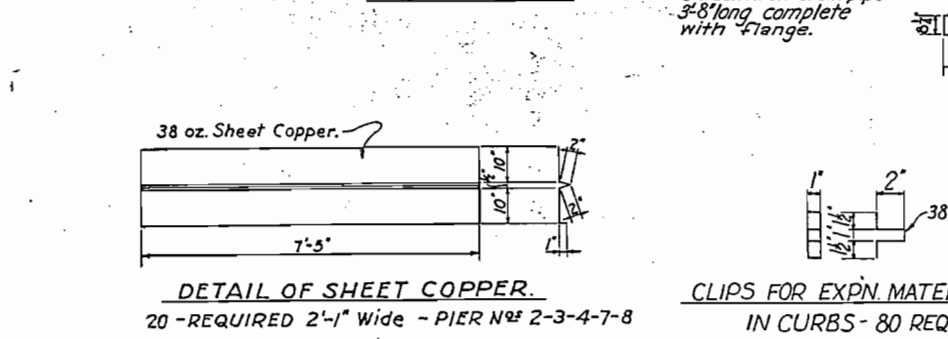
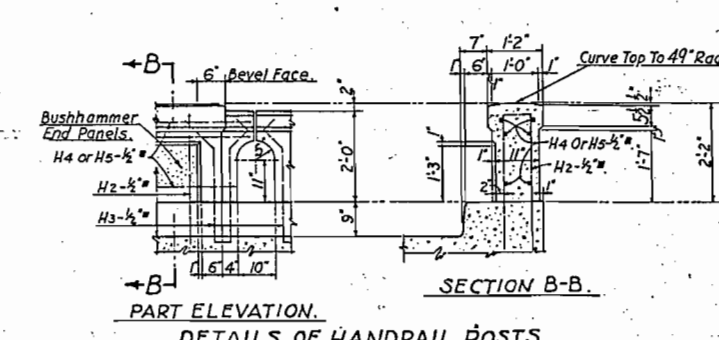
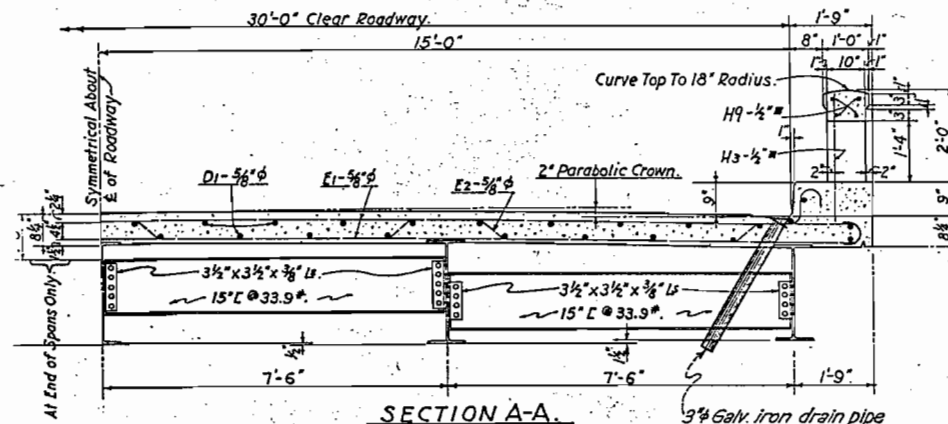
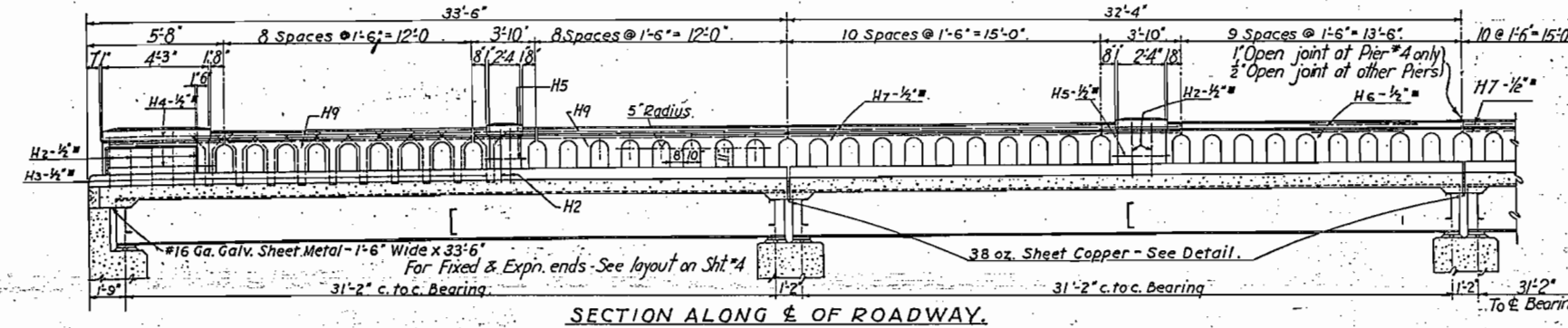
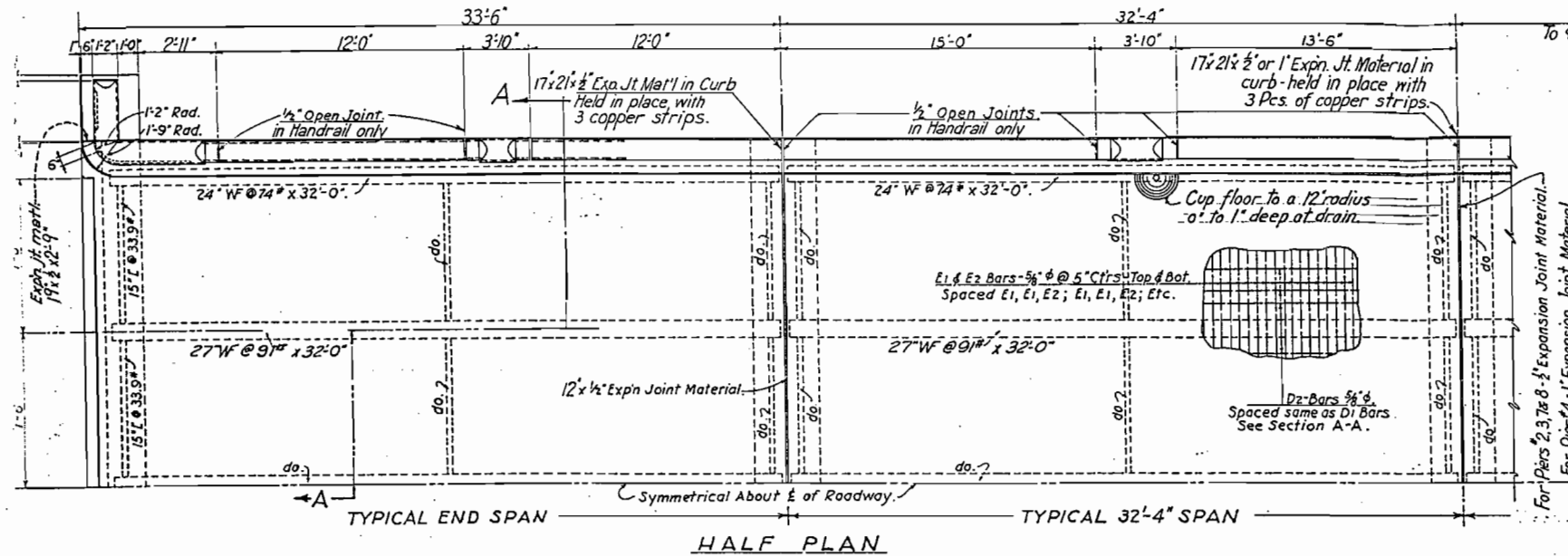
COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE
GENERAL LAYOUT
AND
SUMMARY OF ALL QUANTITIES

Across DENVER & RIO GRANDE Wn.R.R.
Sta. 215+72.875 TO 218+93.79
Near LEADVILLE Sec. 3/4 T. 9 S R. 80 W

Designed by <u>K.B.</u>	Approved by <u>P. D. Bentley</u>
Made by <u>R.M.A.</u>	Bridge Engineer
Checked by	Date: <u>May 31st 1939</u>

STRUCTURE NO. G.I.F.

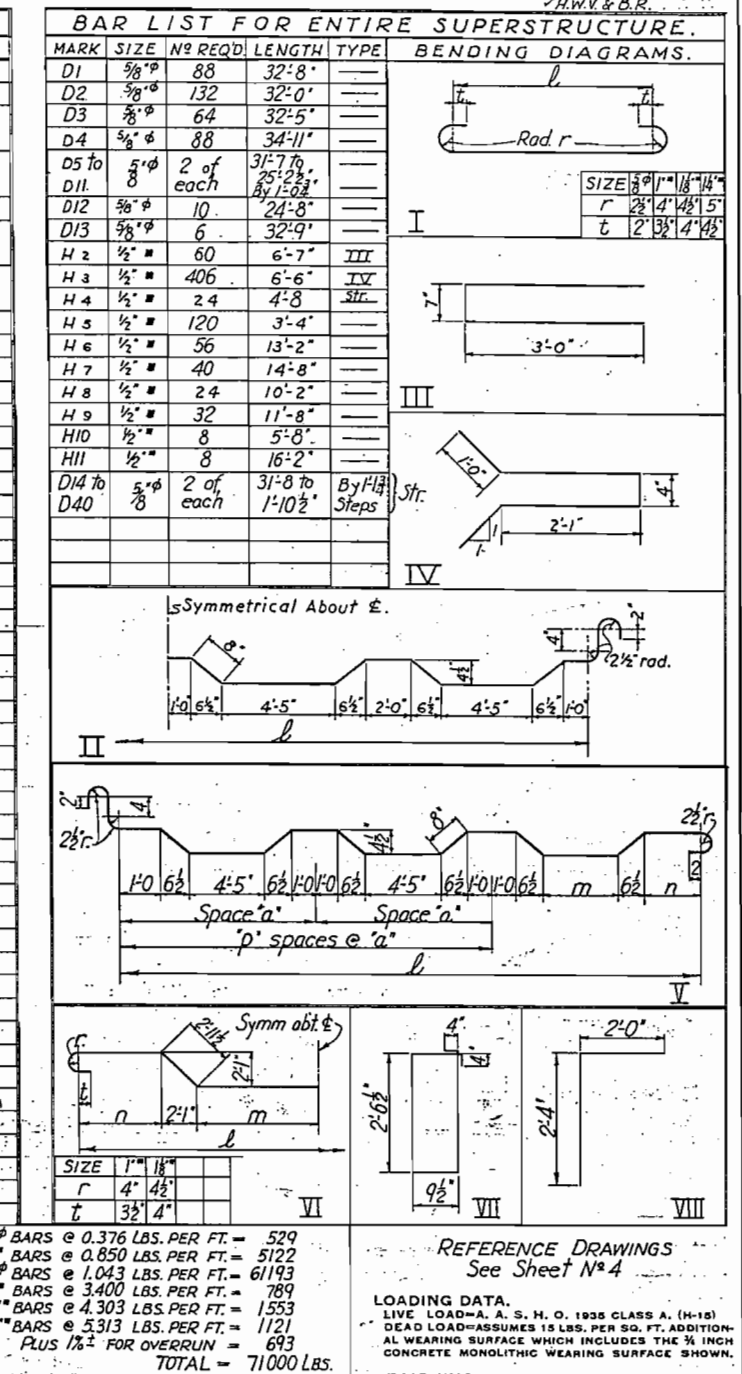
FED. ROAD DIST. NO.	STATE	F.A.G.H.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-B-(1)	5	



BAR LIST FOR ENTIRE SUPERSTRUCTURE

MARK	SIZE	REQD. LENGTH	TYPE	l	m	n	p
E1	$\frac{3}{8}$ " ϕ	760	34'-3"	I	32'-7"		
E2	$\frac{3}{8}$ " ϕ	189	34'-0"	II	30'-0"		
E3	$\frac{3}{8}$ " ϕ	4	32'-2" to 31'-3" by 58 steps	I	29'-6" to 28'-7" by 58 steps		
E4	$\frac{3}{8}$ " ϕ	8	30'-10" to 25'-11" by 58 steps	I	29'-11" to 24'-5" by 58 steps		
E5	$\frac{3}{8}$ " ϕ	4	25'-6"	I	23'-10"		
E6	$\frac{3}{8}$ " ϕ	8	25'-0" to 3'-9" by 58 steps	I	23'-4" to 3'-0" by 58 steps		
E7	$\frac{3}{8}$ " ϕ	4	3'-4" to 2'-5" by 58 steps	I	1'-7" to 1'-0" by 58 steps		
E8	$\frac{3}{8}$ " ϕ	4	25'-6"	I	23'-10"		
E9	$\frac{3}{8}$ " ϕ	4	32'-5"	V	29'-1"	3'-6"	1'-0"
E10	$\frac{3}{8}$ " ϕ	4	31'-6"	V	28'-2"	2'-7"	1'-0"
E11	$\frac{3}{8}$ " ϕ	4	30'-8"	V	27'-4"	1'-9"	1'-0"
E12	$\frac{3}{8}$ " ϕ	4	29'-6"	V	26'-5"	4'-5"	4'-1"
E13	$\frac{3}{8}$ " ϕ	4	28'-7"	V	25'-6"	4'-5"	4'-0"
E14	$\frac{3}{8}$ " ϕ	4	27'-9"	V	24'-8"	4'-5"	3'-2"
E15	$\frac{3}{8}$ " ϕ	4	26'-10"	V	23'-9"	4'-5"	2'-3"
E16	$\frac{3}{8}$ " ϕ	2	25'-11"	V	22'-10"	4'-5"	1'-4"
E17	$\frac{3}{8}$ " ϕ	4	25'-1"	V	22'-0"	3'-11"	1'-0"
E18	$\frac{3}{8}$ " ϕ	4	24'-2"	V	21'-1"	3'-0"	1'-0"
E19	$\frac{3}{8}$ " ϕ	4	23'-3"	V	20'-2"	2'-1"	1'-0"
E20	$\frac{3}{8}$ " ϕ	4	22'-5"	V	19'-4"	1'-3"	1'-0"
E21	$\frac{3}{8}$ " ϕ	4	21'-3"	V	18'-5"	4'-5"	4'-5"
E22	$\frac{3}{8}$ " ϕ	4	20'-4"	V	17'-6"	4'-5"	3'-6"
E23	$\frac{3}{8}$ " ϕ	4	19'-6"	V	16'-8"	4'-5"	2'-8"
E24	$\frac{3}{8}$ " ϕ	4	18'-7"	V	15'-9"	4'-5"	1'-9"
E25	$\frac{3}{8}$ " ϕ	4	17'-8"	V	14'-10"	4'-3"	1'-0"
E26	$\frac{3}{8}$ " ϕ	4	16'-10"	V	14'-0"	3'-5"	1'-0"
E27	$\frac{3}{8}$ " ϕ	4	15'-11"	V	13'-4"	2'-6"	1'-0"
E28	$\frac{3}{8}$ " ϕ	4	15'-0"	V	12'-2"	1'-7"	1'-0"
E29	$\frac{3}{8}$ " ϕ	4	13'-11"	V	11'-4"	4'-5"	4'-10"
E30	$\frac{3}{8}$ " ϕ	4	13'-0"	V	10'-5"	4'-5"	3'-11"
E31	$\frac{3}{8}$ " ϕ	4	12'-2"	V	9'-7"	4'-5"	3'-1"
E32	$\frac{3}{8}$ " ϕ	4	11'-3"	V	8'-8"	4'-5"	2'-2"
E33	$\frac{3}{8}$ " ϕ	4	10'-4"	V	7'-9"	4'-5"	1'-3"
E34	$\frac{3}{8}$ " ϕ	4	9'-6"	V	6'-11"	3'-10"	1'-0"
E35	$\frac{3}{8}$ " ϕ	4	8'-7"	V	6'-0"	2'-11"	1'-0"
E36	$\frac{3}{8}$ " ϕ	4	7'-8"	V	5'-1"	2'-0"	1'-0"
E37	$\frac{3}{8}$ " ϕ	4	6'-10"	V	4'-3"	1'-2"	1'-0"
E38	$\frac{3}{8}$ " ϕ	4	6'-3"	I	4'-7"		
E39	$\frac{3}{8}$ " ϕ	4	5'-5"	I	3'-9"		
E40	$\frac{3}{8}$ " ϕ	4	4'-6"	I	2'-10"		
E41	$\frac{3}{8}$ " ϕ	4	3'-8"	I	2'-0"		
E42	$\frac{3}{8}$ " ϕ	2	2'-9"	I	1'-1"		
E43	$\frac{3}{8}$ " ϕ	6	13'-6"	I	10'-10"		
E44	$\frac{3}{8}$ " ϕ	6	24'-3"	I	21'-3"		
E45	$\frac{3}{8}$ " ϕ	6	25'-1"	VI	20'-8"	5'-0"	3'-3"
E46	$\frac{3}{8}$ " ϕ	6	35'-1"	VI	31'-9"		
E47	$\frac{3}{8}$ " ϕ	6	35'-11"	VI	31'-2"	7'-6"	6'-0"
E48	$\frac{3}{8}$ " ϕ	192	7'-4"	VII			
E49	$\frac{3}{8}$ " ϕ	84	4'-4"	VIII			
E50	$\frac{3}{8}$ " ϕ	4	10'-2"				
E51	$\frac{3}{8}$ " ϕ	4	19'-6"				
E52	$\frac{3}{8}$ " ϕ	4	24'-6"				
E53	$\frac{3}{8}$ " ϕ	14	39'-6"				
E54	$\frac{3}{8}$ " ϕ	14	23'-0"				

1408 LINEAL FT. OF $\frac{3}{8}$ " BARS @ 0.376 LBS. PER FT. = 529
6026 LINEAL FT. OF $\frac{3}{8}$ " BARS @ 0.850 LBS. PER FT. = 5122
58670 LINEAL FT. OF $\frac{3}{8}$ " BARS @ 1.043 LBS. PER FT. = 61193
232 LINEAL FT. OF $\frac{1}{2}$ " BARS @ 3.400 LBS. PER FT. = 789
361 LINEAL FT. OF $\frac{1}{2}$ " BARS @ 4.303 LBS. PER FT. = 1553
211 LINEAL FT. OF $\frac{1}{2}$ " BARS @ 5.313 LBS. PER FT. = 1121
PLUS 1 1/2% FOR OVERRUN = 693
TOTAL = 71000 LBS.



COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE.

DETAILS OF SUPERSTRUCTURE
TYPICAL END & INTERMEDIATE SPANS

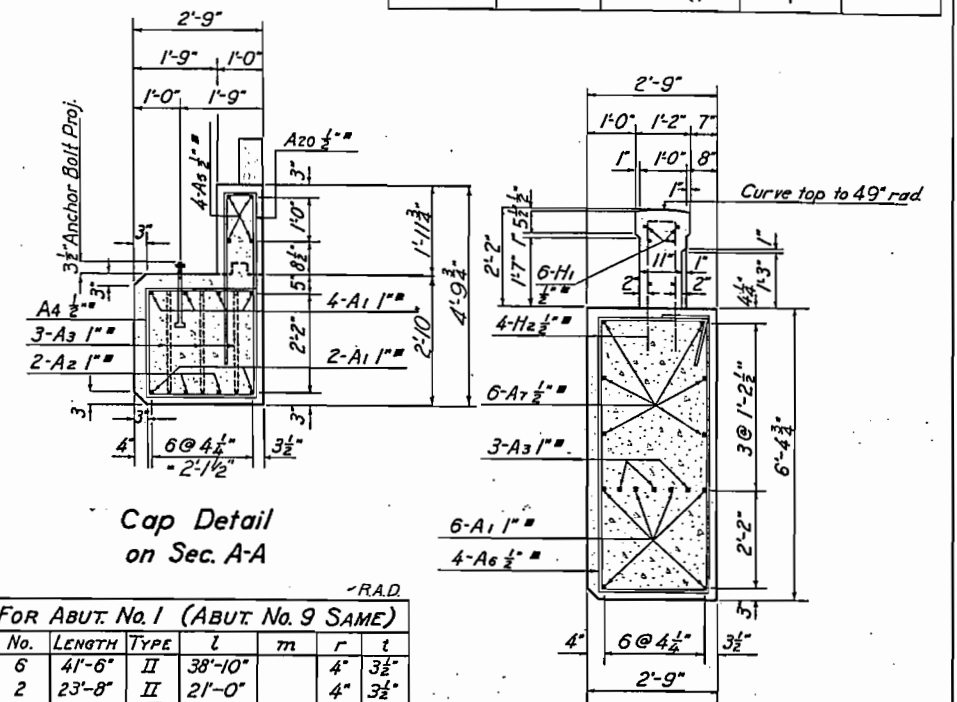
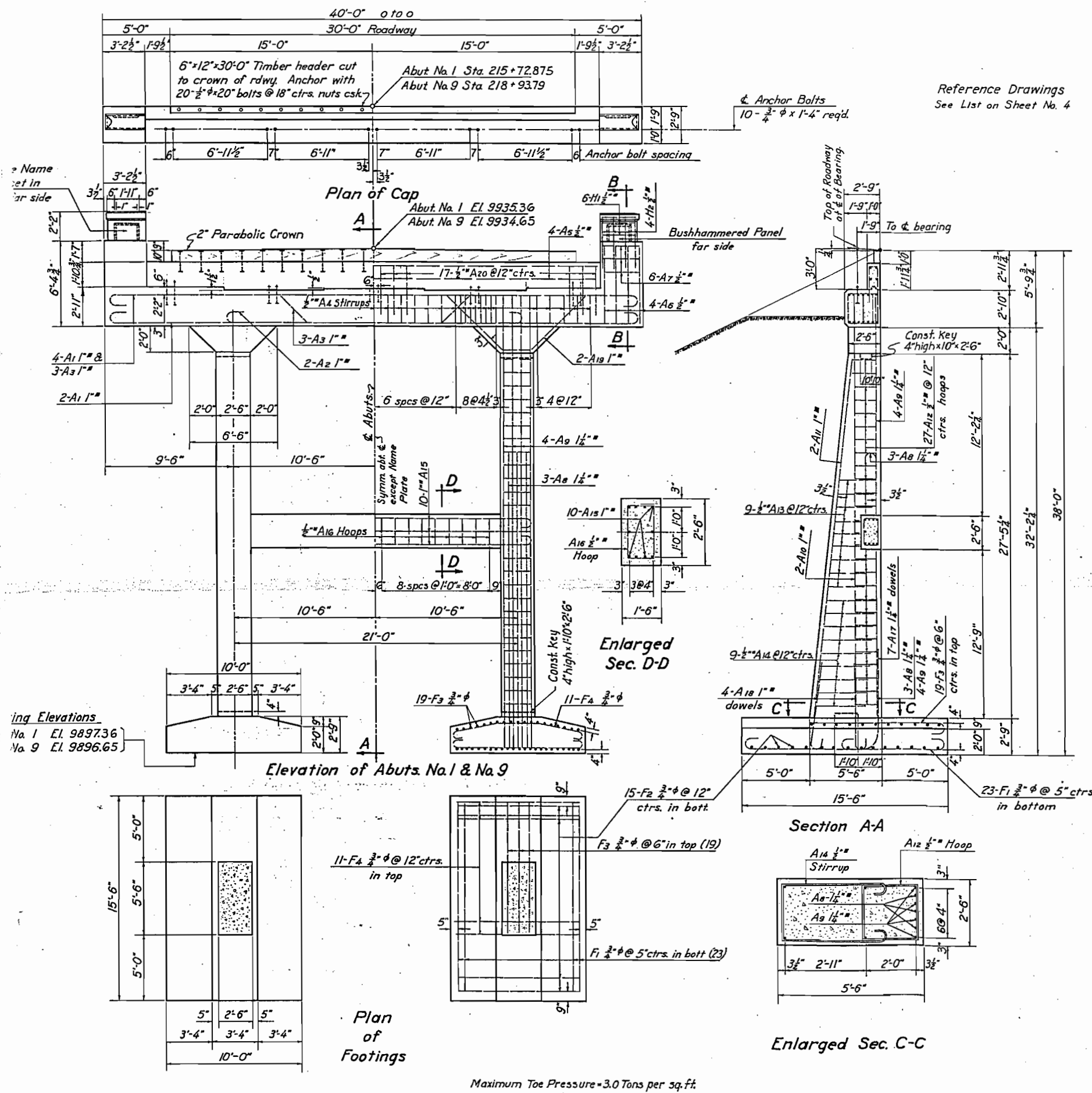
Across D.R. G.W.R.R.
Sta. 215+72.85 to 218+93.19
Near LEADVILLE Sec. 3/4 T. 9-S. R. 80-W

Designed by R.S.S. Approved by P.D. Bailey
Made by J.A.V. Bridge Engineer.
Checked by J.B. Date: March 4, 1939.

STRUCTURE NO. G-11-F

Revised 6-23-39 by B.R. Added 8-F1 Bars and 12-F3 Bars.
Revised Curb Stringer Size-Changed Bridge Seal AOC.

FED. ROAD DIST. NO.	STATE	F.A.G.H.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-B (I)	7	

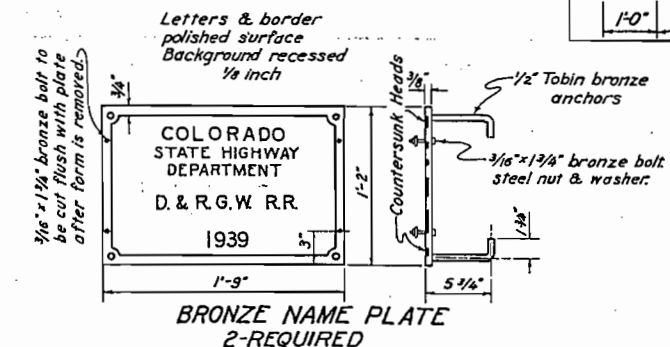


BAR LIST FOR ABUT. NO. 1 (ABUT. NO. 9 SAME)

MARK	SIZE	No.	LENGTH	TYPE	l	m	r	t
A 1	1"	6	41'-6"	II	38'-10"		4"	3 1/2"
A 2	1"	2	23'-8"	II	21'-0"		4"	3 1/2"
A 3	1"	3	43'-4"	III			4"	3 1/2"
A 4	1"	39	9'-9"	Y	2'-3 1/2"	2'-3"		
A 5	1"	4	33'-3"					
A 6	1"	8	17'-0"	Y	5'-11"	2'-3"		
A 7	1"	12	2'-10"					
A 8	1"	6	21'-0"	VI	19'-4"		5"	4 1/2"
A 9	1"	8	31'-9"					
A 10	1"	4	31'-9"					
A 11	1"	4	27'-6"					
A 12	1"	54	9'-4"	VII				
A 13	1"	18	9'-2"	VIII	2'-10"	2'-2"	2"	2"
A 14	1"	18	11'-2"	VIII	3'-10"	2'-2"	2"	2"
A 15	1"	10	25'-0"	II	22'-4"		4"	3 1/2"
A 16	1"	18	7'-2"	Y	2'-1 1/2"	1'-1 1/2"		
A 17	1"	14	11'-0"	IX			5"	4 1/2"
A 18	1"	8	7'-8"	VI	6'-4"		4"	3 1/2"
A 19	1"	4	14'-0"	I				
A 20	1"	34	8'-7"	IV	4'-0"	7'		
F 1	3/4"	46	16'-4"	II	14'-4"		3"	2 1/2"
F 2	3/4"	30	10'-10"	II	8'-10"		3"	2 1/2"
F 3	3/4"	38	11'-0"	VI	10'-0"		3"	2 1/2"
F 4	3/4"	22	11'-0"	X			3"	2 1/2"
H 1	1/2"	12	2'-6"					
H 2	1/2"	8	6'-6"	IV	2'-11 1/2"	7'		

SUMMARY OF BAR LIST

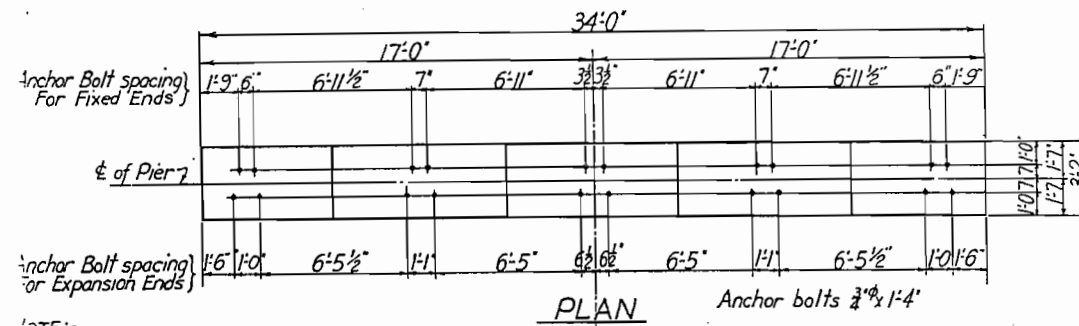
534 Lin. Ft. 1/2" Bars @ 5313 Lbs./Lin. Ft. = 2,837 Lbs.
1031 - 1" - @ 3,400 - = 3,505 -
1736 - 3/4" - @ 1,502 - = 2,607 -
2056 - 1/2" - @ 0,850 - = 1,748 -
Plus 1/4" for overrun 103 -
TOTAL 10,800 Lbs.



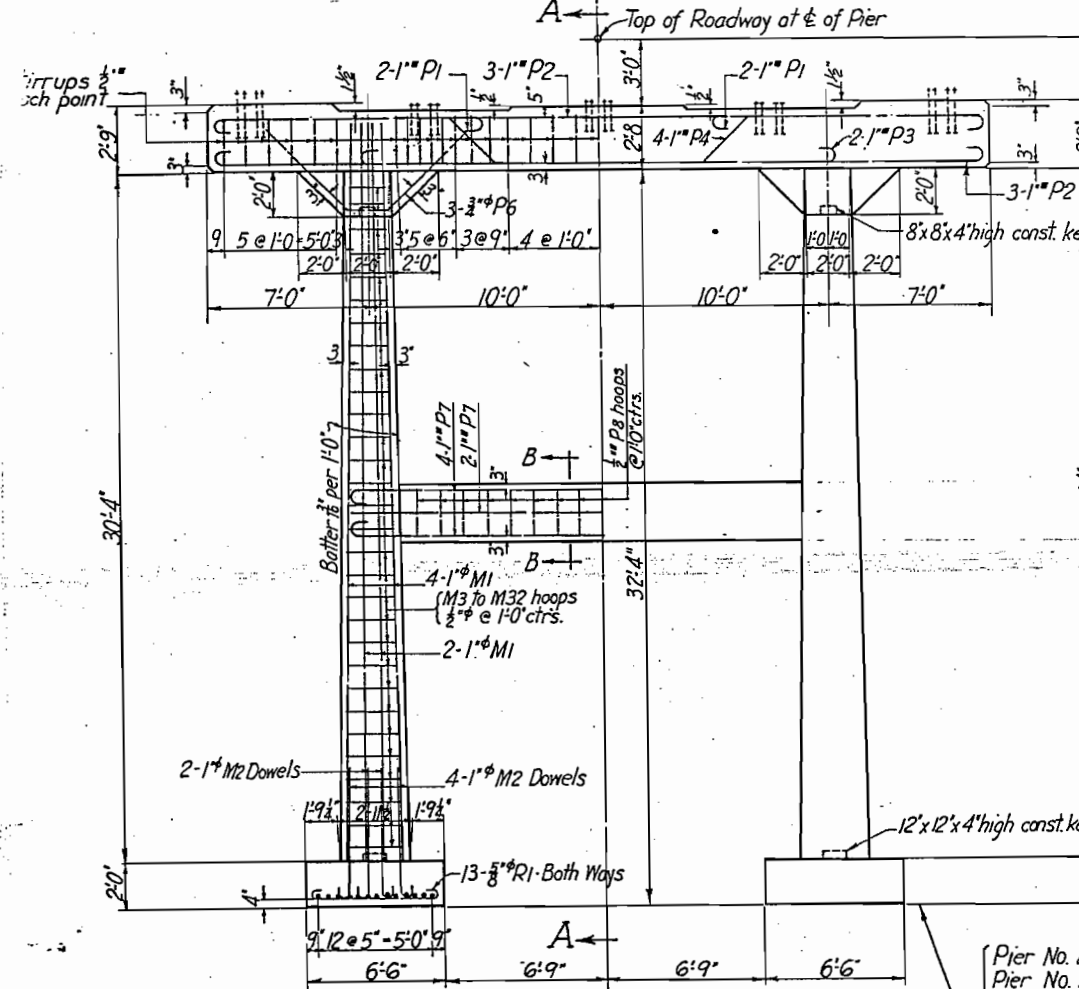
COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE
DETAILS
OF
ABUTS. NO. 1 & NO. 9
Across D. & R.G.W. RR.
Sta. 215+72.875 to 218+93.79
Near LEADVILLE Sec. 3/4 T. 9 S. R. 80 W.
Designed by D.A.P. Approved by G.D. Bailey
Made by A.J.P. Bridge Engineer
Checked by W.M. Date: March 2, 1939.

Revised 6-23-39 by B.R. Added Strut & increased size of Footings.
Revised Curb Stringer & Changed Beam Seats-A.O.C. 7-14-39
Revised 8-10-39 M.S.R. Length of 1/2" bars & change in quantities. WMM

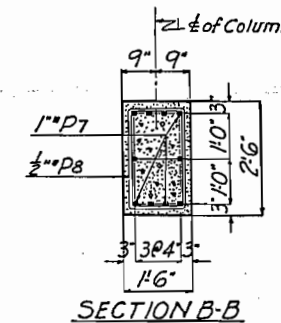
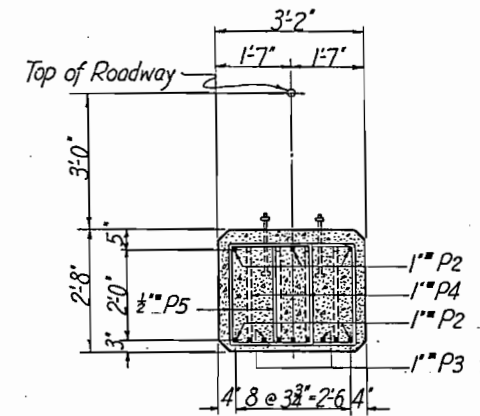
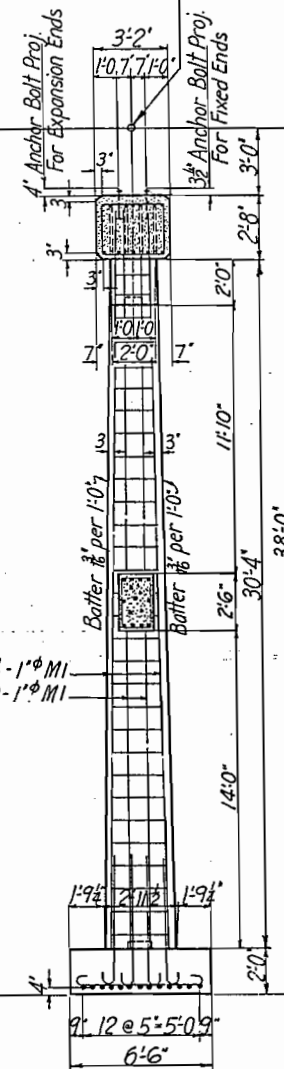
FED. ROAD DIST. NO.	STATE	F.A.G.H.	SHEET NO.	TOTAL SHEETS
3	COLO.	182B(1)	8	



NOTE:-
See Sheet #4 for location of Fixed and Expansion Ends on Piers.



Pier No. 2 - Sta. 216+06.375 - Elev. 9935.61
Pier No. 3 - Sta. 216+38.71 - Elev. 9935.77
Pier No. 4 - Sta. 216+71.04 - Elev. 9935.87
Pier No. 7 - Sta. 218+27.96 - Elev. 9935.35
Pier No. 8 - Sta. 218+60.29 - Elev. 9935.04



BAR LIST FOR ONE PIER (5 PIERS REQUIRED)

MARK	SIZE	REQD.	LENGTH	l	m	r	t	TYPE	BENDING DIAGRAM
P1	1"	4	13'-8"	11'-0"		4'	3 1/2'	I	
P2	1"	6	35'-6"	32'-10"		4'	3 1/2'	I	
P3	1"	2	22'-8"	20'-0"		4'	3 1/2'	I	
P4	1"	4	37'-2"			4'	3 1/2'	II	
P5	1/2"	74	8'-1 1/2"	2'-1 1/2"	1'-8 1/4"			III	
P6	3/4"	6	11'-9"					IV	
M1	1"	24	32'-6"	Straight					
M2	1"	24	6'-10"	5'-6"		4'	3 1/2'	V	
M3 to M32	1/2"	2 of each	7'-0 1/2" to 10'-8 1/2" by 1 1/2" by 1 1/2" by 1 1/2"					III	
R1	5/8"	52	6'-7"	4'-11"		2 1/2'	2'	I	
P7	1"	10	23'-8"	21'-0"		4'	3 1/2'	I	
P8	1/2"	17	7'-0"	2'-1 1/2"	1'-1 1/2"			III	

531 Lineal ft. of 1/2" bars @ 0.668 lbs. per lin. ft. = 355 lbs.
720 Lineal ft. of 3/4" bars @ 0.850 lbs. per lin. ft. = 612 lbs.
342 Lineal ft. of 5/8" bars @ 1.043 lbs. per lin. ft. = 357 lbs.
71 Lineal ft. of 1" bars @ 1.502 lbs. per lin. ft. = 107 lbs.
944 Lineal ft. of 1" bars @ 2.670 lbs. per lin. ft. = 2520 lbs.
698 Lineal ft. of 1" bars @ 3.400 lbs. per lin. ft. = 2373 lbs.
Plus 1 1/2% for overrun = 66 lbs.
Total 6390 lbs. (one pier)

REFERENCE DRAWINGS
See Sheet N#4.

MAXIMUM FOOTING PRESSURE=23 TONS PER SQ. FT.

LOADING DATA.
LIVE LOAD=A. A. S. H. O. 1935 CLASS A. (H-18)
DEAD LOAD=ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE 1/2 INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

DESIGNING DATA.
A.A.S.H.O. 1935 EXCEPT CONCRETE UNIT STRESSES PER A.A.S.H.O. AUG. 1925.

COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE
PIERS N#2-3-4-7-8

Across D & R G. W. R.R.
Sta. 215+72.48 TO 218+93.74
Near LEADVILLE Sec. 34 T. 9 S. R. 80 W.

Designed by B.R.
Made by M.M.M.
Checked by

Approved by P. J. Bailey
Bridge Engineer
Date: May 2/3/1939.

STRUCTURE NO. G-11-F

BAR LIST FOR PIER NO. 5 AND PIER NO. 6

- R.A.D.

Mark	Size	No. Required Pier 5	Pier 6	Length	Type	L	m	r	t	Mark	Size	No. Required Pier 5	Pier 6	Length	Type	L	m	r	t
K1	1/8"	4	4	14'-0"	I	11'-0"		4 1/2"	4"	L33	1"	24	—	29'-2"	Str.				
K2	1/8"	1	1	31'-2"	II	25'-1"	3'-10"	4 1/2"	4"	L34	1"	32	32	7'-10"	VI	6'-6"		4"	3 1/2"
K3	1/8"	1	1	32'-0"	II	24'-7"	5'-2"	4 1/2"	4"	L35	1"	—	—	9'-4"	IX	2'-2"	2'-2"		
K4	1/8"	1	1	32'-6"	II	24'-1"	6'-2"	4 1/2"	4"	L36	1/2"	2-Each	2-Each	by 2' to 13'-4"	IX	by 1/2' to 3'-2"	by 1/2' to 3'-2"		
K5	1/8"	4	4	23'-11"	I	20'-11"		4 1/2"	4"	L37	1/2"	—	—	13'-4"					
K6	1/8"	3	3	30'-0"	I	27'-0"		4 1/2"	4"	L38	1/2"	—	2	13'-6"	IV	3'-2 1/2"	3'-2 1/2"		
K7	3/4"	3	3	13'-9"	III	1'-9"				L39	1"	—	24	30'-0"	Str.				
K8	1/2"	62	62	9'-0"	IV	2'-7 1/2"	1'-6 1/2"			L40	1"	—	—	—					
K9	1/2"	33	23	8'-4"	V	3'-10"	8"			L41	3/8"	22	22	6'-11"	I	5'-3"		2 1/2"	2"
K10	1/2"	4	4	18'-5"	I	15'-1"		5"	4 1/2"	L42	3/8"	60	60	8'-7"	I	6'-11"		2 1/2"	2"
K11	1 1/4"	4	4	17'-6"	I	14'-2"		5"	4 1/2"										
K12	1 1/4"	8	8	31'-2"	VI	29'-6"		5"	4 1/2"										
K13	1 1/8"	4	4	40'-0"	I	37'-0"		4 1/2"	4"										
K14	1 1/8"	4	4	39'-0"	I	36'-0"		4 1/2"	4"										
K15	1 1/8"	4	4	37'-7"	I	34'-7"		4 1/2"	4"										
K16	3/4"	6	6	14'-3"	III	2'-3"													
K17	1/2"	118	118	12'-6"	IV	3'-11"	2'-0"												
K18	1/2"	41	—	12'-2"	V	5'-9"	8"												
K19	1/2"	8	4	28'-0"	Str.	Field	Bend												
K20	1/2"	3	—	8'-9"	V	3'-8"	1'-5"												
K21	3/8"	14	14	38'-2"	I	36'-6"		2 1/2"	2"										
K22	1/2"	25	25	13'-2"	IV	5'-7"	8"												
K23	3/4"	3	3	12'-6"	I	10'-6"		3"	2 1/2"										
K24	1/2"	—	41	10'-0"	V	4'-8"	8"												
K25	1/2"	—	10	5'-10"	V	2'-7"	8"												
K26	1/2"	—	3	6'-5"	V	2'-6"	1'-5"												
L1	1"	12	12	31'-9"	Str.														
L2	1"	12	12	7'-4"	VI	6'-0"		4"	3 1/2"										
L3	1/2"	1-Each	1-Each	7'-4"	IV	by 1/2' to 2'-10"	1'-8"	by 1/2' to 2'-10"											
L31	1"	8	8	17'-10"	Str.														
L32	1"	8	8	17'-10"	Str.														

BAR SUMMARY FOR PIER NO. 5

- R.S.S.

393 Lin. Ft. of 1 1/4" Bars @ 5.313 Lbs. per Ft. = 2088 Lbs.	
804 Lin. Ft. of 1 1/8" Bars @ 4.303 Lbs. per Ft. = 3460 Lbs.	
1562 Lin. Ft. of 1" Bars @ 3.400 Lbs. per Ft. = 5311 Lbs.	
164 Lin. Ft. of 3/4" Bars @ 1.502 Lbs. per Ft. = 246 Lbs.	
1201 Lin. Ft. of 5/8" Bars @ 1.043 Lbs. per Ft. = 1253 Lbs.	
2833 Lin. Ft. of 1/2" Bars @ 0.850 Lbs. per Ft. = 2408 Lbs.	
1400 Lin. Ft. of 1/2" Bars @ 0.668 Lbs. per Ft. = 935 Lbs.	
17' for overrun = 159 Lbs.	
Total = 15860 Lbs.	

BAR SUMMARY FOR PIER NO. 6

- R.S.S.

393 Lin. Ft. of 1 1/4" Bars @ 5.313 Lbs. per Ft. = 2088 Lbs.	
804 Lin. Ft. of 1 1/8" Bars @ 4.303 Lbs. per Ft. = 3460 Lbs.	
1582 Lin. Ft. of 1" Bars @ 3.400 Lbs. per Ft. = 5379 Lbs.	
164 Lin. Ft. of 3/4" Bars @ 1.502 Lbs. per Ft. = 246 Lbs.	
1201 Lin. Ft. of 5/8" Bars @ 1.043 Lbs. per Ft. = 1253 Lbs.	
2712 Lin. Ft. of 1/2" Bars @ 0.850 Lbs. per Ft. = 2305 Lbs.	
1315 Lin. Ft. of 1/2" Bars @ 0.668 Lbs. per Ft. = 878 Lbs.	
17' for overrun = 161 Lbs.	
Total = 15770 Lbs.	

BAR SUMMARY FOR PIER NO. 5			R.S.S.
393 Lin. Ft. of 1 1/4" Bars @	5.313 Lbs. per Ft. =	2088 Lbs.	
804 Lin. Ft. of 1 1/8" Bars @	4.303 Lbs. per Ft. =	3460 Lbs.	
1562 Lin. Ft. of 1" Bars @	3.400 Lbs. per Ft. =	5311 Lbs.	
164 Lin. Ft. of 3/4" Bars @	1.502 Lbs. per Ft. =	246 Lbs.	
1201 Lin. Ft. of 5/8" Bars @	1.043 Lbs. per Ft. =	1253 Lbs.	
2833 Lin. Ft. of 1/2" Bars @	0.850 Lbs. per Ft. =	2408 Lbs.	
1400 Lin. Ft. of 1/2" Bars @	0.668 Lbs. per Ft. =	935 Lbs.	
	17' for overrun =	159 Lbs.	
	Total =	15860 Lbs.	

BAR SUMMARY FOR PIER NO. 6		R.S.S.
393 Lin. Ft. of 1 1/4" Bars @	5.313 Lbs. per Ft. =	2088 Lbs.
804 Lin. Ft. of 1 1/8" Bars @	4.303 Lbs. per Ft. =	3460 Lbs.
1582 Lin. Ft. of 1" Bars @	3.400 Lbs. per Ft. =	5379 Lbs.
164 Lin. Ft. of 3/4" Bars @	1.502 Lbs. per Ft. =	246 Lbs.
1201 Lin. Ft. of 5/8" Bars @	1.043 Lbs. per Ft. =	1253 Lbs.
2712 Lin. Ft. of 1/2" Bars @	0.850 Lbs. per Ft. =	2305 Lbs.
1315 Lin. Ft. of 1/2" Bars @	0.668 Lbs. per Ft. =	878 Lbs.
	1 1/4" for overrun =	161 Lbs.
	Total =	15770 Lbs.

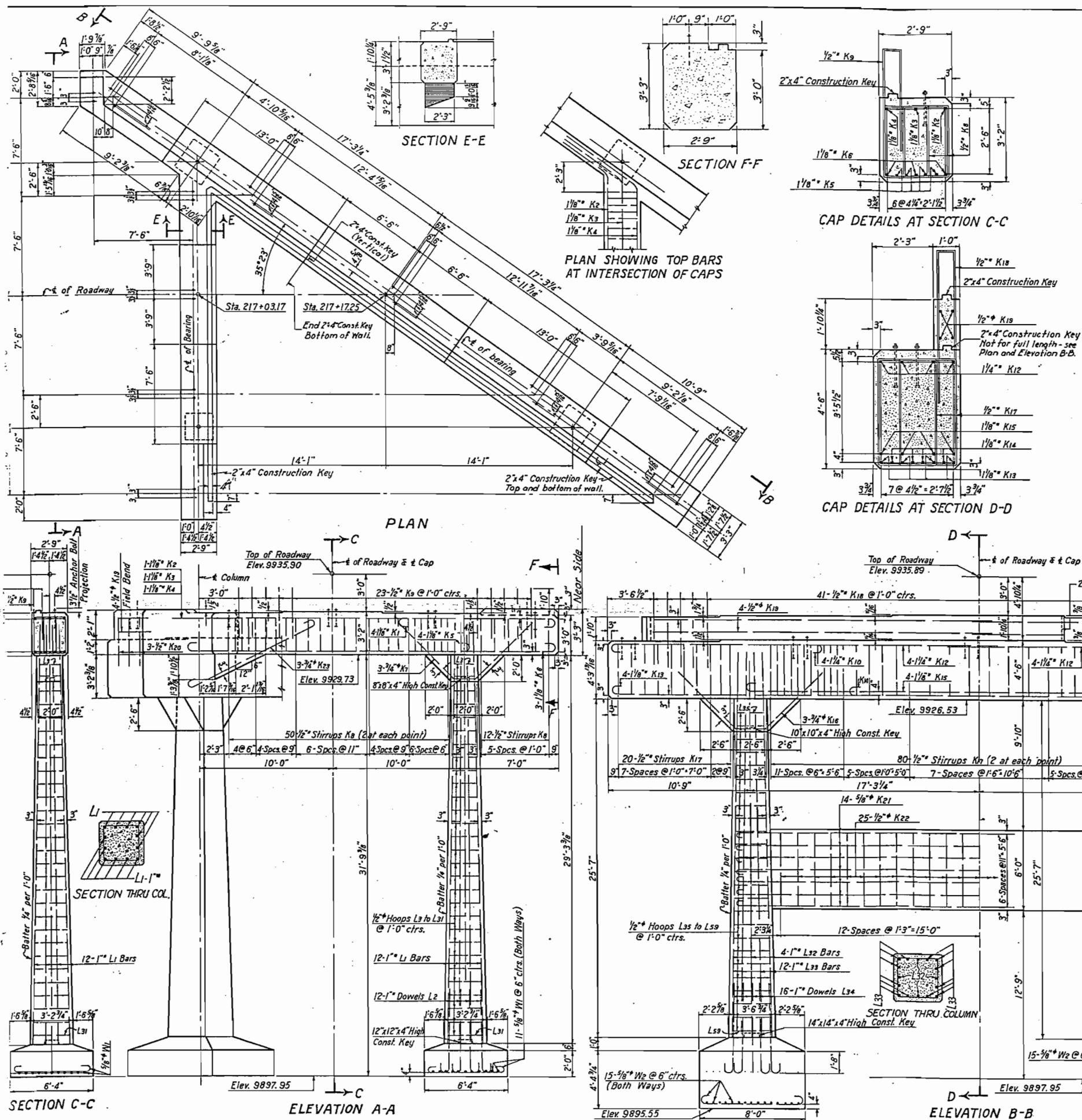
Technical drawings of various L-shaped profiles, labeled I through VI, showing dimensions and specific features:

- I:** A standard L-shaped profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$.
- II:** A profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$. The horizontal leg is angled at $6\frac{1}{2}^\circ$ to the horizontal. The radius of the inner corner is $9\frac{1}{2}$.
- III:** A profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$. The horizontal leg is angled at 6° to the horizontal.
- IV:** A profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$.
- V:** A profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$.
- VI:** A profile with a vertical leg of length l and a horizontal leg of length m . The thickness of the legs is $\frac{1}{4}$.

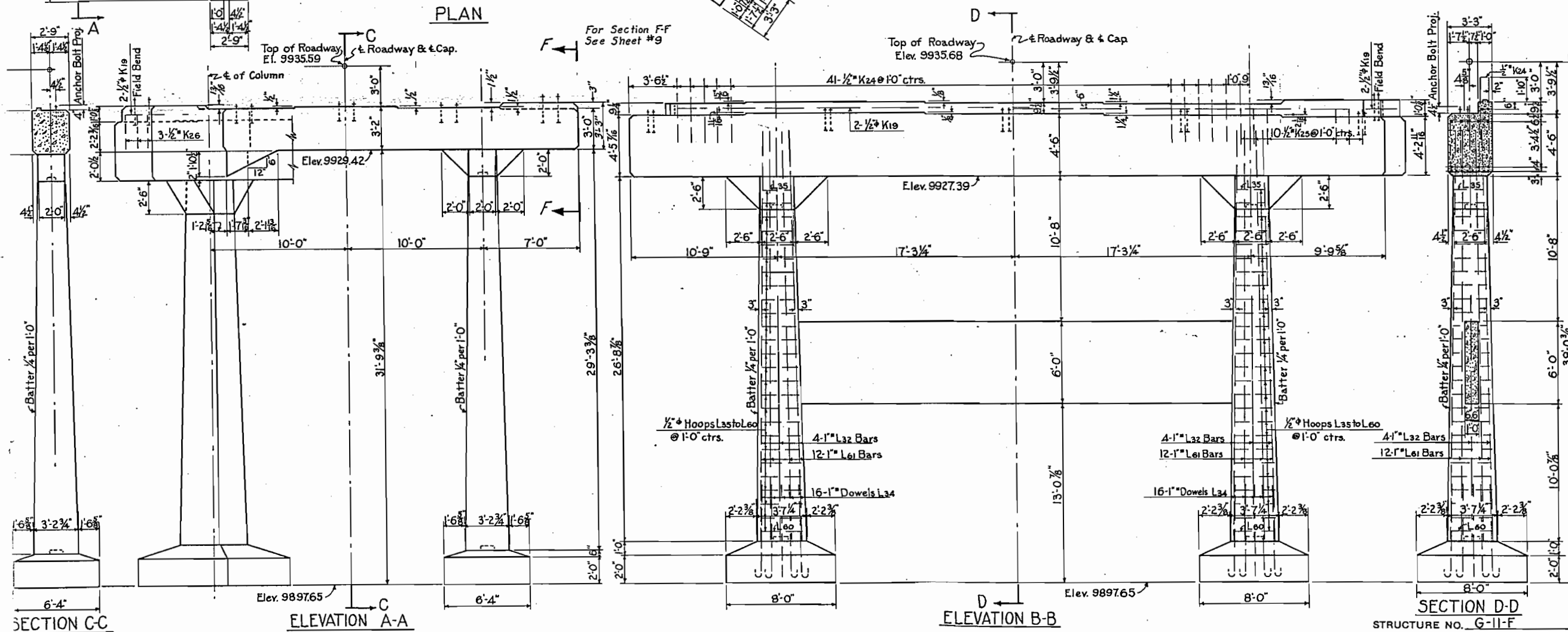
Maximum Footing Pressure = 2.8 Tons per sq.ft.

COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE
DETAILS OF PIER NO. 5
BAR LIST FOR PIERS NO. 5 & 6

Across <u>D.E.R.G.W. R.R.</u>	
Sta. <u>215+72.875 to 218+93.79</u>	
Near <u>Leadville</u>	Sec. <u>3/4</u> T. <u>9 S.</u> R. <u>80 W.</u>
Designed by <u>B.R.</u>	Approved by <u>C. L. Bailey</u>
Made by <u>R.S.S.</u>	Bridge Engineer
Checked by	Date: <u>May 31st 1939.</u>



FED. ROAD DIST. NO.	STATE	F.A.G.H.	SHEET NO.	TOTAL SHEETS
3	COLO.	182 B (1)	10	



NOTE:-
Details and Reinforcing Steel not shown
are same as for Pier No. 5. See Sheet No. 9

REFERENCE DRAWINGS
See sheet N° 4.

Maximum Footing Pressure = 2.8 Tons per sq.ft.

COLORADO
STATE HIGHWAY DEPARTMENT
OVERPASS NEAR LEADVILLE
DETAILS OF PIER No.6

Across Denver and Rio Grande R.R.
Sta. 215+72.875 to 218+93.79
Near Leadville Sec. 34 T.9 S.80W

Designed by <u>B.R.</u>	Approved by <u>P. J. Bailey</u>
Made by <u>R.A.D.</u>	Bridge Engineer
Checked by	Date: <u>May 31st 1939.</u>

NOTES:

Alignment and grade shown on these plans are subject to adjustment during construction, after approval by the Denver office of the Department.

All poles encroaching on construction are to be moved by the owners.

All suitable material excavated from culverts and ditches, and not used for ditch embankment, is to be used in the roadway embankment.

Right of Way Markers are tabulated on Sheet No. 3A.

Metal Plate Guard Fence is 3A.

Timber Guard Posts are 3A.

S.W. 1/4 SEC. 3
T. 9 S. R. 80 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-C(1)	26	

Rev. Snow Fence - 4-21-39 - K.M.P.
Rev. Surf. & Bor. Plan - 7-7-39 J.P.K.
Rev. as Constructed: 6-15-40. A.J.T.

Sta. 191+00
18'x52' C.M.P.
cross culvert & 1 cu. yd.
uncl. exc. for ditch change. Lt.

Sta. 196+03
24'x48' C.M.P. cross
culvert & 6.0 cu. yds. uncl.
excavation for ditch
changes, Rt. & Lt.

Sta. 183+10.3
Project Marker.
Road Approach &
24.85 tons Gravel Surfacing

Sta. 187+00 to 199+00
Remove & rebuild 1200
lin. ft. snow fence, Lt.
(See details below).

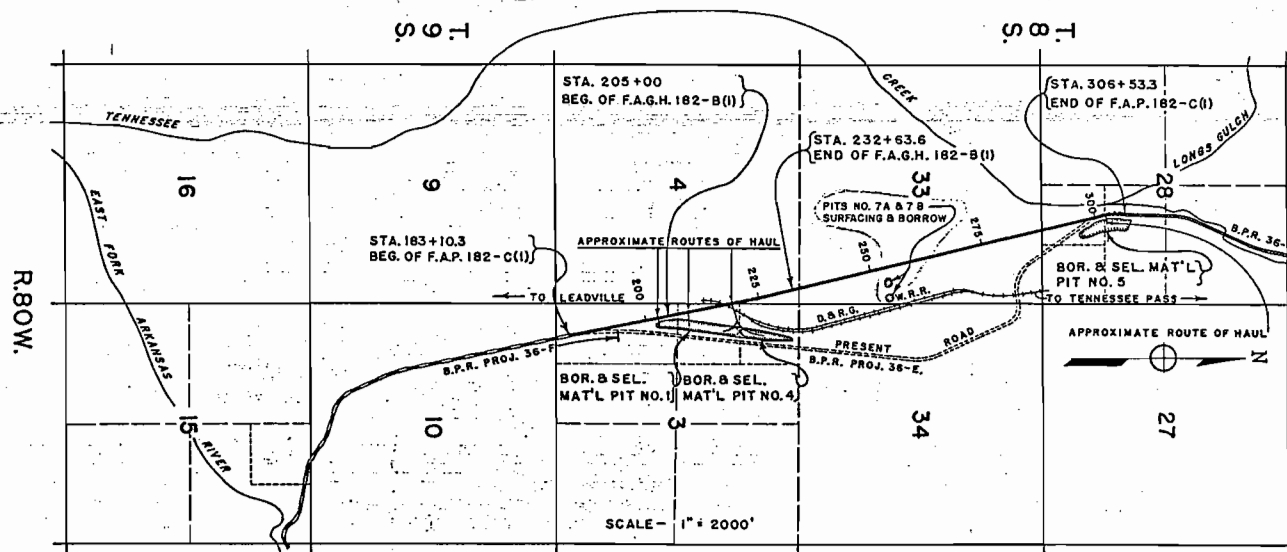
Sta. 183+10.3 to 187+00
Present snow fence to
remain in place.



U.S.B.P.R. PROJECT 36-F.
TO LEADVILLE

STA. 183+10.3
BEGINNING OF F.A.P. 182-C(1)
EQUALS SAME STATION OF B.P.R. PROJECT 36-F

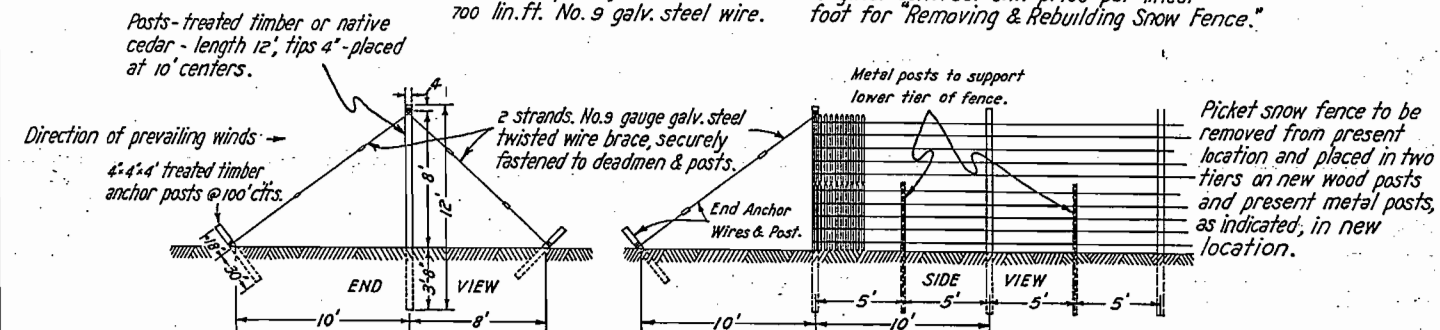
LAYOUT OF BORROW, SELECTED MATERIAL, AND SURFACING PITS



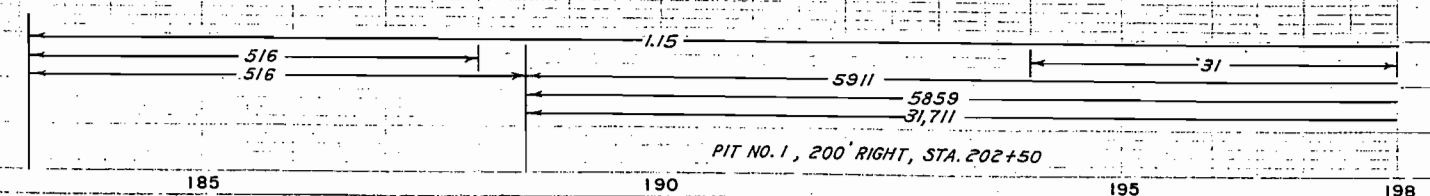
**DETAIL OF PICKET SNOW FENCE TO BE REMOVED & REBUILT
STA. 187 TO 199.**

New Materials Required:
121 posts, length 12', 4" tips.
28 anchor posts, 4"x4"x4'.
700 lin. ft. No. 9 galv. steel wire.

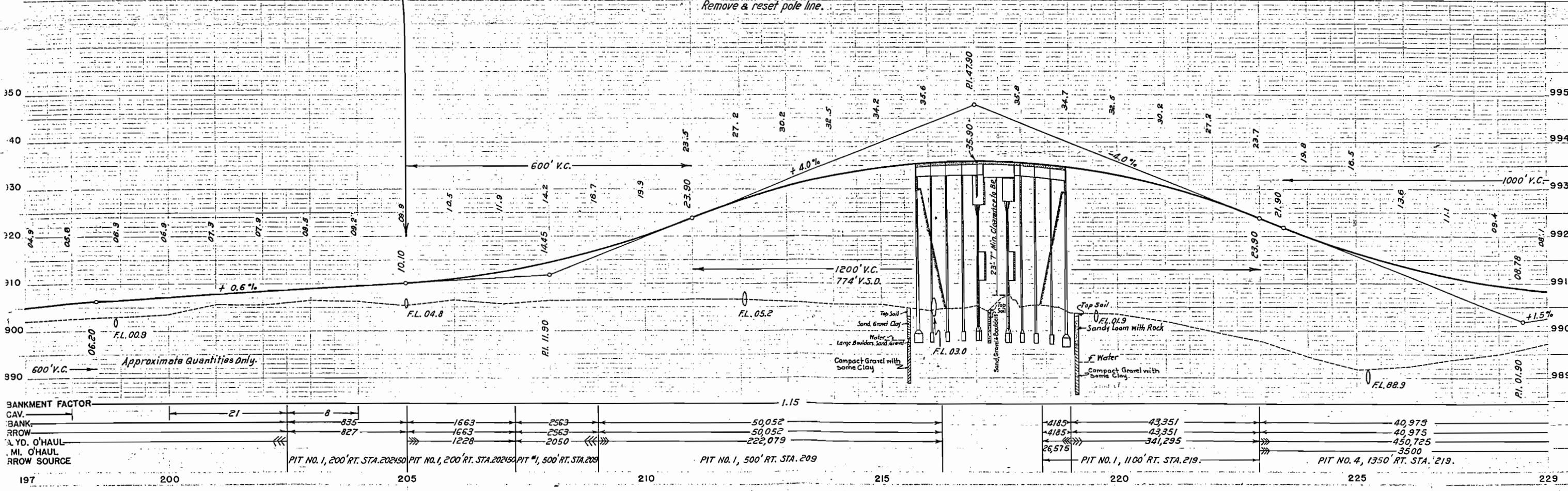
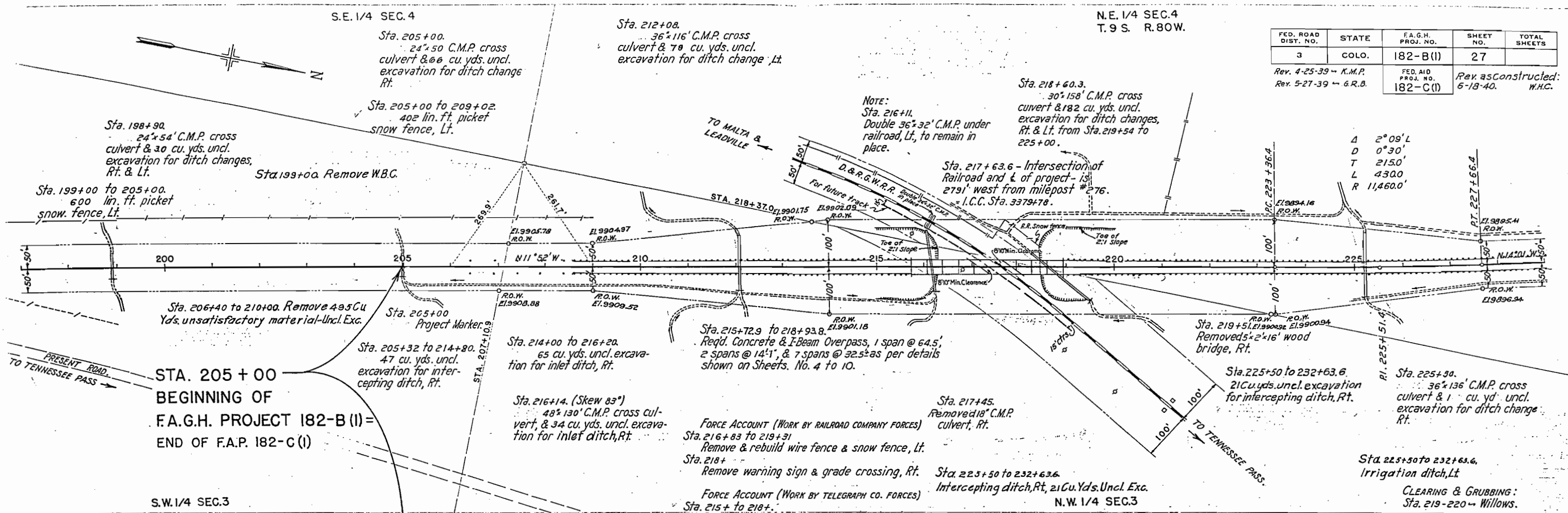
Cost of all new materials required for
rebuilding fence to be included in the
original contract unit price per linear
foot for "Removing & Rebuilding Snow Fence."



Approximate Quantities Only.



BANKMENT FACTOR
CAV.
BANK
ROW
A. YD. O'HAUL
MI. O'HAUL
ROW SOURCE



N.E. 1/4 SEC. 4
T. 9 S. R. 80 W.

Sta. 232+63.6 to 234+99.6.
236 lin. ft. picket
snow fence, Lt.

Sta. 229+97.6 to 232+63.6.
266 lin. ft. picket
snow fence, Lt.

Sta. 232+63.6 to 263+00.
1820 cu. yds. uncl. excav. for re-
moving unsatisfactory material.

Sta. 235+50.

Embankment
for road approaches, Rt. & Lt.; 18'x84'
C.M.P. side drain, Lt. & 9005 Cu. Yds. gravel.

Sta. 237+60.

Remove 1'x2'x14' wood
bridge, Lt.

Sta. 247+11.

Remove 2'x2'x20' wood
box culvert, Lt.

S.E. 1/4 SEC. 33
T. 8 S. R. 80 W.

Sta. 251+38

24'x56' C.M.P. cross
culvert & 8 cu. yds. uncl.
excavation for ditch
changes, Rt. & Lt.
Remove 1'x4'x18' wood
box culvert, Lt.

Sta. 255+90 to 292+20.

376 Cu. Yds. Uncl. Exc. for irrigation ditch, Rt.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-C (I)	28	
Rev. 4-25-39 - K.M.P. Rev. Surf. & Bor. Plan, 7-7-39 - J.P.K.				Rev. as Const. 6-19-40 A.J.T.
F.A.G.H. PROJ. NO. 182-B (I)				

Sta. 255+90 to 273+27.
159 cu. yds. uncl. excava-
tion for ditch change, Lt.

Sta. 256+14.
Remove culvert, Lt.

Sta. 255+25.
36'x52' C.M.P. cross
culvert & 93 cu. yds. uncl.
excavation for inlet & out-
let ditches.

Sta. 255+75.
Standard 6'x40' Concrete Box
Culvert & 768 cu. yds. uncl. excava-
tion for inlet & outlet ditches.

CLEARING & GRUBBING :
Sta. 247 to 287 ~ Willows
Pits No. 7a & 7b ~ Willows
Outlet drain ditch, Sta. 255+75 ~ Willows

TA. 232+63.6
END OF
F.A.G.H. PROJECT 182-B (I) =
BEGINNING OF F.A.P. 182-C (I)

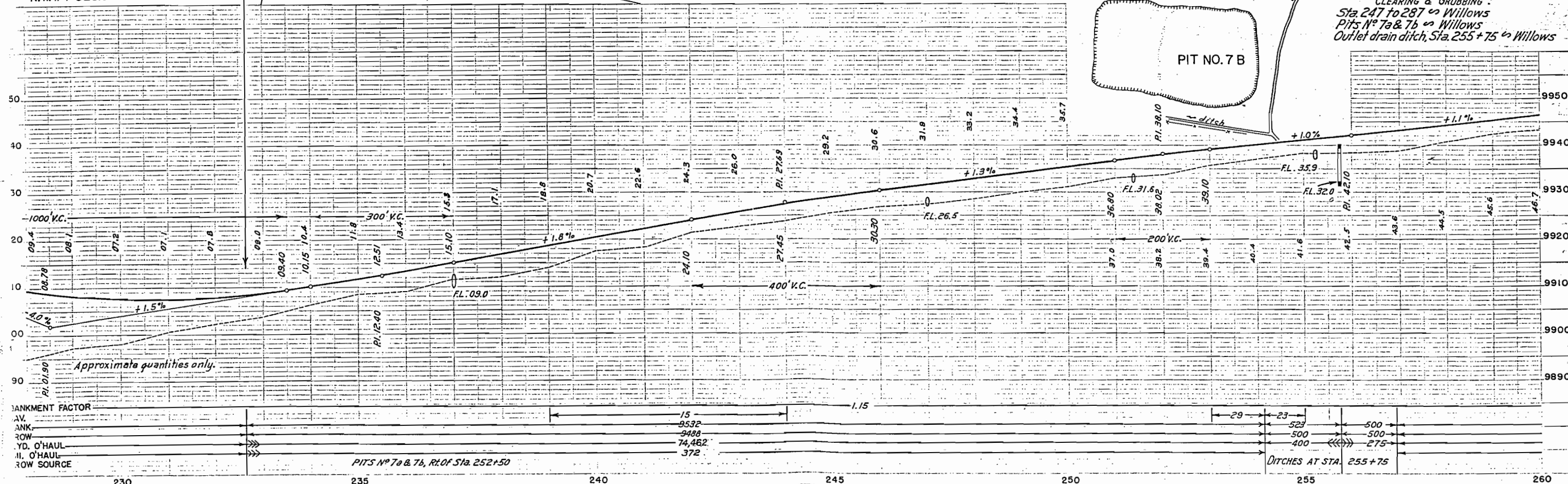
N.W. 1/4 SEC. 3

S.W. 1/4 SEC. 34

APPROXIMATE LOCATIONS OF
BORROW & SURFACING MATERIAL PITS

PIT NO. 7 A

PIT NO. 7 B



BANKMENT FACTOR
AV. ANK.
ROW
YD. O'HAUL
M. O'HAUL
ROW SOURCE

PITS No. 7a & 7b, Rt. of Sta. 252+50

DITCHES AT STA. 255+75

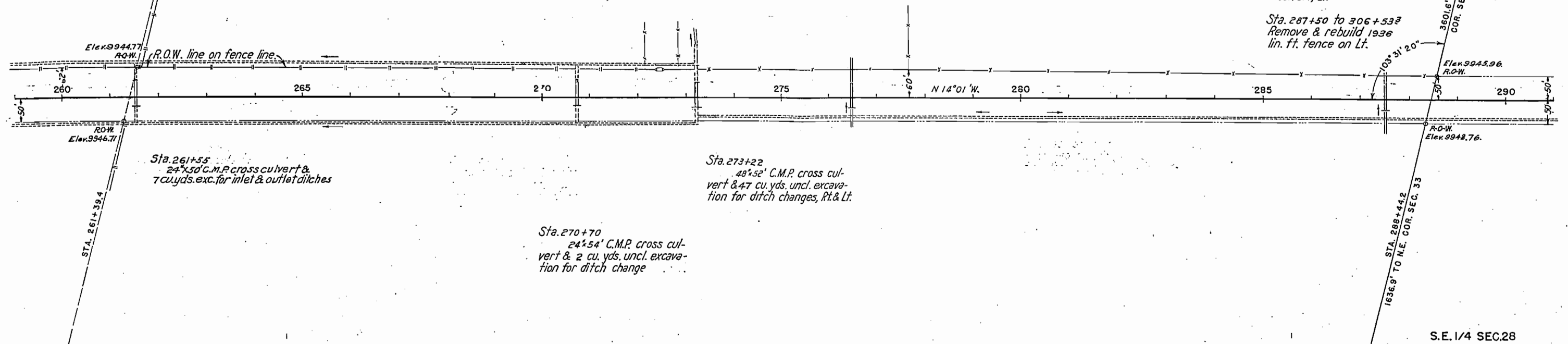
S.E. 1/4 SEC.33

Sta. 267+95
Remove 1'-2'-18" wood
box culvert, Lt.

Sta. 272+50

Road approach & 18'-30"
C.M.P. side drain, Lt.
& 24.7 cu. yds. Gravel Surfacing.N.E. 1/4 SEC.33
T. 8 S. R. 80 W.Sta. 276+50
36'-52" C.M.P. cross culvert.
Remove 18'-2'-19" wood box culvert, Lt.Sta. 269+85
Remove 1'-2'-18" wood
box culvert, Lt.Sta. 273+25
Remove 18'-18"-15" wood
box culvert, Lt.Sta. 270+77
Remove 2'-2'-17" wood
box culvert, Lt.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	182-C(1)	29	

Rev. Borrow Plan, 7-7-39 J.P.K.
Rev. as constructed: 6-15-40. A.J.T.Sta. 287+50
30'-52" C.M.P. cross cul-
vert & 10 cu. yds. uncl. excava-
tion for ditch change, Lt.
Remove 1'-2'-18" wood box
culvert, Lt.Sta. 287+50 to 306+53
Remove & rebuild 1936
lin. ft. fence on Lt.

S.E. 1/4 SEC.28

