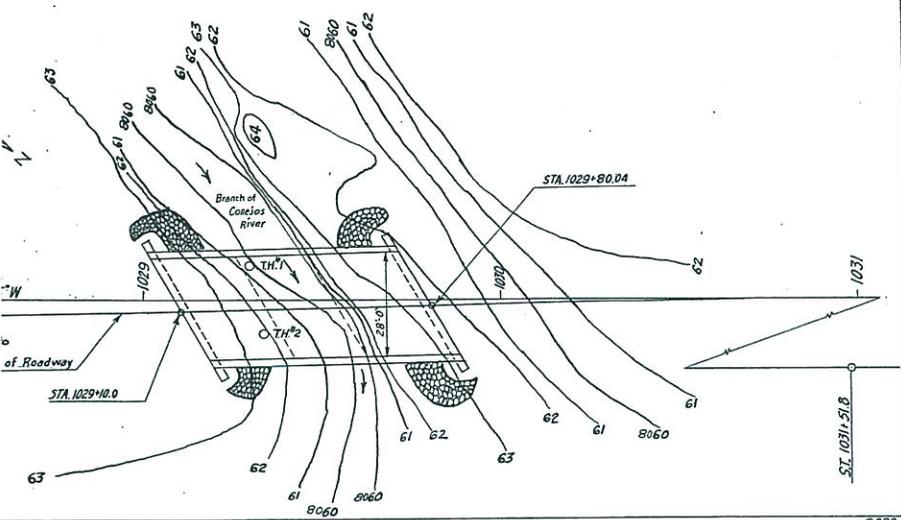


FED. ROAD REG. NO.	DIVISION	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	5 0111 (3)	7	



### BAR LIST SUPERSTRUCTURE

Mark	Size	No.	Length	Type	Dimensions
					ft. m
401	1/2" φ	138	23'-0"	Str.	
402	1/2" φ	69	22'-7"	Str.	
403	1/2" φ	142	4'-0"	Str.	
404	1/2" φ	416	5'-0"	Str.	
416	1/2" φ	120	4'-6"	Str.	0'-6" 1'-5"
501	5/8" φ	110	36'-8"	Str.	
502	5/8" φ	52	37'-8"	Str.	
701	7/8" φ	8	36'-8"	Str.	
702	7/8" φ	8	28'-10"	Str.	
1001	1 1/4" φ	32	23'-4"	Str.	
1002	1 1/4" φ	16	22'-7"	Str.	
1003	1 1/4" φ	24	19'-0"	Str.	
1004	1 1/4" φ	24	14'-0"	Str.	
1005	1 1/4" φ	16	6'-0"	Str.	
1006	1 1/4" φ	32	5'-0"	Str.	

### BAR SUMMARY SUPERSTRUCTURE

7920 Lin.Ft. 1/2" φ @ 0.668' per Lin.Ft. = 5,291 Lbs.  
 5992 Lin.Ft. 5/8" φ @ 1.043' per Lin.Ft. = 6,250 Lbs.  
 524 Lin.Ft. 7/8" φ @ 2.044' per Lin.Ft. = 1,071 Lbs.  
 2156 Lin.Ft. 1 1/4" φ @ 4.303' per Lin.Ft. = 9,277 Lbs.  
 Plus 1% Overrun = 221 Lbs.  
**TOTAL = 22,110 Lbs.**

### BAR LIST ABUTMENT NO. 1 (Abutment No. 4 Similar)

Mark	Size	No.	Length	Type	Dimensions
					ft. m
405	1/2" φ	32	9'-8"	Str.	
406	1/2" φ	26	7'-4"	Str.	
407	1/2" φ	4	3'-8"	Str.	
408	1/2" φ	4	3'-2"	Str.	
409	1/2" φ	4	2'-9"	Str.	
410	1/2" φ	12	4'-0"	Str.	
503	5/8" φ	10	5'-6"	Str.	
504	5/8" φ	12	4'-6"	Str.	
505	5/8" φ	2	41'-9"	Str.	
506	5/8" φ	2	36'-8"	Str.	
507	5/8" φ	6	10'-0"	Str.	
601	3/4" φ	24	18'-0"	Str.	
602	3/4" φ	24	4'-9"	Str.	
901	1 1/8" φ	2	41'-9"	Str.	
902	1 1/8" φ	2	36'-8"	Str.	
903	1 1/8" φ	2	16'-0"	Str.	
904	1 1/8" φ	4	10'-6"	Str.	

### BAR SUMMARY ABUTMENT NO. 1 (Abutment No. 4 Similar)

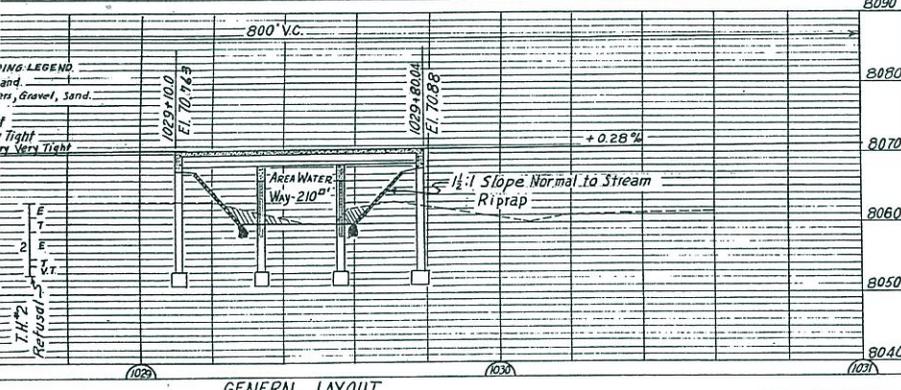
586 Lin.Ft. 1/2" φ @ 0.668' per Lin.Ft. = 3911 Lbs.  
 326 Lin.Ft. 5/8" φ @ 1.043' per Lin.Ft. = 3401 Lbs.  
 546 Lin.Ft. 3/4" φ @ 1.502' per Lin.Ft. = 820 Lbs.  
 231 Lin.Ft. 1 1/8" φ @ 3.400' per Lin.Ft. = 785 Lbs.  
 Plus 1% Overrun = 24 Lbs.  
**TOTAL = 2,360 Lbs.**

### BAR LIST PIER NO. 2 (Pier No. 3 Similar)

Mark	Size	No.	Length	Type	Dimensions
					ft. m
411	1/2" φ	32	8'-6"	Str.	1'-5" 2'-2"
412	1/2" φ	14	7'-4"	Str.	
413	1/2" φ	14	8'-2"	Str.	
414	1/2" φ	24	9'-6"	Str.	
415	1/2" φ	10	18'-8"	Str.	
508	5/8" φ	4	31'-8"	Str.	
509	5/8" φ	20	4'-6"	Str.	
603	3/4" φ	16	15'-6"	Str.	
604	3/4" φ	16	4'-9"	Str.	
605	3/4" φ	2	31'-9"	Str.	
905	1 1/8" φ	2	20'-6"	Str.	
906	1 1/8" φ	10	10'-0"	Str.	

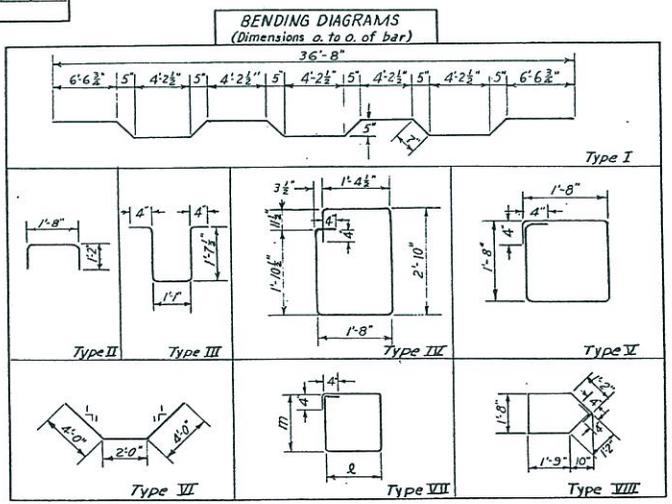
### BAR SUMMARY PIER NO. 2 (Pier No. 3 Similar)

904 Lin.Ft. 1/2" φ @ 0.668' per Lin.Ft. = 604 Lbs.  
 217 Lin.Ft. 5/8" φ @ 1.043' per Lin.Ft. = 226 Lbs.  
 388 Lin.Ft. 3/4" φ @ 1.502' per Lin.Ft. = 583 Lbs.  
 141 Lin.Ft. 1 1/8" φ @ 3.400' per Lin.Ft. = 479 Lbs.  
 Plus 1% Overrun = 18 Lbs.  
**TOTAL = 1,910 Lbs.**



### SUMMARY OF QUANTITIES

Item	Description	Unit	Superstructure	Abut. No. 1	Pier No. 2	Pier No. 3	Abut. No. 4	Totals
13c	Unclassified Excavation	Cu. Yd.						220
14g	Common Excavation (Str.)	Cu. Yd.		75	38	38	72	223
16a	Structure Backfill (Class I)	Cu. Yd.		41	27	27	40	135
16c	Mechanical Tamping	Hrs.		14	3	3	14	34
18a	Station Yard Overhaul	Sta. Yd.						1485
18b	Yard Mile Overhaul	Yd. Mi.						
42b	Treated Bridge Timber	Mt. bm		0.129			0.129	0.258
46a	Class 'A' Concrete	Cu. Yd.	78.8	16.8	19.8	19.8	16.8	152
47	Reinforcing Steel (inc. 1% Overrun)	Lbs.	22,110	2,360	1,910	1,910	2,360	30,650
48	Structural Steel (inc. 1/2% Paint)	Lbs.	1,780		235	235		2,250
61a	Riprap (1'-6" Thick)	Cu. Yd.		67			68	135
75c	Metal Plate Guard Fence (Beam Type)	Lin. Ft.		25			25	50
75cx	Metal Plate Guard Rail (Beam Type)	Lin. Ft.	126					126
89a	Drain Pipe (anc. Floor) (4'-0" x 1'-6")	Each	3					3



### GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS APPLICABLE TO THE PROJECT.  
 ALL CONCRETE SURFACES EXPOSED TO NORMAL WEAR BY HIGHWAY TRAFFIC SHALL RECEIVE CLASS 2 SURFACE FINISH. WING FACES SHALL RECEIVE ORDINARY SURFACE FINISH.  
 CONCRETE CURBS, FLOOR SLABS, AND CURBS SHALL BE FINISHED MONOLITHICALLY.  
 FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIP LAP OR TONGUE AND GROOVE LAMBS 3" S UNLESS FACED WITH PANEL BOARD.  
 FOOTINGS IN ROCK SHALL BE FOUNDED OUT TO ROCK AND NOT FORMED.  
 SOUNDINGS AND DEPTH OF FOOTING SHOWN ARE IN ACCORDANCE WITH THE BEST AVAILABLE DATA AND WHEN DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.  
 ALL REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A 305-S07 OR THE LATEST REVISION THEREOF, AND SHALL BE INTERMEDIATE GRADE STEEL OF A DEFORMED TYPE. EACH BAR SHALL BE TAGGED WITH THE NUMBER DESIGNATION AND THE STATION NUMBERS OF THE PROJECT. PRIMARY BARS SHALL NOT BE SPLICED AND SECONDARY BARS WHEN SPLICED SHALL LAP 20 DIAMETERS OF THE BAR. DIMENSIONS FOR REINFORCING STEEL NOT SHOWN AS CLEAR SHALL BE TO THE CENTER LINE OF THE BAR.  
 ALL STRUCTURAL STEEL SHALL BE PAINTED ONE SHOP COAT OF ZINC CHROMATE AND TWO FIELD COATS OF ALUMINUM, UNLESS OTHERWISE NOTED, EXCEPT THE UNEXPOSED PORTION OF STEEL PILING NEED NOT BE PAINTED.  
 HANGERS, BOLTS SHALL HAVE HEX HEADS, NUTS, AND LOCK WASHERS UNLESS OTHERWISE SPECIFIED AND ALL BOLTS EXCEPT AS NOTED ARE 5/8" DIA. AND SHALL BE POWER DRIVEN.  
 WHEN TREATED TIMBERS OR PILING IS SHOWN ON THE DRAWING THE PRESERVATIVE FOR TREATMENT SHALL BE CRESODITE OIL.  
 WHEN EXCAVATING FOR FOOTINGS THE FINAL ONE FOOT IN DEPTH SHALL BE DONE BY HAND LABOR METHOD.  
 IF BY PERMISSION OF THE ENGINEER PRIMARY BARS ARE SPLICED THEY SHALL LAP 36" DIAMETERS FOR BARS NEAR TOP OF BEAMS AND GIRDERS HAVING MORE THAN 12 INCHES OF CONCRETE UNDER THE BARS AND 20 DIAMETERS FOR BARS NEAR BOTTOM OF MEMBERS.

### LOADING DATA

LIVE LOAD = A. A. S. H. O. (1120-44)  
 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. 1933 UNIT STRESSES, EXCEPT AS NOTED.  
 Reinforcing Steel  $f_s = 20000$  lbs. per sq. in.  
 Structural Steel  $f_c = 18000$  lbs. per sq. in.  
 $f_c = 12000$  lbs. per sq. in.  
 $n = 10$

### COLORADO

#### DEPARTMENT OF HIGHWAYS

**CONCRETE SLAB AND GIRDER BRIDGE**  
**3 SPANS - (22'-0" EACH) - 30° SKEW**  
**28'-0" ROADWAY - 2'-0" CURBS**  
**GENERAL LAYOUT & BAR LISTS**  
**QUANTITIES & GENERAL NOTES**

Across BRANCH OF CONEJOS RIVER  
 Sta. 1029+00.0 TO 1029+80.04  
 Near ANTONIO Sec. 33 T. 33N R. 8E

Designed by EFS Approved by E. J. R. B. C. H.  
 Made by JRE Bridge Engineer  
 Checked by \_\_\_\_\_ Date: July 26, 1957



