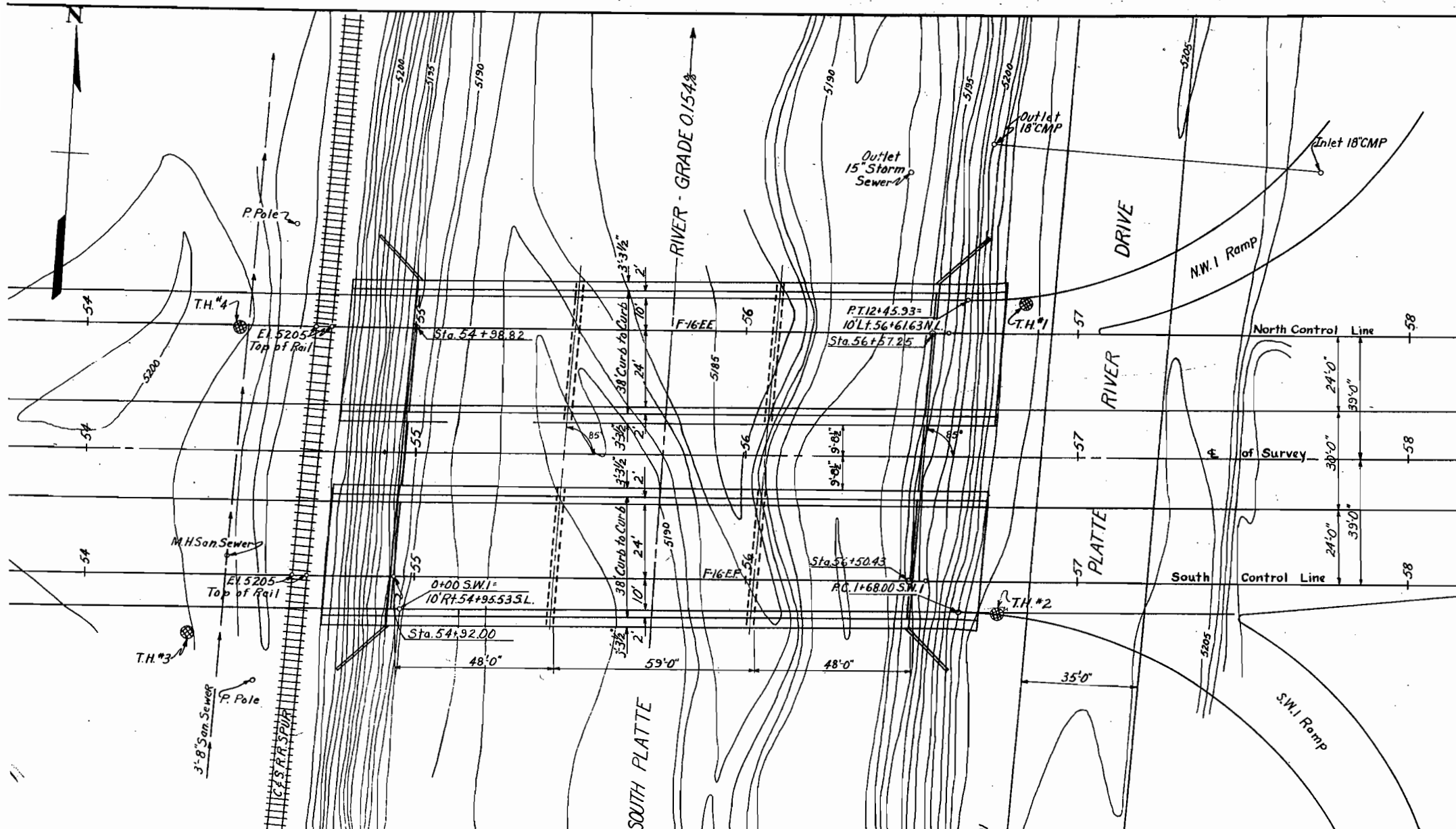


FED. ROAD DIV. NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	UI 002-2 (30) UNIT 1	4	



SUMMARY OF QUANTITIES (NORTH BRIDGE)

ITEM	DESCRIPTION	UNIT	SUPERSTR.	ABUT.#1	PIER#2	PIER#3	ABUT.#4	TOTAL	2 APPROACH @ SLABS
13c	Unclassified Excavation	Cu.Yd.						560	
14a	Dry Rock Excavation (Str.)	Cu.Yd.							
14b	Dry Common Excavation (Str.)	Cu.Yd.		65			85	150	
14c	Wet Rock Excavation (Str.)	Cu.Yd.							
14d	Wet Common Excavation (Str.)	Cu.Yd.		165	110	70	240	585	
16a	Structure Backfill (Class I)	Cu.Yd.		200	90	50	312	652	
16c	Mechanical Tamping	Hour		50	25	12	78	165	
18a	Station Yard Overhaul	Station							
18b	Yard Mile Overhaul	Yd.Mi.							
32a	Plant Mixed Asphaltic Surfacing	Ton	62.3					62.3	12.4
46a	Class "A" Concrete	Cu.Yd.	184.5	109.3	45.3	45.3	148.6	533	36
47	Reinforcing Steel (1% Overrun Included)	Lb.	26860	20240	6760	6760	23020	83640	4200
48	Structural Steel (1/2% added for Paint)	Lb.	153650		450	450		154550	
80c	Sheet Copper 32 oz.	Lb.	3					3	
89a	Drain Pipe 4" x 1'-6" (Conc. floor)	Each	7					7	
91b	Steel Railing	Lin.Ft.	345					345	
159	7 Ga. Metal Sheet Piling	Lin.Ft.		792			850	1642	
*	16 Ga. Galv. Sheet Metal	Sq.Ft.	56					56	
*	1/4 Expn. Jt. Mat'l. (Type III AASHO.M-153-52)	Sq.Ft.	83					83	
*	1/2 Expn. Jt. Mat'l. (Type III AASHO.M-153-52)	Sq.Ft.	18	52			52	122	
132cx	24" Reinforced Concrete Pipe Sewer	Lin.Ft.					4	4	

* Reinforcing Steel for entire Abutment.

SUMMARY OF QUANTITIES (SOUTH BRIDGE)

ITEM	DESCRIPTION	UNIT	SUPERSTR.	ABUT.#1	PIER#2	PIER#3	ABUT.#4	TOTAL	2 APPROACH @ SLABS
13c	Unclassified Excavation	Cu.Yd.						560	
14a	Dry Rock Excavation (Str.)	Cu.Yd.							
14b	Dry Common Excavation (Str.)	Cu.Yd.		95			35	130	
14c	Wet Rock Excavation (Str.)	Cu.Yd.							
14d	Wet Common Excavation (Str.)	Cu.Yd.		209	115	95	200	619	
16a	Structure Backfill (Class I)	Cu.Yd.		275	90	75	105	545	
16c	Mechanical Tamping	Hour		69	23	14	26	132	
18a	Station Yard Overhaul	Station							
18b	Yard Mile Overhaul	Yd.Mi.							
32a	Plant Mixed Asphaltic Surfacing	Ton	62.3					62.3	12.4
46a	Class "A" Concrete	Cu.Yd.	184.4	147.1	45.3	45.7	109.5	532	36
47	Reinforcing Steel (1% Overrun Included)	Lb.	26860	**	6760	6760	**	40360	4200
48	Structural Steel (1/2% added for Paint)	Lb.	153650		450	450		154550	
80c	Sheet Copper 32 oz.	Lb.	3					3	
89a	Drain Pipe 4" x 1'-6" (Conc. floor)	Each	7					7	
91b	Steel Railing	Lin.Ft.	345					345	
159	7 Ga. Metal Sheet Piling	Lin.Ft.		1008			670	1678	
*	16 Ga. Galv. Sheet Metal	Sq.Ft.	56					56	
*	1/4 Expn. Jt. Mat'l. (Type III AASHO.M-153-52)	Sq.Ft.	83					83	
*	1/2 Expn. Jt. Mat'l. (Type III AASHO.M-153-52)	Sq.Ft.	18	52			52	122	
132cx	36" Reinforced Concrete Pipe Sewer	Lin.Ft.					4	4	

** Reinforcing Steel for entire Abutment is included in North Bridge summary.

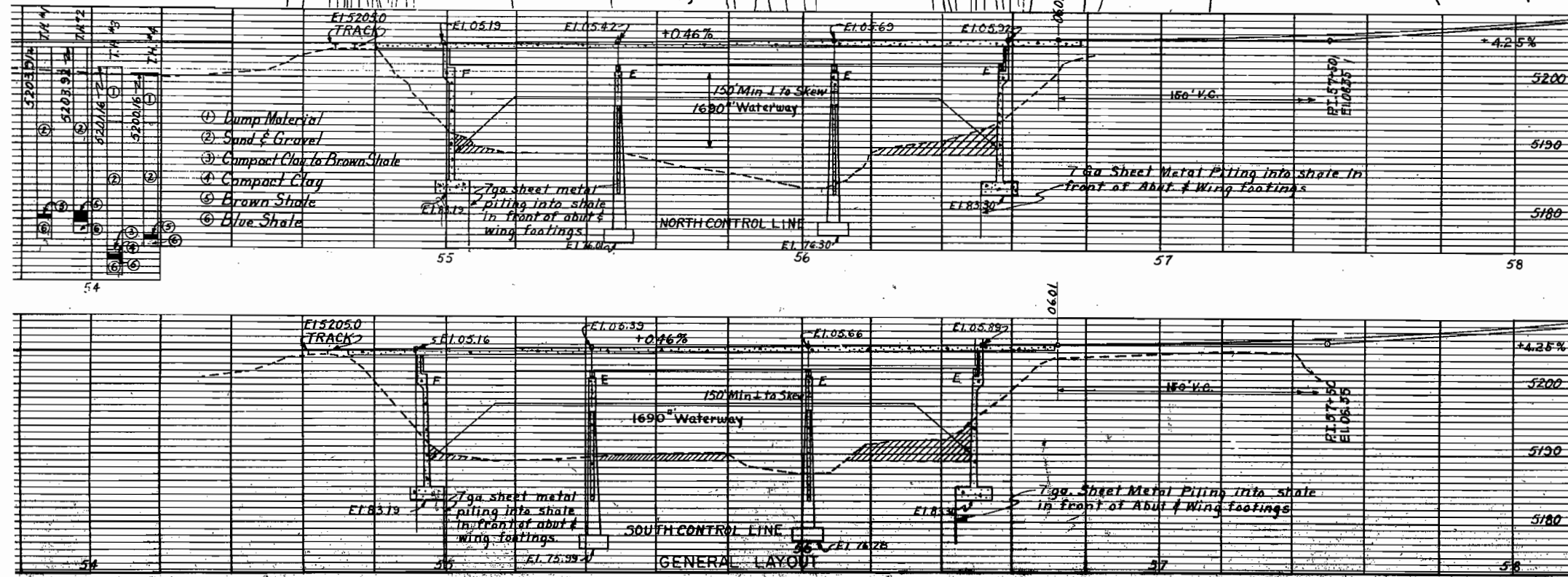
REFERENCE DRAWINGS

- 4 General Layout, Summary of Quantities, General Notes.
- 5 Superstructure Plan.
- 6 " Details.
- 7 Approach Slabs, Expn. Device & Bearing Details.
- 8 Abutment No 1 (South Portion)
- 9 Abutment No 1 (North Portion)
- 10 Pier No 2 & No 3
- 11 Abutment No 4 (North Portion)
- 12 " No 4 (South Portion)
- 13 Bar List & Tamping Diagram.

GENERAL NOTES

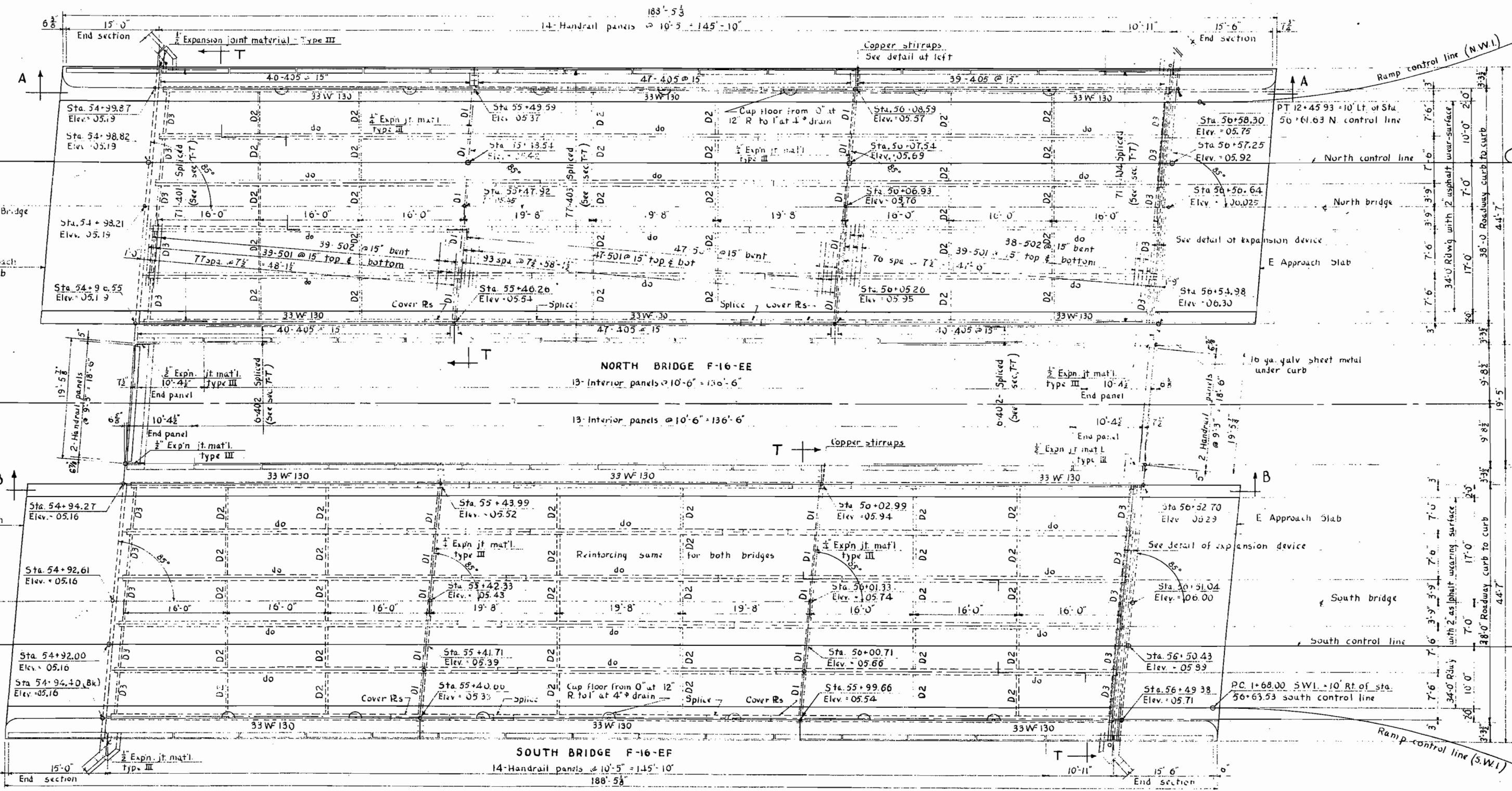
ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS APPLICABLE TO THE PROJECT.
 ALL CONCRETE SHALL BE CLASS "A" AND AIR ENTRAINMENT AS SPECIFIED.
 ALL CONCRETE SURFACES EXPOSED TO VIEW SHALL RECEIVE CLASS "F" SURFACE FINISH, EXCEPT THE UNDERSIDE OF FLOOR SLABS AND ABUTMENT FACES BETWEEN OUTSIDE STRINGERS.
 FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIP LAP OR TONGUE AND GROOVE LUMBER 3" S UNLESS FACED WITH PANEL BOARD.
 FOOTINGS IN ROCK SHALL BE FORMED 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 305-50T 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 NUMBER 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.
 ALL RIVETS, EXCEPT AS NOTED ARE 1/2" DIA. AND SHALL BE POWER DRIVEN.
 WHEN TREATED TIMBER OR PILING IS SHOWN ON THE DRAWING THE PRESERVATIVE FOR TREATMENT SHALL BE CRODOTE OIL.
 WHEN EXCAVATING FOR FOOTINGS THE FINAL ONE FOOT IN DEPTH SHALL BE DONE BY HAND LABOR METHODS.
 HIGH STRENGTH BOLTS MAY BE USED IN PLACE OF FIELD RIVETS BUT AT NO ADDITIONAL EXPENSE TO THE STATE. THE BOLTS TO BE HIGH TENSILE STEEL AND SHALL BE ASSEMBLED IN ACCORDANCE WITH SPECIFICATIONS APPROVED BY THE RESEARCH COUNCIL ON RIVETS AND BOLTED STRUCTURAL JOINTS OF THE ENGINEERING FOUNDATION JAN. 31, 1951.
 APPROACH SLAB QUANTITIES ARE NOT INCLUDED IN TOTAL OF BRIDGE QUANTITIES.
 TO BE INCLUDED IN THE BID PRICE OF CLASS "A" CONCRETE.

COLORADO
 DEPARTMENT OF HIGHWAYS
 CONTINUOUS W/ BEAMS & CONC. SLAB
 2 BRIDGES-EACH 3 SPANS 48'-5 1/2'
 38 RDWY 3'-3 1/2" CURBS 85' SKEW
 GENERAL LAYOUT, SUMMARY OF QUANTITIES, GENERAL NOTES
 Across South Platte River at W. 6th Ave. In Denver Sec. 5 T. 4S R. 68W
 Designed by P.G. Approved by J.C.R.
 Made by P.G. Bridge Engineer
 Checked by Date: 12-26, 1955

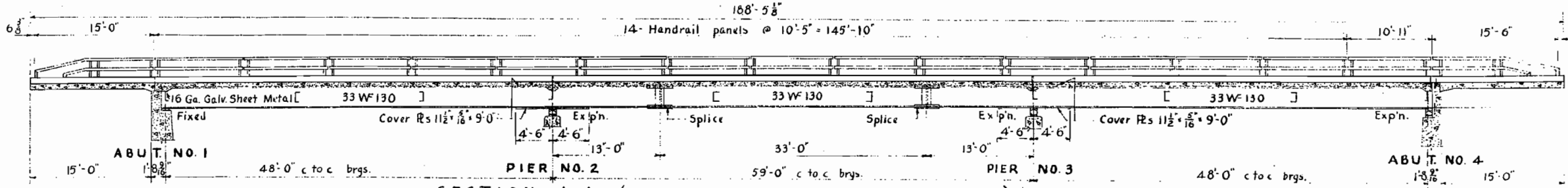


APPROACH SLAB QUANTITIES ARE NOT INCLUDED IN TOTAL OF BRIDGE QUANTITIES.
 TO BE INCLUDED IN THE BID PRICE OF CLASS "A" CONCRETE.
 NORTH BRIDGE - STR. NO. F-16-EE STA 54+98.82 TO 56+57.25
 SOUTH BRIDGE - STR. NO. F-16-EF STA 54+92.00 TO 56+50.43

IL OF 32 OZ.
NET COPPER
STIRRUPS



PLAN



SECTION A-A (SEC. B-B SIMILAR EXCEPT FOR HANDRAIL)
Reinforcing bar dimensions are to 4 of bar unless marked 'clear' (cl.)

COLORADO
DEPARTMENT OF HIGHWAYS
2 BRIDGES - 3 SPANS (48' - 59' - 48')
CONTINUOUS W-F BEAMS & CONC. SLAB
38'-0" ROWW - 3'-3 1/2" CURBS - 85° SKEW
SUPERSTRUCTURE

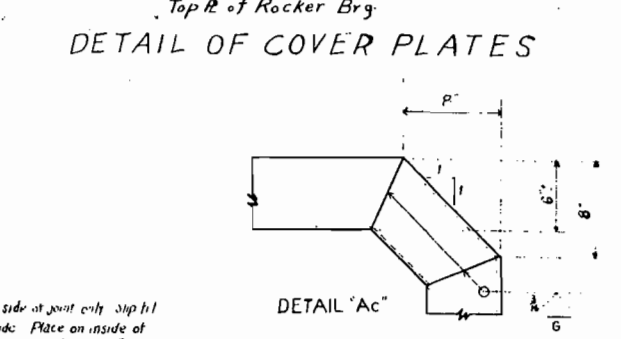
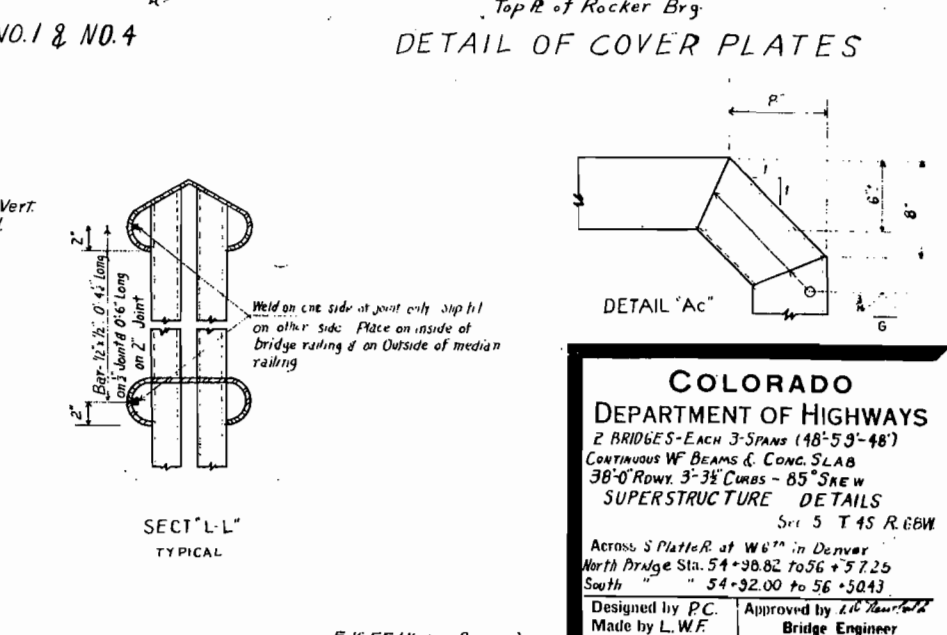
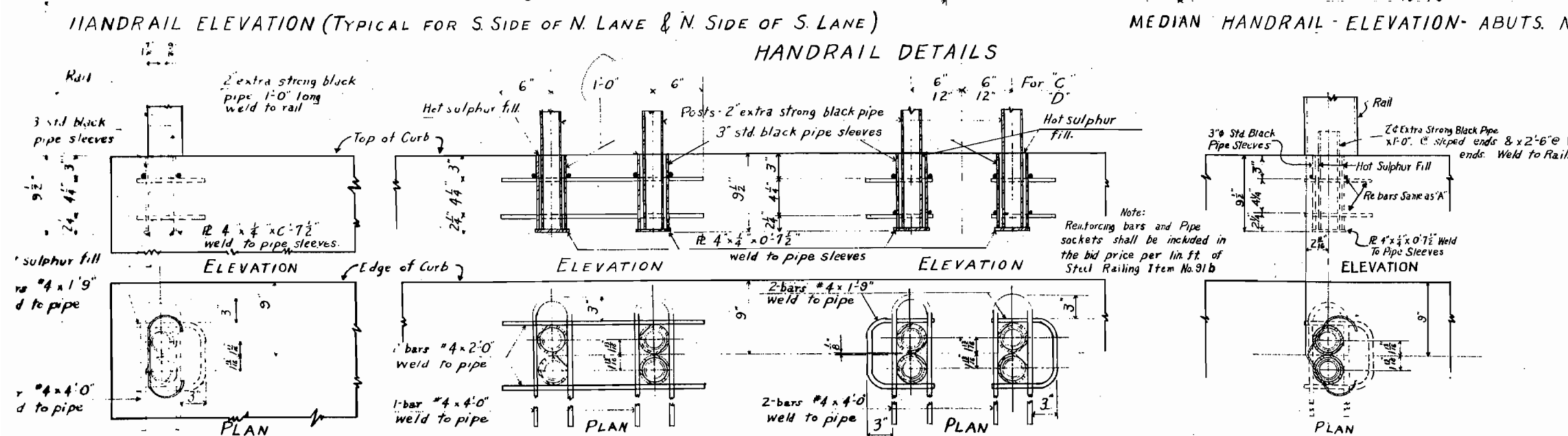
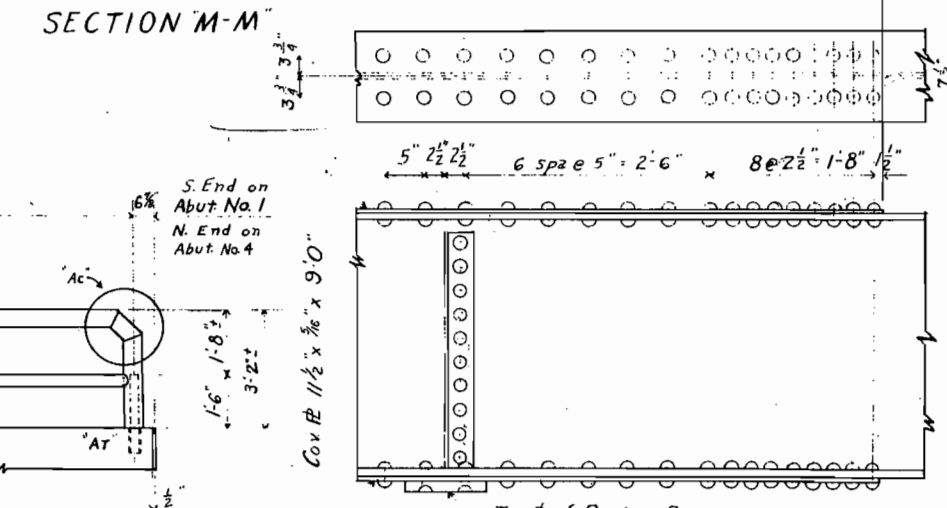
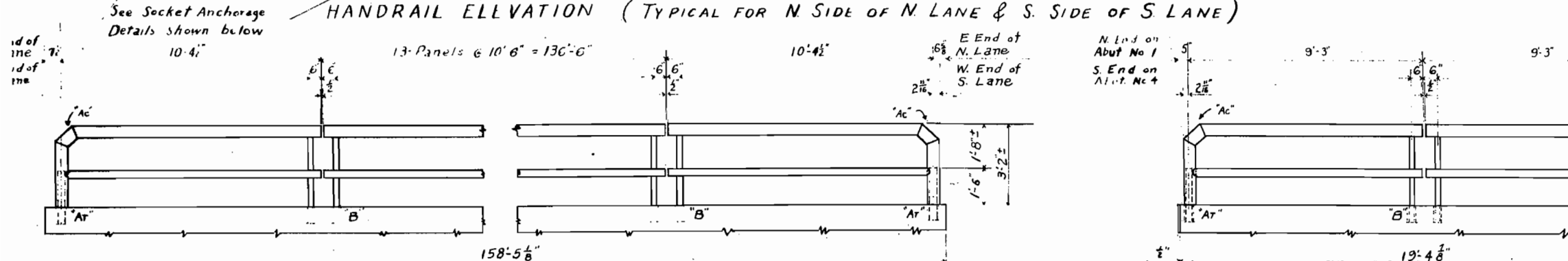
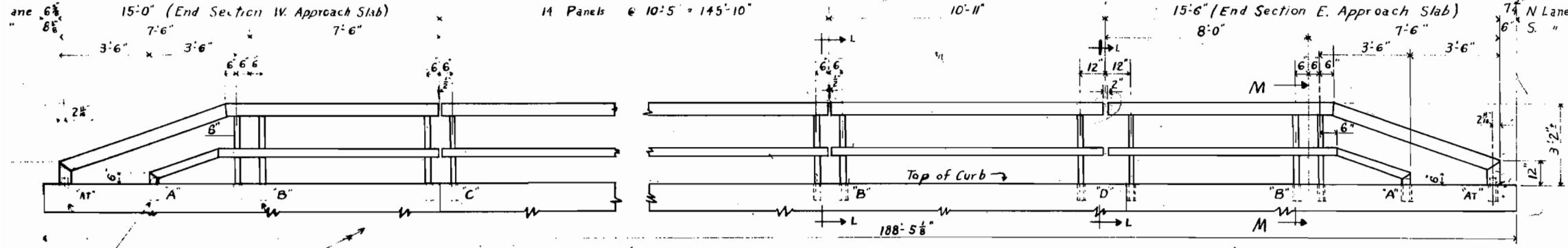
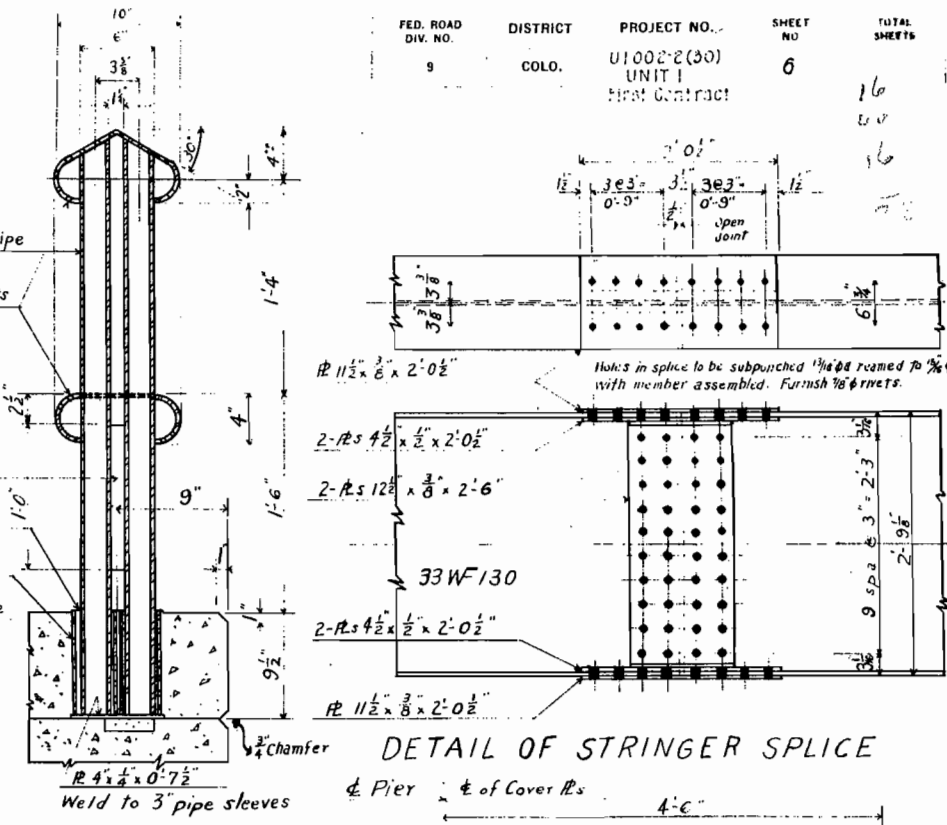
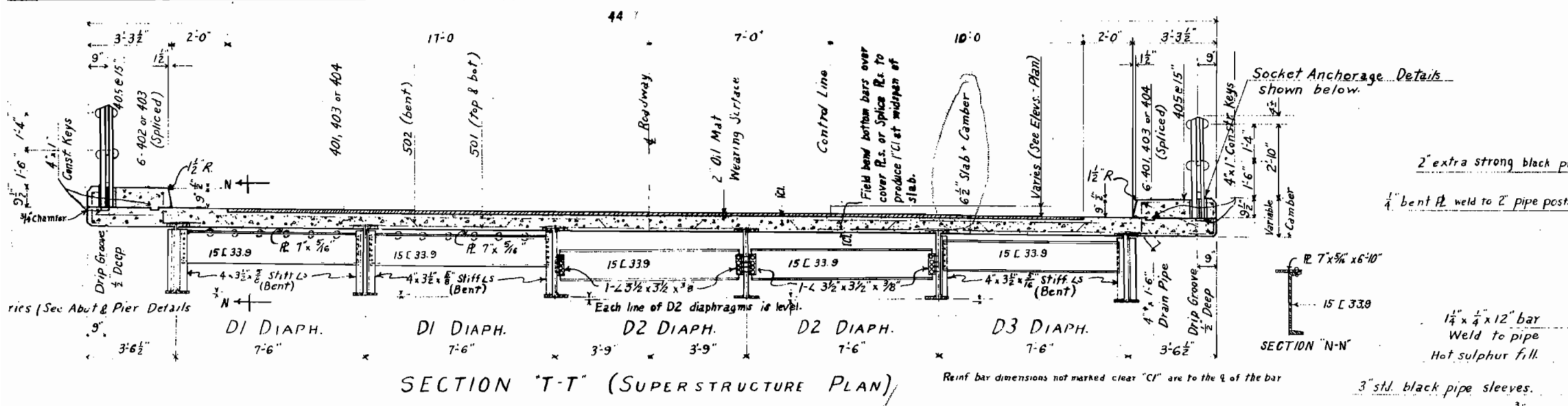
Across S. Platte R at W 6th Ave.
North Bridge sta. 54+98.82 to 50+57.25
South Bridge sta. 54+92.00 to 56+50.43
In Denver Sec. 5, T. 45 R. 68W

Designed by P.C.
Made by L.W.F.
Checked by

Approved by *[Signature]*
Bridge Engineer
Date: 2/26/1955

F-16-EE (No. Bridge)
STRUCTURE NO. F-16-EF (So. Bridge)

C & S R.R. SPUR



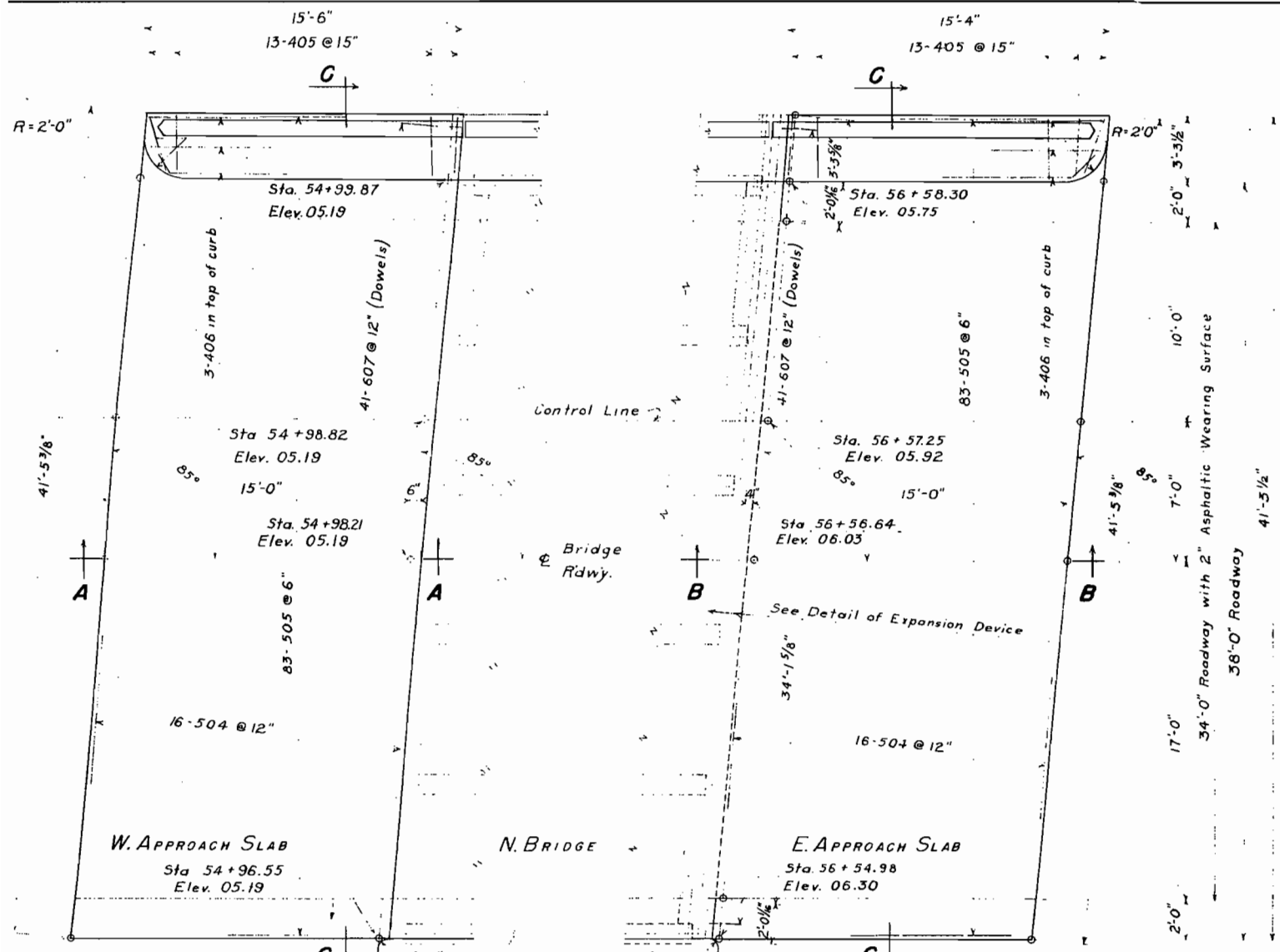
COLORADO DEPARTMENT OF HIGHWAYS

2 BRIDGES - EACH 3 SPANS (48'-5 9/16" - 48')
 CONTINUOUS WF BEAMS & CONC. SLAB
 38'-0" ROW. 3'-3 1/2" CURBS - 85° SREW
 SUPERSTRUCTURE DETAILS

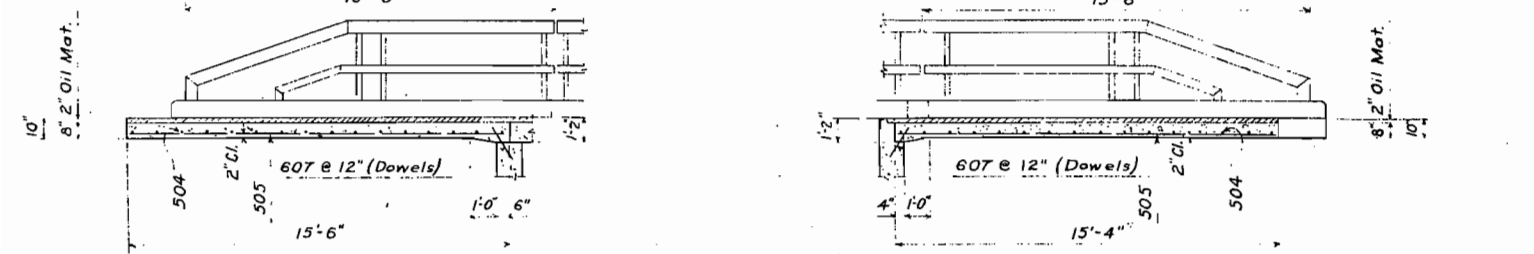
See S T 45 R.G.W.

Across S Platte R. at W 6th in Denver
 North Drage Sta. 54+38.82 to 56+57.25
 South " " 54+32.00 to 56+50.43

Designed by P.C. Approved by L.W.F. Bridge Engineer
 Made by L.W.F. Checked by Date: Apr. 24, 1925

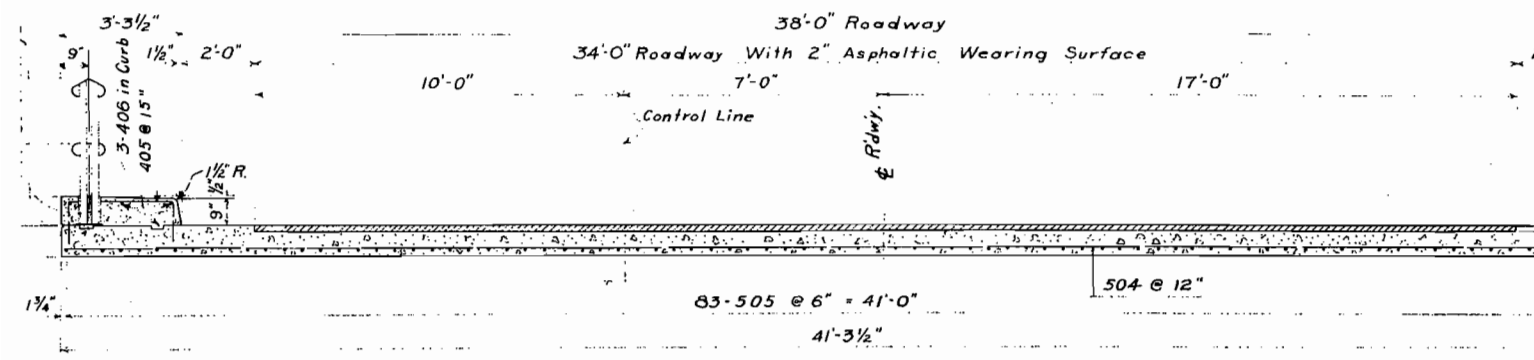


APPROACH SLABS FOR N. BRIDGE SHOWN (FOR S. BRIDGE SIMILAR)



SECTION A-A

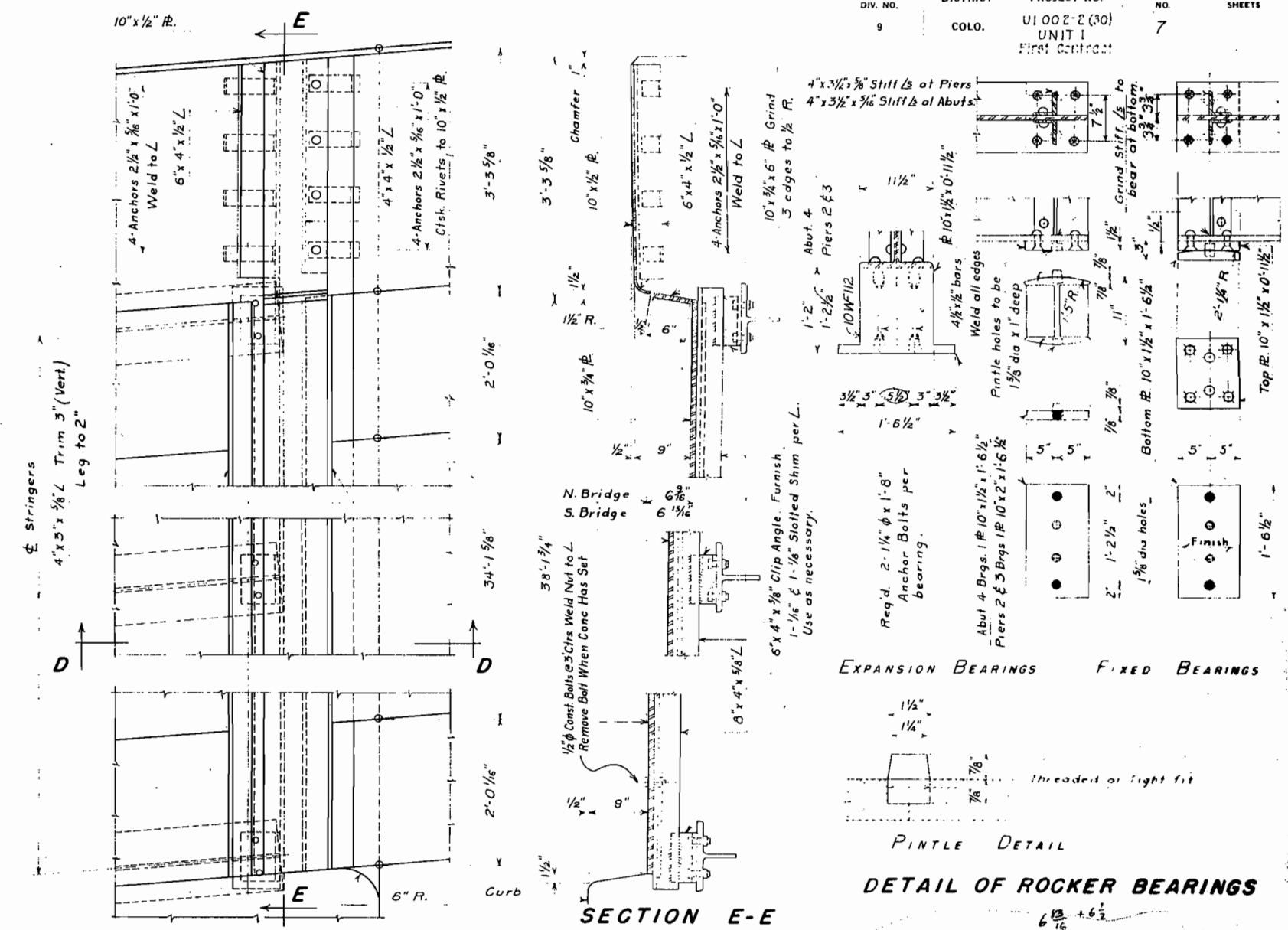
SECTION B-B



SECTION C-C

DETAILS OF APPROACH SLABS

Reinforcing bar dimensions are to ϕ of bar unless marked "clear" (Cl.)

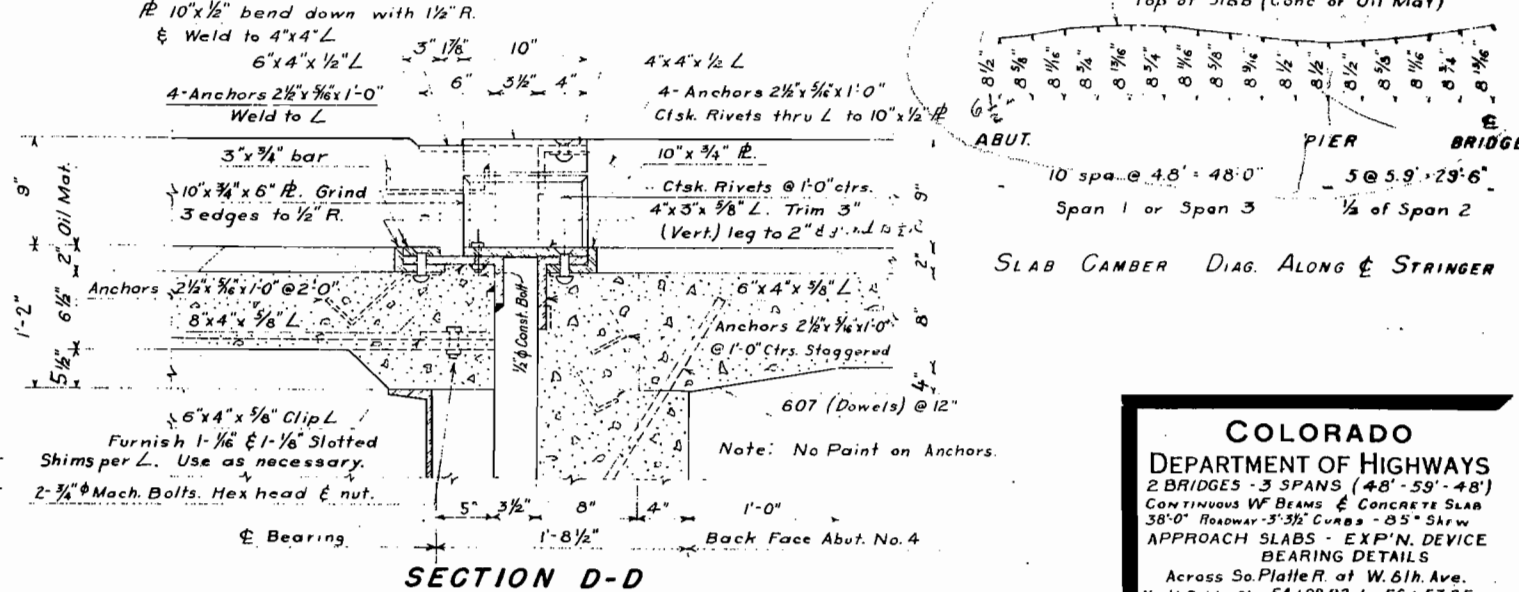


PART PLAN

SECTION E-E (SHOWING STEEL ONLY)

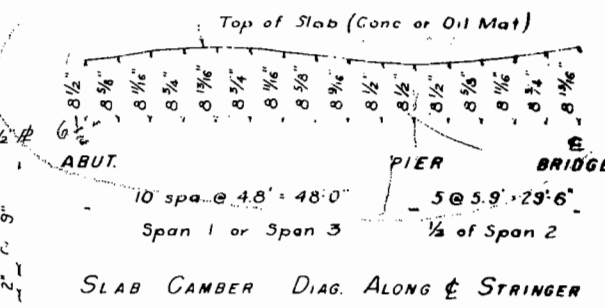
EXPANSION BEARINGS FIXED BEARINGS

DETAIL OF ROCKER BEARINGS



SECTION D-D

DETAILS OF STEEL EXPANSION DEVICE

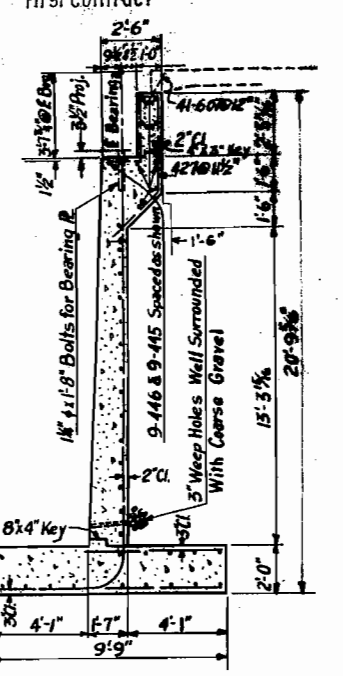


SLAB CAMBER DIAG. ALONG ϕ STRINGER

COLORADO DEPARTMENT OF HIGHWAYS
 2 BRIDGES - 3 SPANS (48'-59'-48')
 CONTINUOUS W BEAMS & CONCRETE SLAB
 38'-0" ROADWAY - 3 3/8" CURBS - 85" SHRW
 APPROACH SLABS - EXP'N DEVICE BEARING DETAILS
 Across So. Platte R. at W. 8th Ave.
 North Bridge Sta. 54+98.82 to 56+57.25
 South Bridge Sta. 54+92.00 to 56+50.43
 In Denver Sec. 5 T. 45 R. 68W
 Designed by P. C. Approved by J. R. Newhall
 Made by L. W. F. Bridge Engineer
 Checked by Date: 2-1-1933

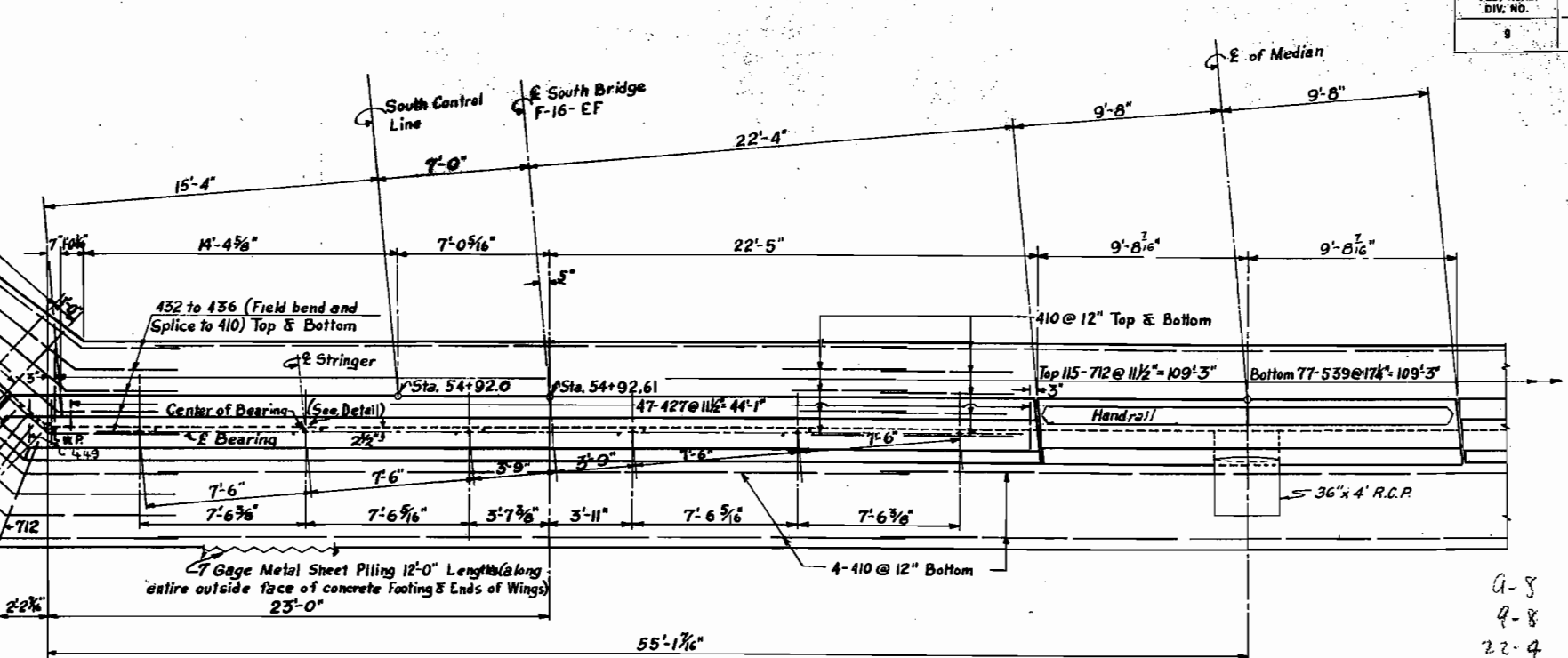
STRUCTURE NO. F-16-EE (North Bridge)
 STRUCTURE NO. F-16-EF (South Bridge)

FED. ROAD DIV. NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	U1002-2(50) UNIT 1	8	

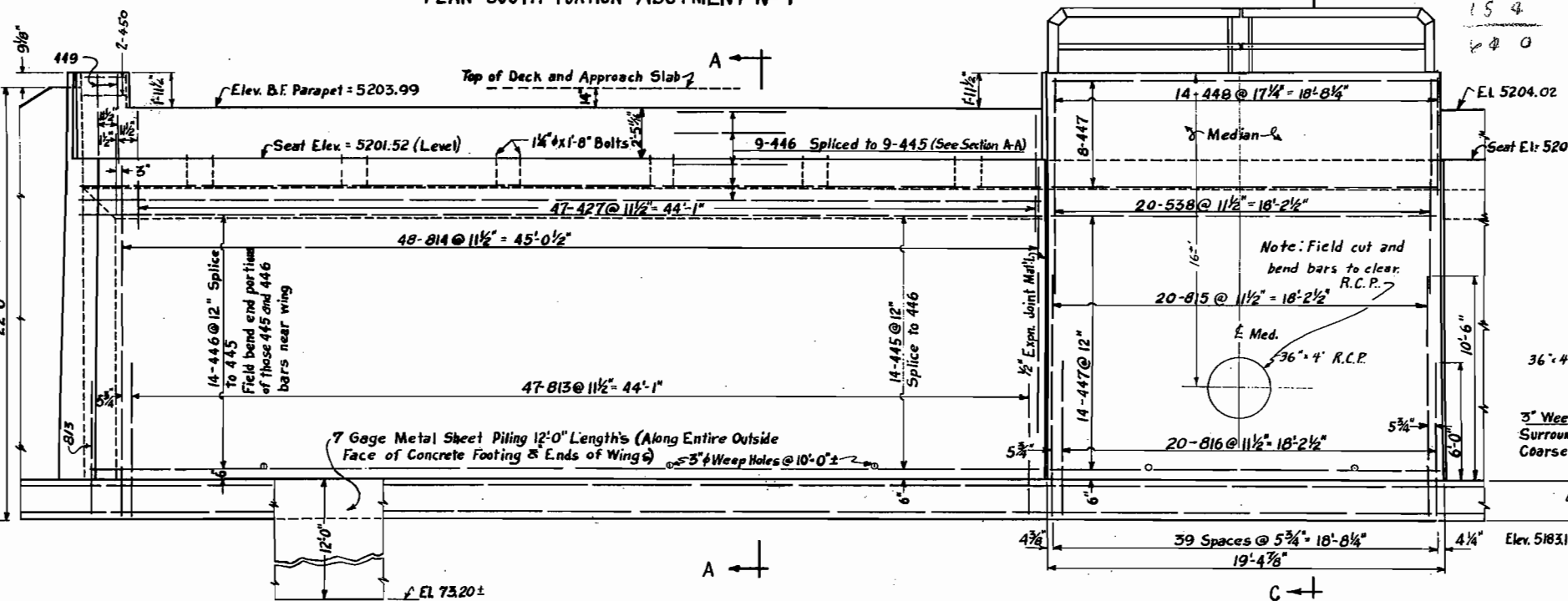


0-8
 9-8
 22-4
 7-0
 15-4
 10-0

PLAN SOUTH PORTION ABUTMENT N° 1

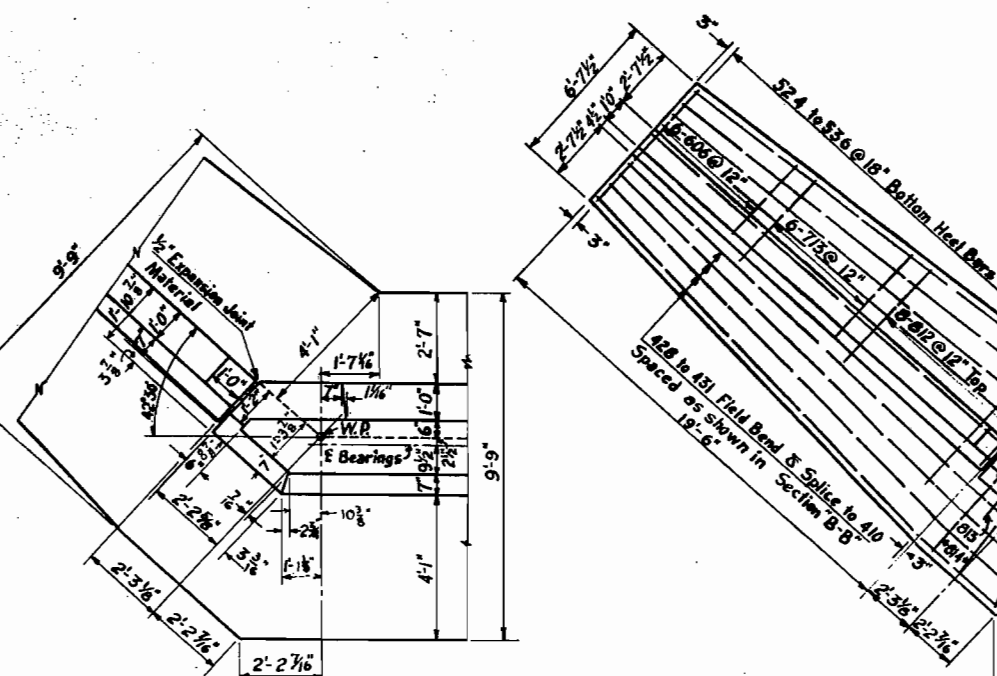


ELEVATION SOUTH PORTION ABUTMENT N° 1

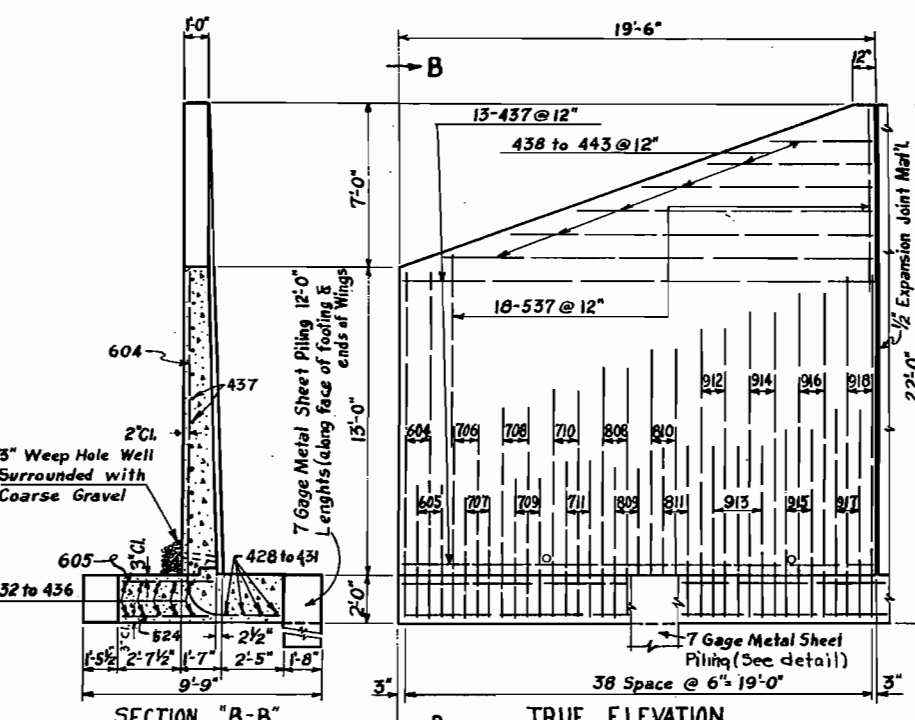


MAXIMUM TDE PRESSURE = 3900/54 FT.

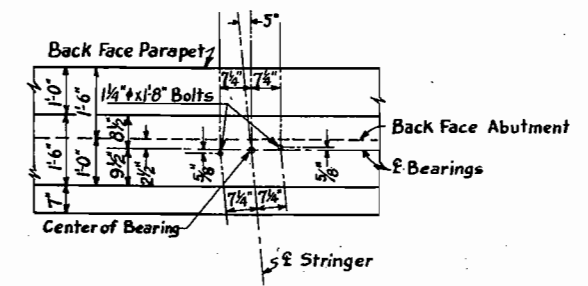
DETAIL SOUTH END ABUTMENT N° 1



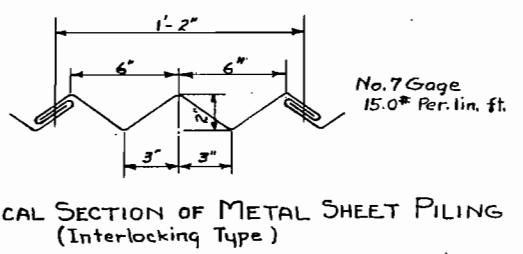
TRUE ELEVATION SOUTH WING ABUTMENT N° 1



SECTION 'C-C'



DETAIL AT BEARING



TYPICAL SECTION OF METAL SHEET PILING (Interlocking Type)

Note: All Expansion Joint Material Used In Abutment To Be Type III Dimensions For Reinforcing Steel Not Shown As Clear Shall Be To The Center Line Of The Bar

COLORADO DEPARTMENT OF HIGHWAYS

TWO BRIDGES-EACH 3 SPANS (48'-59'-48") CONTINUOUS W/ BEAMS & CONCRETE SLAB 38'-0" ROADWAY 3-3/4" CURB 85'-00" SKEW

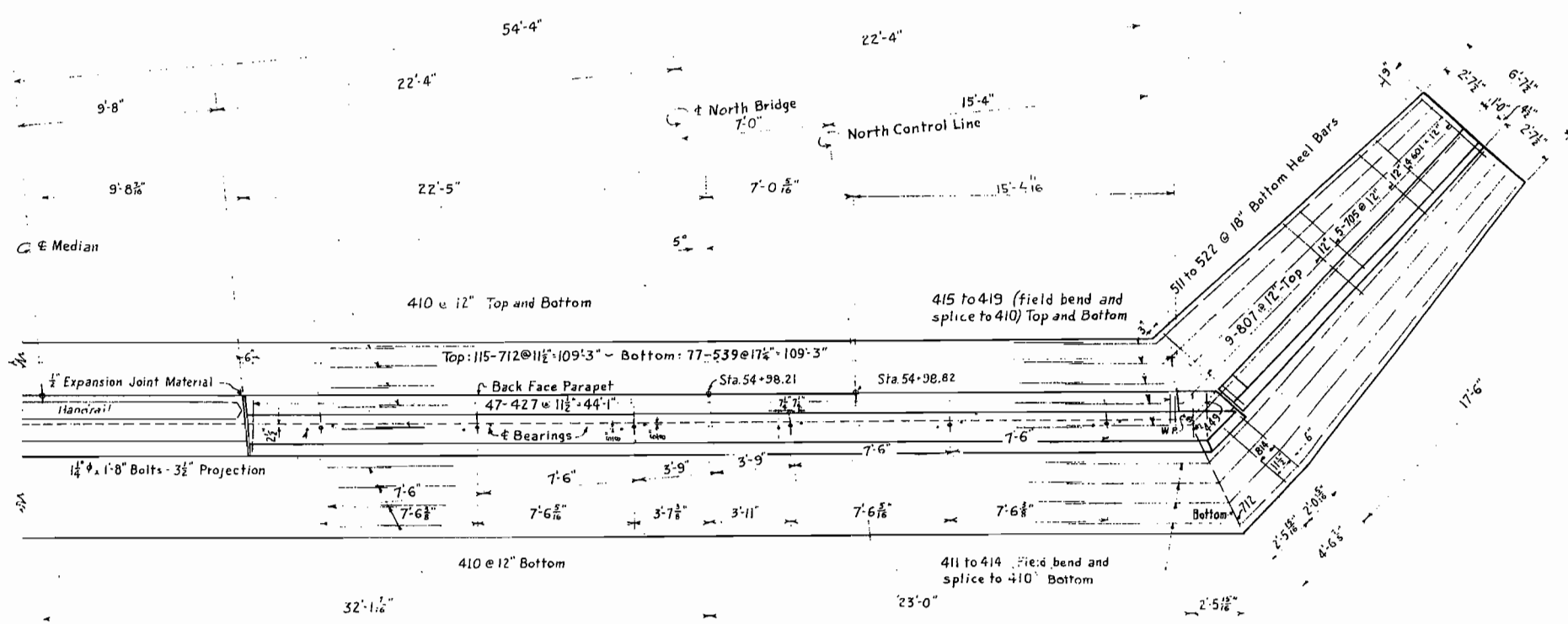
ABUTMENT N° 1 AND DETAILS

Across SOUTH PLATTE RIVER AT WEST 6TH AVE. Sta. SEE NOTE AT LEFT

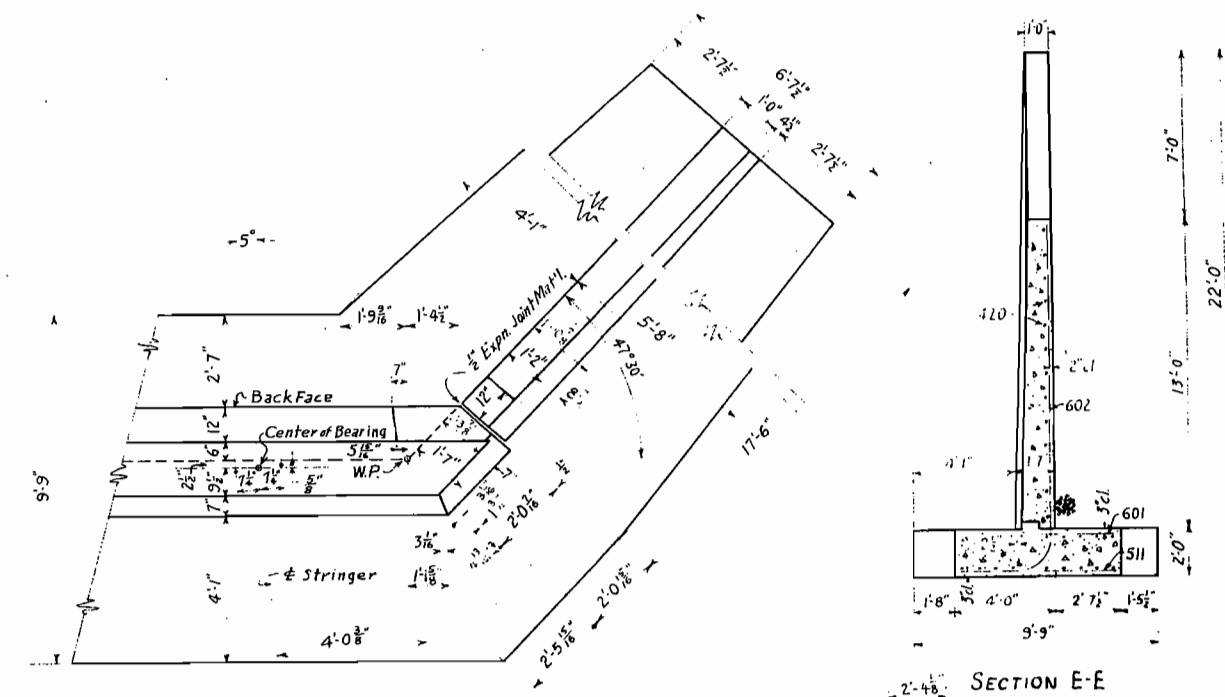
IN DENVER Sec. 5 T. 45 R. 68W

Designed by P.C. Approved by B.D. *[Signature]*
 Made by T.J.M. Bridge Engineer
 Checked by Date: Sept. 26, 1955

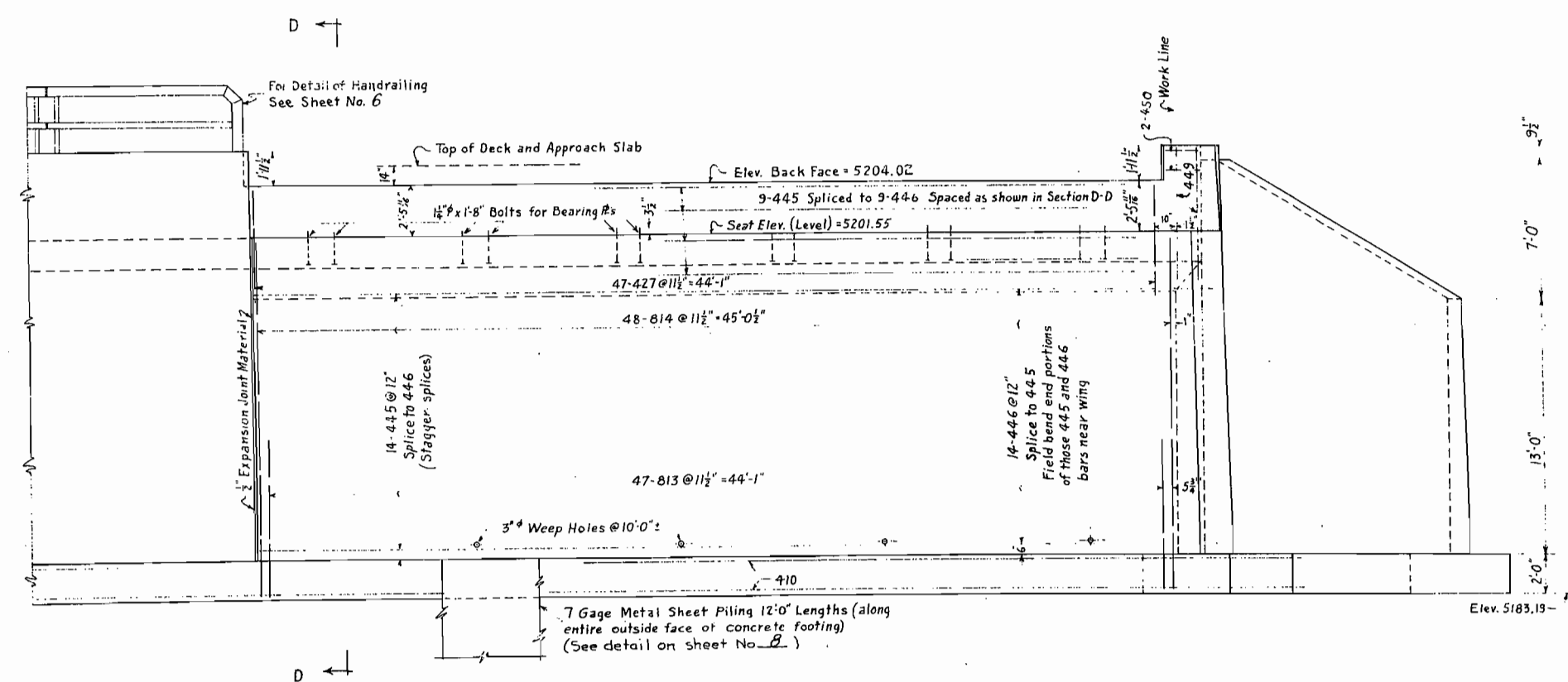
NORTH BRIDGE
 STRUCTURE N° F-16-EE
 STATION 54+98.82 TO 56+57.25
 SOUTH BRIDGE
 STRUCTURE N° F-16-EF
 STATION 54+92.00 TO 56+50.43



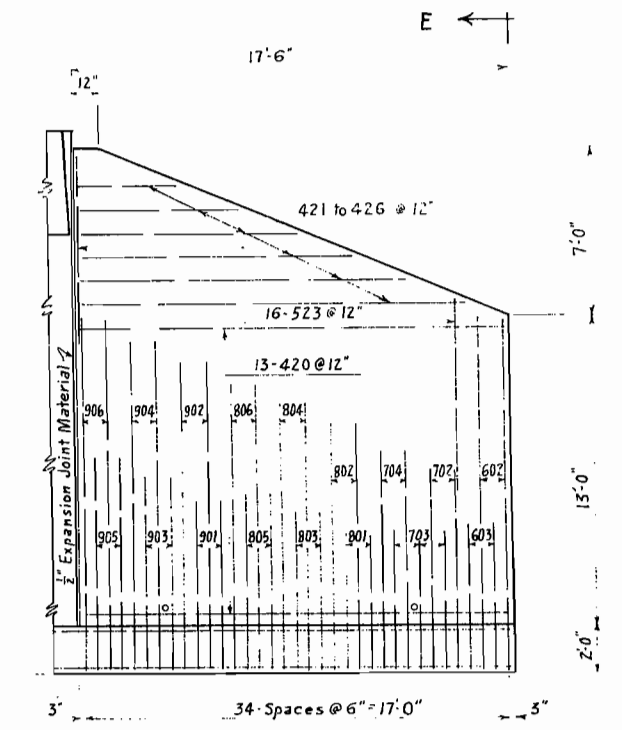
PLAN NORTH PORTION ABUTMENT No. 1



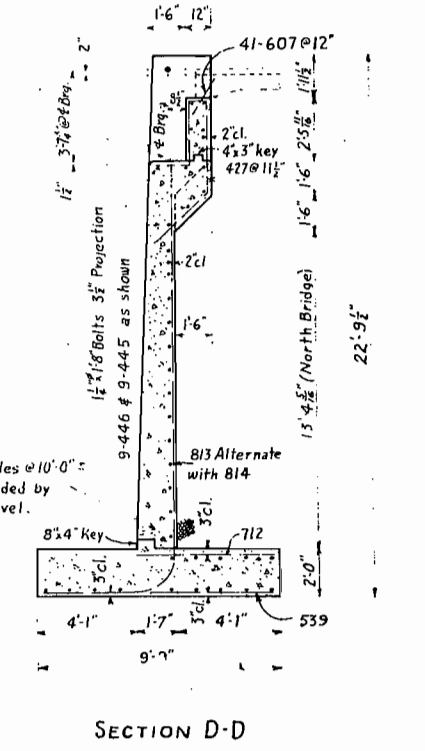
DETAIL NORTH END ABUTMENT No. 1



ELEVATION NORTH PORTION ABUTMENT No. 1
(Max. toe pressure = 3,900 #/sq. ft.)



TRUE ELEVATION NORTH WING ABUTMENT No. 1

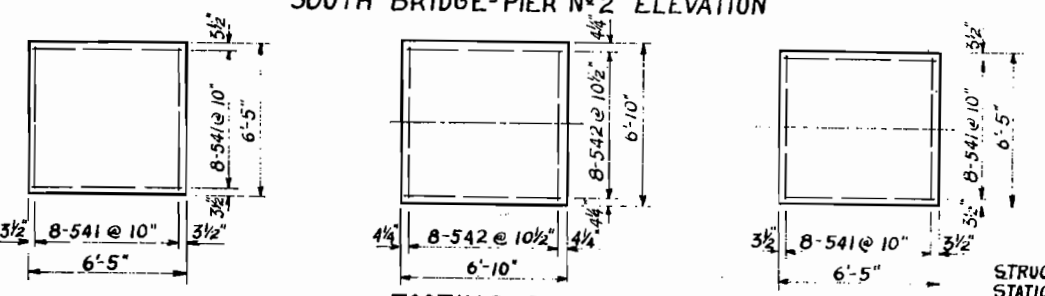
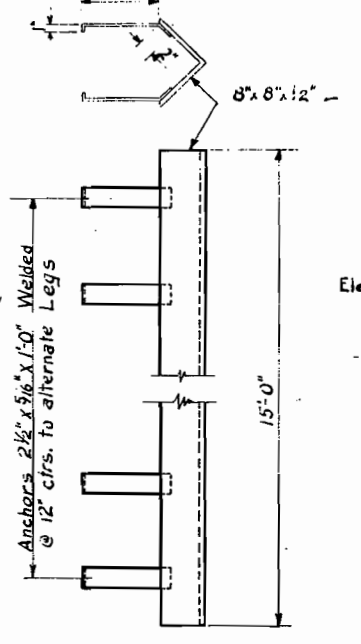
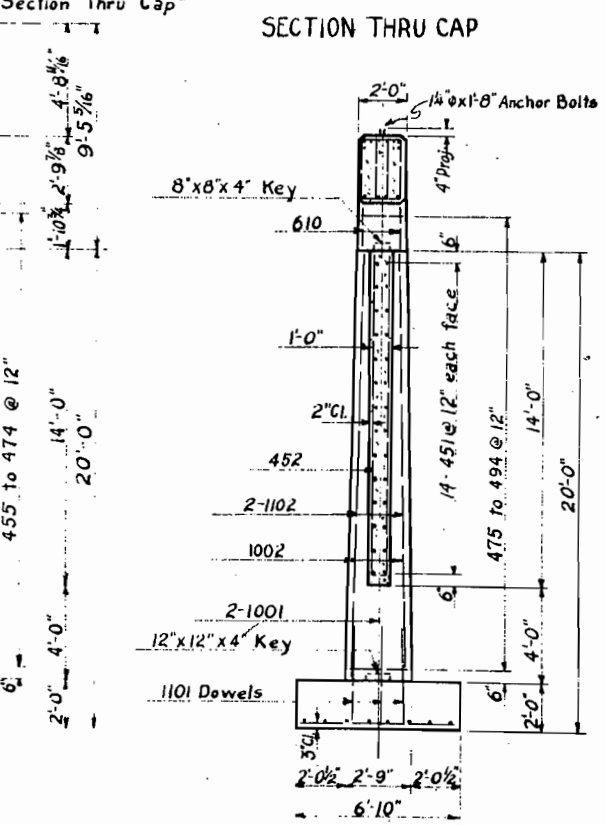
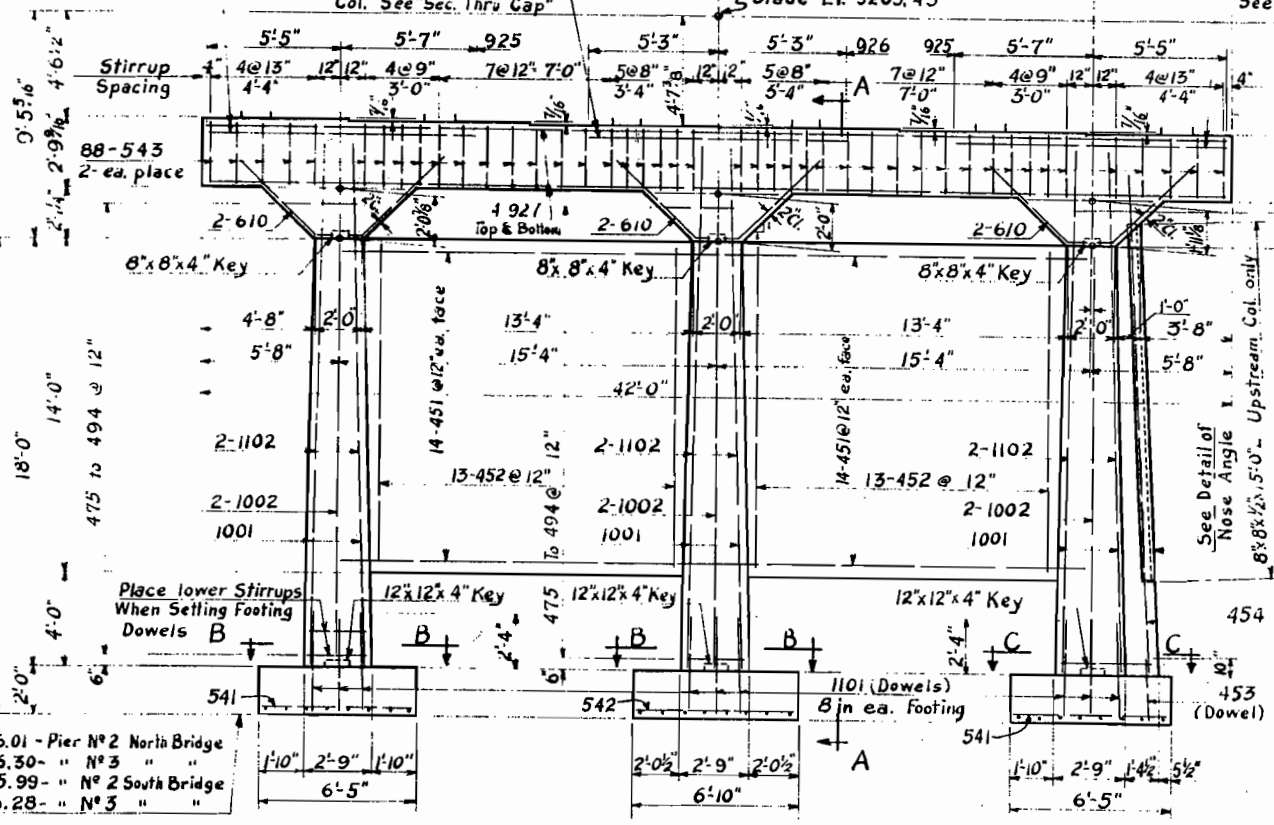
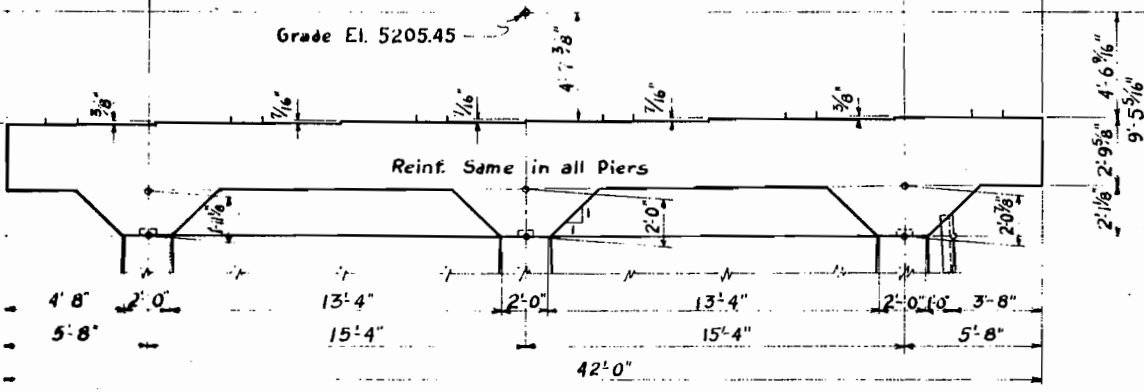
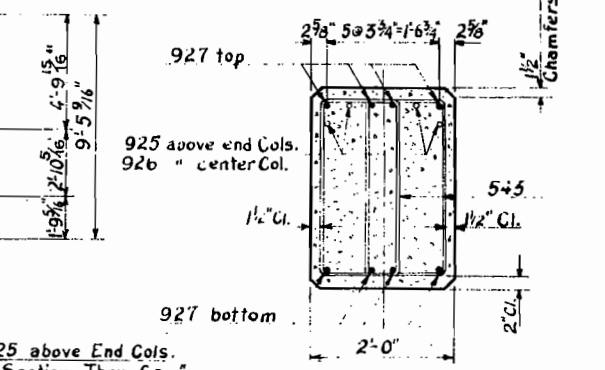
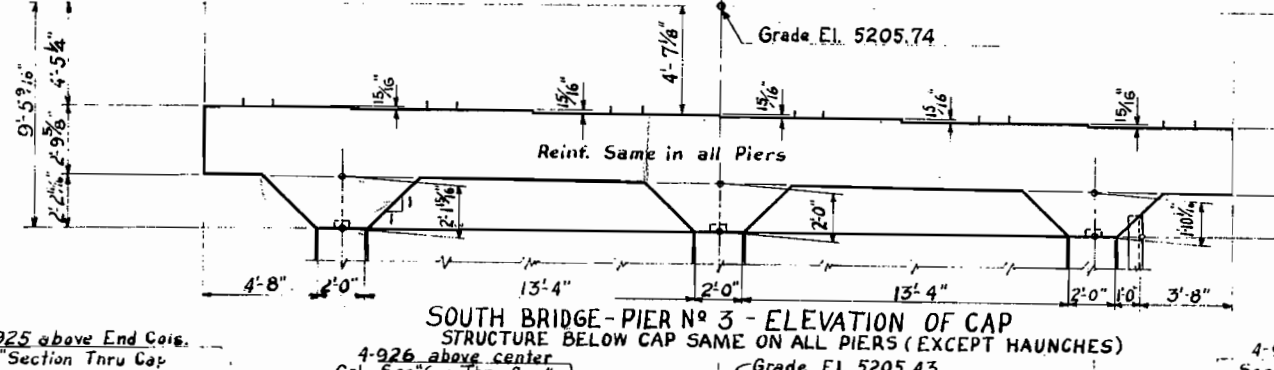
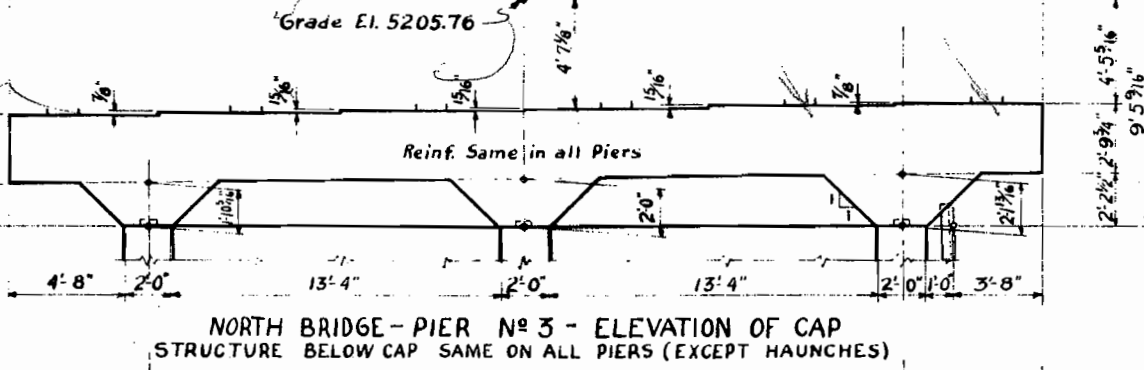
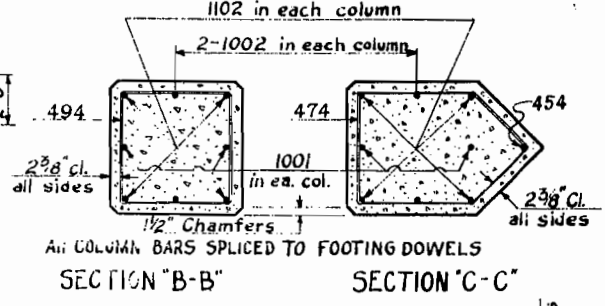
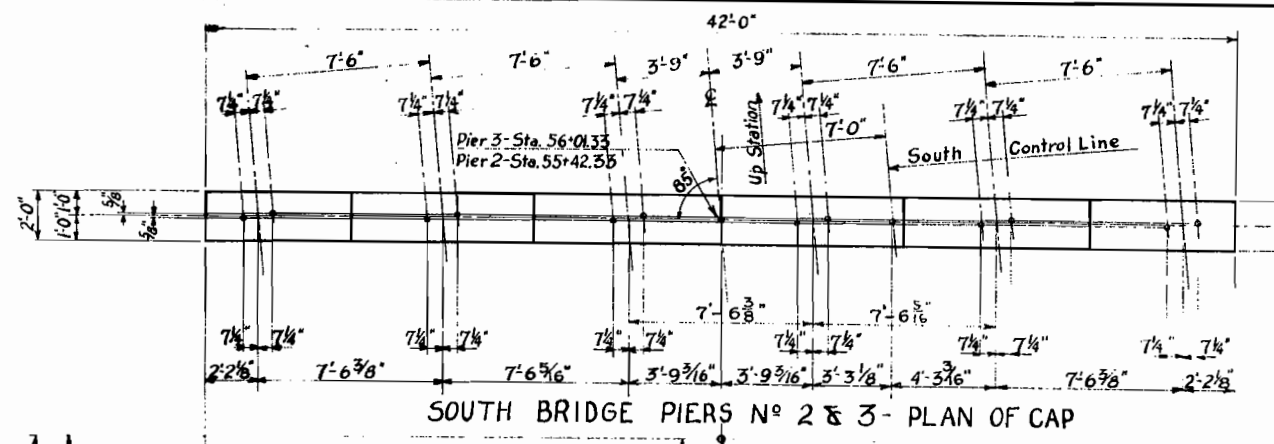
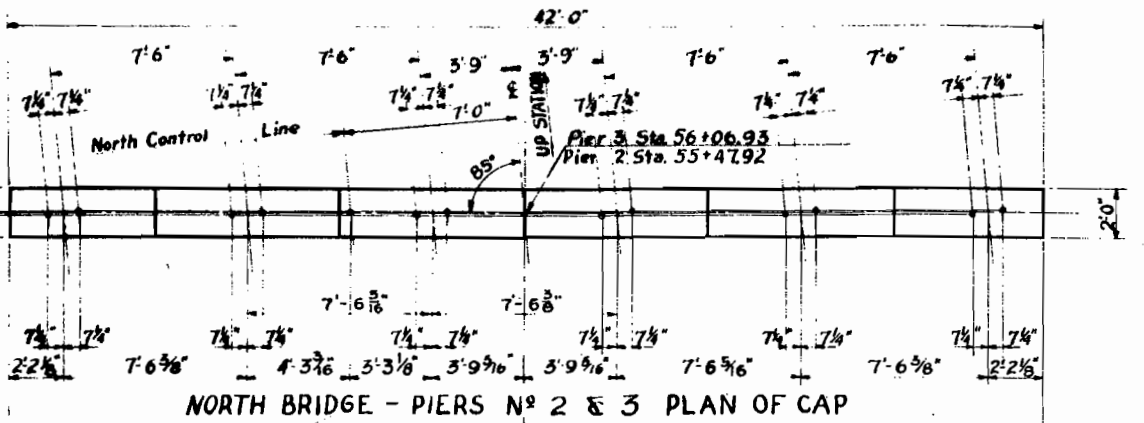


SECTION D-D

Note: All expansion joint material used in abutment to be type III. Dimensions for reinforcing steel not shown as clear shall be to the centerline of the bar.

COLORADO DEPARTMENT OF HIGHWAYS
 Two Bridges - Each 3 Spans (48'-59'-48')
 CONTINUOUS WF BEAMS AND CONCRETE SLAB
 38'-0" ROADWAY - 3'-3 1/2" CURBS - 85'-00" SKEW
 ABUTMENT No. 1 AND DETAILS
 Across South Platte River at West 6th Ave.
 N. Br. Sta. 54+98.82 to 56+57.25; S. Br. Sta. 54+92.00 to 56+50.43
 IN DENVER Sec. 5 T. 4 S. R. 68 W.
 Designed by P.C. Approved by E.A. Cantor
 Made by T.J.M. Bridge Engineer
 Checked by Date: 1.17.51 1955

F-16-EE - NORTH BRIDGE
 STRUCTURE NO. F-16-EF - SOUTH BRIDGE



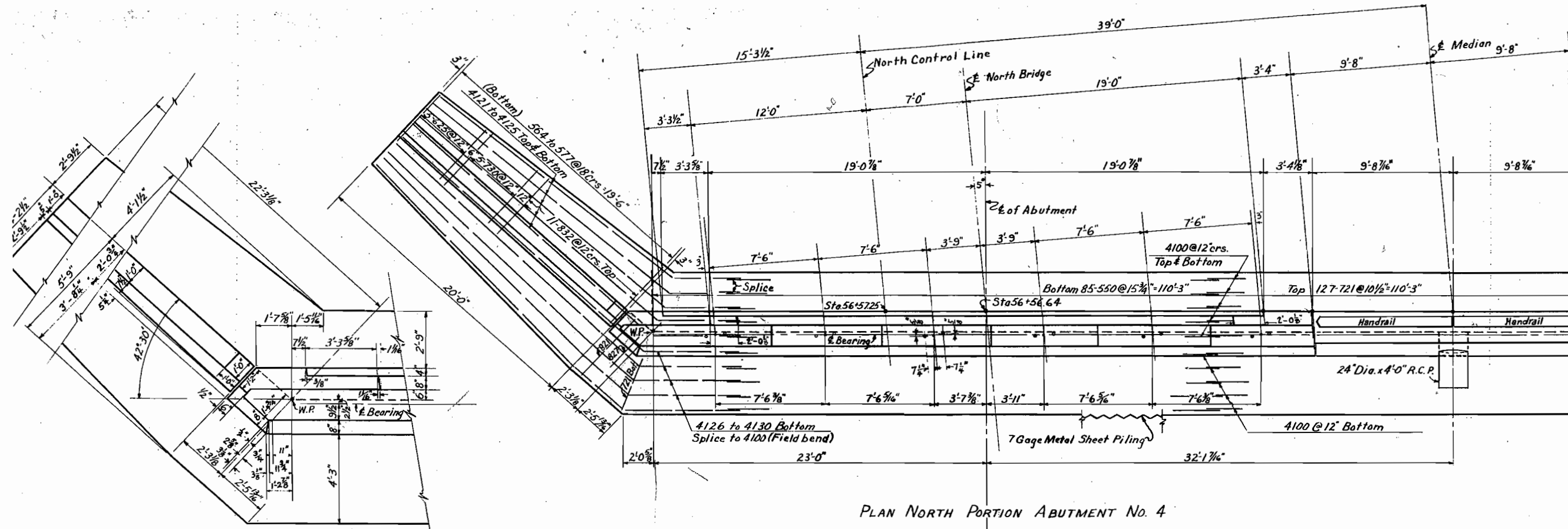
Elevation 5176.01 - Pier No 2 North Bridge
" 5176.30 - " No 3 "
" 5175.99 - " No 2 South Bridge
" 5176.28 - " No 3 "

COLORADO DEPARTMENT OF HIGHWAYS
2 BRIDGES - 3 SPANS (48'-59'-48")
38'-0" ROADWAY 3'-3 1/2" CURBS 85° SKEW
CONTINUOUS W' BEAMS & CONC. SLAB
PIER DETAILS

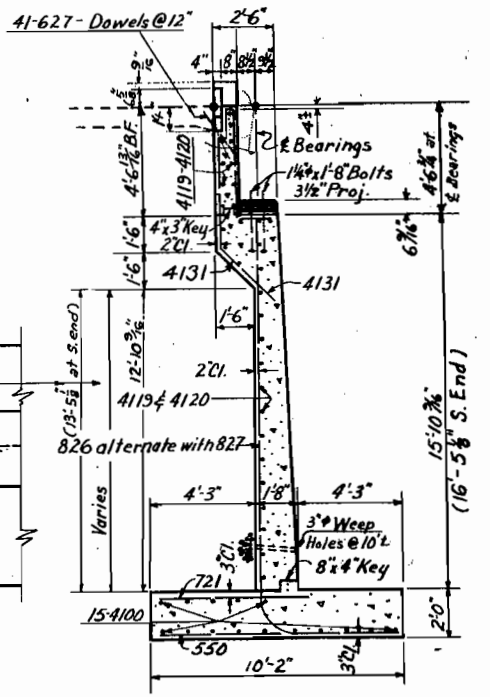
Across SOUTH PLATTE RIVER AT WEST 6TH IN DENVER SEE DESCRIPTION AT LEFT
Sta. 54+92.82 to 56+57.25
Sec. 5 T.45 R.68W

Designed by P.C. L.W.F. Checked by
Approved by [Signature] Bridge Engineer
Date: 11-26-1955

Reinforcing bar dimensions are to the & of the bar unless marked clear "Cl."

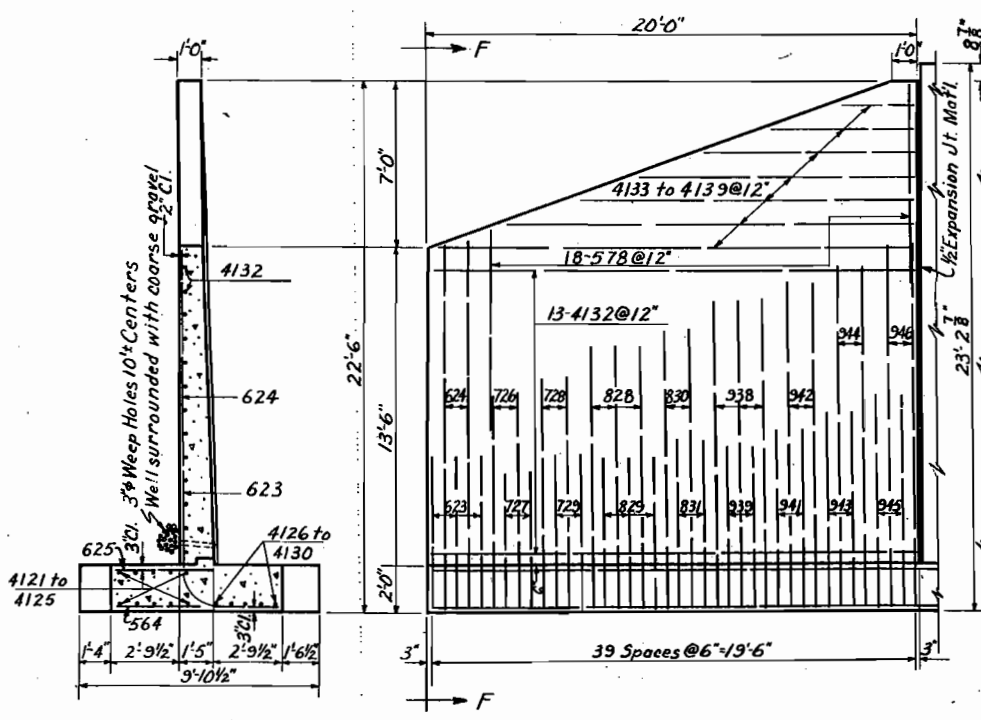


PLAN NORTH PORTION ABUTMENT No. 4



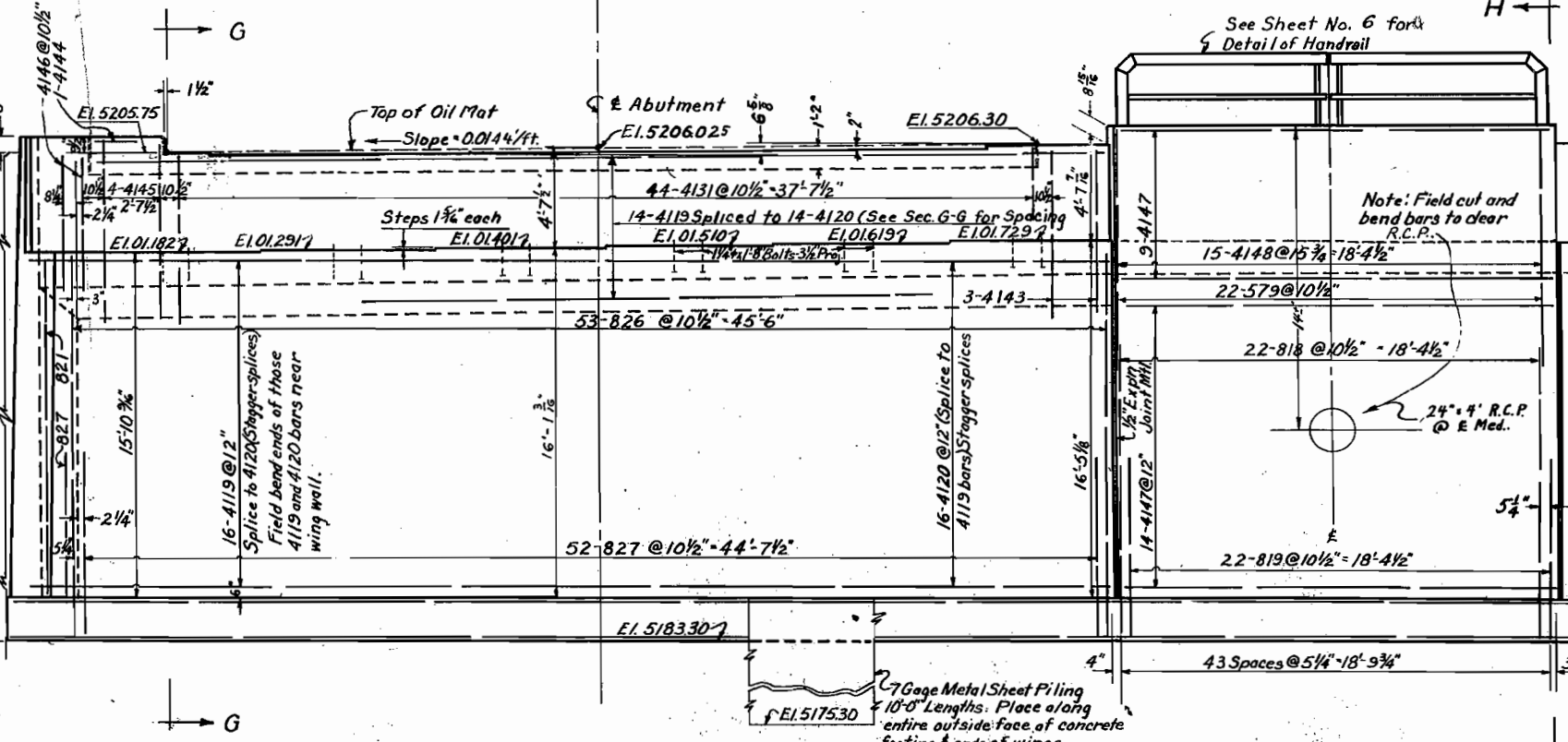
SECTION G-G

DETAIL NORTH END ABUTMENT No. 4



SECTION F-F

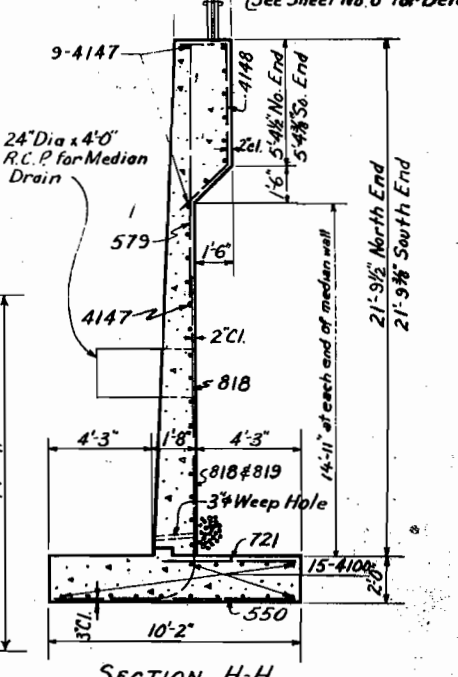
TRUE ELEVATION NORTH WING ABUTMENT No. 4



ELEVATION NORTH PORTION ABUTMENT No. 4

Max. toe pressure = 3.860 #/sq. ft.

Note: All expansion joint material used in abutment shall be type III. Dimensions for reinforcing steel not shown as 'clear' shall be to the center line of bar.



SECTION H-H

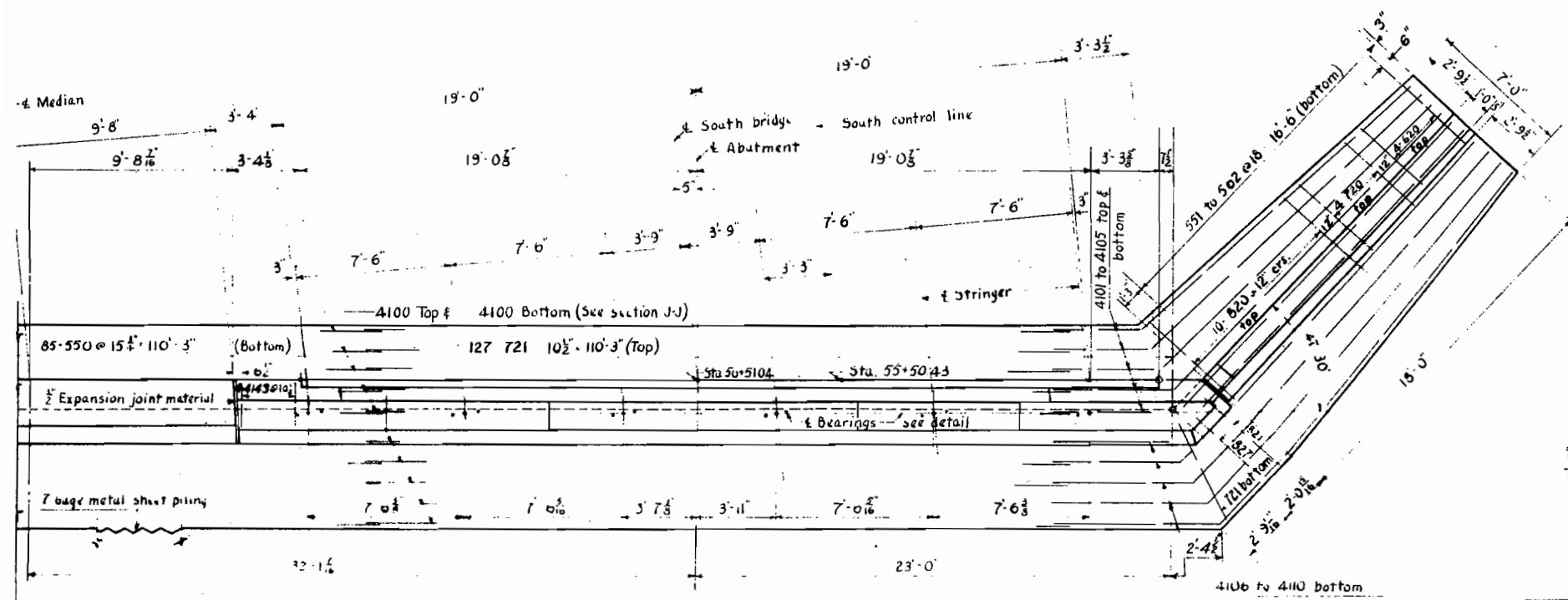
North Bridge Sta. 54+98.82 to Sta. 56+57.25
South Bridge Sta. 54+92.00 to Sta. 56+50.43

STRUCTURE NO. F-16-EE (North Bridge)
F-16-EE (South Bridge)

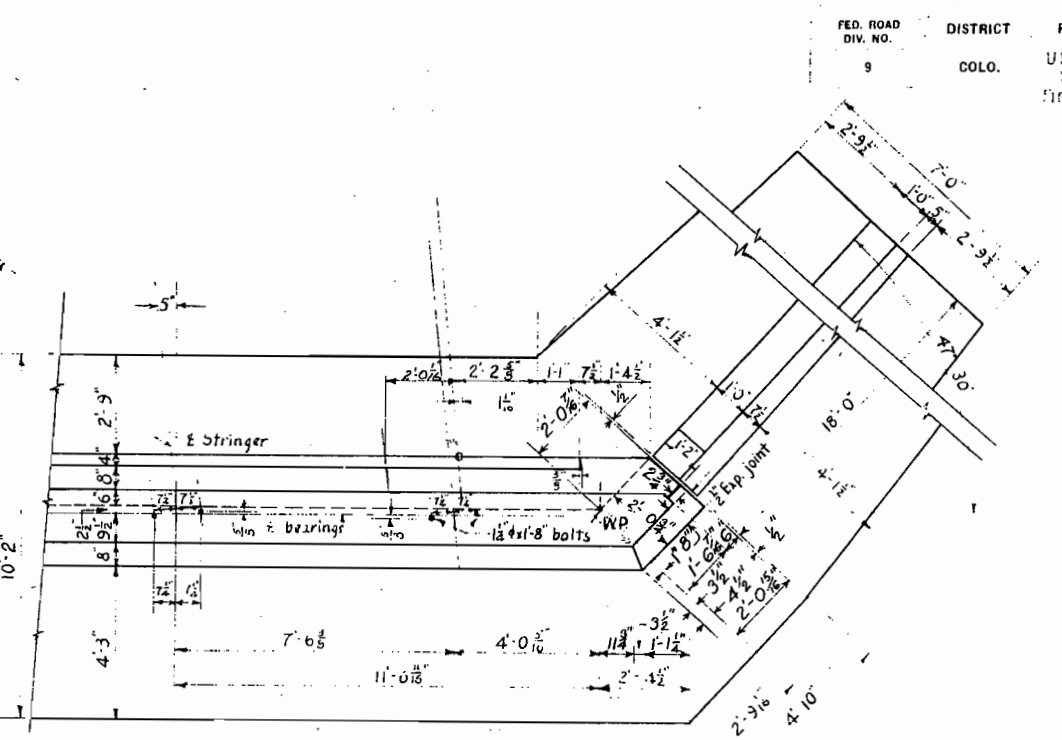
COLORADO DEPARTMENT OF HIGHWAYS

TWO BRIDGES EACH 3 SPANS (48'-59'-48")
CONTINUOUS WF BEAMS & CONCRETE SLAB
38'-0" RDWY. 3'-3 1/2" CURBS 85'-00" SKEW
ABUTMENT No. 4 AND DETAILS
Across So. Platte River at W. 6th Ave.

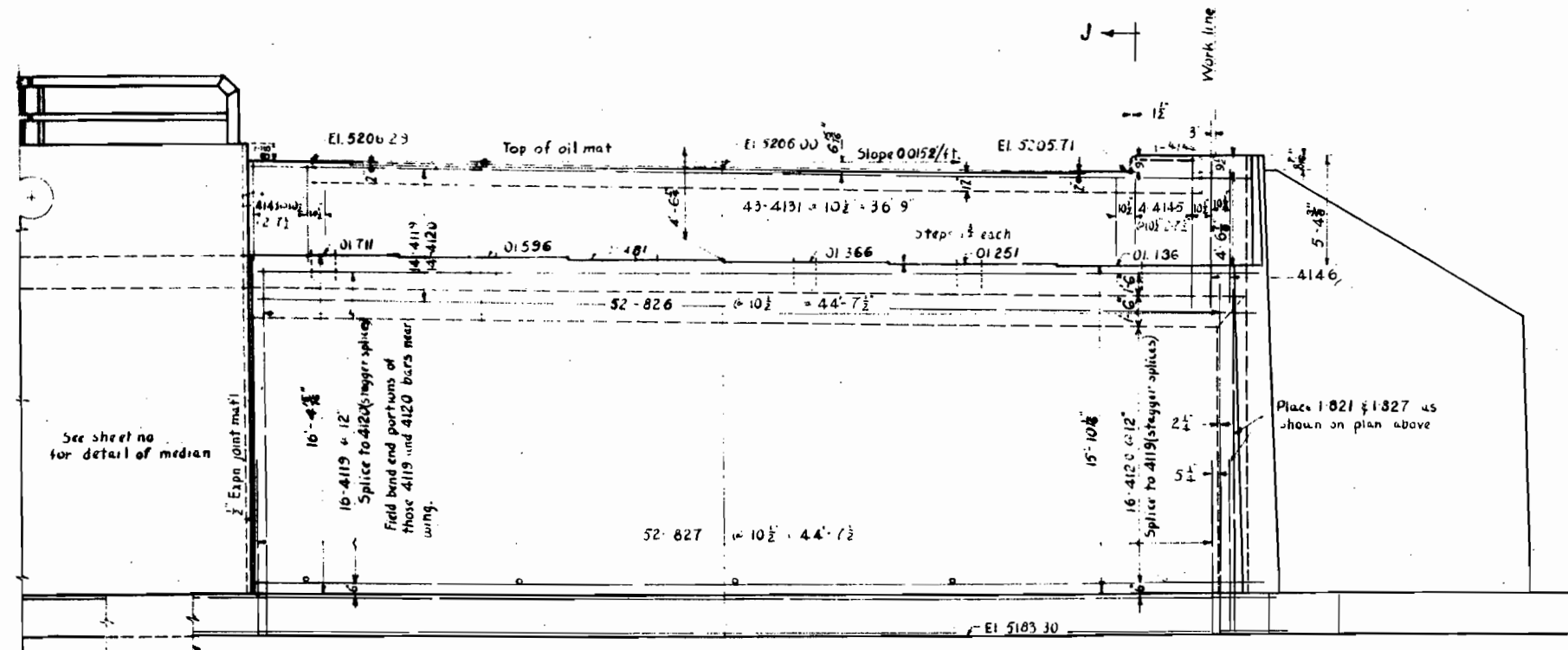
In Denver Sec. 5 T. 45 R. 68 W. 2
Designed by P.C. Approved by J.H. [Signature]
Made by T.J.M. Bridge Engineer
Checked by [Signature] Date: 4.11.36 1935



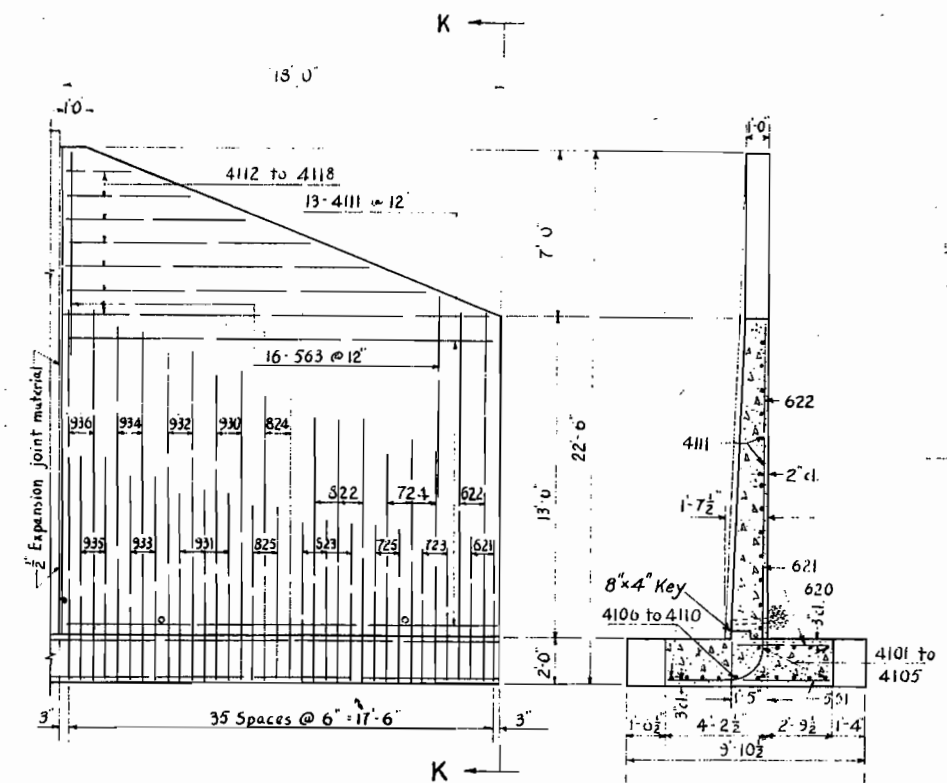
PLAN SOUTH PORTION ABUTMENT NO. 4



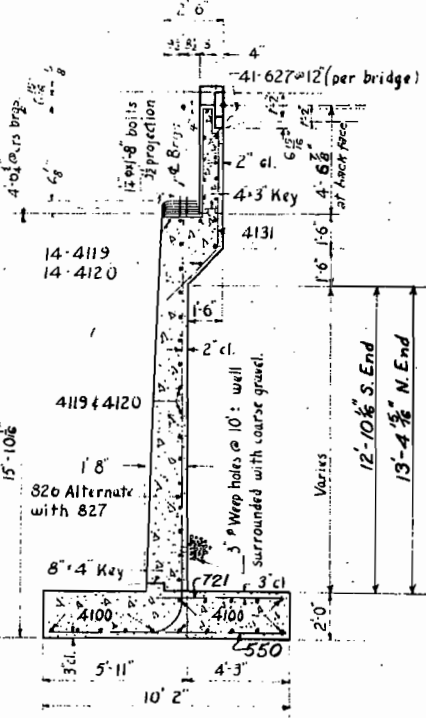
DETAIL SOUTH END ABUTMENT NO. 4



ELEVATION SOUTH PORTION ABUTMENT NO. 4



TRUE ELEVATION SOUTH WING



SECTION J-J



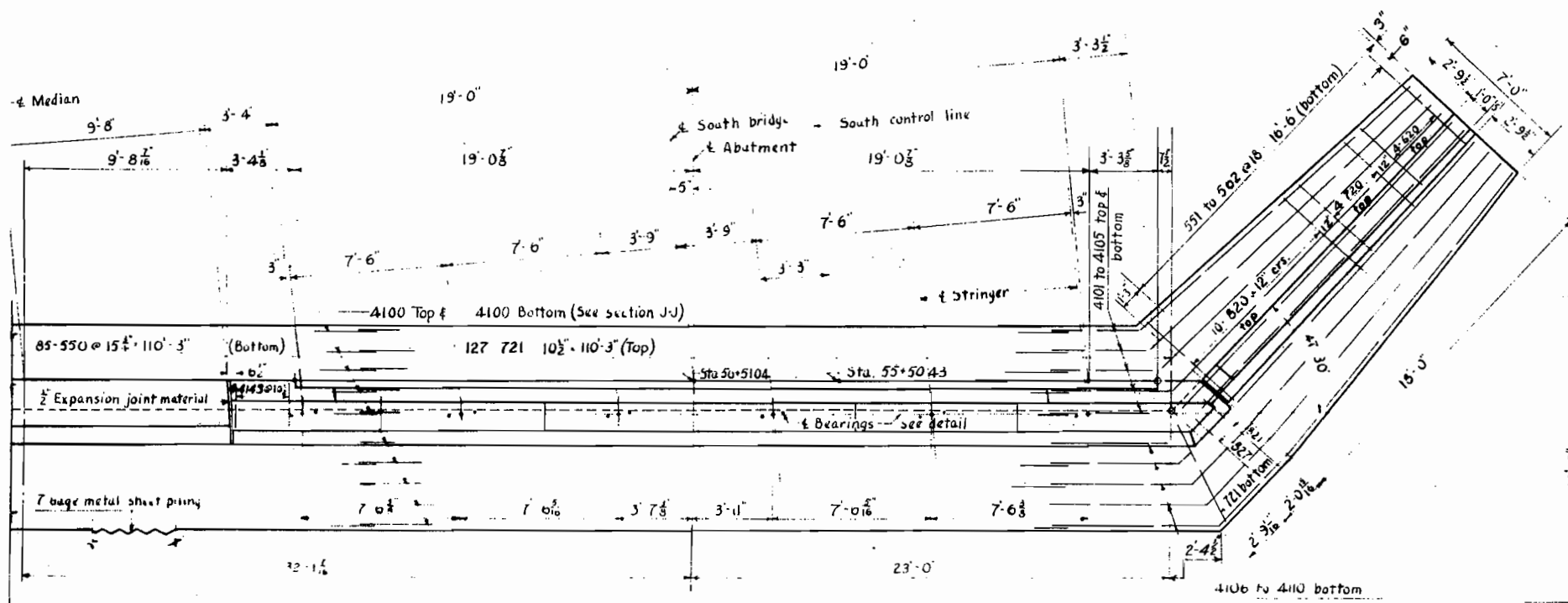
SECTION K-K

Note: All expansion joint material used in abutment shall be type III. Dimensions for reinforcing steel not shown as 'clear' shall be to the center line of bar.

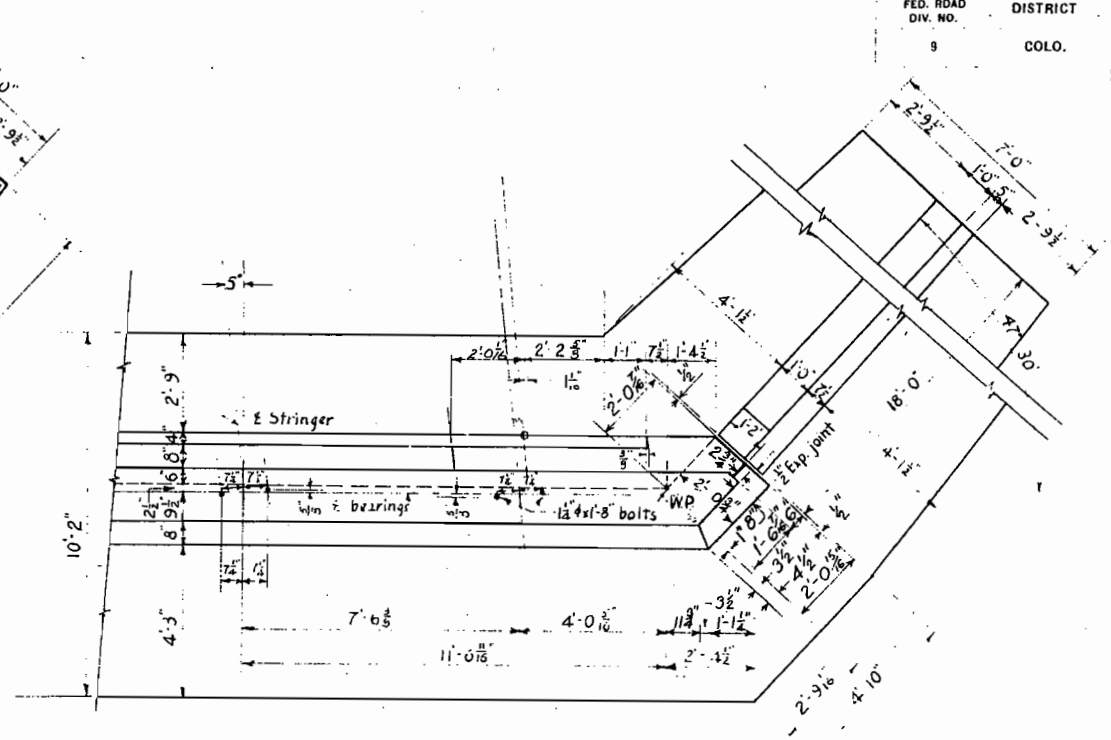
COLORADO DEPARTMENT OF HIGHWAYS
 TWO BRIDGES EACH 3 SPANS (48'-59'4" CONTINUOUS W/ BEAMS & CONCRETE SLAB, 38' ROADWAY-3' 3/4" CURBS-85" SKEW ABUTMENT NO. 4 AND DETAILS)
 Across South Platte River at W. 6th Ave.
 North bridge sta 54+98.82 to sta. 56+57.25
 South bridge sta 54+92.00 to sta. 56+50.43
 In Denver Sec. 5 T. 45 R. 68W

Designed by P. C. Made by T. J. M. Checked by
 Approved by *[Signature]* Bridge Engineer
 Date: Sep. 26 1955

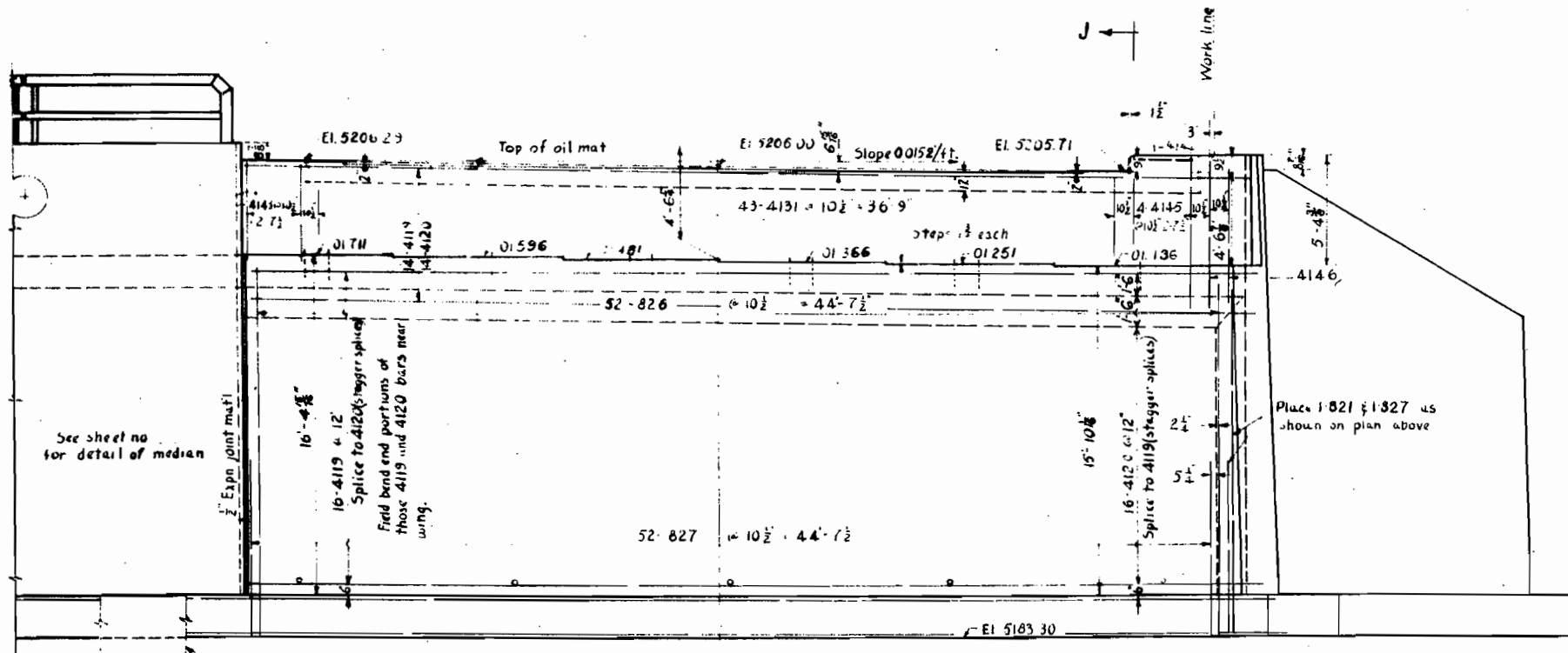
F-16-EE (North Bridge) STRUCTURE NOS F-16-EF (South Bridge)



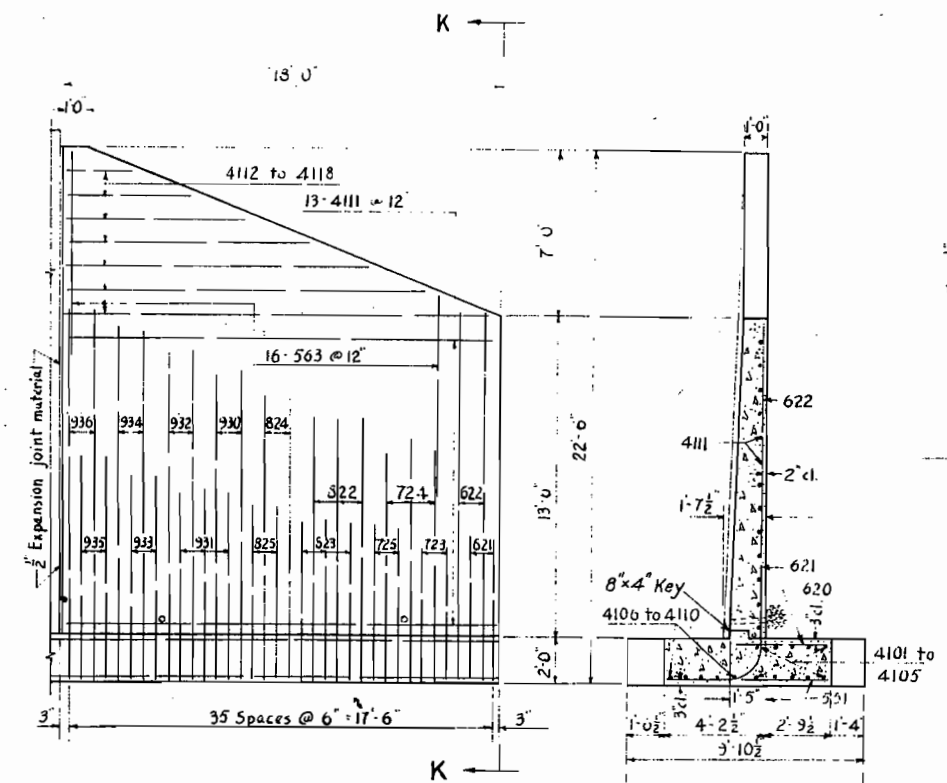
PLAN SOUTH PORTION ABUTMENT NO. 4



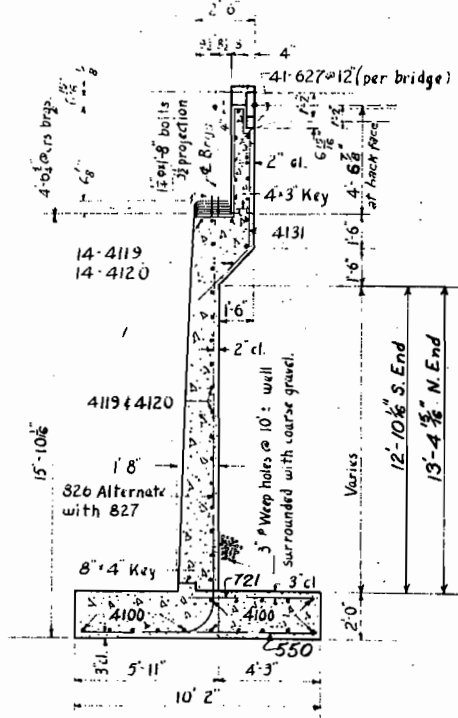
DETAIL SOUTH END ABUTMENT NO. 4



ELEVATION SOUTH PORTION ABUTMENT NO. 4



TRUE ELEVATION SOUTH WING



SECTION J-J

COLORADO DEPARTMENT OF HIGHWAYS
 TWO BRIDGES EACH 3 SPANS/48'-59'-41"
 CONTINUOUS W/ BEAMS & CONCRETE SLAB, 38' ROADWAY-3'-3 1/2" CURBS-85"
 SKEW ABUTMENT NO. 4 AND DETAILS
 Across South Platte river at W. 6th ave.
 North bridge sta 54+98.82 to sta. 56+57.25
 South bridge sta 54+92.00 to sta. 56+50.43
 In Denver Sec. 5 T. 4 S. R. 68 W.

Designed by P. C. Made by T. J. M. Checked by *T. J. M.*
 Approved by *T. J. M.* Bridge Engineer Date: *Sept. 26, 1955*

Note: All expansion joint material used in abutment shall be type III. Dimensions for reinforcing steel not shown as 'clear' shall be to the center line of bar.

F-16-EE (North Bridge)
 STRUCTURE NOS. F-16-EF (South Bridge)

