

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	49-64-505	1	

Rev. 6-14-47 - W.H.M. - Add Res. Eng.

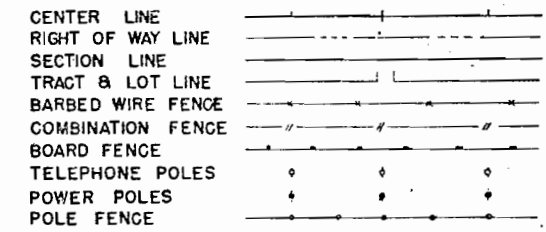
INDEX OF SHEETS

- SHEET NO. 1 SKETCH MAP AND TITLE PAGE.
- 2 TYPICAL SECTION, SUMMARY OF QUANTITIES, BALLAST AND SURFACING MATERIAL TABULATIONS, R.O.W. MARKERS AND GUARD POSTS.
- 3 LIST OF STRUCTURES.
- 4- 8 DETAILS OF BRIDGE STA. 143+.
- 9 STANDARD LETTERS & FIGURES FOR YEAR & STRUCTURE NUMBERS. M 10 B
- 10 STANDARD MARKER POSTS. M 7 B
- 11 STANDARD HEADWALLS AND APRONS FOR C.M.P. CULVERTS. M 102 G
- 12 STANDARD TYPE G HEADWALLS FOR LARGE C.M.P. CULVERTS. M 102 G-LP
- 13 STANDARD CONCRETE BOX CULVERTS. M 103 F
- 14 STANDARD TIMBER GUARD POSTS. M 19 B
- 15 STANDARD METHODS FOR SUPERELEVATION & WIDENING OF CURVES. M 1 B
- 16 TYPICAL SIDE APPROACH ROADS, FLARING, CUT SLOPE TREATMENT AND WIDENING AT BRIDGES. M 2 C
- 17 STANDARD ROADWAY CONSTRUCTION TRAFFIC SIGNS. M 2 D
- 18-21 ALIGNMENT PLAN AND PROFILE.
- 22-49 CROSS SECTIONS.
- 50 SUMMARY OF EARTHWORK QUANTITIES.

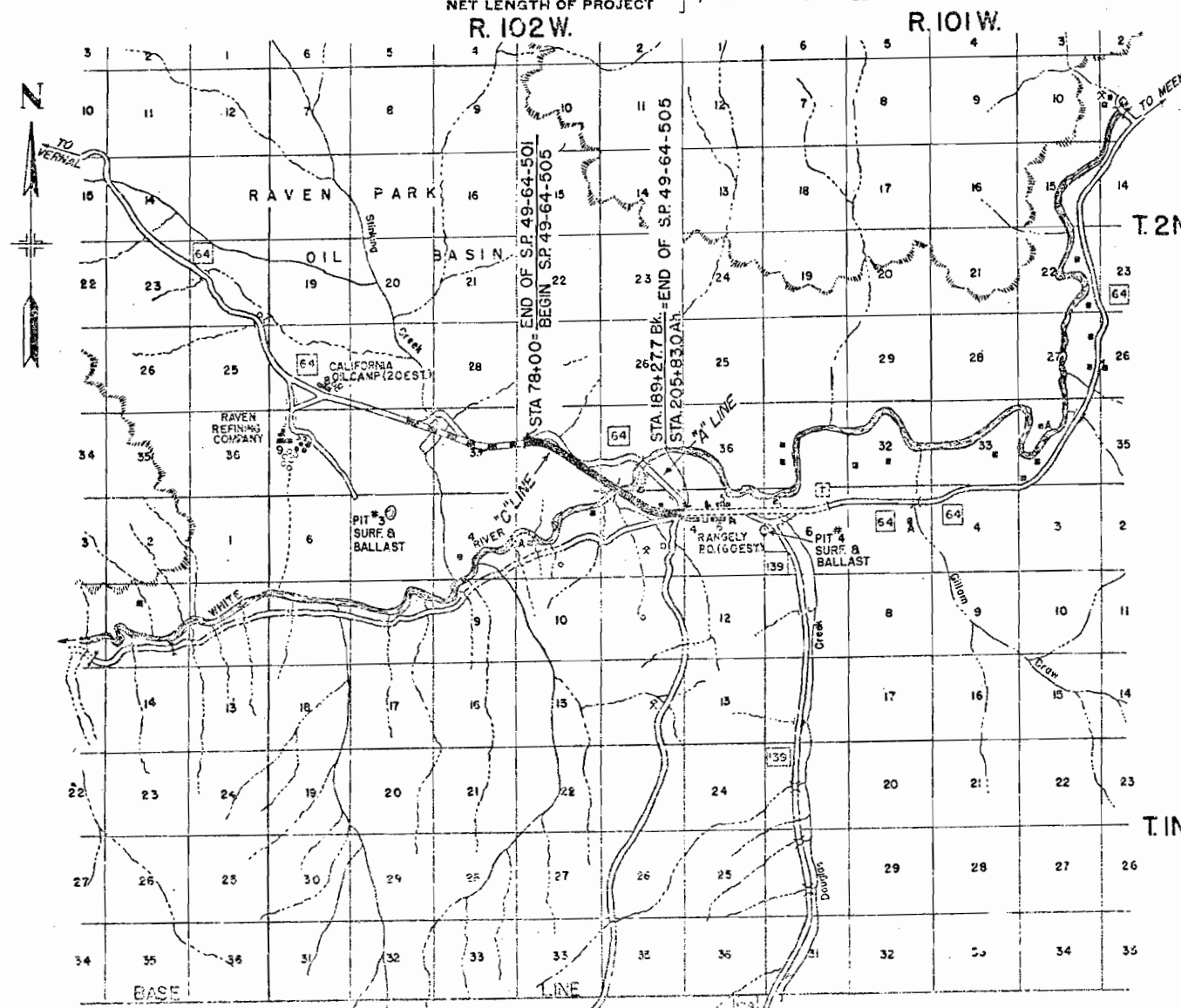
COLORADO STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED STATE PROJECT NO. 49-64-505 STATE HIGHWAY NO. 64 RIO BLANCO COUNTY

CONVENTIONAL SIGNS



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
 GROSS LENGTH OF PROJECT 11,127.7 FEET = 2.107 MILES
 NET LENGTH OF PROJECT



NOTE:
 It is recommended that bidders on this Project go over the plan details with the following field representative of this Department.

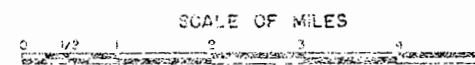
H. L. Jenness, Division Engineer, Glenwood Springs, Colorado.
 H. W. Suess, Resident Engineer, Massadona Lodge, Colorado.

RECOMMENDED FOR APPROVAL

Just B. Zell
 ASSISTANT ENGINEER DATE
 3-10-47

APPROVED

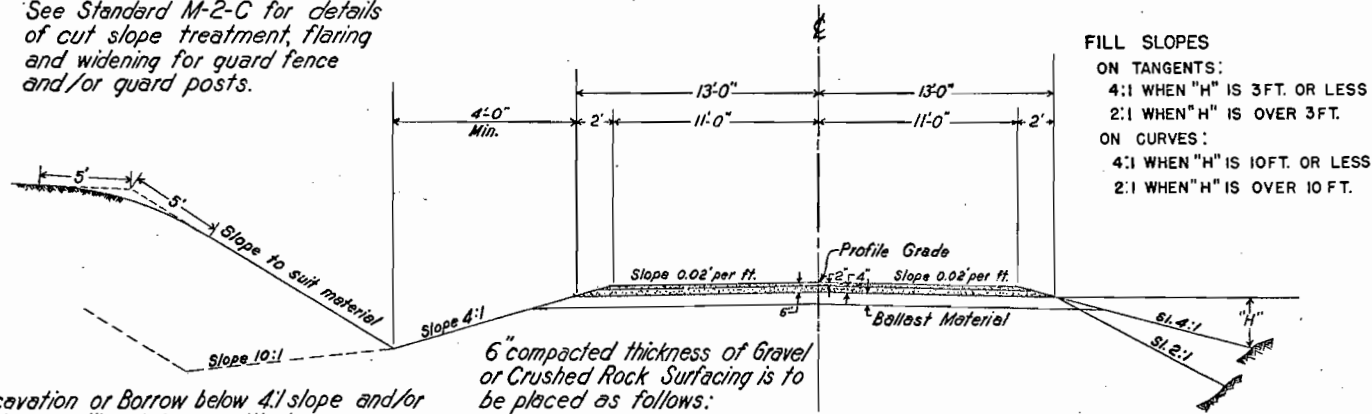
Wendell G. Watson
 STATE HIGHWAY ENGINEER DATE
 3-11-47



TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

NOTE: See Standard M-2-C for details of cut slope treatment, flaring and widening for guard fence and/or guard posts.

TYPICAL SECTION



FILL SLOPES
ON TANGENTS:
4:1 WHEN "H" IS 3 FT. OR LESS
2:1 WHEN "H" IS OVER 3 FT.
ON CURVES:
4:1 WHEN "H" IS 10 FT. OR LESS
2:1 WHEN "H" IS OVER 10 FT.

Excavation or Borrow below 4:1 slope and/or 10:1 slope will not be permitted.

The depth and width of the side ditch shall be varied where necessary in order to provide proper drainage and/or entrance to drainage structures.

6" compacted thickness of Gravel or Crushed Rock Surfacing is to be placed as follows:

Approximate 2" Top Course surfacing is to be placed at the rate of 24 Tons per lin. ft. of roadway.

Approximate 4" Bottom Course surfacing is to be placed at the rate of 52 Tons per 100 lin. ft. of roadway.

The upper portion of subgrade is to be constructed of Ballast at locations designated in Ballast Tabulation. Estimated quantities involved in this operation and thickness of material required are tabulated on sheet No. 2.

GENERAL NOTES

This project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department adopted June 1, 1940.

All quantities on preliminary plans are to be considered approximate only.

All roadway excavation required to construct this Project is to be obtained as indicated on the plans. Quantities involved beyond the limits of the ditch as shown on the Typical Section, either noted on the profile as "Borrow" or on the List of Structures as "Embankment," are to be classified and paid for as "Unclassified Excavation." These quantities are to be staked as part of the original excavation at locations indicated on the plans. Slope stakes, beyond the limits of the Typical Section as shown are subject to change by the Engineer to fit conditions actually met in construction.

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

All corrugated Metal Pipe Cross Culverts shall be laid with one Type "A" Headwall at inlet end unless otherwise noted on plans.

Approximately 6 inches of embankment material will be used to cover culverts in such a manner that a minimum of pipe shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert.

Except as otherwise noted on the plans, payment for overhaul will be based on measurement along the centerline of the project.

The entire project shall be cleared in conformity with the requirements of the Standard Specifications except that such trees or shrubs as the engineer may designate shall be left in place and protected from damage during construction operations.

All curves are to be superelevated and widened as provided by the Standard Superelevation sheet included with the plans.

All concrete on this project shall be "Air Entrained" concrete.

R.O.W. MARKERS

STATION	SIDE	NO.
131+50	L	1
132+70	R	1
154+00	R	1
155+80	L	1
175+60	L	2
177+64.85	R	1
188+00	R&L	2
188+80	R&L	2
TOTAL		11

SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	ITEM	UNIT	ROADWAY	BRIDGE STA. 143+	PROJECT TOTALS
100	CLEARING AND GRUBBING ENTIRE PROJECT.	LUMP SUM	•		•
110	REMOVAL OF BRIDGE STA. 106+	LUMP SUM	•		•
120	REMOVING FENCE.	LIN. FT.	1,200		1,200
130	UNCLASSIFIED EXCAVATION.	CU. YD.	72,000	9,000	81,000
13d	UNCLASSIFIED DITCH EXCAVATION.	CU. YD.	300		300
140	DRY ROCK EXCAVATION (STRUCT.).	CU. YD.	40	10	50
14b	DRY COMMON EXCAVATION (STRUCT.).	CU. YD.	370	450	820
14c	WET ROCK EXCAVATION (STRUCT.).	CU. YD.	5	65	70
14d	WET COMMON EXCAVATION (STRUCT.).	CU. YD.	40	1,450	1,490
14e	MECHANICAL TAMPING.	HR.	80	90	170
150	ROLLING EMBANKMENTS AND CUTS.	UNIT HR.	360		360
15b	FURNISHING ROLLER.	ROLLER UNIT	4		4
15c	WETTING EMBANKMENTS AND CUTS.	M. GAL.	1,560		1,560
15d	ROLLING WITH FINISHING ROLLER.	HR.	100		100
15e	FURNISHING FINISHING ROLLER.	LUMP SUM	•		•
15y	SELECTED BACKFILL.	CU. YD.		1,330	1,330
180	STATION YARD OVERHAUL.	STA. YD.	301,000		301,000
18b	YARD MILE OVERHAUL.	YD. MI.	3,500		3,500
23x	BALLAST.	TON	20,700		20,700
260	GRAVEL OR CRUSHED ROCK SURFACING.	TON	8,500		8,500
26c	OVERHAUL OF SURFACING AND BALLAST.	TON MI.	64,400		64,400
420	UNTREATED BRIDGE TIMBER.	MFT. BM.		0.3	0.3
44b	MISCELLANEOUS TREATED TIMBER.	MFT. BM.		1.5	1.5
460	CLASS "A" CONCRETE.	CU. YD.	91	469	560
46b	CLASS "B" CONCRETE.	CU. YD.	26		26
46r	CLASS "A" CONCRETE (HANDRAILS).	CU. YD.		15	15
47x	REINFORCING STEEL, (HANDLING & PLACING)	LB.	8,100	62,900	71,000
48	STRUCTURAL STEEL.	LB.		172,900	172,900
53b	18" CORRUGATED METAL CULVERT PIPE.	LIN. FT.	116		116
53c	24" CORRUGATED METAL CULVERT PIPE.	LIN. FT.	714		714
53e	36" CORRUGATED METAL CULVERT PIPE.	LIN. FT.	104		104
53j	60" CORRUGATED METAL CULVERT PIPE.	LIN. FT.	72		72
53j	72" CORRUGATED METAL CULVERT PIPE.	LIN. FT.	48		48
600	TREATED TIMBER PILING.	LIN. FT.		2,120	2,120
66	RIPRAP ENCLOSED IN WIRE NETTING.	CU. YD.		520	520
670	RIPRAP.	CU. YD.	210		210
810	PROJECT MARKERS.	EACH	1		1
81b	RIGHT OF WAY MARKERS.	EACH	11		11
890	DRAIN PIPE (CONCRETE FLOOR) (4"x2'-0")	EACH		18	18
92	TIMBER GUARD POSTS.	EACH	71		71
	FORCE ACCOUNT				
	MOVING TELEPHONE POLES (WORK BY TELEPHONE CO. FCS)	LUMP SUM	•		•
	ADJUSTING PIPE LINES AND APPURTENANCES.	LUMP SUM	•		•

TIMBER GUARD POSTS

STATION	SIDE	SPACING	NO.
87+00 to 89+50	Lt.	50'	6
88+50	Rt.	Culv.	1
96+80	Rt.&Lt.	Culv.	2
99+00 to 104+00	Rt.&Lt.	50'	22
113+00	Rt.&Lt.	Culv.	2
115+50	Rt.&Lt.	Culv.	2
129+97	Rt.&Lt.	Culv.	2
137+59	Rt.&Lt.	Culv.	2
142+ to 143+	Rt.&Lt.	Bridge	10
145+ to 145+	Rt.&Lt.	Bridge	10
152+50	Rt.&Lt.	Culv.	2
155+00	Rt.&Lt.	Culv.	2
163+00	Rt.&Lt.	Culv.	2
167+18	Rt.&Lt.	Culv.	2
176+50	Rt.&Lt.	Culv.	2
181+50	Rt.&Lt.	Culv.	2
TOTAL			71

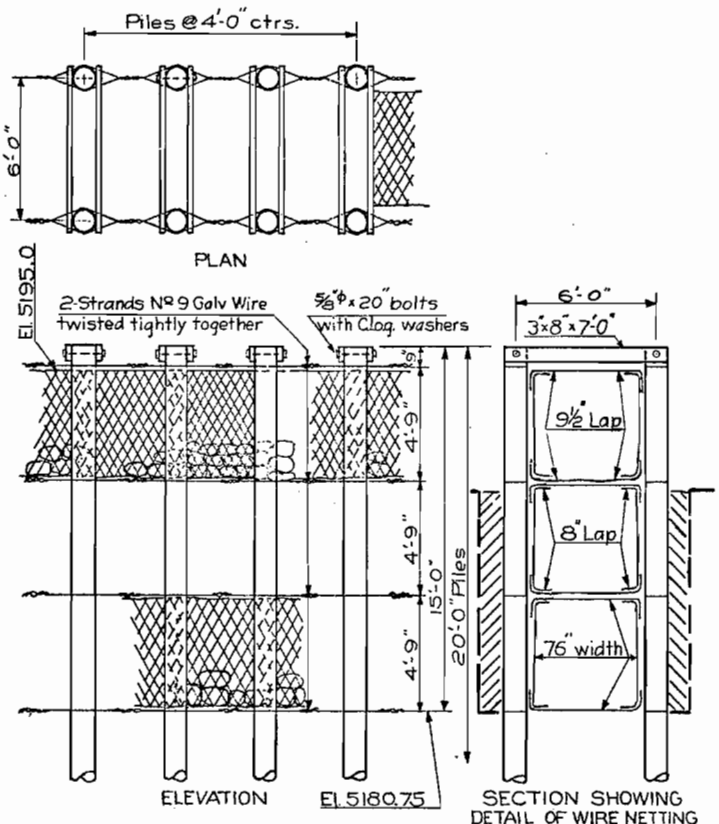
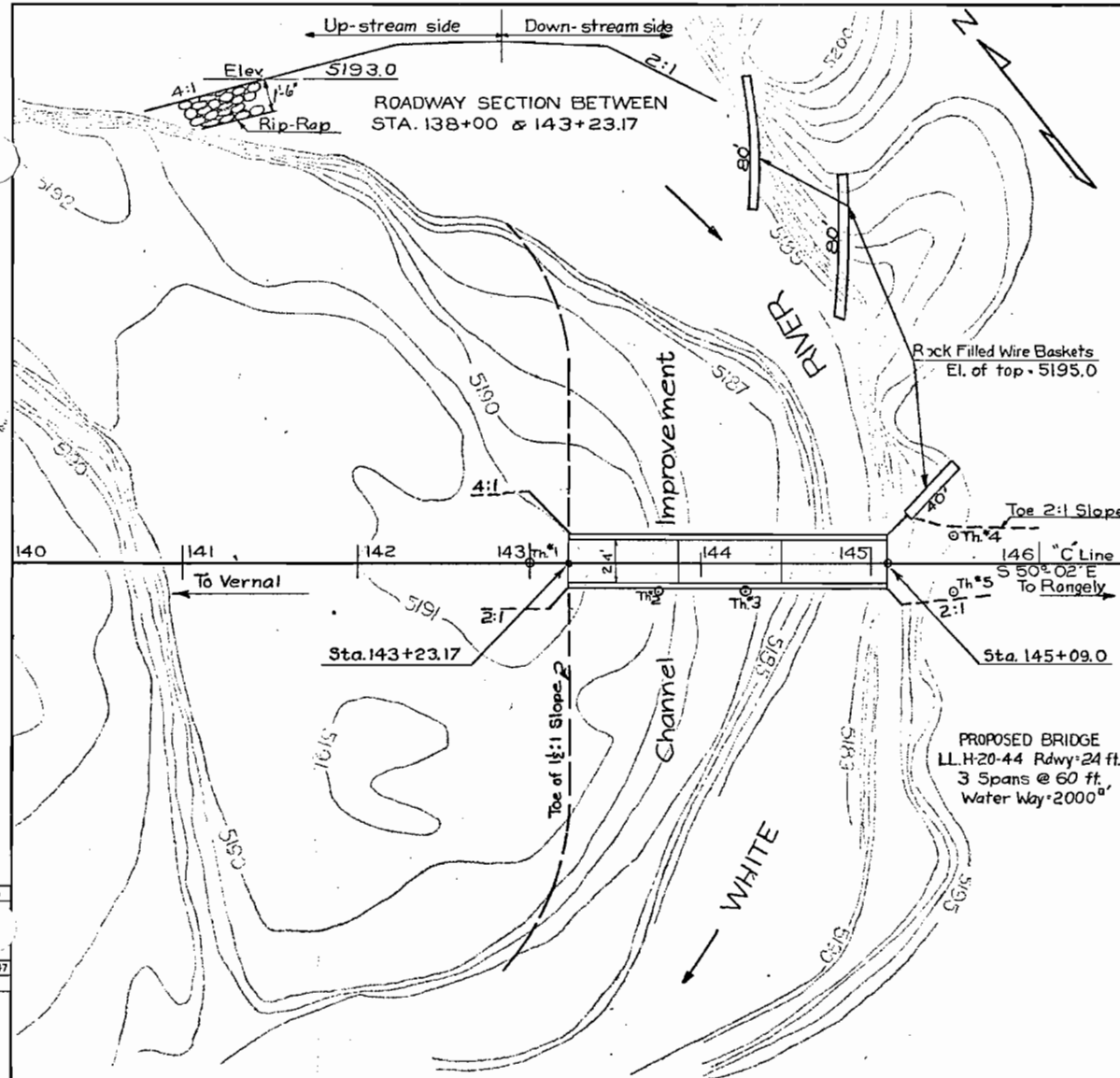
BALLAST
It is estimated that Ballast Material for the project is available in the vicinity of the pit indicated in the following tabulation. Estimated quantities involved in this operation are shown below. Alteration of the Ballast Material plan as here outlined will be allowed only on written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY THICKNESS INCHES	TONS USED	OVERHAUL TON MILE
Sta. 78+00 to 143+23.17	Pit No. 3. NW 1/4 & NE 1/4 Sec. 5 T1N, R102W-	12	12,329	21,906
Bridge Sta. 143+23.17 to 145+090	1/4 Sec. 5 T1N, R102W- 1/4, 400' From Sta. 78+00			
Sta. 145+090 to 189+27.7		12	8,351	23,786
TOTAL			20,680	45,692

SURFACING PLAN

It is estimated that material for Gravel Surfacing for the project is available in the vicinity of the pit indicated in the following tabulation. Estimated quantities involved in this operation are shown below. Alteration of the Surfacing Plan as here outlined will be allowed only on written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY TONS USED	OVERHAUL TON MILE	
		TOP COURSE	BOTTOM COURSE	
Sta. 78+00 to 143+23.17	Pit No. 3. NW 1/4 & NE 1/4 Sec. 5. T1N, R102W-	1,566	3,392	8,809
Bridge Sta. 143+23.17 to 145+090	1/4 Sec. 5. T1N, R102W- 1/4, 400' From Sta. 78+00			
Sta. 145+090 to 189+27.7		1061	2,298	9,567
Estimated For Road Approaches		117		259
TOTAL		2,744	5,690	18,635



ROCK FILLED BULKHEAD

Wire netting to be C.F. & I. Co's specification F-1 or equivalent. Wire netting must not be fastened to piles. Laps shall be held together with No. 9 Galv Wire ties. Ties shall be spaced not more than 10 inches. Wire netting shall run continuously the length of the bulkhead in convenient lengths. Where spliced the splice shall be lapped not less than 24 inches and tied with No. 9 wire. The longitudinal netting shall be lapped 24 inches at each end of the bulkhead.

BAR SUMMARY FOR SUPERSTRUCTURE

8,953 Lin. Ft. $\frac{1}{2}$ " bar @ 0.668 lb. per lin. ft. = 5,981 lb.
22,346 " $\frac{5}{8}$ " bar @ 1.043 " " " " = 23,307 "
Plus 1% ± overrun = 292 "
Total = 29,580 lb.

BAR SUMMARY FOR PIER #2 or PIER #3 (ONE)

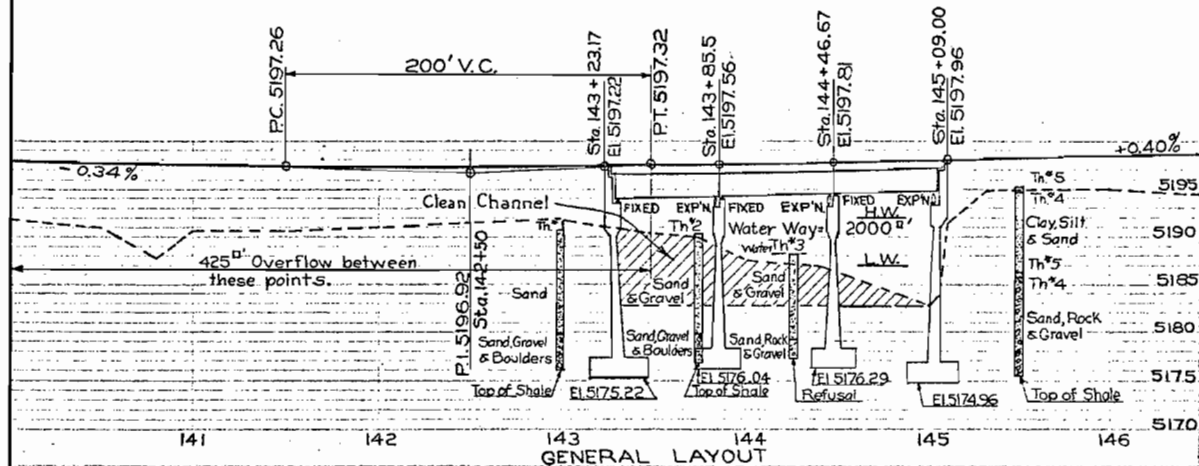
992 Lin. Ft. $\frac{1}{2}$ " bar @ 0.668 lb. per lin. ft. = 663 lb.
55 " $\frac{5}{8}$ " bar @ 1.043 " " " " = 57 "
434 " $\frac{3}{4}$ " bar @ 1.502 " " " " = 652 "
244 " $\frac{1}{2}$ " bar @ 2.670 " " " " = 651 "
308 " $\frac{1}{2}$ " bar @ 3.400 " " " " = 1,047 "
27 " $\frac{1}{2}$ " bar @ 4.303 " " " " = 118 "
Plus 1% ± overrun = 32 "
Total = 3,220 lb.

BAR LIST FOR SUPERSTRUCTURE

MARK	SIZE	NO. REQ'D	LENGTH	TYPE	l	m	n	r	t
E1	$\frac{5}{8}$ "	104	26'-0"	I					
E2	$\frac{5}{8}$ "	420	26'-8"	II	25'-0"				2'-2"
D1	$\frac{5}{8}$ "	378	22'-4"						
S1	$\frac{1}{2}$ "	740	5'-9"	III					2" 2"
S2	$\frac{1}{2}$ "	72	22'-0"						
S3	$\frac{1}{2}$ "	8	2'-3"						
H1	$\frac{1}{2}$ "	250	6'-6"	IV					
H2	$\frac{1}{2}$ "	80	13'-2"						
H3	$\frac{1}{2}$ "	16	11'-8"						
H4	$\frac{1}{2}$ "	16	4'-10"						
H5	$\frac{1}{2}$ "	4	4'-5"						
H6	$\frac{1}{2}$ "	32	2'-8"						
H7	$\frac{1}{2}$ "	8	1'-10"						
H8	$\frac{1}{2}$ "	8	3'-10"						
H9	$\frac{1}{2}$ "	2	3'-0"						

BAR LIST FOR PIER NO 2 (PIER NO 3 SAME)

MARK	SIZE	NO. REQ'D	LENGTH	TYPE	l	m	r	t
P1	$\frac{1}{2}$ "	1	27'-4"	XI	5'-0"	6'-7"		4'-2"
P2	$\frac{1}{2}$ "	10	11'-2"	II	8'-6"			4'-3"
P3	$\frac{1}{2}$ "	2	13'-8"	II	11'-0"			4'-3"
P4	$\frac{1}{2}$ "	2	18'-4"	II	15'-8"			4'-3"
P5	$\frac{1}{2}$ "	2	29'-6"	II	26'-0"			4'-3"
P6	$\frac{1}{2}$ "	8	9'-2"	II	6'-6"			4'-3"
P7	$\frac{1}{2}$ "	62	8'-9"	XII	1'-9"	2'-4"		
P8	$\frac{1}{2}$ "	28	6'-7"	X	2'-8"	1'-3"		
P9	$\frac{1}{2}$ "	2	27'-6"					
P10	$\frac{1}{2}$ "	8	4'-6"					
P11	$\frac{5}{8}$ "	6	9'-2"	XIII				
P12	$\frac{1}{2}$ "	12	17'-1"	IX	15'-9"			4'-3"
P13	$\frac{1}{2}$ "	4	9'-8"	IX	8'-4"			4'-3"
P14	$\frac{1}{2}$ "	2	7'-1"		1'-7"	1'-7"		
to	$\frac{1}{2}$ "	2 Ea.	6'-9"	XII	6'-9"	2'-0"		
P24	$\frac{1}{2}$ "	2	8'-9"					
P17	$\frac{1}{2}$ "	56	7'-9"	II	5'-9"			3'-2"



SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	UNIT	SUPERSTR	ABUT 1	PIER 2	PIER 3	ABUT 4	ROCK FILLED BULKHEAD	TOTAL
13c	UNCLASSIFIED EXC. (CHANNEL CHANGE) CU.YD								9000
14a	DRY ROCK EXC. (STR.)			5			5		10
14b	DRY COMMON EXC. (STR.)	CU.YD.		98			79	267	444
14c	WET ROCK EXC. (STR.)			28	5	5	18	10	66
14d	WET COMMON EXC. (STR.)			465	45	44	386	503	1443
15y	SELECTED BACKFILL			490	34	33	401	364	1322
42a	UNTREATED BRIDGE TIMBER	MBBM		0.144			0.096		0.24
44b	MISCELLANEOUS TREATED TIMBER							1,484	1,484
46a	CLASS "A" CONCRETE	CU.YD.	14-0	153	23	23	130		469
46r	CLASS "A" CONCRETE (HANDRAIL)		14.3	0.35			0.35		15
47	REINFORCING STEEL (1% INCL)	LBS	29580	13940	3220	3220	12860		62820
48	STRUCTURAL STEEL	LBS	172380	85	170	170	85		172890
60a	TREATED TIMBER PILING	Lin. Ft.						2120	2120
66	RIPRAP ENCLOSED IN WIRE NETTING	CU.YD						514	514
89a	DRAIN PIPE (4" x 2'-0")	EA.		18					18
*	$\frac{1}{2}$ " EXPN JT. MATL	Sq. Ft.		30	60		66		156
**	WIRE NETTING (76" WIDE)	Lin. Ft.						2600	2600
**	NO 9 GALV. WIRE	LBS.						200	200
***	HARDWARE (BOLTS & WASHERS)	LBS						360	360
14e	MECHANICAL TAMPING	Hrs.		50			40		90
*	12 Ga. GALV. SHEET METAL	Sq. Ft.		72					72

* TO BE INCLUDED IN BID PRICE OF CLASS "A" CONCRETE.
 ** TO BE INCLUDED IN BID PRICE OF RIPRAP
 *** TO BE INCLUDED IN BID PRICE OF MISC. T. TIMBER
 ▲ ASSUMED WET LINE ELEVATION = 5187

GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO STATE HIGHWAY DEPARTMENT, ADOPTED JUNE 1, 1940

ALL CONCRETE SHALL BE CLASS "A"

FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIPLAP OR TONGUE AND GROOVE LUMBER S3S UNLESS FACED WITH PANEL BOARD.

CONCRETE SIDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY. FOOTINGS IN ROCK SHALL BE POURED CUT TO THE ROCK AND NOT FORMED.

ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND LETTER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.

SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIALLY DIFFERENT CONDITIONS ARE ENCOUNTERED THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

ALL RIVETS TO BE $\frac{1}{2}$ " DIA. ALL RIVETS TO BE POWER DRIVEN.

ALL STRUCTURAL STEEL SHALL HAVE 2 FIELD COATS OF ALUMINUM PAINT.

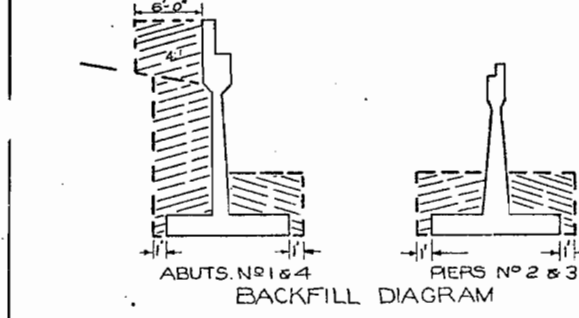
REFERENCE DRAWINGS:
 SHEET NO 5 FOR DETAILS OF SUPERSTRUCTURE
 SHEET NO 6 FOR DETAILS OF ABUTMENT NO 1
 SHEET NO 7 FOR DETAILS OF PIER NO 2, PIER NO 3, BENDING DIAGRAM, & BAR LISTS NOT ON THIS SHEET
 SHEET NO 8 FOR DETAILS OF ABUTMENT NO 4

LOADING DATA.
 LIVE LOAD - A. A. S. H. O. 1944 H-20-44
 DEAD LOAD - ASSUMES 15 LBS. PER SQ. FT. ADDITIONAL WEARING SURFACE WHICH INCLUDES THE $\frac{1}{2}$ INCH CONCRETE MONOLITHIC WEARING SURFACE SHOWN.

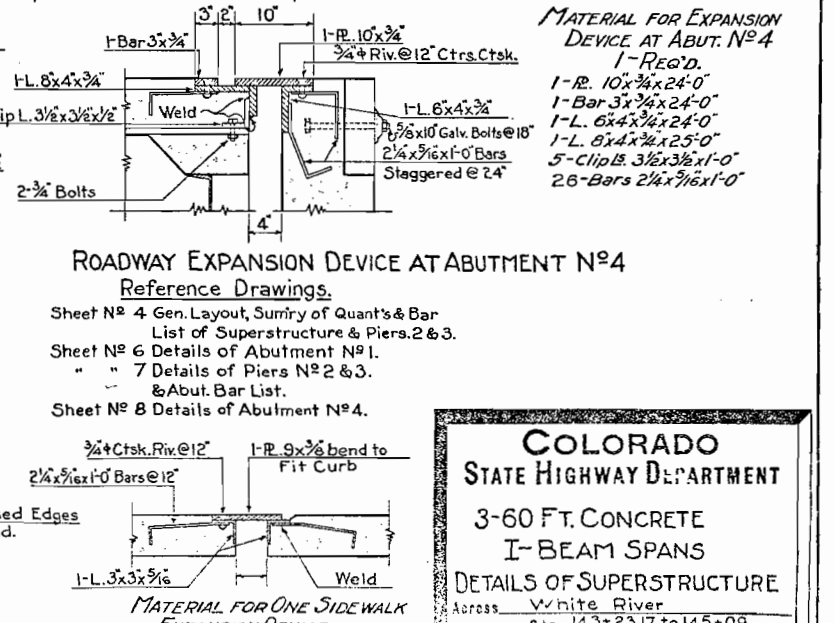
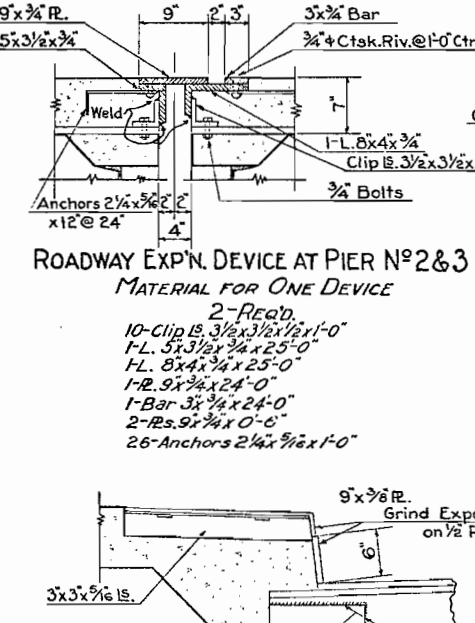
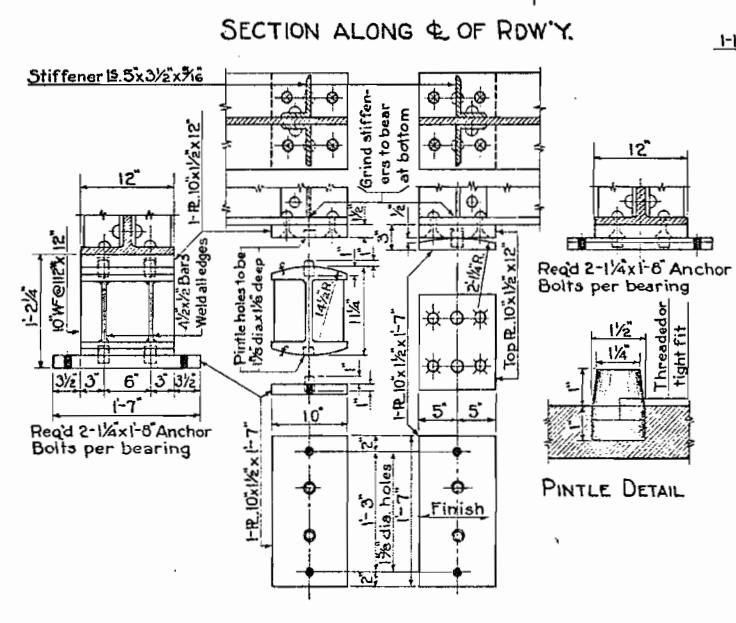
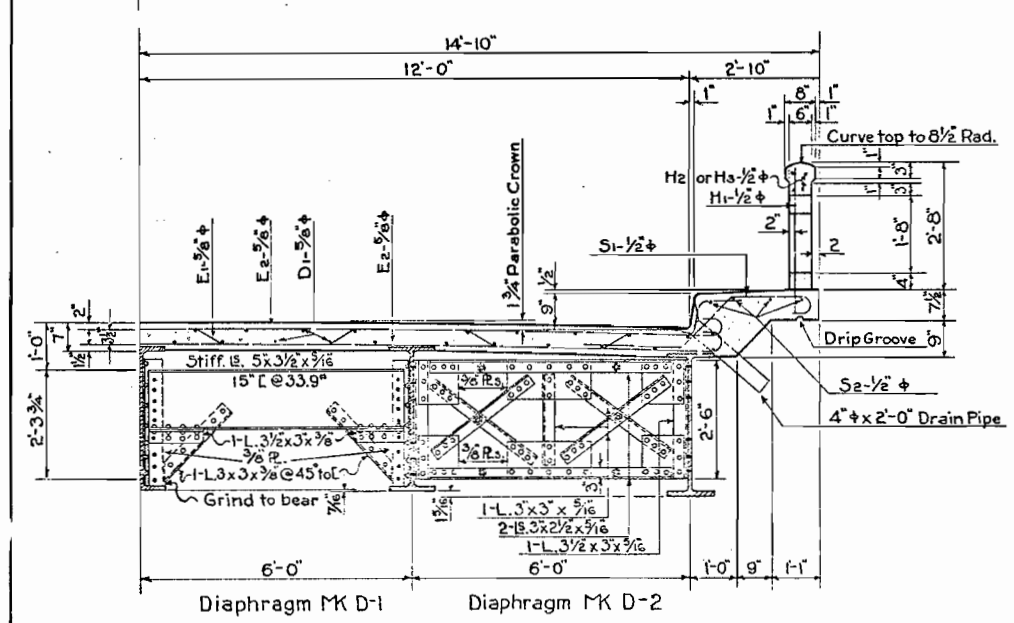
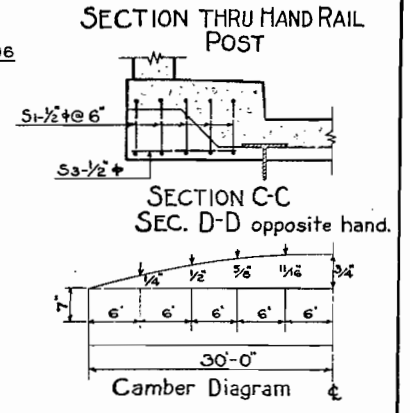
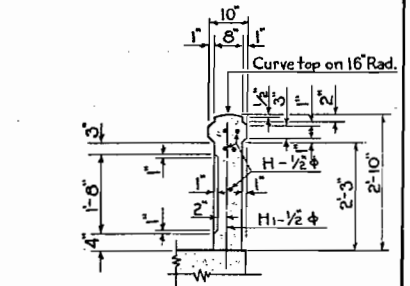
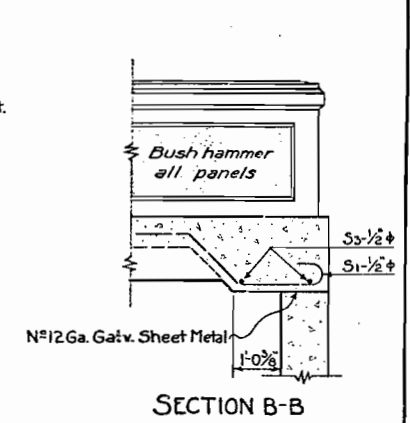
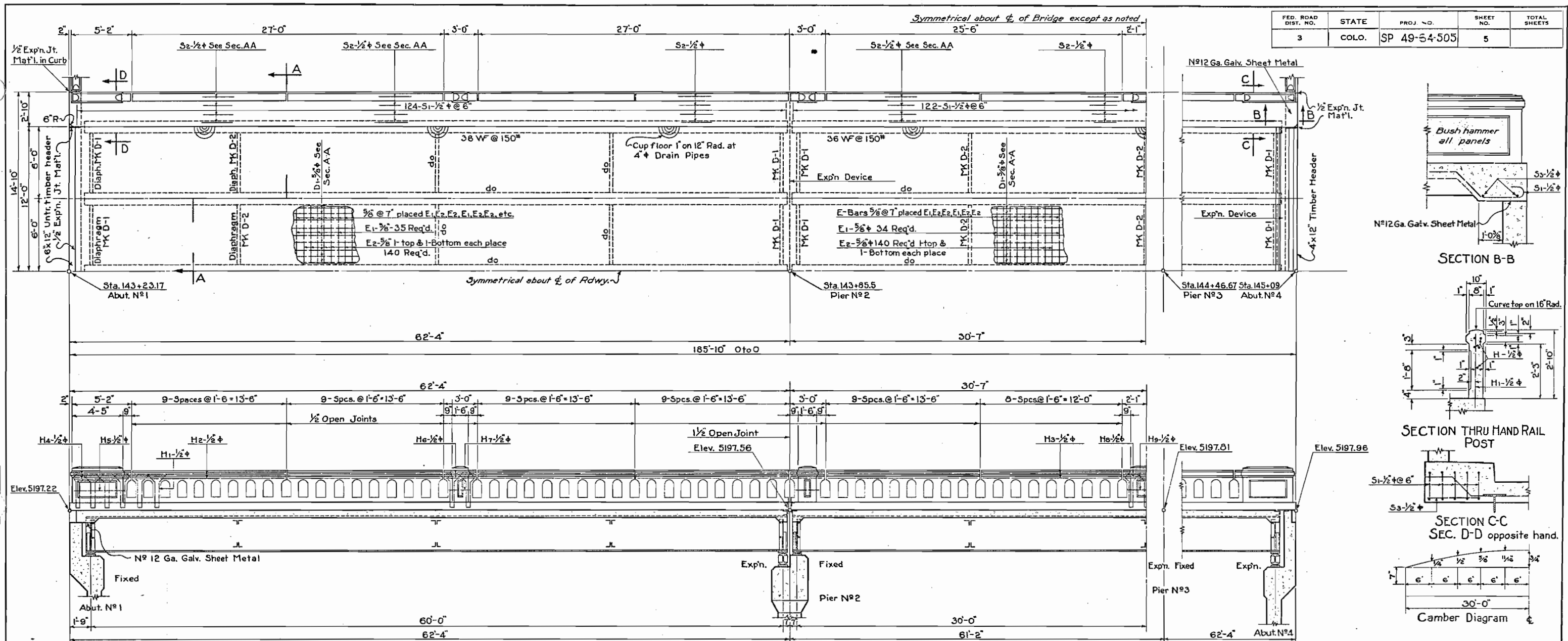
DESIGNING DATA.
 A.A.S.H.O. 1944
 fc = 833 Lbs. per sq. in.
 fs = 18000 Lbs. per sq. in. n = 12

COLORADO STATE HIGHWAY DEPARTMENT
 3-60 FT. CONCRETE I-BEAM SPANS
 GENERAL LAYOUT, SUMMARY OF QUANTITIES
 Across WHITE RIVER
 Sta. 143+23.17 to 145+09
 Near RANGELY Sec. 35 T. 2N. R. 102W

Designed by A.C.N. Approved by *P. J. Bailey*
 Made by A.D.N. Bridge Engineer
 Checked by _____ Date: Feb. 18, 1947.



FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	SP 49-54-505	5	

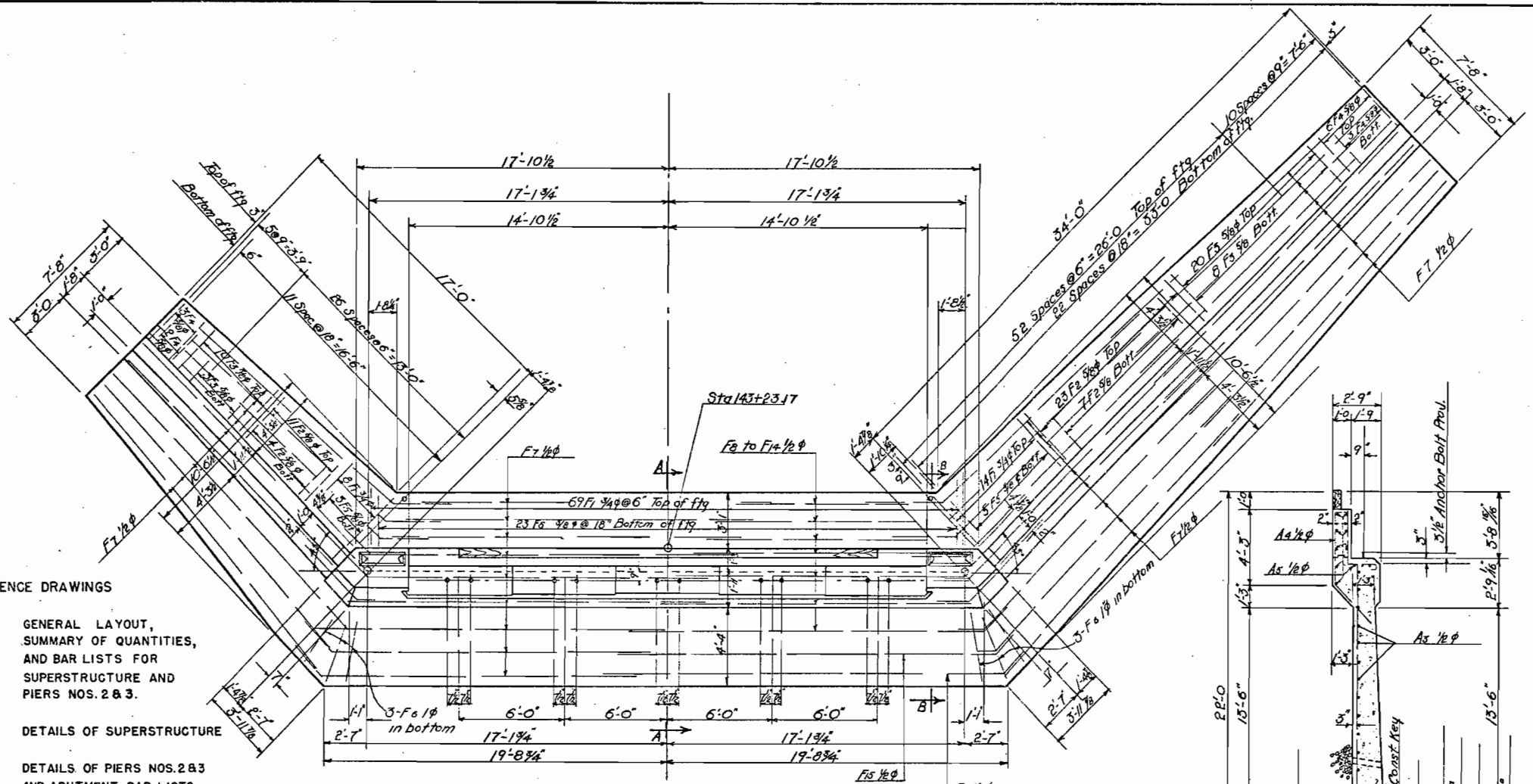


- MATERIAL FOR EXPANSION DEVICE AT ABUTMENT N^o 4**
 1-REQ'D.
 1-R. 10x3/4x24'-0"
 1-Bar 3x3/4x24'-0"
 1-L. 6x4x3/4x24'-0"
 1-L. 8x4x3/4x25'-0"
 5-Clip B. 3/2x3/2x1'-0"
 26-Bars 2 1/4x1/2x1'-0"

- Reference Drawings:**
 Sheet N^o 4 Gen. Layout, Summary of Quant's & Bar List of Superstructure & Piers, 2 & 3.
 Sheet N^o 6 Details of Abutment N^o 1.
 " " 7 Details of Piers N^o 2 & 3.
 & Abut. Bar List.
 Sheet N^o 8 Details of Abutment N^o 4.

COLORADO STATE HIGHWAY DEPARTMENT
 3-60 FT. CONCRETE I-BEAM SPANS
 DETAILS OF SUPERSTRUCTURE
 Across White River
 Sta. 143+23.17 to 145+09
 Near Rangley, sec. 35, T. 2N, R. 102W
 Designed by A.D.N. Approved by G.D. Bailey
 Made by A.D.N. Bridge Engineer
 Checked by G.R.B. Date: Feb. 18, 1947

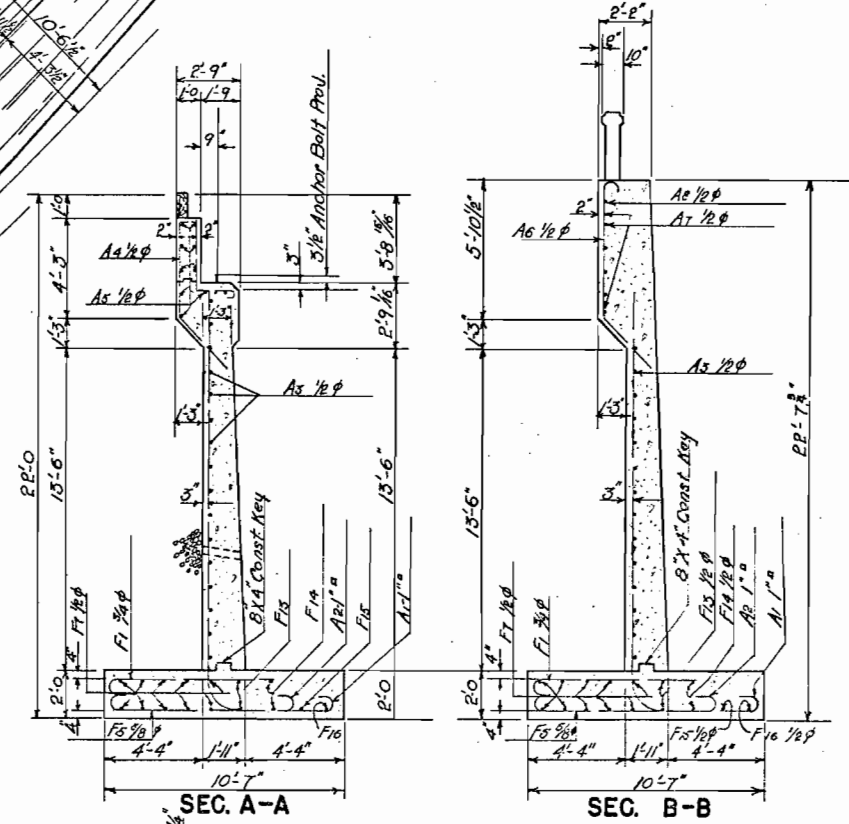
FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	SP 49-64-505	6	



PLAN

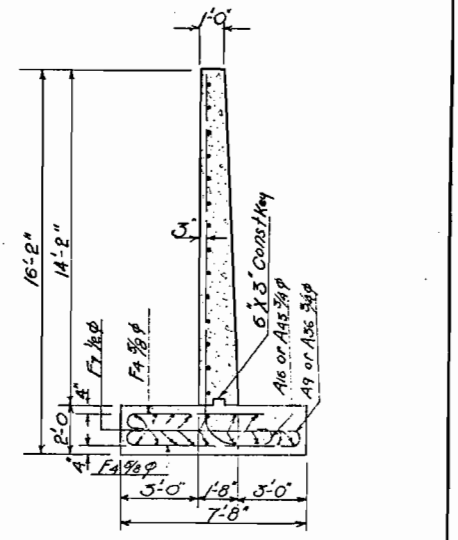
REFERENCE DRAWINGS

- SHEET NO. 4 GENERAL LAYOUT, SUMMARY OF QUANTITIES, AND BAR LISTS FOR SUPERSTRUCTURE AND PIERS NOS. 2 & 3.
- SHEET NO. 5 DETAILS OF SUPERSTRUCTURE
- SHEET NO. 7 DETAILS OF PIERS NOS. 2 & 3 AND ABUTMENT BAR LISTS.
- SHEET NO. 8 DETAILS OF ABUTMENT NO. 4.

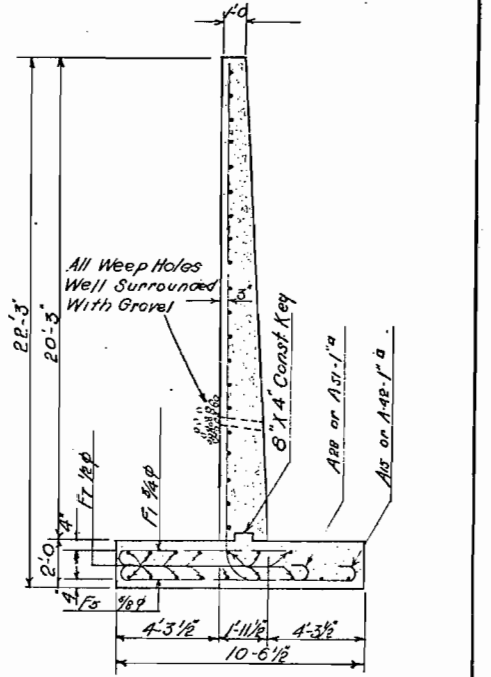


SEC. A-A

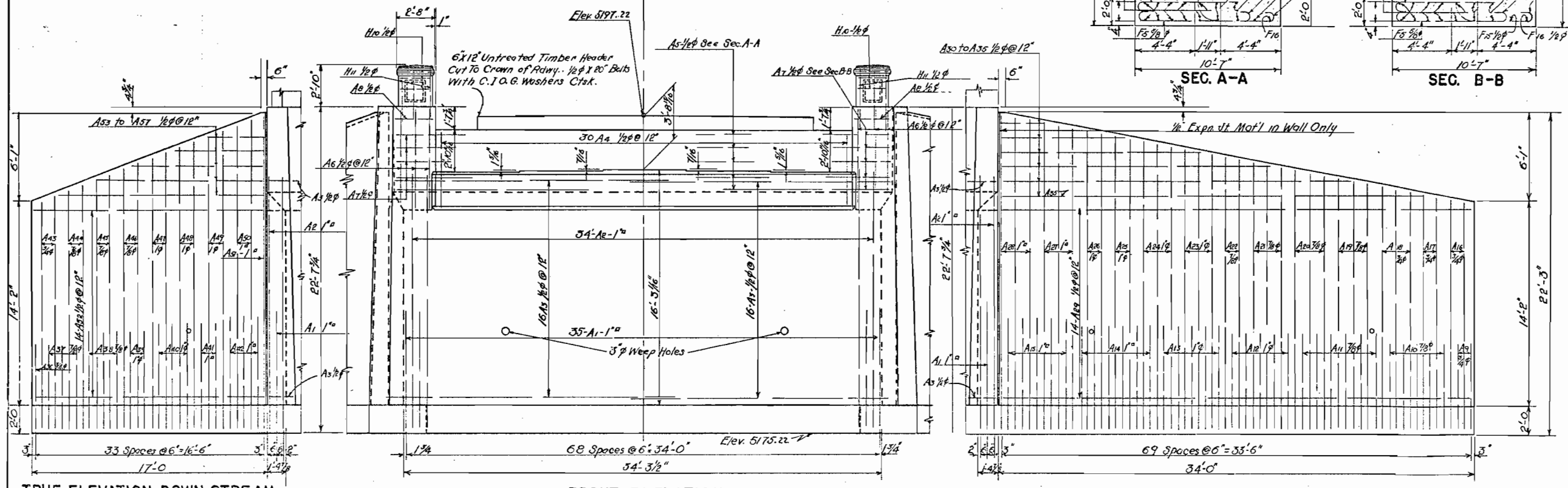
SEC. B-B



SECTION AT LOW END OF EACH WING WALL



SECTION AT HIGH END OF EACH WING WALL



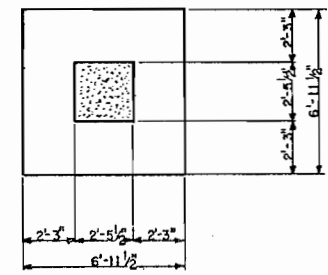
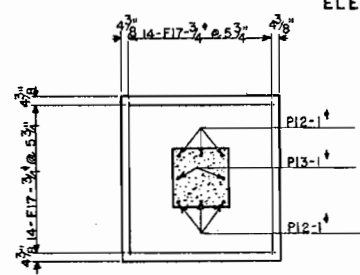
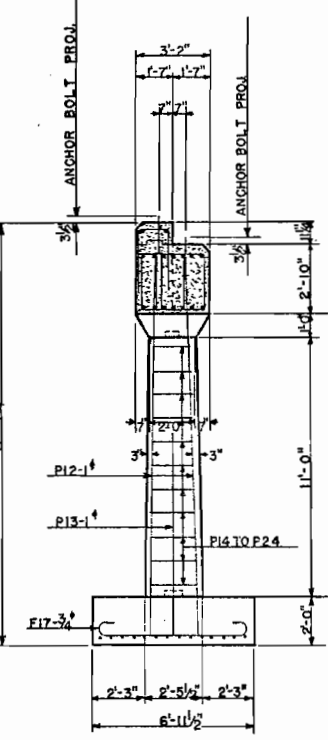
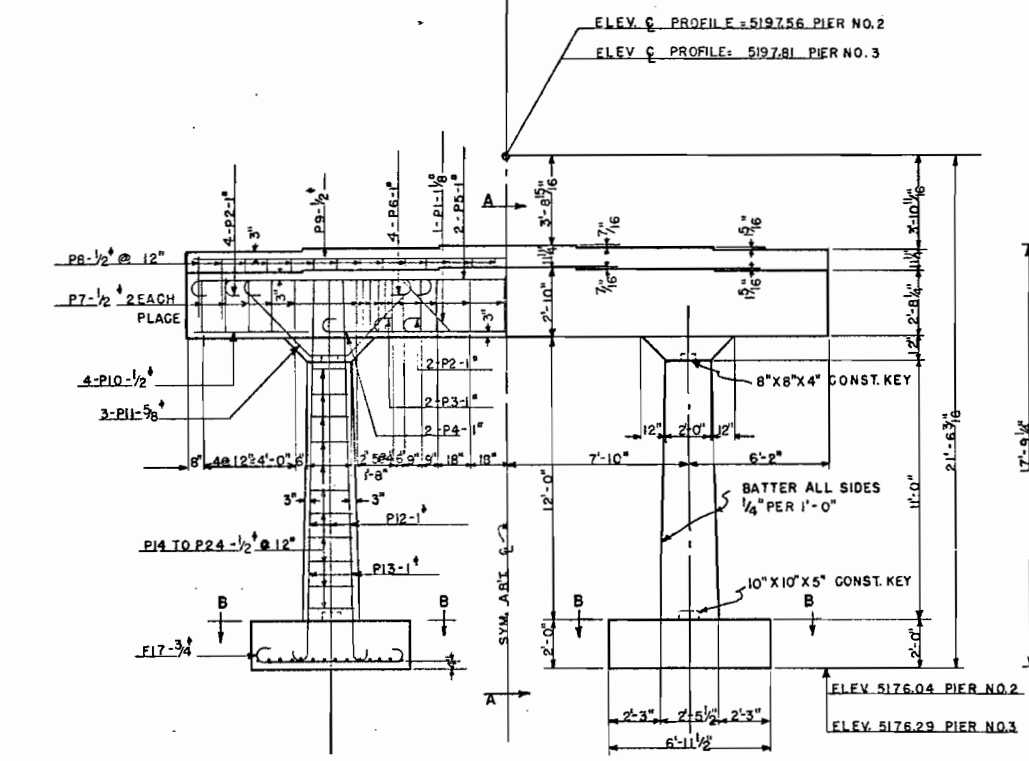
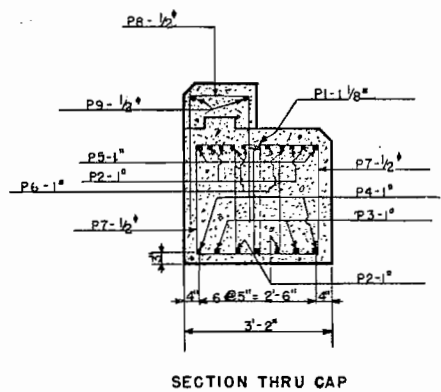
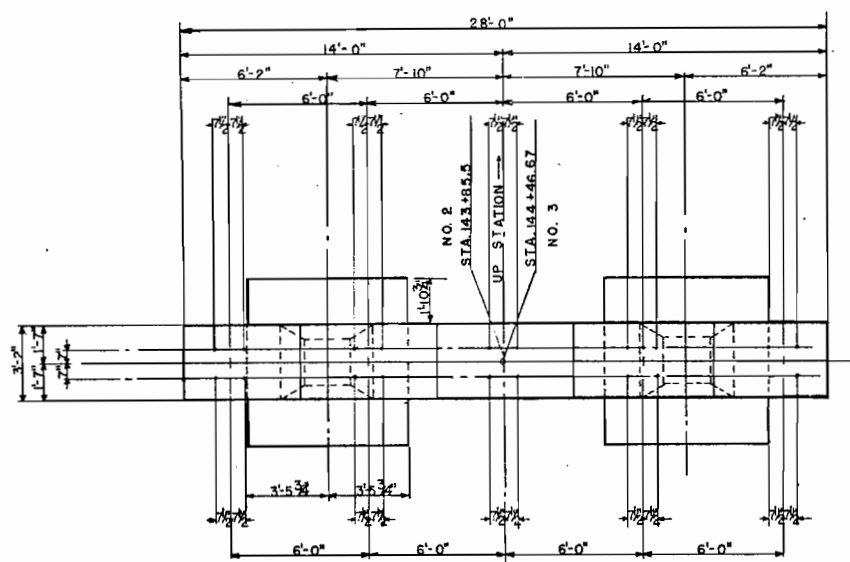
TRUE ELEVATION DOWN STREAM WING WALL

FRONT ELEVATION
SOIL PRESSURE 2 TONS P.S.F.

TRUE ELEVATION UP STREAM WING WALL

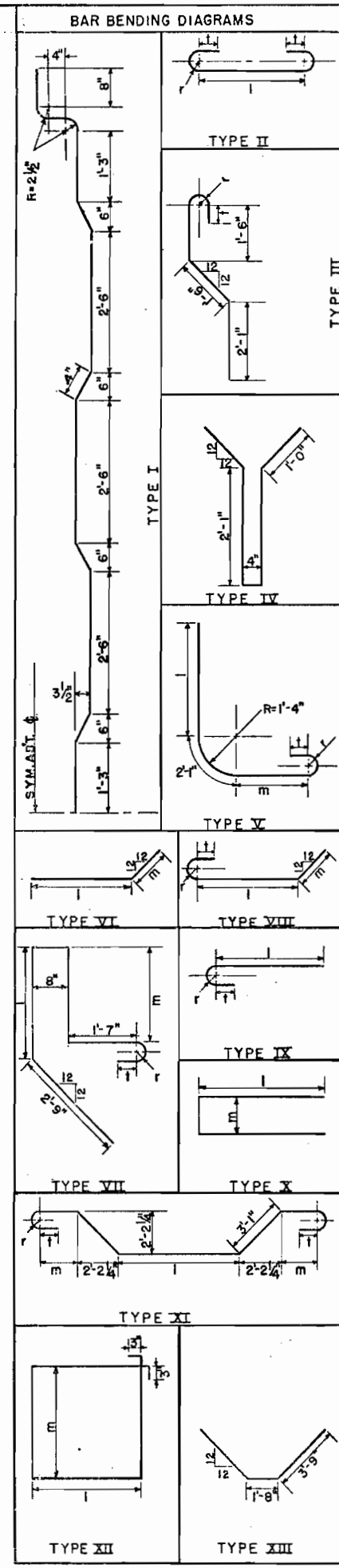
COLORADO STATE HIGHWAY DEPARTMENT
 3-60'-0" CONCRETE I BEAM SPANS
 DETAILS OF ABUT NO 1

Address WHITE RIVER
 Sta. 143+23.17 TO 145+09.00
 Near RANGLY Sec. 35 T. 2 N. R. 102 W.
 Designed by A.D.N. Approved by G.A. Bailey
 Made by A.D.N. Bridge Engineer
 Checked by G.R.B. Date: Feb. 18, 1947.



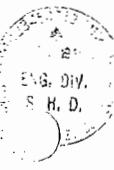
DETAILS OF PIER NO. 2
PIER NO. 3 SAME EXCEPT AS NOTED
SOIL PRESSURE 3.0 T.P.S.F.

REFERENCE DRAWINGS
SHEET NO. 4 GENERAL LAYOUT, SUMMARY OF QUANTITIES, BAR LISTS FOR SUPERSTRUCTURE & PIERS NOS. 2 & 3.
SHEET NO. 5 DETAILS OF SUPERSTRUCTURE.
SHEET NO. 6 DETAILS OF ABUTMENT NO. 1.
SHEET NO. 8 DETAILS OF ABUTMENT NO. 4.



BAR LIST FOR ABUTMENT NO. 1										BAR LIST FOR ABUTMENT NO. 4									
MARK	SIZE	REQ'D	LENGTH	TYPE	l	m	r	t		MARK	SIZE	REQ'D	LENGTH	TYPE	l	m	r	t	
A1	1"	37	14'-2"	V	6'-9"	4'-0"	4"	3 1/2"		B1	1"	48	22'-7"	V	16'-3"	2'-11"	4"	3 1/2"	
A2	1"	38	21'-10"	V	16'-3"	2'-2"	4"	3 1/2"		B2	1"	49	15'-2"	V	7'-5"	4'-4"	4"	3 1/2"	
A3	1/2"	32	20'-8"	VI	19'-4"	1'-4"				B3	1/2"	32	20'-8"	VI	19'-2"	1'-6"			
A4	1/2"	30	12'-8"	VII	4'-0"	3'-0"	2"	2"		B4	1/2"	30	14'-6"	VII	4'-11"	3'-11"	2"	2"	
A5	1/2"	11	29'-6"	STR.						B5	1/2"	14	29'-6"	STR.					
A6	1/2"	6	8'-9"	VIII	5'-4"	2'-9"	2"	2"		B6	1/2"	6	9'-9"	VIII	6'-4"	2'-9"	2"	2"	
A7	1/2"	10	5'-0"	STR.						B7	1/2"	14	5'-0"	STR.					
A8	1/2"	2	2'-6"	STR.						B8	1/2"	2	2'-6"	STR.					
A9	3/4"	2	10'-4"	V	4'-9"	2'-6"	3"	2 1/2"		B9	1/2"	3	11'-0"	V	4'-7"	3'-2"	3 1/2"	3"	
A10	7/8"	5	10'-7"	V	4'-9"	2'-7"	3 1/2"	3"		B10	7/8"	6	12'-5"	V	5'-9"	3'-5"	3 1/2"	3"	
A11	7/8"	6	11'-5"	V	5'-4"	2'-10"	3 1/2"	3"		B11	1"	7	12'-10"	V	5'-9"	3'-8"	4"	3"	
A12	1"	5	11'-9"	V	5'-4"	3'-0"	4"	3 1/2"		B12	1"	6	13'-0"	V	5'-9"	3'-10"	4"	3"	
A13	1"	5	12'-6"	V	5'-10"	3'-3"	4"	3 1/2"		B13	1"	7	14'-3"	V	6'-10"	4'-0"	4"	3"	
A14	1"	6	12'-9"	V	5'-10"	3'-6"	4"	3 1/2"		B14	1"	5	14'-5"	V	6'-10"	4'-2"	4"	3"	
A15	1"	5	13'-7"	V	6'-5"	3'-9"	4"	3 1/2"		B15	3/4"	2	21'-9"	V	16'-8"	2'-0"	3"	2 1/2"	
A16	3/4"	2	18'-9"	V	14'-5"	1'-3"	3"	2 1/2"		B16	3/4"	2	22'-6"	V	17'-3"	2'-2"	3"	2 1/2"	
A17	3/4"	2	19'-2"	V	14'-9"	1'-4"	3"	2 1/2"		B17	7/8"	3	23'-4"	V	17'-3"	2'-3"	3 1/2"	3"	
A18	3/4"	3	19'-6"	V	15'-1"	1'-4"	3"	2 1/2"		B18	7/8"	3	24'-2"	V	18'-7"	2'-4"	3 1/2"	3"	
A19	7/8"	3	20'-5"	V	15'-8"	1'-6"	3 1/2"	3"		B19	7/8"	2	25'-1"	V	19'-5"	2'-5"	3 1/2"	3"	
A20	7/8"	3	20'-11"	V	16'-2"	1'-6"	3 1/2"	3"		B20	1"	3	25'-11"	V	20'-0"	2'-6"	4"	3 1/2"	
A21	7/8"	3	21'-7"	V	16'-9"	1'-7"	3 1/2"	3"		B21	1"	3	26'-10"	V	20'-10"	2'-7"	4"	3 1/2"	
A22	7/8"	2	22'-1"	V	17'-3"	1'-7"	3 1/2"	3"		B22	1/2"	35	13'-2"	STR.					
A23	1"	3	22'-9"	V	17'-8"	1'-8"	4"	3 1/2"		B23	1/2"	2	2'-0"	STR.					
A24	1"	3	23'-5"	V	18'-2"	1'-10"	4"	3 1/2"		T0	1/2"	2 EA.	BY 2'-7"	STR.					
A25	1"	2	24'-0"	V	18'-9"	1'-10"	4"	3 1/2"		A30	1/2"	1 EA.	BY 3'-0"	STR.					
A26	1"	2	24'-4"	V	19'-1"	1'-10"	4"	3 1/2"		T0	1/2"	1 EA.	BY 3'-6"	STR.					
A27	1"	3	24'-10"	V	19'-6"	1'-11"	4"	3 1/2"		A35	1/2"	1 EA.	TO 30'-6"	STR.					
A28	1"	3	25'-6"	V	20'-0"	2'-1"	4"	3 1/2"		A36	3/4"	1	10'-2"	V	4'-7"	2'-6"	3"	2 1/2"	
A29	1/2"	14	33'-8"	STR.						A37	7/8"	3	10'-5"	V	4'-7"	2'-7"	3 1/2"	3"	
A30	1/2"	1	3'-0"	STR.						A38	7/8"	3	11'-9"	V	5'-7"	2'-11"	3 1/2"	3"	
A35	1/2"	1 EA.	TO 30'-6"	STR.						A39	1"	2	12'-1"	V	5'-7"	3'-1"	4"	3 1/2"	
A36	3/4"	1	10'-2"	V	4'-7"	2'-6"	3"	2 1/2"		A40	1"	3	12'-8"	V	6'-0"	3'-3"	4"	3 1/2"	
A37	7/8"	3	10'-5"	V	4'-7"	2'-7"	3 1/2"	3"		A41	1"	2	13'-0"	V	6'-0"	3'-7"	4"	3 1/2"	
A38	7/8"	3	11'-9"	V	5'-7"	2'-11"	3 1/2"	3"		A42	1"	3	13'-8"	V	6'-6"	3'-9"	4"	3 1/2"	
A39	1"	2	12'-1"	V	5'-7"	3'-1"	4"	3 1/2"		A43	3/4"	2	18'-11"	V	14'-6"	1'-4"	3"	2 1/2"	
A40	1"	3	12'-8"	V	6'-0"	3'-3"	4"	3 1/2"		A44	7/8"	2	19'-11"	V	15'-3"	1'-5"	3 1/2"	3"	
A41	1"	2	13'-0"	V	6'-0"	3'-7"	4"	3 1/2"		A45	7/8"	2	20'-9"	V	16'-0"	1'-6"	3 1/2"	3"	
A42	1"	3	13'-8"	V	6'-6"	3'-9"	4"	3 1/2"		A46	7/8"	2	21'-8"	V	16'-9"	1'-8"	3 1/2"	3"	
A43	3/4"	2	18'-11"	V	14'-6"	1'-4"	3"	2 1/2"		A47	1"	2	22'-7"	V	17'-6"	1'-8"	4"	3 1/2"	
A44	7/8"	2	19'-11"	V	15'-3"	1'-5"	3 1/2"	3"		A48	1"	2	23'-5"	V	18'-3"	1'-9"	4"	3 1/2"	
A45	7/8"	2	20'-9"	V	16'-0"	1'-6"	3 1/2"	3"		A49	1"	2	24'-2"	V	18'-11"	1'-10"	4"	3 1/2"	
A46	7/8"	2	21'-8"	V	16'-9"	1'-8"	3 1/2"	3"		A50	1"	2	25'-0"	V	19'-8"	1'-11"	4"	3 1/2"	
A47	1"	2	22'-7"	V	17'-6"	1'-8"	4"	3 1/2"		A51	1"	1	25'-10"	V	20'-4"	2'-1"	4"	3 1/2"	
A48	1"	2	23'-5"	V	18'-3"	1'-9"	4"	3 1/2"		A52	1/2"	14	16'-8"	STR.					
A49	1"	2	24'-2"	V	18'-11"	1'-10"	4"	3 1/2"		A53	1/2"	4	4'-2"	STR.					
A50	1"	2	25'-0"	V	19'-8"	1'-11"	4"	3 1/2"		T0	1/2"	1 EA.	BY 2'-8"	STR.					
A51	1"	1	25'-10"	V	20'-4"	2'-1"	4"	3 1/2"		A57	1/2"	1	TO 14'-10"	STR.					
A52	1/2"	14	16'-8"	STR.						F1	3/4"	91	7'-11"	IX	6'-11"		3"	2 1/2"	
A53	1/2"	4	4'-2"	STR.						F2	5/8"	45	7'-0"	IX	6'-2"		2 1/2"	2"	
T0	1/2"	1 EA.	BY 2'-8"	STR.						F3	5/8"	41	6'-6"	IX	5'-8"		2 1/2"	2"	
A57	1/2"	1	TO 14'-10"	STR.						F4	5/8"	14	6'-1"	IX	5'-3"		2 1/2"	2"	
F1	3/4"	91	7'-11"	IX	6'-11"		3"	2 1/2"		F5	5/8"	31	7'-3"	IX	6'-5"		2 1/2"	2"	
F2	5/8"	45	7'-0"	IX	6'-2"		2 1/2"	2"		F6	1"	6	9'-2"	IX	7'-10"		4"	3 1/2"	
F3	5/8"	41	6'-6"	IX	5'-8"		2 1/2"	2"		F7	1/2"	64	20'-0"	STR.	(FIELD BEND)				
F4	5/8"	14	6'-1"	IX	5'-3"		2 1/2"	2"		F8	1/2"	8	8'-6"	STR.					
F5	5/8"	31	7'-3"	IX	6'-5"		2 1/2"	2"		T0	1/2"	2 EA.	BY 2'-3"	STR.					
F6	1"	6	9'-2"	IX	7'-10"		4"	3 1/2"		F14	1/2"	1	TO 22'-0"	STR.					
F7	1/2"	64	20'-0"	STR.	(FIELD BEND)					F15	1/2"	1	23'-6"	STR.					
F8	1/2"	8	8'-6"	STR.						F16	1/2"	1	25'-3"	STR.					
T0	1/2"	2 EA.	BY 2'-3"	STR.						H10	1/2"	12	2'-2"	STR.					
F14	1/2"	1	TO 22'-0"	STR.						H11	1/2"	6	9'-3"	IX	4'-6"	0'-3"			
F15	1/2"	1	23'-6"	STR.						SUMMARY									
F16	1/2"	1	25'-3"	STR.						3,409 LIN. FT. 1/2" X 0.668 = 2,277 LBS.									
										304 LIN. FT. 3/8" X 1.043 = 317 LBS.									
										126 LIN. FT. 3/4" X 1.502 = 189 LBS.									
										575 LIN. FT. 7/8" X 2.044 = 1,175 LBS.									
										3,288 LIN. FT. 1" X 2.670 = 8,779 LBS.									
										+1% OVERRUN = 123 LBS.									
										TOTAL = 12,860 LBS.									
										SUMMARY									
										3,950 LIN. FT. 1/2" X 0.668 = 2,638 LBS.									
										891 LIN. FT. 5/8" X 1.043 = 930 LBS.									
										923 LIN. FT. 3/4" X 1.502 = 1,387 LBS.									
										546 LIN. FT. 7/8" X 2.044 = 1,115 LBS.									
										614 LIN. FT. 1" X 2.670 = 1,639 LBS.									
										1,792 LIN. FT. 1" X 3.400 = 6,093 LBS.									
										+1% OVERRUN = 138 LBS.									
										TOTAL = 13,940 LBS.									

COLORADO STATE HIGHWAY DEPARTMENT
3-60FT. CONCRETE I BEAM SPANS
DETAILS OF PIERS NO. 2 & NO. 3
Across WHITE RIVER
Sta. 143±2.5 TO 145±0.9
Near RANGLY Sec. 35 T. 2 N. R. 102 W.
Designed by A.D.N. Approved by P. J. Bailey
Made by A.D.N. Bridge Engineer
Checked by G.R.B. Date: Feb. 18, 1947.

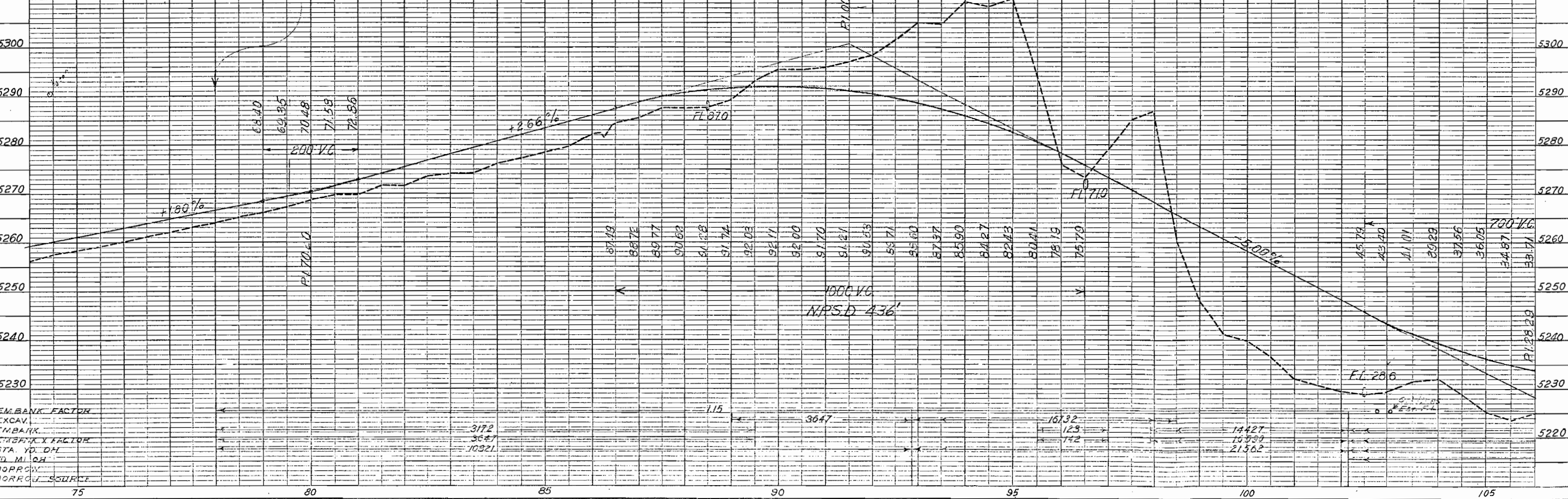
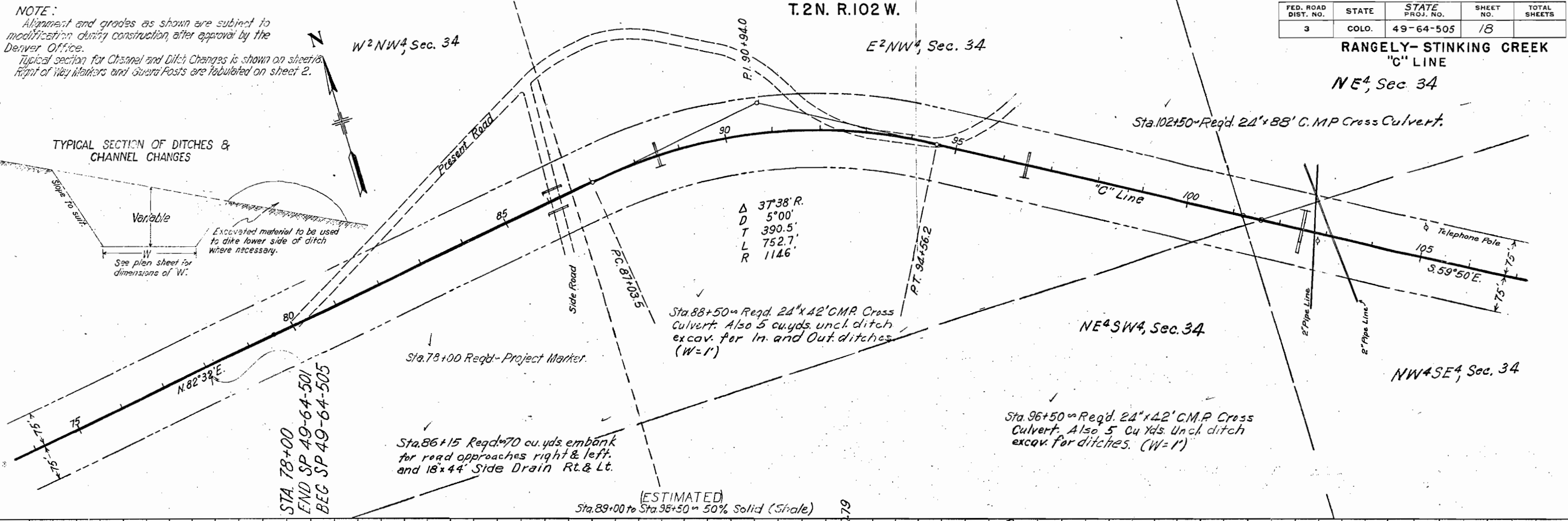


DATE	BY	CHECKED
12/22/54	J.R. Morris	J.R. Morris
PLAN	NO.	DATE
1	1	12/22/54

DATE	BY	CHECKED
12/22/54	J.R. Morris	J.R. Morris
PROFILE	NO.	DATE
1	1	12/22/54

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	49-64-505	18	

RANGELY-STINKING CREEK "C" LINE
NE⁴, Sec. 34



75 80 85 90 95 100 105



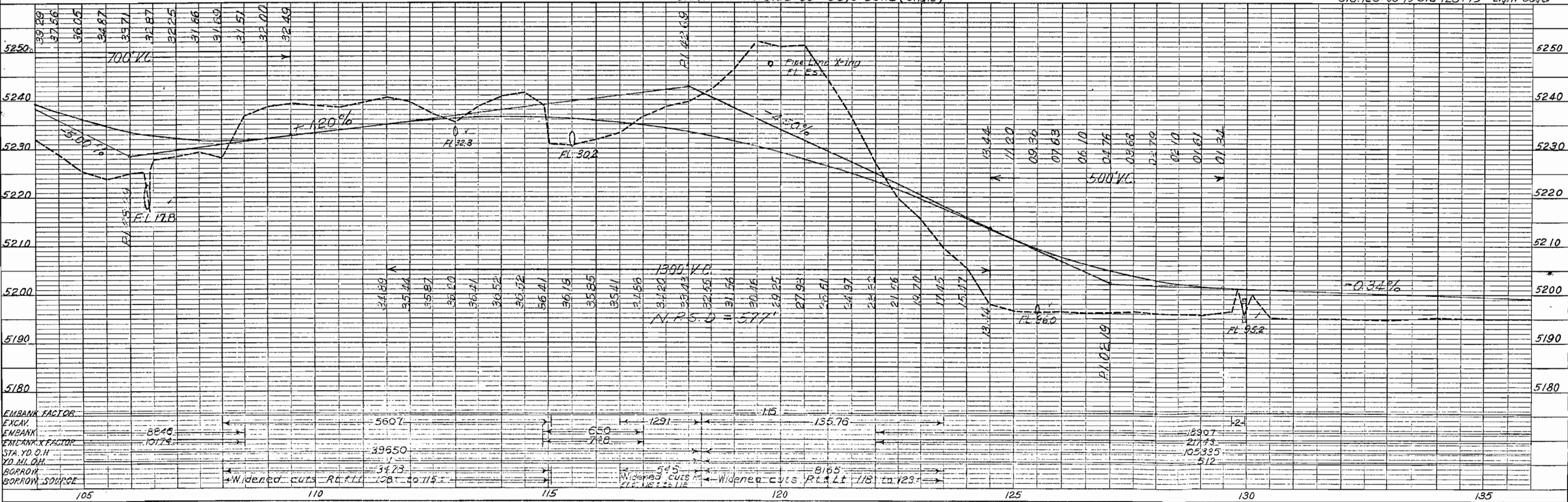
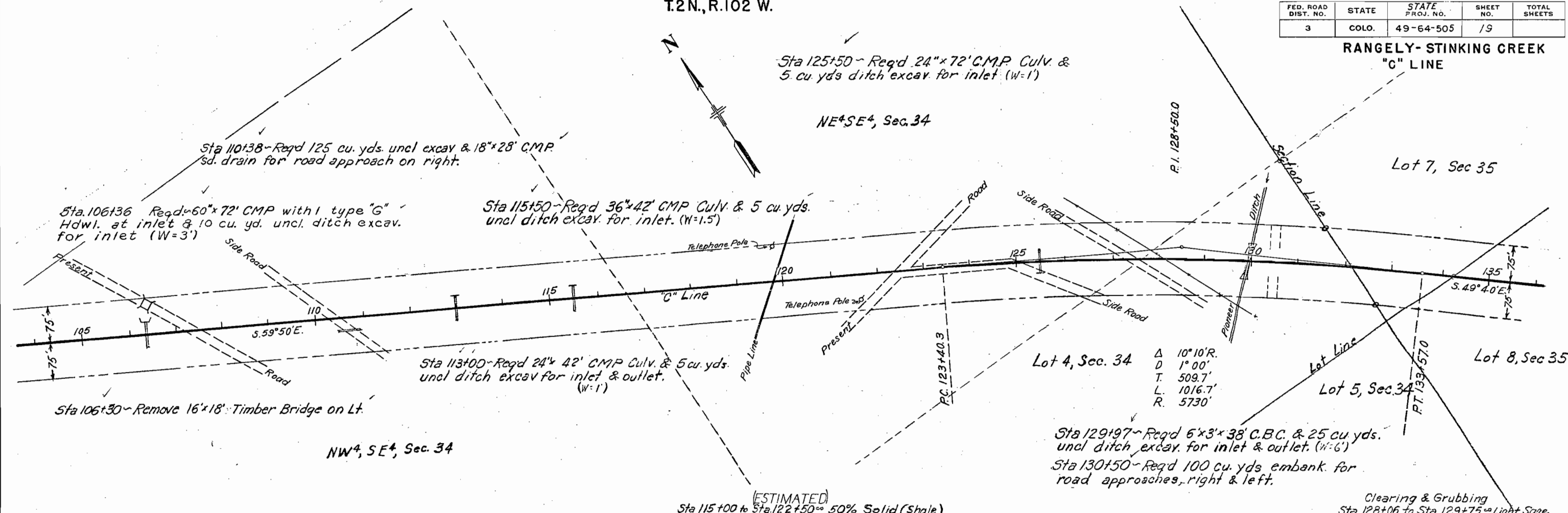
PLAN
 SURVEYED BY: [Signature]
 PLOTTED BY: [Signature]
 NOTE BOOK GRADES CHECKED BY: [Signature]
 STRUCTURE NOTATION CHECKED BY: [Signature]

PROFILE
 SURVEYED BY: [Signature]
 PLOTTED BY: [Signature]
 NOTE BOOK GRADES CHECKED BY: [Signature]
 STRUCTURE NOTATION CHECKED BY: [Signature]

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	49-64-505	19	

T.2N., R.102 W.

RANGELY-STINKING CREEK "C" LINE



T.2N., R. 102 W.

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	49-64-505	20	

RANGELY-STINKING CREEK "C" LINE

Lot 4, Sec 35

Lot 6, Sec. 2

Sta 137+58 Req'd. 24'x40' C.M.P. Culvert for Irr. Ditch. Also 5 cu.yds uncl ditch excav. for Outlet ditch. (W=1')

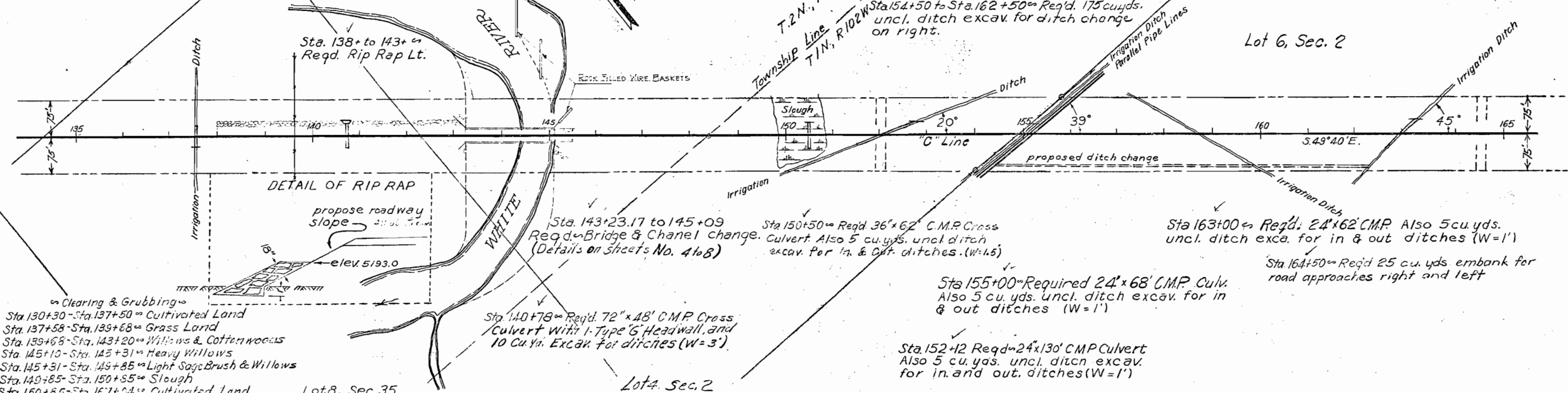
Sta. 138+ to 143+ Req'd. Rip Rap Lt.

Sta. 152+00 Req'd. 50 cu.yds. Embank for road approaches right & left.

Sta. 154+50 to Sta. 162+50 Req'd. 175 cu.yds. uncl. ditch excav. for ditch change on right.

Sta 163+00 Req'd. 24'x62' C.M.P. Also 5 cu.yds. uncl. ditch exca. for in & out ditches (W=1')

Sta 164+50 Req'd. 25 cu.yds. embank for road approaches right and left



DETAIL OF RIP RAP

propose roadway slope

elev. 5193.0

Sta. 143+23.17 to 145+09 Req'd. Bridge & Chanel change. (Details on sheets No. 4 to 8)

Sta 150+50 Req'd. 36'x62' C.M.P. Cross Culvert. Also 5 cu.yds. uncl ditch excav. for in & out ditches. (W=1.5)

Sta 155+00 Required 24'x68' C.M.P. Culv. Also 5 cu.yds. uncl. ditch excav. for in & out ditches (W=1')

Sta. 152+12 Req'd. 24'x130' C.M.P. Culvert Also 5 cu.yds. uncl. ditch excav. for in. and out. ditches (W=1')

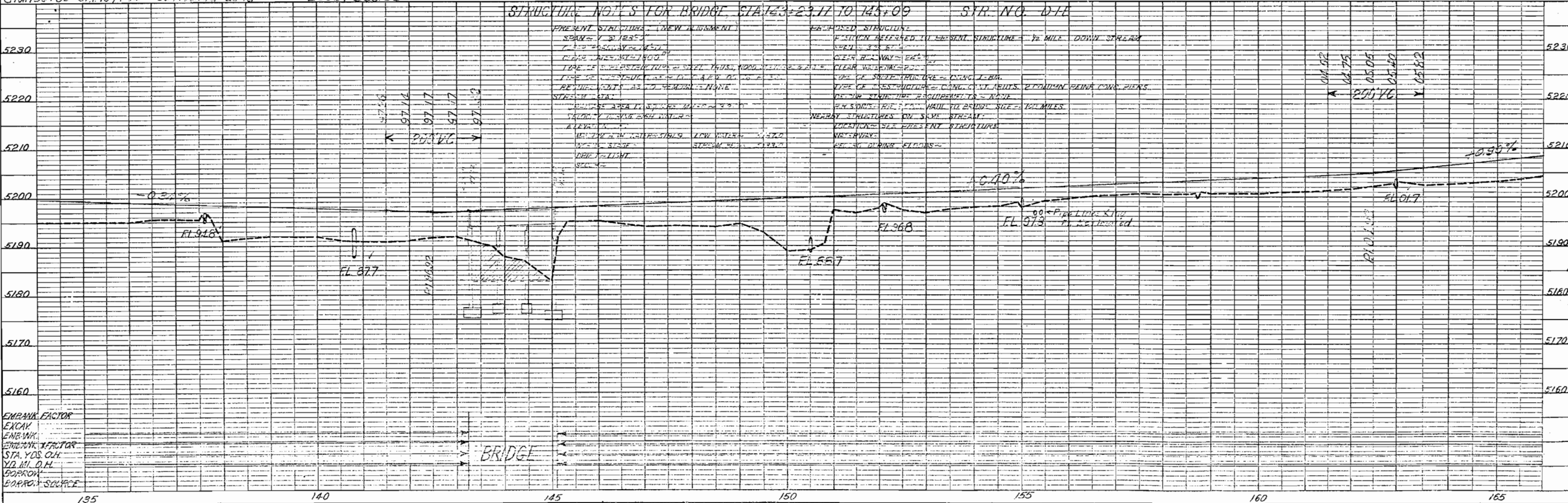
- Clearing & Grubbing
- Sta. 130+30 - Sta. 137+50 Cultivated Land
- Sta. 137+58 - Sta. 139+68 Grass Land
- Sta. 139+68 - Sta. 143+20 Willows & Cottonwoods
- Sta. 143+20 - Sta. 143+31 Heavy Willows
- Sta. 143+31 - Sta. 149+85 Light Sage Brush & Willows
- Sta. 149+85 - Sta. 150+85 Slough
- Sta. 150+85 - Sta. 167+04 Cultivated Land

Lot 8, Sec 35

Lot 4, Sec. 2

STRUCTURE NOTES FOR BRIDGE STA. 143+23.17 TO 145+09

STR. NO. D12



BRIDGE

EMBRANK. FACTOR
EXCAV.
EMBANK.
EMBANK. FACTOR
STA. YDS. CH.
YR. 101. D.H.
50' FROM
BORROW SOURCE



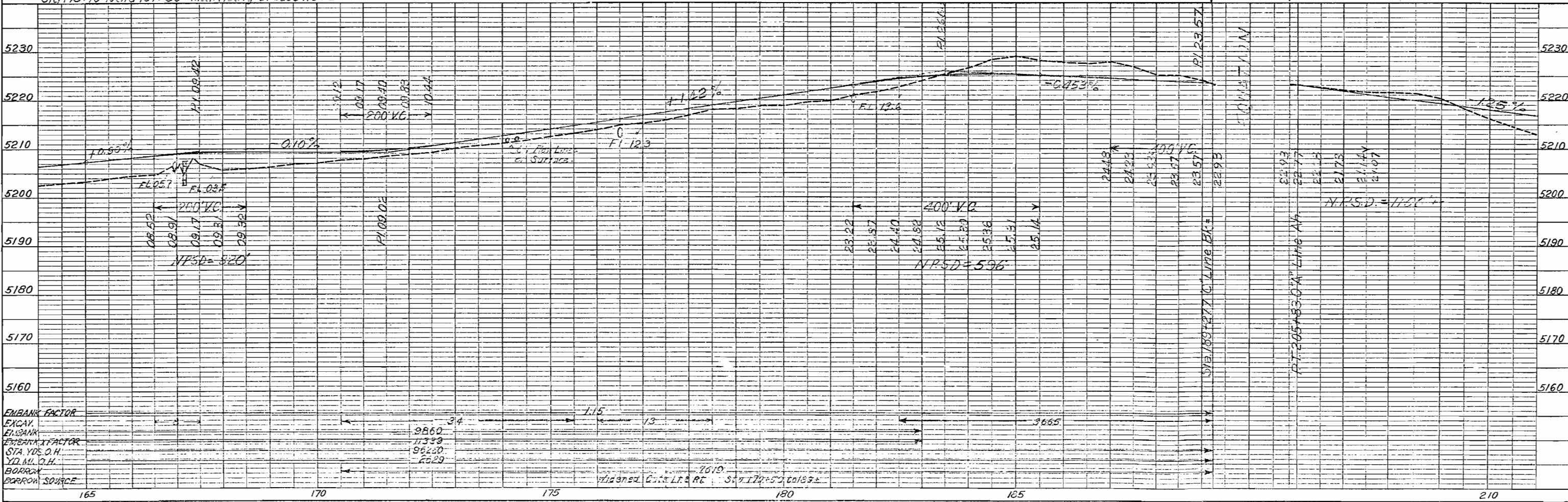
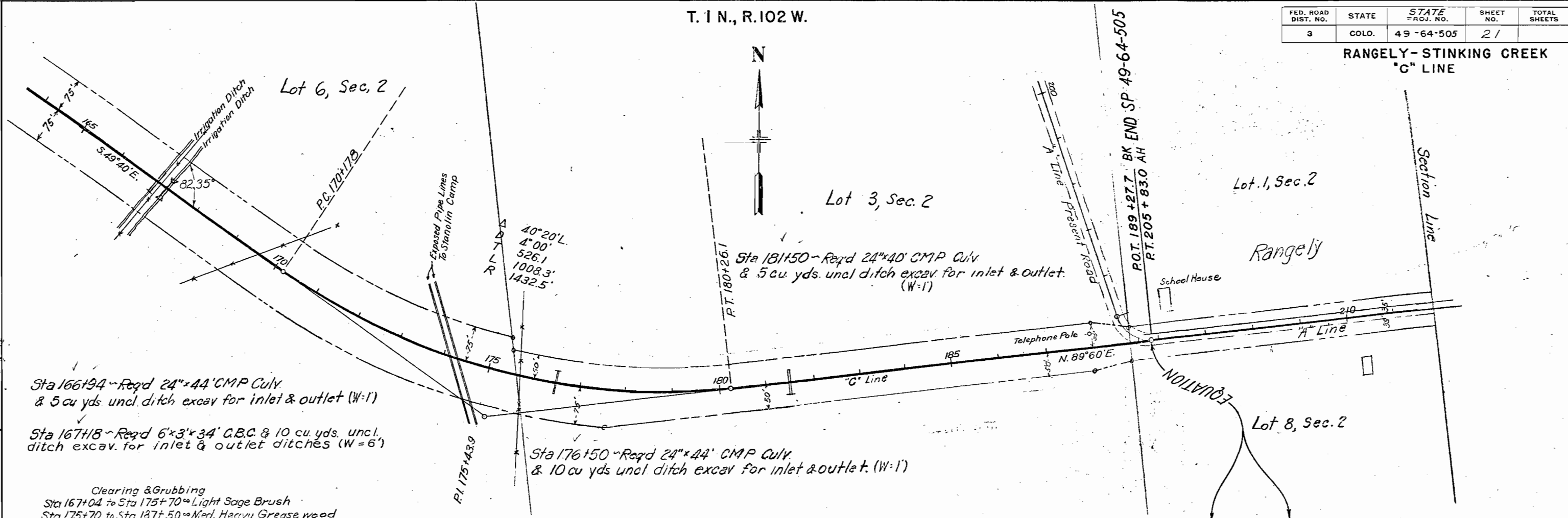
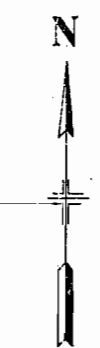
MICULI

PLAN
 DRAWN BY: S. H. D.
 CHECKED BY: S. H. D.
 DATE: 12-15-45

FED. ROAD DIST. NO.	STATE	STATE PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	49-64-505	21	

RANGELY-STINKING CREEK "C" LINE

T. 1 N., R. 102 W.



PROFILE
 DRAWN BY: S. H. D.
 CHECKED BY: S. H. D.
 DATE: 12-15-45