

COLORADO STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. 297-A STATE HIGHWAY NO. 4 MESA CO.

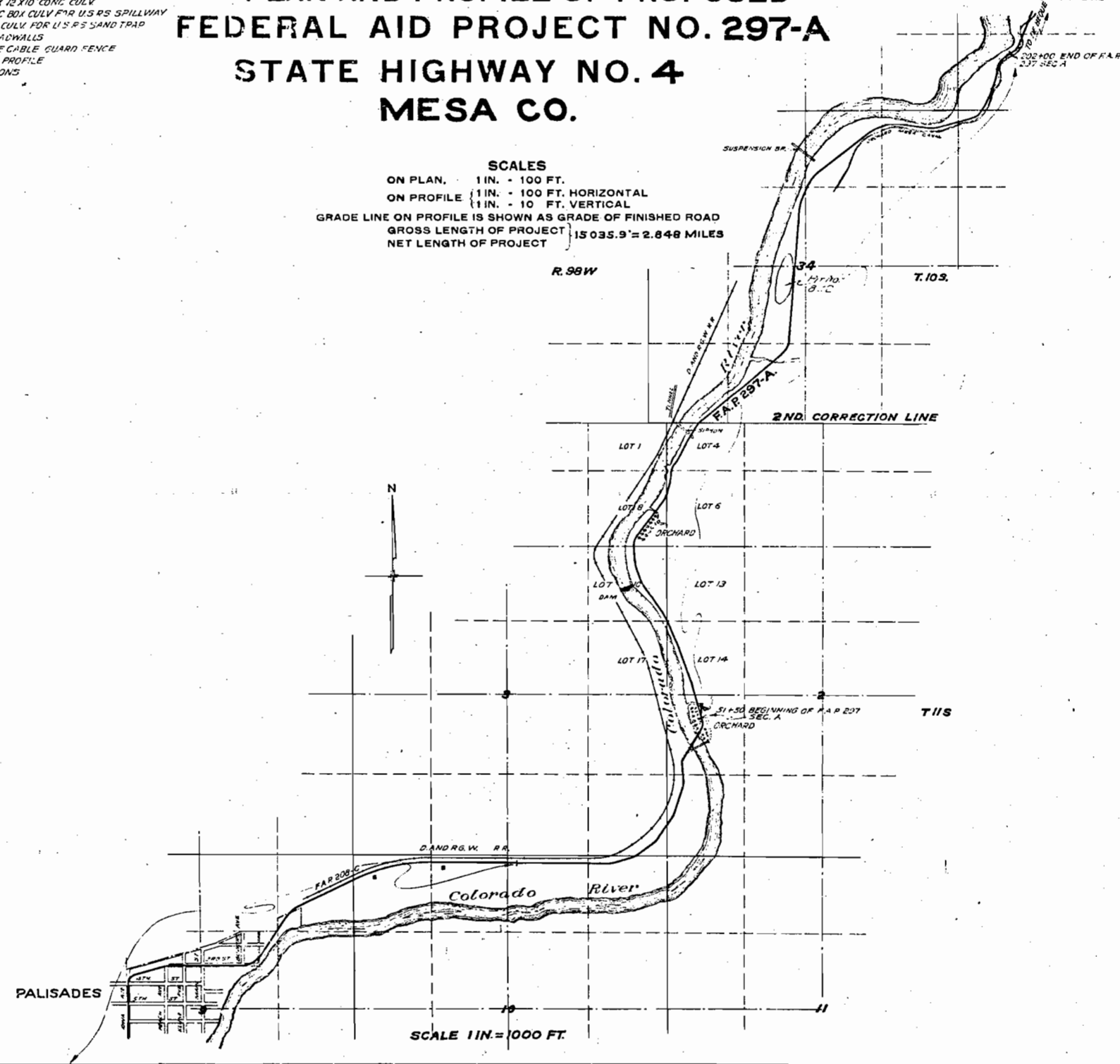
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CONVENTIONAL SIGNS



SCALES
 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 15 035.9' = 2.848 MILES
 NET LENGTH OF PROJECT



RECOMMENDED FOR APPROVAL

ASSISTANT ENGINEER

APPROVED

STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

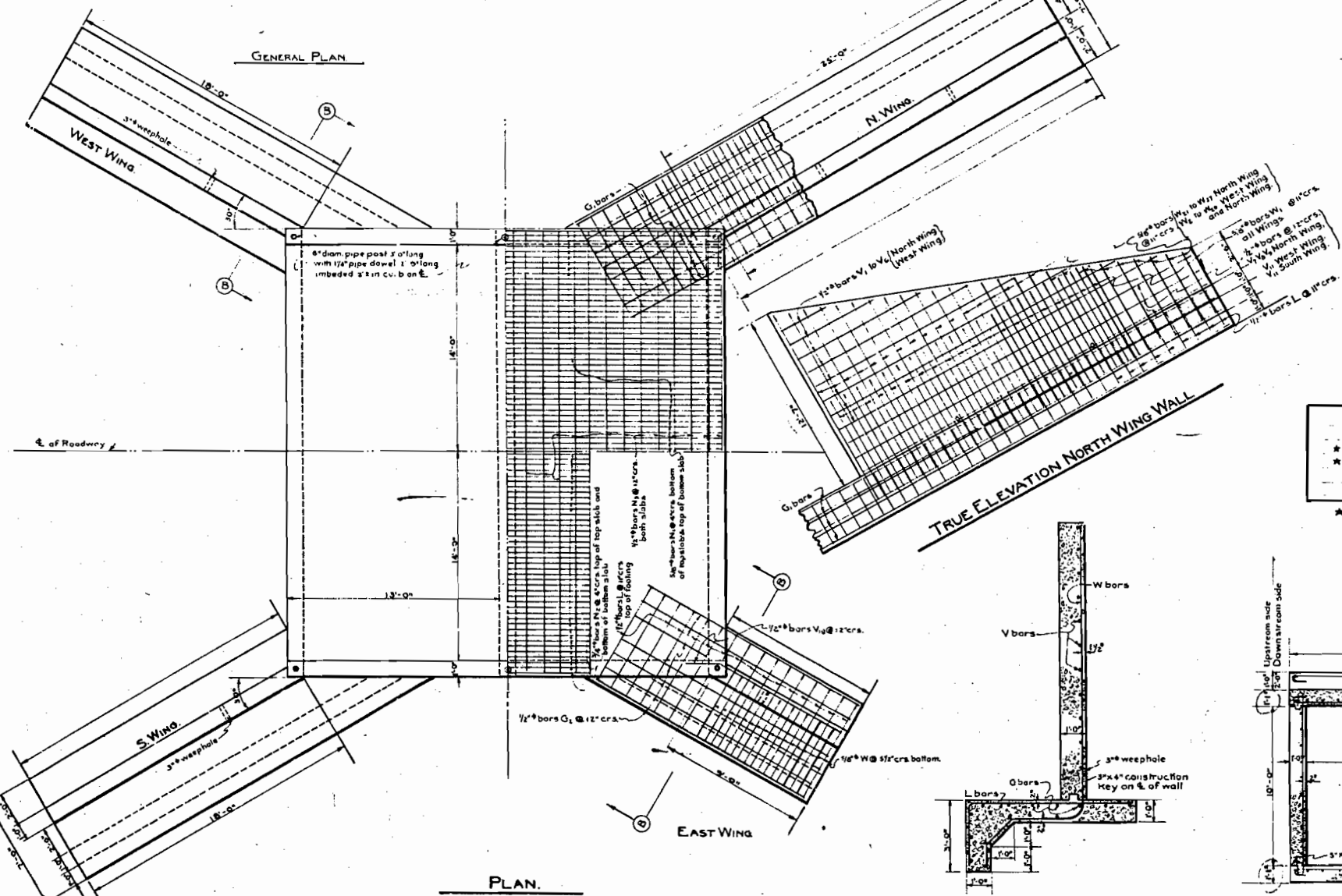
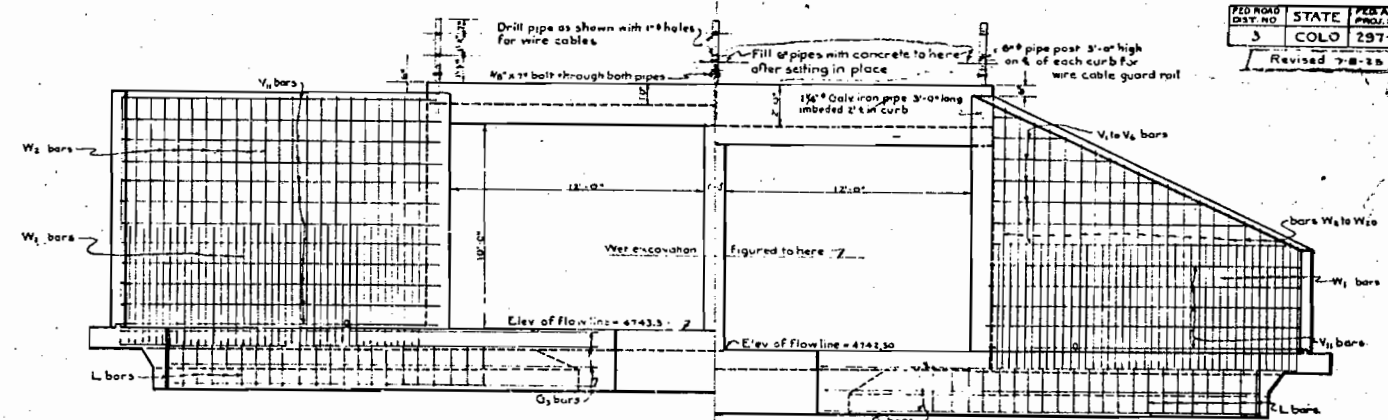
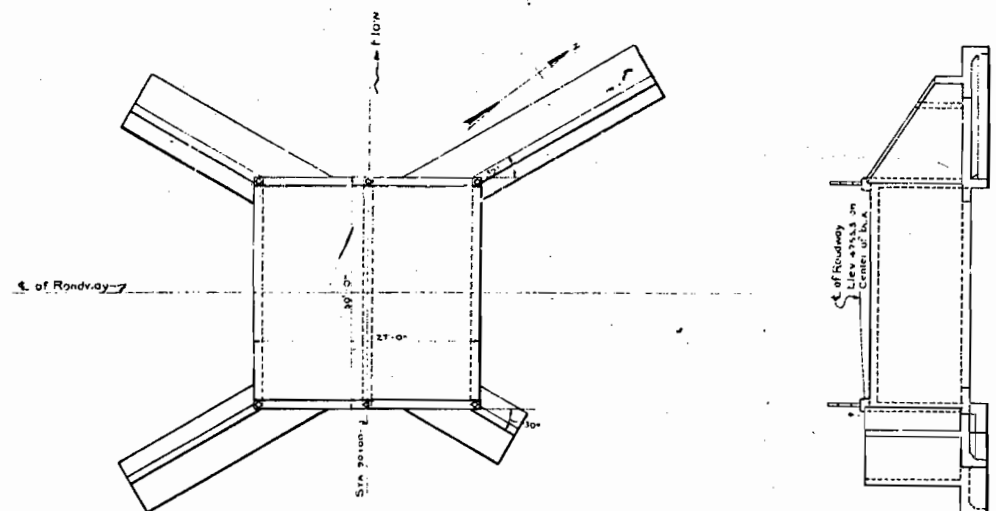
DIST. ENGR. BUREAU PUBLIC ROADS

RECOMMENDED FOR APPROVAL

CHIEF ENGR. BUREAU PUBLIC ROADS

APPROVED

DIST. FOR BUREAU PUBLIC ROADS

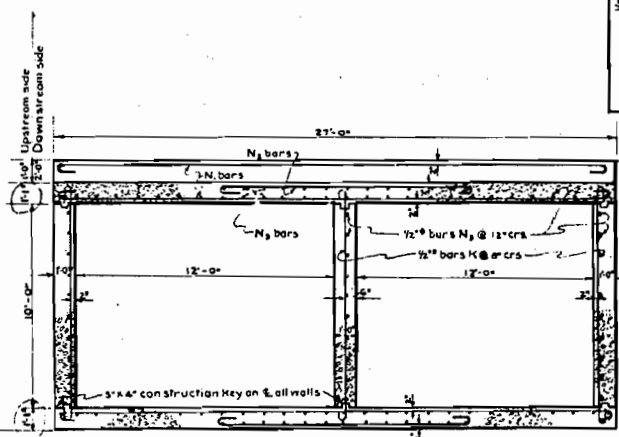
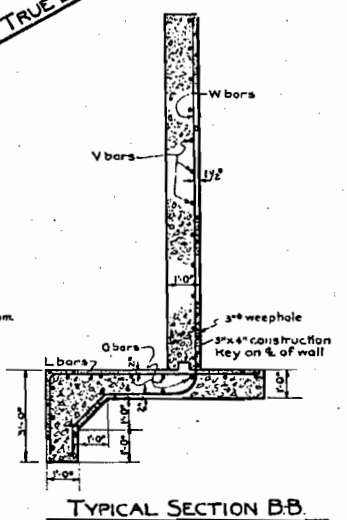


GENERAL NOTES
 All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department.
 All concrete shall be class "A".
 All walls shall have forms on both sides.
 All exposed surfaces shall be rubbed free of form marks.
 All construction joints shall be thoroughly cleaned before fresh concrete is poured.
 All reinforcing steel shall be plain round or plain square as shown.
 All bars spliced in the field shall be given a lap of 50" diameters.
 Main bars shall not be spliced.
 Maximum soil pressure = 1200 lbs per sq ft.

SUMMARY OF QUANTITIES.
 Class "A" concrete 1548 Cu Yds.
 Reinforcing steel including 3% for overrun 16800 Lbs.
 * 1/4" Galv. iron pipe, 18111 lin ft @ 2.25 lbs/ft. 41 Lbs.
 * 6" 18111 lin ft @ 19 lbs/ft. 342 Lbs.
 Wet excavation, rock 250 Cu Yds.
 Dry " " 150 Cu Yds.
 * Costs to be included in price per lin ft. for wire cable Guard Fence.

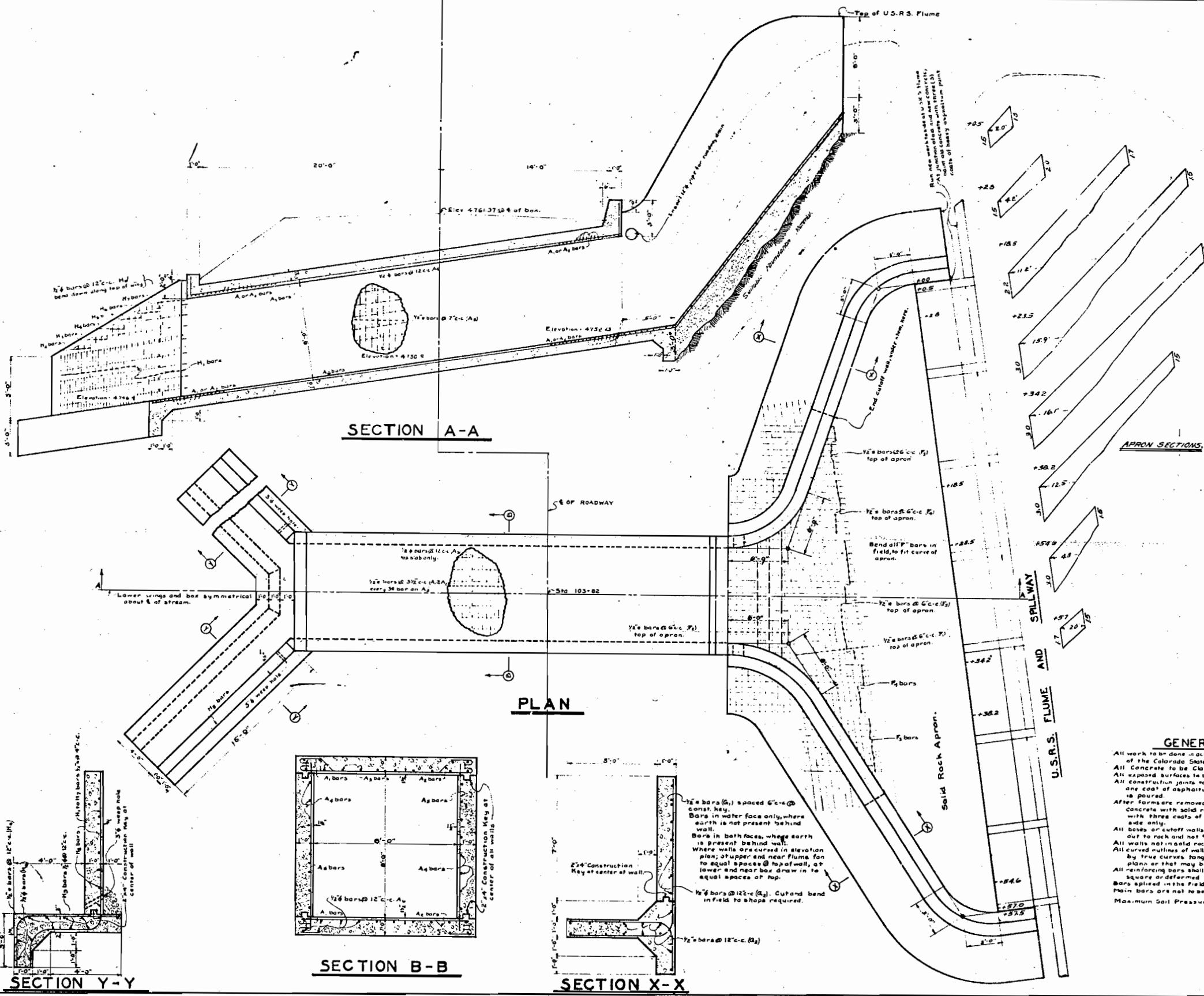
BAR LIST.

Location of bar in Structure	Mark	Size	Number	Length	BENDING DIAGRAM
Main steel both slabs	N1	1/2"	182	28'-0"	
Negative steel both slabs	N2	3/8"	180	13'-9"	
Verticals in side walls	K	1/2"	138	13'-0"	
Secondary steel	N3	1/2"	112	29'-6"	
N Wing	O1	1/2"	14	30'-0"	
E "	O2	1/2"	14	14'-0"	
S "	O3	1/2"	14	24'-0"	
W "	O4	1/2"	14	24'-0"	
N Wing	L	1/2"	24		
S "			10		
E "			15	8'-3"	
W "			10		
N Wing	V1	1/2"	3	25'-6"	
E "	V2	1/2"	11	10'-0"	
S "	V3	1/2"	11	17'-0"	
W "	V4	1/2"	3	19'-6"	
N & W wings	V5	1/2"	2 Each	18'-0"	
N Wing only	V6	1/2"	1	21'-6"	
" " "	V7	1/2"	1	24'-3"	
N Wing	W1	1/2"	22	10'-9"	
N & W Wings	W2	1/2"	2 Each	10'-0"	
W20					
N Wing only	W11	1/2"	18	10'-0"	
E "	W12	1/2"	8	16'-9"	
E "	W13	1/2"	9	10'-9"	
S "	W14	1/2"	17	16'-9"	
S "	W15	1/2"	18	10'-9"	



LOADING: A.A.S.H.O. I-15.
COLORADO STATE HIGHWAY DEPARTMENT
DOUBLE 12'x10' CONCRETE BOX CULVERT.
 Across Rapid Creek,
 Sta. 89+68.
 Near Pullsides, Sec. 3 T. 11 S. R. 98 W.
 Designed by R.W.J. Approved by P.J. Gaudin
 Made by RMA Bridge Engineer
 Checked by P.S. Date June 1, 1923.

Revised 7-2-25 R.M.L.
 REVISED 12-25-25 G.L.B.
 AS CONSTRUCTED.



BAR LIST

MARK	SIZE	NUMBER	LENGTH	BENDING DIAGRAM
A ₁	1/2"	173	10'-0"	[Bending Diagram]
A ₂	1/2"	124	10'-0"	
A ₃	1/2"	87	11'-4"	[Bending Diagram]
A ₄	1/2"	14	4'-0"	
A ₅	1/2"	16	36'-0"	[Bending Diagram]
A ₆	1/2"	14	35'-0"	
M ₁	1/2"	50	11'-3"	[Bending Diagram]
M ₂	1/2"	6	11'-3"	
M ₃	1/2"	6	12'-4"	[Bending Diagram]
M ₄	1/2"	6	12'-11"	
M ₅	1/2"	6	13'-5"	[Bending Diagram]
M ₆	1/2"	6	16'-5"	
M ₇	1/2"	10	15'-0"	[Bending Diagram]
M ₈	1/2"	16	17'-6"	
M ₉	1/2"	18	15'-0"	[Bending Diagram]
M ₁₀	1/2"	6	16'-0"	
M ₁₁	1/2"	43	7'-8"	[Bending Diagram]
D ₁	1/2"	156	14'-0"	
D ₂	1/2"	35	7'-8"	[Bending Diagram]
D ₃	1/2"	44	36'-0"	
K ₁	1/2"	12	34'-0"	[Bending Diagram]
K ₂	1/2"	11	18'-6"	
F ₁	1/2"	18	4'-0"	[Bending Diagram]
F ₂	1/2"	20	8'-6"	
F ₃	1/2"	21	14'-0"	[Bending Diagram]

3663 Lin Ft. of 1/2" bars @ 0.850 Lbs. per ft. = 3117.66 Lbs.
 4104 Lin Ft. of 1/2" bars @ 0.667 Lbs. per ft. = 2737.27 Lbs.
 = 5854.93 Lbs. for OVERLAP = 1170.99 Lbs.
TOTAL = 11766 Lbs.

SUMMARY OF QUANTITIES	
Reinforcing Steel includes +3% for overrun	11766 Lbs.
Class 'A' Concrete	165.62 cu yds
Dry Rock Excavation	50.0 cu yds
Dry Common Excavation	228.7 cu yds

GENERAL NOTES

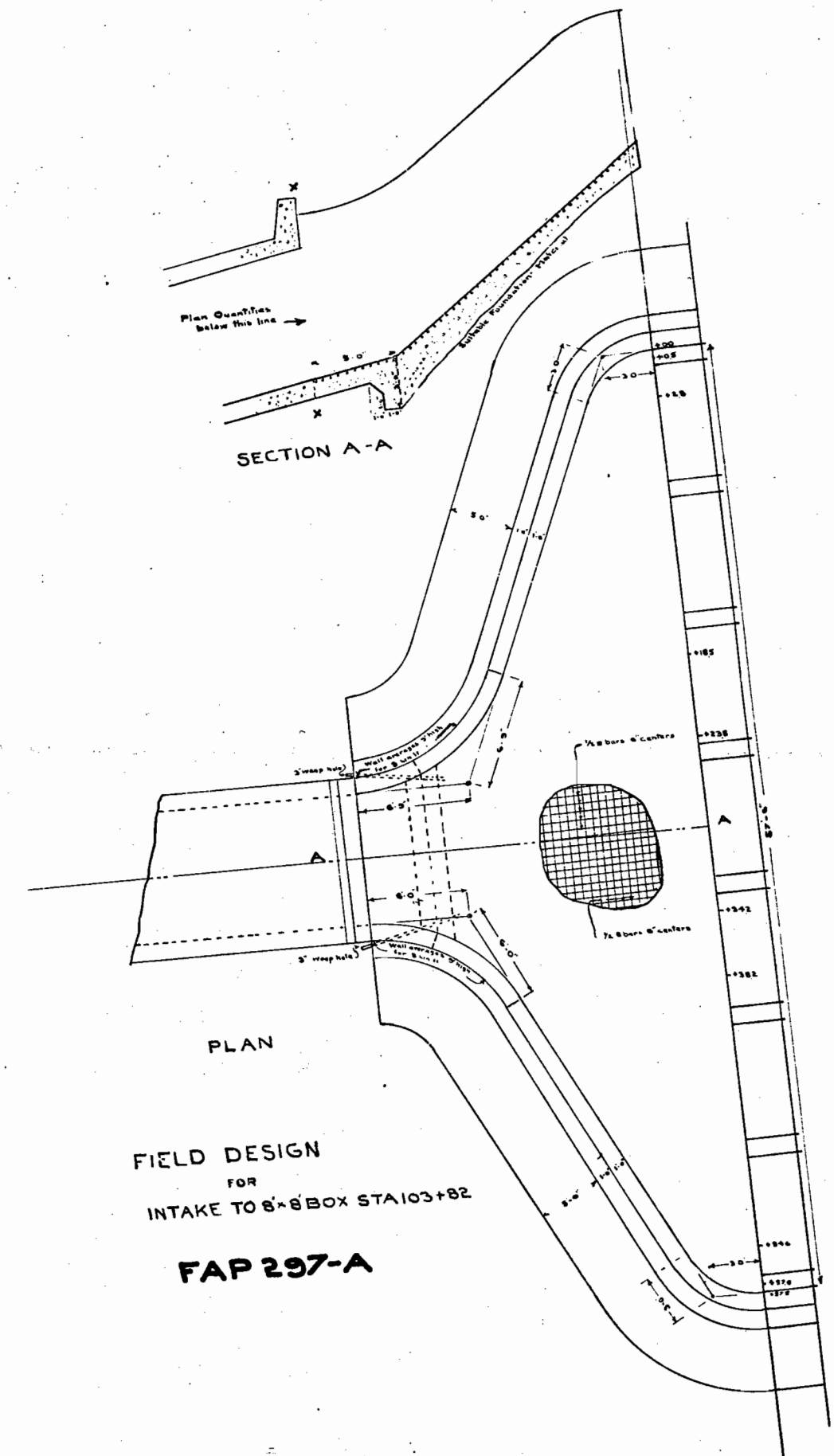
All work to be done in accordance with the Standard Specifications of the Colorado State Highway Department.
 All concrete to be Class 'A' mixture.
 All exposed surfaces to be rubbed free of form marks.
 All construction joints to be thoroughly cleaned and painted with one coat of asphaltum waterproofing paint before fresh concrete is poured.
 After forms are removed, all construction joints or junctures of new concrete with solid rock to be thoroughly cleaned and painted with three coats of asphaltum waterproofing paint, on water side only.
 All bases of cut-off walls, to be excavated in solid rock, to be poured out to rock and not formed.
 All walls not in solid rock to have forms on both sides.
 All curved outlines of walls and footings, as shown on plans to be formed by true curves, tangent to work lines, as established on the plans or that may be established in the field.
 All reinforcing bars shall be plain round or deformed and plain square or deformed. Twisted steel not to be used.
 Bars applied on the field to be given a lap of 30 diameters for lap.
 Maximum Soil Pressure = 2500 Lbs. per sq. ft.

LOADING DATA: A.A.S.H.O. CI. 2-15

COLORADO STATE HIGHWAY DEPARTMENT
8'x8' BOX CULVERT FOR U.S.S. SPILLWAY

Neat: PANSADES.
 Station 103+82
 Lot 4, Sec. 2, T.115, R.99W

Designed by Approved by
 Made by Ass't Bridge Engineer
 Checked by Date 12, 1925



Plan Quantities below this line →

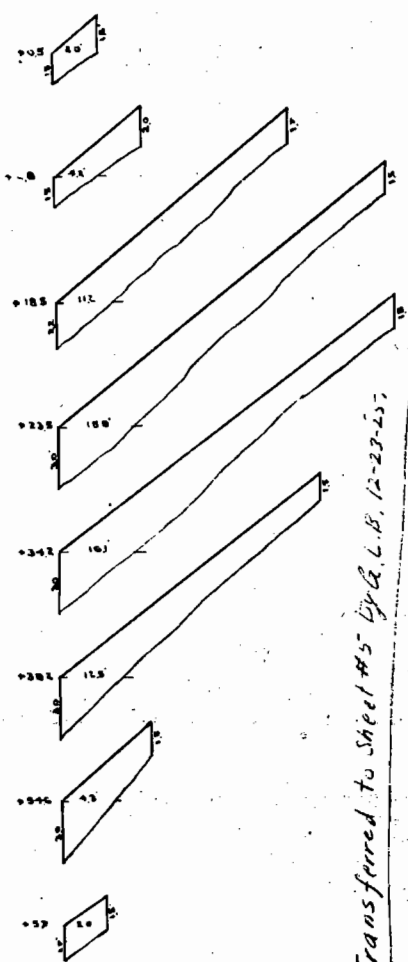
SECTION A-A

PLAN

FIELD DESIGN
FOR
INTAKE TO 8x8 BOX STA 103+82

FAP 297-A

APRON SECTIONS



Transferred to Sheet #5 by G.L.B. 12-23-57

Concrete		Quantities
Plan Quantities below X-X		69.02 Cu Yds
Apron		47.14
18 Lin ft 3 ft wing including footer	}	48.44
60 Lin ft 8 ft " " "		
87 Lin ft Cut off " " "		
	Total	165.62
Steel		
Steel for structure (Plans)		10930 Lbs
Left over from other structures on project		502 Lbs
Additional Req'd. (Local Purchase)		502
	Total	11760

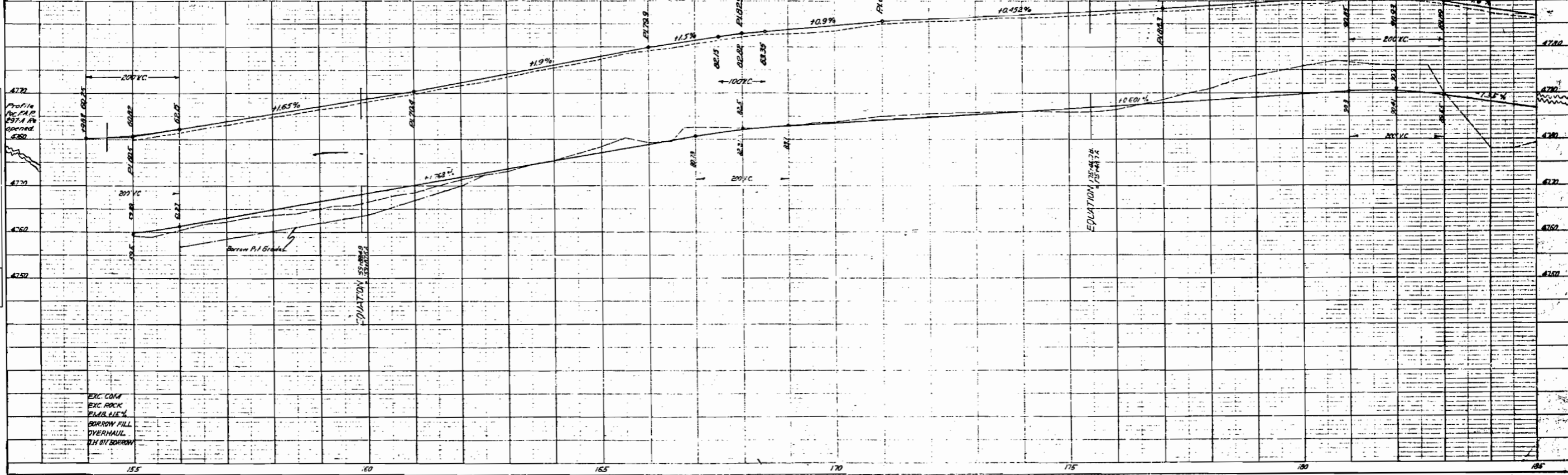
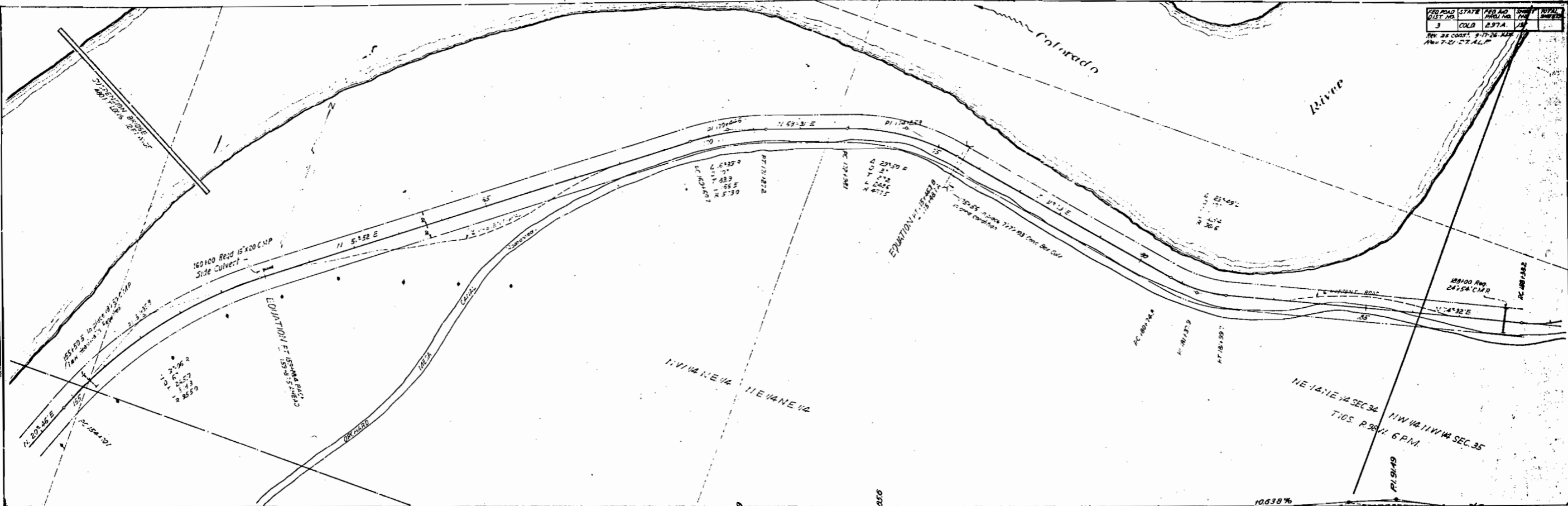
Note: Steel in wings Footer & Cut off as per Plans

DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLORADO	297A	12	12

REV. 25 COAST. 4-17-26. A.L.P.
REV. 7-21-27. A.L.P.

PLAN	DATE	BY
PLANNED	6/19/28	A.L.S.
PROFITE		
NOTE BOOK		

PROFILE	DATE	BY
PLANNED	6/19/28	A.L.S.
PROFITE		
NOTE BOOK		



EXC. COM
EXC. ROCK
EMBR. L.I.K.
BORROW FILL
OVERHAUL
IN BY BORROW

1222
2460

120
120
120

120
120
120

120
120
120

120
120
120

230
2460
828
3354

1419
1935
3354

Final Const Profile 217A

F.A.P. 297-A

PLAN	DATE
NOTED	
ALIGNED CHECKED	
PT. OF WAY CHECKED	
NO.	

RECEIVED

PROFILE	DATE
NOTED	
CHECKED	
STRUCTURE NOTES AS LAYED	
NO.	

