FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	1	

REV TO SHOW ORIGINAL F.A.P. 272-B 10-28-37 E.V.B.

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. 272-B-R
STATE HIGHWAY NO. 6
PUEBLO COUNTY

SCALES OF ORIGINAL TRACINGS

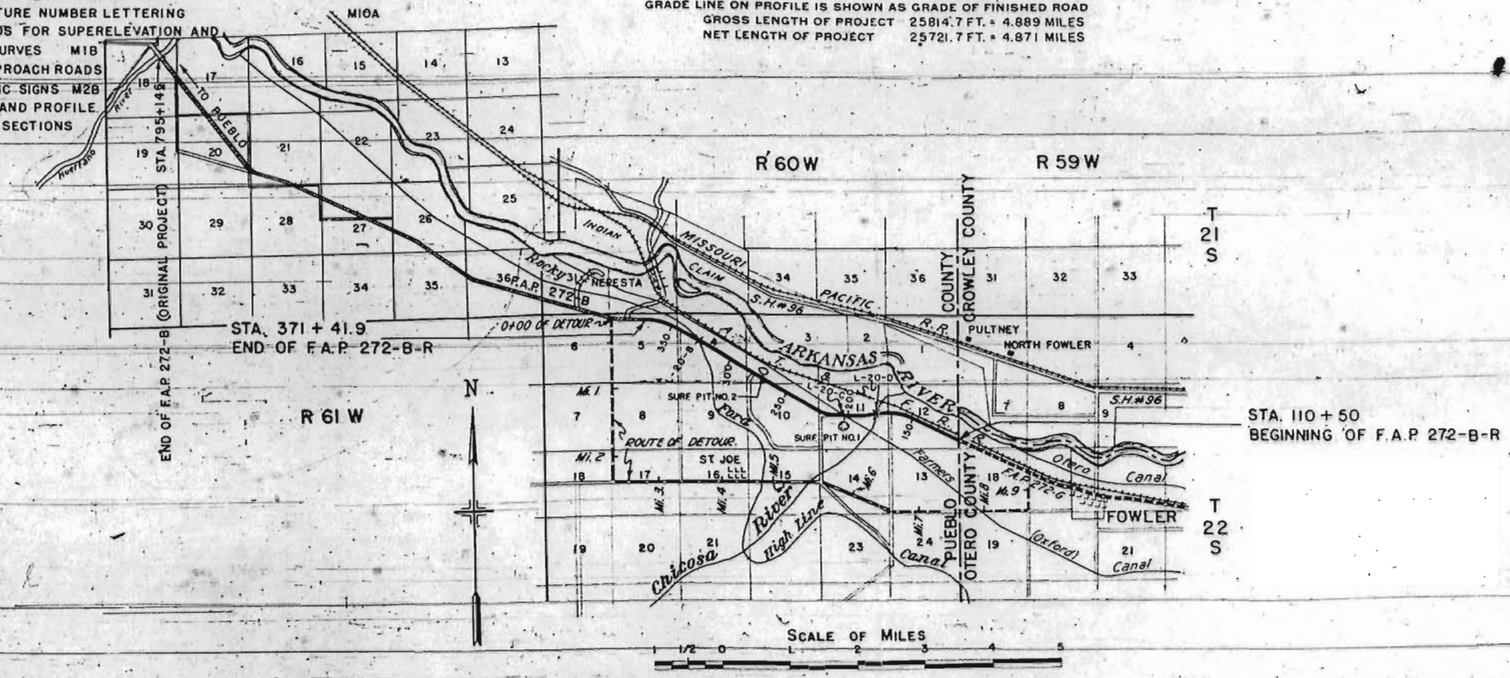
ON PLAN, 1 IN. = 100 FT.
ON PROFILE, 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT 25814.7 FT. = 4.889 MILES
NET LENGTH OF PROJECT 25721.7 FT. = 4.871 MILES

INDEX OF SHEETS

CONVENTIONAL SIGNS

CENTER LINE OF SURVEY
RIGHT OF WAY LINES
TOWNSHIP OR RANGE LINES
SECTION LINES
ONE QUARTER SECTION LINES
RAILROAD TRACKS
BARBED WIRE FENCE
POLE LINES



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:

Jas. D. Bell	Div. Eng'r.	Pueblo
J.C. Webber	Res. Engr.	Rocky Ford

RECOMMENDED FOR APPROVAL 10-5-37
ASSISTANT ENGINEER
APPROVED
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	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	2	

REV QUANTITIES 10/13/37 E.C.R.

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

GENERAL NOTES

This Project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department, adopted June 1, 1937.

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

All roadway excavation required to construct the project is to be obtained as indicated on the plans. Quantities involved beyond the limits of ditch as shown on the Typical Section, either noted on Profile as "Borrow" or on Tabulation of Structures as "Excavation" and "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 embankment requirements actually encountered in construction.

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

All side approach roads to the project shall be gravel surfaced with a 4" thickness of Gravel or Crushed Rock Surfacing extending approximately 30 feet from edge of highway. Estimated tonnage of surfacing material required in this operation is shown in "Tabulation of Structures."

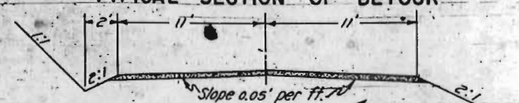
All curves are to be superelevated and widened as provided by the Standard Superelevation Sheet.

The entire project is to be cleared for the full width of the Right of Way and the cost thereof included in the Lump Sum price for Clearing and Grubbing the Entire Project.

All pipe cross culverts are to be provided with one headwall on the inlet end unless otherwise noted. Side drains do not require headwalls unless indicated on plans.

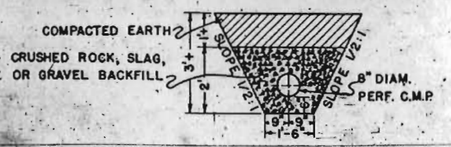
The route of detour for this project is shown on the title sheet. Through traffic will be diverted over the detour during construction of this project. The typical roadway section of the detour is shown below, and the approximate quantities involved in the construction of the detour are shown in the Tabulation of Structures on Sheet No. 5. Also, the Contractor shall at his own expense construct and maintain in safe condition all temporary approaches to and crossings of intersecting roads. The requirements of local traffic along project shall be adequately provided for by the Contractor at his expense. Repairs to bridges and culverts on the detour are to be made by State Forces.

TYPICAL SECTION OF DETOUR



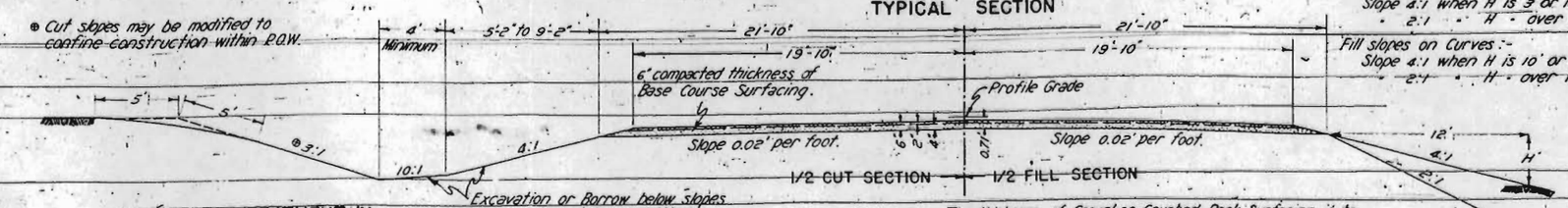
Surfacing material to be placed at the approximate rate of 500 tons per mile from 0+00 of detour to mile 5.4, and at the approximate rate of 100 tons per mile from mile 5.4 to mile 9.3.

DETAIL OF PERFORATED C.M.P. UNDERDRAIN (ITEM NO. 72 X) STA. 160+65 & STA. 166+00



PRICE BID PER FOOT OF PIPE COMPLETE IN PLACE TO INCLUDE BACKFILL AS SHOWN.

* Cut slopes may be modified to confine construction within R.O.W.



CUT SLOPE TREATMENT IN EARTH CUTS

The intersection of cut slopes with the existing ground line shall be rounded in earth cuts, beginning 5 feet back of the slope stake and extending 5 feet down the cut slope.

Where the cut slope length is less than 5 feet, reduce both lengths of slope treatment to the actual slope distance. Excavation quantities involved in rounded slope shall not be included in Unclassified Excavation.

TYPICAL SECTION

Fill slopes on Tangents:- Slope 4:1 when H is 3' or less. " 2:1 " H " over 3'.

Fill slopes on Curves:- Slope 4:1 when H is 10' or less. " 2:1 " H " over 10'.

The thickness of Gravel or Crushed Rock Surfacing is to be considered approximate only. Surfacing is to be placed in two courses at the rates indicated below:

4" bottom course surfacing - 87 tons per 100' of roadway.
2" upper " " - 41 " " " " "

EMBANKMENT MATERIAL NOT AVAILABLE ON R.O.W.

EMBANKMENT MATERIAL NOT AVAILABLE ON HIGHWAY RIGHT OF WAY IS ESTIMATED TO BE AVAILABLE FROM BORROW PITS AS INDICATED IN PROFILE DATA AND NOTED IN TABULATION BELOW.

THE ESTIMATED QUANTITIES AND OVERHAUL ARE TABULATED BELOW.

PLACE REQUIRED STATION TO STATION	QUANTITY REQUIRED CU. YDS.	OVERHAUL STA. YDS.	OVERHAUL YD. MI.	SOURCE OF MATERIAL
191+47 TO 192+35	333	3663.	24	BORROW PIT NO. 1 280' SOUTHEAST STA. 208+87 NE. 1/4 OF SW. 1/4 SEC. 11 T. 22 S. R. 60 W.
197+00 TO 201+95	2667	17736		
223+90 TO 226+99	1546	17006	96	
302+65 TO 308+45	2110	16247		BORROW PIT NO. 2 415' WEST STA. 314+12 NE. 1/4 OF SW. 1/4 SEC. 4 T. 22 S. R. 60 W.
310+00 TO 327+45	10566	67836	14	
TOTALS	17222	122488	134	

GRAVEL OR CRUSHED ROCK SURFACING

PLACE REQUIRED STATION TO STATION	QUANTITY REQUIRED TONS	OVERHAUL TON MILES	SOURCE OF MATERIAL
110+50 TO 158+63.5	6190	2720	GRAVEL PIT NO. 1 280' S.E. 208+87 N.E. 1/4 OF S.W. 1/4 SEC. 11 T. 22 S. R. 60 W.
158+63.5 TO 178+80	2650		
179+38.5 TO 203+75.3	3240		
204+00 TO 208+87	650		
208+87 TO 241+80	4000		
241+80 TO 272+00	3940		
272+00 TO 321+80	6500		GRAVEL PIT NO. 2 450' RIGHT 273+00 (ON R.O.W.)
321+80 TO 327+36	730	40	
328+29 TO 371+49	5630	3000	
DETOUR	3100	7700	GRAVEL PIT NO. 1 280' S.E. 208+87
APPROACH TO PROJECT	200	200	
TOTALS WITH FED. AID	36,630	13,460	
TOTALS WITHOUT FED. AID	200	200	

ABOVE QUANTITIES INCLUDE QUANTITIES FOR ROAD APPROACHES

SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	ITEM	UNIT	ROADWAY (FED. AID)	ROADWAY (NO FED. AID)	BRIDGES STA. 178+	BRIDGES STA. 203+	PROJECT TOTALS (FED. AID)	PROJECT TOTALS
10a	Clearing & Grubbing Entire Project.	Lump Sum	•				•	•
10x	" " " Detour	" "	•				•	•
11a	Removal of Portions of Present Bridge, Sta. 178+	" "			•		•	•
11b	" " " " " " 203+	" "				•	•	•
11c	Removal of 19 Structures.	" "	•				•	•
11d	Removing & Resetting Mail Boxes.	" "	•				•	•
11e	" " " Project Marker.	Each	1				1	1
11f	Remove Headwall & Cut keyway	Each	6				6	6
12a	Removing Fence.	Lin. Ft.	43,700				43,700	43,700
12c	Remove & Rebuild Picket Fence, Sta. 286+	Lump Sum	•				•	•
13c	Unclassified Excavation.	Cu. Yd.	106,800	200			106,800	107,000
13d	Cut Slope Treatment.	Mile	6.3				6.3	6.3
14a	Dry Rock Excavation (Structural)	Cu. Yd.	40				40	40
14b	" " - Common " "	" "	700		20	40	760	760
14c	Wet Rock " "	" "	30				30	30
14d	" " - Common " "	" "	450		20	40	510	510
18a	Station Yard Overhaul	Sta. Yd.	229,000				229,000	229,000
18b	Yard Mile Overhaul	Yd. Mi.	800				800	800
26a	Gravel or Crushed Rock Surfacing	Ton	36,700	200			36,700	36,900
26c	Overhaul of Surfacing.	Ton Mile	13,800	200			13,800	14,000
42a	Untreated Bridge Timber.	Mft. bm			1.411 1.8	.910 1.8	2.3	2.3
42b	Treated " "	"			11.708 18.8	2.491 3.9	27.7	27.7
43	Asphalt Plank Wearing Surface.	Sq. Ft.			1653	690	2343	2343
46a	Class "A" Concrete.	Cu. Yd.	62				62	62
46b	" "B" "	" "	5				5	5
47	Reinforcing Steel.	Lb.	5,700				5700	5700
63x	12" Corrugated Metal Culvert Pipe.	Lin. Ft.	66				66	66
63a	15" " " " "	" "	378				378	378
63b	18" " " " "	" "	152				152	152
63d	30" " " " "	" "	92				92	92
54x	10" Vitrified Clay Culvert Pipe.	" "	154				154	154
53a	15" Corrugated Metal Siphon Pipe.	" "	51				51	51
55b	18" " " " "	" "	274				274	274
55c	24" " " " "	" "	106				106	106
59	Relaying Pipe.	" "	646				646	646
60a	Treated Timber Piling.	" "			192	100	292	292
60e	Metal Pile Shoes.	Each			24		24	24
61a	Treated Sheet Piling.	Lin. Ft.			440	392	832	832
72x	6" Perforated Corrugated Metal Pipe Underdrain.	" "	535				535	535
74x	Timber Guard Posts.	Each	295				295	295
76c	Barbed Wire Fence With Metal Posts.	Lin. Ft.	34,000				34,000	34,000
76f	Combination Wire Fence With Metal Posts.	" "	12,500				12,500	12,500
76g	Barbed Wire Gates.	Each	27				27	27
76h	Driveway Gates.	"	8				8	8
76i	Walk Gates.	"	1				1	1
81a	Project Markers.	"	1				1	1
81b	Right of Way Markers.	"	38				38	38
82	Cattle Guards. (16' Roadway)	"	1				1	1
85b	18" Trash Guards.	"	5				5	5
85c	24" " "	"	2				2	2
89b	Drain Pipe (Timber Floor) (3'+2'-4")	"			6		6	6
102	Grading & Blading Detour.	Mile	9.3				9.3	9.3
126	12" Slide Headgate (5-Ft. Frame)	Each	1				1	1
	Force Account With Federal Aid							
	Detour Bridge Repairs by State Forces.	Lump Sum	•				•	•
	Obliterating Old Road.	" "	•				•	•
	Removing & Rebuilding Private Telephone Line, Sta. 171+ to 3+	" "	•				•	•
	Force Account Without Federal Aid.							
	Moving Straw Pile, Sta. 159+	Lump Sum		•				•
	Removing & Resetting Well & Pump System, Sta. 217+	" "		•				•

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	4	

R.O.W. MARKERS

STATION	NO. RIGHT	NO. LEFT
110+15		1
139+98	1	
151+00		2
162+25	1	
175+00	1	
176+00	1	
189+00	1	1
190+00	1	1
210+895		1
215+00		1
221+98		1
222+40		1
222+85	1	
254+45		1
255+16	1	
263+00	2	
282+55	2	1
285+35	2	
296+00	1	
297+00	1	
306+00	1	1
307+00	1	1
321+07	1	
323+30		1
343+00	1	1
344+15.2	1	1
349+10	1	
357+75	1	
366+38	1	
TOTAL	38	

TIMBER GUARD POSTS

STATION	NO. RIGHT	NO. LEFT
153+50 to 167+00	55	
178+66 to 178+77	4	4
179+41 to 182+52	16	16
191+00 to 193+00		33
203+11 to 203+32	6	6
204+03 to 204+14	4	4
210+00 to 229+75		80
297+00 to 300+50		15
323+22 to 327+33	20	20
328+32 to 328+93	6	6
TOTAL	295	

TABULATION OF STRUCTURES

(TABULATION CONTINUED FROM SHEET NO. 3)

STATION	DESCRIPTION	REMOVE STRUCT. NO.	REMOVE HEAD-WALLS NO. ⊕	EXCAVATION CU. YDS. EXCAV.	EXCAVATION CU. YDS. EMB	STRUCTURAL EXCAV. CU. YDS.	GRAVEL SURF. TONS	CONCRETE CU. YDS. CL A	CONCRETE CU. YDS. CL B	REINF. STEEL LBS.	COR. MET. CULV. PIPE LINEAR FEET 12"	15"	18"	30"	COR. MET. SIPHON PIPE LINEAR FEET 15"	18"	24"	RELAY PIPE LIN. FT.	TRASH GUARDS 18"	24"	MISCELLANEOUS
203+75.3 to 204+00	Widen Timber Pile Bridge. (Details Sheet No. 9)	(Quantities in Summary)																			
207+50 to 217+35	Ditch Change, Rt.			125																	
208+87	Relay & Extend Side Drain, Lt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Lt.			25			15														
214+95	Road Approach, Rt.			25			15														
	Remove Culvert, Rt.	1																			
215+00	Road Approach, Lt.			25			15														
217+30	Remove & Reset Well & Pump System, Lt.	(Force Account) (No Federal Aid)																			
220+00 to 222+15	Ditch Change, Rt.			50																	
222+15	Road Approach, Lt.				25		25														
222+60	Relay & Extend Side Drain, Rt.					5							10					30			
	Remove Headwalls, Rt.		2																		
	Road Approach, Rt.				50		25														
222+59	Extend 18"x18"x36' Conc. Box Culv. 22' Rt.					15		7.56		834											
	Outlet Ditch.			10																	
	Remove Headwall & Cut Keyway.																				Remove headwall & cut keyway.
227+49	Extend & Relay Side Drain, Lt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Lt.				20		15														
229+03 to 237+95	Ditch Change, Lt.			75																	
232+57	Relay & Extend Side Drain, Rt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Rt.			25			15														
235+30 to 243+35	Ditch Change, Rt.			200																	
243+38	Relay 15" Side Drain, Rt.					5												40			
	Remove Headwalls.		2																		
	Road Approach, Rt.			25			15														
243+44 to 248+35	Ditch Change, Rt.			100																	
245+85	Relay & Extend Side Drain, Lt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Lt.				25		15														
254+34	Relay & Extend Side Drain, Lt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Lt.				25		15														
257+75 to 270+81	Ditch Change, Rt.			260																	
262+15	Side Drain & Road Approach, Rt.			25		5	15					16									
	Remove Culvert, Rt.	1																			
262+23	115' C.M.P. Siphon, H-3' with 3-way outlet.	(Sheet 6)				85		4.0		343						120			2		
	Remove Siphon with Headwalls.	1																			
262+23 to 264+80	Ditch Change, Lt.				300																
270+75	Relay & Extend Side Drain, Lt.					5						12						18			
	Remove Headwalls.		2																		
	Road Approach, Lt.				25		15														
273+13	Relay & Extend Side Drain, Rt.					5						10						20			
	Remove Headwalls.		2																		
	Road Approach, Rt.				25		15														
279+90	Extend 2'x2'x34' Conc. Box Culv. 12' Rt. & 10 Lt.					25		12.6		1178											
	Inlet & Outlet.			10																	
	Remove 2 headwalls & Cut Keyways.																				Remove 2 hdwls. & cut keyways.
282+35	Relay 24" Side Drain, Lt.					5												30			
	Remove Headwalls.		2																		
	Road Approach, Lt.				25		15														
285+85 to 287+00	Ditch Change, Lt.			25																	
286+00 to 287+00	Remove & Rebuild Picket Fence, Lt.																				Remove & Rebuild Picket Fence.
286+90	Relay & Extend Side Drain, Lt.					5						10						20			
	Remove Headwalls.		2																		
	Side Drains & Road Approaches, Rt. & Lt.			30		5	30					30									
297+73	Relay & Extend Side Drain, Rt.					5						30						20			
	Remove Headwalls.		2																		
	Road Approach, Rt.				25		15														
299+44	Remove Side Drain, Rt. & Relay at Sta. 320+64																				
299+53 to 303+00	Ditch Change, Rt.			100																	
300+65	Road Approach, Rt.				25		15														
	Remove Culvert, Rt.	1																			

(TABULATIONS CONTINUED ON SHEET NO. 5)

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	19	

REV. APPROACH TO PROJECT — 10-13-37 — K.M.P.

NOTES:
Alignment and Grade shown on these plans are subject to change during construction, after approval by the Denver Office of the Department.
All suitable material excavated from culverts and ditches, and not used for ditch embankment is to be used in the roadway embankment.
All pole lines encroaching on construction are to be moved by the owners.
Right of Way Markers are tabulated on Sheet No. 4.
Fencing is . . . . . 3.
Timber Guard Posts are . . . . . 4.

S.E. 1/4 SEC. 12
T. 22 S. R. 60 W.

RANGE 60 W.
RANGE 59 W.

Sta. 110 + 95
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Reqd. 20 cu. yds. uncl. excav. for road approach, Lt.
Remove 2 headwalls.

Sta. 123+00
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 10 cu. yds. embankment for road approach, Lt.

Sta. 125+73
Extend 2'-2"x9.8' conc. box culvert 20' Lt.
Reqd. 5 cu. yds. uncl. excav. for inlet.
Remove headwall & cut keyway.

Sta. 110+50
Remove & reset project marker.

R.O.W. Marker to remain in place.

NOTE:
Projected line from Sta. 110+50 to 153+58.1 is 10' left of and parallel to surveyed line.

PROJECTED LINE TO BE CONSTRUCTED

Approach to project.

BEARING EQUATION
N. 62° 15' W. — F.A.P. 272-G BACK
EQUALS
N. 63° 47' W. — F.A.P. 272-B-R AHEAD

TO FOWLER

N. 62° 15' W.

R.O.W. Marker to remain in place.

N. 63° 47' W.

Mail Boxes.

15"x20' C.M.P. to remain in place.

A. T. & S. F. Ry.

STA. 110+55
BEGINNING OF F.A.P. 272-B.
(ORIGINAL PROJECT)

12" tile line 4' below present roadway to remain in place.

Sta. 129+20
Reqd. 25 cu. yds. embankment for road approach, Rt.

STA. 110+50
BEGINNING OF F.A.P. 272-B-R

STA. 110+55 (SURVEYED LINE) PUEBLO COUNTY — OTERO COUNTY

Sta. 111+30
Reqd. 24'-100' C.M.P. siphon, H=3.0'.
Remove 18'x18'-31.4' conc. box culvert.
Reqd. 2-24" trash guards.
Reqd. 10 cu. yds. uncl. excav. for inlet & outlet.

Sta 110+50 (No Federal Aid)
Reqd. 200 cu. yds. uncl. excavation & 200 tons surfacing for approach to project.

S.W. 1/4 SEC. 7
T. 22 S. R. 59 W.

PROFILE — SHEET 1 OF — SCALE 1" = 10' H, 1" = 10' V
SUPPLYED / PLOTTED / NOTE BOOK / NO. — CHECKED / M.I. KOTER / RECTURE ROUT-NO CK'ED. / RT OF WAY CHECKED

4360
4350
4340

-0.1%
Pl. 42.30
-0.45%
Pl. 47.80
-0.3%
Pl. 46.30
-0.4%
45.30
45.00
45.10
+0.2%
Pl. 44.70
400' V.C.
FL. 44.0
FL. 40.7

EXCAV.
EMB. 115%
BORROW
STA. YD. O'HAUL
YD. MI. O'HAUL
BORROW SOURCE

4480
4877
9959

110 115 120 125 130

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	20	

S.E. 1/4 SEC. 12

Sta. 132+19
Relay 15"x30' C.M.P. side drain, Lt.
Reqd. 20 cu. yds. embankment for road approach, Lt.

~~Sta. 133+50 to 139+35~~
Reqd. 120 cu. yds. uncl. excavation for ditch change, Lt.

Sta. 139+75 (11+3')
Extend 18"x50' encased siphon 55' Lt.
Reqd. 10 cu. yds. uncl. excavation for ditch change, Lt.
Remove 18"x10' encased siphon pipe & concrete inlet.
Relay 18"x18' C.M.P.
Reqd. concrete connection collar, as shown on Sheet No. 12.

Sta. 139+80 to 150+99
Reqd. 220 cu. yds. uncl. excavation for ditch change, Lt.

Sta. 146+60
Reqd. 18"x16' C.M.P. with one Type B headwall, Lt.
Reqd. 18"x30' C.M.P. side drain in ditch & 25 cu. yds. uncl. excav. for road approach, Lt.
Relay 18"x20' C.M.P. side drain Lt. & extend 10'.
Remove 18"x18"x16' wood & tile outlet box & 18"x18"x14' conc. box culv, Lt.

S.W. 1/4 SEC. 12
T. 22 S. R. 60 W.

Sta. 151+11
Relay 18"x20' C.M.P. side drain, Lt. & extend 10'
Remove 2 headwalls.
Reqd. 25 cu. yds. uncl. excavation for road approach, Lt.

Sta. 156+05
Relay 18"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. uncl. excavation for road approach, Lt.

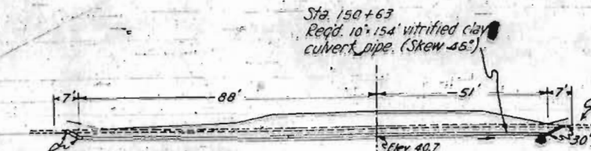
(WITHOUT FEDERAL AID)
Sta. 159+00 (Force Account)
Move straw pile, Lt.

Δ 33°26' L
D 2°
T 860.4'
L 1671.7'
R 2865.0'
PROJECTED & SURVEYED LINES

15"x30' C.M.P.
Irrigation Ditch
PROJECTED LINE TO BE CONSTRUCTED
S30°N. 63° 47' W
15"x20' C.M.P. to remain in place.
A. T. & S. F. Ry.
Mail box
Mail box
Open ditch.
P.C. 153+58.1 SURVEYED LINE
P.C. 153+73.2 PROJECTED LINE
R.O.W. LINE

Sta. 140+62
Reqd. 25 cu. yds. uncl. excavation for road approach, Rt.

Sta. 150+63
Reqd. 10"x154' vitrified clay culvert pipe. (Skew 45°)



Price bid per lin. ft. of Vitrified Clay Culvert Pipe shall include the cost of furnishing and placing 4-30° elbows.

Section on 45° skew.

N.W. 1/4 SEC. 12

PLAN

PROFILE

4360
4350
4340
45.10
+0.2%
0 FL. 41.5
P.I. 48.30
+0.1%
+0.2%
P.I. 48.80
P.I. 49.80
+0.3%
51.60
4360
4350
0 FL. 43.5
4340

EXCAV.		11,581			
ENB +15%		11,581			
BORROW					
STA. YD. O'HAUL		33,082			
YD. MI. O'HAUL		437			
BORROW SOURCE					
130	135	140	145	150	155	160

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	21	

Revised. 10-9-37 N.W.C.

S.W. 1/4 SEC. 12

S.E. 1/4 SEC. 11
T. 22 S. R. 60 W.

N.W. 1/4 SEC. 12

N.E. 1/4 SEC. 11

Δ 33°26'
D 20°
T 360.4'
L 1671.1'
R 2865.0'

PROJECTED LINE & SURVEYED LINE.

PROJECTED LINE TO BE CONSTRUCTED.

N. 63° 47' W. 330.4'

A.T. & S.F. Ry.

Pond

8" perforated C.M.P. Underdrain.

Old Ditch

Present Road

SURVEYED LINE.
PROJECTED LINE.

P.I. 162+18.5
Bk. 162+33.6

Sta. 162+17 to 164+56
Reqd. 3300 cu. yds. embankment & 1900 sta. yds. overhaul for filling pond, Lt.
Embank. material to be obtained on Rt. side of highway between Sta. 169 & 175 without royalty.

Sta. 160+65
Reqd. 30"x 92' C.M.P. cross culvert & 25 cu. yds. uncl. excavation for inlet & outlet.

Sta. 160+36
Remove 2'-2"x 36' Conc. Box Culv., 50' Rt.

Sta. 160+65 to 166+00 (140' lt.)
Reqd. 8"x 535' perforated C.M.P. Underdrain as shown on Sheet No. 2.

Sta. 166+79
Reqd. 18"x 30' C.M.P. side drain & 20 cu. yds. uncl. excavation for road approach, Rt.

EQUATION

170+44.9 BACK
170+66.1 AHEAD

P.I. 59.40

11°35' 170+29.8 SURVEYED LINE.
70°56'
17°12'
107. 170+43.9 BACK
PROJECTED LINE
170+66.1 AHEAD
102.2

Sta. 169+37
Reqd. 50 cu. yds. uncl. excavation for road approach, Lt.

Sta. 171+50 to 314+75 (FORCE ACCOUNT)
Remove & rebuild private telephone line off R.O.W. on Rt.

Sta. 182+75
Reqd. 25 cu. yds. embankment for road approach, Lt.

S. 82° 47' W.

Irrigation Ditch.

Sta. 178+80 to 179+38.5
Widen timber pile bridge, as per details shown on sheets No. 7 & 8.
(3 spans @ 19'-0".)

STRUCTURE NOTES FOR BRIDGE, STA. 178+80 TO 179+38.5

PRESENT STRUCTURE:
Span — 3 @ 19'-0"
Clear roadway — 20'-0"
Clear waterway — 800 sq. ft.
Type of Superstructure — Concrete Floor, Timber Stringers.
Type of Substructure — Piles
Requirements as to removal — Widen.

STREAM DATA:
Drainage area in Sq. Miles — 20
Velocity during high water —
Elevation of:
Maximum high water —
Normal stage — 4336.81
Low water — 4333.51
Stream bed —
Drift — Small drift in Flood
Scour — Medium

STRUCTURE NO. L-20-D.
PROPOSED STRUCTURE:
Position referred to present structure — Same
Span — 3 @ 19'-0"
Clear roadway — 24'-0"
Clear waterway — 800 sq. ft.
Type of Superstructure — Laminated Floor.
Type of Substructure — Piles.
Detour Structure requirements —
R.R. Siding — Fowler. Haul to bridge site — 2 3/4 Mi.

NEARBY STRUCTURES ON SAME STREAM:
Location —
Waterway —
Record during floods —

PLAN — SURVEYED / PLOTTED / NOTE BOOK CHECKED / ALL NOTED / STRUCTURE NOTES RECORDED

PROFILE — SURVEYED / PLOTTED / NOTE BOOK CHECKED / ALL NOTED / STRUCTURE NOTES RECORDED

4360
4350
4340

+0.3%
+0.8%
+0.8814%
+7.8
-2.0%
+0.2%
+1.2%

51.60
52.03
52.70
51.90
F.L. 43.5
56.70
57.35
57.64
54.40
50.40
48.23
47.70
47.40
49.50
50.40
49.90
43.40
43.40

200' V.C.
500' V.C.
300' V.C.
400' V.C.

Approximate grade of 8" perforated C.M.P. Underdrain.

EXCAV.	213		112					2263				5778		158		182							118
EMB. 1.3%	213			3112			2263					8448								5388			
BORROW			3000																				
STA. YDS. HAUL			360			3														43,022			
YDS. MI. O'HAUL																				149			
BORROW SOURCE	Pit 200' lt. of Sta. 165+00.																						

160 165 170 175 180 185 190

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	22	

(WITHOUT FEDERAL AID)
Sta. 217+30 (FORCE ACCOUNT)
Remove & Reset well & pump system, ea.

S.E. 1/4 SEC. 11

S.W. 1/4 SEC. 11
T. 22 S. R. 60 W.

N.E. 1/4 SEC. 11

N.W. 1/4 SEC. 11

N

BORROW PIT NO. 1
SURFACING PIT NO. 1

OXFORD FARMERS CANAL

Sta. 195+94
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. embankment for road approach, Lt.

Sta. 203+12
Reqd. 50 cu. yds. embank. for road approach, Lt.

Sta. 208+87
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. uncl. excav. for road approach, Lt.

Sta. 215+00
Reqd. 25 cu. yds. uncl. excav. for road approach, Lt.

15"x20' C.M.P. to remain in place.

P.I. 194+98.7

P.I. 229+52.6

R.O.W. LINE

Mail Box

S. 82° 47' W.

S. 89° 50' W.

N. 61° 32' W.

1305 — 190 — 195 — 200 — 810 — 205 — 210 — 1290 — 215 — 220

Sta. 194+10
Relay 15"x20' C.M.P. side drain, Rt. & Extend 10'.
Remove 2 headwalls.
Reqd. 15 cu. yds. embank. for road approach, Rt.

P.C. 191+40.8

Δ 7°03' R
D 1°
T 352.9'
L 705.0'
R 5730.0'

Sta. 194+36 to 203+45
Reqd. 220 cu. yds. uncl. excavation for ditch change, Rt.

Sta. 202+04
Reqd. concrete division box, Rt. as shown on Sheet No. 6.
Remove 2 concrete checks and tile pipes, Rt.

EQUATION
P.I. 198+45.8 BACK
198+48.0 AHEAD

Sta. 202+16
Reqd. 15"x20' C.M.P. side drain & 1 Type B headwall, Rt.
Remove 10"x16.5' C.M.P., Rt.
Reqd. 50 cu. yds. embank. for road approach, Rt.
C.M.P. to be connected to conc. division box at Sta. 202+04.

Sta. 203+45 to 204+11
Reqd. 12"x66' C.M.P. side drain, Rt. in irrigation ditch and type "A" headwall at inlet.
Remove 10"x65' tile pipe, Rt.

Sta. 203+75.3 to 204+00
Widen timber pile bridge as per details shown on Sheet No. 9. (1-Span @ 23').

Sta. 207+50 to 217+35
Reqd. 125 cu. yds. uncl. excav. for ditch change, Rt.

Sta. 203+65
Reqd. 25 cu. yds. embank. for road approach, Rt.

Sta. 204+11
Reqd. 12" slide headgate as per details shown on Sheet No. 6.
Headgate shall be shop riveted or welded to 12"x66' C.M.P. reqd. at Sta. 203+45 to 204+11
Remove headgate, Rt.

P.C. 210+89.5

Sta. 214+95
Reqd. 25 cu. yds. uncl. excav. for road approach, Rt.
Remove 15"x20' C.M.P.

Δ 26°18' R
D 1°30'
T 863.1'
L 1886.7'
R 3820.0'

Sta. 220+00 to 222+15
Reqd. 50 cu. yds. uncl. excav. for ditch change, Rt.

PROFILE

4390 — 4380 — 4370 — 4360 — 4350 — 4340

400' V.C. — +0.2% — +1.2% — +2.222% — +2.2% — -0.6% — +0.7% — 600' V.C. — 400' V.C.

P.I. 189.90 — 30.40 — 52.30 — 57.10 — 60.01 — P.I. 59.50 — 63.94 — P.I. 75.00 — 81.60 — 86.10 — 86.40 — P.I. 88.20 — 84.00 — 83.45 — P.I. 82.40

STRUCTURE NOTES FOR BRIDGE, STA. 203+75.27 TO 204+00
PRESENT STRUCTURE:
Span — 1 @ 23'-0"
Clear roadway — 20'-0"
Clear waterway — 120 Sq. ft.
Type of Superstructure — Conc. Floor - Tr. Timber Stringers.
Type of Substructure — Tr. Piles
Requirements as to removal — Widen

STREAM DATA:
Drainage area in Sq. Miles —
Velocity during high water —
Elevation of:
Maximum high water — 4366.6' Low water — 4362.61
Normal Stage — 4366.61 Stream bed —
Drift — None.
Scour — None.

STRUCTURE NO. L-20-C.
PROPOSED STRUCTURE:
Position referred to present structure — Same
Span — 1 @ 23'-0"
Clear roadway — 20'-0"
Clear waterway — 120 Sq. ft.
Type of Superstructure — Laminated Floor.
Type of Substructure — Piles.
Detour Structure requirements —
R.R. Siding — Fowler. Haul to bridge site — 3 Mi.

NEARBY STRUCTURES ON SAME STREAM:
Location —
Waterway —
Record during floods. —

BALANCE FACTOR										
EXCAV.	→ 101 →	1267	→ 565 →	192	397	5386				
EMB. + 15%	→ 434 →	1267	→ 3232	720	469	5386				
BORROW	→ 333 →		→ 2667							
STA. YD. O'HAUL	→ 3683 →		→ 17736			9751				
YD. MI. O'HAUL	→ 24 →									
BORROW SOURCE	← Pit 280: Southeast Sta 208+87		Pit 280: Southeast Sta 208+87							

BRIDGE

190 — 195 — 200 — 205 — 210 — 215 — 220

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	23	

S.W. 1/4 SEC. 11 — S.E. 1/4 SEC. 10 — N.E. 1/4 SEC. 10 T. 22 S. R. 60 W.

Sta. 222+15
Reqd. 25 cu. yds. embank. for road approach, Lt.

P.O.W. LINE S. 89° 50' W. 162.8'

15"x62' C.M.P. to remain in place.

Sta. 227+49
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 20 cu. yds. embank. for road approach, Lt.

Sta. 229+03 to 237+95
Reqd. 75 cu. yds. uncl. excav. for ditch change, Lt.

Sta 245+85
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. embankment for road approach, Lt.

2 Mail Boxes.

Δ 28°18' R
D 1°30'
T 963.1'
L 1886.7'
R 3820.0'

Sta. 222+50
Relay 18"x38' C.M.P. side drain, Rt. & extend 10'.
Remove 2 headwalls.
Reqd. 50 cu. yds. embank. for road approach, Rt.

2652.2' TO N.W. COR. SEC. 11.

Sta. 222+59
Extend 18"x18"x36' Conc. box culv., Rt. 22'.
Reqd. 10 cu. yds. uncl. excav. for outlet ditch.
Remove headwall & cut keyway.

Sta. 232+57
Relay 15"x20' C.M.P. side drain, Rt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. uncl. excav. for road approach, Rt.

Sta. 235+30 to 243+35
Reqd. 200 cu. yds. uncl. excav. for ditch change, Rt.

Sta. 243+38
Relay 15"x40' C.M.P. side drain, Rt.
Remove 2 headwalls.
Reqd. 25 cu. yds. uncl. excav. for road approach, Rt.

Sta. 243+44 to 248+35
Reqd. 100 cu. yds. uncl. excav. for ditch change, Rt.

15"x40' C.M.P.

Mail Box

EQUATION

Pt. 229+76.2 BACK
232+30.0 AHEAD

N.W. 1/4 SEC. 11

EXCAV.	992	878	582	2783
ENB. +15%	1936	878	582	8337
BORROW	1546			5554
STA. YD. O'HAUL	17,006			
YD. MI. O'HAUL	96			
BORROW SOURCE	Pit 2 Rod Southeast Sta 208+87			Widened Cuts on P.O.W.

400' V.C. — 200' V.C. — 400' V.C.

+0.7% — +0.952% — +0.1%

0.6%

Fl. 82.80 — Fl. 83.45 — Fl. 84.20 — Fl. 87.00 — Fl. 87.70 — Fl. 87.76 — Fl. 88.65 — Fl. 91.00 — Fl. 92.47 — Fl. 92.90 — Fl. 93.10

4390 — 4380 — 4370

220 — 225 — 230 — 232 — 235 — 240 — 245 — 250

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	24	

N.W. 1/4 SEC. 10
T. 22 S. R. 60 W.

Sta. 254+34
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Req'd. 25 cu. yds. embank. for road approach, Lt.

Sta. 262+23 to 264+80
Req'd. 300 cu. yds. embank. for diked ditch, Lt.

Δ 1°45' L
D 0°30'
T 175.0'
L 350.0'
R 11,460.0'

Sta. 270+75
Relay 15"x18' C.M.P. side drain, Lt. & extend 12'.
Remove 2 headwalls.
Req'd. 25 cu. yds. embank. for road approach, Lt.

Pl. 253+07.9
Mail box
N. 61° 52' W.
#1260
PC. 251+16.2
PT. 254+99.5
Δ 1°55'R
D 0°30'
T 191.7'
L 383.3'
R 11460.0'

Sta. 257+75 to 270+81
Req'd. 260 cu. yds. uncl. excav. for ditch change, Rt.

Sta. 262+15
Req'd. 15"x16' C.M.P. side drain & 25 cu. yds. uncl. excav. for road approach, Rt.
Remove 12"x15' tile drain, Rt.

Sta. 262+23 (H=3.0')
Req'd. 18"x115 C.M.P. siphon with 3-way outlet, as shown on Sheet No. 6.
Remove 18"x40' encased siphon with headwalls.
Req'd. 2-18" trash guards.

PC. 269+12.0
Mail box
N. 59° 57' W.
#1250
PI. 270+82.0
PT. 272+67.0
Mail box
#780
N. 61° 42' W.
#1240

Sta. 273+13
Relay 15"x20' C.M.P. side drain, Rt. & extend 10'
Remove 2 headwalls
Req'd. 25 cu. yds. embank. for road approach, Rt.

Sta. 279+90
Extend 2'-2"x34' conc. box culvert 12, Rt. 8.0°, Lt.
Remove headwalls & cut keyways. (2)
Req'd. 10 cu. yds. uncl. excav. for inlet & outlet.

GRAVEL PIT NO. 2 (OLD NO. 56)

N.E. 1/4 SEC. 10

S.W. 1/4 SEC. 3

4400
4390
4380
4370

94.40
+0.1%
Pl. 95.80
Pl. 88.8
95.70
95.72
95.60
200' V.C.
-0.2%
94.50
Pl. 94.10
92.80
-1.8%
88.30
84.30
400' V.C.
400' V.C.
80.10
78.70
0.0%
Pl. 78.70
Pl. 72.7
Pl. 78.37

EXCAV		1308		1310		1405		
EMB. +15%		1308		1310		8005		
BORROW						6507		
STA. YD. O'HAUL								
YD. MI. O'HAUL								
BORROW SOURCE						Widened Cuts on R.O.W.		

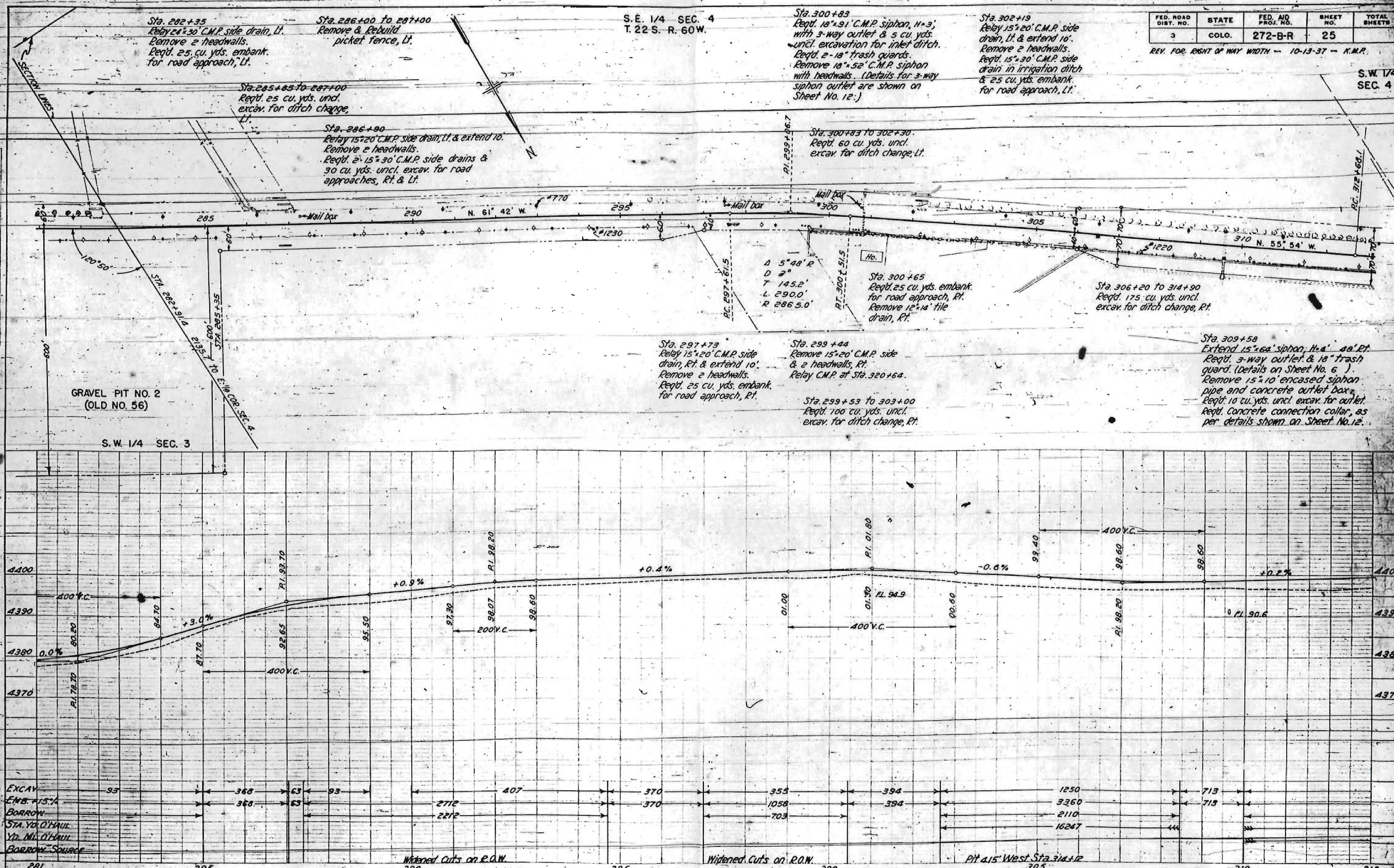
250 255 260 265 270 275 280

PLAN
DATE
BY
NOTES
SITE BOOK
NO.
ALIGNMENT CHECKED
BY OFFICE ENGINEER

PROFILE
PLOTTED
GRADES CHECKED
SITE BOOK
NO.
BY FIELD ENGINEER
BY OFFICE ENGINEER

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	25	

REV. FOR RIGHT OF WAY WIDTH — 10-13-37 — K.M.P.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	26	

Colorado State Highway

S.W. 1/4 SEC 4
T. 22 S. R. 60 W.

Sta. 314+12
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'
Remove 2 headwalls.
Reqd. 25 cu. yds. embank. for road approach, Lt.

BORROW PIT NO. 2

Δ 3°37'
D 1°
T 180.9'
L 361.7'
R 5730.0'

PC 312+68.1
PT 316+29.8

ROCKY FORD HIGHLINE CANAL

N. 55° 54' W.

315 +60 320 +10 325

N. 59° 31' W.

330 +50 335 +00 340

N.E. 1/4 SEC. 5

178.5' to E¼ Cor. Sec. 5

PC 341+15.2

259.5' to N.W. Cor. Sec. 4

15"x42" C.M.P.

Sta. 314+75
Relay 15"x42' C.M.P. side drain, Rt.
Remove 2 headwalls.
Reqd. 40 cu. yds. embank. for road approach, Rt.

PI 314+49.0

Sta. 315+20 to 323+70
Reqd. 175 cu. yds. uncl. excav. for ditch change, Rt.

Sta. 317+00
Extend 18"x 18'-5.0 conc. box culvert 19' Rt. & 15' Lt.
Reqd. 10 cu. yds. uncl. excav. for inlet & outlet.
Reqd. headwall on 12" tile pipe.
Remove 12"x 34' tile pipe with headwall, Rt.
Remove 4 headwalls & cut keyways.

Sta. 320+64
Relay 15"x20' C.M.P. side drain, Rt. extend with C.M.P. removed at Sta. 299+44.
Remove 2 headwalls.
Remove 12"x 10' tile drain, Rt.
Reqd. Cattle guard, Rt.
Remove Cattle guard, Rt.
Reqd. 15"x 30' C.M.P. in irrig. ditch, Rt. & 25 cu. yds. embank. for road approach, Rt.

Sta. 326+00
Reqd. 175 cu. yds. embank. for road approach, Rt.

STA. 327+36

OMITTED FROM PROJECT

STA. 328+29

Omitted From Project
Sta. 327+36 to 328+29
Concrete Arch Bridge - Luten type - 1 span @ 65'.
Structure No. L-20-B.

Widened in 1932 under S.P. 819 to 30' between curbs.

Sta. 340+09
Relay 15"x20' C.M.P. side drain, Rt. & extend 10'.
Remove 2 headwalls.
Reqd. 25 cu. yds. embank. for road approach, Rt.

S.E. 1/4 SEC. 4

N.W. 1/4 SEC. 4

4420
4410
4400
4390

400' V.C.
200' V.C.
300' V.C.

-0.2%
+0.2%
+0.4%
+2.0%

98.20 99.50 99.75 00.10 01.30 03.10 06.30 10.30 12.47 13.00 12.40 12.20 12.40 13.60 13.75 14.20

P.I. 99.70
P.I. 94.0
P.I. 02.30
P.I. 13.30
P.I. 12.00
P.I. 13.90

Excav.	3592	
Emb. +15%		14,038
Borrow		10,566
Sta. Yds. O'Haul		67836
Yds. Mi. O'Haul		14
Borrow Source		

Pit 415' West Sta. 314+12

BRIDGE

312 315 320 325 330 335 340 344

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	27	

N.E. 1/4 SEC. 5
T. 22 S. R.60 W.

Sta. 344+88
Relay 18"x30' C.M.P. side drain, Lt.
Remove 2 headwalls.
Reqd. 25 cu. yds. embank. for road approach, Lt.

1179.5' to E¼ cor. Sec. 5

PC 344+05.2

Sta. 344+88
Reqd. 15"x30' C.M.P. side drain & 30 cu. yds. embankment for road approach, Rt.

1259.5' to N.W. cor. Sec. 4

N.W. 1/4 SEC. 4

Δ 27°16' L
D 1°
T 1389.8'
L 2726.7'
R 5730.0'

Sta. 360+00
Reqd. 15"x30' C.M.P. side drain & 25 cu. yds. embankment for road approach, Lt.

PI 358+05.0

Present Road

R.O.W. LINE

Sta. 371+41.9
Reqd. Project Marker.

PT 371+41.9

N.W. 1/4 SEC. 5

N66°47'W.

TO PUEBLO

394.7' to N. ¼ cor. Sec. 5

STA. 371+41.9
END OF F.A.P. 272-B-R
EQUALS STA. 372+00 OF
F.A.P. 272-B (ORIGINAL PROJECT)

1225

SEC. 32

PI 17.60
PI 19.40
PI 21.00
21.58

+0.4%
+0.3%
+0.2%
+0.1%

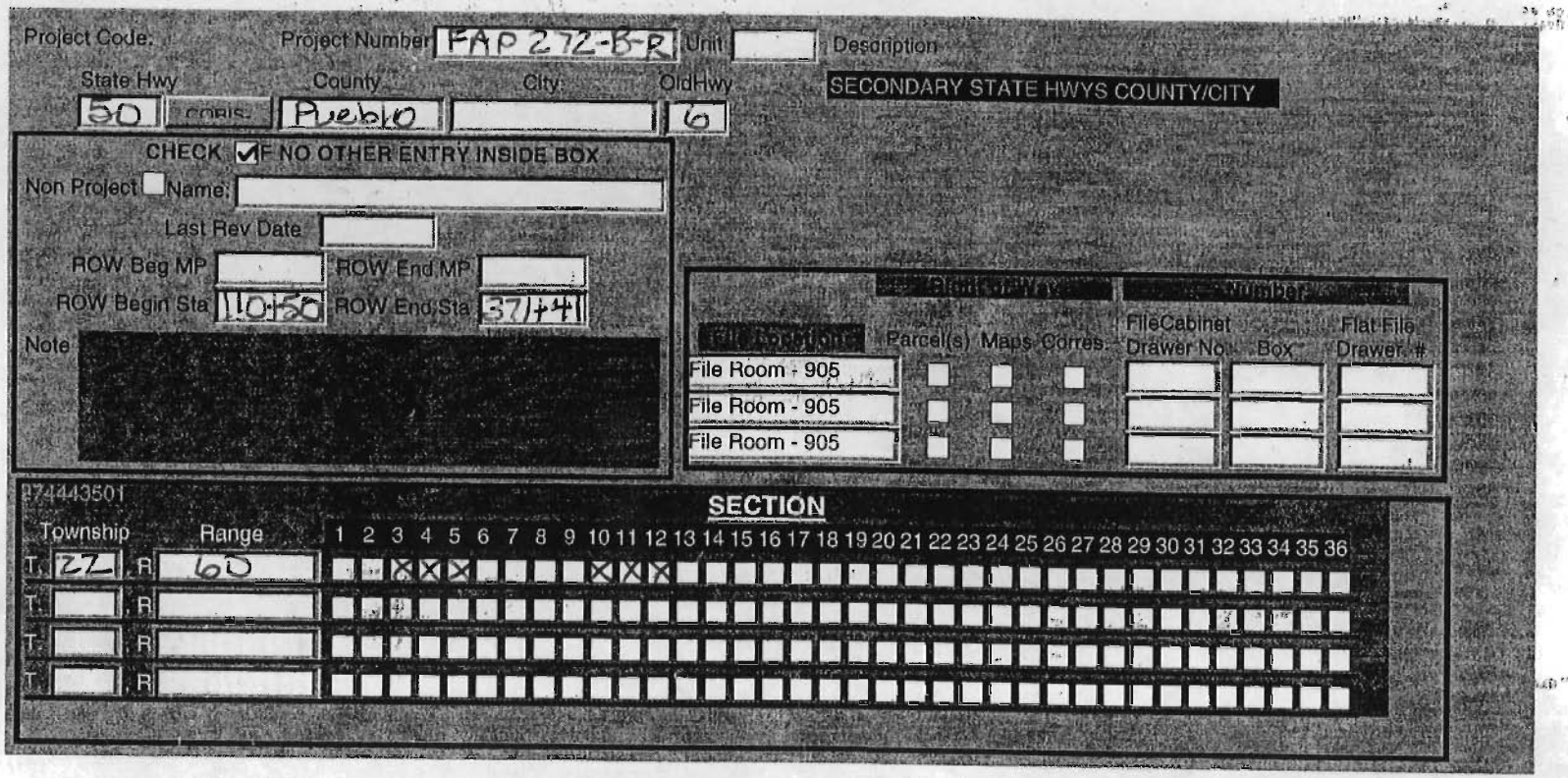
4430
4420
4410

Excav.	2909
Emb. 15%	13,160
Borrow	10,251
Sta. Yds. O'Haul	
Yds. Mi. O'Haul	
Borrow Source	

968
968

Widened Cuts on R.O.W.

343 345 350 355 360 365 370


Project Code:
Project Number FAP 272-B-R
Unit
Description
State Hwy
County
City
OldHwy
50
CORIS
Pueblo
6
SECONDARY STATE HWYS COUNTY/CITY
CHECK IF NO OTHER ENTRY INSIDE BOX
Non Project
Name:
Last Rev Date
ROW Beg MP
ROW End MP
ROW Begin Sta 110+50
ROW End Sta 371+41
Note
File Room - 905
File Room - 905
File Room - 905
Parcel(s)
Maps
Corres.
FileCabinet Drawer No.
Box
Flat File Drawer #
274443501
SECTION
Township
Range
T. 22 R. 60
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
8	COLO.	272 B	1	63

Ann for F.A.P. 272 B, R.M. 1-93-90-1.61

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. 272 B.
STATE HIGHWAY NO. 6.
PUEBLO CO.

INDEX OF SHEETS

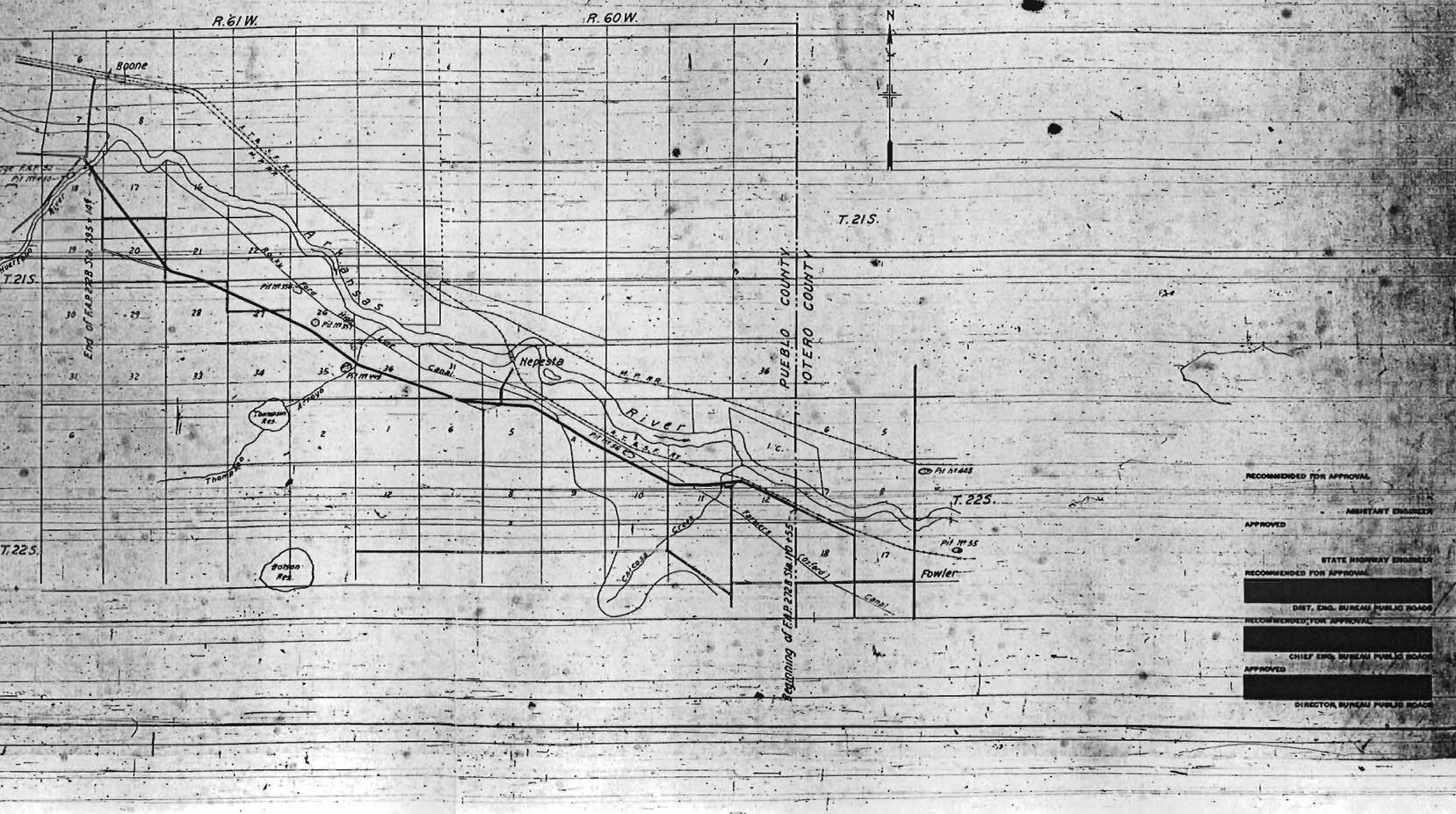
SCALES

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 68219.5 FT. = 12.920 MLS.
NET LENGTH OF PROJECT 68219.5 FT. = 12.920 MLS.

CONVENTIONAL SIGNS

- Center line of highway.
- Section line.
- Right of way line.
- Fence line.
- Telephone pole line.
- Power pole line.



RECOMMENDED FOR APPROVAL
ASSISTANT ENGINEER
APPROVED
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
DIST. ENG. BUREAU PUBLIC ROADS
RECOMMENDED FOR APPROVAL
CHIEF ENG. BUREAU PUBLIC ROADS
APPROVED
DIRECTOR, BUREAU PUBLIC ROADS

SE¼ SEC. 12 T. 22S. R. 60W.

NW¼ SEC. 12 T. 22S. R. 60W

NE¼ SEC. 11 T. 22S. R. 60W.

Revised 7-23-24 A.J.S.
" 10-31-24 A.J.S.
Revised 6-1-25
Rev. scales Correct 2-26 A.J.S.

N. 63° 47' W.

Excavation
Embankment +15%
Borrow Pit

96 Cu.Yd
96 C.Y.

1038 C.Y. Emb.
1008 Culvert Bar.

1958 Cu. Yd. Exc.

2837 Cu. Yd. Emb.

4074 Cu Yd Emb.

1454 Cu. Yds Borr. n

Alfred Christensen
L.O.A.

Alfred Christensens
0.44 A.

Gravel Banks

Grade of Borrow Pit

Ditch El. 4427

Ditch El. 4444

Ditch El. 4427

Ditch Elev. 4437

Ditch Elev. 4427

Sta 110+55 Beginning of FAP 272-B.

Sta 111+00 Regd 13'-20" CMP with headwalls.

Sta 111+39½ 24" dia. Culv. 38 long Regd 38'-0" CMP Conc. Bx. Culv.

Sta 121+10 Regd 15'-20" CMP with headwalls

Sta 121+50 Regd 15'-20" CMP with headwalls

Sta 125+31 14" Wt. Cast Culv. to be removed Regd 12'-3" CMP Box Culvert.

Sta 125+32 12" Vit clay drain to Rmain in place

Sta 130+15 Regd 15'-20" CMP with headwalls.

Sta 135+11 14" Wt. Cast Syphon to be removed

Sta 135+40 Regd 18"-40' Syphon H-10

Sta 136+72 15" Wt. Cast Syphon Regd 18"-40' Syphon H-10

Sta 137+10 Regd 15'-20" CMP with headwalls

Sta 139+50 Regd 15'-20" CMP with headwalls

Sta 140+87 Regd 15'-20" CMP with headwalls

Sta 145+11 14" Wt. Cast Syphon to be removed

Sta 150+10 Regd 15'-20" CMP with headwalls

Sta 150+39 Required 15'-20" CMP with headwalls

Sta 135+40 12" Vit clay drain to remain in place

Hub 3' from R.R. Rail

Hub 8' from Pk Rail 1360

Hub 3' from Pk Rail 1362

Pk Rail 1368

Hub 3' from Pk Rail 1362

Hub on Phone Line

Phone Pole 1352

Hub on Pk Line

Hub on Pk Line

PP B54

PP B51

PP B50

PP B49

PP B45

PP B44

PP B41

PP B40

POT 127+00

POT 137+00

BM Phone Pole 1360
Elev 4348.90

BM Phone Pole 1360
Elev 4344.51

BM Phone Pole 1354
Elev. 4332.38

B.M. PP B40
Elev. 4351.21

P.I. 4332.02

Ditch Elev. 4337
5181

5202

5202

5120

4437

4417

4377

4.0%

-0.30%

0.0%

+0.206%

+0.0692%

+0.40%

+2.60%

+0.37%

0.12%

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850

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830

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790

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770

760

750

740

730

720

710

700

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680

670

660

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630

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540

530

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490

480

470

460

450

440

430

420

410

400

390

380

370

360

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280

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	272 B	18	

Revised 7-23-24 AJS
" 8-28-24 AJS
" 10-31-24 AJS
Revised to conform to 24 ST. APP.

NE¼ SEC. 11 T. 22 S. R. 60 W.

Robert Fullhauer
5.29 A.

S. 82° 48' W.

42' span Steel Girder Bridge 15'6" wide

Present Traveled Road to Pueblo

Sta 179+50 - Reqd. Channel Change involving 6000 cu. yds excavated material to be used for approaches and to be used in roadway fill

Proposed Channel

CHICOSA CREEK

Sta 179+50 42' Span Steel Girder Bridge - Reqd. 30'0" Span Steel Pile Bridge See Sheet No. 3

NE¼ SEC. 11 T. 22 S. R. 60 W.

Sta 183+08.5

Sta 185+50 15"x20' CMP with headwalls

N 33° E. to ∠ in

Revised 7-23-24 AJS
" 8-28-24 AJS
" 10-31-24 AJS
Revised to conform to 24 ST. APP.

Sta 180+43 15"x20' CMP with headwalls

Sta 181+38.9

Sta 184+43 15"x20' CMP with headwalls

Δ = 7° 08' R
D = 2° 00'
T = 178.6
L = 356.7
R = 2864.9

PT = 186+81.6

Private Phone Line on Poles

NW¼ SEC. 11

STRUCTURE NOTES FOR BRIDGE AT STA 179+50

Present Structure
- Span - 42 Ft.
- Clear Roadway - 15'6"
- Clear Waterway - 630 sq. ft.
- Type of Superstructure - Steel Girder
- Type of Substructure
- Requirements as to Removal - Complete

Proposed Structure
- Position Referred to Present Structure - 100' Upstream
- Span - 3 @ 19'-0"
- Clear Roadway - 24'0"
- Clear Waterway - 900 sq. ft.
- Type of Superstructure - Wood Stringers, Concrete Floor
- Type of Substructure - Wood Piles and Caps

Detour Structure.
- Approximate Requirements - Use DJ Structure

Available R.R. Siding
- Name - Fowler
- Haul to Bridge Site - 2½ miles.

Nearby Structures on Same Stream.
- Location
- Waterway
- Records During Floods

Stream Data
- Drainage Area in Sq. mi.
- Velocity during high water.
- Elevation of:
  - Max. High Water, Reported - 4349.11
  - Date
  - Normal high water
  - Normal Stage - 4336.81
  - Extreme Low Water - 4333.51
  - Stream Bed - 4329
- Drift Carried During Floods - Small
- Probable Depth of Scour During Floods.
- Banks show signs of wash and breaking away.

Grade of Borrow Pit

Silt & Adobe
Dirt & Adobe
Clay
Sand & Gravel
Gravel, Coarse
Clay
Gravel, Fine
Clay Shale
Yellow clay 12' (hard)
Shale 2'

3580 C.Y. EXC.
1512 Sq. Yd. Overhaul
4529 C.Y. Emb.
5596 Cu. Yd. Bor.
66 C.Y. EXC.
N 44 Cu. Yd. Bor.
2803 Cu. Yd. Emb.

NW¼ SEC. 11 T. 22 S. R. 60 W.

Sta 202+25 15"x20' CMP with headwalls

S. 86° 56' W.

U.S.H.

Hole No. 3

Hole No. 4

Wood Bridge over Small 33' Road 23 Span Timber Trestle Sta 203+75 to 207+98 See Sheet No. 3

Sta 208+43 15"x20' CMP with headwalls

Sta 210+20 - 14 in Road S. 30° W. CMP with Headwalls

Equation 4+09.81 Back = 212+32.0 Ahead

Sta 225+30.6 36"CMP with headwalls

Sta 225+00 18"x35" CMP with headwalls

Sta 225+30 18"x35" Culvert to be removed

NE¼ SEC. 10 T. 22 S. R. 60 W.

N. 66° 24' W.

STRUCTURE NOTES FOR BRIDGE AT STA 203+75

Present Structure
- Span - 35'-0"
- Clear Roadway
- Clear Waterway
- Type of Superstructure - Wood
- Type of Substructure
- Requirements as to Removal - To be Removed

Proposed Structure
- Position Referred to Present Structure - Same.
- Span - 1 @ 23'-0"
- Clear Roadway - 20'-0"
- Clear Waterway - 120 sq. ft.
- Type of Superstructure - Concr. Floor, Wood Stringers.
- Type of Substructure - Wood Piles and Caps.

Detour Structure
- Approximate Requirements
- Available R.R. Siding
- Name - Fowler
- Haul to Bridge Site - 3 miles

Nearby Structures on Same Stream
- Location
- Waterway
- Records During Floods

Stream Data
- Drainage Area in Sq. mi.
- Velocity During High Water.
- Elevation of:
  - Max High Water Reported - 4363.61
  - Date
  - Normal High Water
  - Normal Stage - 4346.61
  - Extreme Low Water
  - Stream Bed - 4342.61
- Drift Carried During Floods. - None.
- Probable Depth of Scour During Floods. - None.

Grade of Borrow Pit

Dirt
Fine Sand
Yellow Clay
Yellow Clay & Shale (hard pan)
Shale

117 C.Y. Emb.
1016 C.Y. Emb.
1066 C.Y. Exc.
15 C.Y. Exc.
15 Cu. Yd. Emb.
135 Cu. Yd. Bor. from N&W
10 C.Y. Exc.
773 Cu. Yd. Emb.

PLATE 7 PLAN, PROFILE & P.E. DIAGRAM

PUBLIC WORKS ED. CHGO.-N.Y.

NE¼ SEC. 10 T.22S. R.60W.

Revised 7-23-74 A.L.S.
Revised- 6-1-93 A.L.S.

Sta 230+10 Regd. 15"x20" C.M.P. with headwalls

N. 66° 24' W.

N. 61° 32' W.

N. 59° 59' W.

Private Driveway - Hog Fence

Sta 246+00 Regd. 15"x20" C.M.P. with headwalls

Sta 254+58 Regd. 21"x15" C.M.P. with headwalls

B.M. #28 PP 798 Elev. 4386.87

B.M. #29 PP 794 Elev. 4391.25

B.M. #30 PP 796 Elev. 4386.24

B.M. #31 PP 786 Elev. 4394.48

Grade of Borrow Pit

89 Cu. Yds Exc.

130 C.Y. Exc.

45 C.Y. Exc.

NW¼ SEC. 10 T.22S. R.60W.

SW¼ SEC. 3 T.22S. R.60W.

SE¼ SEC. 4 T.22S. R.60W.

Sta 242+25 Regd. 18"x 44' Siphon, H.W.

Sta 242+25 Regd. 15"x30" C.M.P. with headwalls

Ditch

Private Drive Log on Fence

Sta 250+38 Regd. 15"x30" C.M.P. with headwalls

Sta 262+00 Regd. 15"x20" C.M.P. with headwalls

Sta 278+50 Regd. 15"x30" C.M.P. with headwalls

Sta 282+45 Road Cnl. Replace with 15"x30" C.M.P. with headwalls

Sta 288+50 Regd. 15"x20" C.M.P. with headwalls

Par 262+00

Par 288+00

P.P. 771

N. 59° 59' W.

Stone C.P.

P.I. 270+94
Δ 1°45' L.

Sta 223+21 Regd. 15"x30" C.M.P. with headwalls

Sta 279+34 Regd. 2-2'-3" Conc. Box Culvert to replace C.M.P.

N. 61° 44' W.

Stone Pile 123

82'-LW Ground Burns 300' Right

B.M. 32 PP 782 Elev. 4393.90

B.M. 33 PP 778 Elev. 4388.12

B.M. 34 PP 776 Elev. 4376.60

B.M. 35 PP P 1291 Elev. 4374.43

B.M. 36 PP 774 Elev. 4368.82

Ditch Elev. 4374

Grade of Borrow Pit

300' V.C.

40' V.C.

20' V.C.

Pt. 4370.40

Ditch Elev. 4377

Ditch Elev. 4367

10 C.Y. Exc.

K.L.Y. Exc.

4219 Cu. Yd. Emb.
4171 C.Y. Borrow Off R.O.W.

21 C.Y. Exc.

PROFILE

EUGENE DIETZGEN CO. CHGO.-N.Y.

U.S. PUBLIC ROADS	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1	COLO.	272 B	14	

Revised 7-23-24 A.J.S.
10-31-24 HGM
Revised as Contract 272 B

PP771 — PP761 — PP745

N. 61° 45' W.
Private Phone Line on Fence

Sta 300+33.18 PI
Curve to be removed.

Sta 300+70 Road 15°-18'-30" Cons. & C.M.P.

Sta 314+80 Road 15°-20' C.M.P. with headwalls

Sta 320+70 Road 13°-42' C.M.P. with headwalls.

Private Phone Line on Fence

Phone Pole 1212

Ditch

N. 59° 26' W.

Sta 300+27 Road 15°-20' C.M.P. with headwalls. Skewed 30°

Sta 300+50 Required 10'-0" Siphon H=3.75'

Sta 300+56 Road 12°-00' with the underdrain formed flume

Sta 314+60 Road 15°-20' Conc. & C.M.P. with headwalls

SE¼ SEC. 4 T. 22S. R. 60W.

NE¼ SEC. 4

B.M. 38 PP770 Elev. 4364.94

B.M. 37 PP767 Elev. 4369.84

B.M. 38 PP763 Elev. 4396.26

B.M. 39 Phone Pole 1212 Elev. 4396.55

4400 — 4390 — 4380

100' V.C. — 200' V.C. — 100' V.C. — 100' V.C. — 100' V.C.

+6.45% — +6.37% — -7.23% — -9.5% — +6.5%

Grade of Borrow Pit

Ditch Elev. 4382

74 C.Y. Exc. — 25 C.Y. Exc. — 390.4 Cu. Yds. Exc. — 16 C.Y. Exc. — 17 C.Y. Exc.

290 — 295 — 300 — 305 — 310 — 315 — 320

HW¼ SEC. 4 T. 22S. R. 60W.

NE¼ SEC. 5 T. 22S. R. 60W.

Sta 327+39 Conc. Arch C.M.P. in place. To remain.

Irr. Ditch

Road

Sta 345+40 Road 15°-20' C.M.P. with headwalls. Skewed from Sta 378+50

Cultivated Land

POT 325+00 — C 320+00 — POT 340+00 — PP745 — POT 350+40

320 — 325 — 330 — 335 — 340 — 345 — 350

C 320+59

N. 59° 26' W.

Irr. Ditch

Phone Pole 1206

Canal - Rocky Ford High Line

Sta 330+00 P.C. of L.

N. 59° 40' W.

Phone Pole 1201

Sta 343+25 Road 15°-20' C.M.P. with headwalls

Section Corner 3" Pipe

Uncultivated Land.

B.M. 40 Phone Pole 1206 Elev. 4424.11

B.M. 41 Phone Pole 1201 Elev. 4429.07

B.M. 42 PP740 Elev. 4411.77

B.M. 43 PP745 Elev. 4415.52

4410 — 4400 — 4390 — 4380

100' V.C. — 100' V.C. — 100' V.C. — 100' V.C.

+0.50% — +2.07% — -0.00% — +0.20% — +0.27% — +0.36.67

Grade of Borrow Pit

10.2%

3121 Cu. Yd. Emb.
3578 C.Y. Bor.

83 Cu. Yd. Exc.

320 — 325 — 330 — 335 — 340 — 345 — 350

EUGENE DIETZGEN CO. CHGO. - N.Y.

FED. ROAD DIST. NO.	STATE	FED. OR STATE NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	272-B	18	

Revised 7-23-24 A.J.S.
8-13-24 A.J.S.
Revised to Consist w/Map APP

Uncultivated Land
N.39°40' W.
Uncultivated Land
Sta 350+50 Road 13°20' C.M.P. with headwalls.
Δ = 27°04'
D = 6°00'
R = 716.3
L = 338.3
T = 172.4
Sta 350+00 Road 13°20' C.M.P. with headwalls.
PT 332+12
PPT 341
N. 86° 44' W.
Cultivated Land
Sta 378+34 Road 13°20' C.M.P. with headwalls.
N. 66° 52' W.
Phone Pole 1163
PI 368+66
Δ = 1°26'
Uncultivated Land
Sta 383+43
Road to Vegetol
NE¼ SEC. 5 T 22S. R. 60W.
NW¼ SEC. 5
EL 4416.96
EL 4419.83
EL 4422.00
+0.3667%
-0.5%
+0.673%
+0.3%
-0.2%
-0.3%
Grade of Borrow Pits
35 C.Y. EXC.
17 C.Y. EXC.
2 C.Y. EXC.
3 C.Y. EXC.
4420
4410
4400
335
360
315
370
375
380
PROFILE
PLAN
NOTE BOOK
LEVELS CHECKED
NO.
STRUCTURE SHEETS PAGE

Present Road to Pueblo
Cultivated Land
Sta 383+25 Road 13°20' C.M.P. with headwalls.
Sta 384+32 Road 13°20' C.M.P. with headwalls.
Sta 384+50 Road 2°-2°-32' Conc. Bk. Chl.
N.
Present Road to Pueblo
Cultivated Land
Uncultivated Land
N. 86° 52' W.
Robert Nafe 54 A.
NW¼ SEC. 5
LPE Co. 183 A.
NE¼ SEC. 6 T. 22S. R. 60W.
T. 225.
T. 215.
PC 441+40
Ditch El. 4363
+0.643%
+0.27%
+0.2%
EL 4444.82
EL 4432.19
Ditch El. 328
Grade of Borrow Pits
200' V.C.
+3.0%
+1.86%
+2.2%
+1.4%
+0.6%
+1.0%
44.5°
32.4°
44.5°
Sta 380+00
Ditch Flowline
Sta 381+00
Sta 382+00
Sta 383+00
10 C.Y. EXC.
11792 Cu. Yd. Emb
4420
4430
4440
4450
4460
4470
4480
4490
4500
385
390
395
400
405
410
415
PLATE 2 HAR. 1935 ★★★ STANDARD
GENERAL BLUEPRINT CO., CHGO., N.Y.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	272 B	16	

Revised 7-23-24 A.J.S.
Revised as Const-21426 N.F.

NE¼ SEC. 6 T. 22S. R. 60W.

Uncultivated Land

Sta 420+50, Road 15°30' SE of P.Mwin headwalls

¼ Section Corner Stone

Uncultivated Land

T. 22S.
T. 21S.

Uncultivated Land

P.O.T. 426+00

PP710

PP712

PP700

P.O.T. 436+00

P.O.T. 446+00

Δ = 15°40' R
D = 2°00'
R = 2865.0
L = 783.3
T = 394.1

Sta 422+34.2 P.I.

Sta 414+40.1 P.C.

416+10 - Road 16' Surface 100' long 4%

Robert Nat'l

PT 422+34.4

Sta 422+18 Road 15°30' SE of P.M. with headwalls. Culvert to be moved from Sta 419+40

N. 71° 12' W.

SE¼ SEC. 31 T. 21S. R. 60W.

SW¼ SEC. 31 T. 21S. R. 60W.

Uncultivated Land

Uncultivated Land

Uncultivated Land

Uncultivated Land

B.M. 54 PP 708
El. 4455.92

B.M. 55 PP 704
El. 4456.0

B.M. 53 PP 712
El. 4453.44

B.M. 54 PP 710
El. 4458.87

Equation 422+34 back = 422+20 ahead

4453.80

4452.40

+0.18%

+0.23%

Grade of Borrow Pit

Ditch Elev. 51.0

108 C.Y. Exc.

1992 C.Y. Emb.

1651 C.Y. Bor. From R.O.W.

200 C.Y. Exc.

4460
4450
4440

415 420 425 430 435 440 445

SW¼ SEC. 31 T. 21S. R. 60W.

SE¼ SEC. 36 T. 21S. R. 61W.

Sta 455+62 - 2°11'-28' Hdwl Culv. to be removed from Sta 459+40

Sta 462+34 Road 15°-31' CMP with headwalls

Sta 467+49 - 42" Corr. Ctrl 30' long to be replaced by 18'-18"-30' Culv.

Uncultivated Land

Uncultivated Land

Uncultivated Land

P.O.T. 446+00

P.O.T. 456+00

P.O.T. 466+00

P.O.T. 476+00

PP700

PP696

PP692

PP688

N. 71° 12' W.

Uncultivated Land

Uncultivated Land

Uncultivated Land

B.M. 56 PP 700
El. 4466.09

B.M. 57 PP 696
El. 4463.69

B.M. 58 PP 692
El. 4463.90

B.M. 59 PP 688
El. 4469.51

4462.98

4463.78

4464.83

4471.40

+0.56%

+0.25%

+0.2%

+0.1%

+0.8%

+0.5%

+0.514%

+0.4%

200' V.C.

200' V.C.

Gr. El. 4467.61

Grade of Borrow Pit

Ditch Elev. 62.5

Pt. 464.83

51 C.Y. Exc.

1262 C.Y. Emb.

1211 C.Y. Bor. From R.O.W.

4470
4460
4450

455 460 465 470 475

PROFILE

SURVEYED
DRAWN
NOTE BOOK
NO.

GRADE CHECKED
M. M. P. NOTED
PROFILE CHECKED

EUGENE DIETZGEN CO. CHGO. N.Y.

FILE 2 PLAN & PROFILE STANDARD

P.S. Road Dist. No.	State	Fed. Aid Proj. No.	Sheet No.	Total Sheets
1	COLO.	272 B	17	

Revised 7-13-54 A.J.S.
Recommissions 54-28 AFH

SW¼ SEC. 36

Uncultivated Land

Sta. 481+3.0 Repl. 13.00' CMP with head walls

P.O.T. 476+00

PP688

P.O.T. 480+00

PP684

N. 71° 12' W.

Sta 489+12 Repl. 13.30' CMP with headwalls

P.O.T. 493+00

PP680

Uncultivated Land

SE¼ SEC. 36 T. 21S. R. 61W.

Uncultivated Land

NW¼ SEC. 36

Uncultivated Land

Road to Dalton Lake

Phone Pole 1071

Store G.R. 33.5'

Fl. 503+76.9

Sta 501+30 - 18° - 30' Rt. Repl. 14 CMP with 15.00' Conc. Box Culvert

Sta 503+48.2

P.I. 503+18.0

D = 4.00°
R = 1432.5
L = 484.2
T = 244.4

PC 502+73.5

PT 507+18.2

BM 59 PP688
El. 4469.31

BM 60 PP684
El. 4475.03

BM 61 PP680
El. 4472.55

BM 62 Phone Pole 1071
El. 4461.74

BM 63 PP677
El. 4450.86

BM 64 Phone Pole 1071
El. 4444.58

+0.31%

+0.71%

-3.44%

-3.0%

-1.40%

300' V.C.

200' V.C.

11 C.Y. Exc.

25 C.Y. Exc.

6621 C.Y. Emb.

2257 C.Y. Bor. from R.O.W.

2 C.Y. Exc.

565 C.Y. Exc.

Ditch El. 37.5

Sta 509+28.3 42' Steel Girder in place
Repl. 3@19' Span Wood Pile Bridge Sta. 509+20 to 509+77.

End W.W.

Concr. Hdwl.

Uncultivated Land

Δ = 2° 15' L.
D = 0° 30'
R = 11460.0
L = 330.0
T = 225.2

Phone Pole 1063

N. 31° 30' W.

PP672

Fence Post BM 66

Uncultivated Land

NW¼ SEC. 36

Uncultivated Land

Phone Pole 1054

N. 14° 03' W.

P.O.T. 538+00

Phone Pole 1048

Uncultivated Land

NE¼ SEC. 35 T. 21S. R. 61W.

Uncultivated Land

NE¼ SEC. 35

Elev. Top hole #3 = 3.4 ft.

Top hole #3 3.1 ft.

Gravel & Dirt

Sand & Gravel

Clay & Yellow Shale

Hard Clay & Yellow Shale

Shale

Pipe Footings

BM 65 PP672
El. 4445.05

BM 66 Fence Post 30' West of PP672
El. 4455.77

BM 67 Phone Pole 1063
El. 4464.82

BM 68 PP669
El. 4474.44

BM 69 Phone Pole 1054
El. 4479.73

BM 70 Phone Pole 1048
El. 4483.71

+2.71%

+3.32%

+6.11%

+0.40%

+0.82%

+0.88%

+0.56%

-0.07%

200' V.C.

260' V.C.

1431 C.Y. Emb.

1370 C.Y. Bor. from R.O.W.

1107 C.Y. Exc.

46 C.Y. Exc.

2097 C.Y. Emb.

1261 C.Y. Bor. from R.O.W.

85 C.Y. Exc.

380 C.Y. Bor. From R.O.W.

Inlet Elev. 77.2

STRUCTURE NOTES FOR BRIDGE AT STA. 509+34

Heavy Structures on Same Stream.

Proposed Structures

Open Steel Girder

Reinforced Concrete Slab

Reinforced Concrete Pipe Culvert

Reinforced Concrete Box Culvert

Miscellaneous Structures

Reinforced Concrete Pipe Culvert

Reinforced Concrete Box Culvert

Existing Structures

Open Steel Girder

Reinforced Concrete Slab

Reinforced Concrete Box Culvert

Reinforced Concrete Pipe Culvert

Timber Bridge

Timber Trestle

Miscellaneous Structures

Reinforced Concrete Pipe Culvert

Reinforced Concrete Box Culvert

Timber Bridge

Timber Trestle

Heavy Structures on Same Stream.

Highway Crossing Stream

Drainage Area

Max. Recorded High Water

Normal Stream Water

Normal Depth Water

Water Surface

Stream Bed

Clay Gravel Sand Boring

Sand Boring

Hard Clay Boring

Shale Boring

Hard Clay & Yellow Shale Boring

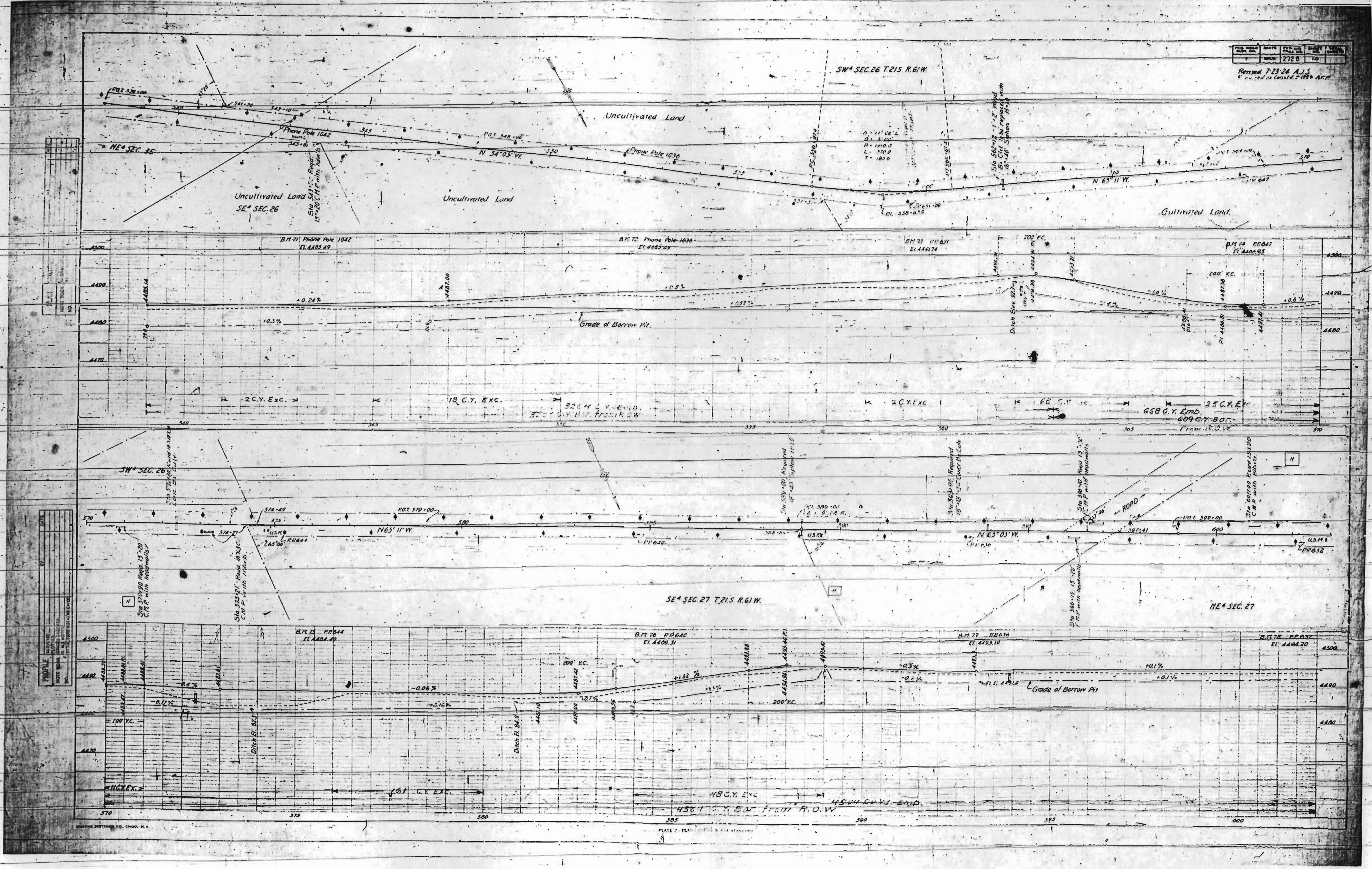
Yellow Shale Boring

Shale Boring

PROFILE

PLAT 2 - PLAN PROFILE & CROSS SECTIONS

BLOCHE STEDDOM CO. CHGO. - N.Y.



SW¼ SEC.26 T.21S. R.61W.
Revised 7-23-24 A.J.S.
2128
Uncultivated Land
Phone Pole 1042
NE¼ SEC.35
N. 54°05' W.
Phone Pole 1036
Uncultivated Land
SE¼ SEC.26
Uncultivated Land
Cultivated Land
N 65° 11' W.
Δ = 11° 06' L
D = 3°00'
R = 1910.0
L = 370.0
T = 185.0
B.M.71 Phone Pole 1042
El. 4485.49
B.M.72 Phone Pole 1036
B.M.73 PP.651
El. 4491.74
B.M.74 P.P.647
El. 4486.95
200' V.C.
+0.24%
+0.3%
Grade of Borrow Pit
Ditch Elev. 92.7
+0.6%
2 C.Y. Exc.
18 C.Y. Exc.
2 C.Y. Exc
668 C.Y. Emb.
609 C.Y. Bor.
25 C.Y. Exc
SW¼ SEC. 26
N65° 11' W.
P.O.T. 579+00
PP.644
PP.640
N. 65° 03' W.
PP.636
ROAD
P.O.T. 599+00
PP.632
Sta. 570+90 Reqd. 15"×20" C.M.P. with headwalls
Sta. 573+21 Reqd. 18"×30" C.M.P. with H.Walls
SE¼ SEC.27 T.21S. R.61W.
NE¼ SEC.27
B.M.75 P.P.644
El. 4484.40
B.M.76 PP.640
El. 4489.31
B.M.77 PP.636
El. 4493.19
B.M.78 PP.632
El. 4494.20
100' V.C.
-0.08%
+0.16%
+1.52%
200' V.C.
-0.3%
-0.2%
+0.1%
Ditch El. 82.1
Ditch El. 84.9
Grade of Borrow Pit
11 C.Y. Ex.
161 C.Y. Exc.
48 C.Y. Exc.
4504 C.Y. Emb.
4581 C.Y. Bor. from R.O.W.
PROFILE

Revised 7-23-24 A.J.S.

NE¼ SEC. 27

NW¼ SEC. 27. T. 21S. R. 61W.

NE¼ SEC. 28 T. 21S. R. 61W.

SE¼ SEC. 21

SW¼ SEC. 21

Corner Stone
Cor. Sec. 27

Grade of Borrow Pit

Phone Pole 978

Phone Pole 972

Phone Pole 966

Phone Pole 960

33 C.Y. EXC.

20 C.Y. EXC.

2312 C.Y. EMB.

2257 C.Y. BOR.

10 C.Y. EXC.

10 C.Y. EXC.

594 C.Y. EMB.

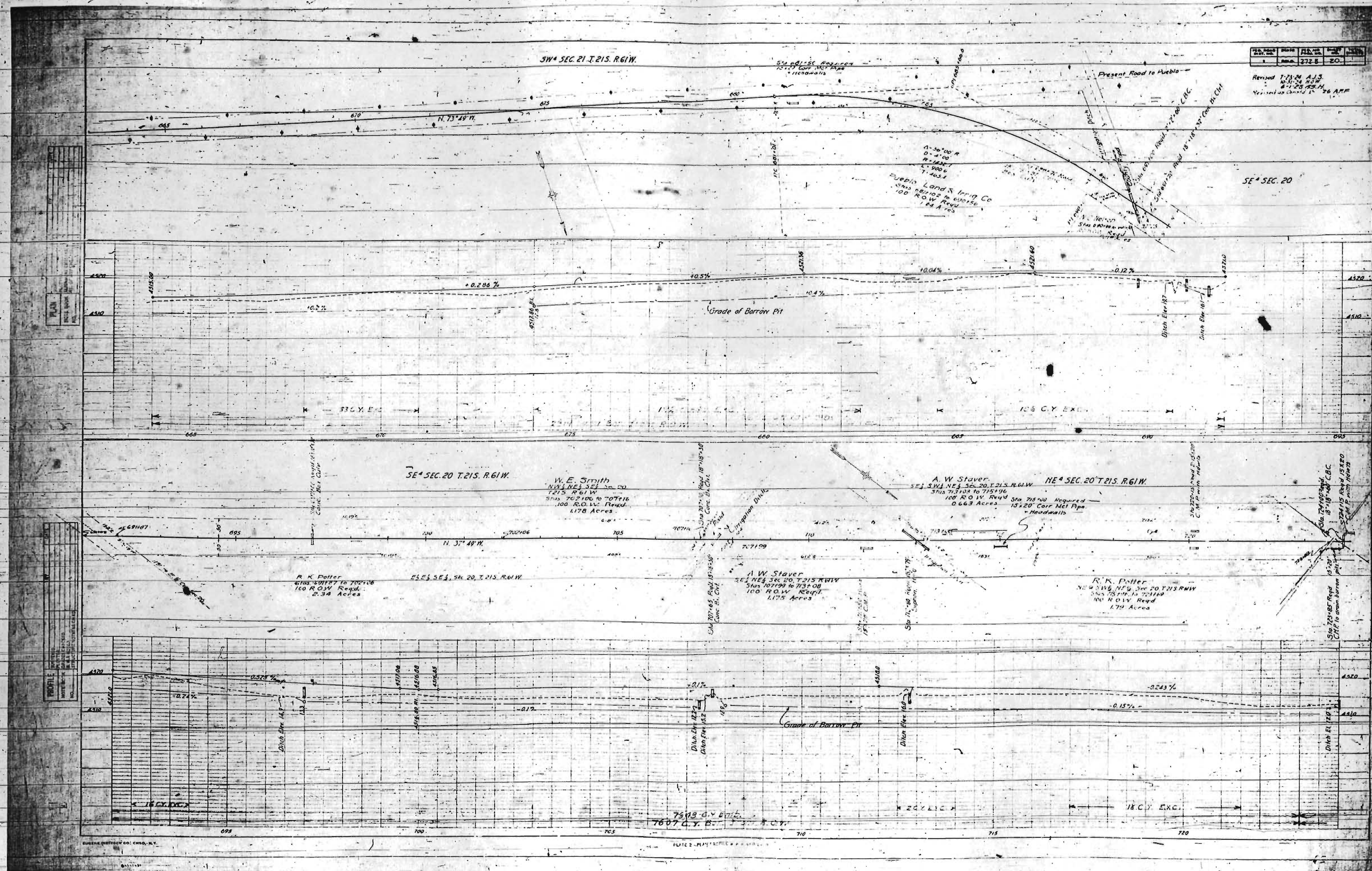
865 C.Y. BOR. from ROW

29 C.Y. EXC.

1906 C.Y. EMB.

3819 C.Y. BOR. from R.O.W. and SIDE ROAD

113 C.Y. EXC.



Sheet No. 20 — 272-B
Revised 7-23-24 A.J.S.
10-31-24 H.O.W.
6-1-25 A.S.H.
Revised as Constd. 1-26 A.F.F.
SW¼ SEC. 21 T. 21 S. R. 61 W.
N. 73° 49' W.
Sta 681+50 Required 15"x 20" Corr. Met. Pipe + Headwalls
Present Road to Pueblo
Δ = 36° 00' R
D = 4° 00'
R = 1432.7
L = 900.0
T = 465.3
Pueblo Land & Irrig. Co.
Stas. 681+02 to 690+56
100 R.O.W. Reqd.
1.64 Acres
Irrigation Ditch
County Road
SE¼ SEC. 20
+0.286%
+0.5%
+0.04%
-0.12%
+0.2%
+0.4%
Grade of Borrow Pit
4515.00
4517.86
4521.36
4521.60
4521.0
Ditch Elev. 18.7
Ditch Elev. 16.1
33 C.Y. Exc.
106 C.Y. Exc.
665
670
675
680
685
690
695
SE¼ SEC. 20 T. 21 S. R. 61 W.
W. E. Smith
NW¼ NE¼ SE¼ Sec. 20
T. 21 S. R. 61 W.
Stas. 702+06 to 707+16
100 R.O.W. Reqd.
1.178 Acres
691+87
702+06
707+99
N. 37° 49' W.
Irrigation Ditch
R. K. Potter
Stas. 691+87 to 702+06
100 R.O.W. Reqd.
2.34 Acres
E½ E½ SE¼, Sec. 20, T. 21 S. R. 61 W.
A. W. Staver
SE¼ NE¼ Sec. 20, T. 21 S. R. 61 W.
Stas. 707+99 to 713+08
100' R.O.W. Reqd.
1.175 Acres
A. W. Staver
SE¼ SW¼ NE¼ Sec. 20, T. 21 S. R. 61 W.
Stas. 713+08 to 715+96
100' R.O.W. Reqd.
0.663 Acres
Sta. 715+00 Required 15"x 20" Corr. Met. Pipe + Headwalls
NE¼ SEC. 20 T. 21 S. R. 61 W.
R. K. Potter
Stas. 715+96 to 723+69
100 R.O.W. Reqd.
1.79 Acres
Sta. 707+30 Reqd. 18"x 18"x 30' Conc. Bx. Clvt.
Sta. 707+65 Reqd. 18"x 18"x 30' Conc. Bx. Clvt.
Sta. 724+00 Reqd. 18"x 18"x 40' C.B.C.
Sta. 724+15 Reqd. 15x20 C.M.P. with Hdwls.
Sta. 723+85 Reqd. 15"x 20" C.M.P. to drain borrow pits
Ditch Elev. 14.9
Ditch Elev. 12.27
Ditch Elev. 15.2
Ditch Elev. 16.0
Ditch El. 12.0
0.575%
-0.24%
+0.17%
-0.12
-0.243%
-0.15%
Grade of Borrow Pit
4517.06
4516.80
4516.85
4518.0
4522.0
16 C.Y. Exc.
20 C.Y. Exc.
18 C.Y. Exc.
7513 C.Y. Exc.
7607 C.Y. B.
695
700
705
710
715
720
PLAN
PROFILE
Eugene Dietzgen Co. Chgo.-N.Y.

Alpha Moran &
C. Berrey
NW¼ SW¼ NE¼ Sec 20.
T 21 S R 61 W
100 R.O.W
Stas 722+68 to 723+63
0.035 Acres

Sta 726+00 Begin
18" CMP Culvert
18" Culvert

Sta 728+15± Required
2-15'x20' Corr Met Pipe
+ Headwalls

NW¼ SEC. 20

Gold Coin Sec. Co.
NE¼ NW¼ Sec 20
T 21 S R 61 W
100 R O W
12 Acres

Sta 732+45 Hdpt.
18"x 20' Siphon M-16

Revised 7-23-74 A.J.S.
8-31-74 N.A.W.
9-11-74 R.E.M.
Revised as Contract 2 - 6-26 AFB

Sta 737+31 Road 38'x20'
C.M.P. Culv. with Hdwls.

Sta 734+52
Sta 734+20 Required
15'x20' Corr Met Pipe
+ Headwalls

Irrigation Ditch

N. 37°49' W

Sta 736+00 Required
18"x 76' w/m. RCP Siphon
M-11

Cora E. Porter
SE¼ NW¼ NE¼ Sec. 20.
T 21 S R 61 W
100' R O W.
0.072 Acres.

Marriott Ranch Co
NW¼ NE¼ Sec. 20, T. 21 S R 61 W
100' R.O.W. Regd.
Stas. 723+85 to 734+56
2.457 Acres

NE¼ SEC. 20 T. 21 S. R. 61 W.

Sta 730+00 Hdpt.
21"x 50' Conc. Pr. Culv.

Sta 730+45 Hdpt. 18"x 20'
Conc. Pr. Culv.

Corner Stone

E. A. & W. B. McClymonds
SE¼ SW¼ Sec. 17 T 21 S R 61 W
100' R O W
Stas 740+76 to 756+32
3.41 Acres.

SW¼ SEC. 17 T. 21 S. R. 61 W.

Ditch Elev. 14.2

Ditch Elev. 14.7
Ditch Elev. 15.5

Ditch Elev. 16.1

Grade of Borrow Pit

14 C.Y. EXC.

Ida A. Peterson
SW¼ SW¼ Sec. 17
T 21 S R 61 W
Stas. 756+32 to 754+83

Gold Coin Sec Co
NW¼ SW¼ Sec 17 T 21 S R 61 W
100' R O W
Stas 754+83 to 772+08
3.554 Acres

C.R. Bruce
SW¼ NW¼ Sec 17
T 21 S R 61 W
100 R O W
Stas 772+16 to 788+38
1.672 Acres.

Stas 772+40 Road 38'x20'
C.M.P. with Hdwls

Sta 787+80 Road 15"x 20'
C.M.P. with headwalls

Mary R. Moore
SE¼ NE¼ Sec 18.
T 21 S R 61 W
100' R O W
Stas 778+98 to 783+80
2.32 Acres

NW¼ SEC. 17

NE¼ SEC. 18 T. 21 S. R. 61 W.

Public Land & Irrig Co
NE¼ SW¼ Sec 17 T 21 S R 61 W
0.022 Acres

SW¼ SEC. 17 T. 21 S. R. 61 W.

Grade of Borrow Pit

Ditch El. 95.0

67 C.Y. Exc.

2053 C.Y. Emb.
2040 C.Y. Bor.

Firm R.O.W.

3278 C.Y. Emb.

77 C.Y. Exc.

26445 St. Yds. Overhaul

PROFILE

F.A. ROUTE SECT. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5	COLO.	272 B	22	

Revised 7-29-36 A.K.S.
Revised as Constd. 8-18-36 A.K.S.

PLAN — DRAWN, PLOTTED, TRACED, NOTE BOOK, QUANTITIES CHECKED, ALIGNMENT CHECKED, NO. OF PAGES CHECKED

PROFILE — PLOTTED, TRACED, NOTE BOOK, GRADES CHECKED, ELEVATIONS NOTED, QUANTITIES CHECKED

Present Road to Pueblo

Sta 783+50 Road 2°-4'30" Conc. Bk. Crv

Sta 783+80± Riprap 15'x30'C.M.P. with headwalls

Gold Coin Sec. Co NE¼ Sec. 18, T. 21S. R. 61W. 0.869 Acres

NE¼ SEC. 18 T. 21S. R. 61W.

RIVER

FAP No 92

End of Project

HUERFANO

Sta. 795 = 126 Back (Chd of Project) = Sta. 817+26 Ahead (End of Project) = Sta. 821

Ditch Elev. 137

-1.70%

Pl 4468.00

100 LC

4469.89 4468.23 4468.06 4468.88

Level

4180

4170

4160

790

795

4580 C.Y. Exc.

1100 C.Y. Waste

Overhaul

PIPES W. OF FOWLER ON S.H. 50

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	1	1

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. 272-B-R
STATE HIGHWAY NO. ~~6~~ 50
PUEBLO COUNTY

1944
1956

SCALES OF ORIGINAL TRACINGS

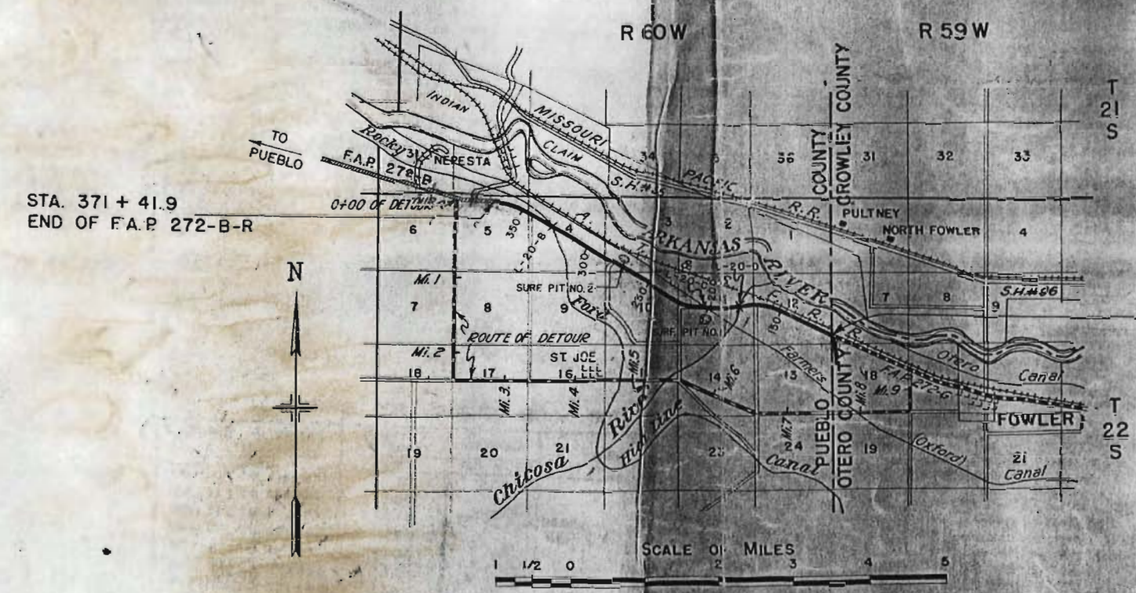
ON PLAN 1" = 100 FT.
ON PROFILE 1" = 100 FT. HORIZONTAL
1" = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT 25814.7 FT. = 4.889 MILES
NET LENGTH OF PROJECT 25721.7 FT. = 4.871 MILES

CONVENTIONAL SIGNS

CENTER LINE OF SURVEY
RIGHT OF WAY LINES
TOWNSHIP OR RANGE LINES
SECTION LINES
ONE QUARTER SECTION LINES
RAILROAD TRACKS
BARBED WIRE FENCE
POLE LINES

WIDENING OF CURVES M1B
18. TYPICAL SIDE APPROACH ROADS/ROADWAY CONSTRUCTION
TRAFFIC SIGNS M2B
19-27. ALIGNMENT PLAN AND PROFILE
28-61. ROADWAY CROSS SECTIONS



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:

Jas. O. Bell	Div. Engr.	Pueblo
J.C. Webber	Res. Engr.	Rocky Ford

RECOMMENDED FOR APPROVAL 10-5-37
ASSISTANT ENGINEER
APPROVED
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	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	19	

REV. APPROACH TO PROJECT — 10-13-37 — K.M.P.

NOTES:

Alignment and Grade shown on these plans are subject to change during construction, after approval by the Denver Office of the Department.

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

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

Right of Way Markers are tabulated on Sheet No. 4.
Fencing is " " " " 3.
Timber Guard Posts are " " " " 4.

S.E. 1/4 SEC. 12
T. 22 S. R. 60 W.

RANGE 60 W.
RANGE 59 W.

595'

Sta. 110+95
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Reqd. 20 cu. yds. uncl. excav. for road approach, Lt.
Remove 2 headwalls.

Sta. 110+50
Remove & reset project marker.

R.O.W. Marker to remain in place.

Approach to project.

BEARING EQUATION
N. 62° 15' W. — F.A.P. 272-G BACK
EQUALS
N. 63° 47' W. — F.A.P. 272-B-R AHEAD

TO FOWLER

N. 62° 15' W.

R.O.W. Marker to remain in place.

STA. 110+55
BEGINNING OF F.A.P. 272-B.
(ORIGINAL PROJECT)

STA. 110+55 (SURVEYED LINE) PUEBLO COUNTY
OTERO COUNTY

STA. 110+50
BEGINNING OF F.A.P. 272-B-R

Sta. 110+50 (No Federal Aid)
Reqd. 200 cu. yds. uncl. excavation & 200 tons surfacing for approach to project.

Sta. 111+30
Reqd. 24"x100' C.M.P. siphon, H=3.0'.
Remove 18"x18"x31.4' conc. box culvert.
Reqd. 2-24" trash guards.
Reqd. 10 cu. yds. uncl. excav. for inlet & outlet.

NOTE:
Projected line from Sta. 110+50 to 153+58.1 is 10' left of and parallel to surveyed line.

PROJECTED LINE TO BE CONSTRUCTED

C #1365'

A. T. & S. F. Ry.

C #1355

N. 63° 47' W.

Mail Boxes

15"x20' C.M.P. to remain in place.

12" tile line 4' below present roadway to remain in place.

Sta. 123+00
Relay 15"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Reqd. 10 cu. yds. embankment for road approach, Lt.

Sta. 123+20
Reqd. 25 cu. yds. embankment for road approach, Rt.

Sta. 125+73
Extend 2'-2"x29.8' conc. box culvert 20', Lt.
Reqd. 5 cu. yds. uncl. excav. for inlet.
Remove headwall & cut keyway.

S.W. 1/4 SEC. 7
T. 22 S. R. 59 W.

Sta. 5+00
El. = 4363.98

Pl. 52.30

0.1 %

-0.45 %

-0.3 %

-0.4 %

+0.2 %

Pl. 46.30

45.50

400' V.C.

45.00

45.10

Pl. 47.80

Pl. 44.70

FL. 440

FL. 407

4360

4350

4340

4480

4477

9959

110

115

120

125

130

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	20	

S.E. 1/4 SEC. 12

Sta. 132+19
Relay 15"x30' C.M.P. side drain, Lt.
Req'd. 20 cu. yds. embankment for road approach, Lt.

Sta. 133+50 to 139+35
Req'd. 120 cu. yds. uncl. excavation for ditch change, Lt.

Sta. 139+75 (ht=3')
Extend 18"x50' encased siphon 55' Lt.
Req'd. 10 cu. yds. uncl. excavation for ditch change, Lt.
Remove 18"x10' encased siphon pipe & concrete inlet.
Relay 18"x18' C.M.P.
Req'd. concrete connection collar, as shown on Sheet No. 12.

Sta. 139+80 to 150+99
Req'd. 220 cu. yds. uncl. excavation for ditch change, Lt.

Sta. 146+60
Req'd. 18"x16' C.M.P. with one Type B headwall, Lt.
Req'd. 18"x30' C.M.P. side drain in ditch & 25 cu. yds. uncl. excav. for road approach, Lt.
Relay 18"x20 C.M.P. side drain, Lt. & extend 10'.
Remove 18"x18"x16' wood & tile outlet box & 18"x18"x12' conc. box culv, Lt.

S.W. 1/4 SEC. 12
T. 22 S. R. 60 W.

Sta. 151+11
Relay 18"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Req'd. 25 cu. yds. uncl. excavation for road approach, Lt.

Sta. 156+05
Relay 18"x20' C.M.P. side drain, Lt. & extend 10'.
Remove 2 headwalls.
Req'd. 25 cu. yds. uncl. excavation for road approach, Lt.

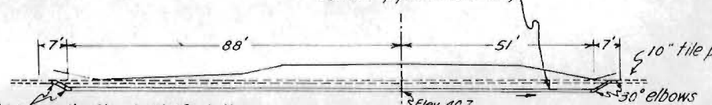
(WITHOUT FEDERAL AID)
Sta. 159+00 (FORCE ACCOUNT)
Move straw pile, Lt.

15"x30' C.M.P.
Irrigation Ditch
PROJECTED LINE TO BE CONSTRUCTED
120 N. 63° 47' W.
A. T. & S. F. Ry.
15"x20' C.M.P. to remain in place.
Mail box
Mail box
Open ditch.
P.C. 153+58.1 SURVEYED LINE.
P.C. 153+73.2 PROJECTED LINE.
R.O.W. LINE
PROJECTED & SURVEYED LINES
Δ 33°26' L
D 2°
T 860.4'
L 1671.7'
R 2865.0'

Sta. 140+62
Req'd. 25 cu. yds. uncl. excavation for road approach, Rt.

W. S. Carroll

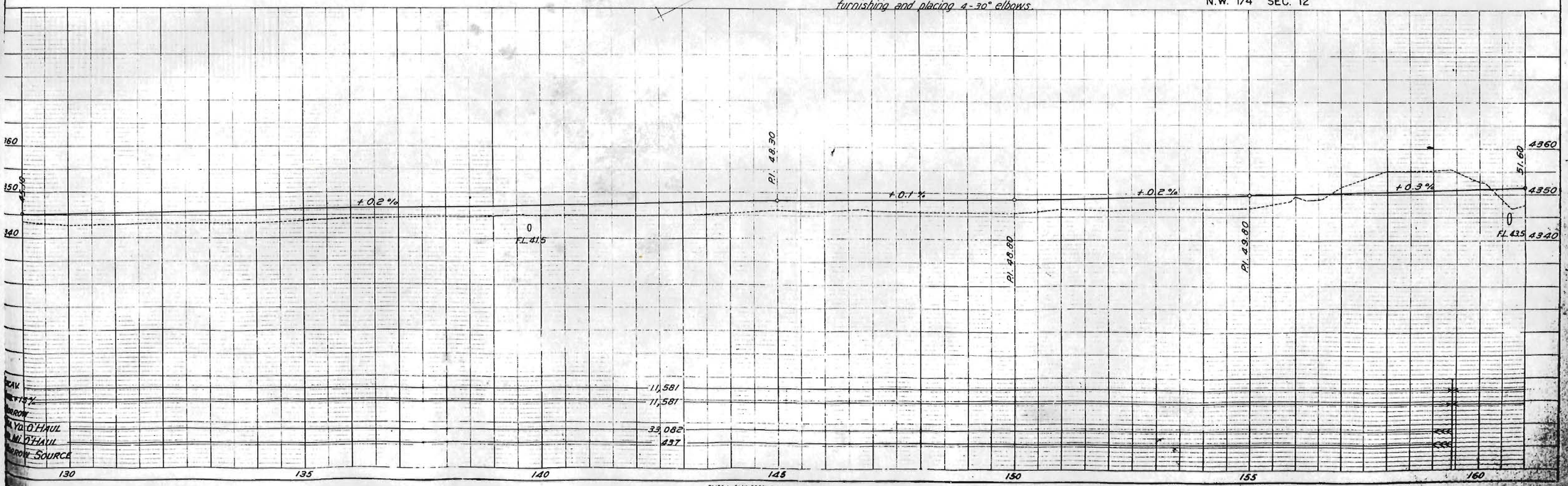
Sta. 150+63
Req'd. 10"x154' vitrified clay culvert pipe. (Skew 45°)



Price bid per lin. ft. of Vitrified Clay Culvert Pipe shall include the cost of furnishing and placing 4-30° elbows.

Section on 45° skew.

N.W. 1/4 SEC. 12



Revised. 10-9-37 N.W.C.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	272-B-R	21	

S.W. 1/4 SEC. 12

S.E. 1/4 SEC. 11
T. 22 S. R. 60 W.

Δ 33°26' L
D 20
T 860.4'
L 1671.7'
R 2865.0'

PROJECTED LINE & SURVEYED LINE.

PROJECTED LINE TO BE CONSTRUCTED.

N. 63° 47' W. 830'

Pond

8" perforated C.M.P. Underdrain.

Old Ditch

A. T. & S. F. Ry.

Present Road

Sta. 162+17 to 164+56
Reqd. 3300 cu. yds. embankment & 10900 sta. yds. overhaul for filling pond, Lt.
Embank. material to be obtained on Rt. side of highway between sta. 168 & 175 without royalty.

Sta. 160+65
Reqd. 30"x 92' C.M.P. cross culvert & 25 cu. yds. uncl. excavation for inlet & outlet.

Sta. 160+36
Remove 2'-2"x 36' Conc. Box Culv., 50' Rt.

P.I. 162+18.5 SURVEYED LINE.
P.I. 162+33.6 PROJECTED LINE.

Sta. 160+65 to 166+00 (40' Lt.)
Reqd. 8"x 535' perforated C.M.P. Underdrain as shown on Sheet No. 2.

Sta. 166+79
Reqd. 18"x 30' C.M.P. side drain & 20 cu. yds. uncl. excavation for road approach, Rt.

P.I. 170+23.8 SURVEYED LINE.
11°36' 5.790 M.
17°12'
70°56'
P.I. 170+44.9 BACK = 170+66.1 AHEAD
PROJECTED LINE

Sta. 169+37
Reqd. 50 cu. yds. uncl. excavation for road approach, Lt.

Sta. 171+50 to 314+75 (FORCE ACCOUNT)
Remove & rebuild private telephone line off R.O.W. on Rt.

EQUATION

N.W. 1/4 SEC. 12

N.E. 1/4 SEC. 11

Sta. 182+75
Reqd. 25 cu. yds. embankment for road approach, Lt.

S. 82° 47' W.

Irrigation Ditch.

Sta. 178+80 to 179+38.5
Widen timber pile bridge, as per details shown on sheets No. 7 & 8.
(3 spans @ 19'-0".)

178+80
179+38.5
58.5

STRUCTURE NOTES FOR BRIDGE, STA. 178+80 TO 179+38.5

PRESENT STRUCTURE:
Span -- 3 @ 19'-0"
Clear roadway -- 20'-0"
Clear waterway -- 600 sq. ft.
Type of Superstructure -- Concrete Floor, Timber Stringers.
Type of Substructure -- Piles
Requirements as to removal -- Widen

STREAM DATA:
Drainage area in Sq. Miles -- 20
Velocity during high water --
Elevation of:
Maximum high water --
Normal stage -- 4336.81
Low water -- 4333.51
Stream bed --
Drift -- Small drift in Flood
Scour -- Medium.

STRUCTURE NO. 6-20-0.
PROPOSED STRUCTURE
Position referred to present structure -- Same
Span -- 3 @ 19'-0"
Clear roadway -- 29'-0".
Clear waterway -- 600 sq. ft.
Type of Superstructure -- Laminated Floor.
Type of Substructure -- Piles.
Detour Structure requirements --
R.R. Siding -- Fowler. Haul to bridge site -- 2½ Mi.

NEARBY STRUCTURES ON SAME STREAM:
Location --
Waterway --
Record during floods --

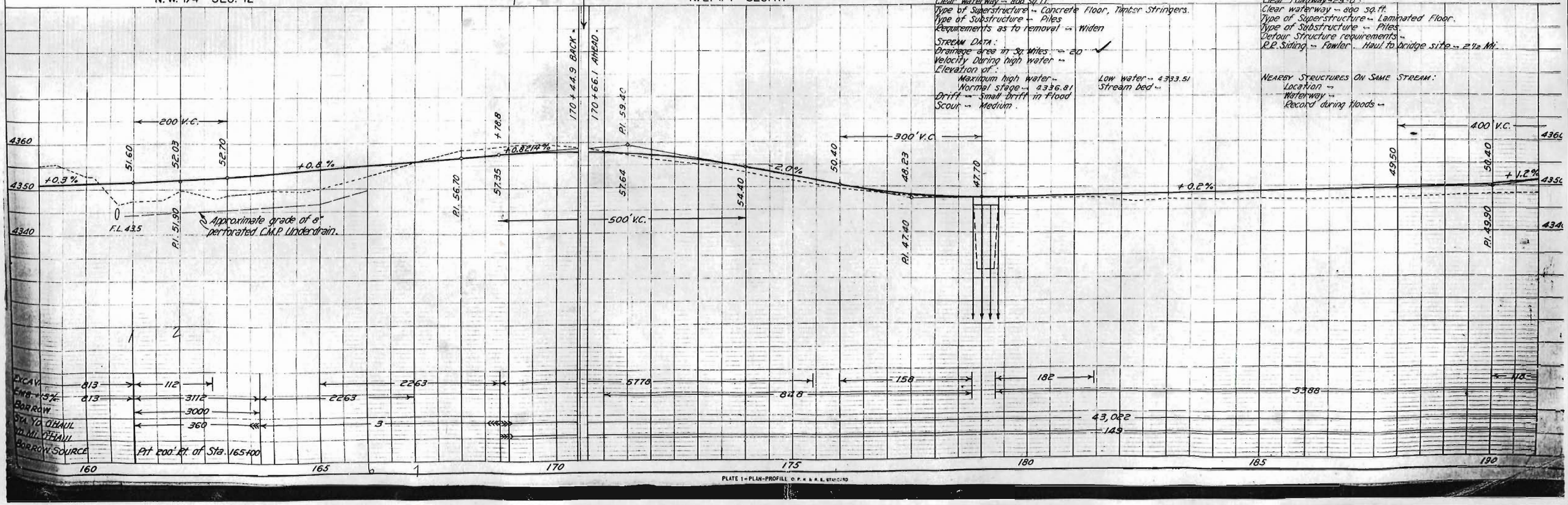


PLATE 1 -- PLAN-PROFILE O. P. R. & R. E. STANDARD