FED. ROAD DIST. NO.	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	1	

COLORADO
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED
FEDERAL AID PROJECT NO. 212 A (1)
STATE HIGHWAY NO. 9

PARK COUNTY

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SCALES ON ORIGINAL TRACINGS

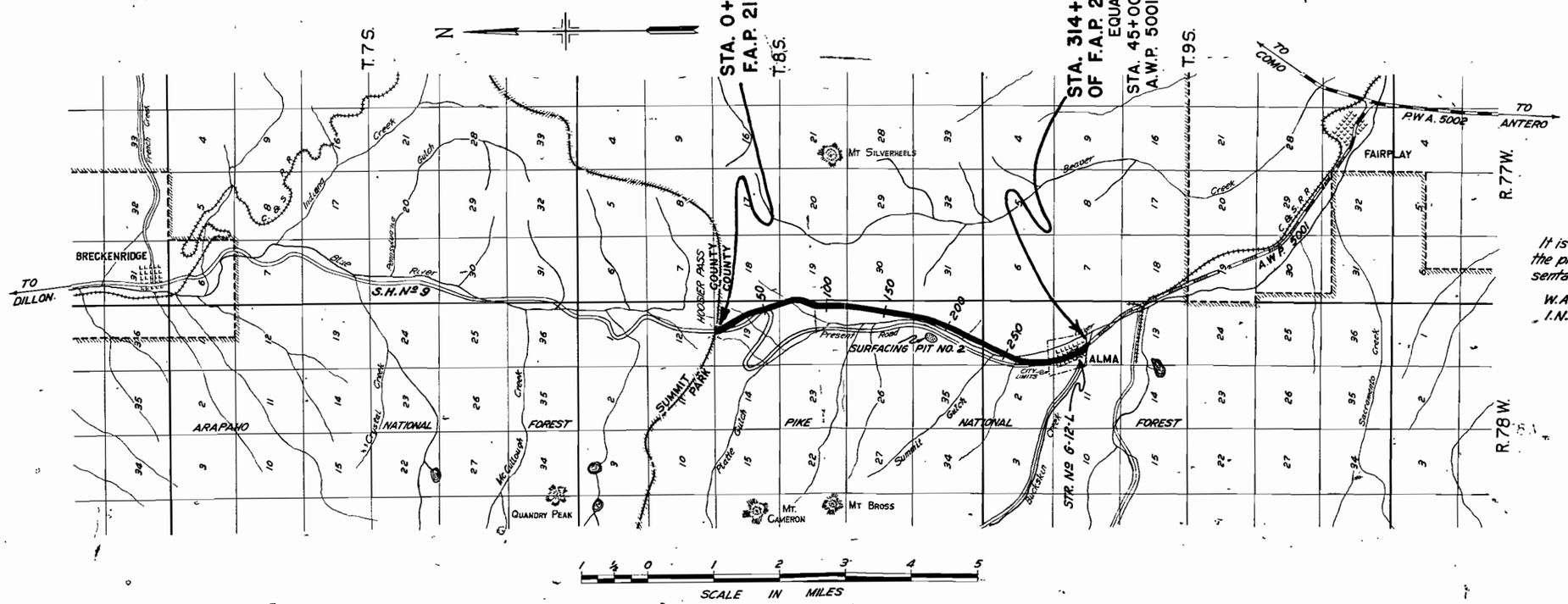
ON PLAN, 1 IN. - 100 FT.
ON PROFILE { 1 IN. - 100 FT. HORIZONTAL
1 IN. - 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

GROSS LENGTH OF PROJECT } 31,498.3 FT. = 5.965 MI.
NET LENGTH OF PROJECT }

CONVENTIONAL SIGNS

CENTER LINE OF SURVEY
RIGHT OF WAY LINES
TOWNSHIP OR RANGE LINES
SECTION LINES
ONE QUARTER SECTION LINES
BARBED WIRE FENCE
PICKET SNOW FENCE
TELEPHONE LINES
POWER LINES



NOTE

It is recommended that bidders on this Project go over the plan details with one of the following field representatives of this department:

W. A. Whitney — Division Engineer — Salida, Colo.
I. N. Johnson — Resident Engineer — Fairplay, Colo.

RECOMMENDED FOR APPROVAL
J. E. Malone
ASSISTANT ENGINEER
APPROVED
Chas. D. Lain
STATE HIGHWAY ENGINEER
RECOMMENDED FOR APPROVAL
[redacted]
DIST. ENG. BUREAU PUBLIC ROADS
RECOMMENDED FOR APPROVAL
[redacted]
CHIEF ENG. BUREAU PUBLIC ROADS
APPROVED
[redacted]
DIRECTOR BUREAU PUBLIC ROADS

FED ROAD DIST. NO	STATE	F.A. PROJ NO	SHEET NO	TOTAL SHEETS
3	COLO.	212 A (1)	4	

REV. 10-7-38 ~A.Z.

R.O.W. MARKERS

Station	Side	No.	Station	Side	No.	Station	Side	No.
(Outside City Limits)			99+50	L	1	202+60	L	1
0+00	R&L	2	101+00	L	1	203+06	R	1
4+00	R	1	104+00	R	1	229+95	L	1
4+16	R	1	106+00	R&L	2	230+25	R	1
4+30	L	1	107+00	L	1	245+00	L	1
5+00	R	1	108+50	L	1	246+00	L	1
17+00	R	1	112+50	R	1	257+16	L	1
18+00	R	1	112+56	L	1	257+44	R	1
21+22.7	L	1	114+50	R	1	279+00	L	1
22+22.7	L	1	118+22	L	1	168+00	R	1
23+00	R	1	118+48	R	1	169+00	R	1
24+00	R	1	125+00	R	1	178+00	R	1
29+00	L	1	126+00	L	1	179+00	R	1
30+00	L	1	127+00	R&L	2			
33+67	R	1	132+00	R	1	280+00	L	1
34+18	L	1	133+50	R	1	284+13	R	1
35+00	R&L	2	139+00	L	1	284+20	R	1
36+00	R&L	2	140+00	L	1	284+59	L	1
50+00	R	1	142+00	R	1	289+50	L	1
51+00	R	1	143+00	R	1			
61+90	R	1	145+28	L	1	290+50	L	1
62+65	L	1	145+72	R	1	293+45	R	1
68+00	R	1	149+00	R&L	2	296+36	L	1
69+50	R	1	150+00	L	1	305+17	L	1
69+40	L	1	151+00	R	1	310+86.2	R	1
78+00	R	1	154+00	R	1	313+46	L	1
79+00	R&L	2	155+50	R	1			
84+00	L	1	175+00	L	1			
85+00	L	1	175+80	R	1	Total 0+00 to 279+64		89
88+00	R	1	181+00	L	1			
89+00	R	1	182+00	L	1	Total 279+64 to 289+65		5
90+72	L	1	193+00	R	1			
90+95	R	1	194+00	R	1	Total 289+65 to 314+75.7		6
92+00	R	1	195+52	R	1			
93+00	R	1	197+76	L	1	Project Total		100

Outside City Limits — 27'8" Roadway Outside City Limits — 27'8" Roadway Within City Limits — 50' Roadway Within City Limits

FENCING REQUIREMENTS

Station to Station	Side	Remove Fence	Build Barbed Wire	Build Combin-ation		Gates: Barbed Wire	Gates: Driveway	Gates: Walk
		Lin. Ft.	Lin. Ft.	Lin. Ft.		No.	No.	No.
Sta. 0+00 to 279+64 (27'8" Rdwy. Outside City Limits)								
234+75 to 253+70	R	1970						
253+70 to 256+30	L	260						
269+30	X	200						
234+75 to 268+60	R		3385					
256+30 to 279+64	L		2334					
249+50	R					1		
253+30	R					1		
270+20	L					1		
Sta. 279+64 to 289+65 (27'8" Rdwy. Within City Limits)								
279+64 to 289+65	L		1001*					
Sta. 289+65 to 314+75.7 (50' Rdwy. Within City Limits)								
290+79 to 293+93	L	330		314*				
293+40 to 293+95	R	55		55*				
289+65 to 290+79	L		120*					
294+70 to 295+75	R	105		105*				
293+65	R						1*	
291+05	L							1*
291+30	L						1*	
293+53	L							1*
295+10	R						1*	
295+20	R							1*
295+55	R							1*
			*No Federal Aid					
Total Sta. 0+00 to 279+64		2430	5719			3		
Total Sta. 279+64 – 289+65			1001*					
Total Sta. 289+65 – 314+75.7		490	120*	474*			3*	4*
Project Totals		2920	6840	474		3	3	4

LIST OF STRUCTURES

(Continued from Sheet No. 3)

Station	Description	Remove Struct. No.	Unclassified Excavation Cu. Yds. Excav.	Unclassified Excavation Cu. Yds. Embank.	Structural Excavation Cu. Yds. *	Structural Excavation Cu. Yds.	Structural Excavation Cu. Yds.	Structural Excavation Cu. Yds.	Gravel or Cr. Rock Surfacing Tons	Concrete Cu. Yds. Class "A"	Concrete Cu. Yds. Class "B"	Reinf. Steel Lbs.	Corrugated Metal Culvert Pipe Lin. Ft. 18"	24"	30"	36"	42"	48"	60"	Perf C.M.P. Underdrain Lin. Ft. 8"		Gr. Rubble Sl. Paving 1 Ft. Thick Sq. Yds.	Concrete Inlets No. #12	#13	Miscellaneous
134+85 to 140+80	Interc'pt. Ditch, Lt.		60		27'-8" Roadway				Outside City Limits				(Continued)												
140+80	C.M.P. Cross Culv. (Interc'pt. h'dwall) & Inlet.		10		15						1.60			48											
140+80 to 144+10	Interc'pt. Ditch, Lt.		35																						
144+10	C.M.P. Cross Culv. & Ditches.		30		10						1.65			98											
144+10 to 153+27	Interc'pt. Ditch, Lt.		90																						
148+90	C.M.P. Cross Culv. (Interc'pt. h'dwall) & Inlet.		10		40						1.60			58											
153+27	" " " & Inlet.		5		5						3.00					208									
153+27 to 159+28	Interc'pt. Ditch, Lt.		60																						
159+28	C.M.P. Cross Culv., Inlet & Dike, Lt.		10		5						1.65			90											
159+28 to 169+87	Interc'pt. Ditch, Lt.		105																						
164+15 Ah'd.	C.M.P. Cross Culv. (Interc'pt. h'dwall) & Inlet		10		25						1.60			50											
169+87	" " " " " ,				25						1.90				108										
	Slope Paving & Inlet		65																			13			
169+87 to 172+00	Interc'pt. Ditch, Lt		20																						
172+00	C.M.P. Cross Culv., Inlet & Dike, Lt.		35		15						4.00						62								
172+00 to 179+86	Interc'pt. Ditch, Lt.		80																						
179+86	C.M.P. Cross Culv. (Interc'pt. h'dwall),				45						1.60			56											
	Slope Paving & Inlet		45																			21			
179+86 to 194+70	Interc'pt. Ditch, Lt.		150																						
189+00	C.M.P. Cross Culv. (Interc'pt. h'dwall) & ditches		10		30						1.60			52											
194+70	" " " & Dike, Lt.			10	5						1.65			48											
194+70 to 199+75	Interc'pt. Ditch, Lt.		50																						
199+75	C.M.P. Cross Culv. & Ditches		50		10						1.65			56											
205+00	Road Approach, Rt.			300					10																
208+53	C.M.P. Cross Culv. & Ditches		15		5						1.65			66											
208+53 to 212+50	Interc'pt. Ditch, Lt.		40																						
217+00	C.M.P. Side Drain & Road Approach, Lt.		300						10				26												
221+00	C.M.P. Cross Culv. & Ditches		20		5						1.65			74											
228+00	" " " , " & Dike, Lt.		10		5						1.65			50											
228+00 to 232+00	Interc'pt. Ditch, Lt.		40																						
231+40	Double 6'x3'x43' C.B.C. Type 6-A (Sk. 60° Lt.)				80					71.1		10,076													
	Channel Change & Dike, Lt.		3500																						
234+76	C.M.P. Cross Culv. (Interc'pt. h'dwall) & Inlet		20		5						1.60			60											
245+25	" " " & Outlet		5		25						1.65			60											
248+	Remove & Rebuild Power Line						Force Account				(Work to be done by Power Co. Forces)														
249+50	Road Approach, Rt.			600					10																
253+00	C.M.P. Cross Culv., Inlet & Dike, Lt.		10		5						1.65			70											
259+55 to 262+00	Riprap, Rt.				80																				175 cu yds. Riprap
262+15 to 262+38	Double 10'x10'x36' Conc. Box Culv. (Type 10-A)						(Quantities in Summary)																		
	Channel Change & Outlet Channel		3000																						
262+45 to 264+50	Outlet Ditch, Rt.		110																						
270+50	C.M.P. Cross Culv. & Inlet		10		10						1.65			48											
275+54	" " " , Ditches & Dike, Rt.		5		15						1.65			48											
277+00 to 279+64	Outlet Ditch, Rt.		100																						
259+00 to 262+00	Interc'pt. Ditch, Lt.		30																						
21+76 to 28+48	Picket Snow Fence, Lt.																								672 lin. ft. Picket Snow Fence
39+00 to 46+02	" " " , Lt.																								702 " " " "
253+50 to 259+52	" " " , Lt.																								602 " " " "
268+00 to 270+02	" " " , Lt.																								202 " " " "
1+30	Rem. & Reset Hoosier Pass Monument, Rt.																								Rem. & Reset Monument
1+75	Remove 3 Signs																								Rem. 3 Signs
9+50	C.M.P. Cr. Culv. (Interc'pt. h'dwall),				30						1.60			50											
	Slope Paving & ditches		15																			13			
9+50 to 14+72	Interc'pt. Ditch, Lt.		50																						
30+00	Remove 12" C.M.P., Lt.	1																							
49+00	Remove 150 ft. Snow Fence																								Rem. 150 lin. ft. Snow Fence
	Totals (Sta. 0+00 to 279+64)	8	9500	1360	1840				110	159.25	80.95	15,578	26	2338	216	460	62	104	220	240		165			

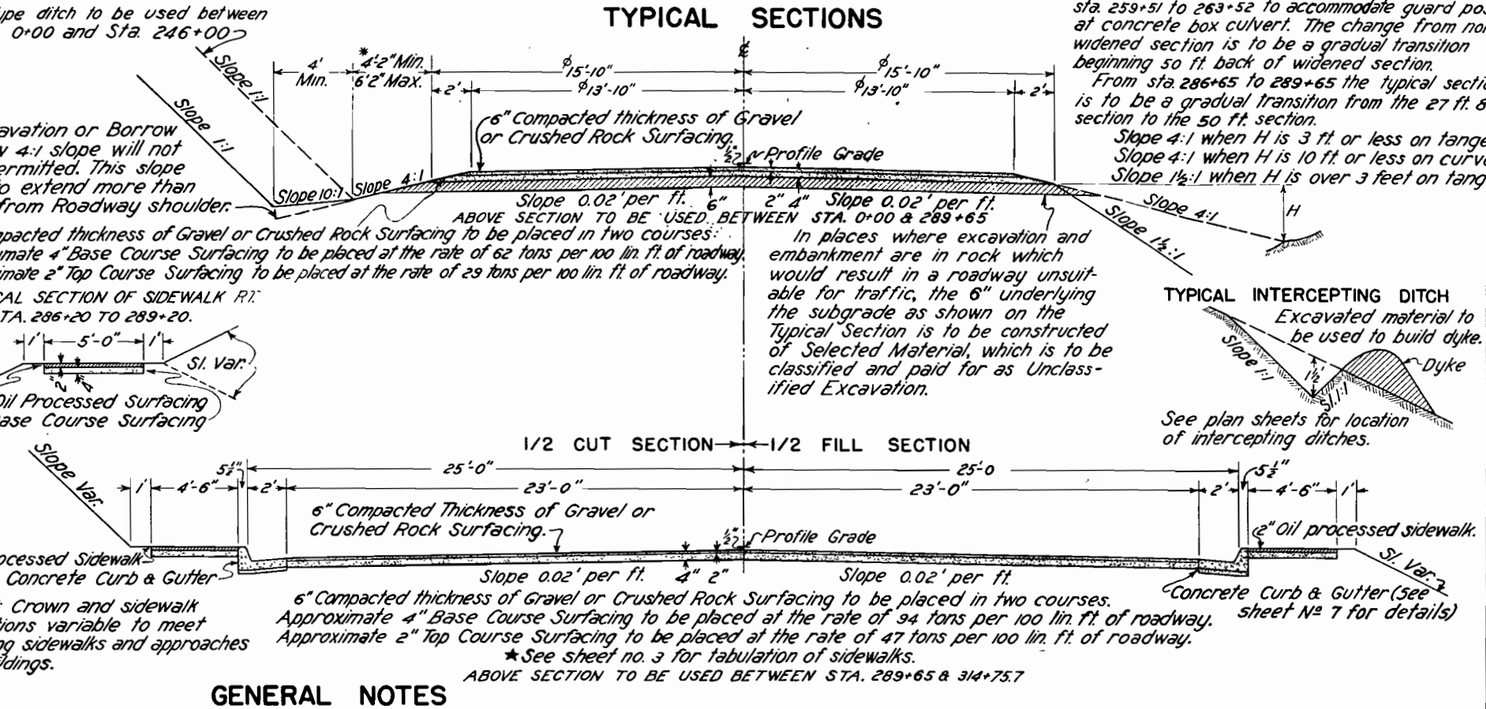
(Continued on Sheet No. 5)

FED ROAD DIST NO.	STATE	F.A. PROJ NO	SHEET NO	TOTAL SHEETS
3	COLO.	212 A (1)	2	

REV. 10-7-38 P.A.F.

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

TYPICAL SECTIONS



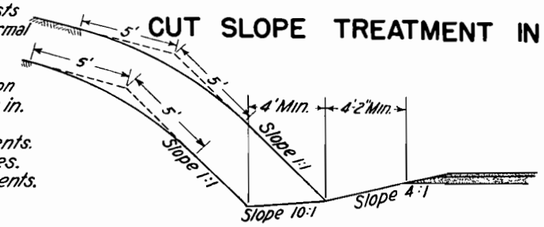
℄ Roadway embankment is to be widened 2 ft. from sta. 259+51 to 263+52 to accommodate guard posts at concrete box culvert. The change from normal widened section is to be a gradual transition beginning 50 ft. back of widened section.

From sta. 286+65 to 289+65 the typical section is to be a gradual transition from the 27 ft. 8 in. section to the 50 ft. section.

Slope 4:1 when H is 3 ft. or less on tangents.
Slope 4:1 when H is 10 ft. or less on curves.
Slope 1½:1 when H is over 3 feet on tangents.

In places where excavation and embankment are in rock which would result in a roadway unsuitable for traffic, the 6" underlying the subgrade as shown on the Typical Section is to be constructed of Selected Material, which is to be classified and paid for as Unclassified Excavation.

CUT SLOPE TREATMENT IN EARTH CUTS



The intersection of cut slopes with the existing ground shall be rounded in earth cuts, beginning 5' outside the slope stake and extending 5' down the cut slope. Where the cut slope is less than 5', reduce each of the above widths of slope treatment to the actual slope distance. Quantities shall be included in "Unclassified Excavation."

TYPICAL INTERCEPTING DITCH

See plan sheets for location of intercepting ditches.

SUMMARY OF APPROXIMATE QUANTITIES

No.	Item	Unit	27'-8" Rdwy Outside City Limits	27'-8" Rdwy Within City Limits	50' Rdwy Within City Limits	Dble 10'x10' C.B.C.	Spec. Dble C.B.C.	Non Fed. Aid	Totals
			0+00-279+64	279+64 ~ 289+65	289+65 ~ 314+75.7	262+	308+		
10a	CLEARING & GRUBBING ENTIRE PROJECT	LUMP SUM	●						●
10b	" " " " "	" "		●					●
10c	" " " " "	" "			●				●
11a	REMOVAL OF BRIDGE, STA. 308+	" "							●
11b	" " 8 STRUCTURES	" "	●						●
11c	" " 6 "	" "			●				●
11d	REMOVING SNOW FENCE	LIN. FT.	350						350
11e	" SIGNS	EACH	3						3
11f	" & RESETTING MONUMENT, STA. 1+30	LUMP SUM	●						●
11g	" BOARD WALK	SQ. FT.			600				600
11h	" CONCRETE SIDEWALK	" "			1900				1900
11i	" " DRIVEWAY	" YD.			200				200
11j	" WATER PIPES, STA. 296+	LIN. FT.			700				700
11k	" & RESETTING TREES, STA. 293+	LUMP SUM						●	●
12a	REMOVING FENCE	LIN. FT.	2500		500				3000
13c	UNCLASSIFIED EXCAVATION	CU. YD.	325500	14000	2400	3000	100		345000
14a	DRY ROCK EXCAVATION (STRUCTURAL)	" "	300	10	60	40	5		415
14b	" COMMON " "	" "	1180	30	210	150	40		1610
14c	WET ROCK " "	" "	80	10	20	10	15		135
14d	" COMMON " "	" "	300	10	60	40	130		540
18a	STATION YARD OVERHAUL	STA. YD.	538700	2000	40,300				581000
18b	YARD MILE OVERHAUL	YD. MI.	1800		400				2200
26a	GRAVEL OR CRUSHED ROCK SURFACING	TON	25775	1050	3650	25			30500
26c	OVERHAUL OF SURFACING	TON MI.	19250	875	4250	25			24400
37c	SAND CUSHION	CU. YD.			100				100
46a	CLASS "A" CONCRETE	" "	160		106	188	171		625
46b	" "B" "	" "	81	3					84
46f	" "A" " (HANDRAILS)	" "			2		3		5
47	REINFORCING STEEL	LB.	15600		10800	17800	18600		62800
53b	18" CORRUGATED METAL CULVERT PIPE	LIN. FT.	26	58					84
53c	24" " " " "	" "	2338		436				2774
53d	30" " " " "	" "	216	84					300
53e	36" " " " "	" "	460						460
53f	42" " " " "	" "	62						62
53g	48" " " " "	" "	104						104
53i	60" " " " "	" "	220						220
57b	90" MULTIPLE PLATE CORRUGATED METAL PIPE CULV.	" "	190						190
63a	RIPRAP (2 FT. THICK)	CU. YD.	200						200
64	GROUTED RUBBLE SLOPE & DITCH PAVING (1 FT. THICK)	SQ. YD.	165						165
72x	8" PERFORATED CORRUGATED METAL PIPE UNDERDRAIN	LIN. FT.	240						240
73b	CONCRETE GUTTER	" "			110				110
73c	" COMBINATION CURB & GUTTER	" "			4824				4824
74	WIRE CABLE GUARD FENCE	" "	3912						3912
74x	TIMBER GUARD POSTS	EACH	310						310
76c	BARBED WIRE FENCE WITH METAL POSTS	LIN. FT.	5800					7200	7000
76f	COMBINATION WIRE FENCE WITH METAL POSTS	" "						500	500
76g	BARBED WIRE GATES	EACH	3						3
76h	DRIVEWAY GATES	"						3	3
76i	WALK GATES	"						4	4
77	PICKET SNOW FENCE	LIN. FT.	2200						2200
81a	PROJECT MARKERS	EACH	1						1
81b	RIGHT OF WAY MARKERS	"	89	5	6				100
82	CATTLE GUARDS (16 FT. ROADWAY)	"			3				3
87	OIL PROCESSED SIDEWALK	SQ. YD.		200	2300				2500
110a	SPECIAL NO. 12 CONCRETE INLETS	EACH			11				11
110b	" " 13 " "	"			1				1
WORK	TO BE DONE BY FORCE ACCOUNT (FEDERAL AID) OBLITERATING OLD ROAD	LUMP SUM	●	●					●
WORK	TO BE DONE BY FORCE ACCOUNT (NO FEDERAL AID) REMOVE BUILDINGS, STA. 291+, 302+, & 304+.	LUMP SUM			●				●
	" PORCHES, " 293+, 295+, & 300+.	" "			●				●

GENERAL NOTES

This Project is to be constructed in conformity with the Standard cifications of the Colorado State Highway Dep't., adopted June 1, 1937.

All quantities on preliminary plans are to be considered as approximate

All roadway excavation required to construct this project is to be ined as indicated on the plans. Quantities involved beyond the limits he ditch as shown on the Typical Section, either noted on the Profile Borrow," or on List of Structures as "Embankment," are to be classified paid for as "Unclassified Excavation."

These quantities are to be staked as part of the Orginal Excavation at tions indicated on the Plans. Slope stakes beyond the limits of the al Section are subject to change by the Engineer to fit Embankment irements actually encountered during construction.

All curves are to be superelevated as provided for by the Standard relevation Sheet included with plans.

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

All corrugated metal pipe cross culverts are to be provided with one twall on the inlet end, unless otherwise noted on the plans.

All side approach roads to the project shall be gravel surfaced with inch thickness of "Gravel or Crushed Rock Surfacing" extending approx- ely 30 ft. from edge of highway. Estimated tonnage of surfacing mat- ' required in this operation is shown in List of Structures.

verhaul will be paid for as measured along center line of project, ss otherwise noted on the plans.

At all places on the Project where the new work lies along the present eled road, the Contractor shall, at his own expense, prosecute con- ction in such manner that traffic may readily pass over the road.

the Contractor shall maintain in safe condition and at his own nse, all temporary approaches to and crossings of intersecting roads.

The right of way shall be cleared between cut slope stakes and a line approx- ly 10 ft. inside fill slope stakes before grading operations commence. After letion of grading work the right of way shall be cleared to 8 feet outside e cut slopes and to the toe of fills on fill slopes. Trees inside of toes of opes shall be cut off flush with fill slopes after embankments are com- t. Any trees interfering with visibility shall be removed as directed by ngineer. Thruout the entire project shooting shall be done in such a er as to avoid damaging timber beyond clearing limits.

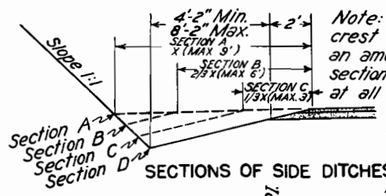
Fallen trees, slashings and logs cleared from the right of way shall be piled along e lines of fill sections to prevent the loss of embankment material on steep sidehill slopes. This material shall be placed at locations indicated by the Engineer.

The cost of all work incidental to the above conditions shall be included in the Lump Sum price bid for "Clearing and Grubbing the Entire Project."

New Right of Way fence shall be constructed entirely within the Highway Right of Way for this Project.

DETAILS FOR WIDENED SHOULDERS AT CREST OF GRADES

(TO BE USED ONLY WHERE SIGHT DISTANCE AT CREST OF GRADE IS 600 FT. OR LESS)



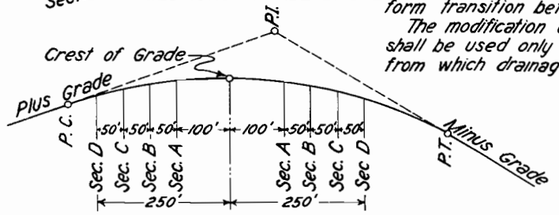
SECTIONS OF SIDE DITCHES

Note: Where section is in embankment at crest of grades the shoulder shall be widened an amount equivalent to that used on ditch sections thus providing a symmetrical section at all crests.

Note: Section "A" is an extension on the crown slope.

Section "D" is normal ditch section. Section "B" and "C" shall be on a uniform transition between sections "A" and "D."

The modification of the ditch indicated shall be used only at the crest of grades from which drainage breaks both ways.



PROFILE VIEW SHOWING DISTANCES AND RELATIVE POSITIONS OF DITCH-TREATMENT SECTIONS

GENERAL NOTES CONT'D

FED. ROAD DIST NO	STATE	F.A. PROJ. NO	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A (I)	26	

STA. 0+00 – BEG. F.A.P. 212 A (I).

S.E. 1/4 SEC. 12
T. 8 S., R. 78 W.

N.E. 1/4 SEC. 13

NOTE:
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office.
All Poles encroaching on the Construction are to be moved by the Owners.
R.O.W. Markers, Fencing and Gates are tabulated on Sheet No. 4.
Wire Cable Guard Fence and Timber Guard Posts are tabulated on Sheet No. 5.
Oil Processed Sidewalk, Gutter and Curb & Gutter within City Limits are tabulated on Sheet No. 3.

0+00 – Req'd Project Marker & 200 cu. yds. excav. for Approach to Project.

2+00 – Req'd 150 cu. yds. excav. for Road Approach, Rt.

1+30 – Remove & Reset Hoosier Pass Monument, Rt.

P.C. 0+00

Δ = 39° 36' L
D = 6° 00'
T = 343.8'
L = 660.0'
R = 955.0'

3+25 – Req'd 200 cu. yds. excav. for Road Approach, Lt.

P.T. 6+60.0

3+35 to 9+50 – Req'd 75 cu. yds. excav. for Intercpt. ditch, Lt.

P.A.T. 11+00

9+50 to 14+72 – Req'd 50 cu. yds. excav. for Intercept. ditch, Lt.

P.A.T. 15+37.0

P.A.T. 17+70.0

14+72 to 18+73 – Req'd 40 cu. yds. excav. for Intercpt. ditch, Lt.

18+73 to 20+72 – Req'd 20 cu. yds. excav. for Intercpt. ditch, Lt.

P.I. 19+98.2

20+72 – Req'd 30" x 108' C.M.P. Cross Culv. & 140 cu. yds. excav. for Inlet.

P.C. 22+32.4

20+72 to 31+00 – Req'd 100 cu. yds. excav. for Intercpt. ditch, Lt.

26+15 to 28+00 – Remove 200 lin. ft. Snow Fence, Lt.

Δ = 35° 21' L
D = 5° 00'
T = 365.2'
L = 707.0'
R = 1146.0'

29+00 – Remove 1'x1'x24' Wood Box Culv, 100' Lt.

30+00 – Remove 12" C.M.P., Lt.

P.T. 29+39.4

Fence

Snow

S. 58° 00' E.

P.C. 30+28.3

Diversion Dam

Measuring Weir

S. 11° 58' W.

Channel Change

Wolf Creek

P.I. 13+43.8

PRESENT ROAD

S. 27° 38' E.

S. 17° 39' E.

P.C. 18+73.1

Δ = 9° 59' R
D = 4° 00'
T = 125.1'
L = 249.6'
R = 1432.5

P.T. 21+22.7

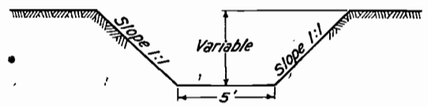
P.I. 25+97.6

2+79 – Required 5'x5'x52' Concrete Box Culvert (Skew 80° Rt.) & 640 cu. yds. excav. for Channel Change. (Excavated material to be used to fill old Channel.) See detail of Channel Change on this Sheet. Req'd. 40 Sq. yds. Grouted Rubble Slope Paving (1 ft. thick) for Drop Lt. and 25 cu. yds. Rip Rap to protect inlet & outlet. See details on Sheet No. 7. Remove 5'x2.5'x32' Wood Box Culv.

1+75 – Remove 3 Signs

9+50 – Req'd 24"x50' C.M.P. Cross Culv. (Intercpt. headwall), 15 cu. yds. excav. for Inlet & Outlet and 13 sq. yds. Grouted Rubble Slope Paving for Inlet ditch. (See detail on Sheet No. 6.)

DETAIL OF CHANNEL CHANGE
STA. 2+79



Excavation required for Channel Change to be included in "Unclassified Excavation."
Structural Excavation to be measured between the typical cross section for Channel Change and bottom of footings as excavated.

14+12 – Req'd 450 cu. yds. embank. for Road Approach, Rt.

14+72 – Req'd 24"x48' C.M.P. Cross Culv. (Intercept. headwall), 20 cu. yds. excav. for Inlet & 13 sq. yds. Grouted Rubble Slope Paving for Inlet ditch. (See detail on Sheet No. 6) Remove 1'x1'x24' Wood Box Culv.

18+73 – Req'd 24"x90' C.M.P. Cross Culv. & 75 cu. yds. excav. for Inlet & Outlet

23+46 – Remove 1'x1'x24' Wood Box Culv.

21+76 to 28+48 – Req'd 672 lin. ft. Picket Snow Fence, Lt.

31+00 – Req'd 24"x90' C.M.P. Cross Culv. & 70 cu. yds. excav. for Inlet. (Excavated material to be used to build dike, Lt.)

CLEARING & GRUBBING
3+50 to 10+00 – Very scattered spruce and buck brush.
10+00 to 15+00 – Scattered spruce.
15+00 to 20+00 – Very scattered spruce and stumps.
20+00 to 30+00 – Scattered stumps.
30+00 to 32+50 – Scattered spruce and stumps.

S.W. 1/4 SEC. 12

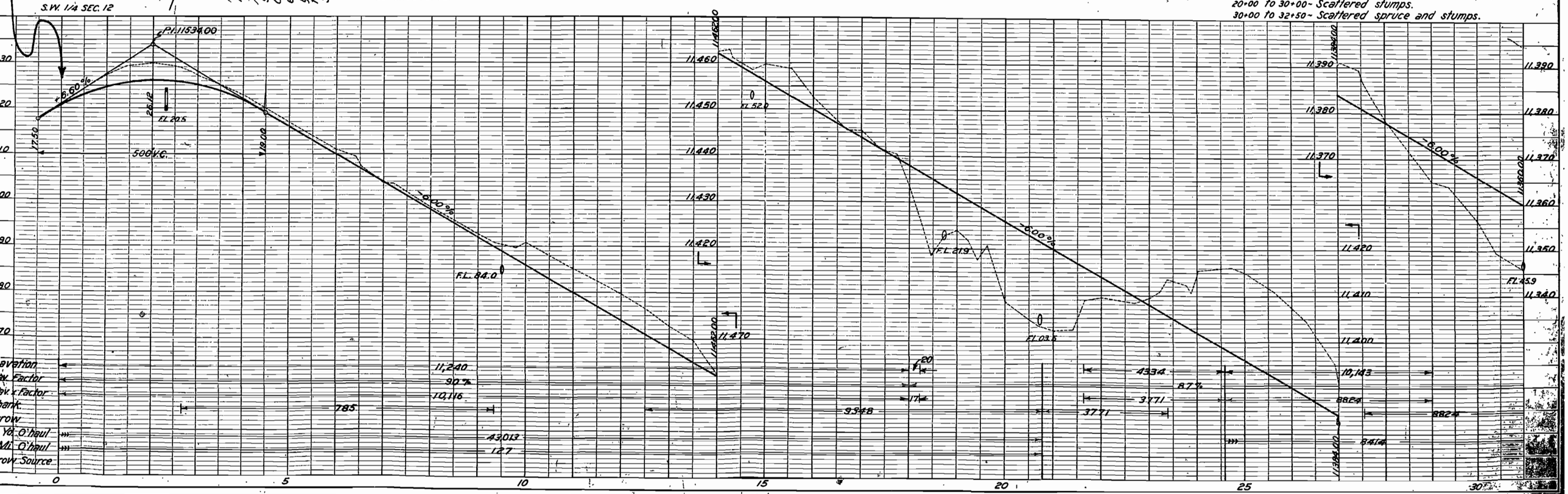
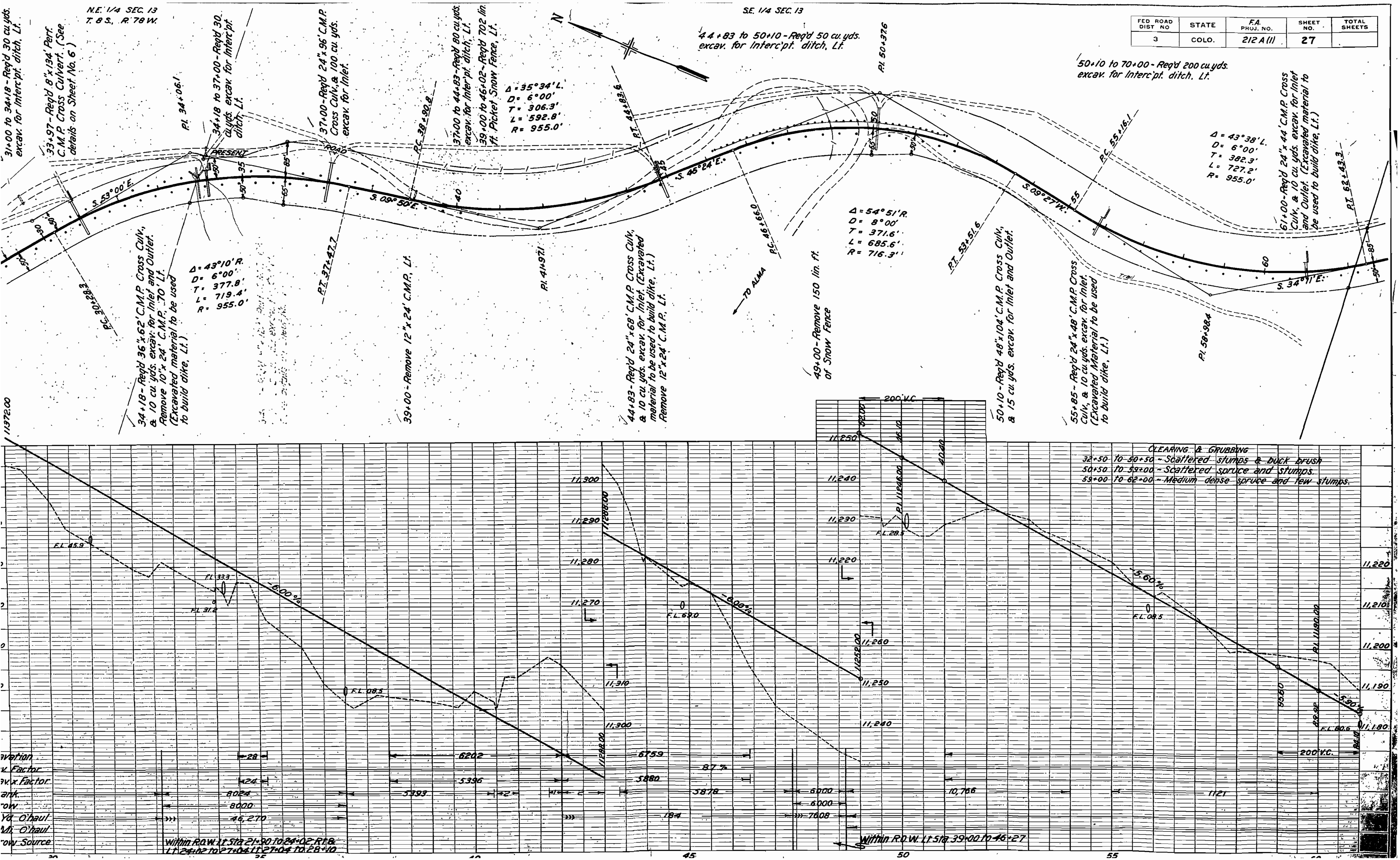
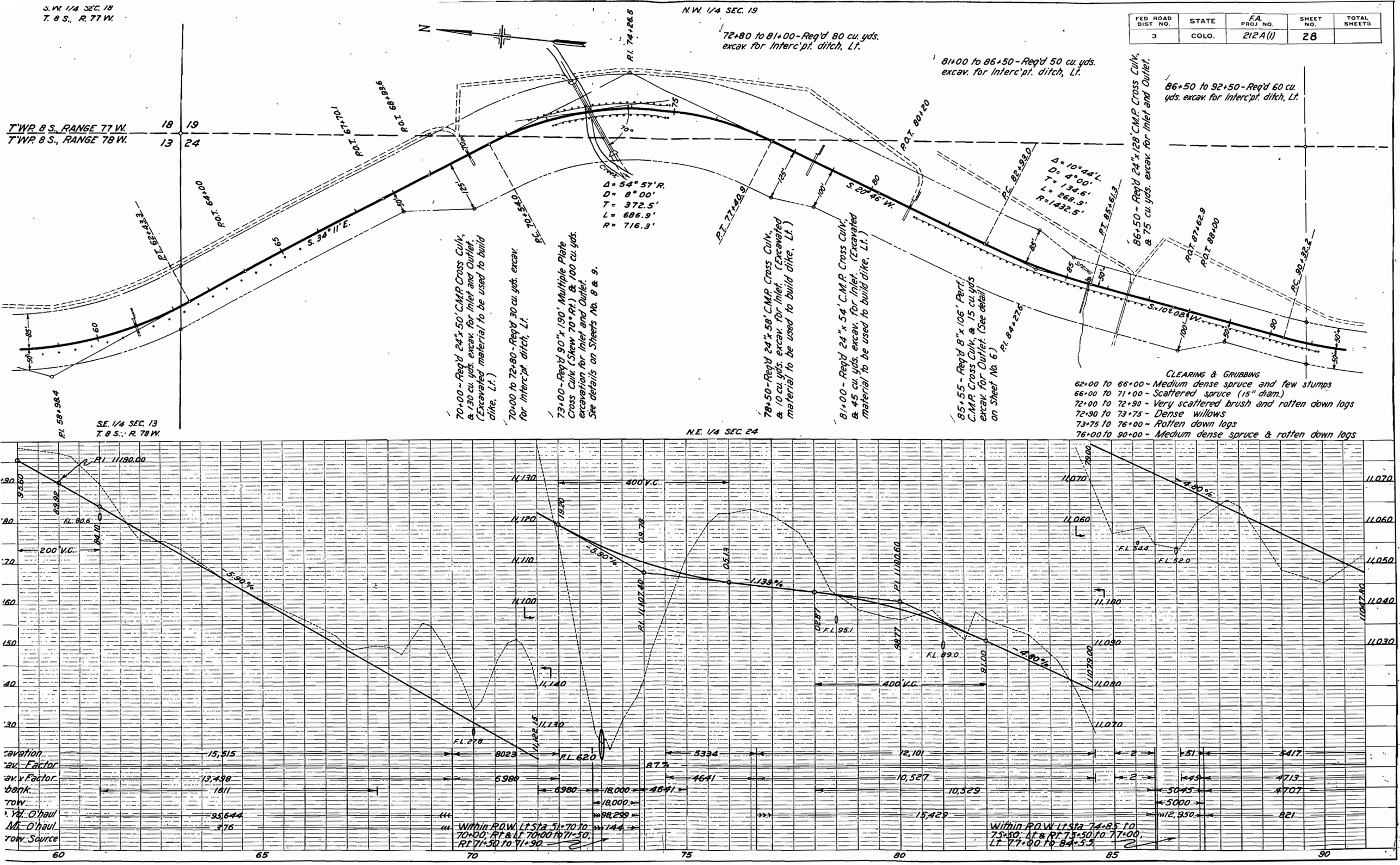


PLATE 1 – PLAN-PROFILE

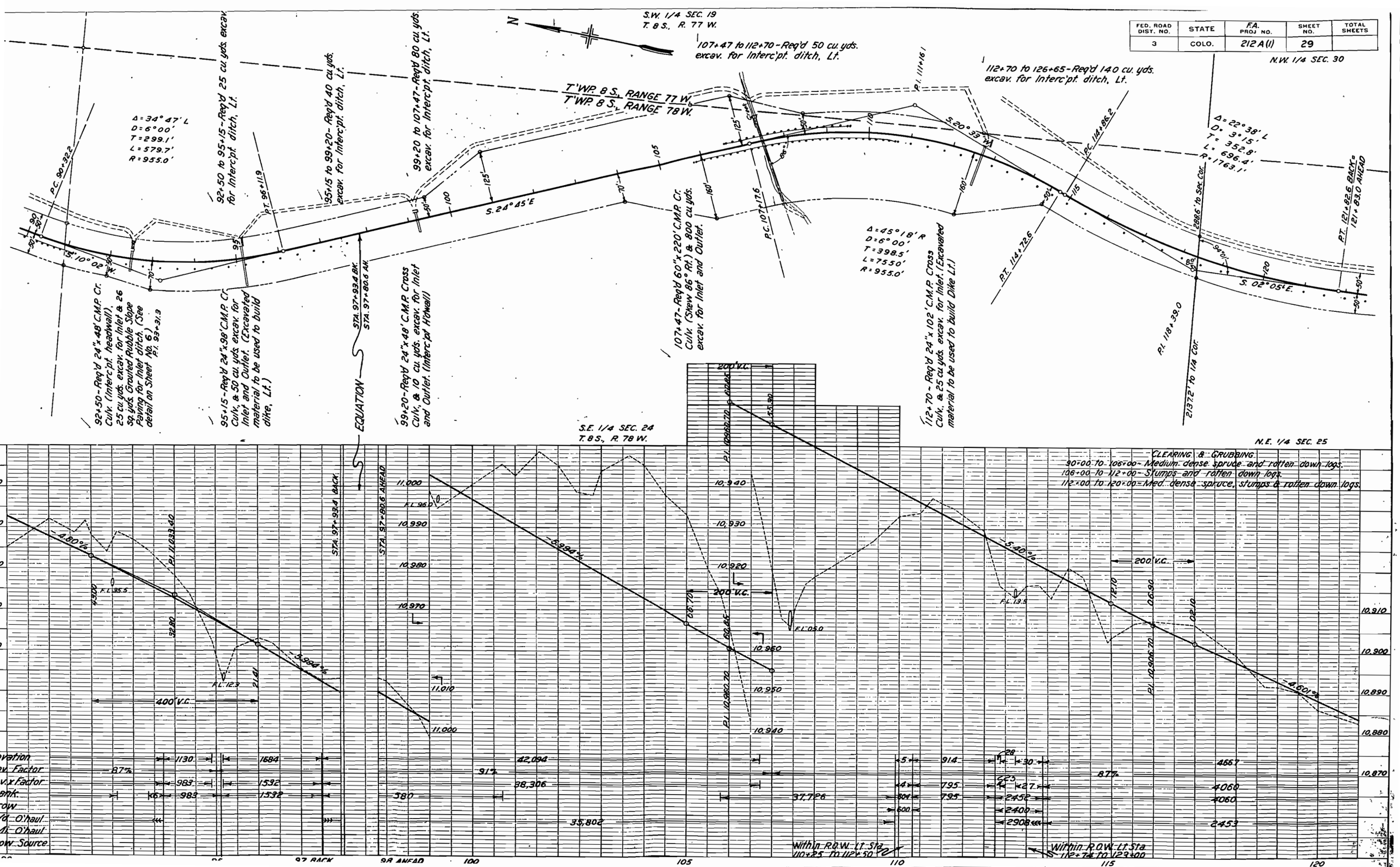
FED ROAD DIST NO	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A (1)	27	



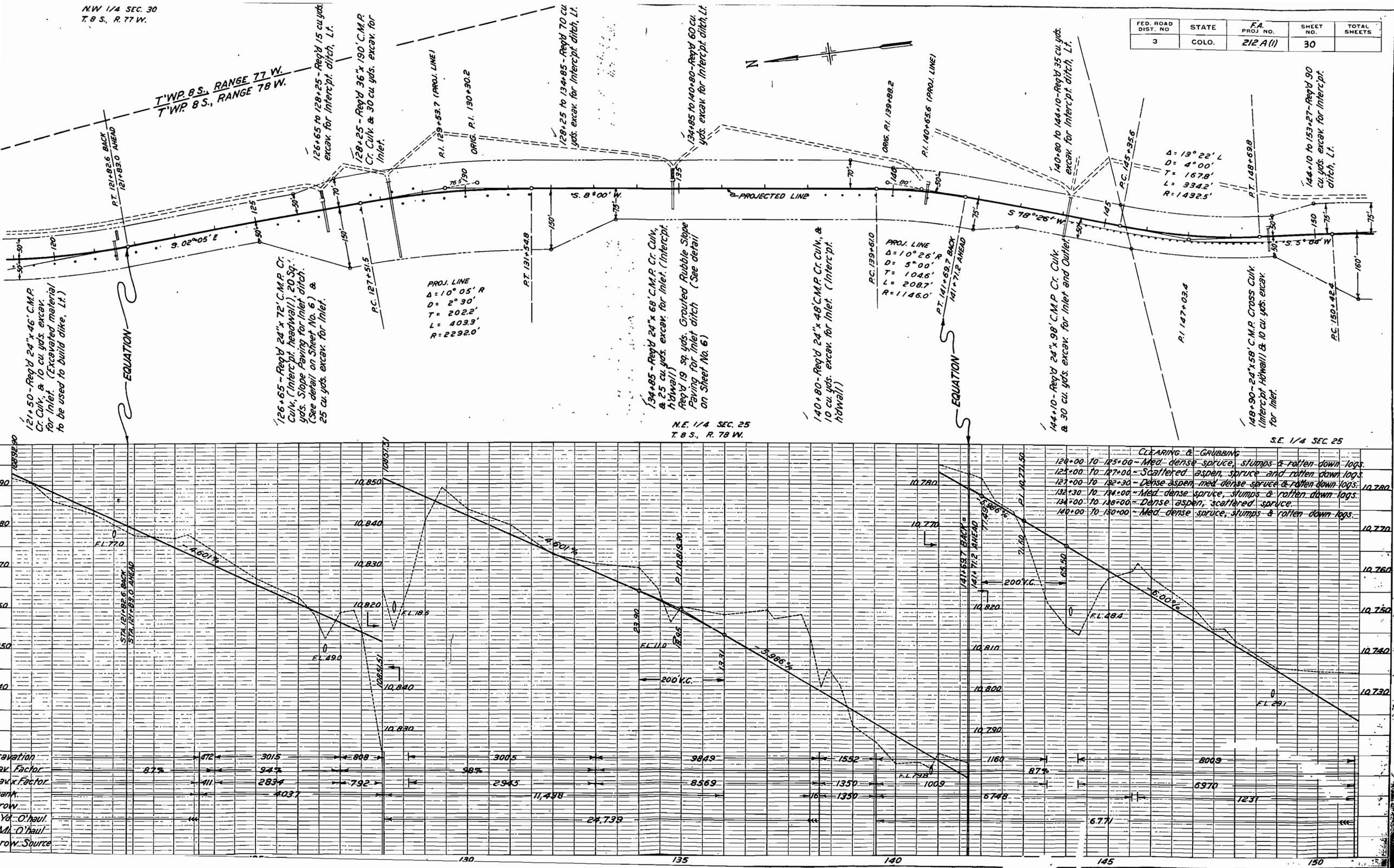
FED ROAD DIST NO.	STATE	F.A. PROJ NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	28	



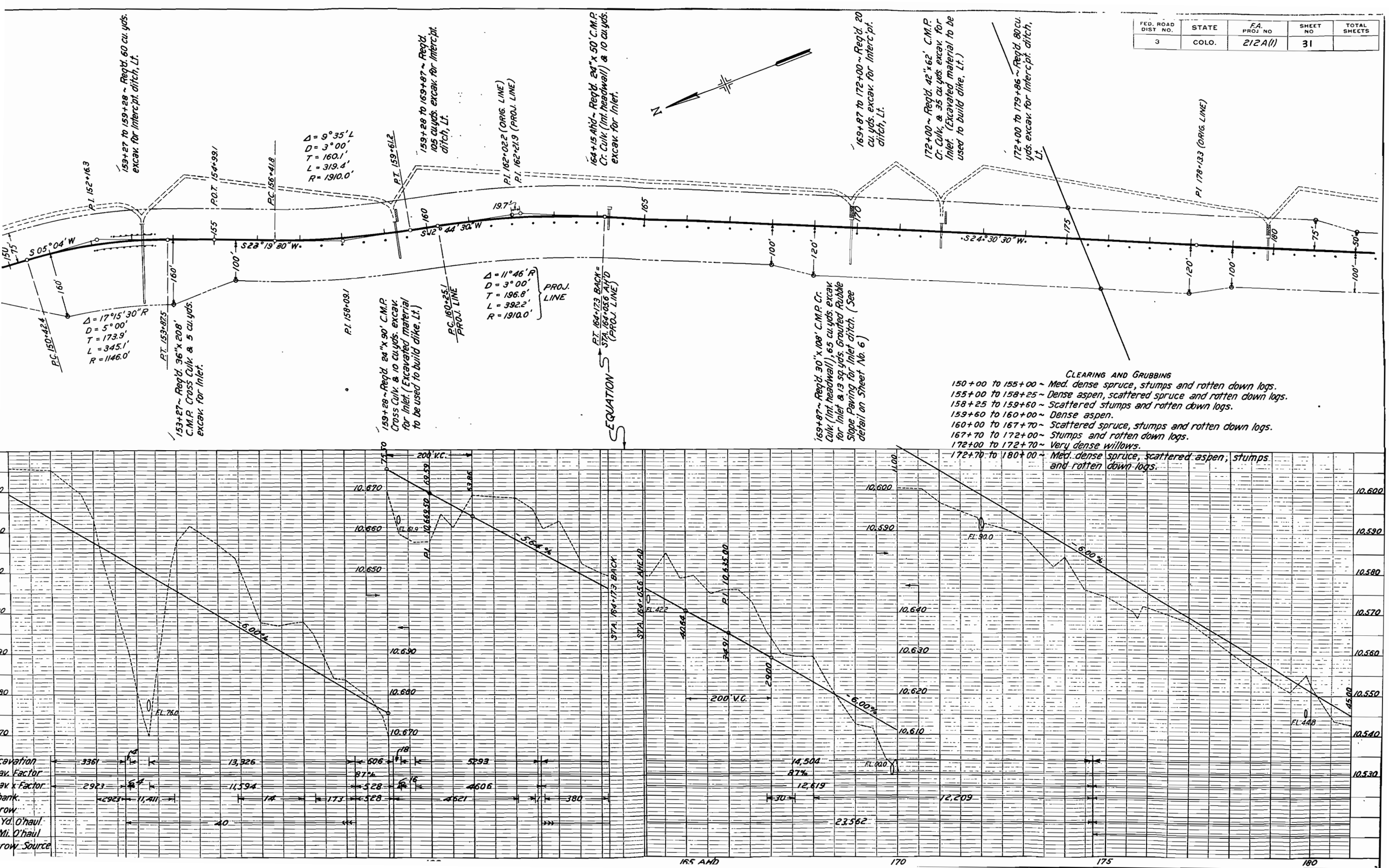
FED. ROAD DIST. NO.	STATE	F.A. PROJ NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	29	



FED. ROAD DIST. NO	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	30	



FED. ROAD DIST NO.	STATE	F.A. PROJ NO	SHEET NO	TOTAL SHEETS
3	COLO.	212A(1)	31	



FED. ROAD DIST NO	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	32	

N.E. 1/4 SEC. 36
T. 8 S., R. 78 W.

S.E. 1/4 SEC. 36

179+86 to 194+70 - Req'd 150 cu. yds. excav. for Interc'pt. ditch, Lt.

194+70 to 199+75 - Req'd 50 cu. yds. excav. for Interc'pt. ditch, Lt.

Δ = 11° 34' L
D = 1° 00'
T = 580.3'
L = 1156.7
R = 5730.0'

P.C. 202+72.8

S. 24° 30' 30" W.

S. 12° 56' 30" W.

Trail

179+86 - Req'd 24" x 56' C.M.P. Cr. Culv. (Interc'pt. headwall), 21 sq. yds. Grouted Rubble Slope Paving for Inlet ditch. (See detail on Sheet No. 6) & 45 cu. yds. excav. for Inlet.

189+00 - Req'd 24" x 52' C.M.P. Cr. Culv. (Interc'pt. headwall), & 10 cu. yds. excav. for Inlet & outlet.

194+70 - Req'd 24" x 48' C.M.P. Cross Culv. & 10 cu. yds. embank. for Dike Lt.

199+75 - Req'd 24" x 56' C.M.P. Cross Culv. & 50 cu. yds. excav. for Inlet and Outlet.

205+00 - Req'd 300 cu. yds. embank. for Road Approach, Rt.

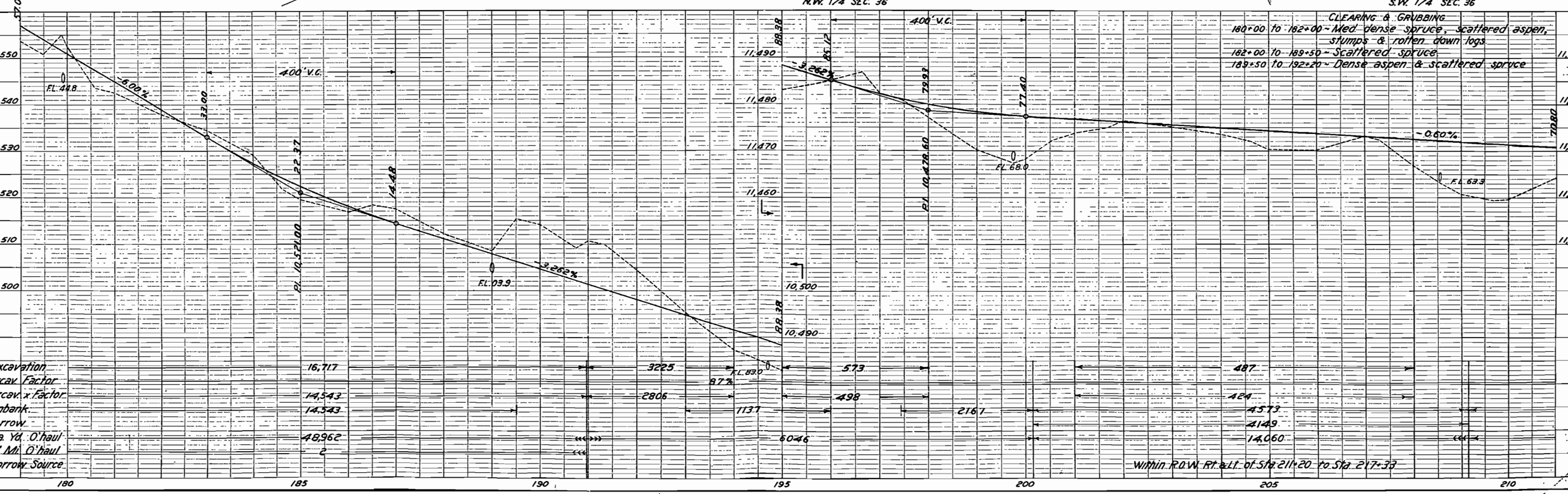
P.I. 208+53.1

208+53 - Req'd 24" x 66' C.M.P. Cr. Culv & 15 cu. yds. excav. for Inlet and Outlet.

N.W. 1/4 SEC. 36

S.W. 1/4 SEC. 36

CLEARING & GRUBBING
180+00 to 182+00 - Med. dense spruce, scattered aspen, stumps & rotten down logs
182+00 to 189+50 - Scattered spruce
189+50 to 192+20 - Dense aspen & scattered spruce

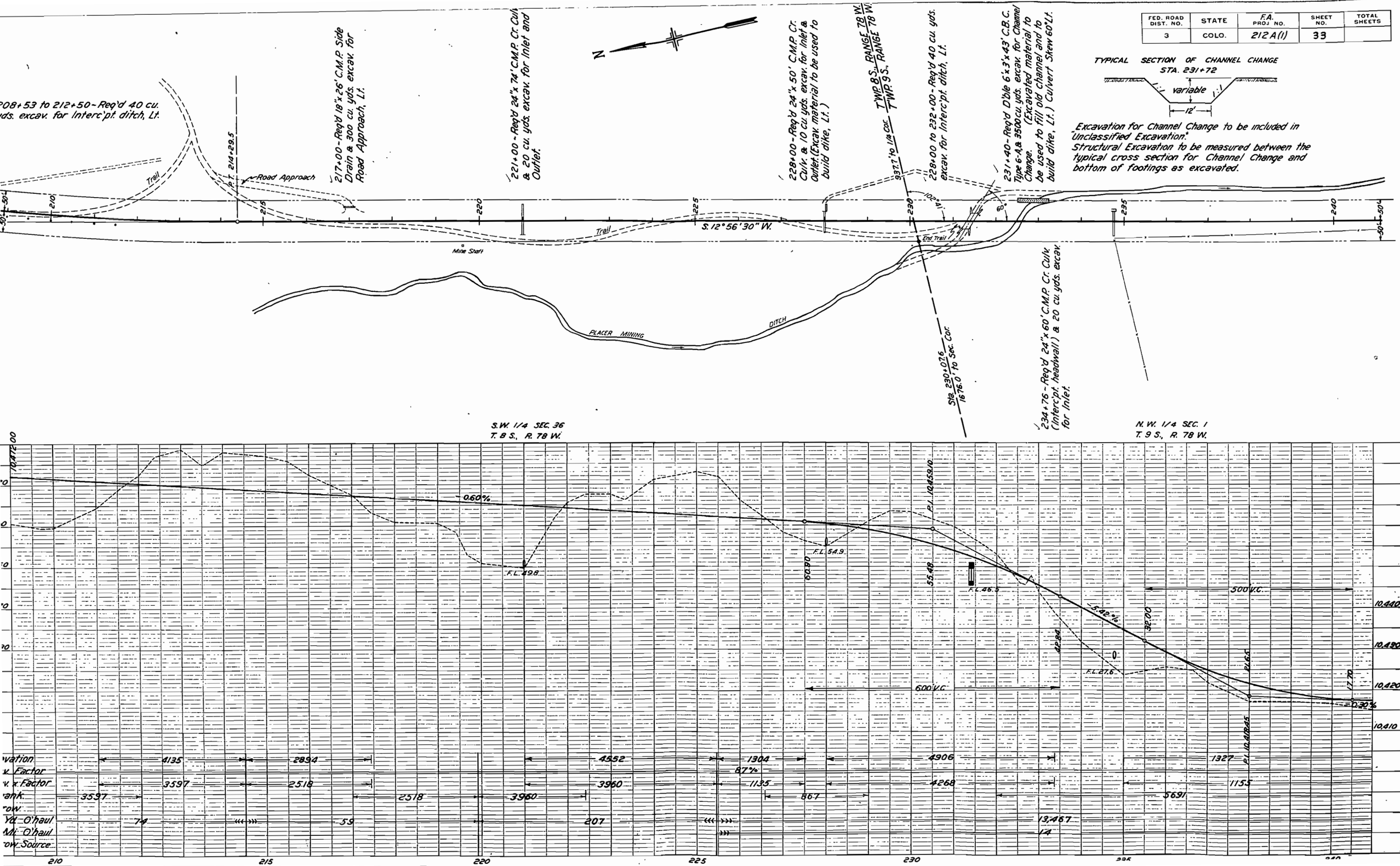


Excavation	16,717	3225	573	487			
Excav. Factor		87%					
Excav. x Factor	14,543	2806	498	424			
Embank.	14,543	1137	2167	4573			
Borrow				4149			
Ave. Yd. O'haul	48,962	6046		14,060			
Ave. Mi. O'haul	2						
Borrow Source				Within R.O.W. Rt. & Lt. of Sta. 211+20 to Sta. 217+33			

FED. ROAD DIST. NO.	STATE	F.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	33	

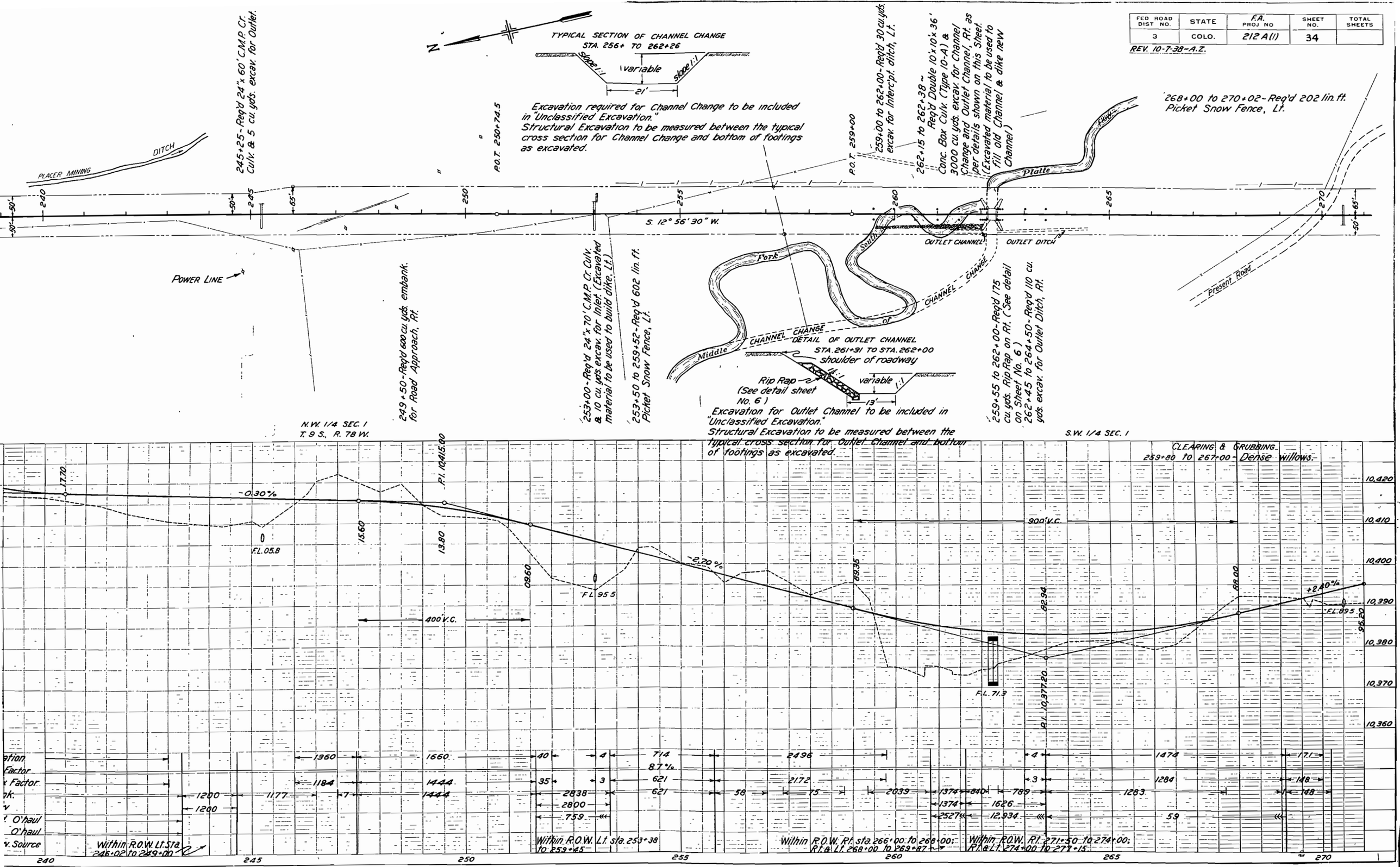
TYPICAL SECTION OF CHANNEL CHANGE
STA. 231+72

Excavation for Channel Change to be included in "Unclassified Excavation".
Structural Excavation to be measured between the typical cross section for Channel Change and bottom of footings as excavated.



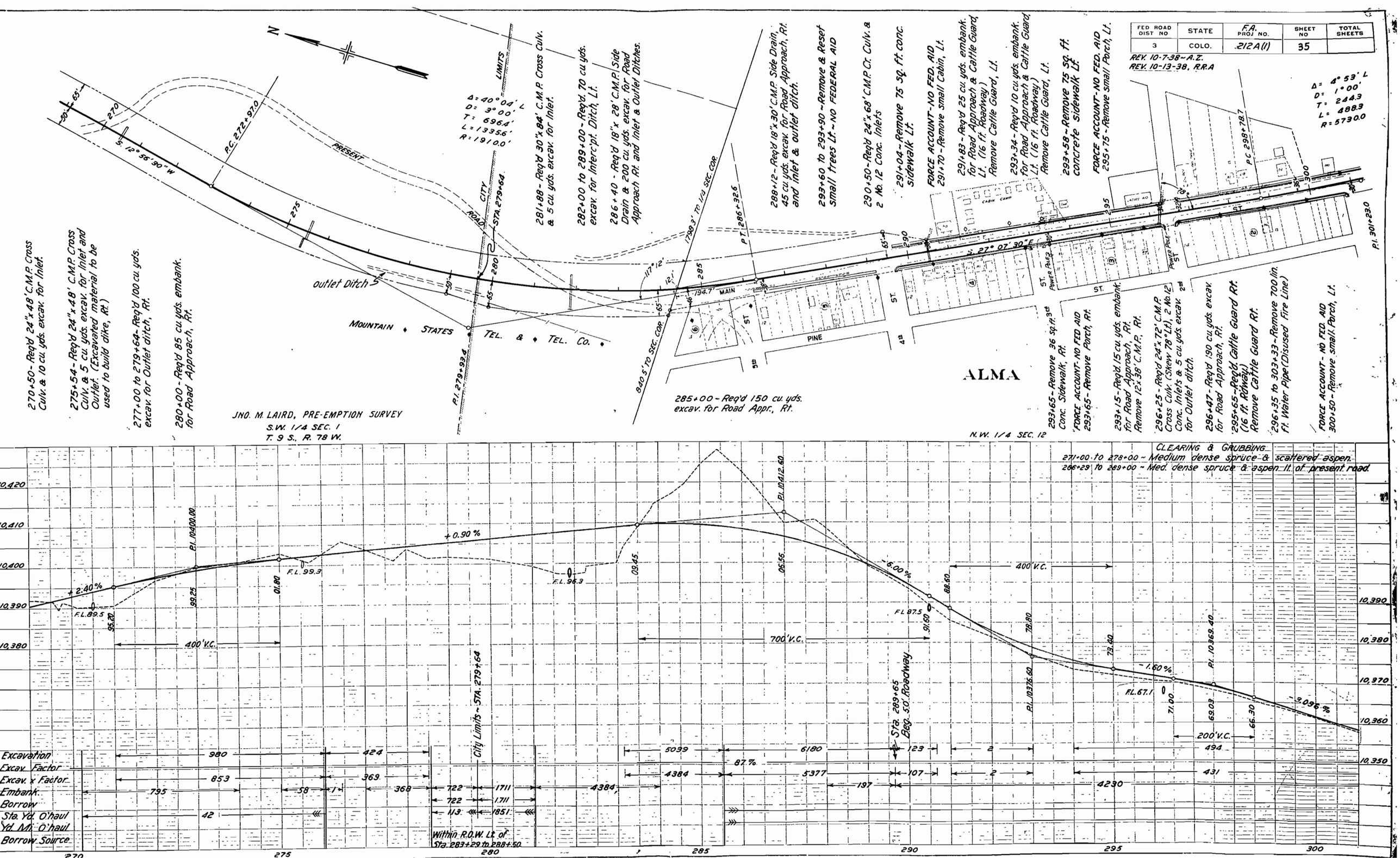
FED ROAD DIST NO.	STATE	F.A. PROJ NO	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	34	

REV. 10-7-38-A.Z.



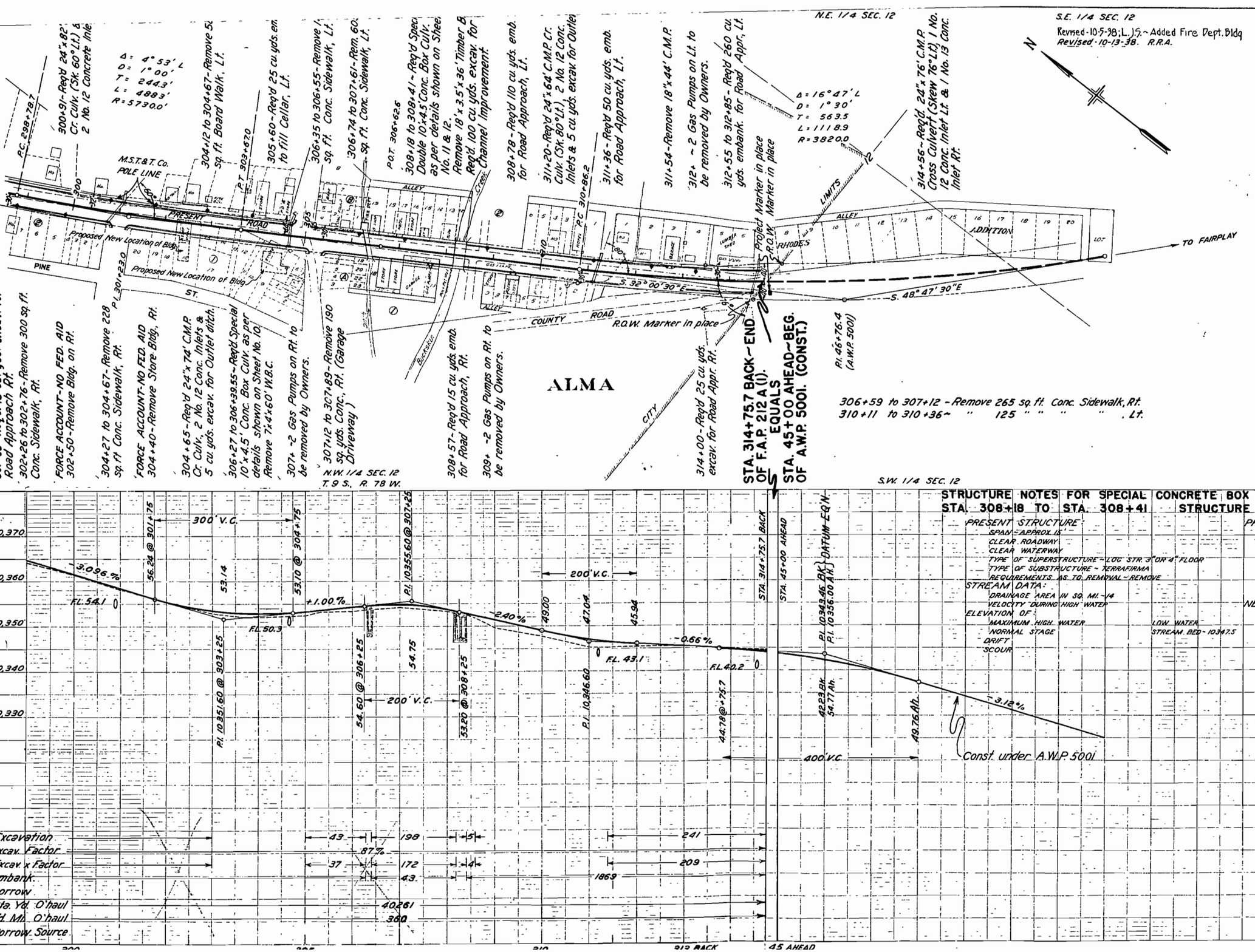
FED ROAD DIST NO	STATE	F.A. PROJ NO.	SHEET NO	TOTAL SHEETS
3	COLO.	212A(1)	35	

REV. 10-7-38 ~ A.Z.
REV. 10-13-38, R.R.A



FED. ROAD DIST. NO	STATE	F.A. PROJ. NO	SHEET NO.	TOTAL SHEETS
3	COLO.	212 A(1)	36	

Revised-10-5-38; L.J.S.- Added Fire Dept. Bldg
Revised-10-13-38. R.R.A.



SIDE APPROACHES - STA. 289+65 TO 314+75

STATION	SIDE	EXCAV. CU. YDS.	EMBANK. CU. YDS.	
291+20	R	5		
291+25	L		20	
292+25	R	15		
294+05	R		5	
294+60	R	10		
294+65	L		10	
295+10	R	10		
295+55	L		5	
295+65	R	10		
297+90	L		40	
298+35	L		40	
299+00	R	25		
299+55	R	15		
299+85	L		15	
301+15	L		45	
309+45	R		40	
310+40	R		10	
TOTAL		90	230	

Road Approaches shown above are included in Roadway Quantities for payment and do not appear on List of Structures.

STRUCTURE NOTES FOR SPECIAL CONCRETE BOX CULVERT
STA. 308+18 TO STA. 308+41 STRUCTURE NO. G-12-L

PRESENT STRUCTURE:
- SPAN - APPROX. 15'
- CLEAR ROADWAY
- CLEAR WATERWAY
- TYPE OF SUPERSTRUCTURE - LOG STR. 3" OR 4" FLOOR
- TYPE OF SUBSTRUCTURE - TERRAFIRMA
- REQUIREMENTS AS TO REMOVAL - REMOVE

STREAM DATA:
- DRAINAGE AREA IN SQ. MI. - 14
- VELOCITY DURING HIGH WATER
- ELEVATION OF:
  - MAXIMUM HIGH WATER
  - NORMAL STAGE — LOW WATER
  - DRIFT — STREAM BED - 10347.5
  - SCOUR

PROPOSED STRUCTURE:
- POSITION REFERRED TO PRESENT STRUCTURE - SAME
- SPAN - 2 @ 10' (DBL. 10'+3'-6" + C.B.C.)
- CLEAR ROADWAY - 50'
- CLEAR WATERWAY - 75.0' MINIMUM
- TYPE OF SUPERSTRUCTURE - DBL. 10'+3'-6" + C.B.C.
- TYPE OF SUBSTRUCTURE - WITH 2-5 FT. SIDEWALKS
- DETOUR STRUCTURE REQUIREMENTS
- R.R. SIDING - DIVIDE HAUL TO BRIDGE SITE - APPROX. 60 MI.

NEARBY STRUCTURES ON SAME STREAM:
- LOCATION
- WATERWAY
- RECORD DURING FLOODS