

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A (1)	1	

Rev 8-18-39-J.B.L.
Rev as Const. 3-25-40-K.L.R.

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF

FEDERAL AID PROJECT NO. 233-A (1)

STATE HIGHWAY NO. 91

SUMMIT COUNTY

CONVENTIONAL SIGNS

CENTER LINE OF SURVEY
RIGHT OF WAY LINE
SECTION LINE
ONE QUARTER SECTION LINE
TOWNSHIP LINE
COUNTY LINE
BARBED WIRE FENCE
COMBIN. WIRE FENCE
WIRE CABLE GO FENCE
RAILROAD
POLE LINES

INDEX OF SHEETS

SHEET No. 1-TITLE SHEET

- 2-TYPICAL SECTION & SUMMARY
- 3-LIST OF STRUCTURES
- 4-TABULATIONS & HEADWALL DETAILS

7-11-BRIDGE DETAILS FOR STA. 194+

- No. 12-STAND. NAME PLATE M-6-D
- 13-HDWALLS FOR C.M.P. CULVTS M-102-E
- 14-CONC. BOX CULVTS M-103-D
- 15-TIMBER GUARD POSTS M-19-A
- 16-WIRE FENCE (TRTD WOOD POSTS) M-24-F
- 17-STRUCT. NUMBER LETTERING M-10-A
- 18-METHODS FOR SUPERELEV. & WIDENING M-1-B
- 19-TYPICAL SIDE APPR. ROADS, TRAFFIC SIGNS M-2-B

21-32-PLAN & PROFILE SHEETS

40-105-CROSS SECTIONS

SH 5,6,20 & 33-39-DELETED

SHEET No. 15-A-WIRE CABLE GUARD FENCE

M-20-B

SCALES OF ORIGINAL TRACINGS

ON PLAN, 1 IN. = 100 FT.

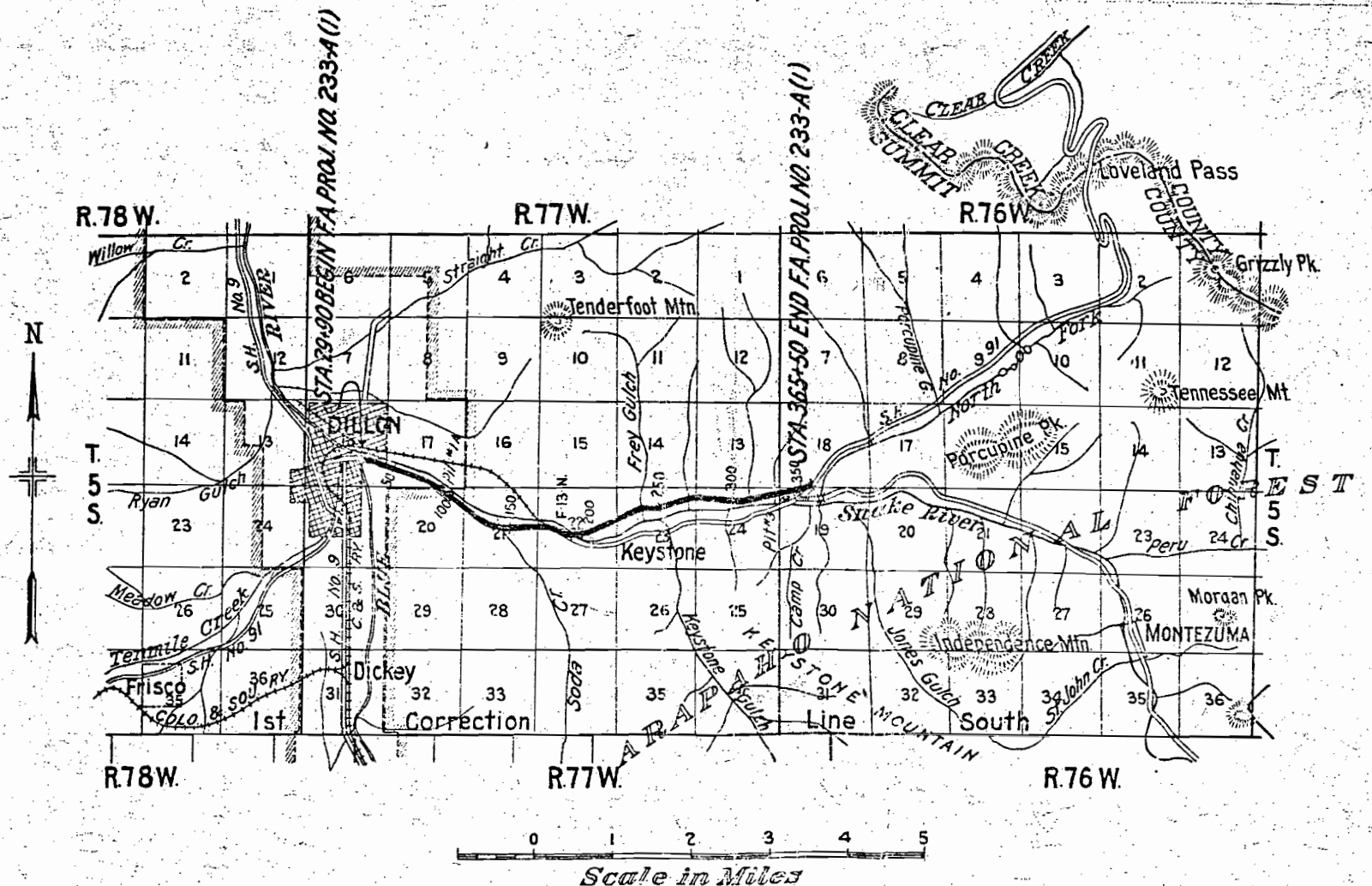
ON PROFILE 1 IN. = 100 FT. HORIZONTAL

1 IN. = 10 FT. VERTICAL

GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD

GROSS LENGTH OF PROJECT 33,241.0 FT. = 6.295 MI.

NET LENGTH OF PROJECT



RECOMMENDED FOR APPROVAL

J. E. Maloney
ASSISTANT ENGINEER

Chas. H. Hille
STATE HIGHWAY ENGINEER

RECOMMENDED FOR APPROVAL

DIST. ENG. BUREAU PUBLIC ROADS

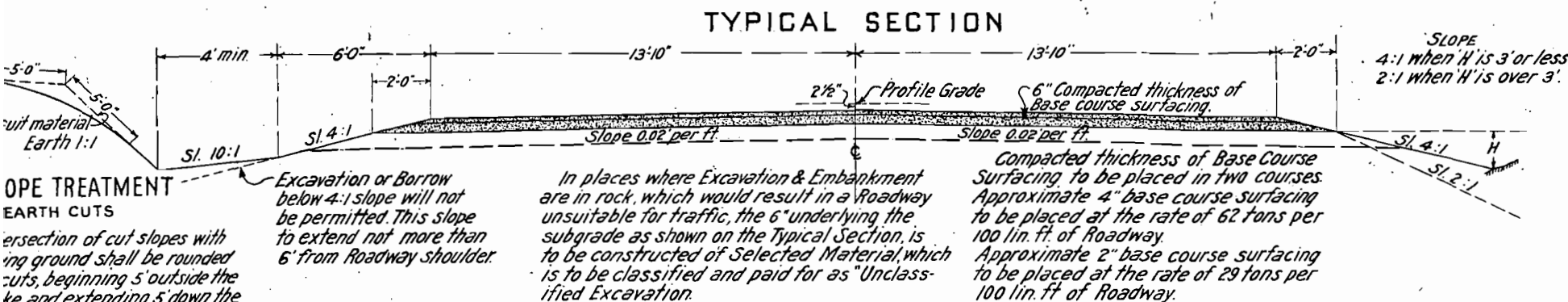
RECOMMENDED FOR APPROVAL

CHIEF ENG. BUREAU PUBLIC ROADS

APPROVED

DIRECTOR BUREAU PUBLIC ROADS

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.

Quantities on preliminary plans are to be considered approximate only.

Roadway Excavation required to construct this Project, is obtained as indicated on the plans. Quantities involved be the limits of the ditch as shown on Typical Section, either on profile as "Borrow", or on List of Structures as "Embankment" are to be classified and paid for as "Unclassified Excavation". These quantities are to be stated as part of the original Excavation at locations indicated on the plans.

Stakes, beyond the limits of the Typical Section as shown, subject to change by the Engineer to fit Embankment requirements actually met in construction.

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

Notes on the plans indicate the character and approximate quantity of Clearing and Grubbing required.

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

Side approach roads to the Project shall be gravel surfaced with a 4" Gravel or Crushed Rock Surfacing extending approximately 30 ft. from edge of Highway. Estimated tonnage of Surfacing material required in this operation is shown in the "List of Structures".

Roadway Embankments at Bridge approaches shall be constructed so that the finish point of gravel shoulder is 3.0 ft. outside the line of the Bridge. When widening of the Section is necessary to obtain this result, it shall take place uniformly over a distance of 100 ft. This is done to accommodate guard posts at Bridge approaches.

Fences, the purpose of which is to enclose the Right of Way, shall be placed in such position that the entire fence, including line and post, shall be approximately 6 in. inside the boundary line of the Right of Way, as shown on the plans.

Except as otherwise noted on the plans, Overhaul will be paid for measured along the center line of the Project.

Drainage pipe. Cross Culverts are to be provided with one headwall on the end, unless otherwise noted.

The present traveled roadway will be used for traffic during construction of this Project.

At all places where Project where construction encroaches on present road, traffic shall be adequately provided for at the Contractor's expense. Also the Contractor shall, at his own expense, construct and maintain in safe condition all temporary approaches to and crossings of intersecting roads.

SUMMARY OF APPROXIMATE QUANTITIES

ITEM	DESCRIPTION	UNIT	DILLON SECTION			OUTSIDE DILLON			TOTALS		
			ROADWAY		TOTALS	ROADWAY	BRIDGE STA. 194+	TOTALS	PROJECT TOTALS	FEDERAL AID	NON-FED. AID
10a	Clearing & Grubbing entire Proj.	Lump Sum	.		.	.		.	.	.	
10b	Clearing & Grubbing entire Proj.	" "	.		.	.		.	.	.	
11a	Removal of 8 structures	Lump Sum									
12a	Removing fence	Lin. Ft.				6,000		6,000	6,000	6,000	
13c	Unclassified Excavation	Cu. Yd.	6500		6,500	188,500		188,500	195,000	192,500	2,500
14a	Dry Rock Excavation (Struct.)	Cu. Yd.				85	5	90	90	90	
14b	Dry Common Excav.	" "	10		10	770	90	860	870	840	30
14c	Wet Rock Excavation	" "				15	5	20	20	20	
14d	Wet Common Excav.	" "	5		5	90	600	690	695	695	
18a	Station-Yard Overhaul	Sta-Yd.	22,000		22,000	433,000		433,000	455,000	455,000	
18b	Yard-Mile Overhaul	Yd-Mi.	1,000		1,000	3,000		3,000	4,000	4,000	
26a	Gravel or Cr. Rock Surfacing	Ton	1,100		1,100	30,000		30,000	31,100	30,750	350
26c	Overhaul of Surfacing	Ton-Mi.	1,200		1,200	9,800		9,800	11,000	11,000	
42a	Untreated Bridge Timb.	M Ft. B.M.					0.6	0.6	0.6	0.6	
46a	Class "A" Concrete	Cu. Yd.				103	373	476	476	476	
46b	Class "B" Concrete	" "	4		4	96		96	100	95	5
46f	Class "A" Concrete (Handrails)	" "					6	6	6	6	
47	Reinforcing Steel	Lbs				6,900	37,500	44,400	44,400	44,400	
48	Structural Steel	Lbs					43,800	43,800	43,800	43,800	
53b	18" Corr. Metal Culv. Pipe	Lin. Ft.	44		44	296		296	340	340	
53c	24" " " " " " "	Lin. Ft.	106		106	1,982		1,982	2,088	1,972	116
53d	30" " " " " " "	" "				84		84	84	84	
53e	36" " " " " " "	" "				226		226	226	226	
53q	48" " " " " " "	" "				144		144	144	144	
53i	60" " " " " " "	" "				84		84	84	84	
72	18" Perf. Corr. Metal Culv. Pipe	" "				104		104	104	104	
74x	Timber guard posts	Each				251		251	251	251	
76a	Barbed Wire Fence (Tr. Wood Posts)	Lin. Ft.				38,600		38,600	38,600	38,600	
76q	Barbed Wire gates	Each				8		8	8	8	
80b	Bronze Name Plate	" "					1	1	1	1	
81a	Project Markers	" "	1		1	1		1	2	2	
81b	Right of Way Markers	" "	4		4	479		479	479	479	
74	Wire Cable Guard Fence	Lin. Ft.									
126	24" No. 101 Slide Headgate (7 frame)	Each				1		1	1	1	
89c	Drain Pipe (Conc. floor) (3"x4'-0")	" "					4	4	4	4	
92	Obliterating old road	Lump Sum									
	Moving Telep. poles from R.O.W.	" "									
	Moving Power " " R.O.W.	" "									

FORCE ACCOUNT ITEMS

(Telep. Co. Forces)
(Power Co. Forces)

Rev. 8-18-38-S.B.L.
Rev. 1-5-39-S.B.L.

GRAVEL OR CRUSHED ROCK SURFACING

Gravel or Crushed Rock Surfacing for the project is available in the vicinity of the pits noted below and shown on the Title Sheet. The material in each pit is estimated to be ample. The minimum tonnage to be taken from pit No. 3 shall be 15,000 tons. Estimated quantities involved in surfacing operations are shown in tabulation below.

SURFACING TO BE PLACED	TONS REQUIRED	SURFACING AVAILABLE	OVERHAUL TON MILE
Sta. 29+90 to 45+04 & approaches	1045	Pit # 1 A R.O.W. Sta. 88+00 to 100+00	1120
Sta. 45+04 to 194+43 & approaches	13,815		2,050
Sta. 194+98 to 365+50 & approaches	15,655	Pit # 3 500 Ft. Sta. 336+00	6,960
TOTAL	30,515		10,130

FENCING REQUIREMENTS

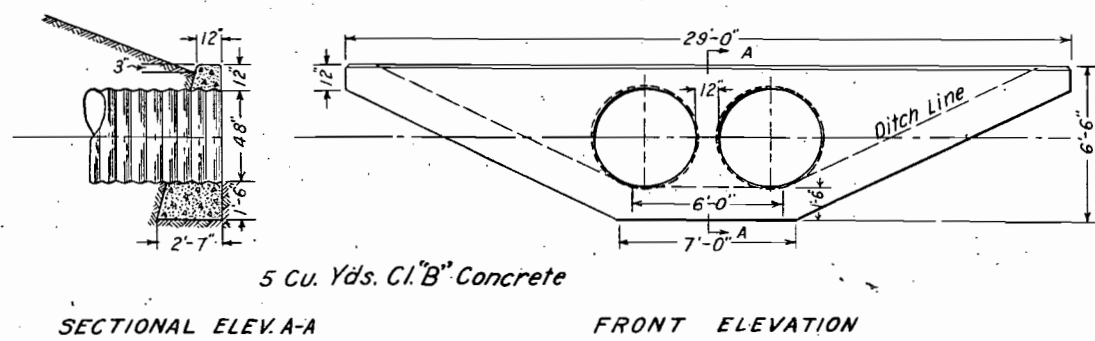
STATION TO	STATION	SIDE	REMOVE FENCE LIN. FT.	BUILD	
				B.W. FENCE LIN. FT.	B.W. GATES NO.
54+85	57+15	L	230	225	
61+50	79+10	L		1,760	
61+50	78+50	R		1,700	
64+15	68+85	L	490		
75+65	79+10	L	360		
123+50	176+40	L		5,310	
123+50	179+00	R		5,610	
135+25		L			1
139+30	142+20	X	345		
140+00		L			1
148+55		X	125		
148+70		L			2
148+90		X	125		
155+15	165+40	X	950		
172+90		L			2
176+40	176+90	X	175		
224+50	340+90	R		11,635	
225+35	235+55	L		2,040	
233+90	235+50	X	190		
237+26		R			1
239+00	341+20	L		10,250	
239+00	245+80	X	740		
268+30	273+70	R	535		
279+30		X	100		
286+05	292+00	R	585		
286+80		R			1
293+95	298+15	X	425		
324+45	328+15	X	405		
341+00		X	150		
TOTALS			5,930	38,530	8

R.O.W. MARKERS

STATION	NUMBER		STATION	NUMBER	
	LEFT	RIGHT		LEFT	RIGHT
			220+00	1	
			221+00	1	
			229+00	1	
			230+00	1	
			239+00	1	
			240+00	1	
			249+06.7	1	
			249+75	1	1
			257+00	1	1
			258+00	1	1
			261+00	1	1
			262+00	1	1
			275+58	1	1
			286+00	1	1
			287+00	1	1
			292+00	1	1
			293+00	1	1
			304+00	1	1
			305+00	1	1
			305+83	1	1
			312+00	1	1
			313+00	1	1
			328+00	1	1
			329+00	1	1
			331+82	1	1
			346+81	1	1
			350+00	1	1
			351+00	1	1
			356+58	1	1
			358+87	1	1
			365+50	1	1
			190+50	1	1
			203+60	1	1
			199+50	1	1
			210+45	1	1
			212+74	1	1
			195+00	1	1
			199+00	1	1
			200+316	1	1
TOTALS			(46)	46	

HEADWALL DETAIL FOR DOUBLE 48" C.M.P. CULVERT.

RT. STA. 183+60 & 189+00



TIMBER GUARD POSTS

STATION TO	STATION	SPACING	NUMBER	
			LEFT	RIGHT
100+20	103+00	20'	15	
123+20	126+80	20'	19	
133+40	134+40	20'	6	
134+20	134+80	20'		4
191+14	194+25	20' and Bridge	19	
194+24	194+55	20' and Bridge		5
195+16	197+87	20' and Bridge		17
277+70	278+30	20'		4
281+50	282+90	20'		8
283+20	286+00	20'		15
284+25	286+25	20'	11	
293+60	294+40	20'		5
353+50	360+70	20'		37
353+90	355+50	20'	9	
312+20	327+40	20'	77	
TOTALS			156	95

struction are to be moved by owners.
 ing requirements, gates, and ROW.
 ers are tabulated on sheet 4 of plans.
 ber guard posts are tabulated
 sheet 4 of plans.

DILLON

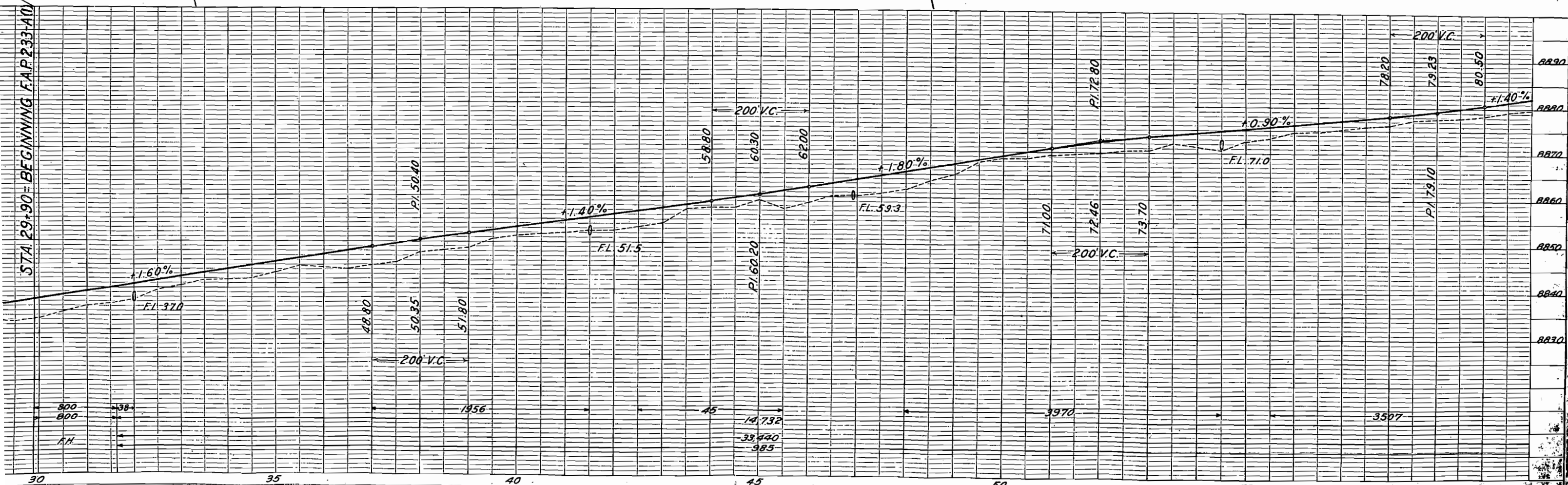
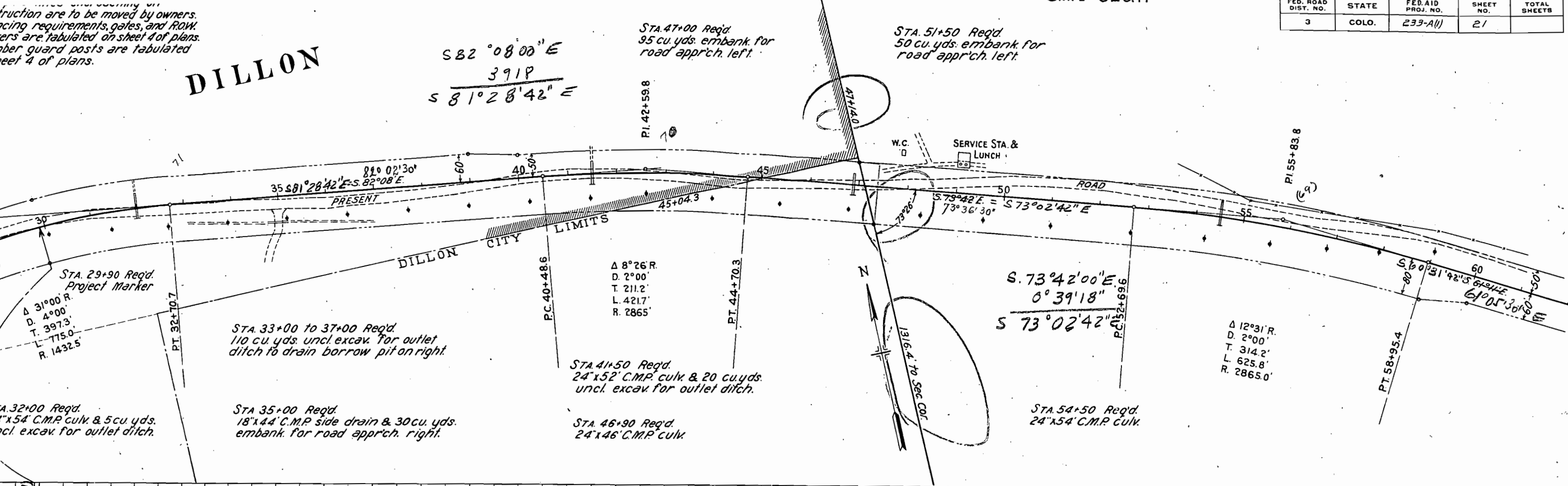
S 82°08'00"E
 391P
 S 81°28'42"E

STA. 47+00 Req'd.
 95 cu. yds. embank. for
 road appr'ch. left.

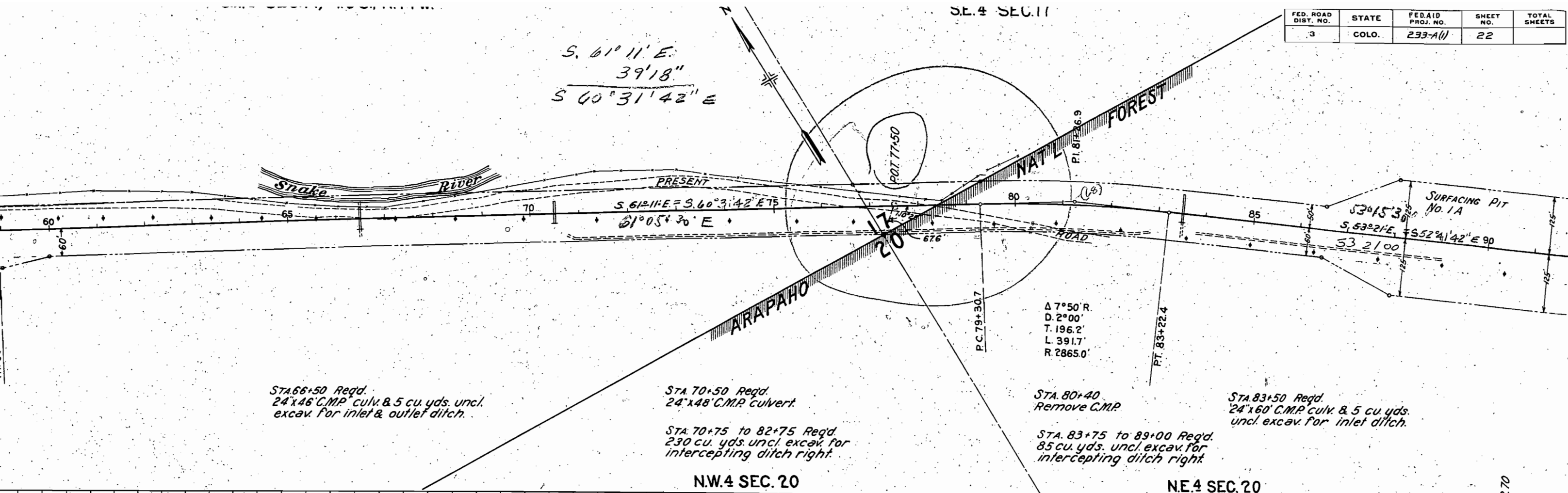
STA. 51+50 Req'd.
 50 cu. yds. embank. for
 road appr'ch. left.

S.W. 4 SEC. 17

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	21	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	22	



STA. 66+50 Req'd.
24'x46' C.M.P. culv. & 5 cu. yds. uncl.
excav. for inlet & outlet ditch.

STA. 70+50 Req'd.
24'x48' C.M.P. culvert.

STA. 70+75 to 82+75 Req'd.
230 cu. yds. uncl. excav. for
intercepting ditch right.

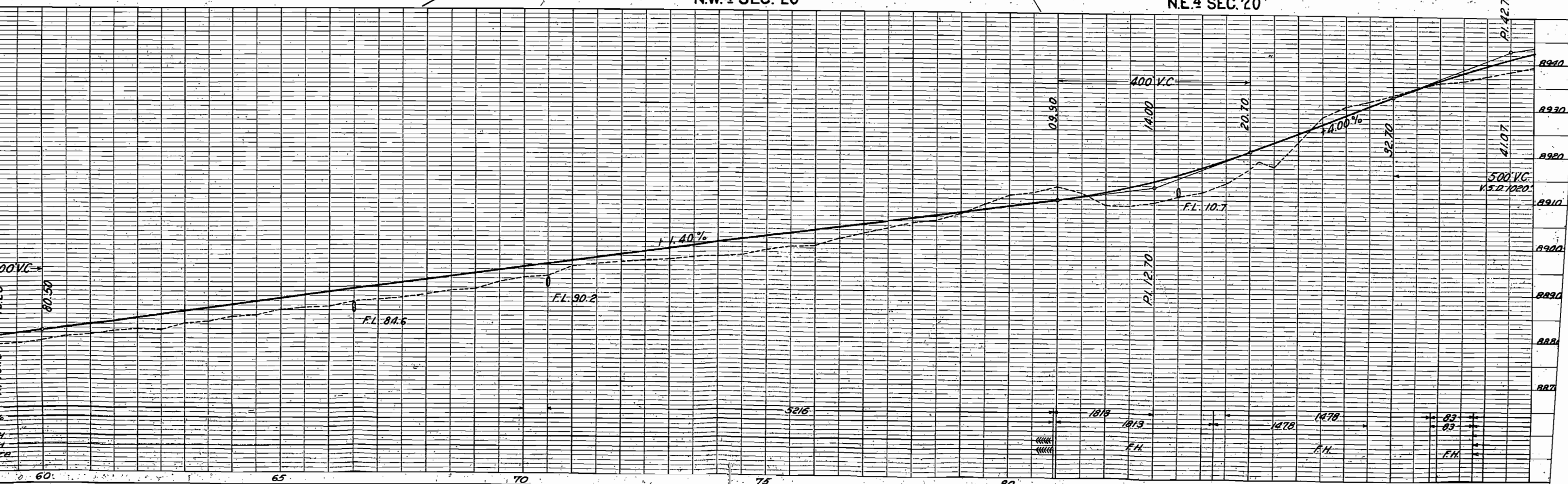
STA. 80+40
Remove C.M.P.

STA. 83+75 to 89+00 Req'd.
85 cu. yds. uncl. excav. for
intercepting ditch right.

STA. 83+50 Req'd.
24'x60' C.M.P. culv. & 5 cu. yds.
uncl. excav. for inlet ditch.

NW.4 SEC. 20

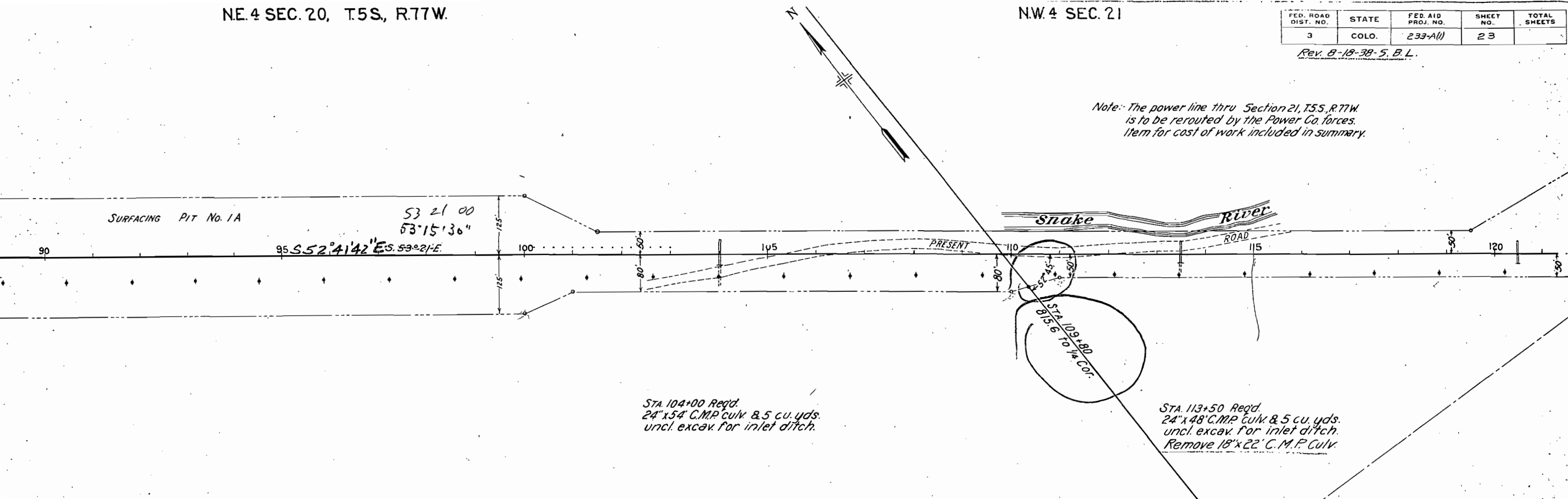
NE.4 SEC. 20



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	23	

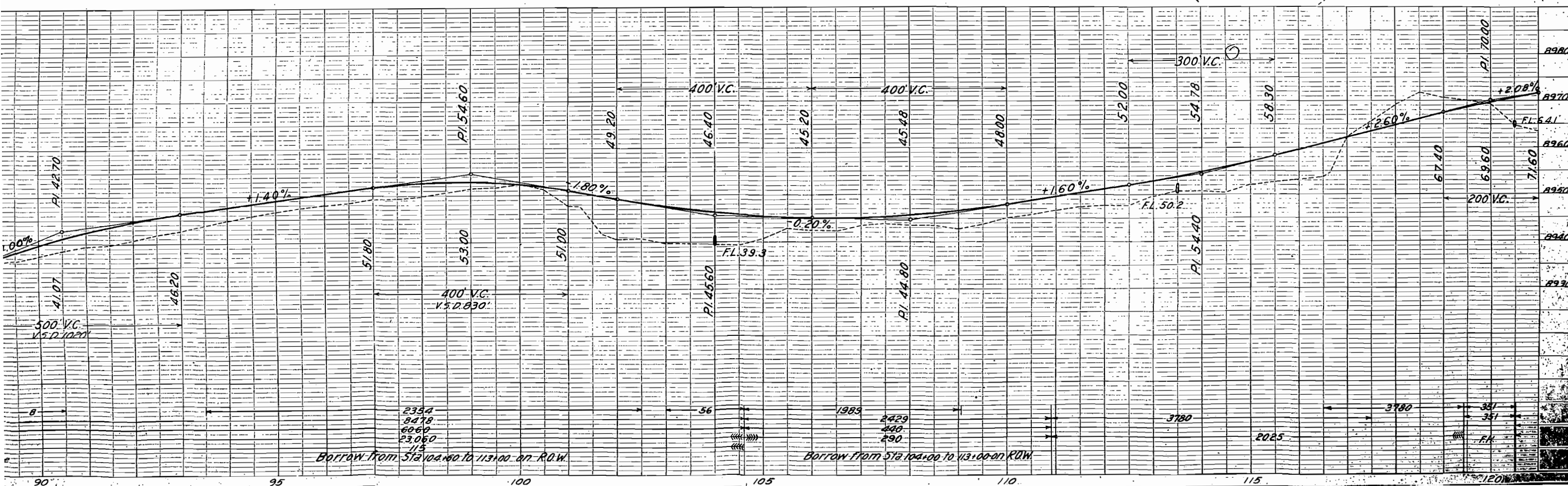
Rev. 8-18-38-5, B. L.

Note: The power line thru Section 21, T.5S, R.77W is to be rerouted by the Power Co. forces. Item for cost of work included in summary.



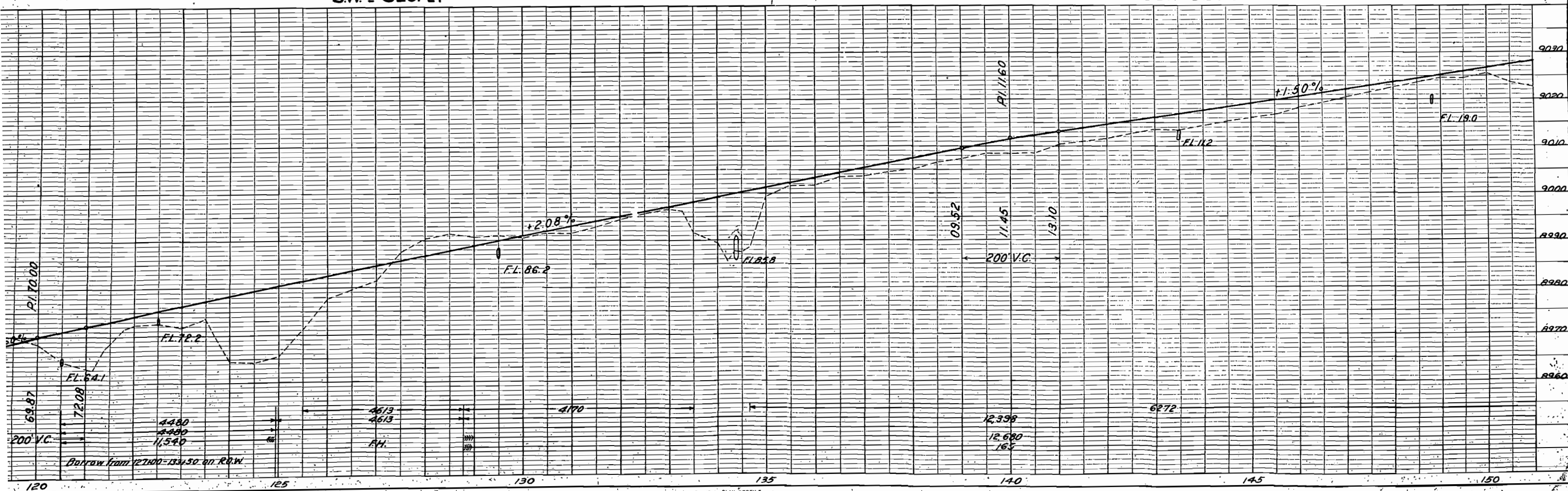
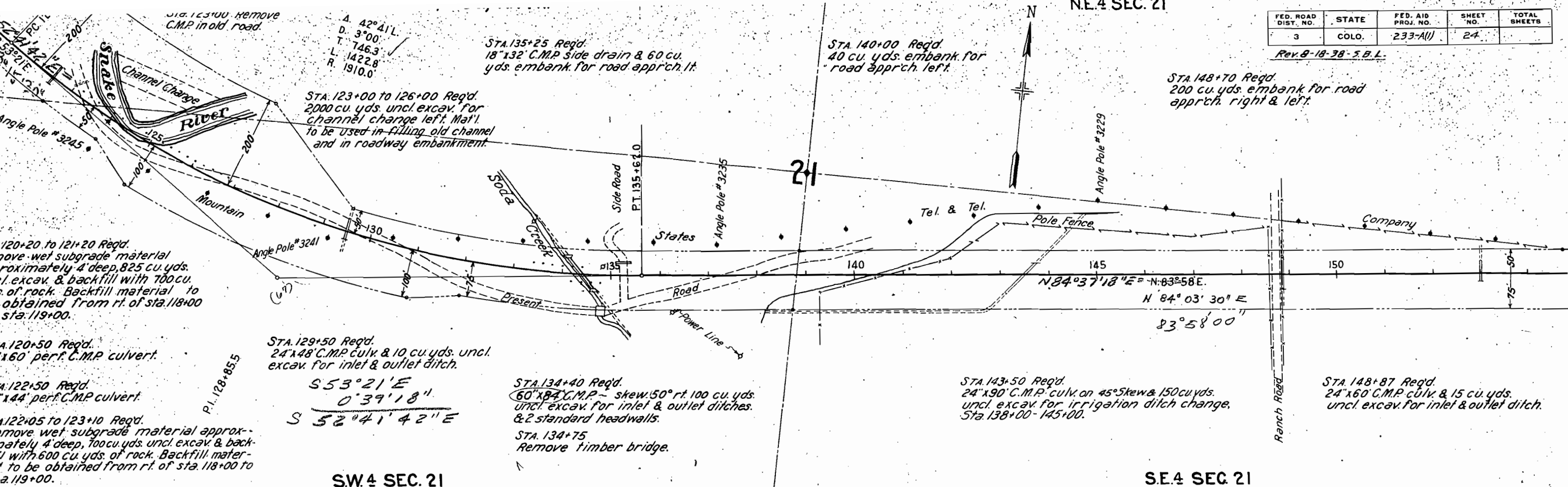
STA 104+00 Req'd.
24"x54" C.M.P. Culv. & 5 cu. yds.
incl. excav. for inlet ditch.

STA 113+50 Req'd.
24"x48" C.M.P. Culv. & 5 cu. yds.
incl. excav. for inlet ditch.
Remove 18"x22" C. M. P. Culv.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(11)	24	

Rev. 8-18-38 - S. B. L.



N.W. 4 SEC. 22

$$\begin{array}{r} N. 83^{\circ} 58' E. \\ 0^{\circ} 39' 18'' \\ \hline N. 84^{\circ} 37' 18'' E. \end{array}$$

STA. 174+50 to 185+00 Req'd.
300 cu. yds. uncl. excav. for
ditch change left.

Sta. 176+50 Req'd.
18"x36" C.M.P. side drain @ 115
cu. yds. embank. for road app. 1 ft.

STA. 165+50 Back. Reg'd.
24"x48" C.M.P. culv. & 5 cu. yds.
uncl. excav. for outlet ditch.

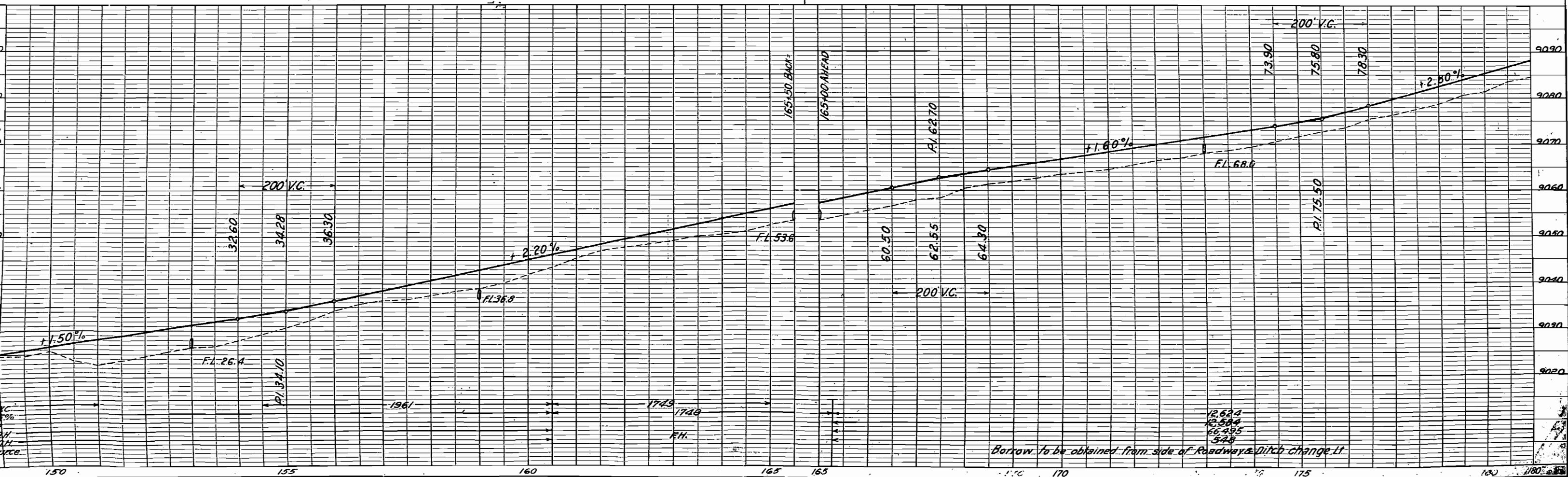
STA. 173+00 Req'd.
24"x48" C.M.P. culv. & 5 cu. yds.
uncl. excav. for outlet ditch.

STA. 172+90 Reg'd.
125 cu. yds. embank. for road
appr'ch. right & left.

D. $14^{\circ}38' R.$
 D. $2^{\circ}00'$
 T. $367.9'$
 L. $731.7'$
 R. $2865.0'$

S.E.4 SEC. 21

S.W.4 SEC. 22



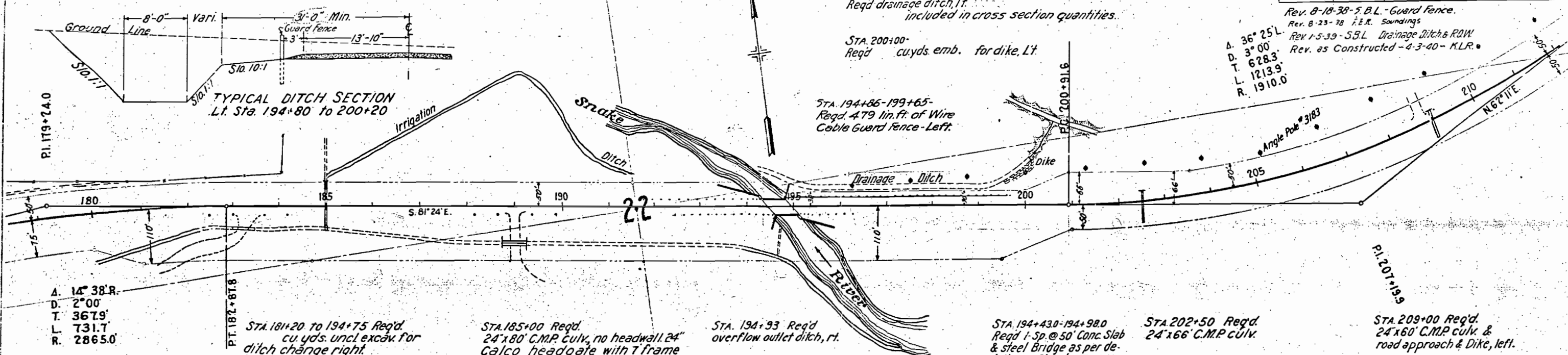
N.W. 4 SEC. 22

N.E. 4 SEC. 22, T.5 S., R.77 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233A(1)	26	

Rev. 8-18-38-5 B.L. Guard Fence.
Rev. 8-23-38 F.E.R. Soundings
Rev. 1-5-39-S.S.L. Drainage Ditch & RDW
Rev. as Constructed-4-3-40-K.L.R.

A. 36° 25' L.
D. 3° 00' T.
L. 628.3
R. 1213.9
R. 1910.0



A. 14° 38' R.
D. 2° 00' T.
L. 367.9
R. 731.7
R. 2865.0

STA 183+50 Remove wood division box rt.

STA 183+60 Remove timber bridge

STA 181+20 to 194+75 Req'd. cu. yds. uncl. excav. for ditch change right.

STA 183+35 Req'd. 48"x48" C.M.P. side drain & road approach rt.

STA 185+00 Req'd. 24"x80" C.M.P. culv. no headwall. 24" Galco headgate with T frame model-101, Concrete Division Box & outlet ditch.

STA 189+00 Req'd. Dbl 48"x48" C.M.P. side drain & cu. yds. embank. for road approach right. 2-Hd walls. See special details on Sheet 4.

STA 194+93 Req'd. overflow outlet ditch, rt.

STA 194+430-194+98.0 Req'd. 1-Sp. @ 50' Conc. Slab & steel Bridge as per details on Sheets 7 to 11.

STA 202+50 Req'd. 24"x66" C.M.P. culv.

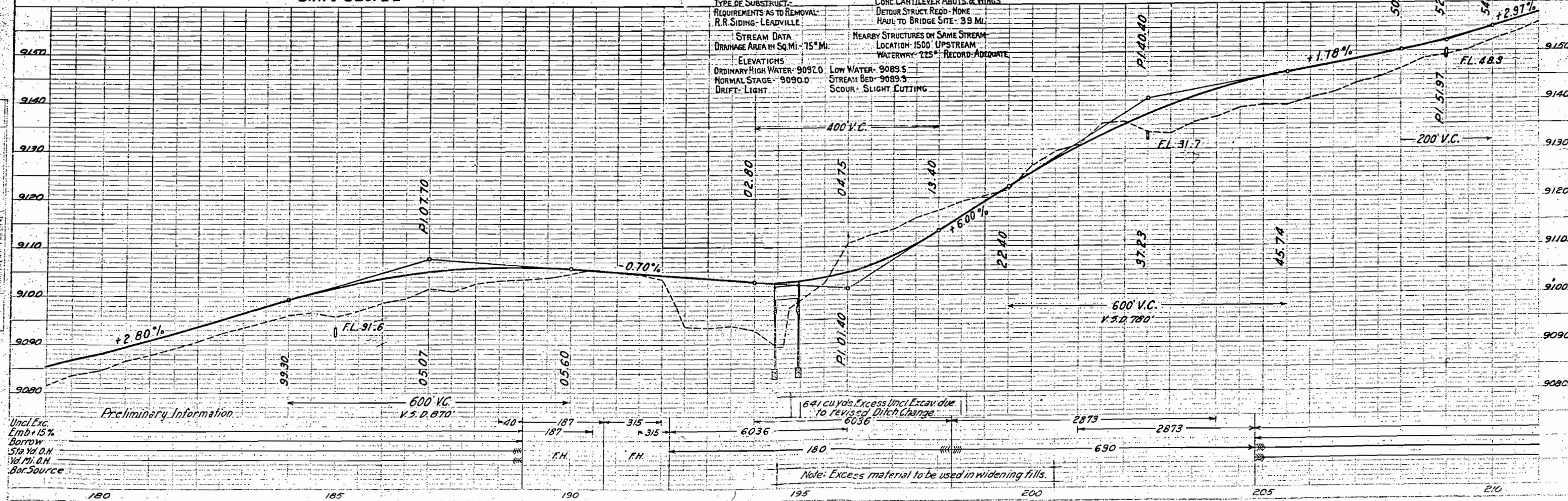
STA 209+00 Req'd. 24"x60" C.M.P. culv. & road approach & Dike, left.

BRIDGE DATA

STRUCTURE No. F-13-N
STREAM- SNAKE RIVER
SKEW ANGLE- 45°
PRESENT STRUCTURE
SPAN-
CLEAR ROADWAY-
CLEAR WATERWAY-
TYPE OF SUPERSTRUCTURE-
TYPE OF SUBSTRUCTURE-
REQUIREMENTS AS TO REMOVAL-
R.R. Siding- LEADVILLE
STREAM DATA
DRAINAGE AREA IN Sq. Mi.- 75° Mi.
ELEVATIONS
ORDINARY HIGH WATER- 9092.0
NORMAL STAGE- 9090.0
DRIFT- LIGHT
PROPOSED STRUCTURE
1 @ 50'-0"
30'-0"
325'
CONC. SLAB ON I-BEAMS
CONC. CANTILEVER ABUTS. & WINGS
DETOUR STRUCT. REQ'D- NONE
HAUL TO BRIDGE SITE- 3.9 MI.
NEARBY STRUCTURES ON SAME STREAM-
LOCATION- 1500' UPSTREAM
WATERWAY- 225° RECORD- ADEQUATE
LOW WATER- 9089.5
STREAM BED- 9089.5
SCOUR- SLIGHT CUTTING

SW. 4 SEC. 22

SE. 4 SEC. 22



Uncl. Exc. Emb. 15% Borrow Sta. Val. O.H. Val. M. O.H. Bor. Source

Note: Excess material to be used in widening fills.

NE.4 SEC.22. T5S. R77W.

NW.4 SEC.23

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	293-A(1)	27	

Rev. as Const. - 4-3-40 - KLR

A. 36°25' L.
D. 3°00'
T. 628.3'
L. 1213.9'
R. 1910.0'

Sta 235+00-Req'd 18"x52' C.M.P. culv.
& cu yds. uncl. exc. for outlet

Sta 236+40-Req'd 36"x56' C.M.P. culv. on 60° skew
& cu yds. uncl. exc. for inlet and outlet.

Sta 238+40-Req'd cu yds. embk. for Road approach.
Rt. & Lt. also 18"x22' C.M.P. side drain Rt. & 18"x32' C.M.P. side drain Lt.

Sta 239+59.7-Req'd 18"x94' C.M.P. culv.
on 64°30' Skew. Ditch change Lt.

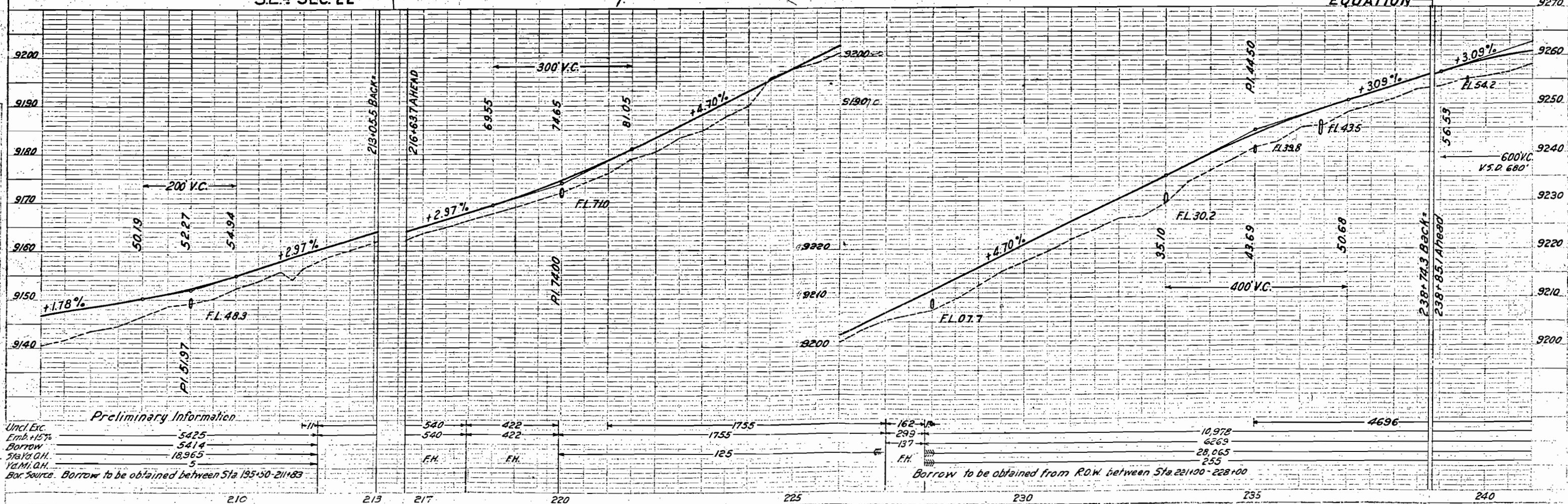
PT 213+05.5 BACK =
216+63.7 AHEAD

EQUATION

STA 220+00 Req'd.
24"x50' C.M.P. culv.STA 228+00 Req'd.
24"x44' C.M.P. culv.STA 233+00 Req'd.
24"x54' C.M.P. culv.
& inlet ditchSTA. 236+00 Req'd
road approach, lt.STA. 235+30 Req'd
road approach, rt.Sta 233+90-235+90-Req'd
cu yds. uncl. exc. for ditch change
Rt.PT 238+74.3 BACK =
238+85.1 AHEAD.

EQUATION

SE.4 SEC. 22



N.W. 4 SEC. 23

NE. 4 SEC. 23, T. 5 S., R. 77 W.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	28	

Rev. as Const. 4-4-40-KLR.

Δ 17°46' L.
D.T. 3°00'
T. 298.5'
L. 592.2'
R. 1910.0'

PC 243+14.5

PT 249+06.1

STA. 260+03 to 271+10 Req'd.
cu. yds. unclass. excav. for
intercepting ditch left.

STA. 264+50 Req'd
road approach, 17.

N. 86°12' E.

N. 68°26' E.

245

PI 246+18.0

STA. 248+10 Req'd
24'x60' C.M.P. culv.

STA. 246+20 Req'd
road approach, rt.

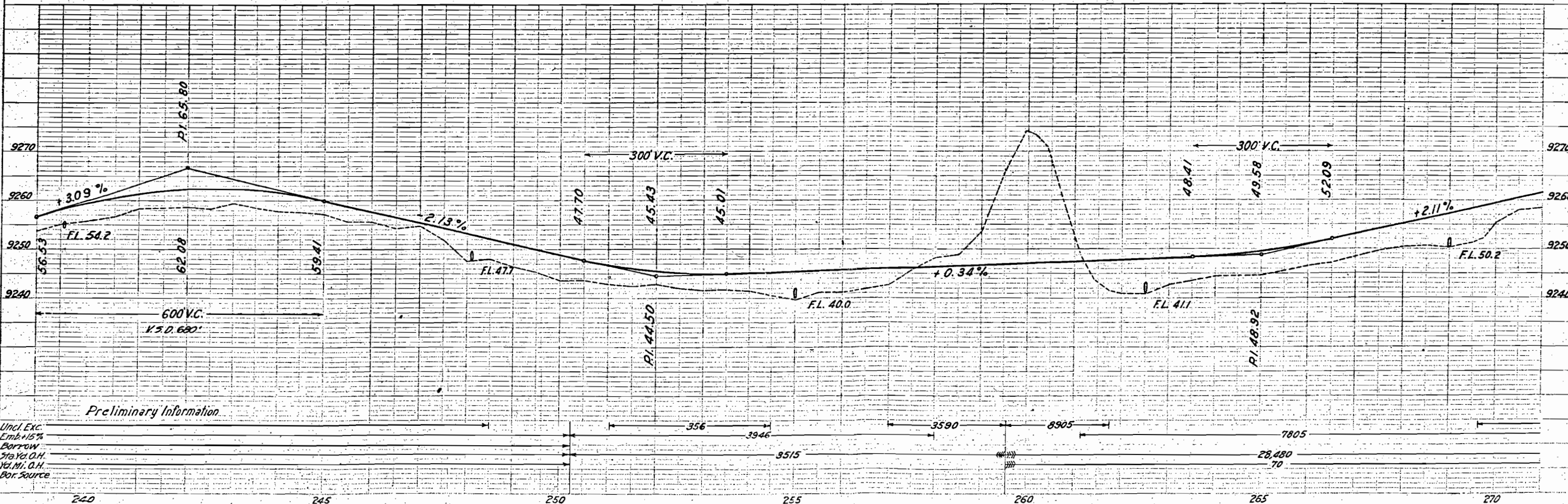
STA. 255+00 Req'd.
24'x48' C.M.P. culv
& outlet ditch.

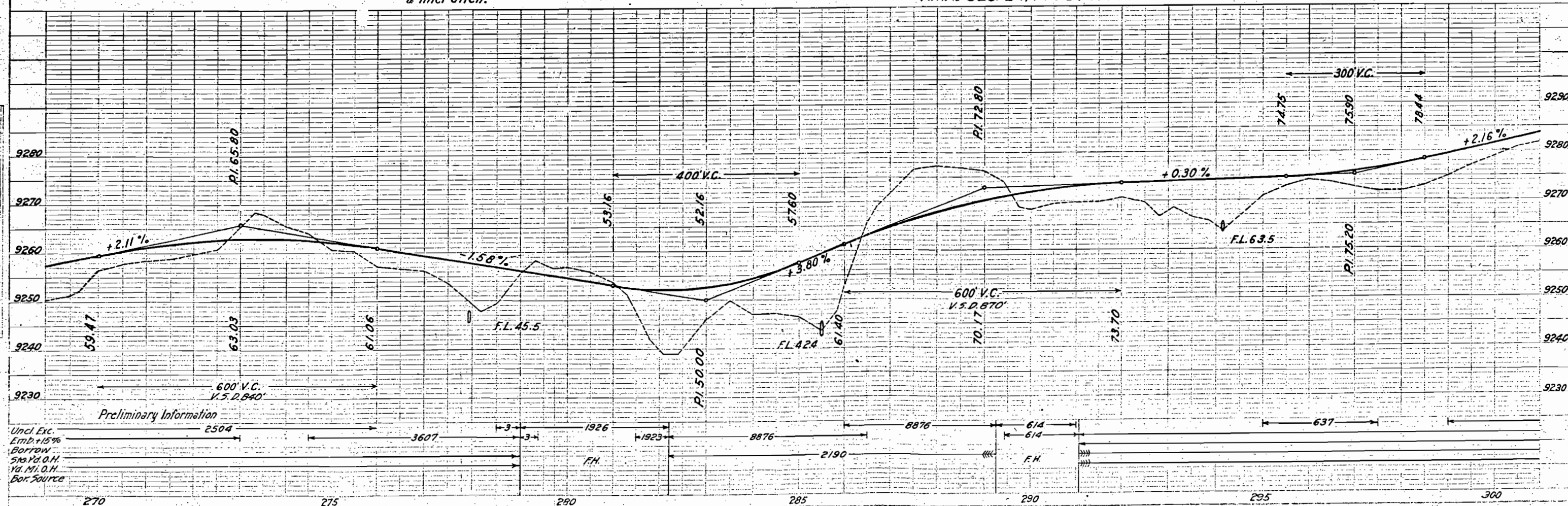
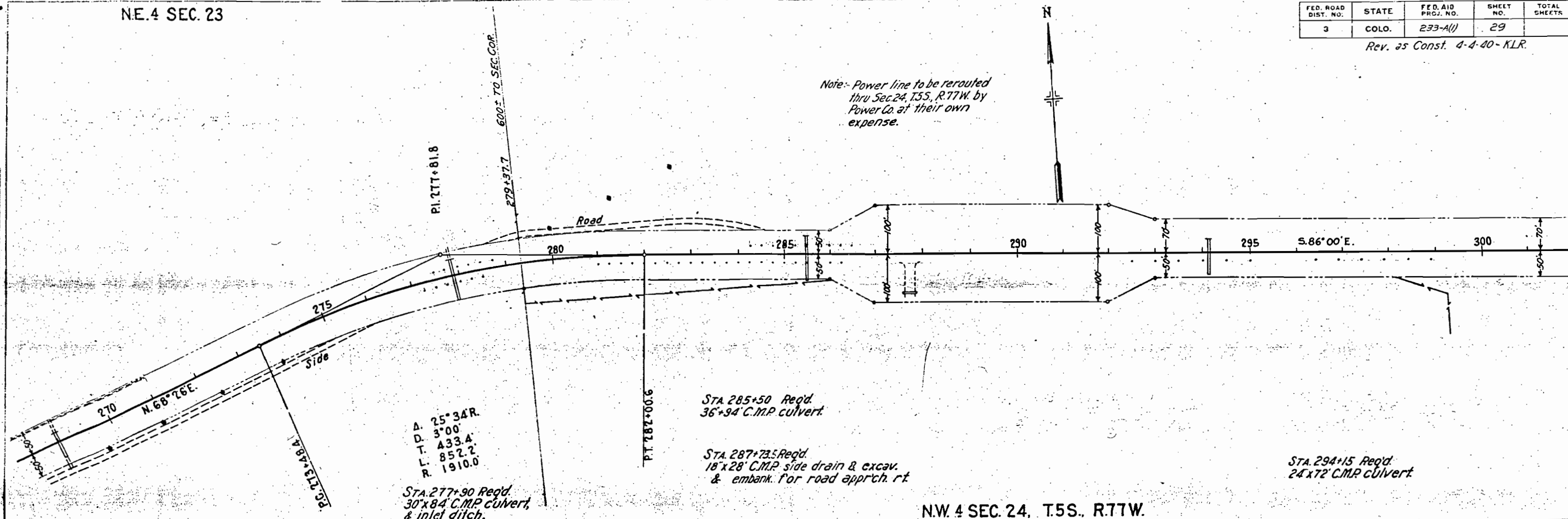
STA. 262+50 Req'd.
24'x56' C.M.P. culvert.

STA. 269+00 Req'd.
24'x56' C.M.P. culv.
inlet & outlet ditches.

Side

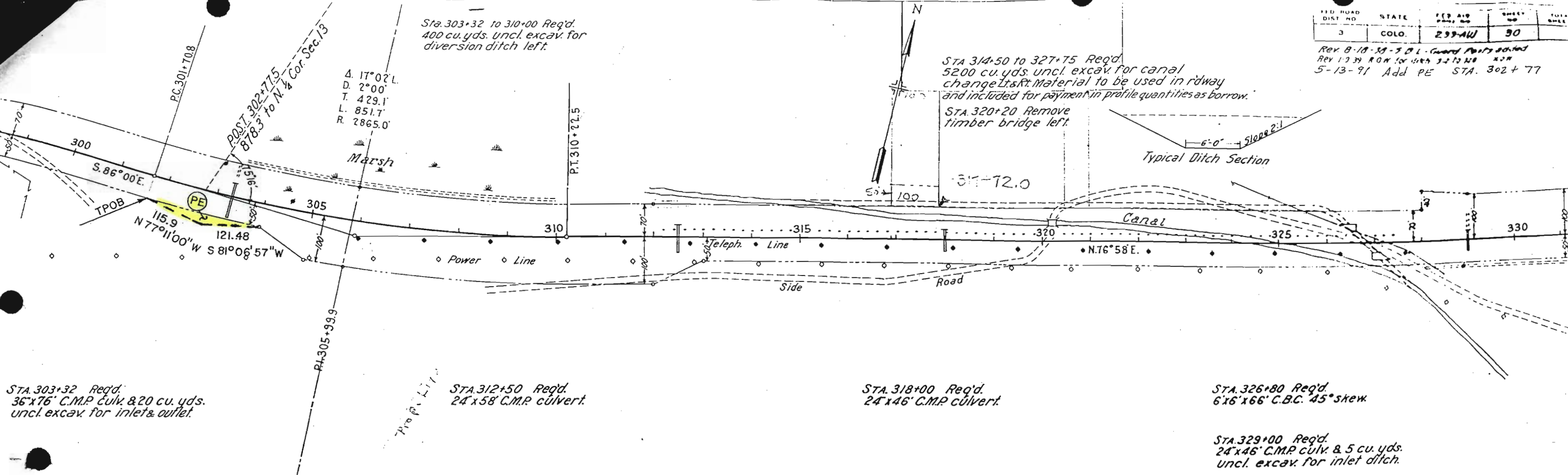
Road





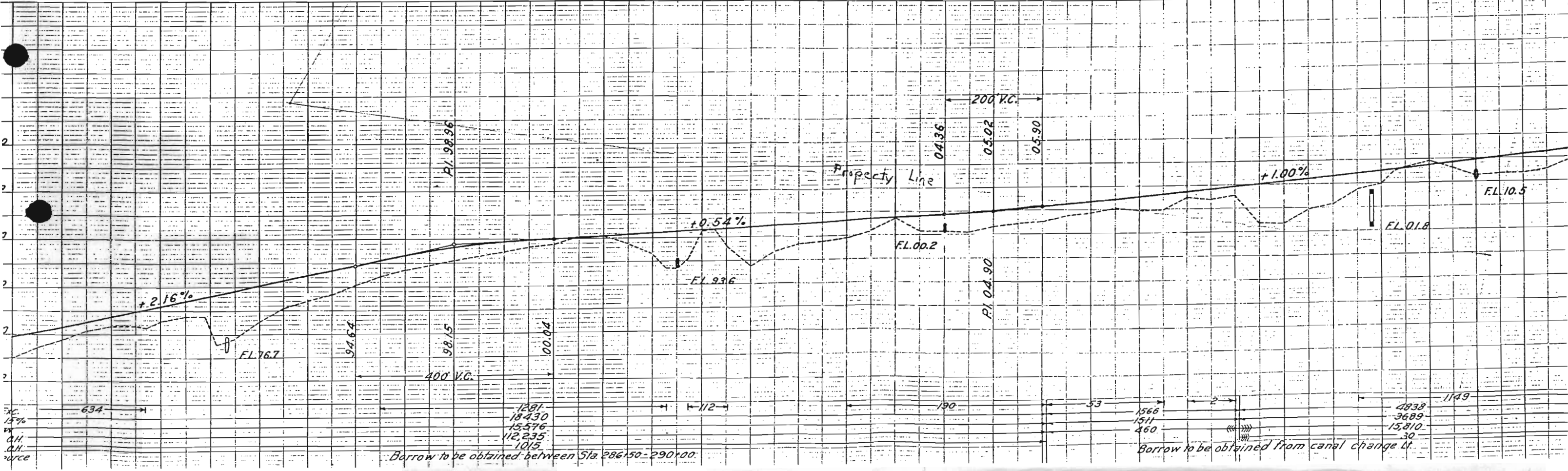
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-AW	30	

Rev 8-10-34 - 30 L. Guard Posts added
 Rev 1-23-39 ROW for Sta 32+75 to 32+77
 5-13-91 Add PE STA. 302+77



N.W. 4 SEC. 24

N.E. 4 SEC. 24, T.5 S., R.77 W.



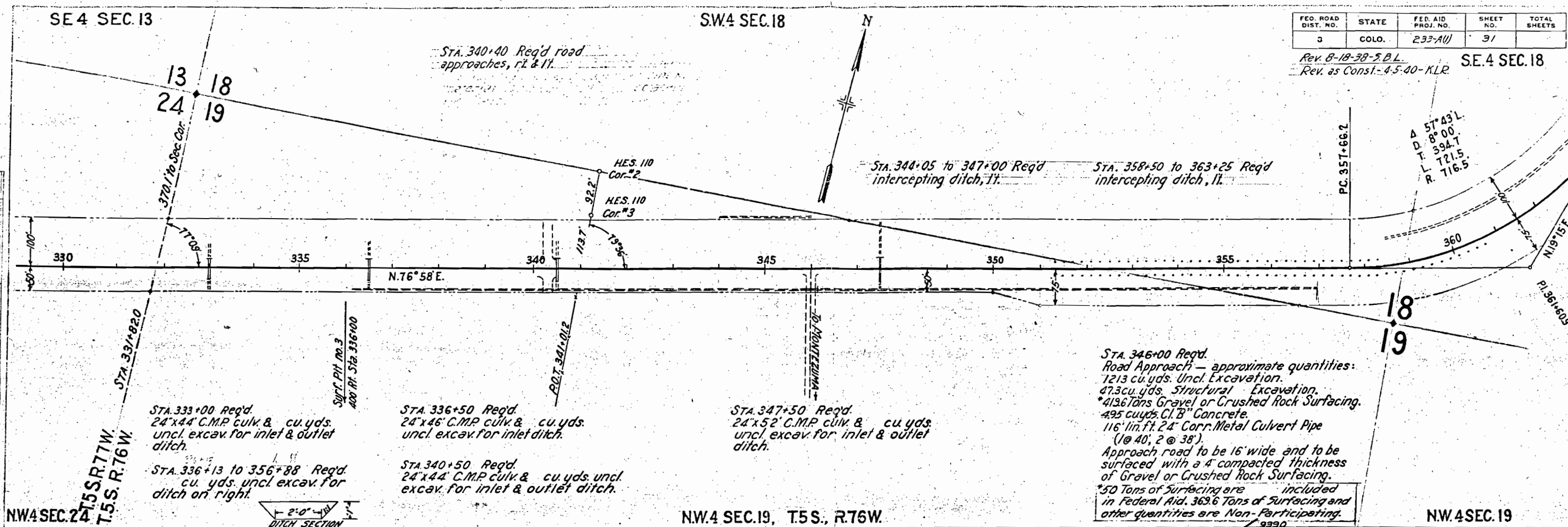
SE 4 SEC.13

SW 4 SEC.18

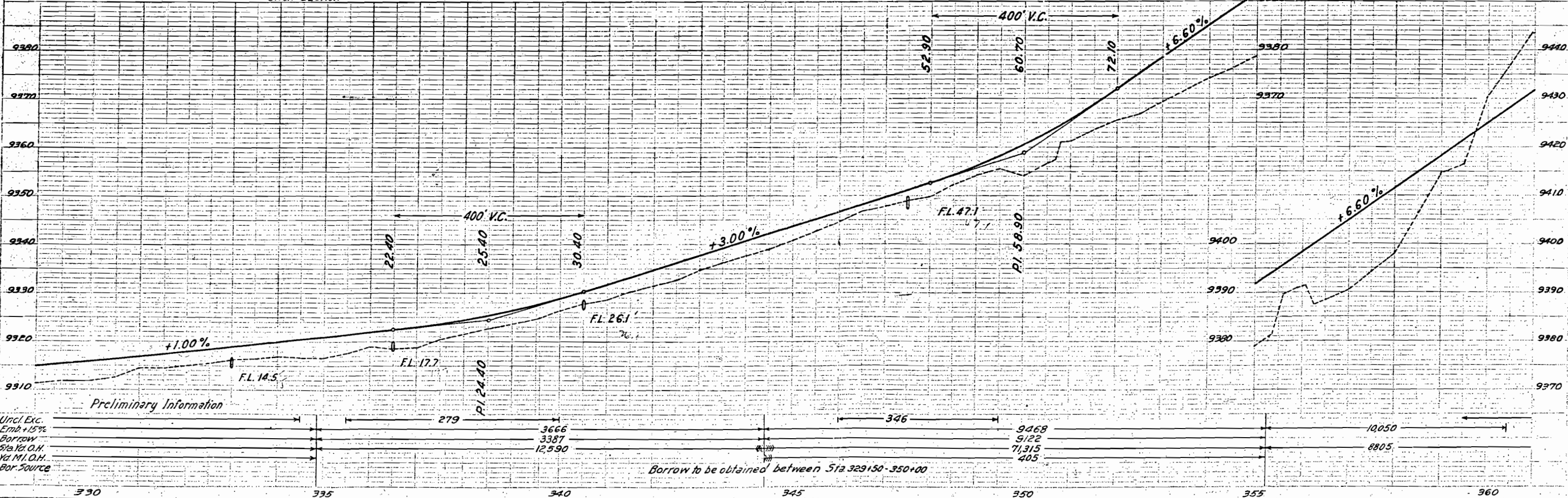
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	31	

Rev. 8-18-38-S.B.L.
Rev. as Const. 4-5-40-K.L.R.

SE.4 SEC.18



NW 4 SEC.24 T.5S. R.76W. NW 4 SEC.19, T.5S., R.76W. NW 4 SEC.19

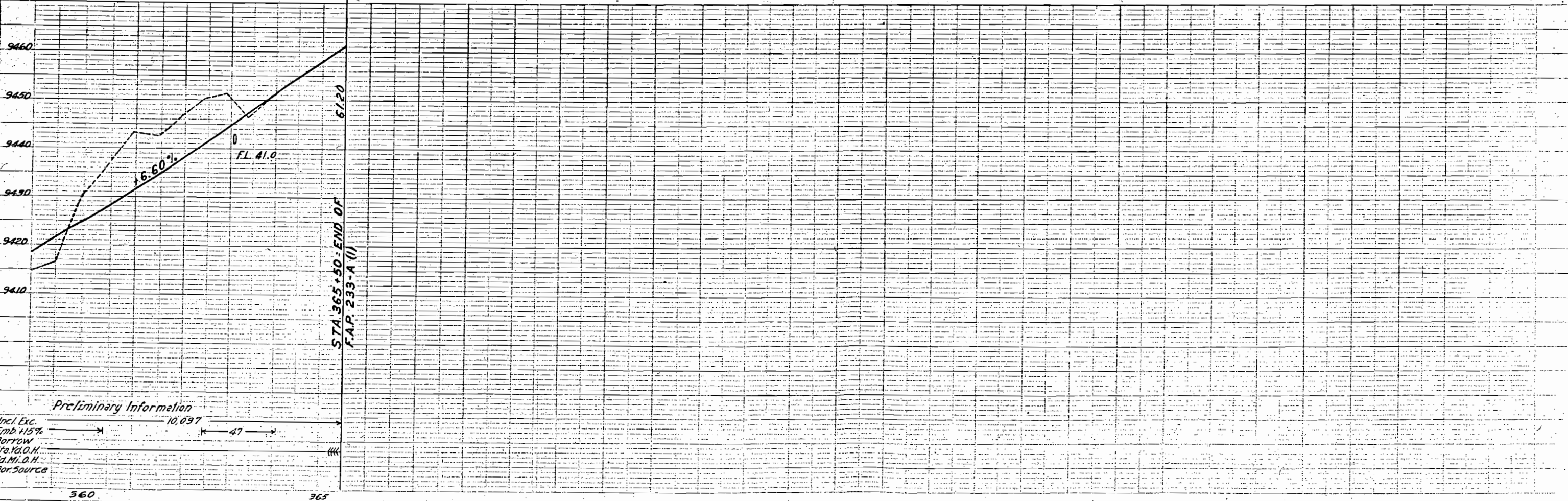
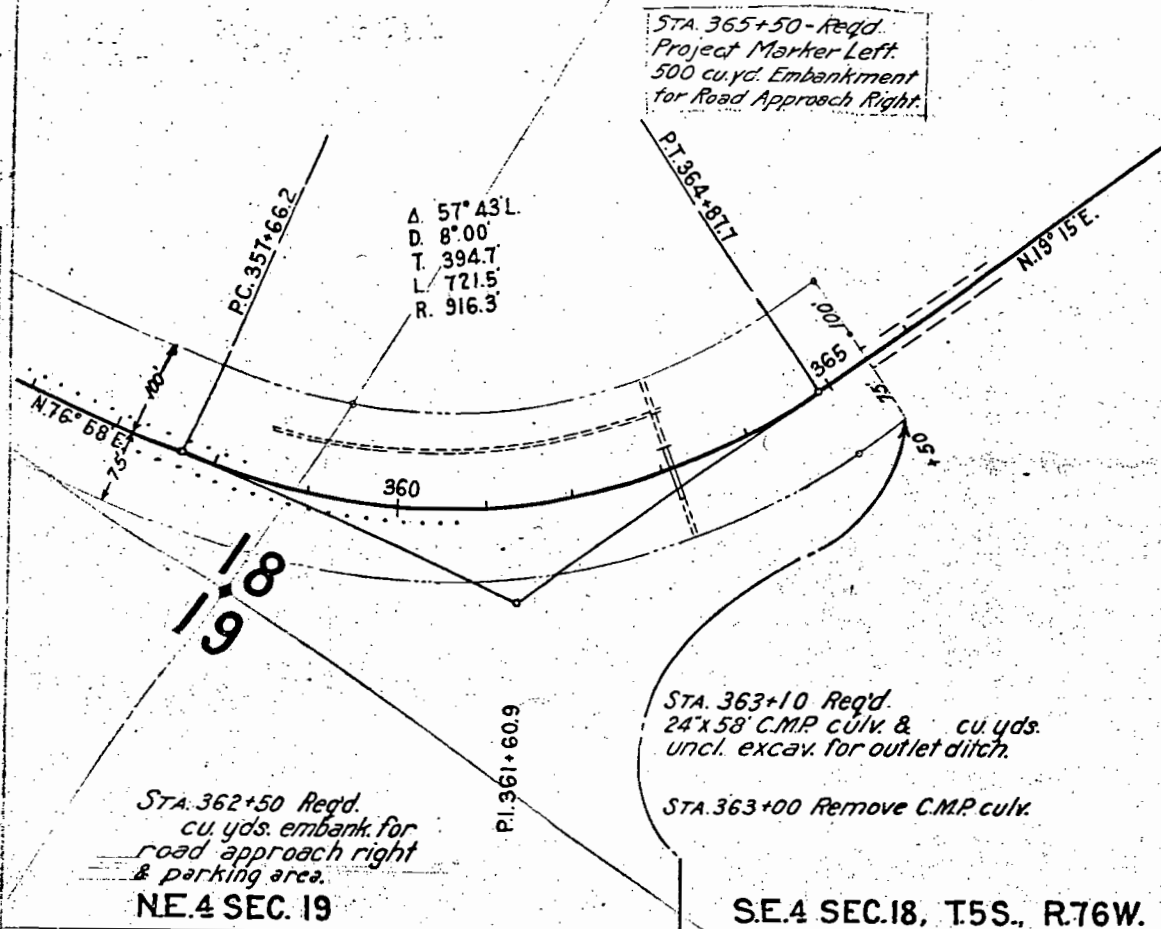


S.W. 4 SEC. 18

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	233-A(1)	32	

Rev. 8-18-38 - S.B.L. - Proj. Marker at end.
Rev. as Const. 4-5-40 - KLR

PLAT
DATE
BY
CHECKED
DATE
BY
APPROVED
DATE
BY



Preliminary Information
Uncl. Exc. 10,097
Emb. +15% 47
Borrow
Sta. 10.0 H.
10.0 H. O.H.
For Source

