

INDEX OF SHEETS

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2	TABULATION OF PROPERTIES
3-14	ALIGNMENT PLAN AND PROFILE

COLORADO

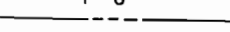
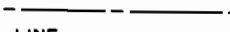
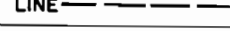
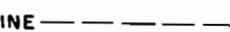
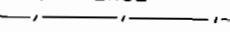
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID SECONDARY PROJECT NO. S 2 (2) STATE HIGHWAY NO. 9 PARK COUNTY

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	1	14

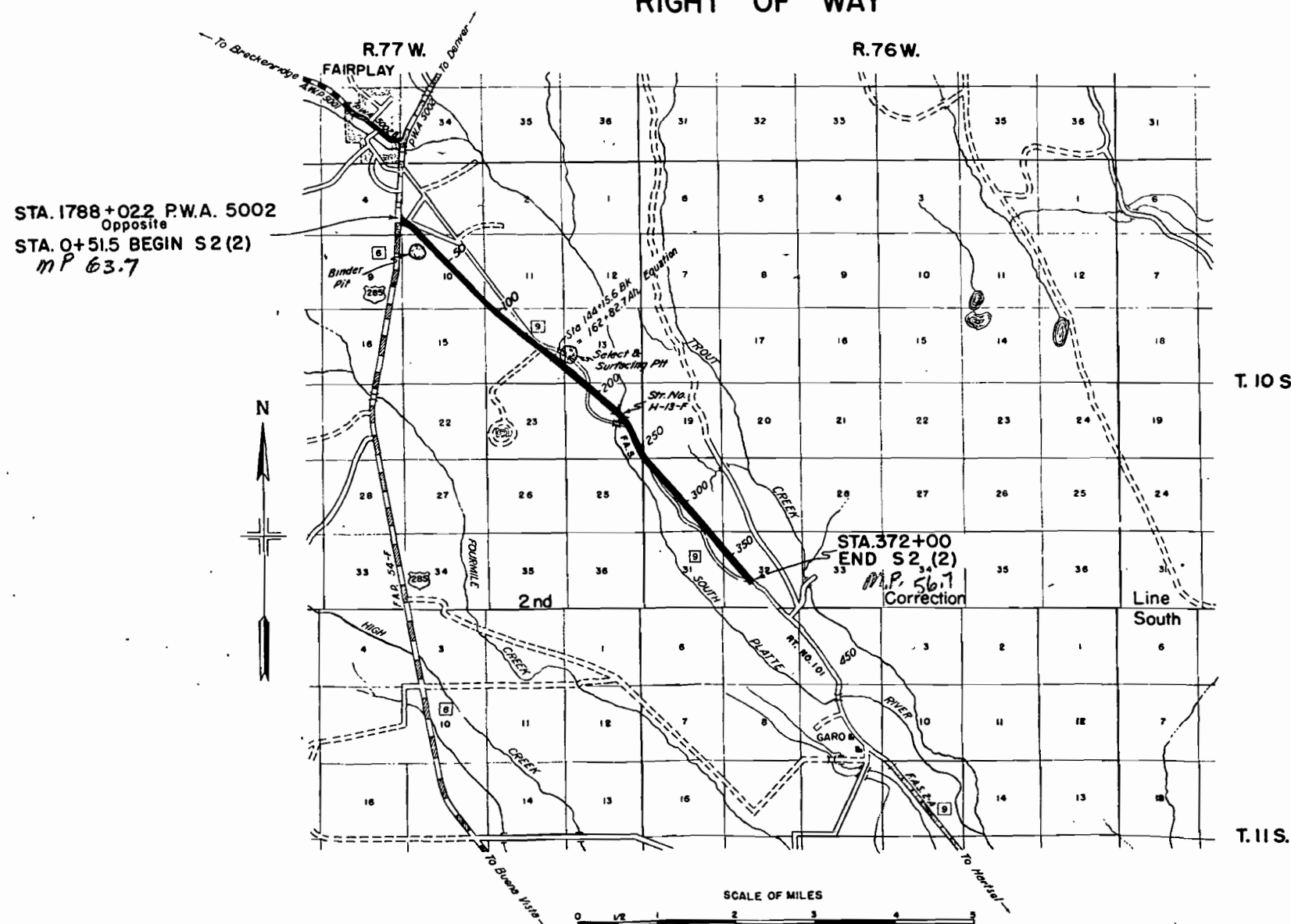
R.O.W

CONVENTIONAL SIGNS

CENTER LINE 
 RIGHT-OF-WAY LINE 
 COUNTY LINE 
 TOWNSHIP OR RANGE LINE 
 SECTION LINE 
 QUARTER SECTION LINE 
 CITY LIMITS 
 RAILROAD 
 BARBED WIRE FENCE 
 WOVEN WIRE-COMBINATION FENCE 
 SNOW FENCE 
 TELEPH. & TELEG. LINE 
 POWER LINE 

SCALE 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 } 34,998.5 FT. = 6.628 MILES
 NET LENGTH OF PROJECT }

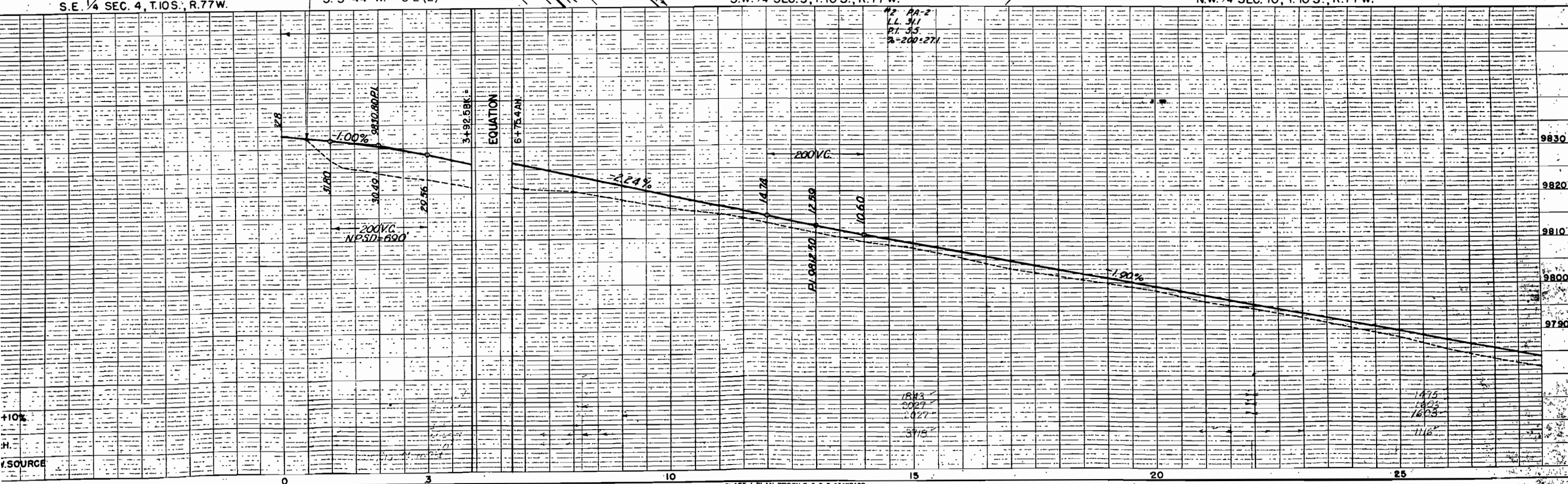
RIGHT OF WAY

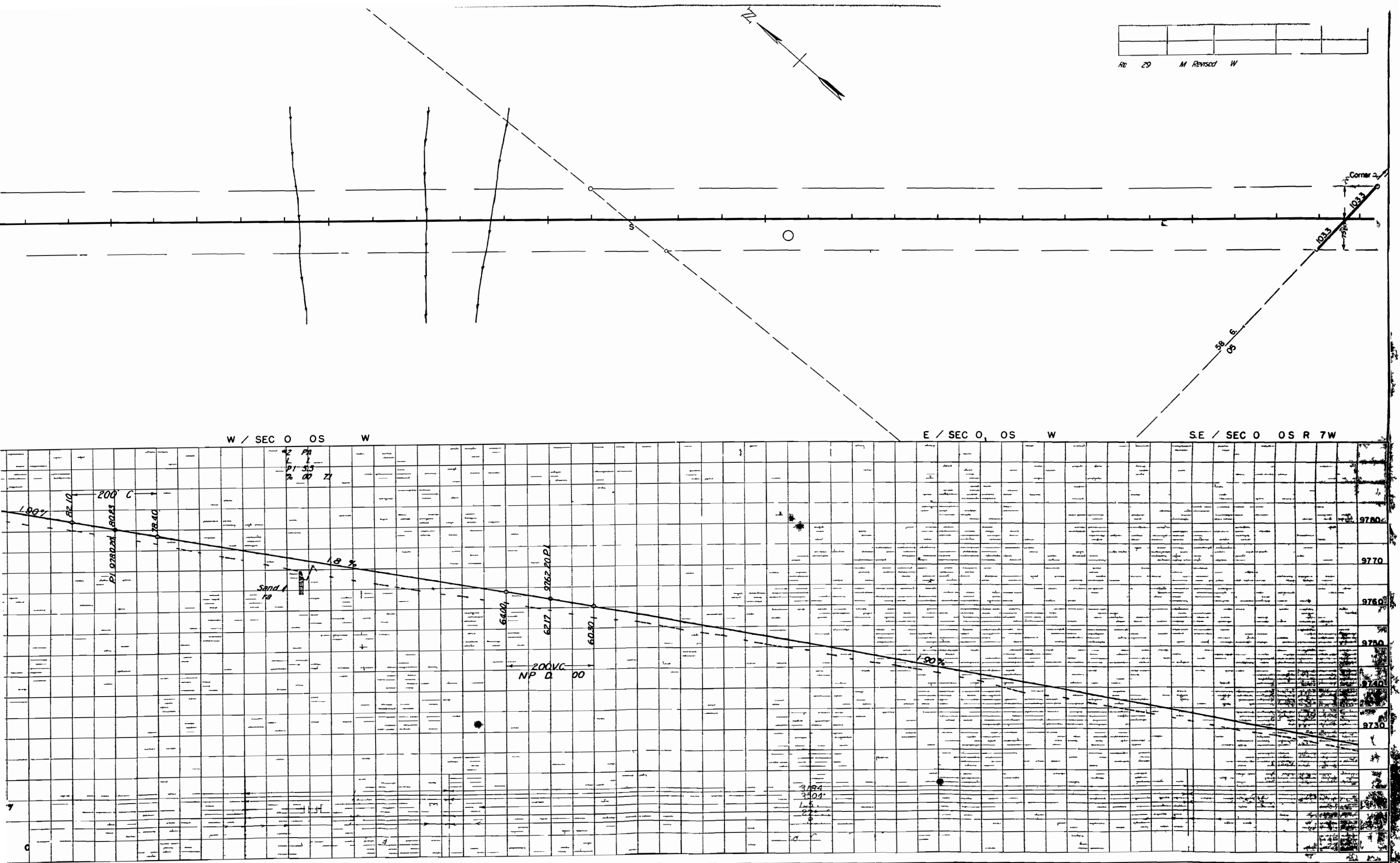


[illegible]

+10%	
H.	
V. SOURCE	

Revised 10-29-46 W.E.M. R.Q.W.





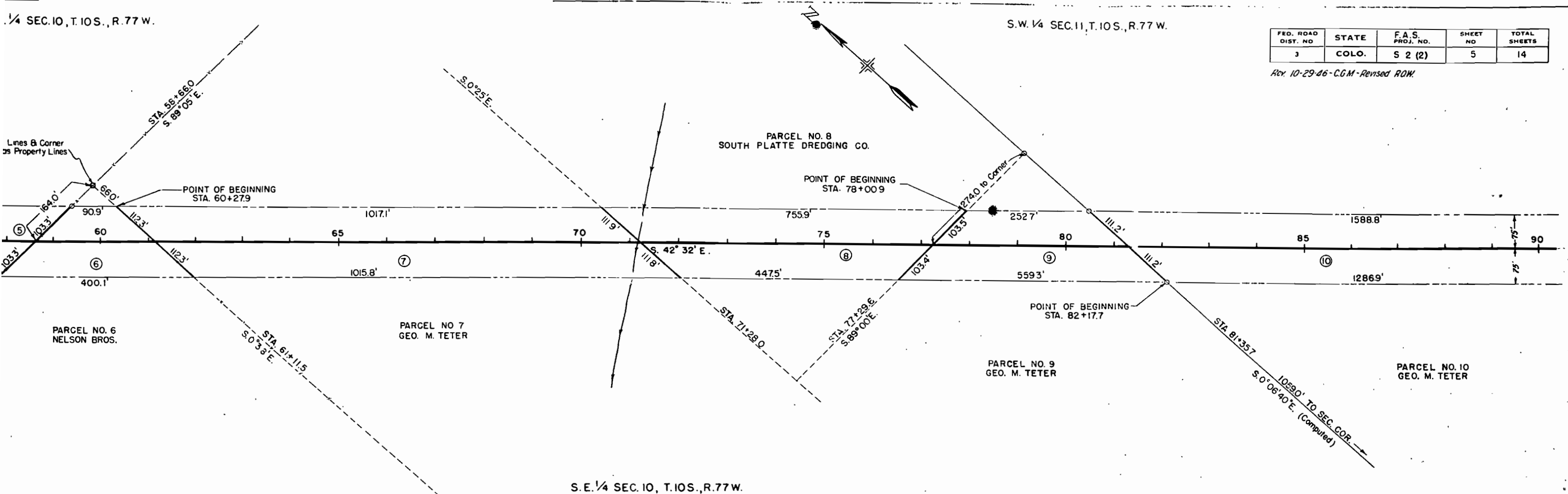
1/4 SEC. 10, T. 10S., R. 77 W.

S.W. 1/4 SEC. 11, T. 10S., R. 77 W.

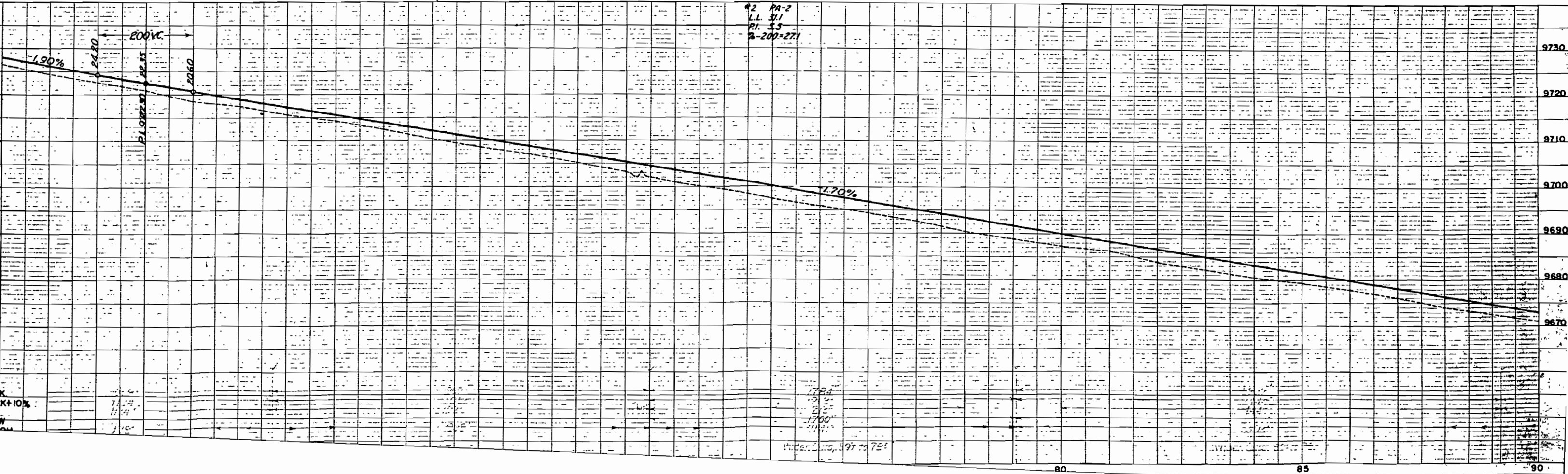
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3	COLO.	S 2 (2)	5	14

Rcv. 10-29-46-CGM-Revised ROW.

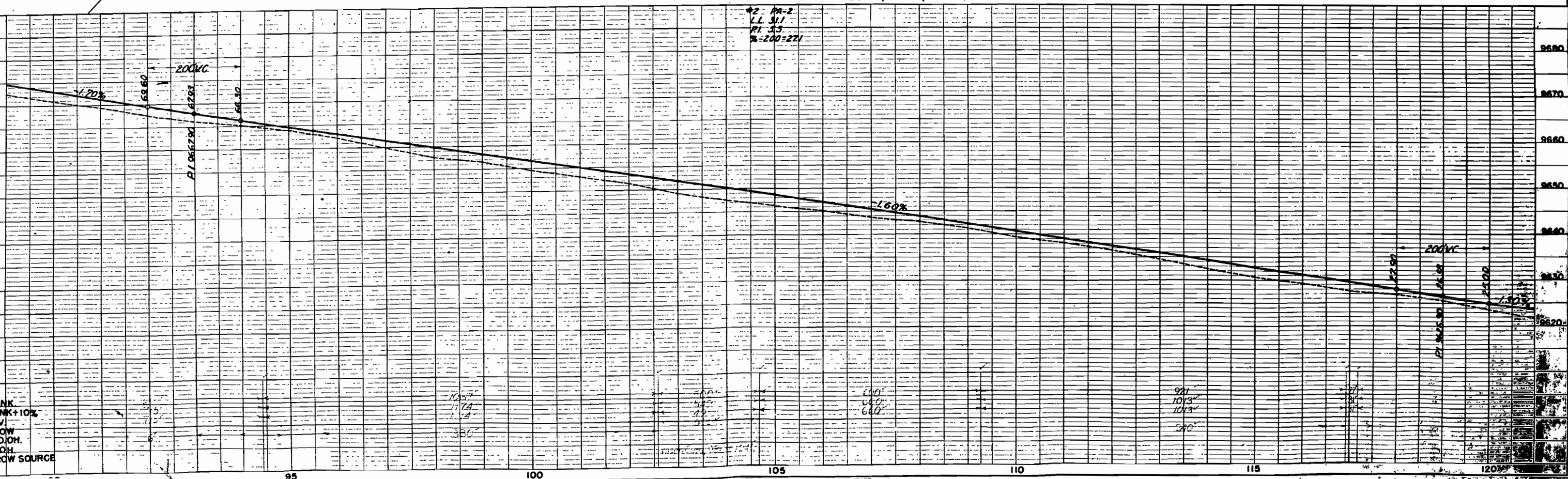
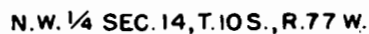
Lines & Corner as Property Lines



S.E. 1/4 SEC. 10, T. 10S., R. 77 W.

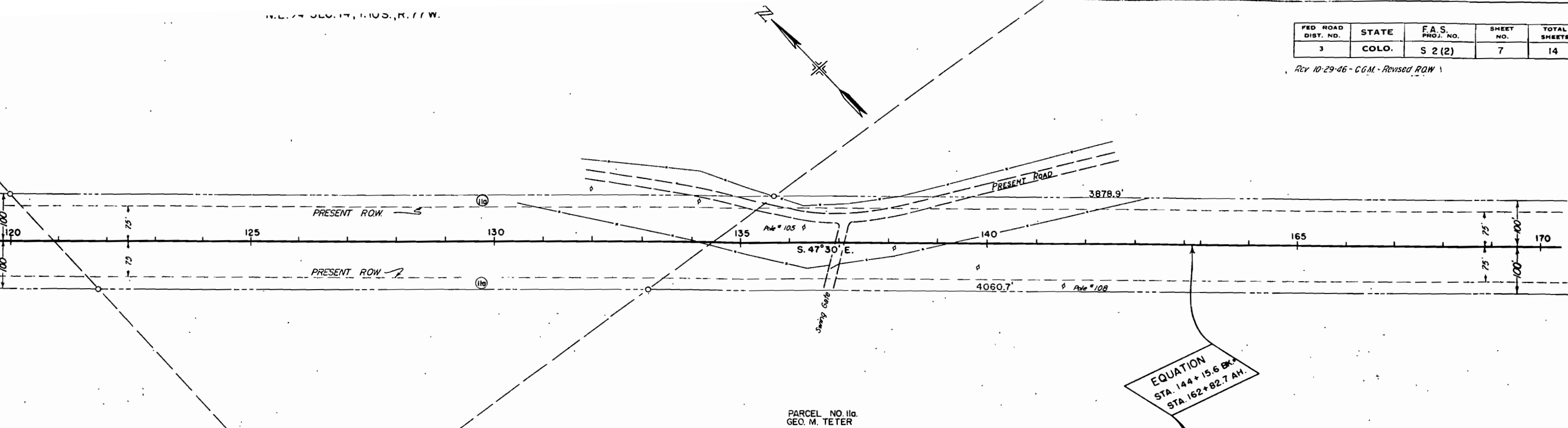


Rev. Lengths Parcel 10 12-13-46 AJS.



FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	7	14

Rev 10-29-46 - C.G.M. - Revised R.O.W.

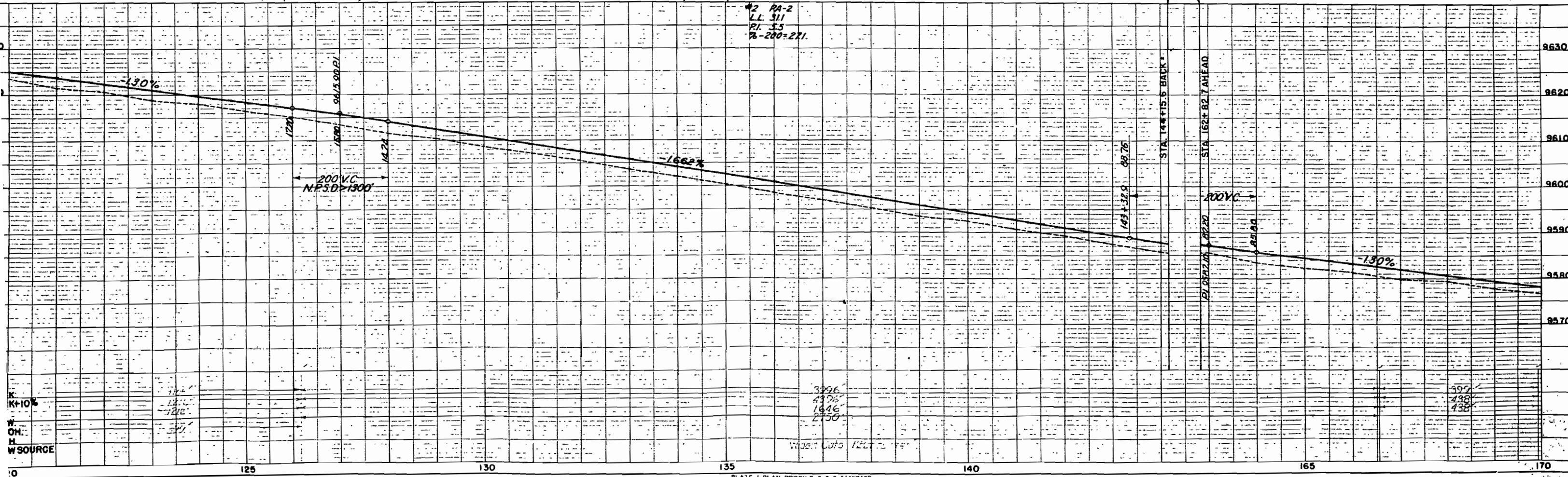


EQUATION
STA. 144 + 15.6 BK.
STA. 162 + 82.7 AH.

W. 1/4 SEC. 14, T. 10 S., R. 77 W.

S.E. 1/4 SEC. 14, T. 10 S., R. 77 W.

#2 RA-2
LL: 311
PI: 3.5
% = 200 ÷ 271



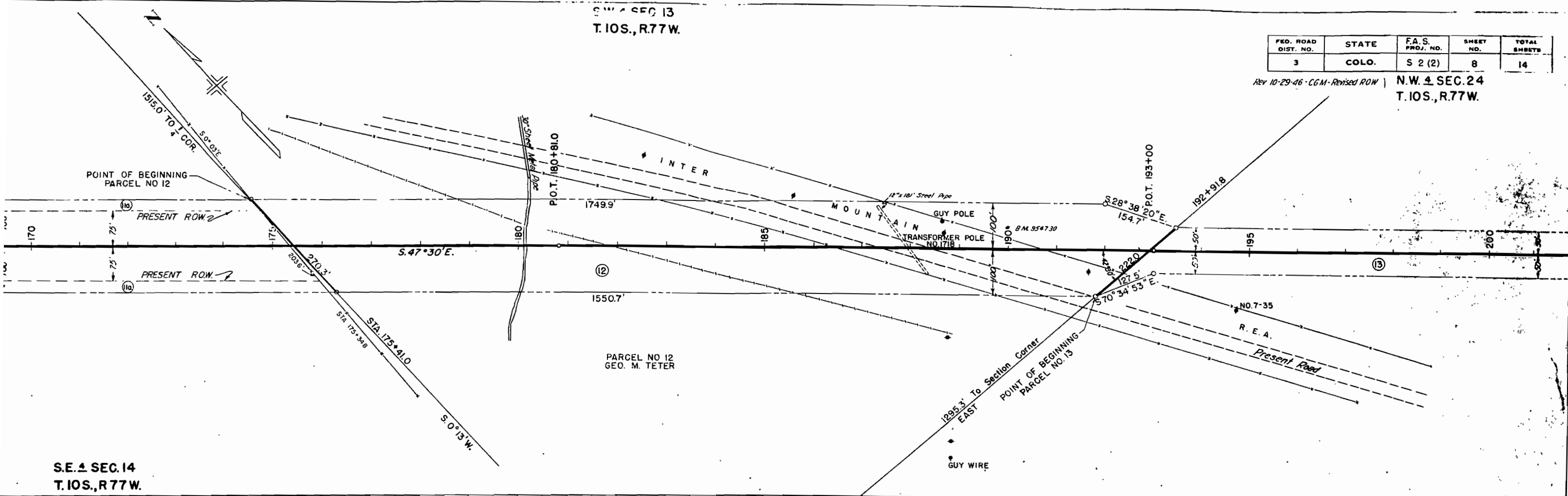
K
K+10%
W
OH
H
W SOURCE

Width Cuts 12' to 14'

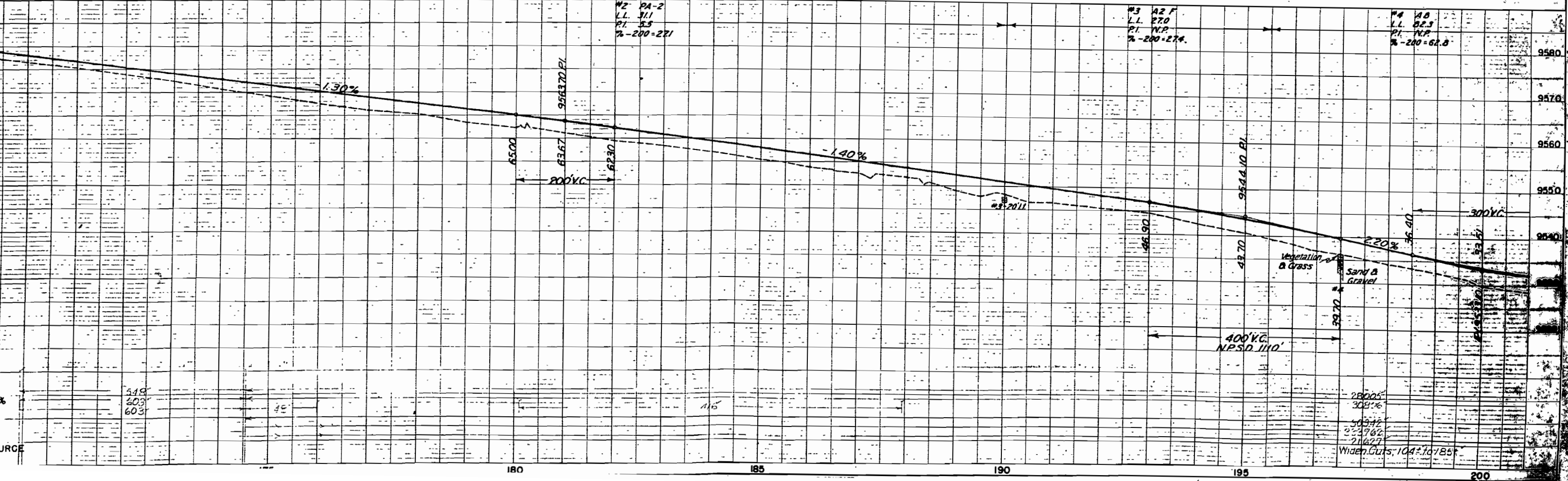
S.W. 1/4 SEC. 13
T. 10S., R. 77W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	8	14

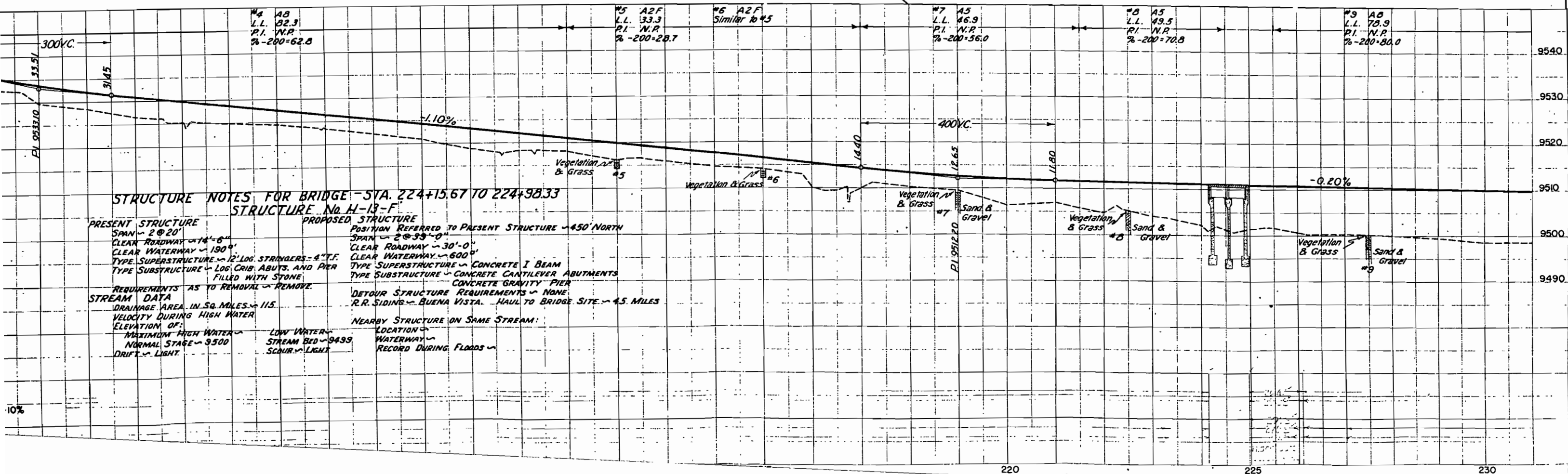
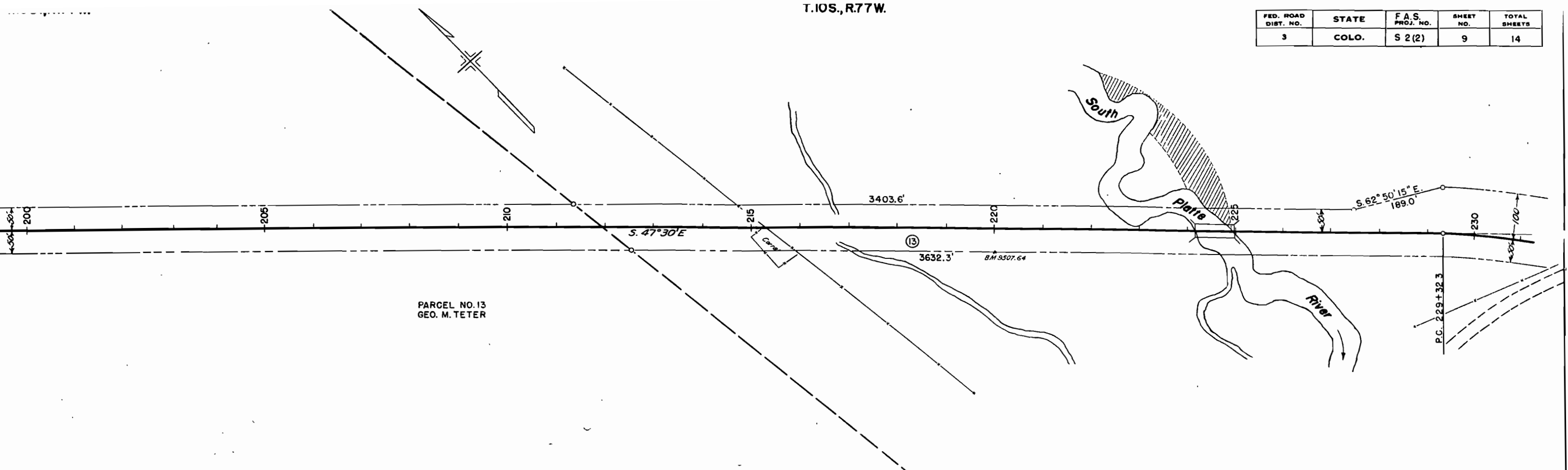
Rev 10-29-46 - CGM - Revised ROW
N.W. 1/4 SEC. 24
T. 10S., R. 77W.



S.E. 1/4 SEC. 14
T. 10S., R. 77W.



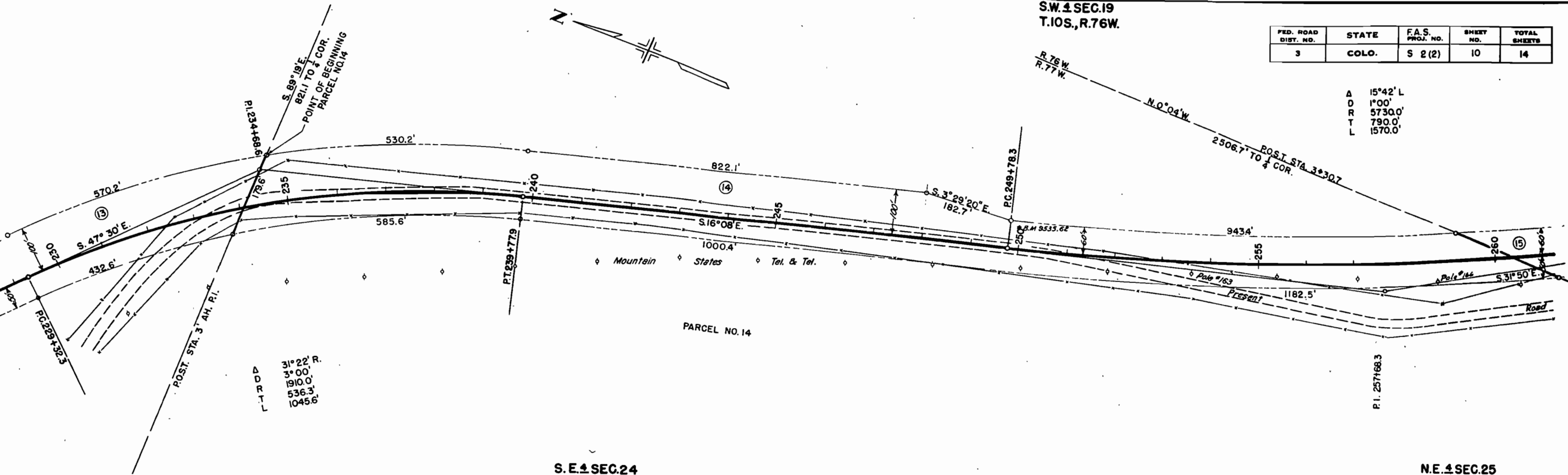
FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2(2)	9	14



S.W. 1/4 SEC. 19
T. 10S., R. 76W.

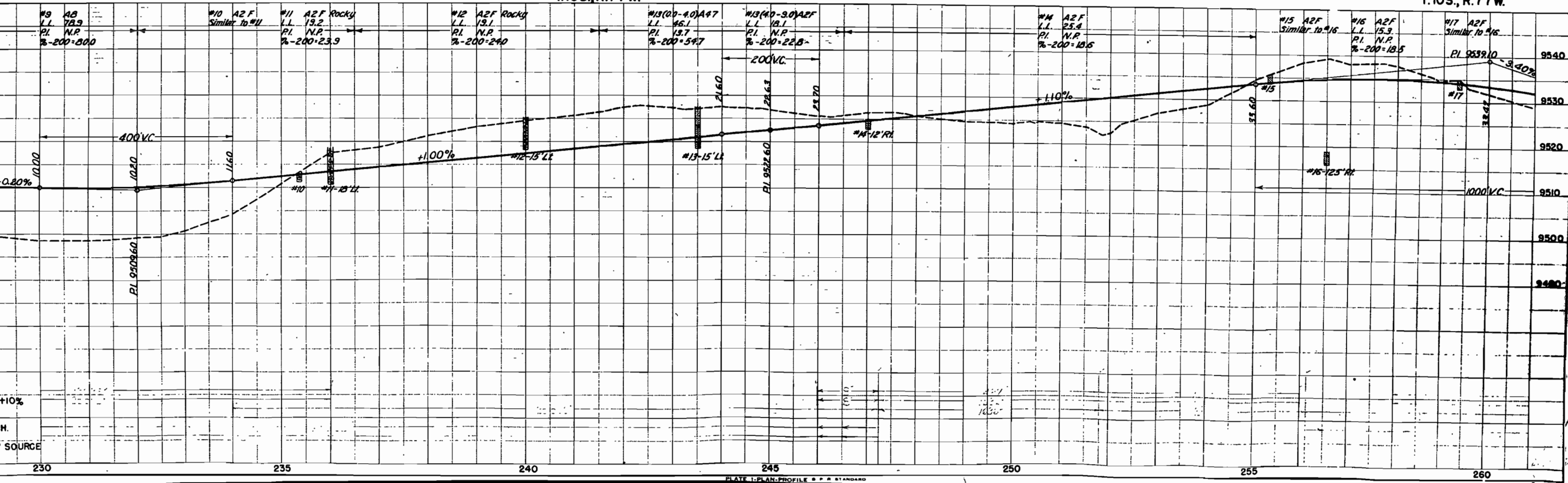
FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2(2)	10	14

A 15°42' L
D 1°00'
R 5730.0'
T 790.0'
L 1570.0'

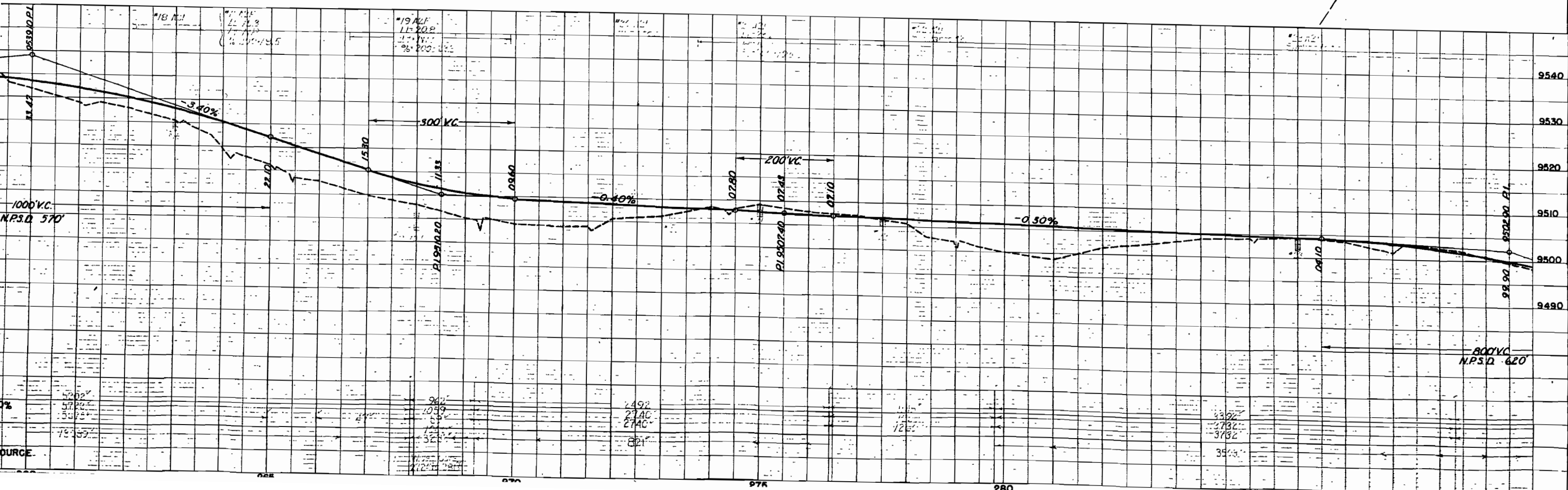
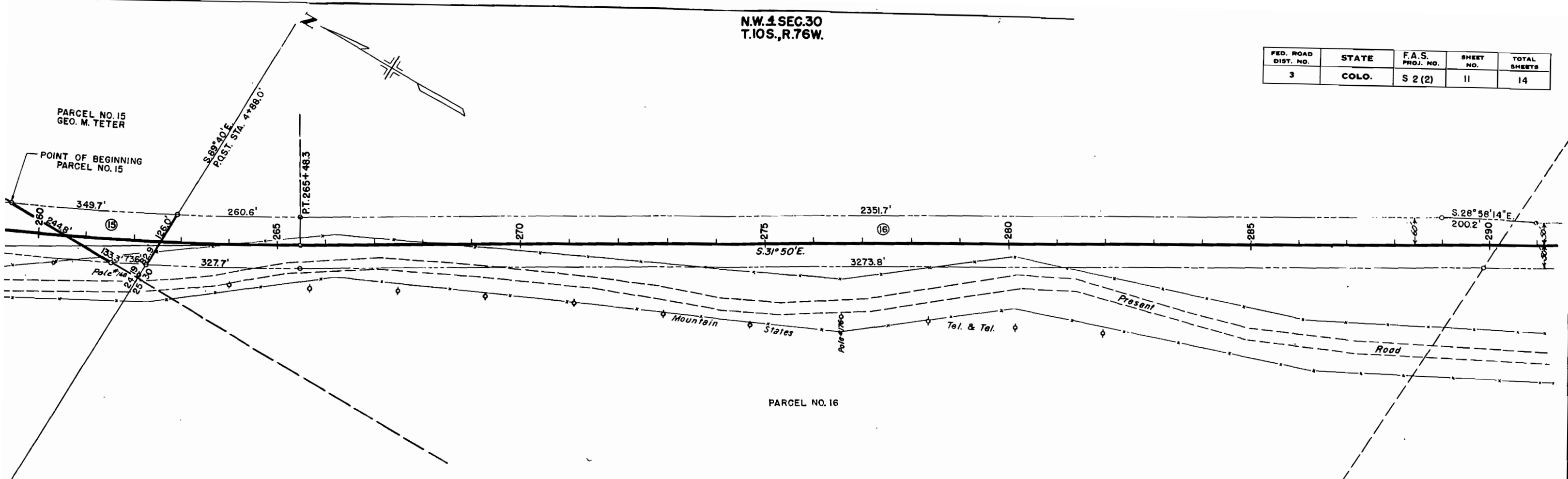


S.E. 1/4 SEC. 24
T. 10S., R. 77W.

N.E. 1/4 SEC. 25
T. 10S., R. 77W.

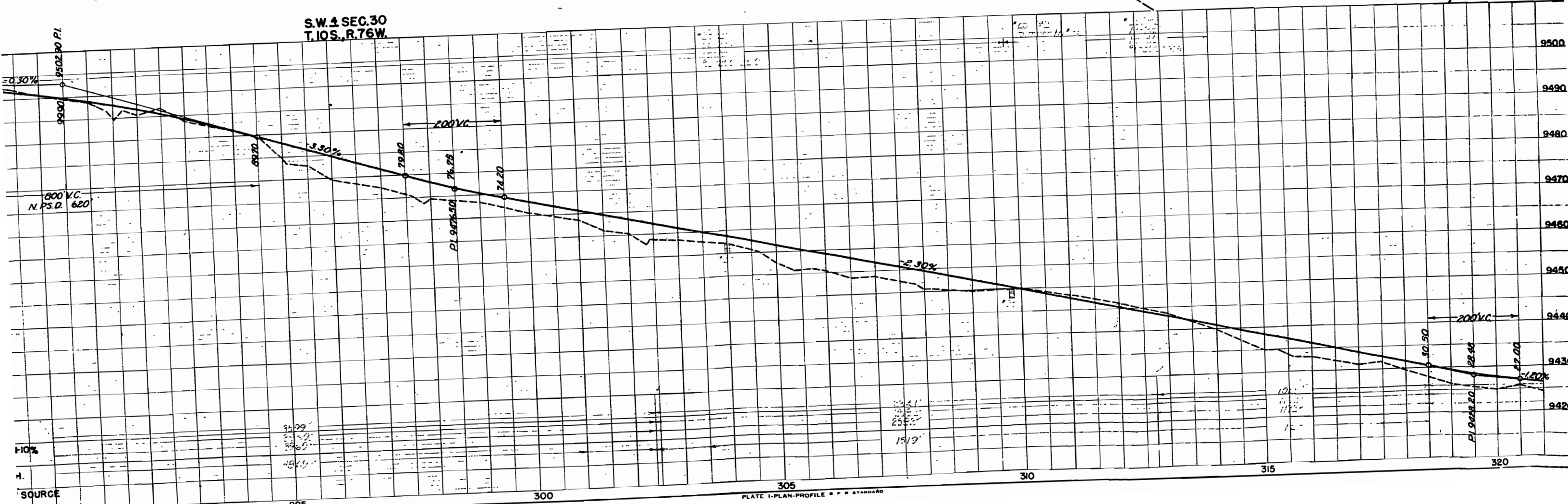
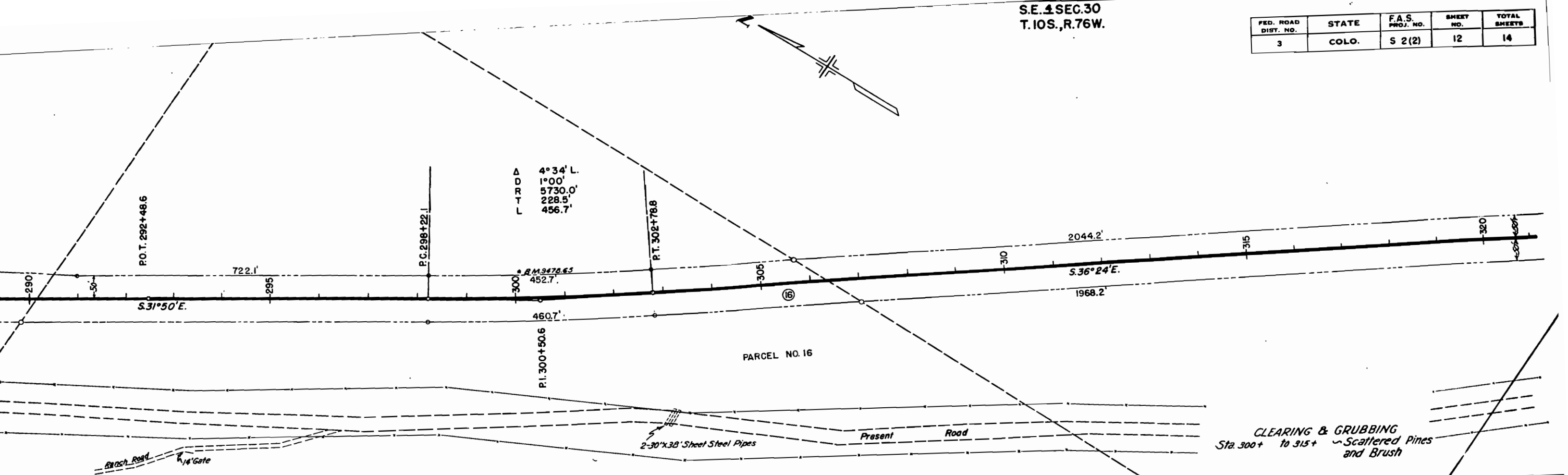


FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	11	14



S.E. 1/4 SEC. 30
T. 10S., R. 76W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2(2)	12	14



N.W. 4 SEC. 32
T. 10S., R. 76W.

**S.E. 1/4 SEC. 30
T. 10S. R. 76W.**

**N.W. 1/4 SEC. 32
T. 10S. R. 76W.**

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	13	14

POINT OF BEGINNING PARCEL NO. 16

POT 324+92.2

1656.0' TO SEC. CORNER S. 89° 11' E.

STATIONING: 320, 325, 330, 335, 340, 345, 350

Bearings: S. 36° 24' E., S. 28° 48' 20" E., S. 50° 26' 10" E., S. 44° 03' 45" E.

Distances: 1453.0', 2277.0', 1100.0', 207.4', 150.0'

Irrigation Ditch

PARCEL NO. 17

Present Road

CLEARING & GRUBBING
Sta. 339+75 ~ 2-8" Diam. Trees
Sta. 342+50 ~ 9-12" Diam. Trees
Sta. 345+00 to 355+00 ~ Scattered Brush & Willows along ditch

**S.E. 1/4 SEC. 31
T. 10S. R. 76W.**

Elevations: 9430, 9420, 9410, 9400, 9390, 9380

Grades: -1.80%, -1.60%, -0.30%, -1.40%

Vertical Curves: 300'VC N.P.S.D. > 1300', 400'VC N.P.S.D. 860'

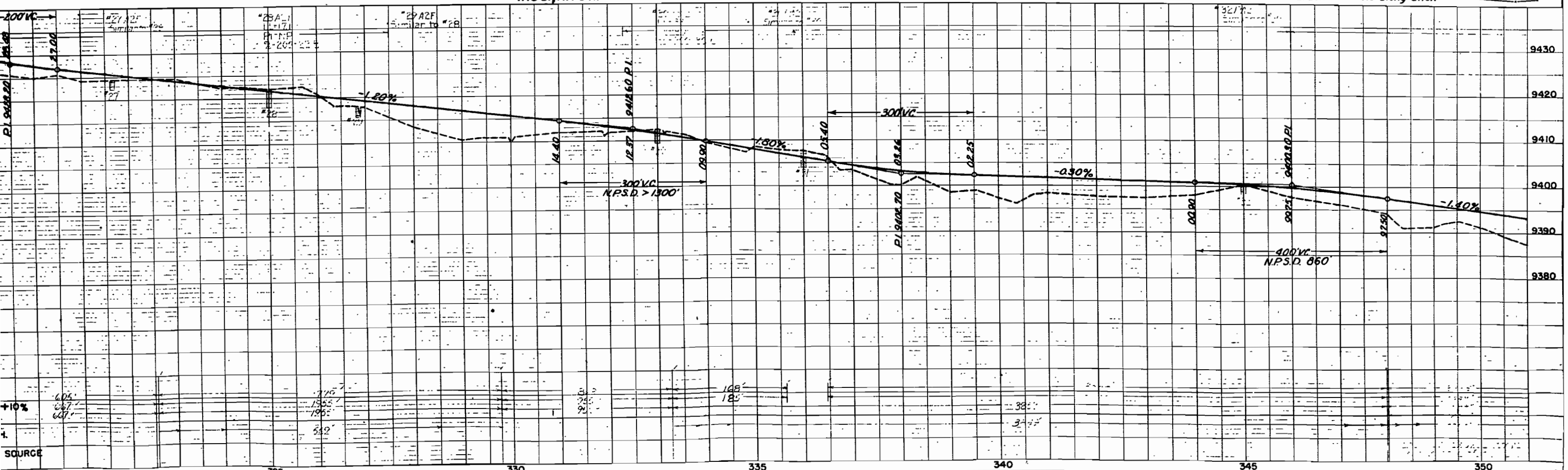
Stationing: 325, 330, 335, 340, 345, 350

Source

PLATE I-PLAN-PROFILE S.F.M. STANDARD

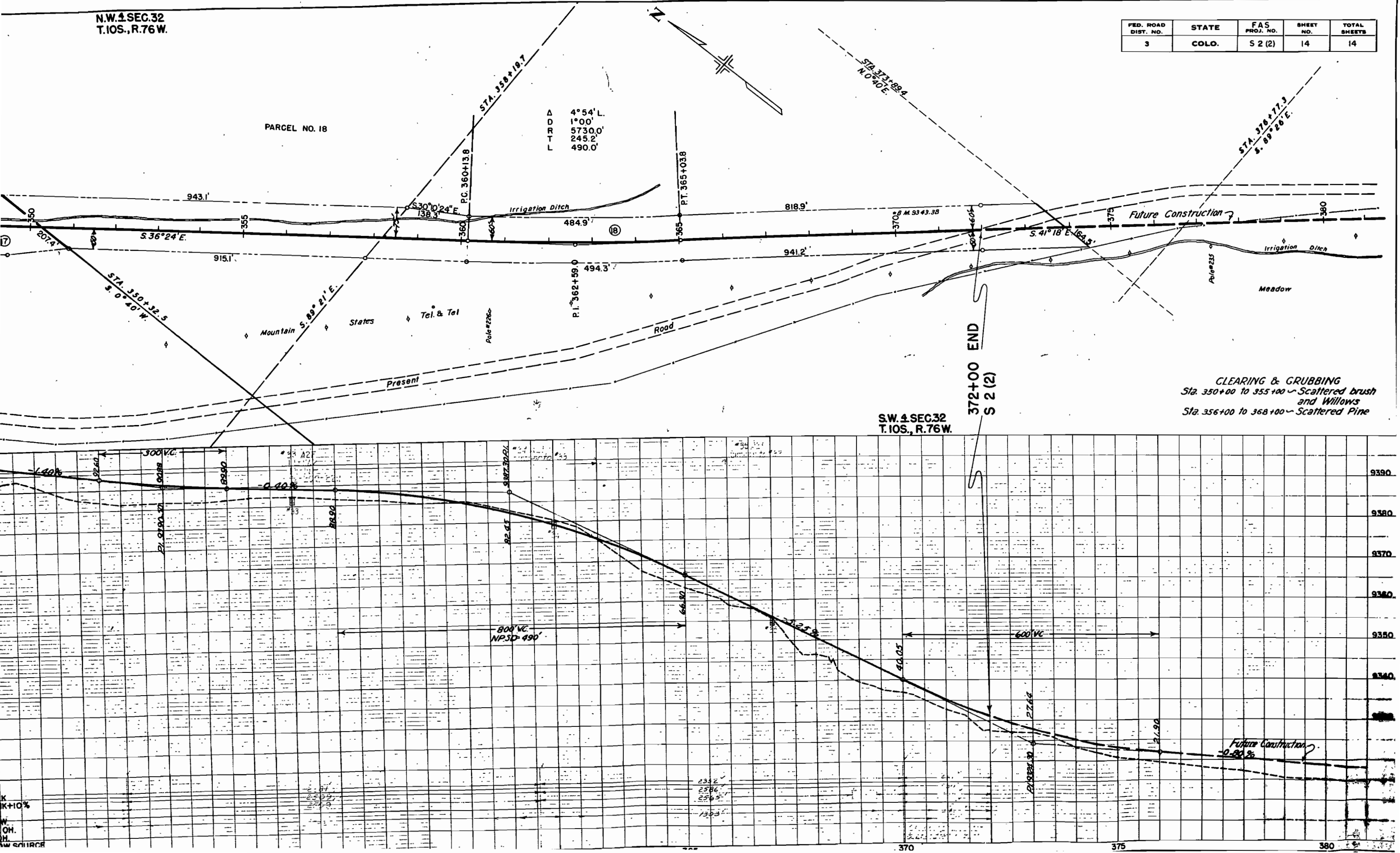
N.E. 1/4 SEC. 31
T. 10 S., R. 76 W.

CLEARING & GRUBBING
Sta. 333+75 ~ 2'-8" Diam. Trees
Sta. 342+50 ~ 9'-12" Diam. Trees
Sta. 345+00 to 355+00 ~ Scattered
Brush & Willows along ditch



N.W. 1 SEC. 32
T. 10S., R. 76W.

FED. ROAD DIST. NO.	STATE	FAS PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	14	14



TYPICAL CROSS SECTION OF IMPROVEMENT

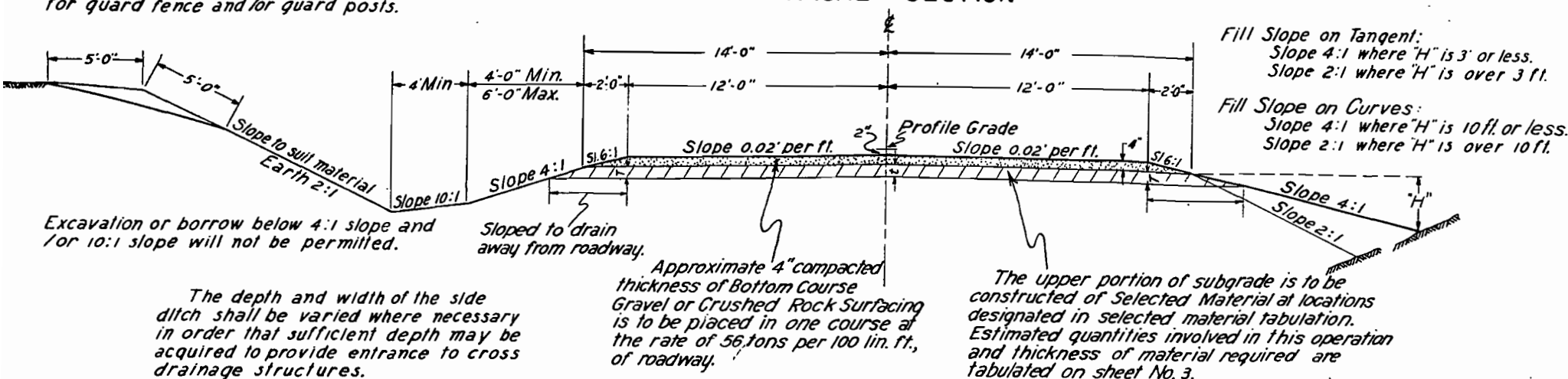
FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	S 2 (2)	2	

(REV. 10-29-46 M.R.H. Tab. of Length)

TABULATION OF LENGTH & DESIGN DATA

STATION	ROADWAY	BRIDGES	
	LIN. FT.	LIN. FT.	LOADING
0+51.5 BEGIN S 2 (2) OPPOSITE 1788+02.2 ON P.W.A. 5002			
3+92.5 BK. EQUATION	341.0 ✓		
6+75.4 AH. EQUATION	13740.2 ✓		
144+15.6 BK. EQUATION	6137.8 ✓		
162+82.7 AH. EQUATION			
224+20.5 C.B.C. END		73.0 ✓	N-20
PLATTE RIVER			
224+93.5 C.B.C. END			
372+00 END S 2 (2)	14706.5 ✓		
TOTALS	34925.5 ✓	73.0 ✓	
SUMMARY			
F.A.S. No. S 2 (2) ROADWAY		LIN. FT.	MILES
F.A.S. No. S 2 (2) BRIDGES		34925.5	6.64
TOTAL F.A.S. No. S 2 (2)		34925.5 ✓	6.628 ✓
DESIGN DATA			
Maximum Degree of Curve		3°00'	
Maximum Grade		5.25%	
Minimum N.P.S.D.-horizontal		1120 Ft.	
Minimum N.P.S.D.-vertical		490 Ft.	
Maximum Design Speed		55 M.P.H.	

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



GENERAL NOTES

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

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

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

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

All Corrugated Metal Pipe Cross Culverts including Arches shall be laid with Metal props on each end unless otherwise noted on the plans.

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

All side approach roads to the Project shall be gravel surfaced with a 4 inch thickness of "Gravel or Crushed Rock Surfacing" extending approximately to the right of way line. Estimated tonnage of "Surfacing Material" required in this operation is shown in the list of structures.

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

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

Right of Way Fences, including line posts, shall be constructed approximately 16 inches inside the boundary of the Highway Right of Way as shown on the plans.

All curves are to be superelevated and widened as provided for by the Standard super-elevation sheet included with the plans, except as noted on the plans for modification. Curves on this project over 5 degrees shall be provided with the super-elevation shown on the Standard Super-elevation sheet for a 5 degree curve.

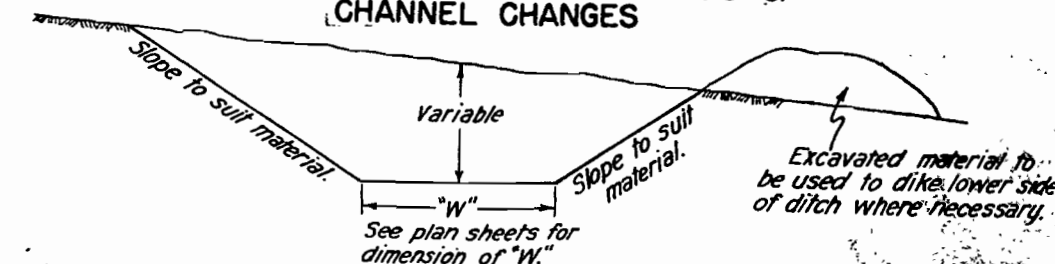
The ends of all cuts shall be flared and backslopes flattened to discharge side ditch drainage away from the base of adjacent fill slopes. The transition of flattened backslopes and ditch shall be constructed in such manner that a uniform appearance of slope and ditch results, and so as to promote the growth of native groundcover.

Intercepting ditches shall be placed on light grades (not over 1%) following the ground contour, and where possible shall be constructed that the direction of flow will be away from the roadway, in order to spread runoff and thereby avoid erosion. This work shall be done in accordance with the methods shown on standard sheet included in the plans. These ditches shall be constructed at locations staked by the Engineer. Approximate location and quantities are tabulated on the summary of earthwork quantities sheet.

All concrete used on this project shall be "Air-entrained" concrete.

The Detour for this project lies along the present traveled road. At all places on the project where the new work lies along the present traveled road, the Contractor shall, at his own expense, prosecute construction in such manner that traffic may readily pass over the road. Also, the Contractor shall maintain in safe condition and at his own expense, all temporary approaches to and crossings of intersecting roads.

TYPICAL SECTION FOR DITCHES & CHANNEL CHANGES



Rev. 10-29-46 C.R.S. Summary
Rev. 11-20-46 C.R.S. Ditch Excav

Alteration of the Surfacing Plan as here outlined will be allowed only on written permission from the Department

MATERIAL TO BE PLACED	SOURCE	QUANTITY			OVERHAUL TON MILE
		AVAILABLE	TONS USED		
			TOP COURSE	BOTTOM COURSE	
0+515 to 1+78.7	Pit #1 - 450' Lt. of Sta.	Ample		120	221
1+78.7 to 101+02.9	168+00 SE 1/4 Sec. 14 and/or SW 1/4 Sec. 13, T10 S, R 77 W			5399	4930
101+02.9 to 216+30				5410	Free haul
216+30 to 224+20.5				440	33
224+93.5 to 372+00				8233	12816
Estimated for road Approaches				580	533
Estimated for widening				74	12
Estimated O.H. on Binder, from Binder Pit to Rock Pit. (Approx. 20% Req'd.)	Binder Pit 350' Rt. of Sta. 24+00 in N.W. 1/4 Sec. 10, T10 S, R 77 W.				10151
Totals				20256	28696

It is estimated that Selected Material for the Project is available in the vicinity of the pit indicated in the following tabulation. Estimated quantities involved in this operation are shown below.

Alteration of the Selected Material plan as here outlined will be allowed only on written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY				OVERHAUL
		AVAILABLE	THICKNESS INCHES		TONS USED	TON MILE
			T	↑		
224+93.5 to 321+00	Pit #1 450' Lt. of Stb	Ample	6	6	9122	9796
333+00 to 372+00	168+00 SE ¼ Sec. 14	"	"	"	3705	9557
Estimated for Bridge widening	and/or SW ¼ Sec 13 T 10 S., R. 77W.	"	"	"	55	11
Totals					12882	19364

STATION	SIDE	NO	STATION	SIDE	NO.	STATION	SIDE	NO.
1792+12.8 OF PWA 5002	R	2	135+74	L	1	305+67	L	1
1785+98.8 OF PWA 5002	R	2	174+53	L	1	306+98.5	R	1
127+AW.P.L STA. 2+08.5	R & L	2	176+33	R	1	322+45	R	1
21+13.1	R	1	191+83	R	1	323+24	L	1
			192+00	L	1	337+00	R	1
22+53.8	L	1	193+00	R	1	338+50	R	1
40+98	L	1	193+46.4	L	1	346+00	L	1
42+71	R	1	211+35	L	1	347+00	L	1
57+92	R	1	212+54	R	1	349+28	L	1
			227+50	L	1	349+50	R	1
59+41	L	1	229+32.3	L	1	350+92	R	1
80+48	L	1	233+70	R	1	357+81	R	1
82+14	R	1	234+70	L	1	358+72	L	1
95+04.6	R	1	248+00	L	1			
96+42.4	L	1	249+78.3	L	1	360+13.8	L	1
103+00	R & L	2	259+23	L	1	372+00	R & L	2
104+00	R & L	2	261+47	R	1			
119+98	L	1	289+00	L	1	262+82	L	1
121+80	R	1	289+84	R	1			
133+14	R	1	291+00	L	1	TOTALS		60

STATION	SIDE	SPACING	NO.
0+54 10 1+54(Rt. Leg)	R	50'	3
0+671 10 7+50	L	50'	9
16+85	R&L	Culv.	2
25+00	R&L	Culv.	2
34+40	R&L	Culv.	2
37+25	R&L	Culv.	2
38+70	R&L	Culv.	2
47+00	R&L	Culv.	2
58+00	R&L	Culv.	2
71+18	R&L	Culv.	2
82+00	R&L	Culv.	2
93+00	R&L	Culv.	2
104+00	R&L	Culv.	2
116+00	R&L	Culv.	2
127+00	R&L	Culv.	2
139+20	R&L	Culv.	2
180+12	R&L	Culv.	2
203+08	R&L	Culv.	2
205+85	R&L	Culv.	2
213+00	R&L	Culv.	2
214+00	R&L	Culv.	2
216+74	R&L	Culv.	2
220+06	R&L	Culv.	2
223+56 10 224+17	R&L	Bridge	10
224+96 10 225+57	R&L	Bridge	10
226+63 10 228+63	R&L	100'	6
229+13 10 236+13	R	50'	15
229+13 10 234+13	L	50'	11
243+20 10 248+20	R	100'	6
244+70	L	Culv.	1
248+70 10 266+20	R	50'	36
253+70	L	Culv.	1
264+15	L	Culv.	1
266+25	L	Culv.	1
267+20 10 273+20	R	100'	7
281+00	R&L	Culv.	2
291+50	R&L	Culv.	2
297+00 10 304+00	R	50'	15
297+85	L	Culv.	1
305+35	R&L	Culv.	2
310+00	R&L	Culv.	2
318+75	R&L	Culv.	2
328+85	R&L	Culv.	2
340+40	R&L	Culv.	2
347+00	R&L	Culv.	2
359+00	R&L	Culv.	2
360+00 10 365+50	R	50'	12
368+30	R&L	Culv.	2
TOTAL			207

ITEM NO.	ITEM	UNIT	ROADWAY		C.B.C. STA 224+		PROJECT TOTALS	
10a	Clearing and Grubbing Entire Project	Lump Sum	•				•	
11b	Removal of 3 Structures	Lump Sum	•				•	
12a	Removing Fence	Lin. Ft.	11,500				11,500	
13c	Unclassified Excavation	Cu. Yd.	166,000		2,000		168,000	
13d	Unclassified Ditch Excavation	Cu. Yd.	7,900				7,900	
13x	Selected Material	Ton	12,900				12,900	
14a	Dry Rock Excavation (Str.)	Cu. Yd.	90		50		140	
14b	Dry Common Excavation (Str.)	Cu. Yd.	270		300		570	
14c	Wet Rock Excavation (Str.)	Cu. Yd.	60		40		100	
14d	Wet Common Excavation (Str.)	Cu. Yd.	180		80		260	
14e	Mechanical Tamping	Hour	75		75		150	
15a	Rolling Embankments & Cuts	Unit Hr.	2,740				2,740	
15b	Furnishing Roller	Roller Unit	4				4	
15c	Wetting Embankments & Cuts	M. Gal.	5,130				5,130	
15d	Rolling With Finishing Roller	Hour	240				240	
15e	Furnishing Finishing Roller	Lump Sum	•				•	
15y	Selected Backfill	Cu. Yd.	540				540	
18a	Station Yard Overhaul	Sta. Yd.	662,000				662,000	
18b	Yard Mile Overhaul	Yd. Mi.	24,200				24,200	
26a	Gravel or Crushed Rock Surfacing	Ton	20,300				20,300	
26c	Overhaul of Surfacing & Selected Material	Ton Mi.	43,100				43,100	
42a	Untreated Bridge Timber	M. Fl. bm.			0.30		0.30	
46a	Class "A" Concrete	Cu. Yd.	70		339		409	
46b	Class "B" Concrete	Cu. Yd.	34				34	
46c	Class "A" Concrete (Handrails)	Cu. Yd.			7		7	
47	Reinforcing Steel	Lb.	6,400		39,200		45,600	
53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	224				224	
53c	24" Corrugated Metal Culvert Pipe	Lin. Ft.	1,600				1,600	
53d	30" Corrugated Metal Culvert Pipe	Lin. Ft.	161				161	
53e	36" Corrugated Metal Culvert Pipe	Lin. Ft.	220				220	
63	Grouted Rubble Slope & Ditch Paving (12"th)	Sq. Yd.	110				110	
76a	Barbed Wire Fence With Treated Wooden Posts	Lin. Ft.	70,500				70,500	
76g	Barbed Wire Gates	Each	12				12	
76h	Driveway Gates	Each	3				3	
81a	Project Markers	Each	2				2	
81b	Right of Way Markers	Each	60				60	
82	Cattle Guards (16' Roadway)	Each	2				2	
92	Timber Guard Posts	Each	207				207	
95c	Metal Aprons for 24" C.M.P. Culverts	Each	46				46	
95d	Metal Aprons for 30" C.M.P. Culverts	Each	4				4	
95e	Metal Aprons for 36" C.M.P. Culverts	Each	4				4	
	FORCE ACCOUNT							
	Obliterating Old Road	Lump Sum	•				•	
	Relocate Power Line (work by R.E.A. Forces)	Lump Sum	•				•	