

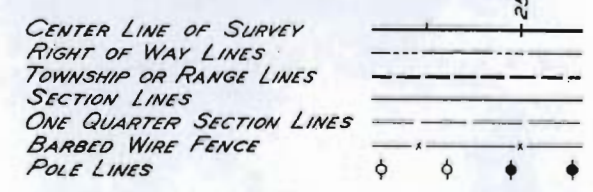
FED. ROAD DIST. NO.	STATE	P. W. A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	1	

REV. 6-8-37 A.Z.

# COLORADO STATE HIGHWAY DEPARTMENT

## PLAN AND PROFILE OF PROPOSED P.W.A. DOCKET COLO. 804-D PROJECT NO. 4002-B STATE HIGHWAY NO. ~~50~~ 50 PROWERS COUNTY

### CONVENTIONAL SIGNS

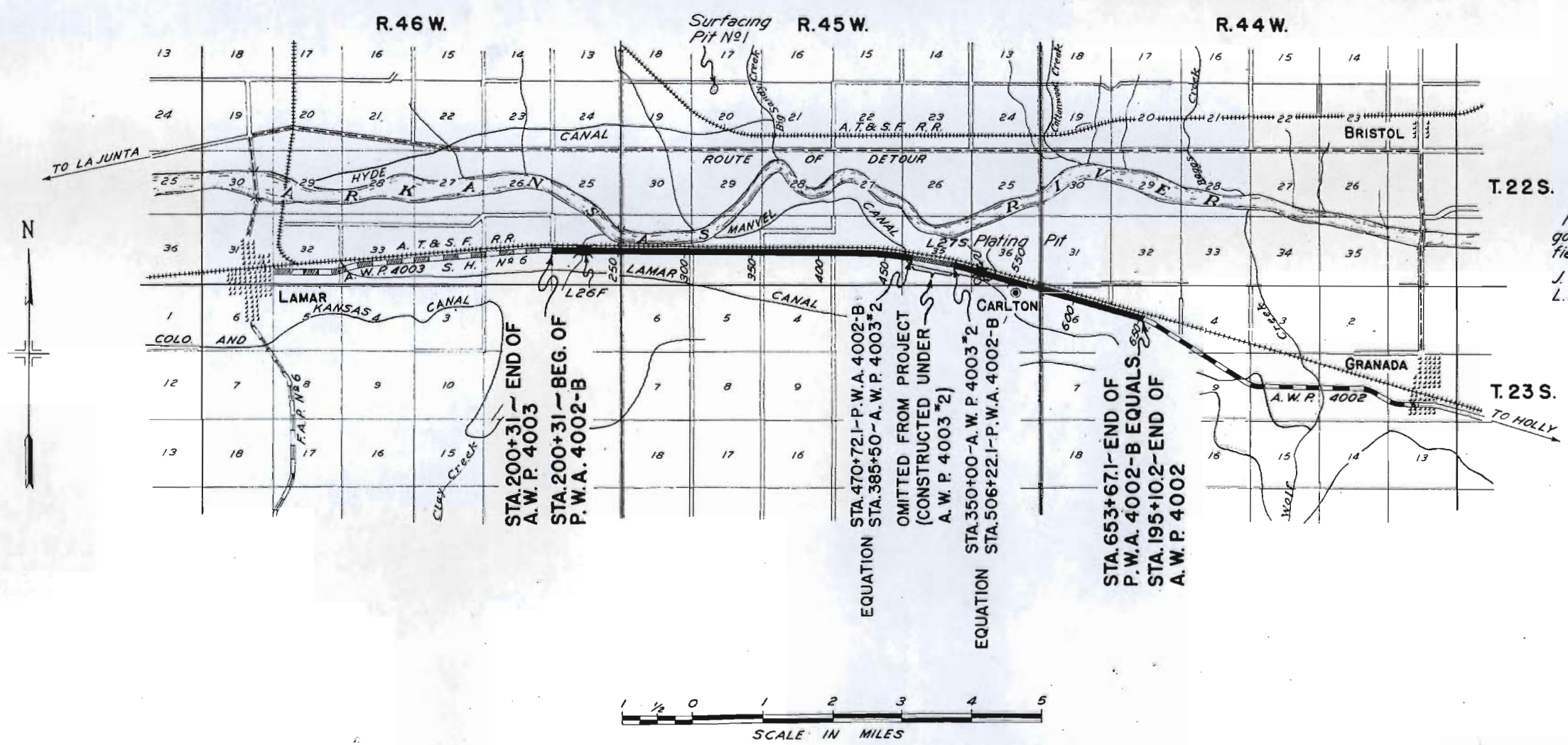


### INDEX OF SHEETS

- SHEET No. 1 SKETCH MAP AND TITLE PAGE.
- 2 TYPICAL SECTION AND SUMMARY OF QUANTITIES.
- 3&4 LIST OF STRUCTURES.
- 5&6 DETAILS OF BRIDGE WIDENING, STA. 220+
- 7 " " " STA. 521+
- 8 " " " DETOUR BRIDGE, MILE 7+
- 9 DETOUR PLAN.
- 10 SPECIAL DETAILS.
- 11 STANDARD CONCRETE BOX CULVERTS. M103D
- 12 " " " (REV. FOR 8'x3') M104D (SPEC. REV.)
- 13 " HEADWALLS FOR C.M.P. CULVERTS. M102E
- 14 " SIPHON CORRUGATED GALV. IRON PIPE WITH CONCRETE INLET AND OUTLET BOXS. M123A
- 15 Sheet omitted
- 16 " TIMBER GUARD POSTS M19A
- 17 " WIRE FENCES WITH STEEL POSTS AND MARKER POSTS. M27A
- 18 " STRUCTURE NUMBER LETTERING M10A
- 19 " METHODS FOR SUPERELEVATION AND WIDENING OF CURVES. M1B
- 20 TYPICAL SIDE APPROACH ROADS / ROADWAY CONSTRUCTION TRAFFIC SIGNS. (P.W.A.) M28X
- 21-36 ALIGNMENT PLAN AND PROFILE.
- 37-98 CROSS SECTIONS.

### SCALES OF ORIGINAL TRACINGS

ON PLAN, 1 IN. = 100 FT.  
ON PROFILE 1 1/2 IN. = 100 FT. HORIZONTAL  
1 1/2 IN. = 10 FT. VERTICAL  
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD  
GROSS LENGTH OF PROJECT 45,336.1 FEET = 8.586 MILES  
NET LENGTH OF PROJECT 41,786.1 FEET = 7.914 MILES



It is recommended that bidders on this Project go over the plan details with one of the following field representatives of this department:  
J. D. Bell Division Engineer Pueblo.  
L. A. Rose Resident Engineer Lamar.

RECOMMENDED FOR APPROVAL  
*[Signature]*  
ASSISTANT  
APPROVED  
*[Signature]*  
STATE HIGHWAY  
RECOMMENDED FOR APPROVAL  
DIST. ENG. BUREAU  
RECOMMENDED FOR APPROVAL  
CHIEF ENG. BUREAU  
APPROVED  
DIRECTOR BUREAU



NOTE:  
Alignment and Grades as shown are subject to modification after approval by the Denver Office. All poles encroaching on the Construction are to be moved by the owners. Fencing Requirements are tabulated on Sheet No. 3. Gates and Right-of-way Markers are tabulated on Sheet No. 4.

STA. 200+31  
END OF A.W.P. 4003  
BEG. OF P.W.A. PROJECT  
4002-B

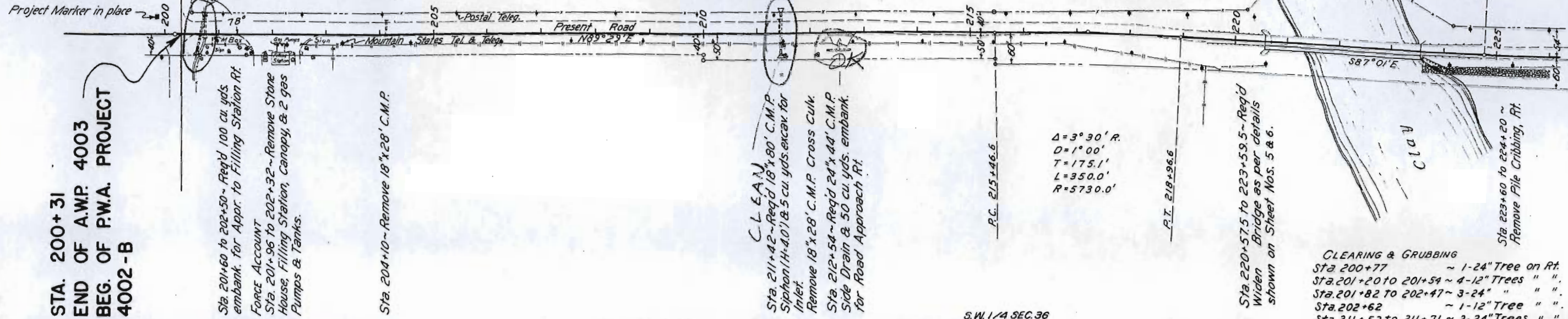
P.O.T. 200+18  
Sta. 200+57~Req'd 18"x70" C.M.P. Siphon (skew 78° Lt.) H=20' & 5 cu yds. excav. for Inlet. Remove 15" Vitrified Tile Siphon.

Sta. 201+60 to 202+50~Req'd 100 cu yds. embank. for Appr. to Filling Station Rt. FORCE ACCOUNT  
Sta. 201+96 to 202+32~Remove Stone House, Filling Station, Canopy, & 2 gas Pumps & Tanks.

Sta. 204+10~Remove 18"x28" C.M.P.

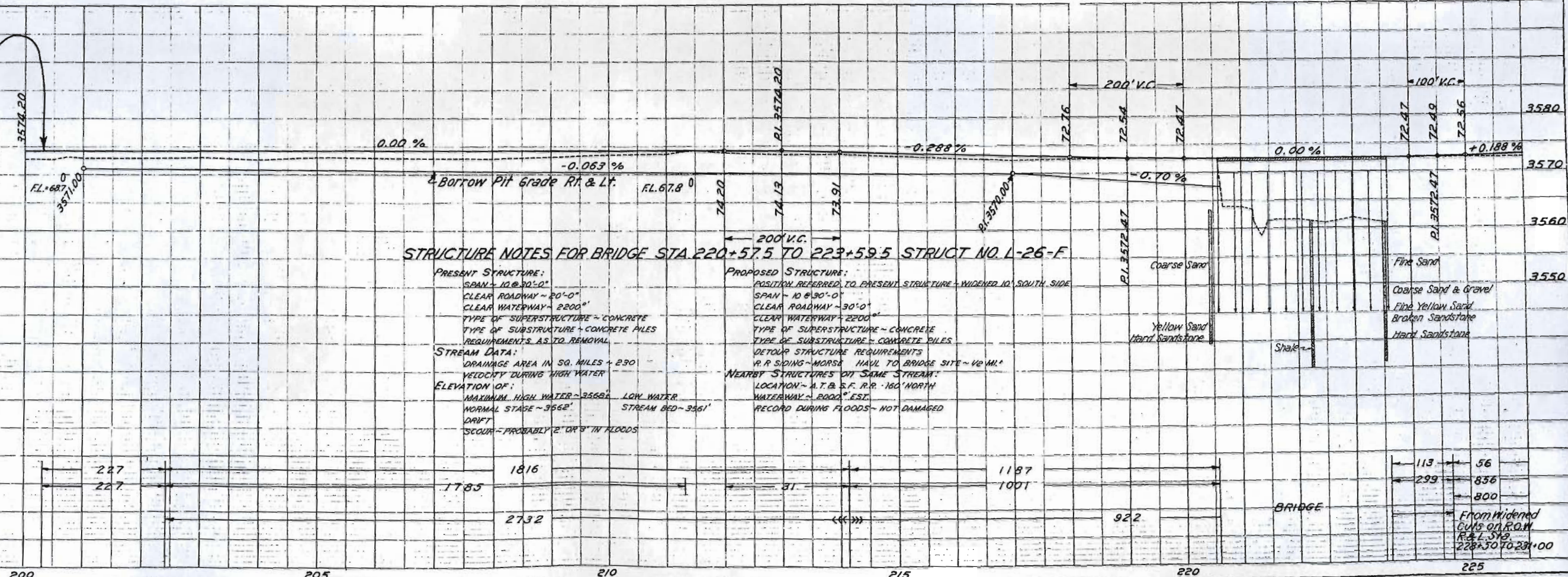
ATCHISON TOPEKA & SANTA FE R.R.

Remove & Rebuild Wire Cable Guard Fence as follows:  
Sta. 219+44 to 220+55, III' Left  
" " 219+44 to 220+55, III' Right  
" " 223+62 to 224+73, III' Left  
" " 223+62 to 224+73, III' Right



$\Delta = 3^{\circ} 30' R$   
 $D = 1^{\circ} 00'$   
 $T = 175.1'$   
 $L = 350.0'$   
 $R = 5730.0'$

CLEARING & GRUBBING  
Sta. 200+77 ~ 1-24" Tree on Rt.  
Sta. 201+20 to 201+54 ~ 4-12" Trees " "  
Sta. 201+82 to 202+47 ~ 3-24" " "  
Sta. 202+62 ~ 1-12" Tree " "  
Sta. 211+52 to 211+71 ~ 2-24" Trees " "



STRUCTURE NOTES FOR BRIDGE STA. 220+57.5 TO 223+59.5 STRUCT. NO. L-26-F

PRESENT STRUCTURE:  
SPAN - 10 @ 30'-0"  
CLEAR ROADWAY - 20'-0"  
CLEAR WATERWAY - 2200"  
TYPE OF SUPERSTRUCTURE - CONCRETE  
TYPE OF SUBSTRUCTURE - CONCRETE PILES  
REQUIREMENTS AS TO REMOVAL  
STREAM DATA:  
DRAINAGE AREA IN SQ. MILES - 2.90  
VELOCITY DURING HIGH WATER  
ELEVATION OF:  
MAXIMUM HIGH WATER - 3562' LOW WATER  
NORMAL STAGE - 3562' STREAM BED - 3561'  
DRIFT  
SCOUR - PROBABLY 2' OR 3' IN FLOODS

PROPOSED STRUCTURE:  
POSITION REFERRED TO PRESENT STRUCTURE - WIDENED 10' SOUTH SIDE  
SPAN - 10 @ 30'-0"  
CLEAR ROADWAY - 30'-0"  
CLEAR WATERWAY - 2200"  
TYPE OF SUPERSTRUCTURE - CONCRETE  
TYPE OF SUBSTRUCTURE - CONCRETE PILES  
DETAIL STRUCTURE REQUIREMENTS  
R.R. SIDING - WOODS HAVL TO BRIDGE SITE - 1/2 MI.  
NEARBY STRUCTURES ON SAME STREAM:  
LOCATION - A.T. & S.F. R.R. 160' NORTH  
WATERWAY - 2000' EST.  
RECORD DURING FLOODS - NOT DAMAGED

Coarse Sand  
Yellow Sand  
Hard Sandstone  
Shale  
Fine Sand  
Coarse Sand & Gravel  
Fine Yellow Sand  
Broken Sandstone  
Hard Sandstone

From Widened CUTS ON R.O.W. P.L. 518 228+50 TO 231+00

SEC. 36  
R. 46 W.

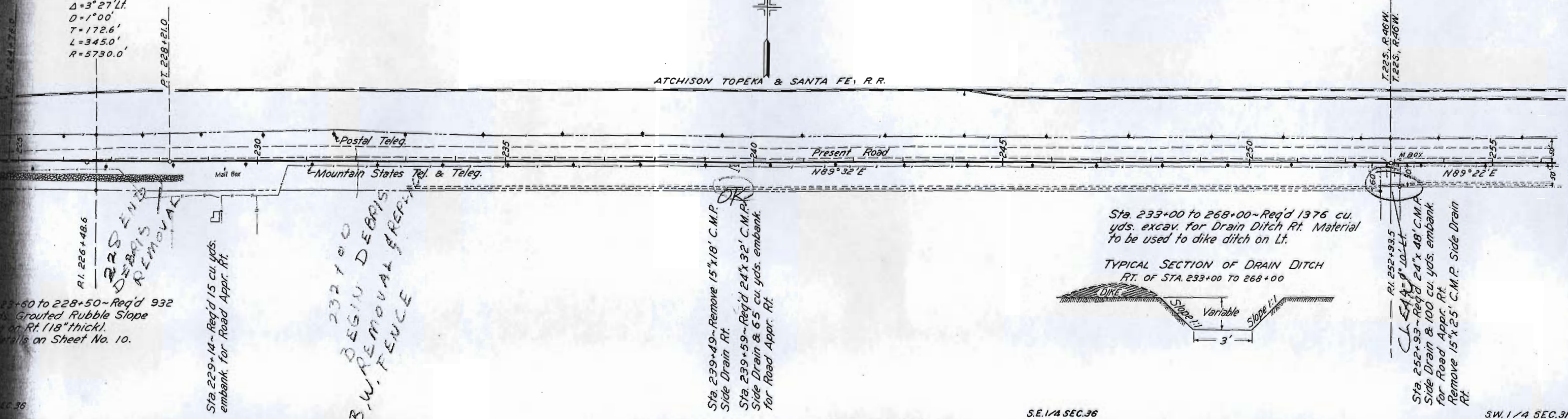
N.E. 1/4 SEC. 36

FED. ROAD DIST. NO.	STATE	P.W.A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	22	

N.W. 1/4 SEC. 31  
T. 225, R. 45 W.

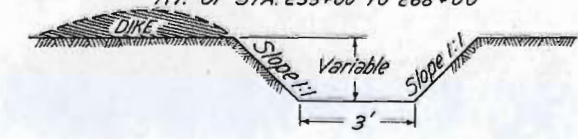
$\Delta = 3^\circ 27' Lt.$   
 $D = 1^\circ 00'$   
 $T = 172.6'$   
 $L = 3450.0'$   
 $R = 5730.0'$

ATCHISON TOPEKA & SANTA FE R.R.



Sta. 233+00 to 268+00 ~ Req'd 1376 cu. yds. excav. for Drain Ditch Rt. Material to be used to dike ditch on Lt.

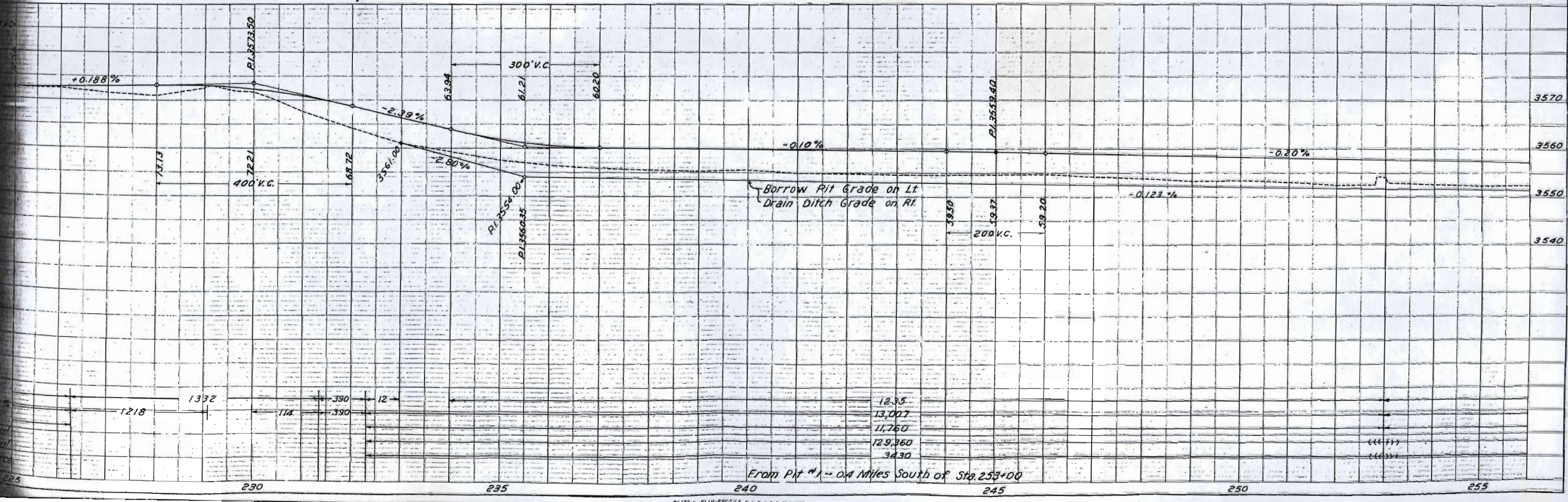
TYPICAL SECTION OF DRAIN DITCH  
RT. OF STA. 233+00 TO 268+00



CL. SAG 8' 10" LL  
 Sta. 252+93 ~ Req'd 24' x 48' C.M.P. Side Drain & 100 cu. yds. embank. for Road Appr. Rt.  
 Remove 15' x 25' C.M.P. Side Drain Rt.

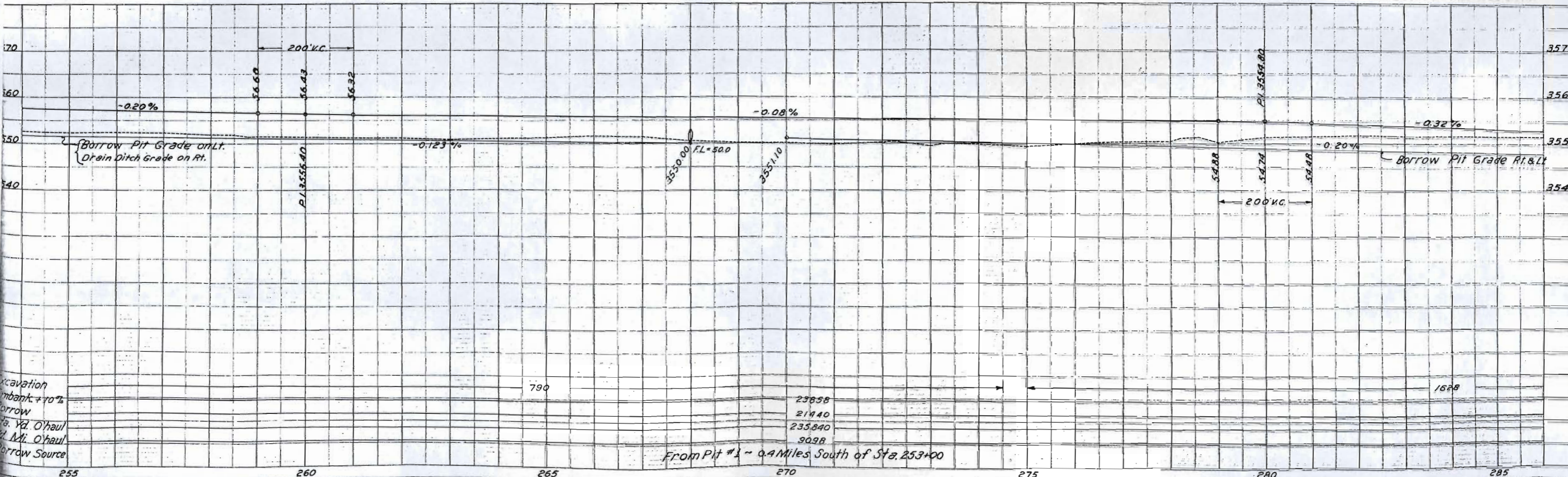
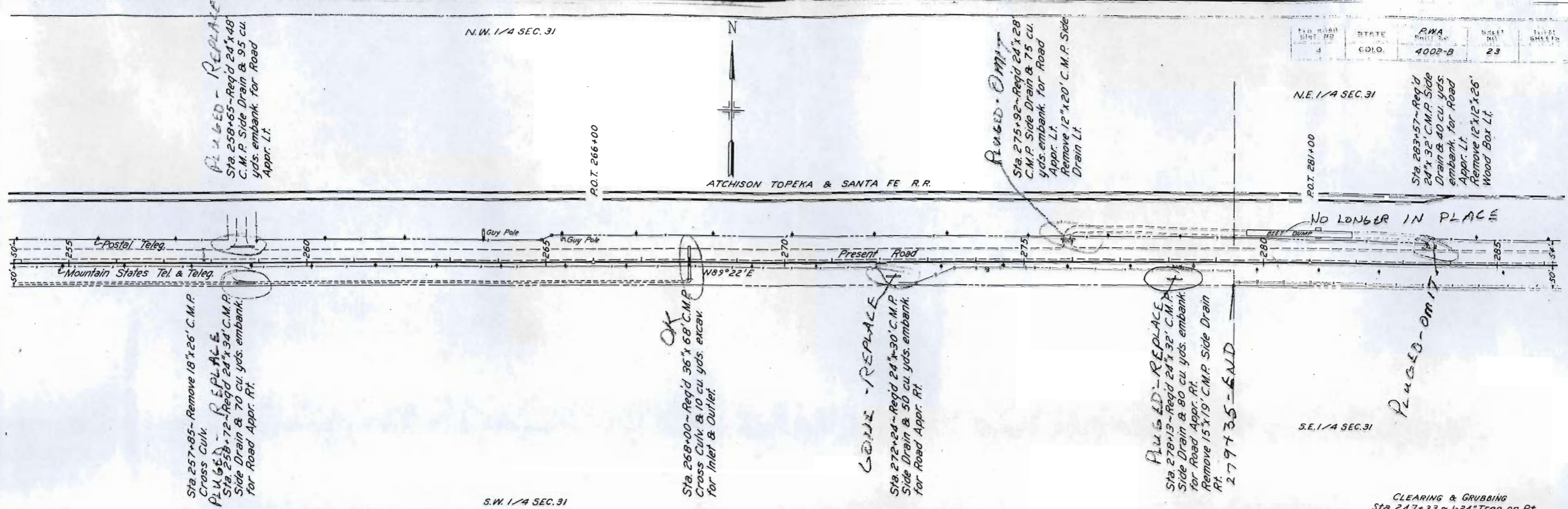
S.E. 1/4 SEC. 36

S.W. 1/4 SEC. 31



From Pit #1 - 0.4 Miles South of Sta. 253+00

STATE	RWA	SHEET	TOTAL SHEETS
COLO.	4002-B	23	



Sta. 291+08 ~ Remove 18' x 50' C.M.P. Cross Culik

N.E. 1/4 SEC. 31  
T. 22S., R. 45W.

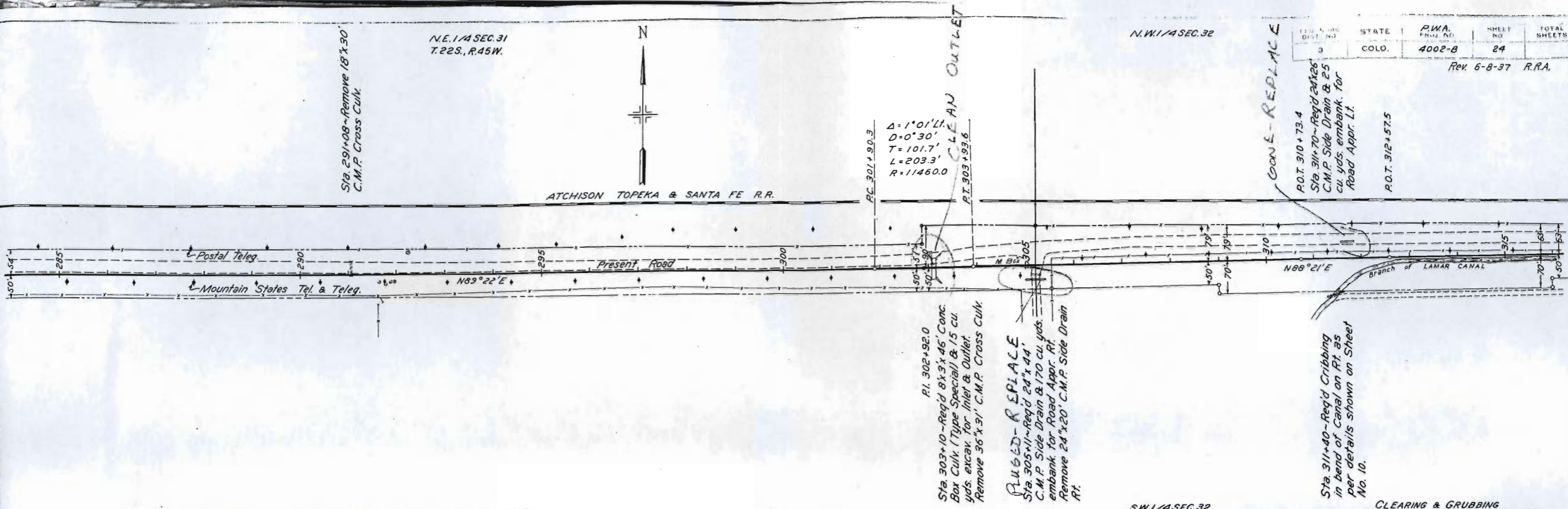


ATCHISON TOPEKA & SANTA FE R.R.

N.W. 1/4 SEC. 32

DIST. NO.	STATE	P.W.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	24	

Rev 6-8-37 R.R.A.



PC 301+90.3  
 $\Delta = 1^{\circ}01'11''$   
 $D = 0^{\circ}30'$   
 $T = 101.7'$   
 $L = 203.3'$   
 $R = 11460.0'$   
 PT 303+93.6

PI 302+92.0  
 Sta. 303+10 ~ Req'd 8' x 3' x 46' Conc. Box Culik (Type Special) & 15 cu. yds. excav. for inlet & outlet. Remove 36' x 31' C.M.P. Cross Culik.

PLUGGED-REPLACE  
 Sta. 305+11 ~ Req'd 24' x 44' C.M.P. Side Drain & 170 cu. yds. embank. for Road Appr. Rt. Remove 24' x 20' C.M.P. Side Drain Rt.

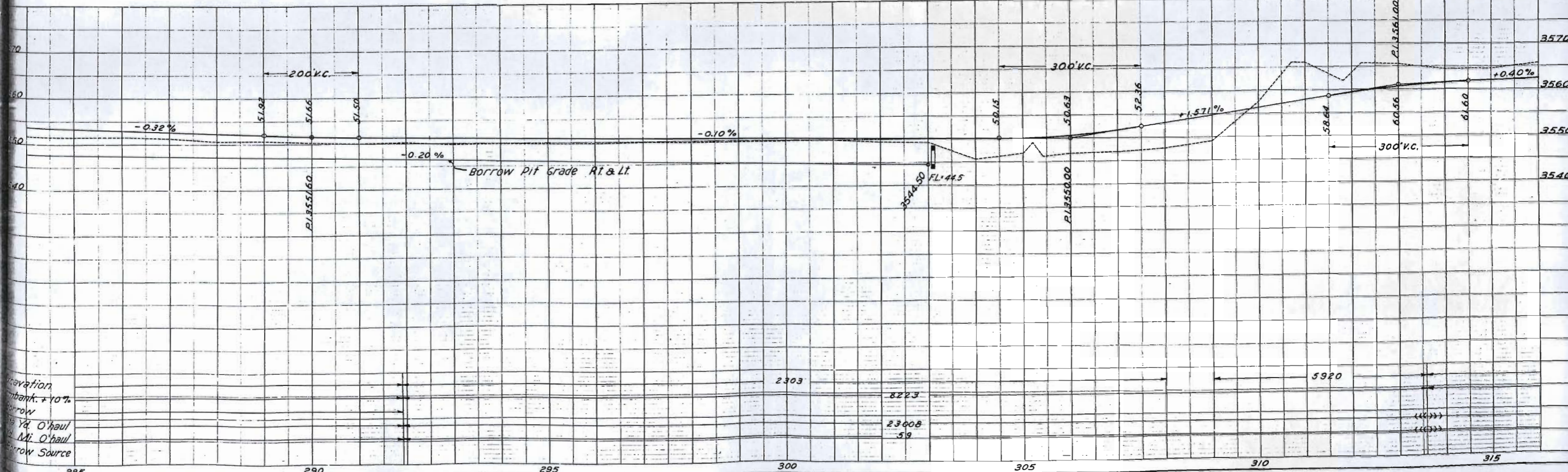
CONC. REPLACE  
 P.O.T. 310+73.4  
 Sta. 311+70 ~ Req'd 24' x 26' C.M.P. Side Drain & 25 cu. yds. embank. for Road Appr. Lt.  
 P.O.T. 312+57.5

Sta. 311+40 ~ Req'd Cribbing in bend of Canal on Rt. as per details shown on Sheet No. 10.

S.E. 1/4 SEC. 31

S.W. 1/4 SEC. 32

CLEARING & GRUBBING  
 Sta. 291+06 ~ 4-24" Trees on Rt.



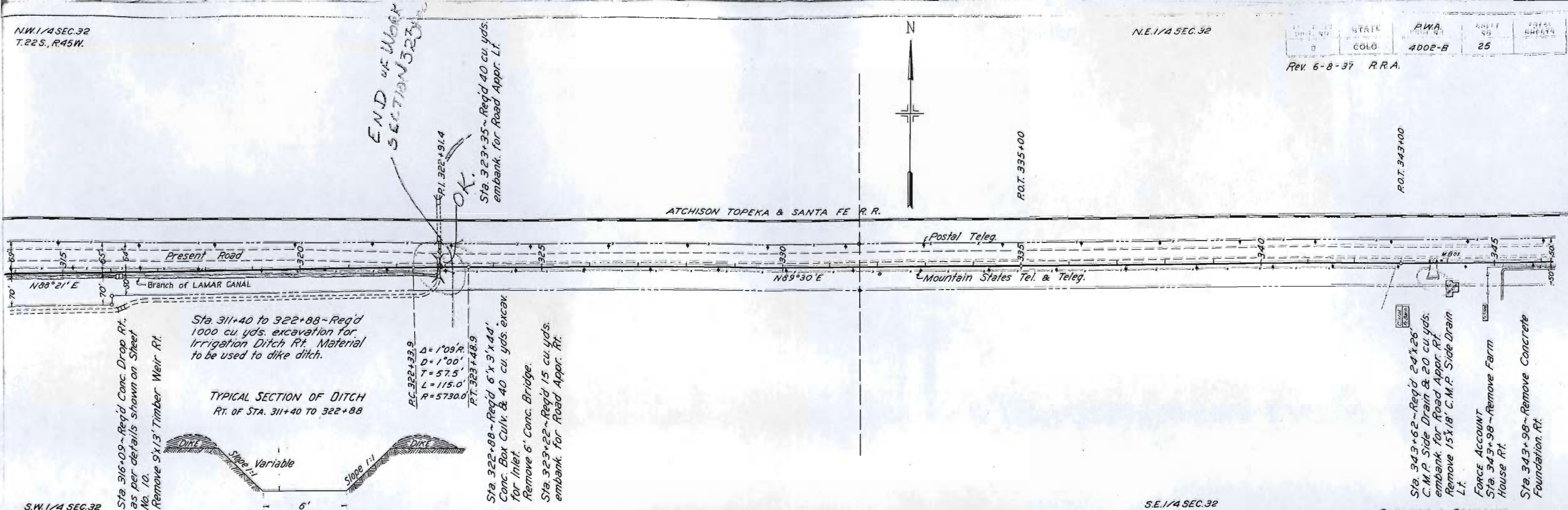
Excavation  
 embank. + 10%  
 borrow  
 1/2 Mi. O'haul  
 1/2 Mi. O'haul  
 borrow Source

N.W. 1/4 SEC. 32  
T. 22 S., R. 45 W.

N.E. 1/4 SEC. 32

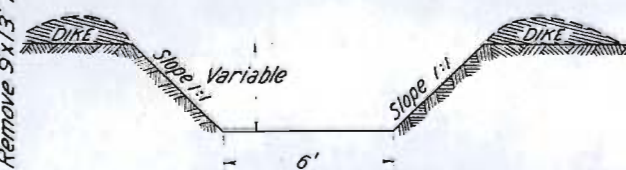
STATE	P.W.A.	SHEET	TOTAL SHEETS
8	4002-B	25	
COLO			

Rev. 6-8-37 R.R.A.



Sta. 311+40 to 322+88 ~ Req'd 1000 cu. yds. excavation for Irrigation Ditch Rt. Material to be used to dike ditch.

TYPICAL SECTION OF DITCH  
RT. OF STA. 311+40 TO 322+88



P.C. 322+33.9  
 $\Delta = 1'09''$   
 $D = 1'00''$   
 $T = 57.5'$   
 $L = 115.0'$   
 $R = 5730.0'$

P.T. 323+48.9

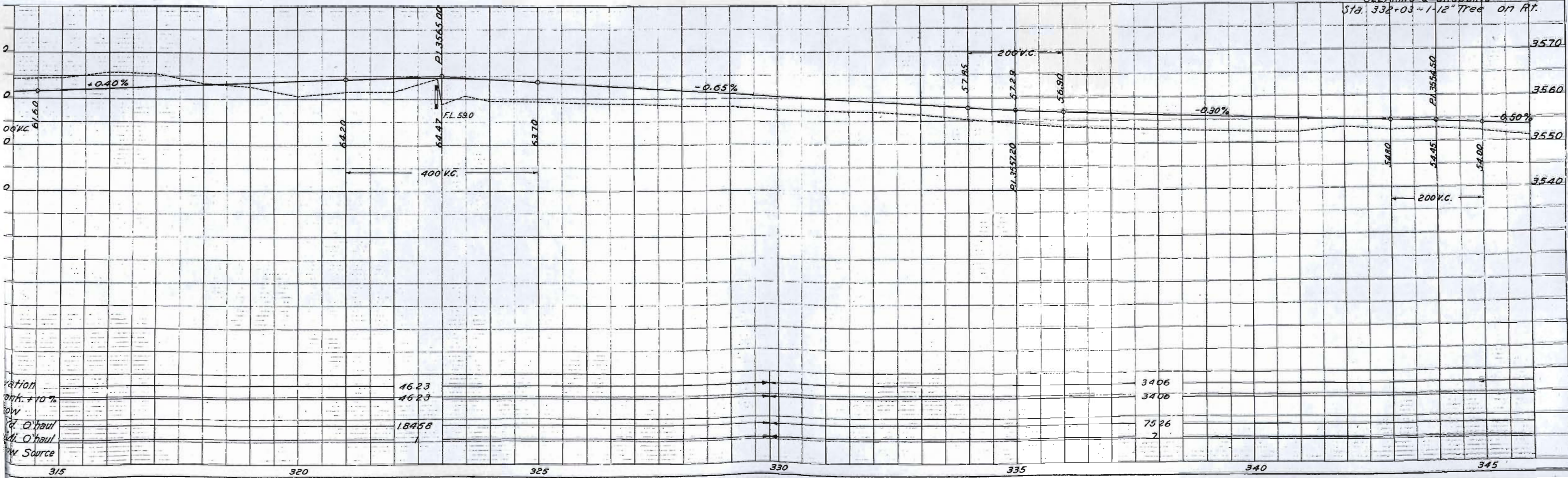
Sta. 322+88 ~ Req'd 6' x 3' x 44' Conc. Box CULV. & 40 cu. yds. excav. for Inlet.  
Remove 6' Conc. Bridge.

Sta. 323+22 ~ Req'd 15 cu. yds. embank. for Road Appr. Rt.

Sta. 343+62 ~ Req'd 24' x 26' C.M.P. Side Drain & 20 cu. yds. embank. for Road Appr. Rt.  
Remove 15' x 18' C.M.P. Side Drain Lt.  
FORCE ACCOUNT  
Sta. 343+98 ~ Remove Farm House Rt.  
Sta. 343+98 ~ Remove Concrete Foundation Rt.

S.W. 1/4 SEC. 32

S.E. 1/4 SEC. 32



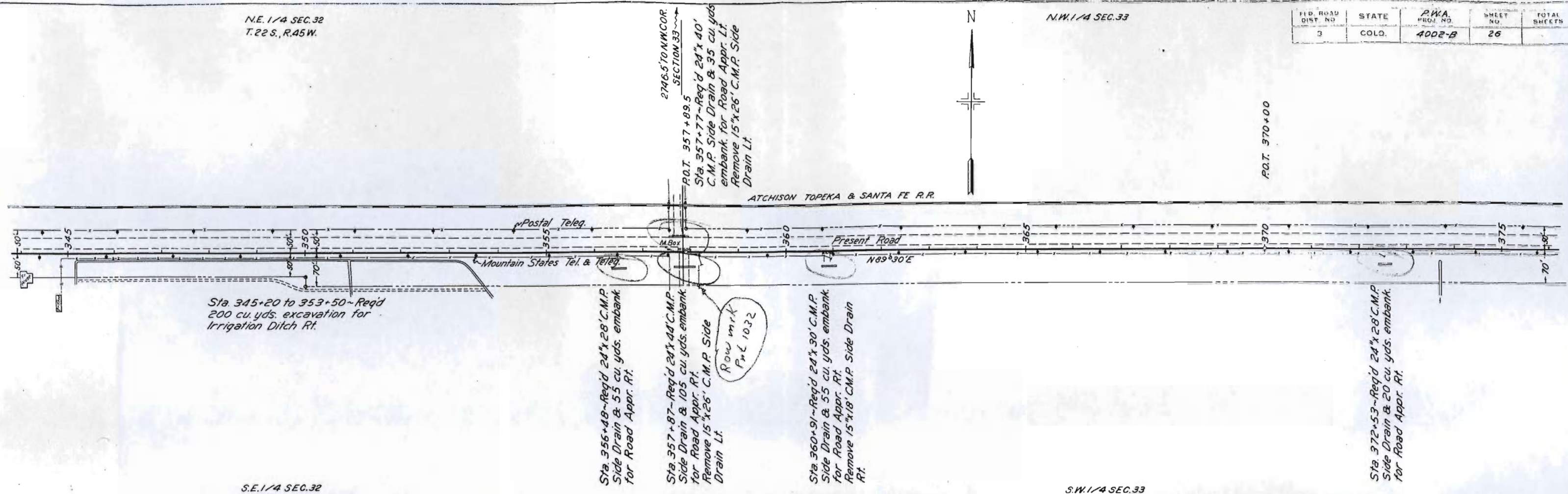
Excavation	4623	3406
Embank. 10%	4623	3406
Gravel Haul	18458	7526
Gravel Source		7

315 320 325 330 335 340 345

N.E. 1/4 SEC. 32  
T. 22 S., R. 45 W.

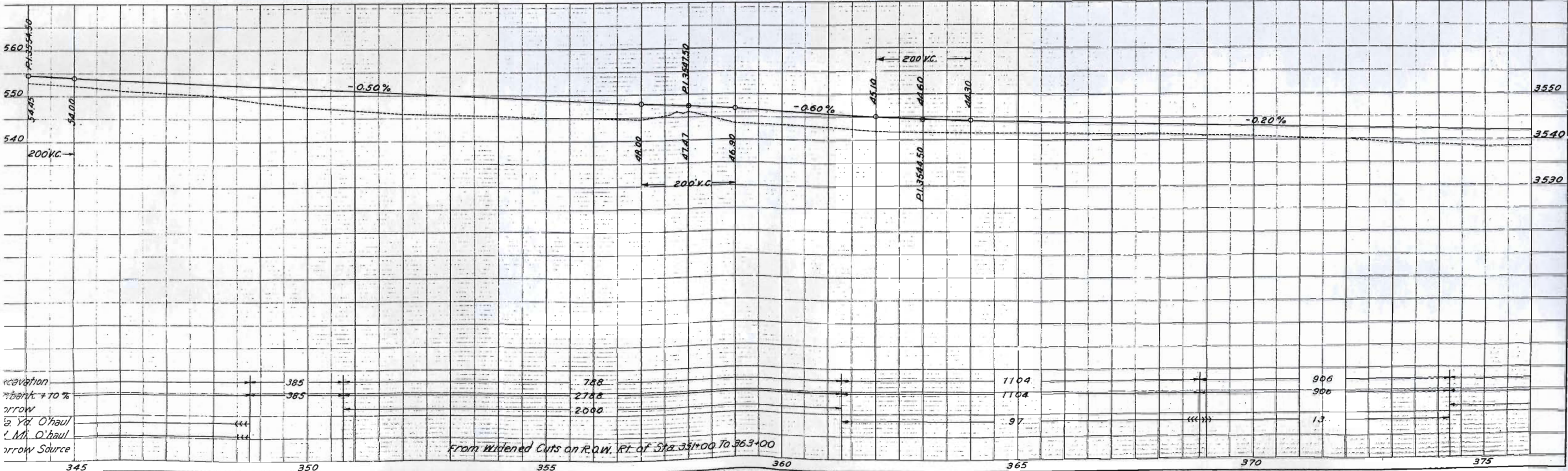
N.W. 1/4 SEC. 33

F.I.D. ROAD DIST. NO.	STATE	P.W.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	26	



S.E. 1/4 SEC. 32

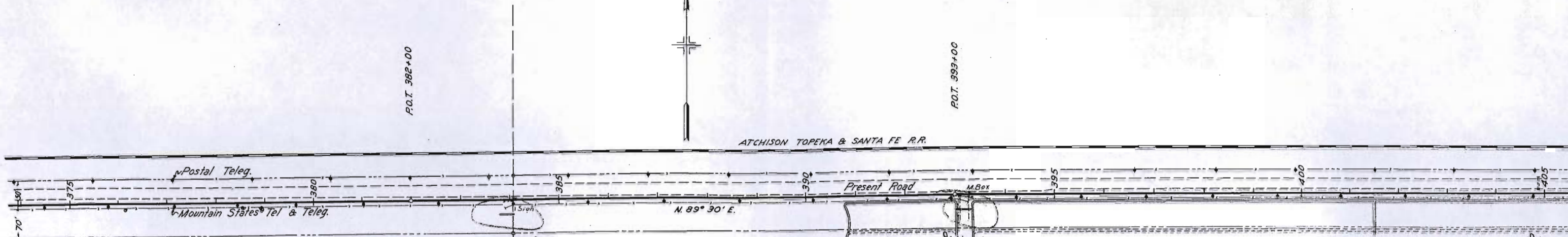
S.W. 1/4 SEC. 33



N.W. 1/4 SEC. 33  
T. 22 S., R. 45 W.

N.E. 1/4 SEC. 33

FED. ROAD DIST. NO.	STATE	R.W.A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	27	



Sta. 390+85 to 393+02 - Req'd 15 cu. yds. excav. for Irrigation Ditch Rt.

Sta. 393+32 to 408+90 - Req'd 100 cu. yds. excav. for Irrigation Ditch Rt.

Sta. 383+95 - Req'd 24' x 30' C.M.P. Side Drain & 60 cu. yds. embank. for Road Appr. Rt. Remove 15' x 18' C.M.P. Side Drain Rt.

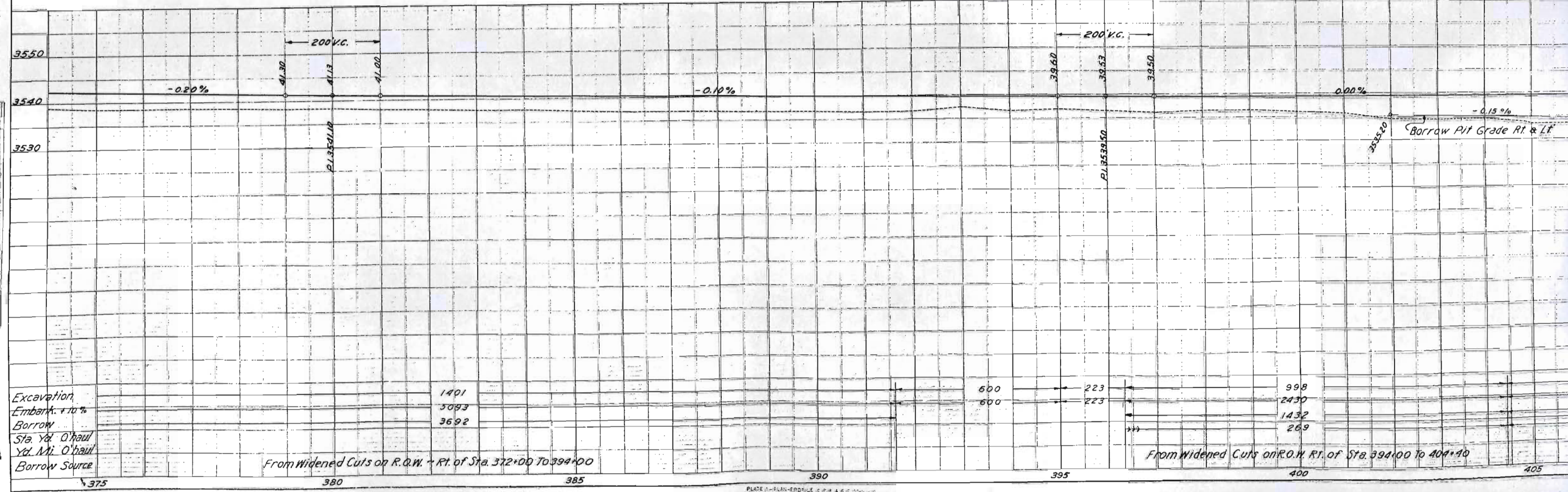
Sta. 393+17 - Req'd 24' x 30' C.M.P. Side Drain & 70 cu. yds. embank. for Road Appr. Rt. Remove 12' x 20' C.M.P. Side Drain Rt.

Sta. 404+88 - Remove 18' x 26' C.M.P. Cross Culv.

S.W. 1/4 SEC. 33

S.E. 1/4 SEC. 33

CLEARING & GRUBBING  
Sta. 376+17 to 378+92 - 4-12" Trees on Rt.



Excavation	1401
Embank. + 10%	3093
Borrow	3692
Sta. Yd. O'haul	
Yd. Mi. O'haul	
Borrow Source	

600	223	998
600	223	2430
		1432
		269

From Widened Cuts on R.O.W. of Rt. of Sta. 372+00 To 394+00

From Widened Cuts on R.O.W. of Sta. 394+00 To 404+10

NOTE BOOK ALLOCATION CHECKED  
NO. 6897  
NO. 8812

NOTE BOOK ALLOCATION CHECKED  
NO. 6893

N.E. 1/4 SEC. 33  
T.22S., R.45W.

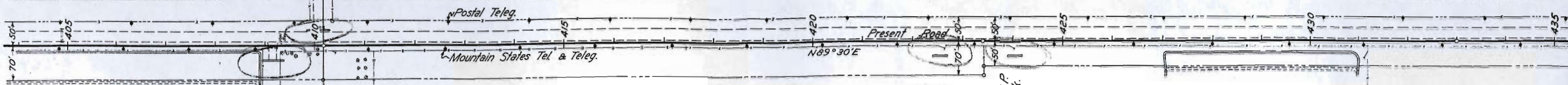
N.W. 1/4 SEC. 34

FED. ROAD DIST. NO.	STATE	R.W.A. PROJ. NO.	SHEET NO.
3	COLO.	4002-B	28

P.O.T. 433+00



ATCHISON TOPEKA & SANTA FE R.R.



Sta 409+15 ~ Req'd 36' x 44' C.M.P. Side Drain & 115 cu. yds. embank. for Road Appr. Rt. Remove 12' x 20' C.M.P. Side Drain Rt.

R.O.T. 410+18.5  
Sta 410+08 ~ Req'd 75 cu. yds. embank. for Road Appr. Lt. Relay 24' x 26' C.M.P. Side Drain Lt. & extend 20'.

Sta 422+55 ~ Req'd 36' x 30' C.M.P. Side Drain & 35 cu. yds. embank. for Road Appr. Rt.

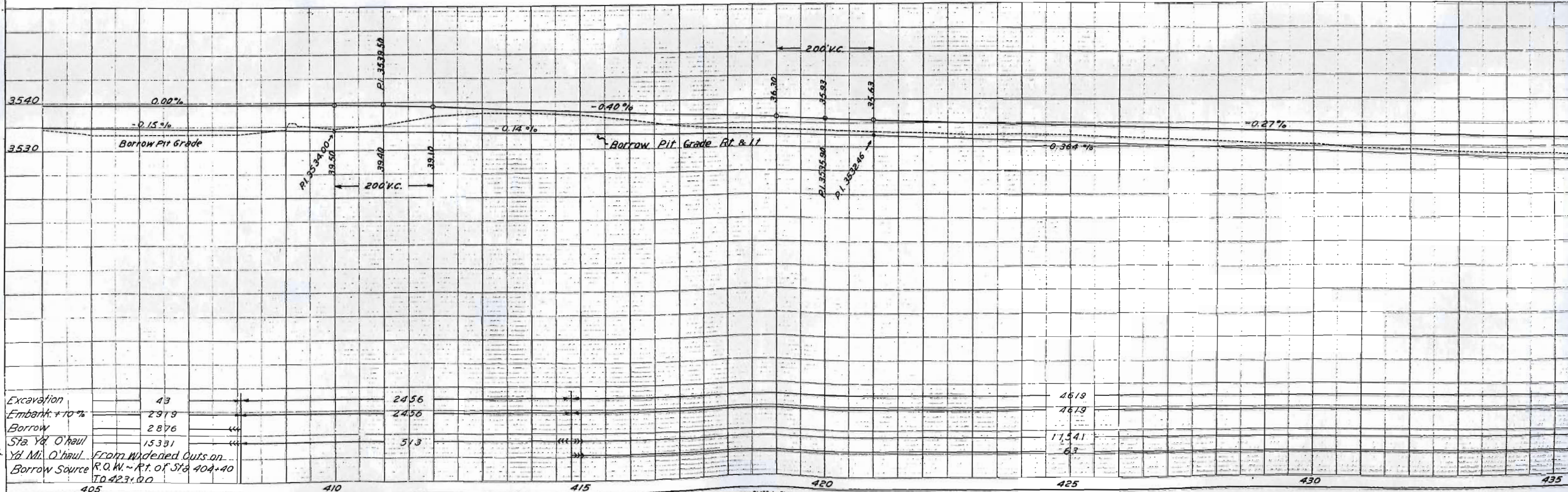
Sta 424+04 ~ Req'd 36' x 30' C.M.P. Side Drain & 35 cu. yds. embank. for Road Appr. Rt.

Sta 427+00 to 430+95 ~ Req'd 25 cu. yds. excav. for Irrigation Ditch Rt.

S.E. 1/4 SEC. 33

S.W. 1/4 SEC. 34

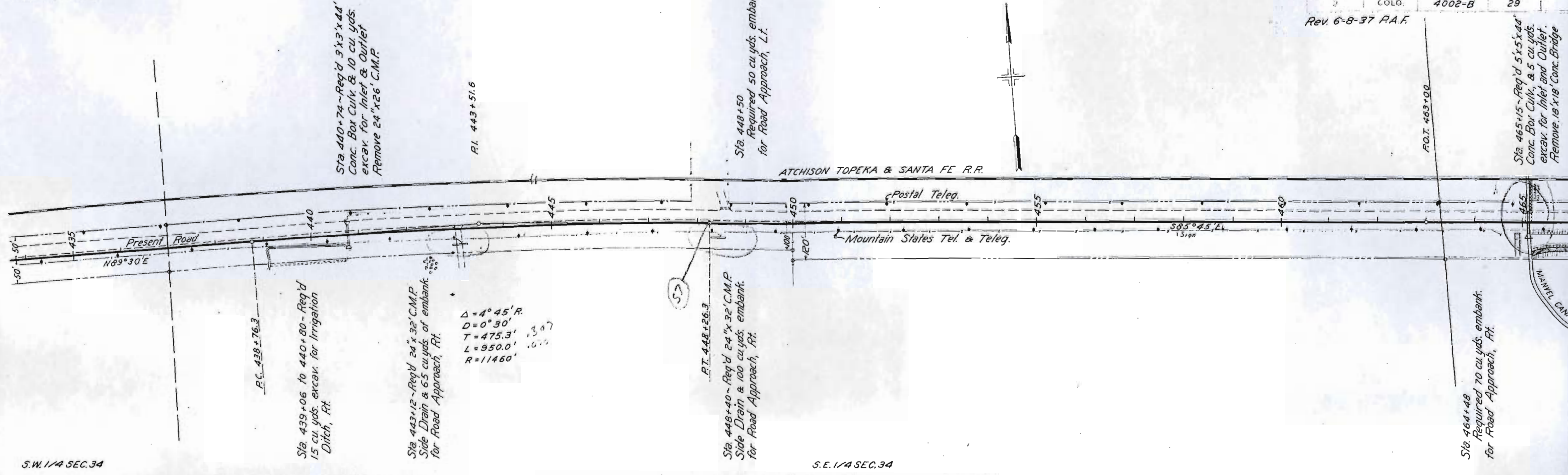
CLEARING & GRUBBING  
Sta 409+33 to 409+50 ~ 3-12" Trees  
Sta 409+54 to 409+91 ~ 2-24" "  
Sta 410+02 ~ 1-12" Tree  
Sta 410+85 to 411+00 ~ 6 Trees



N.W. 1/4 SEC. 34  
T.22 S., R.45 W.

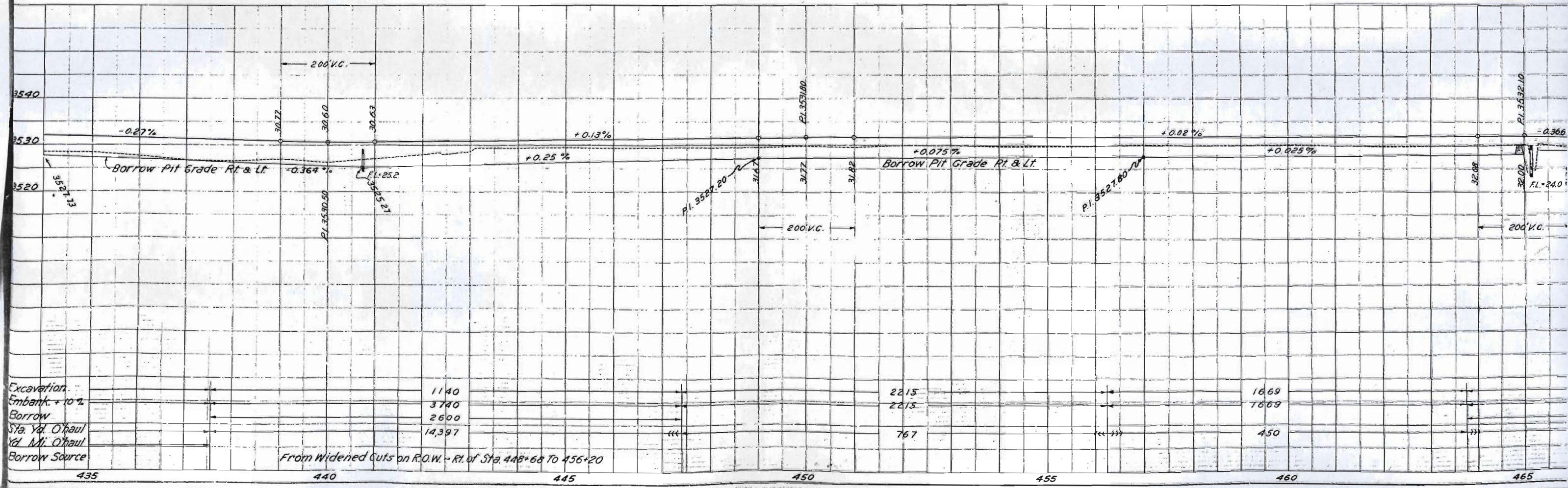
N.E. 1/4 SEC. 34

STATE COLORADO  
P.W.A. 4002-B  
Rev. 6-8-37 P.A.F.  
29



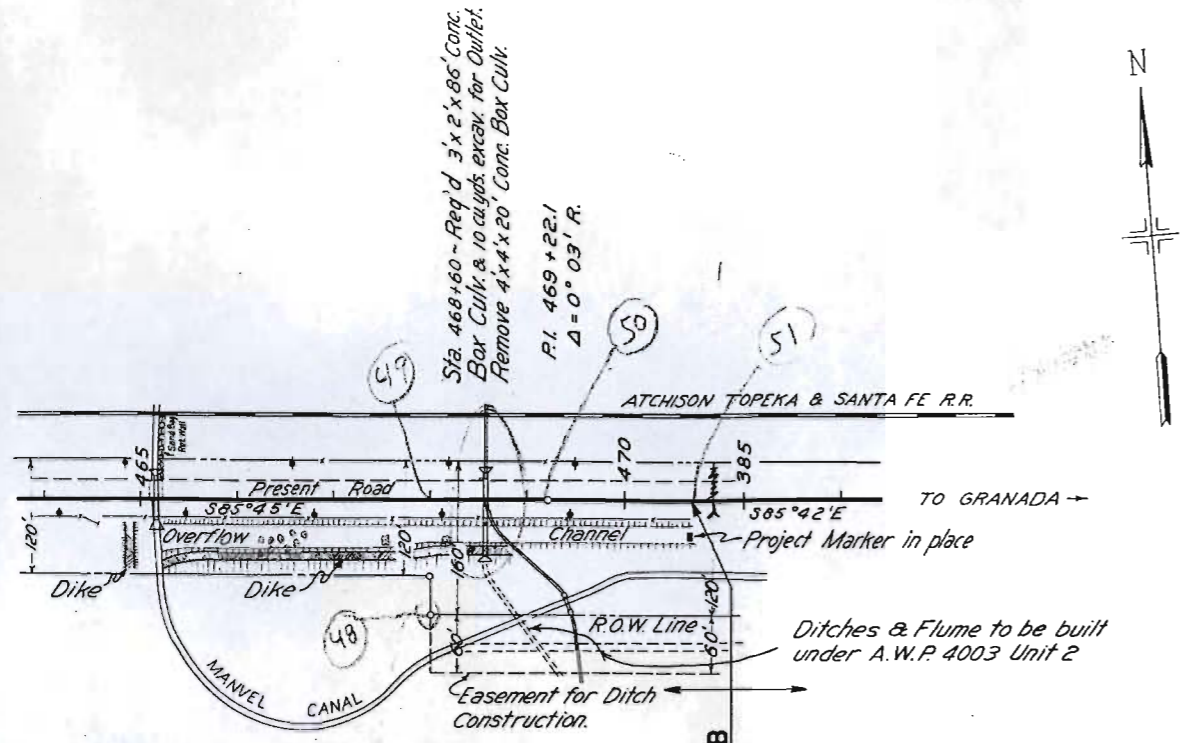
S.W. 1/4 SEC. 34

S.E. 1/4 SEC. 34



Excavation	1140	2215	1669
Embank. + 10%	3740	2215	7669
Borrow	2600		
Sta. Yd. O'haul	14,397	767	450
Yd. Ml. O'haul			
Borrow Source			

From Widened Cuts on R.O.W. - Rt. of Sta. 448+68 To 456+20

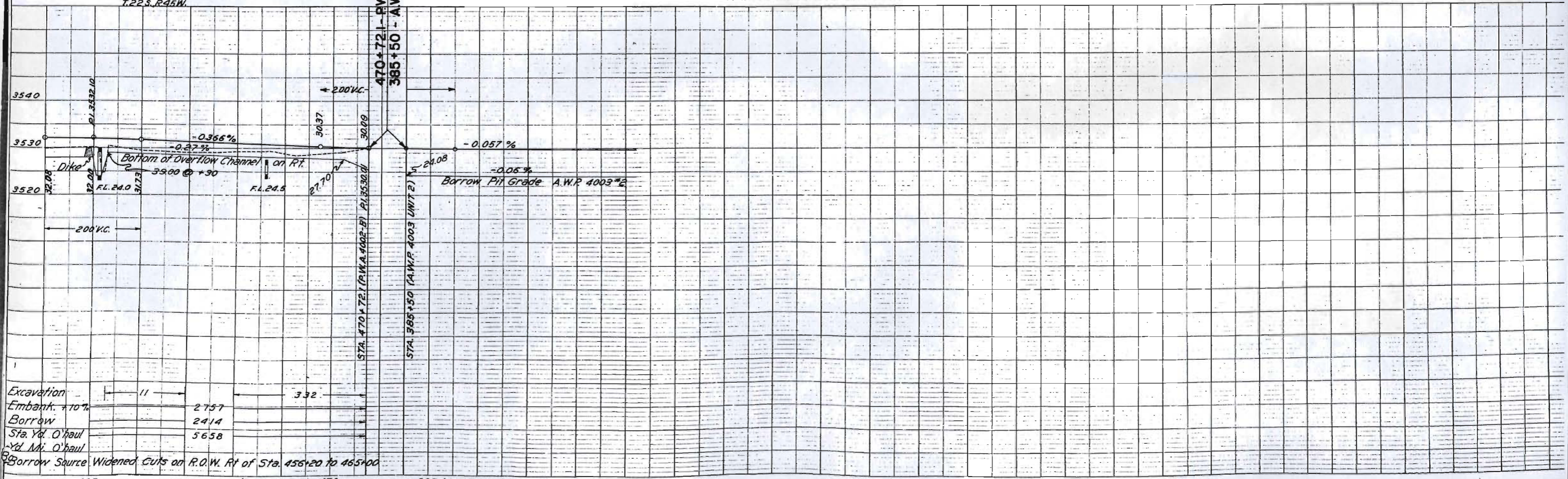


Sta. 464+90 to 469+00 - Req'd 2600 cu yds. embank. for Dikes on Rt. (See Cross Sections.)

R.O.W. m.r.k.  
FD No. 2  
P. 1 A

S.W. 1/4 SEC. 35  
T.22 S. R.45 W.

CLEARING & GRUBBING  
Sta. 466+00 to 470+00 - 17 Trees on Rt.



Excavation	11	
Embank. +10%		2757
Borrow		2414
Sta. Yd. O'haul		5658
Yd. M. O'haul		

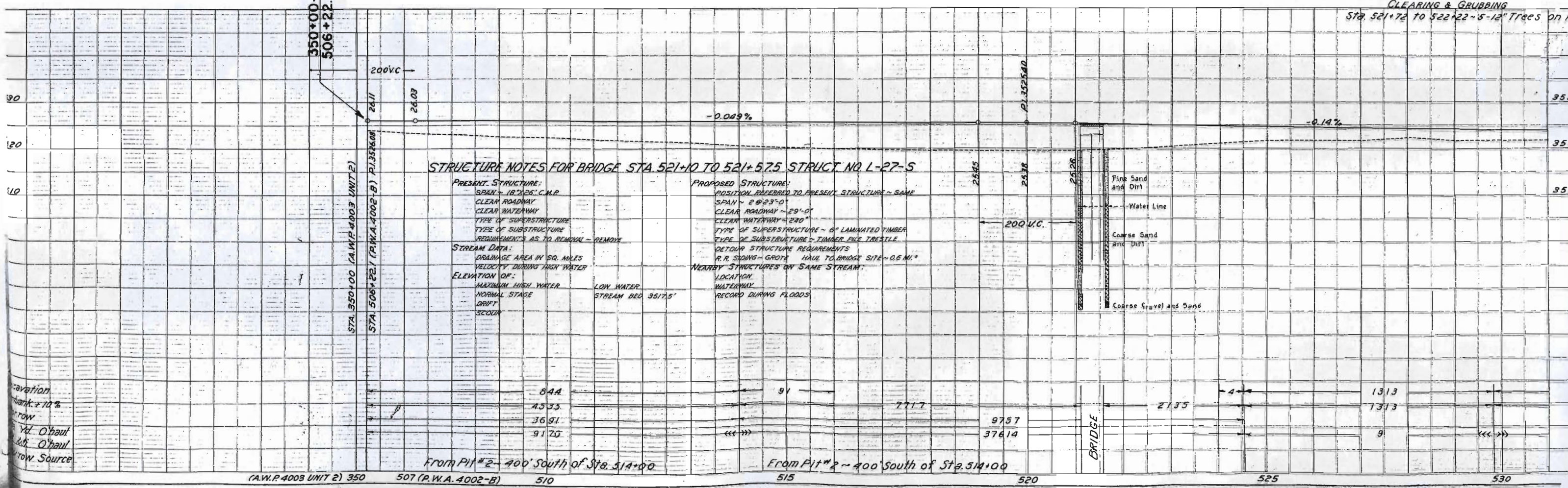
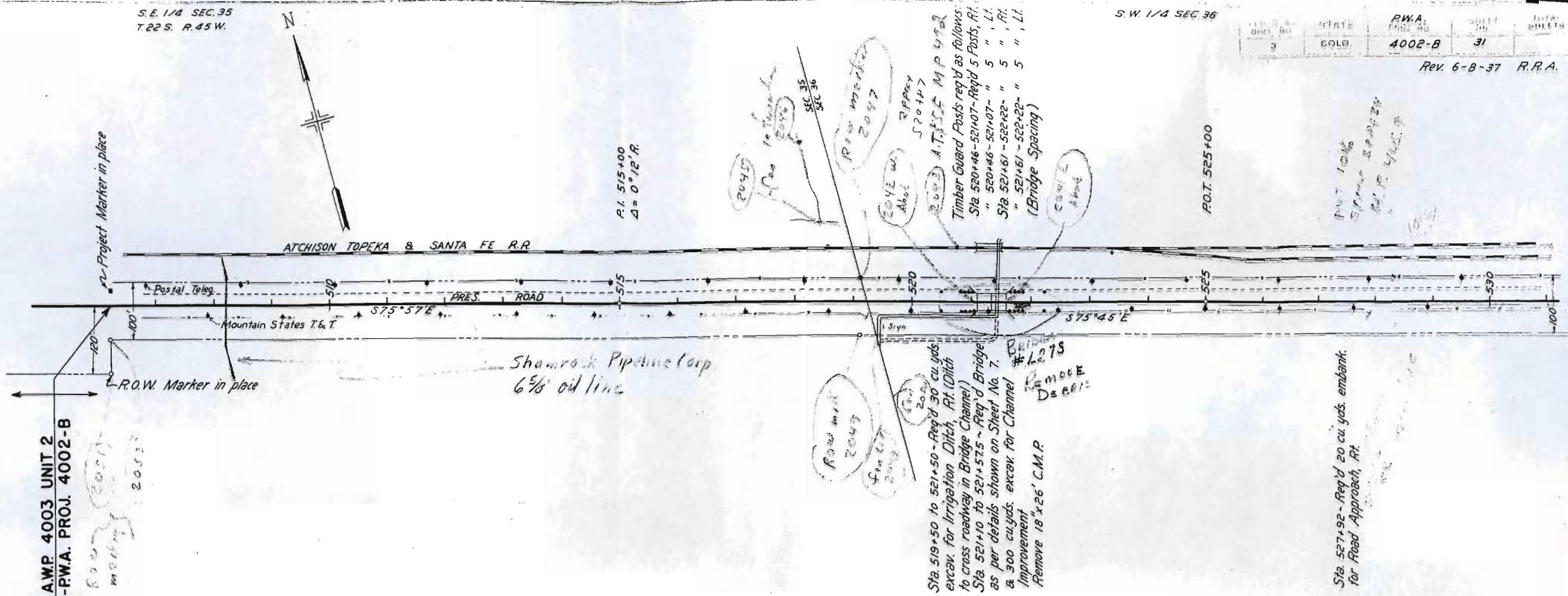
Borrow Source Widened Cuts on R.O.W. Rt of Sta. 456+20 to 465+00

S.E. 1/4 SEC. 35  
T.22 S. R.45 W.

S.W. 1/4 SEC 36

STATE	R.W.A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
COLO.	4002-B	31	

Rev. 6-8-37 R.R.A.



(A.W.P. 4003 UNIT 2) 350

507 (P.W.A. 4002-B)

510

515

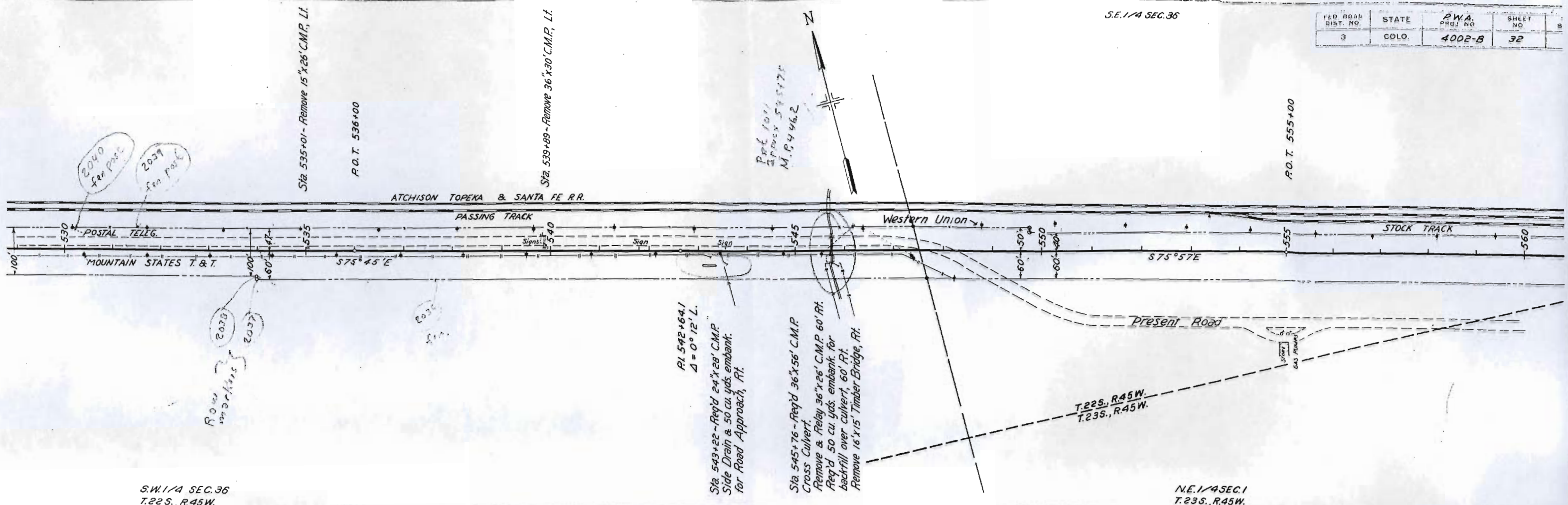
520

525

530

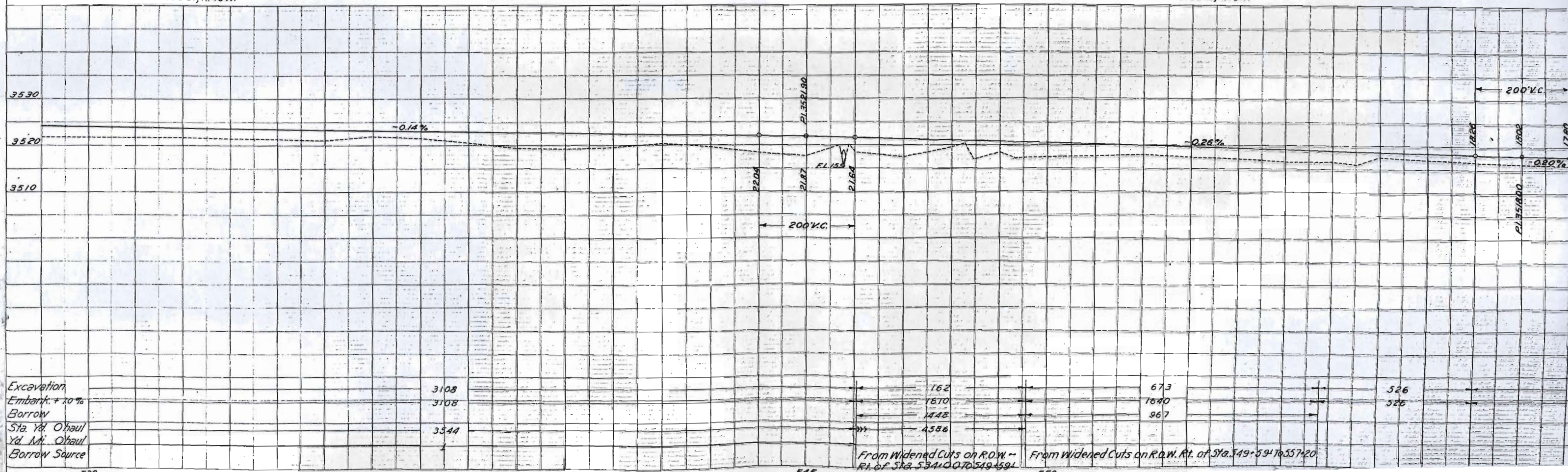
S.E. 1/4 SEC. 36

FED. ROAD DIST. NO.	STATE	P.W.A. PROJ. NO.	SHEET NO.
3	COLO.	4002-B	32



S.W. 1/4 SEC. 36  
T.22S., R.45W.

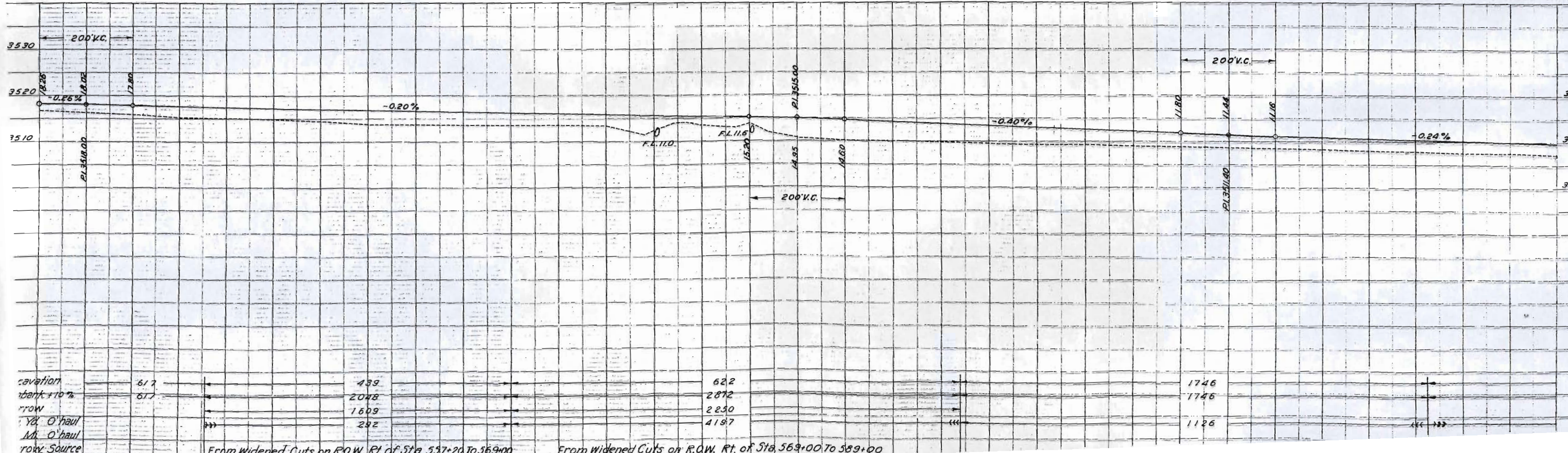
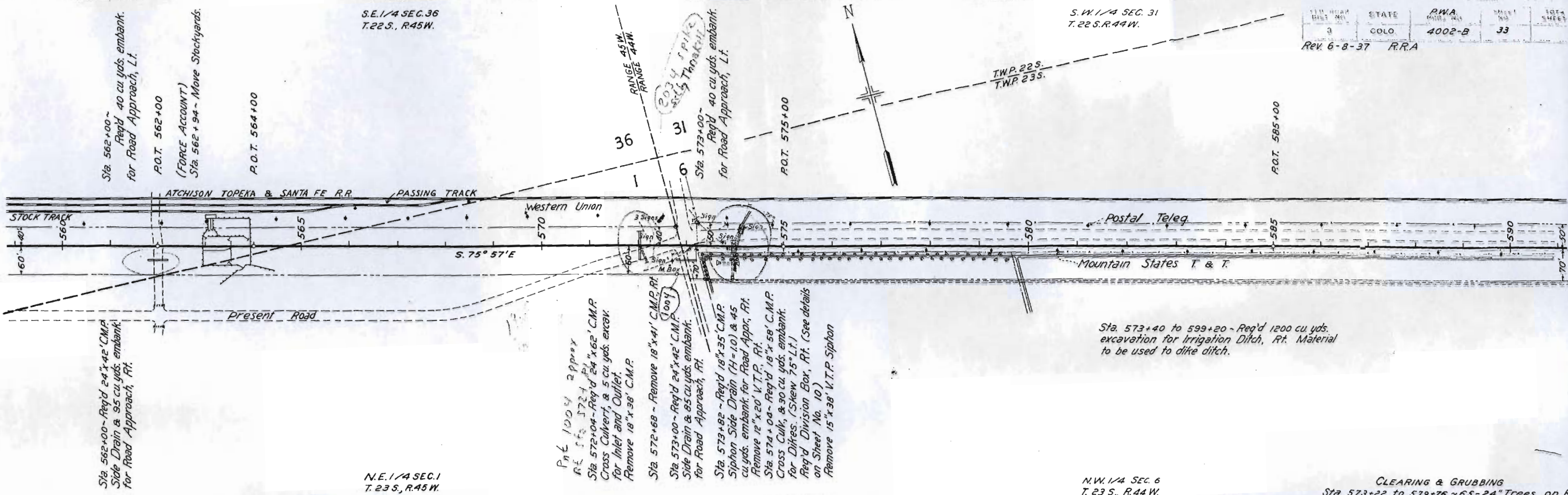
N.E. 1/4 SEC. 1  
T.23S., R.45W.



Excavation	3108	162	673	526
Embank. + 10%	3108	1670	1640	526
Borrow		1448	967	
Sta. Yd. Haul	3544	4588		
Yd. M. Haul				
Borrow Source				

From Widened Cuts on R.O.W. -- R.L. of Sta. 534+00 to 549+591

From Widened Cuts on R.O.W. Rt. of Sta. 549+591 to 557+20



N.W. 1/4 SEC. 6  
T. 23 S., R. 44 W.

N.E. 1/4 SEC. 6

FED. ROAD DIST. NO.	STATE	R.W.A. PROJ. NO.	SHEET NO.	TOTAL SHEET
3	COLO.	4002-B	34	

Sta. 594+16 - Remove 15" x 28' C.M.P. Lt.

P.O.T. 597+00

Found by Cut  
1002

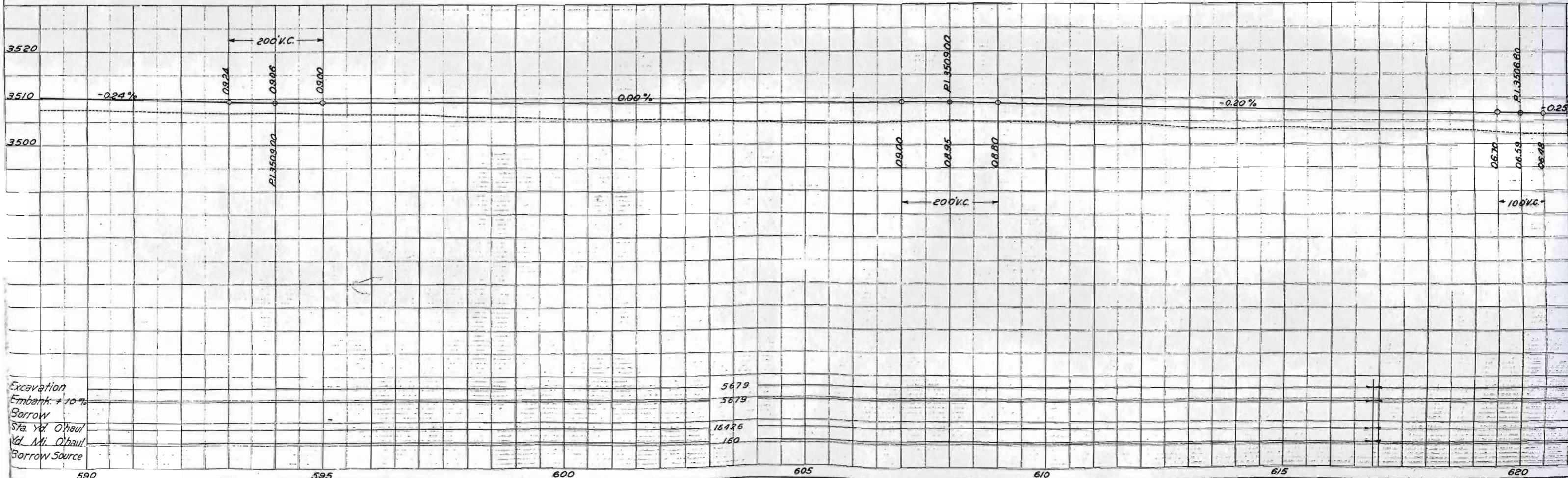
ATCHISON TOPEKA & SANTA FE R.R.



P.O.T. 610+00



Sta. 599+60 - Req'd 25 cu. yds. embank for Road Approach, Rt.



Excavation	5678
Embank. + 10%	5679
Borrow	
Sta. Yd. O'haul	16426
Yd. Mti. O'haul	160
Borrow Source	

N.E. 1/4 SEC. 6  
T. 23 S., R. 44 W.

N.W. 1/4 SEC. 5

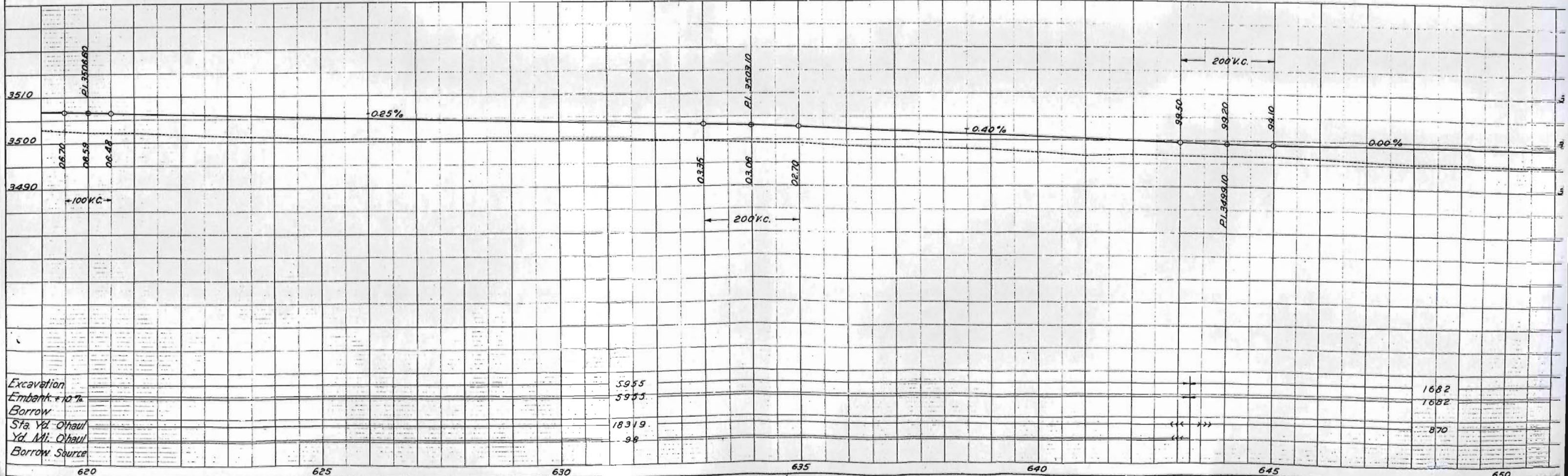
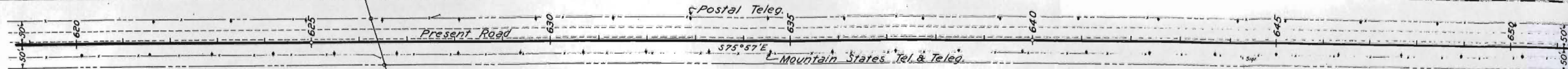
FED. ROAD DIST. NO.	STATE	P. W. A. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	4002-B	35	

P.O.T. 625+00

Sta. 626+70 - Req'd. 30 cu. yds. embank for Road Appl., Lt.

P.O.T. 640+00

ATCHISON TOPEKA & SANTA FE R.R.



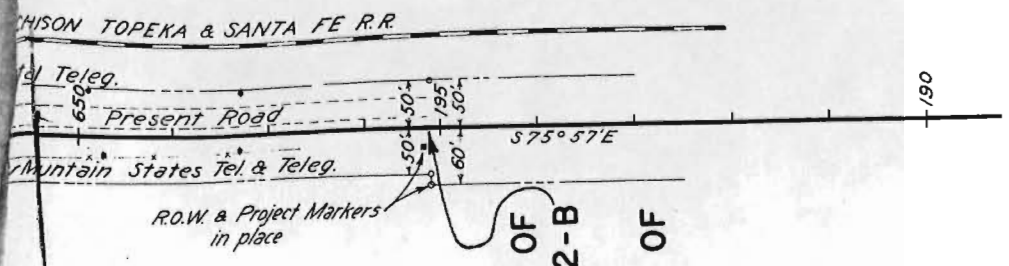
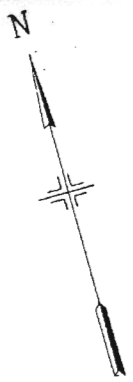
Excavation	5955	
Embank. + 10%	5955	1682
Borrow		1682
Sta. Yd. O'haul	18319	
Yd. Ml. O'haul	99	870
Borrow Source		

1888

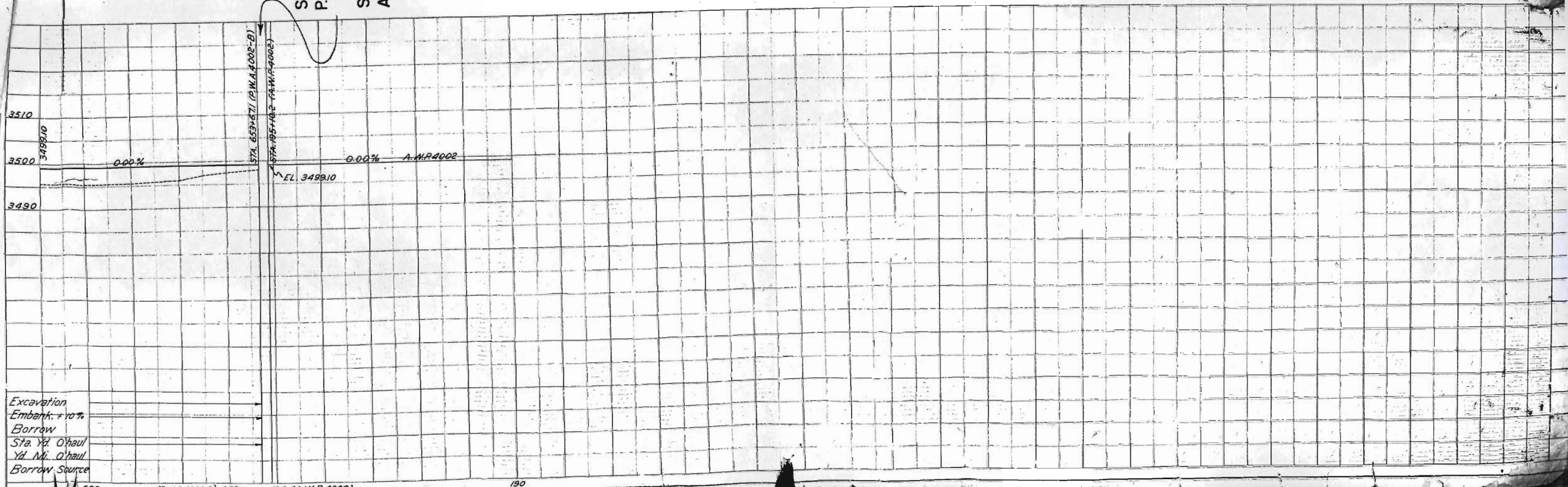
STRUCTURE INSTALLED

1/4 SEC. 5  
23S, R44W.

FED. ROAD DIST. NO.	STATE	P.W.A. PROJ. NO.	SHEET NO.
3	COLO.	4002-B	36



STA. 653+67.1 - END OF  
P.W.A. PROJECT 4002-B  
EQUALS  
STA. 195+10.2 - END OF  
A.W.P. 4002



Excavation  
Embank. + 10%  
Borrow  
Sta. Yd. O'haul  
Yd. Mi. O'haul  
Borrow Source

650 (P.W.A. 4002-B) 653 195 (A.W.P. 4002) 190