

141

MP 49.0 — MP 50.6
52.0



14-B(1)
ATWOOD-AKRON

S.H. 63

I

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN

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

COLORADO

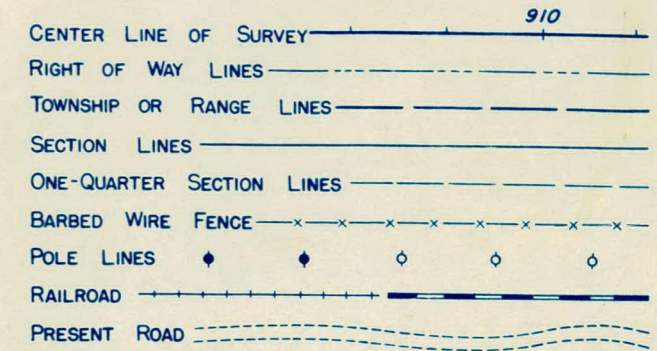
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED FEDERAL AID SECONDARY PROJECT NO. F.A.S. 14 B (1) STATE HIGHWAY NO. 63 LOGAN COUNTY

INDEX OF SHEETS

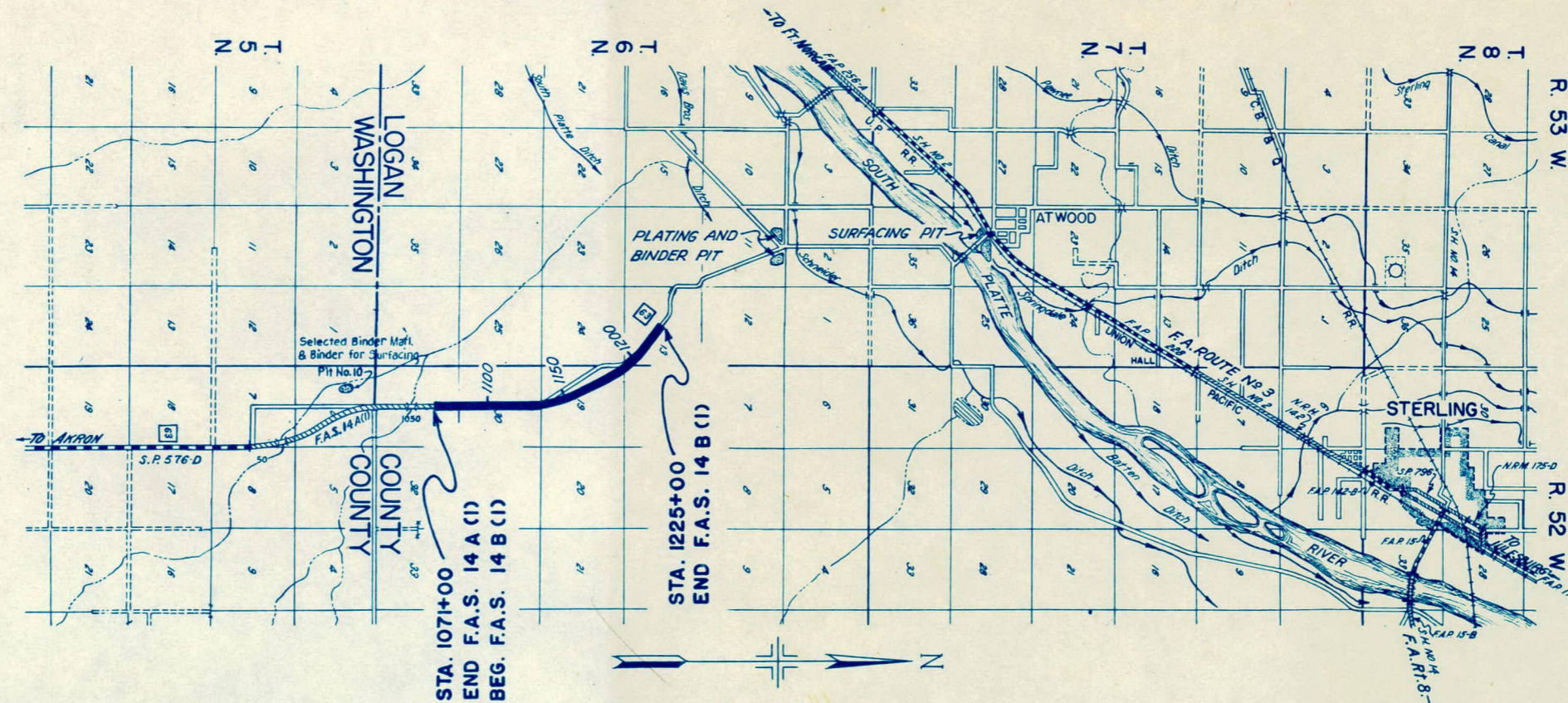
SHEET NO.	1 SKETCH MAP AND TITLE PAGE	
	2 TYPICAL SECTION, SUMMARY OF QUANTITIES, SURFACING PLAN, AND PLATING MATERIAL TABULATION	
	3 LIST OF STRUCTURES, FENCING REQUIREMENTS, R.O.W. MARKERS, AND TIMBER GUARD POSTS.	
	4 SPECIAL 6'x7' CONCRETE BOX CULVERT	M-101-B
	5 STANDARD TIMBER GUARD POSTS	M-19-B
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CONVENTIONAL SIGNS



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 } 15400 FEET = 2.916 MILES
NET LENGTH OF PROJECT }

AS CONSTRUCTED PLANS
RETURN TO DIST. 4 DESIGN



NOTE:

It is recommended that bidders on this project go over the plan details with one of the following field representatives of this department.
Mr. Roy J. Randall, Div. Engr., Greeley, Colo.
Mr. W. A. Lewis, Res. Engr., Brush, Colo.

RECOMMENDED FOR APPROVAL

[Signature]
ASSISTANT ENGINEER DATE
12-12-40

APPROVED

[Signature]
STATE HIGHWAY ENGINEER DATE

RECOMMENDED FOR APPROVAL

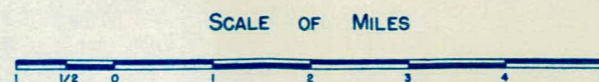
DISTRICT ENGINEER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

RECOMMENDED FOR APPROVAL

CHIEF, WESTERN REGION
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

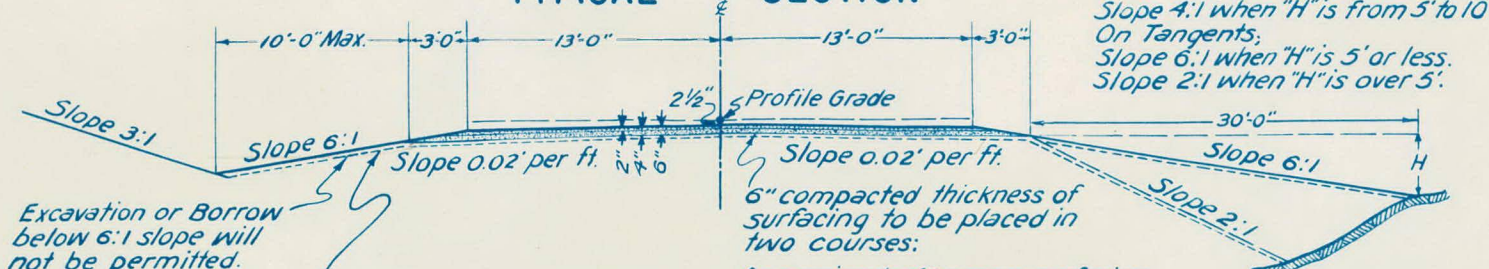
APPROVED

COMMISSIONER
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY



TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES

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 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."

Excavation or Borrow below 6:1 slope will not be permitted.

The top three inches of the subgrade and shoulder slopes shall be constructed of Plating Material from pits indicated in tabulation shown elsewhere on this sheet.

This material shall be processed into the top three inches of normal embankment material over the entire subgrade to produce a treated subgrade mat of processed material which shall be a minimum of six inches in thickness.

Plating Material is to be classified and paid for as "Unclassified Excavation."

6" compacted thickness of surfacing to be placed in two courses:

Approximate 4" course surfacing to be placed at the rate of 61 tons per 100 lin. ft. of roadway.

Approximate 2" course surfacing to be placed at the rate of 28 tons per 100 lin. ft. of roadway.

On Curves,
Slope 4:1 when "H" is from 5' to 10'
On Tangents,
Slope 6:1 when "H" is 5' or less.
Slope 2:1 when "H" is over 5'.

SUMMARY OF APPROXIMATE QUANTITIES

NO.	ITEM	UNIT	QUANTITY
10a	Clearing and Grubbing Entire Project	Lump Sum	●
11b	Removal of 1 Structure	" "	●
11c	Removing and Resetting Mail Boxes	" "	●
12a	Removing Fence	Lin. Ft.	200
12b	Removing and Rebuilding Fence	" "	19,400
12c	Line Posts (Metal)	Each	800
13c	Unclassified Excavation	Cu. Yd.	58,000
13d	" Ditch Excavation	" "	300
14a	Dry Rock Excavation (Structural)	" "	10
14b	" Common "	" "	140
14c	Wet Rock "	" "	5
14d	" Common "	" "	20
14e	Mechanical Tamping	Hr.	30
15a	Rolling Fills	Hr.	220
15b	Furnishing Roller	Each	2
15x	Wetting Fills	M. Gals.	480
18a	Sta. Yd. Overhaul	Sta. Yd.	161,000
18b	Yd. Mi. Overhaul	Yd. Mi.	26,900
26a	Gravel or Crushed Rock Surfacing	Ton	14,000
26c	Overhaul of Surfacing	Ton Mi.	69,900
46a	Class "A" Concrete	Cu. Yd.	99
47	Reinforcing Steel	Lb.	8,700
53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	56
53c	24" " " " "	" "	466
76c	Barbed Wire Fence With Metal Posts	" "	11,600
76g	" " Gates	Each	4
81a	Project Markers	"	1
81b	Right of Way Markers	"	26
92	Timber Guard Posts	"	26
FORCE ACCOUNT WORK: Relocate telephone line, Sta. 1071+ to 1225+		Lump Sum	●

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

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

Except where noted on plans, payment for overhaul will be based on measurement along centerline of project.

Corrugated metal pipe cross culverts are not to be provided with headwalls unless otherwise noted on the plans.

Right of way fences for this project are to be constructed approximately 6 inches inside the highway right of way as shown on plans.

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

The ends of corrugated metal culvert pipes which are not provided with headwalls, shall be covered with approximately 6 inches of embankment material in such a manner that a minimum of metal shall be exposed in the completed work. This shall be accomplished by warping embankment slopes around and adjacent to the culvert.

The Detour for this project lies along the present travelled road. At all places on the project where the new work lies along the present travelled 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.

PLATING MATERIAL

It is estimated that Plating Material for the project is available in the vicinity of the pit indicated in the tabulation below. Estimated quantities involved in the operation are shown below.
No alteration of the Plating plan as here outlined will be allowed without written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY		
		CU. YDS.	STA. YD.	YD. MI.
1071+00 to 1225+00	850 Feet West of Sta. 1329+00 in NW 1/4, N.E. 1/4 & N.E. 1/4, N.W. 1/4, Sec. 11, T. 6 N.; R. 53 W., 6 th P.M.	8,170	89,870	26,847
TOTALS		8,170	89,870	26,847

SURFACING AND BINDER MATERIAL

It is estimated that material for Gravel or Crushed Rock Surfacing and Binder material for the project is available in the vicinity of the pits indicated in the tabulation below. Estimated quantities involved in these operations are shown below.
No alteration of the surfacing or binder material plan as here outlined will be allowed without written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	SURFACING	
		TONS	OVERHAUL TON MI.
1071+00 to 1225+00 Road Approaches	Surfacing .55 Miles North of Sta. 1425+00 in NE 1/4, S.W. 1/4 & N.W. 1/4, S.E. 1/4, Sec. 26; T. 7 N.; R. 53 W.; 6 th P.M.	12,336 179	58,893 855
1071+00 to 1225+00 Road Approach	Binder Material 850 Feet West of Sta. 1329+00 in N.W. 1/4, N.E. 1/4 & N.E. 1/4, N.W. 1/4, Sec. 11; T. 6 N.; R. 53 W., 6 th P.M.	1371 21	3438 6546 53 101
TOTALS		13,907	69,886

Overhaul quantities shown above are based on 90% of the surfacing material to be taken from surfacing pit and 10% to be taken from Binder material pit.
Overhaul quantities will vary with actual amount of binder material necessary to produce surfacing material complying with the mechanical analysis and other requirements given in the specifications.
The material from binder pit will be hauled to the surfacing pit and there mixed with material developed at that point.

FENCING REQUIREMENTS

STATION	SIDE	REMOVE FENCE	REMOVE AND REBUILD FENCE	LINE POSTS	BUILD BARBED WIRE FENCE	BUILD BARBED WIRE GATES	
		LIN. FT.	LIN. FT.	NO.	LIN. FT.	NO.	
		1071+00 to 1135+35 1136+45 to 1194+00 1195+00 to 1225+00	LT. LT. LT.	100 20	6440 3175	270 130	
1071+00 to 1136+45 1136+45 to 1194+00 1194+00 to 1225+00	RT. RT. RT.	70 10	6550 3200	260 120	5760		
1151+00	LT.					1	
1151+00	RT.					1	
1180+00	LT.					1	
1194+00	RT.					1	
TOTALS		200	19365	780	11520	4	

LIST OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCTURE NO.	EXCAVATION			STRUCTURAL EXCAVATION		GRAVEL OR CR. ROCK SURFACING TON	SELECTED BINDER MATERIAL TON	CONCRETE CU.YDS. CLASS	REINF. STEEL LBS.	CORRUGATED METAL CULVERT PIPE LIN. FT.		MISCELLANEOUS
			UNCLASSIFIED		UNCLASS. DITCH CU.YDS.	CU.YDS.						18"	24"	
			EXCAV.	EMBANK.		CU.YDS.	CU.YDS.							
			NO.	EXCAV.	EMBANK.	CU.YDS.	CU.YDS.							
1071+00 1097+21 1108+54	Road Appr. Rt. Road Appr. Lt. Road Appr. Rt.		70 70 20				9 9 9	/						
1140+00 1148+00	C.M.P. Cross Culv. & Ditches Spec. 6'x7'x37' C.B.C. & Ditches			5 125	5 60				498	4386		88		
1188+00 1194+00	C.M.P. Cross Culv. & Inlet ditch C.M.P. Side Drain & Rd. Appr. Rt.			5 50	15		9 9	/				28 28	74	
1194+50 1207+00 1212+73	" " " " " " Lt. C.M.P. Cross Culv. & Outlet ditch Spec. 6'x7'x36' C.B.C. & Ditches Rem. Timber Cattle Pass			5 100	5 55				48.9	4298		70		
1225+00	Appr. to Project & Project Marker	1	175				80	10					1-Project Marker	
1097+21 1099+00 1108+54	Road Appr. Rt. C.M.P. Cross Culv. Road Appr. Lt.			30 20		5	9 9	/				90		
1120+00 1135+50 1151+00 1151+00 1165+00 1180+00	C.M.P. Cross Culv. Road Appr. Lt. " " Lt. " " Rt. C.M.P. Cross Culv. & Outlet ditch. Road Appr. Lt.			50 30 30 35		5 10	9 9 9 9	/				76	68	
TOTALS		1	175	455	245	160	179	21	98.7	8684	56	466		

* Structural Excavation is estimated to be 95% Common and 5% Rock, each of which is estimated to be 90% Dry and 10% Wet.

R.O.W. MARKERS

STATION	SIDE	NO.
1082+20	Lt&Rt	2
1096+00	Rt	1
1097+40	Rt	1
1108+48	Lt&Rt	2
1126+00	Lt	1
1127+00	Lt	1
1135+40	Rt	1
1135+55	Lt	1
1163+12	Rt	1
1163+74	Lt	1
1193+24	Rt	1
1194+36	Lt	1
1194+70	Lt	1
1196+00	Rt	1
1206+55	Lt&Rt	2
1208+00	---	2
1215+00	---	2
1216+00	---	2
1225+00	---	2
TOTAL		26

TIMBER GUARD POSTS

STATION	SIDE	SPACING	POSTS	
				NO.
1147+50 to 1149+50	Lt.&Rt.	50'		10
1203+50 to 1206+50	Lt.&Rt.	50'		14
1212+64	Rt.	MINOR STR.		1
1212+82	Lt.	MINOR STR.		1
TOTAL				26

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.
 Fencing Requirements, Right of Way Markers and Timber Guard Posts are tabulated on Sheet No. 3.

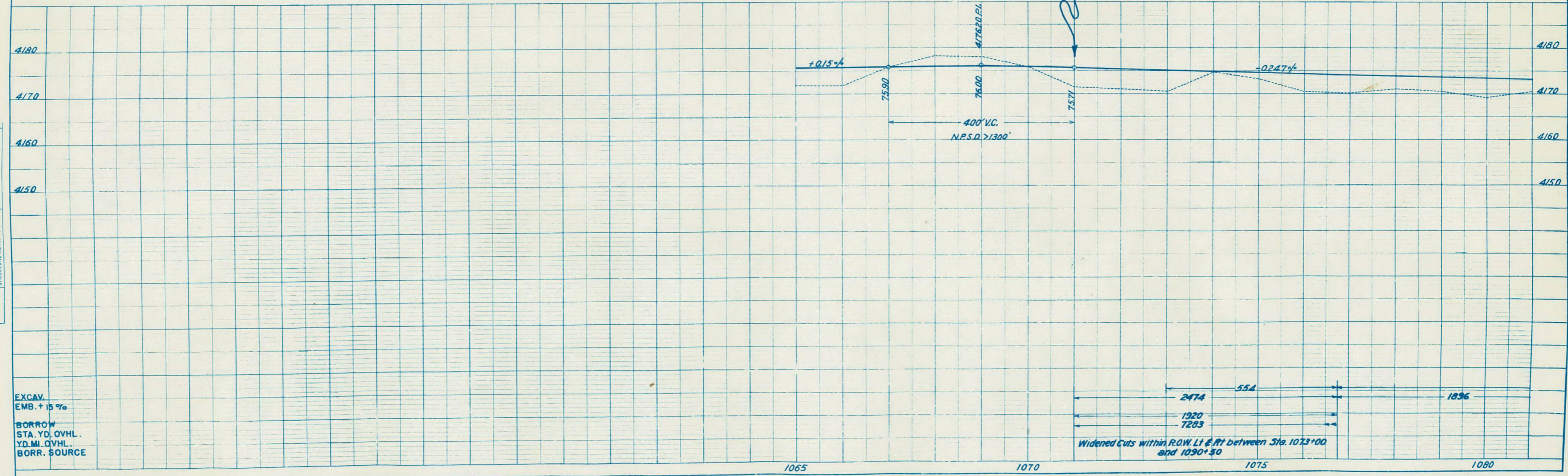
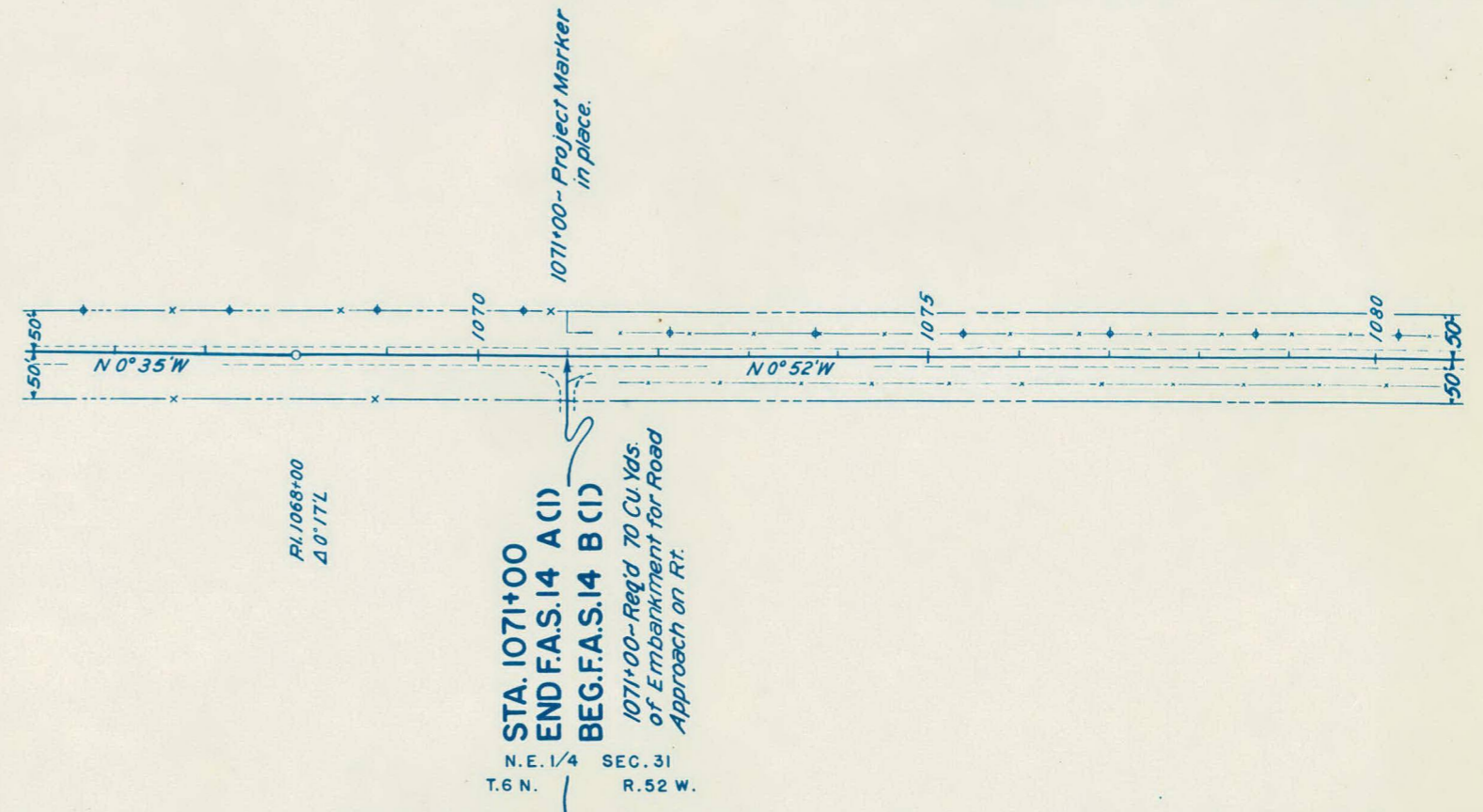


N.W. 1/4 SEC. 31
 T.6 N. R. 52 W.

FED. ROAD DIST. NO.	STATE	F. A. S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	14-B(1)	11	

PLAN	SURVEYED	DATE
NOTE	CHECKED	
	BY	

PROFILE	SURVEYED	DATE
NOTE	CHECKED	
	BY	



N.W. 1/4 SEC. 31
T. 6 N. R. 52 W.

S.W. 1/4 SEC. 30
T. 6 N. R. 52 W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	14-B(1)	12	

Rev. 12-21-40 E.P. - Sec. Line Tie.

N.W. 1/4 SEC. 30
T. 6 N. R. 52 W.

1108+54 - Req'd 20 Cu. Yds of Embankment for Road Approach on Lt.

1108+54 - Req'd 20 Cu. Yds of Embankment for Road Approach on Rt.

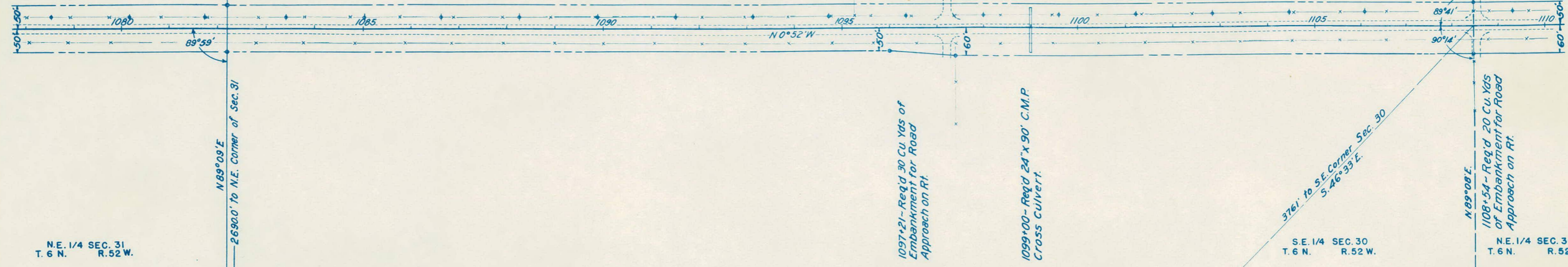
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T. 6 N. R. 52 W.



1095429

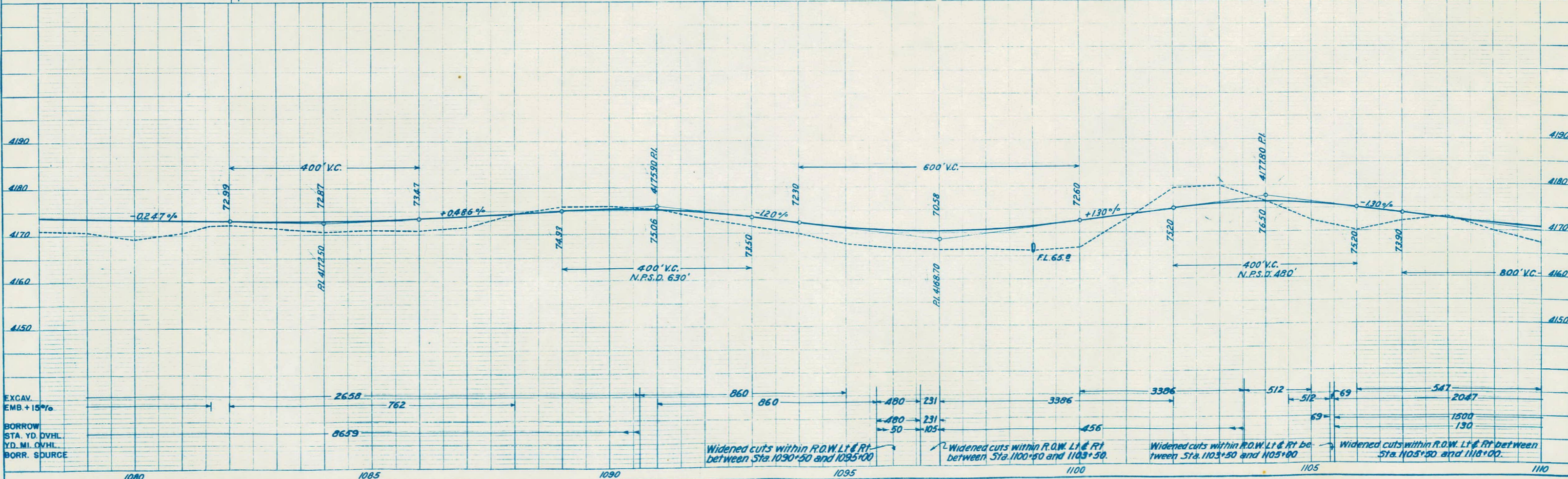
150

PLAN	DATE	BY	DATE
DESIGNED			
CHECKED			
NOTED			



N.E. 1/4 SEC. 31
T. 6 N. R. 52 W.

PROFILE	DATE	BY	DATE
DESIGNED			
CHECKED			
NOTED			



Widened cuts within R.O.W. Lt & Rt between Sta. 1090+50 and 1095+00
 Widened cuts within R.O.W. Lt & Rt between Sta. 1100+50 and 1103+50.
 Widened cuts within R.O.W. Lt & Rt between Sta. 1103+50 and 1105+00
 Widened cuts within R.O.W. Lt & Rt between Sta. 1105+00 and 1110+00.

N.W. 1/4 SEC. 30
T. 6 N. R. 52 W.

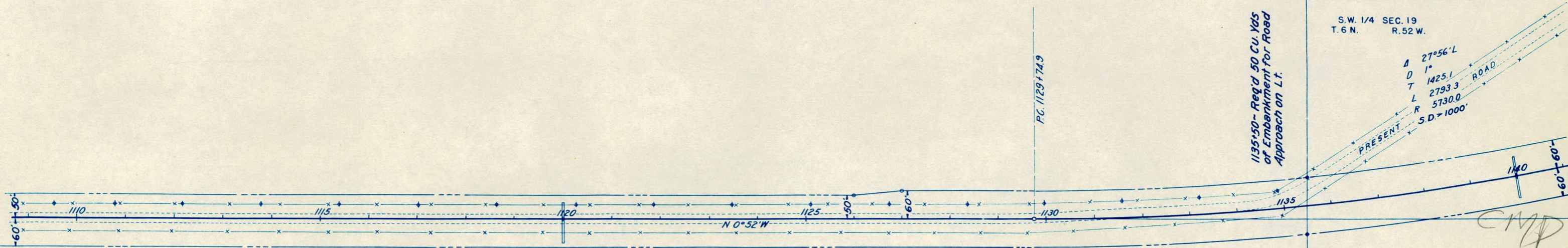


FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	14-B(1)	13	

Rev. 12-21-40-E.P.-Sec. Line Tie

S.W. 1/4 SEC. 19
T. 6 N. R. 52 W.

D 27°56' L
D 1°
T 1425.1
L 2793.3
R 5730.0
S.D. = 1000'



N.E. 1/4 SEC. 30
T. 6 N. R. 52 W.

1120+00 - Req'd 24' x 76' C.M.P. Cross Culvert.

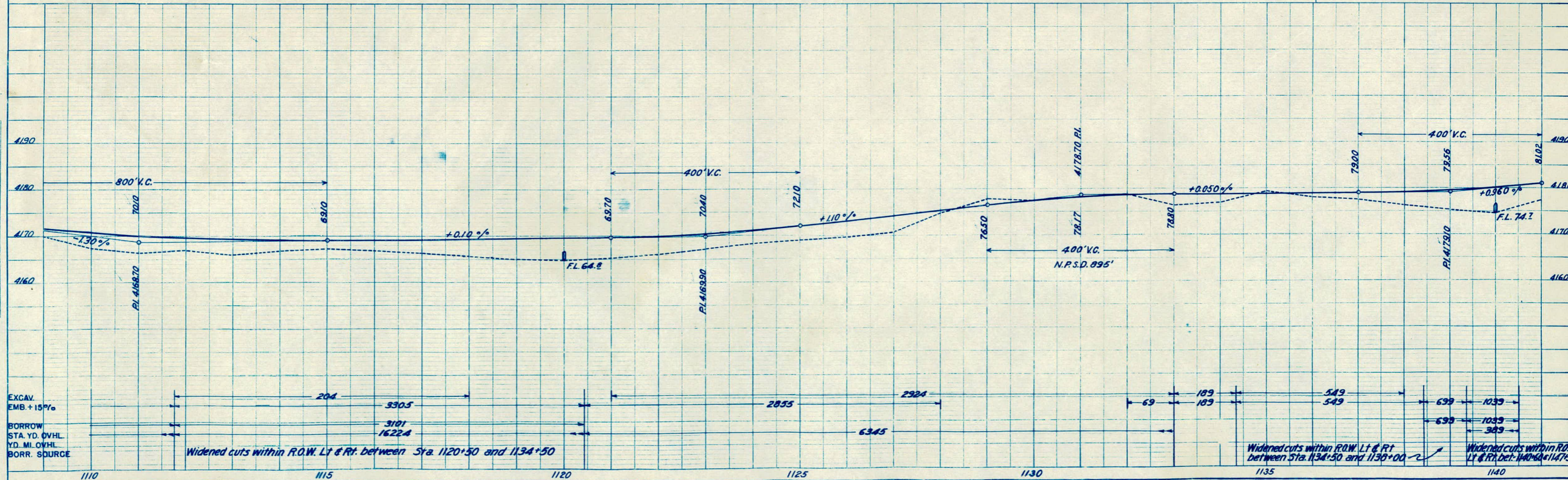
N. 89° 08' E. 1135+50

S.E. 1/4 SEC. 19
T. 6 N. R. 52 W.

1140+00 - Req'd 24' x 68' C.M.P. Cross Culvert and 5 Cu. Yds of Excavation for Inlet & Outlet Ditches.

PLAN	DATE
DATE	
BY	
NO. 82	

PROFILE	DATE
DATE	
BY	
NO. 8228	



EXCAV. EMB. +15%	BORROW STA. YD. OVHL.	YD. MI. OVHL.	BORR. SOURCE
204	3305	3181	16224
2055			
2924			
69			
189			
549			
69			
1033			
69			
1033			
303			

Widened cuts within R.O.W. Lt & Rt. between Sta. 1120+50 and 1134+50

Widened cuts within R.O.W. Lt & Rt between Sta. 1134+50 and 1138+00

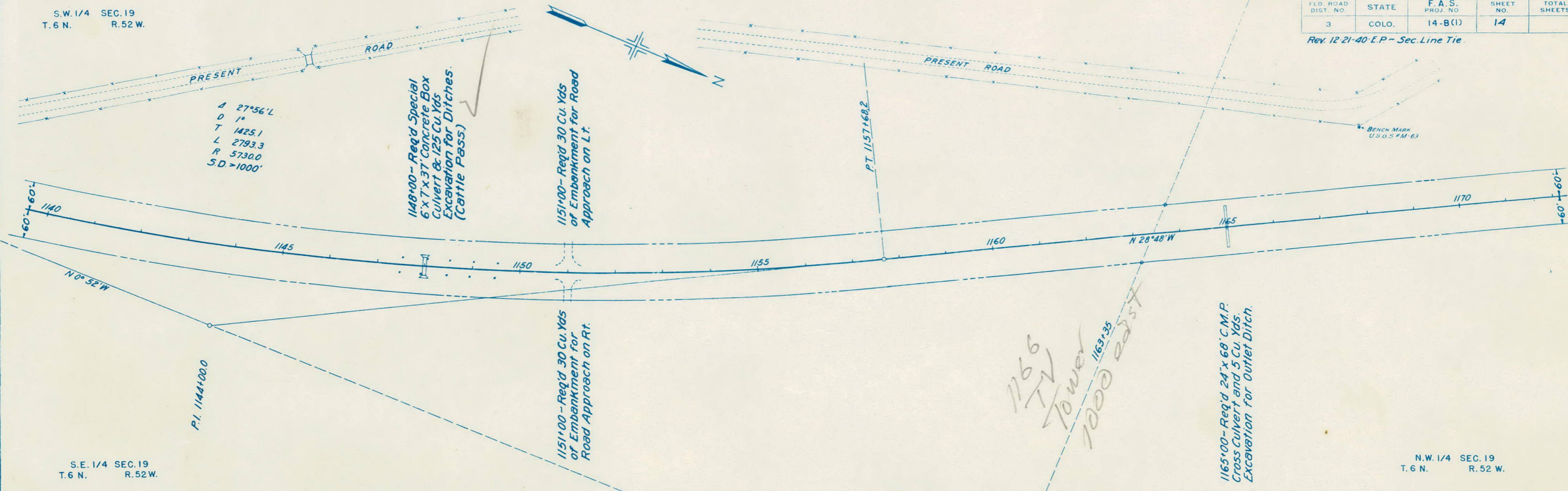
Widened cuts within R.O.W. Lt & Rt between Sta. 1140+50 and 1147+50

S.W. 1/4 SEC. 19
T. 6 N. R. 52 W.

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

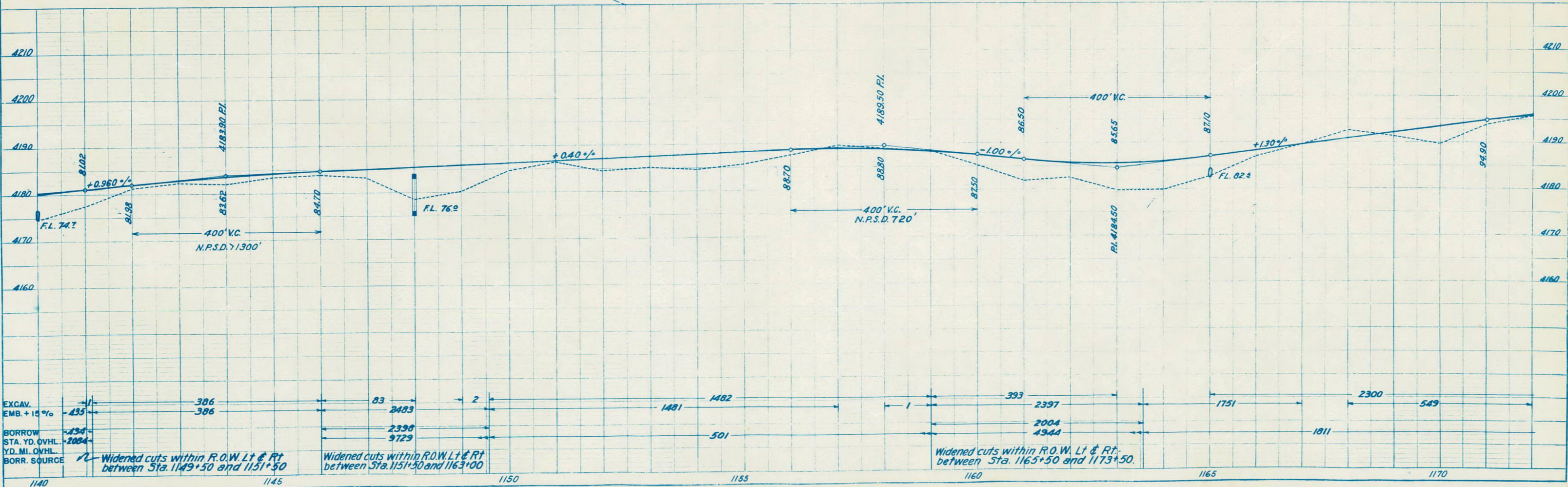
Rev. 12-21-40 E.P. - Sec. Line Tie.

PLAN
EYES
DATE
NOTE NO.
NO. 88256



S.E. 1/4 SEC. 19
T. 6 N. R. 52 W.

N.W. 1/4 SEC. 19
T. 6 N. R. 52 W.



PROFILE
EYES
DATE
NOTE NO.
NO. 88256

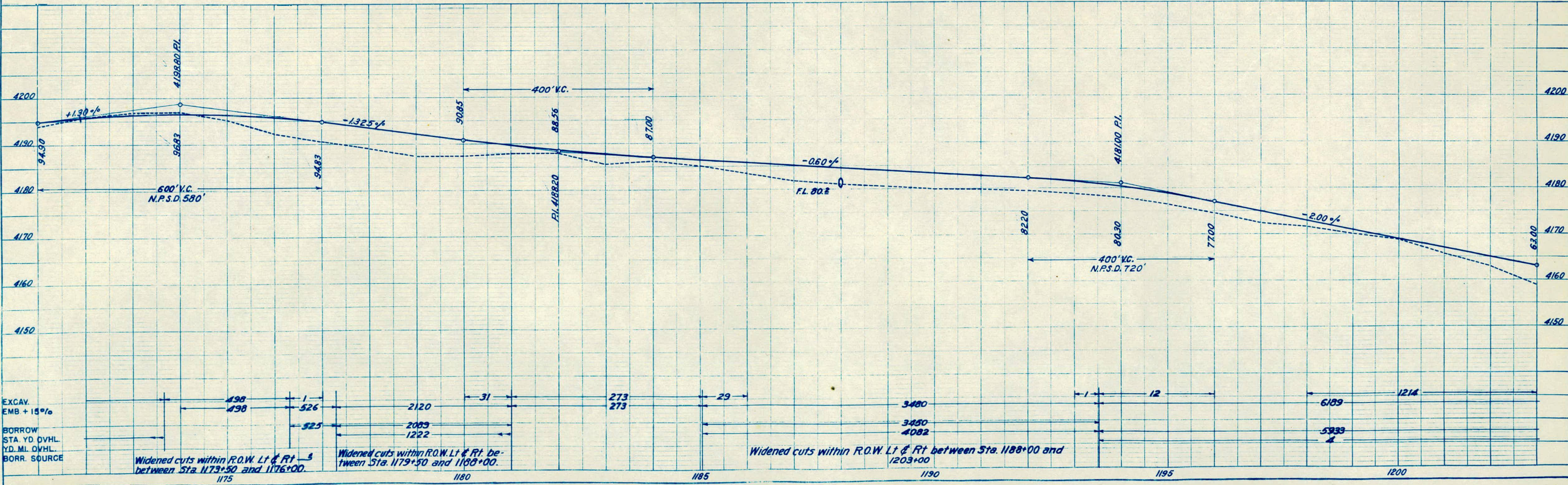
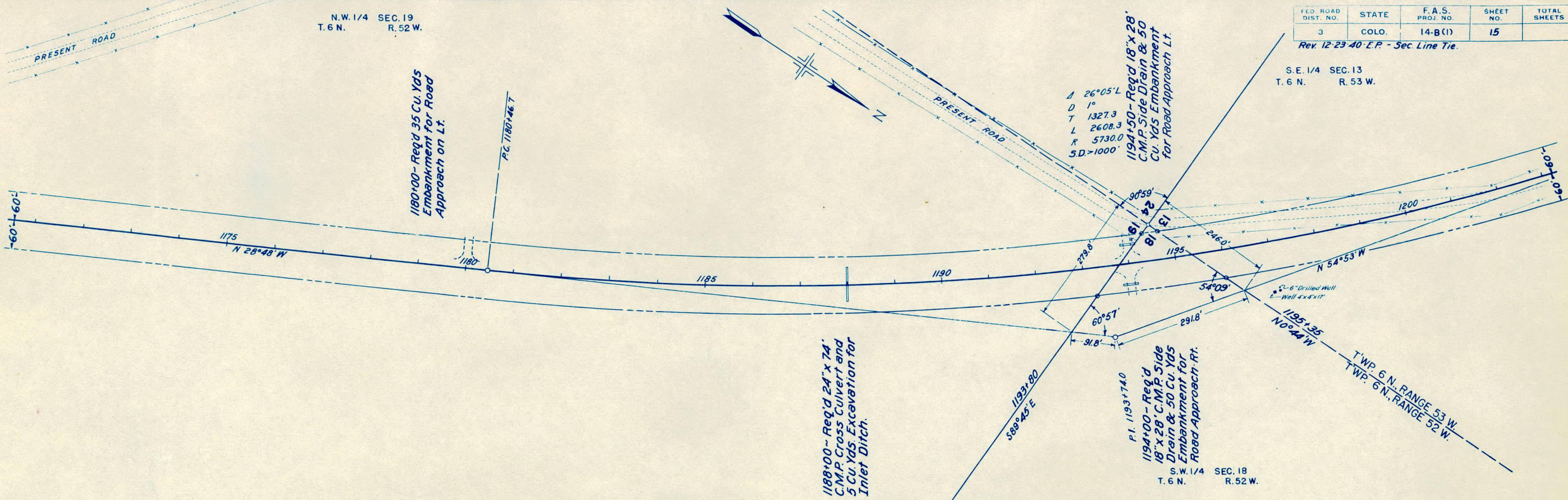
N.W. 1/4 SEC. 19
T. 6 N. R. 52 W.

FED. ROAD DIST. NO.	STATE	F.A.S. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	14-B(1)	15	

Rev. 12-23-40 E.P. - Sec. Line Tie.

S.E. 1/4 SEC. 13
T. 6 N. R. 53 W.

S.W. 1/4 SEC. 18
T. 6 N. R. 52 W.



PL. 1
NOTE: NO. 8886

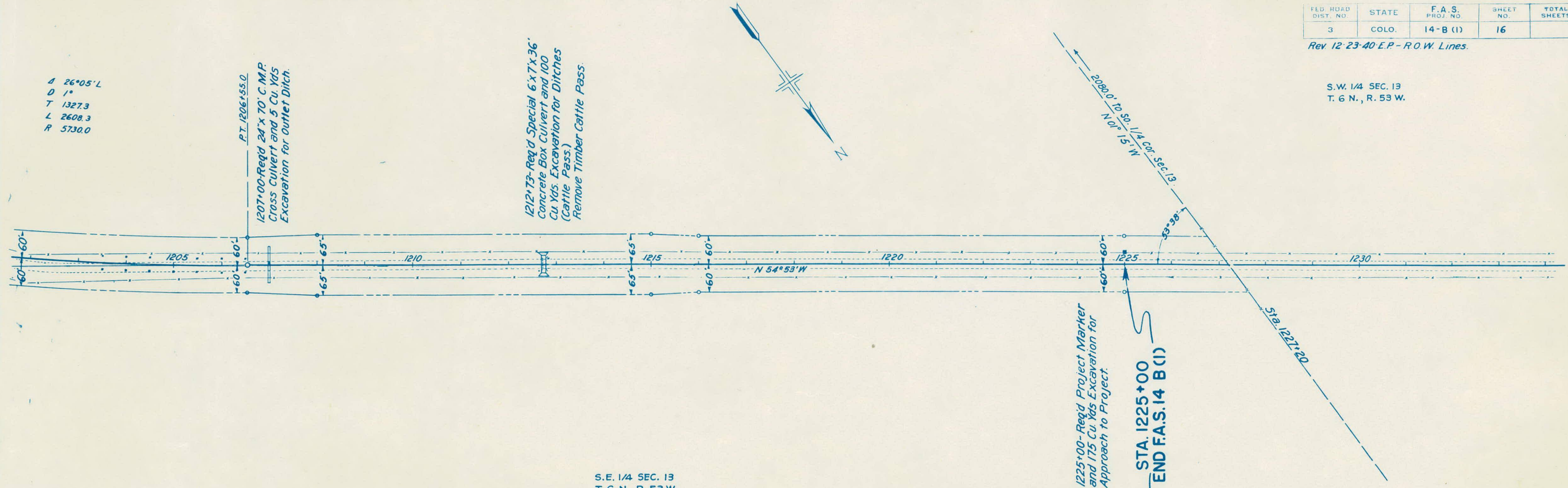
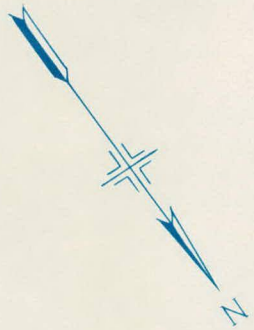
PROFILE
DATE: BY: 0029

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3	COLO.	14-B (1)	16	

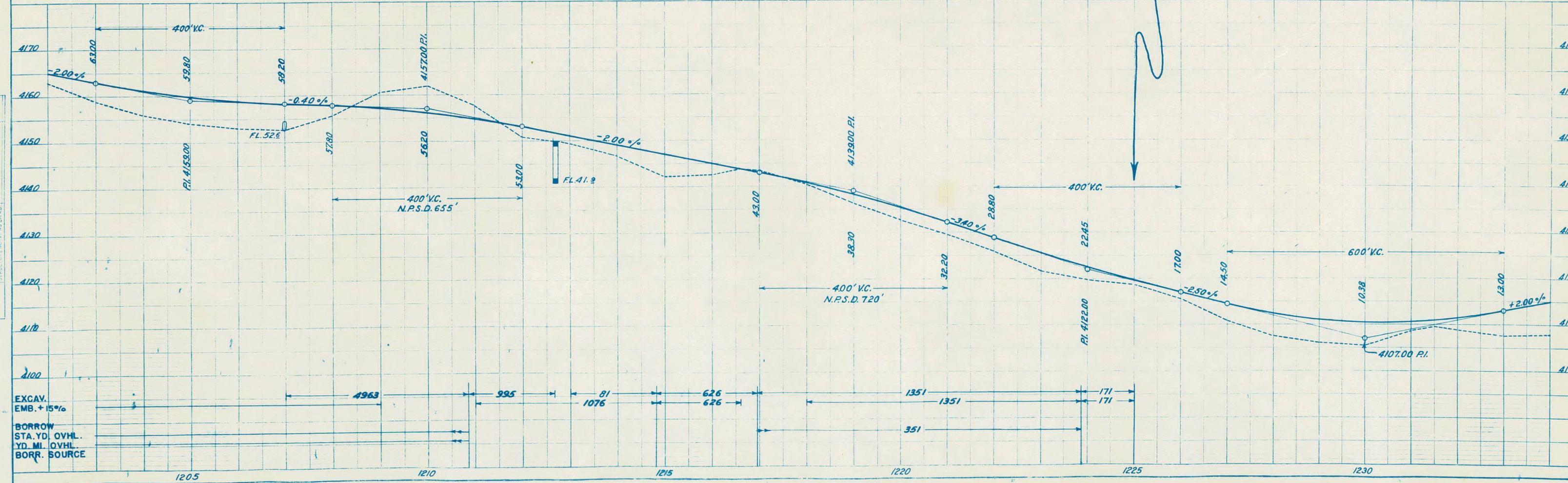
Rev. 12-23-40 E.P. - R.O.W. Lines.

S.W. 1/4 SEC. 13
T. 6 N., R. 53 W.

Δ 26°05' L
D 1°
T 1327.3
L 2608.3
R 5730.0



S.E. 1/4 SEC. 13
T. 6 N., R. 53 W.



1225+00-Req'd Project Marker and 175 Cu Yds Excavation for Approach to Project.

STA. 1225+00
END F.A.S. 14 B (1)

PLAN
DATE
BY
CHECKED
DATE
BY
NO. 8829
STRUCTURE NOT AS CHD.

PROFILE
DATE
BY
CHECKED
DATE
BY
NO. 8829
STRUCTURE NOT AS CHD.