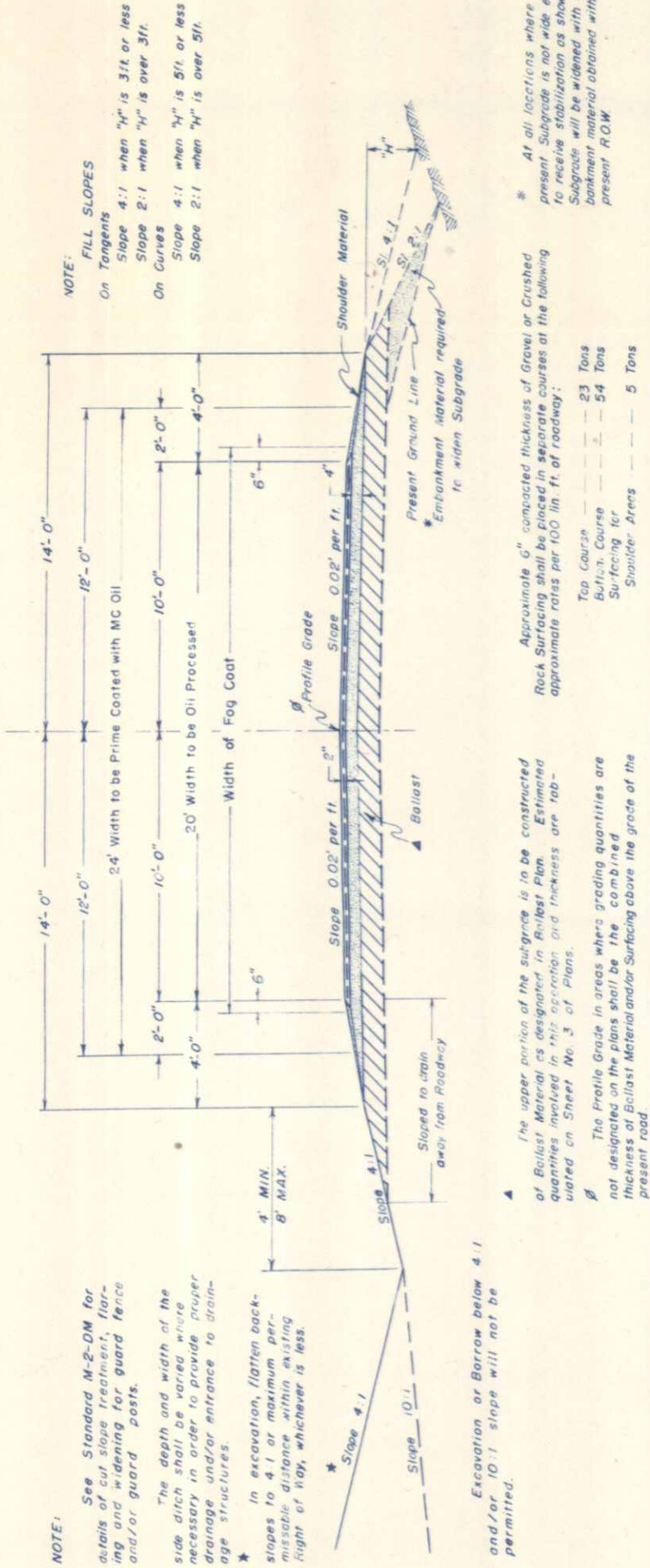


TYPICAL SECTION



GENERAL NOTES

This project is to be constructed in conformity with the Standard Specifications of the Colorado State Highway Department adopted January 1, 1948.

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

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

All concrete used on this project shall be "Air Entrained Concrete."

Culverts projecting from embankments shall be covered with approximately 6 inches of embankment material in such a 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.

Payment for overhaul will be based on measurement along the centerline of the project.

All curves are to be super-elevated and widened as provided by the Standard and Super-elevation sheet included with the plans.

For preliminary plan quantities of Asphaltic Road Materials, the following rates of application were used:

PRIME COAT MC @ 0.40 Gals./Sq. Yd.
PROCESS OIL MC-3 or MC-4 @ 1.40 Gals./Sq. Yd.
FOG COAT RC @ 0.12 Gals./Sq. Yd.

Rate of application and grade of oil shall be as determined by the Engineer at the time of application.

* MC-3 Process Oil used for preliminary computations of quantities on these plans.

All side approach roads to the project shall be primed and seal coated to approximately 50 feet out from edge of the oil mat or to the Right of Way line, whichever is less.

At Bridge Approaches, the oil mat and Fog Coat shall be widened to meet the curved width of the bridge and shall take place gradually over a distance of 300 ft., each way from the bridge ends. Prime Coat shall extend 2 ft. beyond edge of Oil Mat, and Fog Coat 6 inches beyond edge of oil mat.

It is estimated that rolling of the Oil Mat with Flat Wheeled Roller will be necessary after compaction with Rubber Tired Rollers in order to provide a firm, smooth surface.

The Prime Coat, Oil Mat, and Fog Coat shall be placed over The curved width of the bridge at Sta. 920+.

At all locations where present Subgrade is not wide enough to receive stabilization as shown, the Subgrade will be widened with embankment material obtained within present ROW.

Approximate 6" compacted thickness of Gravel or Crushed Rock Surfacing shall be placed in separate courses at the following approximate rates per 100 lin. ft. of roadway:

Top Course --- 23 Tons
Bottom Course --- 54 Tons
Surfacing for Shoulder Areas --- 5 Tons

TIMBER GUARD POSTS

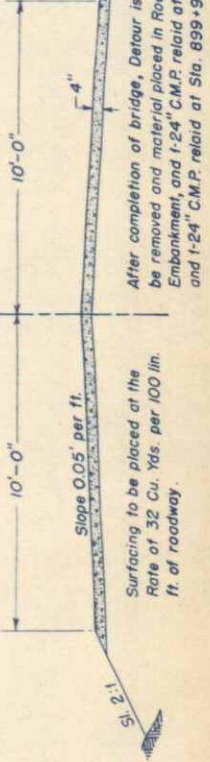
LOCATION	TIMBER GUARD POSTS		REMOVE & RESET TIMBER GUARD POSTS	
	SPACING	NO.	SPACING	NO.
785+ to 797+ 821+00	C.M.P.	2	50'	25
833+20 899+95 920+	C.M.P. C.M.P. Bridge	2 2 20		
TOTALS		26		25

SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	ITEM	UNIT	ROADWAY	BRIDGE STA. 920 +	PROJECT TOTALS
11a	Removal of Bridge Sta 919+	L.S.			
11b	Removal of 1 Structure	L.S.			
11c	Remove and Reset Guard Posts	Each			25
11d	Removing and Resetting Mail Boxes	L.S.			
13c	Unclassified Excavation	Cu. Yd.	16,000		16,000
13d	Unclassified Ditch Excavation	Cu. Yd.	50		50
14a	Dry Rock Excavation (Structural)	Cu. Yd.	10		10
14b	Dry Common Excavation (Structural)	Cu. Yd.	120	80	200
14c	Wet Rock Excavation (Structural)	Cu. Yd.	5		5
14d	Wet Common Excavation (Structural)	Cu. Yd.	15		15
16a	Structural Backfill (Class 1)	Cu. Yd.	120	50	170
16b	Mechanical Tamping	Hr.	15	5	20
17a	Rolling with Tamping Roller (2 Unit)	Hr.	60		60
17b	Rolling with Tamping Roller (4 Unit)	Hr.	30		30
17c	Rolling with Flat Wheeled Roller	Hr.	109		110
17d	Rolling with Rubber Tired Roller	Hr.	69		70
17e	Furnishing Tamping Roller (2 Unit)	Each	1		1
17f	Furnishing Tamping Roller (4 Unit)	Each	1		1
17g	Furnishing Flat Wheeled Roller	Each	0.9	0.1	1
17h	Furnishing Rubber Tired Roller	Each	0.9	0.1	1
17i	Wetting	M. Gal.	1,160		1,160
18a	Sta. Yard Overhaul	Sq. Yd.	13,500		13,500
18b	Yard Mile Overhaul	Yd. Mi.	600		600
18c	10n Mile Overhaul	10n Mi.	169,150		169,150
23b	Ballast (Class 2)	Ton	20,300	50	20,300
26d	Gravel or Crushed Rock Surfacing (Grading D)	Ton	16,790	10	16,800
26x	Detour Surfacing	Cu. Yd.	200		200
30y	Asphaltic Road Material RC	Gal.	6,280	20	6,300
30x	Asphaltic Road Material MC	Gal.	21,760	40	21,800
30z	Asphaltic Road Material MC-3 or MC-4	Gal.	77,500	100	77,600
31a	Road Mix Oil Processing	Sq. Yd.	49,920	70	49,990
42a	Untreated Bridge Timber	M. Hbm		0.5	0.5
42b	Treated Bridge Timber	M. Hbm		16.6	16.6
48	Structural Steel	Lb.		1,700	1,700
51b	Relaying 18" Pipe	Lin. Ft.	42		42
51c	Relaying 24" Pipe	Lin. Ft.	184		184
53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	74		74
53c	24" Corrugated Metal Culvert Pipe	Lin. Ft.	170		170
60a	Treated Timber Piling	Lin. Ft.		872	872
60b	Metall Pile Shoes	Each		28	28
60x	Drilling Holes to Facilitate Pile Driving	Lin. Ft.		250	250
92	Timber Guard Posts	Each	26		26
81a	STATE FORCES Project Markers Signing & Striping Entire Project (Non-Fed. Aid)	Each L.S.	1		1

TYPICAL DETOUR SECTION

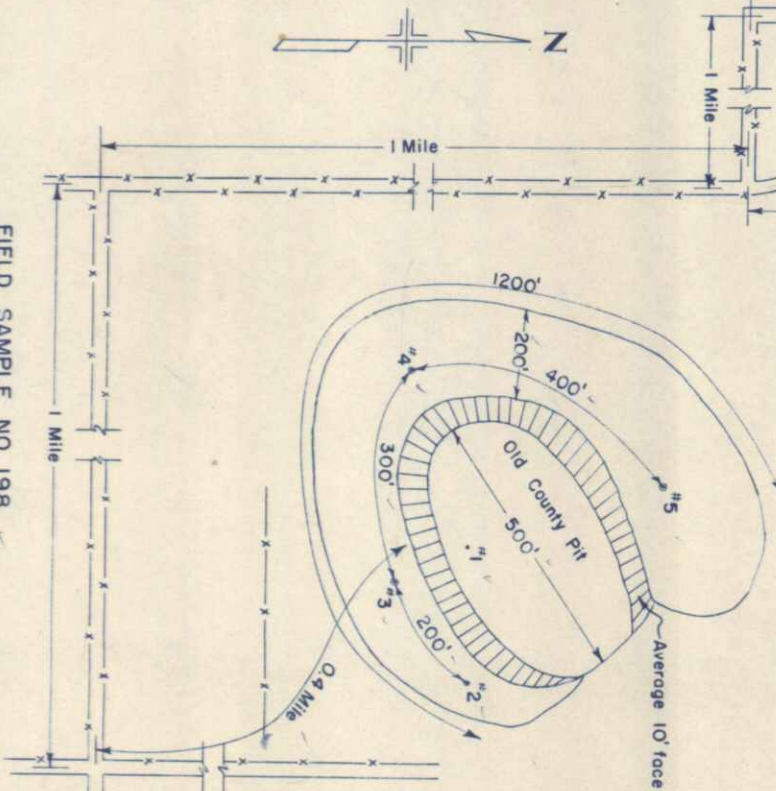
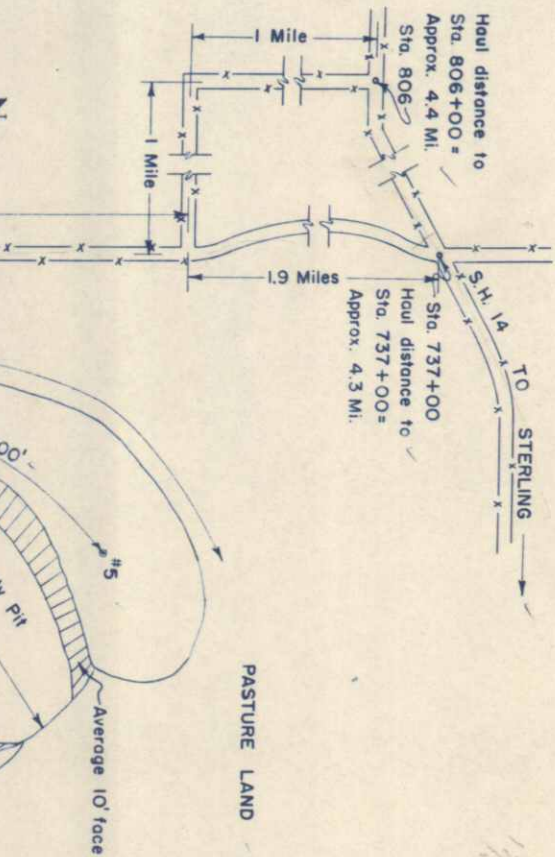
STA. 916+ to STA. 922+



BALLAST AND SURFACING PIT NO.1
SE 1/4, SEC. 12, T. 7 N., R. 55 W
OWNER: JESS HUGHBANKS, WILLARD, COLO.
AVAILABLE: 80,000 TONS

BALLAST PLAN

It is estimated that material for Ballast 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 Ballast Plan as here outlined will be allowed only on written permission from the Department.



TEST NO.	DEPTH	DESCRIPTION OF MATERIAL
1	0.0 - 5.0	SAND & GRAVEL
2	5.0 - 10.0	CLAY
3	10.0 - 15.0	SOD-SAMPLE 503
4	15.0 - 20.0	SANDY-CLAY
5	20.0 - 25.0	SAND & GRAVEL-SAMPLE 503
6	25.0 - 30.0	SOD
7	30.0 - 35.0	SANDY-CLAY
8	35.0 - 40.0	SAND & GRAVEL-SAMPLE 503
9	40.0 - 45.0	SOD
10	45.0 - 50.0	SANDY-CLAY
11	50.0 - 55.0	SAND & GRAVEL-SAMPLE 503
12	55.0 - 60.0	SOD
13	60.0 - 65.0	SANDY-CLAY
14	65.0 - 70.0	SAND & GRAVEL-SAMPLE 503
15	70.0 - 75.0	SOD
16	75.0 - 80.0	SANDY-CLAY
17	80.0 - 85.0	SAND & GRAVEL-SAMPLE 503
18	85.0 - 90.0	SOD
19	90.0 - 95.0	SANDY-CLAY
20	95.0 - 100.0	SAND & GRAVEL-SAMPLE 503

MATERIAL TO BE PLACED	SOURCE	QUANTITY		THICKNESS	OVERHAUL
		AVAILABLE	* THICKNESS		
711+37.5 - 716+00 716+00 - 737+00 737+00 - 774+14	Pit No. 1 JESS HUGHBANKS 4.3 MI. LT.	80,000 TONS	4 4 4	403 1,365 2,414	1,733 4,776 8,016
774+14 - 806+00 806+00 - 879+00 879+00 - 912+00	Sta. 737+00 Sta. 806+00 Sta. 806+00 Sta. 806+00 Sta. 806+00 Sta. 806+00	4 4 4	4 4 4	2,071 4,745 3,300	7,667 19,413 16,814
920+67.5 - 934+50	R-65	15	3,802	21,682	
10% ESTIMATED FOR IRREGULARITIES IN SURFACE FROM LIST OF STRUCTURES					
PROJECT TOTALS					
1,816 8090 1,354 20,280 90,345					

* Changes in the various thicknesses of Ballast shall take place over a 300 ft. distance.
* Based on Curve "C" of S.H.D. Design No. 12.

LIST OF STRUCTURES

STATION	DESCRIPTION	REMOVE STRUCTURE	EXCAVATION		* STRUCTURAL EXCAVATION		STRUCTURE BACKFILL CU. YDS.	MECH. CR. ROCK TAMP.	GRAVEL OR CR. ROCK SURFACING	BALLAST		CORRUGATED METAL CULVERT PIPE				MISCELLANEOUS
			CU. YDS.	UNCLASS. EMBANK.	UNCLASS. DITCH	CU. YDS.				CLASS 1	CLASS 2	18"	24"	30"	36"	
736+39 806+11 821+00	Road Approach Rt. & Lt. Road Approach Rt. & Lt. Relay double 24x42' C.M.P. (from 823+73) as cross culvert & extend.		125		52		40		52 30	52		19 19			Relay double 24x42' C.M.P.	
823+73	Relay double 24x42' C.M.P. as Cross Culvert at 821+00.															
830+00	Road Approach, Rt. Side Drain, Ditches			5	14		11	15	15	15	32					
833+00	Road Approach, Lt.							15	15	15						
833+20	Relay 24x30' C.M.P. (from 919+40 on Detour) as Cross Culvert Ditches			5	25		14	15	15	15						
841+50	Road Approach & Side Drain Rt., Ditches			5	14			15	15	15	32				Relay 24x30' C.M.P.	
859+01	Road Approach, Rt. & Lt.							30	30	30						
859+40	Road Approach, Rt. & Lt.							30	30	30						
859+50	Remove 18'x36' C.M.P.	1														
899+95	Relay 24x30' C.M.P. (from Detour) as Cross Culvert Ditches			15	22		14	15	10	42					Relay 24x30' C.M.P.	
902+60	Road Approach, Rt.			48	10	17	22	96							Relay 18x42' C.M.P.	
911+74	Road Approach, Rt. & Lt., Side Drain, Lt. Relay 18x42' C.M.P. (From 911+74) as Side Drain, Rt., Ditches															
912+01	Detour, Rt. Remove Detour, Rt.															
916+822+ 916+00	Road Approach, Lt.			2000				15							200 Cu Yds Detour Surb.	
919+ 920+43+920+67.5	Remove Bridge			12											Removal of Bridge	
919+40	Cross Culvert (for Detour) (Relay 1-24x30' C.M.P. as Cross Culvert at 833+20 and 18x30' C.M.P. as Cross Culvert at 899+95)						(QUANTITIES IN SUMMARY)									
934+50	Approach to Project															
934+50	Project Marker															
934+50	Mechanical Tamping, Entire Project														Project Marker (State Forces)	
934+50	Channel Change, Rt. & Lt.		2000					15		137	50					
934+50	Removing & Reselling Mail Boxes, Entire Project														Removing & Reselling Mail Boxes.	
PROJECT TOTALS		1	2000	2105	40	144	112	15	395	304	74	170				
Includes 1' allowance for Connecting Band																

* Includes 1' allowance for Connecting Band
* Structural Excavation is Estimated to be 90% Common and 10% Rock, each of which is Estimated to be 50% Dry and 10% Wet.
* Included for payment in Roadway Quantities.

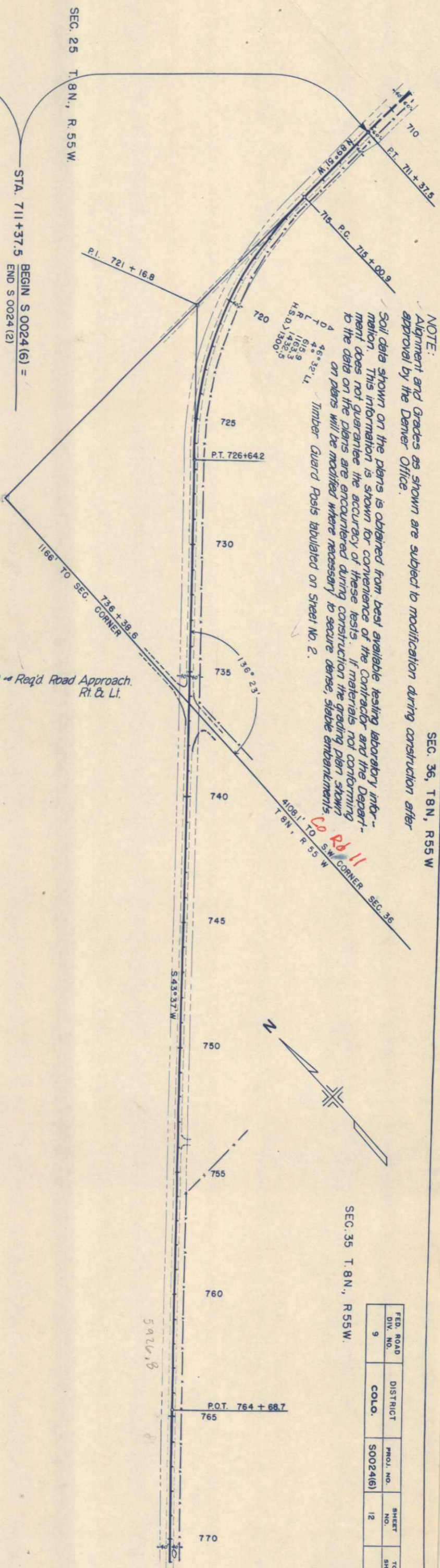
SURFACING PLAN

It is estimated that material for Surfacing 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 Surfacing Plan as here outlined will be allowed only on written permission from the Department.

MATERIAL TO BE PLACED	SOURCE	QUANTITY			OVERHAUL	
		AVAILABLE	TOP COURSE GRADING "V"	BOTTOM COURSE GRADING "V"	TON MILES	SHOULDER SURFACING
711+37.5 - 737+00 737+00 - 774+14 774+14 - 806+00	Pit No. 1 JESS HUGHBANKS 4.3 MI. LT.	80,000 TONS	590 855 733	1,384 2,206 4,121	128 186 160	2,090 7,326 6,371
806+00 - 920+43 920+43 - 920+67.5 920+67.5 - 934+50	Sta. 737+00 Sta. 806+00 Sta. 806+00 Sta. 806+00 Sta. 806+00 Sta. 806+00	2632 7 318	6,180 747	567 64	11,801 1,814	27,709 4,260
WIDENING FOR BRIDGE ROAD APPROACHES APPROACH TO PROJECT	R-79	17 23	20 313	5	95 135	112 1,915 316
SUB-TOTALS						
5,175 12,425 1,110 21,811 52,312 4,665						
PROJECT TOTALS						
18,710 78,788						

Shoulder Surfacing is not to be placed across road approaches.

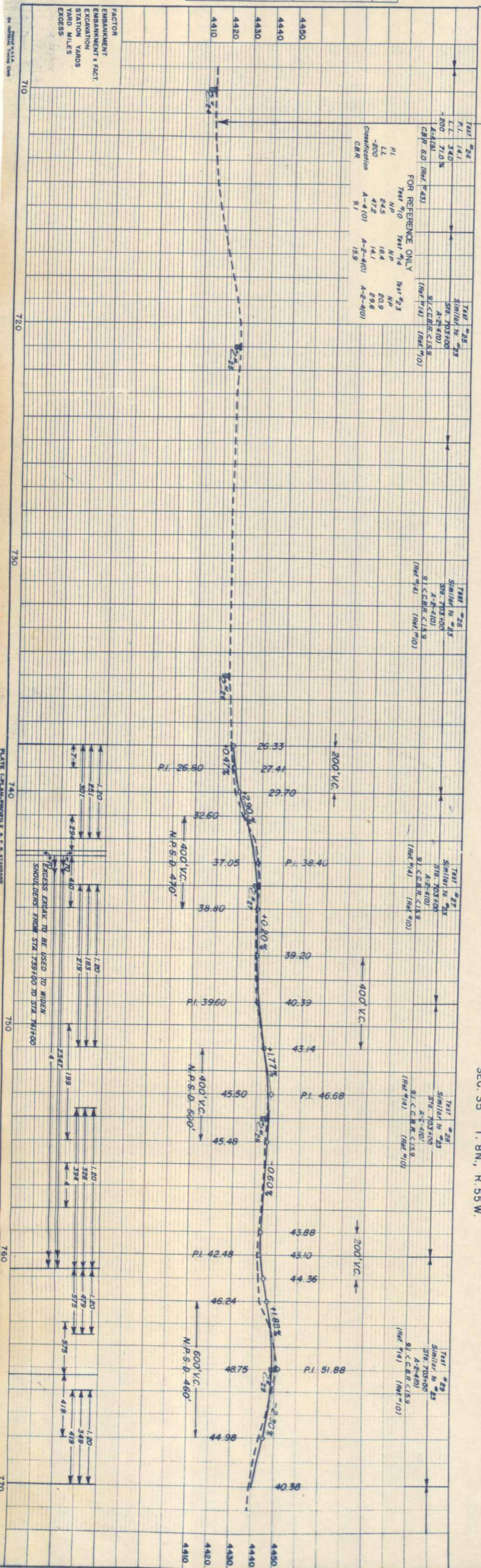
PROFILE	SURVEYED	BY HOWE & PAR	DATE 9/30/49
NOTE BOOK	PLOTTED	R.M.W.	10/7/49
NO	GRADES CHECKED		
	S.N.C. NOTED		
	STRUCTURE NOTATIONS CHECKED		



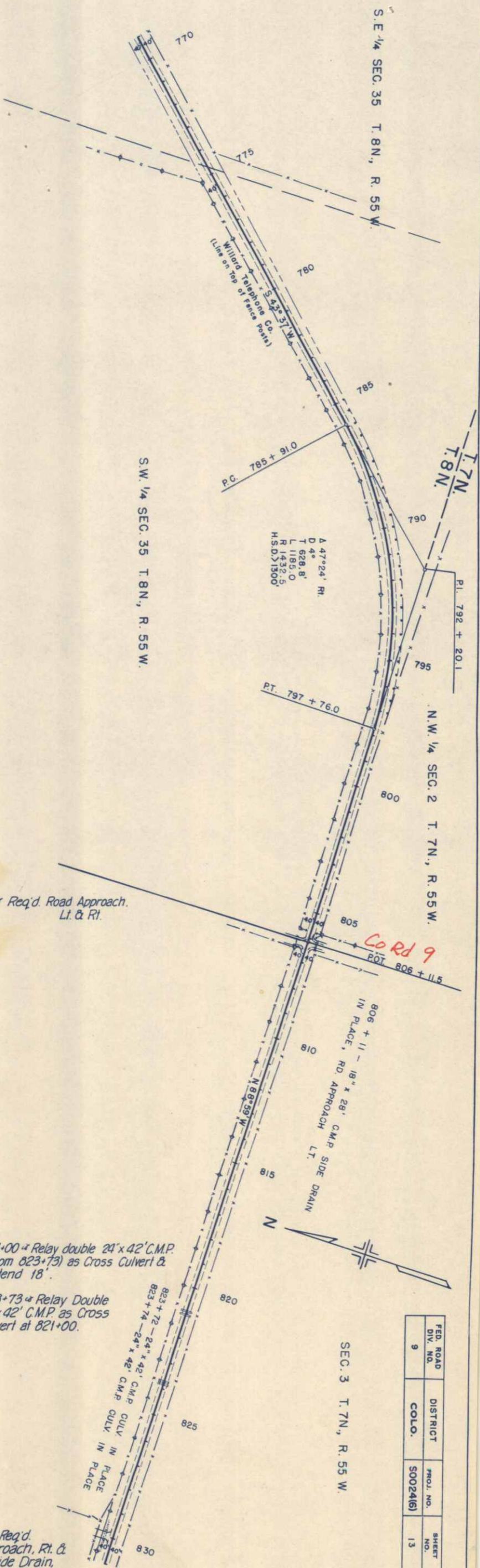
NOTE: SEC. 36, T8N,
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office.

SEC. 35 T. 8N., R55W

FED. ROAD DIV. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	S0024(6)	12	•



DATE	BY	HOWE & PART
9/18/48	R.M.M.	R.A.S.
10/15/48	R.A.S.	
10/15/48		



FED. ROAD DIV. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	S002461	13	

DATE	BY	HOWE & PART
9/18/48	R.M.M.	R.A.S.
10/15/48	R.A.S.	
10/15/48		

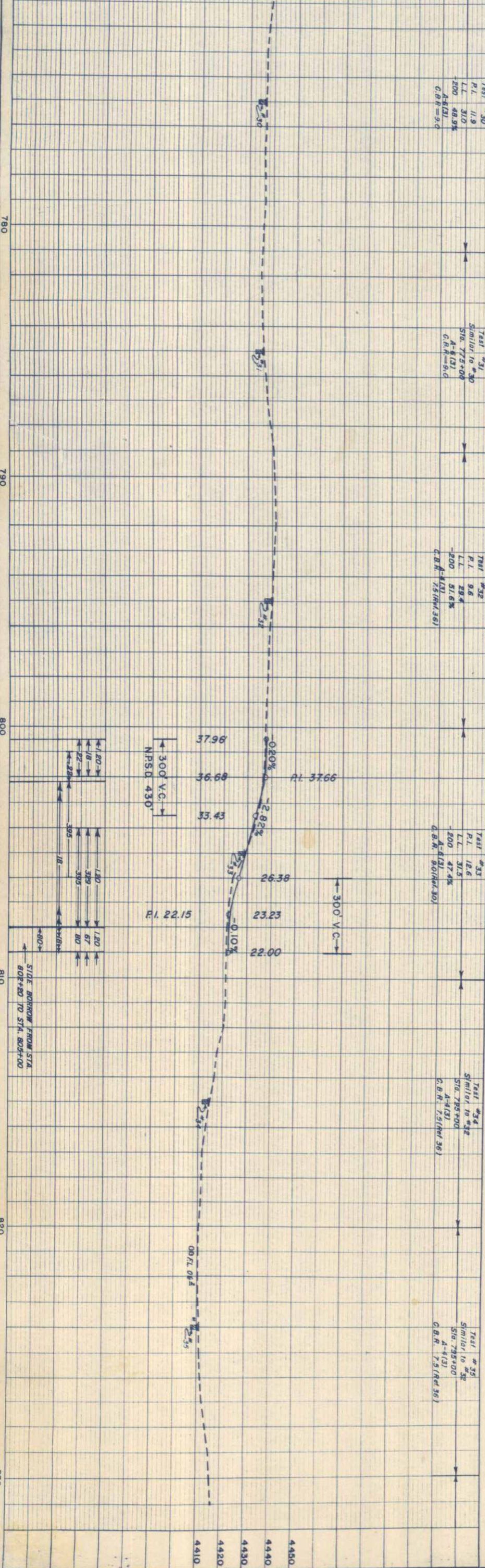


PLATE 1-PLAN-PROFILE & P. 2-SECTION. PROJECT ESTIMATED, Change No. 10.

BY	DATE
HOWE & PARTY	9/16/48
R.M.M.	10/15/48
R.A.S.	10/15/48
SURVEYED	
PLOTTED	
ALIGNMENT CHECKED	
RT. OF WAY CHECKED	
NOTE BOOK	
NO.	

BY	DATE
HOWE & PARTY	9/22/48
R.M.M.	10/7/48
R.A.S.	
SURVEYED	
PLOTTED	
GRADES CHECKED	
S.M.L. NOTED	
STRUCTURE NOTATIONS CHECKED	
NOTE BOOK	
NO.	

SEC. 3 T.7N., R.55W.

SEC. 4 T.7N., R.55W.

FED. ROAD DIV. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	S002416	14	

833+00 Req'd Road Approach, Lt.

833+20 Relay 24" x 50' CMP.
(from 919+40 on Detour) as
Cross Culvert, Ditches)

841+50 Req'd Road Approach & 18" x 32"
Side Drain, Rt, Ditches.

PI. 845+00
Δ 0° 15' LT.

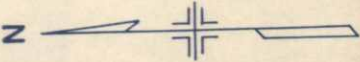
859 + 01 - 18" x 34' C.M.P. SIDE DRAIN
IN PLACE, CO. ROAD RT.

PI. 859 + 18
Δ 0° 01' LT.

859+01 Req'd Road Approach
Lt. & Rt.

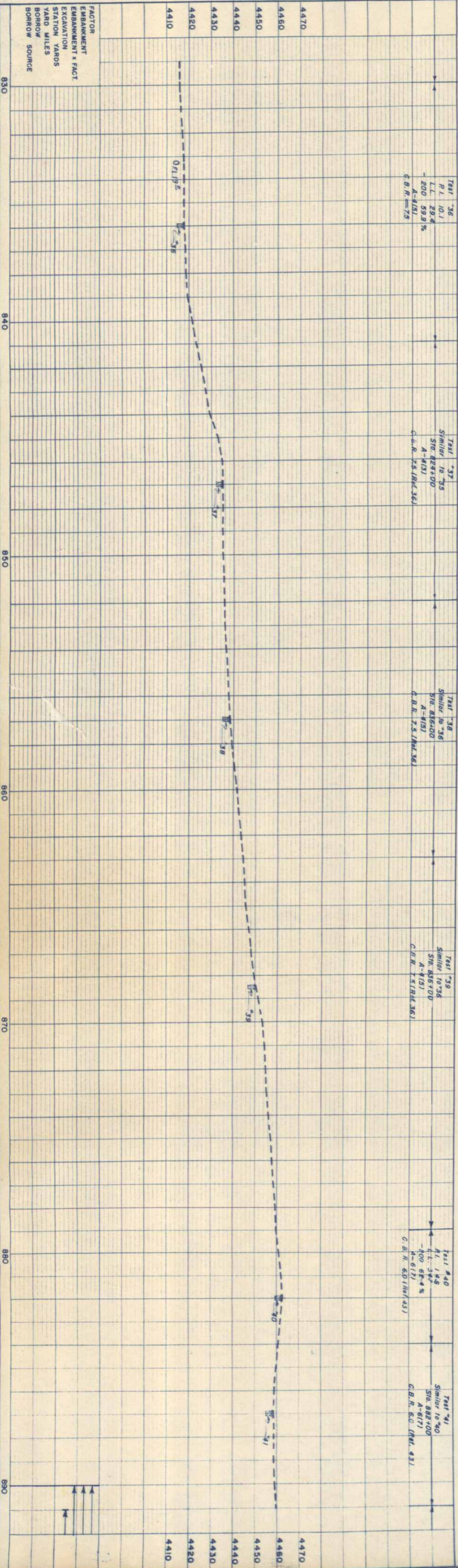
859 + 01 - 18" x 34' C.M.P. SIDE DRAIN
IN PLACE, CO. ROAD LT.

882+40 Req'd Road Approach,
Lt. & Rt.



SEC. 34 T.8N., R.55W.

SEC. 33 T.8N., R.55W.



FED. ROAD DIV. NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	S 0024(6)	15	

SEC. 5 T.7N. R.55W.

SEC. 4 T.7N. R.55W.

SEC. 32 T.8N. R.55W.

SEC. 33 T.8N. R.55W.

