



COLORADO
Department of
Transportation

DOCUMENT SEPARATOR SHEET

REGION 5 – JUNE 2017 CONVERSION

To be placed at the beginning of each separator sheet.



r500001082

Description:

ROW Plans 24X36

Route # and Mile Points:

SH 145

Originating Office:

ROW/Survey

File Name:

AF 020-1(5)_ROW(.PDF)

Box Location:

21 (TUBE-4)of 38

AF020-1(5)

INDEX OF SHEETS

SHEET NO. 1 TITLE SHEET
2 TABULATION OF PROPERTIES
3-9 PLAN AND PROFILE SHEETS
SHOWING RIGHT OF WAY
10 OWNERSHIP MAP

COLORADO DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. AF020-1(5) STATE HIGHWAY NO. 145 MONTROSE COUNTY

SCALES OF ORIGINAL DRAWINGS

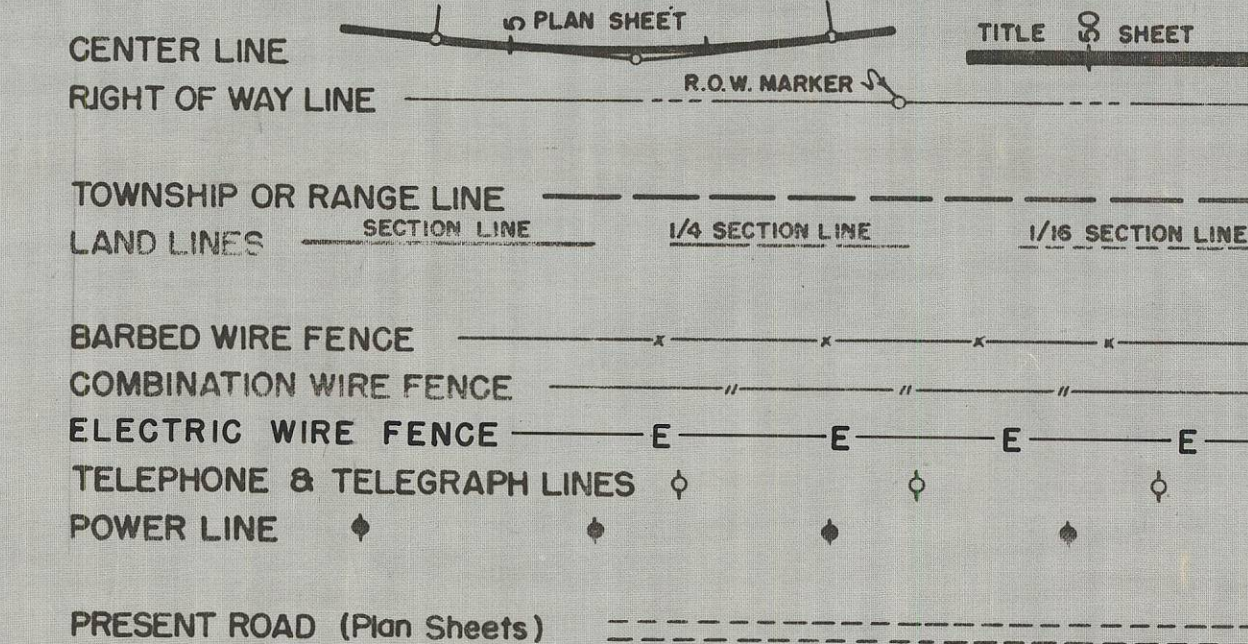
ON PLAN, 1 IN. = 100 FT.
ON PROFILE 1 IN. = 100 FT. HORIZONTAL
1 IN. = 10 FT. VERTICAL
GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
GROSS LENGTH OF PROJECT 37,689.4 LIN. FT. = 7.138 MI.
NET LENGTH OF PROJECT 26,989.4 LIN. FT. = 5.112 MI.

RIGHT OF WAY

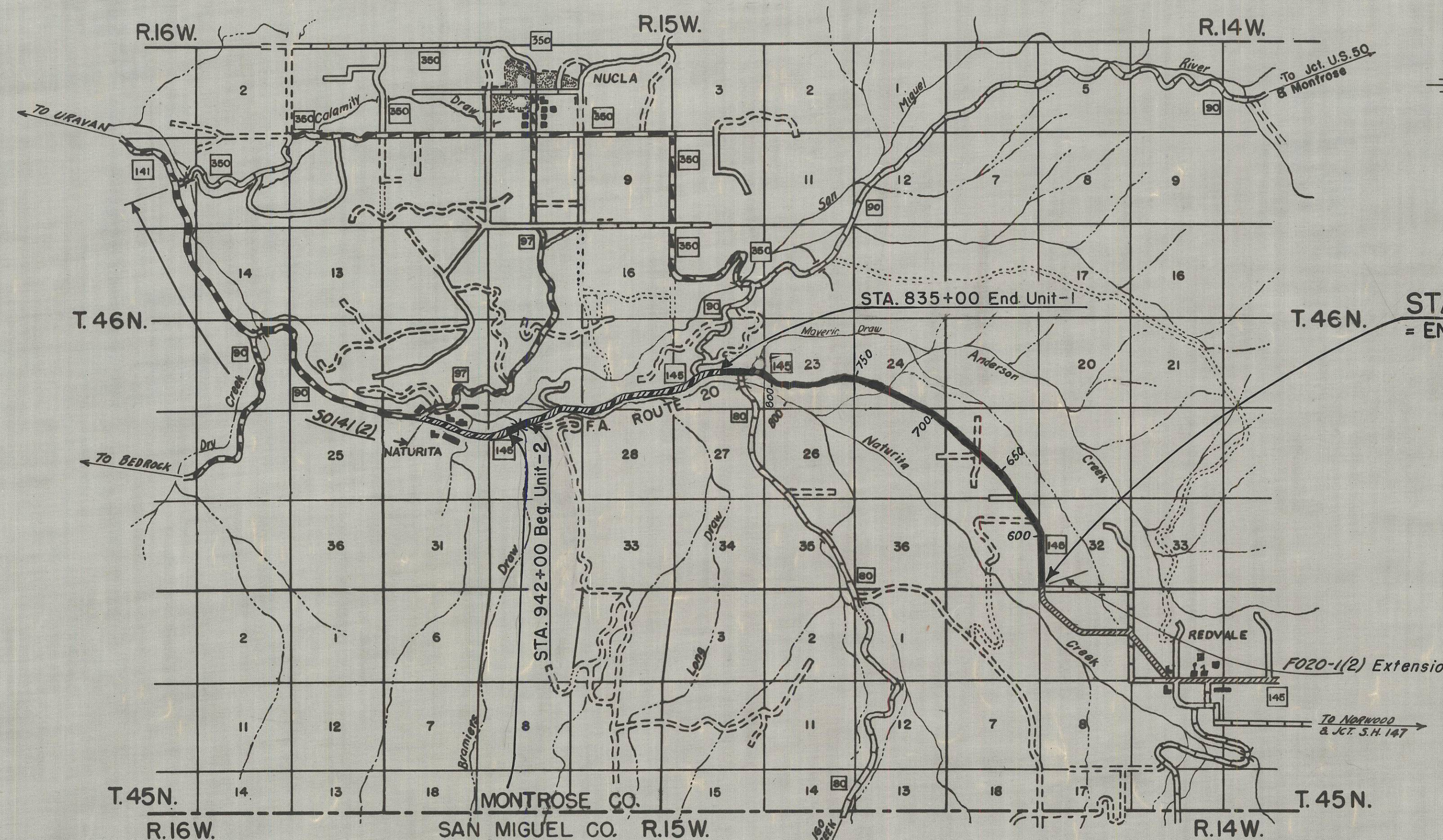
FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	AF020-1(5)	1	

RIGHT OF WAY

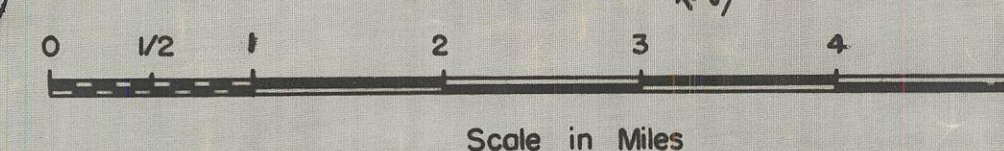
CONVENTIONAL SIGNS



NOTE: Refer to Project AF020-1(4) for Right of Way
Sta. 735+00 to Sta. 835+00 and
Sta. 942+00 to Sta. 948+00



STA. 948+00 END AF020-1(5) & Unit-2
= STA. 948+00 AF020-1(4)



MICROFILMED

PROJ. AF020-1(5)

RIGHT OF WAY

PLAN	DATE	BY
SURVEYED PLOTTED NOTE BOOK ALIGNMENT CHECKED BY: OF WAY CHECKED NO. 16219		

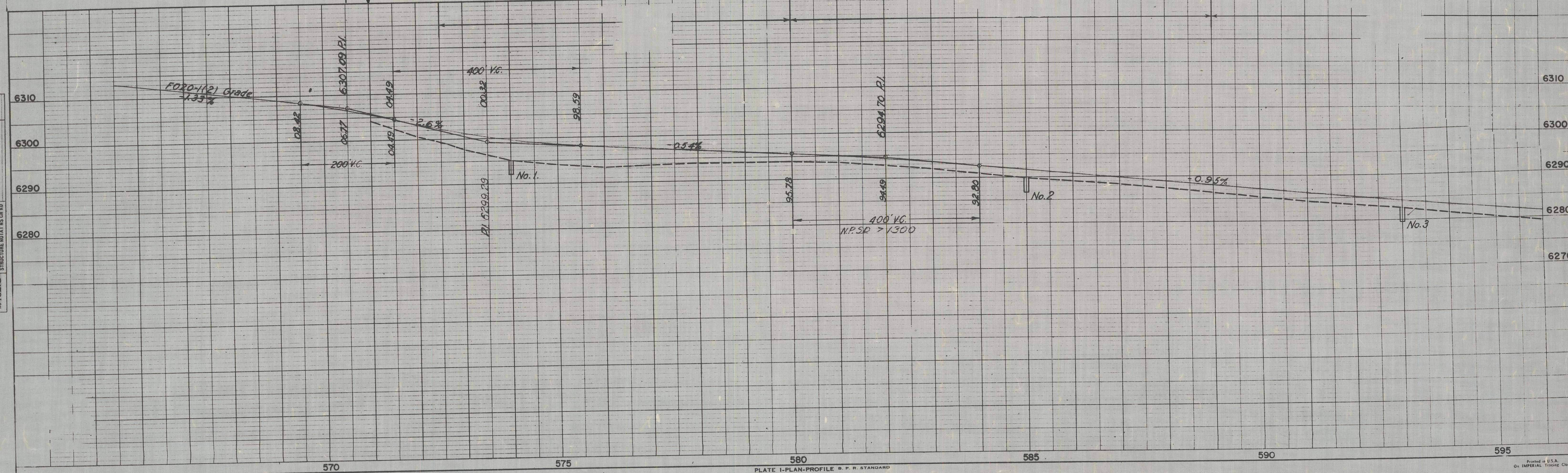
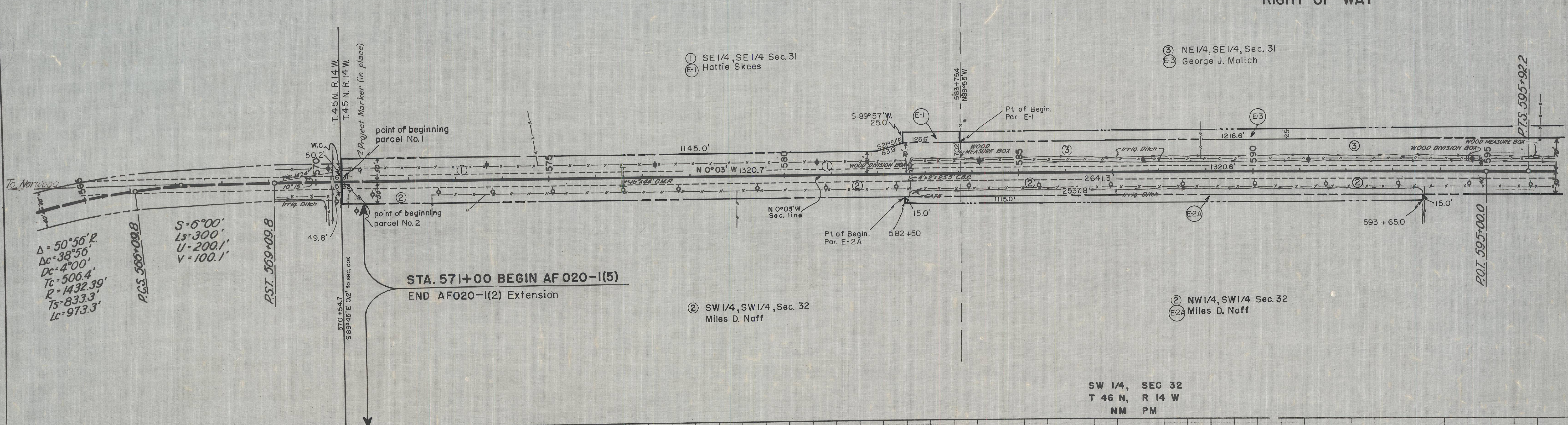
PROFILE	DATE	BY
SURVEYED PLOTTED NOTE BOOK GRADES CHECKED B.M. NOTED NO. 16218		

T46N, R14W, NMPM

SE 1/4, SEC 31
T 46 N, R 14 W
NM PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	AF020-1(5)	3	

RIGHT OF WAY



T46N, R14W, NMPM

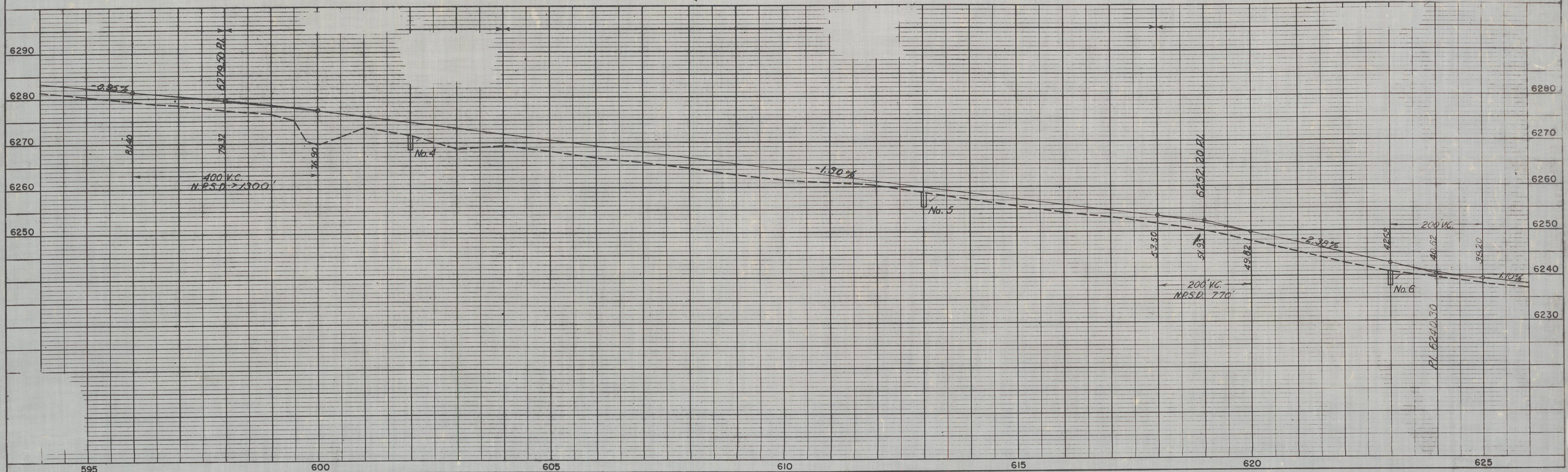
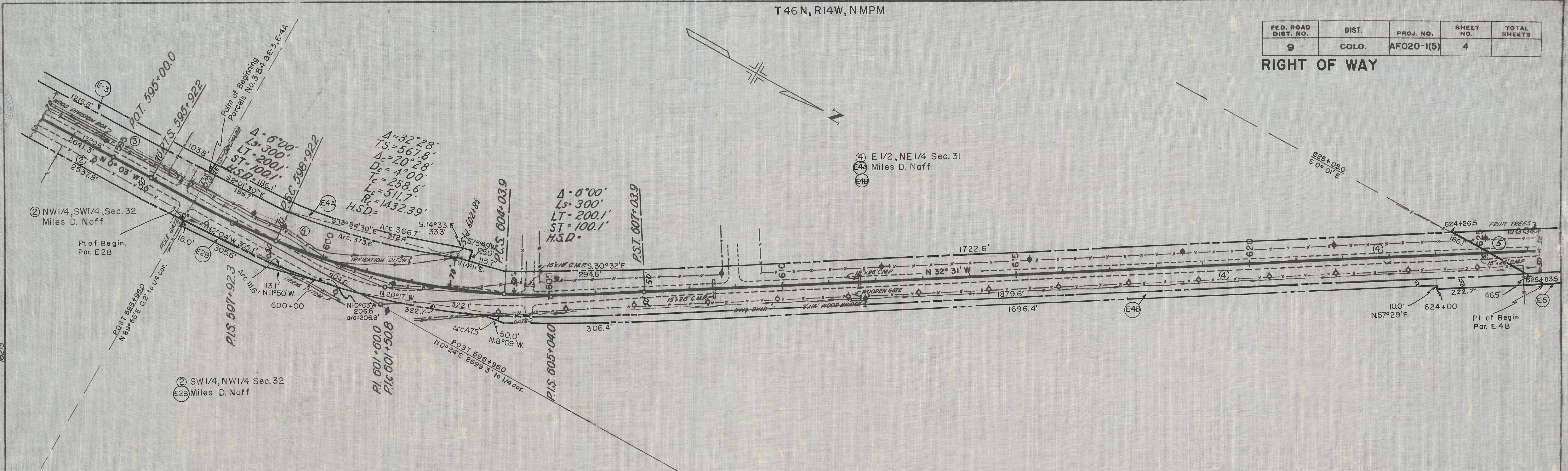
FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	4	

RIGHT OF WAY

MAILED
COPIES
12-24-1924
171819202122
12345678910111213141516171819202122

DATE
BY
SUPERVISOR
PLANNED
NOTE BOOK
ALIGNED CHECKED
NO. 16218
18218

PROFILE
DATE
BY
SUPERVISOR
PLANNED
NOTE BOOK
GRADES CHECKED
NO. 16218
18218



T46N, R14W, NMPM

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	5	

RIGHT OF WAY

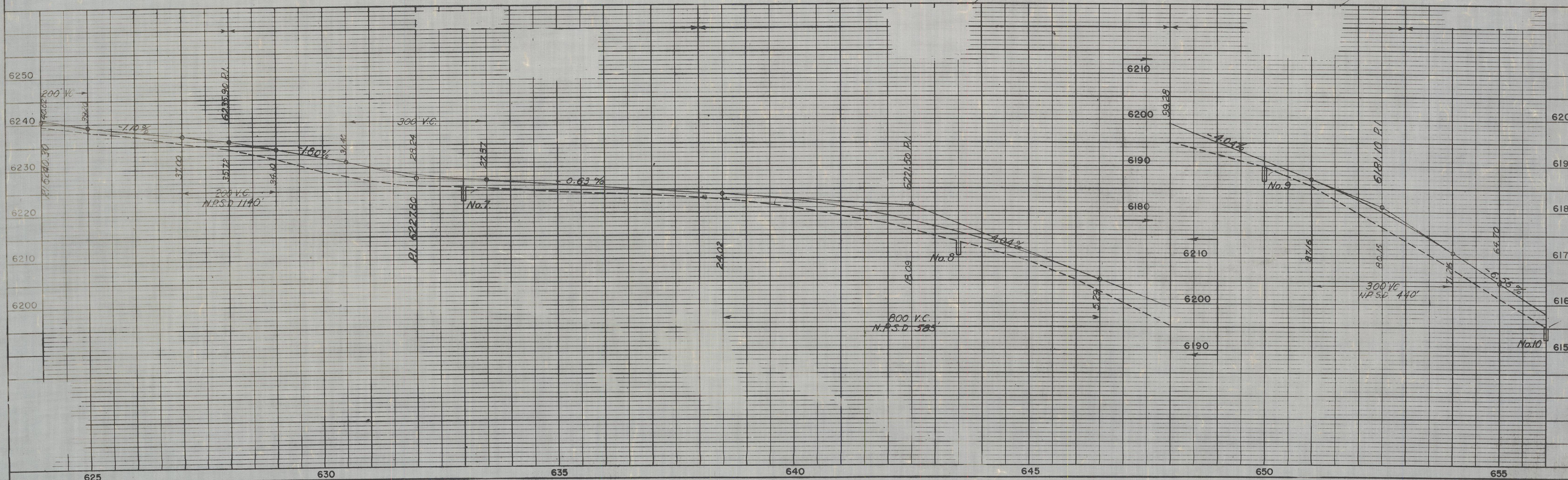
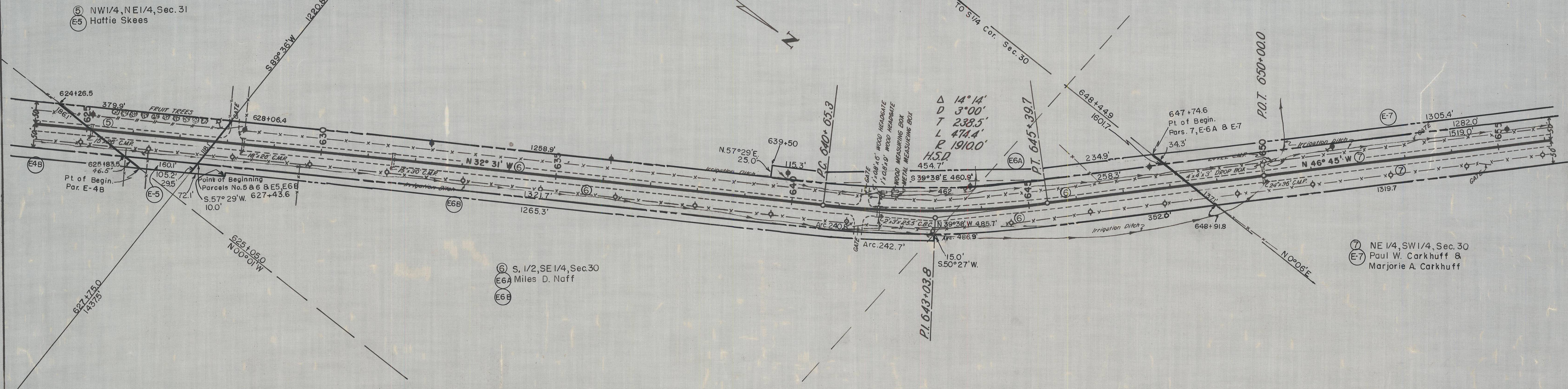


PLATE 1 - PLAN-PROFILE O. P. R. & R. E. STANDARD

KEUFFEL & ESSER CO., NEW YORK.

K & E Co. No. 348-10

UNIVERSITY MICROFILMS



COLORADO
Department of
Transportation

DOCUMENT SEPARATOR SHEET

REGION 5 – JUNE 2017 CONVERSION

To be placed at the beginning of each separator sheet.



r500001689

Description:

ROW Plans 11X17

Route # and Mile Points:

SH 145

Originating Office:

ROW/Survey

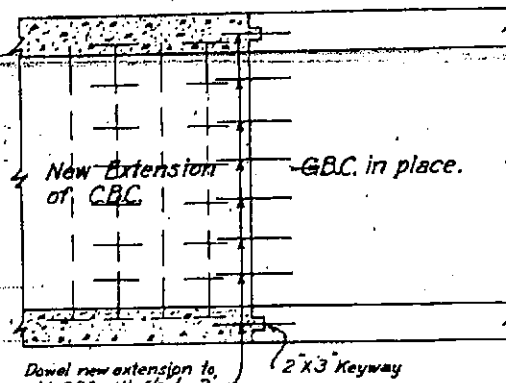
File Name:

AF 020-1(5)-ROW(.PDF)

Box Location:

27 of 38

DETAIL OF JOINT FOR CONCRETE BOX CULVERT EXTENSION STA. 958+



Place one dowel at every other 401 & 501 Bar shown on Concrete Box Culvert Standard M-104-G. Dowel bars are to be grouted in place with a cement grout composed of one part cement and two parts of clean well graded sand. Reinforcing steel required for dowels = 34 lbs.

R.O.W. MARKERS

STATION	SIDE	NO.
735+00	Rt.	1
748+50	Lt.	1
761+50	Rt.	1
775+00	Lt.	1
788+00	Rt.	1
801+00	Lt.	1
814+00	Rt.	1
827+50	Lt.	1
840+50	Rt.	1
853+00	Lt.	1
867+00	Rt.	1

STATION	SIDE	NO.
880+50	Lt.	1
893+50	Rt.	1
907+00	Lt.	1
922+00	Rt.	1
937+00	Lt.	1
949+00	Rt.	1
961+00	Lt.	1
974+50	Rt.	1
986+00	Lt.	1
1001+00	Rt.	1
1017+70	Lt.	1
TOTAL		12

		9135	100485	8867
		2704	29744	359
		1008	11088	67
00	1288			
51	299			
40	5693			
80	728	1632	17944	1414
		419	4609	283
		208	2288	155
		97	1067	70
		73	797	51
71	8008	17944	197376	15547
		797	8761	559
71	8008	18741	206137	16106

611+75	Lt+Rt	Culvert	2
641+95	Lt+Rt	Culvert	2
650+00	Lt+Rt	Culvert	2
662+14	Lt+Rt	Culvert	2
671+55	Lt+Rt	Culvert	2
684+07	Lt+Rt	Culvert	2
696+42	Lt+Rt	Culvert	2
720+77	Lt+Rt	Culvert	2
728+43	Lt+Rt	Culvert	2
735+00	Lt+Rt	Culvert	2
747+00	Lt+Rt	Culvert	2
756+00	Lt+Rt	Culvert	2
765+37	Lt+Rt	Culvert	2
771+75	Lt+Rt	Culvert	2
791+61	Lt+Rt	Culvert	2
792+00 to 793+50	Lt+Rt	50'	4
799+00 to 805+50	Lt+Rt	50'	28
806+00	Lt+Rt	Culvert	2
815+00	Lt+Rt	Culvert	2
821+75 to 823+25	Rt	50'	4
822+00 to 823+50	Lt	50'	4
827+00	Lt+Rt	Culvert	2
827+50 to 834+00	Lt+Rt	50'	14
UNIT-2			
944+65 to 945+29	Lt+Rt	Bridge	12
946+384 to 947+02	Lt+Rt	Bridge	12
TOTALS UNIT-1			94
TOTALS UNIT-2			24
PROJECT TOTALS			118

AF020-1(5)

R.O.W. MARKERS

GRADING C'		OVERHAUL TON MILES		
FROM	SHOULDER	TOP	BOTTOM	SHOULDER
RSE	† COURSE			
39	1512	9015	19990	3136
20	600	1712	3795	596
32			1117	
170	27	290	640	102
84	14	146	322	54
54		103	206	
91	2112	10727	24902	3732
28	41	539	1168	156
99	2153	11266	26070	3888

oaches

STATION	SIDE	NO.
571+00	Lt	1
584+20	Rt	1
597+40	Lt	1
610+60	Rt	1
623+80	Lt	1
637+00	Rt	1
651+00	Lt	1
663+40	Rt	1
676+60	Lt	1
689+80	Rt	1
703+00	Lt	1
716+20	Rt	1
729+00	Lt	1
742+60	Rt	1
755+80	Lt	1
769+00	Rt	1
782+20	Lt	1
795+40	Rt	1
808+60	Lt	1
821+00	Rt	1
831+00	Lt	1
TOTAL		21

609+60 to 663+15	Lt	5500			
714+75 to 729+90	Lt	1540			
796+00	X	240			
821+70	X	160			
572+50 to 599+30	Rt	2780			
603+60 to 665+75	Rt	6340			
665+75 to 693+55	Rt		2780		
695+70 to 715+15	Rt		1945		
715+15 to 729+65	Rt	1510			
805+50 to 811+10	Rt	600			
571+00 to 583+80	Lt			1300	
583+80 to 604+35	Lt				2040
596+59	Lt				
604+80 to 608+75	Lt				400
609+70 to 624+30	Lt			1460	
624+30 to 628+35	Lt				410
628+15	Lt				
628+40 to 646+35	Lt			1790	
641+50	Lt				
646+35 to 663+05	Lt				1670
653+25	Lt				
714+75 to 729+90	Lt				1520
729+60	Lt				
795+25 to 821+90	Lt				2670
813+00	Lt				
819+00	Lt				
572+50 to 597+00	Rt				2450
729+86	Rt				
582+85	Rt				
596+90	Rt				
597+00 to 599+30	Rt				230
603+60 to 648+90	Rt				4540
604+58	Rt				
611+54	Rt				
641+50	Rt				
648+90 to 665+75	Rt			1690	
662+50	Rt				
654+70	Rt				
665+70	Rt				
715+15 to 729+65	Rt				1450
797+00 to 821+60	Rt				2460
798+00	Rt				
813+00	Rt				
UNIT-2					
943+90	X	230			
946+90	X	420			
946+35 to 946+50	Lt			60	
943+50 to 945+32	Rt			260	
946+35 to 949+35	Rt			360	
TOTALS UNIT-1		22430	4725	6240	16240
TOTALS UNIT-2		650		680	
PROJECT TOTALS		23080	4725	6920	16240

* It is estimated that 50 New Line Posts will be required in Removing
 ▲ 140 Date Nails Required (State Forces)
 † Electric Fence

July 1, 1953

COLORADO DEPARTMENT OF HIGHWAYS
SPECIAL PROVISIONS
FOR
COLORADO PROJECT NO. AF 020-1(5)
REDALE - NATURITA

The following special provisions take precedence over all conflicting details in Specifications or on plans, and supplement the Standard Specifications adopted by the Department on June 1, 1952, together with Standard Special Provisions "Application (July 22, 1948)," "Employment Lists; Labor Selection; Nondiscrimination (July 22, 1948)," "Classification of Employees (July 22, 1948)," "Payment of Predetermined Minimum Wages (July 22, 1948)," "Affidavits and Payrolls (July 22, 1948)," "Record of Materials and Supplies (July 22, 1948)," "Subletting or Assigning the Contract (July 22, 1948)," "Adjustments for Changes in Common Carrier Rates (July 22, 1948)," "Statement of Materials and Employment, PR 47-A (December 9, 1948)," "Instructions for Preparing Revised Form PR 47-A (September 15, 1946)," "General (March 28, 1947)," "Compensation Insurance (March 28, 1947)," "3% Transportation Tax Exemption (June 17, 1952)," and "Emergency Cancellation of Contract (June 17, 1952)."

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April 17, 1941

MINIMUM WAGES

(Third District)

The minimum wage paid to all skilled labor employed on this contract shall be One Dollar and Ten Cents (\$1.10) per hour.

The minimum wage paid to all intermediate labor employed on this contract shall be Seventy Cents (\$0.70) per hour.

The minimum wage paid to all unskilled labor employed on this contract shall be Fifty Cents (\$0.50) per hour.

March 28, 1947

RENTAL OF TEAMS AND TRUCKS

The minimum rental for hired teams employed on this contract shall be twenty (20) cents per hour per head. The minimum rental shall include harness and double-trees, but shall be exclusive of all other equipment furnished for the work.

The minimum rental for hired trucks of not more than one and one-half ($1\frac{1}{2}$) tons rated capacity, trucks to be in good condition and equipped with dump bodies, shall be seventy-five (75) cents per hour. The proposed minimum rental rate for hired trucks of more than one and one-half ($1\frac{1}{2}$) tons rated capacity must be submitted by the contractor to the Department for consideration at the time contract is awarded.

Suitable local teams shall be used insofar as available.

June 17, 1953

COMMENCEMENT AND COMPLETION OF WORK
AND LIQUIDATED DAMAGES FOR
COLORADO PROJECT NO. AF 020-1(5)

The Contractor on this project shall commence work under his contract on or before the tenth (10th) day following the date of the contract unless such time for beginning the work shall be changed by the Chief Engineer, and shall fully complete all work thereunder within Two Hundred Ten (210) calendar days from and including the date of contract, or from and including such later date as may be designated in writing by the Engineer.

The amount of liquidated damages to be paid as provided in Paragraph 8.7 "Failure to Complete Work on Time" of the Specifications shall be \$50.00 per day.

June 17, 1953

ITEM 11f - PLUG CULVERTS

COLORADO PROJECT NO. AF 020-1(5)

DESCRIPTION AND REQUIREMENTS:

This item shall consist of crushing the ends of culverts to be left in place at locations indicated on plans. Culvert ends are to be crushed enough to prevent settlement of fill over the culvert. Where headwalls are encountered, they are to be broken down sufficiently to enable the culvert end to be crushed.

BASIS OF PAYMENT:

This item shall be paid for at the contract unit price each for "Plug Culvert," which price shall be full compensation for crushing ends of culverts, breaking headwalls, and for all repairs, excavation, labor, equipment, tools, supplies and work incidental thereto.

June 17, 1953

REMOVE AND RESET IRRIGATION STRUCTURES

COLORADO PROJECT NO. AF 020-1(5)

DESCRIPTION AND REQUIREMENTS:

The Division, Diversion and Measuring Boxes, Weirs, Headgates, and other irrigation structures encroaching on construction, shall be carefully removed and restored to service at new locations designated by the Engineer, and as noted on plans. This work shall be done carefully and damage to any materials resulting from removing and resetting operations shall be repaired at the Contractor's expense. Also, all new materials required to restore such structures to service at new locations, including concrete footings for headgates, shall be provided by the Contractor as a part of this item. New materials shall be of the same type and quality as those in the old construction. Structures at new locations shall be installed to line and grade as staked by the Engineer. The present sites shall be cleared of all objectionable matter, filled in and leveled off and the ground left in a neat, level condition.

BASIS OF PAYMENT:

This item shall be paid for at the contract unit price each for "Remove and Reset" the designated structure, as specified, which price and payment shall be full compensation for removing the various irrigation structures and resetting them at new locations, clearing and leveling sites, disposal of removed material, and for all new materials, excavation, repairs, backfilling, hauling, tools, labor, equipment, supplies and work incidental thereto.

January 2, 1948

ITEM 13
IRRIGATION DITCHES AND CANALS

The Contractor's attention is directed to the irrigation ditches and canals encroaching on new construction. The Contractor will be required to arrange his construction activities so that the flow of irrigation water will not be stopped by the contractor's activities. In general, this will require construction of new ditches and placing of new culverts before old ditches are interfered with. Also, the contractor shall furnish and install, at his expense, any temporary ditches, canals, and drainage structures necessary to provide for the flow of irrigation waters without interruption.

All ditches which are constructed in embankment shall be built in the following manner:

1. The entire embankments, including ditch area, shall be placed and compacted to proper density and elevation without regard to the ditch section.
2. After completion of the compacted embankment, the ditch prism shall be excavated and shaped to proper dimension without disturbing the portion of the embankment to remain in place.

Embankment materials required, compaction and haul thereon will be measured and paid for as provided under Item Nos. 13, 17 and 18 of the Standard Specifications.

The additional volume of excavation required to excavate the ditch in the compacted embankment will be paid for as either "Unclassified Excavation" or "Unclassified Ditch Excavation" as provided under Item 13 of the Standard Specifications.

Where roadway fills encroach on ditches to be abandoned, the ditch banks shall be broken down and spread, and the area compacted to uniform density before placing additional embankment thereon. Excavation involved in this operation will not be measured and paid for, but the cost shall be included in original contract prices for the project.

Wetting and rolling required in connection with the foregoing requirements will be paid for under appropriate contract items for the project.

All costs incidental to the foregoing requirements shall be included in the original unit prices for this project.

March 13, 1953

REV. OF ITEM 17

WETTING AND COMPACTION

This item shall conform to the requirements of Item 17 of the Standard Specifications except for the following:

The last two sentences of paragraph 17.2.2.1 of the Specifications shall be changed to read:

"At all other places and under all other conditions, scarifying, wetting and compacting of foundation materials shall continue until a minimum field density of ninety five (95) per cent is obtained for all soils except those of the A-1 and A-3 Highway Research Board Classifications. For those soils, a minimum density of one hundred (100) per cent shall be obtained."

The last sentence of paragraph 17.2.2.2 of the specifications shall be deleted and the following inserted therefor; "The laboratory compaction and density of soils shall be in accordance with A.A.S.H.O. Method T 99."

All costs incidental to the foregoing requirements shall be included in the original contract prices for the project.

June 17, 1953

REVISION OF ITEM 23

COLORADO PROJECT NO. AF 020-1(5)

This item shall conform with the requirements of Item 23 of the Standard Specifications, except for the following:

All Sub-Base Material shall be Class 1.

The last line of paragraph 23.2.3.1 shall be changed to:

"Passing a No. 200 sieve 5% to 10%."

All costs incidental to the foregoing shall be included in the original contract price for Item 23.

June 17, 1953

REVISION OF ITEM 24

COLORADO PROJECT NO. AF 020-1(5)

This item shall conform with the requirements of Item 24 of the Standard Specifications except for the following:

The first sentence of paragraph 24.2.2 of the Standard Specifications shall be changed to read: "Selected Borrow used in the sub-base shall not contain more than fifteen (15) per cent of material passing a No. 200 mesh sieve."

The Contractor will be required to strip the overburden from material pits to the extent directed by the Engineer, and prior to the removal of Selected Borrow for use in the roadway.

All costs incidental to the foregoing shall be included in the original contract unit prices for Items 13s and 24.

June 17, 1953

REVISION OF ITEM 26

COLORADO PROJECT NO. AF 020-1(5)

This item shall conform with the requirements of Item 26 of the Standard Specifications, except for the following:

All Surfacing Material used on this project shall be Grading C.

The grading in Table 26-1 for Top Course Surfacing for Road Mix Asphaltic Surfacing on this project is modified to:

Passing 3/4"	-		100%
Passing #4	-	40% to	60%
Passing #10	-	25% to	45%
Passing #200	-	4% to	9%

Shoulder surfacing containing proper amount of binder material shall be placed and compacted after completion of the oil processing operation. Sufficient wetting and rolling of shoulder areas will be required to produce a dense, stable surface. Quantities involved in wetting and rolling operations will be included for payment under appropriate contract items.

Contractor will be required to strip overburden from the pit prior to the removal of any surfacing material for use in roadway.

All costs incidental to the foregoing requirements shall be included in the original contract price for Item 26.

June 17, 1953

SOURCE OF MATERIALS

COLORADO PROJECT NO. AF 020-1(5)

The Department estimates that Surfacing, Sub-Base, Structure Backfill, Selected Borrow, Borrow Materials and Stone Screenings for this project are available from the pits indicated on Sheet No. 7 and on Title Sheet of Plans.

The Department holds options on material from these pits, the purchase prices of which are as follows:

<u>Material Pit No. 1A</u>		
Selected Borrow & Structure Backfill	@	No Cost
 <u>Material Pit No. 4</u>		
Selected Borrow, Structure Backfill & Borrow	@	\$0.04 per cubic yard
 <u>Material Pit No. 5A</u>		
Sub-Base Material Surfacing, Selected Borrow, Stone Screenings & Structure Backfill	@	No Cost
 <u>Material Pit No. 6,7,&8</u>		
Borrow	@	\$ 0.02 per cubic yard

The amount of materials required from these pits are subject to change by the Engineer to meet requirements encountered during construction.

The Contractor shall pay the foregoing purchase price directly to the owners for all materials used from these pits, or if other agreements are reached for material, the Contractor shall make his own arrangements with the property owners for the use of such material and payment therefor, all such payments being made by the Contractor directly to the owner.

All pits are to be excavated and backsloped uniformly and left in a neat, leveled condition, with adequate drainage provided.

It is the Contractor's responsibility to conform with all requirements of the options for materials used on this project. Copies of options are included in these Special Provisions.

All material taken from roadway cuts and paid for as Structure Backfill will be excluded from payment as "Unclassified Excavation."

The cost of the foregoing requirements shall be included in the original contract unit prices for the project.

PTT NO. 4

June 17, 1953

COLORADO PROJECT NO. AF 020-1(5)

LOCATION: Redvale - Naturita

OPTION TO BUY MATERIAL

THIS AGREEMENT, made this 11th day of December, 1952,
by and between HATTIE SKEES
of Nucla in Montrose County, Colorado,
party of the first part, and THE STATE HIGHWAY COMMISSION OF COLORADO, a public
corporation, for the use and benefit of the DEPARTMENT OF HIGHWAYS, party of the
second part, WITNESSETH: That

WHEREAS, party of the second part is desirous of obtaining material for
improvement of highways in the County of Montrose, and

WHEREAS, said material, to-wit: construction material satisfactory in quality
and quantity for use in construction, alteration, relocation or maintenance of
highways in said county is located upon the premises of party of the first part
described as follows, to-wit:

SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 31, T 46 N, R 14 W, N.M.P.M.

IT IS MUTUALLY AGREED AS FOLLOWS:

1. Party of the first part, for the consideration of One (\$1.00) Dollar,
receipt of which is hereby acknowledged, does hereby give to party of the second
part, its agents, contractors, and employees, the exclusive right and option until
the first day of January, 1955, to purchase

(a) Surfacing & Sub-base at Three Cents (3 ¢) per ton

(b) Borrow at Four Cents (4 ¢) per cu. yd.

2. If party of the second part at the expiration of the aforesaid limited time
shall not have taken up this option, said option shall be null and void.

3. Party of the second part shall have all rights of ingress and egress, and
the right to erect any structures and employ any means reasonably designed for the
proper procurement of said material.

4. The material pit option for this pit covers only the removal of material
by State Forces, contractor or agents, for material to be used for the Department
of Highways. Production for any other purpose will require a separate agreement
with the owner, and a release from the Department of Highways.

/s/ HATTIE SKEES

Owner

THE STATE HIGHWAY COMMISSION OF COLORADO,
a public corporation, for the use and
benefit of THE DEPARTMENT OF HIGHWAYS

MARK U. WATROUS, Chief Engineer

By /s/ HOMER W. GRAY
Title Dist. Const. Engr.

PIT NO. 6

June 17, 1953
 COLORADO PROJECT NO. AF 020-1 (5)
 LOCATION Redvale - Naturita

OPTION TO BUY MATERIAL

THIS AGREEMENT, made this 20th day of April, 19 53,
 by and between Frank L. Morgan, Mary E. Morgan and Clarence Morgan -
 of Nucla in Montrose County, Colorado,
 party of the first part, and THE STATE HIGHWAY COMMISSION OF COLORADO, a public corporation, for the use and benefit of the DEPARTMENT OF HIGHWAYS, party of the second part, WITNESSETH: That

WHEREAS, party of the second part is desirous of obtaining material for improvement of highways in the County of Montrose, and

WHEREAS, said material, to-wit: construction material satisfactory in quality and quantity for use in construction, alteration, relocation or maintenance of highways in said county is located upon the premises of party of the first part described as follows, to-wit: NE 1/4 SE 1/4 Section 23, T 46 N, R 15 W. N.M. P.M.

IT IS MUTUALLY AGREED AS FOLLOWS:

1. Party of the first part, for the consideration of One (\$1.00) Dollar, receipt of which is hereby acknowledged, does hereby give to party of the second part, its agents, contractors, and employees, the exclusive right and option until the first day of January, 19 55, to purchase

(a) Borrow Material at Two Cents (2¢) per cubic yard

2. If party of the second part at the expiration of the aforesaid limited time shall not have taken up this option, said option shall be null and void.

3. Party of the second part shall have all rights of ingress and egress, and the right to erect any structures and employ any means reasonably designed for the proper procurement of said material.

4. The material pit option for this pit covers only the removal of material by State Forces, contractor or agents, for material to be used for the Department of Highways. Production for any other purpose will require a separate agreement with the owner, and a release from the Department of Highways.

Frank L., Mary E. and Clarence Morgan

by /s/ Frank L. Morgan
 Owner

THE STATE HIGHWAY COMMISSION OF COLORADO,
 a public corporation, for the use and benefit of THE DEPARTMENT OF HIGHWAYS

MARK U. WATROUS, Chief Engineer

by /s/ Homer W. Gray
 Construction Engineer, Dist. III

PIT NO. 7

June 17, 1953

COLORADO PROJECT NO. AF 020-1(5)LOCATION: Redvale - NaturitaOPTION TO BUY MATERIAL

THIS AGREEMENT, made this 20th day of April, 1953,
 by and between MILES D. NAFF
 of _____ in Montrose County, Colorado,
 party of the first part, and THE STATE HIGHWAY COMMISSION OF COLORADO, a public
 corporation, for the use and benefit of the DEPARTMENT OF HIGHWAYS, party of the
 second part, WITNESSETH: That

WHEREAS, party of the second part is desirous of obtaining material for
 improvement of highways in the County of Montrose, and

WHEREAS, said material, to-wit: construction material satisfactory in quality
 and quantity for use in construction, alteration, relocation or maintenance of
 highways in said county is located upon the premises of party of the first part
 described as follows, to-wit: S $\frac{1}{2}$ NW $\frac{1}{4}$ Section 30, T 46 N, R 14 W, N.M.P.M.

IT IS MUTUALLY AGREED AS FOLLOWS:

1. Party of the first part, for the consideration of One (\$1.00) Dollar,
 receipt of which is hereby acknowledged, does hereby give to party of the second
 part, its agents, contractors, and employees, the exclusive right and option until
 the first day of January, 1955, to purchase

(a) Borrow Material at Two Cents (2 ¢) per cu. yd.

2. If party of the second part at the expiration of the aforesaid limited
 time shall not have taken up this option, said option shall be null and void.

3. Party of the second part shall have all rights of ingress and egress, and
 the right to erect any structures and employ any means reasonably designed for the
 proper procurement of said material.

4. The material pit option for this pit covers only the removal of material
 by State Forces, contractor or agents, for material to be used for the Department
 of Highways. Production for any other purpose will require a separate agreement
 with the owner, and a release from the Department of Highways.

/s/ MILES D. NAFF
 Owner

THE STATE HIGHWAY COMMISSION OF COLORADO,
 a public corporation, for the use and
 benefit of THE DEPARTMENT OF HIGHWAYS

MARK U. WATROUS, Chief Engineer

By /s/ HOMER W. GRAY
 Title Construction Engineer District III

PIT NO. 8

June 17, 1953

COLORADO PROJECT NO. AF 020-1(5)

LOCATION: Redvale - Naturita

OPTION TO BUY MATERIAL

THIS AGREEMENT, made this 20th day of April, 19 53,
by and between Paul W. and Marjorie A. Carkhuff
of _____ in Montrose County, Colorado,
party of the first part, and THE STATE HIGHWAY COMMISSION OF COLORADO, a public
corporation, for the use and benefit of the DEPARTMENT OF HIGHWAYS, party of the
second part, WITNESSETH: That

WHEREAS, party of the second part is desirous of obtaining material for
improvement of highways in the County of Montrose, and

WHEREAS, said material, to-wit: construction material satisfactory in quality
and quantity for use in construction, alteration, relocation or maintenance of
highways in said county is located upon the premises of party of the first part
described as follows, to-wit: NE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 30, T 46 N, R 14 W, N.M.P.M.

IT IS MUTUALLY AGREED AS FOLLOWS:

1. Party of the first part, for the consideration of One (\$1.00) Dollar,
receipt of which is hereby acknowledged, does hereby give to party of the second
part, its agents, contractors, and employees, the exclusive right and option until
the first day of January, 19 55, to purchase

(a) Borrow Material at Two Cents (2 ¢) per cu. yd.

2. If party of the second part at the expiration of the aforesaid limited
time shall not have taken up this option, said option shall be null and void.

3. Party of the second part shall have all rights of ingress and egress, and
the right to erect any structures and employ any means reasonably designed for the
proper procurement of said material.

4. The material pit option for this pit covers only the removal of material by
State Forces, contractor or agents, for material to be used for the Department of
Highways. Production for any other purpose will require a separate agreement with
the owner, and a release from the Department of Highways.

/s/ PAUL W. CARKHUFF

/s/ MARJORIE A. CARKHUFF

Owner

THE STATE HIGHWAY COMMISSION OF COLORADO,
a public corporation, for the use and
benefit of THE DEPARTMENT OF HIGHWAYS

MARK U. WATROUS, Chief Engineer

By /s/ HOMER W. GRAY

Title Construction Engineer District III

July 1, 1953

REVISION OF ITEM 31

ADDITIVES FOR ASPHALTIC ROAD MATERIAL

COLORADO PROJECT NO. AF 020-1(5)

Laboratory tests indicate that it will be necessary to fortify the asphaltic road material used on the project with an acceptable additive in order to impart the required stability and/or stripping resistance to either mixtures or seal coats.

Asphaltic materials which require additive for this project are designated by the word "Fortified" in the summary of quantities.

It shall be the Contractor's responsibility to supply asphaltic road material which has been fortified with an additive of the proper type and amount to secure stabilities and/or stripping resistances comparable, or better than, those used in the pilot laboratory tests.

Laboratory tests indicate that the addition of 2% commercial grade or an equivalent amount of concentrated additive in asphaltic road material for processed mat and the addition of 1% commercial grade or an equivalent amount of concentrated additive in asphaltic road material for seal coat from normal suppliers will result in adequate stability and/or stripping resistance. These tests are available for examination by prospective bidders on the project. The amounts of other types of additives necessary to obtain desired results will require individual determination by the Laboratory. At the time that the successful bidder has been awarded the contract, he shall make known to the Department the supplier of bituminous material and the type of additive which he proposes to use. If such combination of bituminous material and additive give results equal to, or better than, those used in the Laboratory Control Tests, approval will be forthcoming. No additive shall be used, however, which is of such nature as to cause the bituminous material to fail to meet applicable specifications.

All costs of the foregoing requirements shall be included in the original contract prices for the project.

April 24, 1953

REVISION OF ITEM 31
STONE SCREENINGS

This item shall conform with the requirements of Item 31 of the Standard Specifications, except for the following:

The grading for Stone Screenings Type X on this project shall be as follows:

Passing $\frac{1}{2}$ inch.....	100%
Passing No. 4.....0% -	40%
Passing No. 8.....0% -	10%
Passing No. 200....0% -	2%

Stone screenings for Type X aggregate shall have a percentage of wear of not more than forty (40) per cent when tested in accordance with "Standard Los Angeles Abrasion Test for Coarse Aggregates," A.A.S.H.O. Method T 96.

June 17, 1953

REV. OF ITEM 76

COLORADO PROJECT NO. AF 020-1(5)

This item shall conform to the requirements of Item 76 of the Standard Specifications and shall be constructed as shown on plans.

BASIS OF PAYMENT:

Different types of fencing and gates listed for payment under paragraph 76.5.1 and 76.5.2 of the Standard Specifications shall include "Barbed Wire Fence with Treated Wooden Posts (6 Wire)" and "Barbed Wire Gates (6 Wire)" respectively.

May 12, 1953

REVISION OF ITEM 92
TIMBER GUARD POSTS

This item shall conform to the requirements of Item 92 of the Standard Specifications except as modified herein below.

The Contractor will be required to paint posts as provided on plans and in the Specifications.

1. Paragraph 92.2.7 is deleted and the following substituted therefor:

"92.2.7 Reflective Sheeting Strips shall be furnished and placed on posts after any required painting and in conformity with details shown on plans. The type and size shown on plans shall be supplied, complete with nails."

2. Paragraph 92.3.4 is revised as follows:

"92.3.4 A six (6) inch band, starting at a point four (4) inches down the post from the top shall be given two (2) coats of Black Paint. The remainder of the exposed portion of the post shall be given two (2) coats of Aluminum Paint."

3. Paragraph 92.3.6 is deleted.

4. Paragraphs 92.4.1 and 92.5.1 - The words "reflector units" are hereby changed to "reflective sheeting strips."

The cost of the foregoing shall be included in the original contract unit price for Item 92.

December 8, 1949

PROTECTION OF UTILITIES

The contractor's attention is directed to the fact that utilities encroach on the construction of this project, and also to the importance of protecting all public utilities encountered on this project. These may include telephone, telegraph and power lines, water line, sewer lines, gas lines, railroad tracks, and other overhead and underground utilities.

Before any excavation is begun in the vicinity of water lines, railroad tracks or structures, sewer lines, gas lines or telephone conduits, each utility company concerned must be notified in advance of such excavation, and such excavation shall not be made until an authorized representative of the utility company concerned is on the ground.

The contractor shall be held liable for all damages to any and all public utilities encountered on the project, which damages are due to the contractor's operations. Such damages shall include all physical damages to utilities and also all damages due to interruption of service of such utilities, when such damages and interruptions are caused by contractor's operations.

Where alterations or moving of utilities is not required to permit construction of new Highway improvement, the contractor shall take such measure as the Engineer may direct in properly protecting these utilities throughout his construction operations and shall cooperate at all times with the proper authorities and/or owners in maintaining service of railroads, conduits, pole lines, transmission lines, pipe lines, sewers, etc., affected by this project.

The cost of damages due to contractor's operation or cost of protecting utilities where alteration or moving is not required to permit construction of Highway improvement shall be included in the original contract prices for the project.

Should any pipe line, water lines or gas mains, electrical conduits, sewer pipes, overhead wiring, telephone lines, telegraph lines, power lines, or any other such utilities, not specifically mentioned and provided for elsewhere as a part of this contract, have to be moved, repaired, reconditioned or revised due to the road construction or moved temporarily to permit construction of project, the party or parties owning or operating such utilities shall perform the actual work of moving, repairing, reconditioning, or revising such utilities. The cost of this work shall be borne by the utility companies involved, unless other agreements are reached with the Department.

June 28, 1949

PROVISIONS FOR TRAFFIC DURING CONSTRUCTION

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 except for wetting and rolling, 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.

During and after surfacing operations, weather conditions and traffic may require wetting and rolling to conserve the fine material, preserve the evenness of the surface and abate the dust nuisance and traffic hazard. The Contractor will be required to do this wetting and rolling as ordered by the Engineer, all such work being paid for at the contract prices for the items involved, or as otherwise provided under Section 9 of the Specifications.

Before proceeding with construction, the Contractor must obtain from the Engineer written approval of the proposed methods of handling traffic during construction.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 1
STA. 570+ TO STA. 583+

HATTIE SKEES
NUCLA, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 1 of Grantee's project AF 020-1(5), containing 1.591 acres, more or less, in the $SE\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at the SE corner of Sec. 31, T. 46 N., R. 14 W.;

1. Thence along the E. line of Sec. 31, N. $0^{\circ} 03'$ W. a distance of 1320.7 feet to the N. line of the $SE\frac{1}{4}$ of the $SE\frac{1}{4}$ of Sec. 31;
2. Thence along the N. line of the $SE\frac{1}{4}$ of the $SE\frac{1}{4}$ of Sec. 31, N. $89^{\circ} 55'$ W. a distance of 70.2 feet;
3. Thence S. $0^{\circ} 03'$ E. a distance of 125.6 feet;
4. Thence S. $21^{\circ} 51'$ E. a distance of 53.9 feet;
5. Thence S. $0^{\circ} 03'$ E. a distance of 1145.0 feet to the S. line of Sec. 31;
6. Thence along the S. line of Sec. 31, S. $89^{\circ} 45'$ E. a distance of 50.2 feet, more or less, to the point of beginning.

The above described parcel contains 1.591 acres, more or less, of which 0.920 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-1
STA. 582+ TO STA. 583+

HATTIE SKEES
NUCLA, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-1 of Grantee's project AF 020-1(5), containing 0.072 acres, more or less, in the $SE\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land 25.0 feet in width in the $SE\frac{1}{4}$ of the $SE\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W. adjacent to and W. of a line described as follows:

Beginning at a point on the N. line of the $SE\frac{1}{4}$ of the $SE\frac{1}{4}$ of Sec. 31 from which the SE corner of Sec. 31 bears S. $3^{\circ} 05' 30''$ E. a distance of 1322.6 feet;

Thence parallel to and 70.2 feet W. of the E. line of Sec. 31, S. $0^{\circ} 03'$ E. a distance of 125.6 feet;

The above described parcel contains 0.072 acres more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 2
STA. 570+ TO STA. 601+

MILES D. NAFF
REDVALE,
COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 2 of Grantee's project AF 020-1(5), containing 3.307 acres, more or less, in the $W\frac{1}{2}$ of Sec. 32, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at the SW corner of Sec. 32, T. 46 N., R. 14 W.;

1. Thence along the S. line of Sec. 32 S. $89^{\circ} 45'$ E. a distance of 49.8 feet;
2. Thence N. $0^{\circ} 03'$ W. a distance of 2537.8 feet;
3. Thence N. $2^{\circ} 04'$ W. a distance of 305.1 feet;
4. Thence along the arc of a curve to the left with a radius of 1482.4 feet a distance of 206.8 feet (the chord of which arc bears N. $10^{\circ} 03'$ W. a distance of 206.6 feet) to the W. line of Sec. 32;
5. Thence along the W. line of Sec. 32 S. $0^{\circ} 24'$ W. a distance of 404.6 feet to the $W\frac{1}{4}$ corner of Sec. 32;
6. Thence along the W. line of Sec. 32 S. $0^{\circ} 03'$ E. a distance of 2641.3 feet, more or less, to the point of beginning.

The above described parcel contains 3.307 acres, more or less, of which 2.042 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-2-A
STA. 582+ TO STA. 593+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-2-A of Grantee's project AF 020-1(5), containing 0.384 acres, more or less, in the SW $\frac{1}{4}$ of Sec. 32, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land 15.0 feet in width in the SW $\frac{1}{4}$ of Sec. 32, T. 46 N., R. 14 W. adjacent to and W. of a line described as follows:

Beginning at a point from which the SW corner of Sec. 32 bears S. 2° 20' W. a distance of 1196.5 feet;

Thence parallel to and 49.8 feet E. of the W. line of Sec. 32 N. 0° 03' W. a distance of 1115.0 feet;

The above described parcel contains 0.384 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-2B
STA. 596+ TO STA. 600+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-2B of Grantee's project AF 020-1(5), containing 0.122 acres, more or less, in the NW $\frac{1}{4}$ of Sec. 32, T. 46 N., R. 14 E., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the E-W $\frac{1}{4}$ line of Sec. 32, T. 46 N., R. 14 E. from which the W $\frac{1}{4}$ corner of Sec. 32 bears S. 89° 56' W. a distance of 49.8 feet;

1. Thence along the E-W $\frac{1}{4}$ line of Sec. 32, N. 89° 56' E. a distance of 15.0 feet;
2. Thence N. 2° 04' W. a distance of 305.6 feet;
3. Thence N. 11° 50' W. a distance of 113.1 feet;
4. Thence along the arc of a curve to the Right a distance of 111.6 feet the radius of which arc has a length of 1482.4 feet and the chord of which arc bears S. 4° 13' E. a distance of 111.5 feet;
5. Thence S. 2° 04' E. a distance of 305.1 feet, more or less, to the point of beginning.

The above described parcel contains 0.122 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 3
STA. 583+ TO STA. 596+

GEORGE J. MALICH
P. O. BOX 54
REDDALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 3 of Grantee's project AF 020-1(5), containing 2.132 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the E-W $\frac{1}{4}$ line of Sec. 31, T. 46 N., R. 14 W., from which the E $\frac{1}{4}$ corner of Sec. 31 bears N. 89° 56' E. a distance of 73.8 feet;

1. Thence S. 2° 01' 30" E. a distance of 103.8 feet;
2. Thence S. 0° 03' E. a distance of 1216.6 feet to the S. line of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sec. 31;
3. Thence along the S. line of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Sec. 31, S. 89° 55' E. a distance of 70.2 feet to the E. line of Sec. 31;
4. Thence along the E. line of Sec. 31 N. 0° 03' W. a distance of 1320.6 feet to the E $\frac{1}{4}$ corner of Sec. 31;
5. Thence along the E-W $\frac{1}{4}$ line of Sec. 31, S. 89° 56' W. a distance of 73.8 feet, more or less, to the point of beginning.

The above described parcel contains 2.132 acres, more or less, of which 0.910 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-3
STA. 583+ TO STA. 596+

GEORGE J. MALICH
P. O. BOX 54
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-3 of Grantee's project AF 020-1(5), containing 0.758 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land 25 feet in width in the SE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W. adjacent to and W. of a line described as follows:

Beginning at a point on the N. line of the SE $\frac{1}{4}$ of Sec. 31 from which the E $\frac{1}{4}$ corner of Sec. 31 bears N. 89° 56' E. a distance of 73.8 feet;

1. Thence S. 2° 01' 30" E. a distance of 103.8 feet;
2. Thence S. 0° 03' E. a distance of 1216.6 feet;

The above described parcel contains 0.758 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 4
STA. 596+ TO STA. 625+

MILES D. NAFF
REDALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 4 of Grantee's project AF 020-1(5), containing 6.443 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the E-W $\frac{1}{4}$ line of Sec. 31, T. 46 N., R. 14 W. from which the E $\frac{1}{4}$ corner of Sec. 31 bears N. 89° 56' E. a distance of 73.8 feet;

1. Thence along the E-W $\frac{1}{4}$ line of Sec. 31 N. 89° 56' E. a distance of 73.8 feet to the E $\frac{1}{4}$ corner of Sec. 31;
2. Thence along the E. line of Sec. 31, N. 0° 24' E. a distance of 404.6 feet;
3. Thence along the arc of a curve to the left with a radius of 1482.4 feet a distance of 322.7 feet (the chord of which arc bears N. 20° 17' W. a distance of 322.1 feet);
4. Thence N. 30° 30' W. a distance of 305.1 feet;
5. Thence N. 32° 31' W. a distance of 1879.6 feet to W. line of the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31;
6. Thence along the W. line of the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31 S. 0° 01' E. a distance of 186.1 feet;
7. Thence S. 32° 31' E. a distance of 1722.6 feet;
8. Thence S. 30° 32' E. a distance of 294.6 feet;
9. Thence S. 14° 11' E. a distance of 115.7 feet;
10. Thence along the arc of a curve to the right with a radius of 1362.4 feet, a distance of 373.6 feet (the chord of which arc bears S. 13° 54' 30" E. a distance of 372.4 feet);
11. Thence S. 2° 01' 30" E. a distance of 188.7 feet, more or less, to the point of beginning.

The above described parcel contains 6.443 acres, more or less, of which 3.657 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-4A
STA. 596+ TO STA. 603+

MILES D. NAFF
REDALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-4-A of Grantee's project AF 020-1(5), containing 0.338 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning on the E-W $\frac{1}{4}$ line of Sec. 31, T. 46 N., R. 14 W., from which the E $\frac{1}{4}$ corner of Sec. 31 bears N. 89° 56' E. a distance of 73.8 feet;

1. Thence N. 2° 01' 30" W. a distance of 188.7 feet;
2. Thence along the arc of a curve to the left a distance of 373.6 feet the radius of which arc has a length of 1362.4 feet and the chord of which arc bears N. 13° 54' 30" W. a distance of 372.4 feet;
3. Thence N. 14° 11' W. a distance of 30.0 feet;
4. Thence S. 75° 49' W. a distance of 25.0 feet;
5. Thence S. 14° 33' E. a distance of 33.3 feet;
6. Thence along the arc of a curve to the right a distance of 366.7 feet the radius of which arc has a length of 1337.4 feet and the chord of which arc bears S. 13° 54' 30" E. a distance of 365.6 feet;
7. Thence S. 2° 01' 30" E. a distance of 186.1 feet to the E-W $\frac{1}{4}$ line of Sec. 31;
8. Thence along the E-W $\frac{1}{4}$ line of Sec. 31, N. 89° 56' E. a distance of 25.0 feet, more or less, to the point of beginning.

The above described parcel contains 0.338 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-4B
STA. 603+ TO STA. 626+

MILES D. NAFF
REDAVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-4-B of Grantee's project AF 020-1(5), containing 0.812 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the W. line of the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W. from which the NE corner of Sec. 31 bears N. 85° 38' 30" E. a distance of 1296.2 feet;

1. Thence along the W. line of the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31, S. 0° 01' E. a distance of 46.5 feet;
2. Thence S. 32° 31' E. a distance of 1879.6 feet;
3. Thence S. 30° 30' E. a distance of 305.1 feet;
4. Thence along the arc of a curve to the right a distance of 47.5 feet the radius of which arc has a length of 1482.4 feet and the chord of which arc bears S. 25° 36' E. a distance of 47.5 feet;
5. Thence N. 8° 09' W. a distance of 50.0 feet;
6. Thence N. 30° 30' W. a distance of 306.4 feet;
7. Thence N. 32° 31' W. a distance of 1696.4 feet;
8. Thence N. 57° 29' E. a distance of 10.0 feet;
9. Thence N. 32° 31' W. a distance of 222.7 feet, more or less, to the point of beginning.

The above described parcel contains 0.812 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 5
STA. 624+ TO STA. 628+

HATTIE SKEES
NUCLA, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 5 of Grantee's project AF 020-1(5), containing 0.620 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the N. line of Sec. 31, T. 46 N., R. 14 W., from which the NE corner of Sec. 31 bears N. 89° 36' E. a distance of 1378.5 feet;

1. Thence along the N. line of Sec. 31 S. 89° 36' W. a distance of 118.1 feet;
2. Thence S. 32° 31' E. a distance of 379.9 feet to the E. line of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31;
3. Thence along the E. line of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31, N. 0° 01' W. a distance of 186.1 feet;
4. Thence N. 32° 31' W. a distance of 160.1 feet, more or less, to the point of beginning.

The above described parcel contains 0.620 acres, more or less, of which 0.372 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-5
STA. 625+ TO STA. 627+

HATTIE SKEES
NUCLA, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Maturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-5 of Grantee's project AF 020-1(5), containing 0.076 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 31, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the N. line of Sec. 31, T. 46 N., R. 14 W., from which the NE corner of Sec. 31 bears N. 89° 36' E. a distance of 1378.5 feet;

1. Thence S. 32° 31' E. a distance of 160.1 feet to the E. line of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31;
2. Thence along the E. line of the NW $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Sec. 31, N. 0° 01' W. a distance of 46.5 feet;
3. Thence N. 32° 31' W. a distance of 105.2 feet to the N. line of Sec. 31;
4. Thence along the N. line of Sec. 31 S. 89° 36' W. a distance of 29.5 feet, more or less, to the point of beginning.

The above described parcel contains 0.076 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 6
STA. 627+ TO STA. 648+

MILES D. NAFF
REDAVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 6 of Grantee's project AF 020-1(5), containing 4.752 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 30, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the S. line of Sec. 30, T. 46 N., R. 14 W., from which the SE corner of Sec. 30 bears N. 89° 36' E. a distance of 1378.5 feet;

1. Thence N. 32° 31' W. a distance of 1321.7 feet;
2. Thence along a curve to the left with a radius of 1960.0 feet a distance of 486.9 feet (the chord of which arc bears N. 39° 38' W. a distance of 485.7 feet);
3. Thence N. 46° 45' W. a distance of 352.0 feet to the N-S $\frac{1}{4}$ line of Sec. 30;
4. Thence along the N-S $\frac{1}{4}$ line of Sec. 30 S. 0° 06' W. a distance of 137.1 feet;
5. Thence S. 46° 45' E. a distance of 258.3 feet;
6. Thence along the arc of a curve to the right with a radius of 1860.0 feet a distance of 462.1 feet (the chord of which arc bears S. 39° 38' E. a distance of 460.9 feet);
7. Thence S. 32° 31' E. a distance of 1258.9 feet to the S. line of Sec. 30;
8. Thence along the S. line of Sec. 30 N. 89° 36' E. a distance of 118.1 feet, more or less, to the point of beginning.

The above described parcel contains 4.752 acres, more or less, of which 2.851 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-6-A
STA. 639+ TO STA. 647+

MILES D. NAFF
REDDALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-6-A of Grantee's project AF 020-1(5), containing 0.570 acres, more or less, in the $SE\frac{1}{4}$ of Sec. 30, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the $N-S\frac{1}{4}$ line of Sec. 30, T. 46 N., R. 14 W. from which the $S\frac{1}{4}$ corner of Sec. 30 bears $S. 0^{\circ} 06' W.$ a distance of 1601.7 feet;

1. Thence along the $N-S\frac{1}{4}$ line of Sec. 30, $S. 0^{\circ} 06' W.$ a distance of 34.3 feet;
2. Thence $S. 46^{\circ} 45' E.$ a distance of 234.9 feet;
3. Thence $S. 39^{\circ} 38' E.$ a distance of 454.7 feet;
4. Thence $S. 32^{\circ} 31' E.$ a distance of 115.3 feet;
5. Thence $N. 57^{\circ} 29' E.$ a distance of 25.0 feet;
6. Thence $N. 32^{\circ} 31' W.$ a distance of 115.3 feet;
7. Thence along the arc of a curve to the left a distance of 462.1 feet the radius of which arc has a length of 1860.0 feet and the chord of which arc bears $N. 39^{\circ} 38' W.$ a distance of 460.9 feet;
8. Thence $N. 46^{\circ} 45' W.$ a distance of 258.3 feet, more or less, to the point of beginning.

The above described parcel contains 0.570 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-6-B
STA. 627+ TO STA. 643

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-6-B of Grantee's project AF 020-1(5), containing 0.556 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 30, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the S. line of Sec. 30 from which the SE corner of Sec. 30 bears N. 89° 36' E. a distance of 1378.5 feet;

1. Thence along the S. line of Sec. 30, S. 89° 36' E. a distance of 29.5 feet;
2. Thence N. 32° 31' W. a distance of 72.1 feet;
3. Thence S. 57° 29' W. a distance of 10.0 feet;
4. Thence N. 32° 31' W. a distance of 1265.3 feet;
5. Thence along the arc of a curve to the left a distance of 242.7 feet the radius of which arc has a length of 1975.0 feet and the chord of which arc bears N. 36° 02' W. a distance of 242.5 feet;
6. Thence S. 50° 27' W. a distance of 15.0 feet;
7. Thence along the arc of a curve to the right a distance of 240.9 feet the radius of which arc has a length of 1960.0 feet and the chord of which arc bears S. 36° 02' E. a distance of 240.7 feet;
8. Thence S. 32° 31' E. a distance of 1321.7 feet, more or less, to the point of beginning.

The above described parcel contains 0.556 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 7
STA. 647+ TO STA. 663+

PAUL W. CARKHUFF AND
MARJORIE A. CARKHUFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 7 of Grantee's project AF 020-1(5), containing 3.259 acres, more or less, in the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Sec. 30, T. 46 N., R. 14 W., N.M.P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the E. line of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Sec. 30, T. 46 N., R. 14 W. from which point the S $\frac{1}{4}$ corner of Sec. 30 bears S. 00° 06' W. a distance of 1601.7 feet;

1. Thence along the E. line of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Sec. 30, N. 00° 06' E. a distance of 137.1 feet;
2. Thence N. 46° 45' W. a distance of 1319.7 feet to the N. line of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Sec. 30;
3. Thence along the N. line of the NE $\frac{1}{4}$ of the SW $\frac{1}{4}$, Sec. 30, S. 89° 48' 30" W. a distance of 145.4 feet;
4. Thence S. 46° 45' E. a distance of 1519.0 feet, more or less, to the point of beginning.

The above described tract contains 3.259 acres, more or less, of which 1.955 acres are in the right of way of the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-7
STA. 647+ TO STA. 660+

PAUL W. CARKHUFF AND
MARJORIE A. CARKHUFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-7 of Grantee's project AF 020-1(5), containing 0.742 acres, more or less, in the SW $\frac{1}{4}$ of Sec. 30, T. 46 N., R. 14 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land 25.0 feet wide in Sec. 30, T. 46 N., R. 14 W. adjacent to and SW of a line described as follows:

Beginning at a point on the N-S $\frac{1}{4}$ line of Sec. 30 from which the S $\frac{1}{4}$ corner of Sec. 30 bears S. 0° 06' W. a distance of 1601.7 feet;

Thence N. 46° 45' W. a distance of 1282.0 feet;

The above described parcel contains 0.742 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 8
STA. 662+ TO STA. 683+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 8 of Grantee's project AF 020-1(5), containing 4.677 acres, more or less, in the $S\frac{1}{2}$ of the $NW\frac{1}{4}$ and the $NW\frac{1}{4}$ of the $NW\frac{1}{4}$, Sec. 30, T. 46 N., R. 14 W. of the N.M.P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the W. line of Sec. 30, T. 46 N., R. 14 W. from which point the NW corner of Sec. 30 bears N. $00^{\circ} 09'$ E. a distance of 1174.5 feet;

1. Thence along the W. line of Sec. 30, S. $00^{\circ} 09'$ W. a distance of 137.0 feet;
2. Thence S. $46^{\circ} 45'$ E. a distance of 1937.9 feet to the S. line of the $S\frac{1}{2}$ of the $NW\frac{1}{4}$, Sec. 30;
3. Thence along the S. line of the $S\frac{1}{2}$ of the $NW\frac{1}{4}$, Sec. 30, N. $89^{\circ} 48' 30''$ E. a distance of 145.4 feet;
4. Thence N. $46^{\circ} 45'$ W. a distance of 2137.0 feet, more or less, to the point of beginning.

The above described tract contains 4.677 acres, more or less, of which 2.806 acres are in the right of way of the present road.

STENCILED

6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 9
STA. 682+ TO STA. 705+

MILES D. NAFF
REDALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 9 of Grantee's project AF 020-1(5), containing 4.927 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 25, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the E. line of Sec. 25, T. 46 N., R. 15 W. from which the NE corner of Sec. 25 bears N. 0° 09' E. a distance of 1174.5 feet;

1. Thence N. 46° 45' W. a distance of 688.7 feet;
2. Thence along the arc of a curve to the left with a radius of 2915.0 feet a distance of 784.3 feet (the chord of which arc bears N. 54° 27' 30" W. a distance of 782.0 feet);
3. Thence N. 62° 10' W. a distance of 544.3 feet to the N. line of Sec. 25;
4. Thence along the N. line of Sec. 25 N. 89° 47' W. a distance of 215.7 feet;
5. Thence S. 62° 10' E. a distance of 735.5 feet;
6. Thence along the arc of a curve to the right with a radius of 2815.0 feet a distance of 757.4 feet (the chord of which arc bears S. 54° 27' 30" E. a distance of 755.1 feet);
7. Thence S. 46° 45' E. a distance of 782.3 feet to the E. line of Sec. 25;
8. Thence along the E. line of Sec. 25, N. 0° 09' E. a distance of 137.0 feet, more or less, to the point of beginning.

The above described parcel contains 4.927 acres, more or less, of which 2.956 acres are included in the right of way for the present road.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 10
STA. 703+ TO STA. 715+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 10 of Grantee's project AF 020-1(5) containing 2.428 acres, more or less, in the $SE\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the N-S $\frac{1}{4}$ line of Sec. 24, T. 46 N., R. 15 W., from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 0° 36' E. a distance of 433.7 feet;

1. Thence S. 62° 10' E. a distance of 935.3 feet to the S. line of Sec. 24;
2. Thence along the S. line of Sec. 24, S. 89° 47' E. a distance of 215.7 feet;
3. Thence N. 62° 10' W. a distance of 1180.6 feet to the N-S $\frac{1}{4}$ line of Sec. 24;
4. Thence along the N-S $\frac{1}{4}$ line of Sec. 24, S. 0° 36' E. a distance of 113.7 feet, more or less, to the point of beginning.

The above described parcel contains 2.428 acres, more or less, of which 1.457 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-10-A
STA. 710+ TO STA. 714+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-10A of Grantee's project AF 020-1(5), containing 0.257 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land in the SE $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W. adjacent to and W. of a line described as beginning at a point on the N & S centerline of Sec. 24 from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 0° 36' E. a distance of 433.7 feet;

1. Thence S. 62° 10' E. a distance of 453.9 feet;

The above described parcel contains 0.257 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-10-B
STA. 710+ TO STA. 715+

MILES D. NAFF
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-10-B of Grantee's project AF 020-1(5), containing 0.176 acres, more or less, in the SE $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land 15.0 feet wide in the SE $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W. adjacent to and NE of a line described as follows:

Beginning at a point on the N-S $\frac{1}{4}$ line of Sec. 24 from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 0° 36' E. a distance of 547.4 feet;

Thence S. 62° 10' E. a distance of 508.1 feet;

The above described parcel contains 0.176 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. 11
STA. 714+ TO STA. 735

J. J. CAMPBELL, A. W. CAMPBELL
& R. G. CAMPBELL
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. 11 of Grantee's project AF 020-1(5), containing 5.036 acres, more or less, in the SW $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the N-S $\frac{1}{4}$ line of Sec. 24, T. 46 N., R. 15 W. from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 0° 36' E. a distance of 433.7 feet;

1. Thence along the N-S $\frac{1}{4}$ line of Sec. 24, N. 0° 36' W. a distance of 113.7 feet;
2. Thence N. 62° 10' W. a distance of 1466.9 feet;
3. Thence N. 50° 51' W. a distance of 102.0 feet;
4. Thence N. 61° 27' W. a distance of 400.0 feet;
5. Thence S. 27° 50' W. a distance of 150.0 feet;
6. Thence S. 62° 53' E. a distance of 400.0 feet;
7. Thence S. 73° 29' E. a distance of 102.0 feet;
8. Thence S. 62° 10' E. a distance of 1521.1 feet more or less, to the point of beginning.

The above described parcel contains 5.036 acres, more or less, of which 2.747 acres are included in the right of way for the present road.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-11-A
STA. 714+ TO STA. 728+

J. J. CAMPBELL, A. W. CAMPBELL
AND R. G. CAMPBELL
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-11-A of Grantee's project AF 020-1(5), containing 0.668 acres, more or less, in the SW $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point on the N-S $\frac{1}{4}$ line of Sec. 24, T. 46 N., R. 15 W. from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 0° 36' E. a distance of 433.7 feet;

1. Thence N. 62° 10' W. a distance of 1381.1 feet;
2. Thence S. 27° 50' W. a distance of 15.0 feet;
3. Thence S. 62° 10' E. a distance of 560.0 feet;
4. Thence S. 27° 50' W. a distance of 10.0 feet;
5. Thence S. 62° 10' E. a distance of 834.6 feet to the N-S $\frac{1}{4}$ line of Sec. 24;
6. Thence along the N-S $\frac{1}{4}$ line of Sec. 24 N. 0° 36' W. a distance of 28.4 feet, more or less, to the point of beginning.

The above described parcel contains 0.668 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-11-B
STA. 720+ TO STA. 729+

J. J. CAMPBELL, A. W. CAMPBELL,
AND R. G. CAMPBELL
REDVALE, COLORADO

IN
MONTROSE COUNTY
FOR

AF C20-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-11-B of Grantee's project AF 020-1(5), containing 0.311 acres, more or less, in the SW $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

A strip of land, 15.0 feet wide in the SW $\frac{1}{4}$ of Sec. 24, T. 46 N., R. 15 W. adjacent to and NE of a line described as follows:

Beginning at a point from which the S $\frac{1}{4}$ corner of Sec. 24 bears S. 30° 44' E. a distance of 923.0 feet;

Thence N. 62° 10' E. a distance of 903.0 feet;

The above described parcel contains 0.311 acres, more or less.

STENCILED
6-12-53

EASEMENT
TO BE ACQUIRED
FROM

PARCEL NO. E-12A
STA. 944+ TO STA. 946+

WYNONA M. DYER AND
JAMES D. DYER

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-12-A of Grantee's project AF 020-1(5), containing 0.387 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 29, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point in the NE $\frac{1}{4}$ of Sec. 29, T. 46 N., R. 15 W. from which the NE corner of Sec. 29, bears N. 81° 08' 30" E. a distance of 2478.9 feet;

1. Thence S. 28° 05' E. a distance of 75.0 feet;
2. Thence N. 61° 55' E. a distance of 225.0 feet;
3. Thence N. 28° 05' W. a distance of 75.0 feet;
4. Thence S. 61° 55' W. a distance of 225.0 feet, more or less, to the point of beginning.

The above described parcel contains 0.387 acres, more or less.

STENCILED
6-12-53

RIGHT OF WAY
TO BE ACQUIRED
FROM

PARCEL NO. E-12-B

EARL REAMS AND
BLANCHE G. REAMS

IN
MONTROSE COUNTY
FOR

AF 020-1(5)
Redvale-Naturita

STATE HIGHWAY NO. 145

DESCRIPTION

A tract or parcel of land No. E-12-B of Grantee's project AF 020-1(5), containing 0.641 acres, more or less, in the NE $\frac{1}{4}$ of Sec. 29, T. 46 N., R. 15 W., of the New Mexico P.M., in Montrose County, Colorado, said tract or parcel being more particularly described as follows:

Beginning at a point in the NE $\frac{1}{4}$ of Sec. 29, T. 46 N., R. 15 W. from which the NE corner of Sec. 29 bears N. 84° 21' E. a distance of 2532.3 feet;

1. Thence N. 61° 55' E. a distance of 225.0 feet;
2. Thence N. 28° 05' W. a distance of 125.0 feet;
3. Thence S. 61° 55' W. a distance of 225.0 feet;
4. Thence S. 28° 05' E. a distance of 125.0 feet, more or less, to the point of beginning.

The above described parcel contains 0.641 acres, more or less.

5450

SCALE 1000' = 1" Survey Made June 1894 By H. Fleming Co. Surveyor

INDEX OF SHEETS

SHEET NO. 1 TITLE SHEET
2 TABULATION OF PROPERTIES
3-9 PLAN AND PROFILE SHEETS
SHOWING RIGHT OF WAY
10 OWNERSHIP MAP

COLORADO DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE OF PROPOSED FEDERAL AID PROJECT NO. AF020-1(5) STATE HIGHWAY NO. 145 MONTROSE COUNTY

RIGHT OF WAY

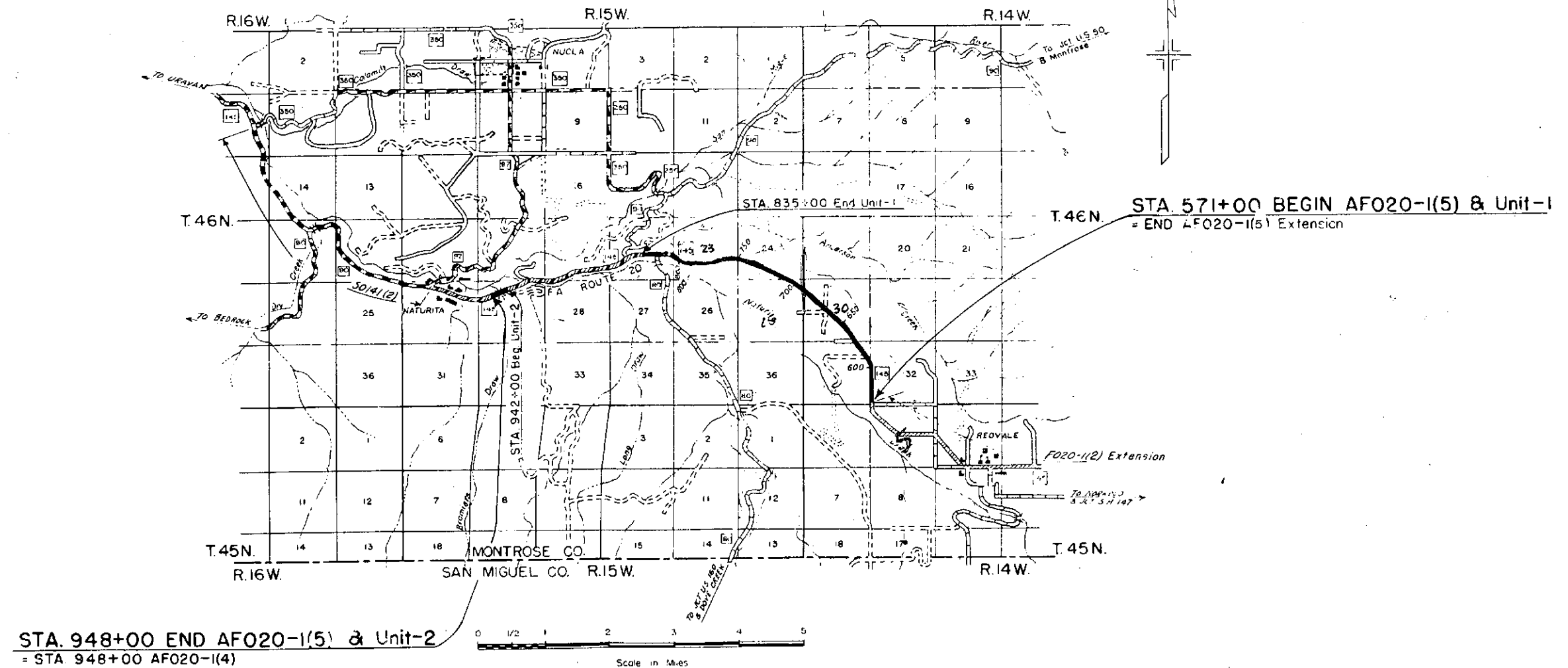
CONVENTIONAL SIGNS

CENTER LINE
RIGHT OF WAY LINE
TOWNSHIP OR RANGE LINE
BARBED WIRE FENCE
ELECTRIC WIRE FENCE
TELEPHONE & TELEGRAPH LINES
POWER LINE
PRESENT ROAD (FROM SHEET 1)

SCALES OF ORIGINAL DRAWINGS
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 37,689.4 LIN. FT. = 7.138 MI.
NET LENGTH OF PROJECT 26,989.4 LIN. FT. = 5.112 MI.

RIGHT OF WAY

NOTE: Refer to Project AF020-1(4) for Right of Way
Sta. 735+00 to Sta. 835+00 and
Sta. 942+00 to Sta. 948+00

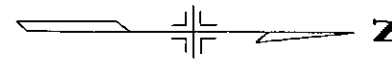


FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	AF020-1(5)	2	

➤ Easements Void After Construction

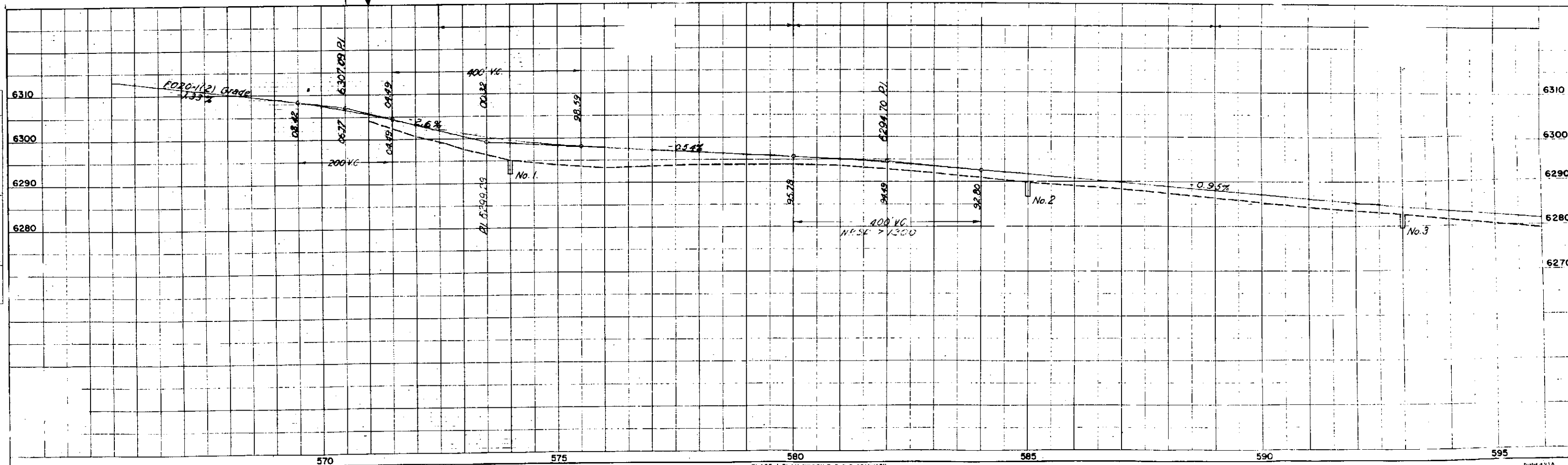
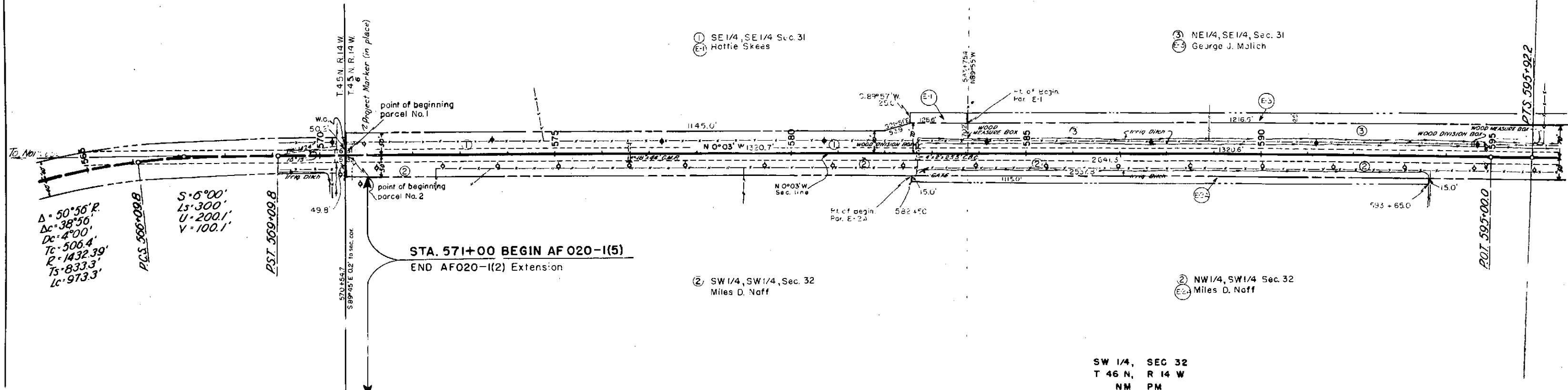
[illegible]

RIGHT OF WAY



① SE 1/4, SE 1/4 Sec. 31
 (E-1) Hattie Skeas

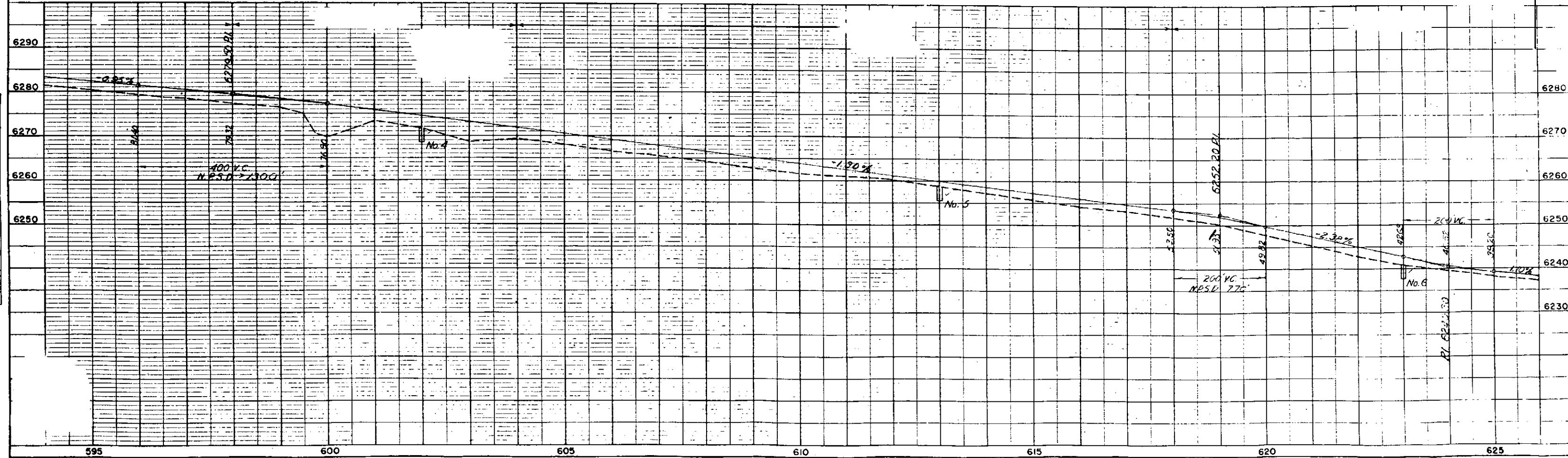
③ NE 1/4, SE 1/4, Sec. 31
E-5 George J. Molich



FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	4	

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO. 15611	ALIGNMENT CHECKED		
103318	RT. OF WAY CHECKED		

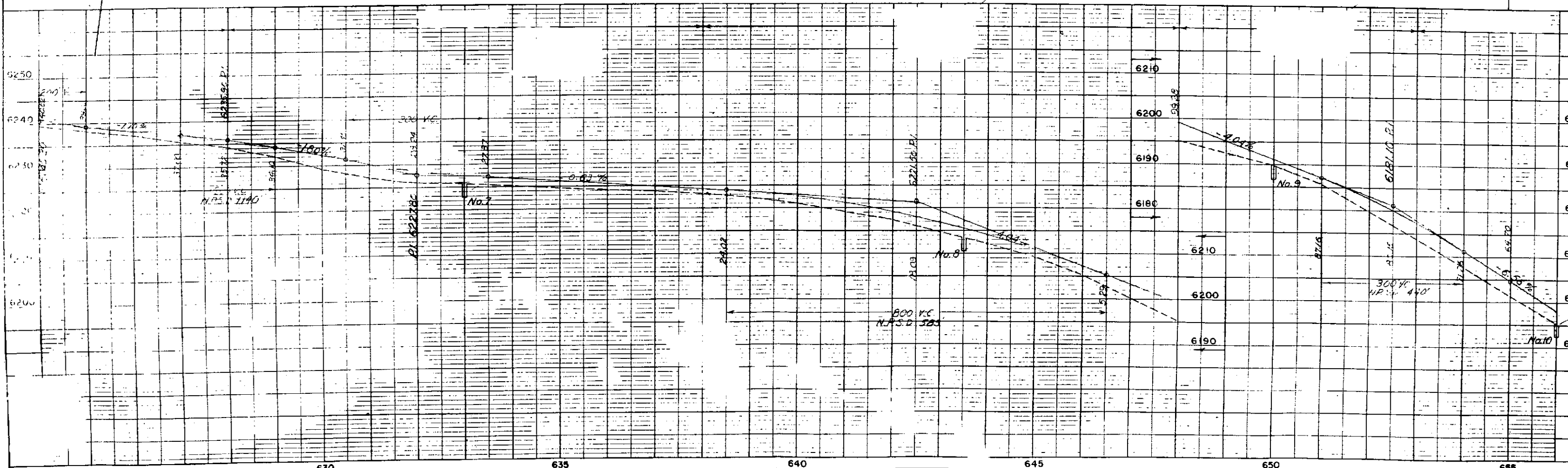
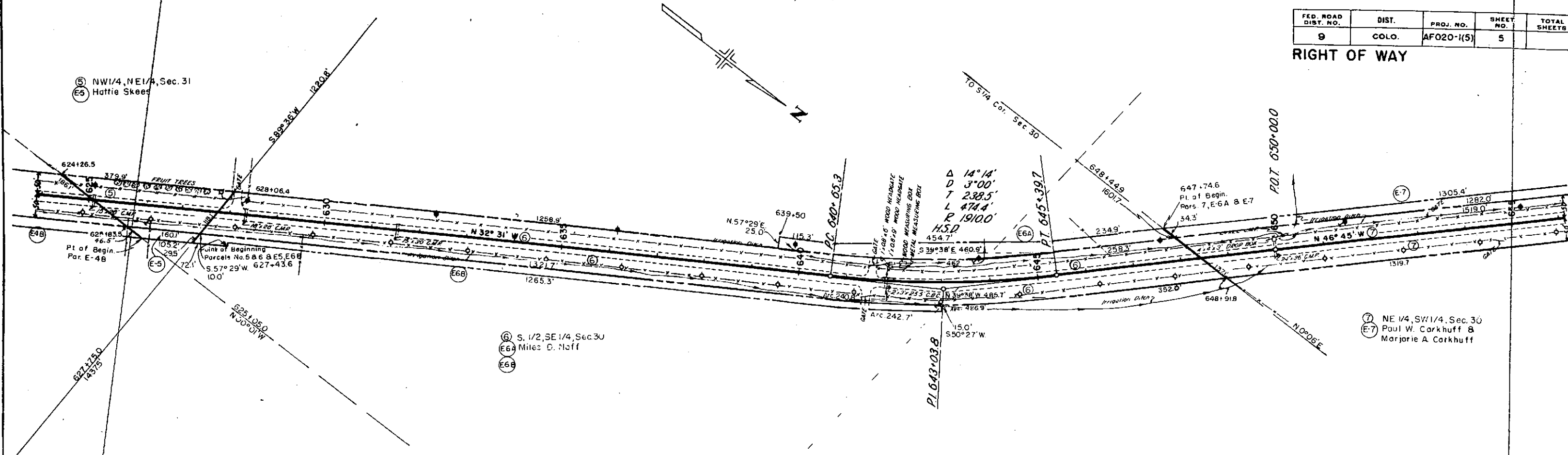
PROFILE	SURVIVED	BT	DATE
NOTE BOOK	PLOTTED		
MO. 16218	GRADES CHECKED		
165614	B. W. S. NOTED		
	STRUCTURE NOTED AS CHAD.		



FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	5	

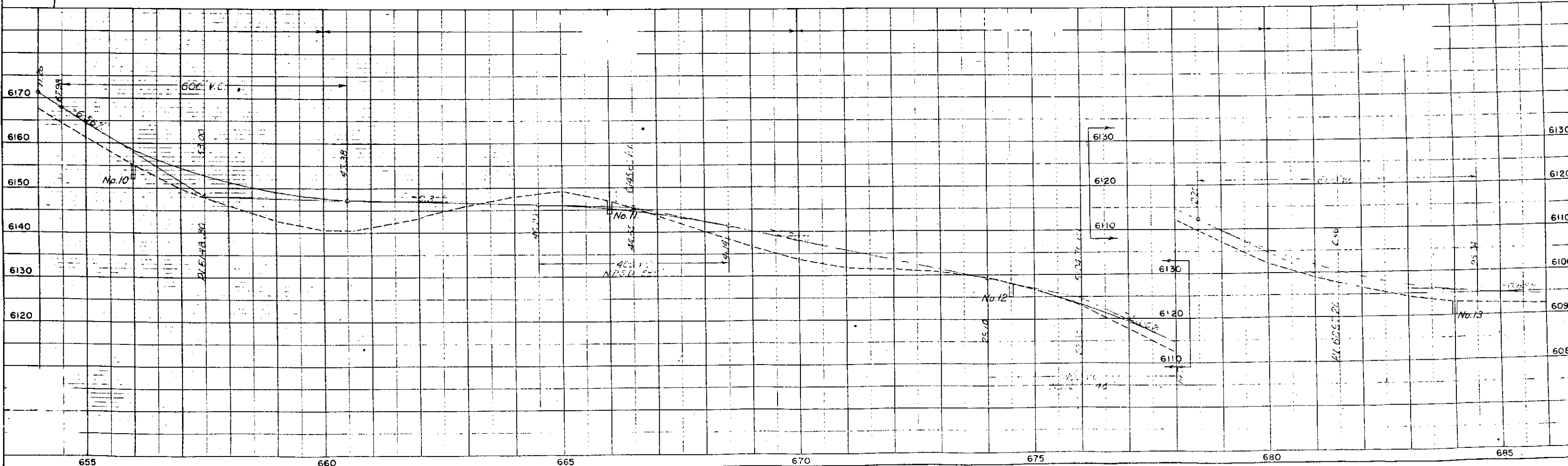
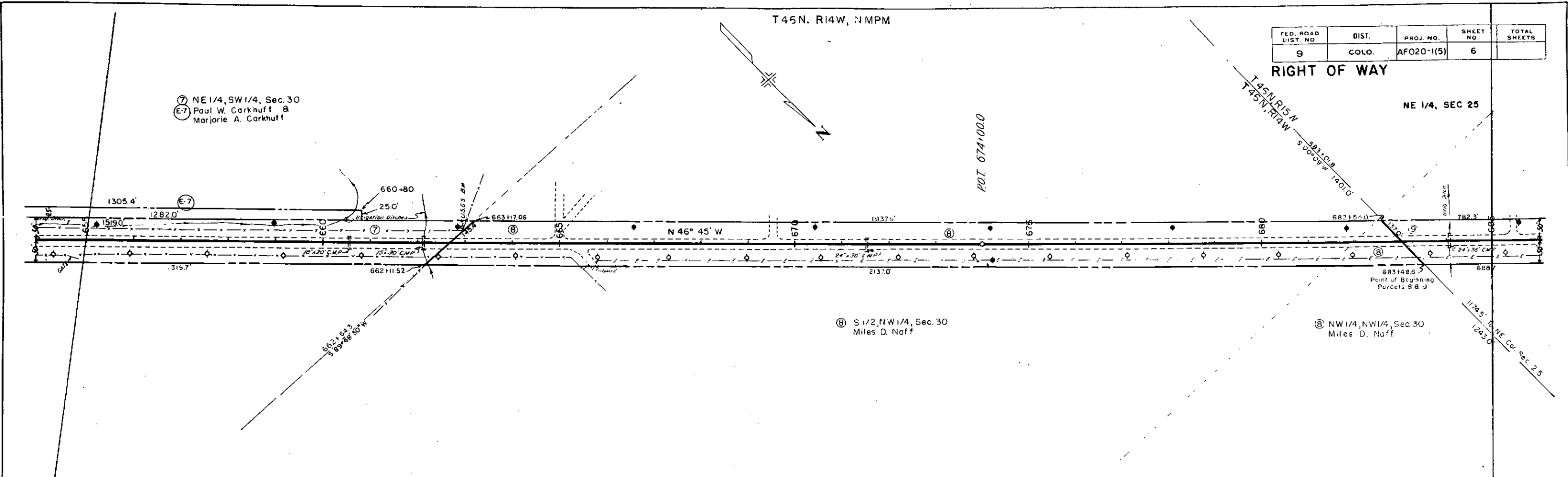
RIGHT OF WAY

PLAN	PROF
DATE: 10/1/61	DATE: 10/1/61
BY: J. L. HARRIS	BY: J. L. HARRIS
CHECKED: J. L. HARRIS	CHECKED: J. L. HARRIS
APPROVED: J. L. HARRIS	APPROVED: J. L. HARRIS



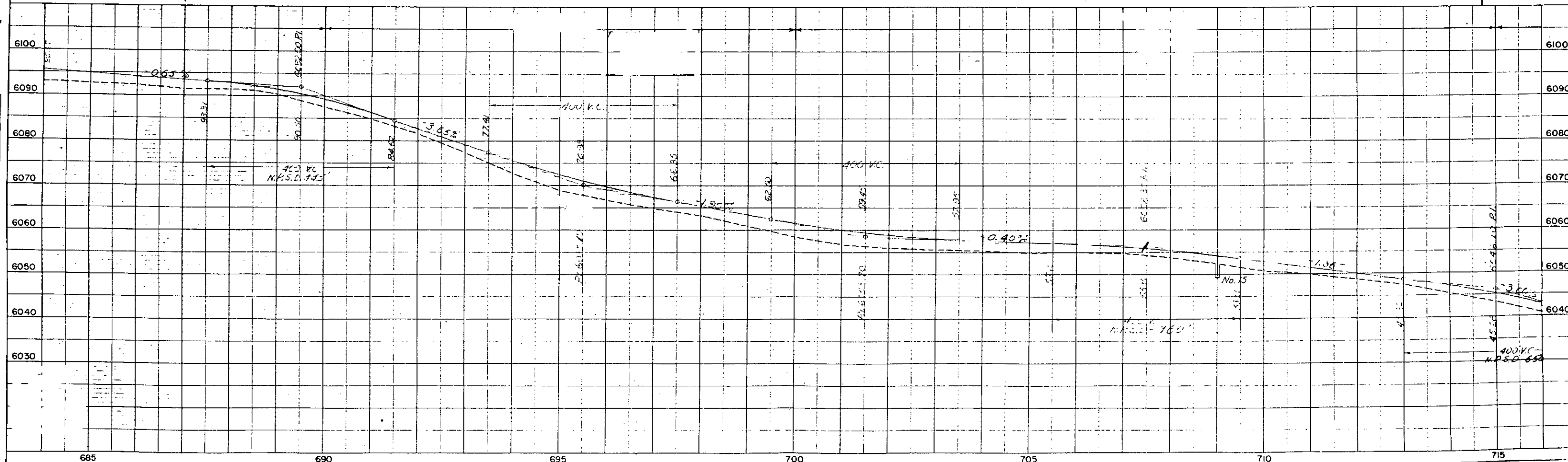
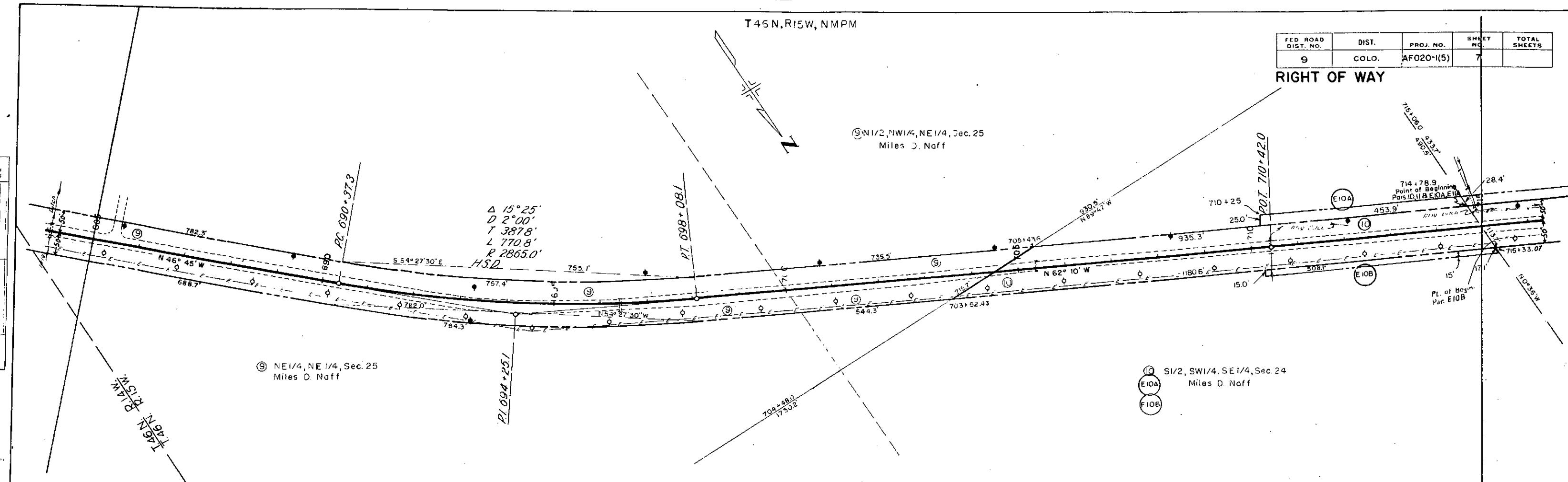
PLAN	SURVEYED	DATE
	BY	
NOTE BOOK ALIGNMENT CHECKED	PLOTTED	
	NO. 16614	

PROFILE	SURVEYED	DATE
	BY	
NOTE BOOK GRADES CHECKED	PLOTTED	
	NO. 16614	

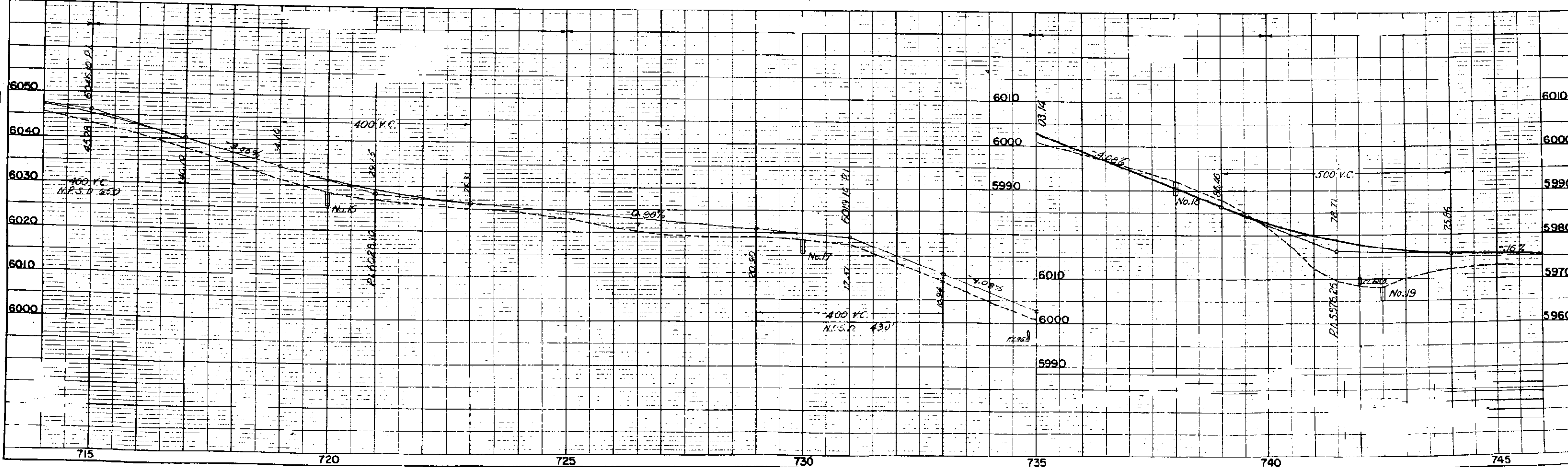


FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	7	

RIGHT OF WAY



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO 2664	COPIES CHECKED		
	B. M. NOTED		
	STRUCTURE NOTATIONS CHECKED		



2

NOTE BOOK
LOCATED CHECKED
BY: [Signature]
DATE: 11/15/60

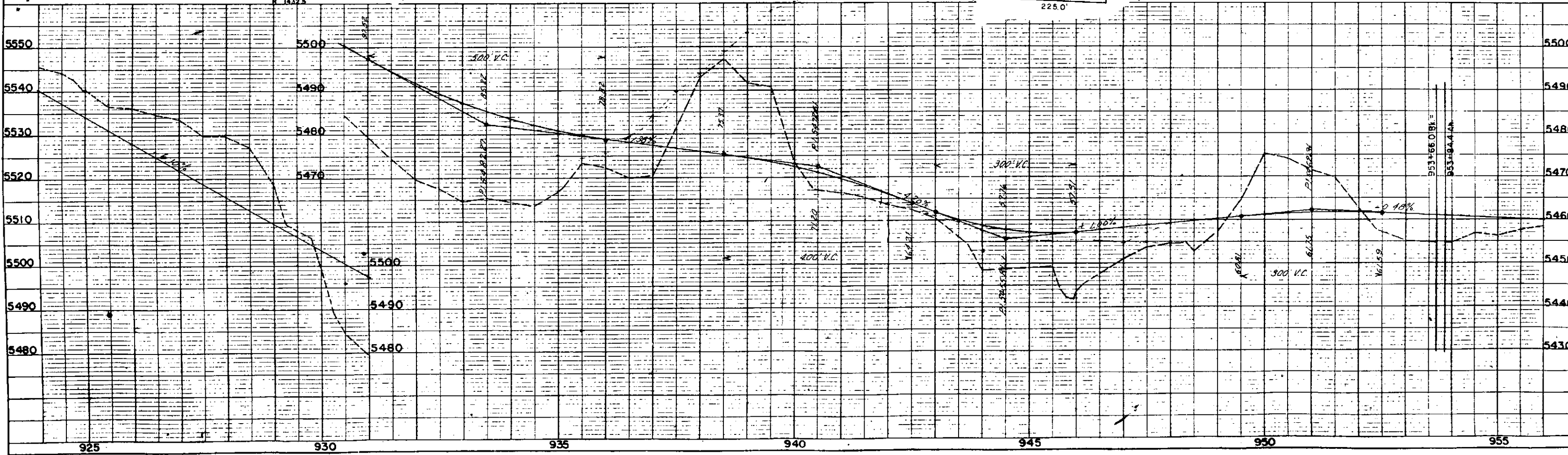
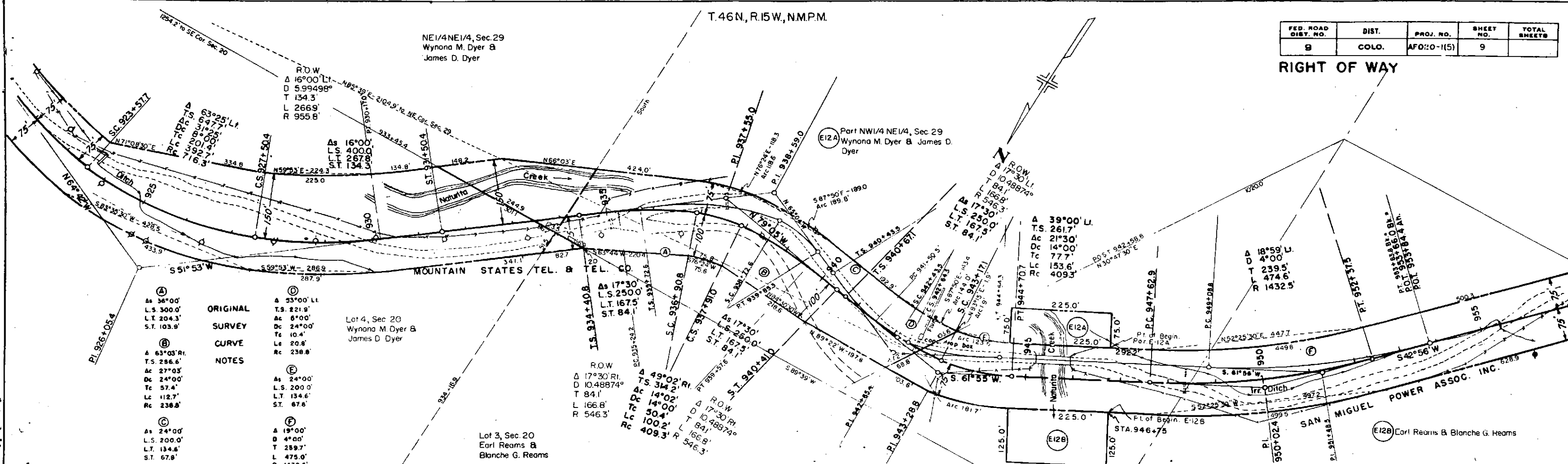
NOTE BOOK
LOCATED CHECKED
BY: [Signature]
DATE: 11/15/60

NE1/4NE1/4, Sec. 29
Wynona M. Dyer &
James D. Dyer

T.46N, R.15W, N.M.P.M.

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AFO:0-11(5)	9	

RIGHT OF WAY

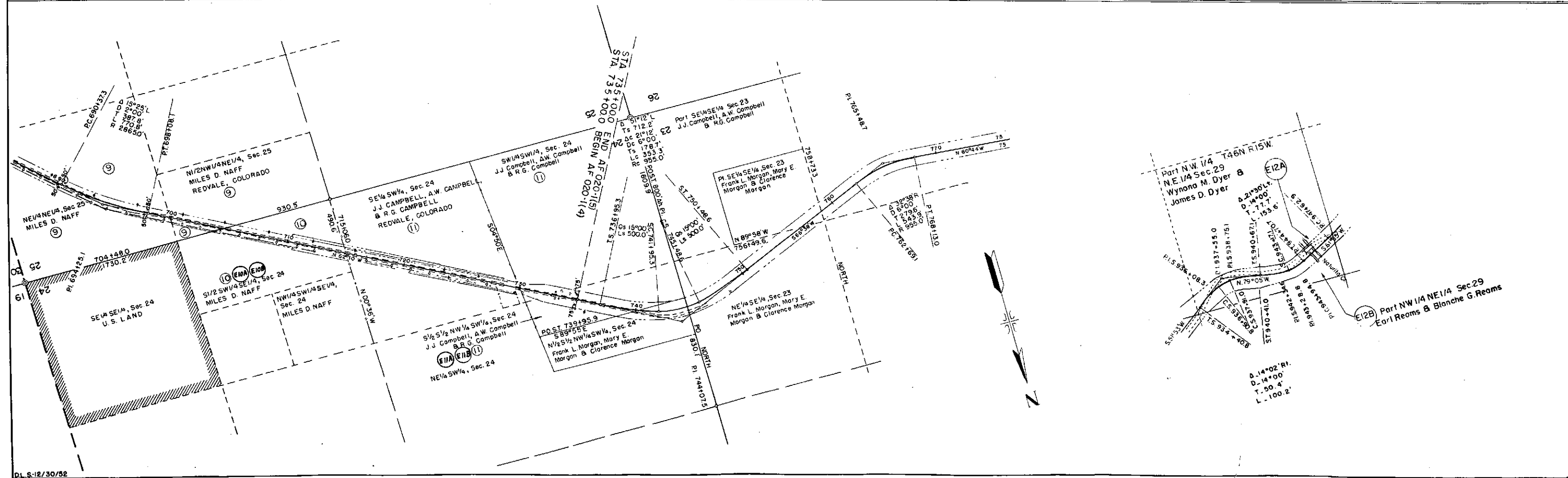


MONTROSE COUNTY
 T. 46 N., R. 14 W. & T. 46 N., R. 15 W. N.M.P.M.
 Scale: 1" = 400'

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	AFO20-1(5)	10	

COLORADO DEPARTMENT OF HIGHWAYS PROJECT
R.O.W. OWNERSHIP MAP
 MONTROSE COUNTY
 T. 46N., R. 14W. & T. 46N., R. 15W. N.M.P.M.
 Scale: 1" = 400'

The map shows the right-of-way for Highway AFO20-1(5) running generally east-west. Key features include:
 - Property boundaries with owner names and addresses (e.g., SEIVA, SWAN, MILES, SEIVA).
 - Survey data points including bearings, distances, and stationing (e.g., STA 571+000, STA 571+000 END OF F.O.D. (2) EXTENSION).
 - A north arrow pointing towards the top of the map.
 - A table in the top right corner providing project details.

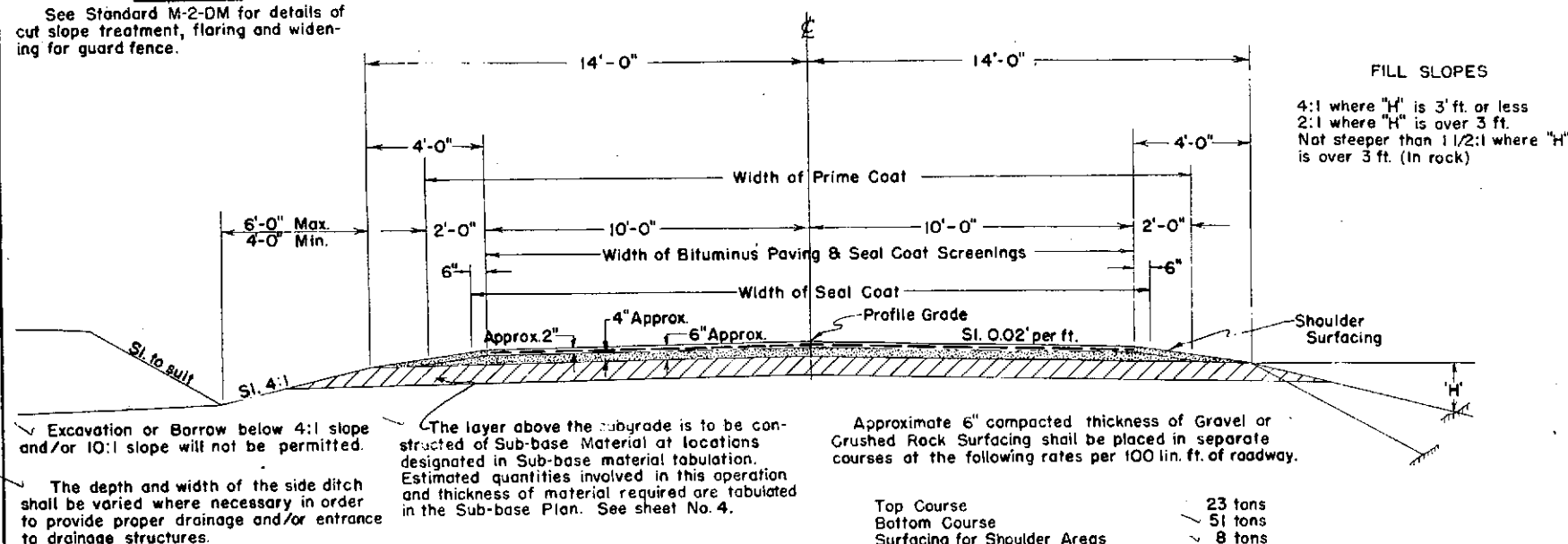


FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	AF 020-1(5)	2	

TYPICAL CROSS SECTION OF IMPROVEMENT

TYPICAL SECTION

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



GENERAL NOTES

- This project is to be constructed in conformity with Standard Specifications of the Colorado Department of Highways adopted June 1, 1952.
- All quantities on preliminary plans are to be considered approximate only.
- All poles encroached on construction are to be moved by the owners.

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.

Approximate location and quantities involved in construction of intercepting ditches are tabulated on Summary of Earthwork Quantities sheet.

For preliminary plan quantities of Asphaltic Road Materials and Stone Screenings, the following rates of application were used.

PRIME COAT	MC	0.40 Gals. per Sq. Yd.
PROCESS OIL	MC	0.60 Gals. per Sq. Yd. per 1 inch thick.
SEAL COAT	RC	0.18 Gals. per Sq. Yd.
STONE SCREENINGS (Type X)		20 Lbs. per Sq. Yd.

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

If excavation operations develop materials which will stand on slopes steeper than slope stake lines, the Department reserves the right to change cut slopes during the progress of such excavations.

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. The approach road at Sta. 825+25 shall be primed, oil processed and seal coated.

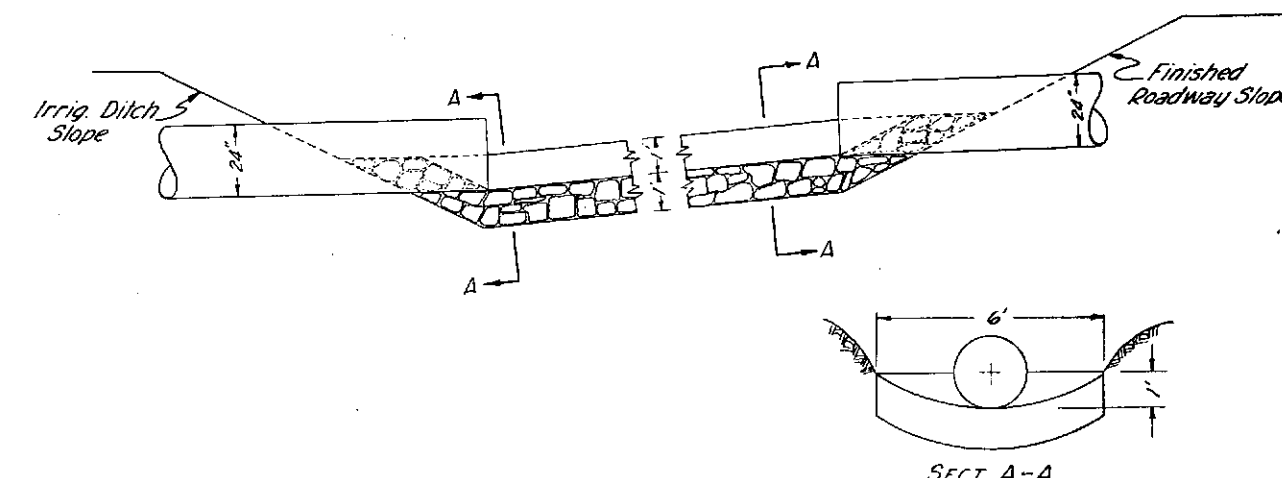
At bridge approaches, the asphaltic surfacing and stone screenings shall be widened to meet the curbed width of the bridge and shall take place gradually over a distance of 300 ft. each way from the bridge ends. Prime and seal coats shall be widened beyond the asphaltic surfacing as indicated on typical section.

It is estimated that old road is to be obliterated at the following locations:
Sta. 599+00 to 603+00; 741+00 to 748+00; 942+70 to 945+45; 946+15 to 946+60.

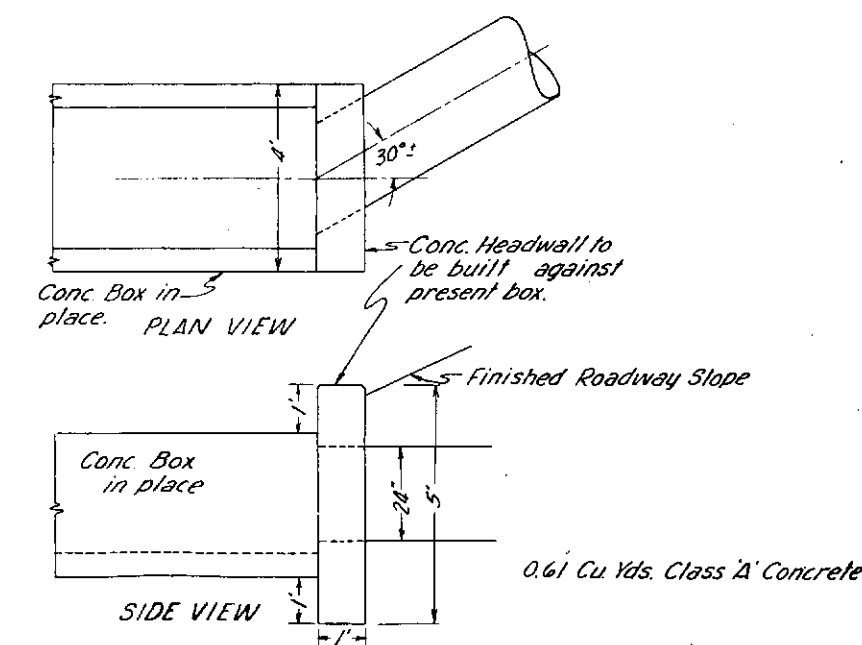
All curves are to be superelevated and widened as provided by the Standard Superelevation sheet included with the plans, except in cases where spiral curves are used, the transition from normal crowned section to full superelevation and widening shall take place over the full length of spiral curve.

It is estimated that rolling of the Asphaltic Surfacing with Flat Wheeled Roller (Tandem) will be necessary after any rolling with Rubber Tired Rollers in order to provide firm smooth surface.

DETAILS OF DRY RUBBLE DITCH PAVING STA. 650+00



DETAILS OF CONCRETE HEADWALL LT. STA. 942+55



SUMMARY OF APPROXIMATE QUANTITIES

ITEM NO.	ITEM	UNIT	UNIT 1		UNIT 2		PROJECT TOTALS
			ROADWAY		ROADWAY	BRIDGE STA. 945+	
10a	Clearing and Grubbing Entire Project	Lump Sum	•		•	•	•
11a	Removal of Bridge Sta 945 +	Lump Sum	•		•	•	•
11b	Removal of "U" Structures	Lump Sum	•		•	•	•
11c	Remove and Reset Wood Division Box	Each	2				2
11d	Remove and Reset Measuring Box	Each	4				4
11e	Remove and Reset Wood Headgate	Each	2				2
11f	Plug Culverts	Each	15				15
12a	Removing Fence	Lin. Ft.	22,450		650		23,100
12b	Removing and Rebuilding Fence	Lin. Ft.	4,800				4,800
12c	Line Posts (Treated Wood)	Each	50				50
13c	Unclassified Excavation	Cu. Yd.	103,200		4,000	1,800	109,000
13d	Unclassified Ditch Excavation	Cu. Yd.	2,250		50		2,300
13e	Stripping	Cu. Yd.	14,000		500		14,500
14a	Dry Rock Excavation (Str.)	Cu. Yd.	190		15	5	210
14b	Dry Common Excavation (Str.)	Cu. Yd.	430		30	160	620
14c	Wet Rock Excavation (Str.)	Cu. Yd.	24		1	5	30
14d	Wet Common Excavation (Str.)	Cu. Yd.	50		10	960	1,020
15a	Structure Backfill (Class I)	Cu. Yd.	740		20	950	1,710
16c	Mechanical Tamping	Hour	165		5	120	290
17a	Rolling with Tamping Roller (Two (2) Unit)	Hour	280		20		300
17b	Rolling with Tamping Roller (Four (4) Unit)	Hour	47		3		50
17c	Rolling with Flat Wheeled Roller (Tandem)	Hour	26		4		30
17d	Rolling with Flat Wheeled Roller (Three (3) Wheel)	Hour	140		5		145
17e	Rolling with Rubber Tired Roller	Hour	95		5		100
17f	Furnishing Tamping Roller (Two (2) Unit)	Each	0.8		0.1		1
17g	Furnishing Tamping Roller (Four (4) Unit)	Each	0.9		0.1		1
17h	Furnishing Flat Wheeled Roller (Tandem)	Each	0.9		0.1		1
17i	Furnishing Flat Wheeled Roller (Three (3) Wheel)	Each	0.9		0.1		1
17j	Furnishing Rubber Tired Roller	Each	0.9		0.1		1
17k	Wetting	M Gal.	3,330		130		3,260
18a	Station Yard Overhaul	Sta. Yd.	630,000		9,000	10,500	649,500
18b	Yard Mile Overhaul	Yd. Mi.	26,100		600	700	27,400
18c	Ton Mile Overhaul	Ton Mi.	47,400		2,000		49,400
24a	Selected Borrow	Cu. Yds.	18,000		800		18,800
23a	Sub-base Material (Class I)	Ton	75,000				75,000
26c	Gravel or Crushed Rock Surfacing (Grading C)	Ton	22,300		500		22,800
30x	Asphaltic Road Material MC (Prime)	Gal.	29,600		700		30,300
30y	Asphaltic Road Material RC (Seal) (Fortified)	Gal.	11,800		400		12,200
30z	Asphaltic Road Material MC (Process) (Fortified)	Gal.	75,600		2,000		77,600
31a	Road Mix Asphaltic Processing	Sq. Yd.	58,940		1,380		60,320
31x	Stone Screenings (Type X)	Ton	620		20		640
42a	Untreated Bridge Timber	M Ft. bm				0.3	0.3
46a	Class "A" Concrete	Cu. Yd.	199		1	449	649
47	Reinforcing Steel	Lb.	22,000			44,100	66,100
48	Structural Steel	Lb.				62,500	62,500
53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	720		54		720
53c	24" Corrugated Metal Culvert Pipe	Lin. Ft.	1,060				1,114
53e	36" Corrugated Metal Culvert Pipe	Lin. Ft.	196				196
64a	Dry Rubble Slope and Ditch Paving (12" Thick)	Sq. Yd.	19				19
67a	Rip Rap	Cu. Yd.	6,300		180		1,800
76a	Barbed Wire Fence with Treated Wooden Posts	Lin. Ft.	16,300		700		7,000
76ay	Barbed Wire Fence with Treated Wooden Posts (6 Wire)	Lin. Ft.					16,300
76d	Combination Wire Fence with Treated Wooden Posts	Lin. Ft.	3,600				3,600
76g	Barbed Wire Gates	Each	3				3
76gy	Barbed Wire Gates (6 Wire)	Each	8				8
76h	Driveway Gates	Each	7				7
80c	Sheet Copper	Lb.					
81b	Right of Way Markers	Each	21			3	3
89c	Drain Pipe (Concrete Floor) (4"x2'-6")	Each			24		21
92	Timber Guard Posts	Each	94				10
95b	Metal Aprons for 18" Corrugated Metal Pipe Culverts	Each	5				118
95c	Metal Aprons for 24" Corrugated Metal Pipe Culverts	Each	1		1		5
95xe	Metal Aprons for 43"x27" Corrugated Metal Pipe Arch Culverts	Each	2				2
134e	43"x27" Corrugated Metal Pipe Arch Culverts	Lin. Ft.	142				142
81a	Project Markers Signing and Striping Entire Project (Non Fed. Aid)	Each Lump Sum	•		2		2
20a	FORCE ACCOUNT Obiterating Old Road Relocate Power Poles (Work by Power Co. Forces) (Non Federal Aid) Relocate Tel. Poles (Work by Tel. Co. Forces)	Lump Sum Lump Sum Lump Sum	• • •		•		• • •
	RIGHT OF WAY Right of Way Entire Project (Non. Fed. Aid)	Lump Sum	•		•		•

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	AF 020-1(5)	3	

Rev. 7-1-53, Items 76gy & 76h, J.C.R.

SUB-BASE & SELECTED BORROW PLAN

It is estimated that Sub-Base and Selected Borrow material for the Project is available in the vicinity of the Pits indicated in the following tabulation. Estimated quantities involved in this operation are shown below.

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

MATERIAL TO BE PLACED	SOURCE	AVAILABLE	THICKNESS	SUB-BASE		SELECTED BORROW		
				TONS CLASS I	OVERHAUL TON MILES	CU. YDS.	OVERHAUL	
							STA. YDS.	YD. MILE
571+00 to 644+00 644+00 to 671+50	Pit #4, U.S. Gov. R=72	80,000 Cu. Yds.	0" 10"			3465	38115	4840
671+50 to 744+00 744+00 to 760+00 760+00 to 769+00	Pit #5-A U.S. Gov. R=73	60,000 Cu. Yds.	10" 13" 9"			9135 2704 1008	100485 29744 11088	8867 359 67
769+00 to 789+00 789+00 to 790+50 790+50 to 835+00			6" 13" 6"	2000 351 4440	1288 299 5693			
Est. for Irregularities				680	728	1632	17944	1414
942+00 to 945+32 946+35.4 to 948+00	Pit #1-A U.S. Gov. R=80	9,900 Cu. Yds.	10" 10"			419 208	4609 2288	283 155
Widening Est. for Irregularities				97 73	1067 797	70 51		
TOTALS UNIT-1				7471	8008	17944	197376	15547
TOTALS UNIT-2				797	8761	559		
PROJECT TOTALS				7471	8008	18741	206137	16106

* Leveling Course

* Thickness Based on Design Curve B

SURFACING PLAN

It is estimated that material for Gravel 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	AVAILABLE	TONS USED GRADING C			OVERHAUL TON MILES		
			TOP COURSE	BOTTOM COURSE	SHOULDER COURSE	TOP	BOTTOM	SHOULDER
571+00 to 760+00 760+00 to 835+00 Est. for Road Apprs.	Pit #5-A U.S. Gov. R=78	46,000 Cu. Yds.	4347 1723	9639 632	1512 600	9015 1712	19990 3795 1117	3136 596
942+00 to 945+32 946+35.4 to 948+00 Widening	Pit #5-A		77 38 27	170 84 54	27 14	290 146 103	640 322 206	102 54
TOTALS UNIT-1			6070	14091	2112	10727	24902	3732
TOTALS UNIT-2			142	308	41	539	1168	156
PROJECT TOTALS			6212	14399	2153	11266	26070	3888

* Shoulder Surfacing shall not be placed across road approaches

TIMBER GUARD POSTS

STATION	SIDE	SPACING	NO.
UNIT-1			
582+65	Lt+Rt	Culvert	2
608+54	Lt+Rt	Culvert	2
611+75	Lt+Rt	Culvert	2
641+95	Lt+Rt	Culvert	2
650+00	Lt+Rt	Culvert	2
662+14	Lt+Rt	Culvert	2
671+55	Lt+Rt	Culvert	2
684+07	Lt+Rt	Culvert	2
696+42	Lt+Rt	Culvert	2
720+77	Lt+Rt	Culvert	2
728+43	Lt+Rt	Culvert	2
735+00	Lt+Rt	Culvert	2
747+00	Lt+Rt	Culvert	2
756+00	Lt+Rt	Culvert	2
765+37	Lt+Rt	Culvert	2
771+75	Lt+Rt	Culvert	2
791+61	Lt+Rt	Culvert	2
792+00 to 793+50	Lt+Rt	50'	4
799+00 to 805+50	Lt+Rt	50'	28
806+00	Lt+Rt	Culvert	2
815+00	Lt+Rt	Culvert	2
821+75 to 823+25	Rt	50'	4
822+00 to 823+50	Lt	50'	4
827+00	Lt+Rt	Culvert	2
827+50 to 834+00	Lt+Rt	50'	14
UNIT-2			
944+65 to 945+29	Lt+Rt	Bridge	12
946+38.4 to 947+02	Lt+Rt	Bridge	12
TOTALS UNIT-1			94
TOTALS UNIT-2			24
PROJECT TOTALS			118

R.O.W. MARKERS

STATION	SIDE	NO.
571+00	Lt	1
584+20	Rt	1
597+40	Lt	1
610+60	Rt	1
623+80	Lt	1
637+00	Rt	1
651+00	Lt	1
663+40	Rt	1
676+60	Lt	1
689+80	Rt	1
703+00	Lt	1
716+20	Rt	1
729+00	Lt	1
742+60	Rt	1
755+80	Lt	1
769+00	Rt	1
782+20	Lt	1
795+40	Rt	1
808+60	Lt	1
821+00	Rt	1
831+00	Lt	1
TOTAL		21

FEDERAL ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLORADO	AF 020-1 (5)	4	

Rev. 6-25-53, Fencing Requirements, J.C.R.

FENCING REQUIREMENTS

STATION	SIDE	REMOVE FENCE	REMOVE & REBUILD FENCE	BUILD FENCE ▲		COMB.	BUILD GATES		
				BARBED WIRE			BARBED WIRE		DRIVE WAY
				4-WIRE	6-WIRE		4-WIRE	6-WIRE	
		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	NO.	NO.	NO.
UNIT-1									
571+00 to 600+20	Lt.	3120							
602+60 to 604+35	Lt.	200							
604+80 to 608+75	Lt.	440							
609+60 to 663+15	Lt.	5500							
714+75 to 729+90	Lt.	1540							
796+00	X	240							
821+70	X	160							
572+50 to 599+30	Rt.	2780							
603+60 to 665+75	Rt.	6340							
665+75 to 693+55	Rt.		2780						
695+70 to 715+15	Rt.		1945						
715+15 to 729+65	Rt.	1510							
805+50 to 811+10	Rt.	600							
571+00 to 583+80	Lt.			1300					
583+80 to 604+35	Lt.				2040				
596+59	Lt.							1	
604+80 to 608+75	Lt.					400			
609+70 to 624+30	Lt.			1460					
624+30 to 628+35	Lt.				410				
628+15	Lt.								1✓
628+40 to 646+35	Lt.			1790					1✓
641+50	Lt.								
646+35 to 663+05	Lt.				1670				
653+25	Lt.							1	
714+75 to 729+90	Lt.					1520			
729+60	Lt.								1
795+25 to 821+90	Lt.				2670				
813+00	Lt.							1	
819+00	Lt.							1	
572+50 to 597+00	Rt.				2450				1✓
729+86	Rt.								1✓
582+85	Rt.							1	
596+90	Rt.								1✓
597+00 to 599+30	Rt.					230			
603+60 to 648+90	Rt.				4540				1✓
604+58	Rt.								1✓
611+54	Rt.								1✓
641+50	Rt.							1	
648+90 to 665+75	Rt.			1690					
662+50	Rt.							1	
654+70	Rt.							1	
665+70	Rt.								
715+15 to 729+65	Rt.					1450			
797+00 to 821+60	Rt.				2460				
798+00	Rt.							1	
813+00	Rt.							1	
UNIT-2									
943+90	X	230							
946+90	X	420							
946+35 to 946+50	Lt.			60					
943+50 to 945+32	Rt.			260					
946+35 to 949+35	Rt.			360					
TOTALS UNIT-1		22,430	4,725	6,240	16,240	3,600	3	8	7
TOTALS UNIT-2		650		680					
PROJECT TOTALS		23,080	4,725	6,920	16,240	3,600	3	8	7

* It is estimated that 50 New Line Posts will be required in Removing & Rebuilding Fence

▲ 140 Date Nails Required (State Forces)

† Electric Fence

LIST OF STRUCTURES

FED. ROAD DIVISION NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9.	COLO.	AF 020-1(5)	5	

LOCATION	DESCRIPTION	REMOVE STRUCTURE	EXCAVATION			STRUCTURAL EXCAVATION	STRUCTURE BACKFILL	MECH. TAMPING	GRAVEL OR CRUSHED ROCK SURFACING		CONCRETE		REINFORCING STEEL		CORRUGATED METAL CULVERT PIPE			CORR. METAL PIPE ARCH CULV.	METAL APRONS FOR C.M.P. ARCH CULV.	METAL APRONS FOR C.M.P. CULVERTS		MISCELLANEOUS				
		NO.	CUBIC YARDS			CUBIC YARDS	CUBIC YARDS				HOURS	TONS			CUBIC YARDS		LBS.			LINEAR FEET			LIN. FT.	EACH	EACH	
			UNCL.	EMB.	UNCL. DITCH										CL. "A"	CL. "B"				18"	24"					36"
576+50 576+58 582+70 to 595+90 582+70 to 602+75 594+65 to 602+70	Cross Culvert & Ditches Plug 18'x44' C.M.P. & Break Headwalls. Ditch Change 75' ± Lt. Ditch Change 63' ± Lt. Ditch Change 75' ± Lt.			2		40	24								74							Plug Culvert X				
582+70 to 593+60	Ditch Change Rt.			230																						
582+65 582+71 582+85 583+76 594+64 596+10	Cross Culvert, Metal Apron at Inlet. Plug 4'x2'x25.5' C.B.C. Remove & Reset Wood Division Box Lt. Side Drain and Road Approach Rt. Remove & Reset Measuring Box 75' Lt. Remove & Reset Wood Division Box Lt. Remove & Reset Measuring Box 75' ± Lt.					20	25									44	1					Plug Culvert Remove & Reset Wood Division Box ✓				
597+05 to 599+50 596+59	Ditch Change Rt. Side Drain in Irrig. Ditch 63' ± Lt.	2		125	24	7	23		23						26		28					Remove & Reset Measuring Box ✓ Remove & Reset Wood Division Box ✓ Remove & Reset Measuring Box ✓				
596+90 604+58	Side Drain in Irrig. Ditch 75' ± Lt. Remove 5'x15' Plank Bridge & 1'x1'x16' W.B.C. Lt. Road Approach Lt. Side Drain and Road Approach Rt. Side Drain in Irrig. Ditch Rt. Remove 15'x19' Side Drain & Headwalls Lt. Side Drain & Road Approach Rt. & Lt.	1		70 150		3 12	7 22		17 34						26 (28) 26 30											
603+50 to 643+90 608+54 609+00 611+54	Ditch Change Rt. Cross Culvert, Plug 15'x26' C.M.P. & Break Headwalls. Road Approach Lt. Side Drain Ditches & Road Approach Rt. Side Drain in Irrig. Ditch Rt. Remove 3'x15' Plank Bridge Rt.			243 40 75	480	12 7	19 14		40 17						58 26 26							Plug Culvert. ✓				
611+65 611+75 625+10	Plug 18'x26' C.M.P. & Break Headwalls. Cross Culvert with Metal Apron at Inlet Plug 15'x26' C.M.P. & Break Headwalls.					8	12								48			1				Plug Culvert. ✓ Plug Culvert. ✓				
628+15 628+34 631+53 639+80 to 641+95	Side Drain & Road Approach Lt. Plug 18'x26' C.M.P. & Break Headwalls. Plug 15'x30' C.M.P. & Break Headwalls. Ditch Change Lt.			25 40		7	7		17						26							Plug Culvert ✓ Plug Culvert ✓				
641+50 641+95 to 644+90 641+90 to 643+90 641+90 to 660+50 641+90 642+15 641+87 641+95	2 Side Drains and Road Approach Rt. Side Drain and Road Approach Lt. Ditch Change 53' ± Rt. Ditch Change 65' ± Lt. Ditch Change 57' ± Lt. Remove and Reset 2 Headgates Lt. Remove and Reset 2 Measuring Boxes Lt. Plug 3'x2'x25.5' C.B.C. Cross Culvert with Metal Apron at Inlet.			210 9 264		15	26		34						26 26		30					Remove & Reset 2 Headgates ✓ Remove & Reset 2 Measuring Boxes ✓ Plug Culvert. ✓				
650+00	Cross Culvert & Inlet Ditch, Metal Apron at Inlet, Dry Rubble Slope & Ditch Paving at Outlet, Culvert under Irrigation Ditch Lt. Outlet Ditch Remove 24'x36' Cross Culvert with Conc. Drop Box & 24'x22' C.M.P. Lt.	2		5		48	26								48 34			1				19 Sq. Yds. Dry Rubble Slope & Ditch Paving				
653+25 654+70 660+55 662+14	Side Drain and Road Approach Lt. Side Drain and Road Approach Rt. Cross Culvert, Plug 18'x30' C.M.P. & Break Headwalls. Cross Culvert & Ditches, Metal Apron at Inlet, Plug 15'x30' C.M.P. & Break Headwalls.			230 50 2		4 45 19 17	8 12 23 14		17 17						30 46 70 52			1				Plug Culvert. ✓ Plug Culvert. ✓				

CONTINUED ON SHEET NO. 6

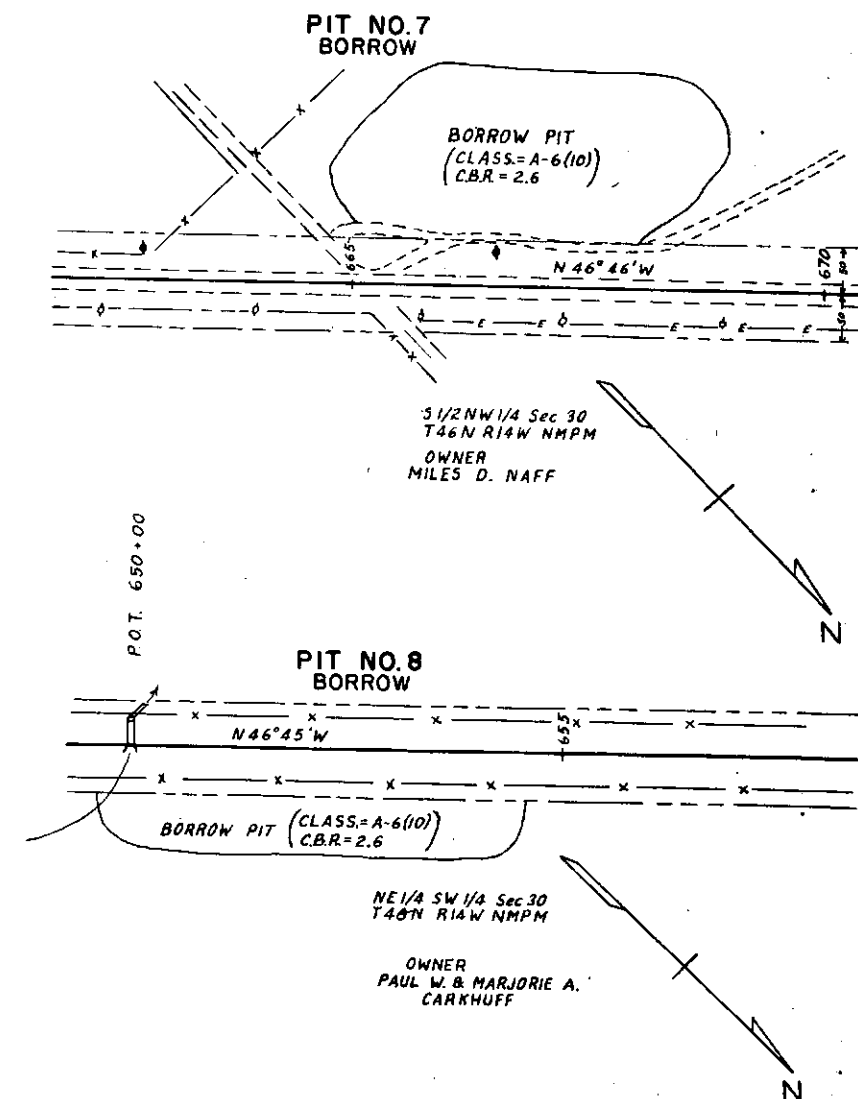
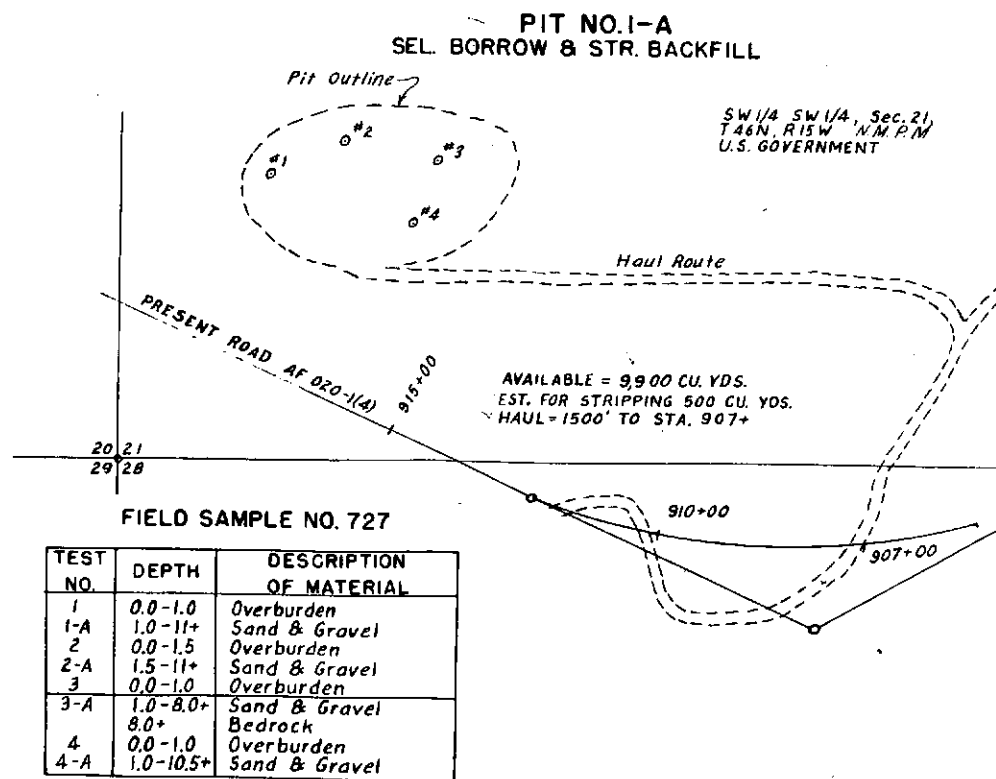
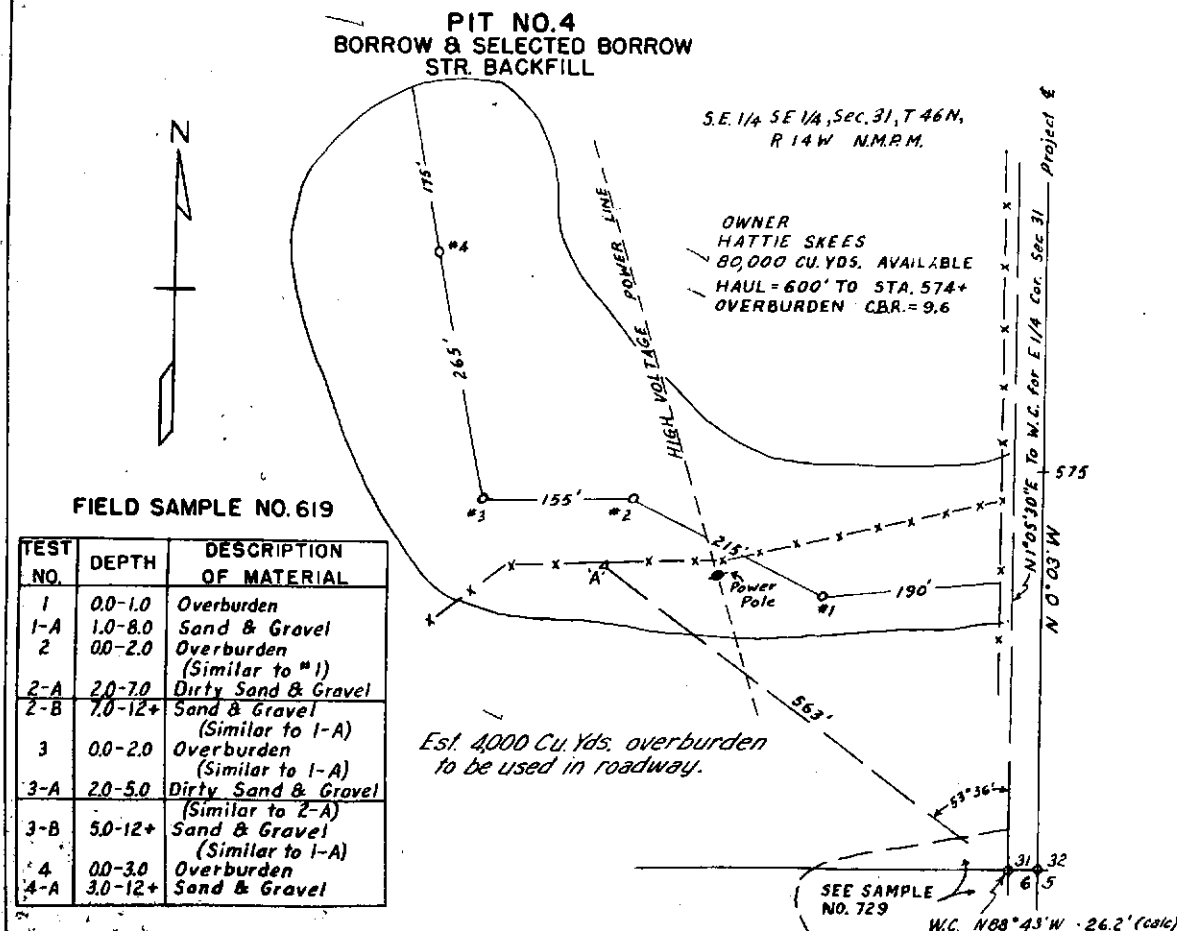
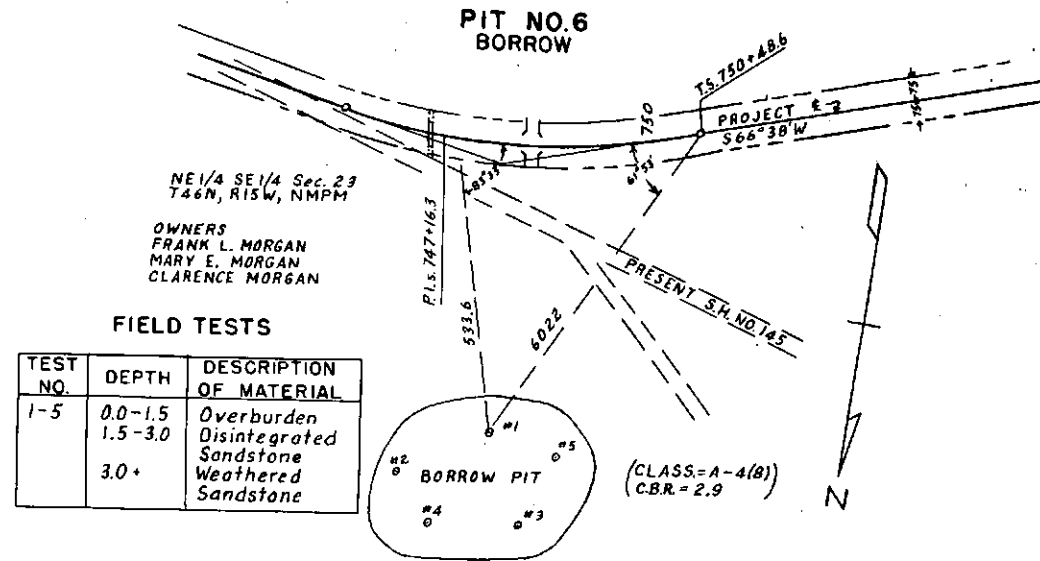
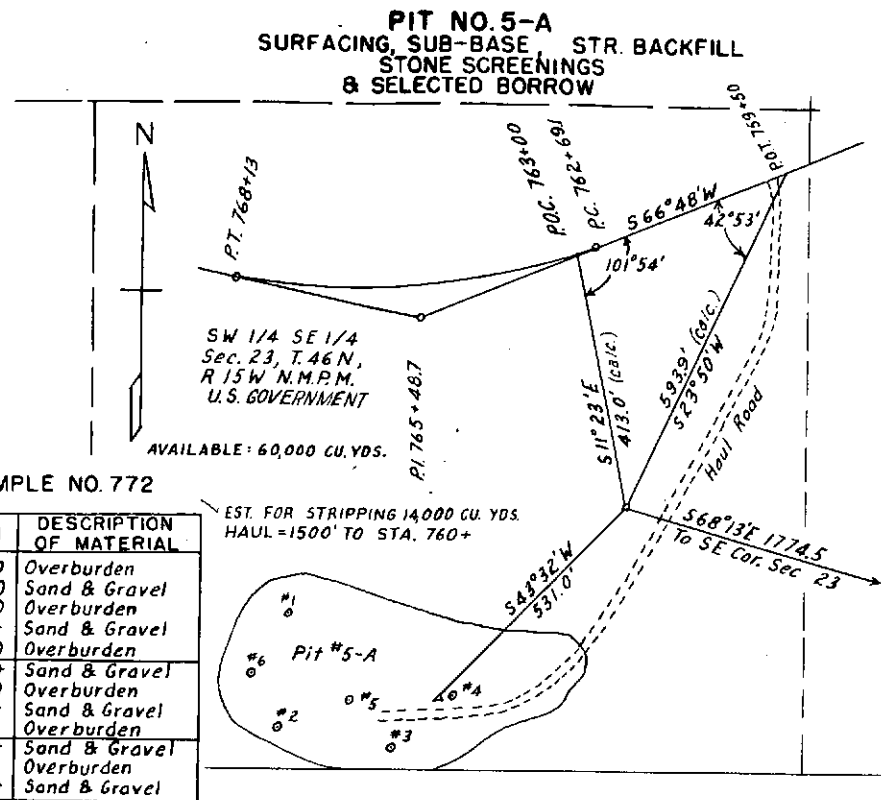
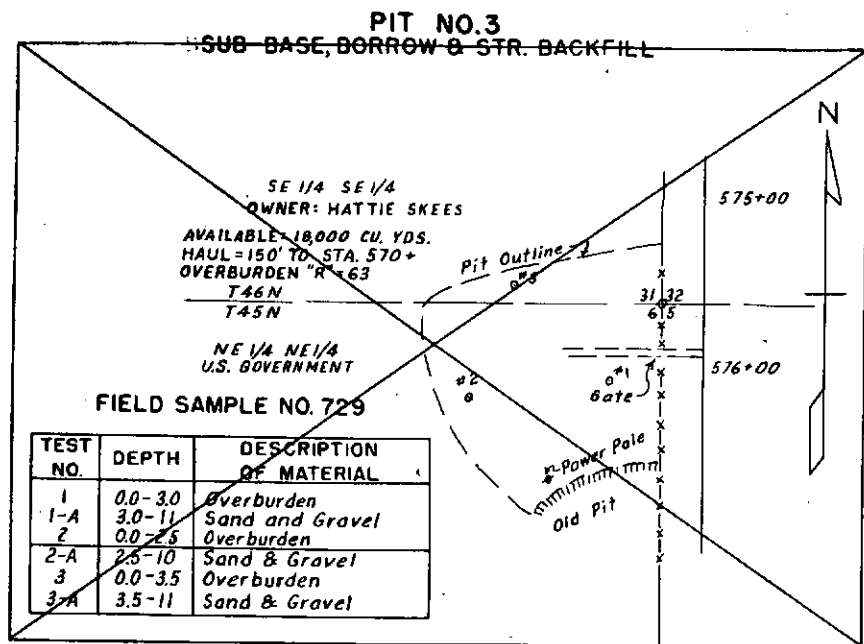
LIST OF STRUCTURES

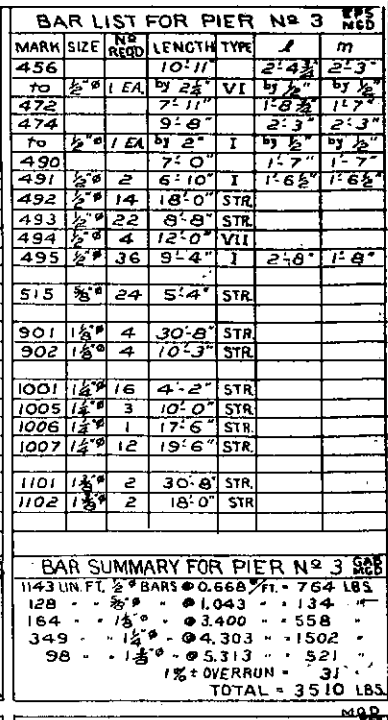
CONTINUED FROM SHEET NO. 5

FED. ROAD DIVISION NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
8.	COLO.	AF 020-1(5)	6	

LOCATION	DESCRIPTION	REMOVE	EXCAVATION			STRUCTURAL	STRUCTURE	MECH. TAMPING	GRAVEL OR CRUSHED ROCK SURFACING		CONCRETE	REINFORCING		CORRUGATED METAL CULVERT PIPE				CORR. METAL PIPE	METAL APRONS FOR C.M.P. ARCH CULV.	METAL APRONS FOR C.M.P. CULVERTS	MISCELLANEOUS		
		STRUCTURE	CUBIC YARDS			CUBIC YARDS	CUBIC YARDS				CUBIC YARDS	LINEAR FEET				PIPE	ARCH CULV.	EACH	EACH				
		NO.	UNCL.	EMB.	UNCL. DITCH	#					CL "A"	CL "B"		LBS.	18"	24"	36"		43" X 27"	43" X 27"		18" X 24"	
											HOURS	TONS											
665+00 665+78 669+48 671+55 684+07	Road Approach Lt. Road Approach Rt. Side Drain and Road Approach Lt. Remove Headwalls and Extend 24'x30' Cross Culvert 16' Rt. & 16' Lt. Inlet Ditch Remove Headwalls and Extend 24'x36' Cross Culvert 12' Lt. & 14' Rt. Ditches			45 130	225	5	9		30 30 17					34	178 178 138 158								
685+43 696+42 705+43 710+42	Road Approach Lt. Cross Culvert. Plug 18'x30' C.M.P. Break Hdws. Cross Culvert & Ditches. Plug 15'x28' C.M.P. & Break Headwalls. Cross Culvert & Inlet Ditch. Metal Apron at Inlet. Plug 15'x30' C.M.P. & Break Headwalls.			55		12 12 15	16 16 15		17					46 50 46			1	Plug Culvert Plug Culvert Plug Culvert					
710+50-716+75 713+80-715+35 720+77	Inlet. Plug 15'x30' C.M.P. & Break Headwalls. Ditch Change Lt. Ditch Change Rt. Cross Culvert & Inlet Ditch. Metal Apron at Inlet. Plug 18'x30' C.M.P. & Break Headwalls.			124	50 15 2	16	13							48			1	Plug Culvert					
720+75-722+50 720+75-729+50 726+50-728+35 728+43	Ditch Change Lt. Ditch Change Rt. Ditch Change Lt. Cross Culvert Metal Apron at Inlet. Inlet Ditch. Plug 18'x26' C.M.P. & Break Headwalls.			116	13 62 135 34 3	14	12							46			1	Plug Culvert					
729+60 729+86 735+00	Road Approach Lt. Side Drain & Road Approach Rt. Cross Culvert & Inlet Ditch. Remove 18'x32' Cross Culvert.			40 20		7 13	7 16		17 17					26 50									
741+84 742+00 747+00 748+00 756+00 765+37	Remove 24'x30' Cross Culvert & Headwalls Cross Culvert & Inlet Ditch Cross Culvert & Ditches Road Approach Rt. & Lt. Cross Culvert & Ditches Cross Culvert & Inlet Ditch.				15 3 60	20 4	22 16							68 50 50 54									
771+75 783+50 791+61 798+50 799+00 801+92	Cross Culvert Cross Culvert Cross Culvert Side Drain & Road Approach Rt. Cross Culvert Cross Culvert & Inlet Ditch					15 21 25 7 10 30	16 37 20 23 56							52 78 26 60 70 118									
806+00 813+00 815+00 819+00 822+30 823+50 825+25 827+00	Cross Culvert & Inlet Ditch Side Drain Rt. Road Approach Rt. & Lt. Cross Culvert. Road Approach Lt. 10'x8'x9' C.B.C. (22' fill) Road Approach Rt. Road Approach Lt. Cross Culvert			180	2	5 9 14	18 7 20		44					26 54 62									
942+00 942+50 942+55	Mechanical Tamping all C.M.P.'s. Project Marker Remove 24'x35' Cross Culvert & Headwalls Cross Culvert & Inlet Ditch. Metal Apron at Inlet. Headwall at Outlet.			5		100	30	60	22	198.7	21,967												
945+32-946+35.4 948+00	Remove Bridge - Bridge - Channel Improvement. (W=95') Rip Rap Lt. Project Marker			175 10		7	16		75 56					48									
	Mechanical Tamping all C.M.P.'s.							101															
	Project Marker																	1-Project Marker (State Forces)					
	Remove 24'x35' Cross Culvert & Headwalls Cross Culvert & Inlet Ditch. Metal Apron at Inlet. Headwall at Outlet.			10		45	18			0.61				54			1						
	(Quantities in Summary)																						
	Mechanical Tamping all C.M.P.'s.																	1-Project Marker (State Forces)					
	Totals Unit 1.	10		180	3573	1761	682	737	161	632	198.7	21,967	720	1060	196	142	2	5	1				
	Totals Unit 2.	7			10	45	18	3			0.61			54									
	Project Totals	17		180	3573	1771	727	755	164	632	199.31	21,967	720	1114	196	142	2	5	2				

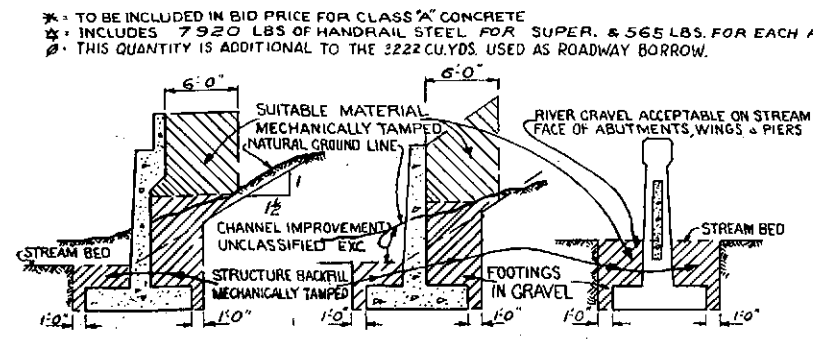
* Structural Excavation is estimated to be 70% Common and 30% Rock, each of which is estimated to be 90% Dry and 10% Wet.
Ø Includes 1 Ft. for connecting Bands.





BAR SUMMARY FOR ABUTMENT NO. 4			
2983	LN. FT.	1/2" BARS @ 0.668	FT = 1993 LBS.
696	" "	3/8" @ 1.043	" " 726 "
1533	" "	3/4" @ 1.502	" " 2303 "
560	" "	1" @ 2.044	" " 1145 "
2562	" "	1" @ 2.670	" " 6841 "
		1% OVERRUN =	132 "
TOTAL			13,140 LBS

BAR LIST FOR SUPERSTRUCTURE						
MARK	SIZE	N ^o REQ	LENGTH	TYPE	m	n
401	2" ϕ	47	31'-10"	STR		
402	2" ϕ	6	32'-4"	STR		
403	2" ϕ	53	37'-9"	STR		
404	2" ϕ	53	31'-0"	STR		
405	2" ϕ	44	3'-8"	I	1'-0"	0'-6"
501	3" ϕ	82	31'-9"	STR		
502	3" ϕ	82	33'-6"	II		
503	3" ϕ	81	32'-10"	III		
MAP 61 BAR SUMMARY FOR SUPERSTRUCTURE						
54.91	UN. FT.	%	% BARS	0.068%	3668	UN.
8003	" ϕ	%	%	1.043%	8347	"
					1% ±	TOTAL = 125
					OVERALL	12,140 UN.



GENERAL NOTES

ALL WORK SHALL BE DONE ACCORDING TO THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS-APPLICABLE TO THE JOB.

ALL CONCRETE SURFACES EXPOSED TO TRAFFIC SHALL RECEIVE CLASS SURFACE FINISH, EXCEPT UNDERSIDE OF FLOOR SLABS AND ABUTMENT FACES BETWEEN OUTSIDE STRINGERS.

ALL REINFORCING BARS SHALL CONFORM TO A.S.T.M. SPECIFICATION A-305-S01 OR LATEST REVISION THEREOF.

SECONDARY BARS WHEN SPLICED SHALL BE GIVEN A LAP OF 20 DIAMETERS.

ALL CONCRETE SHALL BE CLASS "A" AND AIR-ENTRAINED AS SPECIFIED.

FORMS FOR CONCRETE SURFACES EXPOSED IN THE FINISHED WORK SHALL BE CONSTRUCTED OF SHIP LAP OR TONGUE AND GROOVE LUMBER 3/4" UNLESS FACED WITH PLYWOOD.

CONCRETE GIRDERS, FLOOR SLABS AND CURB SHALL BE POURED MONOLITHICALLY. FOOTINGS IN ROCK SHALL BE POURED OUT TO THE ROCK AND NOT FORMED.

ALL REINFORCING BARS SHALL BE INTERMEDIATE GRADE.

ALL REINFORCING BARS SHALL BE DEFORMED AND TAGGED WITH THE STATION NUMBER AND NUMBER DESIGNATION. MAIN BARS SHALL NOT BE SPLICED.

SOUNDINGS AND DEPTH OF FOOTINGS SHOWN ARE ACCORDING TO THE BEST AVAILABLE DATA. IF ESSENTIAL, THE CONTRACTOR SHALL CONCURENCE THE BRIDGE ENGINEER WILL INSPECT AND DETERMINE IF REDESIGN IS NECESSARY.

ALL RIVETS TO BE 3/4" DIA. ALL RIVETS TO BE POWER DRIVEN.

ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT ZINC CHROMATE AND TWO FIELD COATS OF ALUMINUM PAINT.

* STRUCTURE NO. L-2-B

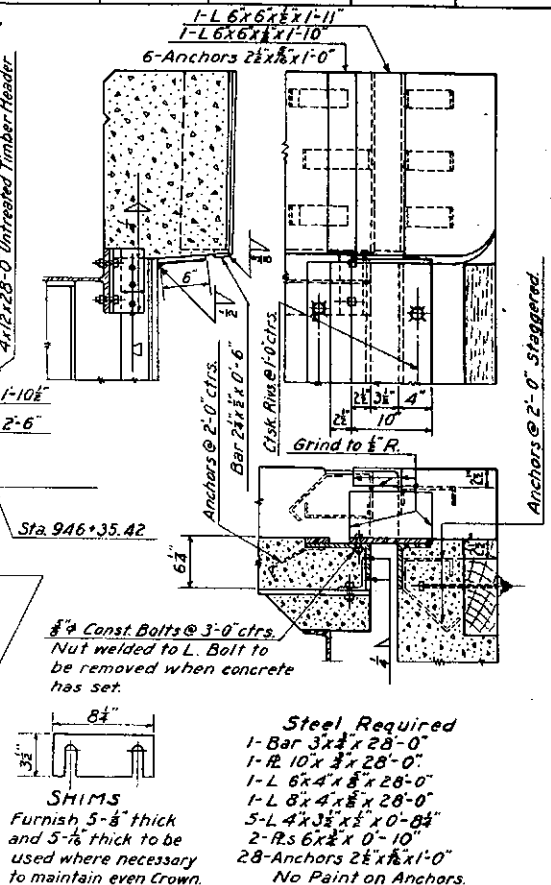
DESIGNING DATA.

A.A.S.H.O. 194	UNIT STRESSES
Reinforcing	$f_c = 1000$ lbs. per sq. in.
Structural	$f_s = 20000$ lbs. per sq. in.
	$f_s = 18000$ lbs. per sq. in.
	$n = 10$

COLORADO
DEPARTMENT OF HIGHWAYS
3 - SPANS (31' - 38' - 31') CONTINUOUS
CONCRETE SLAB ON I-BEAM BRIDGE
28'-0" CLEAR ROADWAY
GENERAL LAYOUT, SUMMARY OF
QUANTITIES AND BAR LISTS -

Across NATURITA CREEK
Sta. 945+32.00 to 946+35.42
Near NATURITA Sec. 29 T.46N. R.15W

Designed by EFS
Made by EFS
Checked by
Approved by *Ed Bailey*
Bridge Engineer
Date: May 12, 1953

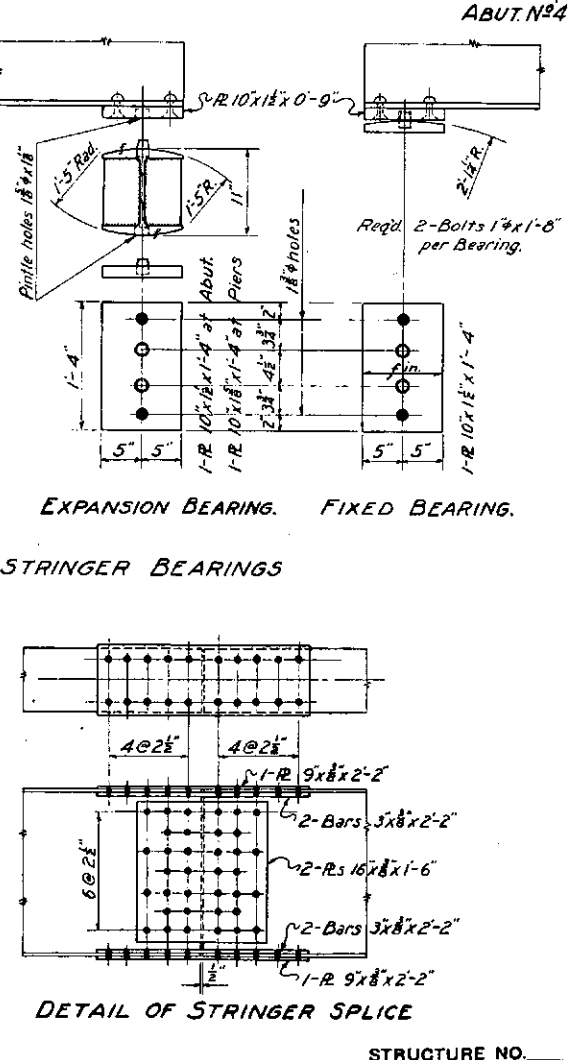
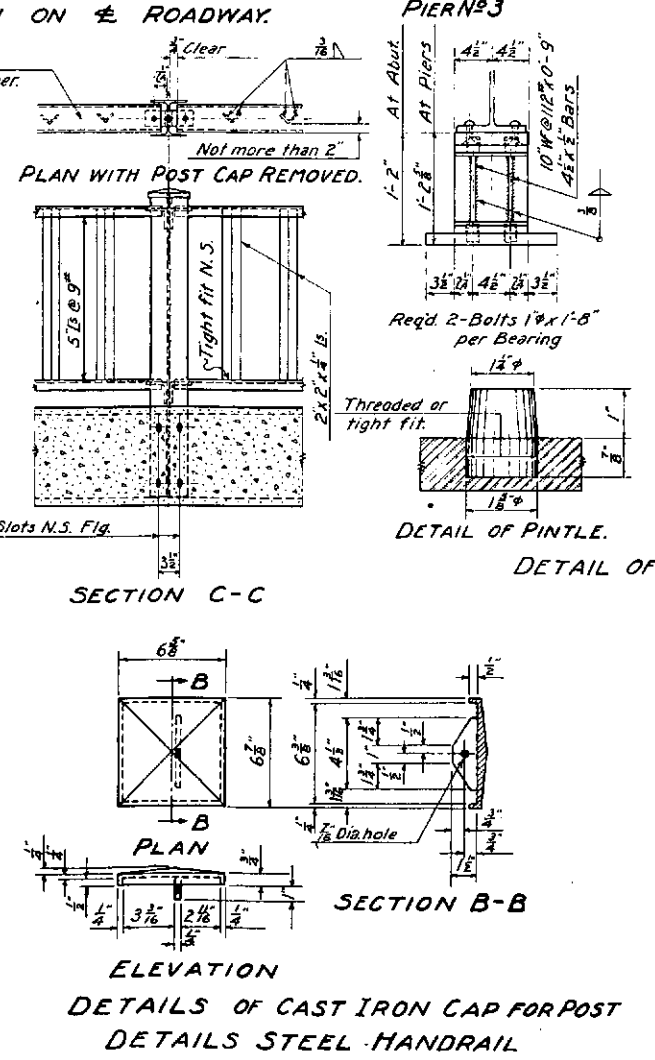


LOCATION	CU. YDS. CONCRETE
SPAN N ^o 1	27.2
SPAN N ^o 2	32.0
SPAN N ^o 3	26.2
TOTAL	85.4

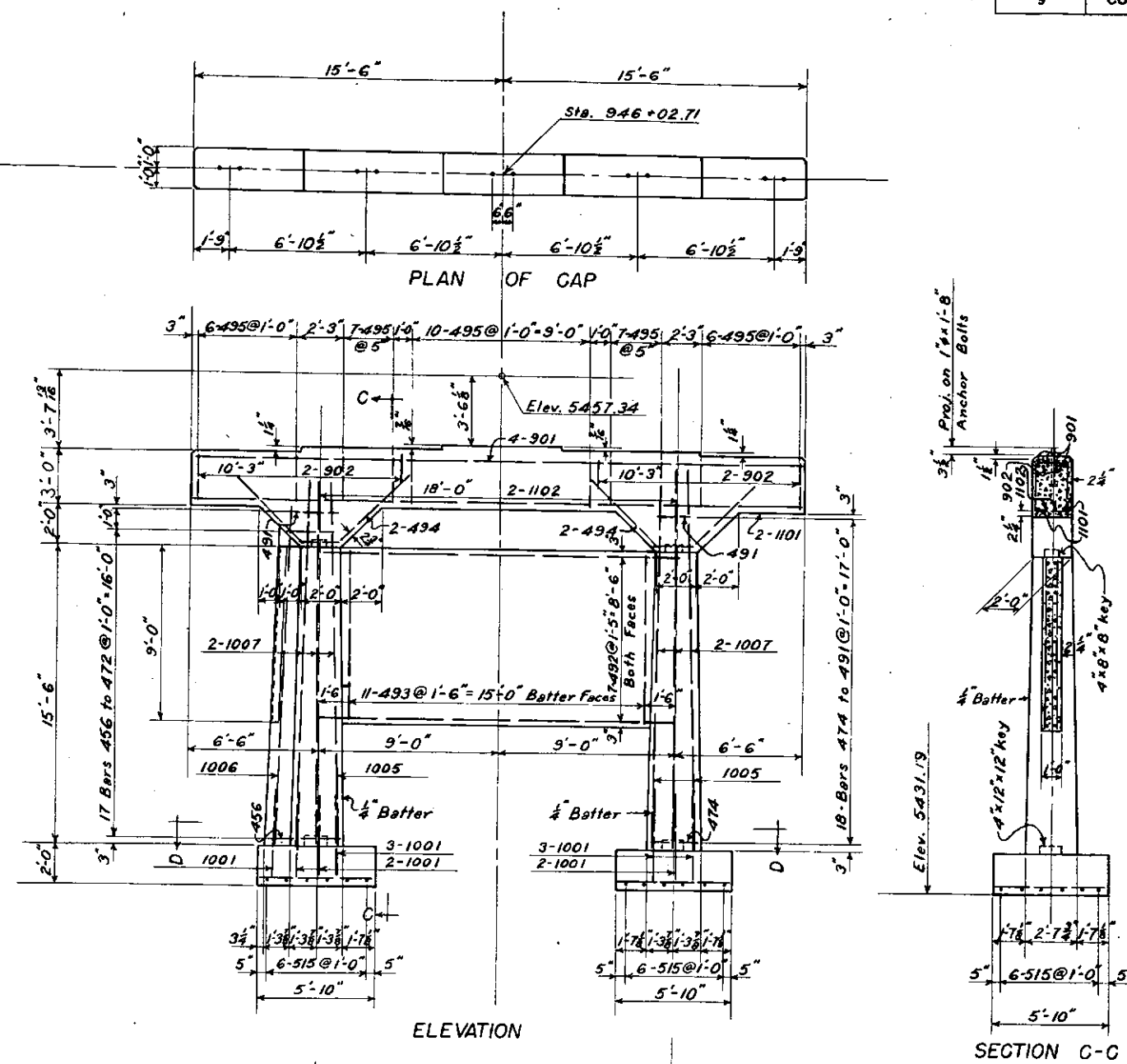
COLORADO
DEPARTMENT OF HIGHWAYS
3 SPANS (31'-38'-31') CONTINUOUS
CONCRETE SLAB ON BEAM BRIDGE
28' CLEAR ROADWAY
DETAILS OF SUPERSTRUCTURE.

Across Naturita Creek
Sta. 945+32.00 to 946+35.42
Near Naturita Sec. 29, T. 46N, R. 15W

Designed by EFS Approved by Rd. Bailey
Made by EFS Bridge Engineer
Checked by _____ Date: May 12, 1953.



STRUCTURE NO. L-2-B



SECTION D-D
DETAILS OF PIER NO. 3
Max. Footing Pressure 5130 lbs. per sq. ft.

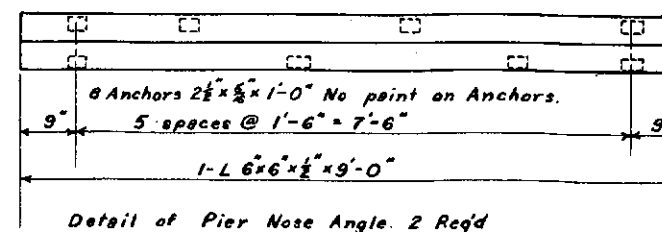
CONCRETE POURING SCHEDULE			
LOCATION	UNIT	PIER NO.2	PIER NO.
FOOTINGS	CU. YDS	5.0	5.0
COLS. & WEB	" "	13.2	12.3
CAP	" "	8.3	8.3
TOTAL	" "	26.5	25.6

NOTE: ALL BAR DIMENSIONS ARE TO CENTER OF BAR.

SECTION B-B

DETAILS OF PIER NO. 2

Max. Footing Pressure 5160 lbs. per sq. ft.



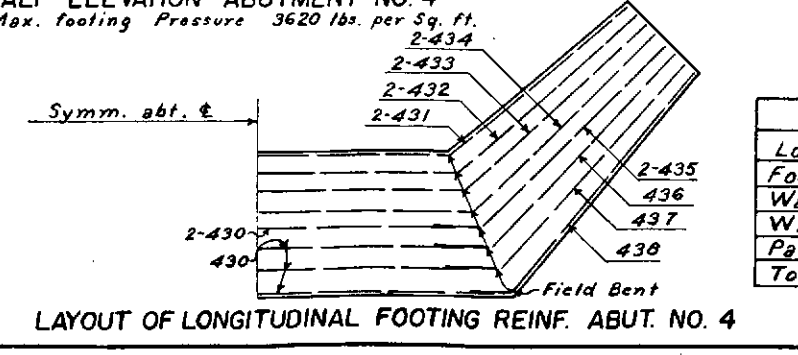
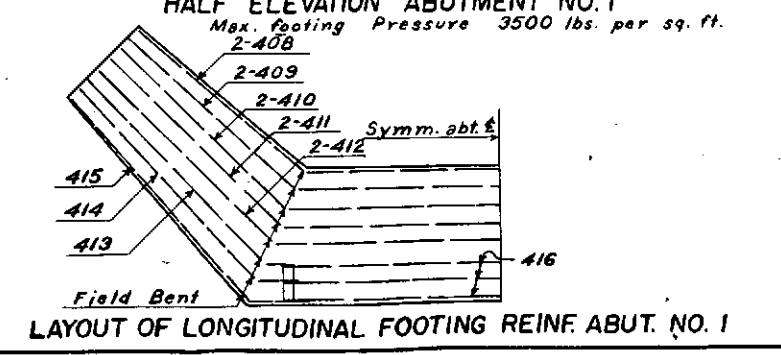
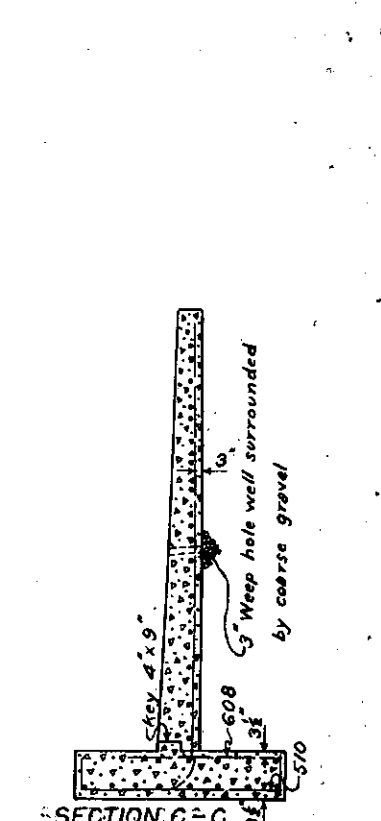
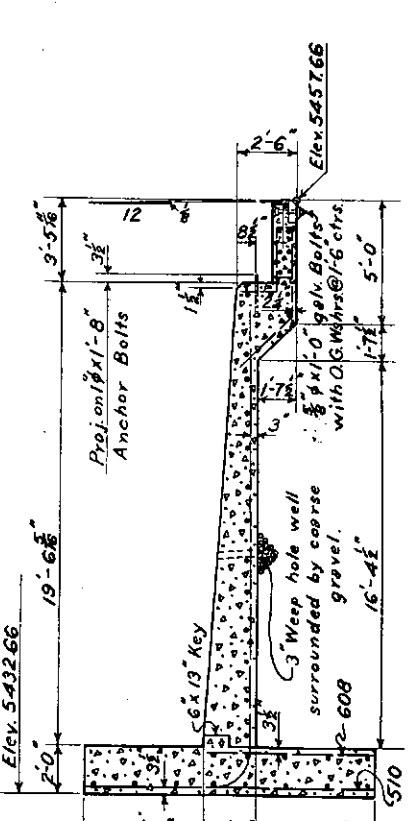
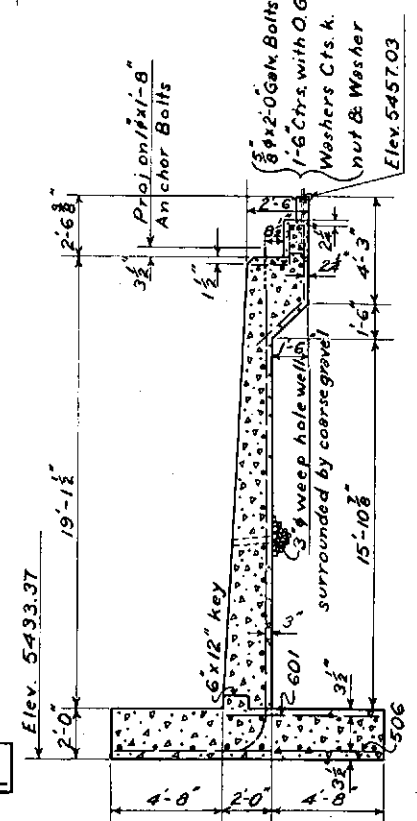
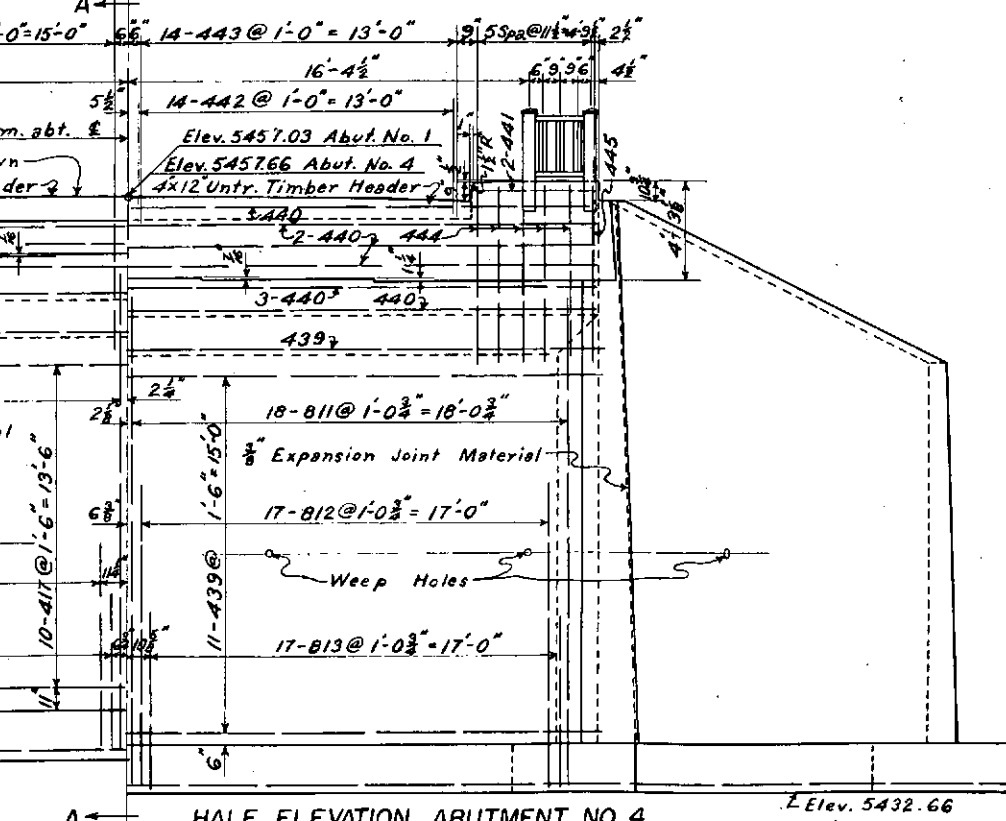
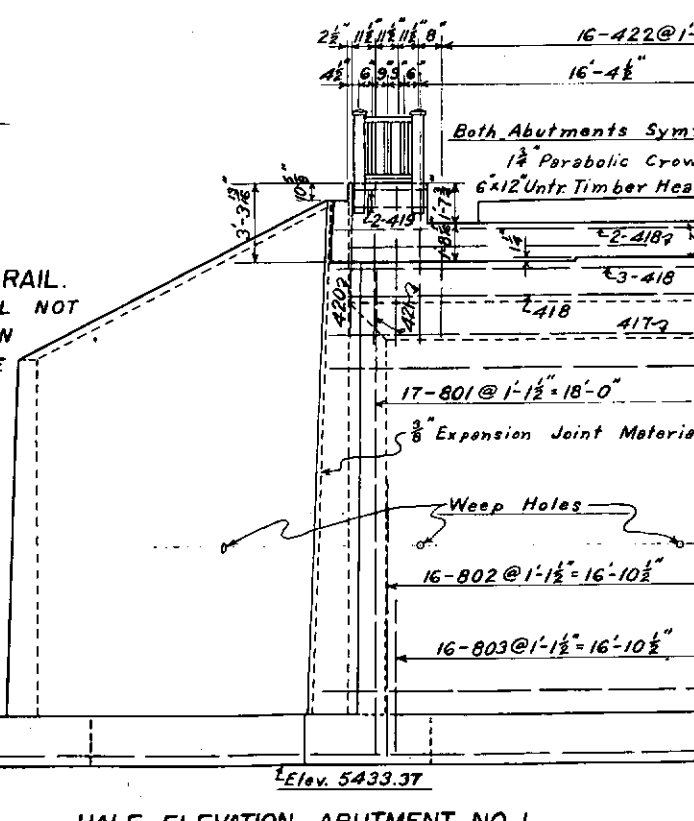
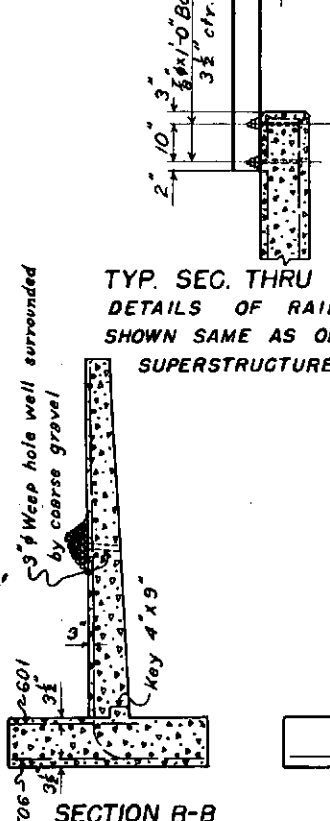
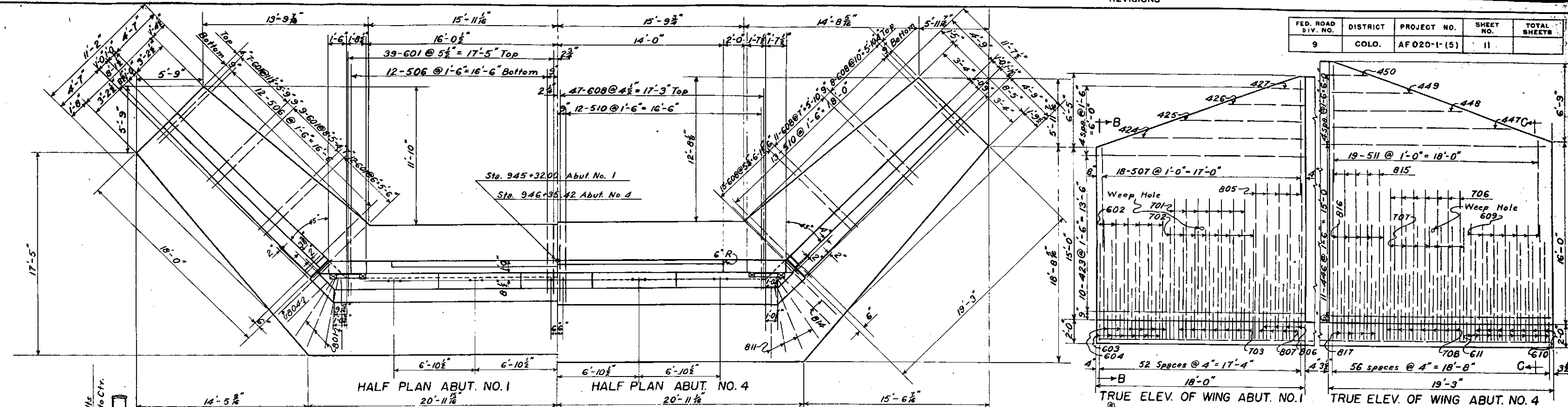
STRUCTURE NO. L-2-B

COLORADO
DEPARTMENT OF HIGHWAYS
3 SPANS(31'-38'-31') CONTINUOUS
CONCRETE SLAB ON I BEAM BRIDGE
28' CLEAR ROADWAY
DETAILS OF PIERS

Across NATURITA CREEK
Sta. 945+32.00 TO 946+35.42
Near NATURITA Sec. 29 T. 46N R. 14W

Designed by E.F.S.	Approved by <i>Col. Bailey</i>
Made by E.F.S.	Bridge Engineer
Checked by	Date: May 12 1953

FED. ROAD DIV. NO.	DISTRICT	PROJECT NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF 020-1-(5)	11	

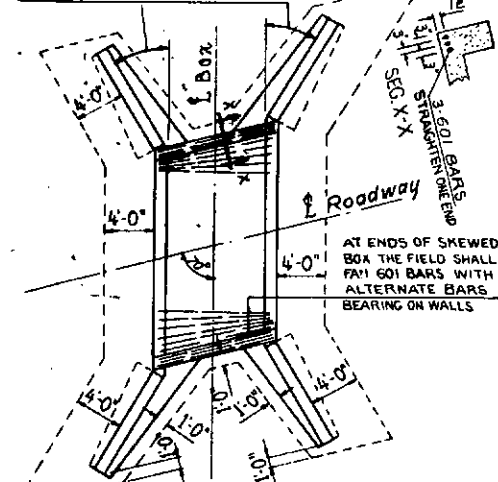


Concrete Pouring Schedule				
Location	Unit	Abut. No. 1	Abut. No. 4	
Footing	Cu. Yds.	61.8	66.9	
Wall	"	48.2	57.0	
Wings	"	34.6	40.6	
Parapet	"	2.8	5.0	
Total	"	148.0	163.5	

NOTE: ALL BAR DIMENSIONS ARE TO CENTER OF BAR.

COLORADO
DEPARTMENT OF HIGHWAYS
CONC. SLAB ON I-BEAM BRIDGE
3 SPANS (31'-38'-31') CONTINUOUS
28' CLEAR ROADWAY
DETAILS OF ABUTMENTS NO. 1 & 4
Across NATURITA CREEK
Sta. 945+32.00 To 946+35.42
Near NATURITA Sec. 29 T. 46N. R. 15W.
Designed by E.F.S. Approved by P. Bailey
Made by E.F.S. Bridge Engineer
Checked by Date: May 12, 1953.

MAKE THESE ANGLES TO SUIT FIELD CONDITIONS

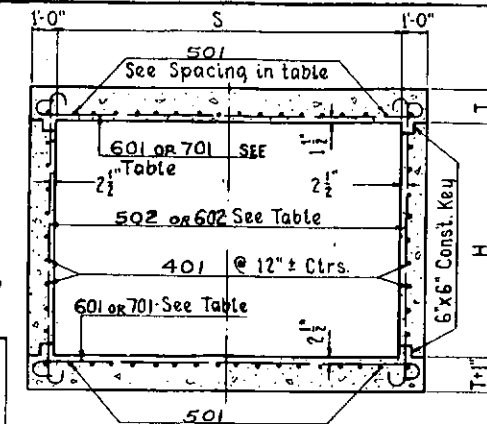


AT ENDS OF SKEWED BOX THE FIELD SHALL HAVE 601 BARS WITH ALTERNATE BARS BEARING ON WALLS

Sec. to be Mechanically Tamped

The Contractor's attention is called to Specifications covering Mechanical Tamping. Special care shall be taken to prevent deflection of Wing Walls by wedging action.

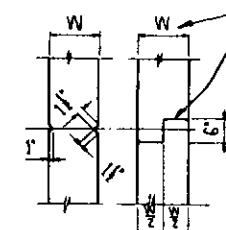
MECHANICALLY TAMPED BACKFILL



TYPICAL SECTION THRU BOX

1/2" EXPN. JOINT MATL. IN WINGWALLS ONLY

NOTE: WHERE "W" VARIES AT JOINTS INSIDE SURFACES OF ADJOINING SECTIONS SHALL BE KEPT FLUSH.



HALF-LAP TYPE CONSTRUCTION JOINT & ALTERNATE JOINT

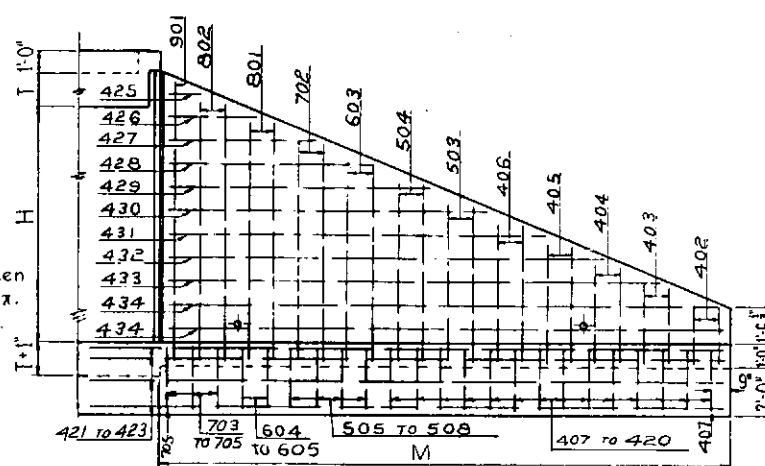
LONGITUDINAL BARS EXTEND THROUGH CONSTRUCTION JOINTS

Pour wing footings monolithically with floor of box.

Expansion Jt. Mat'l. between wingwalls and wall of box. Chamfer corners as shown.

LONGITUDINAL SECTION SHOWING RELATION OF CULVERT TO ROADWAY

FOR QUANTITIES AND DIMENSIONS OF SECTIONS SHOWN ABOVE SEE TABLES BELOW.



TRUE ELEVATION OF WINGWALL

TABLE OF DIMENSIONS AND QUANTITIES

STEEL QUANTITIES GIVEN BELOW INCLUDE ALLOWANCE OF 1% FOR OVERRUN

TOTAL QUANTITIES FOR ONE BOX CULVERT EQUALS (L TIMES QUANTITY FOR ONE LINEAL FOOT OF BOX) PLUS QUANTITY FOR TWO HEADWALLS.

HEIGHT OF FILL ALLOWED	TYPE	SPAN S	HEIGHT H	DEPTH OF SLAB T	601 OR 701	602 OR 602	SPACING OF 501 BARS	NO OF 501 BARS PER BOX	NO OF 401 BARS PER BOX	LENGTH OF WINGWALL M	N	QUANTITIES PER SECTION OF BOX PER LINEAL FOOT	QUANTITIES FOR TWO HEADWALLS	LENGTH OF BOX SECTION USED - SEE CONSTRUCTION SECTION
5'-0"		10'-0"	8'-0"	10 1/2"	3/4"	5/8"	15"	16	18	18'-6"	2'-3"	19.74 = 1.41 Per Lin.Ft.	1750 = 125 Per Lin.Ft.	33.5' 1947
10'-0"		10'-0"	8'-0"	12"	3/4"	5/8"	12"	18	18			22.80 = 1.52 Per Lin.Ft.	2220 = 148 Per Lin.Ft.	15'
15'-0"		10'-0"	8'-0"	13 1/2"	3/4"	5/8"	10"	22	18			24.45 = 1.63 Per Lin.Ft.	2595 = 173 Per Lin.Ft.	15'
20'-0"		10'-0"	8'-0"	15 1/2"	3/4"	5/8"	10"	28	18			26.70 = 1.78 Per Lin.Ft.	3225 = 215 Per Lin.Ft.	15'
22'-0"		10'-0"	8'-0"	16"	3/4"	5/8"	9"	28	18			28.1 = 1.815 Per Lin.Ft.	7040 = 220 Per Lin.Ft.	32'

GENERAL NOTES

All work shall be done according to the Standard Specifications of the Colorado Department of Highways applicable to the project.

All concrete shall be Class A, AND AIR ENTRAINMENT AS SPECIFIED

Horizontal construction keys not required when floors and side walls are poured monolithically.

All walls shall have forms on both sides.

Minimum distance between centering of bar to edge of concrete to be 1 1/2"

All construction joints shall be thoroughly cleaned before fresh concrete is poured.

Footings in rock shall be poured out to rock and not formed.

For culverts required and governing dimensions see (List of Structures).

All reinforcing bars shall be deformed.

All reinforcing bars shall be lagged with the Station & B.M. designation.

Secondary bars when spliced shall be given a lap of 35 diameters.

Main bars shall not be spliced.

Soundings and depth of footings shown are according to the best available data, if essentially different conditions are encountered, the engineer will inspect and determine if redesign is necessary.

Pour wing footings monolithically with floor of box.

The use of additional construction joints is undesirable, should field conditions require, construction joints may be made on a vertical plane perpendicular to centerline of culvert and shall be as detailed hereon.

This design not to be used when height of fill exceeds the allowed amount tabulated.

Supporting soil for all culverts must be composed of firm and uniform material throughout.

All backfilling in approaches to and over culverts shall be laid in layers not exceeding 12 inches in depth. Each layer shall be compacted in accordance with the illustration of Mechanical Tamping Backfill shown on this drawing.

All surfaces exposed to view on the box and wingwalls shall receive class 1 surface finish, except culvert barrel.

ALL REINFORCING STEEL BARS SHALL CONFORM TO A.S.T.M. SPECIFICATION A-305-50T OR LATEST REVISION THEREOF.

LOADING DATA

LIVE LOAD = A.A.S.H.O. H20-S16-44

DEAD LOAD = Concrete 150#/cu.ft.

Earth 70% of 120#/cu.ft. Vertical.

DESIGNING DATA

20,000 Lbs. Per Sq. In.

1,000 Lbs. Per Sq. In.

10

ALL DIMENSIONS NOT SHOWN AS CLEAR ARE TO C & OF BAR.

COLORADO

STATE HIGHWAY DEPARTMENT

STANDARD

CONCRETE BOX CULVERT

10' x 8'

70° SKEW

Across MAVERICK CREEK

Sta. 322+30

Near Sec. 1, R. 3

Designed by W.D. Bailey

Mod. by P.C. Bailey

Checked by P.C. Bailey

Approved by P.C. Bailey

Date: JUL 10, 1951

END ELEVATION

TYPICAL SECTION THRU WINGWALL

Standard Wire Fence With Wooden Posts

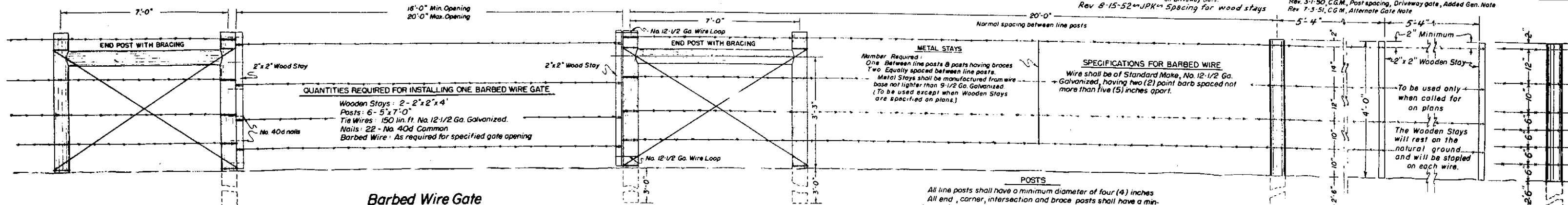
REVISED FOR AF 020-1(5)

STANDARD M-24-H

Rev. 6-10-52, T.M.C., Wooden Stays.
Rev. 7-30-52, J.C.R., Deleted Connecting Rod Brace on Driveway Gate.
Rev. 8-15-52, J.P.K., Spacing for wood stays

FED. ROAD DIVISION NO.	DISTRICT	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	CQLO	AF 020-1(5)	13	

Rev. 3-1-50, C.G.M., Post spacing, Driveway gate, Added Gen. Note
Rev. 7-3-51, C.G.M., Alternate Gate Note

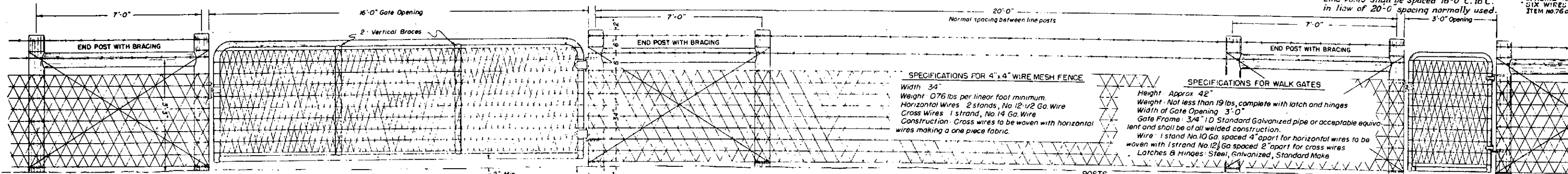


Barbed Wire Gate

Barbed Wire Gates in six (6) wire fences, as tabulated in Fencing Requirements, shall have the same spacing of wires as shown hereon for six (6) wire fencing.

Item 76g - 4-wire
Item 76gy - 6-wire

BARBED WIRE FENCE WITH WOODEN POSTS



NOTE:

Untreated Wooden Stays, as indicated on Barbed Wire Fence details above shall be used on Combination Wire Fence only when specified on Plans. Spacing shall be as shown on details above and shall be stapled on each barbed wire and alternating horizontal wires of the mesh in the Combination Wire Fence.

General Notes

All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department applicable to the Project.

Wire mesh used in Combination Wire Fence as shown above shall be galvanized. Wire mesh used in walk and driveway gates shall be galvanized or painted with an approved waterproof asphalt or mineral paint.

Fence Staples shall be galvanized and at least 1-1/2" in length and shall be made from wire base not less than No. 9 Ga. Barbed wire fence shall have eight (8) staples per line post, Combination wire fence shall have fourteen (14) staples per line post.

Fence wire to be placed on either road or field side of posts depending on local conditions. i.e. On curves the wire should be placed on side of post which would prevent tension on staples. This will also apply where wind drift, tumble weeds or other conditions would exert unusual pressure against the wire.

POSTS:

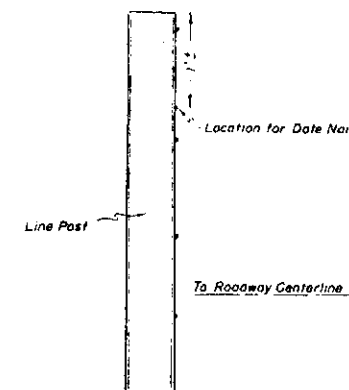
Posts shall be treated or untreated as specified on plans and shall conform to the following:
Untreated posts shall be made of seasoned, straight native cedar. The tops of posts shall be sawed off square and peeling of the posts will not be required. Split posts will not be acceptable for use unless specifically permitted in the Special Provisions of plans.
Treated posts shall be made of seasoned, straight, sound Lodgepole Pine or Southern Pine, to be peeled and tops to be cut off square before pressure treatment. Posts shall be pressure treated in conformity with requirement of the Specifications.

In lieu of Galvanized Finish on Gate Frames, Cadmium Plated Pipe or Aluminum Painting with zinc chromate Primer as per specifications will be considered to be equivalent.

Six (6) B.W. shall be stapled with twelve (12) staples per post.

DETAILS FOR PLACING DATE NAILS

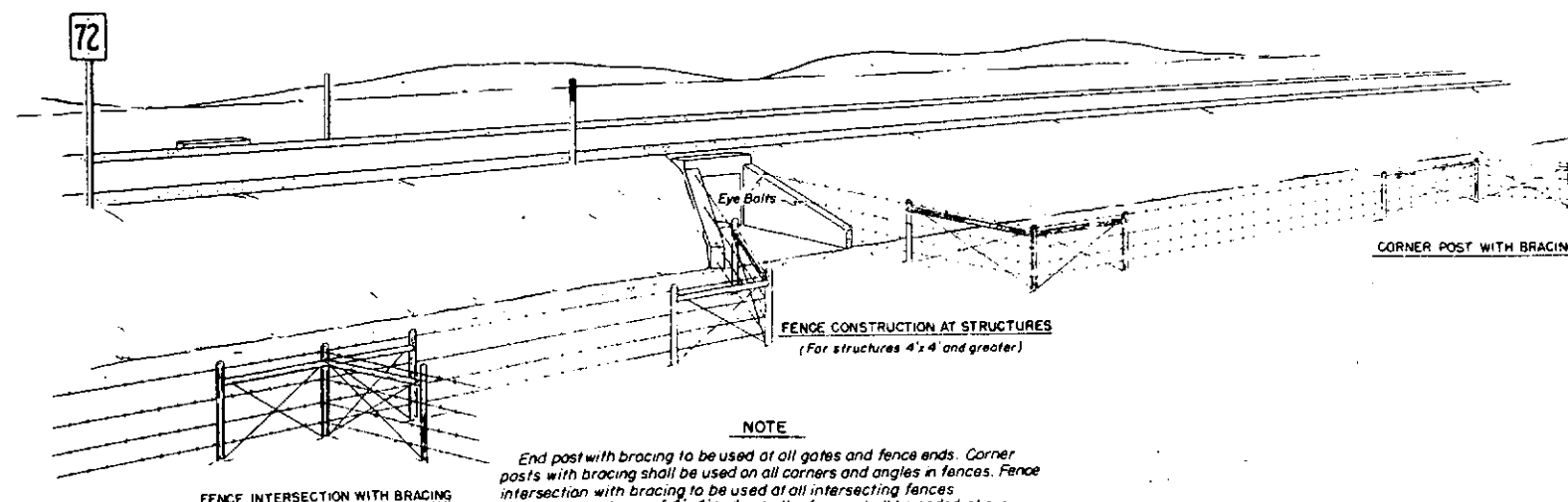
(To be installed on Treated Wooden Posts only)



NOTE

Date Nails shall be placed on every tenth (10th) post and shall be driven flush.
Date Nails to be furnished and installed by State Forces as part of Engineering Costs.

Illustrative Sketch Showing Typical Examples For Constructing Fences



NOTE

End post with bracing to be used at all gates and fence ends. Corner posts with bracing shall be used on all corners and angles in fences. Fence intersection with bracing to be used at all intersecting fences.
At all Structures of 4' x 4' and over the fence shall be ended at eye-bolts in the wings of the structure. Where the type of construction prohibits the use of eye-bolts, an end post with bracing shall be used.
Eye-bolts are to be made from 1/2" round iron bars with a minimum of 6" of body length embedded in the concrete and a minimum of 1" inside eye diameter.

COLORADO
DEPARTMENT OF HIGHWAYS

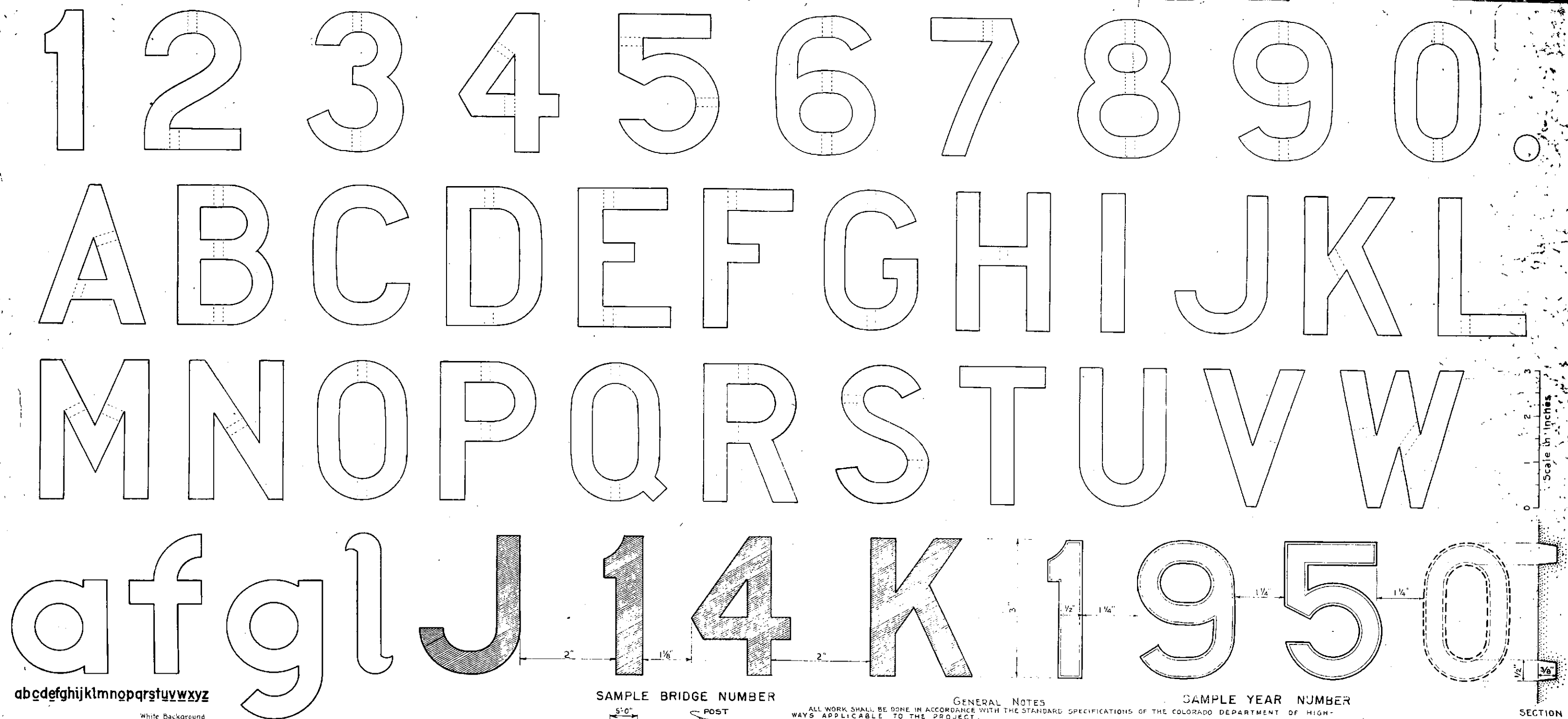
Standard Wire Fence
With
Wooden Posts

Designed by C.G.M. Approved by J.H. Marshall
Made by C.G.M. Engineer, Surveys & Plans
Checked by A.J. Date: Mar 1, 1950

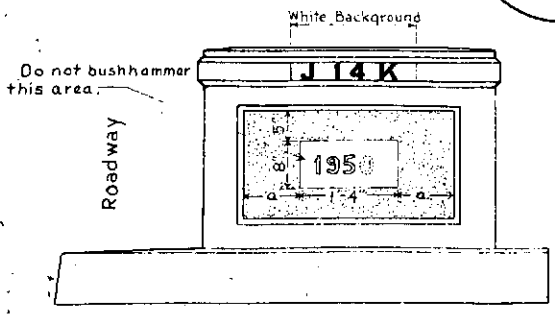
REVISIONS
Rev. 12-13-47 J.P.K.
Rev. 7-1-49 J.R.E.
Rev. 9-14-50 J.E.R.
Rev. 7-10-52 T.M.C.

STANDARD M-10-B.

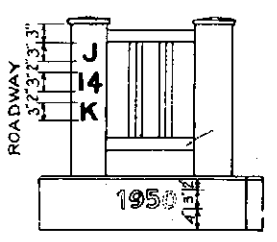
FED. ROAD DIST. NO.	STATE	SHEET NO.	TOTAL SHEETS
3	COLO.	AF 020-16	14



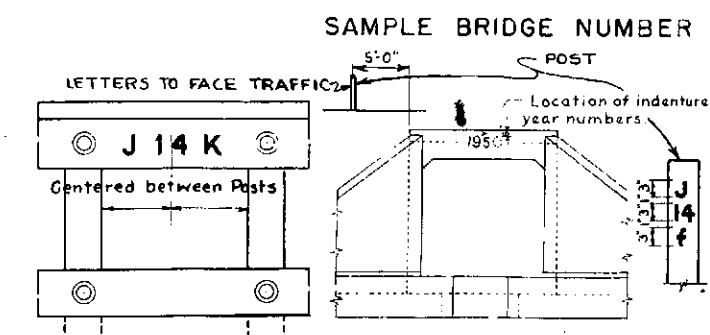
abcdefghijklmnopqrstuvwxyz



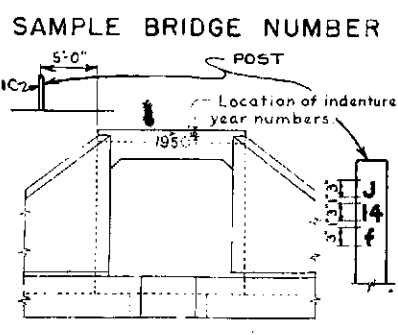
TYPICAL FOR CONCRETE ENDPOST



TYPICAL FOR STEEL HANDRAIL END POST



TYPICAL FOR TIMBER HANDRAIL



TYPICAL FOR LARGE BOX GULVERTS

SAMPLE BRIDGE NUMBER

GENERAL NOTES

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE COLORADO DEPARTMENT OF HIGHWAYS APPLICABLE TO THE PROJECT.
COMPENSATION FOR THIS WORK SHALL BE INCLUDED IN THE ORIGINAL CONTRACT ITEMS AND WILL NOT BE PAID FOR AS A SEPARATE ITEM.
THE SIZE, SHAPE AND SPACING OF THE LETTERS AND FIGURES SHALL BE IN ACCORDANCE WITH THE FULL SIZE SHOWN ON THIS SHEET.
ADDITIONAL COPIES OF THIS FULL SIZE SHEET CAN BE OBTAINED FROM THE DEPARTMENT WITHOUT CHARGE.
THE YEAR NUMBERS ARE RECESSED IN CONCRETE 3/8" MINIMUM AS SHOWN INTO THE PANEL OF THE ENDPPOST ON THE RIGHT HAND SIDE OF EACH BRIDGE END AND INTO THE FACE OF THE DOWNSTREAM HEADWALL OF CULVERTS AS SHOWN ON PLAN DETAILS.
NUMBERS TO BE MADE OF WOOD, METAL OR OTHER SUITABLE MATERIAL AND ATTACHED TO THE FORMS BEFORE CONCRETE IS POURED.
THE YEAR NUMBER OF EACH STRUCTURE SHALL CORRESPOND WITH THE YEAR IN WHICH THE CONCRETE IS POURED.
THE STRUCTURE NUMBER SHALL BE STENCILED ON THE RIGHT HAND SIDE OF EACH BRIDGE END AS SHOWN ON THIS STANDARD AND AS SPECIFIED FOR MAJOR STRUCTURES OVER 20'-0" CLEAR SPAN.
THE CORRECT NUMBER FOR EACH BRIDGE IS SHOWN IN THE LOWER RIGHT HAND CORNER OF THE DETAIL SHEETS FOR THAT BRIDGE.
A PROPER WHITE BACKGROUND RECTANGULAR IN SHAPE AND EXTENDING THREE INCHES BEYOND THE LIMITS OF THE NUMBER SHALL BE PAINTED WITH TWO COATS OF ACCEPTABLE WHITE PAINT UNLESS AN APPROVED WHITE CONCRETE PAINT IS USED. BEFORE PAINTING THE SURFACE MUST BE THOROUGHLY DRIED, CLEANED AND PROPERLY SIZED. ON TIMBER HANDRAILS THE WHITE PAINT USED ON THE BRIDGE WILL BE SATISFACTORY.
AFTER THE WHITE BACKGROUND HAS DRIED SUFFICIENTLY, THE CORRECT STRUCTURE NUMBER SHALL BE CAREFULLY STENCILED ON IT WITH TWO COATS OF SECOND COAT DARK OR EXTERIOR BLACK PAINT (PAINT) AS SPECIFIED UNDER ITEM 38 PAINTS AND PAINTING. THE BRACES OF THE STENCILED LETTERS AND FIGURES SHALL BE CAREFULLY FILLED IN BY HAND TO MAKE SOLID FIGURES.
SUFFICIENT TIME BETWEEN SUCCESSIVE COATS SHALL BE ALLOWED TO PERMIT THOROUGH DRYING.
MINOR STRUCTURES WITH CLEAR SPANS 12 TO 20 FEET INCLUSIVE SHALL BE STENCILED WITH STRUCTURE NUMBER THUS "W-18-2" ON 3" STEEL MARKER POSTS WHERE PROVIDED AND AS SHOWN ON STATE HIGHWAY STD. M-23-A

SAMPLE YEAR NUMBER

SECTION

COLORADO
DEPARTMENT OF HIGHWAYS
STANDARD
LETTERS AND FIGURES
FOR
YEAR NUMBERS AND
STRUCTURE NUMBERS

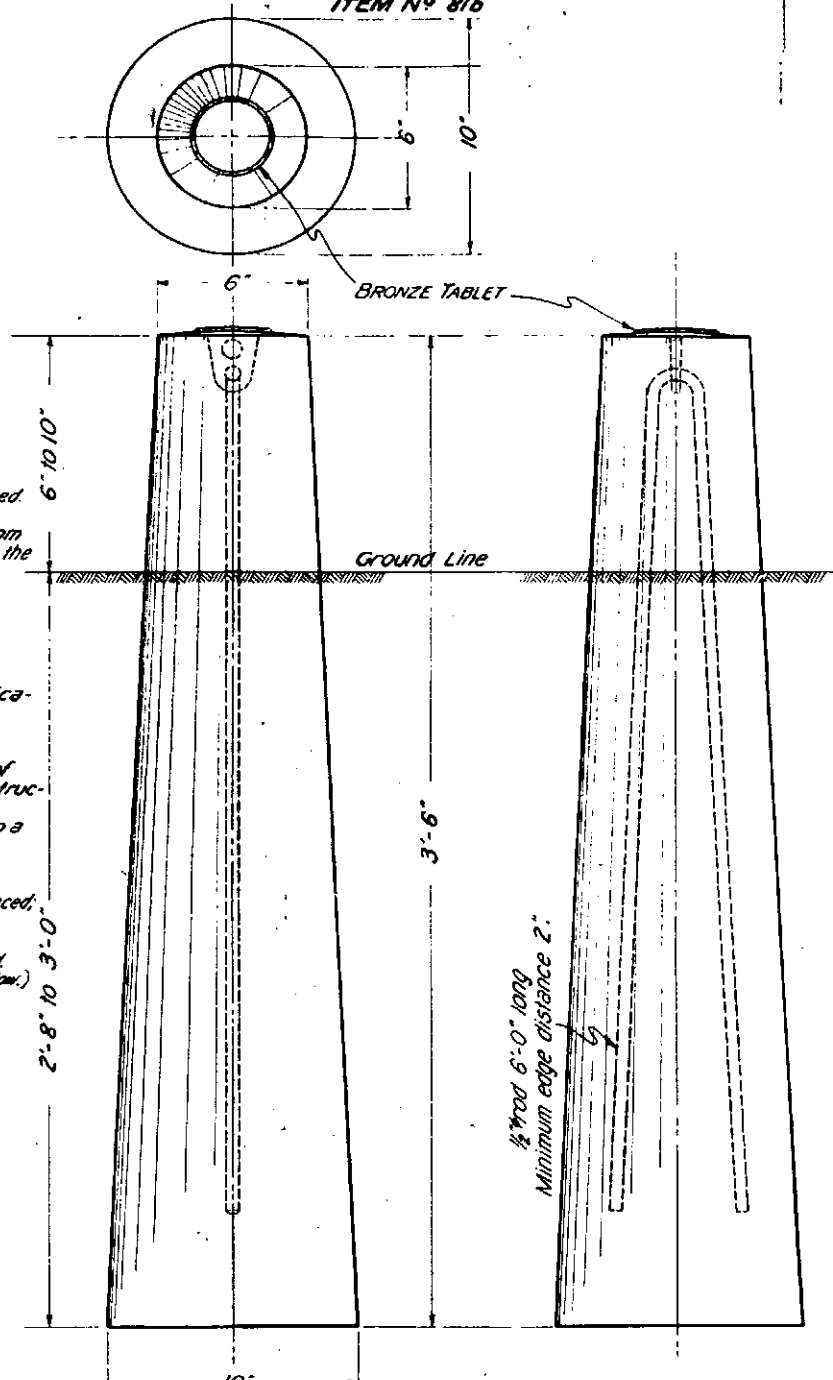
Designed by G.H.D. Approved by *Ed Bailey*
Made by W.P.M. Bridge Engineer
Checked by Date: June 1, 1946

PROJECT MARKER POST ITEM N° 818

RIGHT OF WAY MARKER POST ITEM N° 816

REVISIONS
Rev. 6-28-40, A.Z. 1940 Specs.
Rev. 1-2-46, C.S.D. Item 816
STANDARD M-7-B
Rev. 8 Jan. 46 P.S.B. 1/2" to 1/2" φ
Rev. June 10 '46, W.E.M. Bronze Tablet
Rev. Mar. 21-1947, W.H.M. ~ Project Marker Post.
Rev. Nov 20-1947, J.P.K. ~ Metal Project Marker
Rev. Dec. 13-1947, J.P.K. ~ Concrete Posts for Metal Project Marker
Rev. July 5-1950, J.C.R. ~ Rev. Note No. Metal Sign for Project Marker, & R.O.W. Marker Markings.
Rev. July 7, 1952, W.E.M. ~ 1952 Specs.

FED. ROAD DIST. NO.	STATE	SHEET NO.	TOTAL SHEETS
3	COLO.	AF-020-1(5)	15



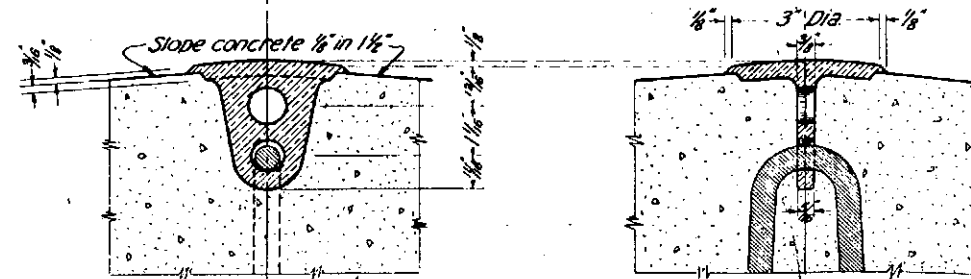
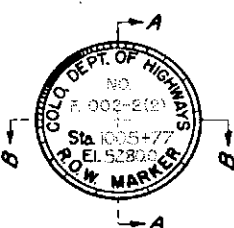
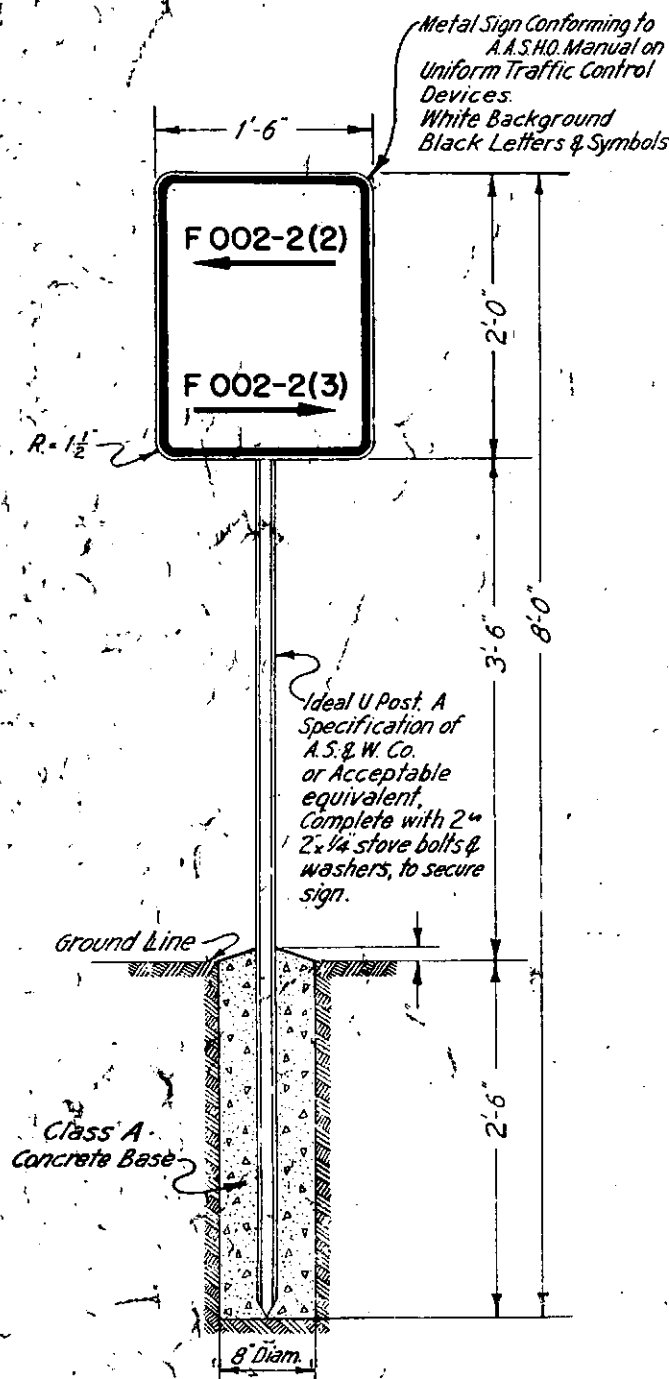
NOTES FOR PROJECT MARKER POSTS

All work shall be done in accordance with the Standard Specifications of the Colorado Department of Highways applicable to the project.

Numbers and arrows shall show the proper numbers and directions of the projects each way from where the post is placed. Post to be set with sign facing the road at the end of the project, two feet inside the R.O.W. line or at a point amply protected from traffic in such a position that the sign will indicate properly the projects to which it refers.

NOTES FOR R.O.W. MARKER POSTS

All work shall be done in accordance with the Standard Specifications of the Colorado Department of Highways applicable to the project.
Posts shall be made of Class "A" Concrete.
The upper 12 inches of marker posts shall be rubbed free of form marks, and the top surface of the post must be constructed to drain thoroughly.
All exposed surfaces of the bronze tablet are to be ground to a smooth surface.
All letters are to be depressed a minimum of 1/16 inch.
Information on the bronze tablet indicated by pin lines is to be stamped in the field by the engineering party after post is placed.
3/16 inch letters and figures to be used.
Project designations on tablets shall be properly shown.
(i.e., I for Fed. Aid Interstate, F for Fed. Aid Primary, S for Fed. Aid Secondary etc. & C N° for State Projects, See detail below.)



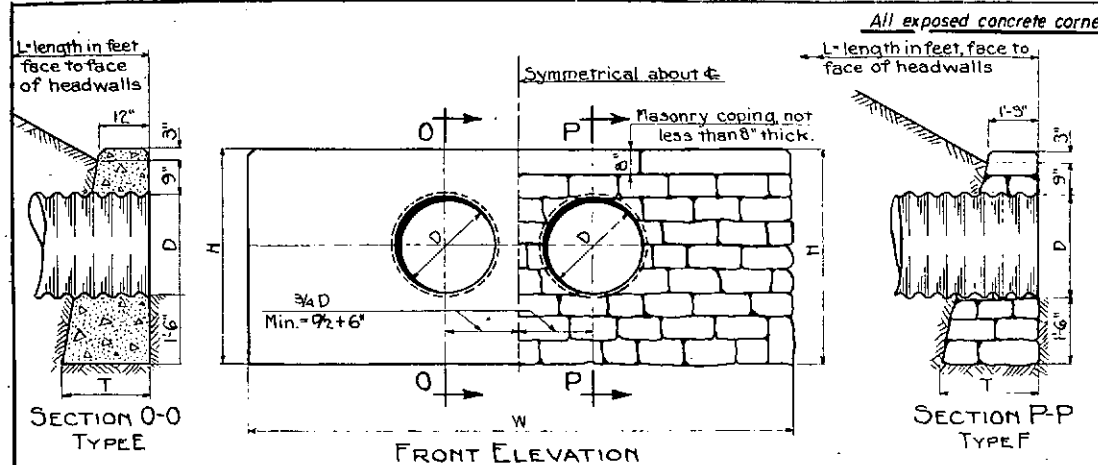
SECTION B-B SECTION A-A

DETAIL OF BRONZE TABLET FOR RIGHT OF WAY MARKER POST

COLORADO DEPARTMENT OF HIGHWAYS
STANDARD MARKER POSTS

Designed by REL
Made by FFS
Checked by REL

Approved by [Signature]
Date: January 1st 1948



STANDARD HEADWALLS FOR DOUBLE CORRUG. METAL PIPE CULVERTS

TABLE OF DIMENSIONS AND QUANTITIES

TYPE E			BOTH TYPES				TYPE F		
D DIAM.	T	CLASS B CONCRETE IN TWO HEADWALLS	W	H	CORRUGATED METAL PIPE		CEMENT RUBBLE MASONRY IN TWO HEADWALLS	T	D DIAM.
15"	1'-6"	2.4 Cu. Yds.	7'-6"	3'-9"	16 GAGE	2xL = Lin. Ft.	3.1 Cu. Yds.	2'-0"	15"
18"	1'-7"	3.0 Do	8'-6"	4'-0"	16 Do	2xL = Do	3.8 Do	2'-1"	18"
24"	1'-10"	4.4 Do	10'-6"	4'-6"	14 Do	2xL = Do	5.5 Do	2'-4"	24"
30"	2'-0"	6.1 Do	12'-9"	5'-0"	14 Do	2xL = Do	7.5 Do	2'-6"	30"
36"	2'-2"	8.1 Do	15'-0"	5'-6"	12 Do	2xL = Do	10.0 Do	2'-8"	36"
42"	2'-5"	10.8 Do	17'-3"	6'-0"	12 Do	2xL = Do	12.8 Do	2'-10"	42"
48"	2'-7"	13.6 Do	19'-6"	6'-6"	12 Do	2xL = Do	16.3 Do	3'-0"	48"

STANDARD HEADWALLS FOR SINGLE CORRUG. METAL PIPE CULVERTS

TABLE OF DIMENSIONS AND QUANTITIES

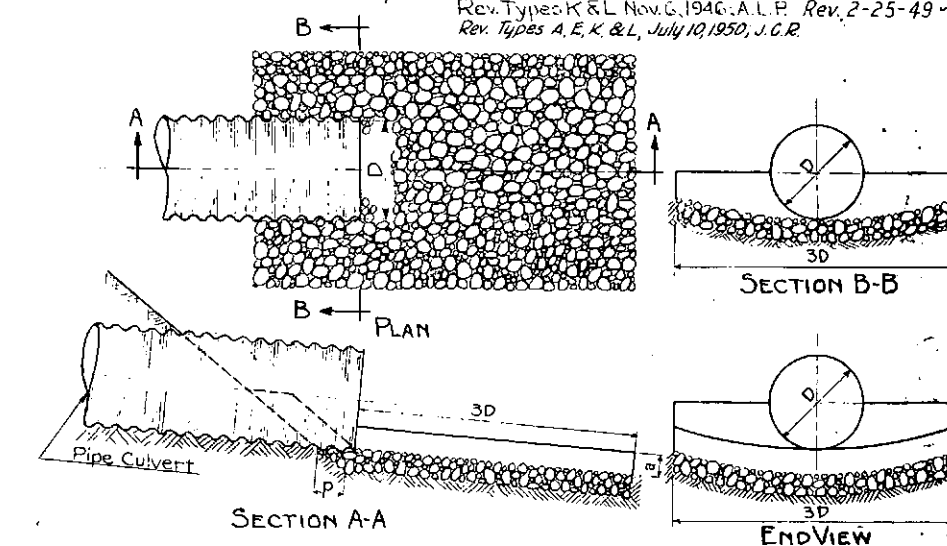
TYPE A			BOTH TYPES				TYPE C		
D DIAM.	T	CLASS B CONCRETE IN TWO HEADWALLS	W	H	CORRUGATED METAL PIPE		CEMENT RUBBLE MASONRY IN TWO HEADWALLS	T	D DIAM.
15"	1'-6"	1.8 Cu. Yds.	5'-3"	3'-9"	16 GAGE	L= LIN. FT.	2.2 Cu. Yds.	2'-0"	15"
18"	1'-7"	2.2 Do	6'-0"	4'-0"	16 Do	L= Do	2.8 Do	2'-1"	18"
24"	1'-10"	3.3 Do	7'-6"	4'-6"	14 Do	L= Do	4.1 Do	2'-4"	24"
30"	2'-0"	4.5 Do	9'-0"	5'-0"	14 Do	L= Do	5.6 Do	2'-6"	30"
36"	2'-2"	6.0 Do	10'-6"	5'-6"	12 Do	L= Do	7.4 Do	2'-8"	36"
42"	2'-5"	8.0 Do	12'-0"	6'-0"	12 Do	L= Do	9.2 Do	2'-10"	42"
48"	2'-7"	10.0 Do	13'-6"	6'-6"	12 Do	L= Do	11.5 Do	3'-0"	48"

STANDARD M-102-G

Rev. 8-28-50, C.G.M. - Dimension B, Line 7, Type L
Rev. 7-21-52, H.W.M.
Rev. 1-14-53, W.E.M. - Concrete classification
Rev. 3-26-53, T.M.C. - Added 12' & 21' Metal Aprons

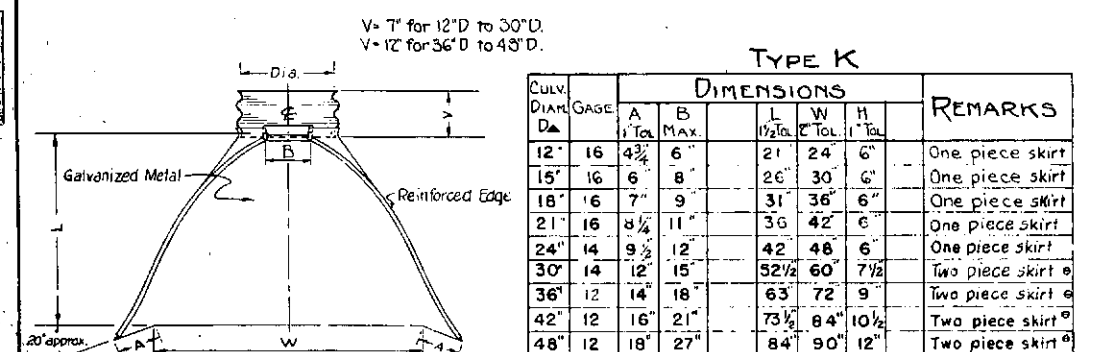
FILED PLAN DIST. NO.	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	A-6020-1 (3)	16	

Rev. Types K & L Jan. 17, 1946; A.L.P. Rev. 3-7-47 Type K & L, H.W.M.
Rev. Types C & F June 11, 1946; A.L.P. Rev. 12-13-47 Type K & L, H.W.M.
Rev. Types K & L Nov. 6, 1946; A.L.P. Rev. 2-25-49 Type K & L, H.W.M.
Rev. Types A, E, K & L, July 10, 1950, J.C.R.

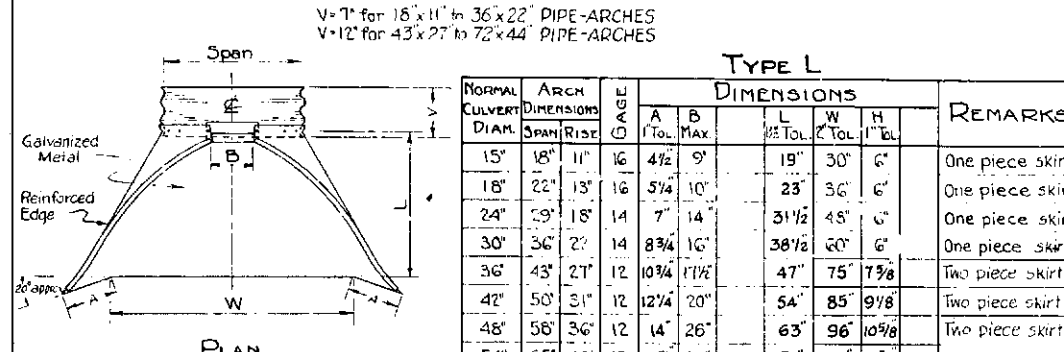
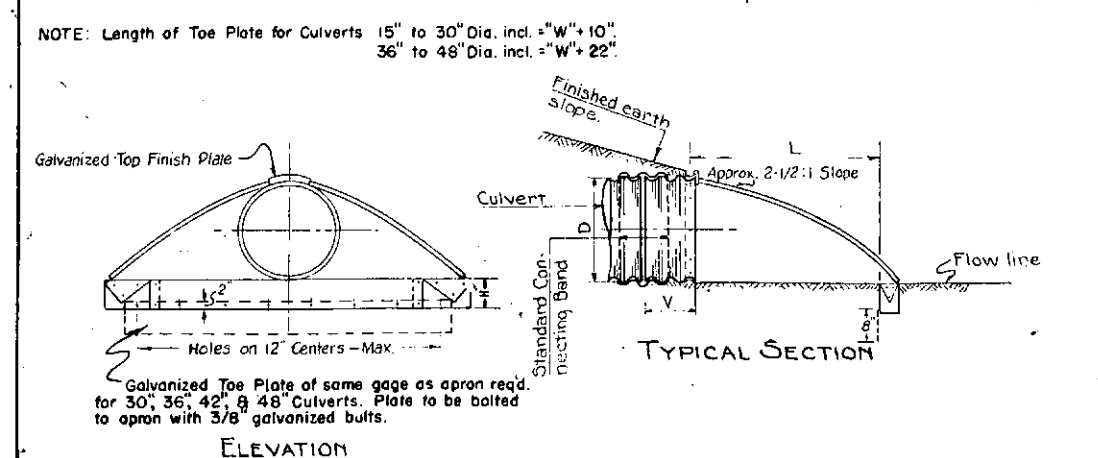


STANDARD GROUTED RUBBLE APRON FOR PIPE CULVERTS

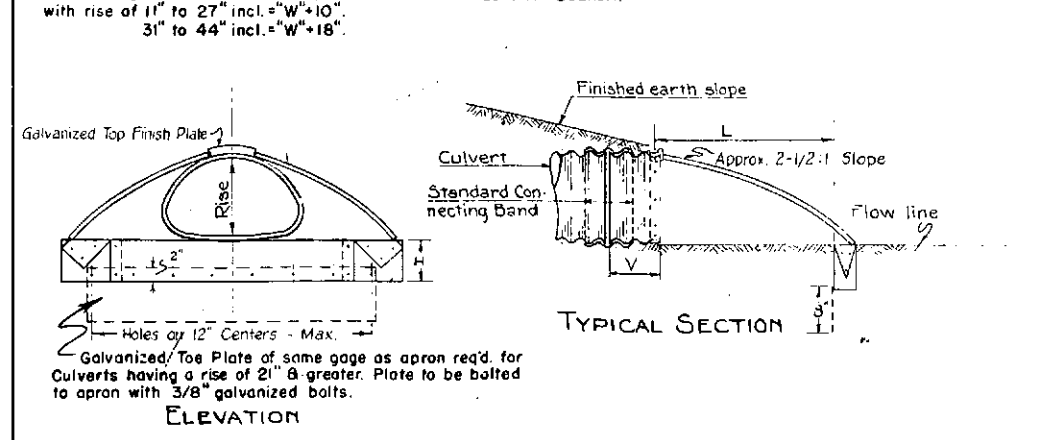
SQUARE YARDS GROUTED RUBBLE SLOPE AND DITCH PAVING 1 FOOT THICK		D	15"	18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"
SLOPE	12:1	2'-0"	3	4	6	9	12	17	21	27	33	39	46	54	62
	2:1	2'-0"	3	4	7	10	13	18	22	28	34	41	49	57	66
	3:1	3'-0"	3	4	7	11	15	20	25	31	38	45	54	63	72
	4:1	4'-0"	3	5	8	12	16	22	28	34	42	50	59	69	79



Splices to be the lap riveted type.
One splice on ϕ , made by either riveting or bolting.
Galvanized Connector Section, Corner Plate & Toe Plate to be same gage as skirt Section.
Culvert diameter is equal to dimension D of connector section.



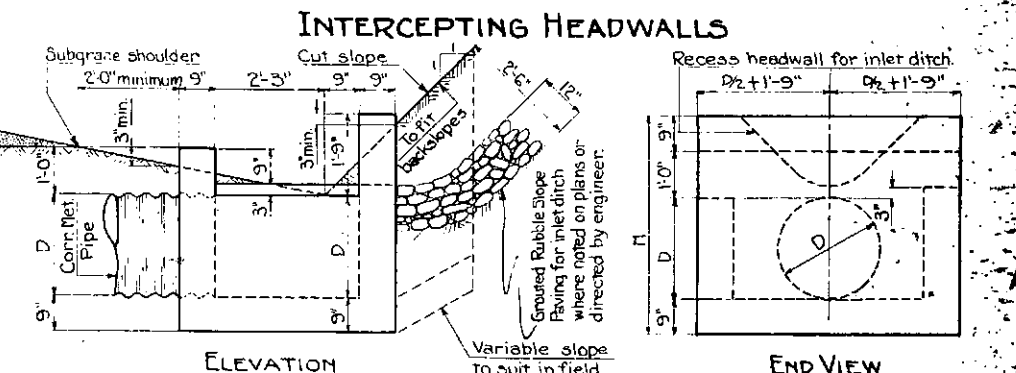
Splices to be the lap riveted or bolted on ϕ .
Sections to be joined by riveting or bolting equal distance from ϕ .
Galvanized Connector Section, Corner Plate & Toe Plate to be same gage as skirt Section.



QUANTITIES OF *CONCRETE OR CEMENT RUBBLE MASONRY

SIZE OF PIPE	WIDTH OF WALL	HEIGHT OF WALL	QUANTITIES IN ONE HEADWALL
D	W	H	Cu. Yds.
15"	4'-3"	3'-9"	1.48
18"	5'-0"	4'-0"	1.64
24"	5'-6"	4'-6"	1.99
30"	6'-0"	5'-0"	2.34
36"	6'-6"	5'-6"	2.72

NOTE: Backwall to be eliminated and end walls connected to back slope where ordered by the Engineer. Floor slab is to be extended with side walls if in common material and is to be omitted when inlet is in rock. Actual quantities involved in such operation shall be allowed and paid for. Increases in plan quantities must be covered by work order.
* See plan sheets for concrete classification



GENERAL NOTES FOR ALL STRUCTURES
All work shall be done according to the standard specifications of the Colorado Department of Highways applicable to the Project.
All exposed concrete surfaces shall receive class 1 surface finish.

All construction joints shall be thoroughly cleaned before fresh concrete is poured.
All walls shall have forms on both sides.
The minimum fill over top of culverts shall be 1'-0".
When culvert is skewed, headwalls shall be placed parallel to ϕ of roadway. Minimum grade of pipe shall be 1%.
For size and location of culverts see plan sheets for project.
Footings in rock shall be poured out to rock and not formed.
Mechanical Tamping, as provided under Item No. 16 of the specifications, shall be applied over such areas as shown on the plans or as ordered by the Engineer.

COLORADO
DEPARTMENT OF HIGHWAYS
STANDARD HEADWALLS
INTERCEPTING HEADWALLS
GALVANIZED METAL APRONS
GROUTED RUBBLE APRONS
FOR CORR. MET. PIPE CULVERTS

Designed by P.S.B. and Approved by R.L. B. and
Made by A.L.P. Bridge Engineer
Checked by H.W.P. Date December 15, 1945

STANDARD TIMBER GUARD POSTS

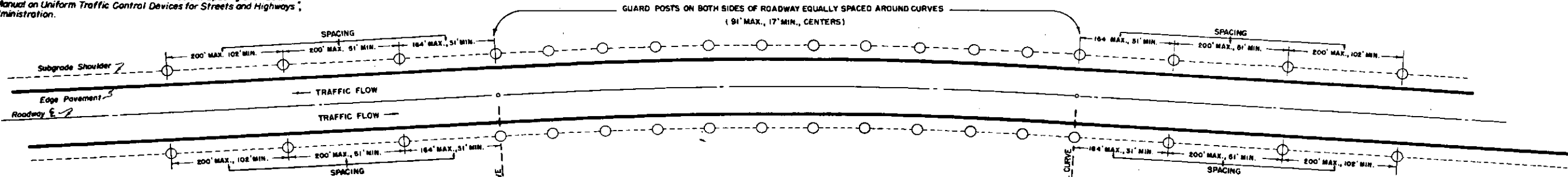
STANDARD M-19-D SPECIFICATIONS

FED. ROAD DIVISION NO.	DISTRICT	SHEET NO.	TOTAL SHEETS
9	COLO.	AF020-1(5)	17

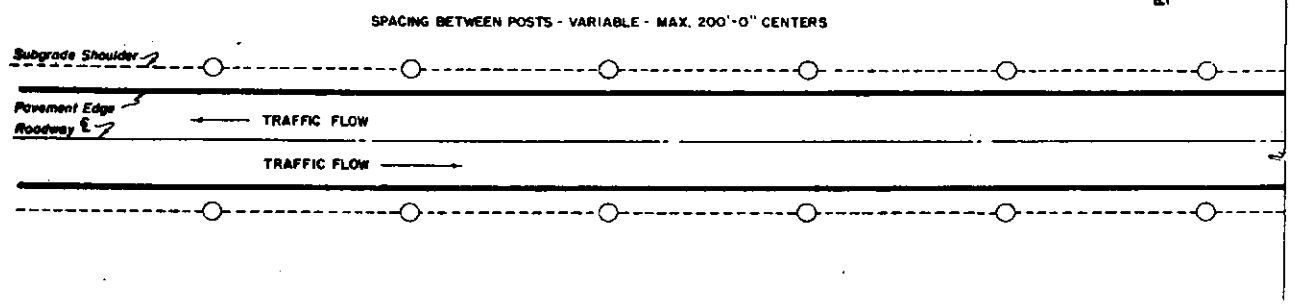
Rev. 5-13-53, Specifications, J.G.R.

Typical Installation on Curves

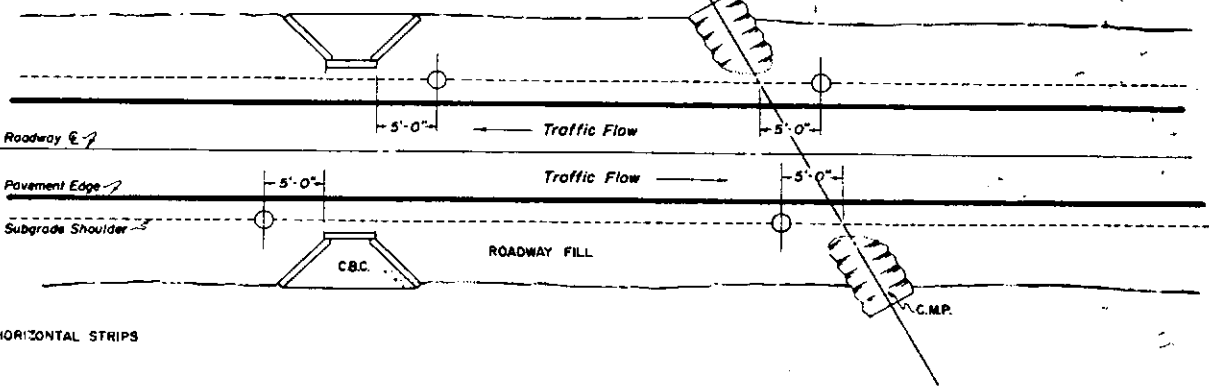
INSTALLATION of guard posts on curves shall be in accordance with details shown below. Spacing shall be in conformity with Section 157, Table 1 of "Manual on Uniform Traffic Control Devices for Streets and Highways", Issue of Aug. 1948 by the Public Roads Administration.



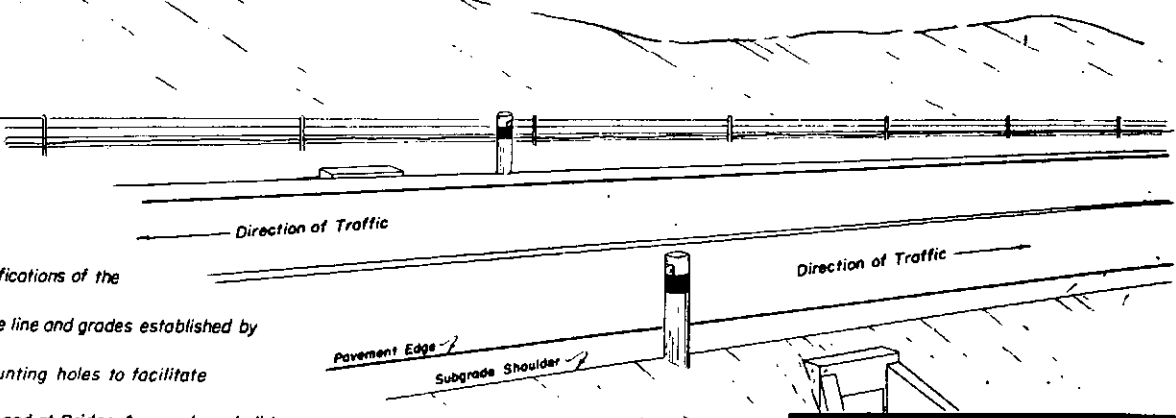
Method of Placement on Tangents



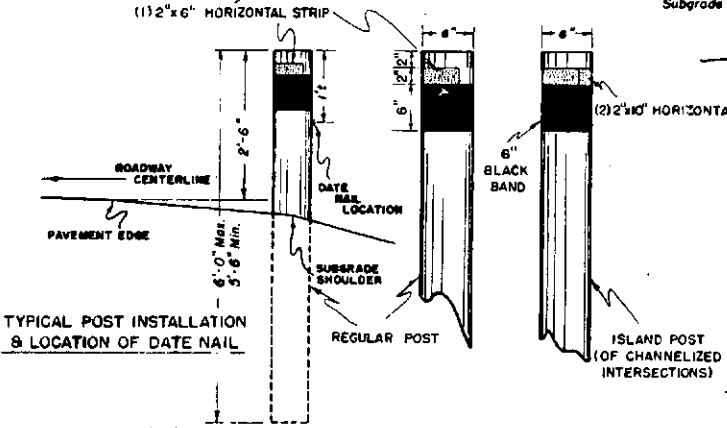
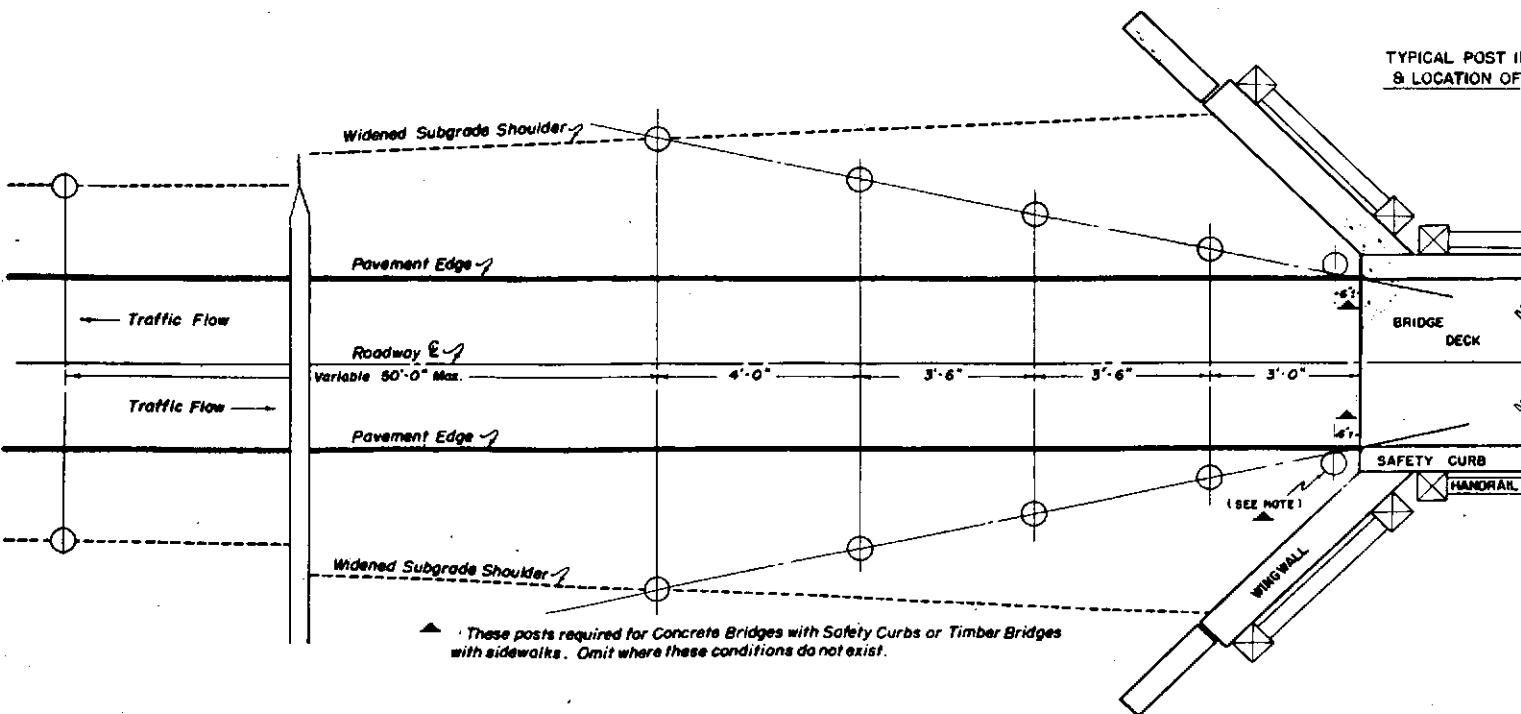
Plan View Showing Placement at Isolated Minor Structures



Pictorial View Showing Location at Isolated Minor Structures



Typical Installation at Bridge Approaches



INSTALLATION DETAILS OF REFLECTORIZED STRIPS

GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colorado Department of Highways applicable to the project.

All posts shall be set and tamped in, plumb and firm, to the line and grades established by the Engineer.

Reflective Sheeting Strips shall be furnished with two (2) mounting holes to facilitate nailing to posts.

INSTALLATION of Timber Guard Posts on Tangents, Curves and at Bridge Approaches shall be in conformity with details on this sheet and in accordance with the following: Wrap Around Reflective Sheeting Strips shall be installed horizontally one (1) sheet on all posts. Island Posts shall have two (2) Wrap Around Reflective Sheeting Strips placed horizontally to cover entire circumference of Post.

On Divided Highways and Islands, Reflective Sheeting Strips shall be placed in a manner to obtain maximum visibility for the primary direction of travel. In all instances a test shall be made to assure the maximum effect from Reflective Sheeting Strips.

All Traffic Islands shall be marked with Island Posts as shown above.

Reflective Sheeting Strips to be installed by the Contractor after painting of Posts. The number, location and spacing of Timber Guard Posts is shown on plans.

**COLORADO
DEPARTMENT OF HIGHWAYS**

**STANDARD
TIMBER GUARD POSTS**

Designed by
Made by
Checked by

Approved by
Engineer, Survey
Date: March 25, 1953

STANDARD M-1-B

LD ROAD DIST. NO.	STATE	COLO.	AF020-16	18
Rev. 11-2-39 P.B.B. Widening Transition Rev. 12-13-47 J.P.K.				

GENERAL NOTES

Curves on projects using the Sections shown are to be superelevated and widened as indicated in the accompanying drawings and tables.

The normal inside edge of the Pavement slab is to remain at the standard elevation of 0.125 ft below the profile grade, and the outside edge of the slab is to be superelevated at the rate per foot width of roadway given in the table. The Section is to be rotated about the normal inside edge of the Pavement, with a $1\frac{1}{2}$ " parabolic crown for curves of 10° and under, and a flat crown for widened Sections.

The normal inside edge of the Graded or Surfaced Section is to remain at the standard elevation of 0.02 ft. per foot width of roadway below the profile grade, or as shown on the Typical Section for the Project. Also, the center-line pivot point is to be used until the superlevation equals 0.02 ft. per foot width of roadway, but when this elevation is exceeded the normal inside shoulder pivot point is to be used.

When the degree of curvature exceeds 10°, the inside edge of the Pavement slab or the inside shoulder of the Graded or Surfaced Section is to be widened from the normal inside edge or shoulder, respectively, as shown by the table and plan or by cross-sections. Curves of 10° or less are not to be widened.

The slope of the shoulders and widened sections shall conform to the rate per foot width of roadway required, except that the inside shoulder of paved sections shall maintain the Typical Section slope until this slope is exceeded by the required superlevation slope.

The outside ditch on superelevated Sections is to be modified, where necessary to provide drainage. Otherwise, this ditch shall conform to normal ditch section shown for Project.

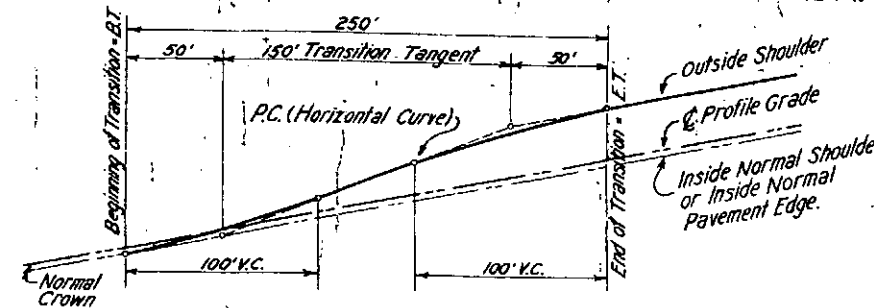
The rate of superlevation per foot width of roadway to be applied at the outside shoulder of the roadway is computed as follows:

The full superlevation per foot width of roadway rate for a given degree of curvature is

$$0.0105 \text{ ft.} \times \text{Degree of Curvature}$$

The maximum superlevation of 0.10 ft. per foot width, applying to curves of 10° and over, is not to be exceeded.

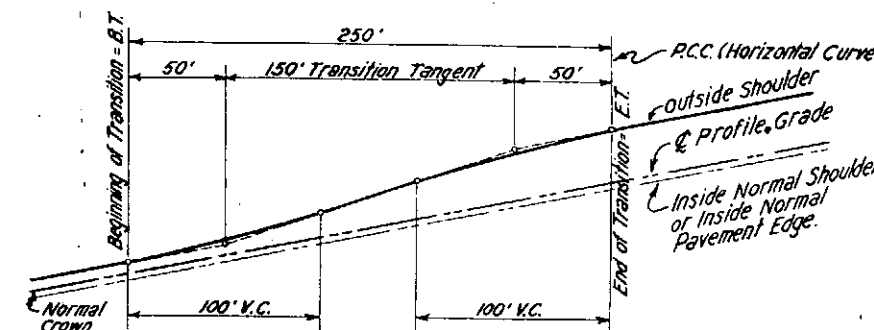
Special transition problems not covered by this standard sheet shall be covered by appropriate notes included with curve data on plans.



CASE I: SIMPLE CURVE WITH UNLIMITED TANGENT APPROACH

NOTE: CASE I

The transition in this case, from crowned section to superelevated section, shall proceed uniformly by raising the outside shoulder, over a distance of 250 ft. as shown, beginning at a point on the tangent 150 ft. from the end of the curve and acquiring full superlevation at a point 100 ft. inside the curve.



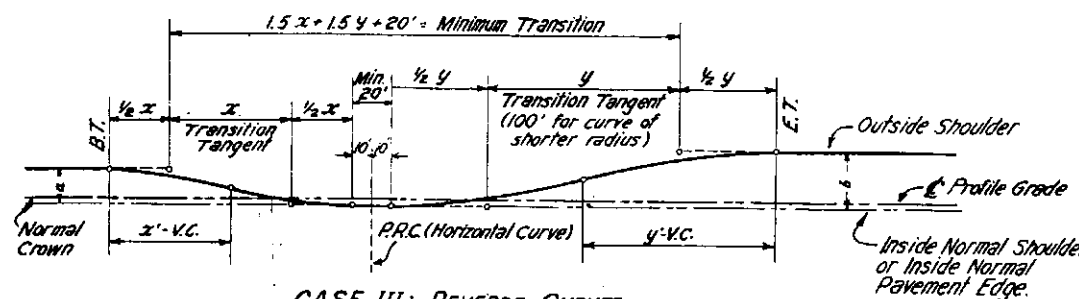
CASE II: COMPOUND CURVE

NOTE: CASE II

Superelevation transitions at the outside ends of compound curves shall be constructed in accordance with rules given under CASE I.

Superelevation transition between the arcs of different radii shall be made as in CASE I, except that the entire transition shall lie within the limits of the curve of the longer radius.

In cases where curves in the same direction have a tangent distance of less than 300 ft. between points of curve, the intervening tangent shall be superelevated an amount equal to that of the curve of greater radius and the transition shall be made as in the case of a true compound curve.



CASE III: REVERSE CURVES

NOTE: CASE III

Transitions between true reverse curves shall be accomplished as shown on the above diagram.

Transition tangents shall be directly proportional to the amount of superlevation of the respective curves.

EXAMPLE: Let a represent the amount of superlevation on 1st curve;

" b " " " " 2nd " "

" x " " " " transition tangent on 1st " "

" y " " " " " 2nd " "

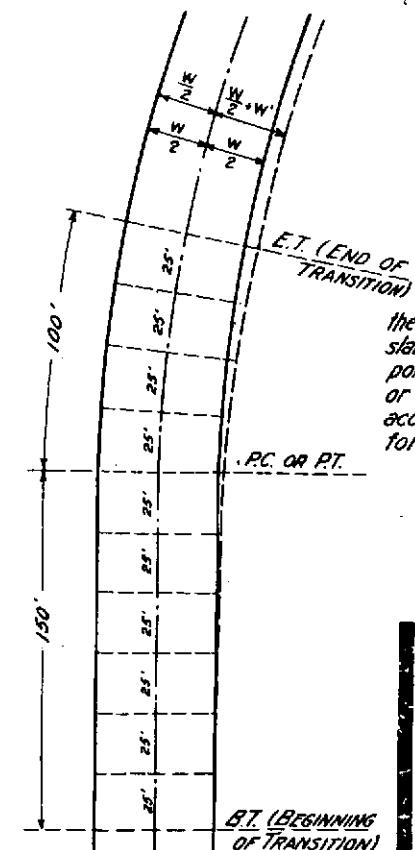
then, $a:b = x:y$.

The transition tangent of the curve having the shorter radius shall be set at 100 ft.

A normal crowned section 20 ft. long, 10 ft. on each side of the P.C. shall be used.

In cases where curves in opposite directions are in such proximity that a standard transition can not be had, the practice outlined for true reversing curves shall be used.

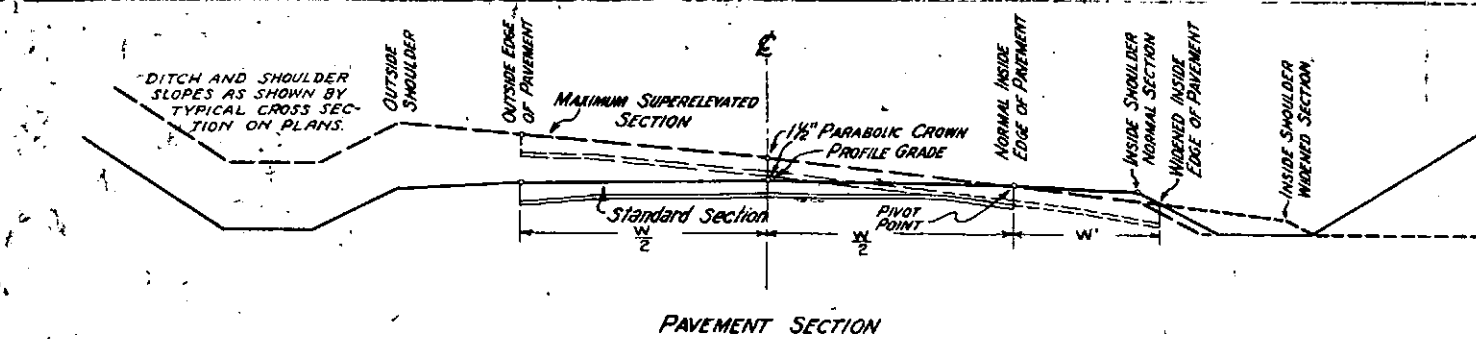
The total distance between the P.T. of the first curve and the P.C. of the succeeding curve shall be prorated into the transition distance of the respective curves until a maximum of 150 ft. of transition tangent for each curve is achieved.



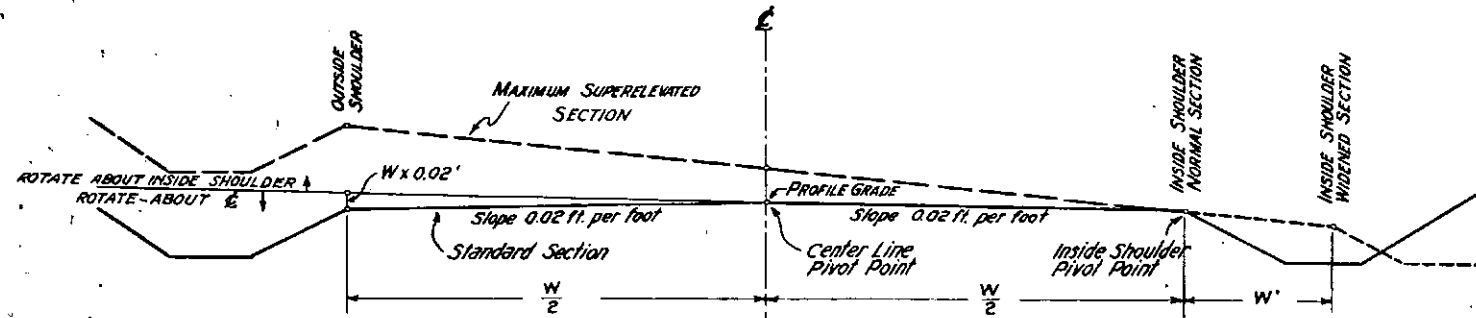
GENERAL PLAN OF WIDENING

COLORADO
STATE HIGHWAY DEPARTMENT
STANDARD
METHODS FOR
SUPERELEVATION &
WIDENING OF CURVES

Designed by R.E.L. Approved by J.B. Marshall
Made by P.B.B. Checked by F.E.S. Date: January 1st 1948



PAVEMENT SECTION

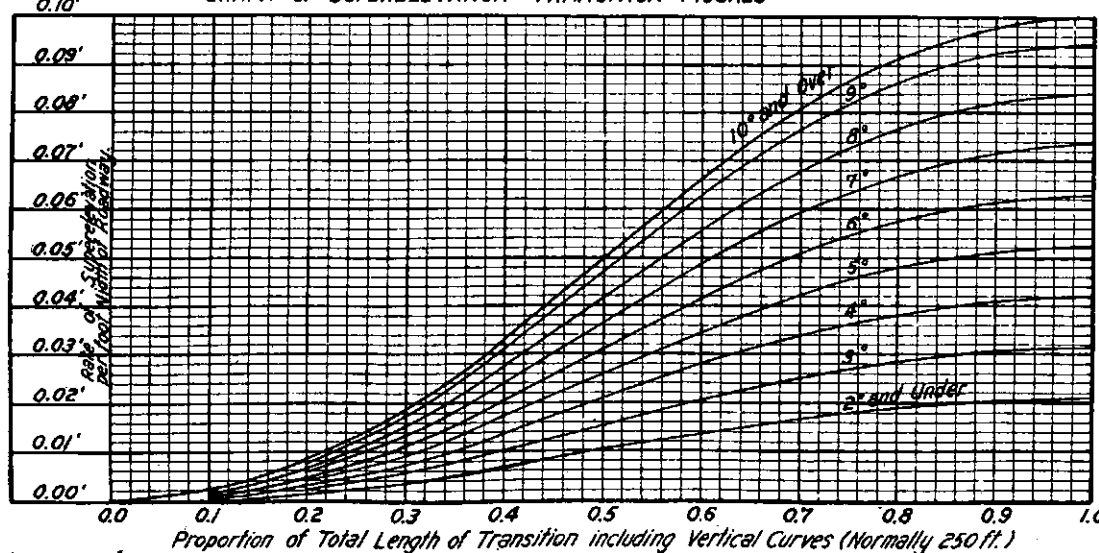


GRADED OR SURFACED SECTION

SUPERELEVATION AND WIDENING TABLES

DISTANCE FROM B.T. (PROPORTION)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	MAX. 1.0
Degree of Curvature	RATE OF SUPERELEVATION (IN FEET) PER FOOT WIDTH OF ROADWAY									
2° and Under	0.00044	0.00175	0.00394	0.00700	0.01050	0.01400	0.01706	0.01925	0.02056	0.02100
3°	0.00066	0.00263	0.00591	0.01050	0.01575	0.02100	0.02559	0.02888	0.03084	0.03150
4°	0.00088	0.00350	0.00788	0.01400	0.02100	0.02800	0.03413	0.03850	0.04113	0.04200
5°	0.00109	0.00438	0.00984	0.01750	0.02625	0.03500	0.04266	0.04813	0.05141	0.05250
6°	0.00131	0.00525	0.01181	0.02100	0.03150	0.04200	0.05119	0.05775	0.06169	0.06300
7°	0.00153	0.00613	0.01378	0.02450	0.03675	0.04900	0.05972	0.06738	0.07197	0.07350
8°	0.00175	0.00700	0.01575	0.02800	0.04200	0.05600	0.06825	0.07700	0.08225	0.08400
9°	0.00197	0.00788	0.01772	0.03150	0.04725	0.06300	0.07678	0.08663	0.09253	0.09450
10° and Over	0.00208	0.00833	0.01875	0.03333	0.05000	0.06667	0.08125	0.09166	0.09792	0.10000
	OFFSETS FOR WIDENING - W' (IN FEET)									
Over 10° - Under 12°	0.03	0.12	0.27	0.48	0.75	1.08	1.47	1.92	2.43	3.00
12° - " 15°	0.04	0.16	0.36	0.64	1.00	1.44	1.96	2.56	3.24	4.00
15° - " 20°	0.05	0.20	0.45	0.80	1.25	1.80	2.45	3.20	4.05	5.00
20° and Over	0.06	0.24	0.54	0.96	1.50	2.16	2.94	3.84	4.86	6.00

GRAPH OF SUPERELEVATION TRANSITION FIGURES



STANDARD SIDE APPROACH ROADS, FLARING, CUT SLOPE TREATMENT & WIDENING AT BRIDGES AND AT CREST OF GRADES

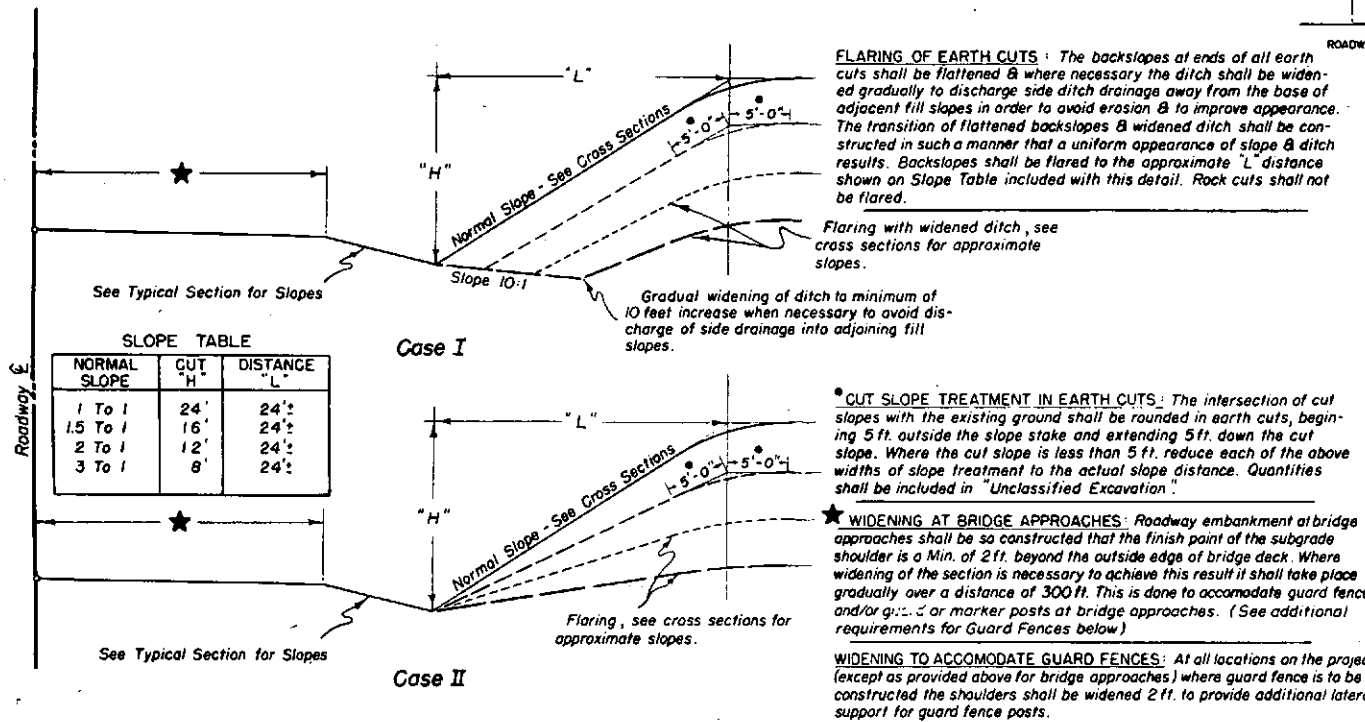
Rev. 10-25-50 C.G.M., Accel. Lanes, Ballast note
no widen crest grades

STANDARD M-2-DM

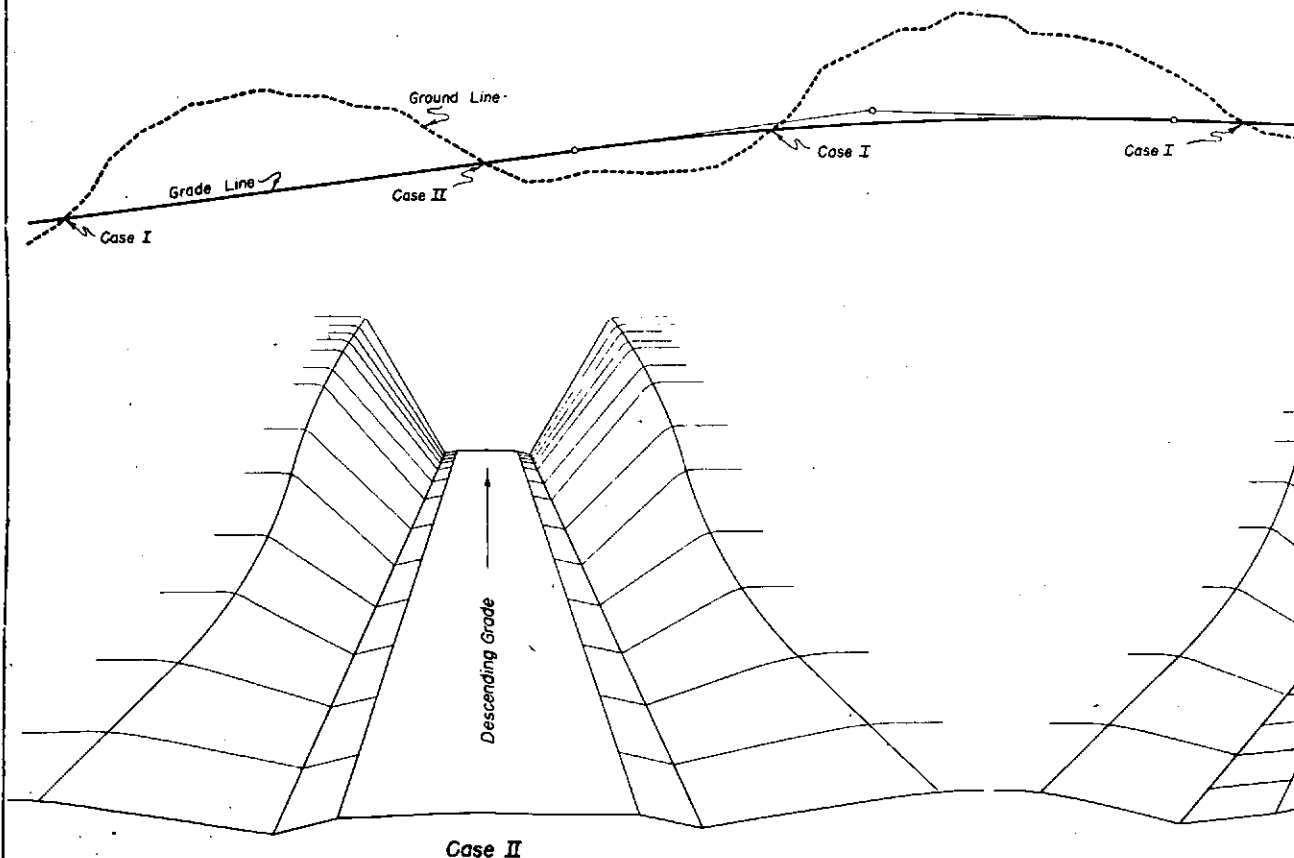
Rev. 7-12-49, C.G.M., Details for widening at Crest of Grades
Rev. 12-7-49, C.G.M., Rev. notes re Type I Rd. Apprs. &
widening at Bridge Apprs., added note re accel. & decell. lanes.

FIG. R-144	DISTRICT	SHEET NO.	TOTAL SHEETS
9.	COLO.	Af20-1(5)	19

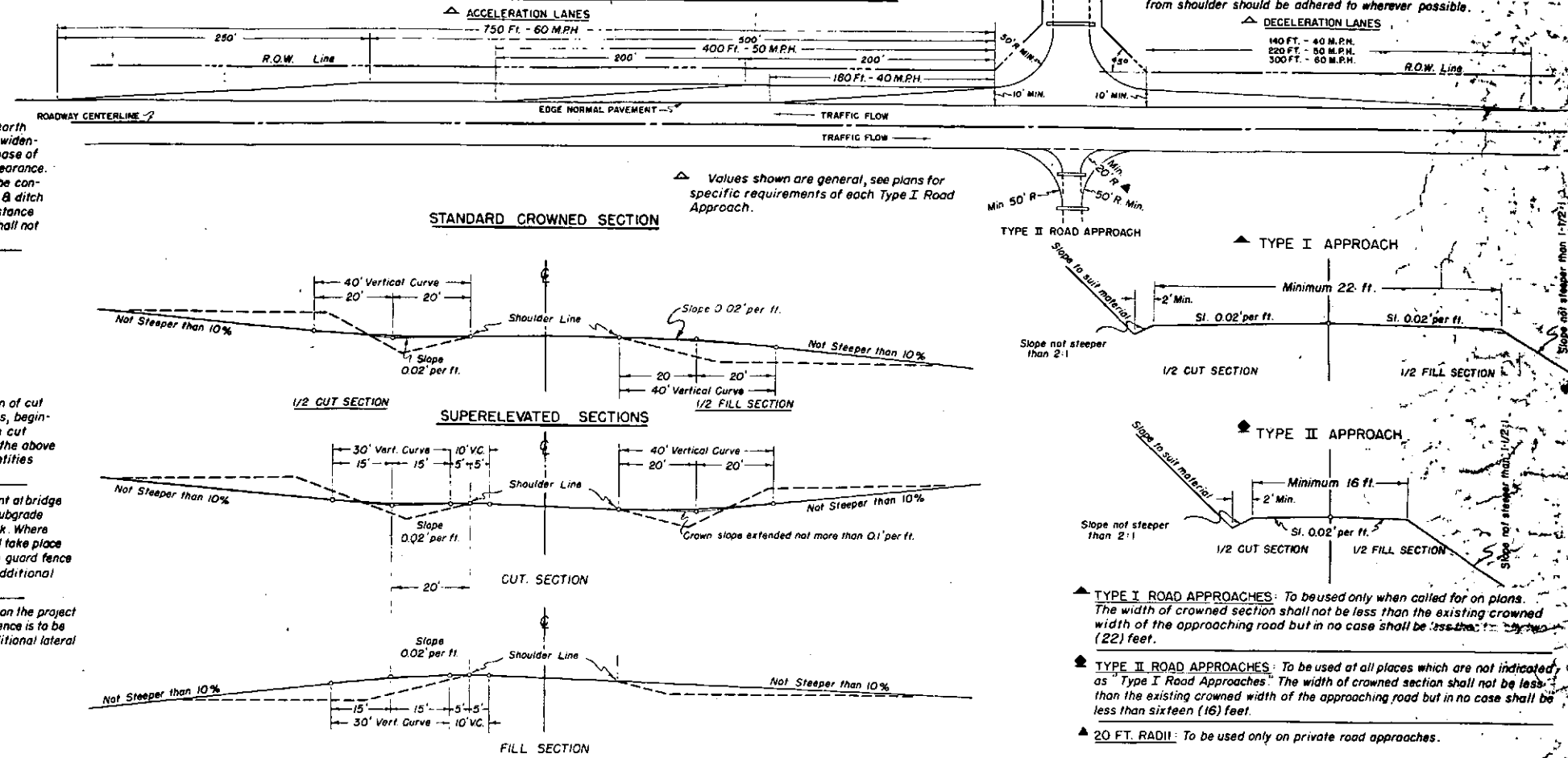
GENERAL DETAILS FOR FLARING OF EARTH CUTS, CUT SLOPE TREATMENT & WIDENING AT BRIDGES



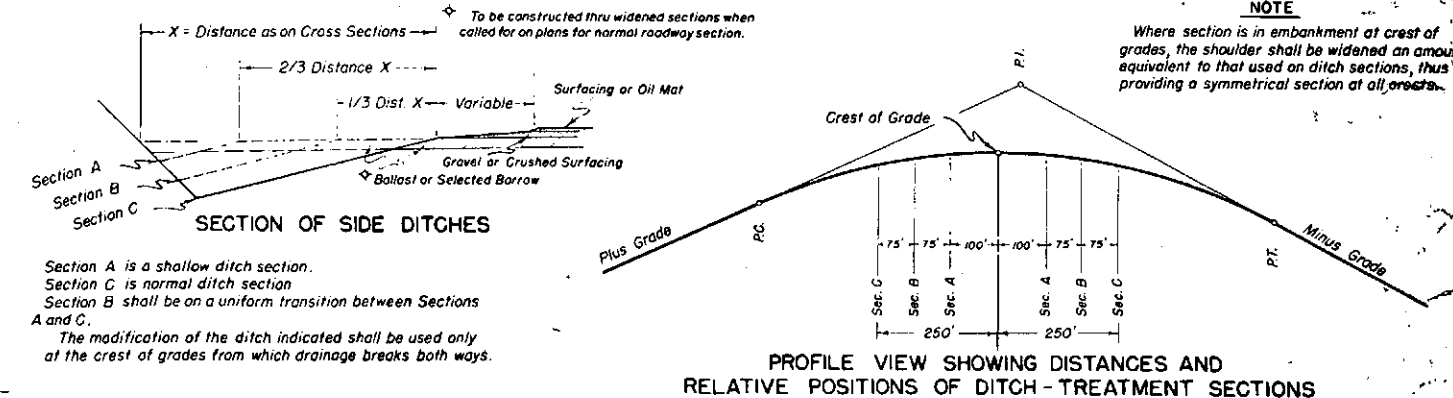
PLAN OF FLARING IN EARTH CUTS



TYPICAL PLANS FOR SIDE APPROACH ROADS



DETAILS FOR DITCH & WIDENED SHOULDERS AT CREST OF GRADES (TO BE USED ONLY WHERE SIGHT DISTANCE AT CREST OF GRADE IS 600 FT. OR LESS)



GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department applicable to the Project.

All side approach roads to the Project shall be Gravel Surfaced with a four (4) inch thickness of "Gravel or Crushed Rock Surfacing" extending approximately to the Right of Way Line. Estimated tonnage & type of material required for this operation are shown in the Surfacing Plan.

The maximum grades shown are to be the limiting grades for all road approaches. Modifications of grades will be permitted where adherence to the grades as shown would cause damage to property or create other unsatisfactory conditions. Grades less than the maximum shown are to be used wherever feasible.

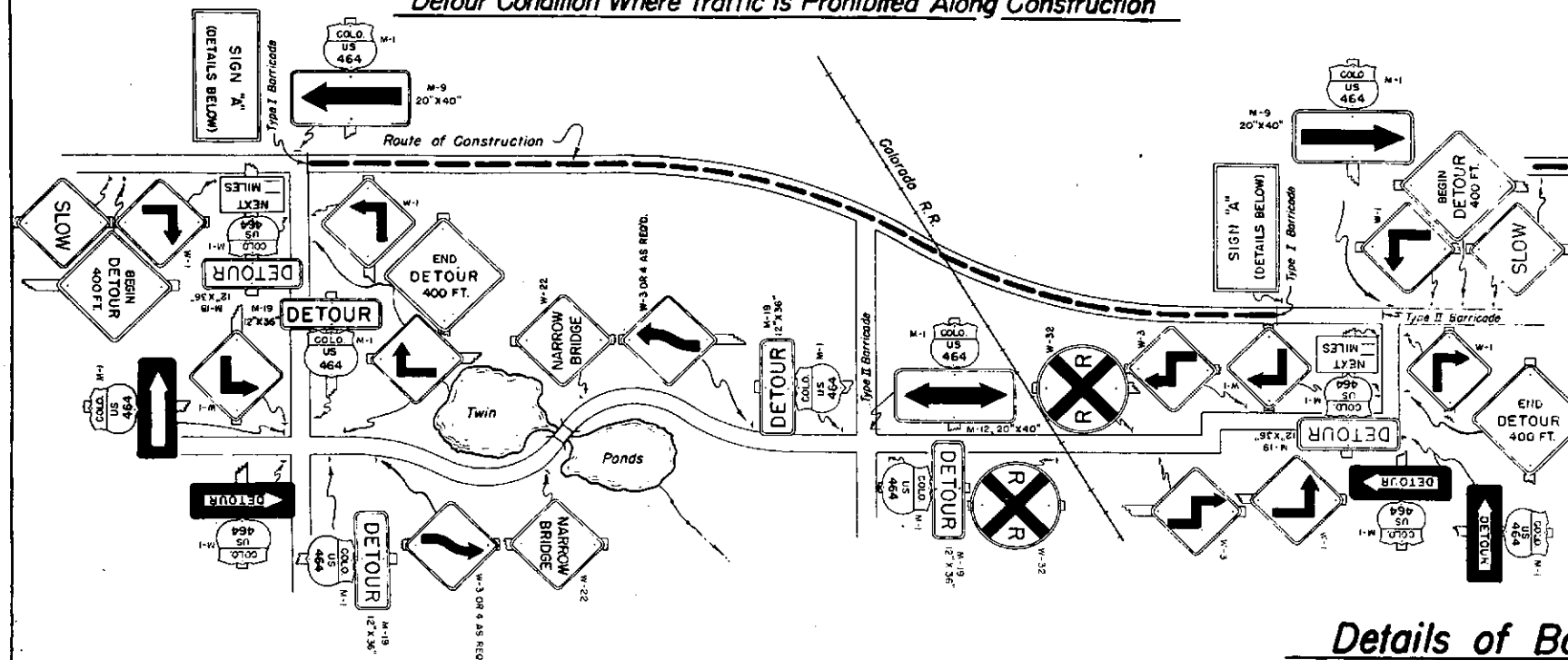
COLORADO STATE HIGHWAY DEPARTMENT
STANDARD SIDE APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, & WIDENING AT BRIDGES AND AT CREST OF GRADES

Designed by A.Z.
Made by C.G.M.
Checked by J.A.

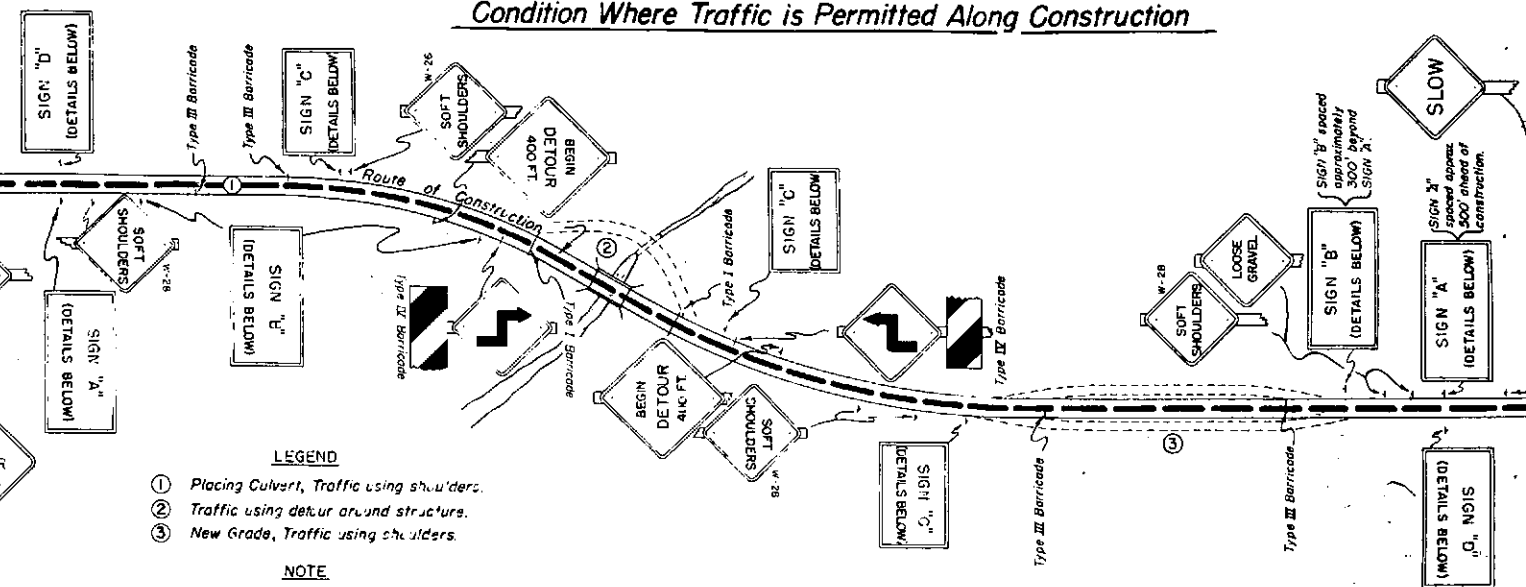
Approved by *[Signature]*
Engineer, Surveys & Plans
Date: April 20th, 1949

Typical Methods of Marking Highways & Detours

Detour Condition Where Traffic is Prohibited Along Construction



Condition Where Traffic is Permitted Along Construction

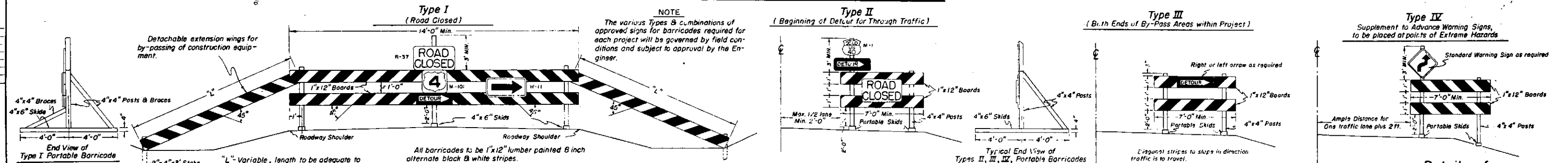


- LEGEND
- ① Placing Culvert, Traffic using shoulders.
 - ② Traffic using detour around structures.
 - ③ New Grade, Traffic using shoulders.

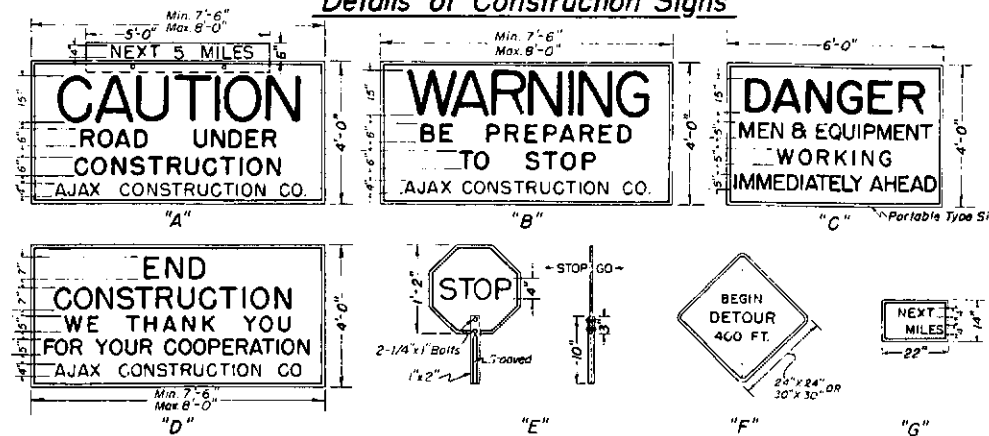
NOTE

Typical examples for marking Projects as shown above constitute a minimum of signs required. Additional markings & any special signs required for the guidance and protection of traffic will be placed as required along the project. Contractor's & Engineer's equipment must be parked so that signs & barricades are visible to traffic at all times.

Details of Barricades



Details of Construction Signs



GENERAL NOTES

All work shall be done in accordance with the Standard Specification of the Colorado Department of Highways applicable to the project.

Where traffic is maintained through or over any part of the Project, the Contractor will be required to mark all hazards within the limits of the Project with well painted, well maintained Barricades, Warning Signs and Directional Type Signs. All Barricades & Signs shall be moved, added to, changed or removed as required during the progress of construction and removed entirely when project is completed.

All Warning & Directional Type Signs will be "Reflectorized" with "Scotchlite" Reflective Sheeting or a suitable equivalent. Except for variations noted on this sheet all signs will be in conformity with the specifications outlined in "Manual on Uniform Traffic Control Devices for Streets & Highways" issued of August 1948 by the U.S. Public Roads Administration. U.S. or State Route Markers required for the Project will be furnished by the Department and installed by the Contractor. Numbers adjacent to signs refer to Standards in the Manual.

- The Contractor shall furnish & install the following as required within the limits of the Project:
1. All Barricades As Required
 2. "CAUTION, ROAD UNDER CONSTRUCTION, NEXT MILES, CONTRACTORS NAME" As Required
 3. Standard Warning & Directional Signs As Required
 4. "WARNING, BE PREPARED TO STOP, CONTRACTORS NAME" Minimum 2
 5. Approved Directional Arrows for Barricades As Required
 6. "DANGER, MEN & EQUIPMENT WORKING IMMEDIATELY AHEAD" Minimum 2
 7. "END CONSTRUCTION, WE THANK YOU FOR YOUR COOPERATION, CONTRACTORS NAME" Minimum 2
 8. Torches and Flares as follows:

Type I Barricades	Minimum 3
Type II, III & IV Barricades	Minimum 1
Standard Warning Signs	Minimum 1

Where traffic is prohibited from the Project, the Detour will be marked by the Department except for Barricades complete with approved Warning Signs & Arrows which will be provided, erected & maintained by the Contractor at ends of Project and intersecting roads.

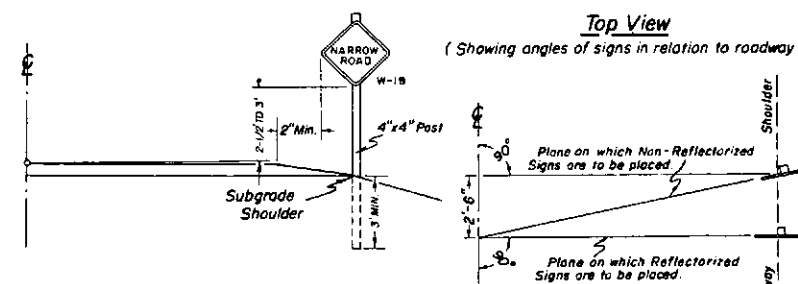
All lumber used shall be of sound durable material. Barricades, Signs, Symbols & Lettering conforming to styles noted hereon will be well painted & maintained. Uneven or smeared lettering will not be accepted.

Flares and Torches shall be of the Oil Burning Type approved by the Department and shall be placed 3 ft. to 5 ft. ahead of the object to be illuminated. Particular care shall be taken to protect all signs and barricades from smoke and smudge arising from torches and flares.

All signs are to be in clear view of traffic and are not to be obstructed by equipment, weeds or otherwise.

Speed control signs as required, may be requested from the Engineer by the Contractor.

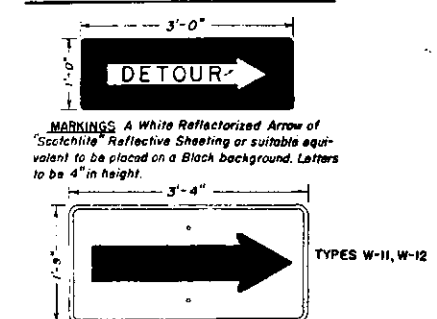
Position of Signs Relative to Roadbed & Hazards



NOTE

Warning Signs to be made of 1/4" (Min) plywood or No. 10 Gauge (Min) metal.
Location to be governed by field conditions. Exact location to be staked by the Engineer. In all cases warning signs are to be placed well in advance of hazard, the distance depending on topography, and existing approach speeds.

Details of Reflectorized Arrows



MARKINGS A White Reflectorized Arrow of "Scotchlite" Reflective Sheeting or suitable equivalent to be placed on a Black background. Letters to be 4" in height.

MARKINGS A Black Arrow on a "Highway Yellow" background of "Scotchlite" Reflective Sheeting or suitable equivalent.

COLORADO
DEPARTMENT OF HIGHWAYS

Standard Roadway
Construction Traffic Signs

Designed by J.C.R.
Made by J.C.R.
Checked by J.C.R.

Approved by A. Julian
Engineer, Surveys & Plans
Date: October 10, 1952

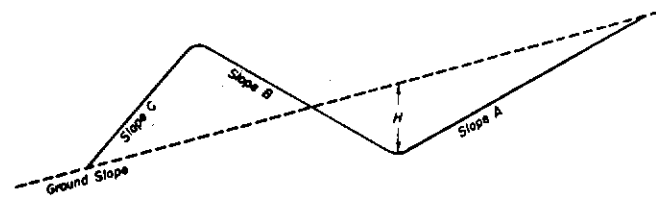
STANDARD TYPES *of* DITCHES *and* CONSTRUCTION METHODS

STANDARD M-107-C

FED. ROAD DIVISION NO.	DISTRICT	SHEET NO.	TOTAL SHEETS
9.	COLO.	AFO20-1(5)	21

DETAILS *for* CONTOUR INTERCEPTING DITCHES

Typical Section for Contour Intercepting Ditches



PURPOSE & USE OF THE TABLE

The primary purpose of the information for Contour and Intercepting Ditches shown on this sheet is to serve as a guide in construction and to readily arrive at yardages of excavation involved. Foremost consideration in constructing these ditches is given first to the natural ground line slope confronted in construction, thence to the other values shown on the Typical Section. By properly arriving at the combination of values shown on the Typical Section and in the Table for a specified condition, the number of cubic yards of excavation per 100 lin. ft. of ditch may be read under the appropriate column for this item.

Typical Construction Layouts

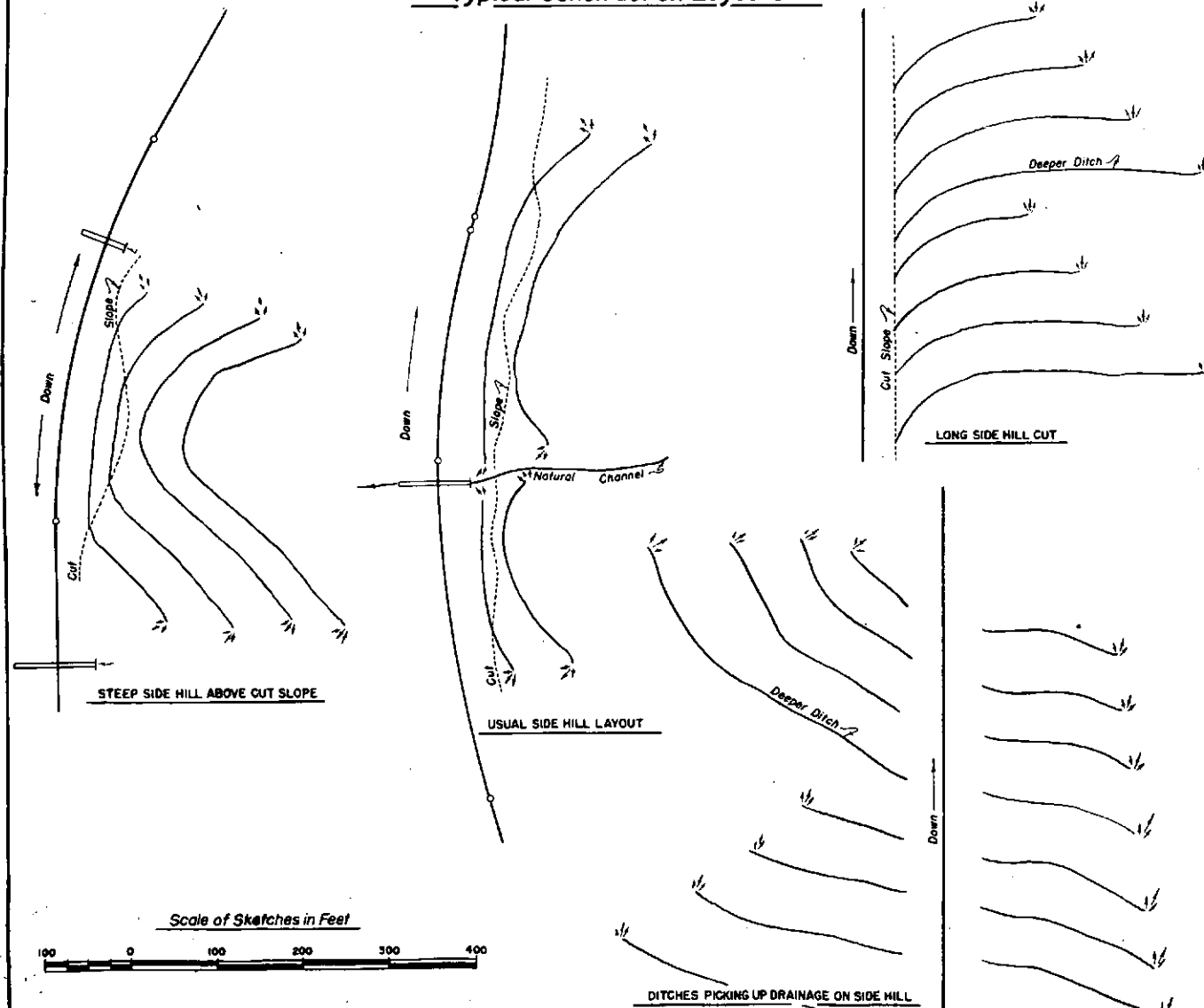
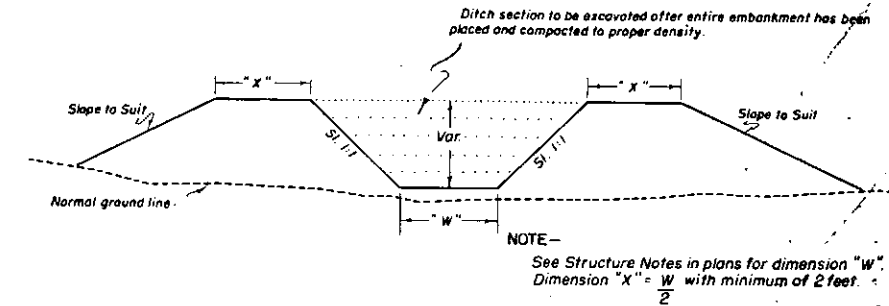


Table of Slopes and Yardages

Ground	SLOPES			H	Cubic Yards per 100 lin. ft. of Ditch
	A	B	C		
5:1 Or Flatter	2:1	4:1	2:1	15"	16
				18"	23
				21"	32
		3:1		15"	15
				18"	22
				21"	30
		2:1		15"	14
				18"	20
				21"	27
		1-1/2:1		15"	13
				18"	19
				21"	25
4:1	1-1/2:1	4:1	1-1/2:1	15"	12
				18"	18
				21"	25
		3:1		15"	12
				18"	17
				21"	23
		2:1		15"	10
				18"	15
				21"	20
		1-1/2:1		15"	10
				18"	14
				21"	19
3:1	2:1	4:1	2:1	15"	17
				18"	25
				21"	34
		3:1		15"	17
				18"	24
				21"	32
		2:1		15"	15
				18"	22
				21"	30
		1-1/2:1		15"	15
				18"	21
				21"	29
2:1	1-1/2:1	4:1	1-1/2:1	15"	13
				18"	18
				21"	25
		3:1		15"	12
				18"	17
				21"	23
		2:1		15"	11
				18"	16
				21"	21
		1-1/2:1		15"	10
				18"	14
				21"	20
1-1/2:1	1-1/2:1	3:1	1-1/2:1	15"	22
				18"	31
				21"	43
		2:1		15"	21
				18"	30
				21"	41
		1-1/2:1		15"	20
				18"	29
				21"	40
	1:1	2:1	1:1	15"	13
				18"	19
				21"	26
1-1/2:1	1:1	1-1/2:1	1:1	15"	12
				18"	17
				21"	24
	1-1/2:1			15"	12
				18"	17
				21"	23
1-1/2:1	1:1	1-1/2:1	1:1	15"	20
				18"	29
				21"	40
	1-1/2:1			15"	20
				18"	28
				21"	39
1-1/2:1	1:1	1-1/2:1	1:1	15"	9
				18"	13
				21"	17
	1-1/2:1			15"	8
				18"	12
				21"	16
1-1/2:1	1:1	1-1/2:1	1:1	15"	11
				18"	16
				21"	21

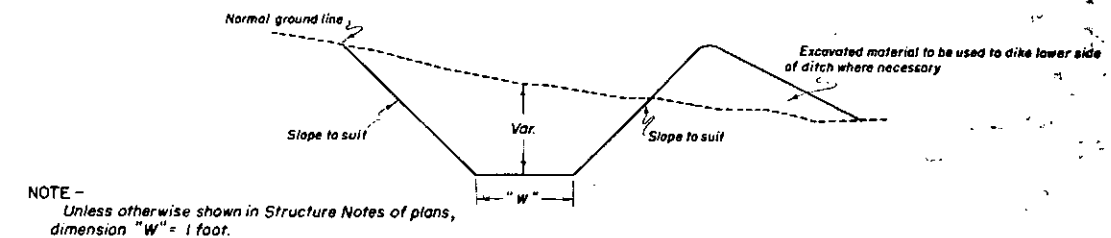
▲ Slopes are approximate and may be varied to suit conditions encountered during construction.

TYPICAL SECTIONS *for* DRAINAGE, IRRIGATION DITCHES *and* CHANNEL CHANGES



For Embankment Sections

(Generally for use in Irrigation Ditches & Channel Changes)



For Cut Sections

GENERAL NOTES

All work shall be done in accordance with the Standard Specifications of the Colorado State Highway Department applicable to the Project.

All ditches are to be constructed to lines and grades as staked by the Engineer using the ditch section shown on plans or as ordered by the Engineer.

CONTOUR INTERCEPTING DITCHES: Ditches are to be laid out along the ground contour on a grade of not over 1% (Type of soil shall govern the grade).

Ends of ditches are to be lined up so that concentration of flow from a higher contour ditch into one of lower contour is, as far as possible avoided. The use of a deeper ditch is recommended where this condition is encountered.

The following horizontal spacing of ditches is recommended:

4% to 6%	Approximately 70' Centers
8% to 10%	Approximately 60' Centers
20% to 4:1 Slope	Approximately 55' Centers
30% to 1-1/2:1 Slope	Approximately 50' Centers

Where ditch checks are required the intervening ditch between one set of ditch checks shall not exceed a grade of 1.0%. Details of checks will be shown on plans when required.

COLORADO
STATE HIGHWAY DEPARTMENT

Standard Types of Ditches
and
Construction Methods

Designed by C.G.M. Made by C.G.M. Checked by
Approved by [Signature] Engineer, Surveys & Plans Date: Aug. 18, 1950

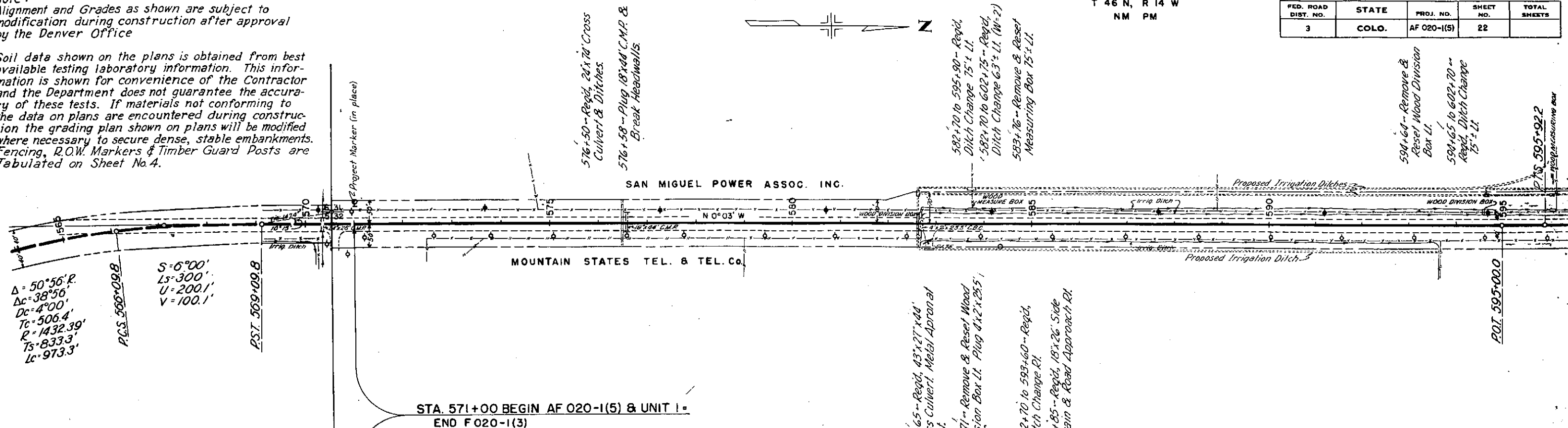
Note:
Alignment and Grades as shown are subject to modification during construction after approval by the Denver Office

Soil data shown on the plans is obtained from best available testing laboratory information. This information is shown for convenience of the Contractor and the Department does not guarantee the accuracy of these tests. If materials not conforming to the data on plans are encountered during construction the grading plan shown on plans will be modified where necessary to secure dense, stable embankments. Fencing, R.O.W. Markers & Timber Guard Posts are Tabulated on Sheet No. 4.

SE 1/4, SEC 31
T 46 N, R 14 W
NM PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	AF 020-1(5)	22	

PLAN	DATE
SURVEYED	
ADJUSTED	
CHECKED	
BY	
NO. 16218	

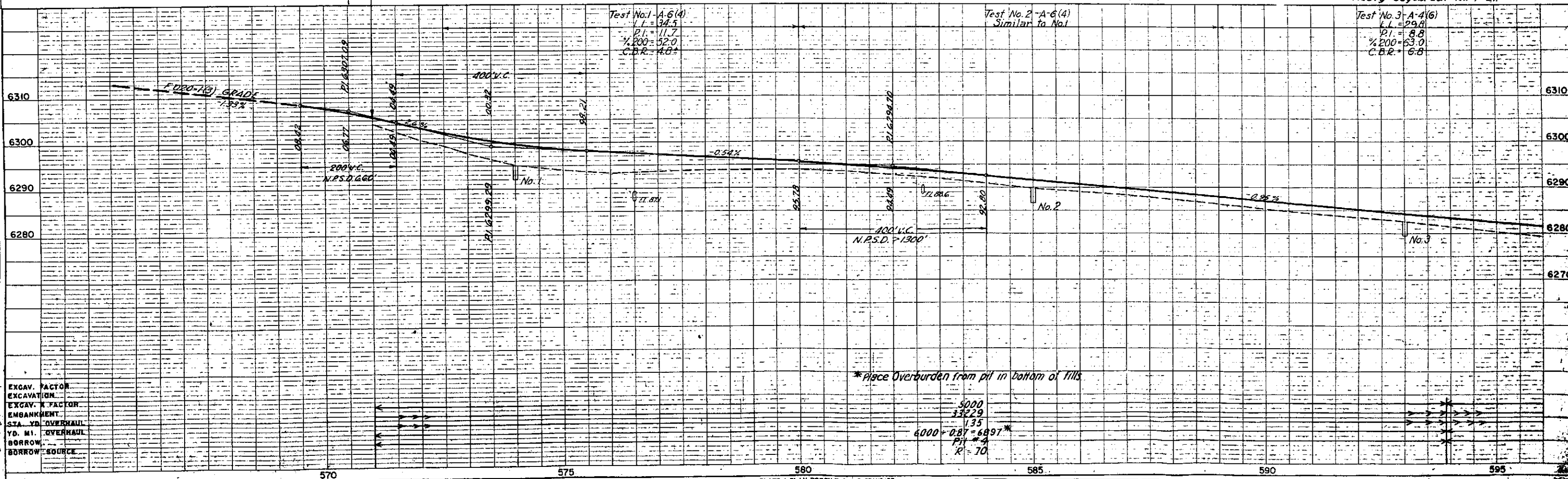


STA. 571+00 BEGIN AF 020-1(5) & UNIT 1 -
END F020-1(3)

SW 1/4, SEC 32
T 46 N, R 14 W
NM PM

Clearing & Grubbing - Sta 571+ to 595
Heavy Sagebrush Rt. & Lt

PROFILE	DATE
SURVEYED	
ADJUSTED	
CHECKED	
BY	
NO. 16218	



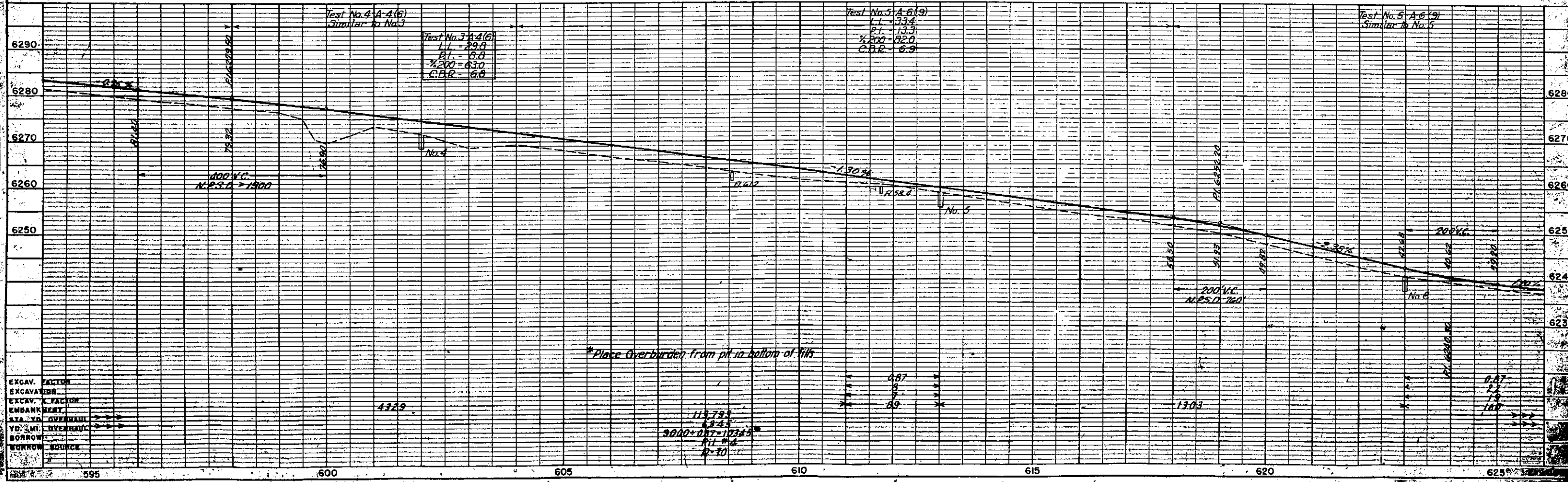
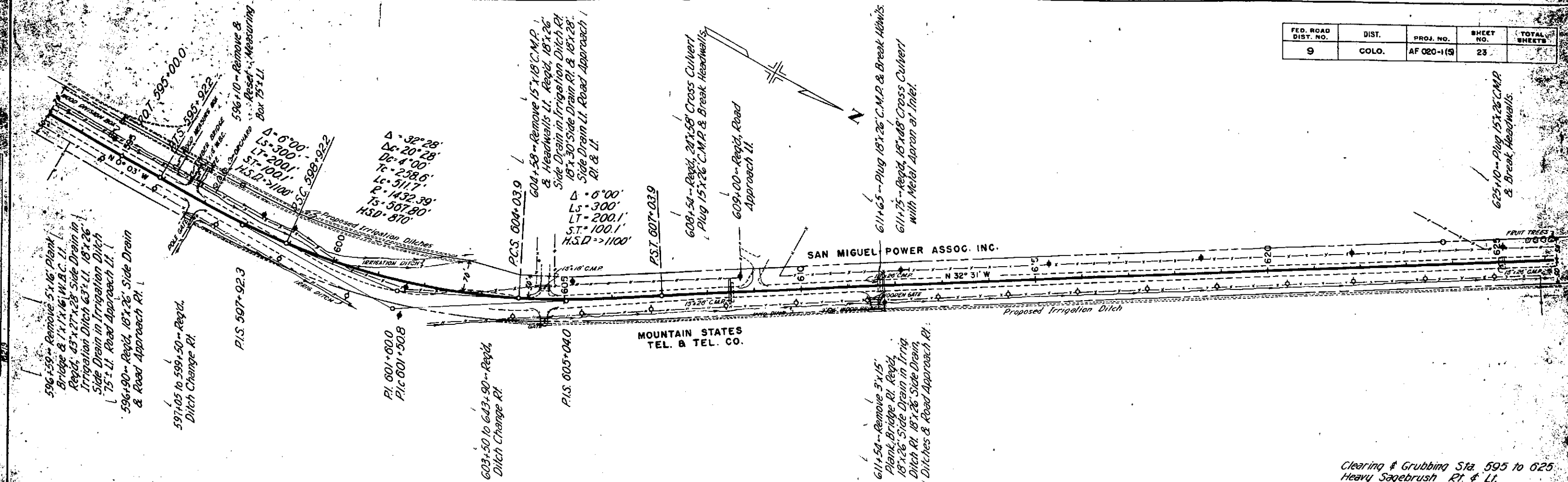
EXCAV. FACTOR
EXCAVATION
EXCAV. X FACTOR
EMBANKMENT
STA. YD. OVERHAUL
YD. MI. OVERHAUL
BORROW SOURCE

5000
33229
135
6000 - 0.87 = 6897*
PI = 4
R = 70

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF 020-1(5)	23	

PLAN	DATE
APPROVED	
NOTED	
REVISION	

PROFILE	DATE
APPROVED	
NOTED	
REVISION	



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	GRADES CHECKED		
	B. M. A. NOTE.		
NO. 16614	STRUCTURE INDICATING C.W.D.		

Test No. 7 - A-6(9)
Similar to No. 5

Test No. 8 - A-6(9)
L.I. = 33.4
P.I. = 13.3
%200 = 82.0
C.B.R. = 6.9

Test No. 9 - A-4(5)
L.I. = 25.7
P.I. = 8.7
%200 = 58.0
C.B.R. = 2.7

Test No. 10 - A-4(5)
Similar to No. 9

EXCAV. FACTOR
EXCAVATION
EXCAV. FACTOR
EMBANKMENT
STA. YD. OVERHAUL
YD. MI. OVERHAUL
BORROW
BORROW SOURCE

314.5

170.5

10.2

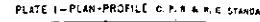
1531 + 0.87 = 1760
PI # 8
C.B.R. = 2.4

0.87
44.1
38.3
20.9

0.87
38.7
33.7
33.7

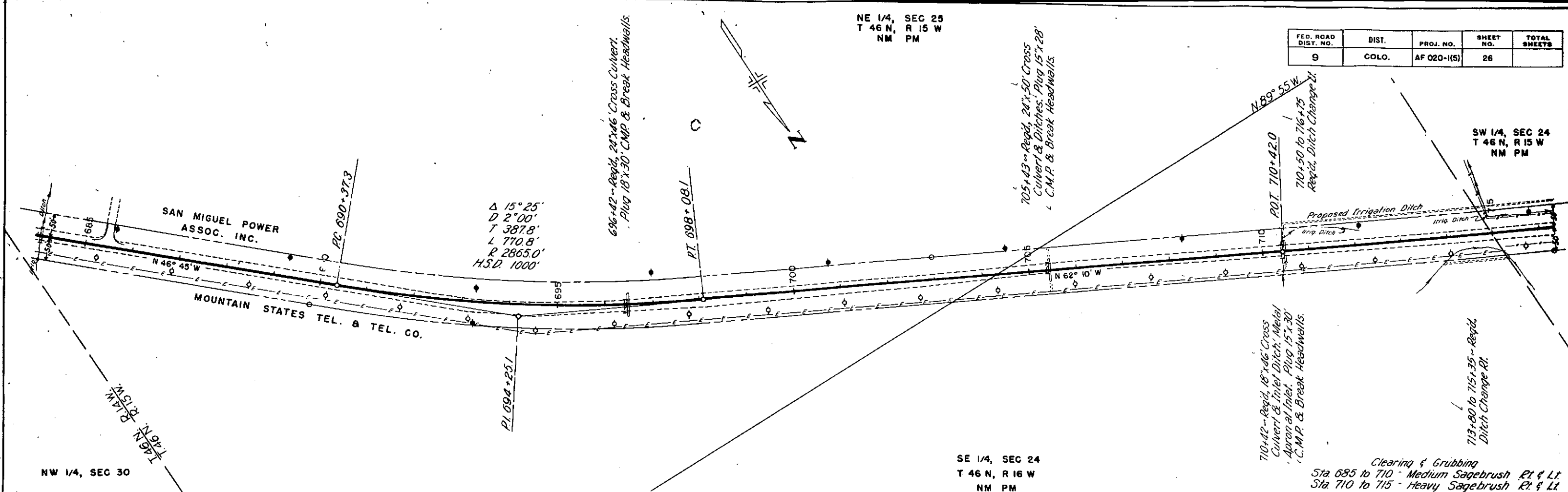
3469 + 0.87 = 3987
PI # 9
C.B.R. = 2.6

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO. 16811	ALIGNMENT CHECKED		
	ET. OF WAT. CHECKED		

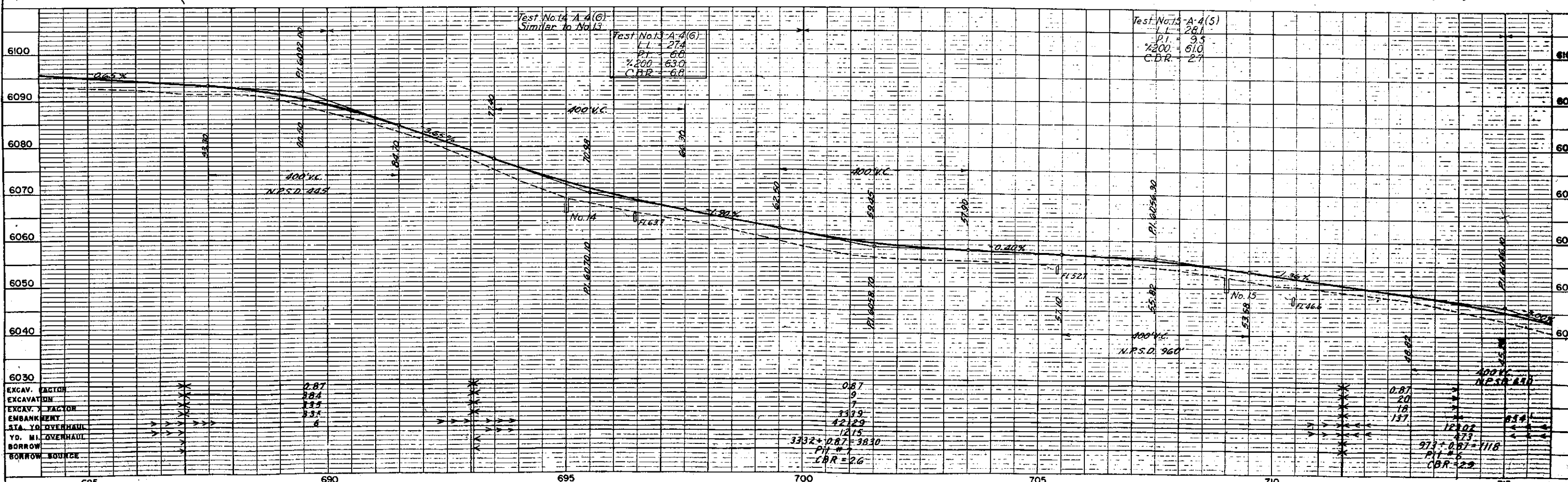


PLAN	SURVEYED	BY	DATE
NOTE BOOK	ADJUSTED		
ALIGNMENT CHECKED			
NO. 16611			

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	ADJUSTED		
GRADES CHECKED			
NO. 16611			



FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF 020-1(5)	26	



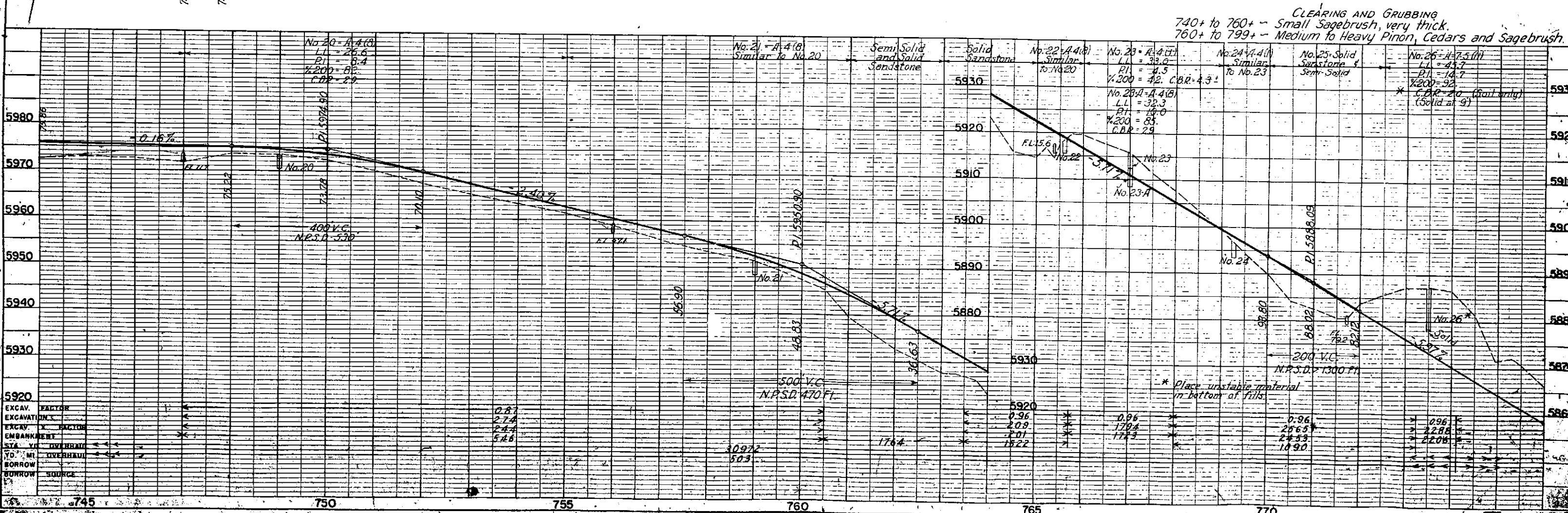
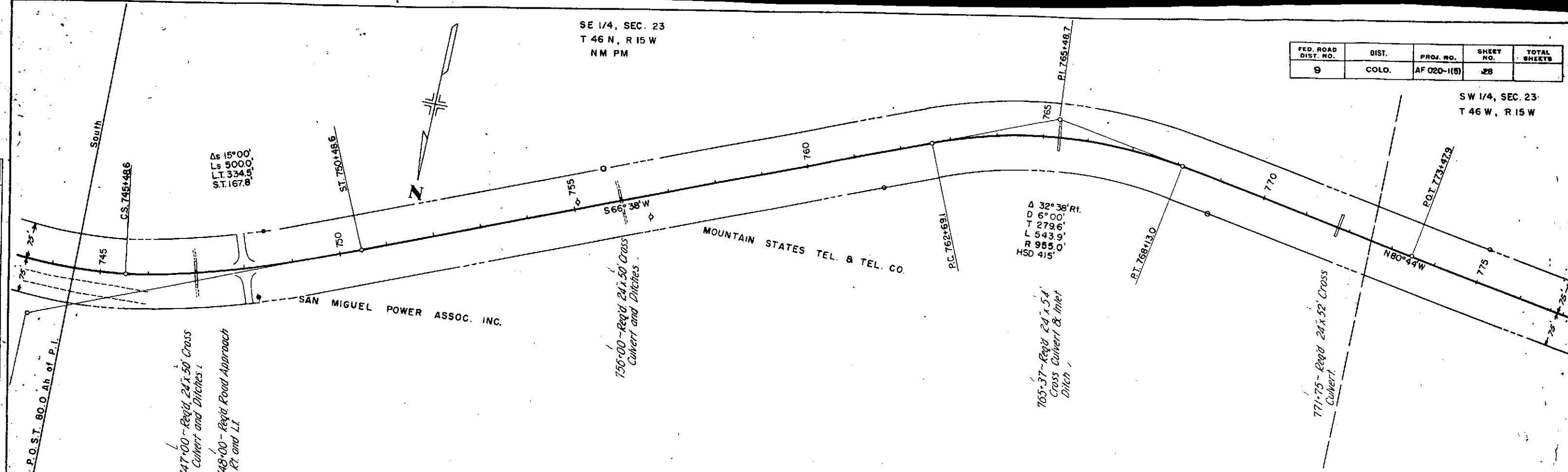
PLAN	DATE
APPROVED	
NOTED	
NOTE BOOK	
NO. 1000	
BY	
DATE	

PROFILE	DATE
APPROVED	
NOTED	
NOTE BOOK	
NO. 1000	
BY	
DATE	

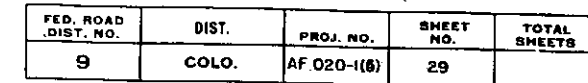
SE 1/4, SEC. 23
T 46 N, R 15 W
NM PM

FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF 020-1(5)	28	

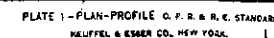
SW 1/4, SEC. 23
T 46 W, R 15 W



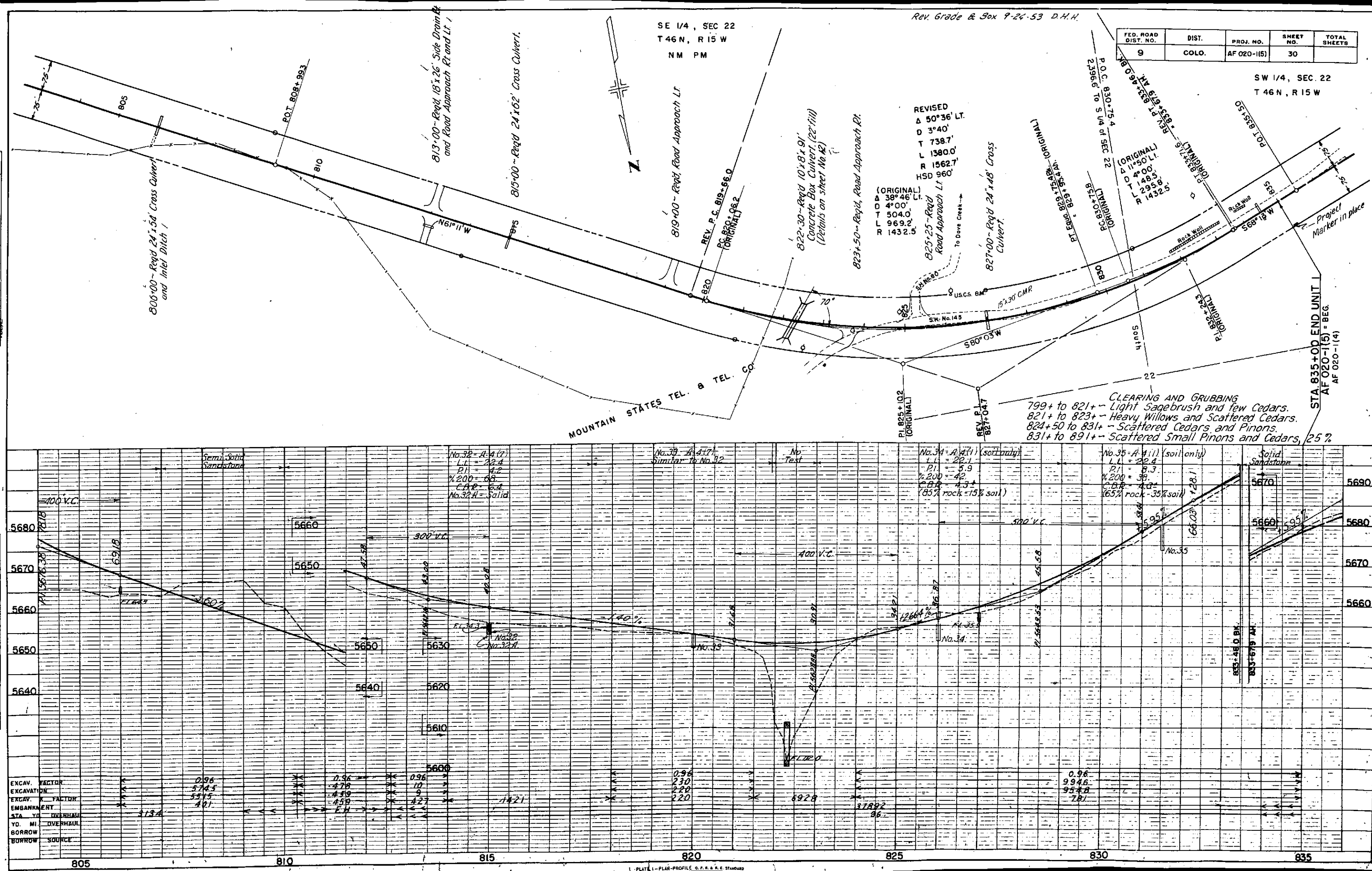
PLAN	REVIEWED	BY	DATE
NOTE BOOK	PLOTTED		
NO. 65577	ALIGNMENT CHECKED		
	MT. OF WAY CHECKED		



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO. 1554	GRADES CHECKED		
1554	B. M. NOTED		
	STRUCTURE NOTATIONS CH. NO.		



PROFILE	BY	DATE
SURVEYED		
PLOTTED		
GRABER CHECKED		
NOTE BOOK		
NO. 1662.04		
1662.05		
STRUCTURE NOTATIONS CHKD.		



FED. ROAD DIST. NO.	DIST.	PROJ. NO.	SHEET NO.	TOTAL SHEETS
9	COLO.	AF 020-1(5)	31	

PLAN	DATE
REVISIONS	
NOTES	
NO. 1	

PROFILE	DATE
REVISIONS	
NOTES	
NO. 1	

NE 1/4, Sec 29
T46N, R15W
NM PM

Δ 39°00' LI.
T.S. 261.7
Δc 21°30'
Δc 14°00'
Lc 77.7
Lc 153.6
Rc 409.3
H.S.D. 555'

Δ 18°59' LI.
D 4°00'
T 239.5
L 474.6
R 1432.5
H.S.D. 478'

Original Survey Curve Notes
A
Δs 36°00'
L.S. 300.0'
L.T. 204.3'
S.T. 103.9'
B
Δs 63°03' PI.
T.S. 286.6'
Δc 27°03'
Δc 24°00'
Tc 57.4'
Lc 112.7'
Rc 238.8'
C
Δs 24°00'
L.S. 200.0'
L.T. 134.6'
S.T. 67.8'
D
Δs 53°00' LI.
T.S. 221.9'
Δc 5°00'
Δc 24°00'
Tc 10.4'
Lc 20.8'
Rc 238.8'
E
Δs 24°00'
L.S. 200.0'
L.T. 134.6'
S.T. 67.8'
F
Δs 19°00'
D 4°00'
T 239.7
L 475.0' R 1432.5'

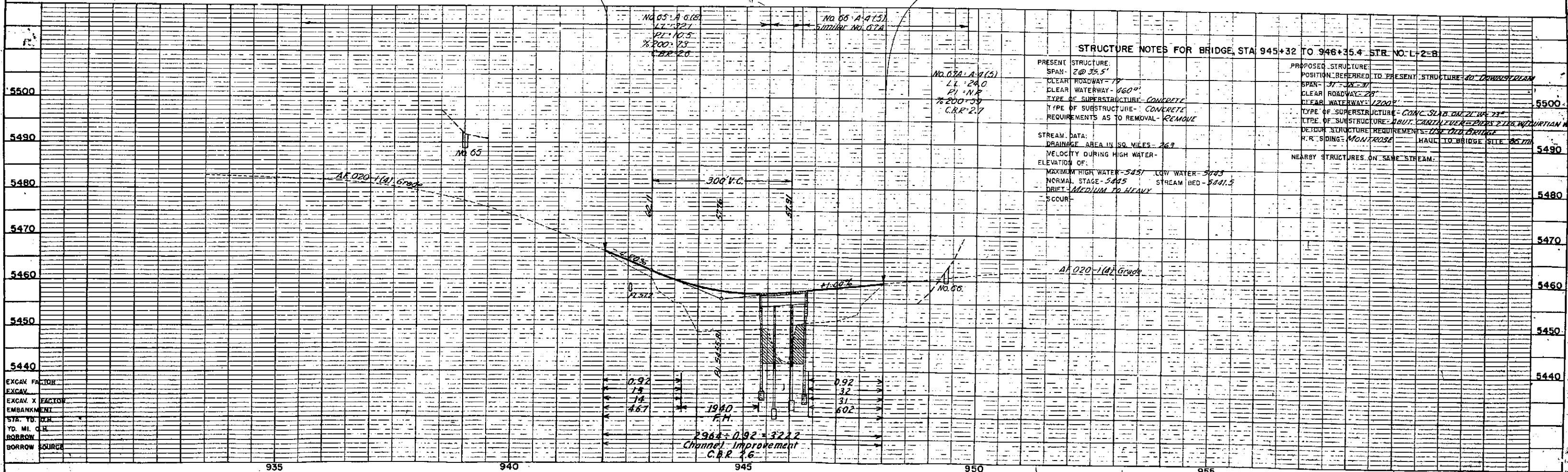
STA 942+00 BEGIN
UNIT 2, AF 020-1(5)

STA 948+00 END UNIT 2, AF 020-1(5)
948+00 of AF 020-1(4)

CLEARING & GRUBBING
942+00 to 948+00 - Heavy Sage & Willows

STRUCTURE NOTES FOR BRIDGE, STA 945+32 TO 946+35.4 STR. NO. L-2-B

PRESENT STRUCTURE:
SPAN - 2 @ 35.5'
CLEAR ROADWAY - 19'
CLEAR WATERWAY - 160'
TYPE OF SUPERSTRUCTURE - CONCRETE
TYPE OF SUBSTRUCTURE - CONCRETE
REQUIREMENTS AS TO REMOVAL - REMOVE
PROPOSED STRUCTURE:
POSITION REFERRED TO PRESENT STRUCTURE - 40' DOWNSTREAM
SPAN - 31' - 31' - 31'
CLEAR ROADWAY - 28'
CLEAR WATERWAY - 1200'
TYPE OF SUPERSTRUCTURE - CONC. SLAB ON 21" W/ 21"
TYPE OF SUBSTRUCTURE - ABUT. CANTILEVER - PIER 21" W/ 21"
DETAILED STRUCTURE REQUIREMENTS - USE OLD BRIDGE
R.R. SIDING - MONTROSE
HAUL TO BRIDGE SITE - 257m
NEARBY STRUCTURES ON SAME STREAM:
DRAINAGE AREA IN SQ. MILES - 26.7
VELOCITY DURING HIGH WATER -
ELEVATION OF:
MAXIMUM HIGH WATER - 5451' LOW WATER - 5443'
NORMAL STAGE - 5445' STREAM BED - 5441.5'
DRIET - MEDIUM TO HEAVY
SCOUR



Excavation
Cu. Yds. Area

Embankment
Area Cu. Yds.

Excavation
Cu. Yds. Area

Embankment
Area Cu. Yds.

FED. ROAD DIVISION NO. 9 DISTRICT COLO. PROJ. NO. AF 020-1(5) SHEET NO. 147 TOTAL SHEETS 147

SUMMARY OF EARTHWORK QUANTITIES

EXCAVATION

FROM CROSS SECTIONS

BORROW

ESTIMATED FOR OVERBREAK AND SUBSIDENCE

LIST OF STRUCTURES AS EXCAVATION

LIST OF STRUCTURES AS EMBANKMENT

ESTIMATED FOR CUT SLOPE TREATMENT

ESTIMATED FOR COVERING ENDS OF CULVERTS

ESTIMATED FOR CHANNEL IMPROVEMENT

Total

EXCAVATION X FACTOR

BORROW X FACTOR

Total

EMBANKMENT

FROM CROSS SECTIONS

STATION YARD OVERHAUL

FROM MASS DIAGRAM

ESTIMATED FOR OVERBREAK AND SUBSIDENCE

ESTIMATED FOR STRUCTURE BACKFILL

FROM SELECTED BORROW PLAN

Total

YARD MILE OVERHAUL

FROM MASS DIAGRAM

ESTIMATED FOR OVERBREAK AND SUBSIDENCE

ESTIMATED FOR STRUCTURE BACKFILL

FROM SELECTED BORROW PLAN

Total

UNIT 1

ROADWAY

56,221 CU YDS

33,727 " "

8,995 " "

180 " "

3,573 " "

149 " "

179 " "

103,030 " "

53,273 CU YDS

29,343 " "

82,616 " "

82,616 CU YDS

385,514 STA YDS

38,551 " "

8,107 " "

127,374 " "

629,548 " "

9,136 YD MI

914 " "

481 " "

15,547 " "

26,078 " "

UNIT 2

ROADWAY

47 CU YDS

3,222 " "

327 " "

4 " "

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UNIT 2

BRIDGE

1,778 CU YDS

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UNCLASSIFIED DITCH EXCAVATION INTERCEPTING DITCHES

X STATION

646+00 to 659+00

664+00 to 666+00

765+50 to 769+00

806+00 to 811+00

823+00 to 829+00

SIDE

RT

RT

LT

RT

RT

CU YDS

193

30

53

75

90

UNIT NO. 1

SUB TOTAL

443

FROM LIST OF STRUCTURES

1,761

SUB TOTAL

2,204

UNIT NO. 2

FROM LIST OF STRUCTURES

10

TOTAL UNITS 1 & 2 CU YDS UNCLASS. DITCH EXCAV 2214

X APPROXIMATE LOCATIONS - MAY BE CHANGED DURING CONSTRUCTION

SHEET TOTALS
EXCAVATION
EMBANKMENT

Admiral
M. C. Smith

AF 020-1(5)