

5005-B

COLORADO

STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED

A.W. PROJECT NO. 5005-B

STATE HIGHWAY NO. 4

EL PASO COUNTY

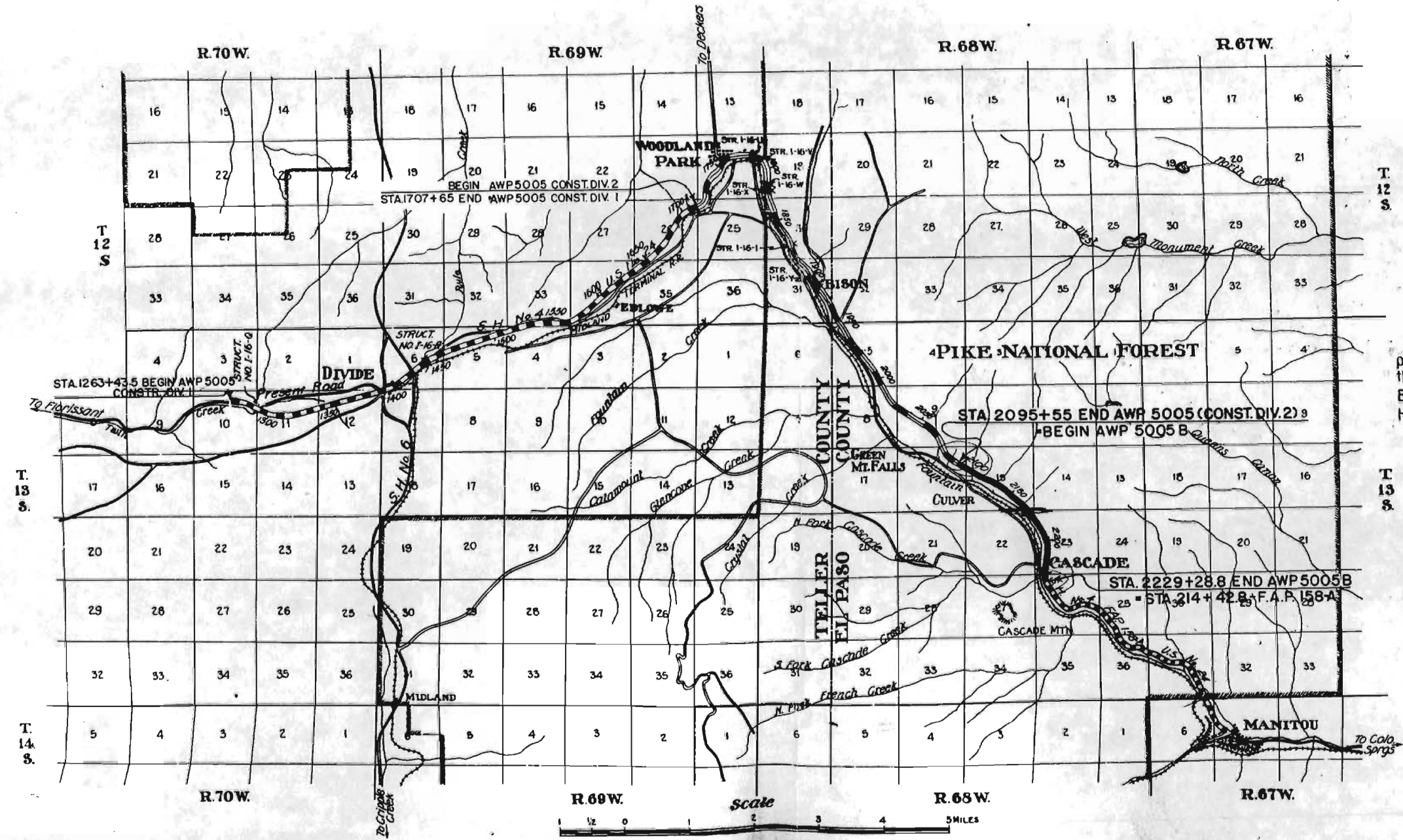
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- 20-97. CROSS SECTIONS

CONVENTIONAL SIGNS

- CENTER LINE OF SURVEY
- RIGHT OF WAY LINE
- SECTION LINE
- ONE QUARTER SECTION LINE
- FENCE
- RAILROAD
- TELEPHONE LINE
- PRESENT ROAD

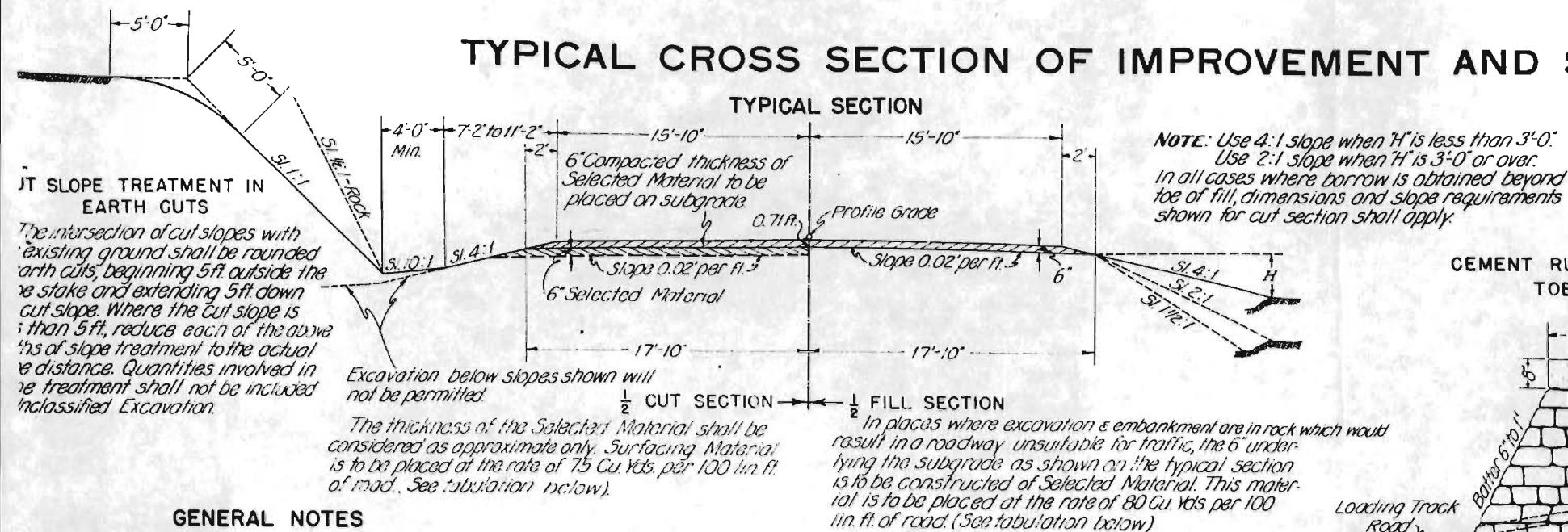
SCALES ON ORIGINAL TRACINGS
 ON PLAN, 1 IN. = 100 FT.
 ON PROFILE 1 IN. = 100 FT. HORIZONTAL
 1 IN. = 10 FT. VERTICAL
 GRADE LINE ON PROFILE IS SHOWN AS GRADE OF FINISHED ROAD
 GROSS LENGTH OF PROJECT 13,236 FT. = 2.506 MI.
 NET LENGTH OF PROJECT



NOTE
 It is recommended that bidders on this Project go over the plan details with one of the following field representatives of this department.
 E.R. Montgomery, Division Engineer, Colo. Springs, Colo.
 Harry Littlefield, Resident

RECOMMENDED FOR APPROVAL 10/3/36
Chas. D. Blair
 ASSISTANT ENGINEER
 APPROVED
Chas. D. Blair
 STATE HIGHWAY ENGINEER

TYPICAL CROSS SECTION OF IMPROVEMENT AND SUMMARY OF QUANTITIES



GENERAL NOTES

This Project is to be constructed in accordance with the Standard Specifications of the Colorado State Highway Department adopted August 1, 1935.

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

All roadway excavation required to construct this Project to be obtained as indicated on the plans. Quantities involved beyond the limits of the ditch as shown on the Typical Section, other noted on the profile as "Borrow", or on Tabulation of Structures as "Excavation" and "Embankment", are to be classified and bid for as "Unclassified Excavation".

These quantities are to be stated as part of the original excavation at locations indicated on the plans. Slope strikes beyond the limits of the Typical Section as shown are subject change by the Engineer to fit Embankment requirements actually encountered in construction.

All curves are to be superelevated and widened as provided the Standard Superelevation Sheet included with the plans.

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

All side approach roads to the project shall be surfaced with 4" thickness of "Selected Material" extending approximately 10 feet from edge of highway. Estimated yardage of surfacing material required in this operation is shown on List of Structures.

The entire project is to be cleared for the full width of the Right of Way and the cost thereof included in the lump sum price for "Clearing and Grubbing the Entire Project".

Overhaul will be paid for as measured along centerline of project except as otherwise noted on plans.

All corrugated metal pipe cross culverts are to be provided with one headwall on the inlet end unless otherwise noted on plans.

The detour for this Project lies along the present travelled roadway. At places where the new construction encroaches on present travelled roadway, the contractor shall, at his own expense, so prosecute construction that traffic may readily pass over the road in safety. Also the contractor shall, at his own expense, construct and maintain in safe condition all temporary approaches to and crossings of intersecting roads.

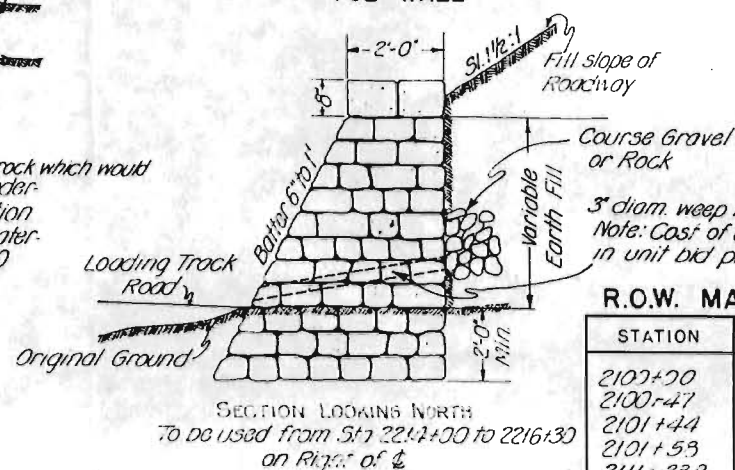
The estimated quantities and sources of material for the Selected Material are tabulated below:

MATERIAL TO BE PLACED STA. TO STA.	QUANTITY REQ'D. CU. YDS.	SOURCE
2095+55 to 2146+00	3780	Pit No. 7-300' R/L Sta 2106
2097+75 to 2140+50	3410 *	" " " " " "
2146+00 to 2229+28.8	6520	Pit No. 8-200' R/L Sta 2186
2149+50 to 2156+50	640 *	" " " " " "
2163+40 to 2173+25	397 *	" " " " " "
2203+75 to 2220+25	1320 *	" " " " " "
2221+75 to 2223+25	120 *	" " " " " "
GREEN Mtn FALLS APPROACH		
-1+00 to 14+34.5	1020	Pit No. 7-300' R/L Sta 2106
-1+00 to 14+34.5	1080 *	" " " " " "
CHIPITA PARK APPROACH		
7+96.7 to 11+25	220	" " " " " "
7+96.7 to 11+25	230 *	" " " " " "
TOTAL	13,730	

*Additional Selected Material required for 6" underlying Subgrade.

Note: Above total includes Selected Material for Road Approaches.

CEMENT RUBBLE MASONRY TOE WALL



R.O.W. MARKERS

STATION	SIDE	NO.
2107+20	R	1
2100+47	L	1
2101+44	R	1
2101+53	R	1
2111+33.9	R/L	3
2116+20	R	1
2118+30	L	1
2123+00	R/L	2
2125+22.48	R/L	2
2126+60.74	R/L	2
2130+15.7	R/L	4
2136+48	L	1
2137+83	R	1
2146+00	R	1
2149+00	R	1
2151+00	R	1
2155+45	R	1
2157+12	L	1
2157+23	L	1
2169+00	R	1
2171+00	R	1
2173+53	L	1
2174+76	R	1
2190+77	R	1
2190+84	L	1
2190+87	L	1
2196+80.9	R/L	2
2196+74.8	R	1
2117+46	R	1
2117+69	L	1
2229+28.8	R/L	2
GREEN Mtn FALLS APPROACH		
3+00	L	1
7+96.7	R	1
10+00	R	1
11+03	R/L	2
14+34.5	R/L	2
CHIPITA PARK APPROACH		
9+82	R	1
10+89	R	1
11+04	L	1
11+25	R/L	2
TOTALS		49

SUMMARY OF APPROXIMATE QUANTITIES

NO.	DESCRIPTION	UNIT	PROJECT TOTALS
100	Clearing & Grubbing Entire Project	Lump Sum	•
12a	Removing Fence	Lin. Ft.	2400
12c	Removing Guard Fence	Lin. Ft.	60
13c	Unclassified Excavation	Cu. Yd.	197,000
13cx	Unclassified Excavation (Selected Material)	Cu. Yd.	19,000
13d	Cut Slope Treatment	Line	2.9
14a	Dry Rock Excavation (Structural)	Cu. Yd.	160
14b	Dry Common Excavation (Structural)	Cu. Yd.	630
14c	Wet Rock Excavation (Structural)	Cu. Yd.	40
14d	Wet Common Excavation (Structural)	Cu. Yd.	160
18a	Station Yard Overhaul	Sta. Yd.	327,000
18b	Yard Mile Overhaul	Yd. Mi.	1000
46a	Class A Concrete	Cu. Yd.	218
47	Reinforcing Steel	Lb.	17,300
49	Cement Rubble Masonry	Cu. Yd.	210
53b	18" Corrugated Metal Culvert Pipe	Lin. Ft.	750
53c	24" Corrugated Metal Culvert Pipe	Lin. Ft.	1794
53d	30" Corrugated Metal Culvert Pipe	Lin. Ft.	446
53e	36" Corrugated Metal Culvert Pipe	Lin. Ft.	238
53g	48" Corrugated Metal Culvert Pipe	Lin. Ft.	64
57x	105" Multiple Plate Corrugated Metal Pipe	Lin. Ft.	175
63b	Heavy Riprap	Cu. Yd.	252
75x	Metal Plate Guard Fence	Lin. Ft.	4880
76c	Barbed Wire Fence with Metal Posts	Lin. Ft.	24800
76d	Barbed Wire Gates	Each	4
81a	Project Markers	Each	1
81b	Right of Way Markers	Each	49
82	Cattle Guards (16 ft. roadway)	Each	2
46b	Class B Concrete	Cu. Yd.	65
FORCE ACCOUNTS			
	Move 4 Sheds & House off R.O.W. Sta 2203+ to 2205+	Lump Sum	•
ALTERNATE BIDS TO BE RECEIVED FOR REINFORCED CONCRETE CULVERT PIPE			
As an alternate for items No. 53b, 53c, 53d, & 53e, the following items providing for Reinforced Concrete Culvert Pipe shall be bid upon:			
51b	18" Reinforced Concrete Culvert Pipe	Lin. Ft.	750
51c	24" Reinforced Concrete Culvert Pipe	Lin. Ft.	1694
51d	30" Reinforced Concrete Culvert Pipe	Lin. Ft.	446
51e	36" Reinforced Concrete Culvert Pipe	Lin. Ft.	238
51g	48" Reinforced Concrete Culvert Pipe	Lin. Ft.	64
Note: Extension to existing C.M.P. Culverts are not included in alternate bids.			
TOTALS			49

NW 1/4 Sec. 15, T13S, R68W

FED. ROAD DIST. NO.	STATE	AW PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	5005-B	14	

NE 1/4 Sec. 16, T13S, R68W

Sta. 2096+70 to 2100+80 ~ Req'd 1-410 ft. Length Gd. Fence Rt.

Sta. 2097+10 to 2100+80 ~ Req'd 1-370 ft. Length Gd. Fence Lt.

Sta. 2099+90 ~ Req'd 6'x7'x125' Special Concrete Box Culvert (Details Sh. No. 4). Also Req'd 50 Cu Yds. Uncl. Excav. for Inlet & Outlet Ditches.

Sta. 2102+00 to 2108+00 ~ Req'd 150 Cu Yds. Uncl. Excav. for Intercepting Ditch Lt.

Sta. 2109+60 ~ Req'd 24"x90' C.M.P. Cross Culvert (Skew 70°) & 20 Cu Yds. Uncl. Excav. for Ditches

Sta. 2111+40 ~ Req'd 18"x64' C.M.P. Cross Culvert & 10 Cu Yds. Uncl. Excav. for Ditches

Δ 6°46'L
D 1°00'
T 338°
L 676°
R 5730°

Sta. 2112+75 ~ Req'd 24"x160' C.M.P. Cross Culvert (Skew 85°) & 15 Cu Yds. Uncl. Excav. for Ditches

Sta. 2117+40 ~ Req'd 24"x84' C.M.P. Cross Culvert

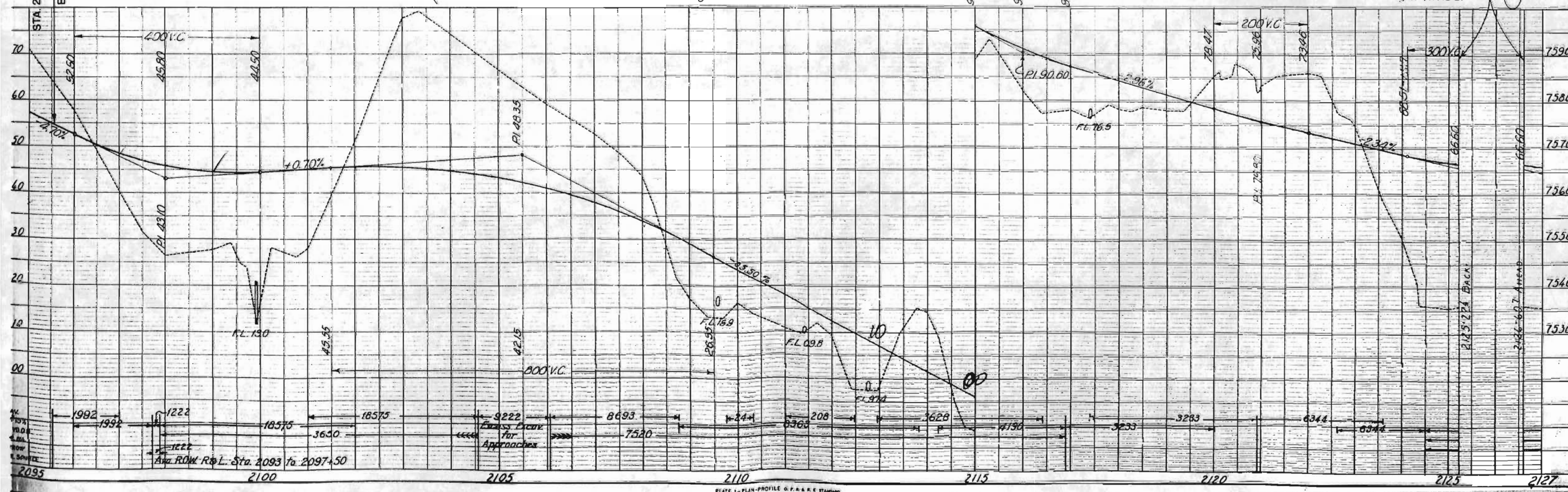
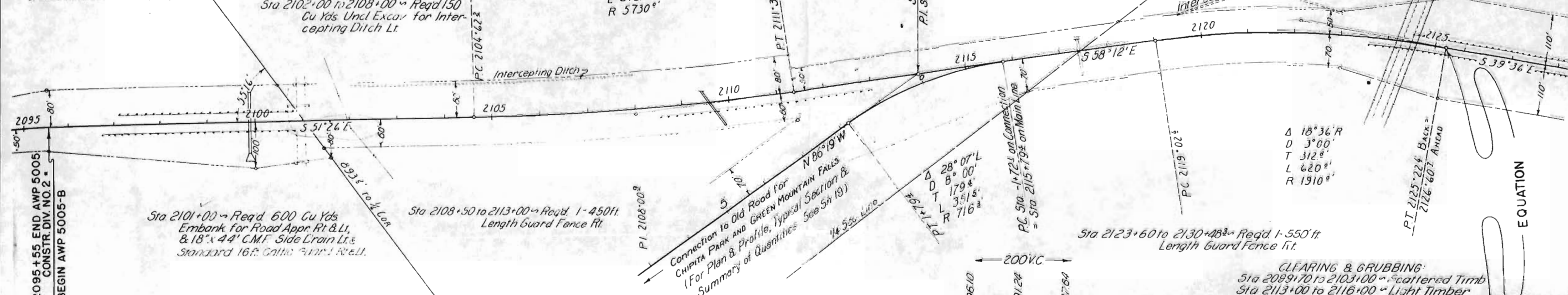
Sta. 2119+50 to 2123+00 ~ Req'd 100 Cu Yds. Uncl. Excav. for Intercepting Ditch Lt.

Sta. 2124+50 to 2129+68 ~ Req'd 1-380' ft. Length Guard Fence Lt.

SW 1/4 Sec. 15, T13S, R68W

Sta. 2124+30 ~ Req'd 2000 Cu Yds. Embank. for Road Appr. Lt. & 18"x80' C.M.P. Side Drain Lt.

NOTE: All poles encroaching on construction are to be moved by owners. Fencing Requirements, Gates and Right of Way Markers are tabulated on Sheet No. 2.



SW 1/4 Sec. 15
T13S, R68W

Sta 2130+00 to 2135+00 - Reg'd 100 Cu. Yds
Uncl. Excav. for Intercepting
Ditch Lt.

$\Delta 5^{\circ}05' L$
 $D 1^{\circ}00'$
 $T 254.4'$
 $L 508.8'$
 $R 5730.2'$

Sta 2139+40 - Reg'd 48'x64' C.M.P. Cross
Culvert & 150 Cu. Yds. Uncl.
Excav. for Inlet Channel.

SE 1/4 Sec. 15
T13S, R68W

Sta 2147+85 - Reg'd 24'x44' C.M.P. Cross Culvert
& 10 Cu. Yds. Uncl. Excav. for Ditches.

Sta 2146+50 to 2149+80 - Reg'd 330 ft. Length
Guard Fence Rt.

Sta 2147+00 to 2149+60 - Reg'd 260 ft. Length
Guard Fence Lt.

Sta 2152+10 - Reg'd 36'x118' C.M.P. Cross Culvert (Sk 30')
& 30 Cu. Yds. Uncl. Excav. for Ditches.

Sta 2153+60 - Reg'd 18'x110' C.M.P. Cross Culvert &
10 Cu. Yds. Uncl. Excav. for Ditches.

Sta 2154+30 - Reg'd 24'x86' C.M.P. Cross Culvert &
10 Cu. Yds. Uncl. Excav. for Ditches
Intercepting Ditch

Sta 2135+90 - Reg'd 24'x56' C.M.P. Cross Culvert
& 10 Cu. Yds. Uncl. Excav. for Ditches.

Sta 2139+00 - Reg'd 24'x66' C.M.P. Cross Culvert
& 10 Cu. Yds. Uncl. Excav. for Ditches

Sta 2140+15 - Reg'd 24'x70' C.M.P. Cross
Culvert & 10 Cu. Yds. Uncl. Excav.
for Ditches.

Sta 2141+50 - Reg'd 36'x74' C.M.P. Cross Culvert
& 10 Cu. Yds. Uncl. Excav. for Ditches.

Sta 2143+80 - Reg'd 30'x48' C.M.P. Cross Culvert
& 200 Cu. Yds. Uncl. Excav. for Inlet
& Outlet Channels.

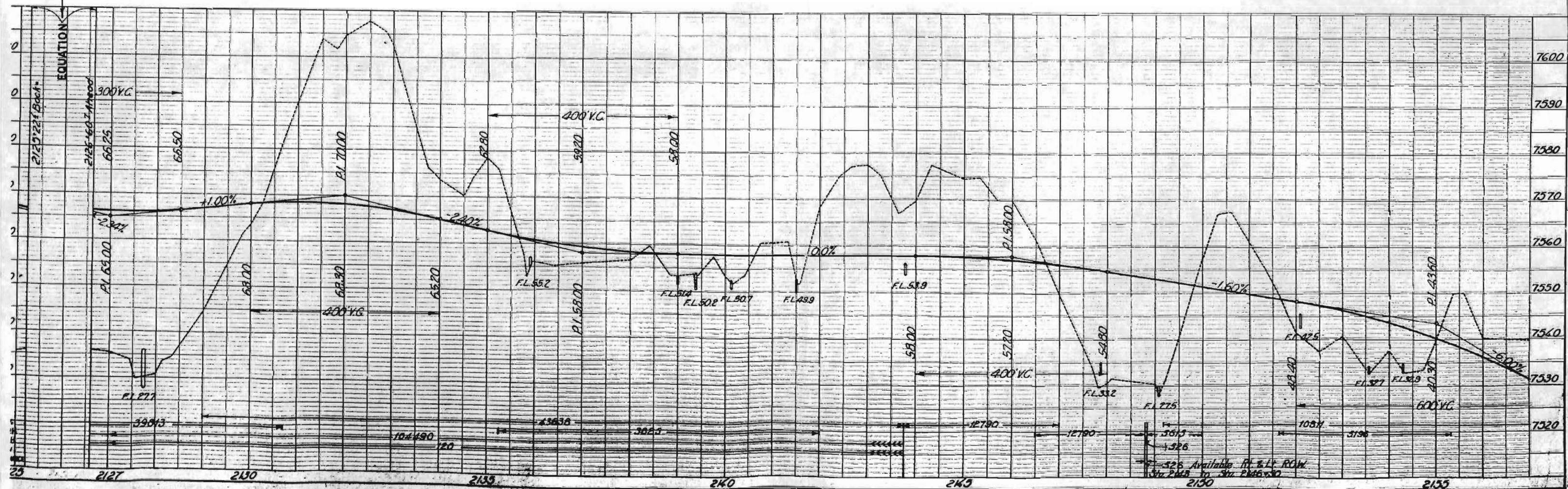
Sta 2149+05 - Reg'd 30'x168' C.M.P. Cross
Culvert & 10 Cu. Yds. Uncl. Excav.
for Ditches.

CLEARING & GRUBBING
Sta 2127+50 to 2128+00 - Willows
Sta 2129+00 to 2135+50 - Light Timber

FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	5005-B	15	

Revised 10-14-36 APB

EQUATION

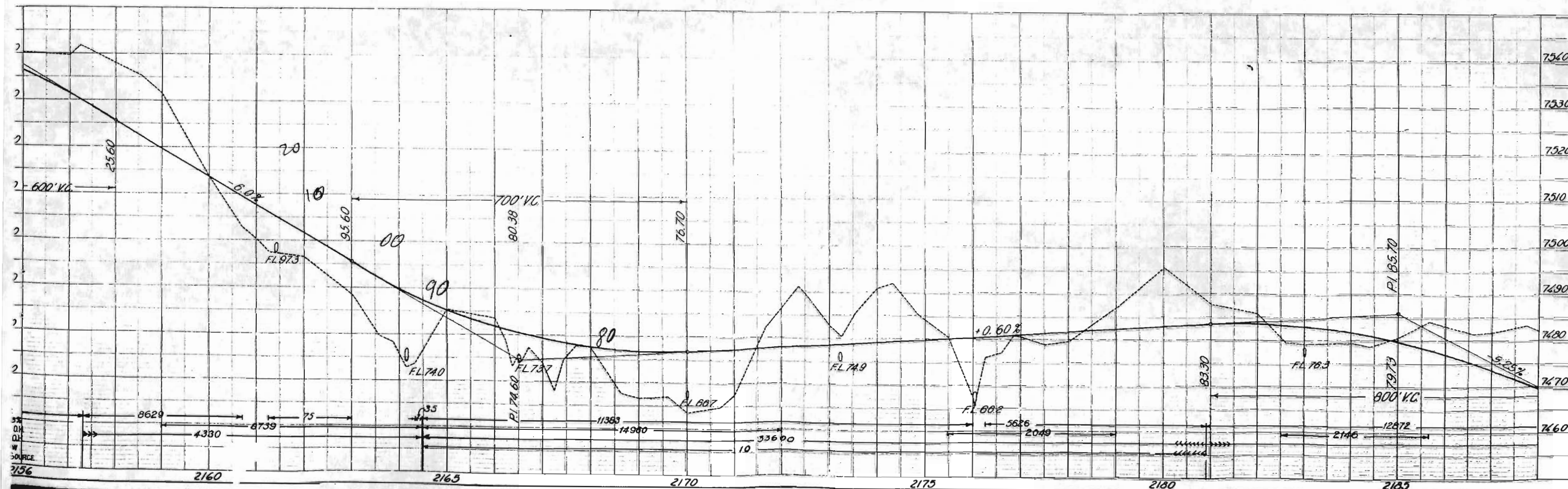
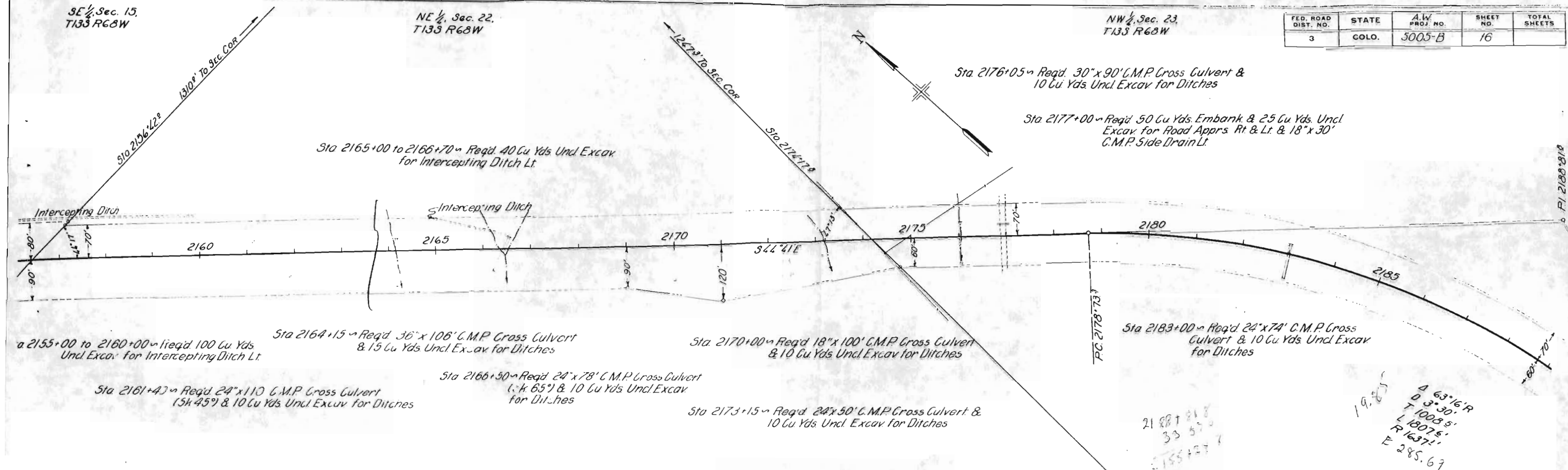


SE 1/4 Sec. 15,
T133 R68W

NE 1/4 Sec. 22,
T133 R68W

NW 1/4 Sec. 23,
T133 R68W

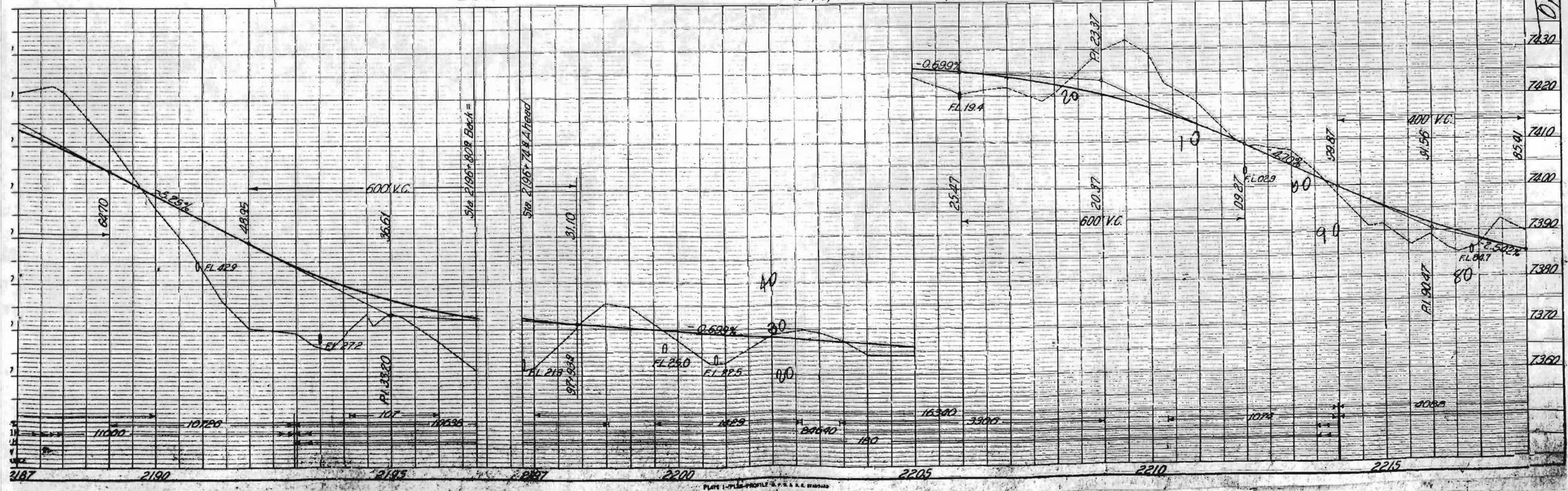
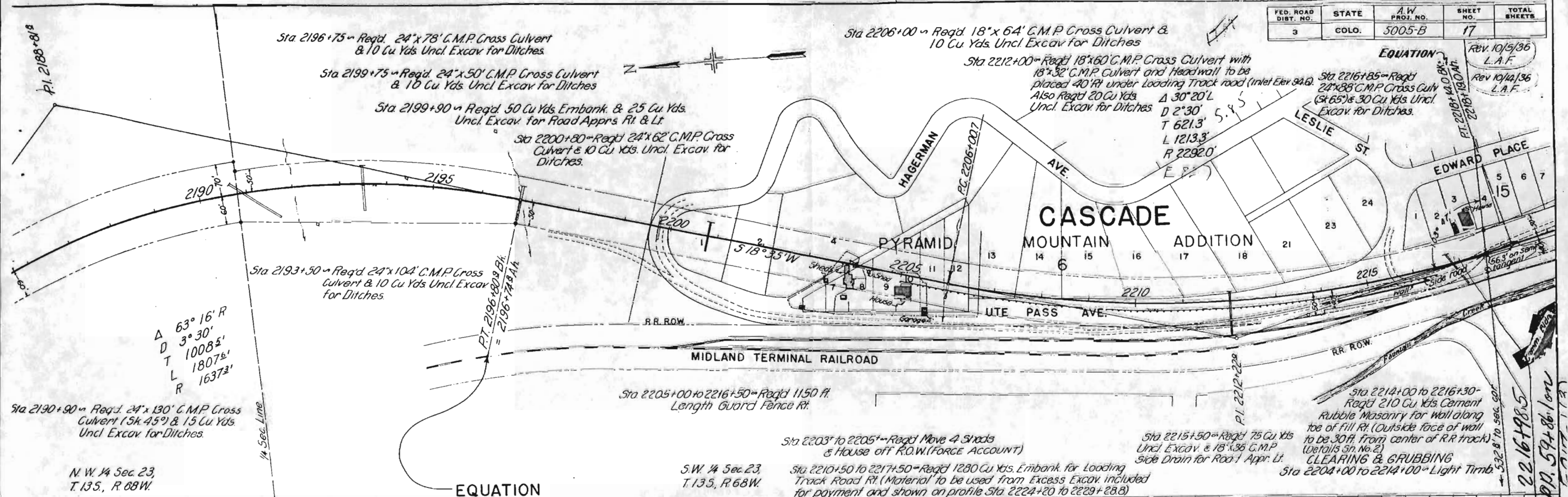
FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	5005-B	16	



FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	5005-B	17	

REV. 10/5/36
L.A.F.
REV. 10/12/36
L.A.F.

EQUATION



FED. ROAD DIST. NO.	STATE	A.W. PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	COLO.	5005-B	18	

Rev 10/5/36-L.A.F.
Rev 10/14/36-L.A.F.

