

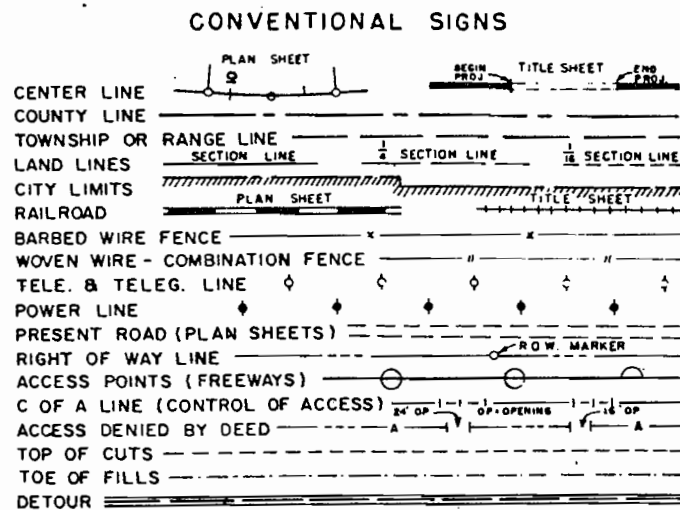
DEPARTMENT OF HIGHWAYS STATE OF COLORADO

P.E., Right of Way & Utilities
Obligated under Project No.
CT 41-0082-04
(R-1) 4-6-76, C.K.M. - DATES

FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
XIII	COLORADO	CC 41-0082-07	1

AS CONSTRUCTED

NO REVISIONS	REVISED	VOID
	11/17/76	



PLAN AND PROFILE OF PROPOSED ~~COMPLETED~~ COLORADO PROJECT NO. CC 41-0082-07 STATE HIGHWAY NO. 82 LAKE 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 } 26,515.3 LIN. FT. = 5.022 MILES
NET LENGTH OF PROJECT }

SHEET NO.

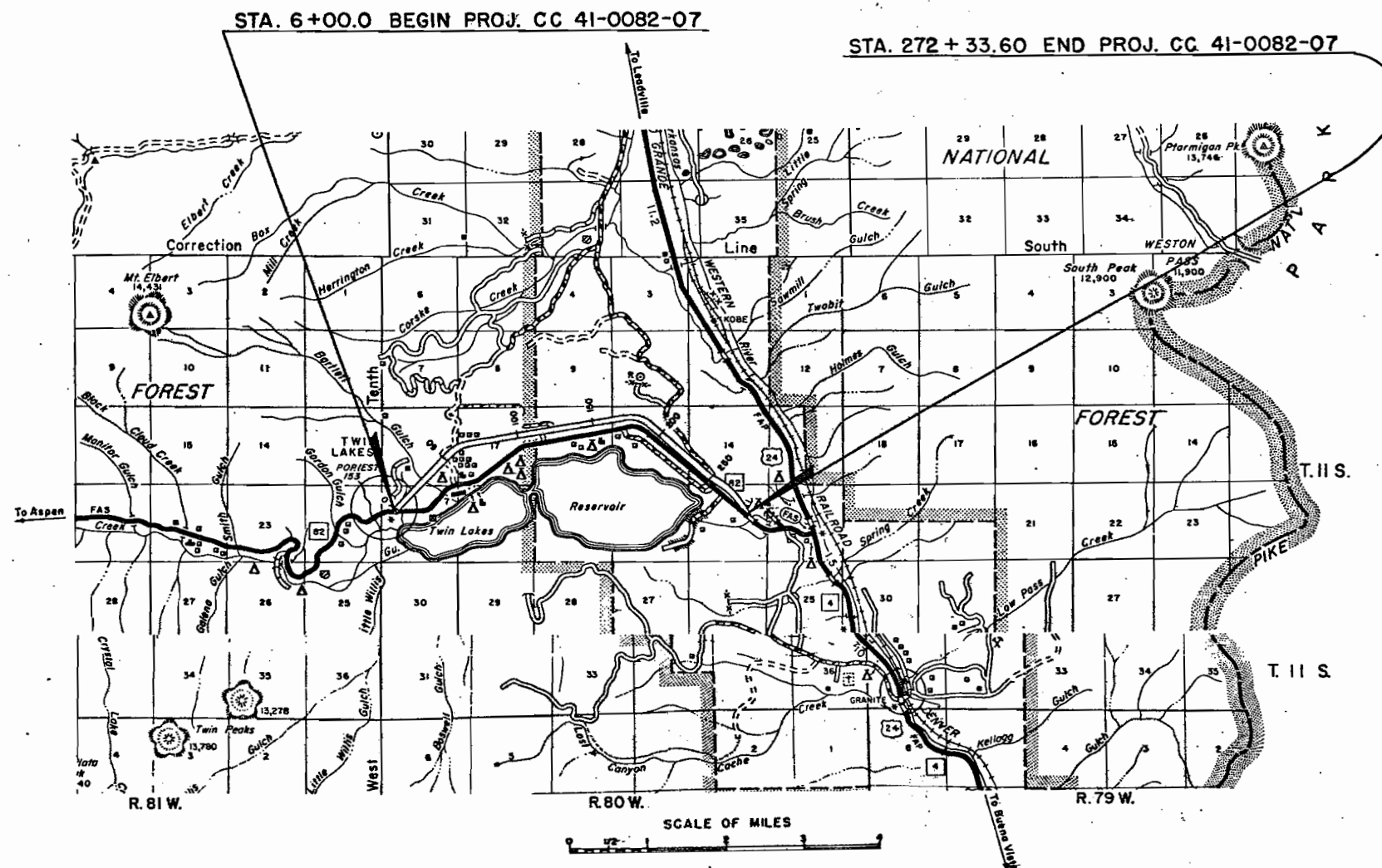
1	SKETCH MAP AND TITLE PAGE
2	TYPICAL SECTION, GENERAL NOTES AND DETAILS OF GROUTED RUBBLE SLOPE AND DITCH PAVING
3-4	SUMMARY OF APPROXIMATE QUANTITIES
5	TABULATION OF LENGTH AND DESIGN DATA AND BASE COURSE AND SURFACE COURSE PLAN
6	GUARD RAIL AND SUBBASE PLAN
7	TABULATION OF DELINEATORS AND SUMMARY OF EARTHWORK QUANTITIES
8	SPLIT CEDAR FENCE DETAILS AND FENCING TABULATION
9-10	STRUCTURE QUANTITIES
11-14	DETAILS OF CONCRETE RETAINING WALL STA. 182+ TO STA. 187+ RT.
15-17	DETAILS OF INTERSECTIONS
18-27	ALIGNMENT PLAN AND PROFILE
28-44	TOPSOIL, X DRAIN, ROAD APPROACHES

"M" STANDARDS

M-100-A	STANDARD SYMBOLS	5-11-73
M-203-B	APPROACH ROADS, FLARING, CUT SLOPE TREATMENT, BRIDGE AND CRESE WIDENING	12-11-72
M-203-C	DITCH TYPES	7-23-68
M-203-SC	SUPERELEVATION OF CURVES - CROWNED HIGHWAYS	3-24-75
(R-1) M-206-AB	EXCAVATION AND BACKFILL FOR STRUCTURES (3 SHEETS)	3-26-76
M-500-A	LETTERS AND FIGURES FOR STRUCTURE NUMBERS	3-26-75
M-601-BC1	SINGLE CONCRETE BOX CULVERT	9-9-74
(R-1) M-601-MW	WINGWALLS FOR CONCRETE BOX CULVERTS	3-26-76
M-603-CA	CONCRETE AND METAL END SECTIONS	8-21-75
M-603-MA	METAL CULVERT PIPE - H-20 LOADING	8-20-75
M-603-RC	REINFORCED CONCRETE PIPE	8-29-72
M-606-AB	GUARD RAIL, TYPE 3 (4 SHEETS)	9-12-75
M-607-A	WIRE FENCE AND GATES (2 SHEETS)	10-15-75
M-614-TB	TRAFFIC SIGNING FOR HIGHWAY CONSTRUCTION (3 SHEETS)	11-22-71
M-616-B	CSP SIPHON	4-9-71

"S" STANDARDS

51A	TYPICAL DELINEATOR INSTALLATIONS (2 SHEETS)	10-26-72
52A	BARRICADES, DRUMS AND VERTICAL PANEL CHANNELIZING DEVICES	12-4-74



8/12/77
Marchel
Nixon
Sgt.
Graves
Dixie

AS CONSTRUCTED INFORMATION

CONTRACTOR - Pioneer Const. Co.
Resident ENGINEER - J. E. Nixon
(Project or Resident) Marion Cunningham
PROJECT STARTED - 4-26-76
PROJECT COMPLETED - 11-17-76
AS CONSTRUCTED PLANS APPROVED - J. E. Marchel
Dist. Const. Engr. Shirley
TITLE DATE

DIVISION OF HIGHWAYS

APPROVED: [Signature] 4/17/76
CHIEF ENGINEER DATE

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED: _____ DATE _____
DIVISION ENGINEER

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	2	

AS CONSTRUCTED				
NO REVISIONS		REVISED	11/17/76	VOID

GENERAL NOTES

FOR PRELIMINARY PLAN QUANTITIES OF BITUMINOUS MATERIALS AND COVER COAT MATERIALS, THE FOLLOWING RATES OF APPLICATION WERE USED:

PRIME COAT (MC-70) @ 0.3 GALS. PER SQ. YD.
TACK COAT CSS-1H @ 0.1 GALS. PER SQ. YD. @ 50/50 SOLUTION

RATES OF APPLICATION SHALL BE AS DETERMINED BY THE ENGINEER AT THE TIME OF APPLICATION.

WATER SHALL BE USED AS A DUST PALLIATIVE WHERE REQUIRED. LOCATIONS SHALL BE AS ORDERED.

ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE SUCCEEDING LAYER IS PLACED.

ROAD APPROACHES WHICH REQUIRED BITUMINOUS PAVEMENT SHALL BE PRIMED AND A 1-3/4" THICKNESS OF PAYMENT PLACED AS FOLLOWS:

PUBLIC APPROACHES AND ENTRANCES TO BUILDINGS OR RESIDENCES SHALL BE PAVED 50 FT. OUT FROM EDGE OF SHOULDER OR TO THE RIGHT OF WAY LINE WHICHEVER IS LESS. FIELD ENTRANCES SHALL BE PAVED 4 FT. OUT FROM EDGE OF SHOULDER.

THE FORCE ACCOUNT ITEM, "CLEARING OF BUILDING SITES, ETC.," SHALL INCLUDE REMOVAL OF ALL FOUNDATIONS, WELLS, BUILDINGS AND OTHER APPURTENANCES NOT REMOVED BY THE OWNER, AND ANY NECESSARY BACKFILLING OF CELLARS, CESSPOOLS, WELLS, ETC., TO PROVIDE NEAT ROADSIDE CONDITIONS. IT IS ESTIMATED THAT THIS ITEM APPLIES AT THE FOLLOWING LOCATIONS:

STA.	SIDE
2+	LT (REMOVE HOUSE & APPURTENANCES)
40+	RT
163+	RT (REMOVE HOUSE & APPURTENANCES)

DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:

FULL DEPTH OF ALL EMBANKMENTS
BASES OF CUTS 1 FOOT
BASES OF FILLS 1 FOOT

EXCAVATION REQUIRED FOR COMPACTION OF BASES OF CUTS AND FILLS SHALL BE CONSIDERED AS SUBSIDIARY TO THAT OPERATION AND WILL NOT BE PAID FOR SEPARATELY.

GUARD POSTS, DELINEATORS AND SIGNS SHALL BE REMOVED BY STATE FORCES.

IT IS ESTIMATED THAT 1991.5 HOURS OF FLAGGING FOR CONTROLLING TRAFFIC WILL BE REQUIRED FOR THIS PROJECT.

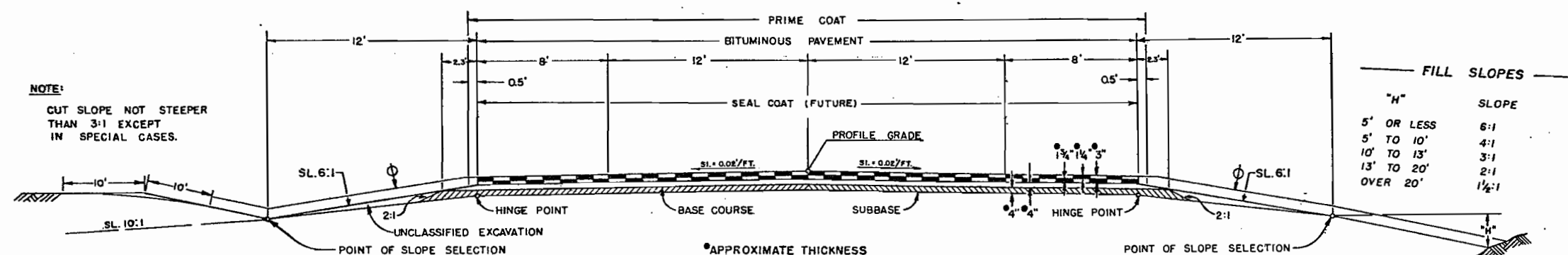
FLEXIBLE CONDUITS ON THIS PROJECT WITH HELICAL CORRUGATIONS, JOINED BY DIMPLED CONNECTING BANDS, SHALL USE A SEALING COMPOUND OR GASKET WITH THE CONNECTING BAND.

THE MINIMUM THICKNESS OF TOPSOIL SHALL BE 4 INCHES. IT IS ESTIMATED THAT 28,500 CU. YDS. WILL BE REQUIRED AND WILL BE OBTAINED FROM WITHIN PROJECT LIMITS.

SEEDING & FERTILIZING WITH COMMERCIAL FERTILIZER, AND MULCHING FOR APPROXIMATELY 50 ACRES WILL BE REQUIRED WITHIN RIGHT OF WAY LIMITS ON ALL AREAS NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:

COMMON NAME	BOTANICAL NAME	PERCENT PURITY	PERCENT GERMINATION	RATE PLS/ACRE
Intermediate Wheatgrass	Agropyron Intermedium	90	85	5
Smooth Brome	Bromus Inermis	65	80	6
Timothy	Phleum Pratense	99	90	1.5
Pubescent Wheat Grass	Agropyron Pubescens	90	85	5
White Dutch Clover	Trifolium Repens	98.5	90	2
TOTAL PLS/ACRE SEEDING				19.5
MULCHING MATERIAL				
1.5 TONS PER ACRE NATIVE HAY OR 2 TONS/ACRE STRAW				
COMMERCIAL FERTILIZER	PERCENT AVAILABLE	LBS/ACRE AVAILABLE NITROGEN	LBS/ACRE AVAILABLE SUPERPHOSPHATE	RATE LBS./ACRE
AVAILABLE NITROGEN (18-0-0)	18	50		278
AVAILABLE SUPERPHOSPHATE (0-45-0)	45		100	222
TOTAL LBS/ACRE FERTILIZER				500

TYPICAL SECTION



NOTE:
CUT SLOPE NOT STEEPER THAN 3:1 EXCEPT IN SPECIAL CASES.

NOTE:
SEE STANDARDS FOR DETAILS OF CUT SLOPE TREATMENT, FLARING AND WIDENING.
EXCAVATION BELOW 6:1 SLOPE AND/OR 10:1 SLOPE WILL NOT BE PERMITTED.
THE DEPTH AND WIDTH OF THE SIDE DITCH SHALL BE VARIED WHERE NECESSARY IN ORDER TO PROVIDE PROPER DRAINAGE.

BREAK POINTS ON SLOPES AND IN BOTTOMS OF DITCHES SHALL BE ROUNDED ON CONSTRUCTION FOR A PLEASING APPEARANCE.

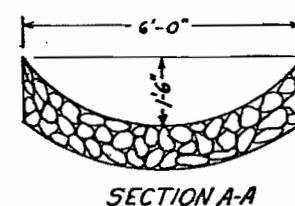
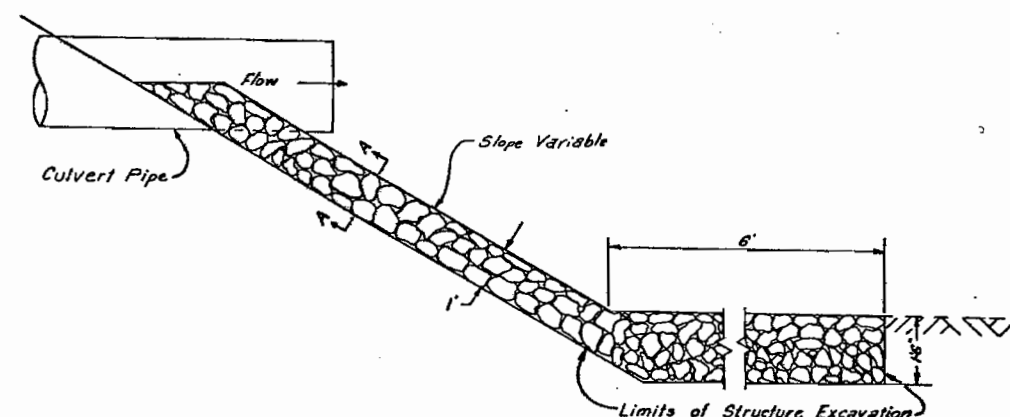
THE CONTRACTOR WILL BE REQUIRED TO PLACE TOPSOIL TO THIS LINE AFTER COMPLETION OF PAVING OPERATION.

MATERIAL SHALL BE PLACED IN SEPARATE COURSES AT THE FOLLOWING APPROXIMATE RATES PER 100 LIN. FT. OF ROADWAY:

BITUMINOUS PAVEMENT	TOP LAYER	30 TONS
	BOTTOM LAYER	42 TONS
BASE COURSE		94 TONS

THE RATES SHOWN HAVE BEEN DETERMINED FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. RATES SHOULD BE ADJUSTED DURING CONSTRUCTION TO OBTAIN THE REQUIRED APPROXIMATE THICKNESS.

DETAILS OF GROUTED RUBBLE SLOPE & DITCH PAVING (W = 6')



SUMMARY OF ^{FINAL} APPROXIMATE QUANTITIES

AS CONSTRUCTED				FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS		REVISED	11/17/76	VOID				
					XIII	COLORADO	CC41-0082-07	3

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	C.M.O.	C.M.O.	C.M.O.	C.M.O.	C.M.O.							PROJECT TOTALS	Project Final	Diff.	%
BOOK	PAGE	SHEET				2203	2204	2207	2208	2209										
6	55		201	Clearing & Grubbing	Lump Sum												●	●	-	100%
6	55		201	Clearing & Grubbing	Lump Sum		\$2,550.00										1	2,550.00	2550	-
5	44	10	202	Removal of Structure	Each													3	+2	300%
5	64	8	202	Removal of Fence	Lin. Ft.												400	696	+296	174%
		7	203	Unclassified Excavation	Cubic Yard	+28,000											593,000	618,152	+25,152	104%
5	73		203	Muck Excavation (Haul)	Cubic Yard	+3,745											2,700	8606	+5906	314%
5	50	7	203	Compaction (AASHTO T180)	Cubic Yard												597,000	599,016	+2016	100%
		7	203	Compaction (Surcharge)	Cubic Yard	3,500											0	2,778	+2,778	-
		7	204	Haul	Yard Mile												200,600	235,177	+34,577	117%
		23	204	Haul	Ton Mile												159,400	202,168	+42,768	127%
		10	206	Structure Excavation	Cubic Yard	+328											2226	2847	+623	128%
		10	206	Structure Backfill (Class 2)	Cubic Yard												3159	3324	+165	105%
5	75	9,10	206	Filter Material (Class B)	Cubic Yard												110	258	+148	235%
4	22		206	Filter Material (Class A)	Cubic Yard	305											244	+244	100	100%
6	63		207	Topsoil (Haul)	Cubic Yard												26,500	36,092	+9,592	136%
5	50		209	Topsoil C.M.O. 2204	Cubic Yard		2500										0	3,822	+3,822	-
Form 7			209	Wetting	M Gal.												15,900	9004	-6896	57%
			209	Water (Landscaping) Deleted By C.O.# 2208	M Gal.					-1,250							1,250	0	-1250	0%
5	74		210	Reset Mailbox Structure	Each												5	6	+1	120%
6	52		212	Seeding (Native)	Lb.												975	1080	+105	111%
6	53		212	Fertilizer	Lb.												25,000	30200	+5200	121%
6	49		212	Soil Preparation (Native)	Acre												50	39	-11	78%
6	51		213	Mulching See C.O.# 2207	Ton												75	94.99	+19.99	125%
6	54		213	Hydra Mulch	Ton					-12 +12										
		53	304	Place Aggregate Base Course	Ton												65700	75007.15	+9307.15	114%
		5	403	Hot Bituminous Pavement (Aggregate from Stockpile)	Ton												22,800	2546.25	+2246.25	110%
5	56		411	Asphalt Cement (AC-5) See C.O.# 2209	Ton												1320	1,451.67	+131.67	110%
			411	Asphalt Cement (AC-5) (Price reduction)	Lump Sum						-4,236.16						0	-4,236.16	0	0
5	55		411	Emulsified Asphalt (CSS-1H)	Gal.												6,900	3978	-2922	58%
5	53		411	Liquid Asphaltic Material (MC-70)	Gal.												43,300	43,397	+97	100%
5	58		506	Heavy Riprap	Cu. Yard	950					-950						0	0	0	0
5	58		507	Grouted Rubble Slope and Ditch Paving	Cubic Yard												71	113	+42	157%
5	47	10	518	Waterstop (6 Inch)	Linear Foot												70	70	0	100%
4	27	10	601	Concrete Class A (Miscellaneous) See C.O.# 2202	Cubic Yard												4	4	0	100%
5	62	10	601	Concrete Class A (Box Culvert) See C.O.# 2202	Cubic Yard												122	121.74	-.26	100%
5	47	11	601	Concrete Class A (Wall) See C.O.# 2202	Cubic Yard												436	464.67	+28.68	106%
5	76	10	602	Reinforcing Steel	Lb.												41,300	41,241	-59	100%
4	9		603	30 Inch Steel End Section	Each												1	1	0	100%
5	77	10	605	6" Inch Non-Perforated Corrugated Steel Pipe	Linear Foot												150	312	+162	208%
5	71	6	606	Guard Rail Type 3 (6-3 Post Spacing)	Linear Foot												6,200	6225	+25	100%
5	71	6	606	End Anchorage Type 3A	Each												8	9	+1	113%
5	71	6	606	End Anchorage Type 3B	Each												2	1	-1	50%

SUMMARY OF ^{FINAL} APPROXIMATE QUANTITIES

AS CONSTRUCTED
NO REVISIONS ☐ REVISED 11/17/78 VOID ☐

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	4	

INDEX			CONTRACT ITEM NO.	CONTRACT ITEM	UNIT	C.M.O.	C.M.O.	C.M.O.	C.M.O.	C.M.O.						PROJECT TOTALS	Final	Diff	%
BOOK	PAGE	SHEET				2203	2204	2207	2208	2209									
1	50-51	8	607	End Post	Each											10	17	+7	170%
1	50-51	8	607	Corner and Line Brace Post	Each											16	20	+4	125%
1	50-51	8	607	Fence Barbed Wire with Metal Post	Linear Foot											13,200	13,260	+60	100%
1	50-51	8	607	Fence Split Cedar Sec C.O.# 2201	Linear Foot											27,400	26,781	-619	98%
5	48-49	7	612	Delineator (Type I)	Each											84	86	+2	102%
5	48-49	7	612	Delineator (Type II)	Each											141	141	0	100%
5	57	10	613	2 Inch Electrical Conduit	Linear Foot											380	610	+230	161%
5	57	10	613	4 Inch Electrical Conduit	Linear Foot											380	870	+490	221%
5	57	10	614	Flagging	Hour											1,000	1381.5	+381.5	138%
1	27	10	616	18 Inch Asbestos Bonded Steel Siphon Pipe	Linear Foot											198	198	0	100%
1	27	10	616	18 Inch Trash Guard	Each											2	2	0	100%
1	27	9	616	6 Inch Valve & Valve Box	Each											1	1	0	100%
		10	617	18 Inch Culvert Pipe	Linear Foot											562	564	+2	100%
		10	617	24 Inch Culvert Pipe	Linear Foot											3,078	3,080	+2	100%
			617	30 Inch Culvert Pipe Deleted by C.O.# 2208	Linear Foot											30	0	-30	0
		10	617	42 Inch Culvert Pipe	Linear Foot											380	400	+20	105%
5	49		620	Field Office	Each											1	1	0	100%
5	49		620	Field Laboratory	Each											1	1	0	100%
5	49		620	Sanitary Facility	Each											1	1	0	100%
5	49		626	Mobilization	Lump Sum											•	•	0	100%
			626	Mobilization	Lump Sum	# 5,000.00										•	•	0	100%
						F/A#													
						01	List of Change Orders	PLAN	Cost by (Biling)	Diff.									
						02	Minor Contract Revision	69,000	2,753.12	-66,246.88									
						2203	Clearing of Building Sites, etc.	1,500	1,248.16	-251.84									
						2201	Dewater Cut Section	96,847	99,765.68	-47,081.32									
						2202	Shorten Cedar fence Posts	0	0	0									
						2202	Concrete Design Mix	0	0	0									
						2204	Supplement to F/A# 05	5,625.00	7,327.50	-1,652.50									
						2206	Placement of HBP	0	0	0									
						2207	Hydro Mulch	0	0	0									
						2208	Delete Items	0	20,650.00	-20,650.00									
						2209	Price Adj. (AC-5)	0	9,236.16	-9,236.16									

AS CONSTRUCTED			FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS		REVISED 11/17/76	VOID	VIII	COLORADO	CC41-0082-07	5

TABULATION OF LENGTH & DESIGN DATA

STATION		ROADWAY
		LIN. FT.
STA. 6+00 - BEGIN PROJECT CC 41-0082-07		4,799.2
STA. 53+99.2 Bk. = STA. 54+17.5 Ah.		2,282.5
STA. 77+00 Bk. = STA. 78+00 Ah.		19,433.6
STA. 272+33.6 - END PROJECT CC 41-0082-07		
TOTAL		26,515.3
SUMMARY		LIN. FT.
ROADWAY (NET & GROSS LENGTH)		MILES
		26,515.3
		5.022
DESIGN DATA		
MAXIMUM DEGREE OF CURVE 7°00'		
MAXIMUM GRADE 4%		
MINIMUM S.S.D. - HORIZONTAL 500'		
MINIMUM S.S.D. - VERTICAL 455'		
MAXIMUM DESIGN SPEED 50 MPH.		
1996 DESIGN TRAFFIC VOLUME		2650 ADT. 901 DHV.

BASE COURSE AND SURFACE COURSE PLAN

STATION TO STATION	SOURCE	QUANTITY - TONS						HAUL - TON MILE					
		BASE COURSE		SURFACE COURSE - HOT BITUMINOUS PAVEMENT				BASE COURSE		SURFACE COURSE - HOT BITUMINOUS PAVEMENT			
		AGGREGATE BASE COURSE CLASS 6	BOTTOM LAYER GRADING E	TOP LAYER GRADING E	AGGREGATE BASE COURSE CLASS 6	BOTTOM LAYER GRADING E	TOP LAYER GRADING E	AGGREGATE BASE COURSE CLASS 6	BOTTOM LAYER GRADING E	TOP LAYER GRADING E	AGGREGATE BASE COURSE CLASS 6	BOTTOM LAYER GRADING E	TOP LAYER GRADING E
			Final		Final		Final		Final		Final		Final
Appr. to Project Sta. 0+00 to 6+00		420	413.4	202	201.20	144	240.05	692	961	333	468	237	559
6+00 to 53+99.2 Bk.		4,511	4,724.3	2,016	2,147.20	1,440	1,462.3	5,129	8,575	2,292	3,897	1,637	2,654
54+17.5 Ah. to 77+00 Bk.		2,146	2205.15	959	1070.0	685	776.20	1,000	2,524	447	1,225	319	888
78+00 Ah. to 272+33.6		18,268	1765.45	8,162	832.0	5,830	551.30	38,180	1338	17,058	630	12,185	417
96+00 to 272+33.6			17196.75		8051.75		5450.20		38,813		18174		12301
Appr. to Project 272+33.6 to 278+33.6		400	430.9	193	208.55	138	176.95	1,595	1716	769	831	550	705
WIDENING :													
30+68 to 55+08 Lt.		384	420.20	181		130	312.05	329	660	155		111	490
36+10 to 50+13 Rt.		218	247.45	103		74	238.45	185	387	88		63	373
85+45 to 110+25 Lt.		395	472.20	190		136	346.40	262	294	126		90	215
92+07 to 103+23 Rt.		171	163.45	82		59	176.85	113	101	54		39	109
116+38 to 127+61 Lt.		145	178.35	70		50	146.50	163	193	78		56	158
109+45 to 134+36 Rt.		398	431.30	191		137	340.45	445	465	214		153	367
201+00 to 226+40 Lt.		384	373.65	181		130	380.80	1,082	1053	510		367	1072
206+40 to 219+60 Rt.		189	199.90	89		64	509.30	531	560	250		180	**1584
233+92 to 245+13 Lt.		145	173.00	70		50	154.45	485	572	234		167	510
227+00 to 251+70 Rt.		392	441.75	189		135	** Included Above	1,311	1,459	632		451	** Included Above
From Structure Quantities		1,223	2280.35	442	1135.65			2,174	5,397	786			2,641
Widening for Guard Rail		276	*	133		95	139.65	490	*	236		169	275
* Included in Roadway													
PROJECT TOTALS		30,065	32,118.05	13,453	13,646.35	9,297	11,401.90	54,166	65,018	24,262	25,225	16,774	25,318

☒ Widening was placed
in 3" L.F. See CO.# 2206
RF- Form 87 - 5-526

STABILIZATION BASED ON:

18" E.D.I.A. = 15
REGIONAL FACTOR = 5.0
SERVICEABILITY INDEX = 2.5

STRENGTH COEFFICIENTS:

H.B.R. (Rt. = 95) = 0.44
A.B.C. (Class 1) (R=80) = 0.12
A.B.C. (Class 6) (R=83) = 0.12

AS CONSTRUCTED		FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS	REVISED 11/17/76	VOID	VIII	COLORADO	GC 41-0082-07	6

GUARD RAIL

STATION TO STATION	SIDE	TYPE 3		ANCHOR TYPE	
		TANGENT	FLARE (W=4)	3A	3B
		LIN. FT.	LIN. FT.	EACH	EACH
20+50 to 21+25	Rt.		75	1	1
21+25 to 27+25	Rt.	575	600		
27+25 to 27+50	Rt.		50	1	1
62+25 to 63+00	Rt.		75	1	1
63+00 to 66+00	Rt.	300	300		
66+00 to 66+50	Rt.		50	1	1
143+25 to 144+00	Rt.		75		1
144+00 to 151+00	Rt.	700	700		
151+00 to 151+50	Rt.		50	1	1
*179+75 to 180+50	Rt.		75	1	1
*180+50 to 199+50	Rt.	1,900	1,900		
199+50 to 200+00	Rt.		50		1
215+25 to 216+00	Rt.		75	1	1
216+00 to 237+00	Rt.	2,100	2,100		
237+00 to 237+50	Rt.		50	1	1
PROJECT TOTALS		5,575	5,600	625	625

* 1"x6" Rough Native Timber to be nailed to the Guard Rail Posts as an Embankment Protector in lieu of Bituminous Curb. Cost to be included in price bid for Guard Rail Type 3.

SUBBASE PLAN

STATION TO STATION	SOURCE	THICKNESS	AGGREGATE BASE COURSE		HAUL - TON MILE	
			CLASS I		CLASS I	
			TONS	FINAL	TONS	FINAL
Appr. to Project 0+00 - 6+00		4"	451	1034.05	743	2409
6+00 to 40+00		4"	5,135	9923.65	5,838	9719
40+00 to 53+99.2 BK		5"		2962.65		4422
54+17.5 Ah. to 77+00 BK		4" 5"	2,443	3125.95	1,138	3577
78+00 Ah. to 96+00		5"		2259.75		1711
96+00 Ah. to 272+33.6		4"	20,794	6819.00	43,460	6829
140+00 to 272+33.6		5"		1883.55		3086
Appr. to Project 272+33.6 to 278+33.6		4"	451	710.50	1,798	2829
WIDENING:						
30+48 to 40+00 Lt		4"		*		*
40+00 to 55+08 Lt		5"		183.7		289
30+48 to 55+08 Lt			384		329	
36+10 to 40+00 Rt		4"		*		*
36+10 to 50+13 Rt		5"	218	110.1	185	172
40+00 to 50+13 Rt		5"	395	*	262	*
85+45 to 110+25 Lt		5"				
92+07 to 103+23 Rt		5"	171	149.3	113	89
116+38 to 127+61 Lt			145	159.5	163	172
109+45 to 134+36 Rt			398	451.05	445	486
201+00 to 226+40 Lt			384	312.65	1083	879
206+40 to 219+60 Rt			189	289.75	531	812
233+92 to 245+13 Lt			145	135.85	485	449
227+00 to 251+70 Rt			392	383.7	1311	1267
Estimated for Correcting Irregularities in Subgrade			3210	*	5,788	*
Widening for Guard Rail			276	*	491	*
PROJECT TOTALS			35,581	42889.10	64,163	86607

* Included in Roadway
Ref. Form 87 - 5326

AS CONSTRUCTED		FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
NO REVISIONS	REVISED 11/17/76	VIII	COLORADO	CC41-0082-07	7	

TABULATION OF DELINEATORS

STATION TO STATION	SIDE	SPACING	TYPE I		TYPE II	
			EACH	Final	EACH	Final
S.C. 2+00 to C.S. 7+40.4 0+02 to 38 9+38 to 68 12+68	Lt&Rt Lt&Rt Lt&Rt Lt&Rt	Transition 7° Curve Transition Transition	2 12 2 2	2 12 2 2		
28+68 to 55+26 33+33 to 40+33 42+03 to 53+14	Lt. Rt. Rt.	Intersection Decel Accel			14 6 8	14 6 8
S.C. 56+67.5 to C.S. 61+17.5 63+33 to 93 66+93	Lt&Rt Lt&Rt Lt&Rt	6° Curve Transition Transition	12 2 2	12 2 2		
83+45 to 112+25 89+30 to 95+30 97+00 to 106+00	Lt. Rt. Rt.	Intersection Decel Accel			15 5 8	15 5 8
107+45 to 122+61 124+36 to 136+36 113+61 to 122+61	Rt. Rt. Lt.	Intersection Intersection Accel			8 7 8	8 7 8
124+36 to 130+38 162+90 to 163+90	Lt. Lt&Rt Lt&Rt	Decel Transition Transition			6 2 2	6 2 2
S.C. 166+71.9 to C.S. 190+99.8 158+90 to 194+82 194+82 to 228+40 200+00 to 228+40	Lt&Rt Lt&Rt Lt&Rt Lt.	Transition 2° Curve Transition Intersection	2 26 2 2	2 26 2 2	14	14
204+65 to 211+65 213+35 to 223+05	Rt. Rt.	Decel Accel			6 7	6 7
225+00 to 253+70 231+13 to 240+13 241+90 to 247+90	Rt. Lt. Lt.	Intersection Accel Decel			15 8 6	15 8 6
256+22 to 259+82 S.C. 261+98.3 to C.S. 264+98.3	Lt&Rt Lt&Rt Lt&Rt	Transition Transition 6° Curve	2 2 6	2 2 6		
267+14 to 270+74 S.C. 273+97.3 to C.S. 276+33.6	Lt&Rt Lt&Rt Lt&Rt	Transition Transition 2° Curve	2 2 4	2 2 4		
PROJECT TOTALS			84	86	141	141

Ref. Book 5 Pages 68-69

SUMMARY OF EARTHWORK QUANTITIES

INDEX		PROJECT TOTALS	
Book	Page		Final
Computer Sheets		UNCLASSIFIED EXCAVATION	
		Cubic Yard	
		* Roadway (From Topsoil From Cuts Deducted Electronic Computer)	489,124
		* Widened Cuts	30,653
		* Embankment to Replace Muck Excavation	2,903
		* Structure Quantities as Embankment	115
		Structure Quantities as Excavation	2,340
		Structure Quantities as Ditch	70
		Intercepting Ditches (From Tabulation)	5,575
		Estimated for Cut Slope Treatment	2,150
		Excavation for Topsoil	26,500
		* Embankment to Replace Topsoil	28,488
		* For Shoulder Areas	4,881
		TOTAL FOR PAY QUANTITY	592,799
		MUCK EXCAVATION	
		Cubic Yard	
		Roadway	2,700
		TOTAL FOR PAY QUANTITY	2,700
		COMPACTION (AASHTO T180)	
		(Moisture & Density Control)	
		Cubic Yard	
		Embankment (Net)	489,975 - 257 for C.B.C.
		Base of Cuts & Fills	83,468
		Structure Quantities as Embankment (Net)	115
		Embankment to Replace Muck (Net)	2,700
		Embankment to Replace Topsoil (Net)	26,500
		TOTAL FOR PAY QUANTITY	596,298
		HAUL	
		Yard Mile	
		Surcharge - place & Remove	500
		From Mass Diagram (Computer Sheets)	198,656
		Estimated for Shoulder Areas	1,865
		Topsoil Stripping to Stockpiles	1,327
		TOTAL FOR PAY QUANTITY	200,521
		ROADWAY QUANTITIES BALANCE	
		(For Information Only)	
		Cubic Yard	
		EXCAVATION	
		Unclassified	489,124
		From Widened Cuts	30,653
		TOTAL	519,777
		EMBANKMENT x FACTOR (1.075)	
		(Roadway - Electronic Computer)	519,777
		TOTAL	519,777
		INTERCEPTING DITCHES	
		Station to Station	Side
		Cubic Yard	
		27+50 to 44+00	Lt.
		48+00 to 54+00	Lt.
		56+00 to 63+00	Lt.
		126+00 to 144+00	Lt.
		151+00 to 182+00	Lt.
		200+00 to 220+00	Lt.
		257+00 to 270+00	Lt.
		TOTAL	5,575
		192+75 to 198+00	Lt.

* Approximate Location, may be changed by the Engineer.
* Included in Computer Print Out

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC 41-0082-07	8	

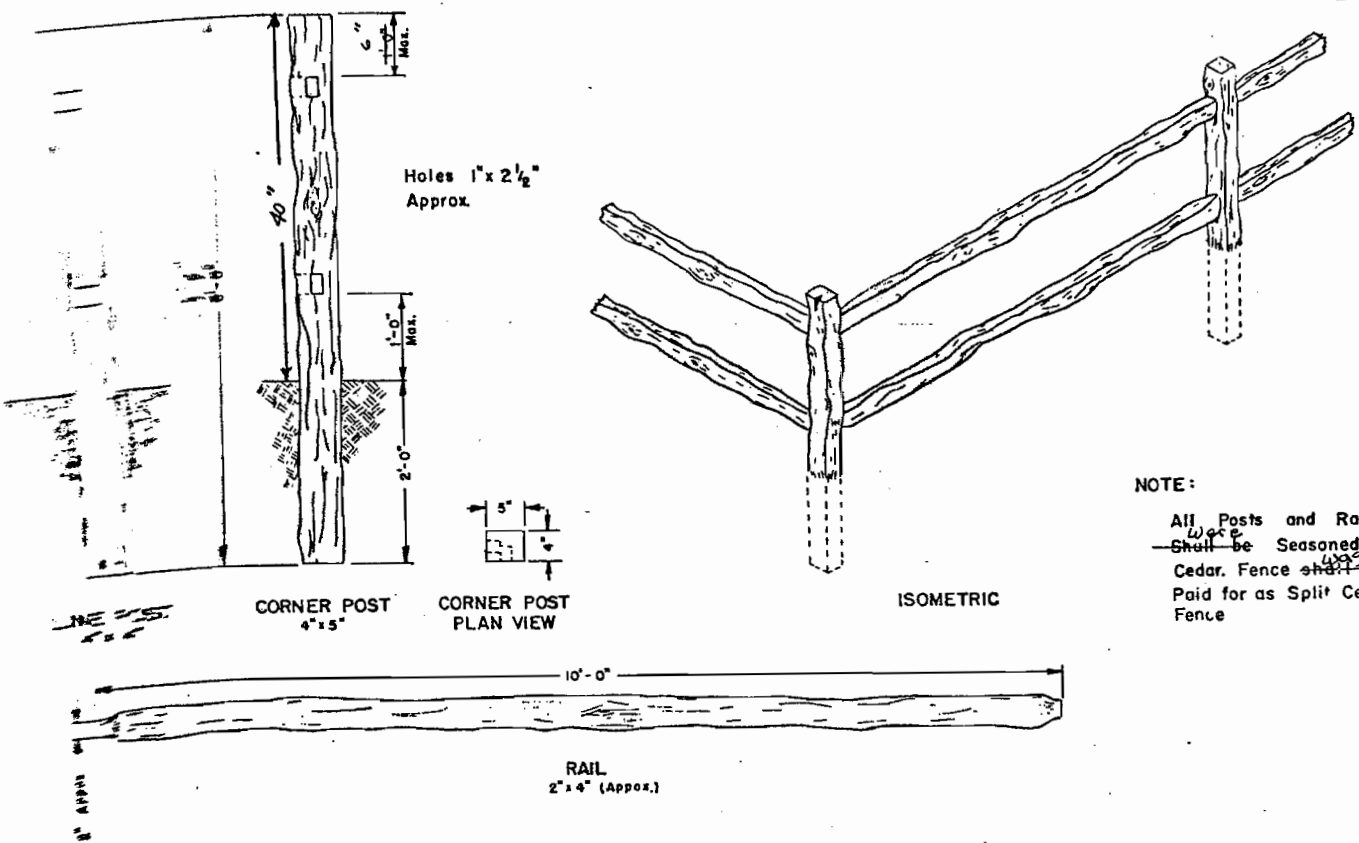
AS CONSTRUCTED

NO REVISIONS

REVISED 11/17/72

VOID

SPLIT CEDAR FENCE DETAILS



NOTE:
All Posts and Rails
Shall be Seasoned
Cedar. Fence shall be
Paid for as Split Cedar
Fence

FENCING TABULATION

STATION	SIDE	REMOVE FENCE		BARBED WIRE FENCE		SPLIT CEDAR FENCE		BARBED WIRE GATES	
		LIN. FT.		LIN. FT.		LIN. FT.		EACH	
0+90 - 3+00	Rt		290						
19+15	X-Fence	200	203						
27+45	X-Fence	200	203						
1+65 to 35+25	Lt.			3285	5630				
35+75 to 58+50	Lt.			2274					
198+75 to 240+65	Lt.			4178	4,176				
241+15 to 275+30	Lt.			3,430	3,438				
0+85 to 40+93	Rt.					4,133	4,052		
41+43 to 95+90	Rt.					5,329	4,769		
96+40 to 123+30	Rt.					2,690	2,845		
123+80 to 151+05	Rt.					2,725	3,013		
151+55 to 182+00	Rt.					4,827	3,190		
188+00 to 200+75	Rt.								
201+25 to 256+45	Rt.					16	5,533		
256+90 to 278+33.6	Rt.					2,159	8,904		
53+25	Lt.							1	1
PROJECT TOTALS		400	696	13,167	13,260	27,396	26,781	1	1

It is Estimated That 20 Corner and Line Brace Posts and 10 End Posts will be Required for Barbed Wire Fence.

Ref - Book # 5 pg 64 - Removal
Ref - Book # 4 pg 50-51 - Cedar & Barbed Wire

FINAL STRUCTURE QUANTITIES

AS CONSTRUCTED				FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
NO REVISIONS		REVISED	11/17/76	VOID		CG41-0082-07	9

INDEX			LOCATION	UNCLASSIFIED EXCAVATION CUBIC YARD			STRUCTURE EXCAVATION CUBIC YARD	STRUCTURE BACKFILL CUBIC YARD	REMOVAL OF STRUCTURE EACH	AGGREGATE BASE COURSE SURFACING (CLASS 6) TON	HOT BITUMINOUS PAVEMENT (GRADING E) TON	MUCK EXCAVATION CU. YD.	CONCRETE CL. A CUBIC YARD	REINFORCING STEEL LB.	2" ELECTRICAL CONDUIT LIN. FT.	4" ELECTRICAL CONDUIT LIN. FT.	CULVERT PIPE LIN. FT.				STEEL SIPHON PIPE LIN. FT.	NON-PERFORATED GS. PIPE LIN. FT.	H" OVER CULV. FT.	GROUTED RUBBLE SLOPE AND DITCH PAVING CUBIC YARD	TRASH GUARD EACH			END SECTION EACH			MISCELLANEOUS
BOOK	PAGE	SHEET		EXCAV.	EMB.	DITCH											18"	24"	30"	42"					18"	24"	42"				
4	8		0+00 to 6+00		5		15	0	10	0	1																				
4	9		0+60		5		15	0	10	0	1																				
4	11		0+90		5		4	0	7	0																					
4	12		1+60	5			13	13	5	5																					
4	13		3+12		5		9	27	12	30		71																			
4	15	29	7+78	10			65	65	43	43																					
4	15	29	9+00	916	919		33	0	35	0																					
4	14	50	10+00	5																											
4	14	50	15+00		*																										
4	16		16+09				120	120	62	62																					
4	18		20+58				60	60	98	98																					
5	73		23+00									37																			
4	21		24+ to 27+									2840																			
4	19		29+ to 32+				43	131	77	100																					
4	20		26+00																												
5	73		30+ to 31+	5			68		53																						
4	25	30	35+ to 36+	5			12	0	16	0																					
4	26	30	37+00	5			68	55	40	31																					
4	29		41+ to 42+	5			15		14																						
4	27	32	41+25				165	280	70	114			4.0	308																	
4	28	33	43+50	7825	434		5		9																						
4	30		44+00																												
4	31		44+57				13	15	49	56																					
4	32		55+50	12			15	3	5	5																					
5	73		58+00				14	13	30	29		8																			
5	60	35	66+80	200	113		172	172	132	132		8	121.74	8863																	
4	35		70+67				16	16	43	43																					
4	36		82+60				5	11	11	23	23																				
4	37		85+ to 110+																												
4	37		92+42				45	65	39	56																					
4	39		95+50	5			113	113	54	54																					
4	73		96+10	50																											
4	73		100+50									30																			
4	42	31	108+00				22	53	46	56																					
4	43		109+ to 134																												
4	43		120+00				14	27	25	25																					
4	44	43	129+00	4564	16																										
4	48		123+50	200			24	44	32	25																					
4	46		147+82				17	17	34	34																					

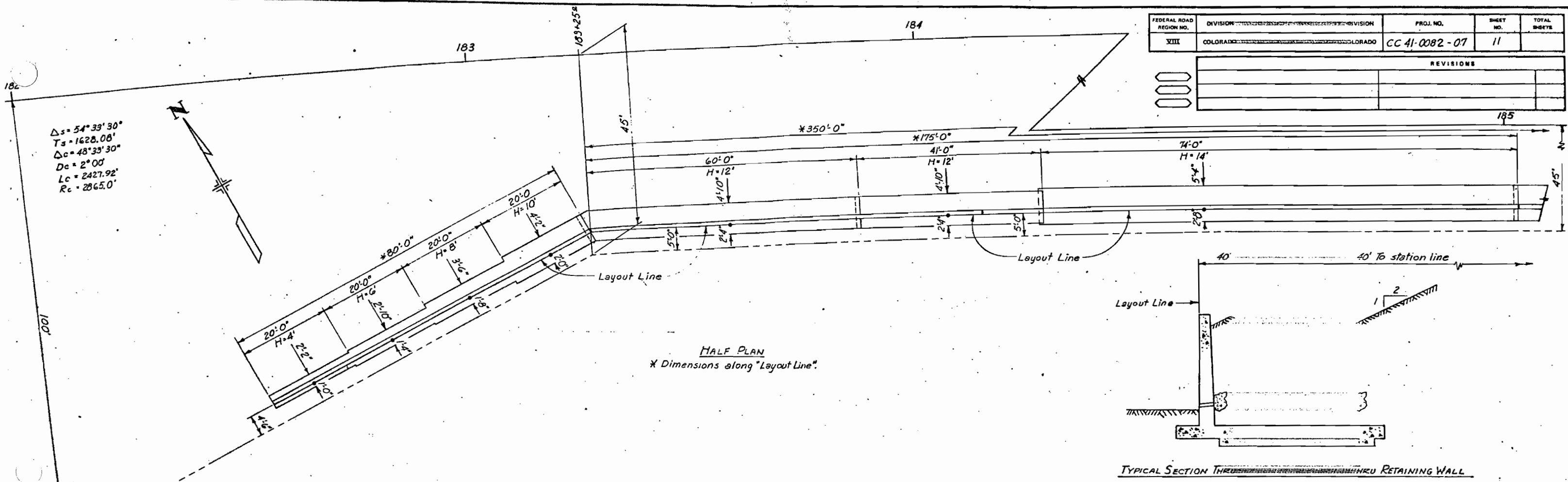
Δ Included in Surfacing Plan Φ For Information Only • Included in Roadway Quantities
 * Included in Roadway • Acceleration & Deceleration Lanes Included in Roadway Quantities
 ▲ Acceleration & Deceleration Lanes Included in Surfacing Plan • Acceleration & Deceleration Lanes Included in Roadway Quantities

FINAL STRUCTURE QUANTITIES

AS CONSTRUCTED		FEDERAL ROAD REGION NO.	DIVISION	PROJECT NO.	SHEET NO.
NO REVISIONS	REVISED 11/17/74	VOID	9	COLORADO	6741-0082-07
				10	

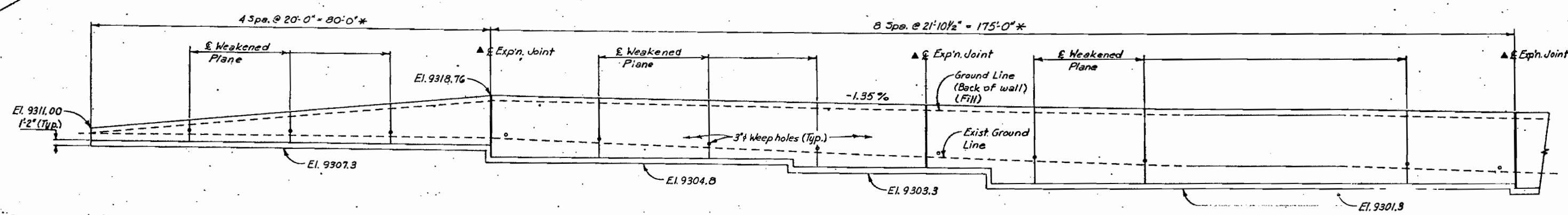
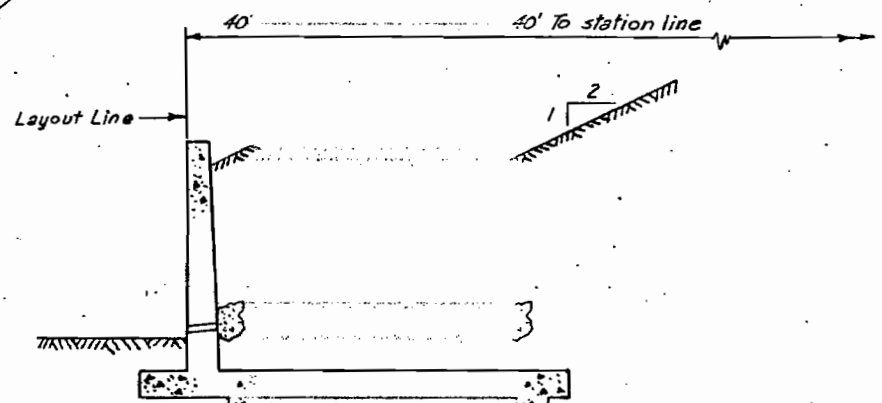
INDEX			LOCATION	UNCLASSIFIED EXCAVATION			STRUCTURE EXCAVATION		STRUCTURE BACKFILL		REMOVAL OF STRUCTURE	AGGREGATE BASE COURSE SURFACING (CLASS 6)	HOT BITUMINOUS PAVEMENT (GRADING E)	MUCK EXCAVATION	CONCRETE CLASS A		REINFORCING STEEL	2" ELECTRICAL CONDUIT		4" ELECTRICAL CONDUIT		CULVERT PIPE				STEEL SIPHON PIPE		NON-PERFORATED C.J. PIPE		"H" OVER CULV.	GROUTED RUBBLE SLOPE AND DITCH PAVING	TRASH GUARD		END SECTION		MISCELLANEOUS		
BOOK	PAGE	SHEET		CUBIC YARD			CUBIC YARD		CUBIC YARD						CU. YD.	CUBIC YARD		LB.	LIN. FT.	LIN. FT.	LIN. FT.				LIN. FT.		LIN. FT.		FT.			CUBIC YARD	EACH		EACH			
				EXCAV.	EMB.	DITCH	CL. 1	CL. 2	CL. 3	MISC.						BOX CULVERT					18"	24"	30"	42"	18"	6"	6"	6"					18"	24"	42"			
5	8	40	149+10 157+1000 151+30 156+00 1505				15	15	5	5		310 114	16 35.8																									
5	10		155+35	5			25	28	28	31																												
5	12		164+00																																			
5	14		164+10	5		5	38	38	31	31																												
5	16		170+00	5			44	44	35	35																												
5	18		181+50			5	10	30	17	19																												
5	47		182+10 187+10				700	700	1770	1770																												
5	20		192+75				19	40	37	39																												
5	23	41	198+90 199+00 10		225		12	36	23	23		67.35	30.65																									
5	24		199+50 202+00												20																							
5	73		202+10 226+10	Φ																																		
5	26		212+50 15	300			41	15	15	21		77.15 48	42.3 34																									
5	28		215+42			5	11	28	20	22																												
5	30		229+00				13	48	26	26																												
5	32		232+98 235+00				14	40	27	27																												
5	33		227+10 251+10	Φ																																		
5	39	42	241+00	1188 350			41	32	15	12		101.1 48	38.9 54																									
5	36		246+50 245+00	5		11	44	44	35	35																												
5	38	43	256+70	30	461		17	17	6	6		66.85 80	54.5 4																									
5	40		260+00			5	12	12	28	28																												
5	42		269+50			5	9	22	17	17																												
5	41		270+00		118																																	
5	43	44	275+45	60			3		7			20.5 34	35.35 44																									
5	44		273+																																			
			272+33.6 to 278+33.6	Φ								Δ	Δ																									
5	74		Entire Project																																			
			Final Project Totals				16527	2428	232	2849	3324	3	2280.35	1135.65	8606	9.0	121.74	41,261	610	890	569	380	400	198	312													
			PROJECT TOTALS				2340	115	70	2226	3159	+	1223	442	2700	4.0	121.74	41,261	373	373	562	3078	30	380	198	150												

Δ Included in Surfacing Plan Φ For Information Only • Included in Roadway Quantities
* Included in Roadway Quantities
▲ Acceleration & Deceleration Lanes Included in Surfacing Plan ◆ Acceleration & Deceleration Lanes Included in Roadway Quantities



FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC 41-0082-07	11	

REVISIONS	



SUMMARY OF QUANTITIES

Item No	Description	Unit	Total	Final
206	Structure Excavation	Cu.Yd.	700	700
206	Structure Backfill (Class 2)	Cu.Yd.	1770	1770
206	Filter Material (Class B)	Cu.Yd.	110	110
518	Waterstop (6 Inch)	Lin.Ft	70	70
601	Concrete Class A (Wall)	Cu.Yd.	436	*44.68
602	Reinforcing Steel	Lb.	32,090	32,090

* See Note Page 45, Book #5

Ref. Book 5, Page 47

AS CONSTRUCTED	
NO REVISIONS	REVISED 11-17-76 VOID

DIVISION OF HIGHWAYS	
RETAINING WALL DETAILS	
SITE: STA. 183+25 TO STA. 185+00	
Designer: J. Gray	Structure Numbers: 1 of 4 Drawings
Detailer: J.E. Ewert	
Drawing Number: B-1	

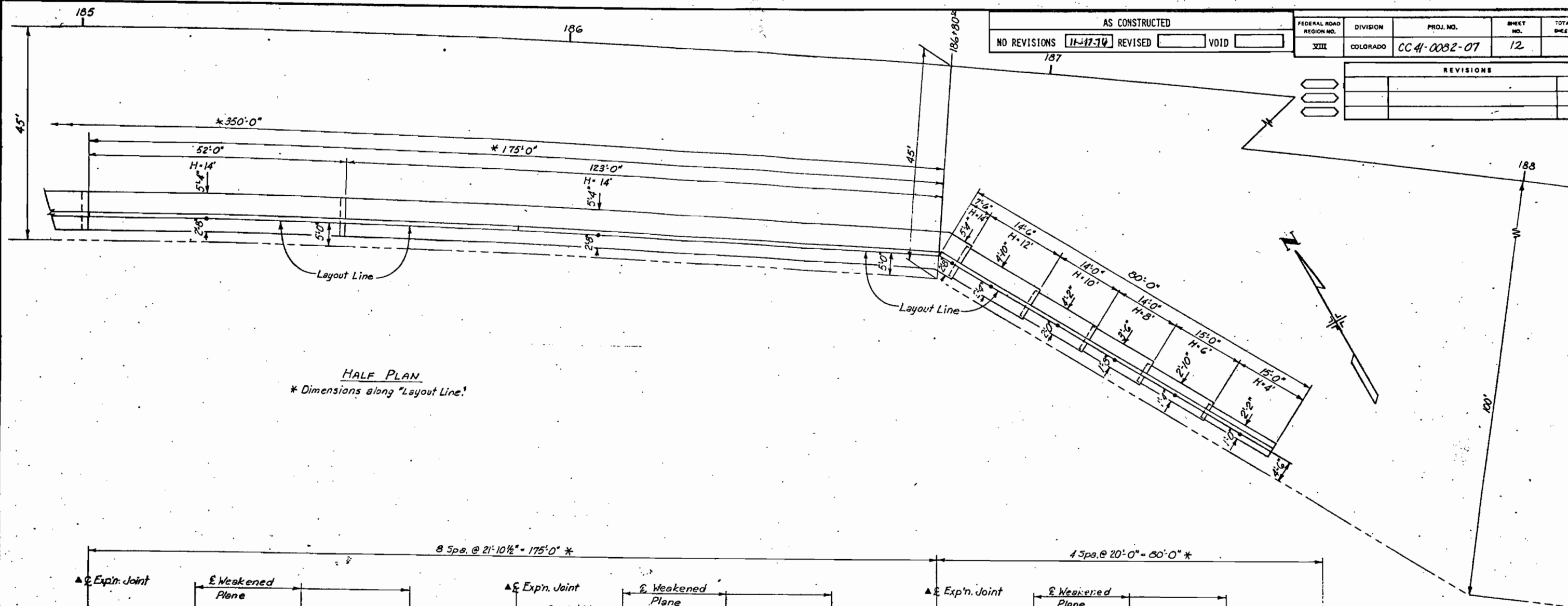
NOTE: THE CONTRACTOR ON THIS PROJECT WILL BE PROHIBITED FROM ENTERING OR CROSSING THE ARCHAEOLOGICAL SITE LOCATED 45 FEET AT. OF STA. 183+25 TO STA. 185+00. THIS AREA IS TO BE LEFT UNDISTURBED BY CONSTRUCTION ACTIVITIES.

Revision Date:	(Preliminary Stage Only)
----------------	--------------------------

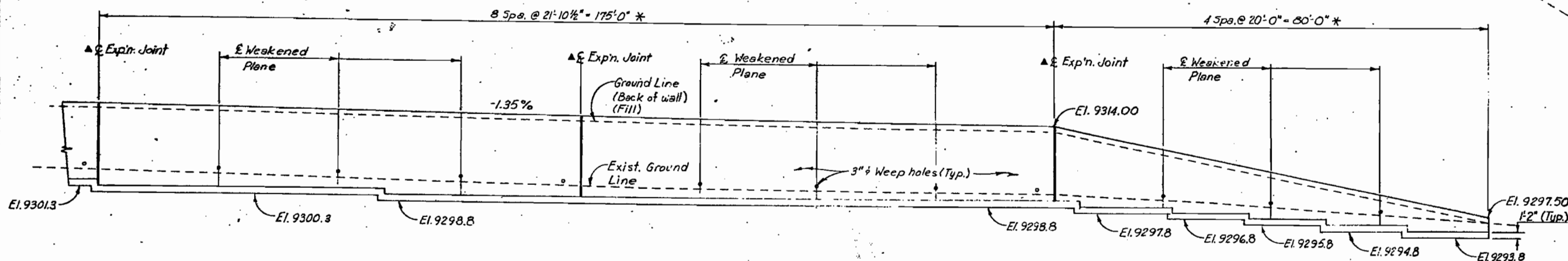
AS CONSTRUCTED
NO REVISIONS 11-17-74 REVISED ☐ VOID ☐

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
XIII	COLORADO	CC-41-0082-07	12	

REVISIONS	



HALF PLAN
* Dimensions along "Layout Line."



HALF ELEVATION
Taken along the "Layout Line".
For additional details see Dwg. No. B-3 & B-4
* Dimensions along "Layout Line."

NOTE:
THE CONTRACTOR ON THIS PROJECT WILL BE PROHIBITED FROM ENTERING OR CROSSING THE ARCHAEOLOGICAL SITE LOCATED 45 FEET RT. OF STA. 183+25 TO STA. 186+80. THIS AREA IS TO BE LEFT UNDISTURBED BY CONSTRUCTION ACTIVITIES.

DIVISION OF HIGHWAYS

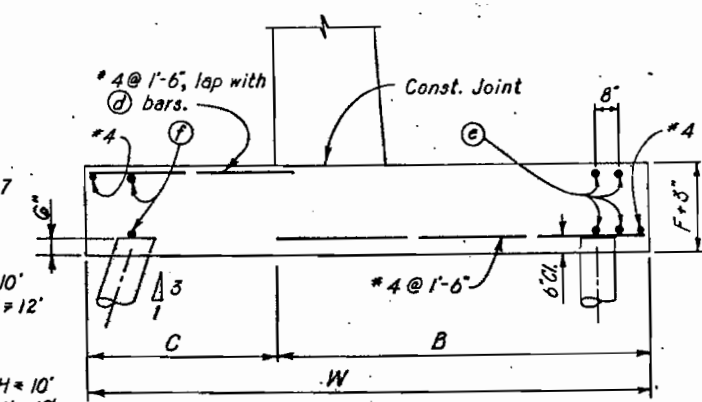
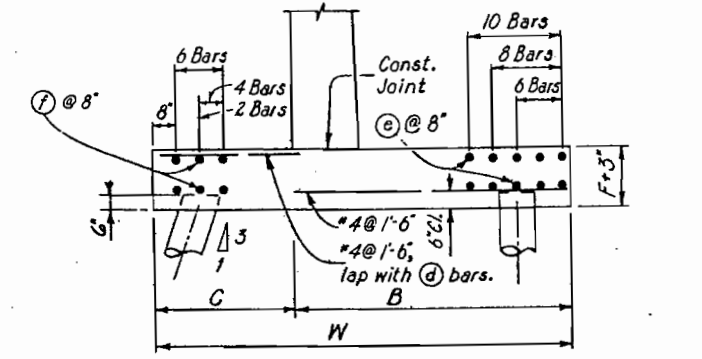
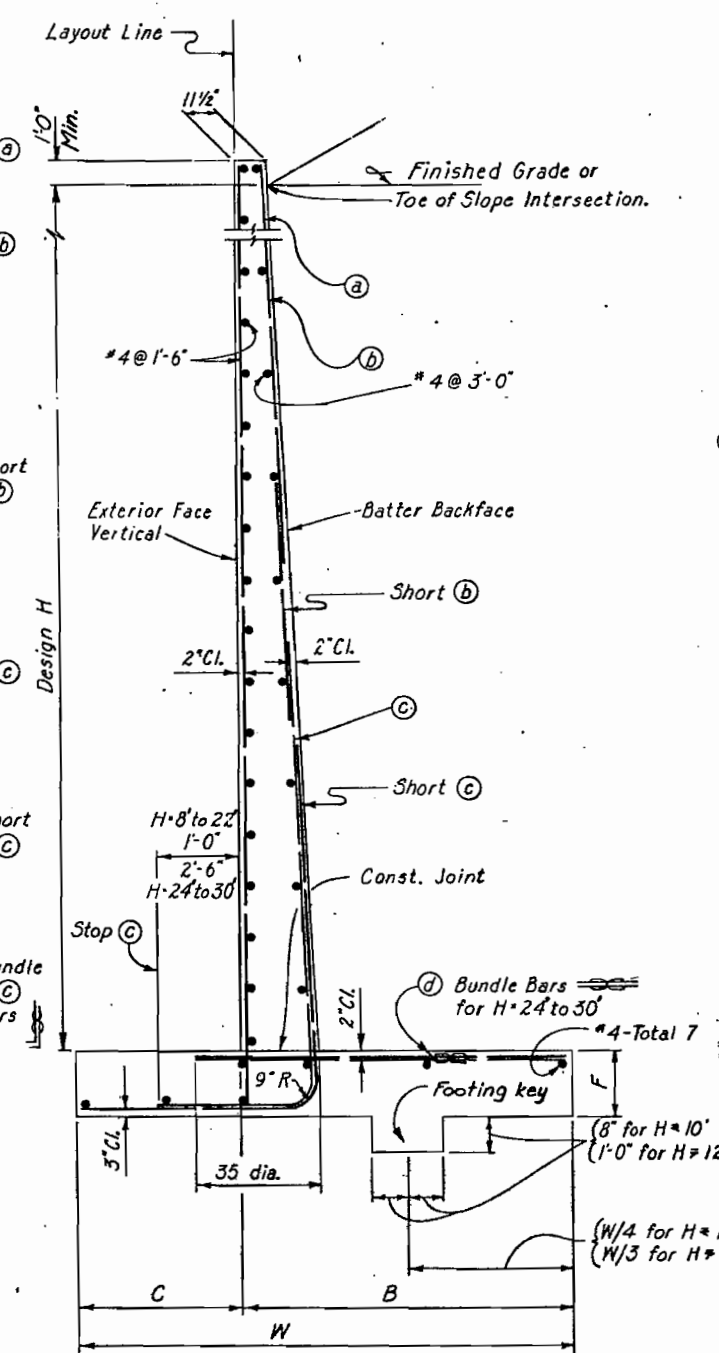
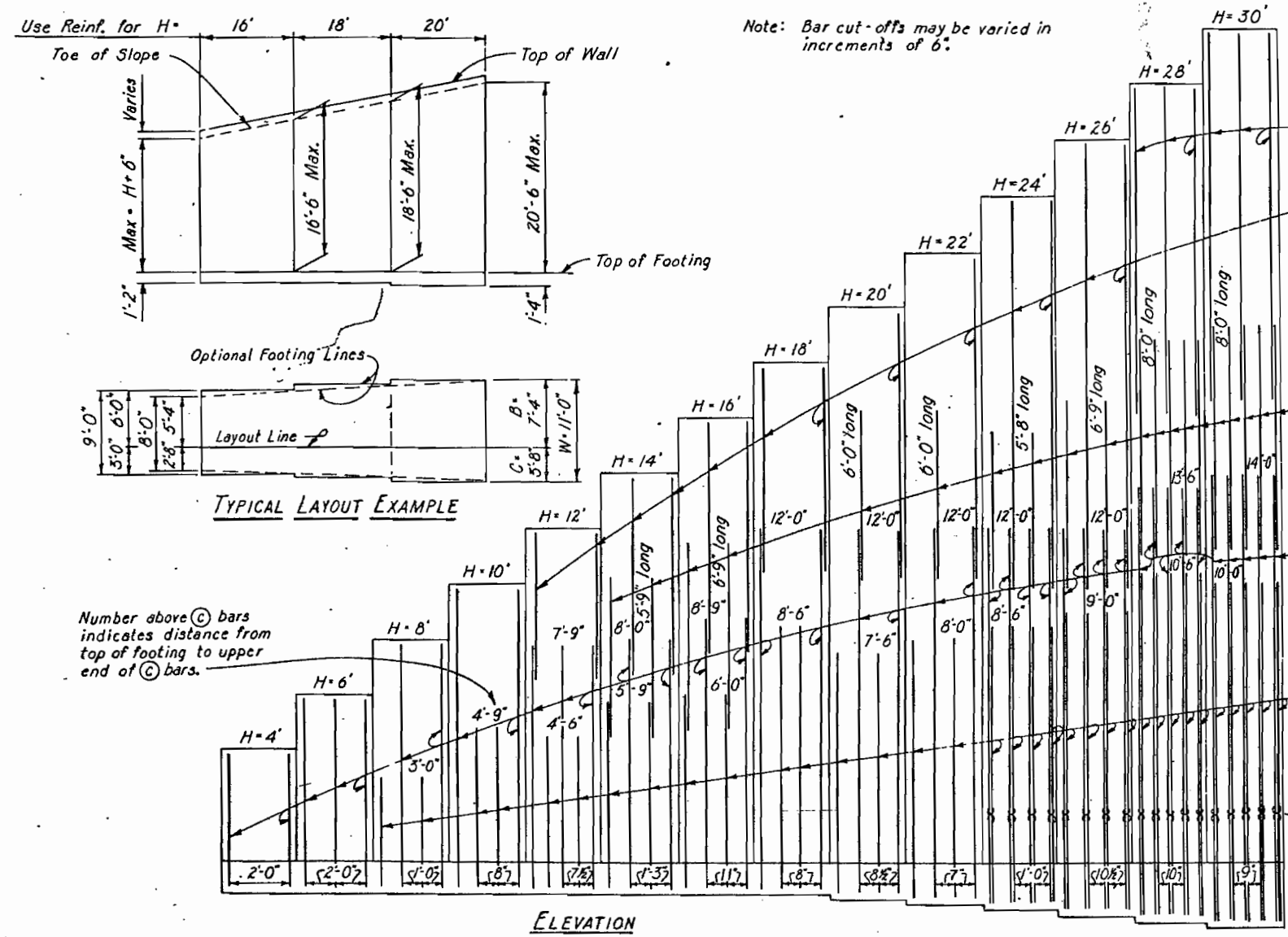
RETAINING WALL DETAILS
Sta. 185+

Designer J. Gray Structure Numbers
Detailer J.R. Ewert Numbers of 4 Drawings
Drawing Number B-2

Revision Dates (Preliminary Stage Only)

FEDERAL ROAD DISTRICT NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	13	

REVISIONS	
NO REVISIONS	11/17/76
REVISED	
VOID	



Note: Reinforcement detailed is to be placed in addition to that shown for spread footing. All piles not shown, see Pile Layout on other sheets.
▲ For pile footing Design H=4' use same footing dimension as Design H=6'.

TABLE OF REINFORCING STEEL DIMENSIONS AND DATA													
Design H	4'	6'	8'	10'	12'	14'	16'	18'	20'	22'	24'	26'	30'
W	3'-2"	4'-2"	5'-2"	6'-2"	7'-2"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-3"	14'-3"	16'-3"
C	1'-0"	1'-4"	1'-8"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"	3'-8"	4'-0"	4'-5"	4'-9"	5'-5"
B	2'-2"	2'-10"	3'-6"	4'-2"	4'-10"	5'-4"	6'-0"	6'-8"	7'-4"	8'-0"	8'-10"	9'-6"	10'-10"
F Spread Footing	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-2"	1'-4"	1'-6"	1'-8"	1'-11"	2'-4"
Batter	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12	1/2:12
ⓐ bars						5 @ 2'-6"	5 @ 1'-3"	5 @ 1'-1"	6 @ 2'-0"	7 @ 1'-5"	7 @ 1'-2"	8 @ 1'-0"	9 @ 1'-0"
ⓑ bars						6 @ 1'-6"	6 @ 1'-3"	6 @ 1'-1"	7 @ 1'-0"	8 @ 1'-0"	8 @ 1'-0"	9 @ 1'-0"	9 @ 1'-0"
ⓒ bars	5 @ 2'-0"	5 @ 2'-0"	5 @ 1'-0"	5 @ 8"	6 @ 7'-6"	10 @ 1'-3"	10 @ 1'-1"	10 @ 8"	11 @ 8'-6"	11 @ 7'	11 @ 1'-0"	11 @ 1'-0"	11 @ 9'-8"
ⓓ bars	5 @ 2'-0"	5 @ 2'-0"	4 @ 1'-0"	4 @ 8"	5 @ 7'-6"	9 @ 1'-3"	9 @ 1'-1"	9 @ 8"	10 @ 8'-6"	10 @ 7'	10 @ 1'-0"	10 @ 1'-0"	9 @ 9'-8"
Total ⓐ bars													
Total ⓑ bars													
2' level surcharge	Toe Pr. Ksf	1.4	1.8	2.2	2.5	3.1	3.5	3.8	4.1	4.6	4.7	5.3	6.2
2:1 unlimited slope	Toe Pr. Ksf	1.1	1.5	2.0	2.5	2.9	3.4	3.8	4.3	4.8	5.5	5.9	7.8
1 1/2:1 limited slope	Toe Pr. Ksf	1.3	1.9	2.4	2.8	3.5	3.8	4.2	4.6	4.9	5.5	6.4	7.5
Spread Footing	Reinf. Lbs./L.F.	16	20	26	38	54	83	114	165	198	264	320	477
ⓔ Wall	Cons. Cu. Yd./L.F.	0.330	0.463	0.604	0.748	0.941	1.089	1.252	1.422	1.667	1.930	2.344	3.841
Pile Footing	Reinf. Lbs./L.F.												
ⓔ Wall	Cons. Cu. Yd./L.F.												

Ⓢ Denotes a bundle of two bars.

NOTES:
QUANTITIES APPLY TO THE DESIGN H PORTION AND EXCLUDE THE ADDED PORTION ABOVE "FINISHED GRADE OR TOE OF SLOPE SECTION".
DESIGN H MAY BE EXCEEDED BY 6" BEFORE GOING TO THE NEXT SIZE. FOOTING KEY IS REQUIRED EXCEPT WHEN FOUND UNNECESSARY BY THE ENGINEER.
SPECIAL FOOTING DESIGN IS REQUIRED WHEN FOUNDATION MATERIAL IS INCAPABLE OF SUPPORTING THE PRESSURE LOADS LISTED IN TABLE.
FOR DESIGN AND DETAILS NOT SHOWN, SEE BRIDGE STANDARD - 102.
DESIGN DATA:
AASHTO 1973 UNIT STRESSES EXCEPT AS NOTED.
f_c = 1200 psi
f_s = 20,000 psi
s = 10
EARTH = 120 pcf, 2' SURCHARGE
EQUIVALENT FLUID PRESSURE = 36 pcf MAX. FOR DETERMINATION OF TOE PRESSURE.
27 pcf MIN. FOR DETERMINATION OF HEEL PRESSURE.
EARTH PRESSURE FOR 2:1 UNLIMITED SLOPE, AND 1 1/2:1 SLOPE IS DETERMINED FROM RANKINE'S FORMULA WITH φ = 33° 42'.

DIVISION OF HIGHWAYS

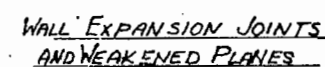
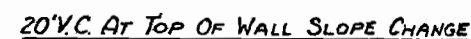
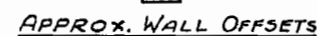
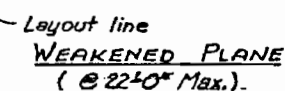
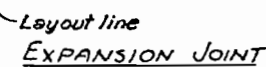
RETAINING WALL DETAILS
TYPE I

Designer J. Grayna
Detailer R. Kibetrick
Drawing Number B-3 of 4 Drawings

Revision Dates
(Preliminary Stage Only)

REVISIONS			

NO REVISIONS 11/17/76 REVISED VOID



DIVISION OF HIGHWAYS

RETAINING WALL DETAILS

Revision Dates		(Preliminary Stage Only)	

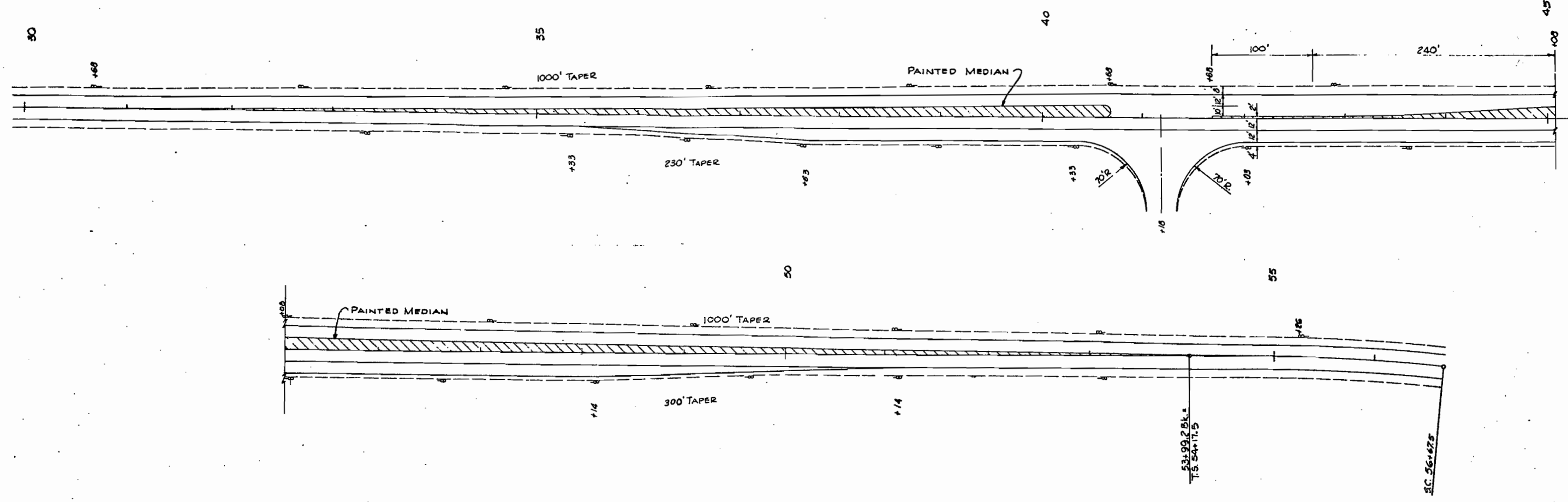
(9-1-74)

INTERSECTION @ STA. 41+

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41 - 0082-07	15	

AS CONSTRUCTED

NO REVISIONS	11/17/76	REVISED	VOID
--------------	----------	---------	------

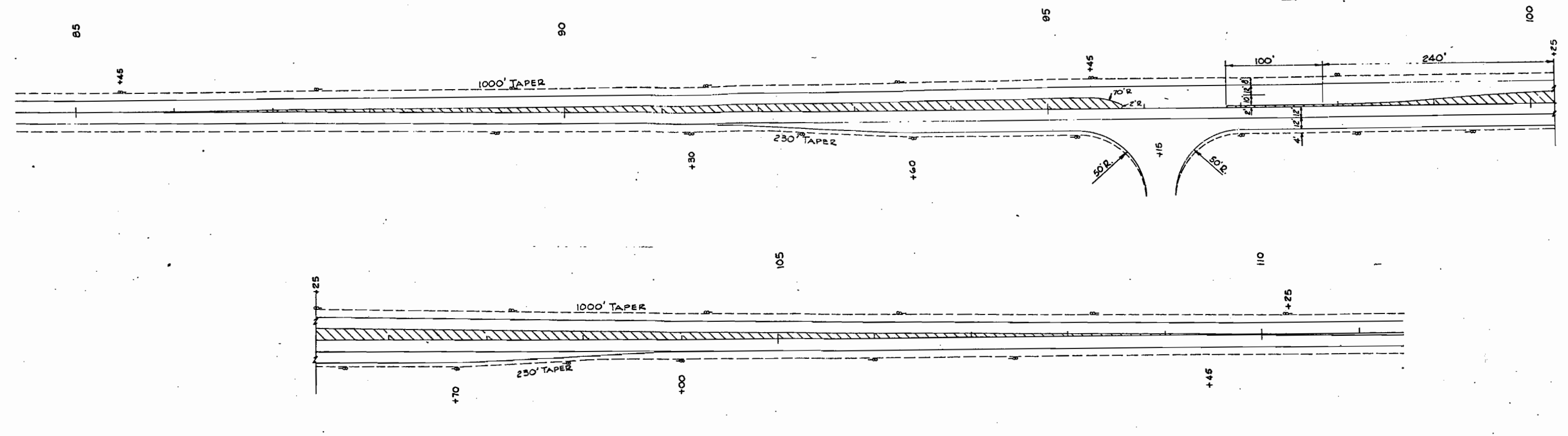


INTERSECTION @ 96+

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41 -0082-07	16	

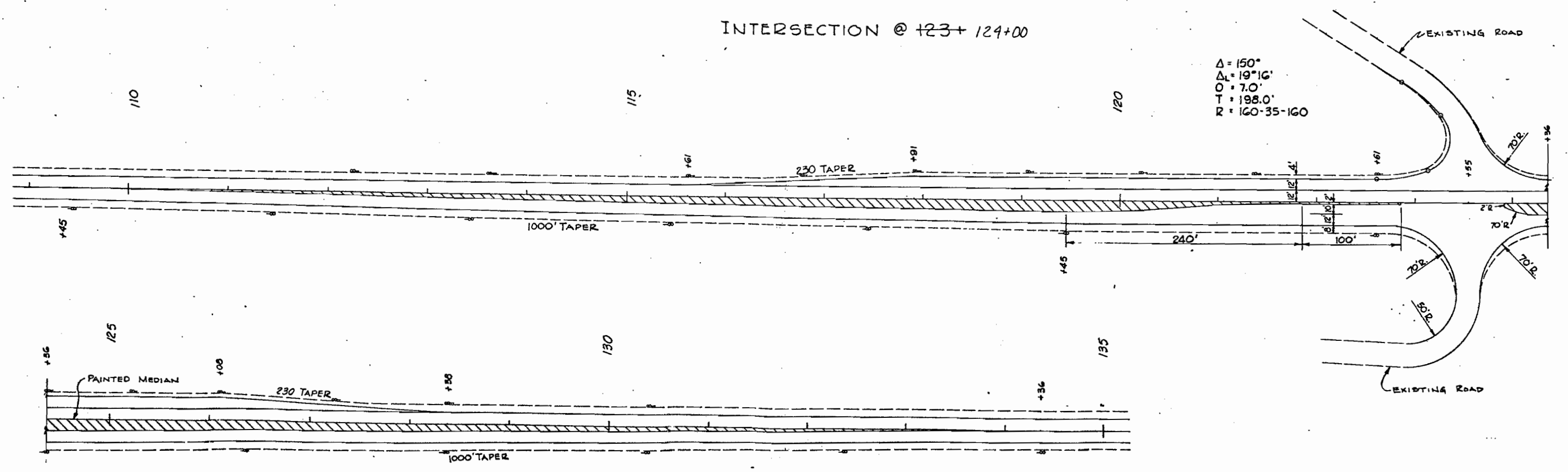
AS CONSTRUCTED

NO REVISIONS	REVISED	11/17/76	VOID
--------------	---------	----------	------



INTERSECTION @ +23+ 124+00

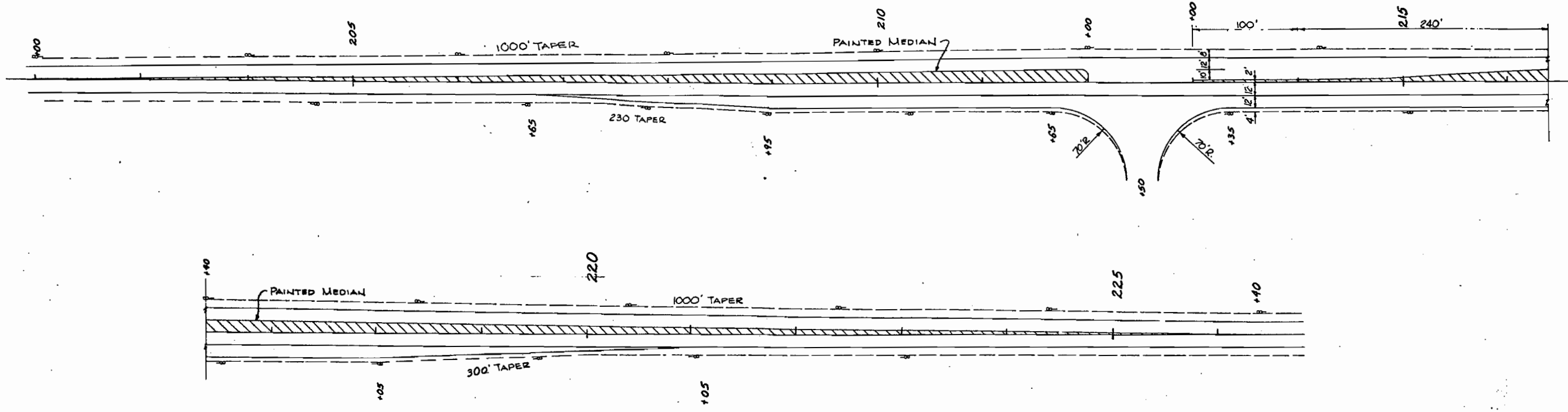
$\Delta = 150^\circ$
 $\Delta_L = 19^\circ 16'$
 $O = 7.0'$
 $T = 198.0'$
 $R = 160-35-160$



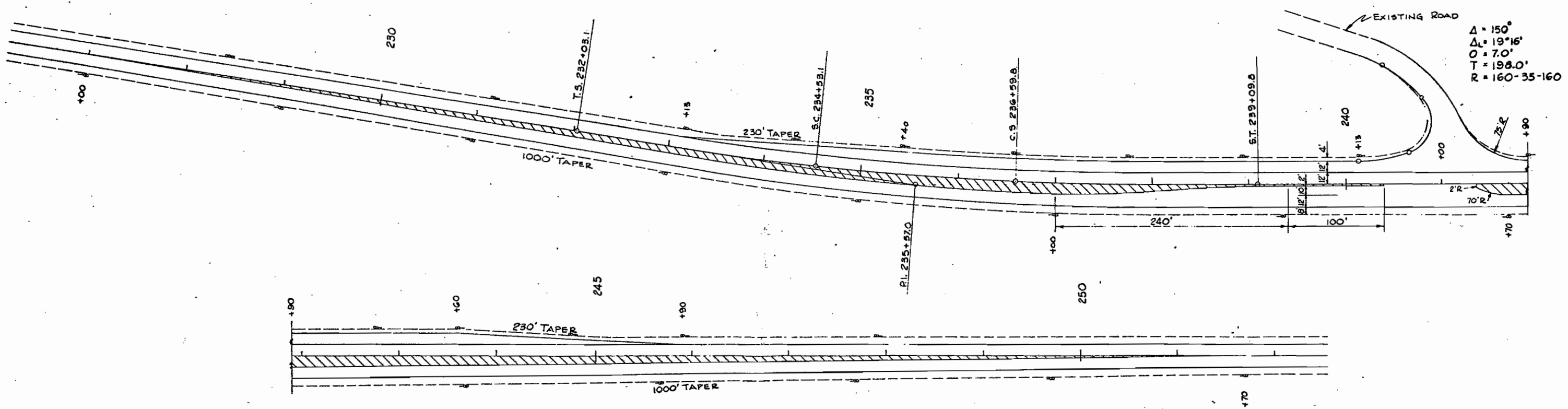
INTERSECTION @ 212 +50 15

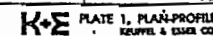
FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	17	

AS CONSTRUCTED	
NO REVISIONS	REVISED 11/17/76 VOID



INTERSECTION @ 241

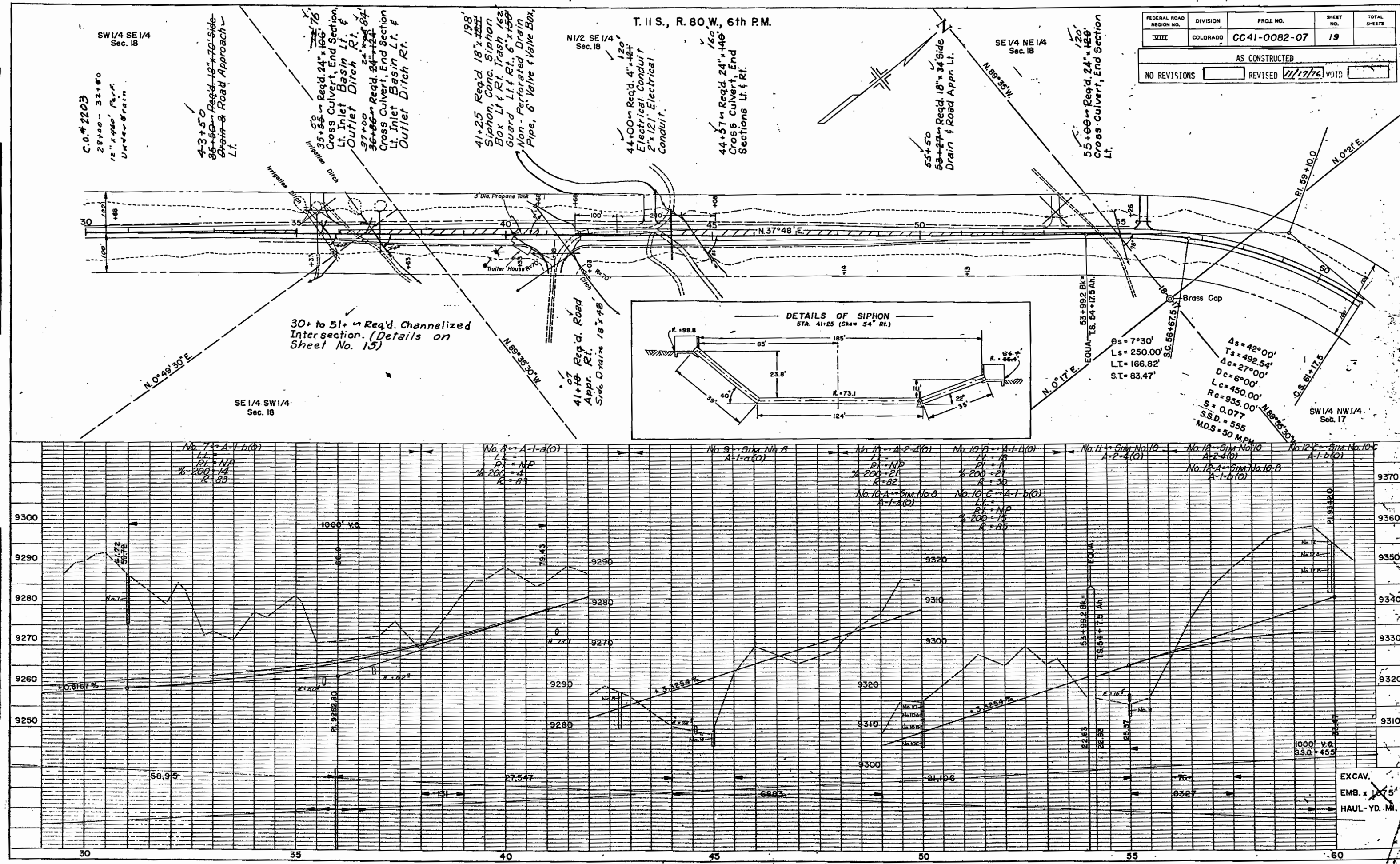




PLAN
NOTE BOOK
NO. 22424
STRUCTURE LOCATION CHORD

NOTE BOOK
NO. 22424
STRUCTURE LOCATION CHORD

EXCAV.
EMB. x 1075
HAUL-YD. MI.



FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	19	

AS CONSTRUCTED	
NO REVISIONS	REVISED 11/17/76 VOID

NW 1/4
Sec. 17

67' x 00' - Req'd. 8' x 8' x 64'
C.B.C. (Type 8A) with
Wingwalls (4:1) (Pedestrian
Underpass) Ramp
Rt. & Lt. (W = 12')

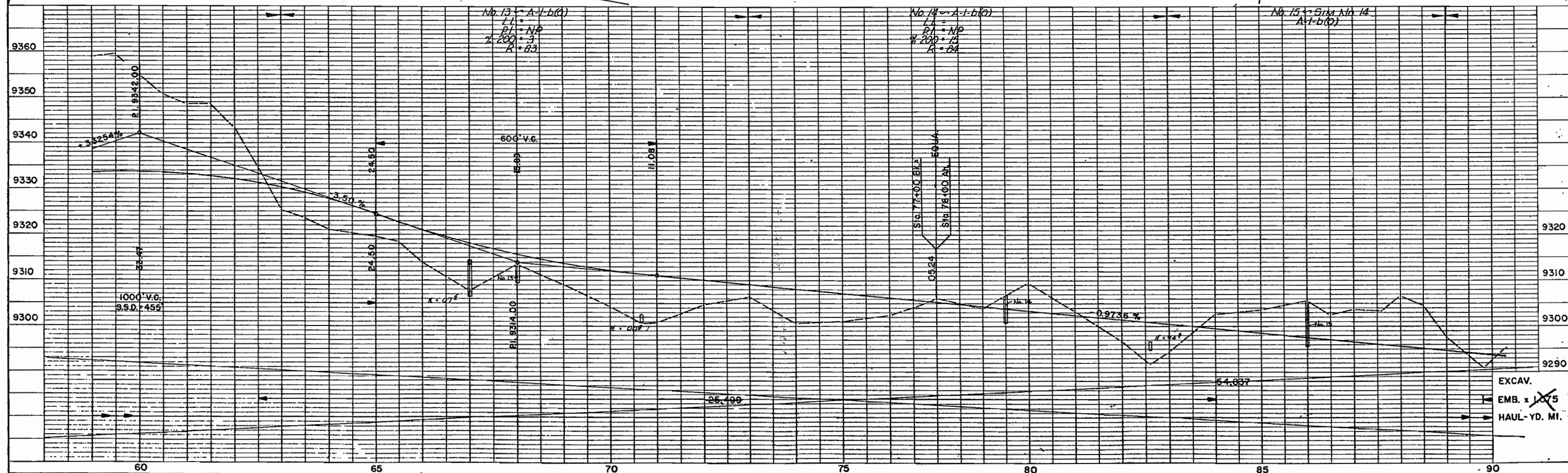
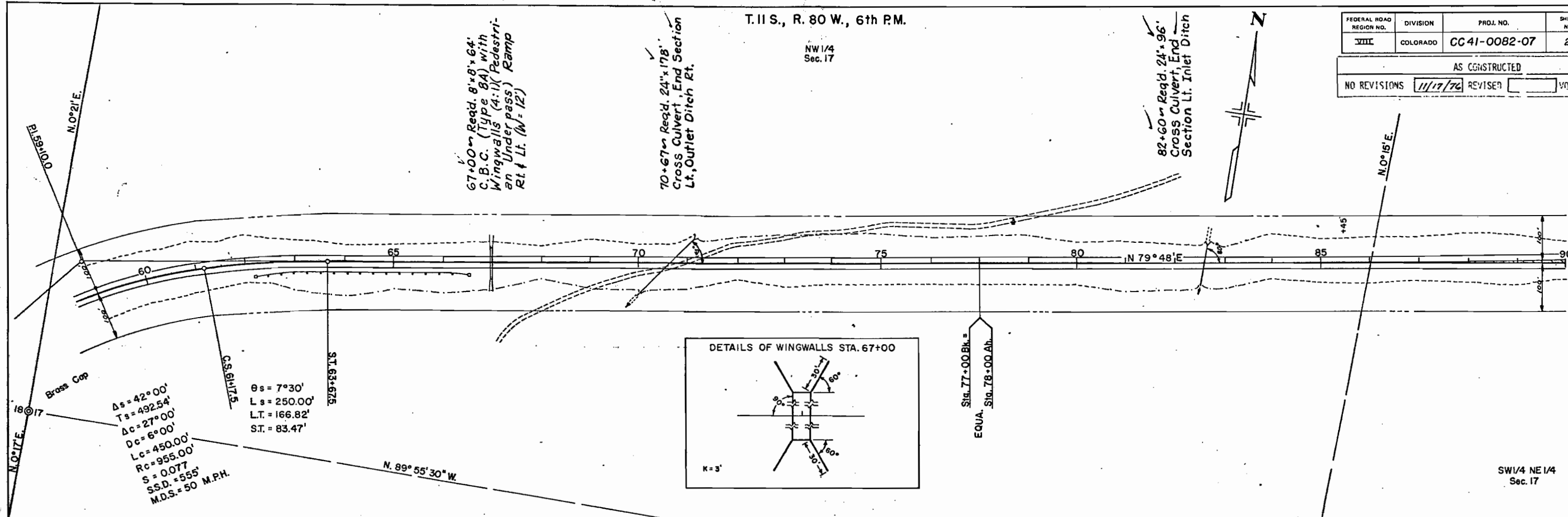
70+67 on Req'd. 24" x 178"
Cross Culvert, End Section
Lt., Outlet Ditch Rt.

82+60 ~ Req'd. 24' x 96' Cross Culvert, End Section 1 to Inlet Ditch

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
<u>VIII</u>	COLORADO	CC 41-0082-07	20	

AS CONSTRUCTED

NO REVISIONS	<u>11/17/76</u>	REVISED		VOID	
--------------	-----------------	---------	----------------------	------	----------------------



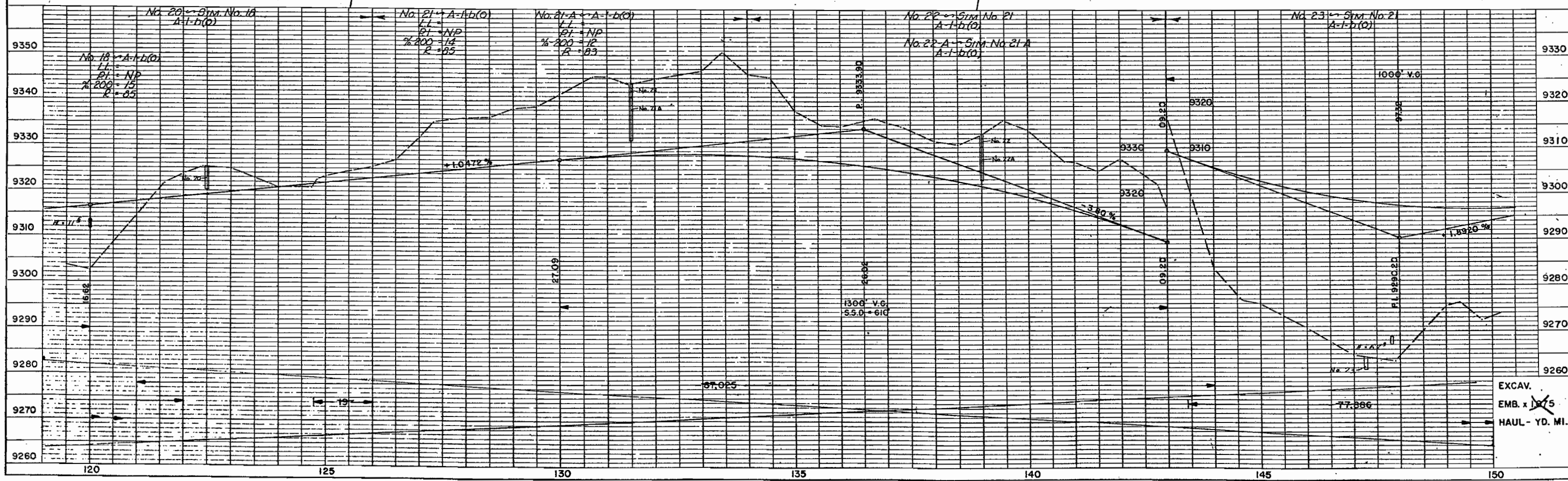
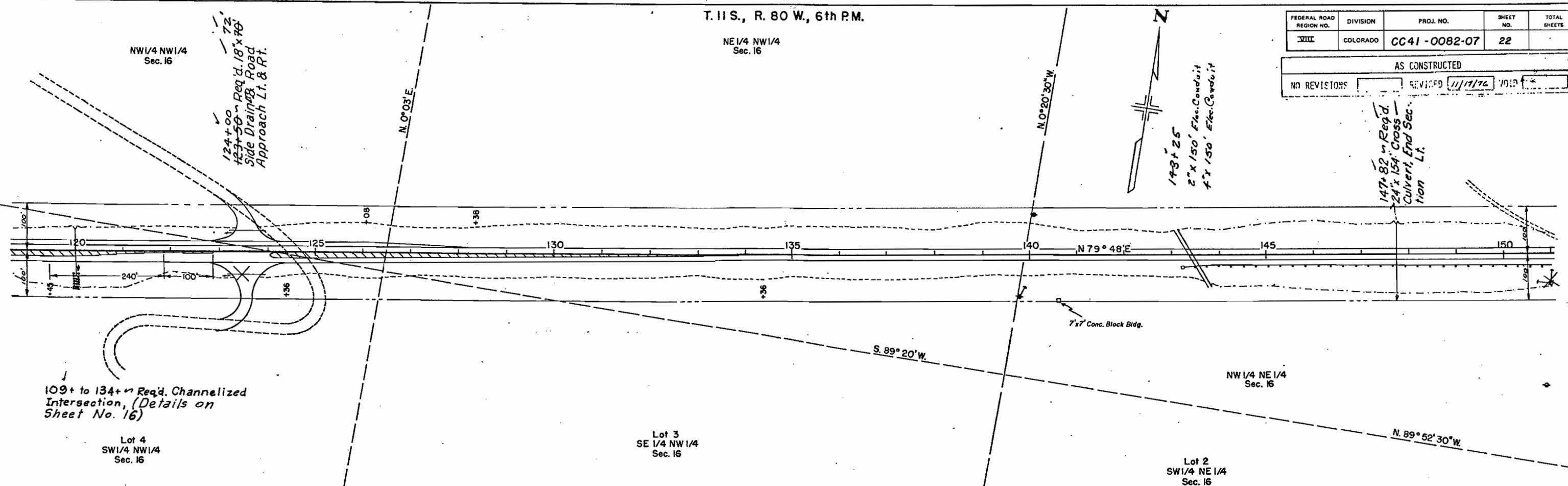
T. 11 S., R. 80 W., 6th P.M.

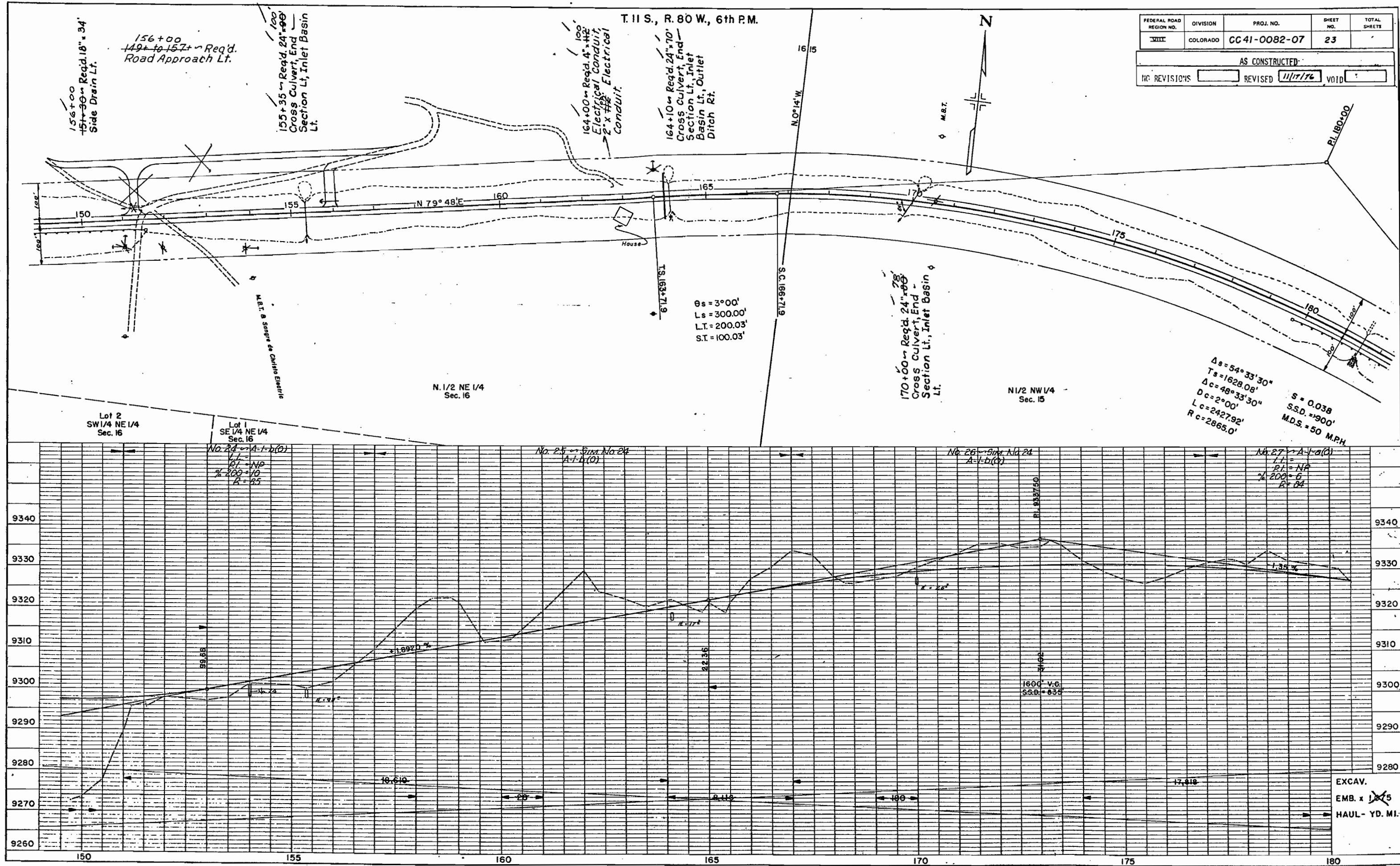
NE 1/4 NW 1/4
Sec. 16

NW 1/4 NW 1/4
Sec. 16

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	22	

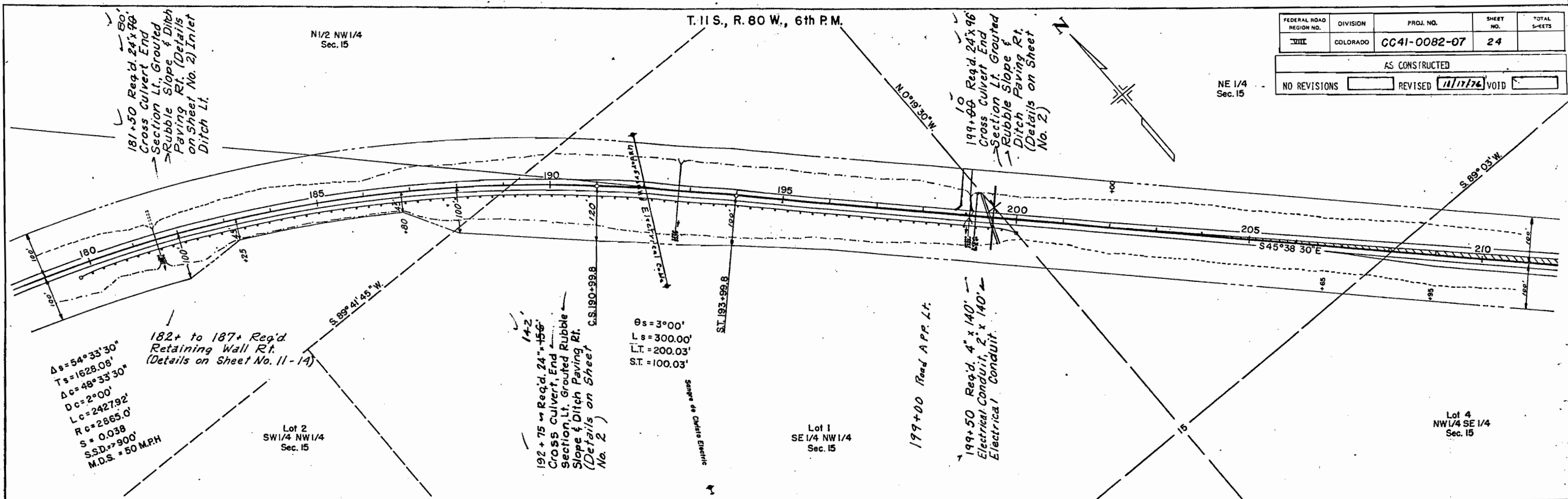
AS CONSTRUCTED	
NO REVISIONS	REVISED 11/17/76





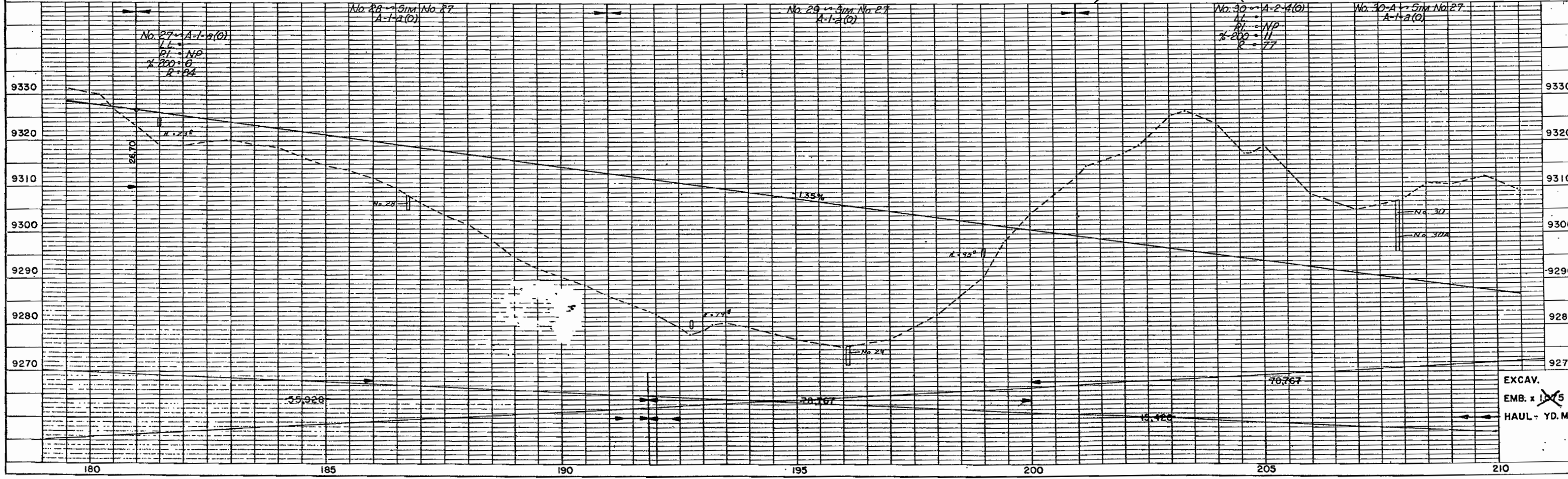
PLAN
NOTE BOOK
NO. 22402
REVISIONS
DATE
BY

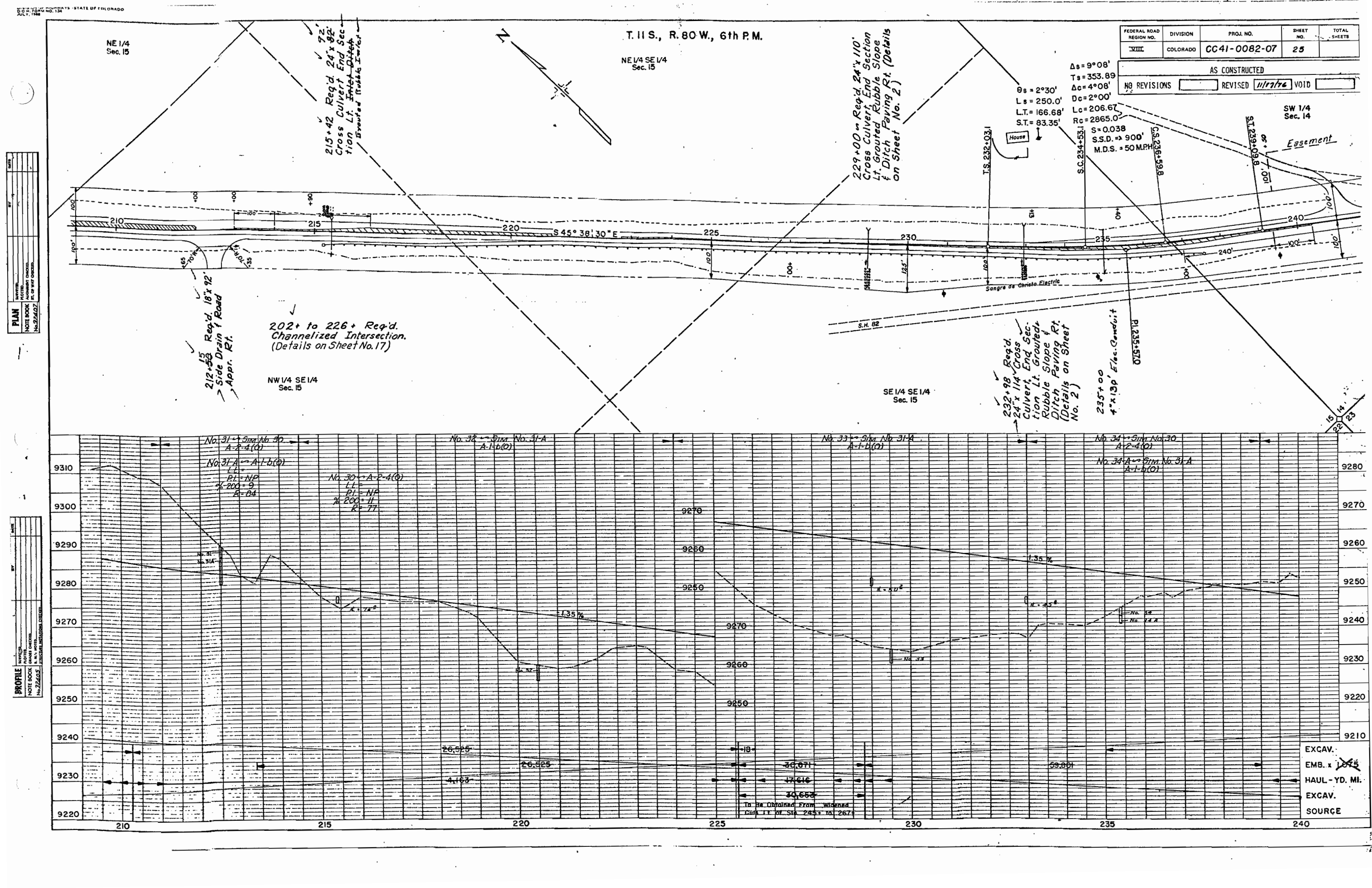
PROFILE
NOTE BOOK
NO. 22402
REVISIONS
DATE
BY



FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	24	

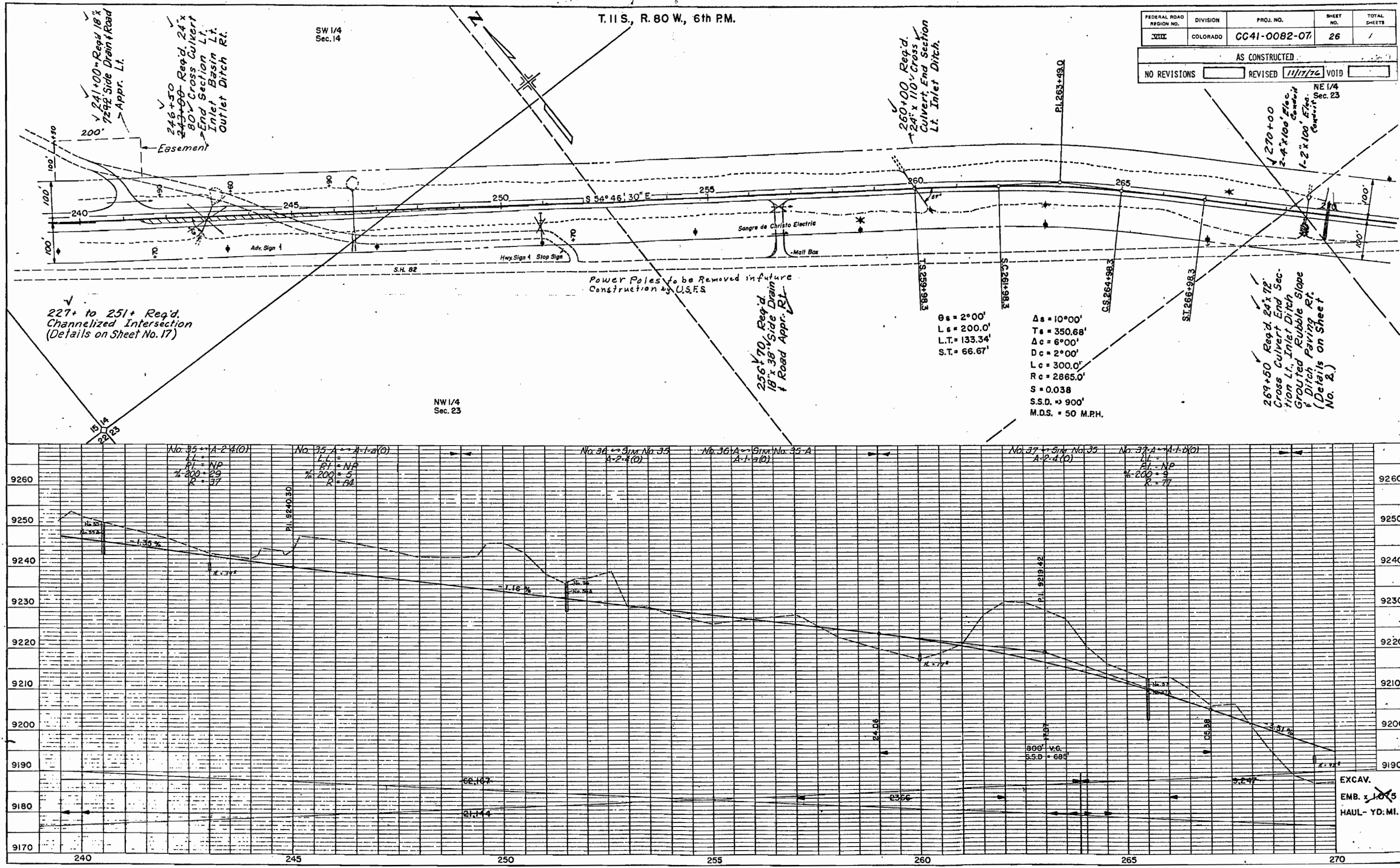
AS CONSTRUCTED	
NO REVISIONS	REVISED 11/17/76 VOID





PLAN
DATE
BY
CHECKED
APPROVED
NOTE BOOK
NO. 22627

PROFILE
DATE
BY
CHECKED
APPROVED
NOTE BOOK
NO. 22625



FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
VIII	COLORADO	CC41-0082-07	26	1

AS CONSTRUCTED	
NO REVISIONS	REVISED 11/17/76 VOID

T. 11 S., R. 80 W., 6th P.M.

FEDERAL ROAD REGION NO.	DIVISION	PROJ. NO.	SHEET NO.	TOTAL SHEETS
<u>VIII</u>	COLORADO	CC41-0082-07	27	100

AS CONSTRUCTED

NO REVISIONS ☐ REVISED ☒ 11/17/76 VOTD ☐

