MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION
PLANS FOR PROPOSED
STATE HIGHWAY
FEDERAL AID PROJECT
JASPER COUNTY

FINAL PLANS

DESIGN DESIGNATION

A.D.T. - 1993 = 18000
A.D.T. - 2003 = 39500
D.H.V. = 10%
T = 12%
V = 70 M.P.H.

FULLY LIMITED ACCESS

THIS SHALL BE A FULLY LIMITED ACCESS HIGHWAY BETWEEN STA.166+00 AND STA.207+22. NO ABUTTING OWNER SHALL HAVE THE RIGHT OF DIRECT ACCESS TO SAID HIGHWAY OR ITS RIGHT-OF-WAY EXCEPT THAT ACCESS WILL BE PERMITTED TO ANY ADJACENT OUTER ROADWAY OR SERVICE ROAD TO WHICH ACCESS IS NOT SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING "NO RIGHT OF ACCESS" AS SHOWN ON THE PLANS. NO ACCESS WILL BE PERMITTED FROM OUTER ROADWAYS AND SERVICE ROADS TO THROUGHWAYS EXCEPT ALONG ROUTES CONSTRUCTED FOR THAT PURPOSE. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE ARE SO DESIGNATED ON THE PLANS.

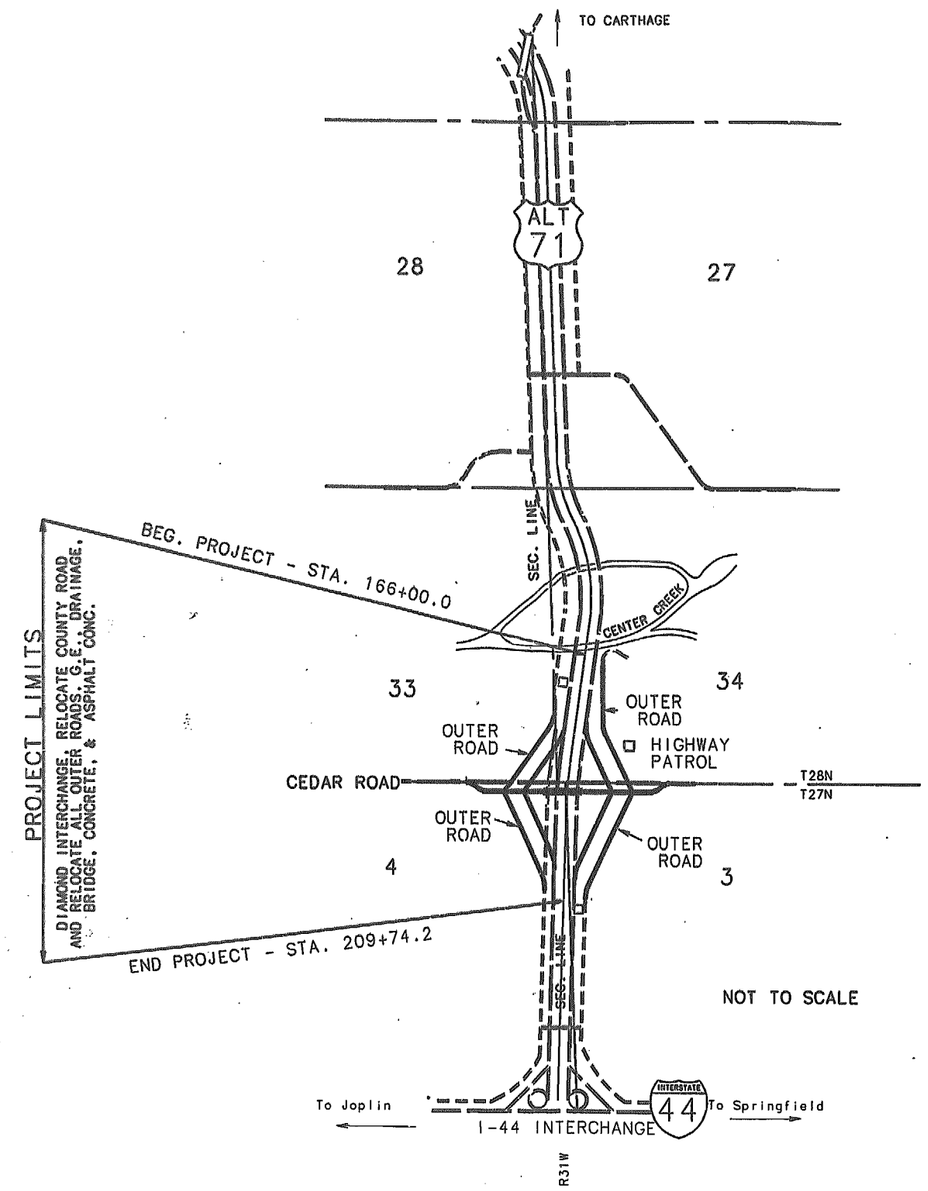
- BEGINNING AND ENDING OF LIMITED ACCESS
- LIMITED ACCESS
- NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES.

CONVENTIONAL SIGNS
(USED IN PLANS)

BUILDINGS AND STRUCTURES
GUARD RAIL
CONCRETE RIGHT-OF-WAY MARKER
STEEL RIGHT-OF-WAY MARKER
FENCE
CHAIN LINK
WOVEN WIRE
GATE
UTILITIES
TELEPHONE
POWER
GAS
WATER
EXIST. MANHOLE — MH
EXIST. FIRE HYDRANT — HYD
EXIST. WATER VALVE — WV
EXIST. WATER METER — WM
EXIST. DROP INLET — DI
DITCH BLOCK
EXIST. GROUND MOUNTED SIGN
EXIST. LIGHT POLE
EXIST. H-FRAME POWER POLE
UNDERGROUND TELEPHONE — T

Progress As Promised Signs ☐
(2) Required

NOTE: DASHED OR OPEN SYMBOLSINDICATES EXISTING FEATURES



COUNTY JASPER
ROUTE 71 ALT.
PROJECT ACNH-71-2(50)
JOB NO. J7P0474

INDEX OF SHEETS

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LENGTH OF PROJECT

END OF PROJECT	STA. 209 + 74.2	
BEGINNING OF PROJECT	STA. 166 + 00.0	
APPARENT LENGTH	4374.2	FEET
EQUATIONS AND EXCEPTIONS		NONE
TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	4374.2	FEET
STATE LENGTH	0.828	MILES
FEDERAL LENGTH	0.828	MILES

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUBMITTED

Gary B. Chilliard — 10-11-95
ASSISTANT CHIEF ENGINEER — DATE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

DIVISION ADMINISTRATOR — DATE

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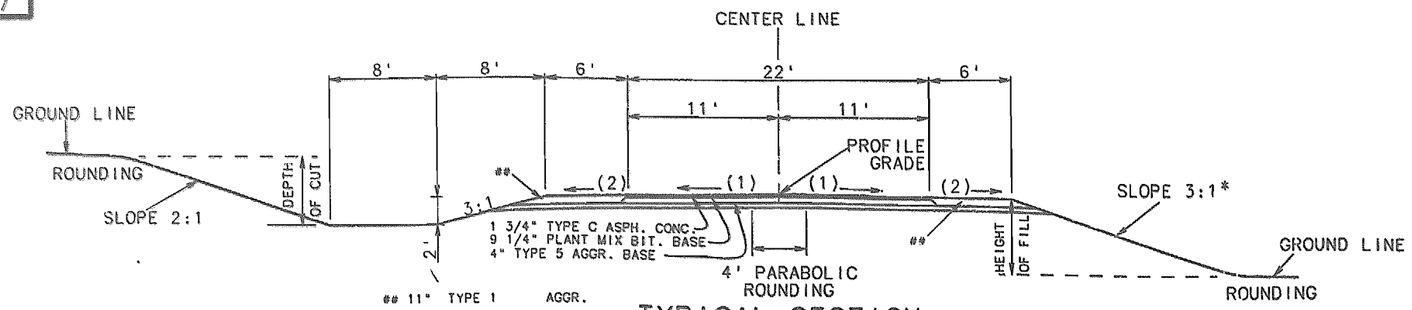
D-67

STATE	JOB NO. J7P0474	SHEET NO.
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	2
	COUNTY JASPER	ROUTE 71A

CROSS SLOPE
(1) 2.00%
(2) 4.00%

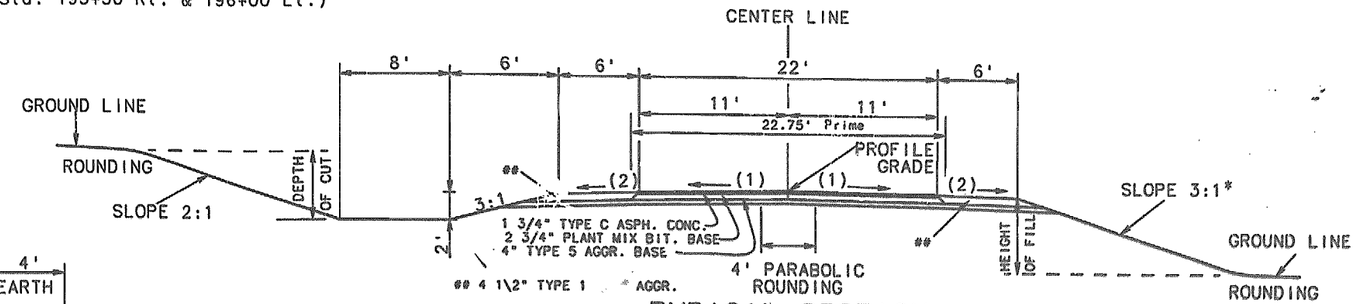
FINAL PLANS



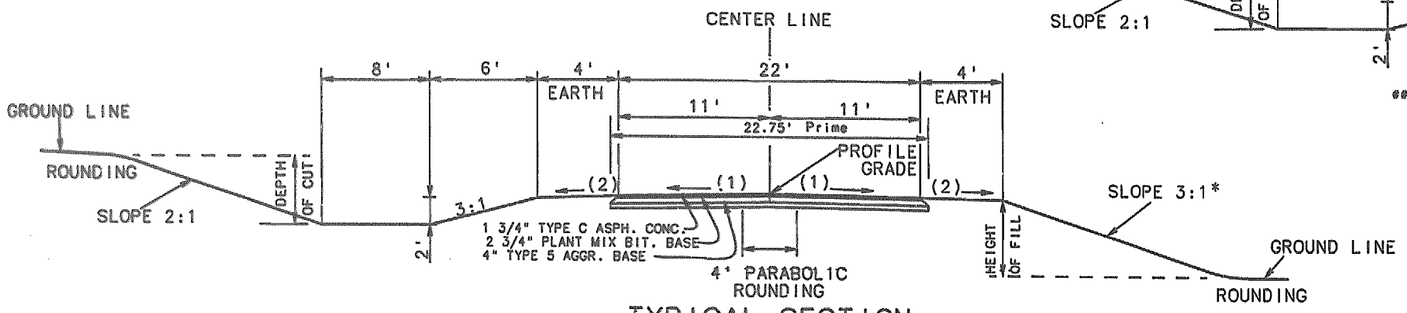
* OFFSET 6 FEET

** THE OFFSET FROM TOE OF FILL TO THE SHOULDER POINT SHALL BE A MINIMUM OF 12 FEET. THE SLOPE WILL VARY TO MEET THIS REQUIREMENT.

TYPICAL SECTION
OUTER ROAD 1
Sta. 187+50 to Sta. 197+23.12 (Beg. pav. shldrs. @ Sta. 195+50 Rt. & 196+00 Lt.)

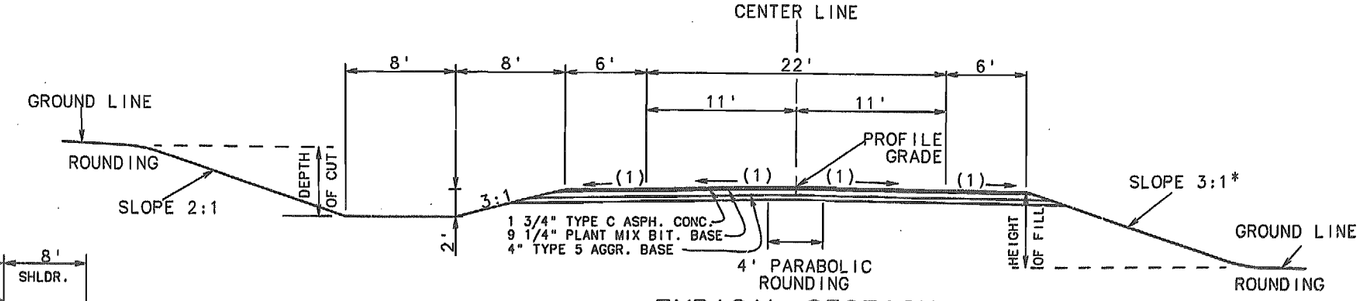


TYPICAL SECTION
COUNTY ROAD (Cedar Road)
Sta. 3+00 to Sta. 11+00
Sta. 29+00 to Sta.39+00

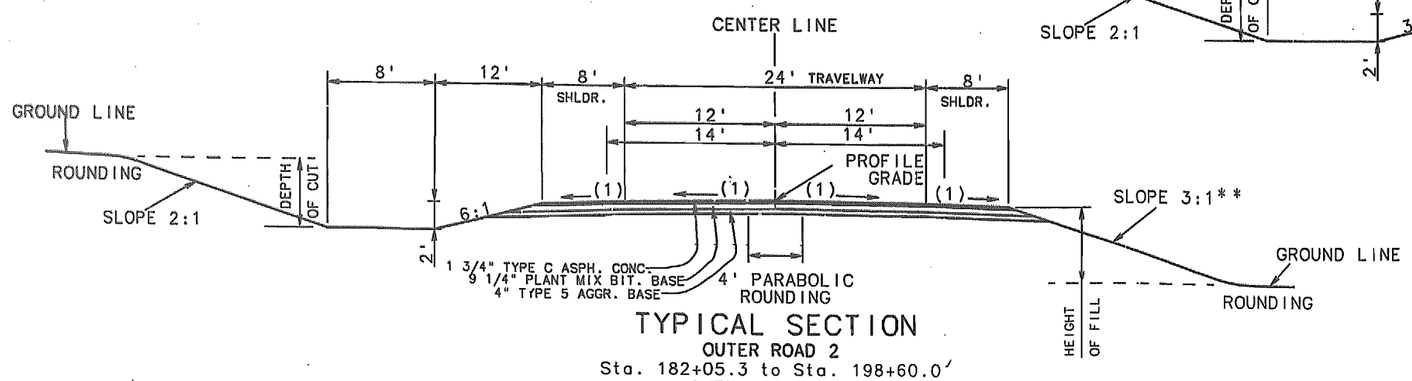


TYPICAL SECTION
OUTER ROAD 1
Sta. 165+93.8 to 187+00

TAPER DIRT SHOULDERS
FROM 4 TO 6 FT.
STA. 187+00 TO 187+50



TYPICAL SECTION
COUNTY ROAD (CEDAR ROAD)
Sta. 11+00 to Sta. 12+20
Sta. 27+80 to Sta. 29+00



TYPICAL SECTION
OUTER ROAD 2
Sta. 182+05.3 to Sta. 198+60.0
OUTER ROAD 4
Sta. 0+21.28 to Sta. 14+50.45
COUNTY ROAD (Cedar Road)
Sta. 12+20 to Sta. 14+82.83
Sta. 25+09.46 to Sta. 27+80

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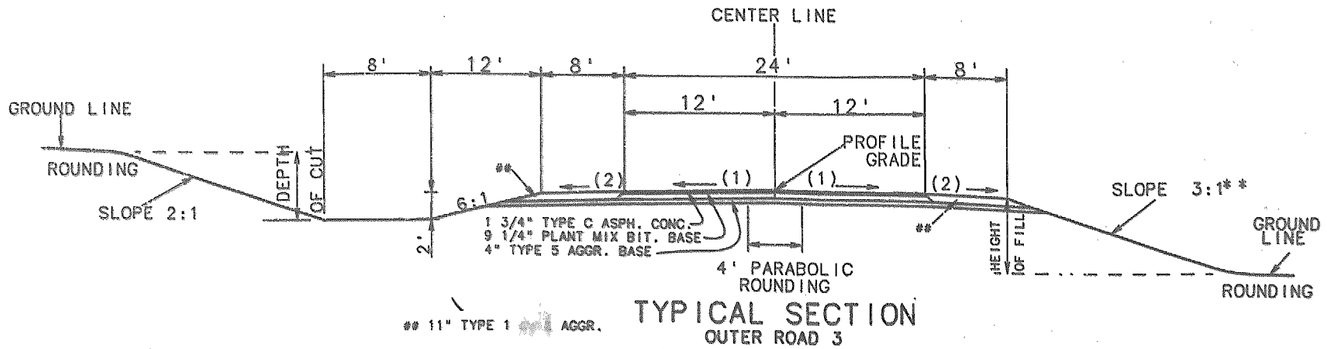
34 FOOT ROADBED - 22 FOOT TRAVEL WAY, 4:1 FORESLOPE 6-1-91

D-67

STATE	JOB NO. J7P0474	SHT. NO. 2
DIST. NO. 7	PROJECT NO. ACNH-71-2(50)	
	COUNTY JASPER	ROUTE 71A

FINAL PLANS

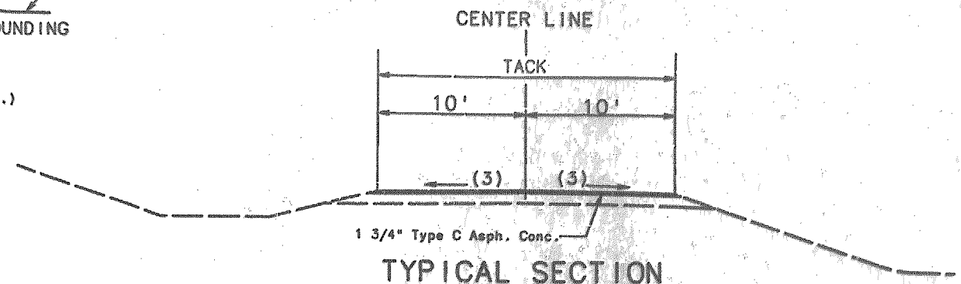


11" TYPE 1 AGGR.

TYPICAL SECTION
OUTER ROAD 3
Sta. 0+21.28 to Sta. 16+00 (End pav. shldrs. & Sta. 1+20 Lt. & 2+00 Rt.)

**THE OFFSET FROM TOE OF FILL TO THE SHOULDER POINT SHALL BE A MINIMUM OF 12 FEET. THE SLOPE WILL VARY TO MEET THIS REQUIREMENT.

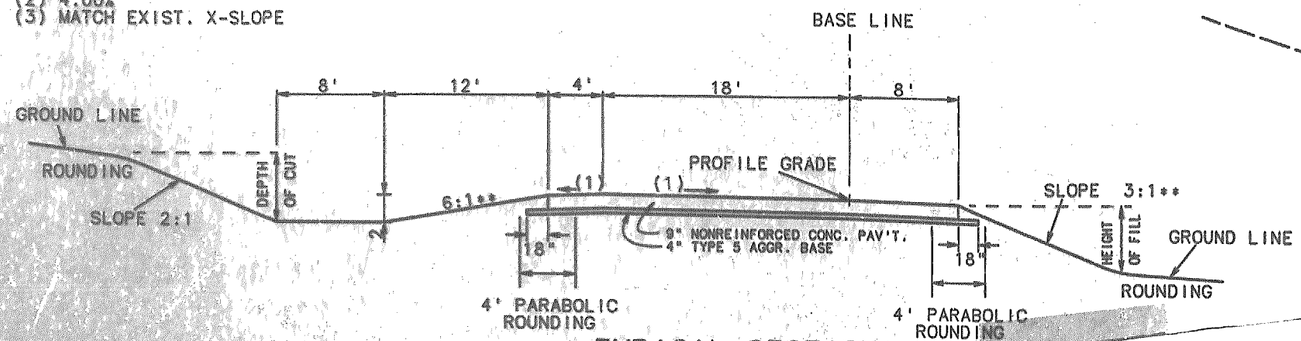
Note: Use 2.00% cross slopes on paved shoulders (if not in super elevation).



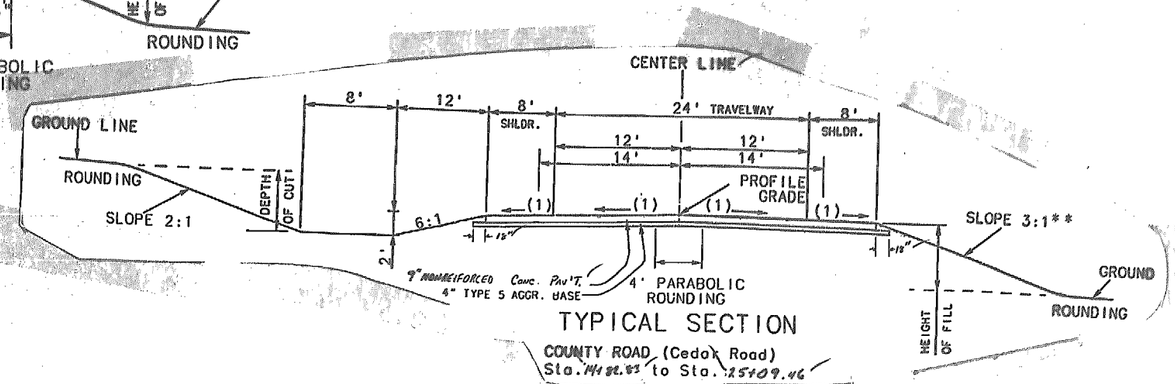
TYPICAL SECTION
OUTER ROAD 3
Sta. 16+00 to Sta. 37+00

CROSS SLOPE

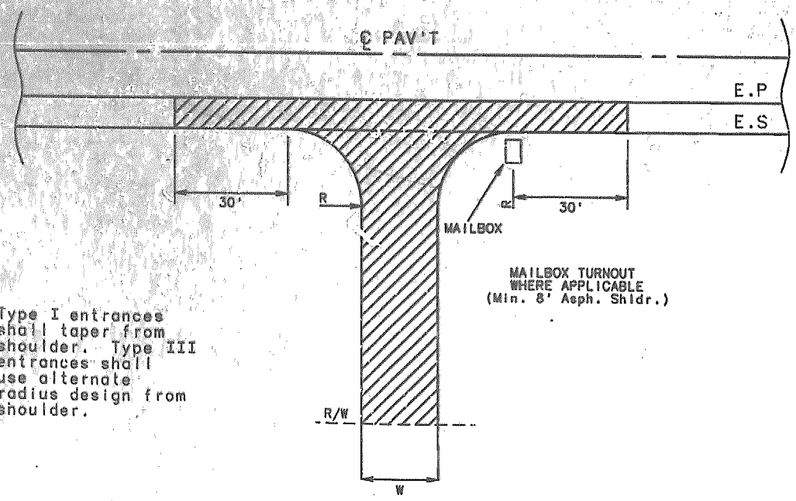
(1) 2.00%
(2) 4.00%
(3) MATCH EXIST. X-SLOPE



TYPICAL SECTION
RAMPS 1,2,3,4

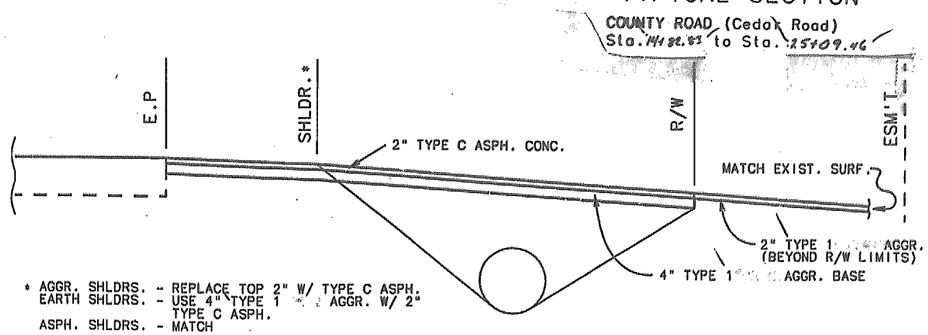


TYPICAL SECTION
COUNTY ROAD (Cedar Road)
Sta. 1+38.83 to Sta. 25+09.46



NOTE: Type I entrances shall taper from shoulder. Type III entrances shall use alternate radius design from shoulder.

TYPICAL ENTRANCE



* AGGR. SHLDRS. - REPLACE TOP 2" W/ TYPE C ASPH.
EARTH SHLDRS. - USE 4" TYPE 1 AGGR. W/ 2" TYPE C ASPH.
ASPH. SHLDRS. - MATCH

TYPICAL ENTRANCE PROFILE

34 FOOT ROADBED - 22 FOOT TRAVEL WAY, 4:1 FORESLOPE 6-1-71

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MISSOURI HIGHWAY & TRANSPORTATION COMMISSION

FINAL PLANS

FINAL PLANS

STATE	JOB NO J7P0474	SHEET NO
MO		2A
DISTRICT	PROJECT NO ACNH-71-2 (50)	REVISED
7	COUNTY JASPER	71A

SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
201-10.00	CLEA	ACRE	15.70
201-20.00	GRUB	ACRE	14.90
202-20.10	REM OF IMPROV	LUMP SUM	1.00
203-10.00	A EXC	CU YD	374849.00
203-20.00	C EXC	CU YD	2577.00
203-55.00	EMBANKMENT IN PLACE	CU YD	48911.00
203-60.00	COMP EMB	CU YD	310647.00
203-70.75	COMP IN CUT	STATION	112.30
206-30.00	3 EXC STR	CU YD	845.00
207-20.00	LIN GRAD 2	STATION	15.80
301-10.22	ASPH CEM, BIT BASE, AC-10	TON	9.20
301-20.00	MIN AGG BIT BASE	TON	14414.00
304-00.43	TYPE 1 AGG BASE 4 IN	SQ YD	3401.00
304-00.63	TYPE 1 AGG BASE 6 IN	SQ YD	0.00
304-05.04	TYPE 5 AGGR FOR BASE	SQ YD	79227.00
304-09.11	TYPE 1 AGGR BASE 11"	SQ YD	4561.00
304-09.45	TYPE 1 AGG BASE 4.5"	SQ YD	2487.00
380-30.00	TEMP SURFACING	CU YD	59.00
403-10.03	MIN AGG (A.C.) TYPE C MIX	TON	5070.00
403-11.21	ASPH CEM, AC-10	TON	0.00
403-90.80	BITUMINOUS RUMBLE STRIP	100 FT	50.20
407-10.05	TACK COAT	GALLON	1460.00
408-10.10	PRIME LIG ASPH MC30	GALLON	3300.00
502-11.08	PCCP 8 IN NON-REINF	SQ YD	742.90
502-13.09	CONC PAVE - 9 IN, 15 FT	SQ YD	24615.00
504-10.00	CONCRETE APPROACH PVMT.	SQ YD	283.60
601-10.00	FIELD LABS	LUMP SUM	1.00
606-10.10	GD RAIL A	LIN FT	809.00
606-10.40	GUARD RAIL TYPE D	LIN FT	75.00
606-22.00	BRG ANC SECT (S B CURB)	EACH	4.00
606-23.00	TRANS SEC.	EACH	8.00
606-30.15	CRASHWORTHY GD RAIL TERM	EACH	5.00
606-66.10	BREAKAWAY END ANCHOR	EACH	2.00
608-30.00	CONC MEDIAN STRIP	SQ YD	381.20
609-10.41	CONC GUTTER TYPE A	LIN FT	244.00
609-20.11	INTGL CURB (6 IN AU) T A	LIN FT	16.00
609-30.10	ASPH CURB	LIN FT	1951.00
609-60.42	PLACE TY2 ROCK DTCH LINER	CU YD	268.00
609-70.00	ROCK LINING	CU YD	48.00
611-60.10	CONC SLOPE PROT	SQ YD	304.30
612-10.30	MOVBL BAR	EACH	16.00
612-20.12	IMP ATTENUATOR 12 SAND BR	EACH	2.00
612-20.20	REPLACEMENT SAND BARREL	EACH	51.00
612-90.10	INSTALL GIVE BRAKE 4X8	EACH	4.00
612-90.20	INSTALL GIVE BRAKE 4X4	EACH	2.00
613-20.05	DOWEL BAR (D F & I)	EACH	1648.00
614-10.10	GATS AND PLS	POUND	300.00
616-10.05	CONSTRUCTION SIGNS	SQ FT	1796.00
616-10.20	CHANNELIZER (DRUM)	EACH	65.00
616-10.40	FLASH OR SEQ ARROW PANEL	EACH	2.00
616-10.50	FLASH ELECTRIC LIGHT	EACH	0.00
616-10.52	WARNING LIGHT TYPE B	EACH	17.00
616-10.97	CHANGEABLE MESSAGE SIGN	EACH	2.00
617-60.00	STATE FURN CONC TRAF BARR	LIN FT	700.00
618-10.00	MOBILIZATION SEE LN 59230	LUMP SUM	1.00
619-10.00	PAVEMENT EDGE TREATMENT	LIN FT	27974.00
620-50.04	TY 1 PRFMD MRKG TP 4" IY	100 FT	0.00
620-54.04	PRFMD REMV SHTM TP 4" IY	MILE	0.80
725-03.15	15 IN PIPE CULV GP III	LIN FT	404.00
725-03.18	18 IN PIPE CULV GP III	LIN FT	474.00
725-03.24	24 IN PIPE CULV GP III	LIN FT	66.00
726-13.18	18 IN CL 3 RCP	LIN FT	399.00
726-13.24	24 IN CL 3 RCP	LIN FT	449.00
726-13.30	30 IN CL 3 RCP	LIN FT	318.00
726-13.48	48 IN CL 3 RCP	LIN FT	340.00
731-10.52	PRECAST D.I. 5 X 2	FT	2.00
732-00.18	FLARED END SECTION 18 IN	EACH	5.00
732-00.24	FLARED END SECTION 24 IN	EACH	8.00
732-00.30	FLARED END SEC 30 IN	EACH	6.00
732-00.48	FLARED END SECTION 48 IN	EACH	1.00
732-10.16	SFTY SLOPE END SECT, 24"	EACH	2.00
802-50.00	MCH 3	ACRE	60.80
805-10.00	SEED	ACRE	41.60
805-20.00	NATIVE PLANT SEEDING	ACRE	19.20
806-10.11	SLOPE DRAINS	LIN FT	0.00
806-10.14	SILT FENCE DITCH CHECK	EACH	54.00
806-10.16	SEDIMENT REMOVAL	CU YD	0.00
806-10.17	TEMP. SEED AND MULCH	ACRE	0.00
806-10.19	SILT FENCE	LIN FT	230.00
	HIGHWAY SIGNING		
903-10.10	CONC FOOTINGS, EMBEDDED	CU YD	19.90
903-12.10	STRUCTURAL STEEL POSTS	POUND	9780.00
903-12.20	PIPE POSTS	POUND	4819.00
903-12.40	BREAKAWAY ASSEMBLY	EACH	84.00
903-50.02	TYPE STR24 SIGN	SQ FT	909.00
903-50.07	TYPE SH824 SIGN	SQ FT	555.00
903-50.09	36 IN. STOP SIGN	EACH	6.00
903-50.15	TYPE IV OBJECT MARKER	EACH	4.00
903-50.20	FLEX DELINEATOR ELONG WH	EACH	20.00
903-50.21	FLEX DELINEATOR WHITE	EACH	80.00
903-50.22	FLEX DELINEATOR ELONG YEL	EACH	11.00
	BRIDGE DWG. NO. A5514 AT 196+00.0 (TIE STA.)		
206-10.00	1 EXC STR	CU YD	173.00
503-10.10	BRIDGE APPROACH SLAB	SQ YD	224.00
702-10.12	STR STEEL PILES 12 IN	LIN FT	1243.00
702-60.00	PRE-BORE FOR PILING	LIN FT	469.00
702-70.00	PILE TIPS REINF	EACH	27.00
703-20.03	B CONC SUB	CU YD	238.40
703-42.12	CONC SLAB ON STEEL	SQ YD	1197.00
703-42.15	SAFETY BARR CURB	LIN FT	663.00
703-42.20	SLAB SEMI-DEEP ABUT	SQ YD	276.00
703-71.60	LAM NEOP BR PAD ST STR	EACH	15.00
703-82.35	PREF CP EXP JT SL 3.5 IN	LIN FT	39.00
703-82.40	PREF CP EXP JT SL 4.0 IN	LIN FT	39.00
706-10.60	REINF STEEL BR GR 60	POUND	23020.00
710-10.00	REINF STEEL (EPOXY COAT)	POUND	3190.00
712-10.20	FAB STR CARB STL PL-GI	POUND	199850.00
712-11.21	FAB STR LO AL P-G A-572	POUND	166520.00
712-36.10	SLAB DRAIN	EACH	22.00

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06/11/97 @ 09:55

MISSOURI HIGHWAY & TRANSPORTATION COMMISSION

FINAL PLANS

SUMMARY OF QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

FINAL PLANS

STATE	JOB NO.	SHEET NO.
MO	J7P0474	2B
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

SHEET 1 OF 5

REMOVAL OF IMPROVEMENTS

LUMP SUM = 1

TYPE IV OBJECT MARKERS

SHEET	STA.	LOC.	NO.	REMARKS
	118+75	100' LT.	4	OUTER ROAD CLOSURE
		TOTAL	4	

FIELD LAB

LUMP SUM = 1

ROCK DITCH LINER

SHEET	STA.-STA.	LOC.	DEPTH FT.	THICK FT.	WID. FT.	LEN. FT.	FORE-SLOPE	BACK-SLOPE	PLACE TYPE 2 C.Y.	REMARKS
4	183+00-183+50	LT.	1.0	1	13.40	50	3:1	2:1	24.8	
4	183+50-184+50	LT.	1.5	1	16.09	100	3:1	2:1	59.8	
4	184+50-185+00	LT.	1.0	1	13.40	50	3:1	2:1	24.8	
4	185+00-187+61	LT.	0.5	1	13.40	261	3:1	2:1	135.0	INCL. 25' DEPTH 7' WIDE & 30" OUTLET
28	177± - 178±	LT. OR#2		1		VARIABLE			23.7	
							TOTAL		268.1	
							USE		268	

GUARD RAIL

SHEET	STA.-STA.	LOC.	TYPE A L.F.	TYPE D L.F.	BRIDGE ANCHOR SEC.	TRANS. SEC.	CRASH-WORTHY END TERM.	END ANCHOR	REMARKS
	118+25-119+00	107' LT.		75			1		CLOSURE W.B. CO. RD.
12	21+48 - 12+49	RT.	185		1	2	1		Cnty. Rd. BR. End to Ramp 2
12	21+48 - 1+14	LT.	186		1	1			Cnty. Rd. BR. End to Ramp 4
11	18+32 - 11+27	RT.	172		1	1			Cnty. Rd. BR. End to Ramp 1
11	18+32 - 1+31	LT.	164		1	2	1		Cnty. Rd. BR. End to Ramp 3
4	195+82-196+70	4' LT.	50			1	1	1	BR. PIER ℄ & MED. NBL
4	195+30-196+18	4' RT	50			1	1	1	BR. PIER ℄ & MED. SBL
TOTALS			809	75	4	8	5	2	

6" ASPHALT CURB

SHEET	STA.-STA.	LOC.	L.F.	REMARKS
	223+75-234+33	LT.	1058	LT. EDGE RAISED MED.
	224+16-233+09	RT.	893	RT. EDGE RAISED MED.
		TOTAL	1951	

CONCRETE MEDIAN STRIP

SHEET	STA.-STA.	LOC.	S.Y.	REMARKS
13	196+68-197+08	RT.	79.5	O.R.#1 TERM.; L.P. ISLAND
14	198+00-198+44	LT.	86.2	O.R.#2 TERM.; L.P. ISLAND
13	0+38- 0+78	RT.	76.2	O.R.#3 TERM.; L.P. ISLAND
14	0+38- 0+78	LT.	76.2	O.R.#4 TERM.; L.P. ISLAND
12	13+24- 13+47	LT.	30.4	RAMP#2 TERM.; L.P. ISLAND
10	0+30- 0+55	RT.	32.7	RAMP#3 TERM.; L.P. ISLAND
		TOTAL	381.2	

DOWEL BARS

SHEET	STA.-STA.	LOCATION	QTY.	REMARKS
15	177+04.8-185+70	LT.-S.B.L.	346	RAMP#1-ACCEL. LANE
15	177+45.9-188+45.9	RT.-N.B.L.	444	RAMP#2-DECEL. LANE
16	202+86.25-213+86	LT.-N.B.L.	440	RAMP#3-DECEL. LANE
16	205+74-216+19.16	RT.-S.B.L.	418	RAMP#4-ACCEL. LANE
		TOTAL	1648	

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MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

FINAL PLANS

STATE	JOB NO.	SHEET NO.
MO	J7P0474	2B
DIST NO.	PROJECT NO.	ROUTE
7	ACNH-71-2(50)	71A
	COUNTY JASPER	

SHEET 2 OF 5

COMPACTING IN CUT

SHEET	STA. - STA.	STA.	REMARKS
5	3+00 - 13+75	10.3	COUNTY ROAD
6	27+75 - 28+25	0.5	COUNTY ROAD
6	37+69 - 39+00	1.3	COUNTY ROAD
3	165+93.68-166+80	0.9	O.R.#1(71A STA.)
3	173+00 - 173+30	0.3	O.R.#1(71A STA.)
3	175+00-177+20	2.2	O.R.#1(71A STA.)
3&4	179+00 - 180+40	1.4	O.R.#1(71A STA.)
4	181+20 - 182+10	0.9	O.R.#1(71A STA.)
4	192+00 - 197+32	5.3	O.R.#1(71A STA.)
4	177+05 - 183+55	6.5	RAMP#1(71A STA.)
4	0+00 - 2+30	2.3	RAMP#1
4	182+00 - 185+65	3.7	O.R.#2(71A STA.)
4	186+40 - 190+50	4.1	O.R.#2(71A STA.)
4	197+61.25-198+68.51	1.1	O.R.#2(71A STA.)
15	177+45.92-183+04.25	5.6	RAMP#2(71A STA.)(Aux.)
15	185+92.64-188+56.09	2.6	RAMP#2(71A STA.)(Taper)
4	0+00 - 2+85.51	2.9	RAMP#2
4	13+25.22 - 13+65.62	0.4	RAMP#2
4	0+12.65 - 0+56.25	0.4	RAMP#3
4	5+00 - 12+82.74	7.8	RAMP#3
16	208+27.67-213+86	5.6	RAMP#3(71A STA.)(Aux. Lane)
16	202+86.25-205+73.74	2.9	RAMP#3(71A STA.)(Taper)
4	0+20.41- 0+41.06	0.2	RAMP#4
4	3+50 - 12+04.42	8.5	RAMP#4
16	207+89.16-216+19.16	8.3	RAMP#4(71A STA.)(Aux. Lane)
4	0+21.28 - 5+22.73	5	O.R.#4
4	9+50 - 14+50	5	O.R.#4
4	0+21.28 - 16+00	15.8	O.R.#3
	TOTAL	112.3	

TYPE I PREFORMED MARKING TAPE-4" INTERMITTENT YELLOW

TOTAL 0
USE 0

PREFORMED SHORT TERM MARKING TAPE-4" INTERMITTENT YELLOW

STA.-STA.	L.F.	REMARKS
0+00 - 32+00	3200	O.R.#3
9+50 - 14+50	500	O.R.#4
6+50 - 12+00	550	CEDAR ROAD
	TOTAL 4,250 ÷ 5280	
	USE 0.8 Miles	

CLASS III REINFORCED CONCRETE PIPE CULVERTS

SHEET	STA.	LOCATION	SKEW	CL. III R.C.P. 18" L.F.	24" L.F.	30" L.F.	48" L.F.	FLARED END SECTIONS 18" EA.	24" EA.	30" EA.	48" EA.	PRECAST 5'X2' D.I D-L.F.	GRATES & BEARING PL. LBS.	CL. 3 EXCAV. C.Y.	REMARKS
5	7+50	CO. RD.	-	42'				2						19	
4	24+20	CO. RD.	-	253'	-	-	-	2	-	-	-	-	-	194	-
6	33+88.05	CO. RD.	-	-	-	-	232'	-	-	-	-	-	-	264	NO END SECT.
4	4+65	RAMP#1	30°R.A.	-	-	212'	-	-	-	2	-	-	-	51	-
4	188+10	48'Rt. O.R.#1	-	28'	-	-	-	-	-	-	-	2'	300	23	AREA RELIEF
4	5+50	RAMP#2	-	-	78'	-	-	-	2	-	-	-	-	44	-
4	1+31.04	RAMP#3	-	-	158'	-	-	-	2	-	-	-	-	0	-
4	209+91.30	LT. RTE. 71A	-	-	-	20'	-	-	-	1	-	-	-	8	-
4	209+91.30	RT. RTE. 71A	-	-	-	11'	-	-	-	1	-	-	-	4	-
3	168+00	O.R.#1	-	-	70'	-	-	-	2	-	-	-	-	27	-
3	177+77.94	O.R.#1	30°L.A.	-	-	75'	-	-	-	2	-	-	-	95	-
4	183+70.88	O.R.#1	33°50.9'L.A.	-	-	-	108'	-	-	-	1	-	-	84	-
4	192+50	O.R.#2	-	-	143'	-	-	-	2	-	-	-	-	22	-
4	5+50	O.R.#4	-	76'	-	-	-	2	-	-	-	-	-	10	-
			TOTAL	399'	449'	318'	340'	6	8	6	1	2	300	845	

DRIVEWAYS, PAVED APPROACHES & CROSSOVERS

SHEET	STA.	LOCATION	TYPE	STD.	WIDTH FT.	"L" FT.	DRWY. LENGTH	OVER-FILL HT. FT.	TAPER OR RADIUS FT.	GRADE %	GROUP B CULV. PIPE 15" L.F.	18" L.F.	24" L.F.	SAFETY END SECTIONS 24"	8" NR CONC PAV'T. S.Y.	REMARKS
4	18+92	O.R.#1 LT.	III	203.63	30	-	-	-	20	+4.7%	-	-	-	-		NO PIPE
4	192+50	O.R.#1 LT.	III	203.63	30	15	-	0.4	30	+3.3%	68	-	-	-		BEVEL ENDS 3:1
4	195+32	O.R.#1 LT.	III	203.63	30	-	-	-	30	+6.7%	-	-	-	-		NO PIPE
4	189+50	O.R.#2 RT.	III	203.63	60	-	-	-	20	-7.5%	-	-	-	-		NO PIPE
4	5+00	O.R.#3 LT.	I	203.61	20	45.5	-	2.6	10 (T)	+0.9%	48	-	-	-		BEVEL ENDS 3:1
4	11+00	O.R.#3 LT.	I	203.61	20	-	-	-	10 (T)	+0.8%	"	44	-	-		BEVEL ENDS 3:1
4	2+50	O.R.#4 RT.	I	203.61	40	-	-	-	10 (T)	-6.2%	-	64	-	-		BEVEL ENDS 3:1
4	4+65	O.R.#4 RT.	III	203.63	60	33.5	-	4.8	30	+4.7%	-	96	-	-		BEVEL ENDS 3:1
4	9+90	O.R.#4 RT.	III	203.63	60	28.5	-	3.3	30	+6.7%	88	-	-	-		BEVEL ENDS 3:1
4	13+00	O.R.#4 RT.	III	203.63	30	27	-	1.0	30	+4.02%	46	-	-	-		BEVEL ENDS 3:1
5	8+00	CO. RD. LT.	I	203.61	20	20	-	0.8	10 (T)	+8.4%	36	-	-	-		BEVEL ENDS 3:1
5	8+00	CO. RD. RT.	I	203.61	20	20.5	-	1.0	10 (T)	+8.9%	36	-	-	-		BEVEL ENDS 3:1
6	37+15	CO. RD. LT.	I	203.61	20	29	-	0.5	10 (T)	-7.8%	34	-	-	-		BEVEL ENDS 3:1
6	37+50	CO. RD. RT.	III	203.63	30	21.5	-	1.3	20	+4.9%	48	-	-	-		BEVEL ENDS 3:1
4	188+00	HWY.PTRL. LT.	III	608.00	20	26	309	5.4	30	+6.6%	-	-	66	2	742.9	-
4	217+20	TEMP. CROSSOVER LT.-	-	-	75	CTR	-	1.6	30	1.33%	-	76	-	-		BEVEL ENDS 3:1
4	196+00	71 ALT. MEDIAN	-	-			-				-	194				AT BRIDGE PIERS
										TOTALS	404'	474'	66'	2	742.9	
										USE						

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MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

FINAL PLANS

STATE	JOB NO.	J7P0474	SHEET NO.
MO			2B
DIST NO.	PROJECT NO.	ACNH-17-2(59)	ROUTE
7	COUNTY	JASPER	71A

SHEET 3 OF 5

LINEAR GRADING

SHEET	STA. - STA.	LOCATION	L.F.	REMARKS
17	227+86.9	LT. & RT.	208	On 71A Oblit. Crossover
18	118+75	LT. & RT.	135	On 71A Oblit. Crossover
5	6+00 - 12+20	RT.	620	Oblit. County Road
6	27+80 - 32+80	RT.	420	Oblit. County Road
17	217+00	LT. & RT.	200	On 71A Oblit. Crossover
		TOTAL	1583 ÷ 100	
		USE	15.8 Sta.	

ROCK LINING

SHEET	STA.	LOC.	DEPTH	WIDTH	LENGTH	C.Y.	REMARKS
4	24+20	RT.	1'	4'	12'	1.8	● Culvert Outlet
6	33+88.05	RT.	2'	12'	20'	17.8	● Culvert Outlet
6	5+50	RT.	1'	6'	14'	3.1	● Ramp 2 Culvert Outlet
6	1+31.04	RT.	1'	6'	14'	3.1	● Ramp 3 Culvert Outlet
6	209+91.36	LT.	1'	7'	3'	0.8	● 71 Alt. Culvert Outlet
6	209+91.30	RT.	1'	6.5'	7'	1.7	● 71 Alt. Culvert Outlet
3	166+00	RT.	1'	6'	18'	4.0	● Outer Road 1 Culvert Outlet
3	177+77.94	RT.	1'	10'	3.5'	1.3	● Outer Road 1 Culvert Outlet
4	192+50	RT.	1'	6'	18'	4.0	● Outer Road 2 Culvert Outlet
4	5+50	RT.	1'	5'	15'	2.8	● Outer Road 4 Culvert Outlet
4	18+02.07	LT.	1'	4'	12'	1.8	Br. Drain Gutter Outlet
4	18+05.92	RT.	1'	4'	12'	1.8	Br. Drain Gutter Outlet
4	21+74.08	LT.	1'	4'	12'	1.8	Br. Drain Gutter Outlet
4	21+77.93	RT.	1'	4'	12'	1.8	Br. Drain Gutter Outlet
					TOTAL	47.6	
					USE	48	

CLEARING & GRUBBING

SHEET	CLEARING	GRUBBING
3, 4, 5 & 6	15.7 ACRES	14.9 ACRES

CONCRETE APPROACH PAVEMENT

SHEET	STA. TO STA.	LOCATION	SQ. YDS.	REMARKS
4	17+72.07 - 18+04.00	CO. ROAD	141.9	SK. 5° 30' L.A.
4	21+73.70 - 22+05.63	CO. ROAD	141.9	SK. 5° 30' L.A.
		TOTAL	283.8	

BITUMINOUS RUMBLE STRIP

SHEET	STA. - STA.	LOCATION	L.F.	REMARKS
4	182+05 - 197+20	LT.	1515	Outer Rd. #2
4	182+05 - 188+56	RT.	651	Outer Rd. #2
4	1+57.01 - 13+90	LT.	1233	Outer Rd. #4
4	1+57.01 - 4+15.01	RT.	258	Outer Rd. #4
4	5+31.01 - 9+29.01	RT.	398	Outer Rd. #4
4	10+56.01 - 12+52.01	RT.	196	Outer Rd. #4
4	189+56 - 197+20	RT.	764	Outer Rd. #2
		TOTAL	5015 ÷ 100	
		USE	50.2	

TYPE A GUTTER

SHEET	STA.	LOCATION	Type A Gutter L.F.
4	18+02.07	Cnty. Rd. Lt.	66
4	18+05.92	Cnty. Rd. Rt.	74
4	21+74.08	Cnty. Rd. Lt.	46
4	21+77.93	Cnty. Rd. Rt.	58
		TOTAL	244

6" INTEGRAL CURB (TYPE A)

SHEET	STA. - STA.	LOCATION	Lin. Ft.	REMARKS
4	17+88.57 - 18+00.57	Cnty. Rd. Lt.	4	
4	17+92.42 - 18+04.42	Cnty. Rd. Rt.	4	
4	21+87.58 - 21+75.58	Cnty. Rd. Lt.	4	
4	21+91.43 - 21+79.43	Cnty. Rd. Rt.	4	
		TOTAL	16	

4" CONCRETE SLOPE PROTECTION

SHEET	STA. - STA.	LOCATION	S.Y.	REMARKS
4	18+65.5 - 18+94.6	Cnty. Rd.	166.1	Under Bridge
4	20+93.8 - 21+14.5	Cnty. Rd.	138.2	Under Bridge
		TOTAL	304.5	

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MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

SUMMARY OF QUANTITIES

REV MAY 1, 89

FINAL PLANS

STATE	JOB NO.	SHEET NO.
MO	J7P0474	2B
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

SHEET 4 OF 5

DITCH CHECKS

STATION	LOC.	SILT FENCE	REMARKS
167+50	LT.	1	O.R. #1
169+00	RT.	1	O.R. #1
189+50	LT.	1	O.R. #1
189+75	RT.	1	O.R. #1
181+70	LT.	1	O.R. #2
182+28	LT.	1	O.R. #2
182+78	RT.	1	O.R. #2
183+00	LT.	1	O.R. #2
184+00	LT.	1	O.R. #2
185+00	LT.	2	O.R. #2
188+25	LT.	1	O.R. #2
189+00	LT.	1	O.R. #2
191+00	LT.	1	O.R. #2
192+00	RT.	1	O.R. #2
192+35	LT.	1	O.R. #2
192+65	LT.	1	O.R. #2
195+80	LT.	1	O.R. #2
4+00	LT.	1	O.R. #3
4+00	RT.	1	O.R. #3
8+40	LT.	1	O.R. #3
12+50	LT.	1	O.R. #3
13+30	LT.	1	O.R. #3
14+50	LT.	1	O.R. #3
2+00	RT.	1	O.R. #4
4+00	RT.	1	O.R. #4
4+40	RT.	1	O.R. #4
4+60	RT.	1	O.R. #4
4+80	LT.	1	O.R. #4
6+50	LT.	1	O.R. #4
7+00	RT.	1	O.R. #4
7+80	LT.	1	O.R. #4
9+00	LT.	1	O.R. #4
8+50	RT.	1	CEDAR RD.
8+50	LT.	1	CEDAR RD.
11+30	LT.	1	CEDAR RD.
11+50	RT.	1	CEDAR RD.
13+25	LT.	1	CEDAR RD.
24+50	LT.	1	CEDAR RD.
25+50	LT.	1	CEDAR RD.
39+00	LT.	1	CEDAR RD.
39+00	RT.	1	CEDAR RD.
5+25	RT.	1	RAMP #2
5+70	RT.	1	RAMP #2
6+00	LT.	1	RAMP #2
8+50	LT.	1	RAMP #2
10+90	RT.	1	RAMP #2
11+00	RT.	1	RAMP #2
11+00	LT.	1	RAMP #2
2+75	LT.	1	RAMP #3
6+85	LT.	1	RAMP #3
1+00	LT.	1	RAMP #4
5+00	RT.	1	RAMP #4
6+00	LT.	1	RAMP #4
	TOTAL	54	

SLOPE DRAINS

STATION	LOC.	LENGTH L.F.	REMARKS
	TOTAL=	0	

SILT FENCE

STA. TO STA.	LOC.	LENGTH L.F.	REMARKS
176+43 TO 178+73	LT.	230	O.R. #2
	TOTAL=	230	

SUMMARY OF QUANTITIES

D-286
REV APRIL 1, 1995

FINAL PLANS

STATE	JOB NO.	SHEET NO.
MO	J7P0474	2B
DIST NO.	PROJECT NO.	ROUTE
7	ACNH-71-2(50)	71A
	COUNTY JASPER	

SHEET 5 OF 5

SIGN	SIZE (INCHES)	AREA (SQ FT)	QTY	TOTAL AREA	QTY RELOC	TOTAL RELOC AREA	DESCRIPTION
WARNING SIGNS							
W01-1Lb	48X48	16.0					TURN (SYMBOL LEFT ARROW)
W01-1Rb	48X48	16.0					TURN (SYMBOL RIGHT ARROW)
W01-2Lb	48X48	16.0					CURVE (SYMBOL LEFT ARROW)
W01-2Rb	48X48	16.0					CURVE (SYMBOL RIGHT ARROW)
W01-3Lb	48X48	16.0					REVERSE TURN (SYMBOL LEFT ARROW)
W01-3Rb	48X48	16.0					REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4Lb	48X48	16.0					REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4Lb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM LT ARROWS)
W01-4Rb	48X48	16.0					REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4Rb2	48X48	16.0					DOUBLE ARROW REVERSE CURVE (SYM RT ARROWS)
W01-6	48X24	8.0					HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.0					HORIZONTAL ARROW (SYMBOL)
W01-7	48X24	8.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.0					DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-8	18X24	3.0					CHEVRON (SYMBOL)
W03-1b	48X48	16.0					STOP AHEAD
W03-2b	48X48	16.0					YIELD AHEAD
W03-3b	48X48	16.0					SIGNAL AHEAD (SYMBOL)
W03-4b	48X48	16.0	4	64			BE PREPARED TO STOP
W04-1Lb	48X48	16.0					MERGE (SYMBOL FROM LEFT)
W04-1Rb	48X48	16.0					MERGE (SYMBOL FROM RIGHT)
W05-1a	48X48	16.0					ROAD NARROWS
W05-3a	48X48	16.0					ONE LANE BRIDGE
W06-1b	48X48	16.0					DIVIDED HIGHWAY
W06-2b	48X48	16.0					DIVIDED HIGHWAY ENDS
W06-3b	48X48	16.0					TWO WAY TRAFFIC (SYMBOL)
W06-3x	24X18	3.0					TWO WAY TRAFFIC (PLAQUE)
W08-1b	48X48	16.0					BUMP
W08-2b	48X48	16.0					DIP
W08-3	48X48	16.0					PAVEMENT ENDS
W08-4b	48X48	16.0					SOFT SHOULDER
W08-5b	48X48	16.0					SLIPPERY WHEN WET (SYMBOL)
W08-6b	48X48	16.0					TRUCK CROSSING
W08-6c	48X48	16.0					TRUCK ENT (INCLUDES W025-1a PLATE)
W08-7a	36X36	9.0					LOOSE GRAVEL
W08-9	48X48	16.0	1	16			LOW SHOULDER
W08-9La	48X48	16.0					UNEVEN PAVEMENT (SYM FOR LT DROPOFF)
W08-9Ra	48X48	16.0					UNEVEN PAVEMENT (SYM FOR RT DROPOFF)
W09-1R	48X48	16.0					RIGHT LANE ENDS (INCLUDES W025-3c PLATE)
W09-2Ra	48X48	16.0					LANE ENDS MERGE RIGHT (INCLUDES W025-3b PLATE)
W10-1a	42Dia	9.6					RAILROAD CROSSING
W012-1	24X24	4.0					DOUBLE DOWN ARROW (SYMBOL)
W012-2a	48X48	16.0					LOW CLEARANCE (SYMBOL)
W012-2x	24X18	3.0					LOW CLEARANCE (PLAQUE)
W012-3a,b	144X24	24.0					OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W013-1a	24X24	4.0					ADVISORY SPEED (PLAQUE)
W020-1	48X48	16.0	15	240			ROAD CONST AHEAD (INCLUDES W025-6 PLATE)
W020-2	48X48	16.0					DETOUR AHEAD (INCLUDES W025-1b PLATE)
W020-3	48X48	16.0	3	48			ROAD CLOSED AHEAD (INCLUDES W025-1c PLATE)
W020-4a	48X48	16.0					ONE LANE ROAD AHEAD (INCLUDES W025-1a PLATE)
W020-5	48X48	16.0	4	64			RIGHT LANE CLOSED AHEAD (INCL W025-3d PLATE)
W020-6a	48X48	16.0	4	64			RIGHT LANE CLOSED (INCLUDES W025-3c PLATE)
W020-7b	48X48	16.0	4	64			FLAGGER (SYMBOL)
W020-7x	24X18	3.0					500 FT/1000 FT (PLAQUE)
W020-9c	48X48	16.0	20	320			OPEN TRENCH
W021-2b	48X48	16.0					FRESH OIL
W021-5b	48X48	16.0	2	32			SHOULDER WORK AHEAD
W021-7	36X36	9.0					SAND BLASTING
W022-1	48X48	16.0					BLASTING ZONE 1000 FT
W022-2	42X36	10.5					TURN OFF 2-WAY RADIO
W022-3	42X36	10.5					END BLASTING ZONE
W08-12	36X36	9.0					NO CENTER STRIPE
W025-1a	26X9						1000 FT/1500 FT Plate
W025-1b	38X9						500 FT/1000 FT Plate
W025-1c	34X9						500 FT/1000 FT Plate
W025-3b	30X9						LEFT Plate
W025-3c	33X9	2.06					LEFT/CENTER Plate
W025-3d	22X9	1.38					LEFT/CENTER Plate
W025-5	30X12	2.5					1/2 MILE/1 MILE (PLAQUE)
W025-6	28X9	1.75					RAMP/BRIDGE Plate
REGULATORY SIGNS							
R1-1b	48X48	13.25	10	132.5			STOP
R1-2a	48X48X48	6.93					YIELD
R1-3	20X9	1.25					4-WAY (PLAQUE)
R1-5	20X9	1.25					3-WAY (PLAQUE)
R2-1b	36X48	12.00	17	204			SPEED LIMIT (5)35, (7)45, (5)55
R2-5b	36X48	12.00	11	132			REDUCED SPEED AHEAD
R3-1b	36X36	9.00					NO RIGHT TURN (SYMBOL)
R3-2b	36X36	9.00					NO LEFT TURN (SYMBOL)
R3-3a	36X36	9.00					NO TURNS
R3-4	24X24	4.00					NO U-TURN (SYMBOL)
R3-7L	30X30	6.25					LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25					RIGHT LANE MUST TURN RIGHT
R4-1b	36X48	12.00					DO NOT PASS
R4-2b	36X48	12.00					PASS WITH CARE
R4-7Lb	36X48	12.00					KEEP LEFT (HORIZONTAL ARROW)
R4-7Rb	36X48	12.00					KEEP RIGHT (HORIZONTAL ARROW)
R4-17La	36X36	9.00					KEEP LEFT
R4-17Ra	36X36	9.00					KEEP RIGHT
R5-1	30X30	6.25	4	25			DO NOT ENTER
R5-1a	36X24	6.00					WRONG WAY
R6-1La	48X18	6.00	6	36			ONE WAY ARROW (LEFT)
R6-1Ra	48X18	6.00	4	24			ONE WAY ARROW (RIGHT)
R6-2La	24X30	5.00					ONE WAY (LEFT)
R6-2Ra	24X30	5.00					ONE WAY (RIGHT)
R11-2	48X30	10.00	13	130			ROAD CLOSED
R11-3	60X30	12.50					ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50					ROAD CLOSED TO THRU TRAFFIC
R12-3b	36X36	9.00					TO ONCOMING TRAFFIC (PLAQUE)
S4-4a	36X18	4.50					WHEN FLASHING
GUIDE SIGNS							
G020-1	60X36	15.00					ROAD CONSTRUCTION NEXT XX MILES
G020-2	60X24	10.00	2	20			END CONSTRUCTION
M04-8a	30X15	3.13					DETOUR (PLAQUE)
M04-9L	48X36	12.00					DETOUR (LEFT ARROW)
M04-9R	48X36	12.00					DETOUR (RIGHT ARROW)
M04-10L	48X18	6.00					DETOUR (ARROW LEFT)
M04-10R	48X18	6.00					DETOUR (ARROW RIGHT)
M04-11	24X18	3.00					DETOUR ENDS
M5-1L	21X15	2.19					ADVANCE LEFT TURN ARROW
M5-1R	21X15	2.19					ADVANCE RIGHT TURN ARROW
MISCELLANEOUS SIGNS							
D13-1	72X36	18.00	5	90			CROSSOVER (LEFT ARROW)
D13-2	72X36	18.00	5	90			CROSSOVER (4) 1/4 MILE (1) 1 MILE
616-10.05 CONSTRUCTION SIGNS TOTAL				1795.5			
616-10.10 RELOCATED SIGNS TOTAL							

USE 1796 SQ. FT.

ITEM NUMBER	SIZE (INS)	TOTAL QTY	DESCRIPTION
612-10.30	72X144	16	MOVEABLE BARRICADE (THREE RAILS)
616-10.20	36X18	65	CHANNELIZER (DRUM)
616-10.35	8X24		TYPE I BARRICADE (ONE RAIL)
616-10.36	8X24		TYPE II BARRICADE (TWO RAILS)
616-10.40	48X96	2	FLASHING ARROW PANEL
616-10.45	18X18		TYPE I OBJECT MARKER
616-10.46	6X12		TYPE II OBJECT MARKER
616-10.47	10X30		TYPE III OBJECT MARKER
616-10.50		0	FLASHING ELECTRIC LIGHT
616-10.51	---		WARNING LIGHT TYPE A
616-10.52	---	17	WARNING LIGHT TYPE B
616-10.53	---		WARNING LIGHT TYPE C
616-10.54	---		STROBE LIGHT
616-10.70	28		FLEXIBLE DELINEATOR
619-10.00	LIN FT	27974	PAVEMENT EDGE TREATMENT
620-80.65	---		TEMPORARY RAISED PAVEMENT MARKER
612-90.10	48X96	4	INSTALL GIVE'EM A BRAKE 8'X4' *
612-90.20	48X48	2	INSTALL GIVE'EM A BRAKE 4'X4' *
612-20.12	EACH	2	IMPACT ATTENUATOR (12 SAND BARRELS)
612-20.20	EACH	51	REPLACEMENT SAND BARREL
617-50.00	LIN.FT.	700	TEMP. CONC. TRAFFIC BARRIER
616-10.97	EACH	2	CHANGEABLE MESSAGE SIGN

* SEE GENERAL SPECIAL PROVISIONS

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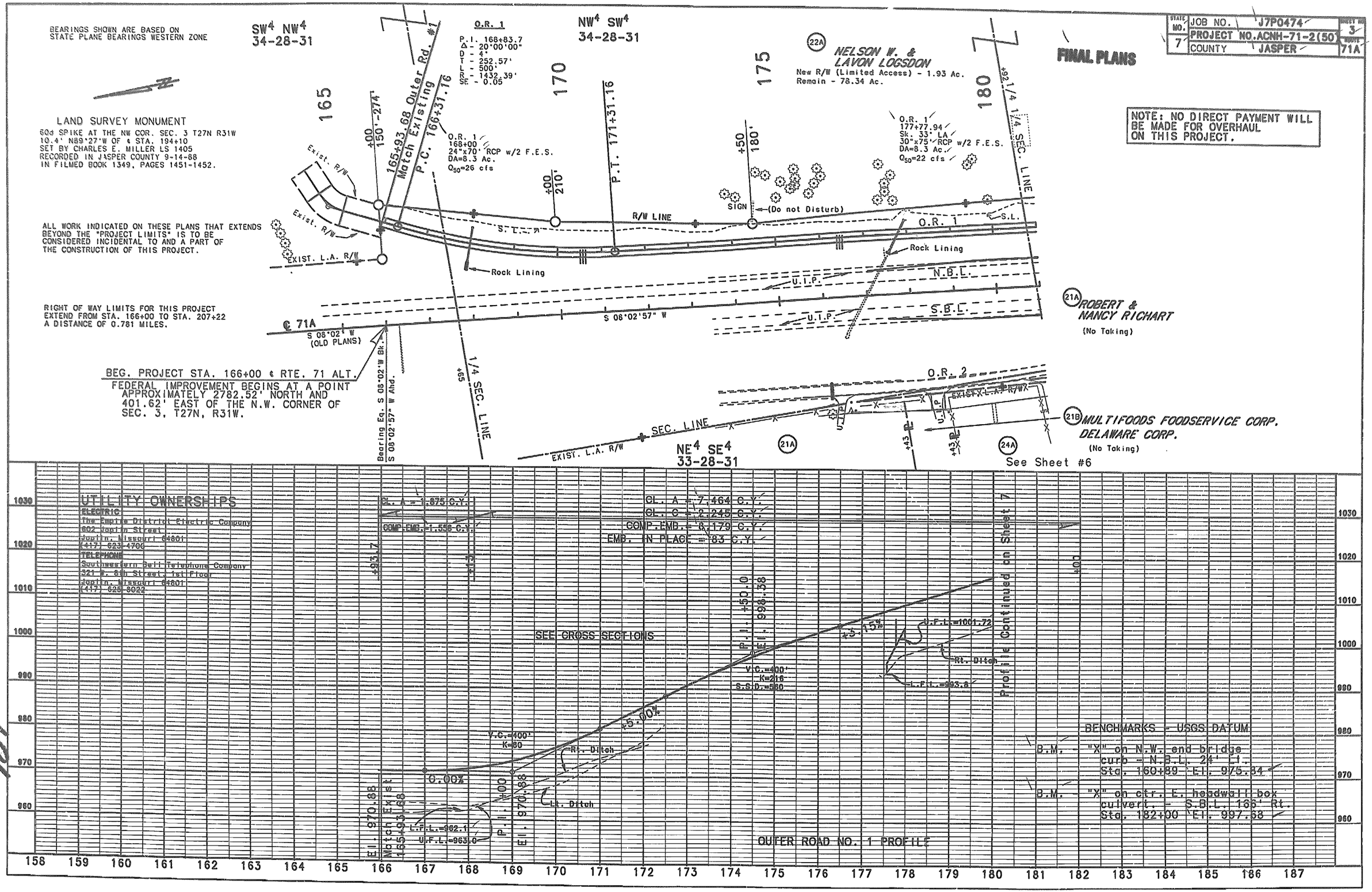

STATE MO. 7
JOB NO. J7P0474
PROJECT NO. ACNH-71-2(50)
COUNTY JASPER
SHEET NO. 3
ROUTE 71A
FINAL PLANS
BEARINGS SHOWN ARE BASED ON STATE PLANE BEARINGS WESTERN ZONE
LAND SURVEY MONUMENT
60d SPIKE AT THE NW COR. SEC. 3 T27N R31W
10.4' N89°27'W OF ℄ STA. 194+10
SET BY CHARLES E. MILLER LS 1405
RECORDED IN JASPER COUNTY 9-14-88
IN FILMED BOOK 1349, PAGES 1451-1452.
ALL WORK INDICATED ON THESE PLANS THAT EXTENDS BEYOND THE "PROJECT LIMITS" IS TO BE CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.
RIGHT OF WAY LIMITS FOR THIS PROJECT EXTEND FROM STA. 166+00 TO STA. 207+22 A DISTANCE OF 0.781 MILES.
BEG. PROJECT STA. 166+00 ℄ RTE. 71 ALT.
FEDERAL IMPROVEMENT BEGINS AT A POINT APPROXIMATELY 2782.52' NORTH AND 401.62' EAST OF THE N.W. CORNER OF SEC. 3, T27N, R31W.
SW4 NW4 34-28-31
NW4 SW4 34-28-31
NE4 SE4 33-28-31
O.R. 1
P.I. 168+83.7
Δ - 20°00'00"
D - 4°
T - 252.57'
L - 500'
R - 1432.39'
SE - 0.05
O.R. 1
168+00
24"x70' RCP w/2 F.E.S.
DA=8.3 Ac.
Q50=26 cfs
O.R. 1
177+77.94
Sk. 33' LA
30"x75' RCP w/2 F.E.S.
DA=8.3 Ac.
Q50=22 cfs
165+93.68 Outer Rd. #1
Match Existing
P.C. 166+31.16
P.T. 171+31.16
1/4 1/4 SEC. LINE
Exist. R/W
EXIST. L.A. R/W
R/W LINE
S.L.
SIGN
(Do not Disturb)
Rock Lining
U.I.P.
N.B.L.
S.B.L.
℄ 71A
S 08°02' W (OLD PLANS)
S 08°02'57" W
Bearing Eq. S 08°02'W Bk. S 08°02'57" W Ahd.
1/4 SEC. LINE
SEC. LINE
22A NELSON W. & LAVON LOGSDON
New R/W (Limited Access) - 1.93 Ac.
Remain - 78.34 Ac.
21A ROBERT & NANCY RICHART
(No Taking)
21B MULTIFOODS FOODSERVICE CORP. DELAWARE CORP.
(No Taking)
24A
See Sheet #6
NOTE: NO DIRECT PAYMENT WILL BE MADE FOR OVERHAUL ON THIS PROJECT.
UTILITY OWNERSHIPS
ELECTRIC
The Empire District Electric Company
602 Joplin Street
Joplin, Missouri 64801
(417) 623-4700
TELEPHONE
Southwestern Bell Telephone Company
321 W. 6th Street, 1st Floor
Joplin, Missouri 64801
(417) 625-8022
CL. A = 1,875 C.Y.
COMP.EMB. = 1,558 C.Y.
CL. A = 7,464 C.Y.
CL. C = 2,245 C.Y.
COMP.EMB. = 8,179 C.Y.
EMB. IN PLACE = 83 C.Y.
SEE CROSS SECTIONS
P.I. +50.0
El. 998.38
V.C.=400'
K=216
S.S.D.=560
+3.15%
U.F.L.=1001.72
Rt. Ditch
L.F.L.=993.8
Profile Continued on Sheet 7
+5.00%
V.C.=400'
K=80
0.00%
Lt. Ditch
El. 970.88
Match Exist 165+93.68
L.F.L.=962.1
U.F.L.=963.0
P.I. +00
El. 970.88
BENCHMARKS - USGS DATUM
B.M. - "X" on N.W. end bridge curb - N.B.L. 24' Lt. Sta. 160+89 El. 975.84
B.M. - "X" on ctr. E. headwall box culvert. - S.B.L. 166' Rt. Sta. 182+00 El. 997.68
OUTER ROAD NO. 1 PROFILE
1030
1020
1010
1000
990
980
970
960
158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187

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STATE NO. 7 | JOB NO. J7P0474 | SHEET NO. 4 | TOTAL SHEETS 71A
PROJECT NO. ACNH-71-2(50)
COUNTY JASPER

FINAL PLANS

SW4 NW4 34-28-31 | NW4 NW4 3-27-31 | SW4 NW4 3-27-31 | NW4 NW4 4-27-31 | SE4 NW4 4-27-31 | NE4 NE4 4-27-31 | SE4 NE4 33-28-31 | NE4 SE4 33-28-31 | SE4 SE4 33-28-31

See Sheet 3 | See Sheet 5 | See Sheet 6

1/4 1/4 SEC. LINE | 1/4 1/4 SEC. LINE | 1/4 1/4 SEC. LINE

SEE SHEET #3 | SEE SHEET #5 | SEE SHEET #6

Co. Road | Co. Road | Outer Road #2 | Outer Road #3 | Outer Road #4

TWP. LINE | SEC. LINE | SEC. LINE

R/W Line | S.L. | Rock Lining | Rock Ditch Lining | Conc. Slope Protection | Rock Lining

UIP | NBL | SBL | RTE. 71A

O.R. 1
P.I. = 185+00
Δ = 17° 52' 53" LT.
D = 4°
T = 225.35'
L = 447.03'
R = 1432.39'
SE = 0.05'/'

RAMP 1
P.I. = 1+56.0
Δ = 15° 30' 17" LT.
D = 5°
T = 156.00'
L = 310.09'
R = 1145.92'
SE = 0.06'/'

O.R. 1
P.I. = 192+34.84
Δ = 56° 57' 14" LT.
D = 16° 22' 13"
T = 189.85'
L = 347.91'
R = 350'
SE = 0.04'/'

O.R. 1
P.I. = 195+24.14
Δ = 46° 19' 50" LT.
D = 57° 17' 45"
T = 42.79'
L = 80.86'
R = 100.00'
SE = 0.04'/'

O.R. 3
P.I. = 4+00.0
Δ = 24° 45' 46" RT.
D = 5°
T = 251.56'
L = 495.26'
R = 1145.92'
SE = 0.06'/'

O.R. 3
P.I. = 11+89.72
Δ = 40° 55' 32" LT.
D = 7° 30'
T = 285.06'
L = 545.67'
R = 763.94'
SE = 0.07'/'

RAMP 3
P.I. = 11+18.67
Δ = 16° 31' 21" LT.
D = 5°
T = 166.38'
L = 330.45'
R = 1145.92'
SE = 0.06'/'

PC 182+74.65
PT 187+21.68
PC 190+44.99
PT 193+37.90
PC 194+81.35
PT 195+62.22
PC 1+48.44
PT 6+43.7
PC 9+04.66
PT 14+50.33
PC 0+00
PT 3+10.09
PC 183+18.61
PC 0+00
PT 3+89.99
PC 7+39.70
PT 189+34.03
PT 10+64.92
P.C. 192+74.87
PT 196+51.25
PC 1+60.05
PC 9+34.87
PT 204+87.52
PC 9+52.29
PT 12+82.74
PT 13+40.45

RAMP 1
4+65
30"x212' RCP
Sk. 30° RA
w/Type S-2 DI
DA=15.2 Ac.
Q_{50}=41 cfs

RAMP 2
5+50 No Sk.
24"x78' RCP
DA=7.4 Ac.
Q_{50}=18 cfs

RAMP 3
1+31.04 No Sk.
24"x156' RCP
DA=7.9 Ac.
Q_{50}=25 cfs

O.R. 2
192+50 No Sk.
24"x143' RCP
DA=8.0 Ac.
Q_{50}=23 cfs

Co.Rd. 24+20 No Sk.
18"x255' RCP w/2-F.E.S.
DA=3.1 Ac.
Q_{50}=12 cfs

O.R. 4
P.I. = 198+50
18"x76' RCP
w/2-F.E.S.
DA=3.9 Ac.
Q_{50}=14 cfs

RAMP 4
P.I. = 10+70.27
Δ = 13° 28' 39" RT.
D = 5°
T = 135.40'
L = 269.55'
R = 1145.92'
SE = 0.06'/'

O.R. 4
P.I. = 3+25.0
Δ = 19° 36' 02" LT.
D = 6°
T = 164.95'
L = 326.68'
R = 954.93'
SE = 0.06'/'

O.R. 4
P.I. = 10+70.84
Δ = 42° 30' 13" RT.
D = 7° 30'
T = 297.11'
L = 566.71'
R = 763.94'
SE = 0.07'/'

O.R. 2
P.I. = 186+44.12
Δ = 46° 09' 23" RT.
D = 7° 30'
T = 325.50'
L = 615.41'
R = 763.94'
SE = 0.07'/'

O.R. 2
P.I. = 194+66.96
Δ = 28° 13' 43" LT.
D = 7° 30'
T = 192.09'
L = 376.38'
R = 763.94'
SE = 0.07'/'

RAMP 2
P.I. = 2+01.31
Δ = 15° 59' 59" RT.
D = 4°
T = 201.31'
L = 399.99'
R = 1432.39'
SE = 0.06'/'

RAMP 2
P.I. = 9+02.49
Δ = 6° 30' 16" LT.
D = 2°
T = 162.79'
L = 325.22'
R = 2864.79'
SE = 0.04'/'

Br.No. A5514
Sk. 5° 30 LA

Sta. 18+32 Co.Rd.
Bridge No. A5514
5° 30' LA to the Co.Rd.
(139'-119')Cont. Composite Plate Girder Spans

16+50 (CO. RD.) = 12+30.62 (RAMP 1) = 0+00 (RAMP 3)

23+50 (CO. RD.) = 13+78.23 (RAMP 2) = 0+00 (RAMP 4)

196+00 (71A) = 20+00 (CO. RD.)

END PROJECT STA. 209+74.2
FEDERAL IMPROVEMENT ENDS AT A POINT APPROXIMATELY 1561.11' SOUTH AND 79.26' WEST OF THE N.W. COR. OF SEC. 3 T27N R31W.

Village of Fidelity

Perm. Esmt. (Const. Outlet Dt.)

RTE. 71A 209+91.30 Ext. Lt. 30"x20' RCP

RTE. 71A 196+00 18"X194' GRP III

RTE. 71A 209+91.30 Ext.Rt. 30"x11' RCP

71 A (EXIST.)
P.I = 198+35.49
Δ = 6° 31' 38" LT.
D = 0° 30'
T = 653.43'
L = 1305.45'
R = 11459.16'

S 89°32'40" W
S 08°02'52" W
S 89°52'40" W
S 01°31'19" W

97°27'35.4"
72°00'00"
78°30'
83°0'0"
71°30'0"
70°0'0"

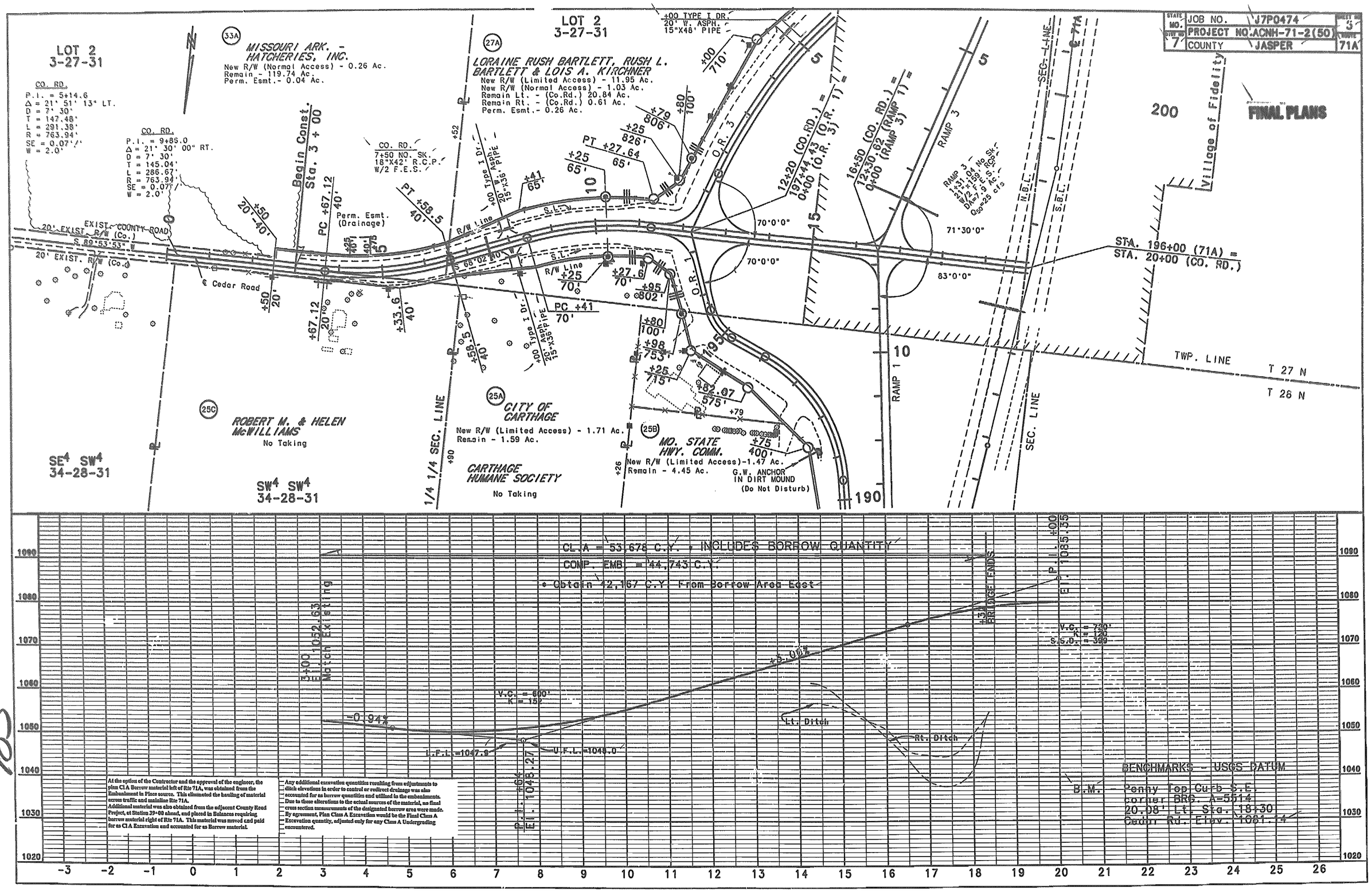
182

31B MARTIN W. ZOWN
New R/W (Limited Access) - 2.90 Ac.
Remain - 14.70 Ac.

28A HARRY W. KIRKPATRICK & RICHARD L. RUSH
New R/W (Limited Access) - 0.47 Ac.
Remain - 0.00 Ac.

34A ALFRED K. & BLANCHE A. COLAW
(No Taking)

32B TOP NOTCH FARMS PRODUCTIONS, INC.



At the option of the Contractor and the approval of the engineer, the plan Cl A Borrow material left of Rte 71A, was obtained from the Embankment in Place source. This eliminated the hauling of material across traffic and mainline Rte 71A.
Additional material was also obtained from the adjacent County Road Project, at Station 39+00 ahead, and placed in Balances requiring borrow material right of Rte 71A. This material was moved and paid for as Cl A Excavation and accounted for as Borrow material.

Any additional excavation quantities resulting from adjustments to ditch elevations in order to control or redirect drainage was also accounted for as borrow quantities and utilized in the embankments. Due to these alterations to the actual sources of the material, no final cross section measurements of the designated borrow area were made. By agreement, Plan Class A Excavation would be the Final Class A Excavation quantity, adjusted only for any Class A Undergrading encountered.

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STATE MO.	JOB NO. J7P0474	SHEET NO. 6
DIST. NO. 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

FINAL PLANS

NE4 NE4 4-27-31

NW4 NE4 4-27-31

SE4 SE4 33-28-31

SW4 SE4 33-28-31

Village of Fidelity

SEC. LINE

T 27 N
T 28 N
TWP. LINE

STA. 196+00 (71A) =
STA. 20+00 (CO. RD.)

23+50 (CO. RD.) =
13+78.23 (RAMP 2) =
0+00 (RAMP 4)

27+80 (CO. RD.) =
198+81.28 (O.R. 2) =
0+00 (O.R. 4)

RAMP 4

RAMP 2

O.R. 4

O.R. 2

O.R. #4
5+50 No Sk.
18"x76" RCP
W/2 F.E.S.
DA=3.9 Ac.
Q_{50}=14 cfs

Co.Rd.
24+20 No Sk.
18"x253' RCP
W/2 F.E.S.
DA=3.1 Ac.
Q_{50}=12 cfs

O.R. 2
192+50 No Sk.
24"x143' RCP
W/2 F.E.S.
DA=8.0 Ac.
Q_{50}=23 cfs

Co. Rd.
33+88.05
48"x232'
CL. III RCP
DA=55 Ac.
Q_{25}=140 cfs

+65 60'W
Type III DR.
(Asph.)
18"X96' PIPE

+50 W
Type I (Asph.)
18"X64' PIPE

+50 640'

+43 765'

+94 795'

PC +59.14

+60 90'

+00 90'

PT +71.25 145'

PC +88.05 145'

+59.14 864'

+06 90'

+60 90'

+50 820'

+71.25 90'

+88.05 170'

+82.07 715'

+72

+34

+33

70°0'0"

78°30'0"

71°59'41"

N 67° 02' 49.6" W

S.L.

R/W Line

℄ Cedar Rd.

CO. RD.
P.I. = 30+17.4
Δ = 19° 01' 16" RT.
D = 6° 03' 55"
T = 158.26'
L = 313.61'
R = 944.66'
SE = 0.06'/'
W = 2'

CO. RD.
P.I. = 35+29.99
Δ = 18° 08' 20" LT.
D = 7° 30'
T = 122.00'
L = 241.85'
R = 763.94'
SE = 0.07'/'
W = 2'

(79A) GEORGE WILLIAM & LELA LUCILLE ROGERS
New R/W (Limited Access) - 7.35 Ac.
New R/W (Normal Access) - 2.95 Ac.
Remain Lt. (Co. Rd.) - 44.80 Ac.
Remain Rt. (Co. Rd.) - 0.51 Ac.

(28A) (31B) SEE SHEET #4

+50 50'

PT +93.81 50'

+15 Type I Dr. 20' W. Asph. Pipe 15"x34'

+00 50'

+75 20'

40

EXIST. COUNTY ROAD
20' EXIST. R/W (Co.)

20' EXIST. R/W (Co.)

+50 Type III Dr. 30' W. Asph. 15"x48' Pipe

+00 45'

+75 20'

End County Road Construction
Sta. 39+00

CO. RD.
P.I. = 30+17.4
= 23° 24' 30" RT.
D = 7° 30'
T = 158.26'
L = 312.11'
R = 763.94'

CO. RD.
P.I. = 35+43
= 22° 55' 54" LT.
D = 7° 30'
T = 154.95'
L = 305.76'
R = 763.94'

Final construction of County Road adjusted to match County Project. Right-of-Way descriptions based on the above noted alignment. Any other alignment described is for the office relocation of the County Road. Any additional right-of-way was acquired by Jasper County.

(24A) GARY L. AND BETTY A. MEISTER
New R/W (Limited Access) - 6.97 Ac
New R/W (Normal Access) - 0.91 Ac.
Remain - 60.63 Ac.

C.71A

+148.2 BRIDGE ENDS

P.I. +00 Elev. 1065.35

V.C. = 720'
K = 125
S.S.D. = 300

C.L. A = 86,145 C.Y. ± INCLUDES BORROW QUANTITY
COMP. EMB. = 85,059 C.Y.

± Obtain 75,791 C.Y. From Borrow Area West
See Cross Sections

-3.00%

Lt. Ditch

U.F.L.=1050.9

Rt. Ditch

L.F.L.=1042.6

Rt. Ditch

Lt. Ditch

V.C. = 600'
K = 118

+2.05%

Lt. Ditch

Rt. Ditch

U.F.L.=1007.5

L.F.L.=1003.5

BENCHMARKS - USGS DATUM
B.M. - "X" in East Hdwl. of Pipe culvert Lt. N.B.L. Rte. 71A Sta. 135+00 93' Lt. ℄ Med. Elev. 1049.57

At the option of the Contractor and the approval of the engineer, the plan Cl A Borrow material left of Rte 71A, was obtained from the Embankment in Place source. This eliminated the hauling of material across traffic and mainline Rte 71A.
Additional material was also obtained from the adjacent County Road Project, at Station 39+60 ahead, and placed in Balances requiring borrow material right of Rte 71A. This material was moved and paid for as Cl A Excavation and accounted for as Borrow material.

Any additional excavation quantities resulting from adjustments to ditch elevations in order to control or redirect drainage was also accounted for as borrow quantities and utilized in the embankments. Due to these alterations to the actual sources of the material, no final cross section measurements of the designated borrow area were made. By agreement, Plan Class A Excavation would be the Final Class A Excavation quantity, adjusted only for any Class A Undergrading encountered.

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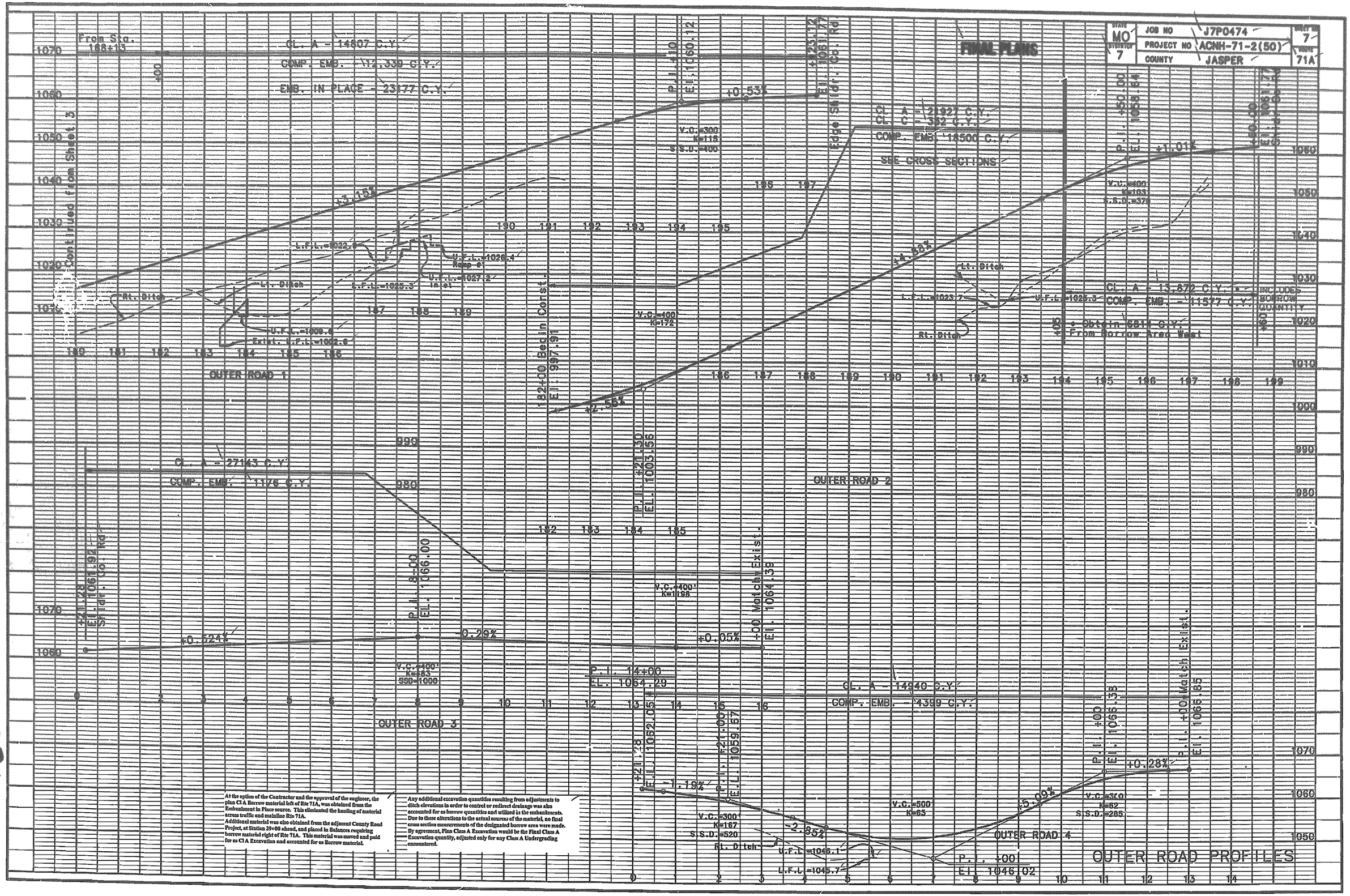

At the option of the Contractor and the approval of the engineer, the plan Cl A Borrow material left of Rte 71A, was obtained from the Embankment in Place source. This eliminated the hauling of material across traffic and mainline Rte 71A.
Additional material was also obtained from the adjacent County Road Project, at Station 39+00 ahead, and placed in Balances requiring borrow material right of Rte 71A. This material was moved and paid for as Cl A Excavation and accounted for as Borrow material.

Any additional excavation quantities resulting from adjustments to ditch elevations in order to control or redirect drainage was also accounted for as borrow quantities and utilized in the embankments. Due to these alterations to the actual sources of the material, no final cross section measurements of the designated borrow area were made. By agreement, Plan Class A Excavation would be the Final Class A Excavation quantity, adjusted only for any Class A Undergrading encountered.

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STATE	JOB NO J7P0474	SHEET NO 8
MO DISTRICT 7	PROJECT NO ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

FINAL PLANS

Cl. A = 34741 C.Y. * INCLUDES BORROW QUANTITY
COMP. EMB. = 30368 C.Y.
EMB. IN PLACE = 25651 C.Y.
* Obtain 28494 C.Y. From Borrow Area East

Ramp 1

Cl. A = 25348 C.Y.
COMP. EMB. = 22981 C.Y.

Ramp 3

Cl. A = 46855 C.Y. * INCLUDES BORROW QUANTITY
COMP. EMB. = 36879 C.Y.
* Obtain 30138 C.Y. From Borrow Area West

Ramp 2

Cl. A = 25192 C.Y.
COMP. EMB. = 19273 C.Y.

Ramp 4

RAMP PROFILES

At the option of the Contractor and the approval of the engineer, the plan Cl A Borrow material left of Rte 71A, was obtained from the Embankment in Place source. This eliminated the hauling of material across traffic and mainline Rte 71A.
Additional material was also obtained from the adjacent County Road Project, at Station 39+60 ahead, and placed in Balances requiring borrow material right of Rte 71A. This material was moved and paid for as Cl A Excavation and accounted for as Borrow material.

Any additional excavation quantities resulting from adjustments to ditch elevations in order to control or redirect drainage was also accounted for as borrow quantities and utilized in the embankments. Due to these alterations to the actual sources of the material, no final cross section measurements of the designated borrow area were made. By agreement, Plan Class A Excavation would be the Final Class A Excavation quantity, adjusted only for any Class A Undergrading encountered.

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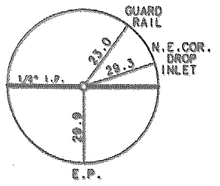
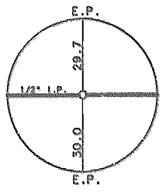
STATE NO.	JOB NO. J7P0474	SHEET NO.
7	PROJECT NO. ACNH-71-2(50)	9
	COUNTY JASPER	71A

FINAL PLANS

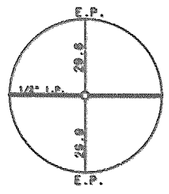
℄ MED. RTE. 71A



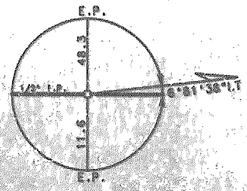
168+00 - P.O.T.



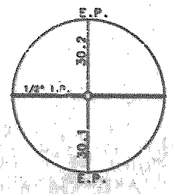
176+00 - P.O.T.



184+00 - P.O.T.

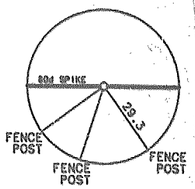


193+35.50 - P.I.



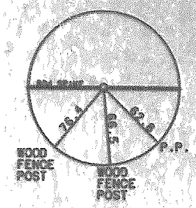
212+00 - P.O.T.

COUNTY ROAD (CEDAR ROAD)



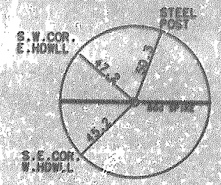
2+00 - P.O.T.(EAST)

OUTER ROAD #2



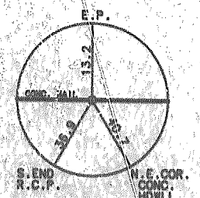
177+15.0 - P.O.T.

OUTER ROAD #3

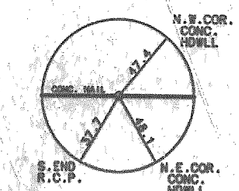


16+59.31 - P.O.T.

OUTER ROAD #4



14+00 - P.O.T.



15+00 - P.O.T.

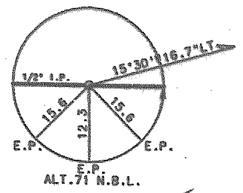
187

REFERENCE POINTS
SHEET 1 OF 2

STATE NO	JOB NO. 47P0474	SHEET NO
7	PROJECT NO. ACNH-71-2(50)	10
	COUNTY JASPER	71A

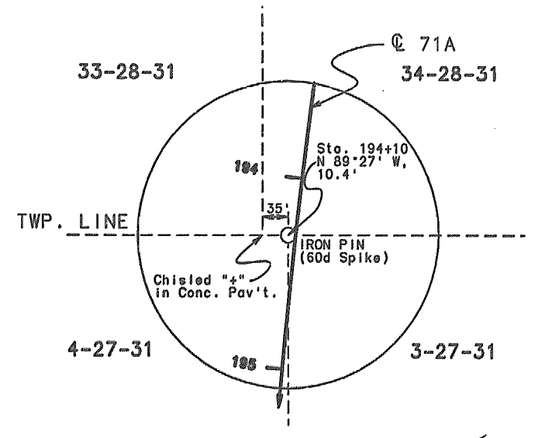
FINAL PLANS

RAMP #1



1+56.0 - P.I.

198



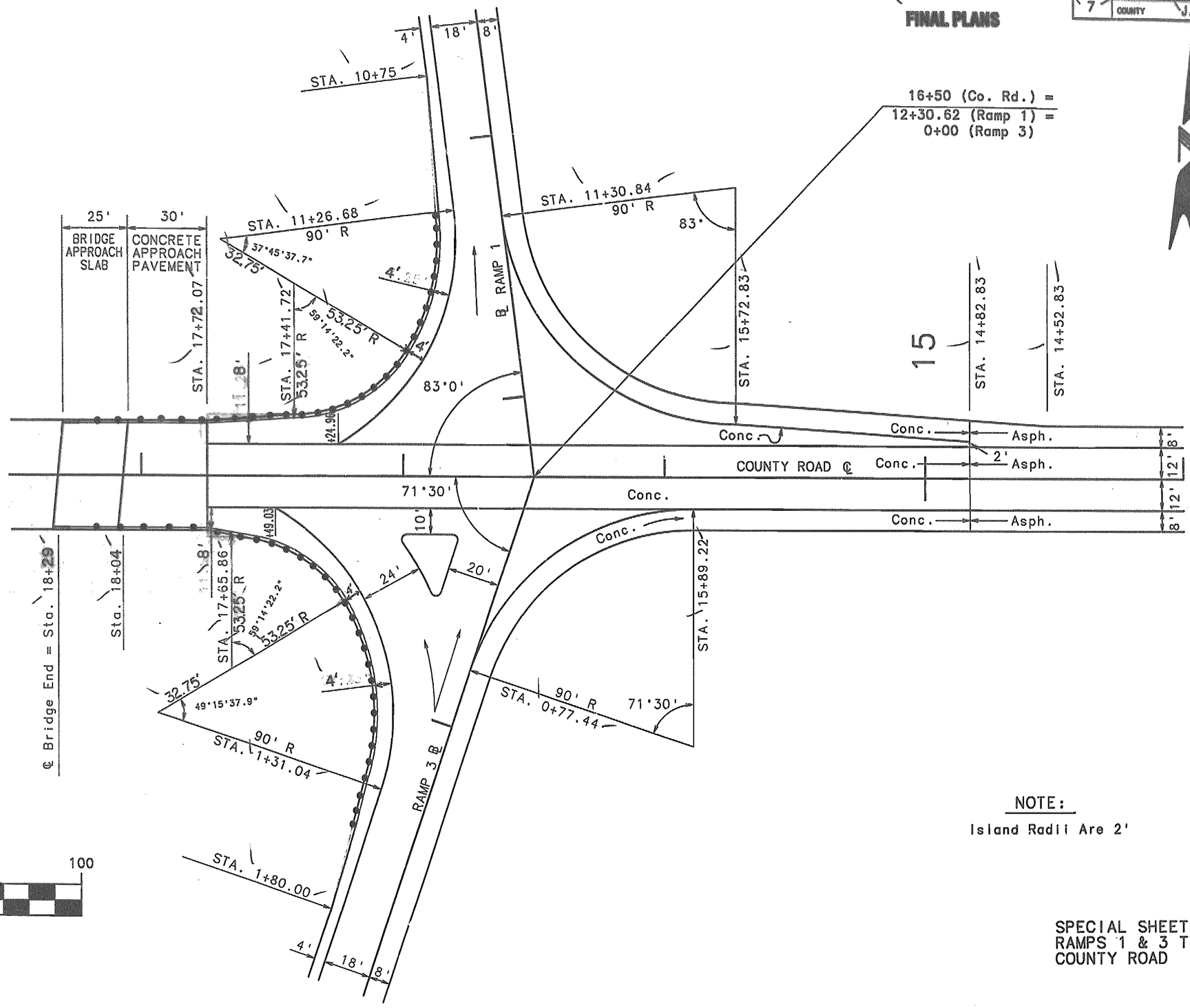
LAND TIE

NW Corner Sec 3, T27N, R31W

REFERENCE POINTS
SHEET 2 OF 2

STATE	JOB NO.	SHEET NO.
MO	J7P0474	11
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

FINAL PLANS



NOTE:

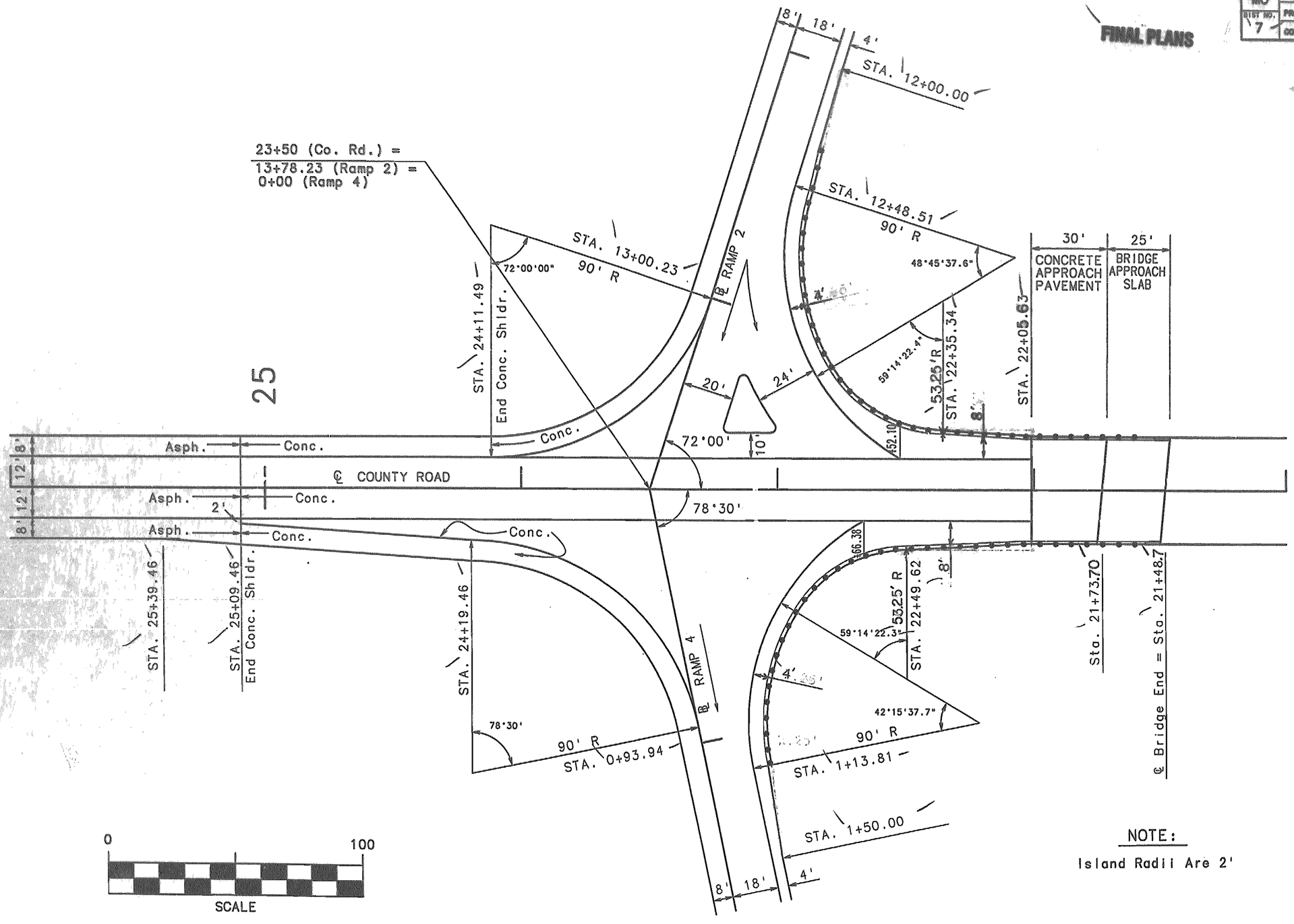
Island Radii Are 2'

SPECIAL SHEET 1 of 8
RAMPS 1 & 3 TERMINALS
COUNTY ROAD

183

STATE	JOB NO.	SHEET NO.
MO	J7P0474	12
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

FINAL PLANS



NOTE:

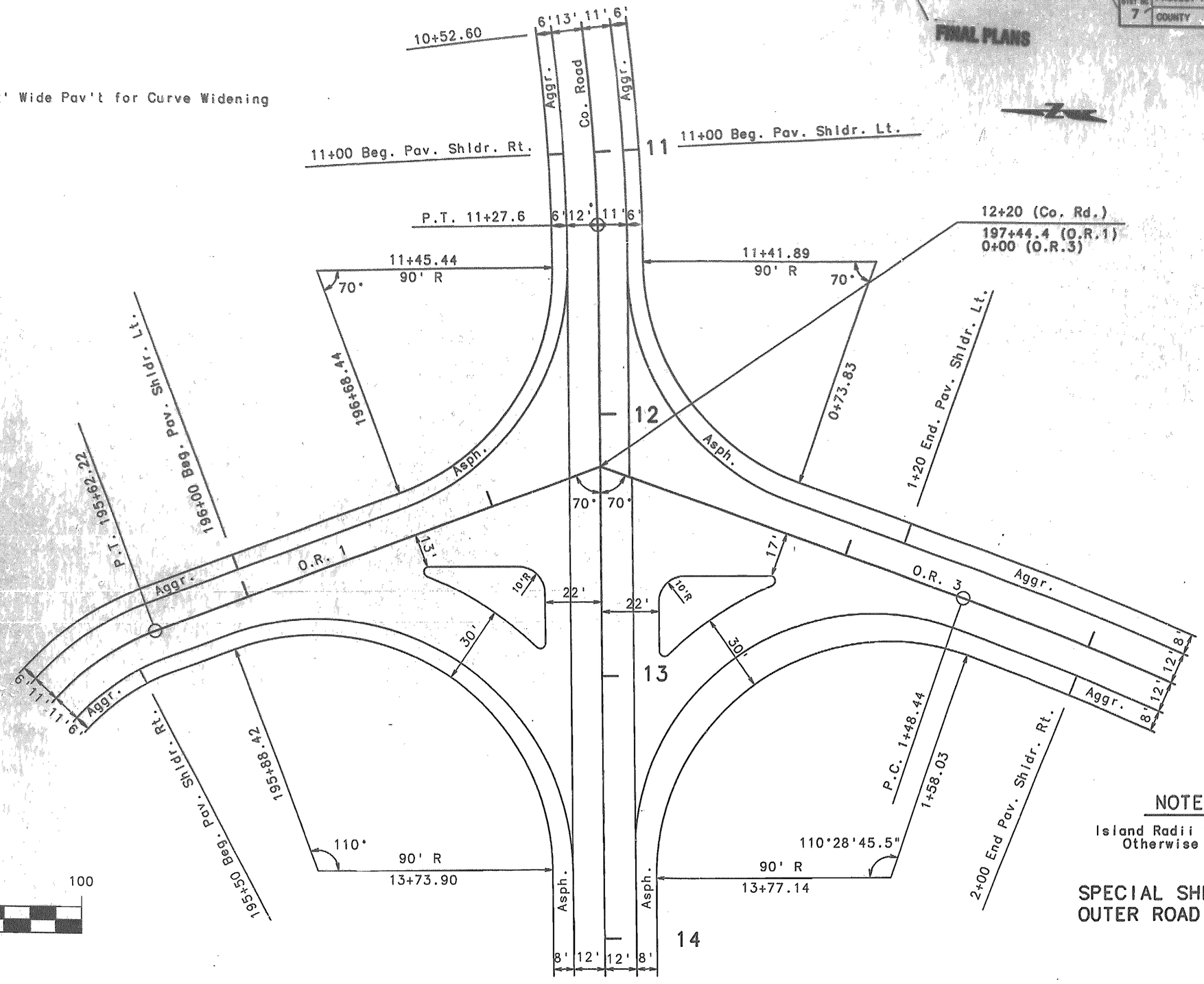
Island Radii Are 2'

SPECIAL SHEET 2 of 8
RAMPS 2 & 4 TERMINALS
COUNTY ROAD

STATE	JOB NO.	SHEET NO.
MO	J7P0474	13
DIST NO.	PROJECT NO. ACNH-71-2(50)	ROUTE
7	COUNTY JASPER	71A

FINAL PLANS

* 12' Wide Pav't for Curve Widening



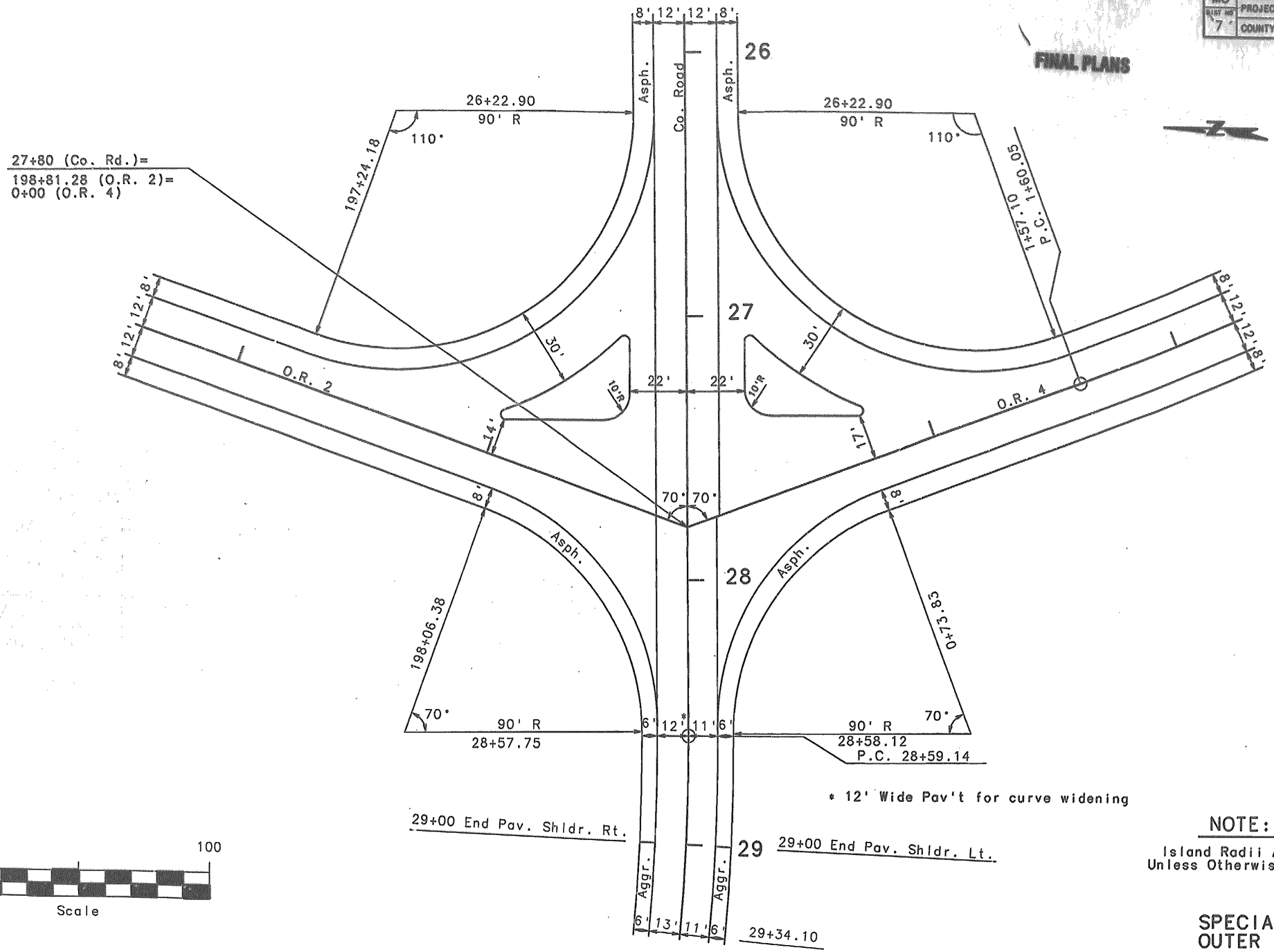
NOTE:

Island Radii 2' Unless Otherwise Noted

SPECIAL SHEET 3 of 8
OUTER ROAD 1 & 3

STATE	JOB NO.	J7P0474	SHEET NO.
MO	PROJECT NO.	ACNH-71-2(50)	14
DIST NO. 7	COUNTY	JASPER	ROUTE 71A

FINAL PLANS



* 12' Wide Pav't for curve widening

NOTE:

Island Radii Are 2'
Unless Otherwise Noted

SPECIAL SHEET 4 of 8
OUTER ROAD 2 & 4

STATE	JOB NO.	SHEET #
MO	J7P0474	15
DIST NO	PROJECT NO.	ROUTE
7	ACNH-71-2(50)	71A
	COUNTY JASPER	

FINAL PLANS

RAMP #1
P.I. = 1+56.00
Δ = 15° 30' 17" LT.
D = 5°
T = 156.00'
L = 310.09'
R = 1145.92'
SE = 0.06'/'

RAMP #2
P.I. = 2+01.31
Δ = 15° 59' 59" RT.
D = 4°
T = 201.31'
L = 399.99'
R = 1432.39'
SE = 0.06'/'

SCALE
0 50 100 150 200

SPECIAL SHEET 5 of 8
RAMPS 1 & 2 TERMINALS
71 ALT.

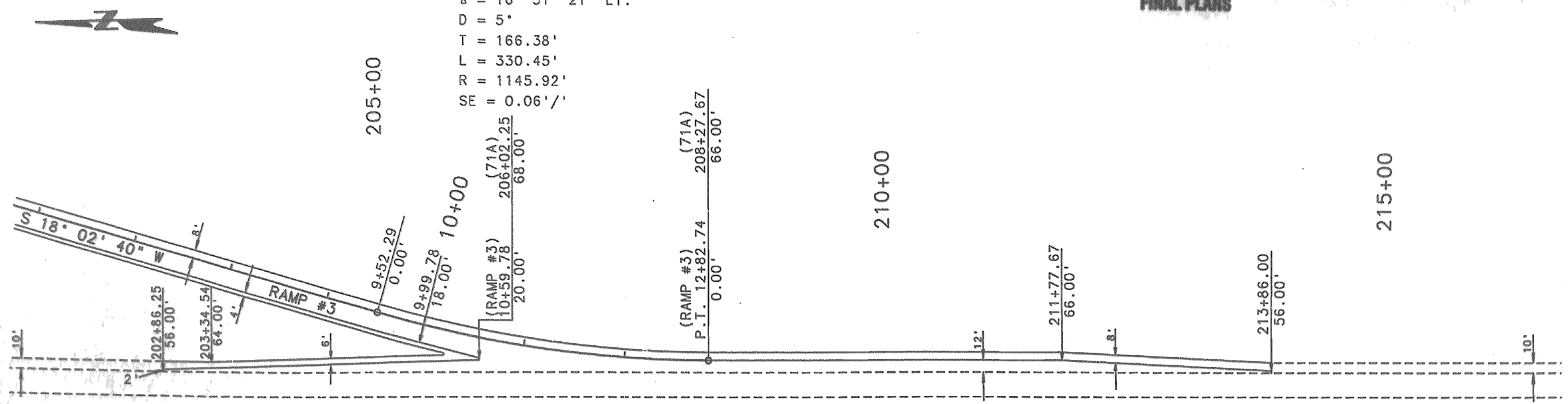
193

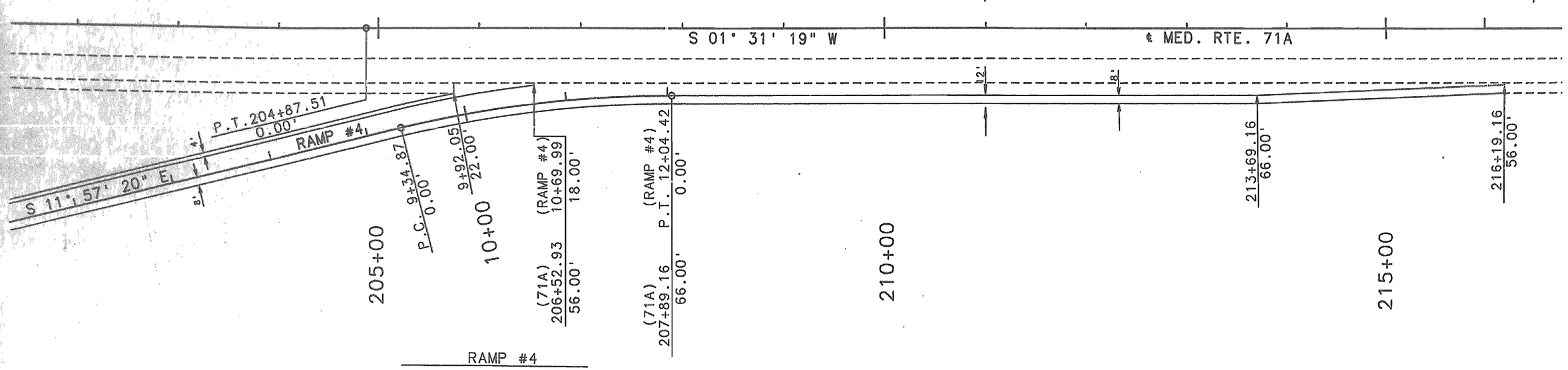
STATE	JOB NO. J7P0474	SHEET NO.
MO	PROJECT NO. ACNH-71-2(50)	16
DIST NO. 7	COUNTY JASPER	ROUTE 71A

FINAL PLANS

RAMP #3

P.I. = 11+18.67
Δ = 16° 31' 21" LT.
D = 5°
T = 166.38'
L = 330.45'
R = 1145.92'
SE = 0.06'/'





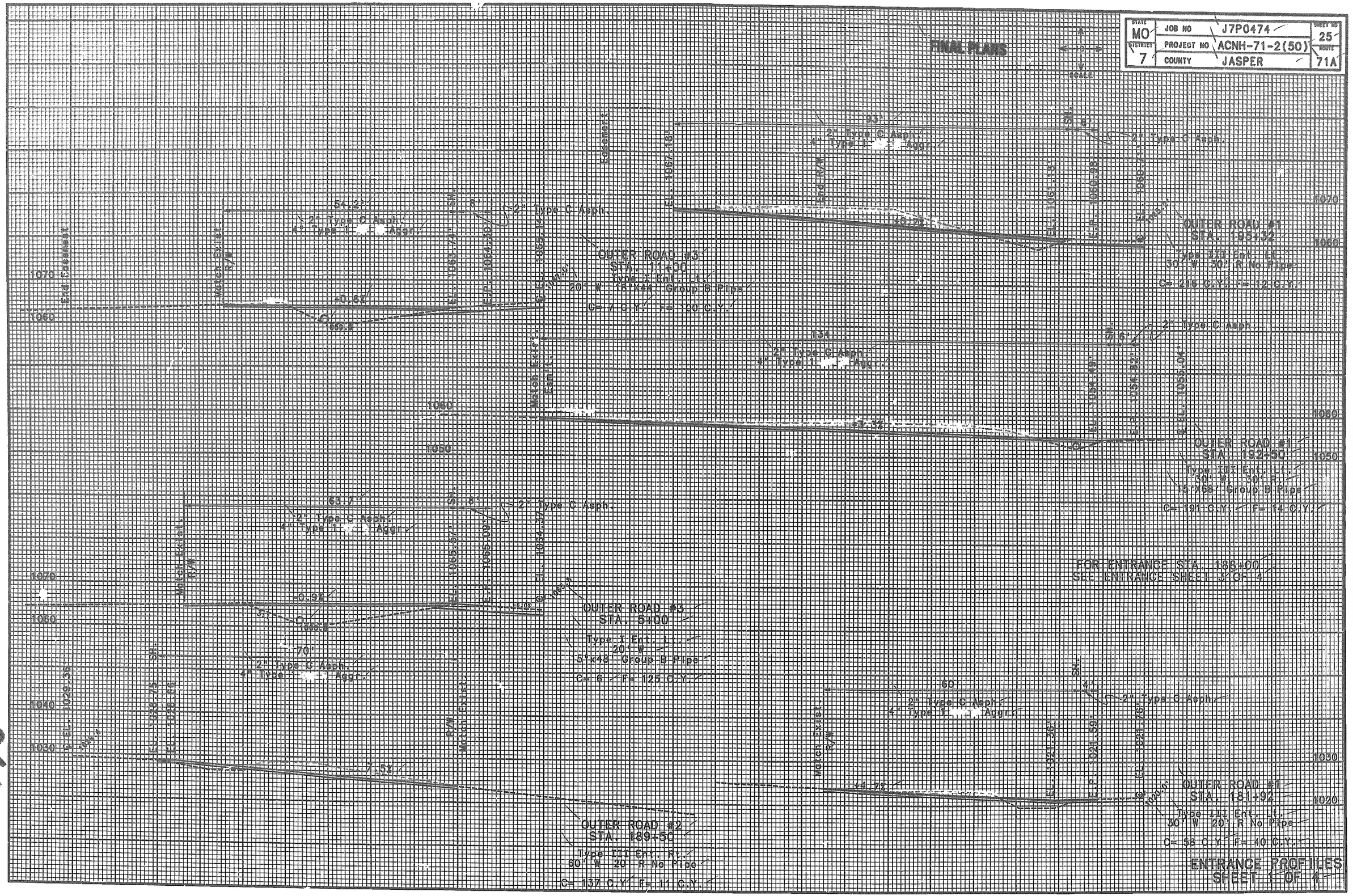
RAMP #4

P.I. = 10+70.27
Δ = 13° 28' 39" RT.
D = 5°
T = 135.40'
L = 269.55'
R = 1145.92'
SE = 0.06'/'

SCALE

0 50 100 150 200

SPECIAL SHEET 6 of 8
RAMPS 3 & 4 TERMINALS
71 ALT.



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 25
ROUTE 71A
FINAL PLANS
SCALE
OUTER ROAD #3
STA. 11+00
Type I Ent. Lt.
20' W 18"X44' Group B Pipe
C= 7 C.Y. F= 100 C.Y.
OUTER ROAD #1
STA. 195+32
Type III Ent. Lt.
30' W 30' R No Pipe
C= 216 C.Y. F= 12 C.Y.
OUTER ROAD #1
STA. 192+50
Type III Ent. Lt.
30' W 30' R
15"X68' Group B Pipe
C= 191 C.Y. F= 14 C.Y.
FOR ENTRANCE STA. 188+00
SEE ENTRANCE SHEET 3 OF 4
OUTER ROAD #3
STA. 5+00
Type I Ent. Lt.
20' W
15"x48' Group B Pipe
C= 6 F= 125 C.Y.
OUTER ROAD #1
STA. 181+92
Type III Ent. Lt.
30' W 20' R No Pipe
C= 58 C.Y. F= 40 C.Y.
OUTER ROAD #2
STA. 189+50
Type III Ent. Rt.
60' W 20' R No Pipe
C= 137 C.Y. F= 11 C.Y.
2" Type C Asph.
4" Type I Aggr.
Match Exist. R/W
End Easement
Easement
ENTRANCE PROFILES
SHEET 1 OF 4

195

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	26
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

FINAL PLANS

COUNTY ROAD
STA. 37+50
Type 3 Ent., Rt.
30' W., 20° R.
15"X43" Group B Pipe
C= 7 C.Y. F= 46 C.Y.

COUNTY ROAD
STA. 37+15
Type 3 Ent., Lt.
20' W.,
15"X34" Group B Pipe
C= 1 C.Y. F= 34 C.Y.

COUNTY ROAD
STA. 8+00
Type 1 Ent., Lt.
20' W.,
15"X36" Group B Pipe
C= 18 C.Y. F= 33 C.Y.

COUNTY ROAD
STA. 8+00
Type 3 Ent., Lt.
20' W.,
15"X56" Group B Pipe
C= 23 C.Y. F= 37 C.Y.

OUTER ROAD #4
STA. 15+00
Type 3 Ent., Rt.
30' W., 50° R.
15"X46" Group B Pipe
C= 91 C.Y. F= 56 C.Y.

OUTER ROAD #4
STA. 8+30
Type 3 Ent., Rt.
60' W., 30° R.
65"X85" Group B Pipe
C= 171 C.Y. F= 93 C.Y.

OUTER ROAD #4
STA. 4+65
Type 3 Ent., Rt.
60' W., 30° R.
78"X96" Group B Pipe
C= 1 C.Y. F= 715 C.Y.

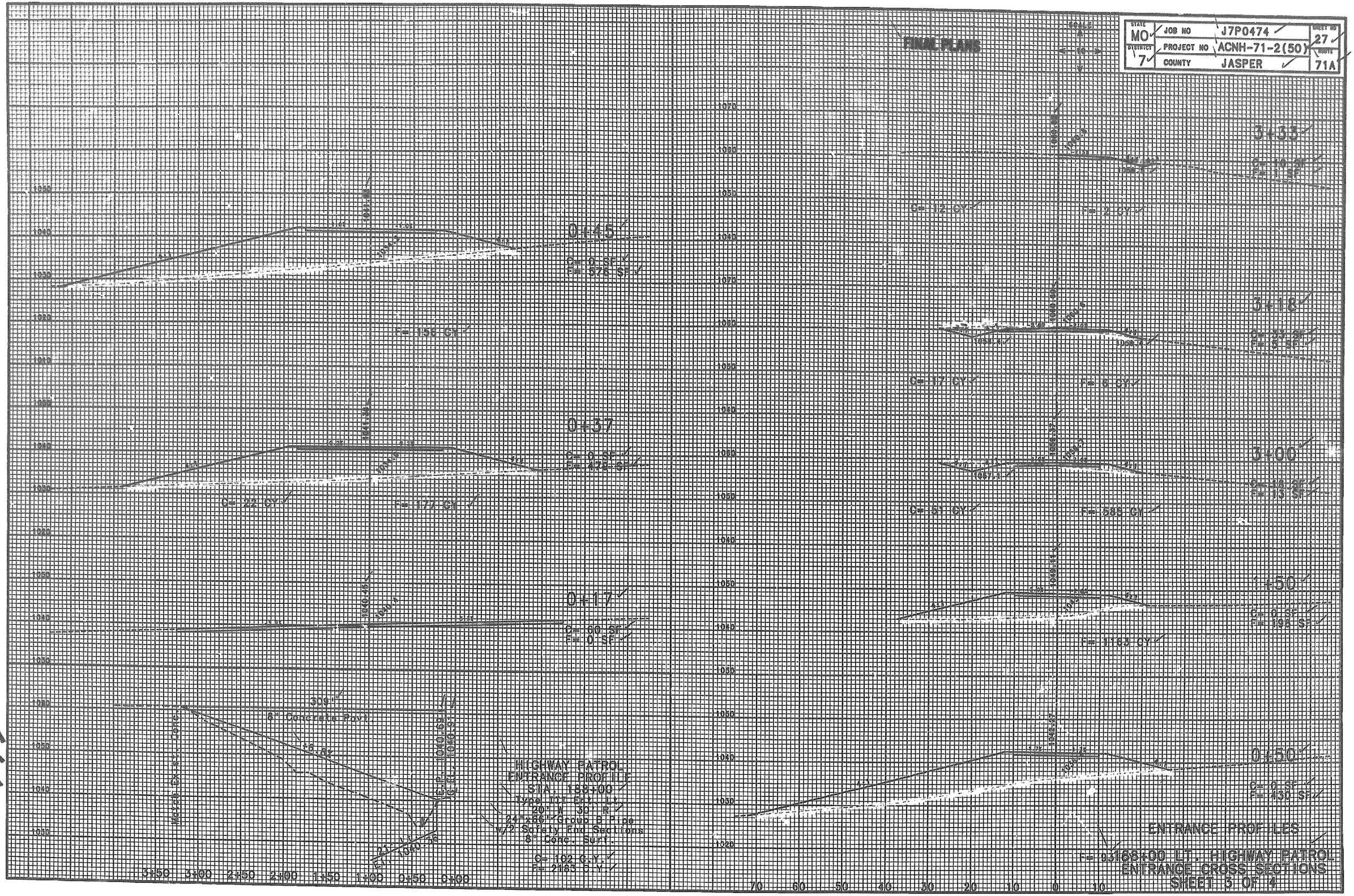
OUTER ROAD #4
STA. 2+50
Type 3 Ent., Rt.
40' W.,
C= 6 C.Y. F= 63 C.Y.
18"X24" Group B Pipe

ENTRANCE PROFILES
SHEET 2 OF 4

196

FINAL PLANS

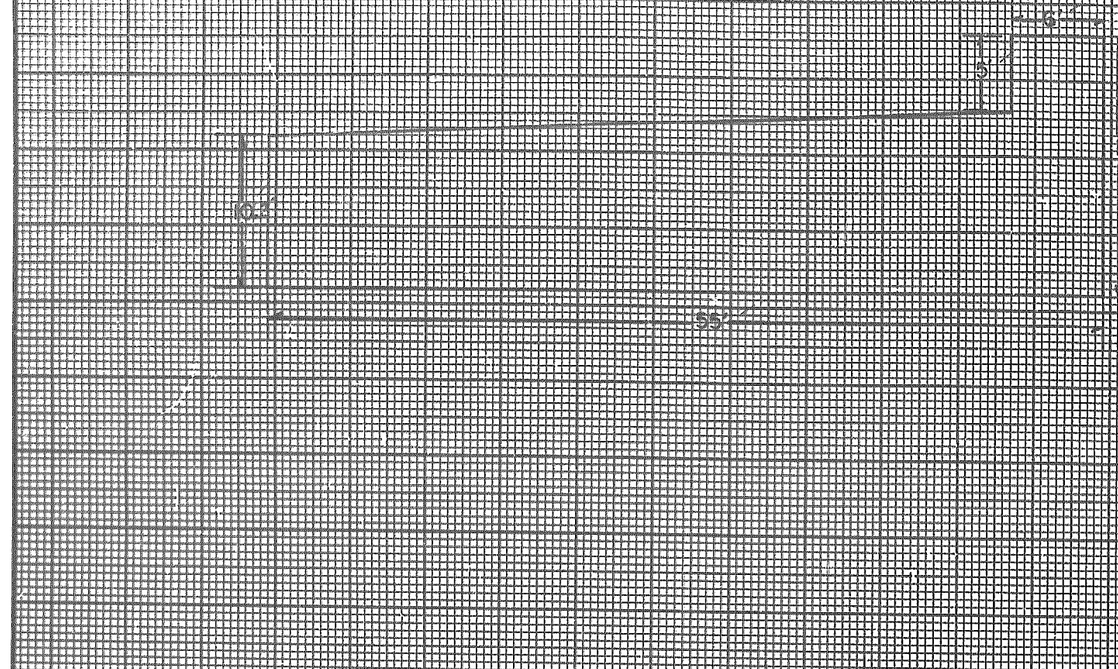
STATE	JOB NO	J7P0474	SHEET NO
MO			27
DISTRICT	PROJECT NO	ACNH-71-2(50)	ROUTE
7	COUNTY	JASPER	71A



197

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50	28
DISTRICT 7	COUNTY	JASPER	ROUTE 71A



Class A Borrow Tabulation

Balance Station to Station, Location

West Cl A Borrow		
21+48 to 39+00, County Road	83359	Cu. Yd.
194+05 to 198+60, O. R. #2	6814	Cu. Yd.
0+00 to 13+57.20, Ramp #2	30138	Cu. Yd.
East Cl A Borrow		
3+00 to 18+32, County Road	42167	Cu. Yd.
0+00 to 12+10.47, Ramp #1	28494	Cu. Yd.
Total Cl A Borrow Excavation	190972	Cu. Yd.

Additional Cl A Excavation, County Road Bal. Sta. 21+48 to 39+00, utilized in lieu of Class A Borrow material. Quantity included in Excavation Total for Balance.

Deduct Cl A Borrow	7568	Cu. Yd.
Total Final Cl A Borrow	183404	Cu. Yd.

TEMP. CROSSOVER
STA. 217+20
(1-8"x75' Groups B Piles)
TOT. N=92 C.Y.
COMP. EMB.=516 C.Y.
OUTER ROAD #2
OUTER ROAD #1
℄ BRIDGE, 71A
℄ SBL
℄ NBL
1065.27
1066.25
1066.32
1066.33
1066.73
1066.23
1064.96
1064.03
1063.11
1062.17
1061.24
1060.31
1059.38
1058.45
1057.52
1056.59
1055.66
1054.73
1053.80
1052.87
1051.94
1051.01
1050.08
1049.15
1048.22
1047.29
1046.36
1045.43
1044.50
1043.57
1042.64
1041.71
1040.78
1039.85
1038.92
1037.99
1037.06
1036.13
1035.20
1034.27
1033.34
1032.41
1031.48
1030.55
1029.62
1028.69
1027.76
1026.83
1025.90
1024.97
1024.04
1023.11
1022.18
1021.25
1020.32
1019.39
1018.46
1017.53
1016.60
1015.67
1014.74
1013.81
1012.88
1011.95
1011.02
1010.09
1009.16
1008.23
1007.30
1006.37
1005.44
1004.51
1003.58
1002.65
1001.72
1000.79
999.86
998.93
998.00
997.07
996.14
995.21
994.28
993.35
992.42
991.49
990.56
989.63
988.70
987.77
986.84
985.91
984.98
984.05
983.12
982.19
981.26
980.33
979.40
978.47
977.54
976.61
975.68
974.75
973.82
972.89
971.96
971.03
970.10
969.17
968.24
967.31
966.38
965.45
964.52
963.59
962.66
961.73
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947.78
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945.00
944.07
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938.49
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935.70
934.77
933.84
932.91
931.98
931.05
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927.33
926.40
925.47
924.54
923.61
922.68
921.75
920.82
919.89
918.96
918.03
917.10
916.17
915.24
914.31
913.38
912.45
911.52
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909.66
908.73
907.80
906.87
905.94
905.01
904.08
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896.64
895.71
894.78
893.85
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891.99
891.06
890.13
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883.62
882.69
881.76
880.83
879.90
878.97
878.04
877.11
876.18
875.25
874.32
873.39
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869.67
868.74
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865.95
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856.65
855.72
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853.86
852.93
852.00
851.07
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807.36
806.43
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804.57
803.64
802.71
801.78
800.85
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798.06
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788.76
787.83
786.90
785.97
785.04
784.11
783.18
782.25
781.32
780.39
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778.53
777.60
776.67
775.74
774.81
773.88
772.95
772.02
771.09
770.16
769.23
768.30
767.37
766.44
765.51
764.58
763.65
762.72
761.79
760.86
759.93
759.00
758.07
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753.42
752.49
751.56
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749.70
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FINAL PLANS

STATE	JOB NO.	J7P0474	SHT. NO.
DIST NO. 7	PROJECT NO.	ACNH-71-2(50)	33
	COUNTY	JASPER	ROUTE NO. 71

HIGHWAY SIGNING

Ground Mounted Signs

REV JAN 1, 88

FINAL PLANS

STATE	JOB NO. J7P0474	SHEET NO. 34
DIST NO. 7	PROJECT NO. ACNH-71-2(50)	TOTAL SHEETS 71
MO	COUNTY JASPER	

SIGNS					PIPE POST *TOTAL INCLUDES STUB LENGTH WHEN APPLICABLE						STRUCTURAL STEEL POSTS *TOTAL INCLUDES STUB LENGTH WHEN APPLICABLE							ASSEMBLY CROSS-BARS 2" X 3/8" BARS @ 2.55 LBS PER LIN FT				TOTAL STRUCT STEEL POST ITEM NO. 903-12.10 POUNDS	TOTAL PIPE POST ITEM NO. 903-12.20 POUNDS	CONC FTG'S EMBD ITEM NO. 903-10.10 CU YDS	CONC FTG'S BOLT DOWN ITEM NO. 903-10.20 CU YDS	BRKAWY ASM MULTI DIR'L ITEM NO. 903-12.40 EACH	HORIZ CLEAR IF NOT STD	DELINEATORS, MILEPOSTS, CONDUIT, CONDUCTOR CABLE, TRENCHING AND BACKFILLING, CONTROL STATION, PULL BOXES AND OTHER REQUIRED ITEMS
SIGN NO.	STATION	SIGN DT'L SHT NO.	LOCATION	SIGN SIZE	PIPE SIZE IN.	POST NO. 1 LIN FT	POST NO. 2 LIN FT	TOTAL* LIN FT	LBS PER FT	TOTAL LBS	POST DES NO.	POST NO. 1 LIN FT	POST NO. 2 LIN FT	POST NO. 3 LIN FT	TOTAL* LIN FT	LBS PER FT	TOTAL LBS	NO. EACH	LGTH IN.	TOTAL LIN FT	TOTAL LBS						
1	142+20	36	Rt. Rte. 71 Alt. (S.B.L.)	16'-0"x6'-0"							3	19.1	21.5		45.6	18.0	820.8					821		1.42		2	30'	
1b	152+50	37	Rt. Rte. 71 Alt. (SBL)	18'-0"x16'-0"							5	29.25	30.75	32.25	101.25	26.0	2632.5					2632		3.93		3	30'	
2	177+00	36	Rt. Rte. 71 Alt. (S.B.L.)	16'-0"x7'-0"							3	18.2	18.3		41.5	18.0	747.0					747		1.42		2	30'	DELINEATORS (STD. 903.03)
3	231+50	36	Lt. Rte. 71 Alt. (N.B.L.)	16'-0"x6'-0"							3	11.3	11.2		27.5	18.0	495.0					495		1.42		2	30'	
4	214+25	37	Lt. Rte. 71 Alt. (N.B.L.)	16'-0"x7'-0"							3	17.0	17.5		39.5	18.0	711.0					711		1.42		2	24'	
5	14+00	37	Rt. Cedar Rd.	10'-0"x4'-0"							1	13.1	14.4		31.5	9.0	283.5					284		0.27		2	14'	LOCATION / YELLOW / WHITE / WHITE ELONGATED
6	28+00	37	Lt. Cedar Rd.	10'-0"x4'-0"							1	13.5	15.3		32.8	9.0	295.2					295		0.27		2	14'	
7	0+00		Rt. Ramp #2	48"x60"							1	14.1	14.9		33.0	9.0	297.0					297		0.27		2	22'	Rte.71 Alt. S.B.L. / — / 9' / —
8	3+24		Lt. Ramp #2	72"x60"							1	11.7	12.3		28.0	9.0	252.0					252		0.27		2	14'	Rte.71 Alt. N.B.L. / — / 9' / —
9	10+00		Rt. Ramp #2	48"x24"	2.5	10.0	10.8	27.3	5.79	158.1													158	0.20		2	14'	Ramp 1 / 3' / 15' / 5'
10	11+00		Lt. Ramp #2	48"x30"	2.5	10.9	11.7	29.2	5.79	169.1													169	0.20		2	28'	Ramp 2 / 3' / 16' / 4'
11	13+00		Lt. Ramp #2	Assembly	3	11.3		15.6	7.58	118.2								4	42	14	35.7	36	118	0.13		1	48'	Ramp 3 / 3' / 16' / 4'
12	13+40		Lt. Ramp #2	Assembly	3	10.6		14.9	7.58	112.9								4	42	14	35.7	36	113	0.13		1	22.5'	Ramp 4 / 2' / 15' / 7'
13	13+45		Rt. Ramp #2	Assembly	3	12.1		16.4	7.58	124.3													124	0.13		1	27.5'	
14	221+70		Rt. Rte. 71 Alt. (S.B.L.)	Assembly	2.5	10.8		14.1	5.79	81.6													82	0.10		1	24'	TOTALS / 11' / 80' / 20'
15	229+00		Rt. Rte. 71 Alt. (S.B.L.)	48"x60"	3	11.0	10.5	30.1	7.58	228.2													228	0.26		2	30'	
16	12+80		Lt. Ramp #3	48"x60"							1	13.5	13.9		31.4	9.0	282.6					283		0.27		2	22'	
17	9+96		Rt. Ramp #3	72"x60"							1	12.8	12.8		29.6	9.0	266.4					266		0.27		2	24'	
18	4+00		Lt. Ramp #3	48"x24"	2.5	10.1	10.8	27.5	5.79	159.2													159	0.20		2	14'	
19	2+70		Rt. Ramp #3	48"x30"	2.5	11.2	12.0	29.8	5.79	172.5													173	0.20		2	28'	
20	0+80		Rt. Ramp #3	Assembly	3	11.5		15.6	7.58	119.8								4	42	14	35.7	36	120	0.13		1	49.4'	
21	0+37		Rt. Ramp #3	Assembly	3	10.7		15.0	7.58	113.7								4	42	14	35.7	36	114	0.13		1	22.5'	
22	0+38		Lt. Ramp #3	Assembly	3	11.9		16.2	7.58	122.8													123	0.13		1	26'	
23	171+50		Lt. Rte. 71 Alt. (N.B.L.)	Assembly	2.5	10.5		13.8	5.79	79.9													80	0.10		1	24'	
24	158+00		Rt. Rte. 71 Alt. (N.B.L.)	48"x60"	3	12.1	12.5	33.2	7.58	251.7													252	0.26		2	30'	
25	175+50		Rt. O.R. #2	Assembly	4	16.5		21.6	10.79	235.2													235	0.47		1	12'	
26	188+30		Rt. O.R. #2	36"x36"	2.5	12.4		15.7	5.79	90.9													91	0.10		1	14'	
27	198+30		Rt. O.R. #2	36"x36"	2.5	10.0		13.3	5.79	77.0													77	0.10		1	14'	
28	0+68		Lt. O.R. #4	36"x36"	2.5	8.4		11.7	5.79	67.7													68	0.10		1	19'	
29	0+82		Lt. O.R. #4	Assembly	3	11.2		15.5	7.58	117.5													117	0.13		1	14'	
30	10+80		Lt. O.R. #4	36"x36"	2.5	10.8		14.1	5.79	81.6													82	0.10		1	14'	
31	20+90		Lt. O.R. #4	Assembly	4	12.9		18.2	10.79	196.4													196	0.47		1	16'	
32	12+00		Lt. O.R. #3	Assembly	4	13.2		18.5	10.79	199.6													200	0.47		1	6'	
32b	10+00		Lt. O.R. #3	36"x36"	2.5	12.0		15.3	5.79	88.6													89	0.10		1	14'	
33	0+50		Lt. O.R. #3	36"x36"	2.5	10.9		14.2	5.79	82.2													82	0.10		1	14'	
34	196+76		Rt. O.R. #1	36"x36"	2.5	8.7		12.0	5.79	69.5													69	0.10		1	18'	
35	196+63		Rt. O.R. #1	Assembly	3	10.5		14.8	7.58	112.2													112	0.13		1	14'	
36	187+50		Rt. O.R. #1	36"x36"	2.5	12.5		15.8	5.79	91.5													91	0.10		1	11'	
37	178+50		Lt. O.R. #1	30"x30"	2.5	10.9		14.2	5.79	82.2													82	0.10		1	10'	
38	175+25		Rt. O.R. #1	Assembly	4	13.5		18.8	10.79	202.9													203	0.47		1	16'	
39	0+00		Rt. Cedar Rd.	30"x30"	2.5	9.5		12.8	5.79	74.1													74	0.10		1	15'	
40	4+50		Rt. Cedar Rd.	Assembly	2.5	10.4		13.7	5.79	79.3													79	0.10		1	22'	
41	7+50		Rt. Cedar Rd.	Assembly							1	13.2			15.2	9.0	136.8	6	50	25.0	63.8	201		0.14		1	12'	
42	10+50		Rt. Cedar Rd.	6'-0"x5'-0"							1	15.1	13.2		32.3	9.0	290.7					291		0.27		2	18'	
43	14+00		Lt. Cedar Rd.	6'-0"x5'-0"							1	13.5	14.4		31.9	9.0	287.1					287		0.27		2	14'	
44	15+25		Lt. Cedar Rd.	48"x24"	2.5	10.3	10.9	27.8	5.79	161.0													161	0.20		2	14'	
45	15+25		Rt. Cedar Rd.	Assembly	3	13.3		17.6	7.58	133.4													133	0.13		1	19'	
46	17+50	38	Lt. Cedar Rd.	9'-0"x7'-0"							1	15.5	17.9		37.4	9.0	336.6					337		0.27		2	18'	
47	18+00		Rt. Cedar Rd.	Assembly	3	12.0		16.3	7.58	123.6													124	0.13		1	14'	
48	22+00		Lt. Cedar Rd.	Assembly	3	13.0		17.3	7.58	131.1													131	0.13		1	14'	
49	22+50	38	Rt. Cedar Rd.	8'-0"x6'-0"							1	15.0	16.9		35.9	9.0	323.1					323		0.27		2	18'	
50	24+30		Lt. Cedar Rd.	Assembly	3	12.7		17.0	7.58	128.9													129	0.13		1	21.5'	
51	26+00		Rt. Cedar Rd.	6'-0"x5'-0"							1	14.1	15.5		33.6	9.0	302.4					302		0.27		2	14'	
52	29+00		Lt. Cedar Rd.	6'-0"x5'-0"							1	13.6	14.5		32.1	9.0	288.9					289		0.27		2	12'	
53	32+00		Lt. Cedar Rd.	Assembly							1	13.5			15.5	9.0	139.5	6.0	50	25.0	63.8	204		0.14		1	12'	
54	35+00		Lt. Cedar Rd.	Assembly	2.5	12.1		15.4	5.79	89.2													89	0.10		1	12'	
55	41+00		Lt. Cedar Rd.	30"x30"	2.5	10.9		14.2	5.79	82.2													82	0.10		1	15'	
56	150+00	38	Lt. Rte. 71 Alt. (N.B.L.)	11'-0"x4'-0"							1	14.5	16.4		34.9	9.0	314.1					314		0.27		2	30'	
																						TOTALS	9780	4810	19.9	0	84	

REV APR. 1, 1992

FINAL PLANS

STATE	JOB NO.	J7P0474	SHEET NO.
MO			35
DIST NO. 7	PROJECT NO. ACNH-71-2(50)		STATE ALTERNATE 71
	COUNTY	JASPER	

STANDARD SIGN ASSEMBLIES

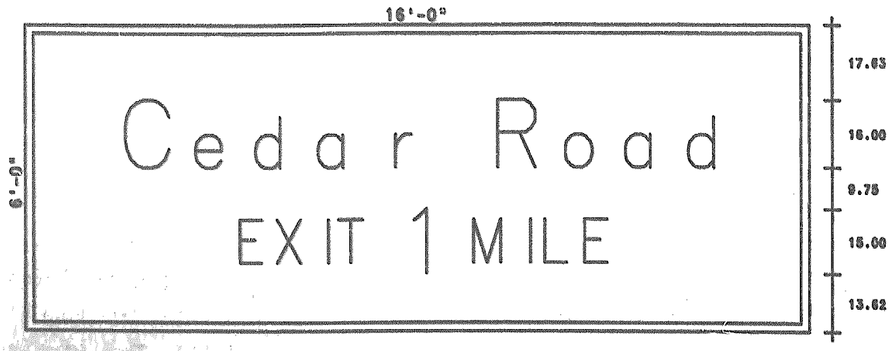
SIGN NUMBER	STATION	LOCATION	TYPE SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24	SHB24
			SIGN DESCRIPTION, SIZES & NUMBER OF EACH: 71 24"×24"	24"×36"	48"	STOP 30"	NORTH 24"×12"	SOUTH 24"×12"	21"×15"	21"×15"	21"×15"	21"×15"	21"×15"	48"×16"	48"×16"	30"×30"	30"×30"	30"×30"	24"×24"	24"×24"	36"×36"	
11	13+00	Lt. Ramp 2		1										1	1							
12	13+40	Lt. Ramp 2		1		1								1	1							
13	13+45	Rt. Ramp 2		1	1																	
14	221+70	Alt. 71 S.B.L. Rt.	1					1														
20	0+80	Rt. Ramp 3		1										1	1							
21	0+37	Rt. Ramp 3		1		1								1	1							
22	0+35	Lt. Ramp 3		1	1																	
23	171+50	Alt. 71 N.B.L. Lt.	1				1															
25	175+50	RT. O.R. #2														1				1		
26	188+30	RT. O.R. #2																		1		
27	198+30	RT. O.R. #2				1																
28	0+68	LT. O.R. #4				1																
29	0+82	LT. O.R. #4		1	1																	
30	10+80	LT. O.R. #4																		1		
31	20+90	LT. O.R. #4															1			1		
32	18+00	LT. O.R. #3														1				1		
33	0+50	LT. O.R. #3				1																
34	196+76	RT. O.R. #1				1																
35	196+63	RT. O.R. #1		1	1																	
36	187+50	RT. O.R. #1																1		1		
37	178+50	LT. O.R. #1															1					
38	173+25	RT. O.R. #1														1		1				
39	0+00	Cedar Road Rt.														1						
40	4+50	Cedar Road Rt.	1									1										
41	7+50	Cedar Road Rt.	2				1	1		1		1										
45	15+25	Cedar Road Rt.	1				1			1												
47	18+00	Cedar Road Rt.	1					1			1											
48	22+00	Cedar Road Lt.	1				1				1											
50	24+30	Cedar Road Lt.	1					1		1												
53	32+00	Cedar Road Lt.	2				1	1		1		1										
54	35+00	Cedar Road Lt.	1									1										
55	41+00	Cedar Road Lt.														1						
32b	10+00	LT. O.R. #3																		1		

SIGN SUMMARY

STANDARD SIGN OR SPECIAL SIGN NUMBER	SIGN DETAIL SHEET NO.	NO. EACH	SIZE, TYPE & SQUARE FEET: SIZE	STR24 ITEM NO. 903-50.02	STR2L-4 ITEM NO. 903-50.03	SHR2L-1 ITEM NO. 903-50.04	SHR1L-3 ITEM NO. 903-50.05	SHR1L-2 OR SHR1L-4 ITEM NO. 903-50.06	SHB24 ITEM NO. 903-50.07	36" STOP EACH
1 Cedar Road EXIT 1 MILE		1	16'-0" x 6'-0"	96						
3 Cedar Road EXIT 1/2 MILE		1	16'-0" x 6'-0"	96						
2 & 4 Cedar Road		2	16'-0" x 7'-0"	224						
5 Joplin Kansas City		1	10'-0" x 4'-0"	40						
6 Kansas City Joplin		1	10'-0" x 4'-0"	40						
7 & 16 EXIT 45 M.P.H.	Std.	2	48" x 60"						40	
8 & 17 EXIT	Std.	2	72" x 60"	60						
9 & 44 MISSOURI STATE HIGHWAY PATROL SATELLITE STATION	Std.	2	48" x 24"						16	
18 MISSOURI STATE HIGHWAY PATROL SATELLITE STATION	Std.	1	48" x 24"						8	
10 & 19 WRONG WAY	Std.	2	48" x 30"						20	
11,12,13,20,21,22,29&35 DO NOT ENTER	Std.	8	30" x 30"						50	
11,12,20 & 21	Std.	4	48" x 18"						24	
11,12,20 & 21	Std.	4	48" x 18"						24	
12,21,27,28,33 & 34 STOP	Std.	6	36"							6
13,22,29 & 35 YIELD	Std.	4	48"						27.7	
14,23,40,41,45,47,48,50,53,54 71	Std.	12	24" x 24"						48	
15 & 24 SPEED LIMIT 70	Std.	2	48" x 60"						40	
25,32 & 55	Std.	3	30" x 30"						18.8	
31,38 & 39	Std.	3	30" x 30"						18.8	
37	Std.	1	30" x 30"						6.3	
26,30,32b & 36 STOP AHEAD	Std.	4	36" x 36"						36	
14,41,47,50 & 53 SOUTH	Std.	5	24" x 12"						10	
23,41,45,48 & 53 NORTH	Std.	5	24" x 12"						10	
40 & 54 JCT	Std.	2	21" x 15"						4.4	
42 EAST OUTER ROAD SOUTH NORTH	Std.	1	6'-0" x 5'-0"						30	
43 EAST OUTER ROAD NORTH SOUTH	Std.	1	6'-0" x 5'-0"						30	
51 WEST OUTER ROAD SOUTH NORTH	Std.	1	6'-0" x 5'-0"						30	
52 WEST OUTER ROAD NORTH SOUTH	Std.	1	6'-0" x 5'-0"						30	
25,31 & 32 45 M.P.H.	Std.	3	24" x 24"						12	
38 35 M.P.H.	Std.	1	24" x 24"						4	
41 & 53	Std.	2	21" x 15"						4.4	
45 & 50	Std.	2	21" x 15"						4.4	
47 & 48	Std.	2	21" x 15"						4.4	
41 & 53	Std.	2	21" x 15"						4.4	
46 71 NORTH Kansas City		1	9'-0" x 7'-0"	63						
49 71 SOUTH Joplin		1	8'-0" x 6'-0"	48						
56 Carthage 2 Kansas City 146		1	11'-0" x 4'-0"	44						
1b 44 Joplin Springfield EXIT 1 1/2 MILE		1	18'-0"x16'-0"	288						
TOTAL				999					556	6

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	38
STRIKER 7	COUNTY	JASPER	TOTAL 71A



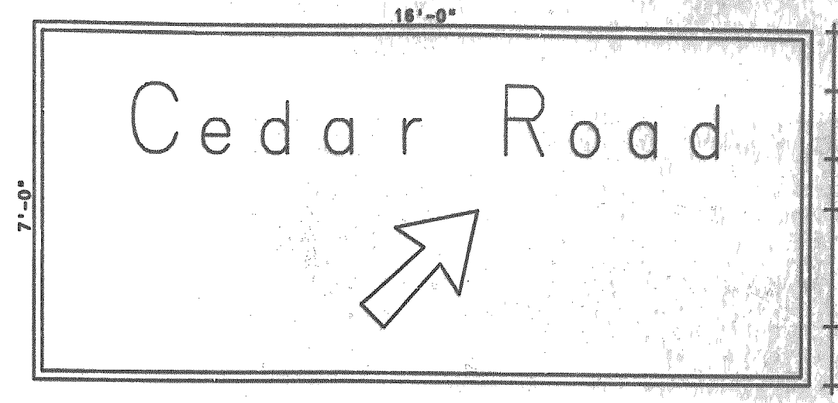
JASPER 71A 1
1"=18"

SIGN NUMBER 1 HEIGHT = 6 FT. 0 IN.
ROUTE 71A LENGTH = 16 FT. 0 IN.
STATION 14220 AREA = 93.0 SQ. FT.
COUNTY JASPER RADIUS = 9 IN.
PROJECT J7P0474 BORDER = 2 IN.
DESCRIPTION GREEN/WHITE BREAKAWAY MT.

VERTICAL SPACING		
17.63		
16.00	LINE 1	16 C R
9.75		EDAR OAD
15.00	LINE 2	16 EXIT 910 915 1 910 910 MILE
13.62		3 1 3 1

DISTRICT 07

20.86			48.11		
17.00	C	16 UC	9.45	E	10 UC
14.00	E	12 LC	10.70	X	10 UC
15.13	D	12 LC	4.07	I	10 UC
16.26	A	12 LC	7.38	T	10 UC
7.75	R	12 LC	10.00		
18.00			4.57	I	10 UC
16.86	R	16 UC	10.00		
14.00	O	12 LC	11.82	M	10 UC
15.01	A	12 LC	4.57	I	10 UC
10.25	D	12 LC	9.45	L	10 UC
20.86			7.38	E	10 UC
			48.10		



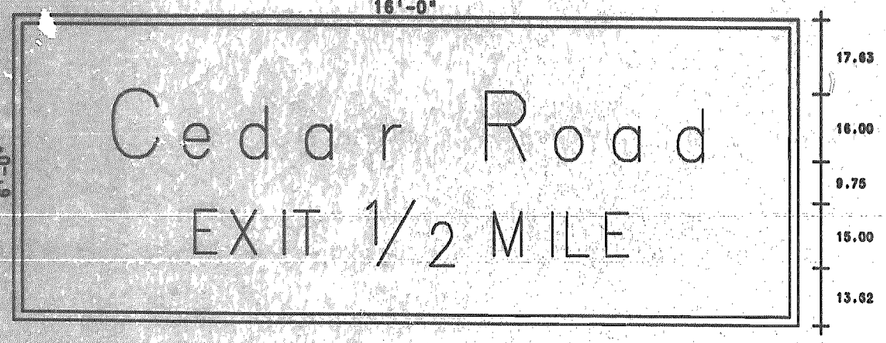
JASPER 71A 2
1"=18"

SIGN NUMBER 2 HEIGHT = 7 FT. 0 IN.
ROUTE 71A LENGTH = 16 FT. 0 IN.
STATION 17700 AREA = 108.5 SQ. FT.
COUNTY JASPER RADIUS = 9 IN.
PROJECT J7P0474 BORDER = 2 IN.
DESCRIPTION GREEN/WHITE BREAKAWAY MT.

VERTICAL SPACING		
14.00		
16.00	LINE 1	16 C R
12.00		EDAR OAD
28.00	LINE 2	16 645
14.00		6

DISTRICT 07

20.86			78.00		
17.00	C	16 UC	28.00	ARROW	45
14.00	E	12 LC	78.00		
15.13	D	12 LC			
16.26	A	12 LC			
7.75	R	12 LC			
18.00					
16.86	R	16 UC			
14.00	O	12 LC			
15.01	A	12 LC			
10.25	D	12 LC			
20.86					



JASPER 71A 03
1"=18"

SIGN NUMBER 03 HEIGHT = 6 FT. 0 IN.
ROUTE 71A LENGTH = 16 FT. 0 IN.
STATION 23150 AREA = 93.0 SQ. FT.
COUNTY JASPER RADIUS = 9 IN.
PROJECT J7P0474 BORDER = 2 IN.
DESCRIPTION GREEN/WHITE BREAKAWAY MT.

VERTICAL SPACING		
17.63		
16.00	LINE 1	16 C R
9.75		EDAR OAD
15.00	LINE 2	10 EXIT (1/2) MILE
13.62		

DISTRICT 07

20.86			40.59		
17.00	C	16 UC	9.45	E	10 UC
14.00	E	12 LC	10.70	X	10 UC
15.13	D	12 LC	4.07	I	10 UC
16.26	A	12 LC	7.38	T	10 UC
7.75	R	12 LC	10.00		
18.00			20.00	FRACT	1/ 2
16.86	R	16 UC	10.00		
14.00	O	12 LC	11.82	M	10 UC
15.01	A	12 LC	4.57	I	10 UC
10.25	D	12 LC	9.45	L	10 UC
20.86			7.38	E	10 UC
			40.59		

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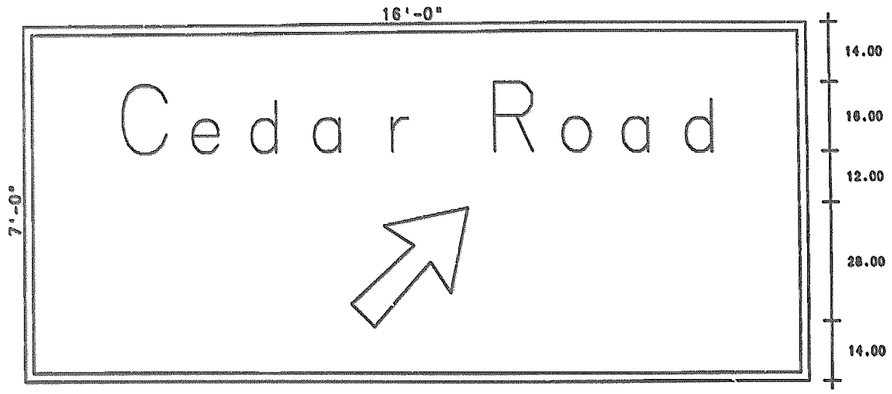
SIGN DETAIL

SHEET 1 OF 3

STATE	JOB NO	J7P0474	SHEET NO
MO			37
DISTRICT	PROJECT NO	ACNM-71-2(50)	ROUTE
7	COUNTY	JASPER	71A

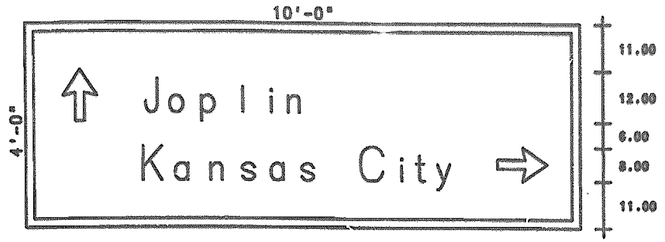
FINAL PLANS



JASPER 71A 04
1"=18"

```
SIGN NUMBER  04        HEIGHT =  7 FT.  0 IN.   .VERTICAL.        DISTRICT 07
ROUTE  71A             LENGTH = 16 FT.  0 IN.   . SPACING.
STATION  21425           AREA = 108.5 SQ. FT.   .          .
COUNTY  JASPER                  RADIUS =  9 IN. .   14.00 .
PROJECT  J7P0474                BORDER =  2 IN. .   16.00 . . LINE 1 . 16  C     R
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.          .   12.00 .                EDAR  OAD
                                                .   28.00 . . LINE 2 . 16  645
                                                .   14.00 .                6
```

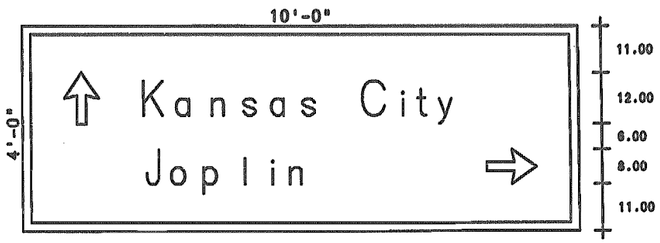
20.86			78.00		
17.00	C	16 UC	28.00	ARROW	45
14.00	E	12 LC	78.00		
10.13	D	12 LC			
10.24	A	12 LC			
7.75	R	12 LC			
10.70					
10.38	R	16 UC			
14.00	O	12 LC			
10.01	A	12 LC			
10.38	D	12 LC			
20.86					



JASPER 71A 05
1"=18"

```
SIGN NUMBER  05        HEIGHT =  4 FT.  0 IN.   .VERTICAL.        DISTRICT 07
ROUTE  71A             LENGTH = 10 FT.  0 IN.   . SPACING.
STATION  1350            AREA =  44.0 SQ. FT.   .          .
COUNTY  JASPER                  RADIUS =  6 IN. .   11.00 .
PROJECT  J7P0474                BORDER =  2 IN. .   12.00 . . LINE 1 . 08  907 690 J
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.          .    6.00 .                3   1   OPLIN
                                                .    8.00 . . LINE 2 . 08  924 K     C   9 60 906
                                                .   11.00 .                3   ANSAS  ITY 2 1  3
```

9.00			26.00		
8.00	ARROW	90	8.12	K	6 UC
9.00			8.20	A	6 LC
6.88	J	6 UC	7.38	N	6 LC
7.38	O	6 LC	6.88	S	6 LC
8.07	P	6 LC	7.38	A	6 LC
6.82	L	6 LC	5.13	S	6 LC
5.63	I	6 LC	9.00		
5.82	N	6 LC	9.01	C	6 UC
6.82		LC	3.75	I	6 LC
8.25		LC	5.63	T	6 LC
4.57		LC	6.50	Y	6 LC
4.57		LC	9.02		
3.94		LC	12.00	ARROW	0
5.13		LC	8.00		
32.12					



JASPER 71A 06
1"=18"

```
SIGN NUMBER  06        HEIGHT =  4 FT.  0 IN.   .VERTICAL.        DISTRICT 07
ROUTE  71A             LENGTH = 10 FT.  0 IN.   . SPACING.
STATION  2600            AREA =  44.0 SQ. FT.   .          .
COUNTY  JASPER                  RADIUS =  6 IN. .   11.00 .
PROJECT  J7P0474                BORDER =  2 IN. .   12.00 . . LINE 1 . 08  908 690 908 K     C
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.          .    6.00 .                3   1   1   ANSAS  ITY
                                                .    8.00 . . LINE 2 . 08  925 J         60
                                                .   11.00 .                3   OPLIN    LE 1
```

10.00			27.00		
8.00	ARROW	90	6.88	J	6 UC
9.00			7.38	O	6 LC
8.12	K	6 UC	8.07	P	6 LC
8.20	A	6 LC	6.82	L	6 LC
7.38	N	6 LC	5.63	I	6 LC
6.88	S	6 LC	5.82	N	6 LC
7.38	A	6 LC	6.82		LC
5.13	S	6 LC	8.25		LC
9.00			4.57		LC
9.01	C	6 UC	4.57		LC
3.75	I	6 LC	3.94		LC
5.63	T	6 LC	5.13		LC
6.50	Y	6 LC	9.00		
28.02			12.00	ARROW	0
			10.12		

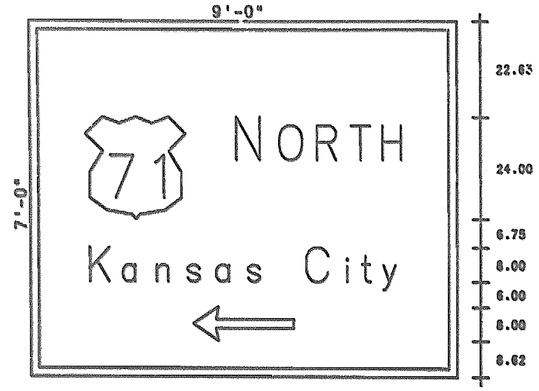



```
SIGN NUMBER  18        HEIGHT = 16 FT.  0 IN.   .VERTICAL.        DISTRICT 07
ROUTE  71A             LENGTH = 18 FT.  0 IN.   . SPACING.
STATION  15280           AREA = 288.0 SQ. FT.   .          .
COUNTY  JASPER                  RADIUS =  9 IN. .   14.00 .
PROJECT  J7P0474                BORDER =  2 IN. .   16.00 . . LINE 1 .
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.          .   12.00 .
                                                .   28.00 . . LINE 2 . 16  J
                                                .   14.00 .                OPLIN
                                                .   XX.XX . . LINE 3 . XX  S
                                                .   XX.XX .             XX  PRINGFIELD
                                                .   XX.XX . . LINE 4 . XX  EXIT 1 1/2 MILE
```

| | | | | |

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	38
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

FINAL PLANS

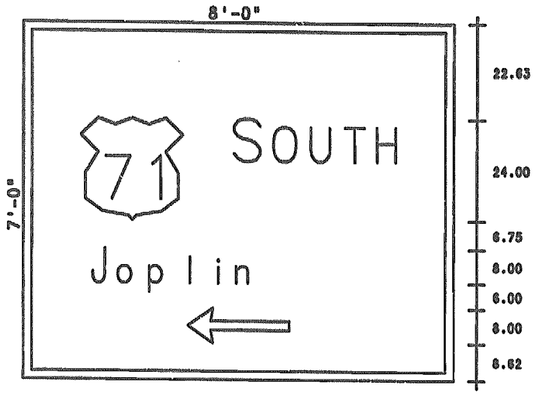


JASPER 71A 46
1"=18"

```
SIGN NUMBER  46          HEIGHT =  7 FT.  0 IN.
ROUTE  71A               LENGTH =  9 FT.  0 IN.
STATION  1750              AREA =  59.6 SQ. FT.
COUNTY  JASPER           RADIUS =  9 IN.
PROJECT  J7P0474         BORDER =  2 IN.
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.
```

```
.VERTICAL.   DISTRICT 07
. SPACING.
.                 022002000000000000000000000000
.  22.63  .
.  24.00  . . LINE 1 . 10  271 NORTH
.   6.75  .                 1   4
.   6.00  . . LINE 2 . 08  K    C
.   6.00  .                  ANSAS  ITY
.   6.00  . . LINE 3 . 08  8180
.   8.62  .                 1
```

```
 13.13          12.51          36.00
 24.00 SHIELD US71   8.12 K  8 UC  24.00 ARROW  EE180
 10.00              8.20 A  6 LC  36.00
 11.12 N   10 UC    7.38 N  6 LC
  8.68 O    8 UC    6.88 S  6 LC
  8.03 R    8 UC    7.38 A  6 LC
  7.53 T    8 UC    5.13 S  6 LC
  6.38 H    8 UC    9.00
 13.13              9.01 C  8 UC
                    3.75 I  6 LC
                    5.63 T  6 LC
                    6.50 Y  6 LC
                   12.51
```

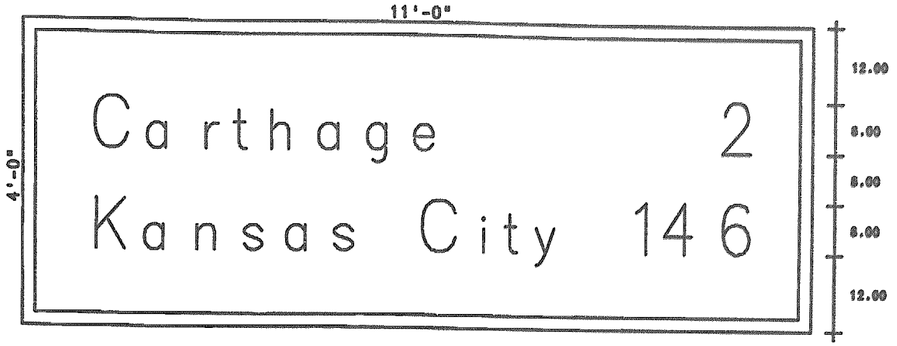


JASPER 71A 49
1"=18"

```
SIGN NUMBER  49          HEIGHT =  7 FT.  0 IN.
ROUTE  71A               LENGTH =  8 FT.  0 IN.
STATION  2250              AREA =  59.5 SQ. FT.
COUNTY  JASPER           RADIUS =  9 IN.
PROJECT  J7P0474         BORDER =  2 IN.
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.
```

```
.VERTICAL.   DISTRICT 07
. SPACING.
.                 022002000000000000000000000000
.  22.63  .
.  24.00  . . LINE 1 . 10  271 SOUTH
.   6.75  .                 1   4
.   8.00  . . LINE 2 . 08  J
.   6.00  .                  OPLIN
.   6.00  . . LINE 3 . 08  8180
.   8.62  .                 1
```

```
 13.66          14.06          36.00
 24.00 SHIELD US71   8.88 J  8 UC  24.00 ARROW  EE130
 10.00              7.38 O  6 LC  36.00
 10.06 S   10 UC    8.07 P  6 LC
  8.68 O    8 UC    6.82 L  6 LC
  8.03 U    8 UC    5.63 I  6 LC
  7.53 T    8 UC    5.82 N  6 LC
  6.38 H    8 UC    6.82    6 LC
 13.66              8.25    6 LC
                    4.57    6 LC
                    4.57    6 LC
                    3.94    6 LC
                    5.13    6 LC
                   14.06
```



JASPER 71A 56
1"=12"

```
SIGN NUMBER  56          HEIGHT =  4 FT.  0 IN.
ROUTE  71A               LENGTH =  11 FT.  0 IN.
STATION  15000             AREA =  42.0 SQ. FT.
COUNTY  JASPER           RADIUS =  6 IN.
PROJECT  J7P0474         BORDER =  2 IN.
DESCRIPTION  GREEN/WHITE BREAKAWAY MT.
```

```
.VERTICAL.   DISTRICT 07
. SPACING.
.                 022006000000000000000000000000
.  12.00  .
.   8.00  . . LINE 1 . 06  906 C      9 2 906
.   8.00  .                 3   ARTHAGE 2   3
.   8.00  . . LINE 2 . 06  906 K    C      9 146 906
.  12.00  .                 3   ANSAS  ITY 2   3
```

```
 10.00          10.00
  8.51 C    8 UC  8.12 K    8 UC
  8.20 A    6 LC  8.20 A    6 LC
  4.88 R    6 LC  7.38 N    6 LC
  6.50 Y    6 LC  6.88 S    6 LC
  7.57 H    6 LC  7.38 A    6 LC
  7.57 A    6 LC  5.13 S    6 LC
  7.57 G    6 LC  9.00
  5.13 E    6 LC  9.01 C    8 UC
 43.69          3.75 I    6 LC
  6.38 2    8 NO  5.63 T    6 LC
 10.00          6.50 Y    6 LC
                9.33
                4.28 1    8 NO
                9.03 4    8 NO
                6.38 6    8 NO
               10.00
```

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SIGN DETAIL

SHEET 3 OF 3

STATE	JOB NO	SHEET NO
MO	J7P0474	39
DISTRICT 7	PROJECT NO. ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

SCALE
1" = 10'

FINAL PLANS

231+50
NO. 31

229+00
NO. 15

152+50
NO. 12

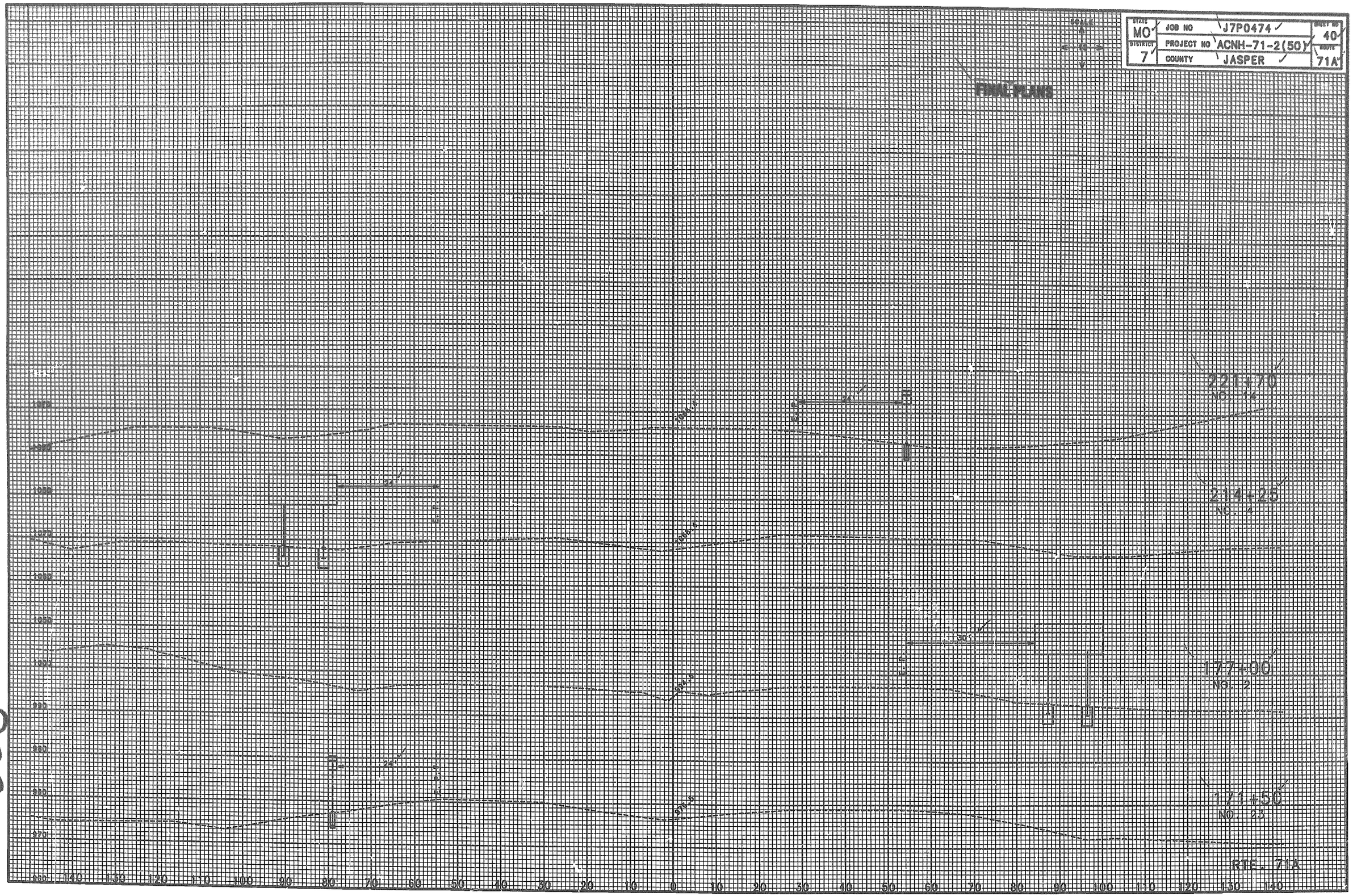
158+00
NO. 24

150+00
NO. 56

142+20
NO. 1

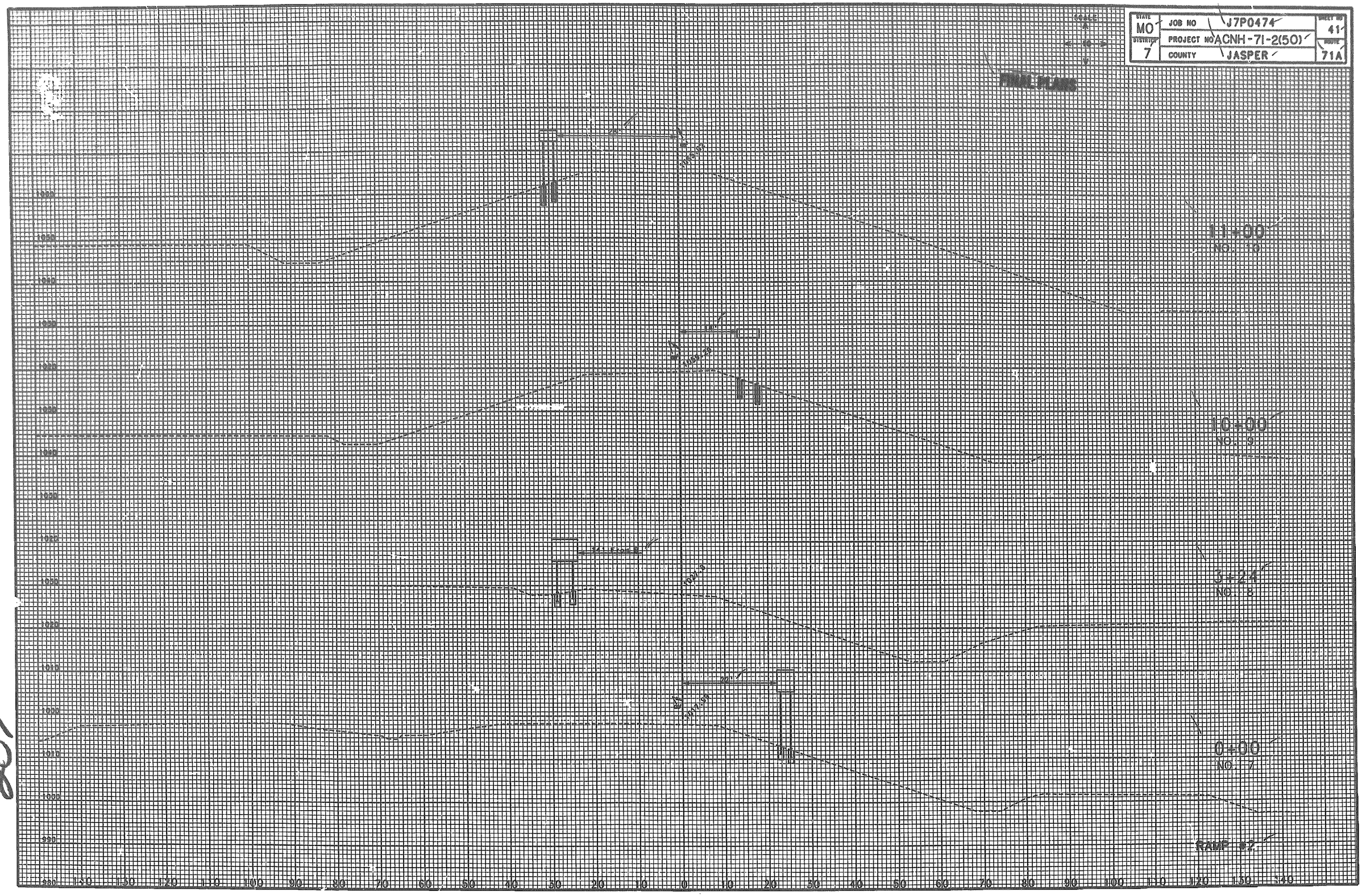
RTE. 71A

205



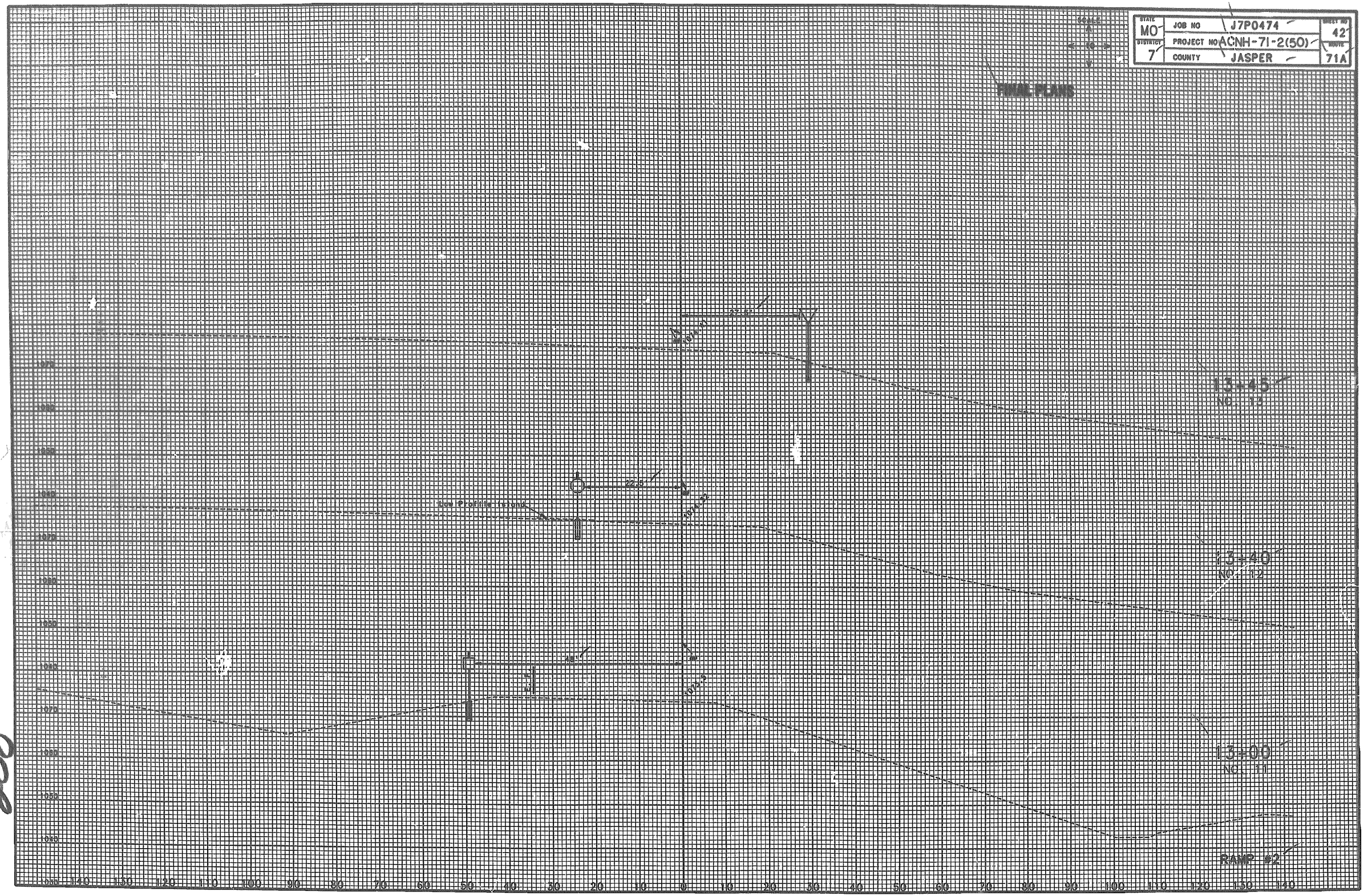
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 40
ROUTE 71A
SCALE
FINAL PLANS
221+70
NO. 14
214+25
NO. 4
177+00
NO. 2
171+50
NO. 23
RTE. 71A

206



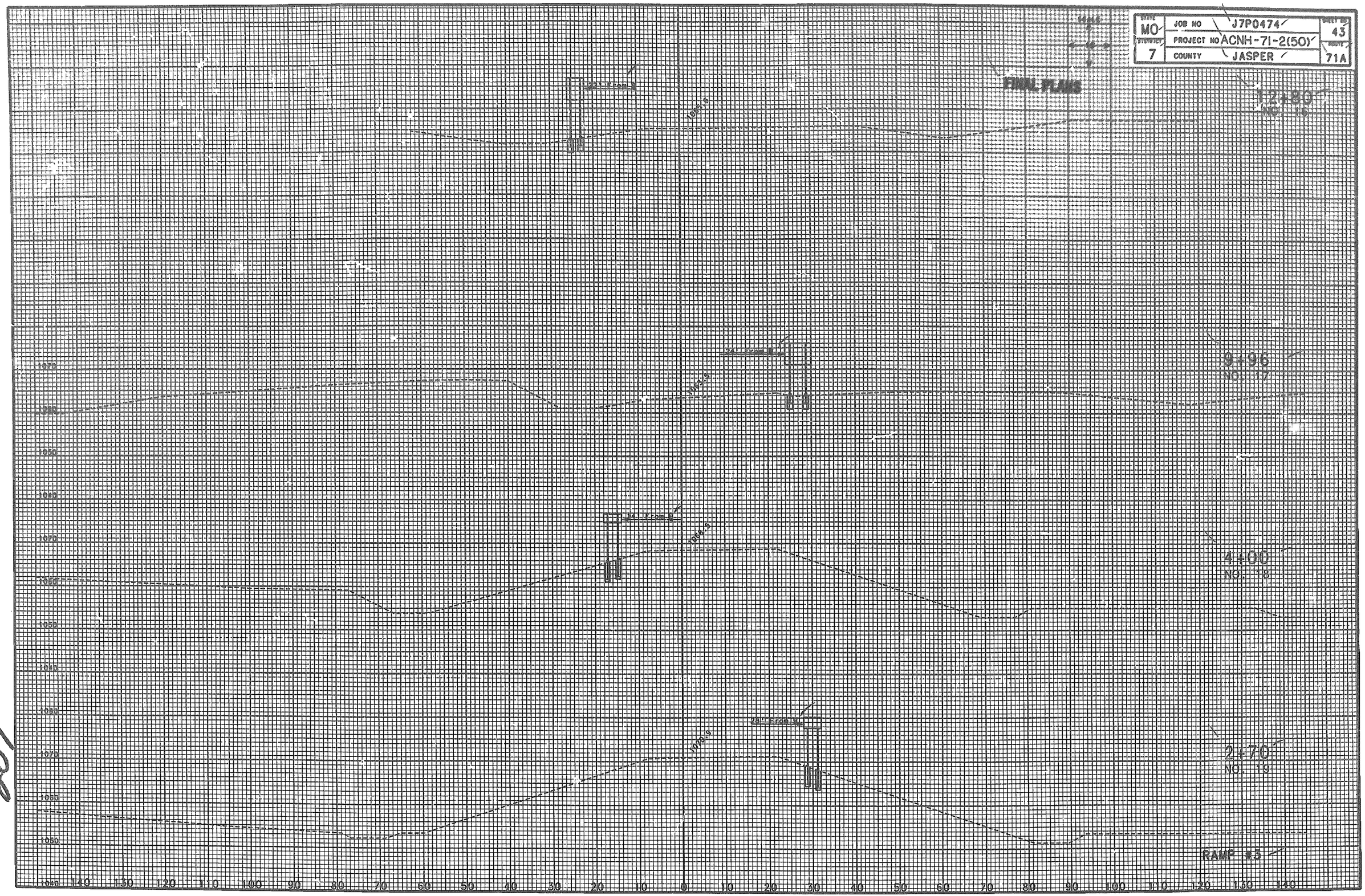
207

/u/throem/cealplotfiles/signrp2.plt Tue Sep 12 15:38:01 1995



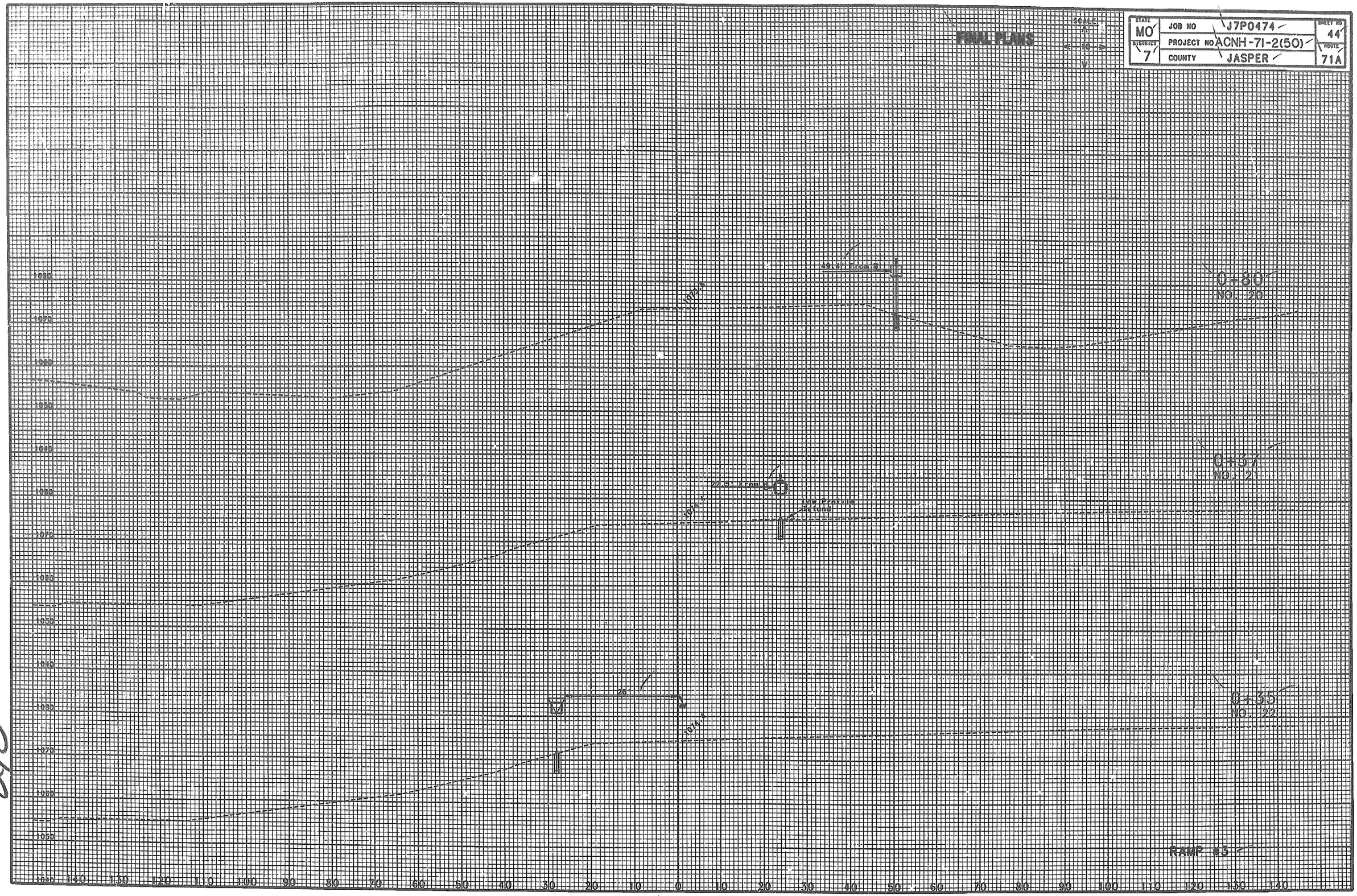
208

/u/throom/coolplotfiles/signrp2.plt Tue Sep 12 15:38:24 1995



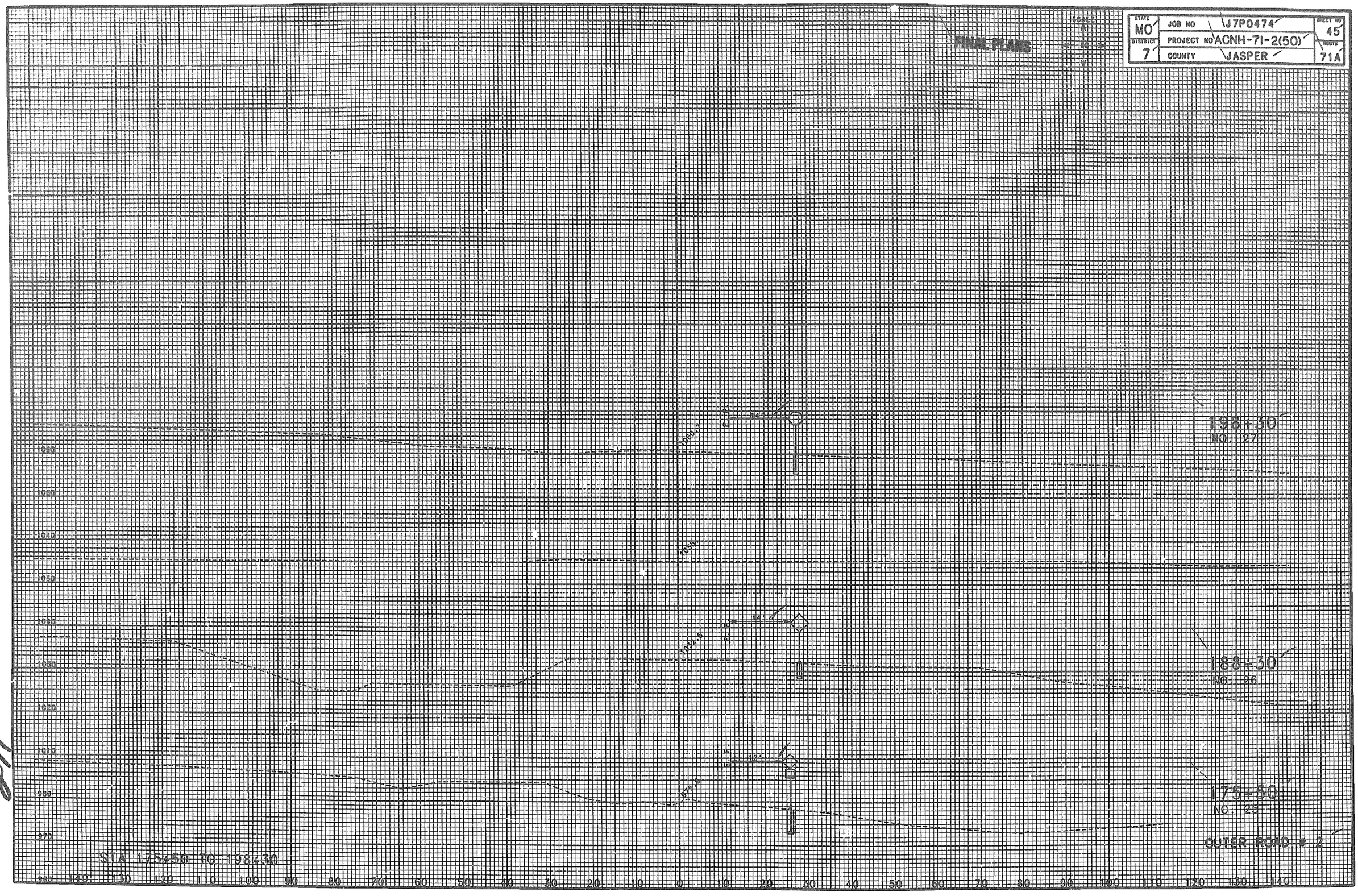
/u/throem/ceolplotfiles/maxsign.plt Wed Sep 20 10:54:37 1995

209



210

/u/throem/ceelplotfiles/maxsign.plt Wed Sep 20 10:54:15 1995



/u/throem/cealplotfiles/signor2.plt Tue Sep 12 15:36:27 1995

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FINAL PLANS

SCALE: H 1" = 10' V

STATE	JOB NO	SHEET NO
MO	J7P0474	46
DISTRICT 7	PROJECT NO ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

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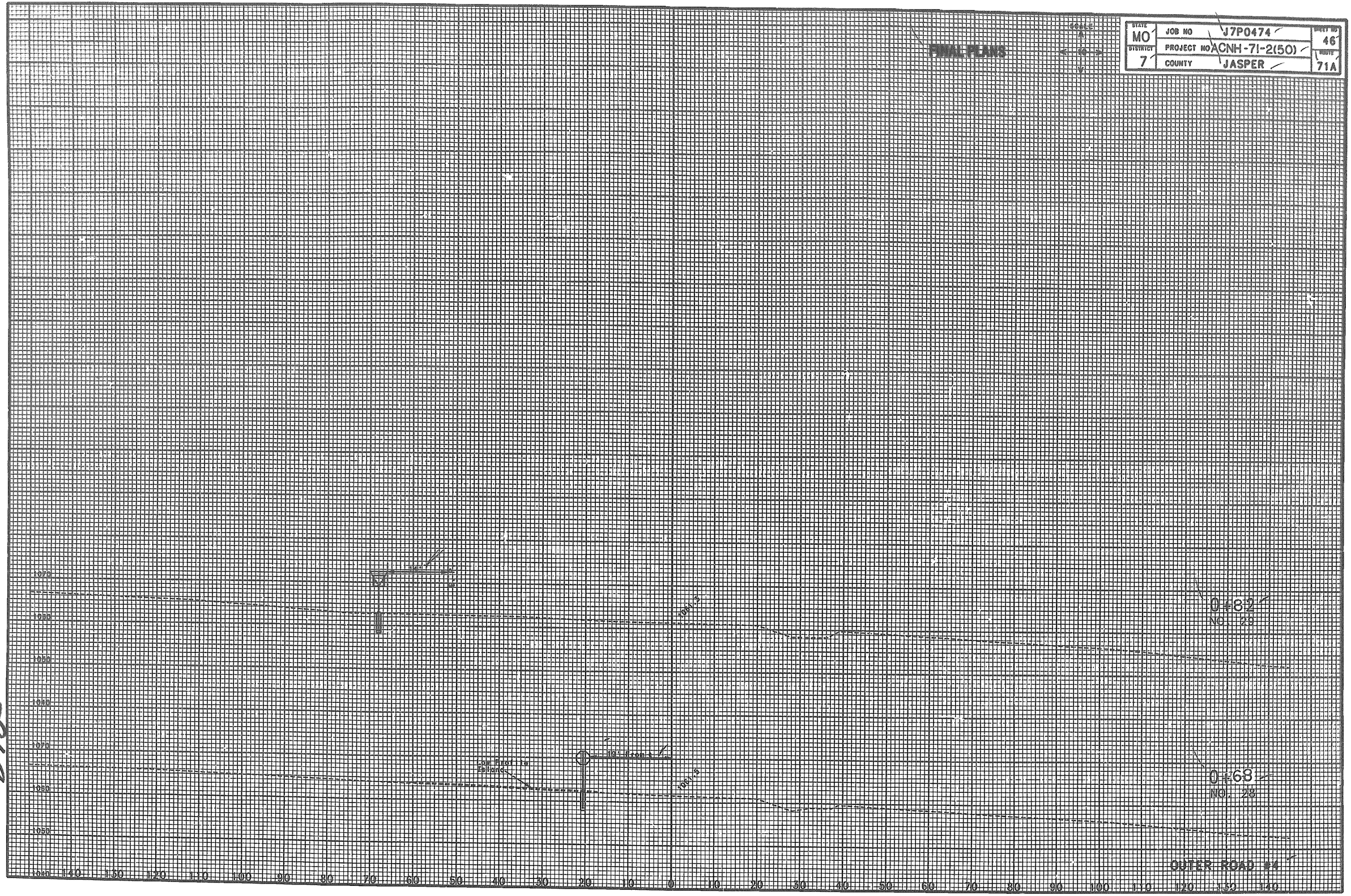
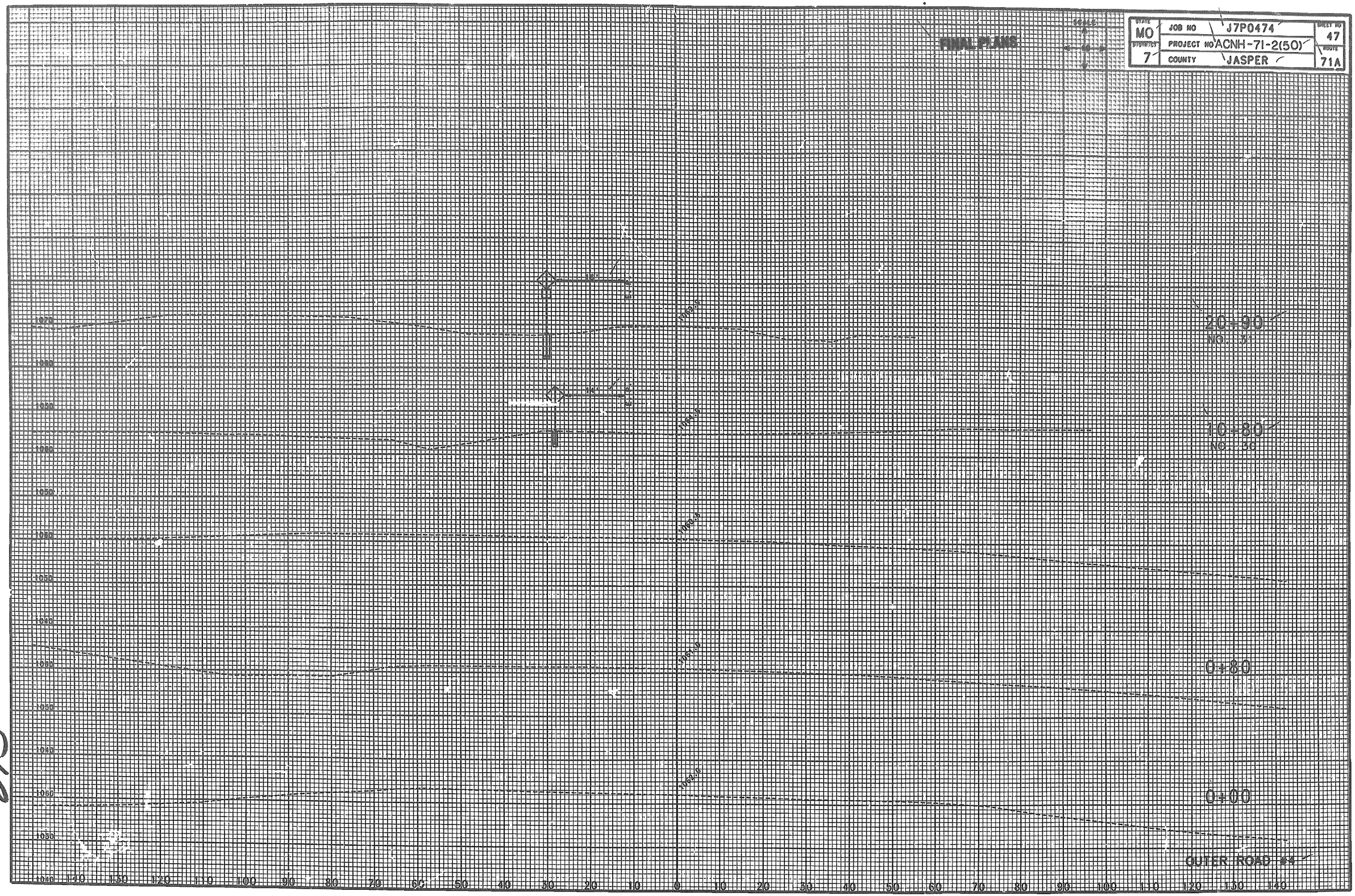
218





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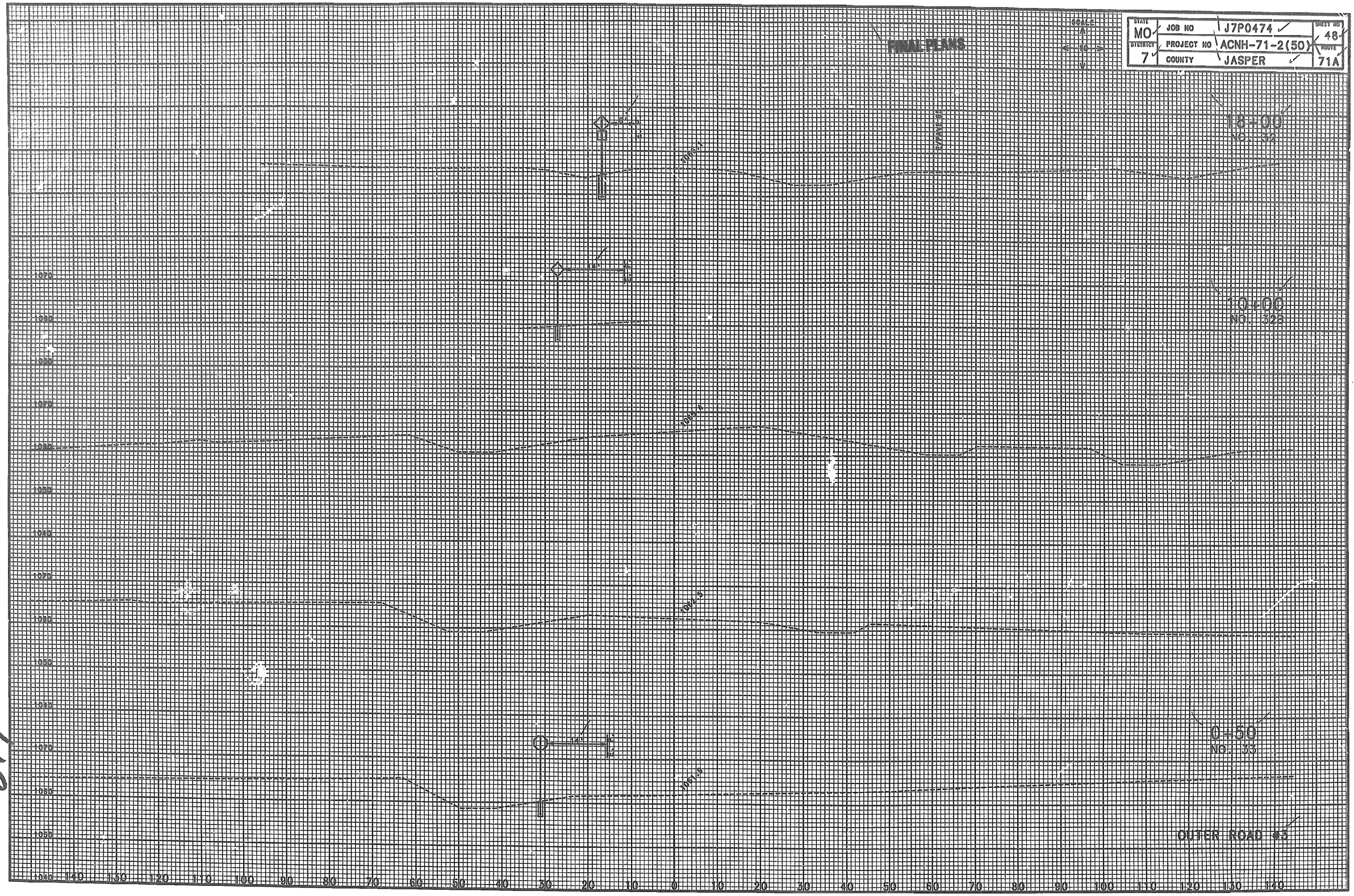
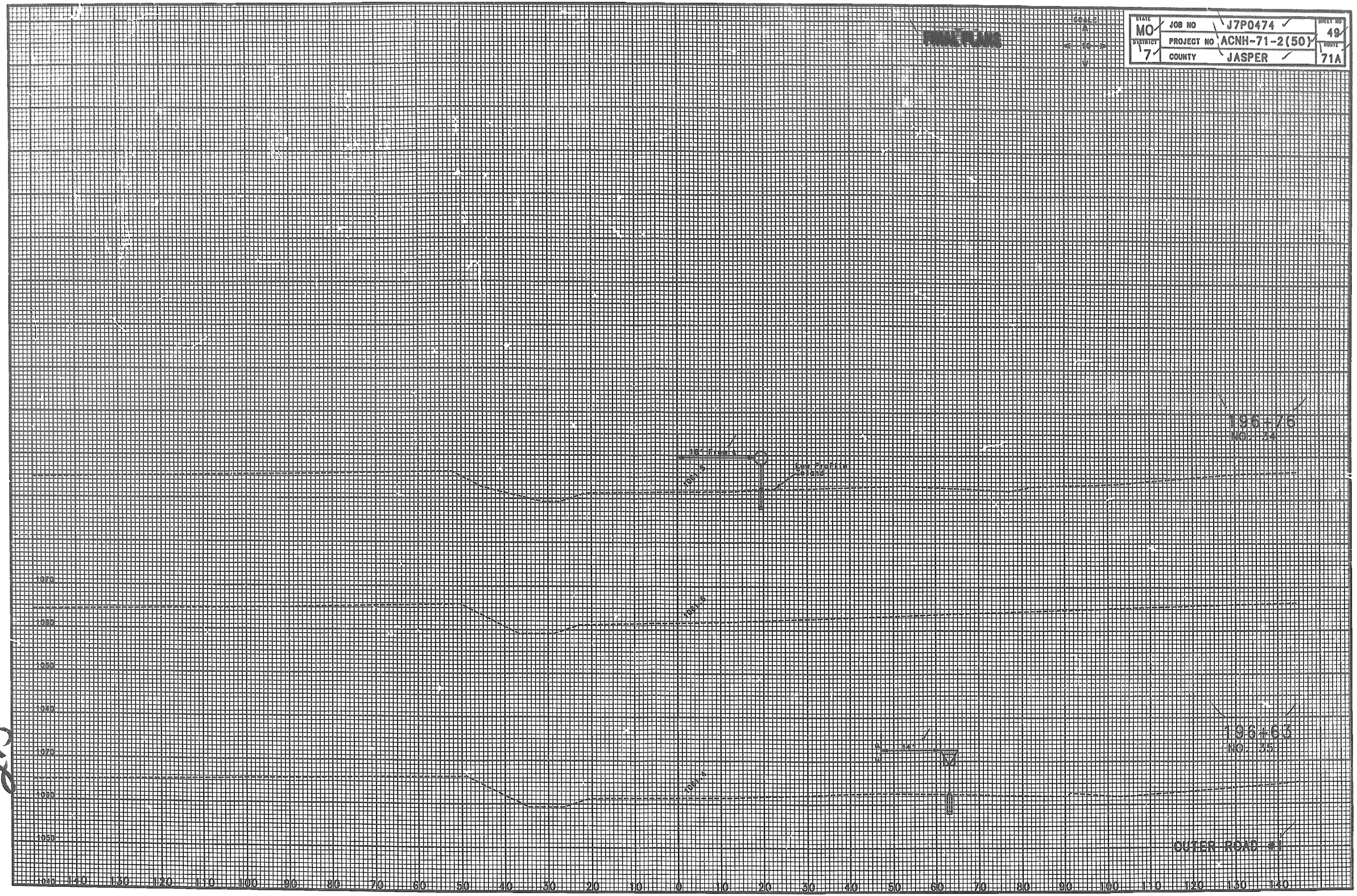
213



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 48
ROUTE 71A
FINAL PLANS
SCALE
18+00
NO. 32
10+00
NO. 32B
0+50
NO. 33
OUTER ROAD #3
1070
1060
1050
1040
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

214



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 49
ROUTE 71A
SCALE
196+76
NO. 34
196+63
NO. 35
OUTER ROAD #1
Low Profile Island
1070
1060
1050
1040
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

215

FINAL PLANS

SCALE: 1" = 10'

STATE	JOB NO	J7P0474	SHEET NO
MO			50
DISTRICT	PROJECT NO	ACNH-71-2(50)	ROUTE
7	COUNTY	JASPER	71A

196+45

187+50
NO. 36

178+50
NO. 37

175+25
NO. 38

OUTER ROAD #1

216

STATE	JOB NO	SHEET NO
MO	J7P0474	51
DISTRICT 7	PROJECT NO ACNH-71-2(50)	ROUTE 71A
	COUNTY JASPER	

FINAL PLANS

15+25
NO. 44 LT.
NO. 46 RT.

14+00
NO. 43
NO. 5 RT.

13+50

10+50

7+50
NO. 41

4+50
NO. 40

0+00
NO. 39

CEDAR ROAD

212

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	52
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

SCALE: 1" = 10'

22+00
NO. 48

18+00
NO. 47

17+50
NO. 46

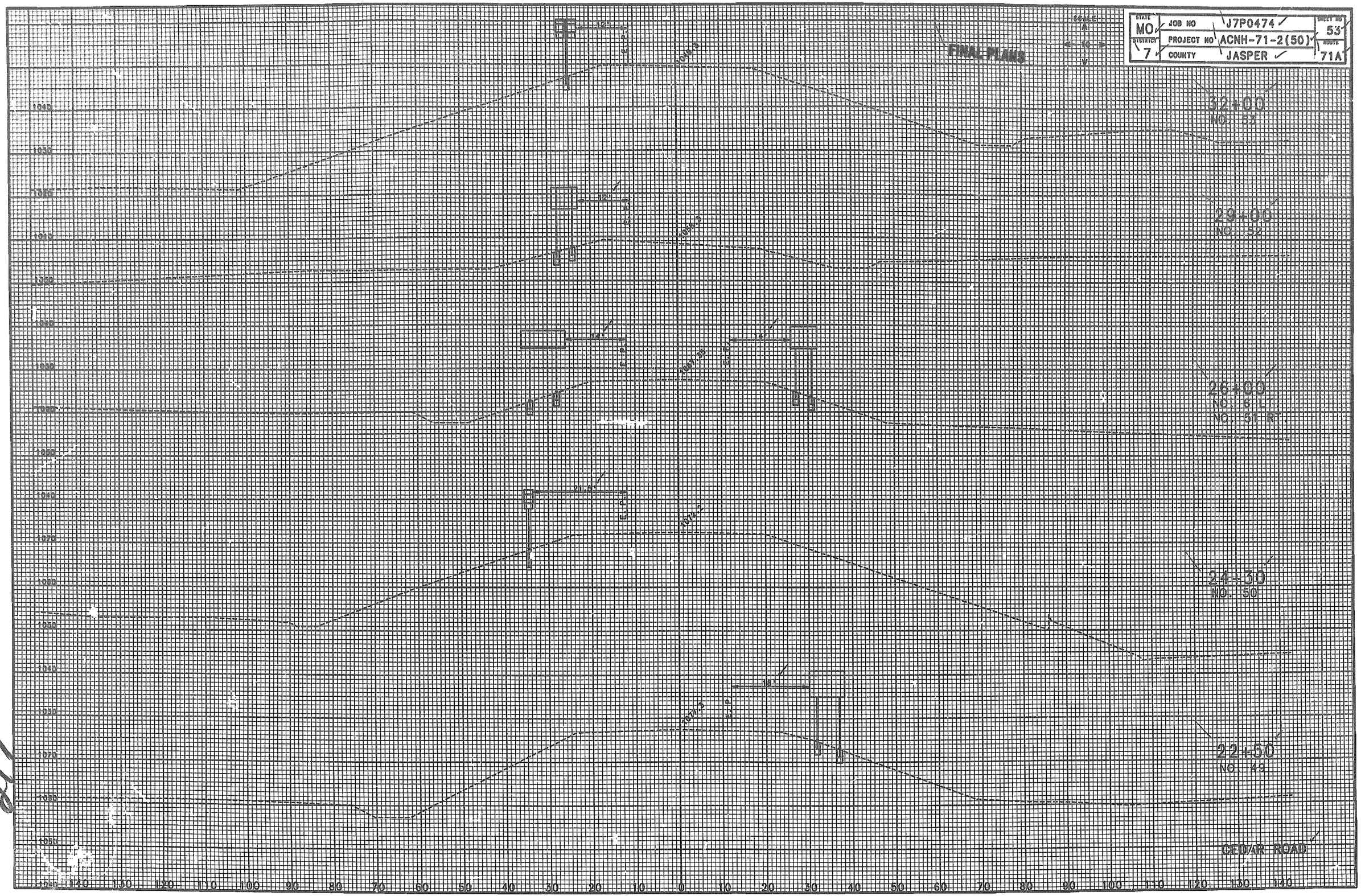
15+70

CEDAR ROAD

1070
1060
1050
1040
1030
1020
1010
1000
990
980
970
960

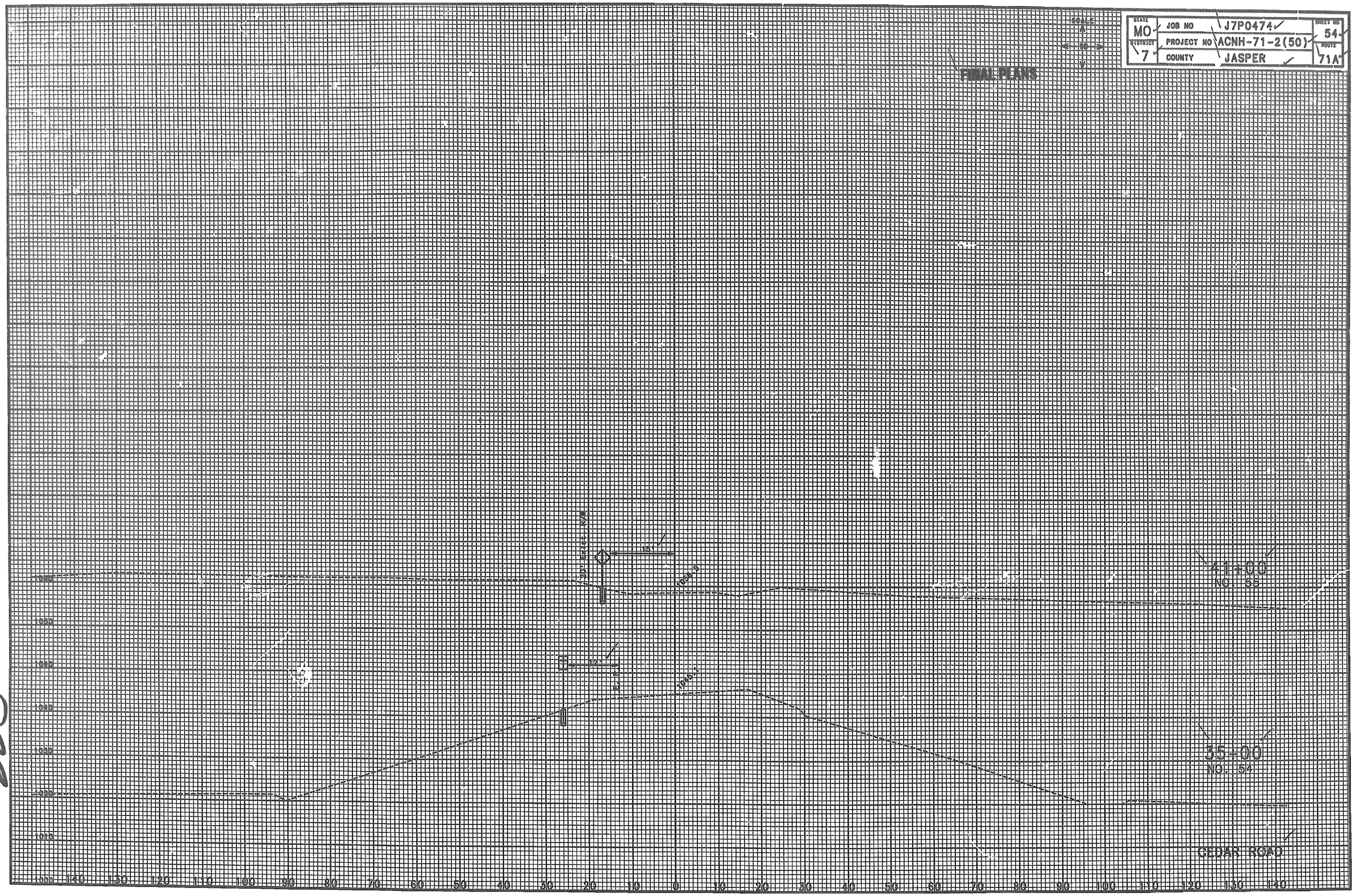
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

28



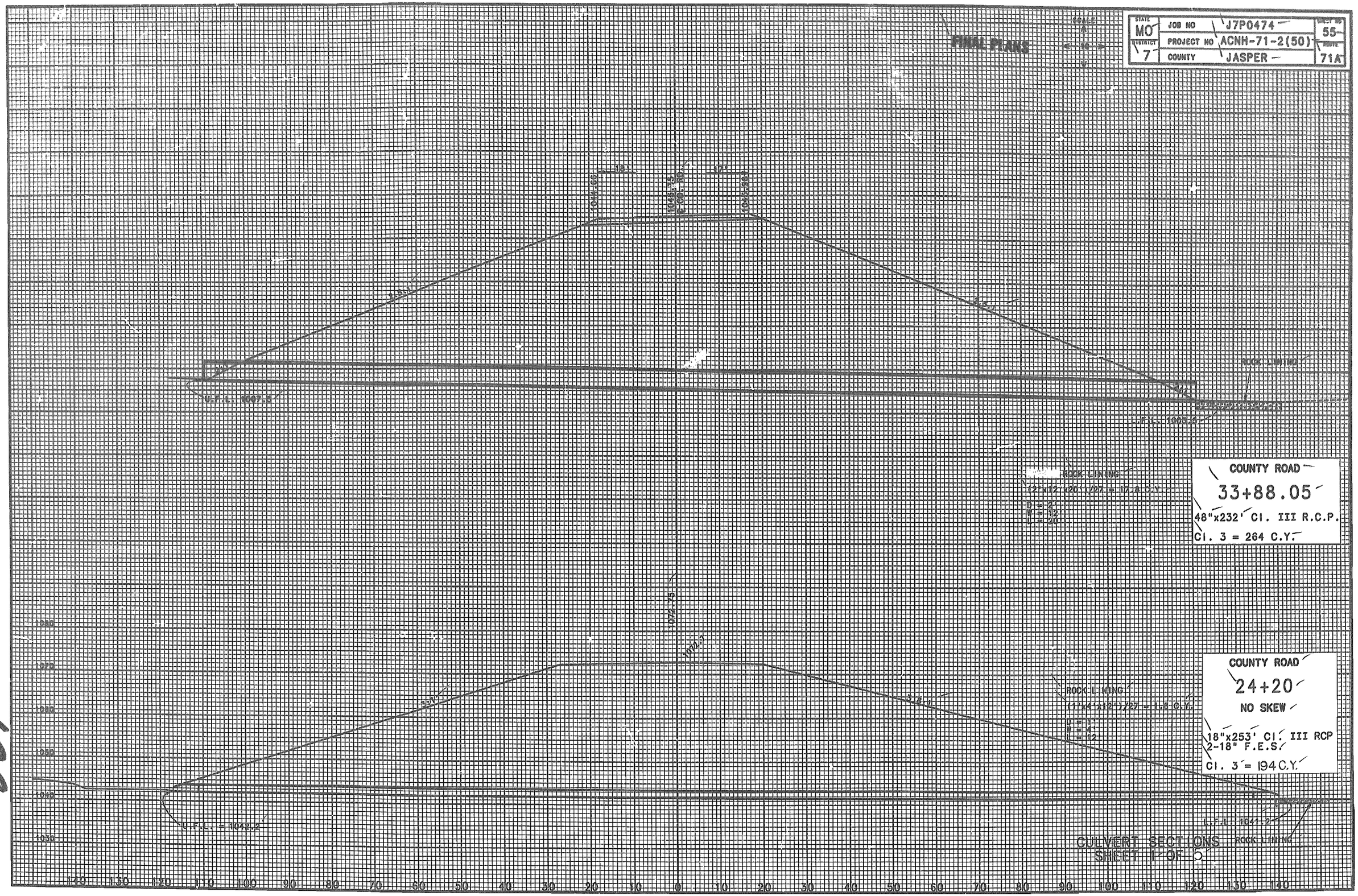
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 53
ROUTE 71A
FINAL PLANS
SCALE
32+00
NO. 53
29+00
NO. 52
26+00
NO. 6 LT.
NO. 51 RT.
24+30
NO. 50
22+50
NO. 49
CEDAR ROAD

219



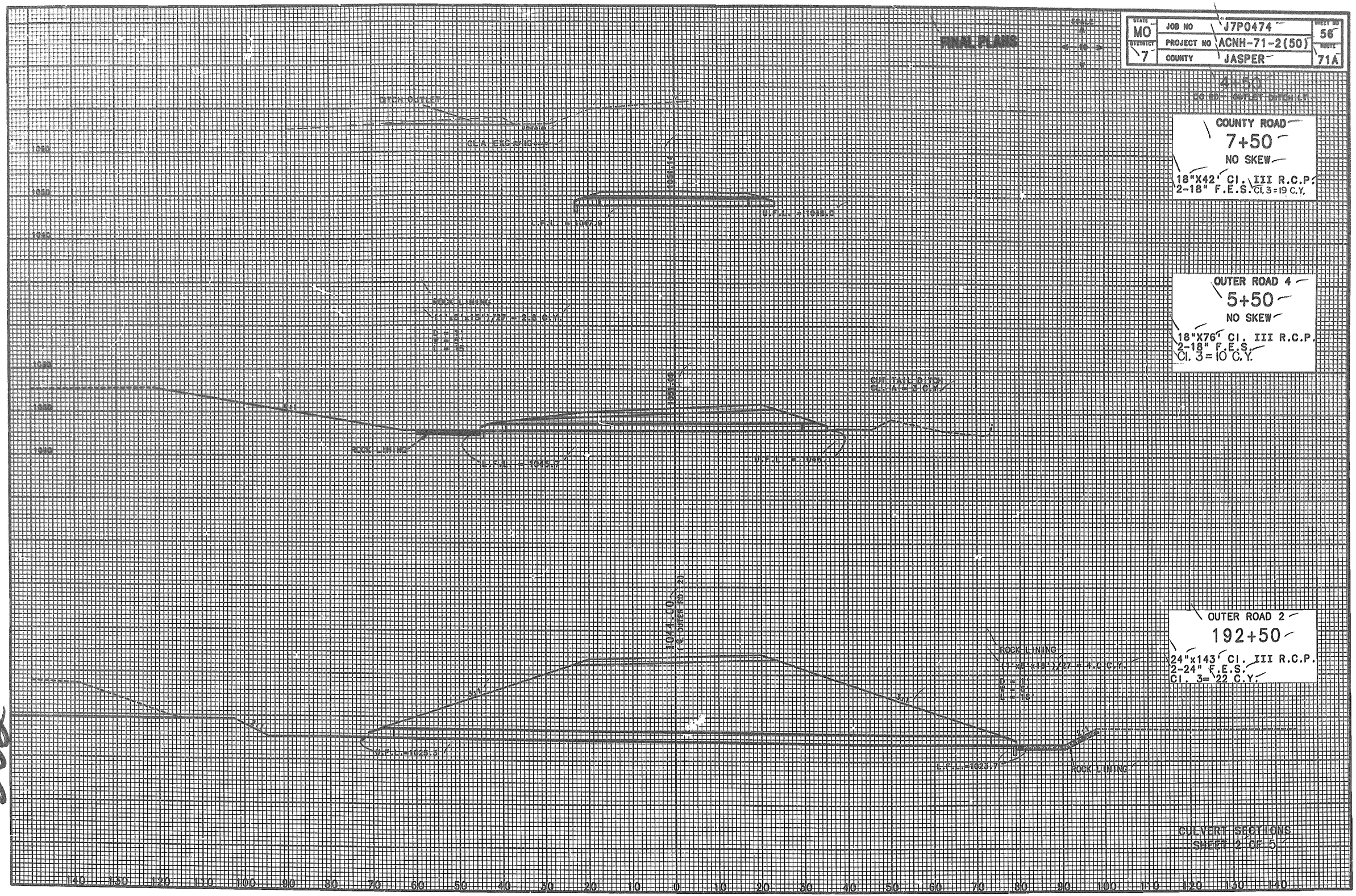
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 54
ROUTE 71A
SCALE
FINAL PLANS
20" Exist. R/W
15'
1058.5
12'
1045.1
41+00
NO. 55
35+00
NO. 54
CEDAR ROAD
140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

520



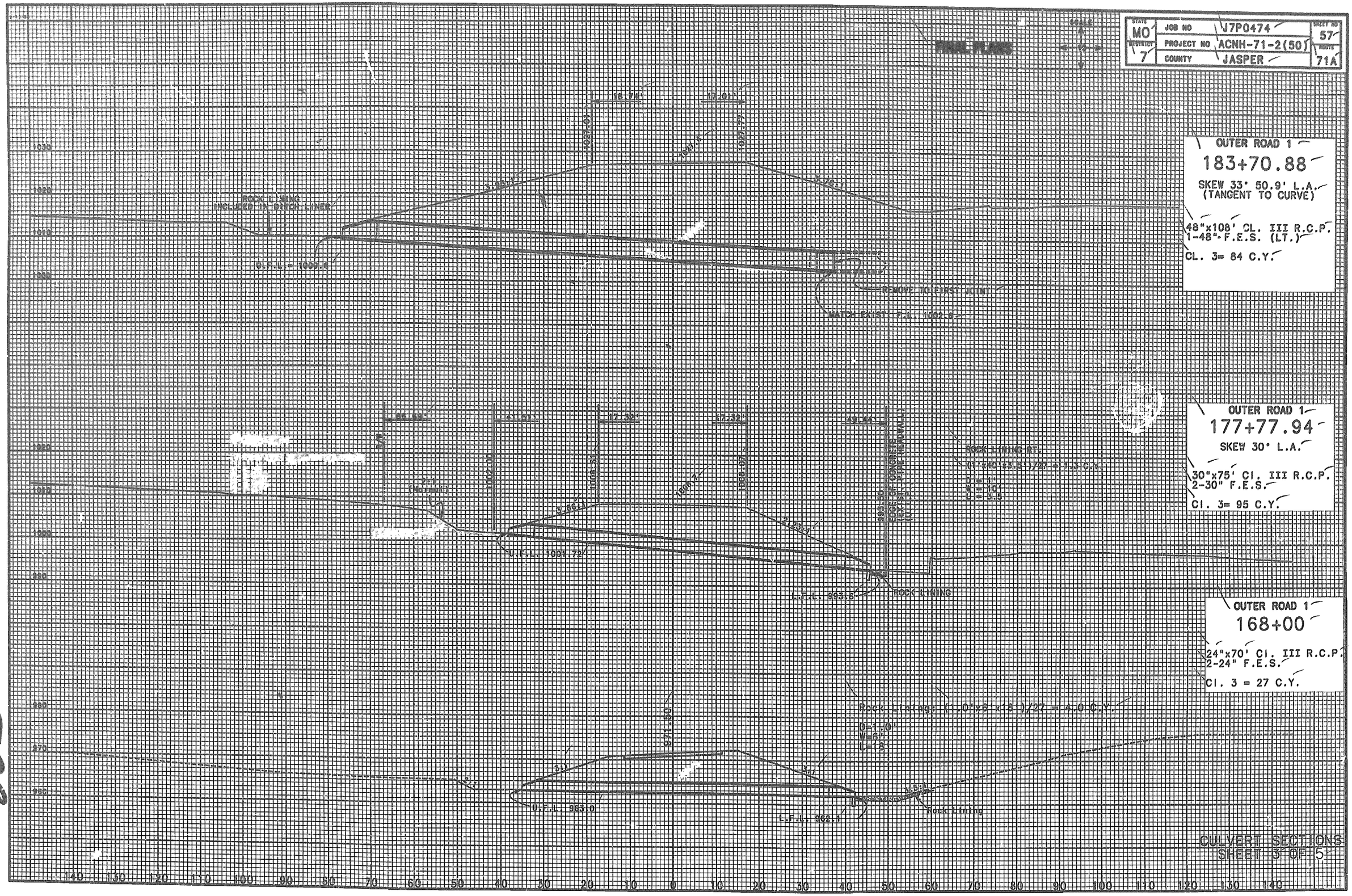
FINAL PLANS
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 55
ROUTE 71A
COUNTY ROAD
33+88.05
48"x232' Cl. III R.C.P.
Cl. 3 = 264 C.Y.
ROCK LINING
(2'x12'x20')/27 = 17.8 C.Y.
D = 2'
W = 12'
L = 20'
COUNTY ROAD
24+20
NO SKEW
18"x253' Cl. III RCP
2-18" F.E.S.
Cl. 3 = 194 C.Y.
ROCK LINING
(1'x4'x12')/27 = 1.8 C.Y.
D = 1'
W = 4'
L = 12'
U.F.L. = 1042.2
L.F.L. 1041.2
ROCK LINING
CULVERT SECTIONS
SHEET 1 OF 5

221



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 56
ROUTE 71A
FINAL PLANS
SCALE
4+50
CO RD - OUTLET DITCH LT
COUNTY ROAD
7+50
NO SKEW
18"X42' Cl. III R.C.P.
2-18" F.E.S. Cl. 3=19 C.Y.
OUTER ROAD 4
5+50
NO SKEW
18"X76' Cl. III R.C.P.
2-18" F.E.S.
Cl. 3 = 10 C.Y.
OUTER ROAD 2
192+50
24"x143' Cl. III R.C.P.
2-24" F.E.S.
Cl. 3= 22 C.Y.
DITCH OUTLET
CL A EXC 2' 10 cu yd
ROCK LINING
(1'x5'x15')/27 = 2.8 C.Y.
CUT TAIL DITCH
CL. A = 3 C.Y.
ROCK LINING
L.F.L. = 1045.7
U.F.L. = 1046
1044.00
(℄ OUTER RD. 2)
ROCK LINING
(1'x6'x18')/27 = 4.0 C.Y.
D = 1'
W = 6'
L = 18'
U.F.L.=1025.3
L.F.L.=1023.7
ROCK LINING
CULVERT SECTIONS
SHEET 2 OF 5

222



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 57
ROUTE 71A
FINAL PLANS
OUTER ROAD 1
183+70.88
SKEW 33° 50.9' L.A.
(TANGENT TO CURVE)
48"x108' CL. III R.C.P.
1-48" F.E.S. (LT.)
CL. 3= 84 C.Y.
ROCK LINING INCLUDED IN DITCH LINER
U.F.L. = 1009.6
REMOVE TO FIRST JOINT
MATCH EXIST. F.L. 1002.8
OUTER ROAD 1
177+77.94
SKEW 30° L.A.
30"x75' Cl. III R.C.P.
2-30" F.E.S.
Cl. 3= 95 C.Y.
ROCK LINING RT.
U.F.L. 1001.72
L.F.L. 993.8
ROCK LINING
OUTER ROAD 1
168+00
24"x70' Cl. III R.C.P.
2-24" F.E.S.
Cl. 3 = 27 C.Y.
Rock Lining: (1.0'x6'x18')/27 = 4.0 C.Y.
D=1.0'
W=6'
L=18'
U.F.L. 963.0
L.F.L. 962.1
Rock Lining
CULVERT SECTIONS
SHEET 3 OF 5

223

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	58
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

SCALE: 1" = 10'

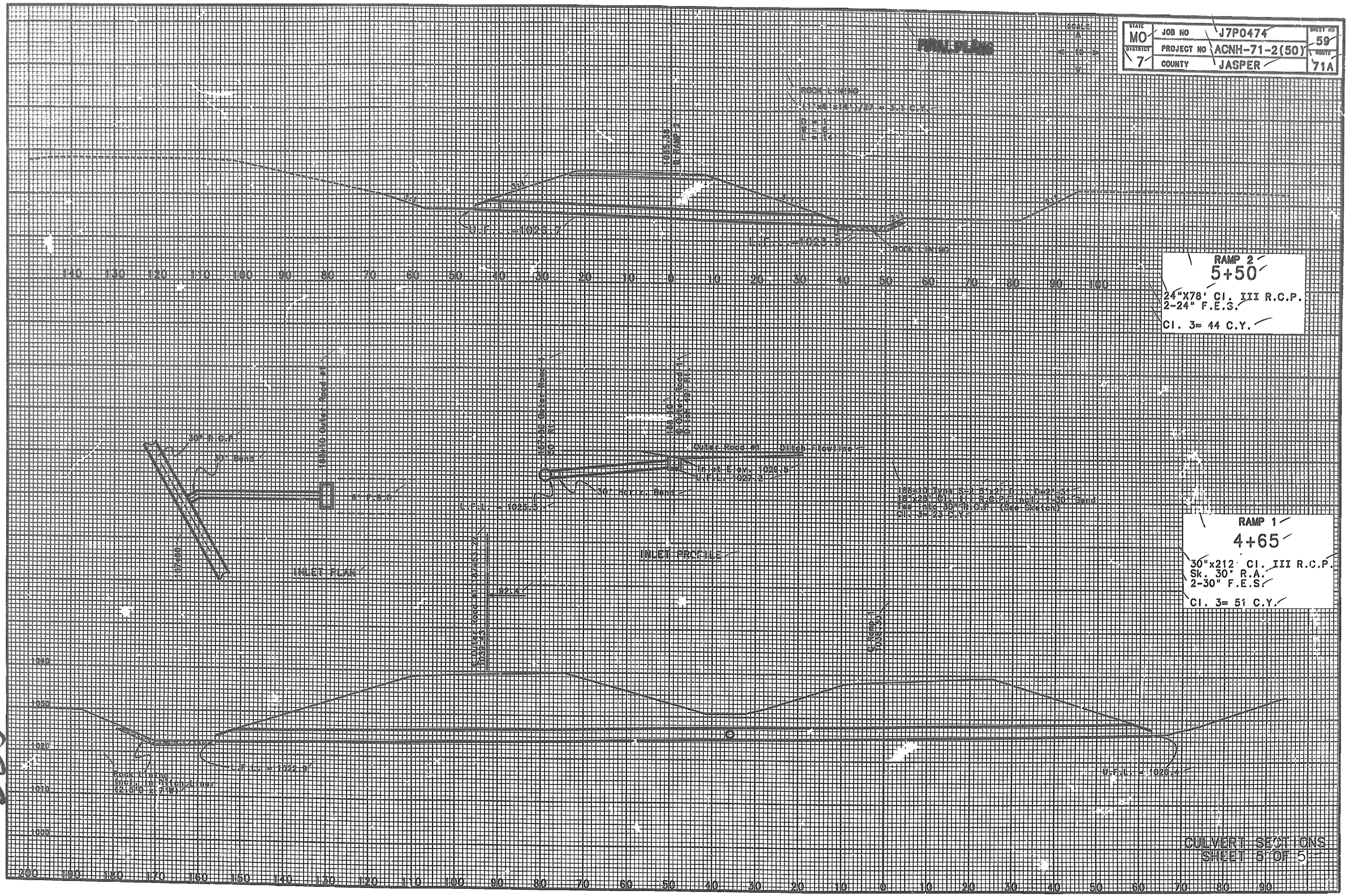
RTE. 71A
209+91.30
Exist. 30"x87' R.C.P.
Extend Rt. w/
30"x11' Cl. III R.C.P.
1-30" F.E.S.
Cl. 3 = 4 C.Y.

RTE. 71A
209+91.30
Extend Lt. w/
30"x20' Cl. III R.C.P.
1-30" F.E.S.
Cl. 3 = 8 C.Y.

RAMP 3
1+31.04
NO SKEW
24"x158' Cl. III R.C.P.
2-24" F.E.S.
Cl. 3 = 0 C.Y.

CULVERT SECTIONS
SHEET 4 OF 5

334



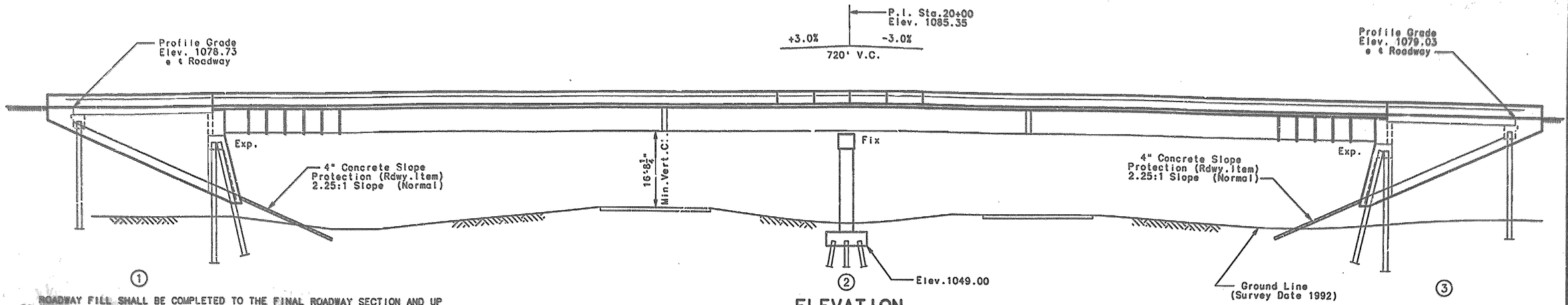
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 59
ROUTE 71A
SCALE
FINAL PLANS
ROCK LINING
U.F.L. = 1026.7
L.F.L. = 1023.9
ROCK LINING
RAMP 2
5+50
24"X78' Cl. III R.C.P.
2-24" F.E.S.
Cl. 3= 44 C.Y.
30" R.C.P.
30" Bend
Outer Road #1 Ditch Flowline
Inlet Elev. 1028.5
U.F.L. 1027.2
30" Horiz. Bend
L.F.L. = 1025.5
INLET PLAN
INLET PROFILE
92.4
RAMP 1
4+65
30"x212' Cl. III R.C.P.
Sk. 30" R.A.
2-30" F.E.S.
Cl. 3= 51 C.Y.
Rock Lining
Incl. in Ditch Liner
(2.5'D x 7'W)
L.F.L. = 1022.9
U.F.L. = 1026.4
CULVERT SECTIONS
SHEET 5 OF 5

225

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

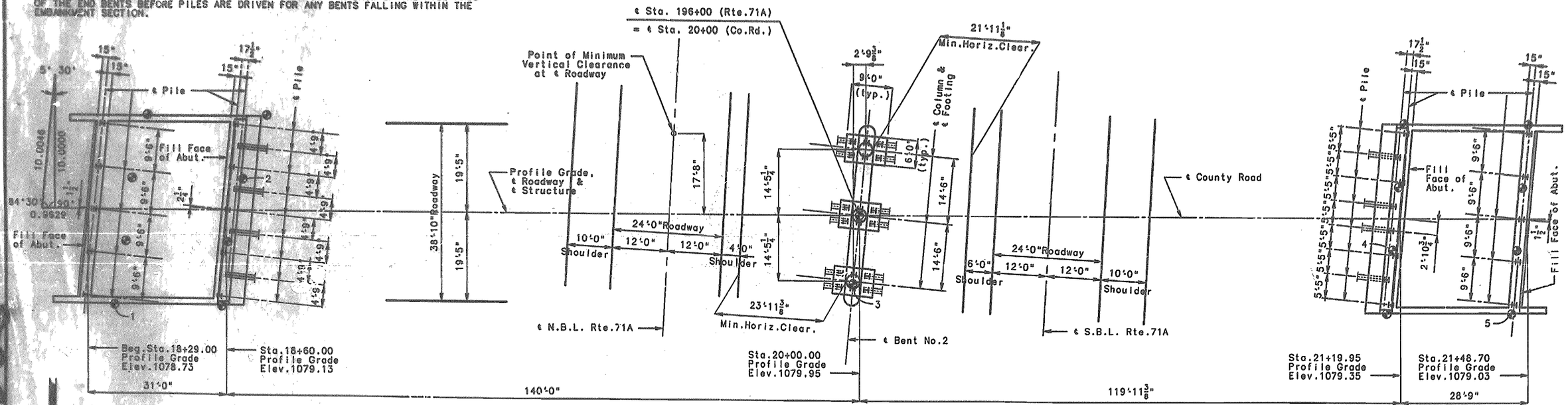
STATE	PROJ. NO.	SHEET NO.
MO.		60
SEC./SUR. 3,4 TWP. 27N RGE. 31W		

(139'-119') CONT. COMP. PLATE GIRDER SPANS



ELEVATION

ROADWAY FILL SHALL BE COMPLETED TO THE FINAL ROADWAY SECTION AND UP TO THE ELEVATION OF THE BOTTOM OF THE CONCRETE APPROACH BEAM WITHIN THE LIMITS OF THE STRUCTURE AND FOR NOT LESS THAN 25' IN BACK OF THE FILL FACE OF THE END BENTS BEFORE PILES ARE DRIVEN FOR ANY BENTS FALLING WITHIN THE EMBANKMENT SECTION.



Span (1-2)

Span (2-3)

PLAN

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA

The locations of all subsurface borings for this structure are shown on the bridge plan sheet for this structure. Boring data for the numbered locations is shown on sheet No. 3 . The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, is available from the district materials engineer upon written request as outlined in the project special provisions. No greater significance or weight should be given to the boring data depicted on the plan sheets than to subsurface data available from the district or elsewhere.

The commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the commission.

"⊕" Indicates location of Borings.

A minimum vertical clearance of 16'0" from crown of existing lanes and a minimum lateral clearance of 28'0" centered on existing lane shall be maintained during construction.

B.M.#2- "X" on Ctr.E. Hdwll. Box Culv.(SBL)
166'Rt. Sta.182+00 Elev.997.68

COUNTY ROAD OVER RTE. 71A

STATE ROAD FROM CEDAR RD. TO RTE.I-44
ABOUT 1 MILE NORTH OF ROUTE I-44
PROJECT NO. STA. 196+00
JOB NO. J7P0474 RTE. 71A
JASPER COUNTY

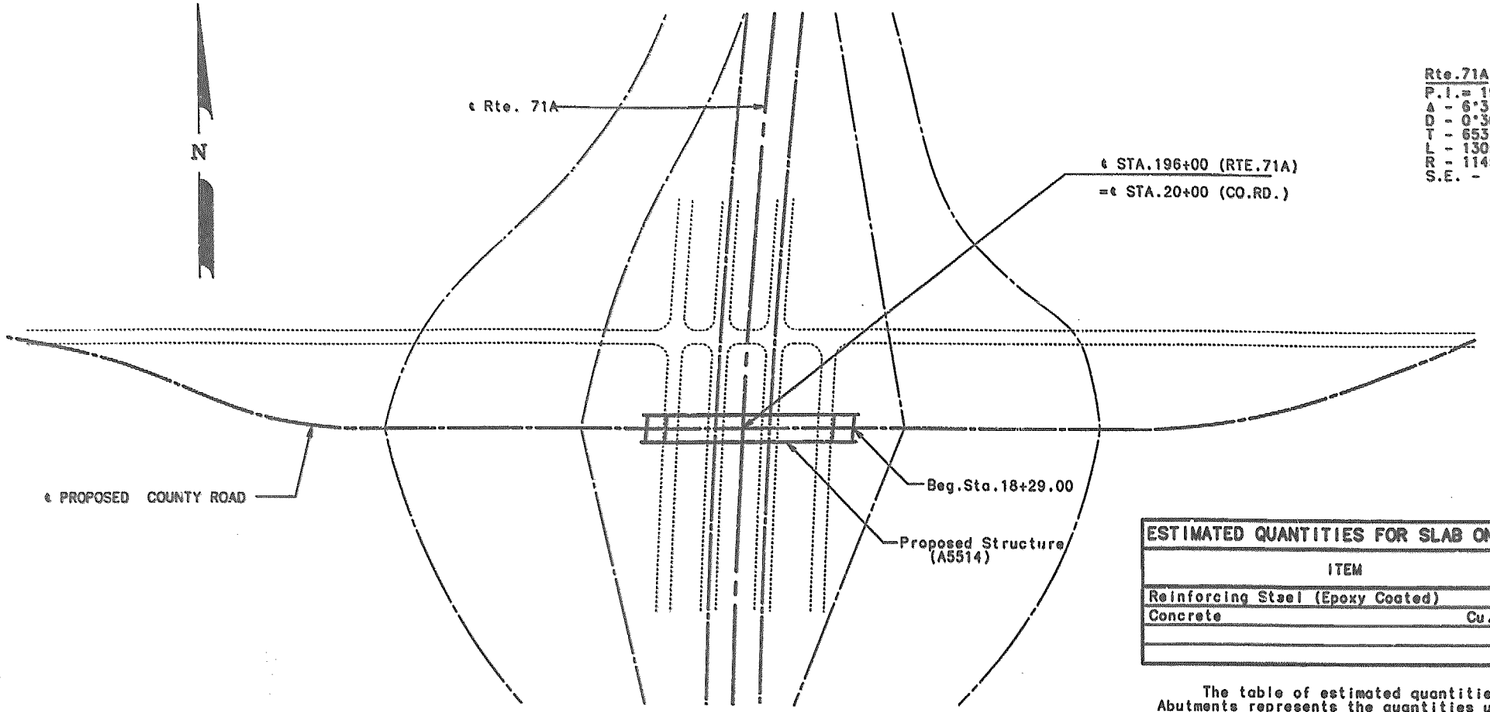
STD. 504.00	
STD. 605.10	
STD. 609.00	
STD. 611.00	
STD. 706.35	
A5514	

DATE 11/17/95

DESIGNED APRIL 1994
DETAILED SEPT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

STATE	PROJ. NO.	SHEET NO.
MO.		01



LOCATION SKETCH

Rte.71A
P.I.= 198+35.49
Δ - 6°31' 38.1"Lt.
D - 0°30'
T - 653.43'
L - 1305.45'
R - 11459.16'
S.E. - 0.0

ESTIMATED QUANTITIES				
ITEM			SUBSTR.	SUPERSTR	TOTAL
Class 1 Excavation		Cu. Yd.	165		165
Bridge Approach Slab (Bridge)		Sq. Yd.		224	224
Structural Steel Piles (12 In.)		Lin. Ft.	1,249		1,249
Pre-Bore for Piling		Lin. Ft.	480		480
Pile Point Reinforcement		Each	27		27
Class B Concrete (Substr.)		Cu. Yd.	238.4		238.4
Slab on Steel		Sq. Yd.		1197	1197
* Safety Barrier Curb		Lin. Ft.		663	663
Slab on Semi-Deep Abutment		Sq. Yd.		276	276
Laminated Neoprene Bearing Pads (Steel Structures)		Each		15	15
Preformed Compression Expansion Joint Seal (3.5 In.)		Lin. Ft.		39	39
Preformed Compression Expansion Joint Seal (4.0 In.)		Lin. Ft.		39	39
Reinforcing Steel (Bridges)		Lb.	24,280		24,280
Reinforcing Steel (Epoxy Coated)		Lb.	1,930		1,930
Fabricated Structural Carbon Steel (Plt. Gir.)		Lb.		199,850	199,850
Fabricated Structural Low Alloy Steel (Plt. Gir.) A-572		Lb.		166,520	166,520
Slab Drains		Each		22	22
Field Coat (System G) Green		Sq. Ft.		5100	5100

Note:
All concrete and reinforcing steel below top of slab and above Const. Joint under slab in Semi-Deep Abutments are included in superstructure quantities for Slab on Semi-Deep Abutment.

* Safety barrier curb shall be cast-in-place option or slip-form option.

ESTIMATED QUANTITIES FOR SLAB ON SEMI-DEEP ABUTMENTS			
ITEM		ABUTMENT NO. 1	ABUTMENT NO. 3
Reinforcing Steel (Epoxy Coated)	Lbs.	9,760	8,400
Concrete	Cu. Yds.	81.3	68.1

The table of estimated quantities for Slab on Semi-Deep Abutments represents the quantities used by the state in preparing the cost estimate for concrete abutment slabs. Variations may be encountered in these estimated quantities but these variations cannot be used for an adjustment in the contract unit price per square yard of Slab on Semi-Deep Abutments.

ESTIMATED QUANTITIES FOR SLAB ON STEEL			
ITEM		TOTAL	
REINFORCING STEEL (EPOXY COATED)	LBS.	48,080	(* *)
CONCRETE	CU. YDS.	213.2	

THE TABLE OF ESTIMATED QUANTITIES FOR SLAB ON STEEL REPRESENTS THE QUANTITIES USED BY THE STATE IN PREPARING THE COST ESTIMATE FOR CONCRETE SLABS. VARIATIONS MAY BE ENCOUNTERED IN THESE ESTIMATED QUANTITIES BUT THESE VARIATIONS CANNOT BE USED FOR AN ADJUSTMENT IN THE CONTRACT UNIT PRICE PER SQUARE YARD OF SLAB ON STEEL

SEE SPECIAL PROVISIONS FOR METHOD OF FORMING SLAB .

PRESTRESSED PANEL QUANTITIES ARE BASED ON SKEWED END PANELS.

* * DOES NOT INCLUDE REINFORCING BARS USED AS BAR SUPPORTS.

PILE DATA							
BENT NO.			App. Bm. Abut. #1	Brg. Bm. Abut. #1	Bent #2	Brg. Bm. Abut. #3	App. Bm. Abut. #3
BEARING PILES	Pile Type and Size		HP12X53	HP12X53	HP12X53	HP12X53	HP12X53
	Number		5	9	18	8	5
	Approximate length	(Ft.)	44	41	11	34	38
	Design Bearing	(Tons)	51	63	66	60	46
	Hammer Energy Req'd	(Ft.-Lbs.)	11,500	15,600	14,700	14,800	10,400

Minimum energy requirement of hammer is based on plan length and design bearing value of piles.
All piles shall be driven to practical refusal.
Pre-bore for piles at Abutment No. 1 & No. 3 to Elev.1055.00
Pre-bore for piles at Bent No. 2 to Elev.1039.00

Manufactured pile point reinforcement shall be used on all piles at Abutments No. 1 & 3. (See Special Provisions).

GENERAL NOTES:

DESIGN SPECIFICATIONS:

A.A.S.H.T.O.-1992 and Interims thru 1994
Load factor design.
Seismic performance category A

DESIGN LOADINGS:

HS20-44
Earth 120#/Cu. Ft.
Equivalent fluid pressure = 45#/Cu. Ft.
Fatigue case 2
35#/Sq. Ft. Future wearing surface

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) f'c = 3,000 PSI.
Class B1 Concrete (Safety barrier curb) f'c = 4,000 PSI.
Class B2 Concrete (Superstructure except safety barrier curb) f'c = 4,000 PSI.
Reinforcing steel (Grade 60) fy = 60,000 PSI.
Steel Pile fb = 9,000 PSI.
Structural carbon steel fy = 36,000 PSI.
Structural steel (A.S.T.M. A572) Grade 50 fy = 50,000 PSI.

FABRICATED STEEL:

Field connections for high strength bolts 3/4"Ø shall have holes 13/16"Ø, except as noted.
Fabricated structural steel shall be A36, except as noted.

JOINT FILLER:

All joint filler shall meet the requirements of standard specification 1057.2.4, except as noted.

REINFORCING STEEL:

Minimum clearance to the reinforcing steel shall be 1-1/2" unless otherwise shown.
All reinforcing bars in tops of the substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

PAINT:

Protective Coating: System G by the contractor in accordance with Special Provisions.

Prime Coat: The cost of the prime coat shall be included in the contract unit price of the Fabricated Structural Steel. Tint of the prime coat for System G shall be similar to the color of the field coat to be used.

Field Coat: The Cost of the intermediate and finish coats shall be included in the contract unit price per Sq.Ft. of Field Coat (System G) Green. See Special Provisions.

MISCELLANEOUS:

A minimum vertical clearance of 16'0" from crown of existing lanes and a minimum lateral clearance of 28'0" centered on existing lanes shall be maintained during construction.

High strength bolts, nuts and washers shall be sampled for quality in accordance with Standard Specification 106 and Field Section (FS-712) from Materials Manual.

49-227

DETAILED OCT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

STATE	PROJ. NO.	SHEET NO.
NO.		2F

STANDARD PENETRATION TEST

DEPTH (FT.)	BLOWS / 6"	P.P. (TSF)
5	9-26-18	2.0
10	12-12-18	2.0
15	4-12-16	1.75
20	5-18-28	2.0
25	8-4-3	.75

ELEV. 1055.0

Red clay with scattered gravel and cobbles.

ELEV. 1027.9

ELEV. 1026.6

Weathered limestone or abundant cobbles.

Gray limestone with scattered clay seams, very hard, (cut with rock bit).

ELEV. 1016.5

(1) (CORE)

ELEV. 1055.9

Red clay with gravel and abundant cobbles.

ELEV. 1043.4

Red clay mixed with gravel and cobbles.

ELEV. 1041.0

ELEV. 1040.0

Boulders.

Red clay with scattered gravel and cobbles.

ELEV. 1031.8

ELEV. 1031.5

Hard limestone.

(2)

STANDARD PENETRATION TEST

DEPTH (FT.)	BLOWS / 6"	P.P. (TSF)
5	20-15-15	3.75

ELEV. 1053.7

Red clay with scattered gravel and cobbles.

ELEV. 1047.3

Light gray limestone, or boulders, very hard, cut with rock bit.

ELEV. 1045.6

ELEV. 1044.8

Light gray limestone, thin to medium bedded, very hard.

Light gray chert limestone with scattered clay seams, thin to medium bedded, very hard. A few scattered fractured areas present.

ELEV. 1037.7

ELEV. 1033.1

Gray limestone, thin to medium bedded, with a few scattered shale seams, fine grained, very hard.

(3) (CORE)

STANDARD PENETRATION TEST

DEPTH (FT.)	BLOWS / 6"	P.P. (TSF)
10	29-22-37	-

ELEV. 1053.5

Red clay with gravel and abundant cobbles.

ELEV. 1046.7

Red clay, with scattered gravel and cobbles.

ELEV. 1039.4

ELEV. 1038.7

Weathered limestone or boulders. Cut with rock bit.

ELEV. 1037.4

Light gray limestone with a few scattered clay seams, thin to medium bedded, very hard.

ELEV. 1030.3

Gray limestone with a few scattered shale seams, thin to medium bedded, fine grained, very hard. A few scattered chert layers present.

(4) (CORE)

ELEV. 1055.6

ELEV. 1052.8

Asphalt and base.

Red clay with gravel and abundant cobbles.

ELEV. 1048.1

Red clay with scattered gravel and cobbles.

ELEV. 1041.0

Red clay with abundant boulders.

ELEV. 1036.0

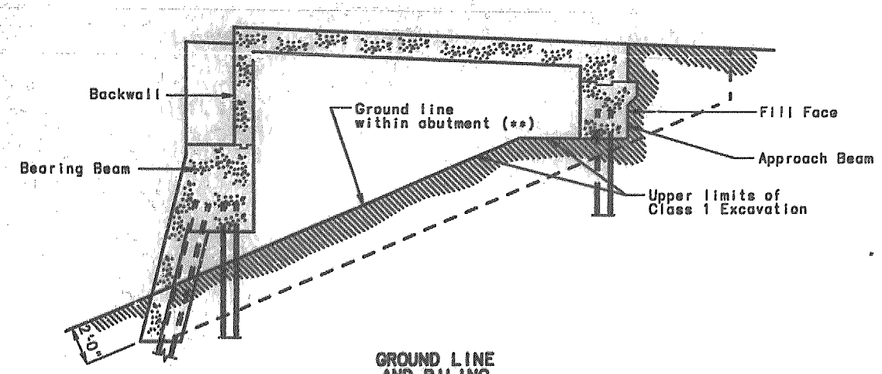
ELEV. 1035.7

Hard limestone.

(5)

BORING DATA

Note: For location of borings, see sheet No. 1 .



GROUND LINE AND PILING IN ABUTMENTS

Note:

** In no case shall the earth within abutments No. 1 and 3 be above the ground line shown above. Forms supporting the abutment slab may be left in place.

The maximum variation of the head of the pile and the battered face of the pile from the position shown on the plans shall be not more than 2 inches for pile under abutments No. 1 and 3.

Exposed steel piles within the abutment shall be coated with a heavy coating of an approved bituminous paint.

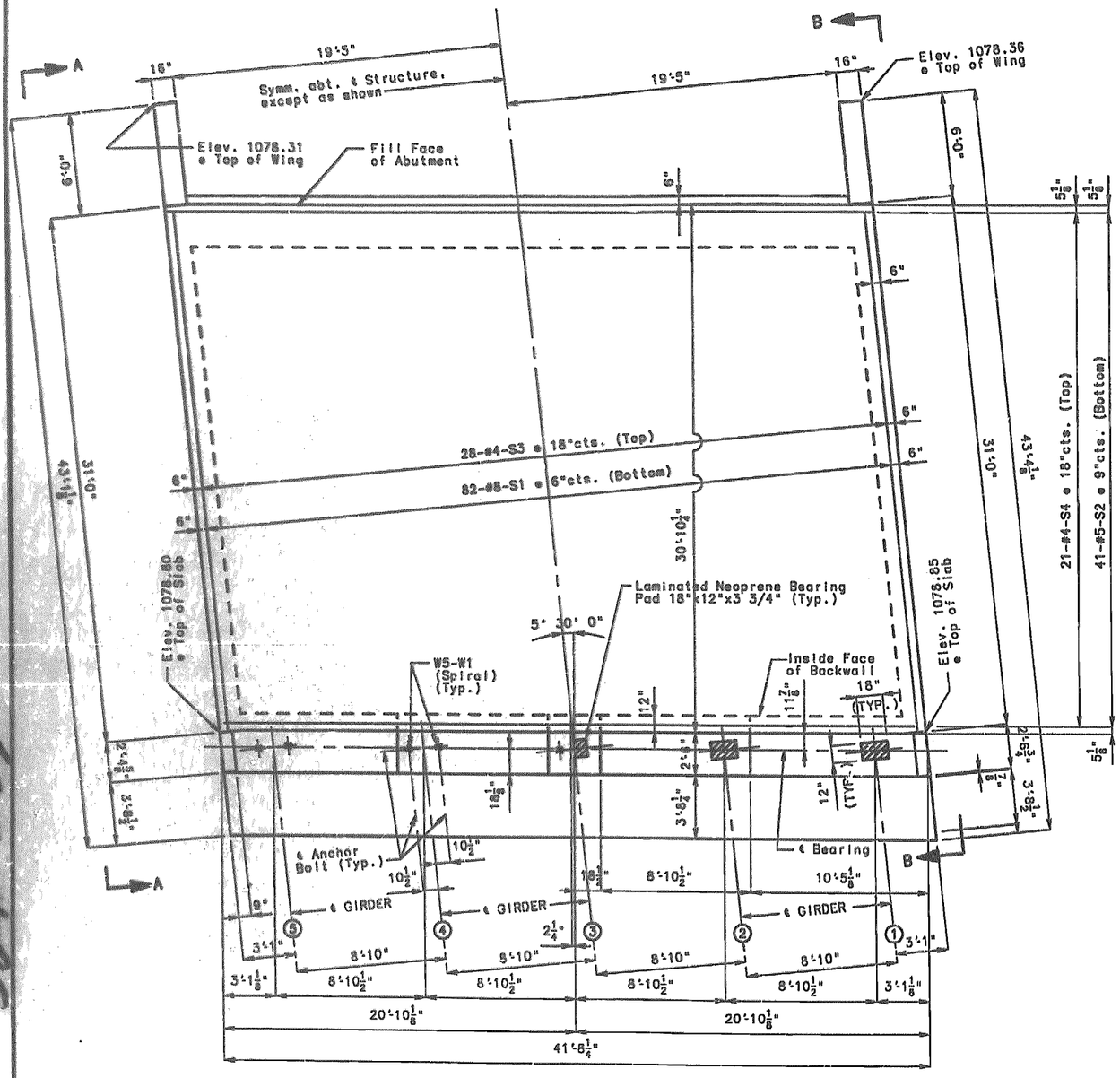
328

DETAILED OCT. 1994
CHECKED OCT. 1994

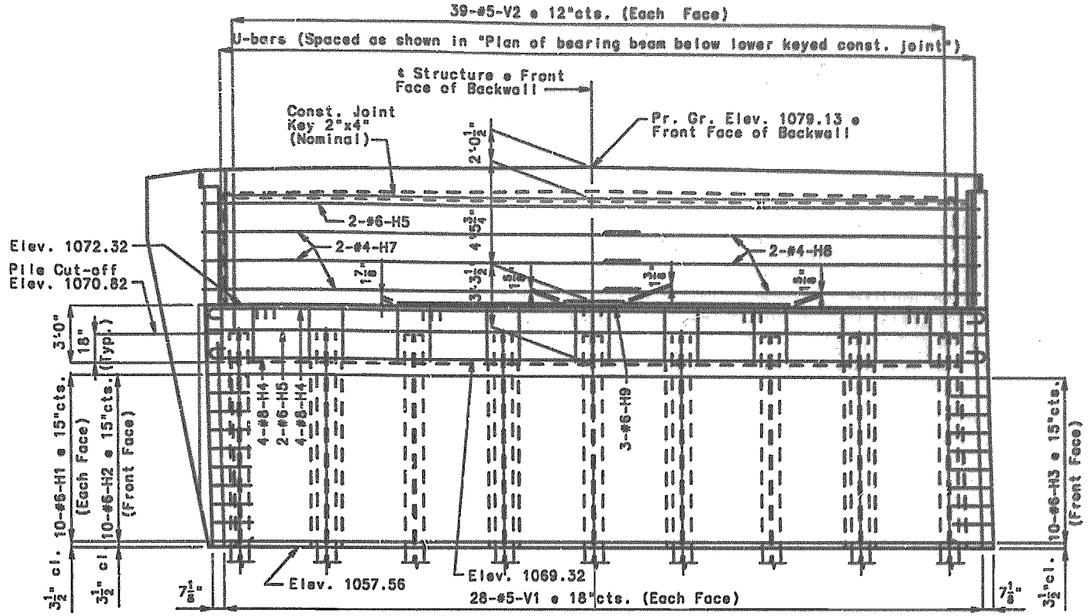
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

STATE	PROJ. NO.	SHEET NO.
MO.		69

Note:
Top of abutment slab and expansion device for abutment shall conform to crown of roadway slab. Abutment slab above the upper construction joint shall not be poured until the superstructure slab has been poured in the adjacent span.
For details of expansion device, see sheet No. 21.
For details of anchor bolt wells, see sheet No. 16.
For Elevations A-A & B-B, see sheet No. 6 & No. 7 .



PLAN



ELEVATION

SUBSTRUCTURE QUANTITY TABLE FOR ABUTMENT NO. 1		
ITEM		QUANTITY
CLASS 1 EXCAVATION	CU. YDS.	55
STRUCTURAL STEEL PILE (12")	LIN. FT.	589
CLASS B CONCRETE (SUBSTRUCTURE)	CU. YDS.	97.9
REINFORCING STEEL (BRIDGES)	LBS.	8170
REINFORCING STEEL (EPOXY COATED)	LBS.	970
PILE POINT REINFORCEMENT	EACH	14
PRE-BORE FOR PILING	LIN.FT.	149

Note: These quantities are included in the estimated quantities table on sheet No. 2 .

DETAILS OF ABUTMENT NO. 1

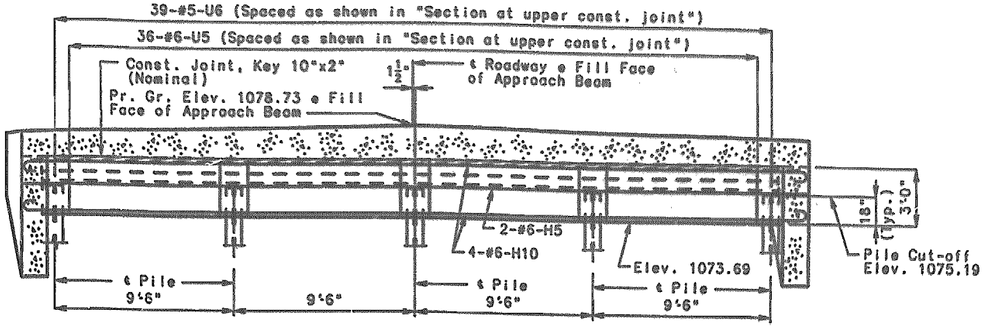
DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

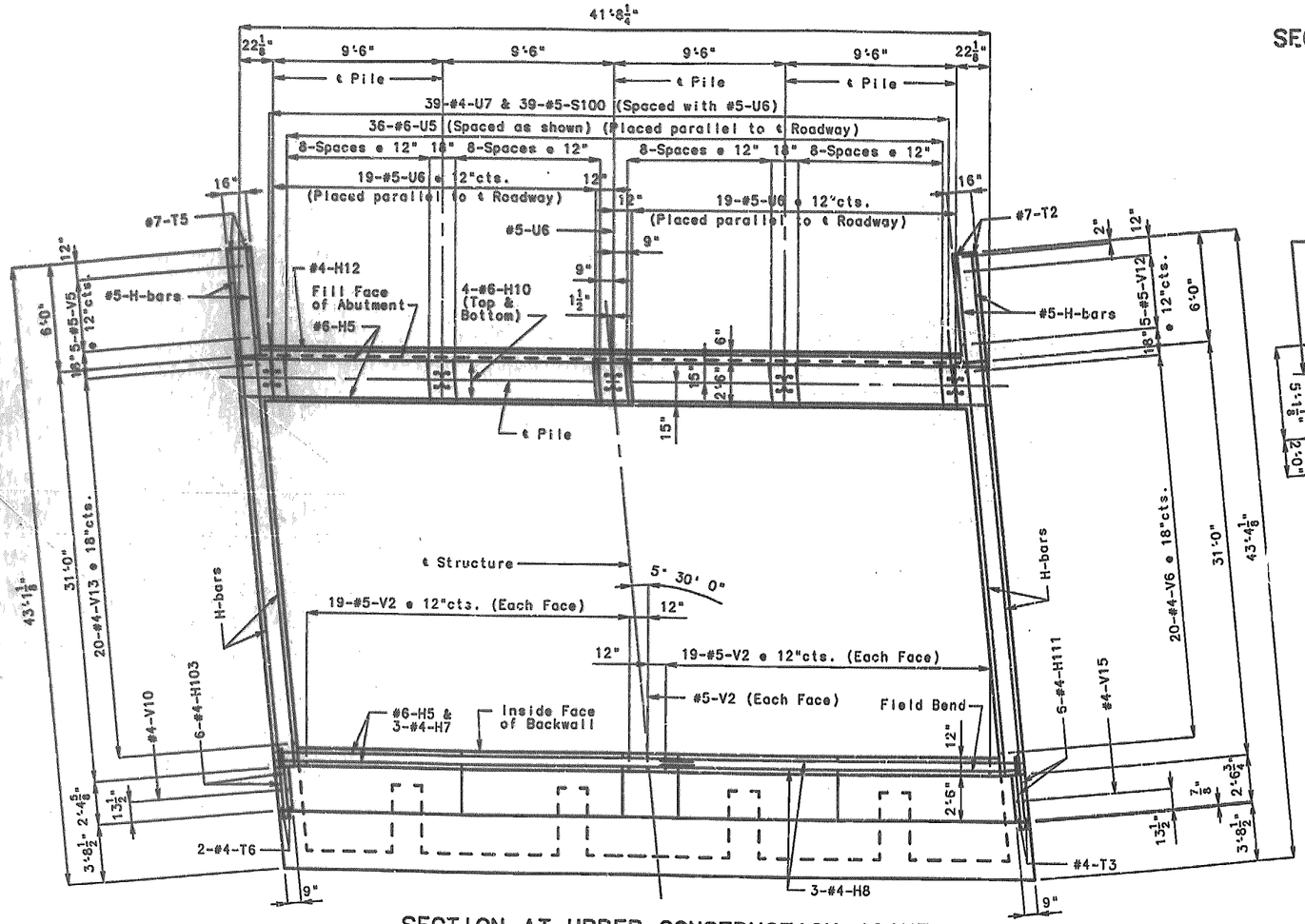
29

STATE	PROJ. NO.	SHEET NO.
MO.		22

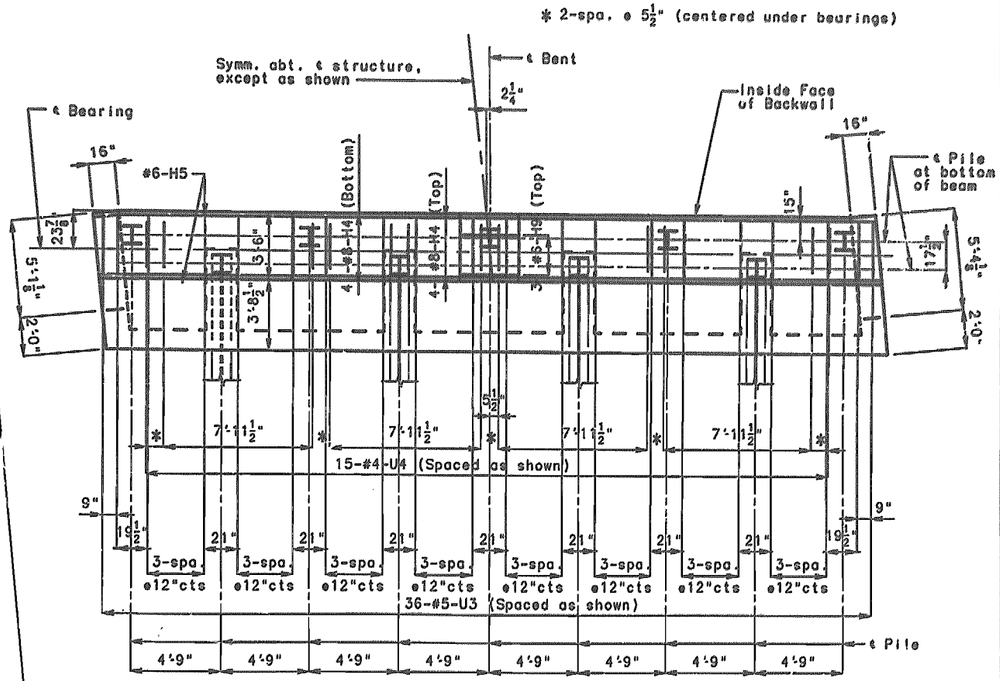
Note:
All reinforcing bars in tops of substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".
For detail of steel pile splice, see sheet No. 7.



SECTION NEAR APPROACH BEAM



SECTION AT UPPER CONSTRUCTION JOINT



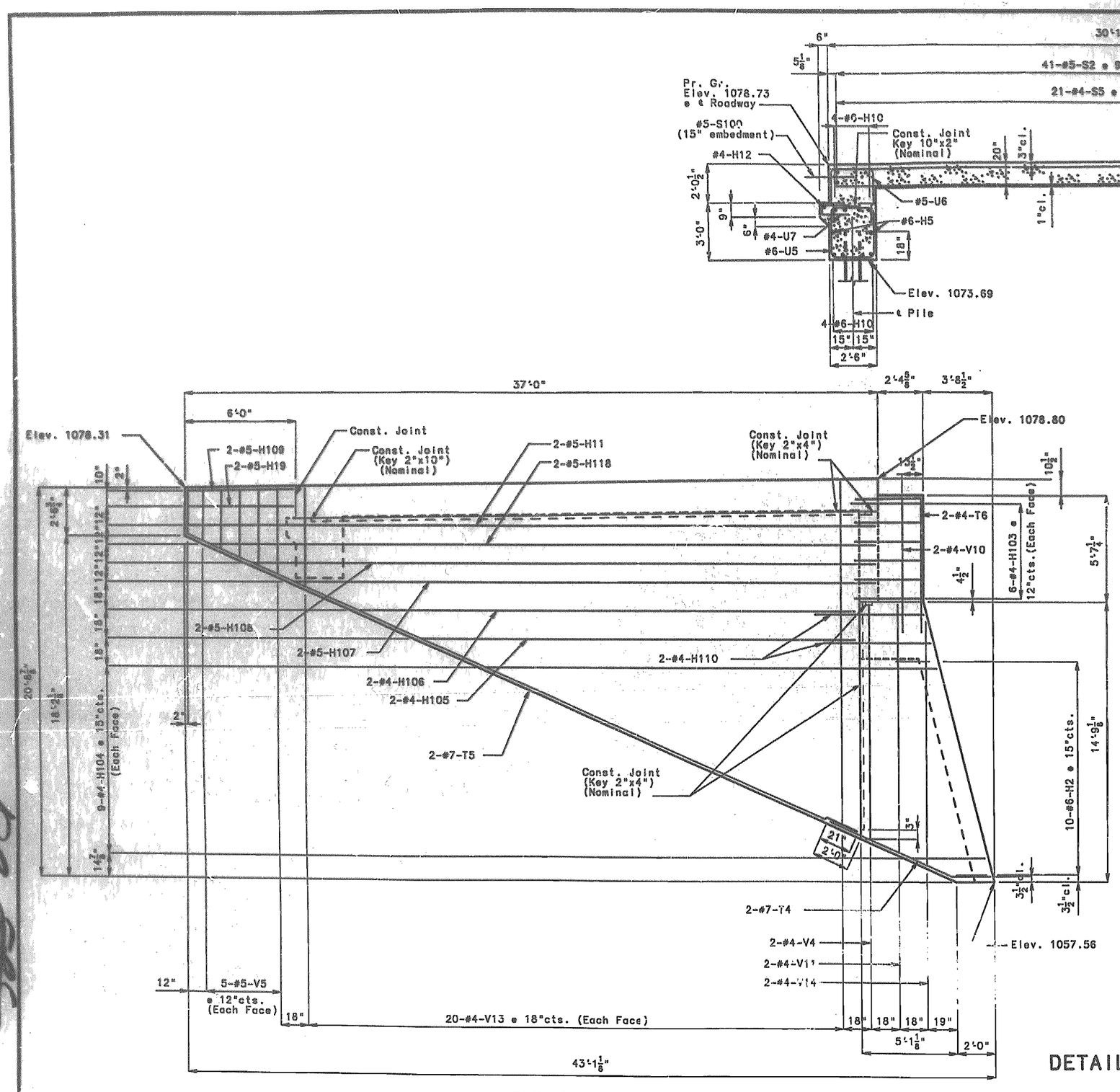
PLAN OF BEARING BEAM BELOW LOWER KEYED CONSTRUCTION JOINT

DETAILS OF ABUTMENT NO. 1

DETAILED SEPT 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

STATE	PROJ. NO.	SHEET NO.
NO.		6



ELEVATION A-A

SECTION NEAR ℄ ROADWAY
(NORMAL TO BENT)

Note:
For location of Elevation A-A, see sheet No. 4.
For details and location of safety barrier curb reinforcement in wings and abutment slab, see sheet No. 22.

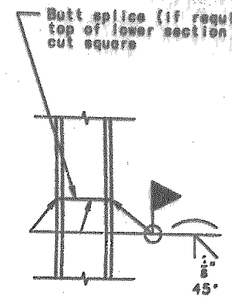
For Section C-C see sheet No. 7 .

DETAILS OF ABUTMENT NO. 1

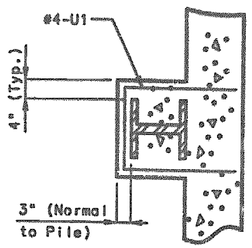
DETAILED AUG. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

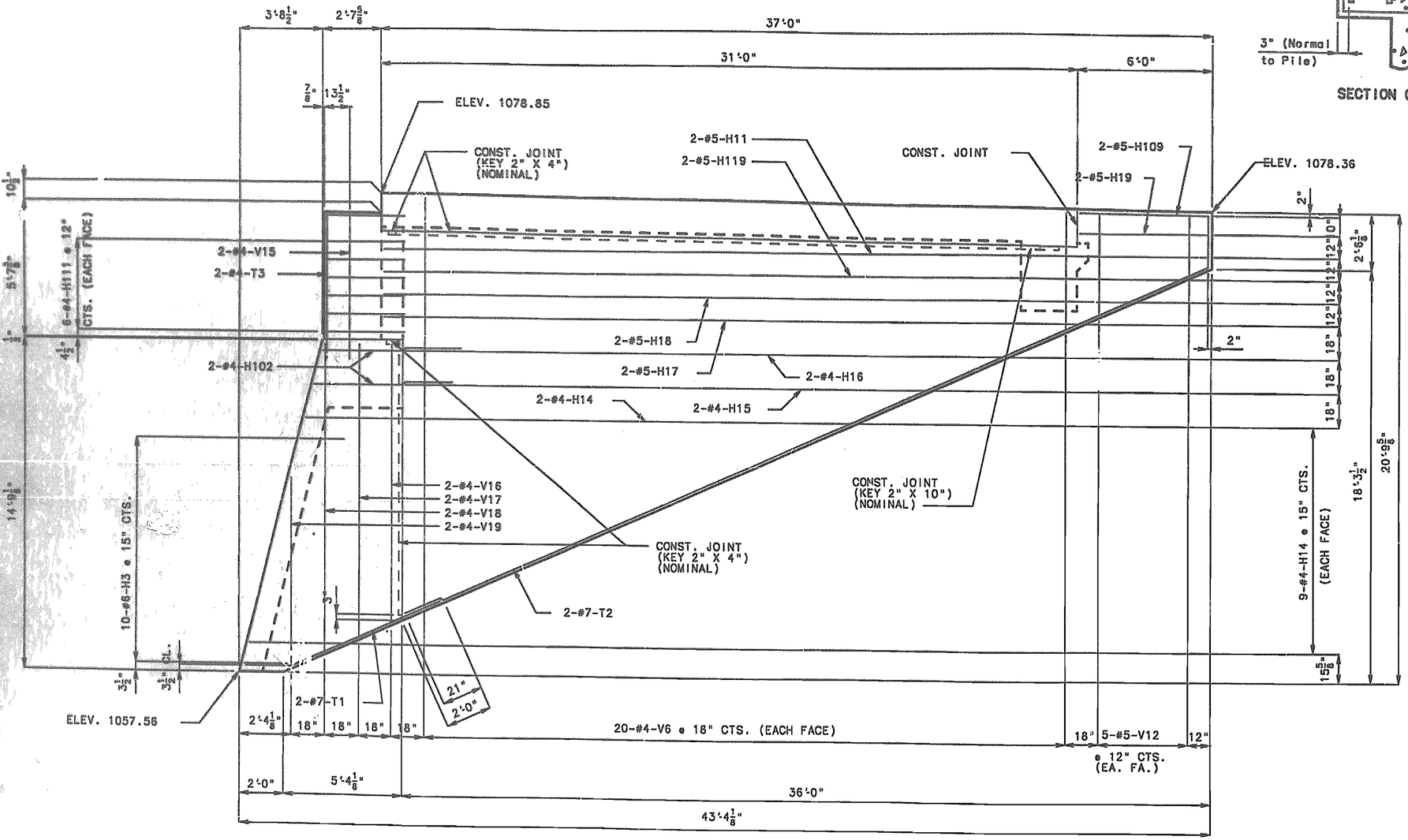
STATE	PROJ. NO.	SHEET NO.
MO.		6P



DETAIL OF STEEL PILE SPLICE



SECTION C-C



ELEVATION B-B

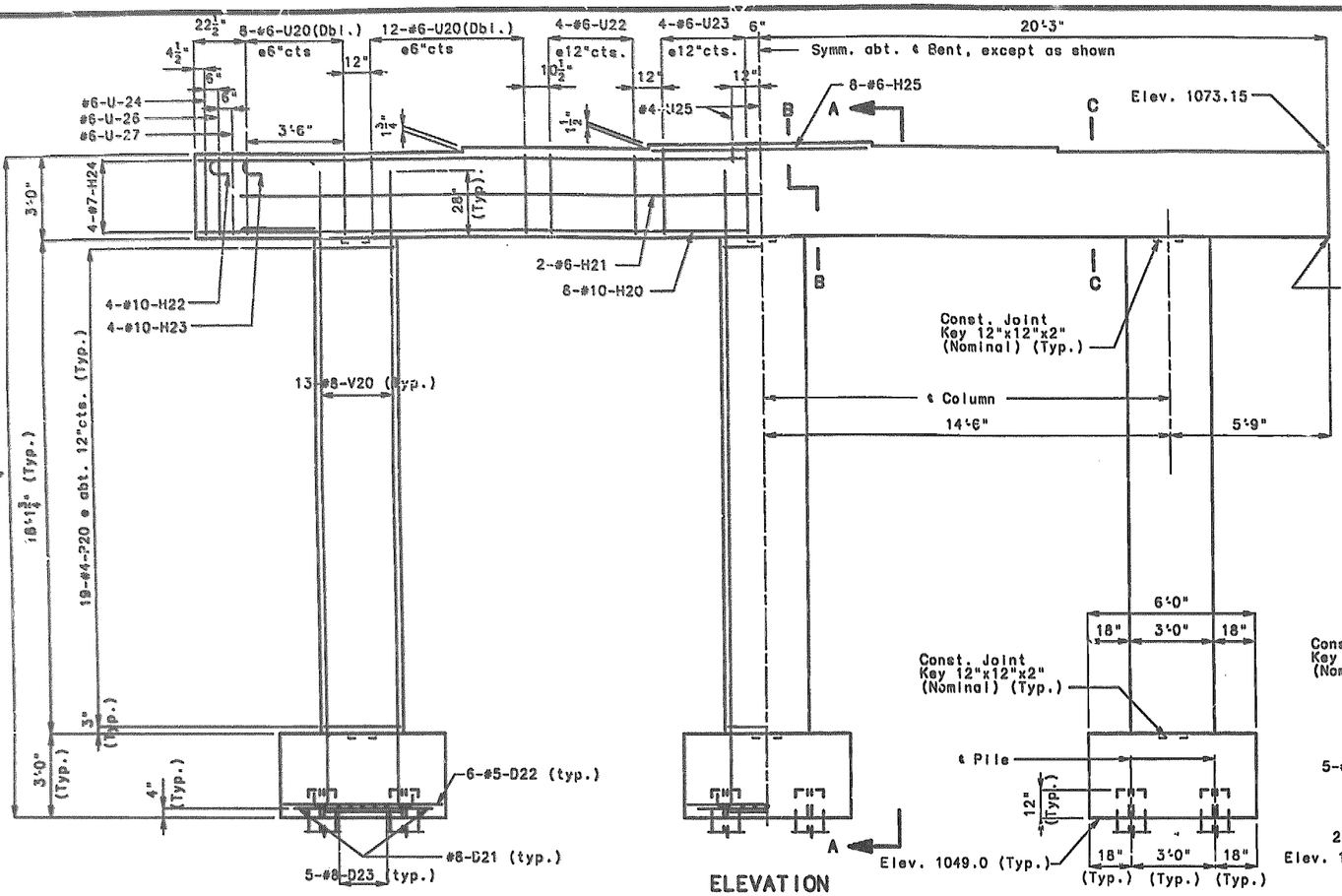
Note:
For location of Elevation B-B, see sheet No. 4.
For details and location of safety barrier curb reinforcement in wings and abutment slab, see sheet No. 22.

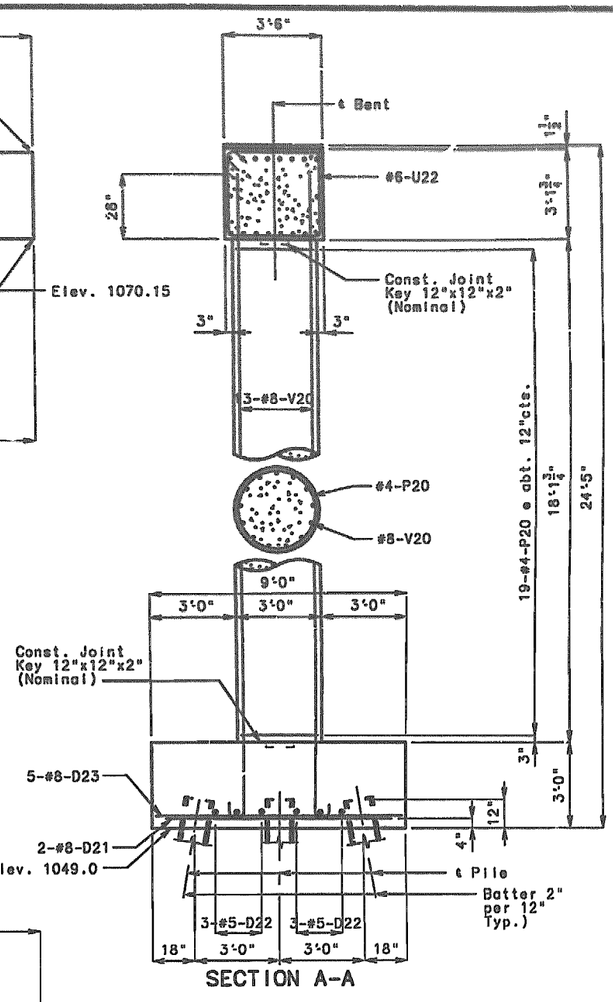
DETAILS OF ABUTMENT NO. 1

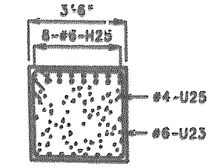
DETAILED AUG. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

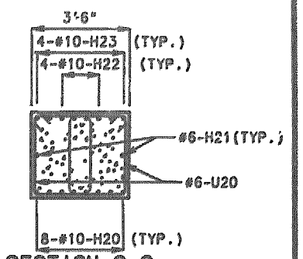
STATE	PROJ. NO.	SHEET NO.
MO.		67



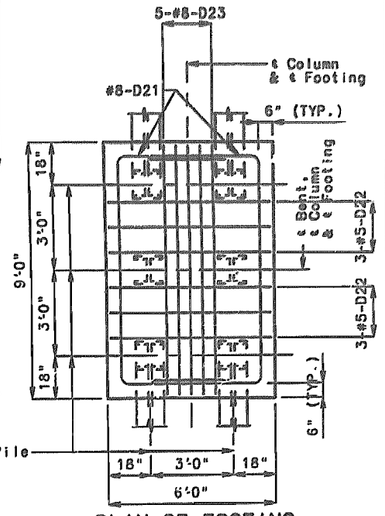




SECTION B-B

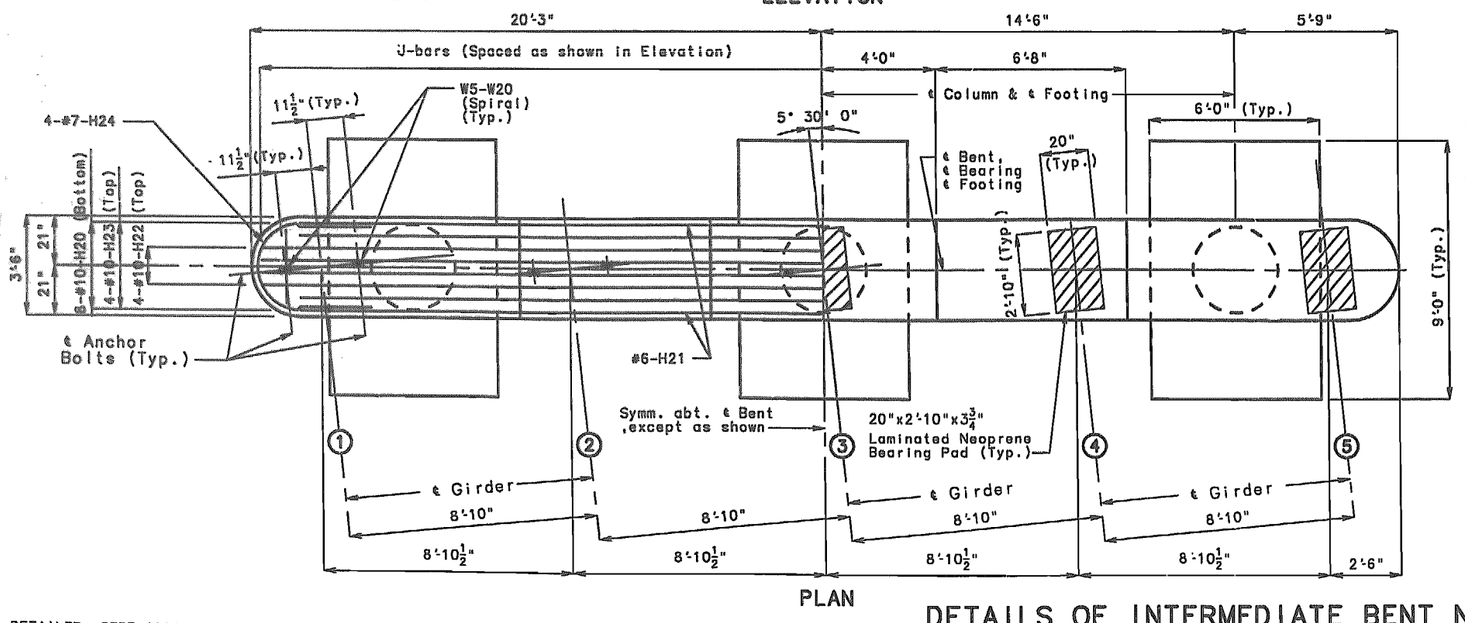


SECTION C-C



PLAN OF FOOTING

Note:
For detail of steel pile splice, see sheet No. 7.
For details of anchor bolt well, see sheet No. 16.
All reinforcing bars in tops of substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".



PLAN

Note: These quantities are included in the estimated quantities table on sheet No. 2 .

SUBSTRUCTURE QUANTITY TABLE FOR INT. BENT NO. 2		
ITEM		QUANTITY
CLASS 1 EXCAVATION	CU. YDS.	60
STRUCTURAL STEEL PILE (12")	LIN. FT.	198
CLASS B CONCRETE (SUBSTRUCTURE)	CU. YDS.	48.2
REINFORCING STEEL (BRIDGES)	LBS.	8420
PRE-BORE FOR PILING	LIN.FT.	180

DETAILS OF INTERMEDIATE BENT NO. 2

DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

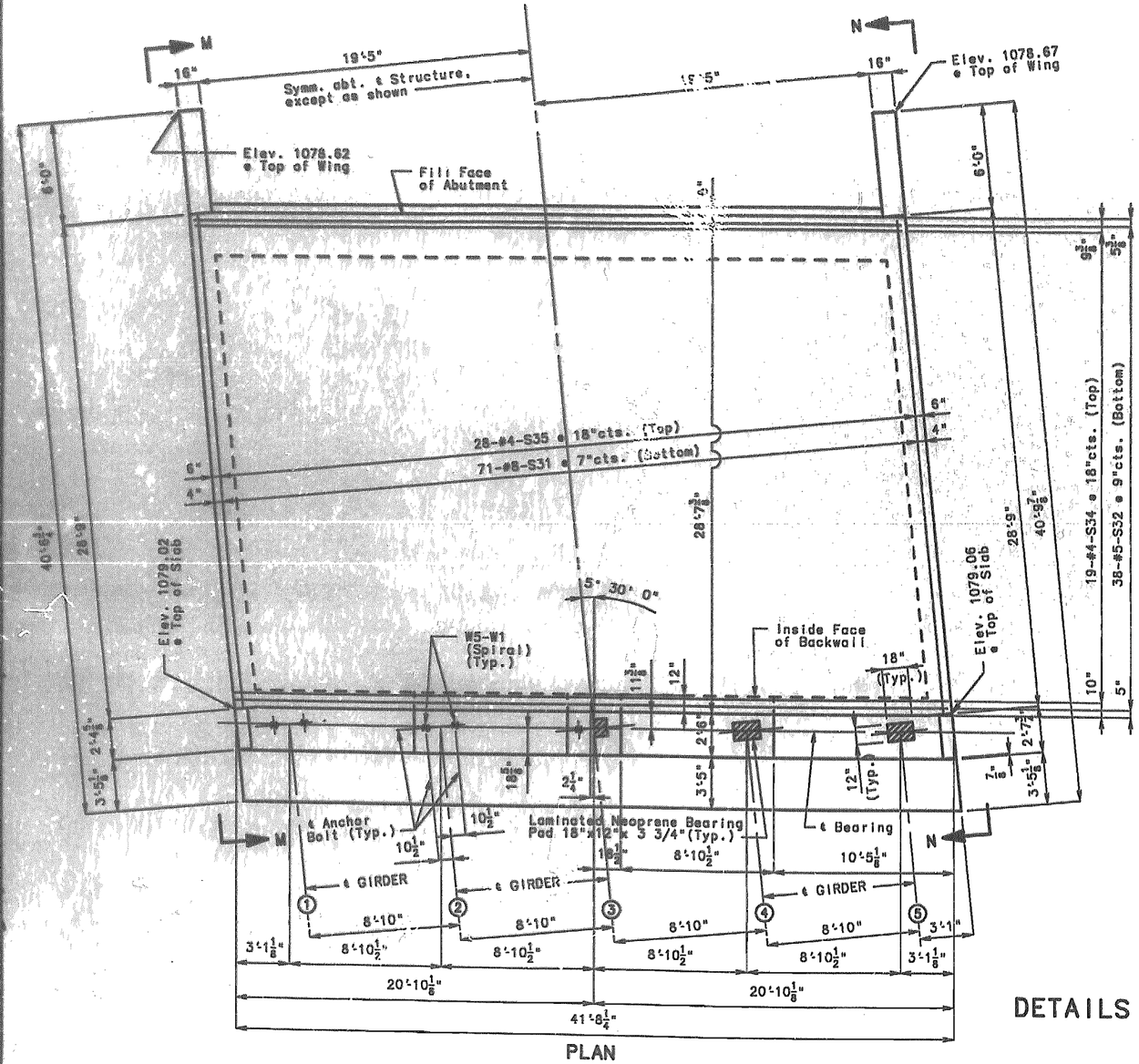
JASPER COUNTY

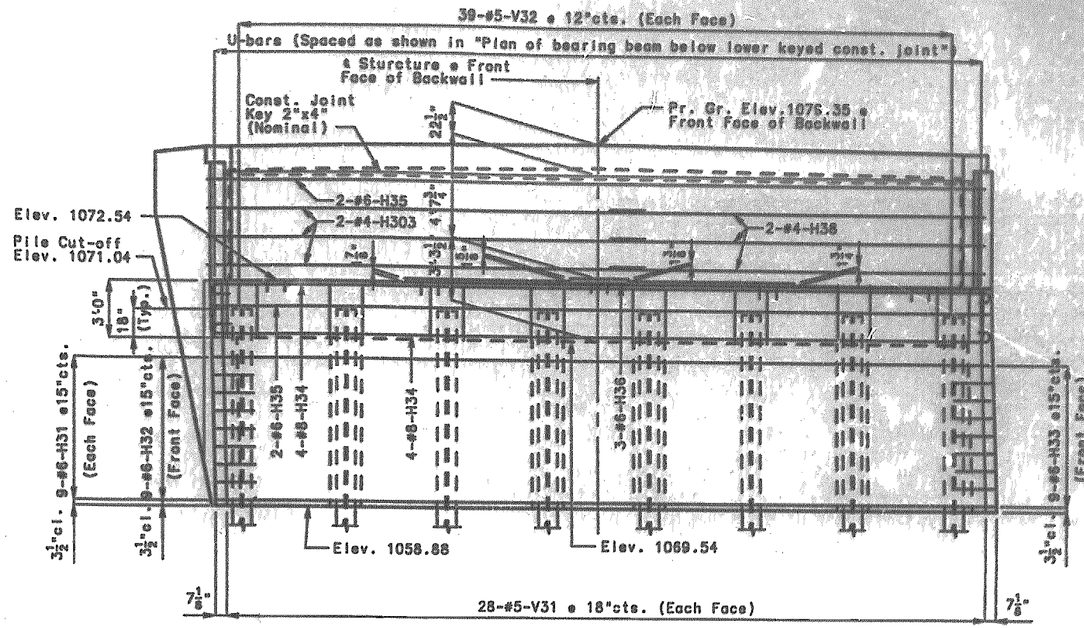
A5514

338 333

STATE	PROJ. NO.	SHEET NO.
MO.		6-B

Note:
Top of abutment slab and expansion device for abutment shall conform to crown of roadway slab. Abutment slab above the upper construction joint shall not be poured until the superstructure slab has been poured in the adjacent span.
For details of expansion device, see sheet No. 21.
For details of anchor bolt wells, see sheet No. 16.
For Elevations M-M & N-N, see sheet No. 11 & No. 12 .





SUBSTRUCTURE QUANTITY TABLE FOR ABUTMENT NO. 3		
ITEM		QUANTITY
CLASS 1 EXCAVATION	CU. YDS.	50
STRUCTURAL STEEL PILE (12")	LIN. FT.	462
CLASS B CONCRETE (SUBSTRUCTURE)	CU. YDS.	92.3
REINFORCING STEEL (BRIDGES)	LBS.	7690
REINFORCING STEEL (EPOXY COATED)	LBS.	960
PILE POINT REINFORCEMENT	EACH	13
PRE-BORE FOR PILING	LIN.FT.	151

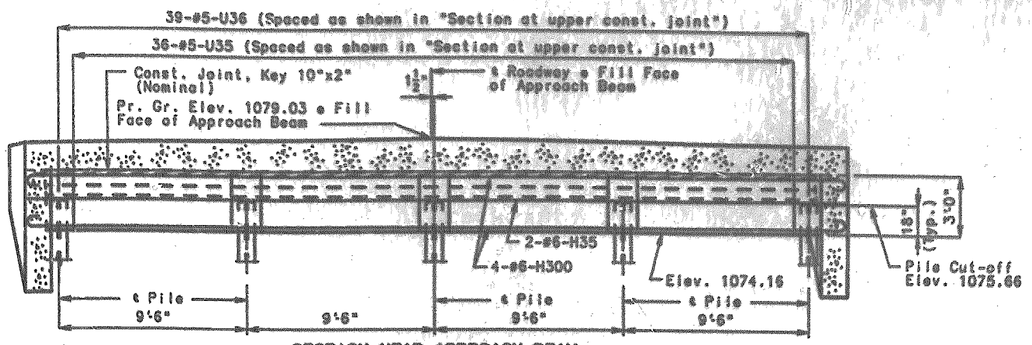
Note: These quantities are included in the estimated quantities table on sheet No. 2 .

DETAILS OF ABUTMENT NO. 3

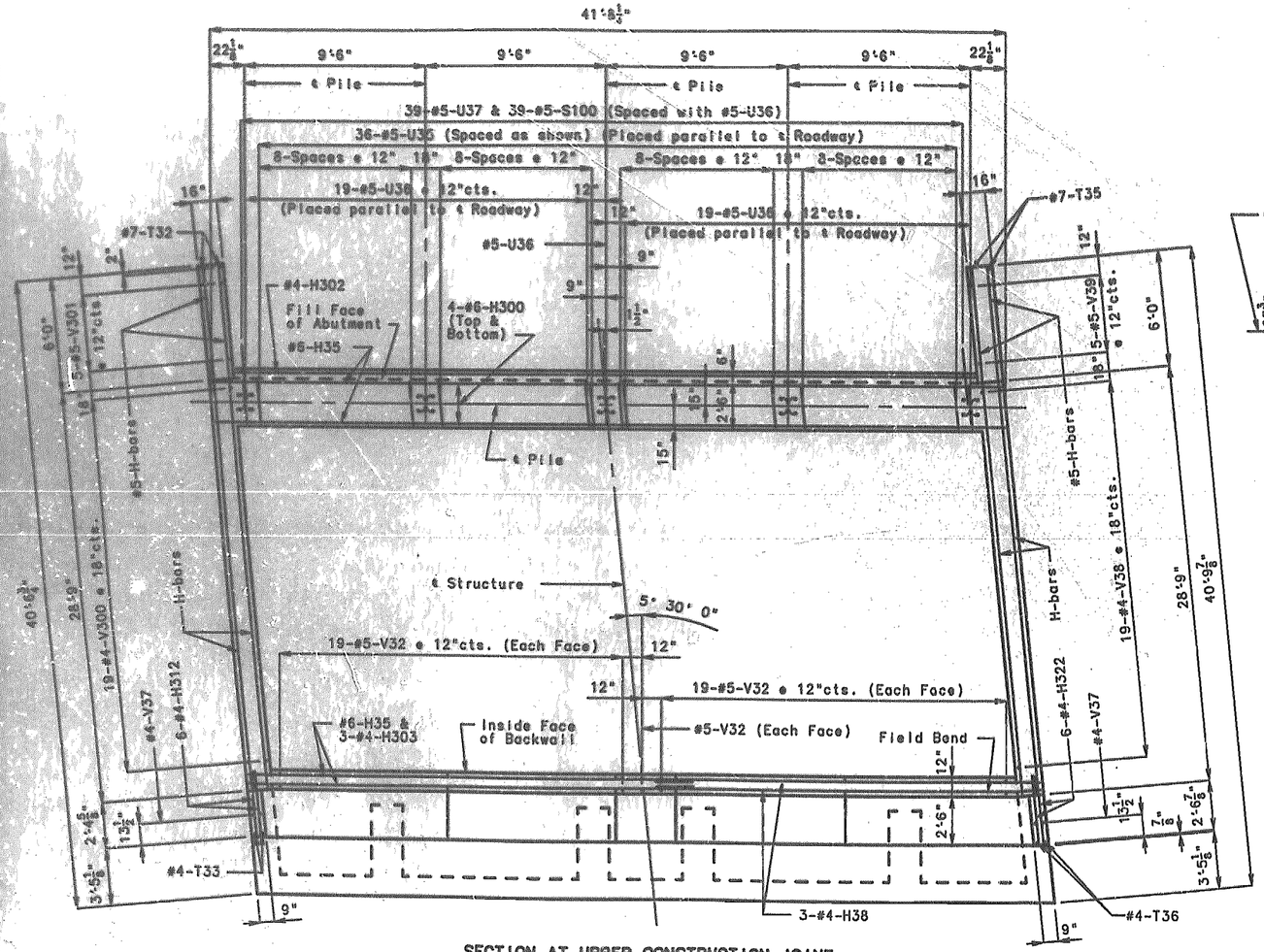
DETAILED SEPT 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

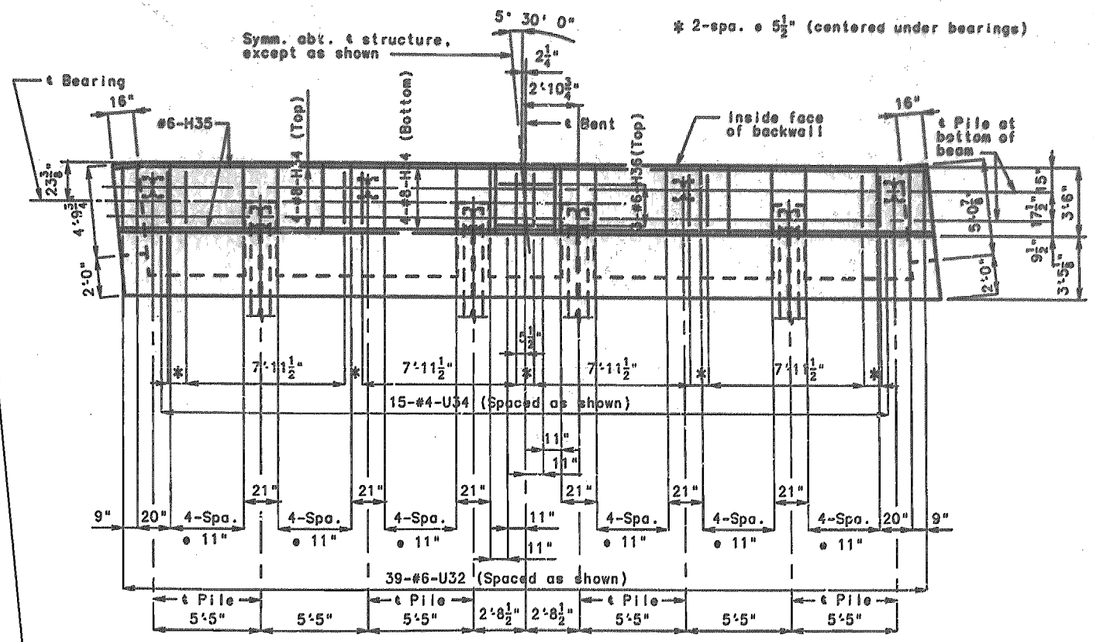
STATE	PROJ. NO.	SHEET NO.
MD.		6P



SECTION NEAR APPROACH BEAM



SECTION AT UPPER CONSTRUCTION JOINT



PLAN OF BEARING BEAM BELOW LOWER KEYED CONSTRUCTION JOINT

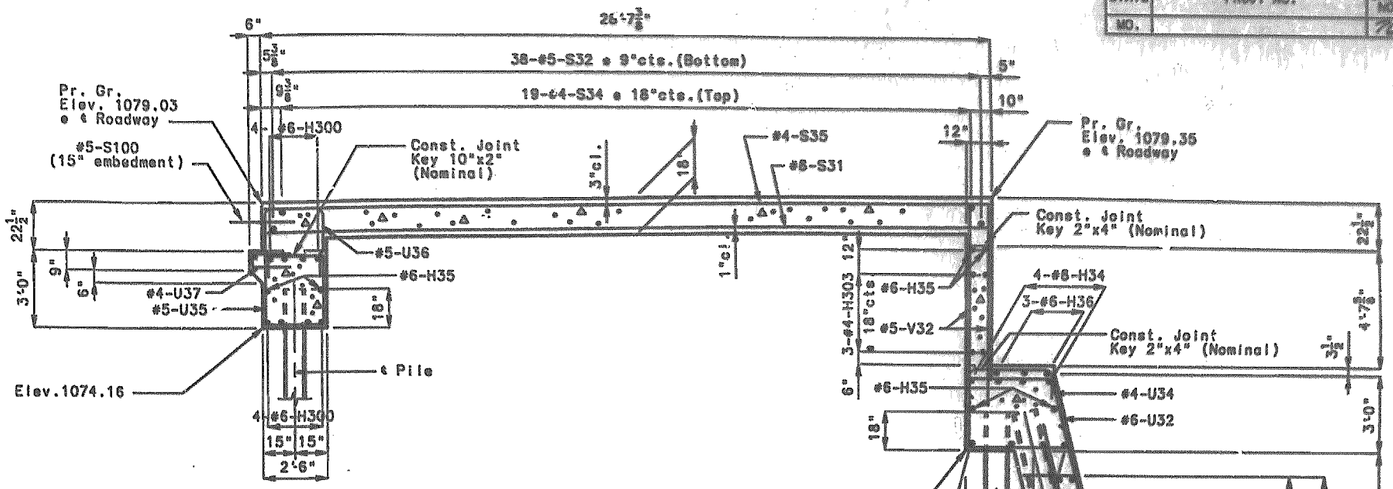
Note:
All reinforcing bars in tops of substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".
For detail of steel pile splice, see sheet No. 12.

DETAILS OF ABUTMENT NO. 3

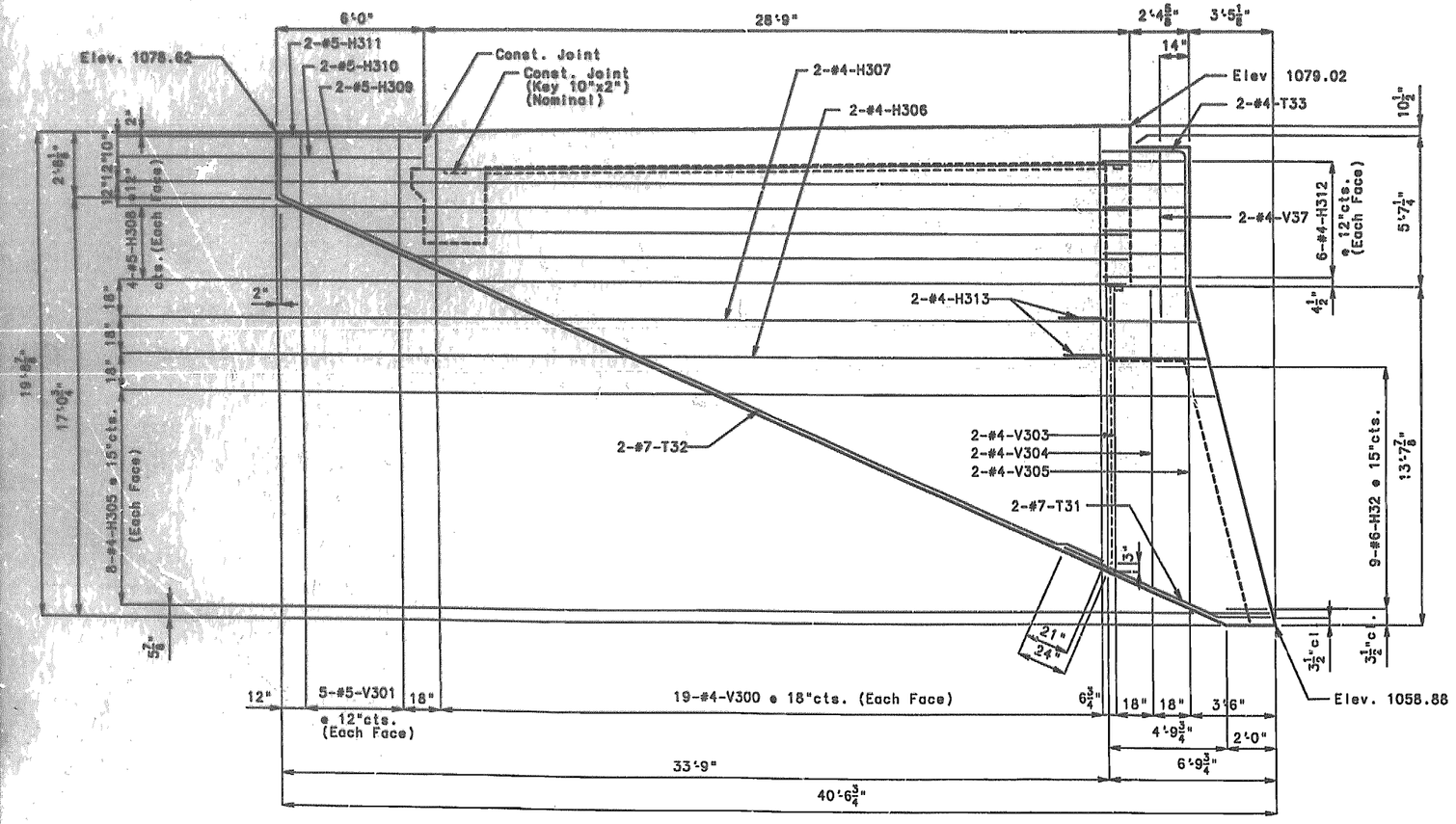
DETAILED SEPT 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

STATE NO.	PROJ. NO.	SHEET NO.
		20



SECTION NEAR ℄ ROADWAY
(NORMAL TO BENT)



ELEVATION M-M

Note:
For location of Elevation M-M, see sheet No. 9 .
For details and location of safety barrier curb reinforcement in wings and abutment slab, see sheet No. 21.

For Section C-C see sheet No. 12

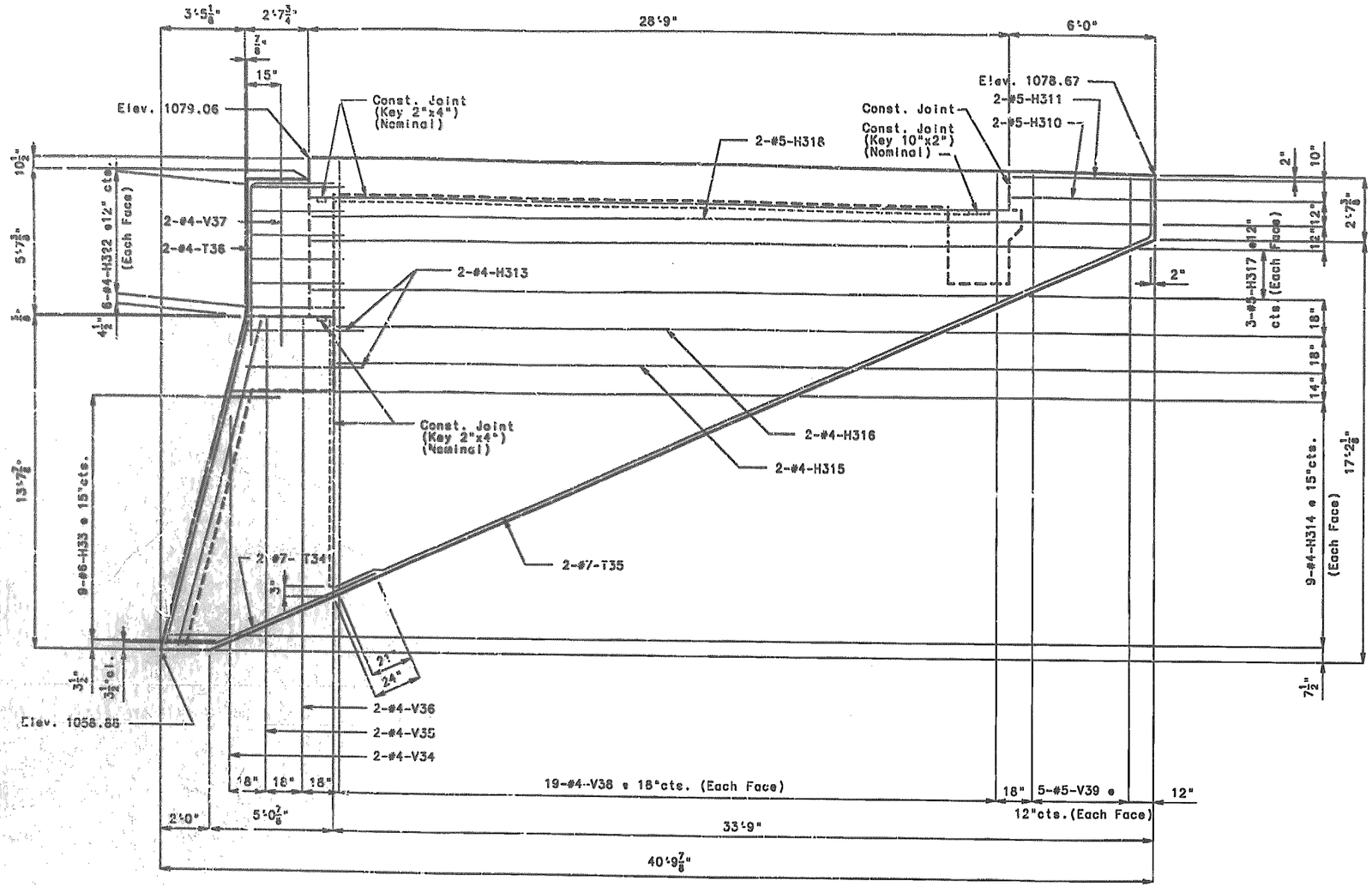
DETAILS OF ABUTMENT NO. 3

DETAILED SEPT 1994
CHECKED OCT. 1994

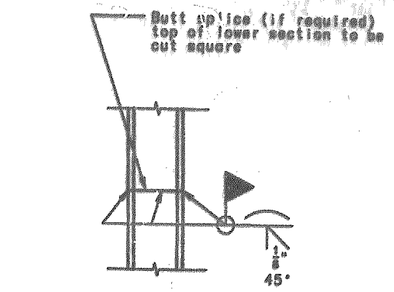
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

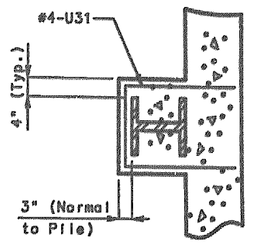
STATE NO.	PROJ. NO.	SHEET NO.



ELEVATION N-N



DETAIL OF STEEL PILE SPLICE



SECTION C-C

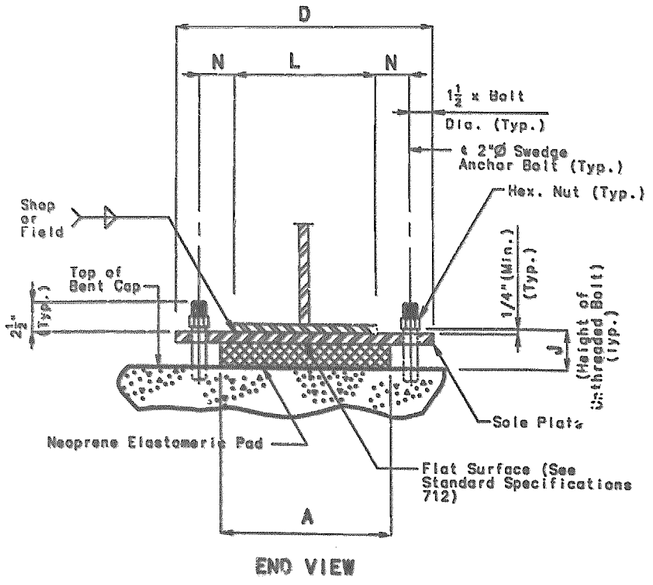
Note:
For location of Elevation N-N, see sheet No. 9 .
For details and location of safety barrier curb reinforcement in wings and abutment slab, see sheet No. 22.

DETAILS OF ARUTMENT NO. 3

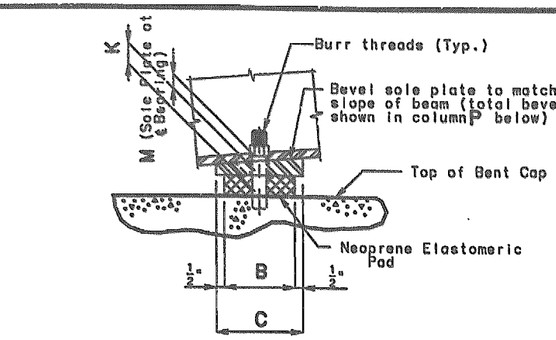
DETAILED SEPT 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

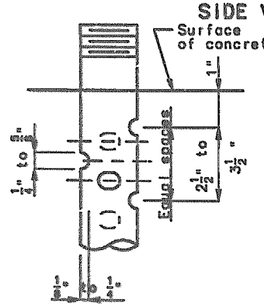
STATE	PROJ. NO.	SHEET NO.
MO.		72



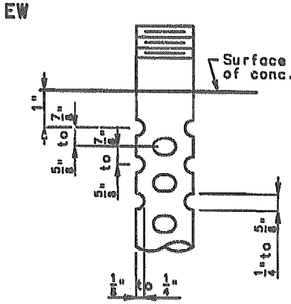
END VIEW



SIDE VIEW

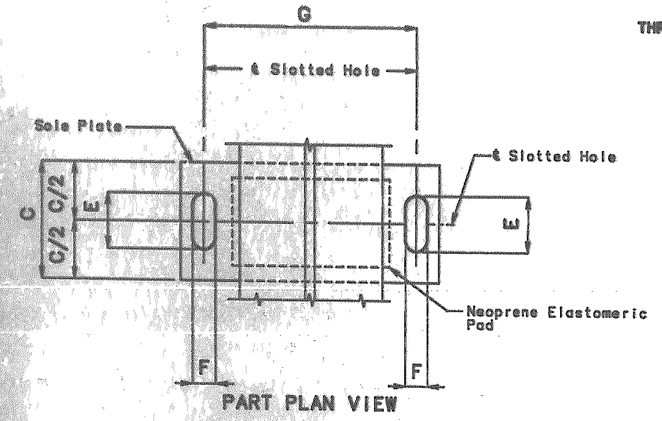


DETAIL FOR ⅜" Ø THRU 2½" Ø ANCHOR BOLTS



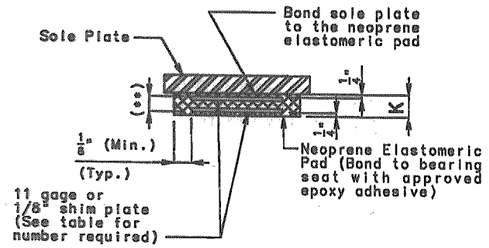
OPTIONAL DETAIL FOR 1⅜" Ø THRU 2½" Ø ANCHOR BOLTS

SWEDGE ANCHOR BOLT DETAILS



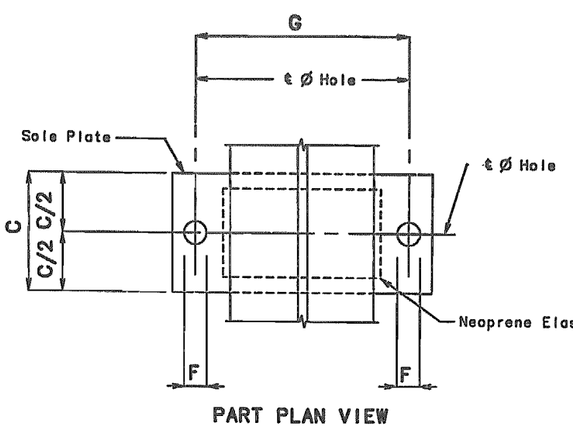
PART PLAN VIEW

Note: The location of the anchor bolts in relation to the slotted holes in the sole plate shall correspond with the temperature at the time of erection. At 60° F. the slotted holes should center on the anchor bolts.

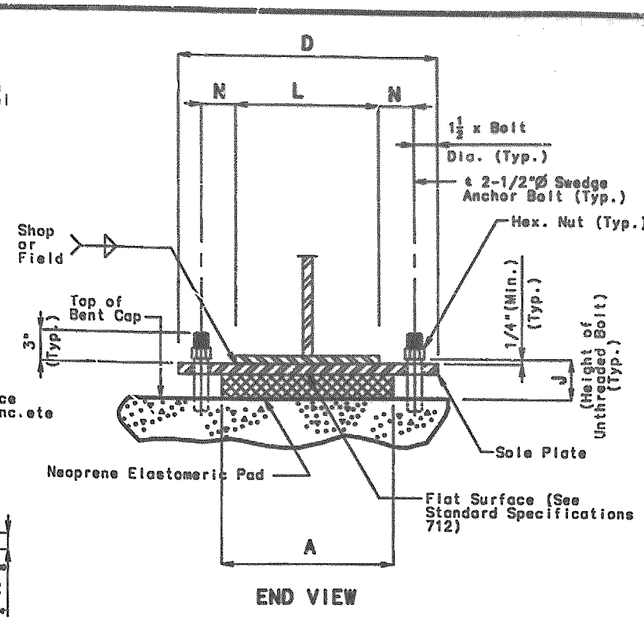


NEOPRENE ELASTOMERIC PAD

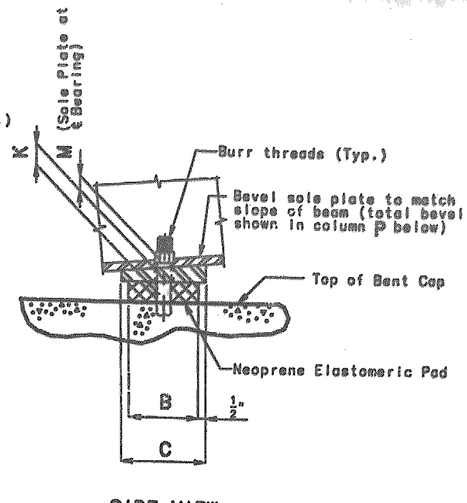
(**) Layers of 1/2" elastomer alternating with 11 gage or 1/8" steel shim plate.



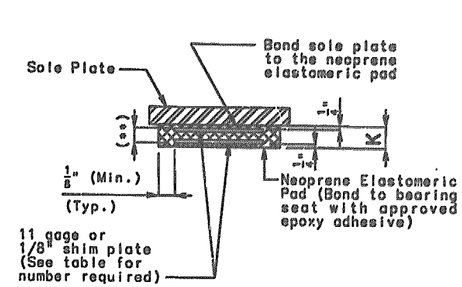
PART PLAN VIEW



END VIEW



SIDE VIEW



NEOPRENE ELASTOMERIC PAD

(**) Layers of 1/2" elastomer alternating with 11 gage or 1/8" steel shim plate.

GENERAL NOTES:

Anchor bolts shall be ① Ø A588 steel swedged bolts and shall extend ② into the concrete with A194-2, 2H or A563-C, C3, D, DH, DH3 heavy hexagon nuts. Actual manufacturer's certified mill test reports (chemical and mechanical) shall be provided. (swedging shall be 1" less than the extension into the concrete.)

All structural steel for the sole plate, anchor bolts and heavy hexagon nuts shall be painted with a minimum of two coats of inorganic zinc primer (5 mils minimum) in accordance with the Special Provisions. Weld areas to be touched up after assembly.

The neoprene elastomeric pads shall be 60 durometer.

The sole plate shall be furnished with the bearing and field or shop welded to the girders. Structural steel for the sole plate shall be A-36.

Payment for the sole plate, anchor bolts and heavy hexagon nuts shall be included in the cost of the bearing assembly. See Special Provisions.

The accepted quantity of the elastomeric bearing assemblies, complete-in-place, will be paid for at the contract unit price for laminated neoprene bearing pads (Steel Structures), each.

① 2"(Abut. No.1 & No.3), 2 1/2" (Bent No.2)

② 18"(Abut. No.1 & No.3), 2'-1" (Bent No.2)

EXPANSION BEARINGS

BENT NO.	A	B	C	D	E	F	G	J	K	L	M	N	P	NUMBER OF SHIM PLATES(*)	NUMBER REQUIRED
1	18"	12"	13"	27"	4½"	2⅛"	21"	5½"	3¾"	14"	1½"	3½"	⅛"	6	5
3	18"	12"	13"	27"	4½"	2⅛"	21"	5½"	3¾"	14"	1½"	3½"	⅛"	6	5
														TOTAL BEARINGS	10

(*) The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.

FIXED BEARINGS

BENT NO.	A	B	C	D	F	G	J	K	L	M	N	P	NUMBER OF SHIM PLATES(*)	NUMBER REQUIRED
2	20"	34"	35"	30½"	2⅝"	23"	5½"	3¾"	17"	1½"	3	-	6	5
													TOTAL BEARINGS	5

(*) The required shim plate shall be placed between layers of elastomer and molded together to form an integral unit.

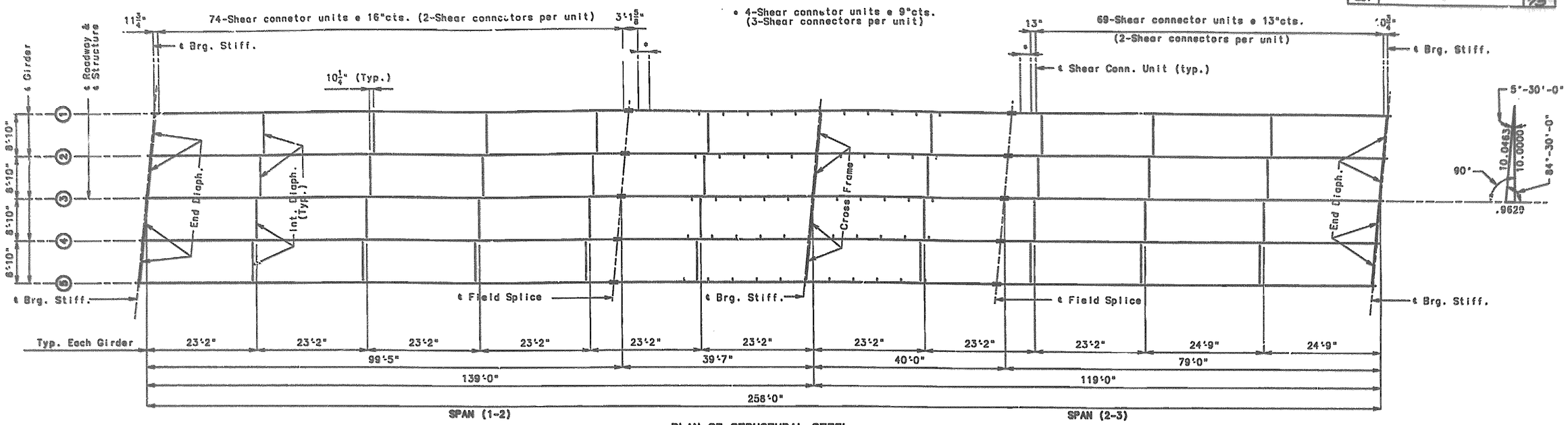
DETAILED SEPT.1994
CHECKED OCT. 1994

DETAILS OF LAMINATED NEOPRENE BEARINGS (STEEL STRUCTURES)

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

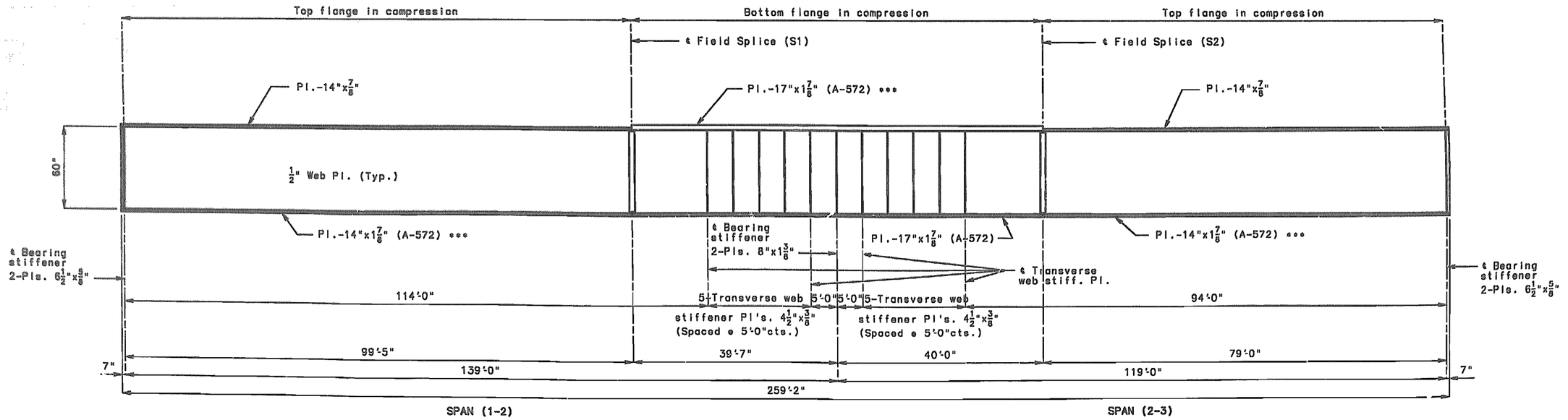
BRG LAM ,BRG3.31,STL. ,A
LAMINATED BRG. REVISED JUNE 1993
JAN. 1980

STATE	PROJ. NO.	SHEET NO.
MO.		13



PLAN OF STRUCTURAL STEEL

Note:
Longitudinal dimensions are horizontal.
Fabricated structural steel shall be A36, except at noted.
*** indicates flange plates subject to notch toughness requirements.
Transverse web stiffeners shall be located as shown in Plan of Structural Steel.
Intermediate web stiffener plate and diaphragm spacing may vary from plan dimensions by a maximum of 3" for diaphragm to connect to the intermediate web stiffener plate.
Plate girders shall be fabricated to conform to Camber Diagram shown on sheet No.15.
All web plates shall be subject to notch toughness requirements.
For location of slab drains, see sheet No. 20.



ELEVATION OF GIRDER

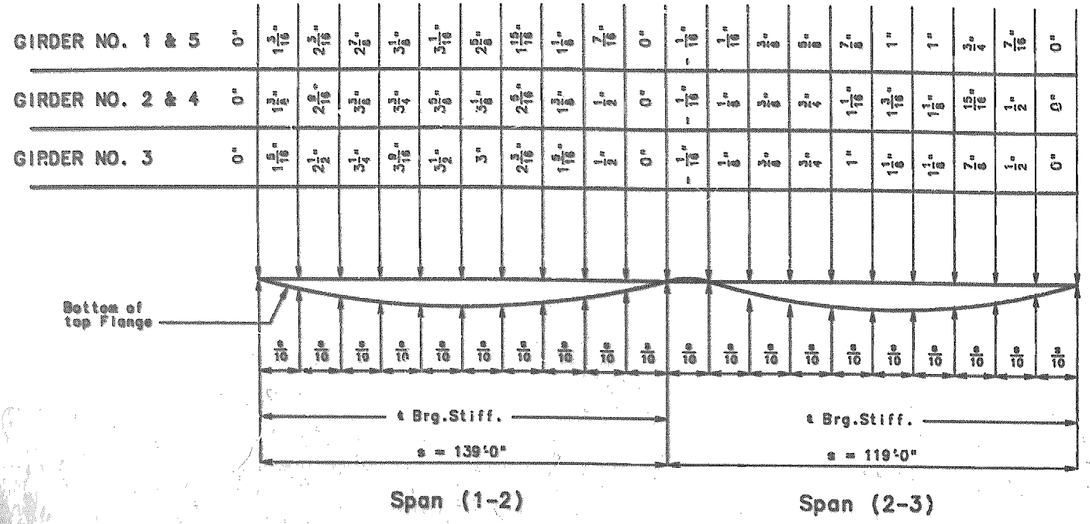
DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

37-29

STATE NO.	PROJ. NO.	SHEET NO.
		29



DEAD LOAD DEFLECTION

NOTE: ▲ of Dead Load Deflection is due to weight of Structural Steel .

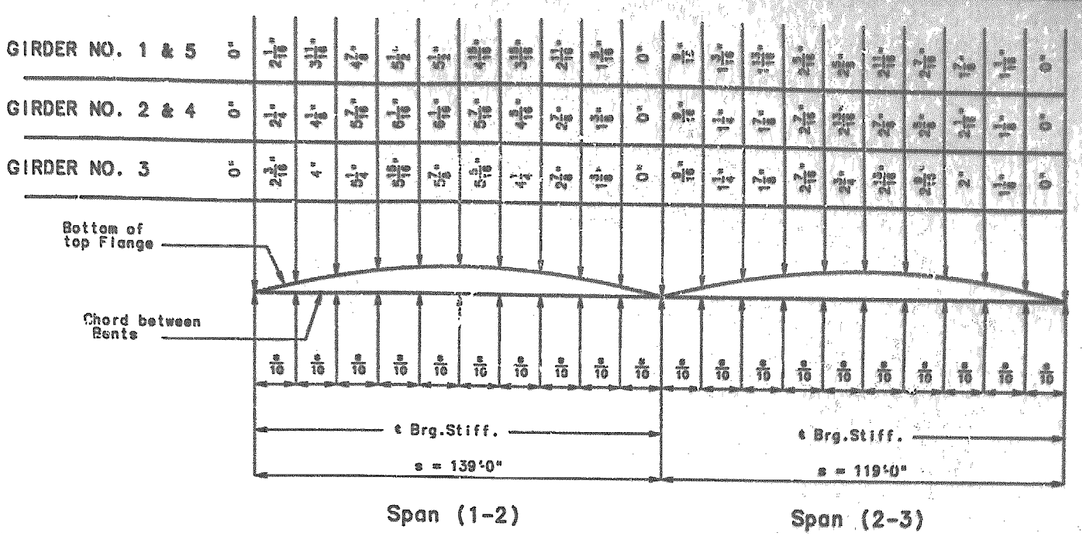
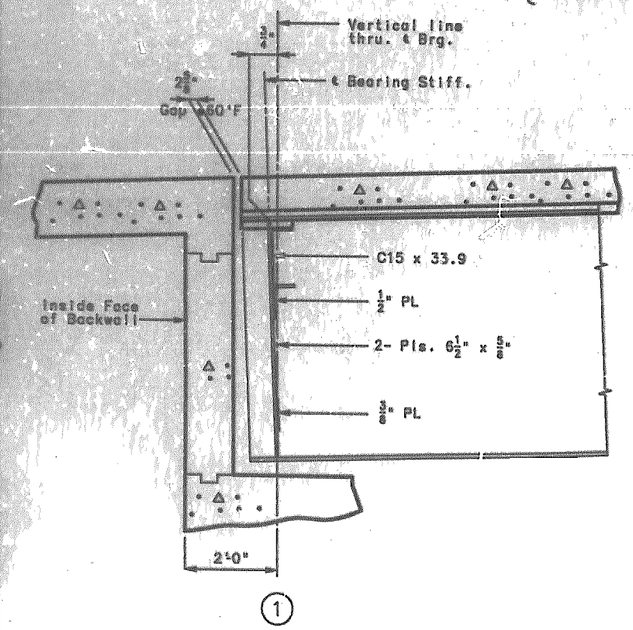
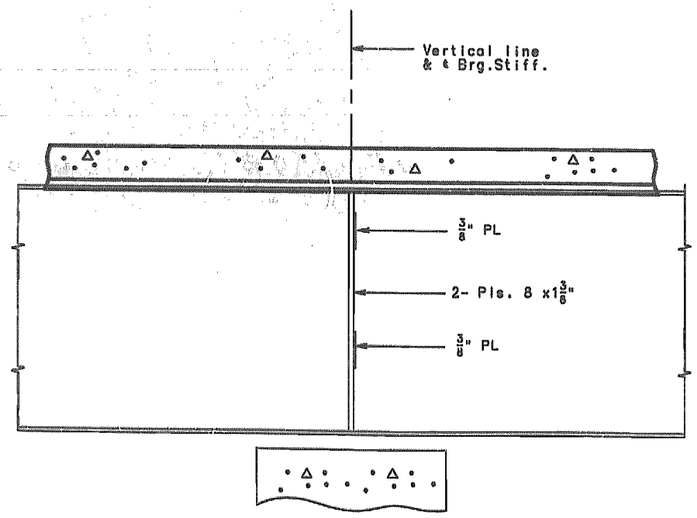


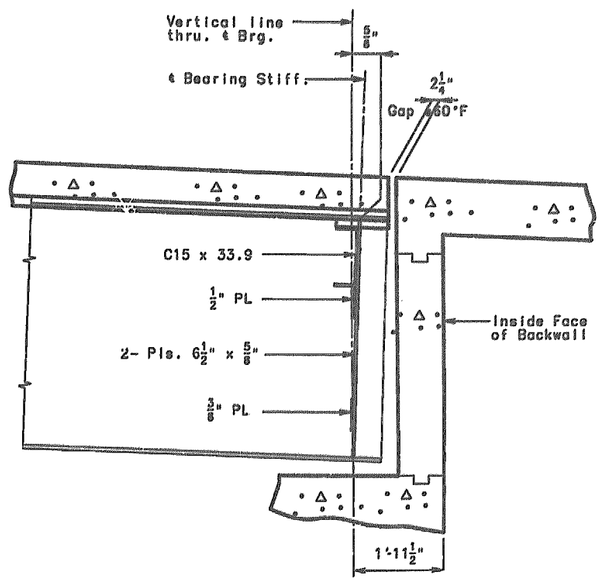
PLATE GIRDER CAMBER DIAGRAM

NOTE: Camber includes allowance for Vertical Curve, and Dead Load Deflection due to Concrete Slab , Curb and Structural Steel.

▲ { Girders #1&5 = 23%
Girders #2&4 = 20%
Girder # 3 = 21%







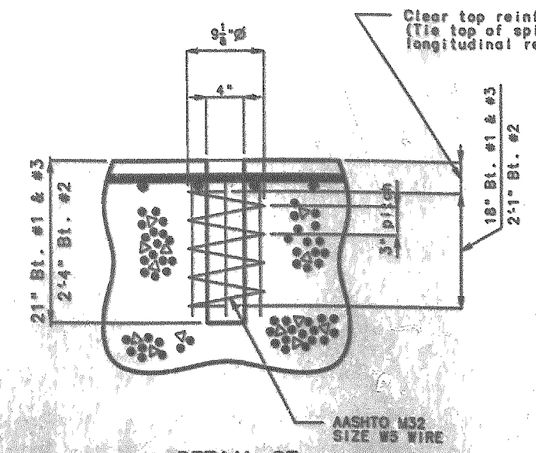
Note: Longitudinal dimensions are parallel to ℄ roadway .

PART LONGITUDINAL SECTION

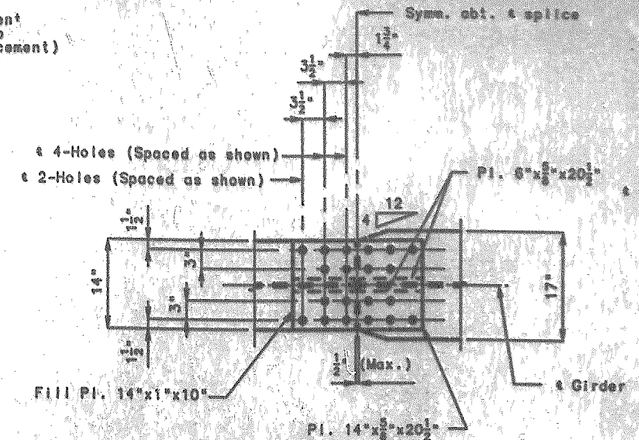
DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

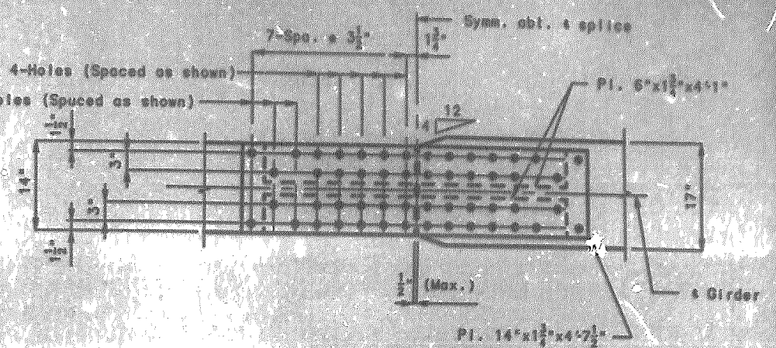
STATE	PROJ. NO.	SHEET NO.
MO.		16



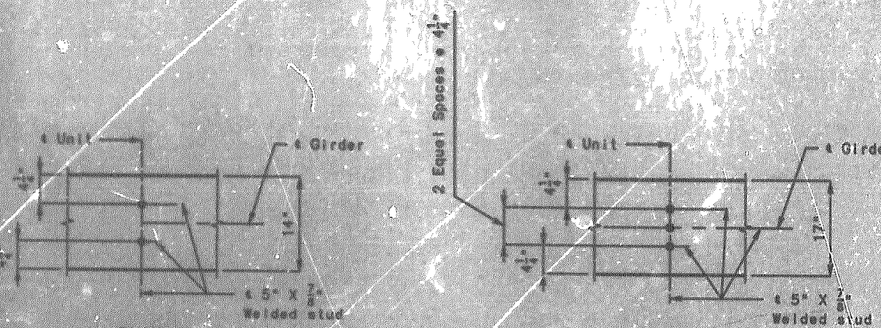
DETAIL OF ANCHOR BOLT WELLS



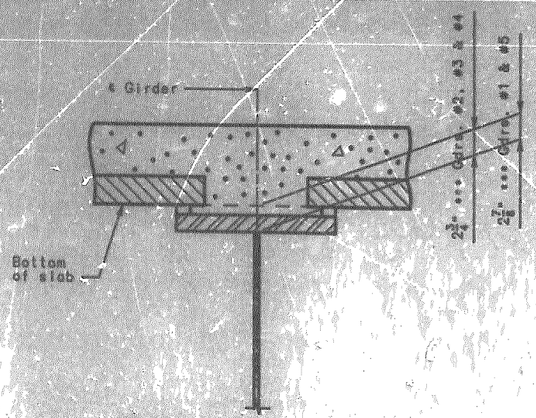
PLAN OF TOP FLANGE SPLICE



PLAN OF BOTTOM FLANGE SPLICE

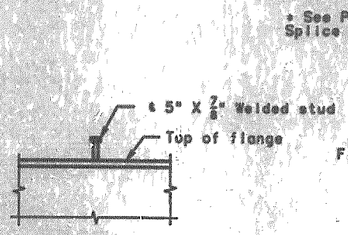


DETAILS OF SHEAR CONNECTORS



THEORETICAL SLAB HAUNCH

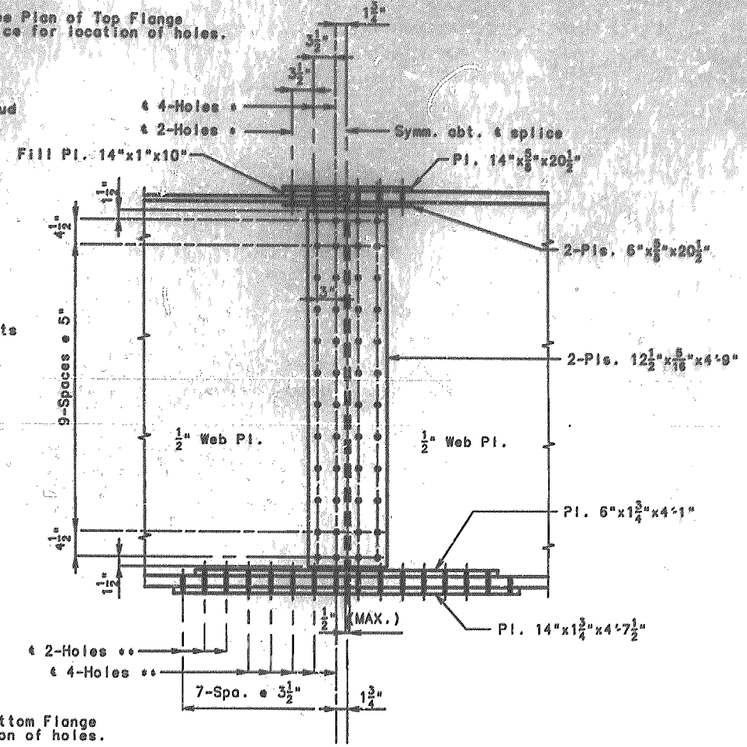
Note:***Dimensions may vary if the girder camber after erection differs from plan camber by more than the % of D.L. Deflection due to the weight of structural steel. No payment will be made for additional forming or concrete required for variation in haunching. (See sheet no. 15 for % D.L. deflection)



ELEVATION

NOTE: Weight of 1519 lbs. of shear connectors is included in weight of fabricated structural carbon steel.
Shear connectors shall meet the requirements of Std. Spec. 1037.

* See Plan of Top Flange Splice for location of holes.



** See Plan of Bottom Flange Splice for location of holes.

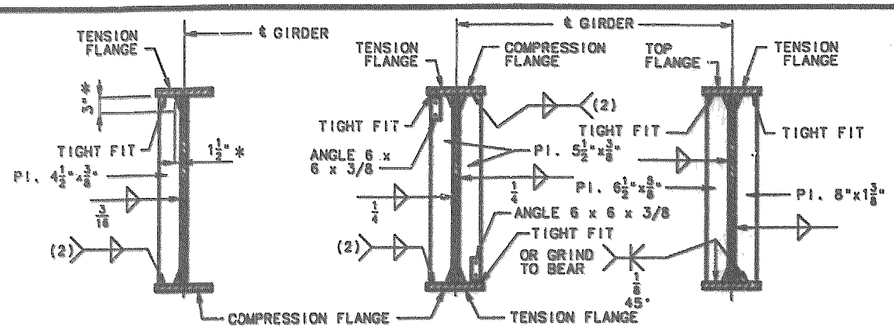
DETAIL OF BOLTED FIELD SPLICE

NOTE: USE ⅞" Ø HIGH STRENGTH BOLTS WITH 15/16" REAMED HOLES.

SPL. PL. FG 3.42,A36.2,A
FIELD SPLICE REVISED:
MAR. 1992

DETAILED SEPT.1994
CHECKED OCT. 1994

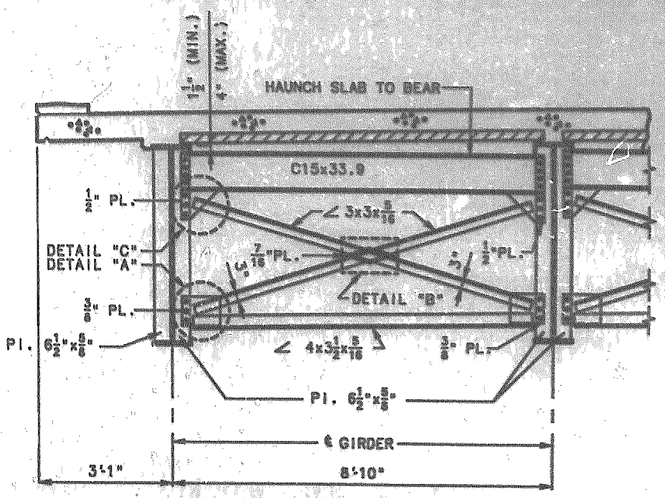
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.



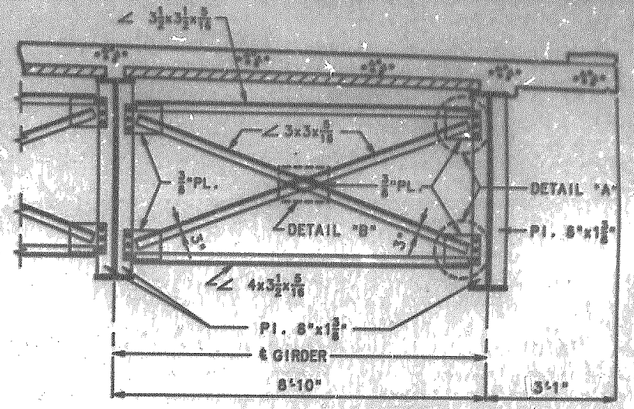
(2) WELD TO COMPRESSION FLANGE AS LOCATED ON ELEVATION OF GIRDER.

* TYPICAL FOR ALL INT. WEB STIFF., INT. DIAPH. CONN. PL. AND BRG. STIFF..

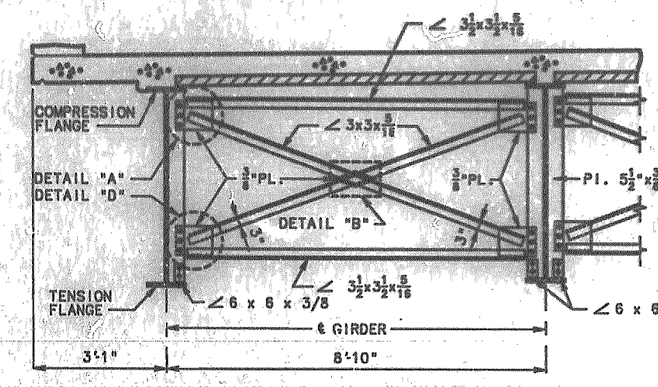
WELDING DETAILS



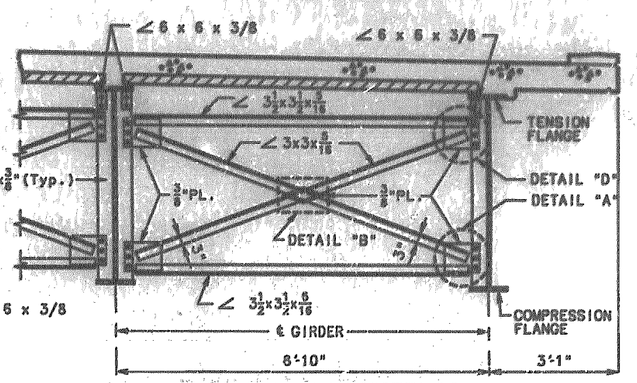
TYPICAL PART SECTION SHOWING END DIAPHRAGMS



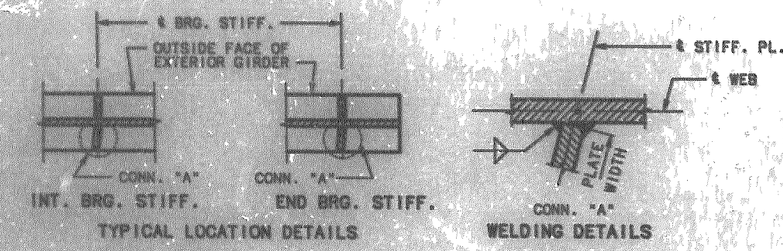
TYPICAL PART SECTION SHOWING CROSS FRAMES



TYPICAL PART SECTION SHOWING INTERMEDIATE DIAPHRAGMS BOTTOM FLANGE IN TENSION



TYPICAL PART SECTION SHOWING INTERMEDIATE DIAPHRAGMS TOP FLANGE IN TENSION

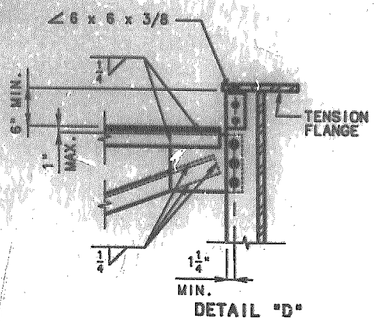


TYPICAL LOCATION DETAILS

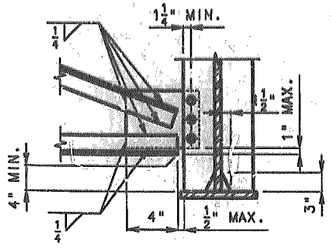
WELDING DETAILS

NOTE :

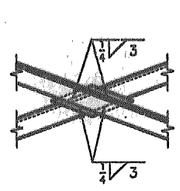
At the contractors option, holes in the diaphragm plate of non slab bearing diaphragms may be made 3/16" larger than the nominal diameter of the bolt. A hardened washer shall be used under the bolt head and nut when this option is used. Holes in the girder diaphragm connection plate or transverse web stiffener shall be standard size.



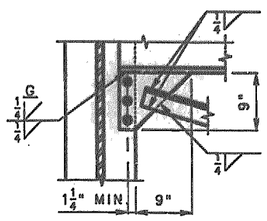
DETAIL "D"



DETAIL "A"

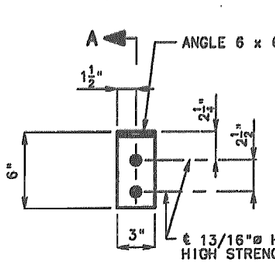


DETAIL "B"

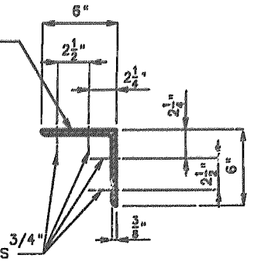


DETAIL "C"

NOTE: THE TWO 3/4"Ø H.S. BOLTS THAT CONNECT THE 6 X 6 X 3/8 ANGLE TO THE TOP FLANGE SHALL BE PLACED SO THE NUT IS ON THE INSIDE OF FLANGE TOWARD THE WEB.



DETAIL OF FLANGE CONNECTION ANGLE



SECTION A-A

DIAPH>48,P/G3.42.STL, .8
DIAPH≤48,P/G
SEPT. 1992

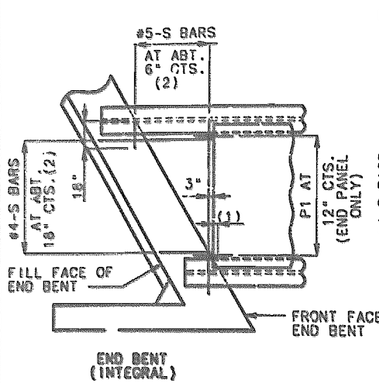
REVISED

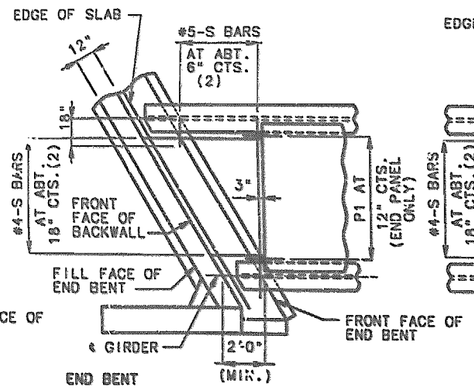
DETAILED SEPT. 1994
CHECKED OCT. 1994

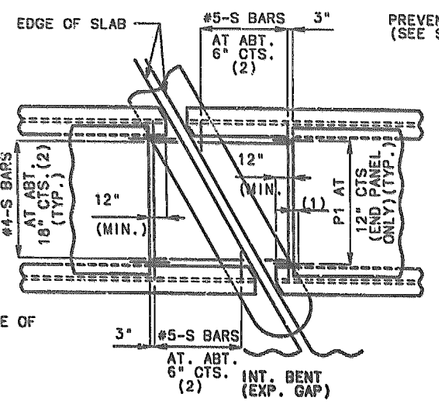
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

STATE	PROJ. NO.	SHEET NO.
MO.		17

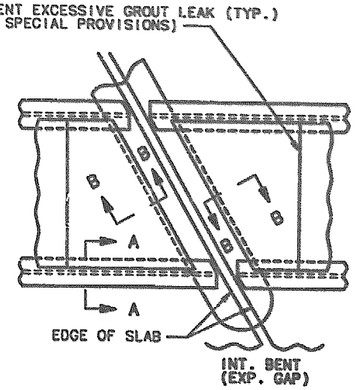


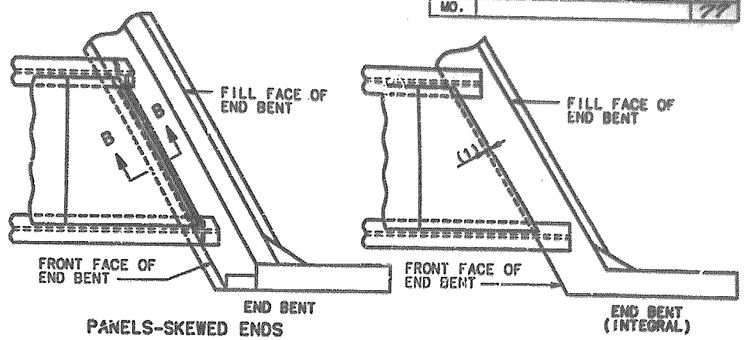




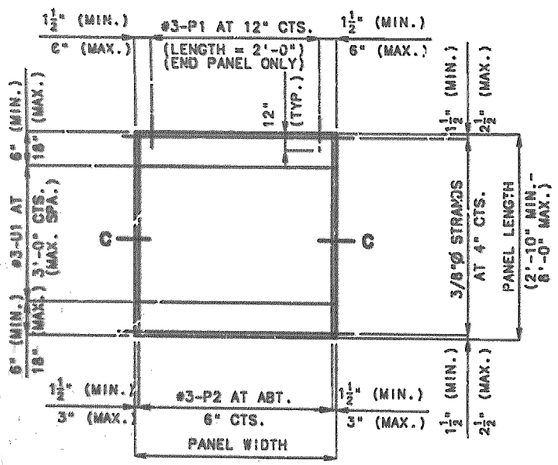
PANELS-SQUARED ENDS

PLAN OF PRECAST PRESTRESSED PANELS PLACEMENT

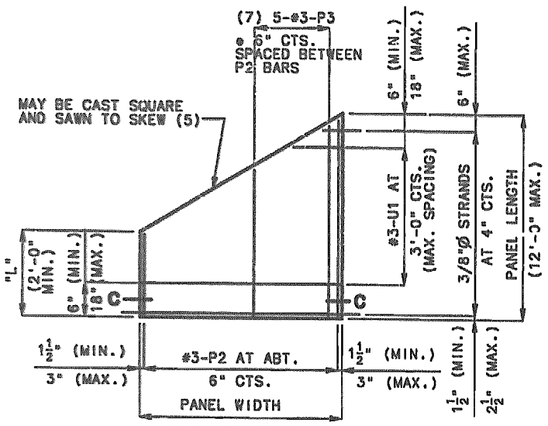




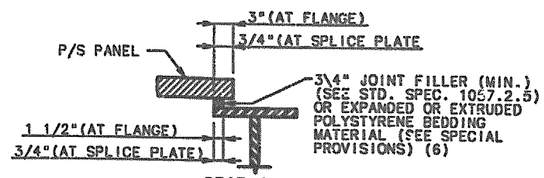
PANELS-SKEWED ENDS



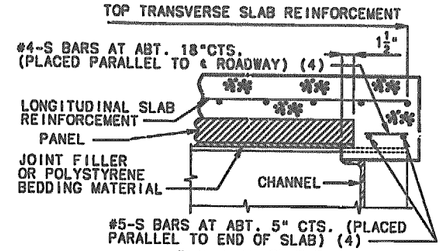
PLAN OF PRECAST PRESTRESSED PANEL



PLAN OF PRECAST PRESTRESSED PANEL (SKEWED END-OPTIONAL)



SECTION A-A



PART SECTION B-B

NOTE:

USE SLAB HAUNCHING DIAGRAM ON SHEET NO. 15 FOR DETERMINING THICKNESS OF JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL WITHIN THE LIMITS NOTED BELOW.

GENERAL NOTES:

PRESTRESSED PANELS:

CONCRETE FOR PRESTRESSED PANELS SHALL BE CLASS A1 WITH F'C = 5,000 PSI, F'CI = 3,500 PSI.

THE TOP SURFACE OF ALL PANELS SHALL RECEIVE A SCORED FINISH WITH A DEPTH OF SCORING OF 1/8 INCH PERPENDICULAR TO THE PRESTRESSING STRANDS IN THE PANELS (SEE SPECIAL PROVISIONS).

PRESTRESSING TENDONS SHALL BE HIGH-TENSILE STRENGTH UNCOATED SEVEN WIRE (7), LOW-RELAXATION STRANDS FOR PRESTRESSED CONCRETE CONFORMING TO AASHTO M203, EXCEPT THAT NOMINAL DIAMETER OF STRAND = 3/8 INCH AND NOMINAL AREA = 0.085 SQ. IN. AND MINIMUM ULTIMATE STRENGTH = 21,250 LBS. (250 KSI). LARGER STRANDS MAY BE USED WITH THE SAME SPACING AND INITIAL TENSION.

INITIAL PRESTRESSING FORCE = 14.9 KIPS/STRAND.

THE METHOD AND SEQUENCE OF RELEASING THE STRANDS SHALL BE SHOWN ON THE SHOP DRAWINGS.

SUITABLE ANCHORAGE DEVICES FOR LIFTING PANELS MAY BE CAST IN PANELS, PROVIDED THEY ARE SHOWN ON THE SHOP DRAWINGS AND APPROVED BY THE ENGINEER. PANEL LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR AND SHOWN ON THE SHOP DRAWINGS.

WHEN SQUARE END PANELS ARE USED AT SKEWED BENTS, IT IS REQUIRED THAT THE SKEWED PORTION BE CAST FULL DEPTH. NO SEPARATE PAYMENT WILL BE MADE FOR THE ADDITIONAL CONCRETE AND REINFORCING REQUIRED.

MINIMUM JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL THICKNESS SHALL BE 3/4 INCH, EXCEPT OVER SPLICE PLATES WHERE MINIMUM THICKNESS SHALL BE 1/4 INCH. WHEN JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL IS LESS THAN 1/2 INCH THICK OVER A SPLICE PLATE, MAKE THE WIDTH OF MATERIAL AT THE SPLICE THE SAME WIDTH AS PANEL ON SPLICE. THICKER MATERIAL MAY BE USED ON ONE OR BOTH SIDES OF THE GIRDER TO REDUCE CAST-IN-PLACE CONCRETE THICKNESS, WITHIN TOLERANCES. NO MORE THAN 2 INCHES TOTAL THICKNESS OF JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL SHALL BE USED.

THE SAME THICKNESS OF JOINT FILLER MATERIAL SHALL BE USED UNDER ANY ONE EDGE OF ANY PANEL EXCEPT AT SPLICES, AND THE MAXIMUM CHANGE IN THICKNESS BETWEEN ADJACENT PANELS SHALL BE 1/4 INCH TO CORRECT FOR VARIATIONS FROM GIRDER CAMBER DIAGRAM. THE POLYSTYRENE BEDDING MATERIAL MAY BE CUT TO MATCH HAUNCH HEIGHT ABOVE TOP OF FLANGE.

SUPPORT FROM DIAPHRAGM FORMS IS REQUIRED UNDER THE OPTIONAL SKEWED END UNTIL CAST-IN-PLACE CONCRETE HAS REACHED 3,000 PSI COMPRESSIVE STRENGTH.

REINFORCING STEEL:

ALL DIMENSIONS ARE OUT TO OUT.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1-1/2 INCH, UNLESS OTHERWISE SHOWN.

HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE C.R.S.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, STIRRUP AND TIE DIMENSIONS.

ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE OF BAR TO THE NEAREST INCH.

THE PRESTRESSED PANEL QUANTITIES ARE NOT INCLUDED IN THE TABLE OF ESTIMATED QUANTITIES FOR SLAB ON STEEL .

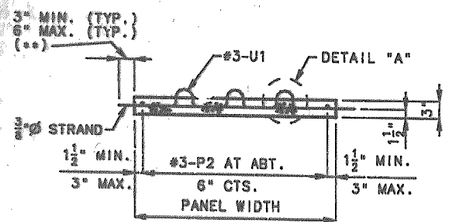
IF U1 BARS INTERFERE WITH PLACEMENT OF SLAB STEEL, U1 LOOPS MAY BE BENT OVER, AS NECESSARY, TO CLEAR SLAB STEEL.

WELDED WIRE FABRIC OR WELDED DEFORMED BAR MATS PROVIDING A MINIMUM AREA OF REINFORCING PERPENDICULAR TO STRANDS OF 0.22 SQ. IN./FT., WITH SPACING PARALLEL TO STRANDS SUFFICIENT TO INSURE PROPER HANDLING, MAY BE USED IN LIEU OF THE #3-P2 BARS SHOWN. WIRE OR BAR DIAMETER SHALL NOT BE LARGER THAN 0.375 INCHES. THE ABOVE ALTERNATIVE REINFORCEMENT CRITERIA MAY BE USED IN LIEU OF THE #3-P3 BARS, WHEN REQUIRED, AND PLACED OVER A WIDTH NOT LESS THAN 2FT.

THE REINFORCING STEEL SHALL BE TIED SECURELY TO THE 3/8"Ø STRANDS WITH THE FOLLOWING MAXIMUM SPACING IN EACH DIRECTION:
#3-P2 BARS AT 16 INCHES.
WELDED WIRE FABRIC OR WELDED DEFORMED BAR MATS AT 24 INCHES.

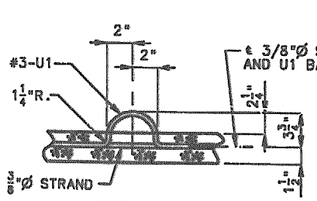
TIE THE #3-U1 BARS TO THE #3-P2 BARS, TO THE WELDED WIRE FABRIC OR THE WELDED DEFORMED BAR MATS AT ABOUT 36 INCH CENTERS.

ALL RE.NFORCEMENT OTHER THAN PRESTRESSING STRANDS SHALL BE EPOXY COATED.

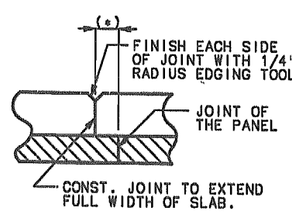


SECTION C-C

(**) PRESTRESSING STRANDS TO EXTEND 6" OR TO WITHIN 1" OF ADJACENT PANEL.

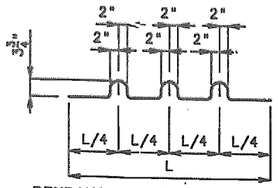


DETAIL "A"



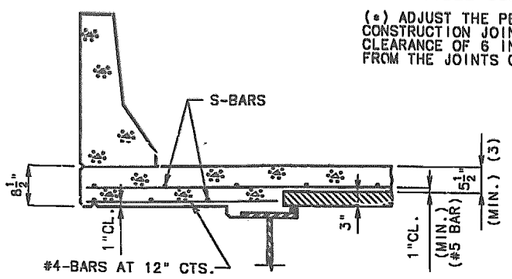
PERMISSIBLE CONST. JOINT

(*) ADJUST THE PERMISSIBLE CONSTRUCTION JOINT TO A CLEARANCE OF 6 INCHES MINIMUM FROM THE JOINTS OF THE PANELS.



BENDING DIAGRAM FOR U1 BAR

(U1 BARS MAY BE ORIENTED AT RIGHT ANGLES TO LOCATION AND SPACING SHOWN. U1 BARS SHALL BE PLACED BETWEEN P1 BARS).



SECTION THRU CANTILEVER

S.PAN 3",GS 3.30,STL. ,A		
3" PANEL (STEEL)	REVISED:	DEC. 1994
MAY 1985		

DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

NOTES:

(1) END PANELS TO BE DIMENSIONED 1-1/2 INCHES FROM THE INSIDE FACE OF DIAPHRAGM.

(2) S-BARS SHOWN ARE BOTTOM STEEL IN SLAB BETWEEN PANELS AND USED WITH SQUARED END PANELS ONLY.

COST OF S-BARS SHALL BE INCLUDED IN PRICE BID FOR SLAB PER SQUARE YARD.

S-BARS ARE NOT LISTED IN BILL OF REINFORCING.

(3) ADJUSTMENT IN THE SLAB THICKNESS, JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL THICKNESS, OR GRADE, WILL BE NECESSARY IF THE GIRDER CAMBER AFTER ERECTION DIFFERS FROM PLAN CAMBER BY MORE THAN THE ½ OF DEAD LOAD DEFLECTION DUE TO THE WEIGHT OF STRUCTURAL STEEL. NO PAYMENT WILL BE MADE FOR ADDITIONAL LABOR OR MATERIALS FOR THE ADJUSTMENT.

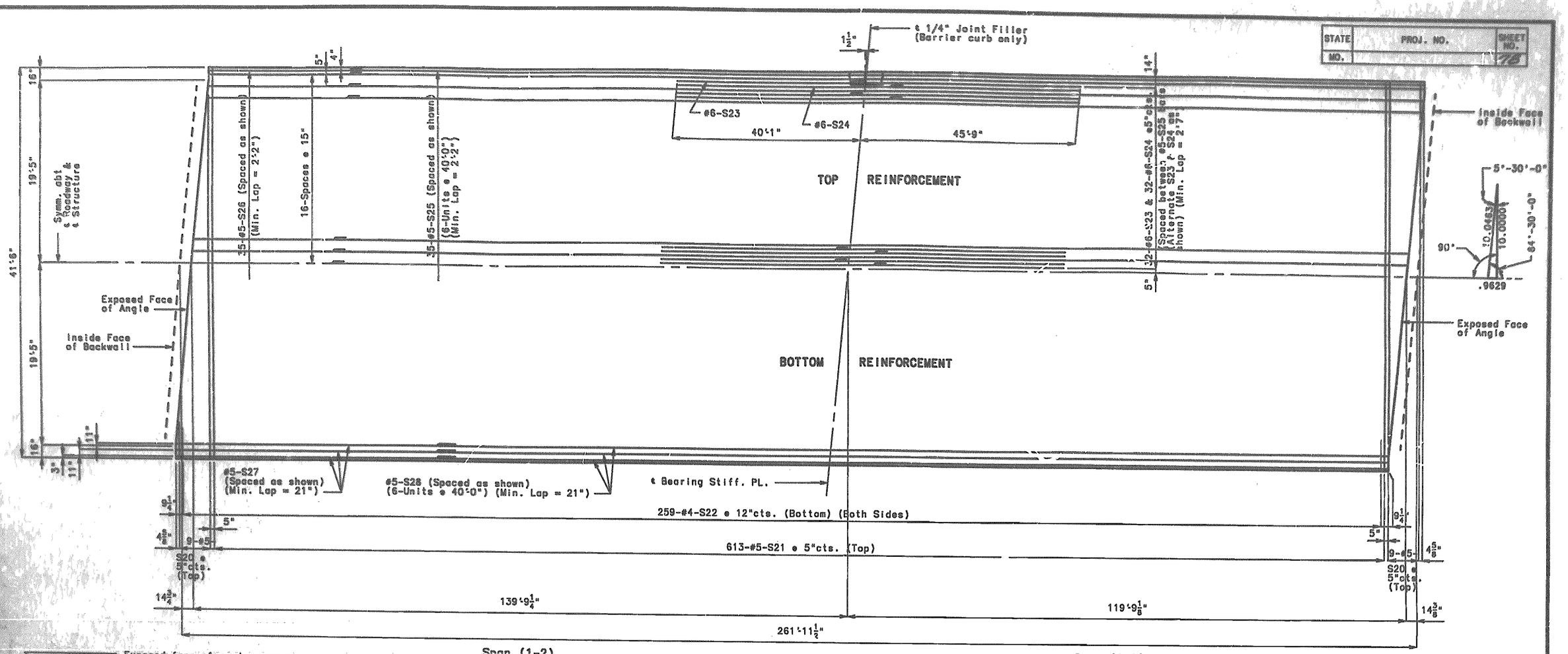
(4) S - BARS SHOWN ARE USED WITH SKEWED END PANELS, OR SQUARE END PANELS OF SQUARE STRUCTURES ONLY. THE #5 S - BARS SHALL EXTEND THE WIDTH OF SLAB (21 INCHES LAP IF NECESSARY) OR TO WITHIN 3 INCHES OF EXPANSION DEVICE ASSEMBLIES.

(5) ANY STRAND 2'-0" OR SHORTER SHALL HAVE A #4 REINFORCING BAR ON EACH SIDE OF IT CENTERED BETWEEN STRANDS. STRANDS 2'-0" OR SHORTER MAY THEN BE DEBONDED AT THE FABRICATORS OPTION.

(6) ALL PANEL SUPPORT PADS SHALL BE GLUED TO THE GIRDER. WHEN SUPPORT THICKNESS EXCEEDS 1-1/2", THE PADS SHALL BE GLUED TOP AND BOTTOM. THE GLUE USED SHALL BE THE TYPE RECOMMENDED BY THE PANEL SUPPORT PADS MANUFACTURER.

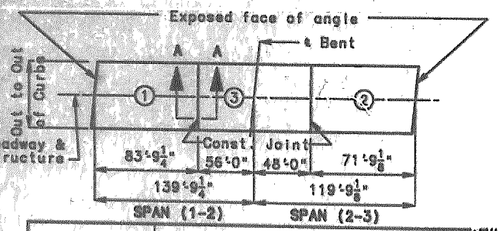
(7) USE #3-P3 BARS IF PANEL IS SKEWED 45° OR GREATER.

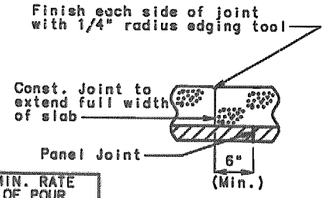
DETAILS OF PRECAST PRESTRESSED PANELS



PLAN OF SLAB SHOWING REINFORCEMENT

Note: Longitudinal dimensions shown are horizontal.



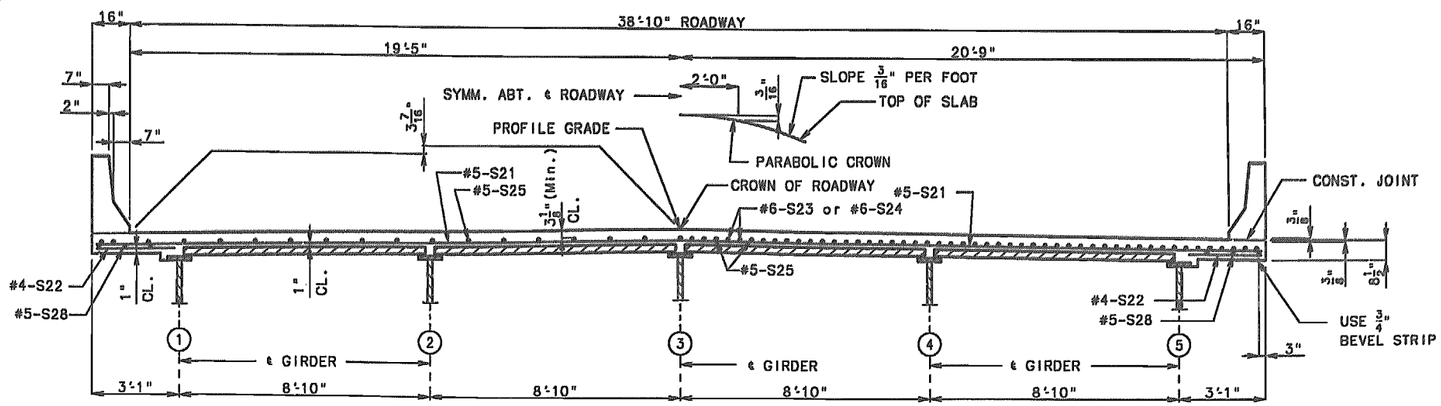


SECTION A-A

	SEQUENCE OF POURS			MIN. RATE OF POUR CU. YDS./HR.	MIN. RATE OF POUR CU. YDS./HR
	DIRECTION			WITH RETARDER	NO RETARDER
BASIC SEQUENCE	1	2	3	25	25
	EITHER DIRECTION				
ALTERNATE POURS TO THE BASIC SKIP SEQUENCE ARE SUBJECT TO THE APPROVAL OF THE ENGINEER IN ACCORDANCE WITH SECTION 703.3.12.4 OF MISSOURI STANDARD SPECIFICATIONS.					
ALTERNATE "A" POURS	1		3 + 2	43	-
	END TO 3		1 TO END		
ALTERNATE "B" POURS	1 + 3 + 2			43	-
	END TO END				

SLAB POURING SEQUENCE

Note: The contractor shall pour and satisfactorily finish the slab pours at the rate given. The retarder shall be an approved type and retard the set of concrete to 2.5 hours.



HALF SECTION NEAR ℄ SPAN

HALF SECTION NEAR INT. BENT

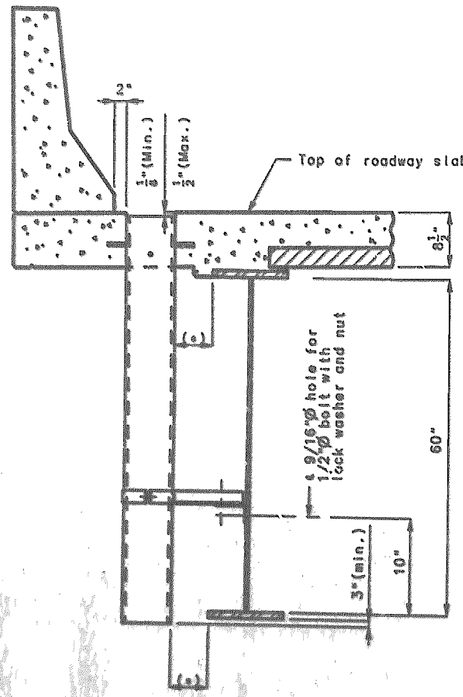
NOTE: FOR DETAILS AND REINFORCEMENT OF SAFETY BARRIER CURB NOT SHOWN SEE SHEET NO. 22 & 23 .

SLB38'-10,C/S3.30,SYM.S,C

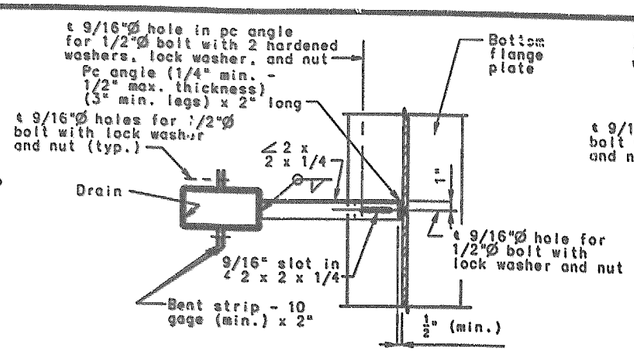
REVISED	
AUG. 1992	

DETAILED SEPT. 1994
CHECKED OCT. 1994

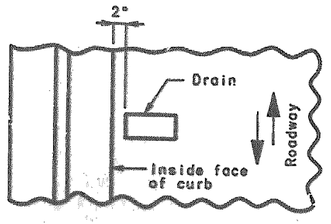
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.



PART ELEVATION OF SLAB AT DRAIN

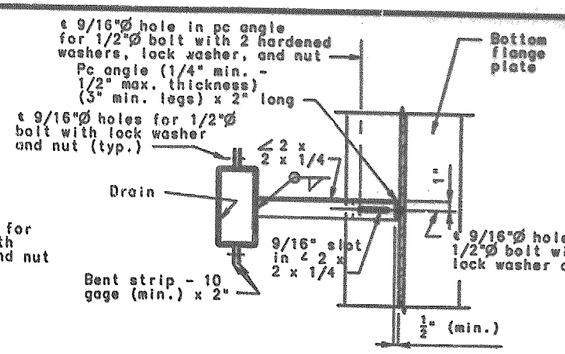


PART PLAN SHOWING BRACKET ASSEMBLY

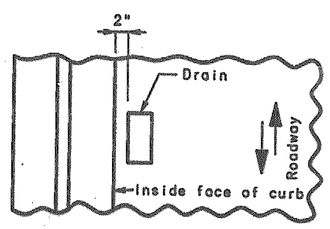


PART PLAN OF SLAB AT DRAIN

DETAILS OF DRAINS TRANSVERSE TO ROADWAY

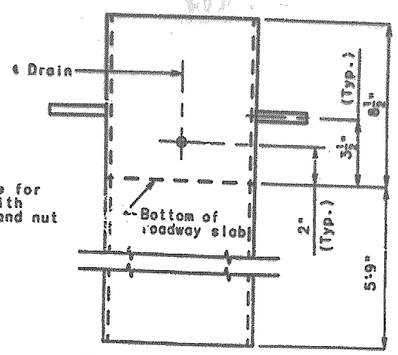


PART PLAN SHOWING BRACKET ASSEMBLY

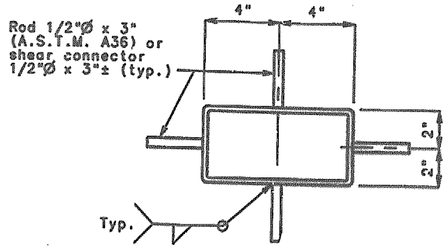


PART PLAN OF SLAB AT DRAIN

DETAILS OF DRAINS PARALLEL TO ROADWAY



ELEVATION OF DRAIN



PLAN OF DRAIN

(*) If dimension is less than 1", drains shall be placed parallel to roadway, otherwise place drains transverse to roadway.

SLAB DRAIN DETAILS

STATE NO.	PROJ. NO.	SHEET NO. 27

Slab drains may be fabricated of either 1/4" welded sheets of A.S.T.M. A36 steel or from 1/4" structural steel tubing A.S.T.M. A500 or A501.

Outside dimensions of drains are 8" x 4".

Locate drains in the slab by dimensions shown in the Part Elevation.

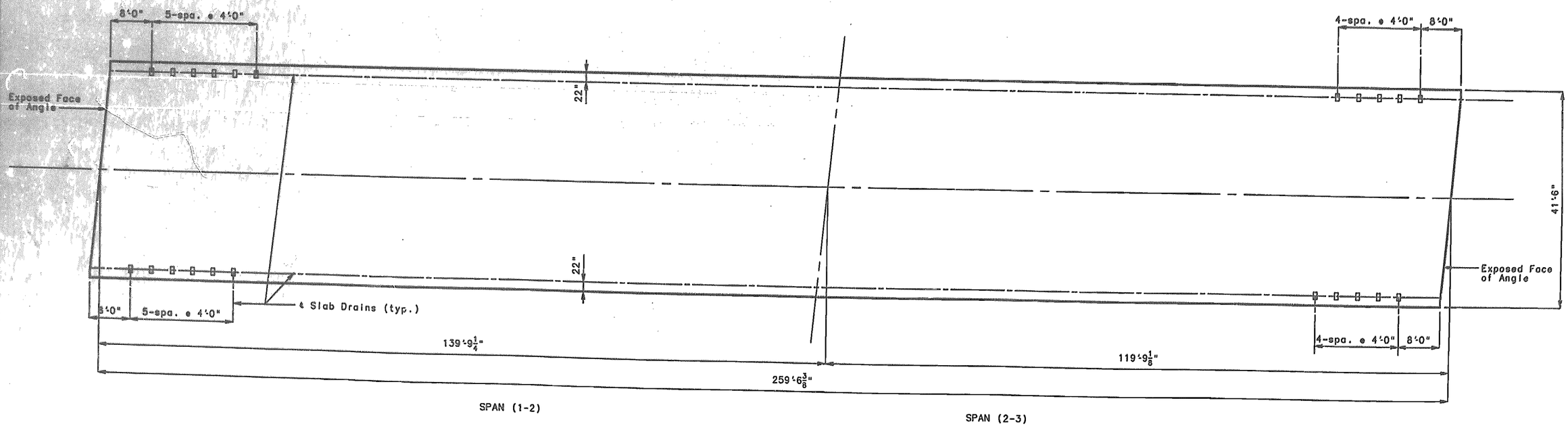
Shift reinforcing in field where necessary to clear drains.

The drains and bracket assembly shall be galvanized in accordance with A.S.T.M. A123.

All bolts, hardened washers, lock washers and nuts shall be galvanized in accordance with A.S.T.M. A153.

The bolt hole for the bracket assembly attachment shall be located on the plate girder shop drawings.

Shop drawings will not be required for slab drains and the bracket assembly.



PLAN OF SLAB SHOWING SLAB DRAIN LOCATIONS

DRA 6 ,GS 3.30,STL, ,A

Revised	September 1994
Steel Girder Drain	
September 1992	

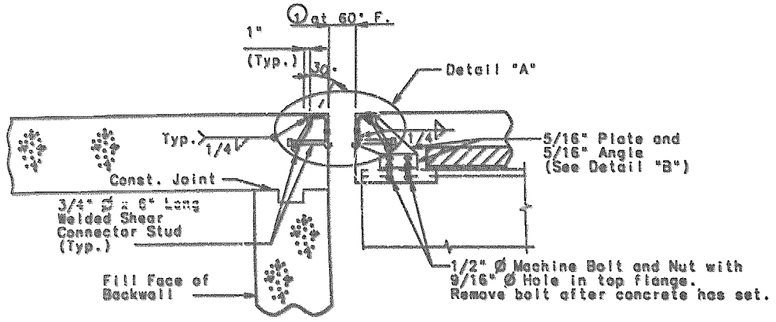
DETAILED OCT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

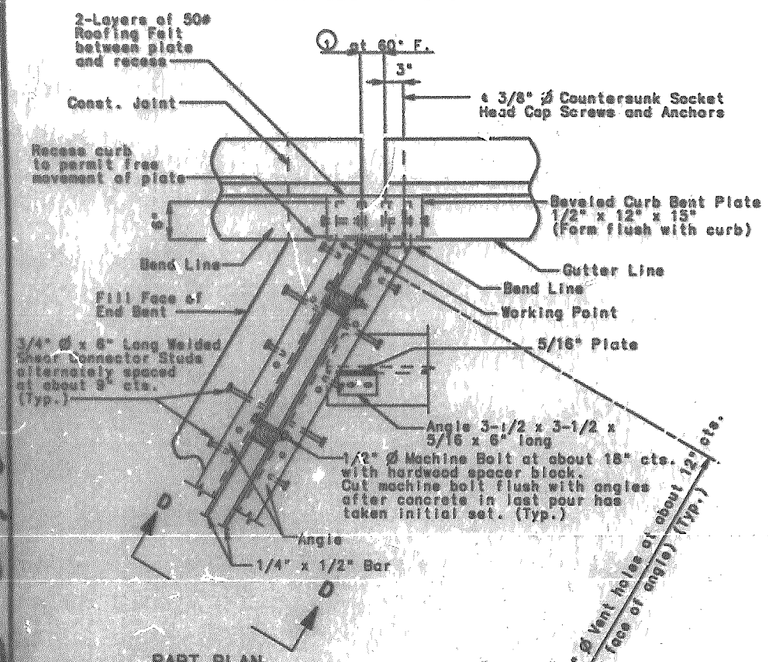
JASPER COUNTY

A5514

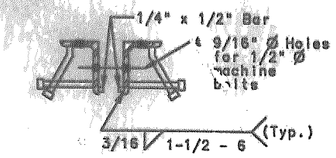
STATE	PROJ. NO.	SHEET NO.
MO.		20



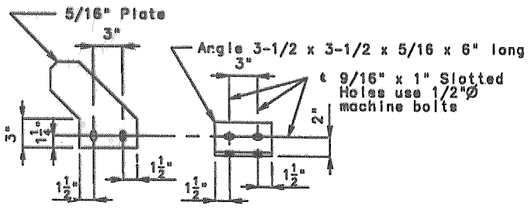
PART SECTION D-D



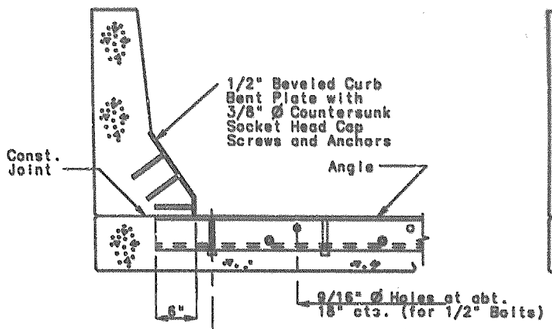
PART PLAN



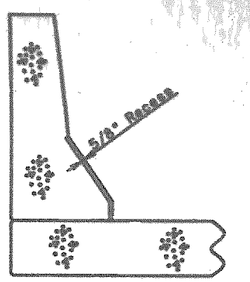
DETAIL "A"



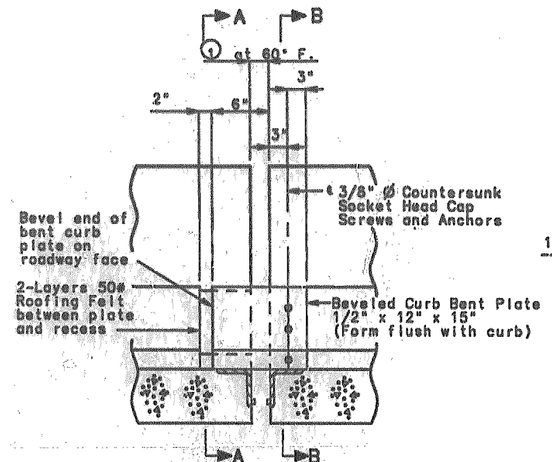
DETAIL "B"



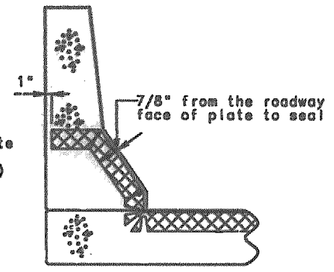
PART SECTION B-B



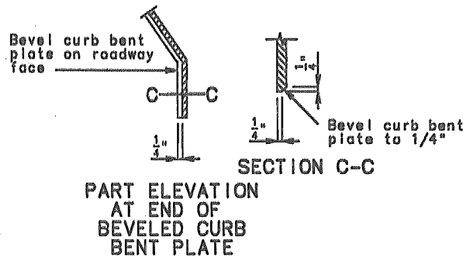
PART SECTION A-A



PART ELEVATION OF BARRIER CURB



PART SECTION THRU JOINT SEAL



SECTION C-C

PART ELEVATION AT END OF BEVELED CURB BENT PLATE

GENERAL NOTES:

Structural steel for expansion device shall be fabricated in one section, except that when the length is over 50', splicing is permissible.

The expansion device shall be bent to conform to crown and grade of roadway.

Structural steel for the armored joint shall be grade A36.

Plan dimensions are based on installation at 60°F.

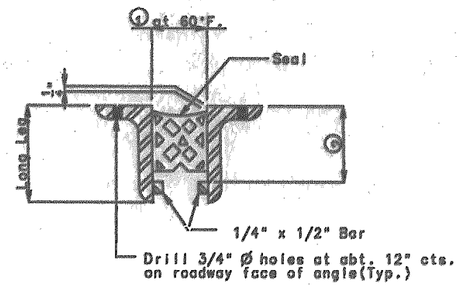
Dimension ① shall be increased 1/8" for each 10° fall in temperature and decreased 1/8" for each 10° rise in temperature at installation.

See Special Provisions for the requirements of compression joint seal.

Structural steel for the expansion device and curb plate shall be painted with a minimum of two coats of inorganic zinc primer (5 mils minimum) in accordance with the special provisions. Anchors need not be protected from overspray.

Furnishing, painting and installing the structural steel armored joint shall be included in contract unit price for preformed compression expansion joint seal.

Neoprene extrusions shall meet A.S.T.M. D3542.



PART CROSS SECTION THRU EXPANSION JOINT

TABLE OF TRANSVERSE BRIDGE SEAL DIMENSIONS				
Location	Seal (Width)	①	②	Required Movement Range
Abutment No. 1	4.0"	2-5/8"	Seal Depth + 3/4"	1.6"
Abutment No. 3	3.5"	2-1/4"	Seal Depth + 3/4"	1.3"

Note: Depth of seal shall not be less than width of seal.

SIZE OF ARMOR JOINT

Vertical leg of angle shall be a minimum of depth of seal + 1-1/2". Horizontal leg of angle shall be a minimum of 3". Minimum thickness of angle shall be 1/2".

If a seal size larger than that indicated on the plans is used, the movement range, the opening at 60° and all dimensions for the armor angles shall be shown on the shop drawings.

PCJS LA,ED 3.35,STL,E,B

PCJS-STL EB-LA	REVISED	AUG. 1993
AUG. 1992		

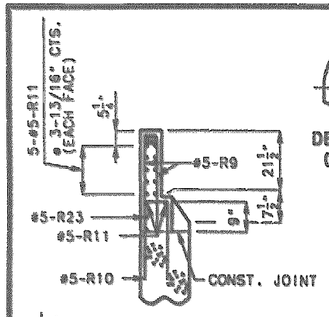
DETAILED SEPT. 1994
CHECKED OCT. 1994

DETAILS OF PREFORMED COMPRESSION JOINT SEAL AT BENTS NO.1 & NO.3

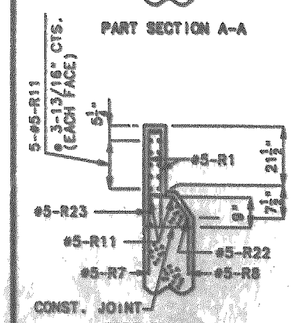
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

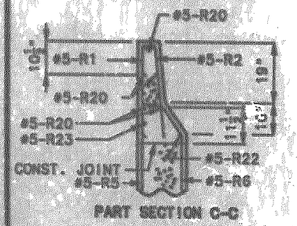
STATE	PROJ. NO.	SHEET NO.
MO.		21



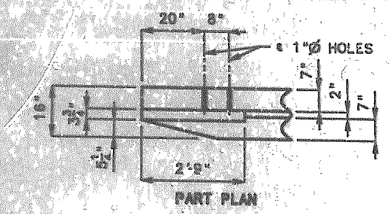
PART SECTION A-A



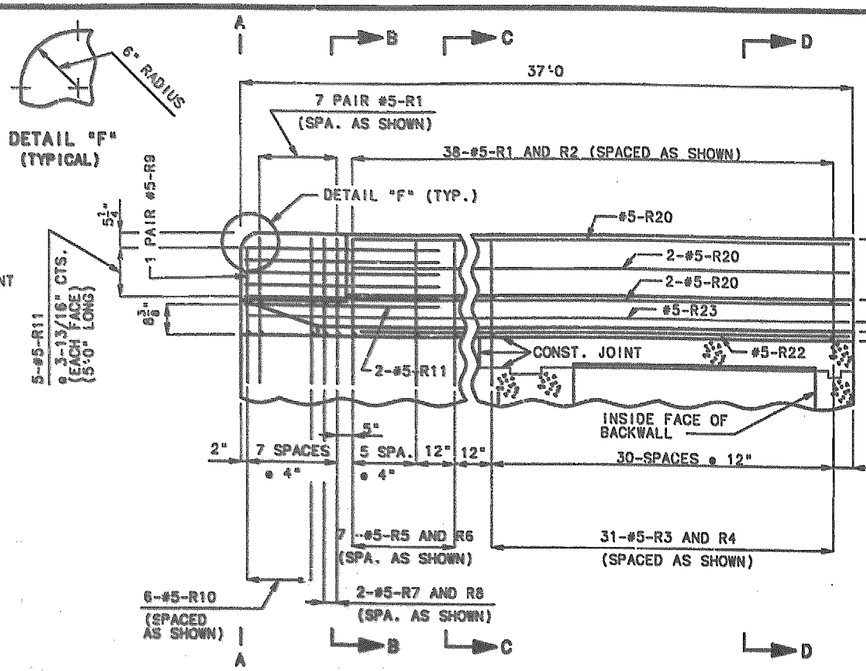
PART SECTION B-B



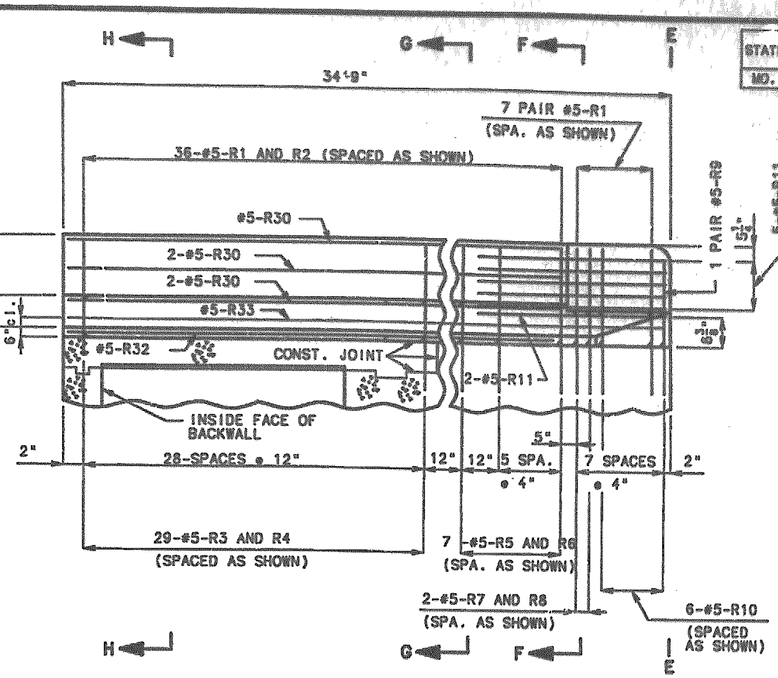
PART SECTION C-C



PART PLAN



PART ELEVATION AT ABUTMENT NO.1



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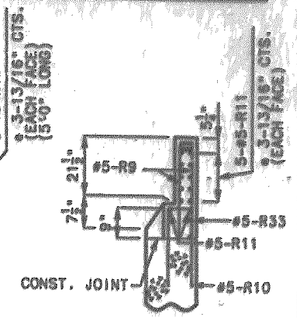
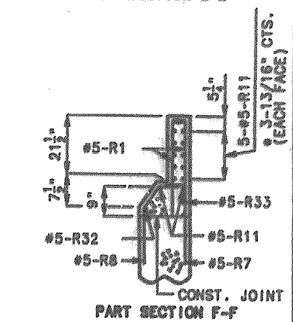


PART SECTION E-E

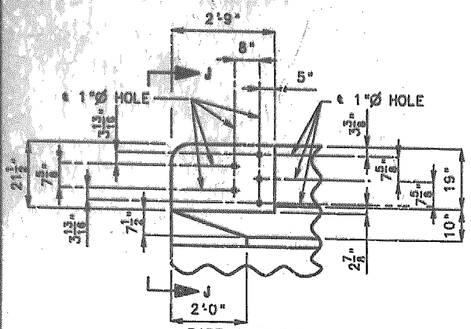


PART SECTION F-F

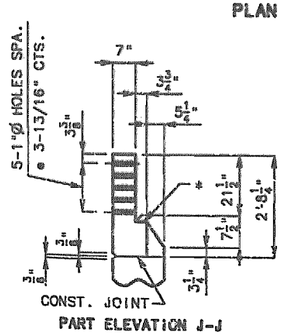
PLAN AT ABUTMENT NO,1

PLAN AT ABUTMENT NO,3

PART SECTION G-G



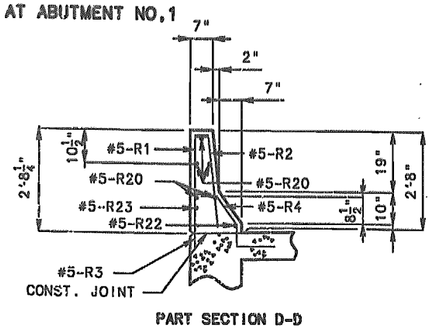
PART ELEVATION



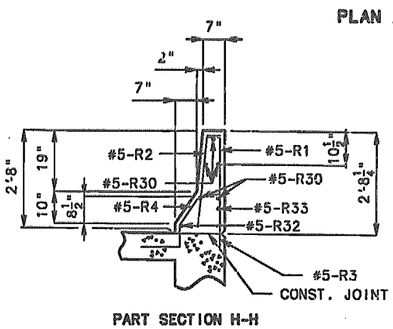
PART ELEVATION J-J

* SLOPE 1/4" TOWARD ROADWAY

DETAILS OF GUARD RAIL ATTACHMENT



PART SECTION D-D



PART SECTION H-H

DETAILS OF SAFETY BARRIER CURB AT ABUTMENTS
(LEFT CURB SHOWN, RIGHT CURB SIMILAR)

Note: For Details of Rustication not shown see sheet No.23 .

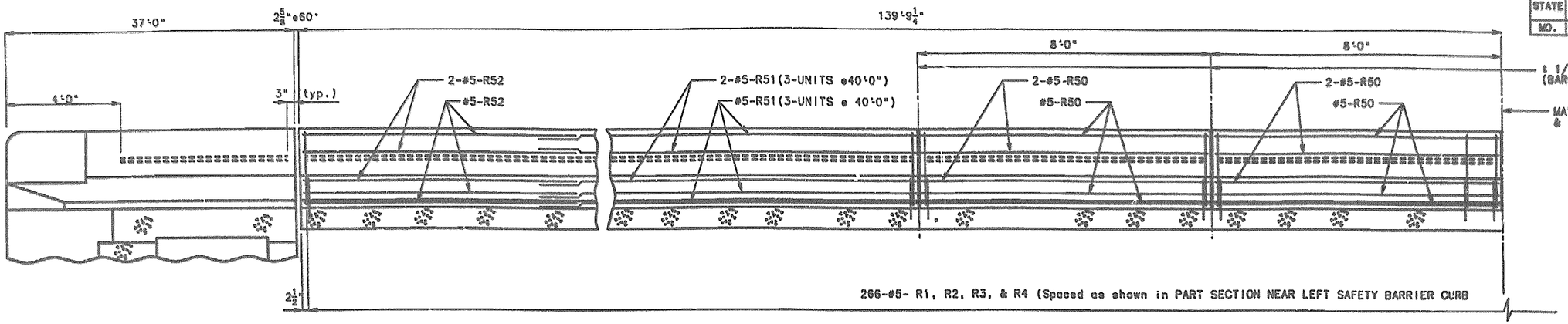
B/C EP16,GS 3.30,SEM, ,A
SEMI-DEEP END POST (16") REVISED- MARCH 1993
MARCH 1992

DETAILED SEPT.1994
CHECKED OCT. 1994

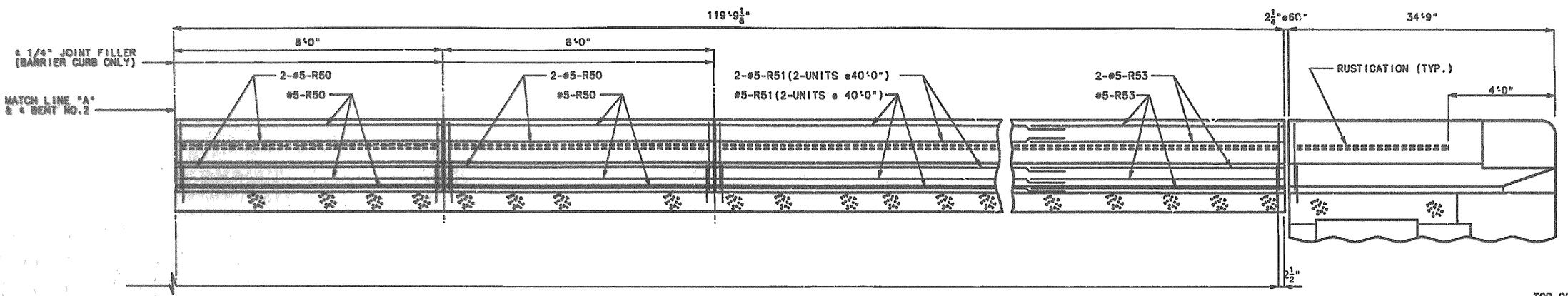
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

STATE	PROJ. NO.	SHEET NO.
MO.		22

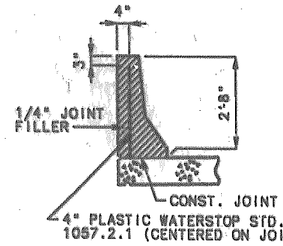


SPAN (1-2)



SPAN (2-3)

SECTION NEAR LEFT BARRIER CURB (RIGHT BARRIER CURB SIMILAR)

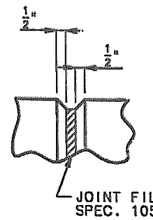


4" PLASTIC WATERSTOP STD. SPEC. 1057.2.1 (CENTERED ON JOINT)

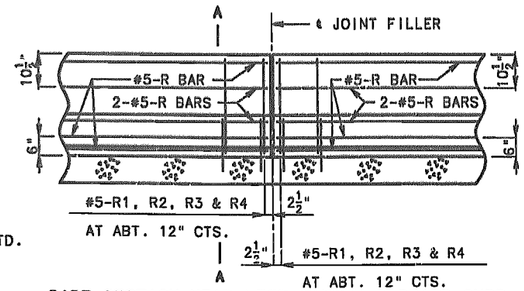
NOTE: PLASTIC WATERSTOP SHALL BE PLACED IN ALL SAFETY BARRIER CURB FILLED JOINTS. (EXCEPT STRUCTURES WITH SUPERELEVATION, USE ON ALL LOWER SAFETY BARRIER CURB JOINTS ONLY).

COST OF PLASTIC WATERSTOP COMPLETE IN PLACE TO BE INCLUDED IN CONTRACT UNIT PRICE FOR SAFETY BARRIER CURB.

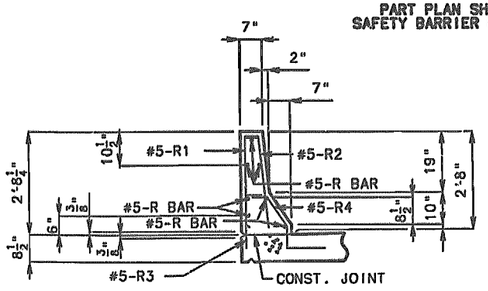
DETAILS OF PLASTIC WATERSTOP



FILLED JOINT DETAIL

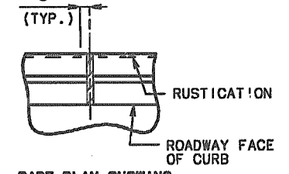


PART SECTION NEAR LEFT SAFETY BARRIER CURB (CAST-IN-PLACE CONVENTIONAL FORMING OPTION)

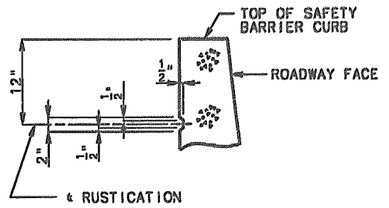


PART SECTION A-A

NOTE: USE A MINIMUM LAP OF 17" FOR #5 HORIZONTAL SAFETY BARRIER CURB BARS.
THE CROSS-SECTIONAL AREA ABOVE THE SLAB = 2.27 SQ. FT.



PART PLAN SHOWING SAFETY BARRIER CURB JOINT



PART SECTION SHOWING RUSTICATION DETAILS

NOTE:

TOP OF SAFETY BARRIER CURB SHALL BE BUILT PARALLEL TO GRADE WITH SAFETY BARRIER CURB JOINTS (EXCEPT AT END BENTS) NORMAL TO GRADE.

ALL EXPOSED EDGES OF SAFETY BARRIER CURB SHALL HAVE EITHER A 1/2" RADIUS OR A 3/8" BEVEL, UNLESS OTHERWISE NOTED.

WHEN THE SAFETY BARRIER CURB IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE AND REINFORCEMENT, COMPLETE-IN-PLACE.

CONCRETE IN THE SAFETY BARRIER CURB SHALL BE CLASS B1.

MEASUREMENT OF SAFETY BARRIER CURB IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED ALONG THE OUTSIDE TOP OF SLAB FROM END OF WING TO END OF WING.

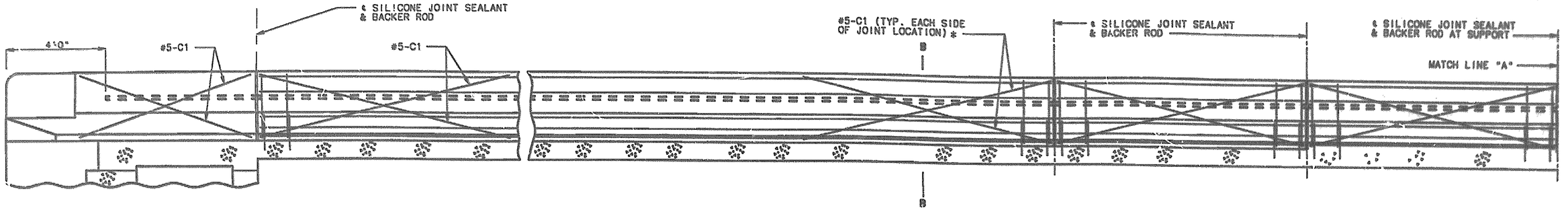
B/C EL16,GS 3.30, , ,A	
BARRIER CURB ELEVATION	REVISED: FEB. 1991
JAN. 1990	

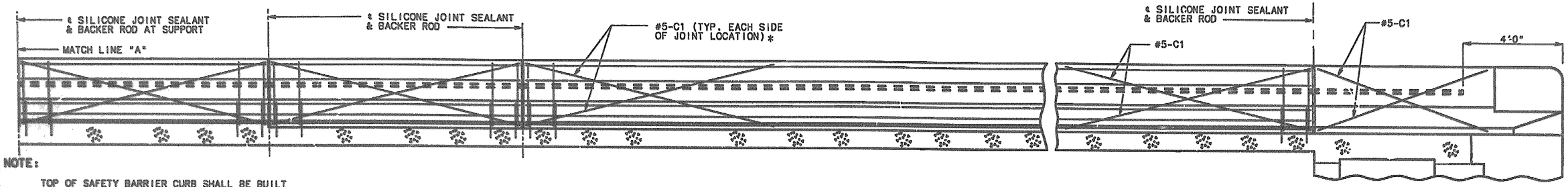
DETAILED SEPT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY A5514

STATE	PROJ. NO.	SHEET NO.
MD.		23





NOTE:

TOP OF SAFETY BARRIER CURB SHALL BE BUILT PARALLEL TO GRADE WITH SAFETY BARRIER CURB JOINTS (EXCEPT AT END BENTS) NORMAL TO GRADE.

WHEN THE SAFETY BARRIER CURB IS BID BY LINEAR FEET, THE CONTRACT UNIT PRICE SHALL INCLUDE THE COST OF ALL CONCRETE AND REINFORCEMENT, COMPLETE-IN-PLACE.

CONCRETE IN THE SAFETY BARRIER CURB SHALL BE CLASS B1.

MEASUREMENT OF SAFETY BARRIER CURB IS TO THE NEAREST LINEAR FOOT FOR EACH STRUCTURE, MEASURED ALONG THE OUTSIDE TOP OF SLAB FROM END OF WING TO END OF WING.

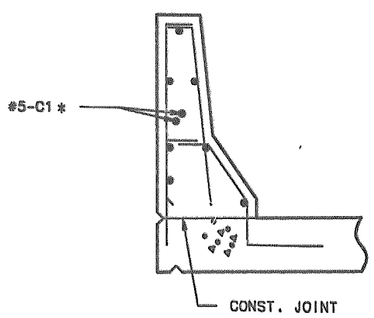
TYPICAL SECTION NEAR LEFT SAFETY BARRIER CURB AT SUPPORT LOCATIONS
(OPTIONAL SLIP-FORM BRIDGE SAFETY BARRIER CURB)

NOTE:

JOINT SEALANT AND BACKER RODS SHALL BE USED ON ALL SLIP-FORM BRIDGE SAFETY BARRIER CURBS INSTEAD OF JOINT FILLER.

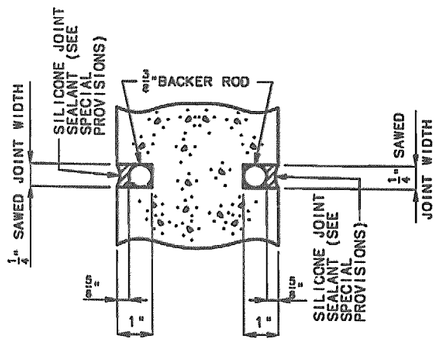
PLASTIC WATERSTOP SHALL NOT BE USED WITH SLIP-FORM OPTION.

C BARS (SLIP-FORM OPTION ONLY) SHALL BE USED IN ADDITION TO CAST-IN-PLACE CONVENTIONAL FORMING REINFORCEMENT FOR BRIDGE SAFETY BARRIER CURB.



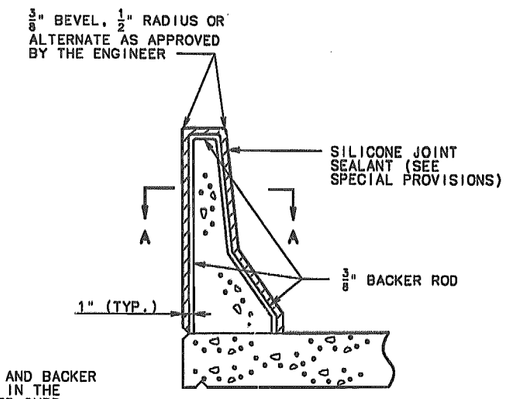
PART SECTION B-B

NOTE: * EACH SIDE OF JOINT LOCATION.

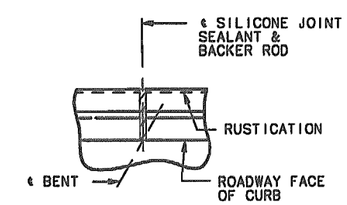


SECTION A-A

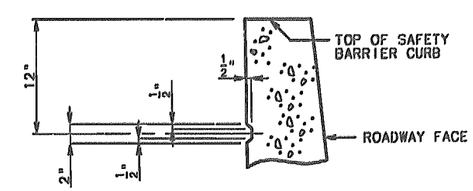
NOTE: COST OF SILICONE JOINT SEALANT AND BACKER ROD COMPLETE IN PLACE TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SAFETY BARRIER CURB.



SECTION THRU JOINT



PART PLAN SHOWING SAFETY BARRIER CURB JOINT



PART SECTION SHOWING RUSTICATION DETAILS

RUSTICATION DETAIL
(USE ON HIGHWAY GRADE SEPARATION ONLY)

OPTIONAL SLIP-FORM BRIDGE SAFETY BARRIER CURB

B/C SF16,GS 3.30, A
BARRIER CURB ELEVATION
FEB. 1991

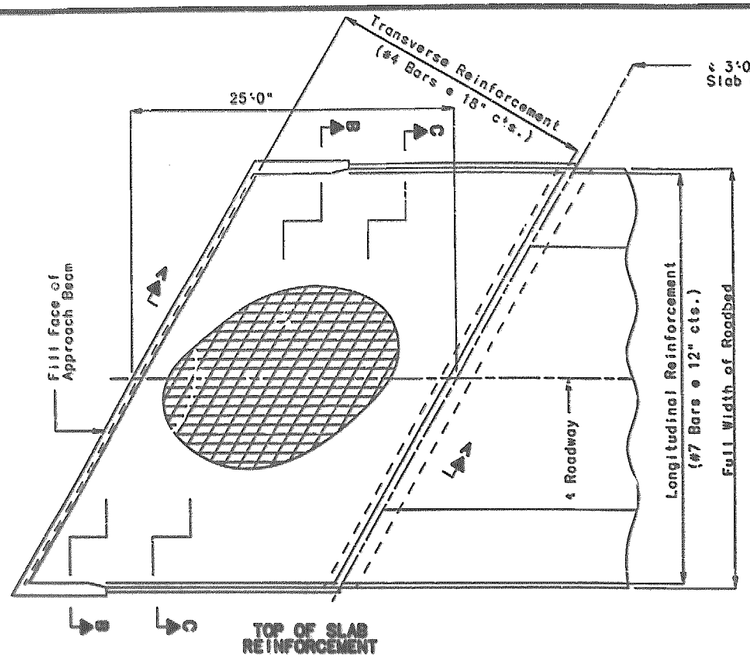
DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

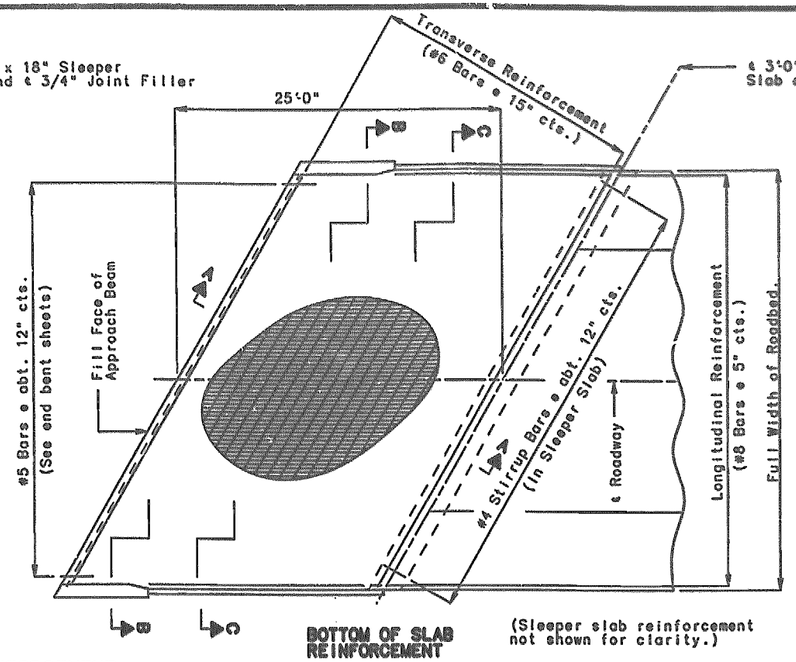
JASPER COUNTY

A5514

STATE		PROJ. NO.	SHEET NO.
MO.			25

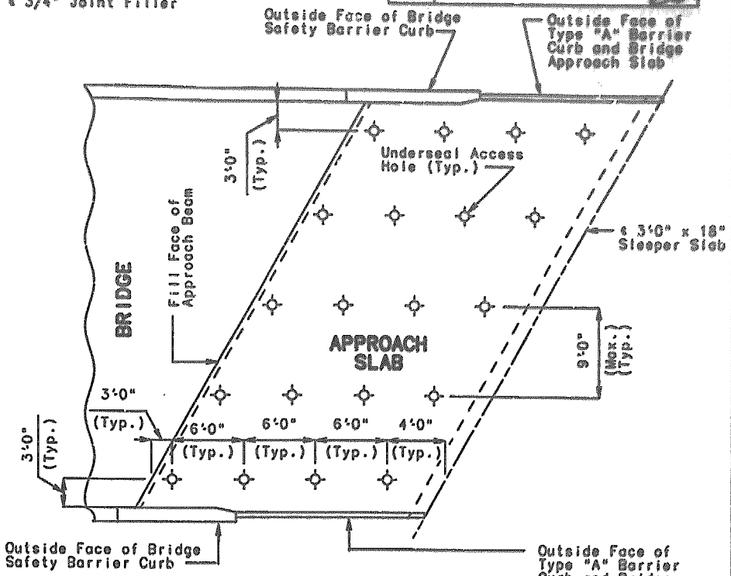


TOP OF SLAB REINFORCEMENT



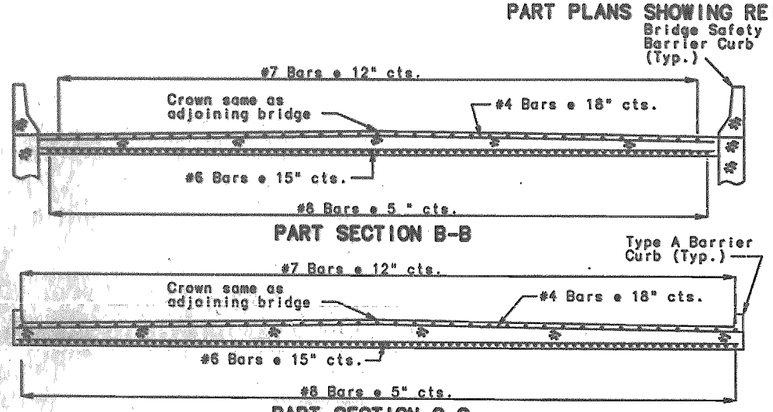
BOTTOM OF SLAB REINFORCEMENT

(Sleeper slab reinforcement not shown for clarity.)



PART PLAN
(SHOWING TYPICAL UNDERSEAL ACCESS HOLE LOCATIONS)

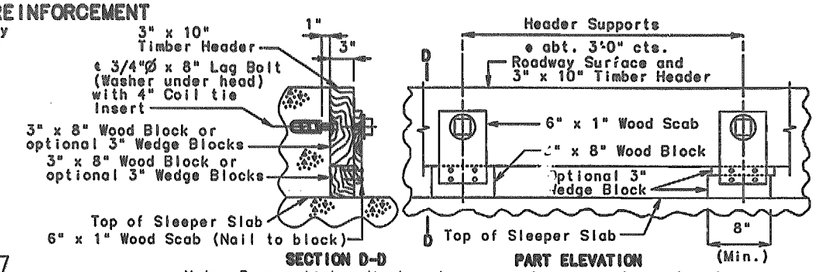
PART PLANS SHOWING REINFORCEMENT



PART SECTION B-B

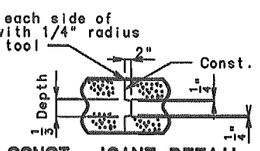
PART SECTION C-C

Note: With the approval of the Engineer, the contractor may crown the bottom of the approach slab to match the crown of the roadway surface.

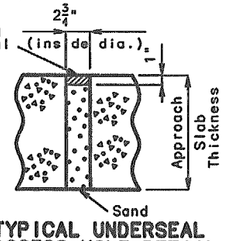


Note: Remove timber header when concrete pavement is placed.

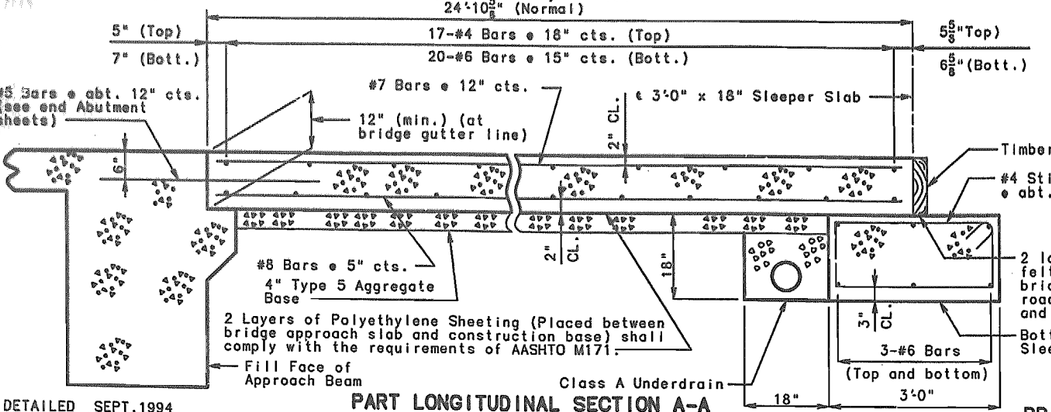
DETAILS OF TIMBER HEADER



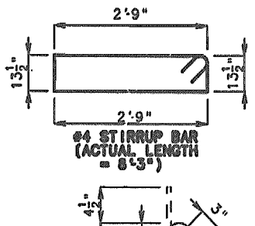
CONST. JOINT DETAIL
(If required)



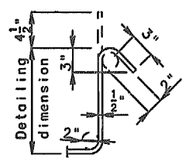
TYPICAL UNDERSEAL ACCESS HOLE DETAIL



PART LONGITUDINAL SECTION A-A



#4 STIRRUP BAR (ACTUAL LENGTH = 8'3")



TYPICAL 135° STIRRUP HOOK DIMENSIONS BENDING DIAGRAM

Note: Nominal lengths are based on out to out dimensions shown in bending diagram and are listed for fabricators use. (nearest inch)

GENERAL NOTES:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Section 503 (f'c = 4,000 psi).

All joint filler shall meet the requirements of Section 1057.2.5, except as noted.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with Fy = 60,000 psi.

Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by lap splicing the #4 & #6 bars 22" and 34" respectively.

Mechanical bar splices will be permitted and shall develop at least 125 percent of the specified yield strength of the reinforcing bars being spliced. The contractor shall furnish the Engineer the manufacturer's certification that this requirement is met and is required to follow the manufacturer's recommendation for installation.

Mechanical bar splices shall be epoxy coated in accordance with Mo. Std. Spec. 710.

Hooks and bends shall be in accordance with the C.R.S.I. Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

Place Class A underdrain at face of sleeper slab under bridge approach slab and slope to lowest grade of ground line, also missing the bottom of the sleeper slab by 1-1/2".

The contractor shall pour and satisfactorily finish the bridge slab before pouring the bridge approach slabs.

Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge slab.

Payment for furnishing all materials and labor necessary to construct the approach slab and timber header, complete in place as shown on this sheet, shall be considered as completely covered under the contract unit price for "Bridge Approach Slab (Bridge)", Per Sq. Yd.

Type 5 aggregate base shall conform to Sections 1.0 through 3.0 of MRSP-93-01C Type 5 Aggregate for base. See Special Provisions.

At the contractors option, Grade 40 reinforcement may be susbstituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment. No additional payment will be made for this substitution.

GENERAL NOTES (CONT.):

See Missouri Standard Plans Drawing 504.00 for details of Concrete Approach pavement.

See Missouri Standard Plans Drawing 605.10 for details of Class A Underdrain.

See Missouri Standard Plans Drawing 609.00 for details of Type A Barrier Curb.

When a lap splice is required for the use of a mechanical bar splice, the minimum lap length shall be 34" for transverse approach slab bar splices.

When Grade 40 reinforcement is substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment, the reinforcement may be bent up to 90 degrees with a 2" minimum radius near the abutment to allow compaction of the backfill material near the abutment. Damage to epoxy coating shall be repaired according to Mo. Std. Spec. 710.3.3.

APP SLAB,GS 3.30, LA,I,A
APPROACH SLAB
DECEMBER 1992
REVISED

DETAILED SEPT.1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

BRIDGE APPROACH SLAB

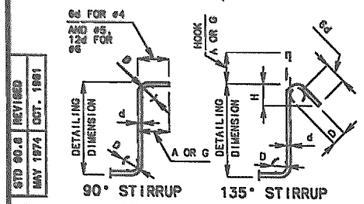
JASPER COUNTY A5514

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S) SUBSTR. (X) VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
							FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
		SUBSTRUCTURE														
		ABUT. NO.1														
20	6H1	APRON		20	X		41 5.000							41 5	41 5	1244
10	6H2	WING & APRON		21	S X		2 0.125	2 0.000				2 0.000	2.250	4 0	3 11	59
10	6H3	WING & APRON		21	S X		2 0.125	2 0.000				2 0.000	2.250	4 0	3 10	58
8	6H4	BRG. BEAM		18	X		41 5.000							43 3	43 3	924
6	6H5	BEAMS & B.V.		20	X		41 5.000							41 5	41 5	373
6	4H7	BACKWALL		20	X		22 5.000							22 5	22 5	90
6	4H8	BACKWALL		20	X		20 9.000							20 9	20 9	83
3	6H9	BRG. BEAM		20	X		2 10.000							2 10	2 10	13
6	5H10	APP BEAM		18	X		41 5.000							42 9	42 9	514
4	5H11	WING		20	X		36 9.000							36 9	36 9	153
1	4H12	APP HAUNCH		20	X		38 9.000							38 9	38 9	26
18	4H14	WING		20	X V	2	4 2.000							4 2	4 2	
							24 3.000							24 3	24 3	171
		INCREMENT = 30.125 INCH														
2	4H15	WING		20	X		23 2.000							23 2	23 2	31
2	4H16	WING		20	X		26 6.000							26 6	26 6	35
2	5H17	WING		20	X		30 10.000							30 10	30 10	64
2	5H18	WING		20	X		33 2.000							33 2	33 2	69
4	5H19	WINGS		20	X		5 9.000							5 9	5 9	24
4	4H102	WING		20	X		5 1.000							5 1	5 1	14
12	4H103	MUDWALL		20	X		3 3.000							3 3	3 3	26
18	4H104	WING		20	X V	2	3 10.000							3 10	3 10	
							24 0.000							24 0	24 0	167
		INCREMENT = 30.250 INCH														
2	4H105	WING		20	X		23 0.000							23 0	23 0	31
2	4H106	WING		20	X		26 5.000							26 5	26 5	35
2	5H107	WING		20	X		30 11.000							30 11	30 11	64
2	5H108	WING		20	X		33 2.000							33 2	33 2	69
4	5H109	WINGS	E	20	X		5 9.000							5 9	5 9	24
4	4H110	WING		20	X		4 10.000							4 10	4 10	13
12	4H111	MUDWALL		20	X		3 5.000							3 5	3 5	27
2	5H112	WING		20	X		35 6.000							35 6	35 6	74
2	5H113	WING		20	X		35 5.000							35 5	35 5	74
2	7T1	WING		23	X		7 10.125	21.625				3 2.125	7 2.125	9 8	9 8	40
2	7T2	WING		23	X		38 11.125	2 3.125				35 7.250	15 9.000	41 2	41 1	168
2	4T3	MUDWALL		19	S X		6 6.000	3 6.000						10 0	9 11	13
2	7T4	WING		23	X		7 7.000	21.625				3 0.875	6 11.250	9 5	9 4	38
2	7T5	WING		23	X		38 11.125	2 3.750				35 7.250	15 9.000	41 3	41 2	168
2	4T6	MUDWALL		19	S X		6 6.000	3 3.000						9 9	9 8	13
40	4U1	APRON		10	S X			2 0.000	17.000					5 5	5 3	140
36	6U3	BRG BEAM		13	S X		3 3.000	2 9.000	3 11.000	2 8.000				13 11	13 6	730
15	4U4	BRG BEAM		10	S X			6.000	3 3.000					4 3	4 1	41
36	6U5	APP BEAM		13	S X		2 3.000	2 8.000	2 3.000	2 8.000				11 2	10 8	577
39	5U6	APP BEAM	E	10	S X			2 11.000	2 3.000					8 1	7 11	322
36	4U7	APP HAUNCH		10	S X			17.500	6.000					3 5	3 3	85
56	5V1	APRON		20	X		13 0.000							13 0	13 0	759
78	5V2	BACKWALL	E	20	X		7 8.000							7 8	7 8	624
2	4V4	WING		20	X		12 3.000							12 3	12 3	16

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S) SUBSTR. (X) VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
							FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
10	5V5	WING		20	X V	2	2 9.000							2 8	2 8	
							4 7.000							4 7	4 7	38
		INCREMENT = 5.500 INCH														
40	4V6	WING		20	X V	2	5 3.000							5 3	5 3	
							18 2.000							18 2	18 2	313
		INCREMENT = 8.125 INCH														
2	4V10	MUDWALL		20	X		6 6.000							6 6	6 6	9
2	4V11	WING		20	X		13 0.000							13 0	13 0	17
10	5V12	WING		20	X V	2	2 8.000							2 8	2 8	
							4 6.000							4 6	4 6	37
		INCREMENT = 5.500 INCH														
40	4V13	WING		20	X V	2	5 3.000							5 3	5 3	
							18 3.000							18 3	18 3	314
		INCREMENT = 8.250 INCH														
2	4V14	WING		20	X		12 11.000							12 11	12 11	17
2	4V15	MUDWALL		20	X		6 6.000							6 6	6 6	9
2	4V16	WING		20	X		12 5.000							12 5	12 5	17
2	4V17	WING		20	X		13 0.000							13 0	13 0	17
2	4V18	WING		20	X		13 8.000							13 8	13 8	18
2	4V19	WING		20	X		8 6.000							8 6	8 6	11
10	W5W1	A.B. WELL		22	X		18.000	9.125						26 1	26 1	44
		INT BENT 2														
6	8D21	FOOTING		10	X			4 6.000	8 0.000					17 0	16 7	266
18	5D22	FOOTING		20	X		5 9.000							5 9	5 9	108
15	8D23	FOOTING		20	X		8 9.000							8 9	8 9	350
8	10H20	BEAM		20	X		37 0.000							37 0	37 0	1274
2	6H21	BEAM		20	X		37 0.000							37 0	37 0	111
4	10H22	BEAM		18	X		39 9.000							42 7	42 7	733
4	10H23	BEAM		18	X		37 0.000							39 10	39 10	686
8	7H24	BEAM		7	X		5 7.500	3 1.125						12 11	12 11	211
8	6H25	BEAM		20	X		7 9.000							7 9	7 9	93
57	4P20	COLUMN		16	X		2 9.000							9 6	9 6	362
80	6U20	BEAM		13	S X		23.500	2 9.000	23.500	2 9.000				10 9	10 3	1232
8	6U22	BEAM		13	S X		3 3.000	2 9.000	3 3.000	2 9.000				13 4	12 10	154
8	6U23	BEAM		13	S X		3 3.000	3 0.250	3 3.000	3 0.250				13 11	13 5	161
2	6U24	BEAM		13	S X		19.500	2 9.000	19.500	2 9.000				10 1	9 7	29
3	4U25	BEAM		10	S X			6.000	3 3.000					4 3	4 1	8
2	6U26	BEAM		13	S X		2 8.625	2 9.000	2 8.625	2 9.000				12 3	11 10	36
2	6U27	BEAM		13	S X		3 2.000	2 9.000	3 2.000	2 9.000				13 2	12 8	38
39	8V20	COLUMN		17	X		23 2.000							24 1	24 1	2508
10	W5W20	A.B. WELL		22	X		2 1.000	9.125						33 2	33 2	55

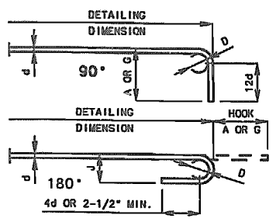


STD 90.8 REVISED MAY 1974 OCT. 1981

DETAILED OCT. 1994
CHECKED OCT 1994

STIRRUP HOOK DIMENSIONS GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK A OR G	135° HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

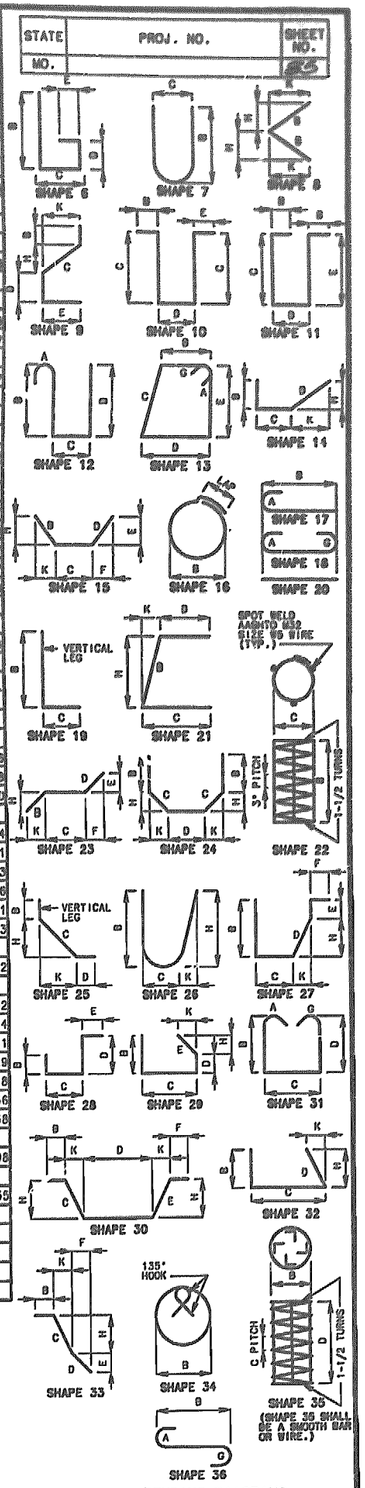


NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

END HOOK DIMENSIONS					
BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

BENDING DIAGRAMS



STATE	PROJ. NO.	SHEET NO.
MO.		25

SHEET NO. 26 OF 29

JASPER COUNTY A5514

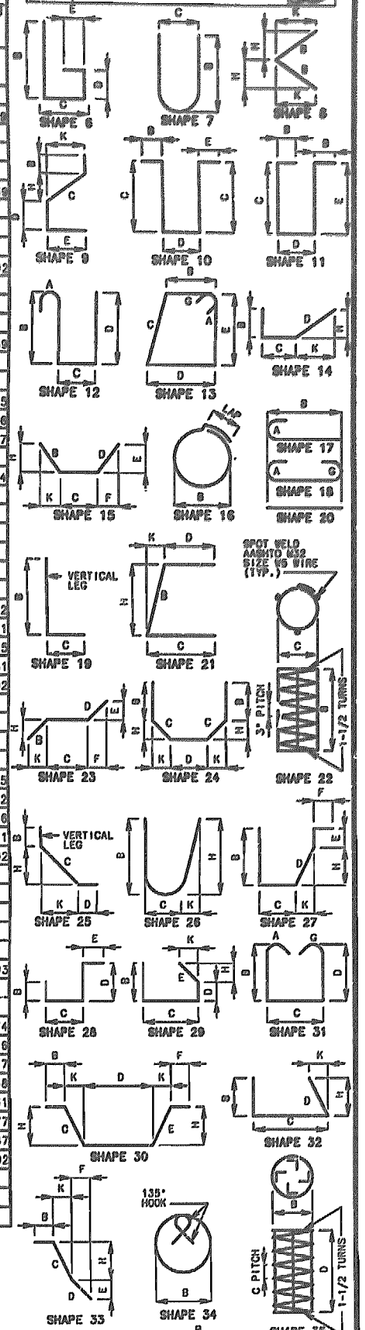
BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	(E) EPOXY	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
			ABUT.NO.3																									
16	6H31		APRON		20		X			41	5.000													41	5	41	5	1120
9	6H32		WING & APRON		23	S	X			2	0.125	2	0.000							2	0.000	2.250			4	0	3	11	53
9	6H33		WING & APRON		21	S	X			2	0.125	2	0.000							2	0.000	2.250			4	0	3	10	52
8	6H34		BRG. BEAM		18		X			41	5.000													43	3	43	3	924
8	6H35		BEAMS & D.W.		20		X			41	5.000													41	5	41	5	373
3	6H36		BRG. BEAM		20		X			2	10.000													2	10	2	10	13
6	4H38		BACKWALL		20		X			20	9.000													20	9	20	9	83
8	6H300		APP BEAM		18		X			41	5.000													42	9	42	9	514
1	4H302		APP HAUNCH		20		X			38	9.000													38	9	38	9	26
6	4H303		BACKWALL		20		X			22	5.000													22	5	22	5	90
16	4H305		WING		20		X	V	2	2	5.000													2	5	2	5	
										20	0.000													20	0	20	0	120
			INCREMENT = 30.125 INCH																									
2	4H306		WING		20		X			18	11.000													18	11	18	11	25
2	4H307		WING		20		X			22	4.000													22	4	22	4	30
6	5H308		WING		20		X	V	2	26	8.000													26	8	26	8	
										33	6.000													33	6	33	6	251
			INCREMENT = 27.375 INCH																									
2	5H309		WING		20		X			34	6.000													34	6	34	6	72
4	5H310		WING		20		X			5	9.000													5	9	5	9	24
4	5H311		WING	E	20		X			5	9.000													5	9	5	9	24
12	4H312		MUDWALL		20		X			3	3.000													3	3	3	3	26
8	4H313		WING		20		X			5	1.000													5	1	5	1	28
18	4H314		WING		20		X	V	2	2	8.000													2	8	2	8	
										22	9.000													22	9	22	9	153
			INCREMENT = 30.125 INCH																									
2	4H315		WING		20		X			21	0.000													21	0	21	0	28
2	4H316		WING		20		X			24	5.000													24	5	24	5	33
6	5H317		WING		20		X	V	2	28	10.000													28	10	28	10	
										33	4.000													33	4	33	4	195
			INCREMENT = 27.000 INCH																									
2	5H318		WING		20		X			34	6.000													34	6	34	6	72
12	4H322		MUDWALL		20		X			3	6.000													3	6	3	6	28
2	7T31		WING		23		X			7	3.000	21	625							2	11.250	6	7.500	9	1	9	0	37
2	7T32		WING		23		X			36	6.000	2	5.125							33	4.500	14	9.250	38	11	38	10	159
2	4T33		MUDWALL		19		X			6	6.000	3	3.000											9	9	9	8	13
2	7T34		WING		23		X			7	7.000	21	625							3	0.875	6	11.250	9	5	9	4	36
2	7T35		WING		23		X			36	6.000	2	4.325							33	4.500	14	9.250	38	10	38	9	158
2	4T36		MUDWALL		19		X			6	6.000	3	6.000											10	0	9	11	13
36	4U31		APRON		10	S	X					2	0.000	17	000									5	5	5	3	126
39	6U32		BRG BEAM		13	S	X			3	3.000	2	9.000	3	11.000	2	8.000							13	11	13	6	791
15	4U34		BRG BEAM		10	S	X					6	000	3	3.000									4	3	4	1	41
36	5U35		APP BEAM		13	S	X			2	3.000	2	8.000	2	3.000	2	8.000							10	9	10	5	391
39	5U36		APP BEAM	E	10	S	X			2	9.000	2	3.000											7	9	7	7	308
39	4U37		APP HAUNCH		10	S	X					17	500	6	000									3	5	3	3	85
56	5V31		APRON		20		X			11	10.000													11	10	11	10	691
78	5V32		BACKWALL	E	20		X			7	8.000													7	8	7	8	624
2	4V34		WING		20		X			10	1.000													10	1	10	1	13
2	4V35		WING		20		X			12	4.000													12	4	12	4	16
2	4V36		WING		20		X			11	8.000													11	8	11	8	16
4	4V37		MUDWALLS		20		X			6	6.000													6	6	6	6	17

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	(E) EPOXY	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT.	B IN.	C FT.	C IN.	D FT.	D IN.	E FT.	E IN.	F FT.	F IN.	H FT.	H IN.	K FT.	K IN.	NOMINAL LENGTH FT.	NOMINAL LENGTH IN.	ACTUAL LENGTH FT.	ACTUAL LENGTH IN.	WEIGHT LBS.
38	4V38		WING		20		X	V	2	5	3.000													5	3	5	3	
										17	6.000													17	6	17	6	289
			INCREMENT = 8.125 INCH																									
10	5V39		WING		20		X	V	2	2	10.000													2	10	2	10	
										4	8.000													4	8	4	8	39
			INCREMENT = 5.500 INCH																									
38	4V300		WING		20		X	V	2	5	4.000													5	4	5	4	
										17	8.000													17	8	17	8	282
			INCREMENT = 8.250 INCH																									
10	5V301		WING		20		X	V	2	2	10.000													2	10	2	10	
										4	8.000													4	8	4	8	39
			INCREMENT = 5.500 INCH																									
2	4V303		WING		20		X			11	5.000													11	5	11	5	15
2	4V304		WING		20		X			12	1.000													12	1	12	1	16
2	4V305		WING		20		X			12	9.000													12	9	12	9	17
10	W5W1		A.B. WELL		22		X				18.000		9.125											26	1	26	1	44
			SUPERSTRUCT.																									
			ABUT.1 SLAB																									
82	6S1		ABUT.1 SLAB	E	20					30	9.000													30	9	30	9	6732
41	5S2		ABUT.1 SLAB	E	20					41	5.000													41	5	41	5	1771
28	4S3		ABUT.1 SLAB	E	20					30	9.000													30	9	30	9	575
21	4S4		ABUT.1 SLAB	E	20					41	5.000													41	5	41	5	581
39	5S100		APPR. TIE	E	20					2	6.000													2	6	2	6	102
			ABUT.3 SLAB																									
73	6S31		ABUT.3 SLAB•	E	20					28	6.000													28	6	28	6	5555
38	5S32		ABUT.3 SLAB	E	20					41	5.000													41	5	41	5	1642
19	4S34		ABUT.3 SLAB	E	20					41	5.000													41	5	41	5	526
30	4S35		ABUT.3 SLAB•	E	20					28	6.000													28	6	28	6	571
39	5S100		APPR. TIE	E	20					2	6.000													2	6	2	6	102
			MAIN SLAB																									
18	5S20		SLAB	E	20			V	2	3	8.000													3	8	3	8	
										38	3.000													38	3	38	3	393
			INCREMENT = 51.875 INCH																									
613	5S21		SLAB	E	20					41	3.000													41	3	41	3	26374
518	4S22		SLAB	E	20					3	2.000													3	2	3	2	1096
66	6S23		SLAB •	E	20					28	5.000													28	5	28	5	2817
64	6S24		SLAB	E	20					60	0.000													60	0	60	0	5768
210	5S25		SLAB	E	20					40	0.000													40	0	40	0	8761
35	5S26		SLAB	E	20					32	3.000													32	3	32	3	1177
6	5S27		SLAB	E	20					29	10.000													29	10	29	10	187
36	5S28		SLAB	E	20					40	0.000													40	0	40	0	1502

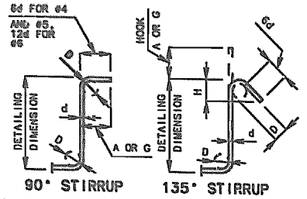
STATE | PROJ. NO. | SHEET NO. 26



BENDING DIAGRAMS

STD 90.6 REVISED OCT. 1991
MAY 1974

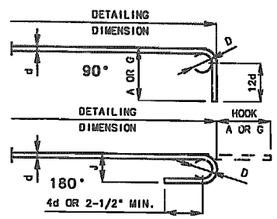
DETAILED OCT. 1994
CHECKED OCT. 1994



STIRRUP HOOK DIMENSIONS
GRADES 40 - 50 - 60 KSI

BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.



END HOOK DIMENSIONS

BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS J	ALL GRADES 180° HOOKS A OR G	ALL GRADES 90° HOOKS A OR G
#3	2-1/4"	5"	3"	8"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S) SUBSTR. (X) VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
							FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
		BARRIER CURB														
736	5R1	B.C.	E	19	S		2 6.000	3.500						2 10	2 8	2047
680	5R2	B.C.	E	15	S		2 6.125	3.500				2 6.000	3.000	2 10	2 9	1950
652	5R3	B.C.	E	19	S		17.000	6.000						0 23	0 22	1247
652	5R4	B.C.	E	27	S			6.000	11.125	7.000	12.000	9.125	6.375	3 0	2 10	1927
28	5R5	B.C.	E	19	S		2 2.500	6.000						2 9	2 7	75
28	5R6	B.C.	E	27	S			6.000	10.625	17.750		8.750	6.125	2 10	2 10	83
8	5R7	B.C.	E	19	S		2 0.000	6.000						2 6	2 5	20
8	5R8	B.C.	E	27	S			6.000	7.675	17.750		6.250	4.750	2 8	2 7	22
8	5R9	B.C.	E	19	S		2 2.750	3.500						2 6	2 5	20
24	5R10	B.C.	E	10	S			2 0.000	7.500					4 8	4 5	111
48	5R11	B.C.	E	20			5 0.000							5 0	5 0	250
10	5R20	B.C.	E	20			33 10.000							33 10	33 10	353
2	5R22	B.C.	E	20			35 0.000							35 0	35 0	73
2	5R23	B.C.	E	20			36 9.000							36 9	36 9	77
10	5R30	B.C.	E	20			31 7.000							31 7	31 7	329
2	5R32	B.C.	E	20			32 9.000							32 9	32 9	68
2	5R33	B.C.	E	20			34 6.000							34 6	34 6	72
56	5R50	B.C.	E	20			7 9.000							7 9	7 9	453
70	5R51	B.C.	E	20			40 0.000							40 0	40 0	2920
16	5R52	B.C. •	E	20			7 10.000							7 10	7 10	131
14	5R53	B.C.	E	20			26 7.000							26 7	26 7	388
		SLIP-FORMED (OPTION) CURB ONLY														
40	5C1	S-F CURB OPT	E	20			8 0.000							8 0	8 0	334

• INCLUDES 2 ADDITIONAL #4-S35 #5-R52 #6-S23 & #8-S31 BARS FOR TESTING

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S) SUBSTR. (X) VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
							FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.

STATE MO. | PROJ. NO. | SHEET NO. 27

SHAPE 6 · SHAPE 7 · SHAPE 8 · SHAPE 9 · SHAPE 10 · SHAPE 11 · SHAPE 12 · SHAPE 13 · SHAPE 14 · SHAPE 15 · SHAPE 16 · SHAPE 17 · SHAPE 18 · SHAPE 20 · SHAPE 19 · SHAPE 21 · SHAPE 22 · SHAPE 23 · SHAPE 24 · SHAPE 25 · SHAPE 26 · SHAPE 27 · SHAPE 28 · SHAPE 29 · SHAPE 31 · SHAPE 30 · SHAPE 32 · SHAPE 33 · SHAPE 34 · SHAPE 35 · SHAPE 36

SPOT WELD AASHTO M32 SIZE MB WIRE (TYP.)

VERTICAL LEG

3" PITCH

1-1/2 TURNS

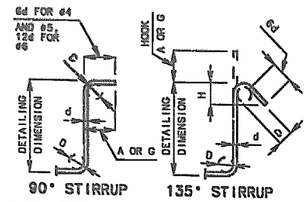
(SHAPE 35 SHALL BE A SMOOTH BAR OR WIRE.)

BENDING DIAGRAMS

3-23

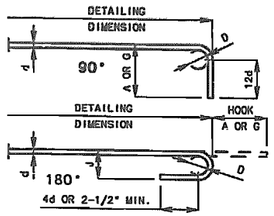
REVISED	OCT. 1991
S.D. 90.6	MAY 1974

DETAILED OCT. 1994
CHECKED OCT. 1994



STIRRUP HOOK DIMENSIONS (GRADES 40 - 50 - 60 KSI)			
BAR SIZE	D (IN.)	90° HOOK A OR G	135° HOOK A OR G	APPROX. B
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

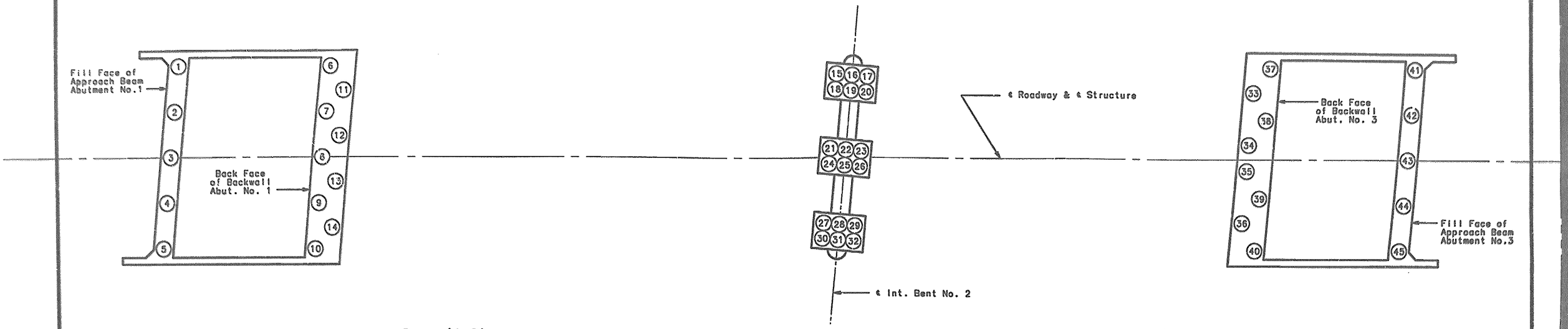


END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	8-1/2"	16"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	16-1/4"	2'-3"	21-3/4"	2'-7"

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

STATE	PROJ. NO.	SHEET NO.
MO.		29



Span (1-2)

Span (2-3)

PART PLAN SHOWING PILE NUMBERING FOR RECORDING "AS BUILT PILE" DATA

"AS BUILT PILE" DATA			
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			ABUTMENT NO. 1
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

"AS BUILT PILE" DATA			
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			INTERMEDIATE BENT NO. 2
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			

"AS BUILT PILE" DATA			
PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			ABUTMENT NO. 3
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

NOTE: INDICATE IN REMARK COLUMN:
A.) IF PILING WERE DRIVEN TO PRACTICAL REFUSAL.
B.) PILE BATTER IF OTHER THAN SHOWN ON BENT DETAIL SHEET.
C.) TYPE OF PILING USED.

NOTE: THIS SHEET TO BE COMPLETED BY MHTD CONSTRUCTION PERSONNEL.

MISC. PILES IN PLACE
PILES IN PLACE
MAY 1992

REVISED:

DETAILED OCT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

JASPER COUNTY

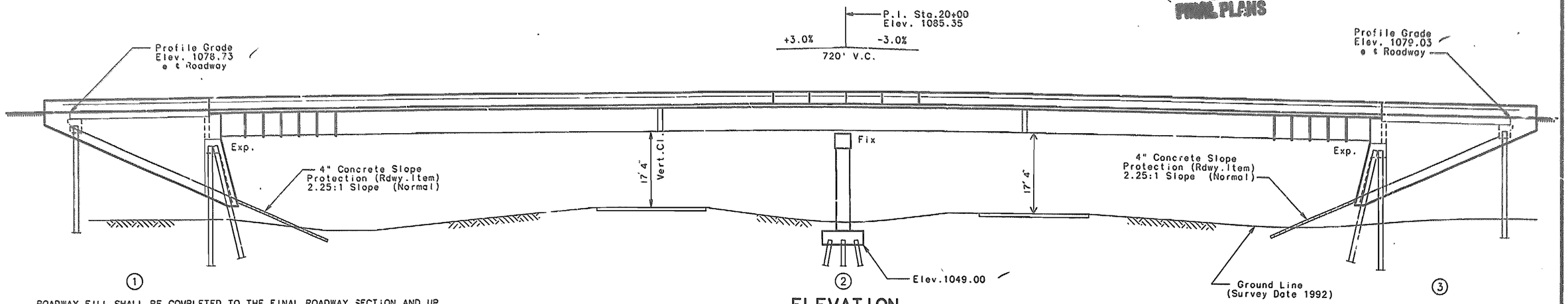
A5514

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

(139'-119') CONT. COMP. PLATE GIRDER SPANS

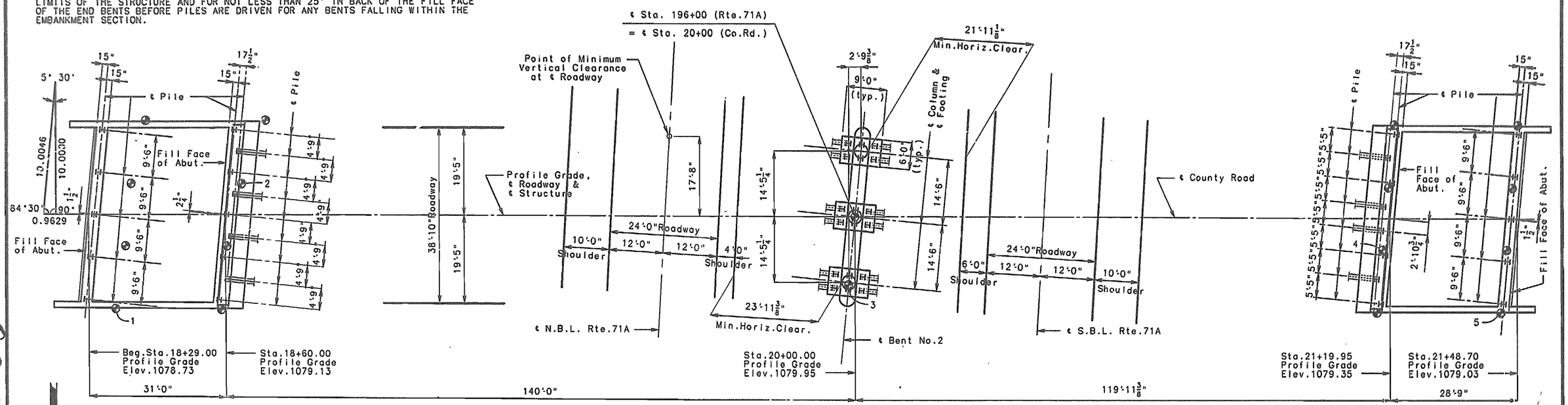
STATE	PROJ. NO.	SHEET NO.
MO.	ACNH-71-2(50)	20
SEC./SUR. 3,4	TWP. 27N	RGE. 31W

FINAL PLANS



ELEVATION

ROADWAY FILL SHALL BE COMPLETED TO THE FINAL ROADWAY SECTION AND UP TO THE ELEVATION OF THE BOTTOM OF THE CONCRETE APPROACH BEAM WITHIN THE LIMITS OF THE STRUCTURE AND FOR NOT LESS THAN 25' IN BACK OF THE FILL FACE OF THE END BENTS BEFORE PILES ARE DRIVEN FOR ANY BENTS FALLING WITHIN THE EMBANKMENT SECTION.



Span (1-2)

Span (2-3)

PLAN

"⊕" Indicates location of Borings.

A minimum vertical clearance of 16'0" from crown of existing lanes and a minimum lateral clearance of 28'0" centered on existing lane shall be maintained during construction.

N

NOTICE AND DISCLAIMER REGARDING BORING LOG DATA

The locations of all subsurface borings for this structure are shown on the bridge plan sheet for this structure. Boring data for the numbered locations is shown on sheet No. 3. The boring data for all locations indicated, as well as any other boring logs or other factual records of subsurface data and investigations performed by the department for the design of the project, is available from the district materials engineer upon written request as outlined in the project special provisions. No greater significance or weight should be given to the boring data depicted on the plan sheets than to subsurface data available from the district or elsewhere.

The commission does not represent or warrant that any such boring data accurately depicts the conditions to be encountered in constructing this project. A contractor assumes all risks it may encounter in basing its bid prices, time or schedule of performance on the boring data depicted here or those available from the district, or on any other documentation not expressly warranted, which the contractor may obtain from the commission.

DESIGNED APRIL 1994
DETAILED SEPT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

B.M. PENNY IN TOP CURB S.E. COR. 20.08' LT. STA. 18+30 BRG. A-5514
ELEV. 1081.14

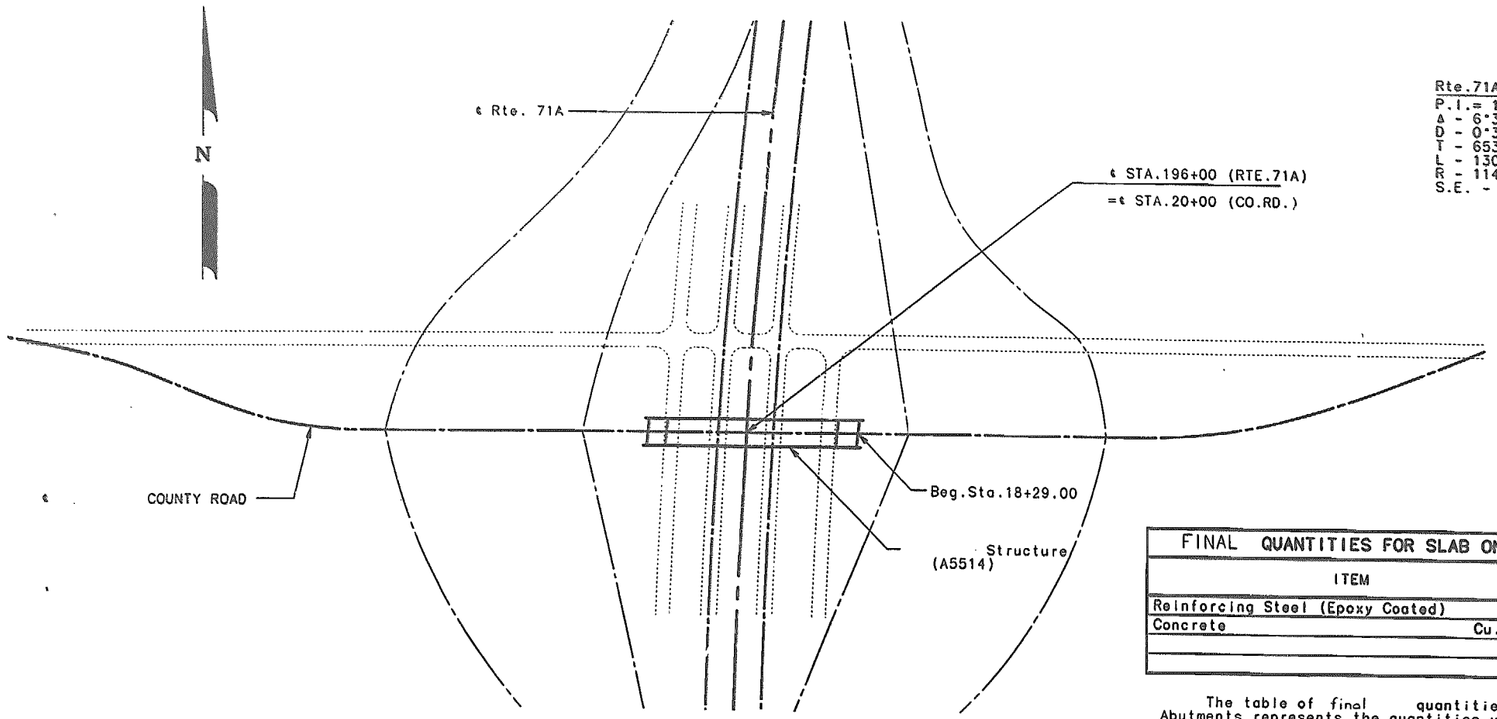
COUNTY ROAD OVER RTE. 71A

STATE ROAD FROM CEDAR RD. TO RTE. I-44.
ABOUT 1 MILE NORTH OF ROUTE I-44
PROJECT NO. ACNH-71-2-(50) STA. 196+00
JOB NO. J7P0474 RTE. 71A
JASPER COUNTY
DATE 1/17/95

STD. 504.00
STD. 605.10
STD. 609.00
STD. 611.60
STD. 706.35
A5514

318-255

STATE	PROJ. NO.	SHEET NO.
MO.	ACNH-71-2 (50)	21



LOCATION SKETCH

Rte.71A
P.I.= 198+35.49
Δ - 6°31' 38.1"Lt.
D - 0°30'
T - 653.43'
L - 1305.45'
R - 11459.16'
S.E. - 0.0

FINAL QUANTITIES FOR SLAB ON SEMI-DEEP ABUTMENTS			
ITEM		ABUTMENT NO. 1	ABUTMENT NO. 3
Reinforcing Steel (Epoxy Coated)	Lbs.	9,760	8,400
Concrete	Cu. Yds.	81.3	68.1

The table of final quantities for Slab on Semi-Deep Abutments represents the quantities used by the state in preparing the cost estimate for concrete abutment slabs. Variations may be encountered in these final quantities but these variations cannot be used for an adjustment in the contract unit price per square yard of Slab on Sem-Deep Abutments.

FINAL QUANTITIES FOR SLAB ON STEEL			
ITEM		TOTAL	
REINFORCING STEEL (EPOXY COATED)	LBS.	48,080	(* *)
CONCRETE	CU. YDS.	213.2	

THE TABLE OF FINAL QUANTITIES FOR SLAB ON STEEL REPRESENTS THE QUANTITIES USED BY THE STATE IN PREPARING THE COST ESTIMATE FOR CONCRETE SLABS. VARIATIONS MAY BE ENCOUNTERED IN THESE FINAL QUANTITIES BUT THESE VARIATIONS CANNOT BE USED FOR AN ADJUSTMENT IN THE CONTRACT UNIT PRICE PER SQUARE YARD OF SLAB ON STEEL

SEE SPECIAL PROVISIONS FOR METHOD OF FORMING SLAB .

PRESTRESSED PANEL QUANTITIES ARE BASED ON SKEWED END PANELS.

* * DOES NOT INCLUDE REINFORCING BARS USED AS BAR SUPPORTS.

FINAL QUANTITIES				
ITEM		SUBSTR.	SUPERSTR	TOTAL
Class 1 Excavation	Cu. Yd.	173		173
Bridge Approach Slab (Bridge)	Sq. Yd.		224	224
Structural Steel Piles (12 In.)	Lin. Ft.	1,243		1,243
Pre-Bore for Piling	Lin. Ft.	469		469
Pile Point Reinforcement	Each	27		27
Class B Concrete (Substr.)	Cu. Yd.	238.4		238.4
Slab on Steel	Sq. Yd.		1197	1197
Safety Barrier Curb *	Lin. Ft.		663	663
Slab on Semi-Deep Abutment	Sq. Yd.		276	276
Laminated Neoprene Bearing Pads (Steel Structures)	Each		15	15
Preformed Compression Expansion Joint Seal (3.5 In.)	Lin. Ft.		39	39
Preformed Compression Expansion Joint Seal (4.0 In.)	Lin. Ft.		39	39
Reinforcing Steel (Bridges)	Lb.	23,020		23,020
Reinforcing Steel (Epoxy Coated)	Lb.	3,190		3,190
Fabricated Structural Carbon Steel (Plt. Gir.)	Lb.		199,850	199,850
Fabricated Structural Low Alloy Steel (Plt. Gir.) A-572	Lb.		166,520	166,520
Slab Drains	Each		22	22
Field Coat (System G) Green	Sq. Ft.		5100	5100

Note:
All concrete and reinforcing steel below top of slab and above Const. Joint under slab in Semi-Deep Abutments are included in superstructure quantities for Slab on Semi-Deep Abutment.

* Safety barrier curb shall be slip-form option.

PILE DATA							
BENT NO.		App. Bm. Abut. #1	Brg. Bm. Abut. #1	Bent #2	Brg. Bm. Abut. #3	App. Bm. Abut. #3
BEARING PILES	Pile Type and Size	HP12X53	HP12X53	HP12X53	HP12X53	HP12X53
	Number	5	9	18	8	5
	Actual length (Ft.)	41'-49'	36'-43'	11'-12'	31'-32'	34'-40'
	Design Bearing (Tons)	51	63	66	60	46
	Hammer Energy Used (Ft.-Lbs.)	19,500	19,500	19,500	19,500	19,500

Minimum energy requirement of hammer is based on plan length and design bearing value of piles.
All piles shall be driven to practical refusal.
Pre-bore for piles at Abutment No. 1 & No. 3 to Elev.1055.00
Pre-bore for piles at Bent No. 2 to Elev.1039.00

Manufactured pile point reinforcement shall be used on all piles at Abutments No. 1 & 3. (See Special Provisions).

GENERAL NOTES:

DESIGN SPECIFICATIONS:

A.A.S.H.T.O.-1992 and Interims thru 1994
Load factor design.
Seismic performance category A

DESIGN LOADINGS:

HS20-44
Earth 120#/Cu. Ft.
Equivalent fluid pressure = 45#/Cu. Ft.
Fatigue case 2
35#/Sq. Ft. Future wearing surface

DESIGN UNIT STRESSES:

Class B Concrete (Substructure) f'c = 3,000 PSI.
Class B1 Concrete (Safety barrier curb) f'c = 4,000 PSI.
Class B2 Concrete (Superstructure except safety barrier curb) f'c = 4,000 PSI.
Reinforcing steel (Grade 60) fy = 60,000 PSI.
Steel Pile fb = 9,000 PSI.
Structural carbon steel fy = 36,000 PSI.
Structural steel (A.S.T.M. A572) Grade 50 fy = 50,000 PSI.

FABRICATED STEEL:

Field connections for high strength bolts 3/4"Ø shall have holes 13/16"Ø, except as noted.
Fabricated structural steel shall be A36, except as noted.

JOINT FILLER:

All joint filler shall meet the requirements of standard specification 1057.2.4, except as noted.

REINFORCING STEEL:

Minimum clearance to the reinforcing steel shall be 1-1/2" unless otherwise shown.
All reinforcing bars in tops of the substructure beams or caps shall be spaced to clear anchor bolt wells for bearings by at least 1/2".

PAINT:

Protective Coating: System G by the contractor in accordance with Special Provisions.

Prime Coat: The cost of the prime coat shall be included in the contract unit price of the Fabricated Structural Steel. Tint of the prime coat for System G shall be similar to the color of the field coat to be used.

Field Coat: The Cost of the intermediate and finish coats shall be included in the contract unit price per Sq.Ft. of Field Coat (System G) Green, See Special Provisions.

MISCELLANEOUS:

A minimum vertical clearance of 16'0" from crown of existing lanes and a minimum lateral clearance of 28'0" centered on existing lanes shall be maintained during construction.

High strength bolts, nuts and washers shall be sampled for quality in accordance with Standard Specification 106 and Field Section (FS-712) from Materials Manual.

39-236

DETAILED OCT. 1994
CHECKED OCT. 1994

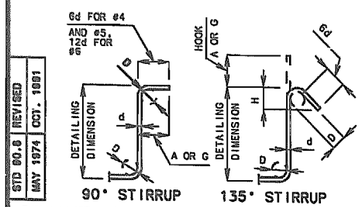
NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
		SUBSTRUCTURE																
		ABUT. NO.1																
20	6H1	APRON		20		X			41 5.000							41 5	41 5	1244
10	6H2	WING & APRON		23	S	X			2 0.125	2 0.000				2 0.000	2.250	4 0	3 11	59
10	6H3	WING & APRON		21	S	X			2 0.125	2 0.000				2 0.000	2.250	4 0	3 10	58
6	6H4	BRG. BEAM		18		X			41 5.000							43 3	43 3	924
6	6H5	BEAMS & B.W.		20		X			41 5.000							41 5	41 5	373
6	4H7	BACKWALL		20		X			22 5.000							22 5	22 5	90
6	4H8	BACKWALL		20		X			20 9.000							20 9	20 9	83
3	6H9	BRG. BEAM		20		X			2 10.000							2 10	2 10	13
6	6H10	APP BEAM		18		X			41 5.000							42 9	42 9	514
4	5H11	WING		20		X			36 9.000							36 9	36 9	153
1	4H12	APP HAUNCH		20		X			38 9.000							38 9	38 9	26
18	4H14	WING		20		X	V	2	4 2.000							4 2	4 2	
									24 3.000							24 3	24 3	171
		INCREMENT = 30.125 INCH																
2	4H15	WING		20		X			23 2.000							23 2	23 2	31
2	4H16	WING		20		X			26 6.000							26 6	26 6	35
2	5H17	WING		20		X			30 10.000							30 10	30 10	64
2	5H18	WING		20		X			33 2.000							33 2	33 2	69
4	5H19	WINGS		20		X			5 9.000							5 9	5 9	24
4	4H102	WING		20		X			5 1.000							5 1	5 1	14
12	4H103	MUDWALL		20		X			3 3.000							3 3	3 3	26
18	4H104	WING		20		X	V	2	3 10.000							3 10	3 10	
									24 0.000							24 0	24 0	167
		INCREMENT = 30.250 INCH																
2	4H105	WING		20		X			23 0.000							23 0	23 0	31
2	4H106	WING		20		X			26 5.000							26 5	26 5	35
2	5H107	WING		20		X			30 11.000							30 11	30 11	64
2	5H108	WING		20		X			33 2.000							33 2	33 2	69
4	5H109	WINGS	E	20		X			5 9.000							5 9	5 9	24
4	4H110	WING		20		X			4 10.000							4 10	4 10	13
12	4H111	MUDWALL		20		X			3 5.000							3 5	3 5	27
2	5H118	WING		20		X			35 6.000							35 6	35 6	74
2	5H119	WING		20		X			35 5.000							35 5	35 5	74
2	7T1	WING		23		X			7 10.125	2i.625				3 2.125	7 2.125	9 8	9 8	40
2	7T2	WING		23		X			38 11.125	2 3.125				35 7.250	15 9.000	41 2	41 1	168
2	4T3	MUDWALL	E	19	S	X			6 6.000	3 6.000						10 0	9 11	- 13
2	7T4	WING		23		X			7 7.000	21.625				3 0.875	6 11.250	9 5	9 4	38
2	7T5	WING		23		X			38 11.125	2 3.750				35 7.250	15 9.000	41 3	41 2	168
2	4T6	MUDWALL	E	19	S	X			6 6.000	3 3.000						9 9	9 8	- 13
40	4U1	APRON		10	S	X				2 0.000	17.000					5 5	5 3	140
36	6U3	BRG BEAM		13	S	X			3 3.000	2 9.000	3 11.000	2 8.000				13 11	13 6	730
15	4U4	BRG BEAM		10	S	X				6.000	3 3.000					4 3	4 1	41
36	6U5	APP BEAM		13	S	X			2 3.000	2 8.000	2 3.000	2 8.000				11 2	10 8	577
39	5U6	APP BEAM	E	10	S	X				2 11.000	2 3.000					8 1	7 11	- 322
39	4U7	APP HAUNCH		10	S	X				17.500	6.000					3 5	3 3	85
56	5V1	APRON		20		X			13 0.000							13 0	13 0	759
78	5V2	BACKWALL	E	20		X			7 8.000							7 8	7 8	- 624
2	4V4	WING		20		X			12 3.000							12 3	12 3	16

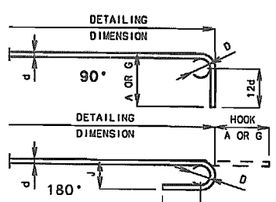
BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
10	5V5	WING		20		X	V	2	2 9.000							2 8	2 8	
									4 7.000							4 7	4 7	38
		INCREMENT = 5.500 INCH																
40	4V6	WING	E	20		X	V	2	5 3.000							5 3	5 3	
									18 2.000							18 2	18 2	- 313
		INCREMENT = 8.125 INCH																
2	4V10	MUDWALL		20		X			6 6.000							6 6	6 6	9
2	4V11	WING		20		X			13 0.000							13 0	13 0	17
10	5V12	WING		20		X	V	2	2 8.000							2 8	2 8	
									4 6.000							4 6	4 6	37
		INCREMENT = 5.500 INCH																
40	4V13	WING	E	20		X	V	2	5 3.000							5 3	5 3	
									18 3.000							18 3	18 3	- 314
		INCREMENT = 8.250 INCH																
2	4V14	WING		20		X			12 11.000							12 11	12 11	17
2	4V15	MUDWALL		20		X			6 6.000							6 6	6 6	9
2	4V16	WING		20		X			12 5.000							12 5	12 5	17
2	4V17	WING		20		X			13 0.000							13 0	13 0	17
2	4V18	WING		20		X			13 8.000							13 8	13 8	18
2	4V19	WING		20		X			8 6.000							8 6	8 6	11
10	W5W1	A.B. WELL		22		X			18.000	9.125						26 1	26 1	44
		INT BENT 2																
6	8D21	FOOTING		10		X				4 6.000	8 0.000					17 0	16 7	266
18	5D22	FOOTING		20		X			5 9.000							5 9	5 9	108
15	8D23	FOOTING		20		X			8 9.000							8 9	8 9	350
8	10H20	BEAM		20		X			37 0.000							37 0	37 0	1274
2	6H21	BEAM		20		X			37 0.000							37 0	37 0	111
4	10H22	BEAM		18		X			39 9.000							42 7	42 7	733
4	10H23	BEAM		18		X			37 0.000							39 10	39 10	686
8	7H24	BEAM		7		X			5 7.500	3 1.125						12 11	12 11	211
8	6H25	BEAM		20		X			7 9.000							7 9	7 9	93
57	4P20	COLUMN		16		X			2 9.000							9 6	9 6	362
80	6U20	BEAM		13	S	X			23.500	2 9.000	23.500	2 9.000				10 9	10 3	1232
8	6U22	BEAM		13	S	X			3 3.000	2 9.000	3 3.000	2 9.000				13 4	12 10	154
8	6U23	BEAM		13	S	X			3 3.000	3 0.250	3 3.000	3 0.250				13 11	13 5	161
2	6U24	BEAM		13	S	X			19.500	2 9.000	19.500	2 9.000				10 1	9 7	29
3	4U25	BEAM		10	S	X				6.000	3 3.000					4 3	4 1	8
2	6U26	BEAM		13	S	X			2 8.625	2 9.000	2 8.625	2 9.000				12 3	11 10	36
2	6U27	BEAM		13	S	X			3 2.000	2 9.000	3 2.000	2 9.000				13 2	12 8	36
39	8V20	COLUMN		17		X			23 2.000							24 1	24 1	2508
10	W5W20	A.B. WELL		22		X			2 1.000	9.125						33 2	33 2	55



STIRRUP HOOK DIMENSIONS GRADES 40 - 50 - 60 KSI				
BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

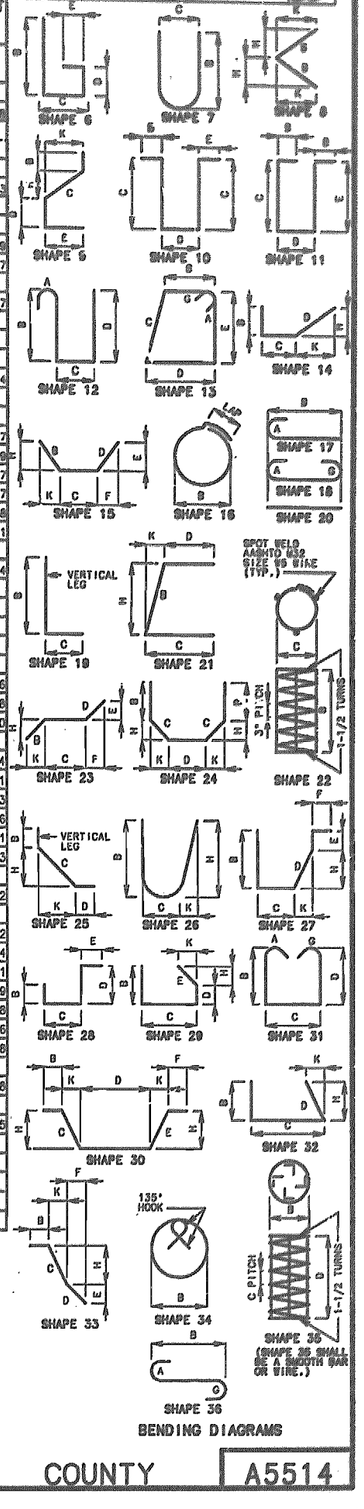


END HOOK DIMENSIONS				
BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

BENDING DIAGRAMS



STD 80.8 REVISED MAY 1974 OCT. 1981

DETAILED OCT. 1994
CHECKED OCT 1994

STATE | PROJ. NO. | SHEET NO.
NO. ACNH-71-2(50)

SHEET NO. 26 OF 29

JASPER COUNTY

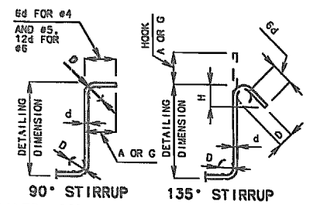
A5514

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
		ABUT.NO.3																
18	6H31	APRON		20		X			41 5.000							41 5	41 5	1120
9	6H32	WING & APRON		23	S	X			2 0.125	2 0.000				2 0.000	2.250	4 0	3 11	53
9	6H33	WING & APRON		21	S	X			2 0.125	2 0.000				2 0.000	2.250	4 0	3 10	52
8	6H34	BRG. BEAM		18		X			41 5.000							43 3	43 3	924
6	6H35	BEAMS & B.W.		20		X			41 5.000							41 5	41 5	373
3	6H36	BRG. BEAM		20		X			2 10.000							2 10	2 10	13
6	4H38	BACKWALL		20		X			20 9.000							20 9	20 9	83
8	6H300	APP BEAM		18		X			41 5.000							42 9	42 9	514
1	4H302	APP HAUNCH		20		X			38 9.000							38 9	38 9	26
6	4H303	BACKWALL		20		X			22 5.000							22 5	22 5	90
16	4H305	WING		20		X	V	2	2 5.000							2 5	2 5	
									20 0.000							20 0	20 0	120
		INCREMENT =																
		30.125 INCH																
2	4H306	WING		20		X			18 11.000							18 11	18 11	25
2	4H307	WING		20		X			22 4.000							22 4	22 4	30
8	5H308	WING		20		X	V	2	26 6.000							26 8	26 8	
									33 6.000							33 6	33 6	251
		INCREMENT =																
		27.375 INCH																
2	5H309	WING		20		X			34 6.000							34 6	34 6	72
4	5H310	WING		20		X			5 9.000							5 9	5 9	24
4	5H311	WING	E	20		X			5 9.000							5 9	5 9	24
12	4H312	MUDWALL		20		X			3 3.000							3 3	3 3	26
8	4H313	WING		20		X			5 1.000							5 1	5 1	28
18	4H314	WING		20		X	V	2	2 8.000							2 8	2 8	
									22 9.000							22 9	22 9	153
		INCREMENT =																
		30.125 INCH																
2	4H315	WING		20		X			21 0.000							21 0	21 0	28
2	4H316	WING		20		X			24 5.000							24 5	24 5	33
6	5H317	WING		20		X	V	2	28 10.000							28 10	28 10	
									33 4.000							33 4	33 4	195
		INCREMENT =																
		27.000 INCH																
2	5H318	WING		20		X			34 6.000							34 6	34 6	72
12	4H322	MUDWALL		20		X			3 6.000							3 6	3 6	28
2	7T31	WING		23		X			7 3.000	21.625				2 11.250	6 7.500	9 1	9 0	37
2	7T32	WING		23		X			36 6.000	2 5.125				33 4.500	14 9.250	38 11	38 10	159
2	4T33	MUDWALL	E	19		X			6 6.000	3 3.000						9 9	9 8	- 13
2	7T34	WING		23		X			7 7.000	21.625				3 0.875	6 11.250	9 5	9 4	38
2	7T35	WING		23		X			36 6.000	2 4.325				33 4.500	14 9.250	38 10	38 9	158
2	4T36	MUDWALL	E	19		X			6 6.000	3 6.000						10 0	9 11	- 13
36	4U31	APRON		10	S	X				2 0.000	17.000					5 5	5 3	126
39	6U32	BRG BEAM		13	S	X			3 3.000	2 9.000	3 11.000	2 8.000				13 11	13 6	791
15	4U34	BRG BEAM		10	S	X				6.000	3 3.000					4 3	4 1	41
36	5U35	APP BEAM		13	S	X			2 3.000	2 8.000	2 3.000	2 8.000				10 9	10 5	391
39	5U36	APP BEAM	E	10	S	X				2 9.000	2 3.000					7 9	7 7	- 308
39	4U37	APP HAUNCH		10	S	X				17.500	6.000					3 5	3 3	85
56	5V31	APRON		20		X			11 10.000							11 10	11 10	691
76	5V32	BACKWALL	E	20		X			7 8.000							7 8	7 8	- 624
2	4V34	WING		20		X			10 1.000							10 1	10 1	13
2	4V35	WING		20		X			12 4.000							12 4	12 4	16
2	4V36	WING		20		X			11 8.000							11 8	11 8	16
4	4V37	MUDWALLS		20		X			6 6.000							6 6	6 6	17

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
38	4V38	WING	E	20		X	V	2	5 3.000							5 3	5 3	
									17 6.000							17 6	17 6	289
		INCREMENT =																
		8.125 INCH																
10	5V39	WING		20		X	V	2	2 10.000							2 10	2 10	
									4 8.000							4 8	4 8	39
		INCREMENT =																
		5.500 INCH																
38	4V300	WING	E	20		X	V	2	5 4.000							5 4	5 4	
									17 8.000							17 8	17 8	292
		INCREMENT =																
		8.250 INCH																
10	5V301	WING		20		X	V	2	2 10.000							2 10	2 10	
									4 8.000							4 8	4 8	39
		INCREMENT =																
		5.500 INCH																
2	4V303	WING		20		X			11 5.000							11 5	11 5	15
2	4V304	WING		20		X			12 1.000							12 1	12 1	16
2	4V305	WING		20		X			12 9.000							12 9	12 9	17
10	W5W1	A.B. WELL		22		X			18.000	9.125						26 1	26 1	44
		SUPERSTRUCT.																
		ABUT.1 SLAB																
82	8S1	ABUT.1 SLAB	E	20					30 9.000							30 9	30 9	6732
41	5S2	ABUT.1 SLAB	E	20					41 5.000							41 5	41 5	1771
28	4S3	ABUT.1 SLAB	E	20					30 9.000							30 9	30 9	575
21	4S4	ABUT.1 SLAB	E	20					41 5.000							41 5	41 5	581
39	5S100	APPR. TIE	E	20					2 6.000							2 6	2 6	102
		ABUT.3 SLAB																
73	8S31	ABUT.3 SLAB	E	20					28 6.000							28 6	28 6	5555
38	5S32	ABUT.3 SLAB	E	20					41 5.000							41 5	41 5	1642
19	4S34	ABUT.3 SLAB	E	20					41 5.000							41 5	41 5	526
30	4S35	ABUT.3 SLAB	E	20					28 6.000							28 6	28 6	571
39	5S100	APPR. TIE	E	20					2 6.000							2 6	2 6	102
		MAIN SLAB																
18	5S20	SLAB	E	20			V	2	3 8.000							3 8	3 8	
									38 3.000							38 3	38 3	393
		INCREMENT =																
		51.875 INCH																
613	5S21	SLAB	E	20					41 3.000							41 3	41 3	26374
518	4S22	SLAB	E	20					3 2.000							3 2	3 2	1096
66	6S23	SLAB	E	20					28 5.000							28 5	28 5	2817
64	6S24	SLAB	E	20					60 0.000							60 0	60 0	5766
210	5S25	SLAB	E	20					40 0.000							40 0	40 0	8761
35	5S26	SLAB	E	20					32 3.000							32 3	32 3	1177
6	5S27	SLAB	E	20					29 10.000							29 10	29 10	187
36	5S28	SLAB	E	20					40 0.000							40 0	40 0	1502



STD 90-8 REVISED MAY 1974 OCT. 1981

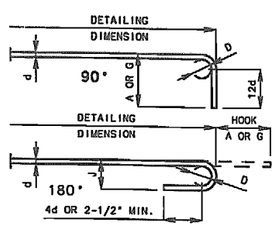
DETAILED OCT. 1994
CHECKED OCT. 1994

STIRRUP HOOK DIMENSIONS

GRADES 40 - 40 - 60 KSI

BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

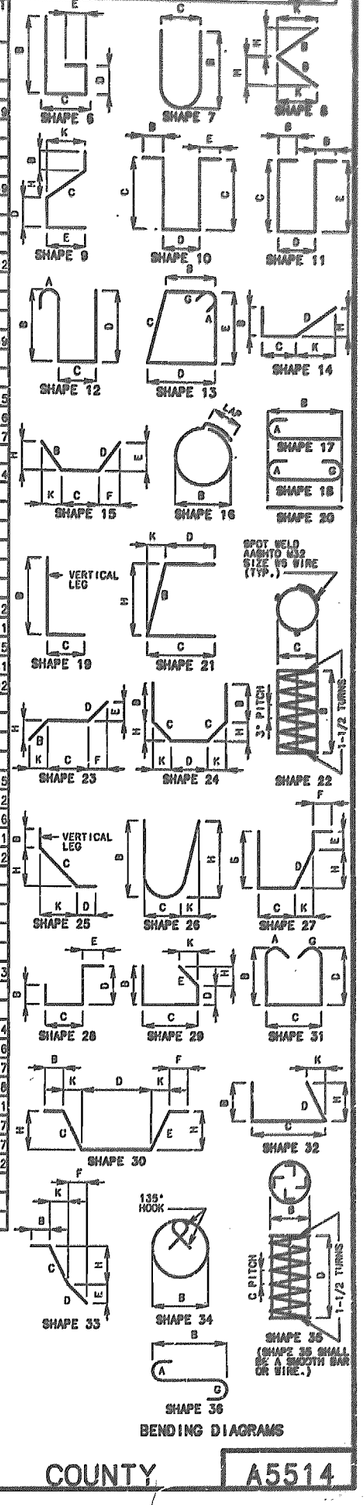


NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

END HOOK DIMENSIONS

BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	ALL GRADES 180° HOOKS J	ALL GRADES 90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	18"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.



BENDING DIAGRAMS

STATE | PROJ. NO. | SHEET NO. 30
MO. | ACNH - 71 - 2(50)

SHEET NO. 27 OF 29 .

JASPER COUNTY A5514

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
			BARRIER CURB																
736	5	R1	B.C.	E	19	S				2 6.000	3.500						2 10	2 8	2047
680	5	R2	B.C.	E	15	S				2 6.125	3.500				2 6.000	3.000	2 10	2 9	1950
652	5	R3	B.C.	E	19	S				17.000	6.000						0 23	0 22	1247
652	5	R4	B.C.	E	27	S					6.000	11.125	7.000	12.000	9.125	6.375	3 0	2 10	1927
28	5	R5	B.C.	E	19	S				2 2.500	6.000						2 9	2 7	75
28	5	R6	B.C.	E	27	S					6.000	10.625	17.750		8.750	6.125	2 10	2 10	83
8	5	R7	B.C.	E	19	S				2 0.000	6.000						2 6	2 5	20
6	5	R8	B.C.	E	27	S					6.000	7.875	17.750		6.250	4.750	2 8	2 7	22
8	5	R9	B.C.	E	19	S				2 2.750	3.500						2 6	2 5	20
24	5	R10	B.C.	E	10	S					2 0.000	7.500					4 8	4 5	111
48	5	R11	B.C.	E	20					5 0.000							5 0	5 0	250
10	5	R20	B.C.	E	20					33 10.000							33 10	33 10	353
2	5	R22	B.C.	E	20					35 0.000							35 0	35 0	73
2	5	R23	B.C.	E	20					36 9.000							36 9	36 9	77
10	5	R30	B.C.	E	20					31 7.000							31 7	31 7	329
2	5	R32	B.C.	E	20					32 9.000							32 9	32 9	68
2	5	R33	B.C.	E	20					34 6.000							34 6	34 6	72
56	5	R50	B.C.	E	20					7 9.000							7 9	7 9	453
70	5	R51	B.C.	E	20					40 0.000							40 0	40 0	2920
16	5	R52	B.C. •	E	20					7 10.000							7 10	7 10	131
14	5	R53	B.C.	E	20					26 7.000							26 7	26 7	388
			SLIP-FORMED																
			(OPTION)																
			CURB ONLY																
40	5	C1	S-F CURB OPT	E	20					8 0.000							8 0	8 0	334
			• INCLUDES 2 ADDITIONAL #4-S35 #5-R52 #6-S23 & #8-S31 BARS FOR TESTING																

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.

STATE | PROJ. NO. | SHEET NO.
MO. ACNH-71-2(50) 37

SHAPE 6 · SHAPE 7 · SHAPE 8 · SHAPE 9 · SHAPE 10 · SHAPE 11 · SHAPE 12 · SHAPE 13 · SHAPE 14 · SHAPE 15 · SHAPE 16 · SHAPE 17 · SHAPE 18 · SHAPE 20 · SHAPE 19 · SHAPE 21 · SHAPE 23 · SHAPE 24 · SHAPE 22 · SHAPE 25 · SHAPE 26 · SHAPE 27 · SHAPE 28 · SHAPE 29 · SHAPE 31 · SHAPE 30 · SHAPE 32 · SHAPE 33 · SHAPE 34 · SHAPE 35 · SHAPE 36

BENDING DIAGRAMS

STD 80.8 | REVISED | MAY 1974 | OCT. 1981

6d FOR #4 AND #5, 12d FOR #6

90° STIRRUP · 135° STIRRUP

DETAILED OCT. 1994
CHECKED OCT. 1994

STIRRUP HOOK DIMENSIONS

GRADES 40 - 50 - 60 KSI

BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	5"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

DETAILING DIMENSION · 90° · 12d · 180° · 4d OR 2-1/2" MIN.

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

END HOOK DIMENSIONS

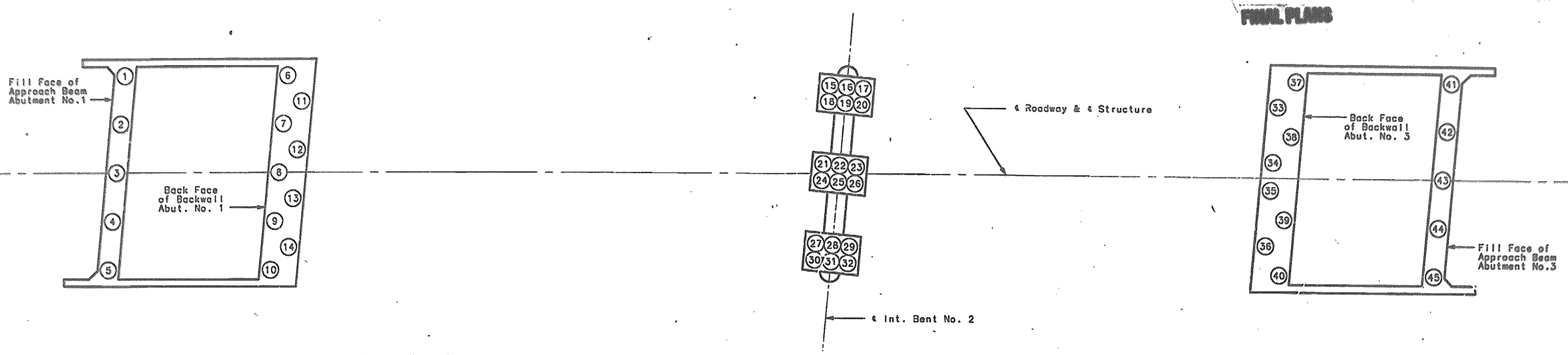
BAR SIZE	D (IN.)	ALL GRADES 180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	15"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	12-1/4"	2'-3"	21-3/4"	2'-7"

NOTE:
ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH THE SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.
E = EPOXY COATED REINFORCEMENT.
S = STIRRUP.
X = BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.
V = BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.
NO. EA. = NUMBER OF BARS OF EACH LENGTH.
NOMINAL LENGTHS ARE BASED ON OUT TO OUT DIMENSIONS SHOWN IN BENDING DIAGRAMS AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH)
ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.
PAYWEIGHTS ARE BASED ON ACTUAL LENGTHS.
FOUR ANGLE OR CHANNEL SPACERS ARE REQUIRED FOR EACH COLUMN SPIRAL. SPACERS ARE TO BE PLACED ON INSIDE OF SPIRALS. LENGTH AND WEIGHT OF COLUMN SPIRALS DO NOT INCLUDE SPLICES OR SPACERS.
REINFORCING STEEL (GRADE 60) = FY 60,000 PSI.

SHEET NO. 28 OF 29 . JASPER COUNTY A5514

STATE	PROJ. NO.	SHEET NO.
MD.	ACNH-71-2(50)	28

FINAL PLANS



Span (1-2)

Span (2-3)

PART PLAN SHOWING PILE NUMBERING FOR RECORDING "AS BUILT PILE" DATA

"AS BUILT PILE" DATA

PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			ABUTMENT NO. 1
1	49	111.4	PRACTICAL REFUSAL HP 12—53
2	41	120.0	" " "
3	41	141.8	" " "
4	49	111.4	" " "
5	49	—	REFUSAL ON ROCK "
			"
			"
6	36	—	REFUSAL ON ROCK "
7	37	—	" " " "
8	43	156.0	PRACTICAL REFUSAL "
9	42	156.0	" " "
10	43	164.2	" " "
11	40	143.1	" " "
12	42	—	REFUSAL ON ROCK "
13	43	150.7	PRACTICAL REFUSAL "
14	41	—	REFUSAL ON ROCK "

"AS BUILT PILE" DATA

PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			INTERMEDIATE BENT NO. 2
15	12	—	REFUSAL ON ROCK HP 12—53
16	11	—	" " " "
17	11	—	" " " "
18	11	—	" " " "
19	11	—	" " " "
20	12	—	" " " "
21	12	—	" " " "
22	12	—	" " " "
23	11	—	" " " "
24	11	—	" " " "
25	11	—	" " " "
26	11	—	" " " "
27	11	—	" " " "
28	12	—	" " " "
29	12	—	" " " "
30	12	—	" " " "
31	12	—	" " " "
32	12	—	" " " "

"AS BUILT PILE" DATA

PILE NO.	LENGTH IN PLACE (FT.)	COMPUTED BEARING (TONS)	REMARKS
			ABUTMENT NO. 3
33	32	143.1	PRACTICAL REFUSAL HP 12—53
34	32	143.1	PRACTICAL REFUSAL "
35	32	143.1	" " "
36	31	130.1	" " "
37	31	156.0	" " "
38	32	141.8	" " "
39	31	—	REFUSAL ON ROCK "
40	31	141.8	PRACTICAL REFUSAL "
			"
			"
41	40	130.0	" " "
42	37	130.0	" " "
43	34	156.0	" " "
44	37	156.0	" " "
45	40	111.4	" " "

NOTE: INDICATE IN REMARK COLUMN:
A.) IF PILING WERE DRIVEN TO PRACTICAL REFUSAL.
B.) PILE BATTER IF OTHER THAN SHOWN ON BENT DETAIL SHEET.
C.) TYPE OF PILING USED.

NOTE: THIS SHEET TO BE COMPLETED BY MHTD CONSTRUCTION PERSONNEL.

MISC. PILES IN PLA. A
PILES IN PLACE
MAY 1992
REVISED:

346-260

DETAILED OCT. 1994
CHECKED OCT. 1994

NOTE: THIS DRAWING IS NOT TO SCALE. FOLLOW DIMENSIONS.

SHEET NO. 29 OF 29

JASPER COUNTY

A5514

MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

STANDARD PLANS

REVISED JAN. 1, 1995

[redacted]

STATE MO | JOB NO. J7P0474 | SHEET NO. 3
DIST NO. 7 | PROJECT NO. ACNH-71-2(50) | SHEETS
COUNTY JASPER

✓	NO.	DESCRIPTION
✓	203.00E	EXCAVATION & EMBANKMENT
✓	203.02C	UNDERGRADING
✓	203.10B	TABULATED EARTHWORK & SECTION DATA
✓	203.20B	SUPERELEVATION SPIRALS & WIDENING (UNDIVIDED)
	203.21B	SUPERELEVATION SPIRALS & WIDENING (DIVIDED)
	203.35A	MAILBOX TURNOUTS
✓	203.40F	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (OTHER THAN 6:1 FORESLOPE) *
	203.41F	TYPICAL DETAILS-RAMPS FOR INTERCHANGES (6:1 FORESLOPE) *
✓	203.50J	TYPICAL CROSS-OVERS (DIVIDED HIGHWAYS)
✓	203.61	DRIVEWAY TYPE I
	203.62	DRIVEWAY TYPE II
✓	203.63	DRIVEWAY TYPE III
	203.64	DRIVEWAY TYPE IV
	203.65	DRIVEWAY TYPE V
	204.00D	EMBANKMENT CONTROL MEASURING DEVICES
✓	502.00P	CONCRETE PAVEMENT & BASE APPURTENANCES (2 SHEETS) *
✓	502.05	CONCRETE PAVEMENT & BASE APPURTENANCES, 15 FT. JOINT SPACING (2 SHEETS)
✓	502.10F	DOWEL SUPPORTING UNITS
✓	504.00A	CONCRETE APPROACH PAVEMENT (2 SHEETS)
	602.00A	RIGHT-OF-WAY & DRAIN MARKERS
	604.05B	PIPE CULVERT HEADWALLS - TYPE S
	604.10B	HEADWALL-WITH ENERGY DISSIPATOR - 18"
	604.11B	HEADWALL-WITH ENERGY DISSIPATOR - 24"
	604.12B	HEADWALL-WITH ENERGY DISSIPATOR - 30"
	604.13B	HEADWALL-WITH ENERGY DISSIPATOR - 36"
	604.14B	HEADWALL-WITH ENERGY DISSIPATOR - 42"
	604.15B	HEADWALL-WITH ENERGY DISSIPATOR - 48"
	604.20B	DROP INLET - TYPE B
	604.21B	DROP INLET - TYPE C
	604.22B	DROP INLET - TYPE D
	604.23B	DROP INLET - TYPE E
	604.24B	DROP INLET - TYPE EE
	604.25C	DROP INLET - TYPE F
	604.26D	DROP INLET - TYPE G
	604.27D	DROP INLET - TYPE S (3 SHEETS)
	604.28E	DROP INLET - TYPE T (ALSO INCLUDE 614.30)
	604.29C	DROP INLET - TYPE X
	604.30F	CONCRETE MANHOLES (ALSO INCLUDE 614.30)
	604.40E	PIPE COLLARS
	604.70	SLOTTED DRAIN (2 SHEETS)
✓	605.10A	CLASS A UNDERDRAINS
✓	606.00AA	GUARD RAIL (6 SHEETS) *
✓	606.22L	BRIDGE ANCHOR SECTION (SAFETY BARRIER CURB ON BRIDGE) (ALSO INCLUDE 606.00) *
	606.23C	BRIDGE ANCHOR SECTION (THRIE BEAM RAIL ON BRIDGE)(ALSO INCLUDE 606.00)
	606.30E	TERMINAL SECTION (ALSO INCLUDE 606.00)
	606.40A	GUARD CABLE
	607.10R	CHAIN LINK FENCE
	607.11B	CHAIN LINK FENCE FOR RETAINING WALLS
	607.20F	WOVEN WIRE FENCE (ALSO INCLUDE 607.10)

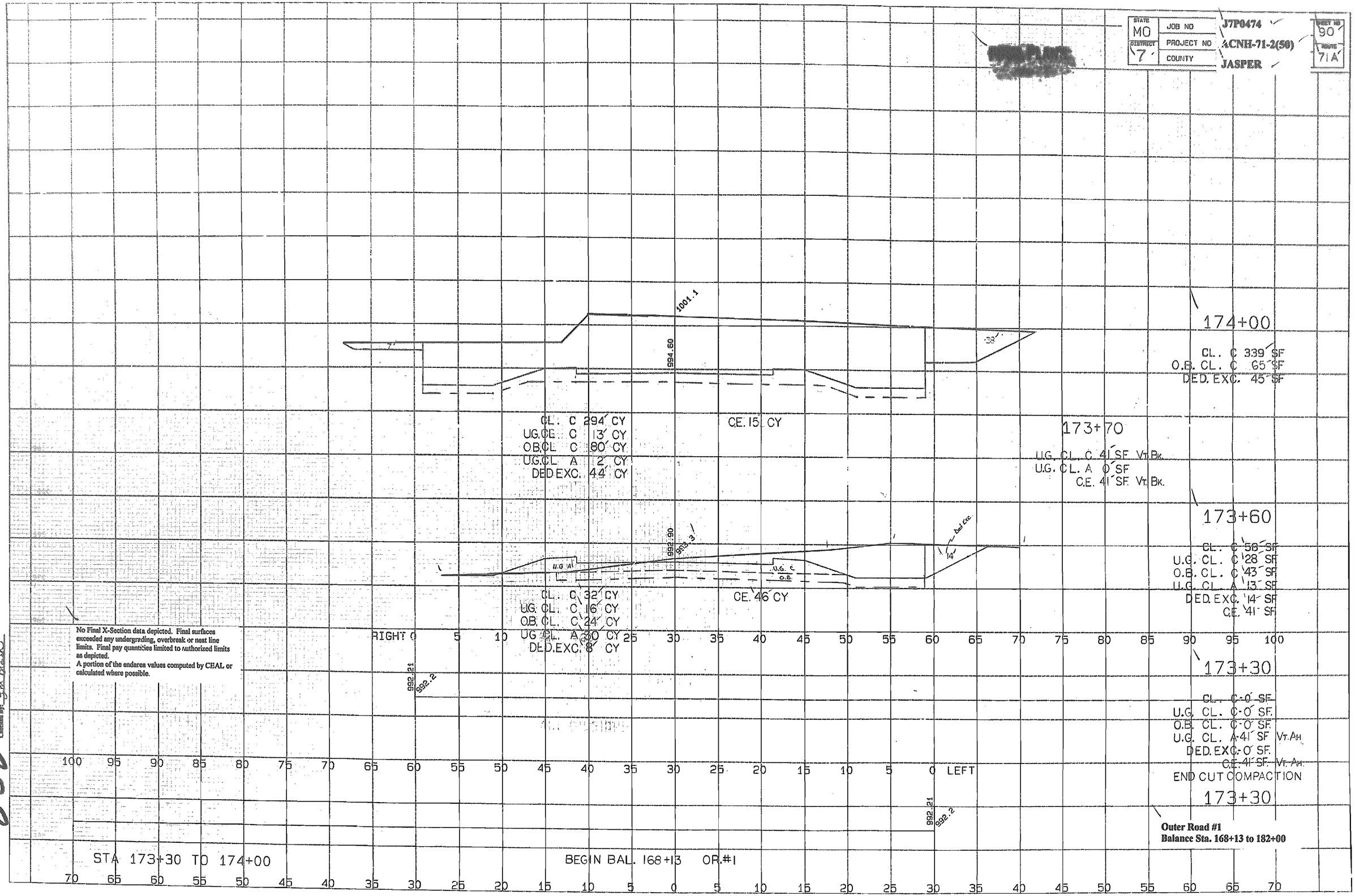
✓	NO.	DESCRIPTION
	608.00C	PAVED APPROACHES
	608.10G	CONCRETE SIDEWALK & WHEELCHAIR RAMPS
	608.20D	CONCRETE STEPS
✓	609.00G	CONCRETE CURB - CURB & GUTTER - GUTTER
	609.15C	PAVED DITCHES
	609.40F	DRAIN BASIN, SHLD. PAVE. & FILL SL. AT BR. ENDS (2 SHEETS)
✓	609.60C	ROCK DITCH LINER
✓	609.70C	ROCK LINING FOR CULVERT OUTLETS
	610.20E	BRICK MANHOLES (ALSO INCLUDE 614.30)
✓	611.60L	CONCRETE SLOPE PROTECTION
✓	612.10K	BARRICADES AND FLASHER SIGNS
	613.00B	PAVEMENT REPAIR
✓	614.10R	CURB INLETS, GRATES & BEARING PLATES
	614.30D	MANHOLE FRAMES & COVERS
	615.00A	OFFICE FOR ENGINEER
✓	616.10R	TRAFFIC CONTROL DEVICES (4 SHEETS)(ALSO INCLUDE 303.01) *
✓	617.00Z	CONCRETE TRAFFIC BARRIER (3 SHEETS) *
	702.01F	16" CONCRETE PILES (APPROVED TYPES)(2 SHEETS)
	702.02C	CAST-IN-PLACE CONCRETE PILES (APPROVED TYPES)
	703.21E	CONCRETE BOX CULVERTS, H20 LOADING (3 SHEETS)(FLARED WINGS)(INCL 706.35)
	703.24E	CONCRETE BOX CULVERTS, SKEW DATA (703.30)(INCL 706.35)
	703.25E	CONCRETE BOX CULVERTS, SKEW DATA (703.21)(3 SHTS) (FLRD WINGS)(INCL 706.35)
	703.30F	CONCRETE BOX CULVERTS, 4' SPANS & LESS-ALL LOADING (INCL 706.35)
	703.35C	CONCRETE BOX CULVERTS, CUTTING DETAILS (STRAIGHT WINGS) (INCL 706.35) *
	703.36B	CONCRETE BOX CULVERTS, CUTTING DETAILS (FLARED WINGS) (INCL 706.35) *
	703.50H	CONCRETE DOUBLE BOX STRUCTURE-SQUARE (INCL 706.35)
	703.51G	CONCRETE DOUBLE BOX STRUCTURE-SKEWED (INCL 706.35)
	703.52D	CONCRETE DOUBLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.54E	DOUBLE BOX STRUCTURE REINFORCEMENT-H20 OR HS20 LOADING (3 SHEETS)
	703.55E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SQUARE (INCL 706.35)
	703.56E	CONCRETE DOUBLE BOX STRUCTURE (FLARED WINGS) SKEWED (INCL 706.35)
	703.60C	CONCRETE BOX STRUCTURE-PIPE INLET
	703.70D	CONCRETE TRIPLE BOX STRUCTURE-SQUARE (2 SHEETS) (INCL 706.35)
	703.71D	CONCRETE TRIPLE BOX STRUCTURE-SKEWED (2 SHEETS) (INCL 706.35)
	703.72D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS)(SQUARE) (2 SHEETS)(INCL 706.35)
	703.73D	CONCRETE TRIPLE BOX STRUCTURE-(FLARED WINGS)(SKEWED) (2 SHEETS)(INCL 706.35)
	703.74D	CONCRETE TRIPLE BOX STRUCTURE-CUT SECTIONS (INCL 706.35)
	703.76B	CONCRETE TRIPLE BOX STRUCTURE REINFORCEMENT-H20 OR HS20 LOADING (5 SHEETS)
✓	706.30E	REINFORCING BAR SUPPORTS
✓	706.35E	BAR SUPPORTS FOR CONCRETE REINFORCEMENT
	712.40E	STEEL DAMS FOR BRIDGES (6" CHANNEL)
	725.31C	METAL CURTAIN WALL AND METAL INLETS
✓	726.30C	CULVERT INSTALLATION METHODS
	731.00S	PRECAST MANHOLES (ALSO INCL 614.30)
✓	731.10K	PRECAST DROP INLETS (4 SHTS)(ALSO INCL 614.30 & 614.10)

✓	NO.	DESCRIPTION
✓	732.00L	FLARED END SECTION (2 SHEETS)
✓	732.10A	SAFETY SLOPE END SECTIONS (2 SHEETS)
	806.02A	STAPLE PLACEMENT FOR PLASTIC NETTING
		HIGHWAY LIGHTING
	901.00P	POLES & APPURTENANCES-30' (3 SHEETS)
	901.01U	POLES & APPURTENANCES-45' (3 SHEETS)
	901.05A	CONTROL PANEL CABINET DETAILS (2 SHEETS)(SEE NOTE)
	901.12C	POLE MOUNT CONT STA-SECONDARY SERV-480 V MULTI CIR (NOT METERED)
	901.15E	POLE MOUNT CONT STA-SEC SERV-120,240, & 480 V MULTI CIR
	901.16D	POLE MOUNT CONT STA-SEC SERV-480 V MULTI CIR (METERED)
	901.18D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
	901.19D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (NOT METERED)
	901.20D	POLE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR (SIG METERED)
	901.22E	POLE MOUNT CONT STA-SEC SERV-120/240 & 480 V MULTI CIR (BOTH METERED)
	901.23E	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (METERED)
	901.24D	POLE MOUNT CONT STA-SEC SERV-240 V MULTI CIR (LIGHTS & SIGNALS-BOTH METERED)
	901.25D	BASE MOUNT CONT STA-SEC SERV-120/240 V MULTI CIR
		NOTE: ALSO INCLUDE 901.05 WITH 901.12 THROUGH 901.25 EXCEPT 901.18
		TRAFFIC SIGNALS
	902.00F	SIGNAL HEADS, LENSES AND MOUNTING
	902.10J	PULL BOXES, CONTROLLERS, COND LOCATION
	902.15D	POWER SUPPLY ASSEMBLY
	902.21B	TELEPHONE INTERCONNECT
	902.30H	CONCRETE BASES
	902.40J	TUBULAR STEEL POST
	902.50H	DETECTORS *
	902.60F	SPAN WIRE DETAILS-STEEL POST
	902.70D	SPAN WIRE DETAILS-WOOD POLE
	902.80A	TRAFFIC SIGNAL SYMBOLS
		HIGHWAY SIGNING
✓	903.01C	ALPHABETS (2 SHEETS)
✓	903.02Z	HIGHWAY SIGNING (8 SHEETS) *
✓	903.03AQ	SIGN MOUNTING DETAILS (5 SHEETS) *
	903.04D	WEIGH STATION SIGNING
	903.05C	TUBULAR SPAN SUPPORT-ONE TUBE, TYPE S
	903.06C	TUBULAR SPAN SUPPORT-TWO TUBE, TYPE S
	903.07C	TUBULAR CANTILEVER SUPPORTS, TYPE C
	903.08C	TUBULAR BUTTERFLY SUPPORTS, TYPE B
	903.09D	LIGHTING SUPPORT BRACKET
	903.10T	SIGN TRUSSES-OVERHEAD ALUMINUM (8 SHEETS)(INCL 903.03)
	903.12N	SIGN TRUSSES-BUTTERFLY & CANTILEVER-STEEL (7 SHEETS) (INCL 903.03)
	903.60S	SIGN TRUSSES-OVERHEAD STEEL (7 SHEETS)(INCL 903.03)

NOTES:
PLANS FOR THIS PROJECT WERE DEVELOPED USING DRAWINGS FROM THIS INDEX

* REVISED OR NEW SINCE MARCH 1, 1994.

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	90
DISTRICT 7	COUNTY	JASPER	ROUTE 71A



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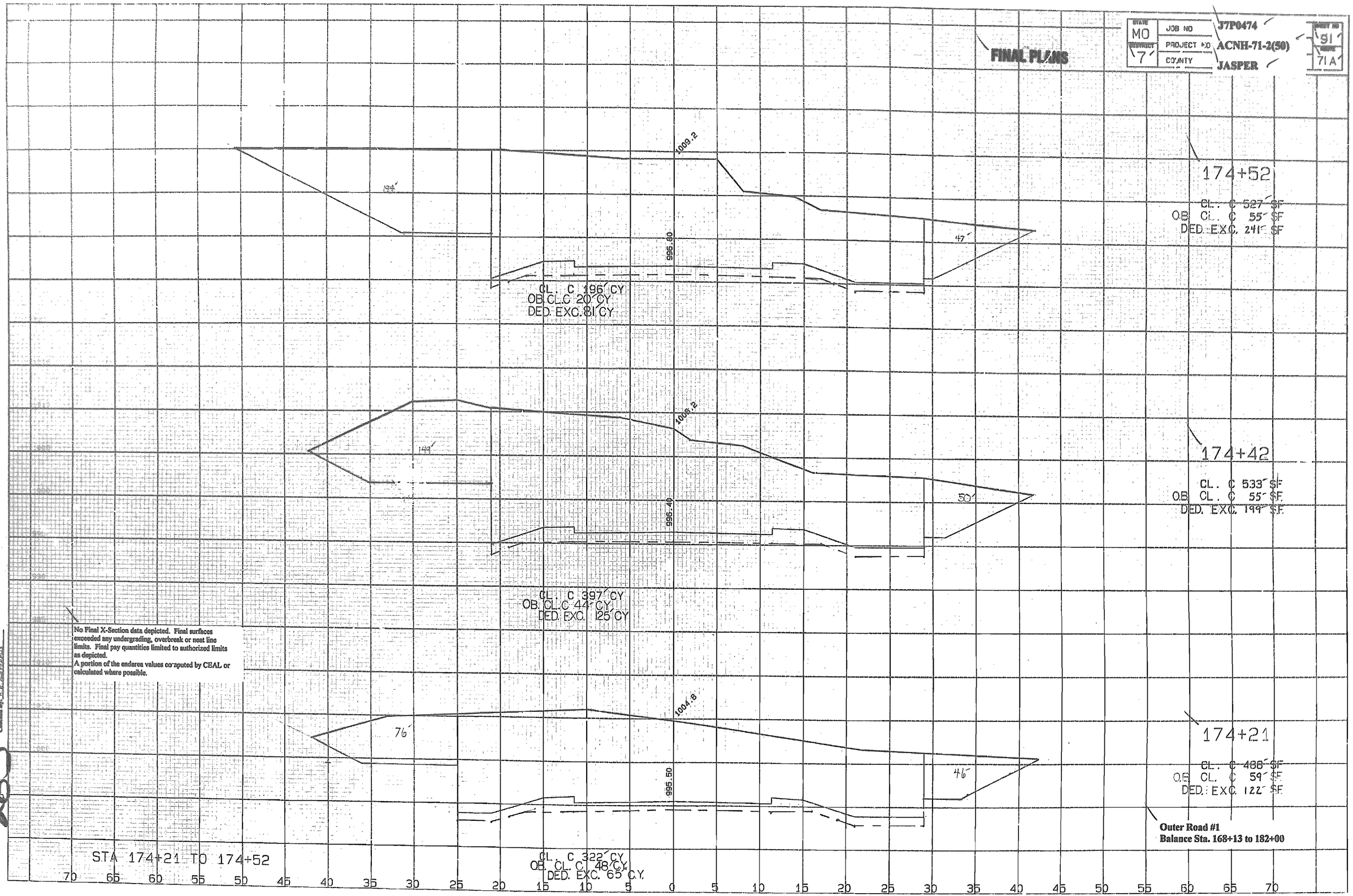
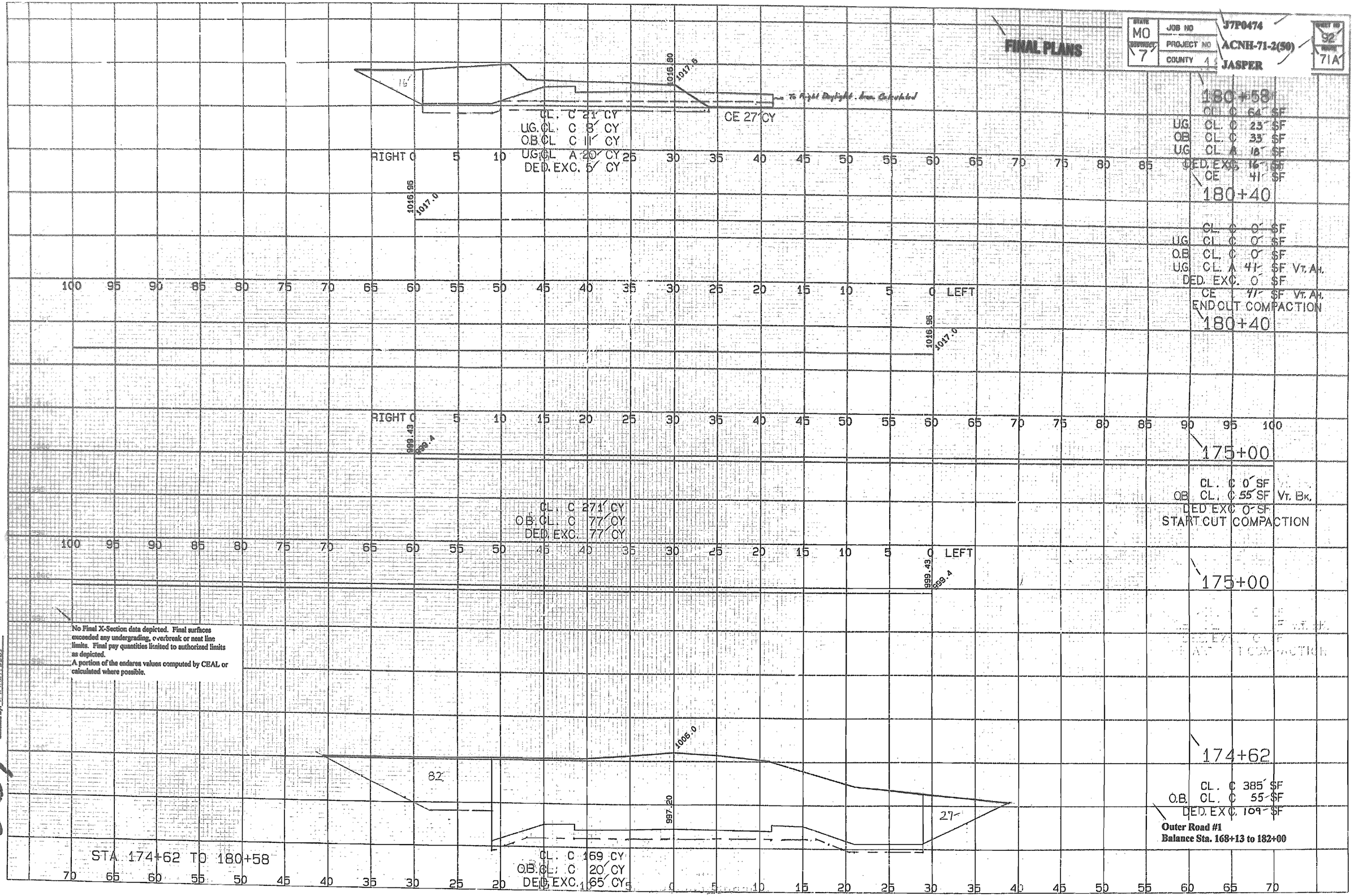
Area 262



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 91
ROUTE 71A
FINAL PLANS
1009.2
184'
47'
996.80
CL. C 196 CY
OB. CL. C 20 CY
DED. EXC. 81 CY
174+52
CL. C 527 SF
OB. CL. C 55 SF
DED. EXC. 241 SF
1006.2
149'
50'
996.40
CL. C 397 CY
OB. CL. C 44 CY
DED. EXC. 125 CY
174+42
CL. C 533 SF
OB. CL. C 55 SF
DED. EXC. 199 SF
No Final X-Section data depicted. Final surfaces exceeded any undergrading, overbreak or neat line limits. Final pay quantities limited to authorized limits as depicted.
A portion of the endarea values computed by CEAL or calculated where possible.
1004.8
76'
46'
995.50
CL. C 322 CY
OB. CL. C 48 CY
DED. EXC. 65 C.Y.
174+21
CL. C 488 SF
OB. CL. C 59 SF
DED. EXC. 122 SF
Outer Road #1
Balance Sta. 168+13 to 182+00
STA 174+21 TO 174+52
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
End Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:
Area
Volume
263



FINAL PLANS
STATE MO
DISTRICT 7
JOB NO
PROJECT NO
COUNTY
J7P0474
ACNH-71-2(50)
JASPER
SHEET NO 92
ROUTE 71A
180+58
CL. C 64 SF
U.G. CL. C 23 SF
O.B. CL. C 33 SF
U.G. CL. A 18 SF
DED. EXC. 16 SF
CE 41 SF
180+40
CL. C 0 SF
U.G. CL. C 0 SF
O.B. CL. C 0 SF
U.G. CL. A 41 SF Vt. Ah.
DED. EXC. 0 SF
CE 41 SF Vt. Ah.
END CUT COMPACTION
180+40
175+00
CL. C 0 SF
O.B. CL. C 55 SF Vt. Bk.
DED. EXC. 0 SF
START CUT COMPACTION
175+00
174+62
CL. C 385 SF
O.B. CL. C 55 SF
DED. EXC. 109 SF
Outer Road #1
Balance Sta. 168+13 to 182+00
CL. C 21 CY
U.G. CL. C 8 CY
O.B. CL. C 11 CY
U.G. CL. A 20 CY
DED. EXC. 5 CY
CE 27 CY
To Right Daylight. Area Calculated
CL. C 271 CY
O.B. CL. C 77 CY
DED. EXC. 77 CY
CL. C 169 CY
O.B. CL. C 20 CY
DED. EXC. 65 CY
RIGHT
LEFT
STA 174+62 TO 180+58
No Final X-Section data depicted. Final surfaces exceeded any undergrading, overbreak or neat line limits. Final pay quantities limited to authorized limits as depicted.
A portion of the endarea values computed by CEAL or calculated where possible.

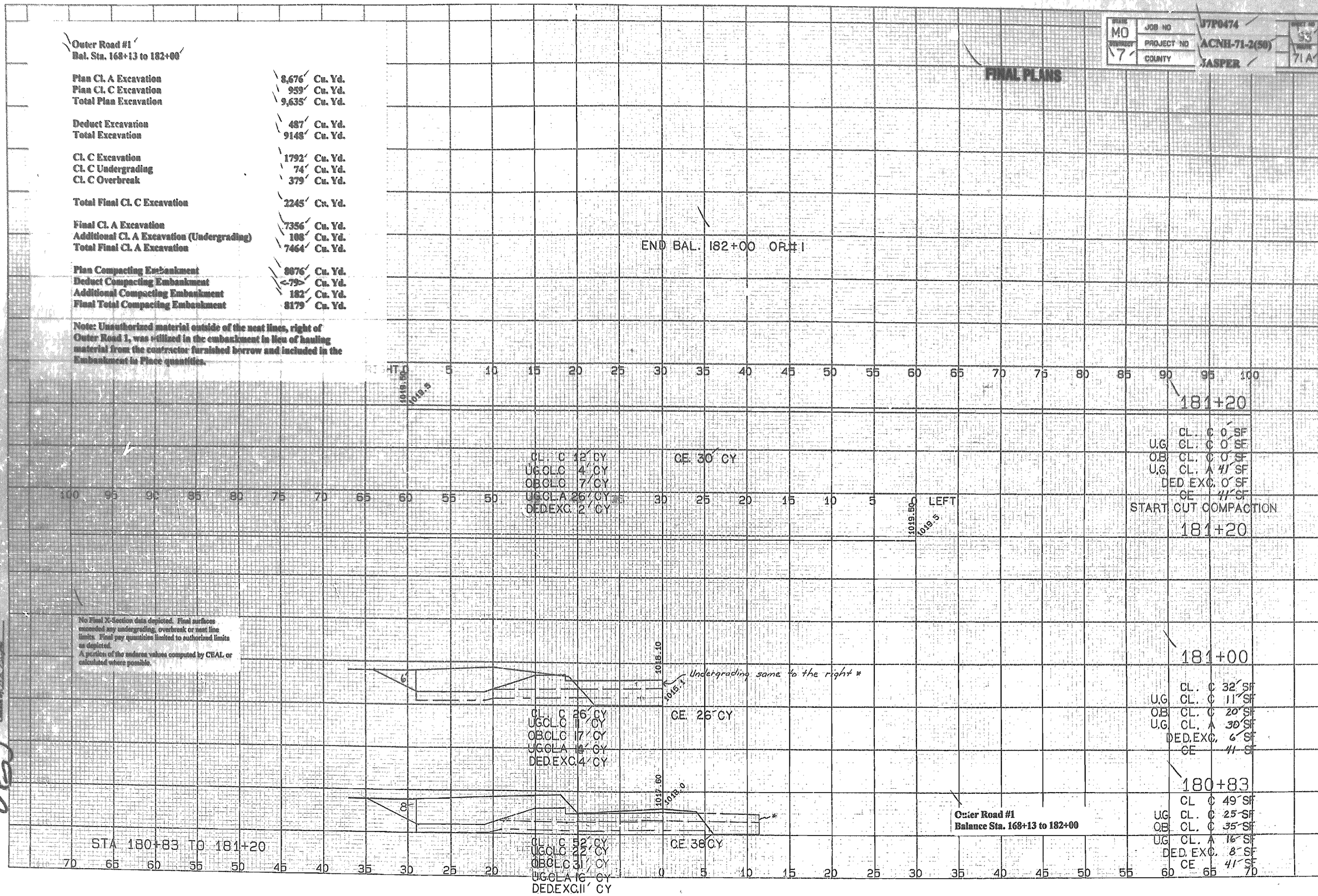
STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	53
DISTRICT 7	COUNTY	JASPER	71 A

FINAL PLANS

Outer Road #1
Bal. Sta. 168+13 to 182+00

Plan Cl. A Excavation	8,676	Cu. Yd.
Plan Cl. C Excavation	959	Cu. Yd.
Total Plan Excavation	9,635	Cu. Yd.
Deduct Excavation	487	Cu. Yd.
Total Excavation	9148	Cu. Yd.
Cl. C Excavation	1792	Cu. Yd.
Cl. C Undergrading	74	Cu. Yd.
Cl. C Overbreak	379	Cu. Yd.
Total Final Cl. C Excavation	2245	Cu. Yd.
Final Cl. A Excavation	7356	Cu. Yd.
Additional Cl. A Excavation (Undergrading)	108	Cu. Yd.
Total Final Cl. A Excavation	7464	Cu. Yd.
Plan Compacting Embankment	8076	Cu. Yd.
Deduct Compacting Embankment	<-79>	Cu. Yd.
Additional Compacting Embankment	182	Cu. Yd.
Final Total Compacting Embankment	8179	Cu. Yd.

Note: Unauthorized material outside of the neat lines, right of Outer Road 1, was utilized in the embankment in lieu of hauling material from the contractor furnished borrow and included in the Embankment in Place quantities.



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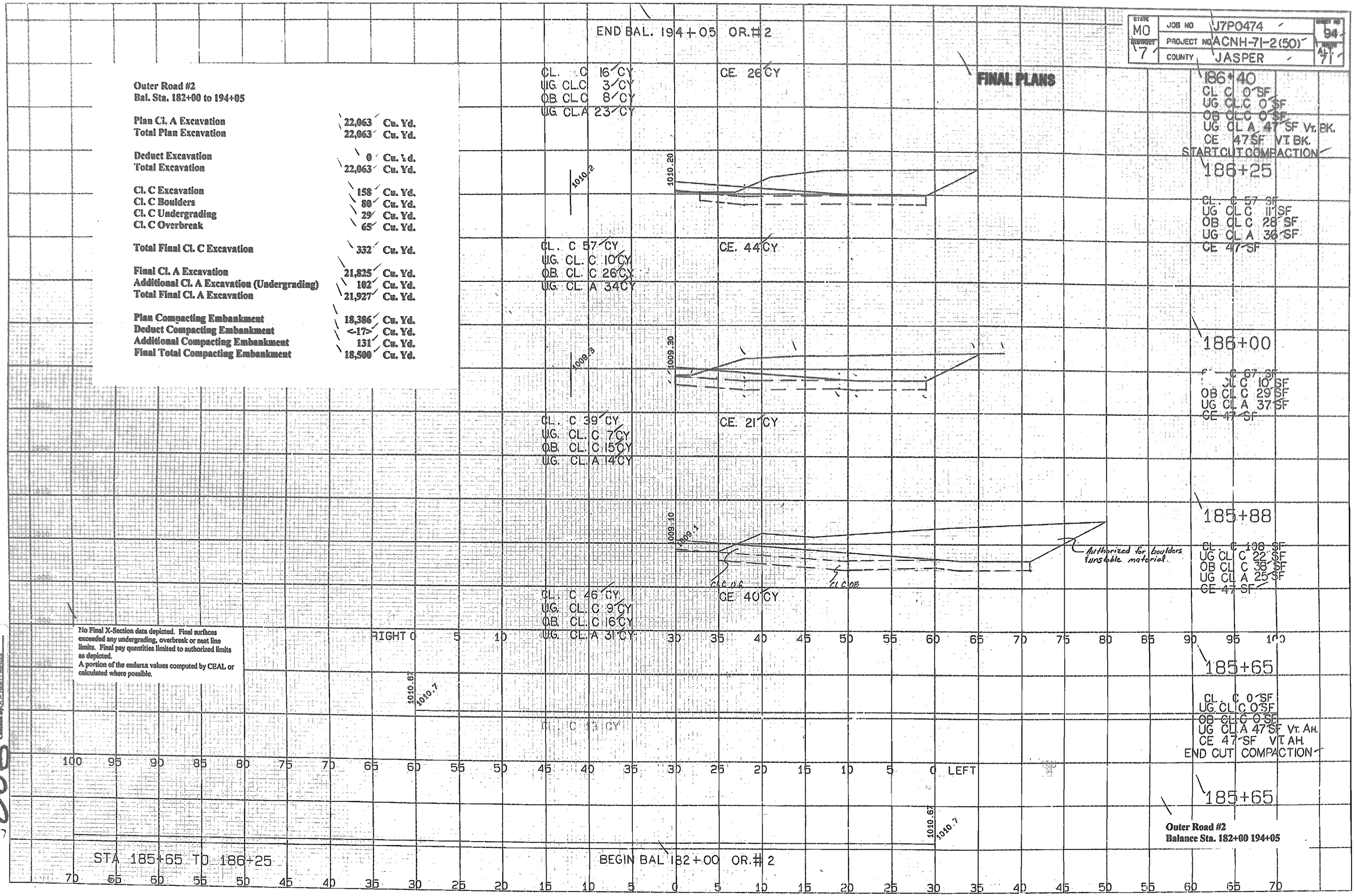
Area 265

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	94
DISTRICT 7	COUNTY	JASPER	ALT. 71

FINAL PLANS

Outer Road #2
Bal. Sta. 182+00 to 194+05

Plan Cl. A Excavation	22,063	Cu. Yd.
Total Plan Excavation	22,063	Cu. Yd.
Deduct Excavation	0	Cu. Yd.
Total Excavation	22,063	Cu. Yd.
Cl. C Excavation	158	Cu. Yd.
Cl. C Boulders	80	Cu. Yd.
Cl. C Undergrading	29	Cu. Yd.
Cl. C Overbreak	65	Cu. Yd.
Total Final Cl. C Excavation	332	Cu. Yd.
Final Cl. A Excavation	21,825	Cu. Yd.
Additional Cl. A Excavation (Undergrading)	102	Cu. Yd.
Total Final Cl. A Excavation	21,927	Cu. Yd.
Plan Compacting Embankment	18,386	Cu. Yd.
Deduct Compacting Embankment	<-17>	Cu. Yd.
Additional Compacting Embankment	131	Cu. Yd.
Final Total Compacting Embankment	18,500	Cu. Yd.



No Final X-Section data depicted. Final surfaces exceeded any undergrading, overbreak or neat line limits. Final pay quantities limited to authorized limits as depicted.
A portion of the endarea values computed by CEAL or calculated where possible.

Outer Road #2
Balance Sta. 182+00 194+05

Red Area Model Constructed By: [illegible]
Checked By: [illegible]
Computed By: [illegible]
Checked By: [illegible]
Computed By: [illegible]
Checked By: [illegible]
Area
266

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT	ACNH-71-2(50)	93
DISTRICT 7	COUNTY	JASPER	71 A

FINAL PLANS

29+34.14

CL A EXC 17 SF
COMP EMB 406 SF

1057.33
1049.8
T11 T13

CL A EXC 21 CY COMP EMB 435 CY

29+00

CL A EXC 17 SF
COMP EMB 281 SF

1058.35
1052.9
T19 T21

CL A EXC 0 CY COMP EMB 0 CY

28+99.99

CL A EXC 17 SF
COMP EMB 257 SF

1058.35
1052.9
T18 T20

CL A EXC 32 CY COMP EMB 258 CY

28+59.14

1059.58
1055.8
T25 T23

\RTE71A\CORDRELO.TEM

STA 28+59.14 TO 29+34.14

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

Roll Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:

Area 71

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	96
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

FINAL PLANS

30+16.80

CL A EXC 13 SF
COMP EMB 665 SF

1054.65

1044.7

T11 T13

CL A EXC 7 CY

COMP EMB 391 CY

30+00

CL A EXC 10 SF
COMP EMB 592 SF

1055.35

1046.1

T11 T13

CL A EXC 24 CY

COMP EMB 952 CY

29+50

CL A EXC 16 SF
COMP EMB 436 SF

1056.85

1049.0

T11 T13

CL A EXC 10 CY

COMP EMB 247 CY

STA 29+50 TO 30+16.80

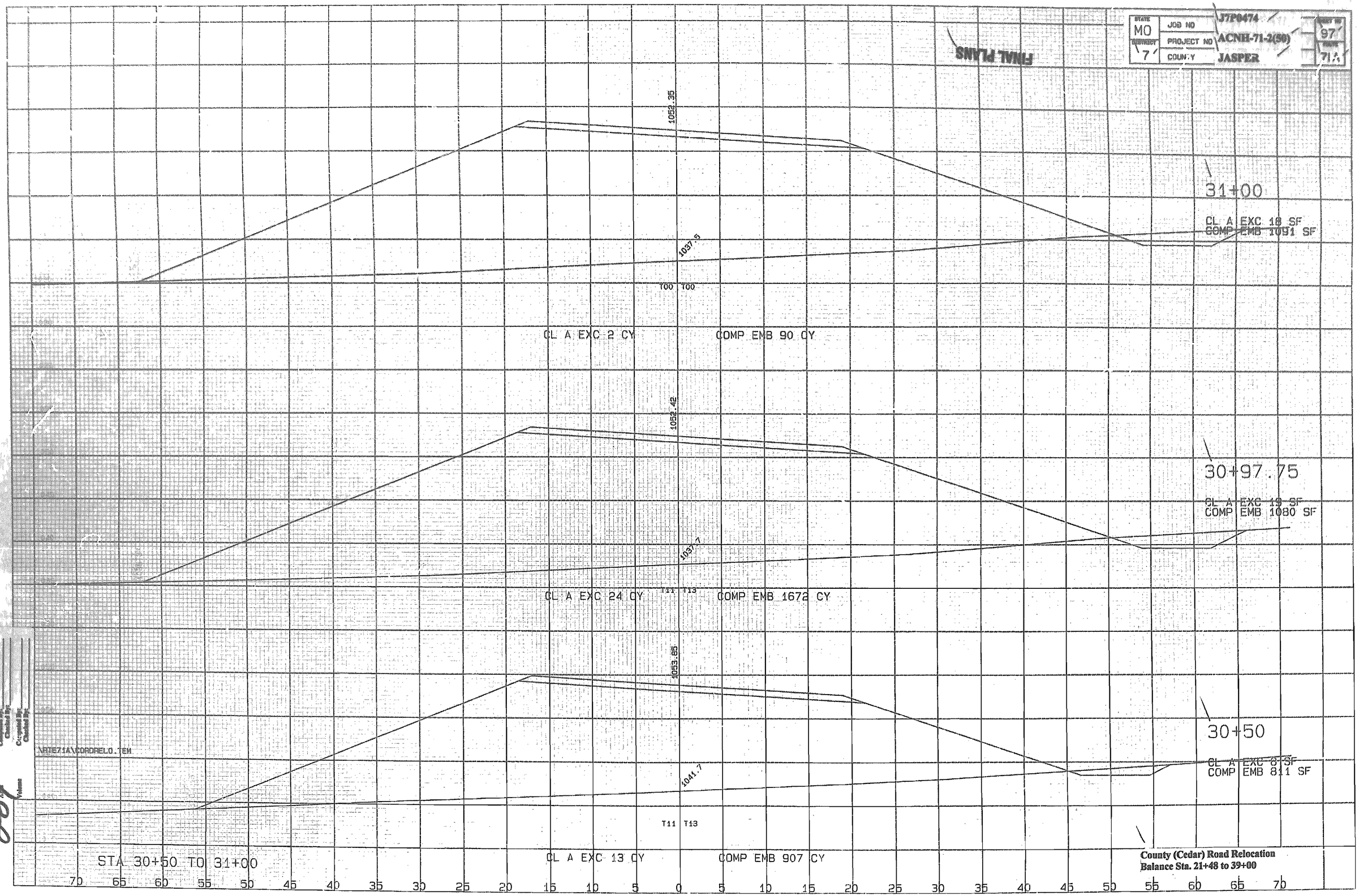
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

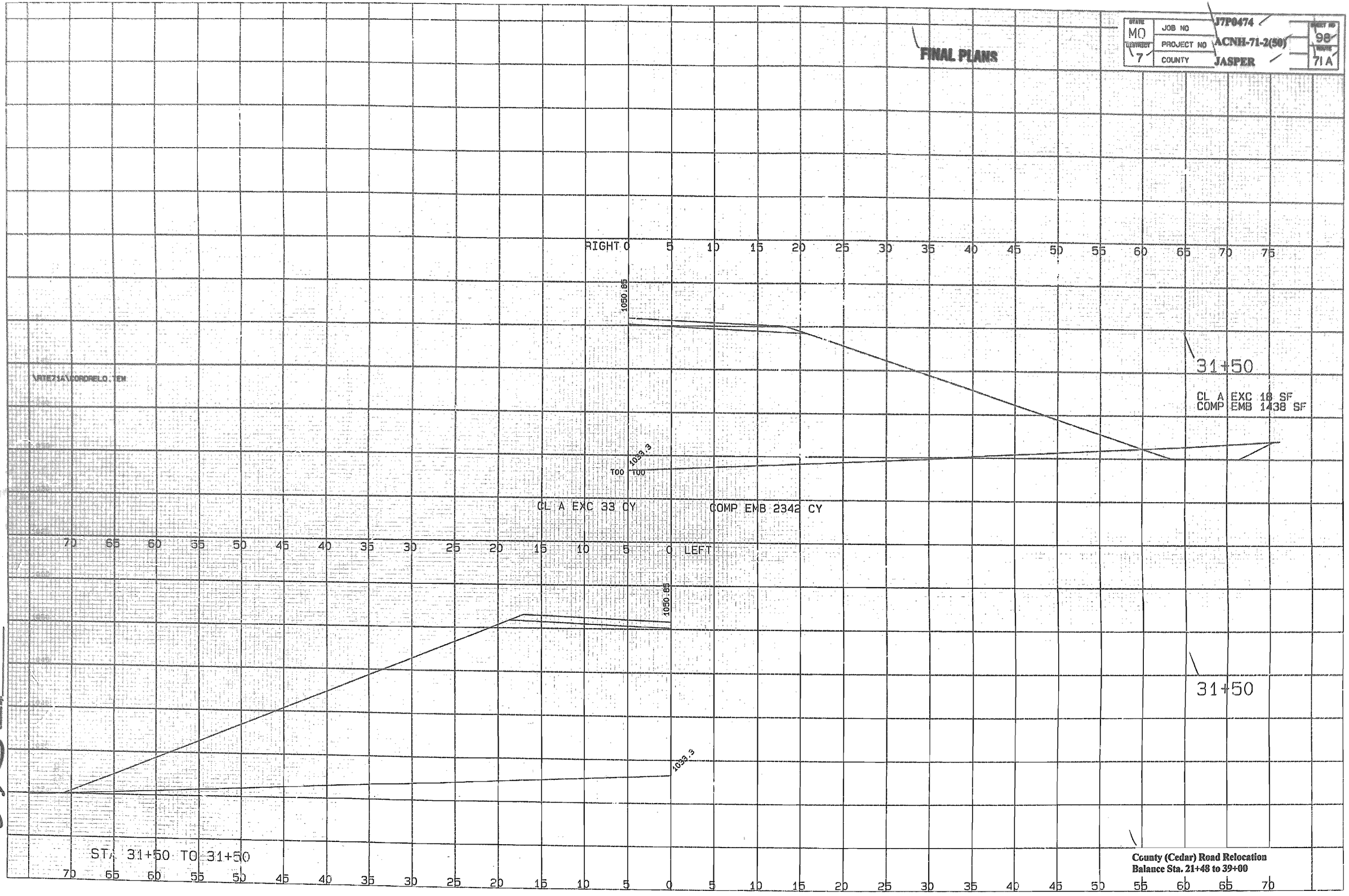
\RTE71A\CORDREL0.TEM

End Area Modal Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:

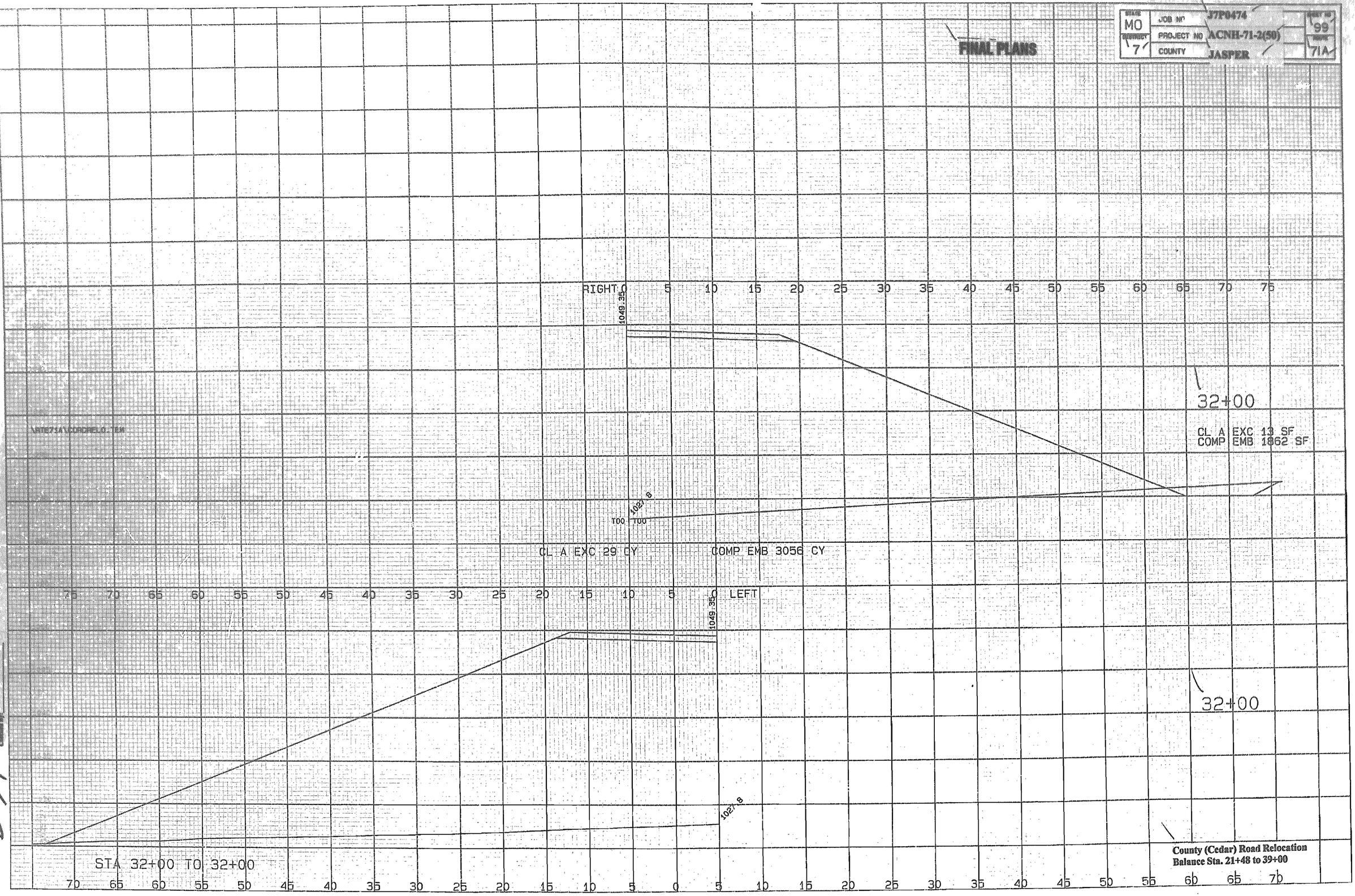
Area 2008



STATE MO
SUBDIVISION 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 97
FINAL PLANS
1052.35
1037.5
T00 T00
31+00
CL A EXC 18 SF
COMP EMB 1091 SF
CL A EXC 2 CY
COMP EMB 90 CY
1052.42
1037.7
T11 T13
30+97.75
CL A EXC 19 SF
COMP EMB 1080 SF
CL A EXC 24 CY
COMP EMB 1672 CY
1053.85
1041.7
T11 T13
30+50
CL A EXC 8 SF
COMP EMB 811 SF
CL A EXC 13 CY
COMP EMB 907 CY
STA 30+50 TO 31+00
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
\RTE71A\CORDRELO.TEM
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00



FINAL PLANS
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 98
ROUTE 71A
RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
1050.85
1033.3
TOO TOO
31+50
CL A EXC 18 SF
COMP EMB 1438 SF
CL A EXC 33 CY
COMP EMB 2342 CY
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
1050.85
1033.3
31+50
STA 31+50 TO 31+50
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00



FINAL PLANS
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 99
ROUTE 71A
RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
1049.35
32+00
CL A EXC 13 SF
COMP EMB 1862 SF
1027.8
TOO TOO
CL A EXC 29 CY
COMP EMB 3056 CY
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
1049.35
32+00
1027.8
STA 32+00 TO 32+00
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

FINAL PLANS

STATE	JOB NO	SHEET NO
MO	J7P0474	100
DISTRICT	PROJECT NO	ROUTE
7	ACNH-71-2(59)	71A
	COUNTY	
	JASPER	

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95

1047.92

\RTE71A\CORDRELO.TEM

32+47.75

CL A EXC 30 SF
COMP EMB 2463 SF

1022.1

T27 T28

CL A EXC 38 CY COMP EMB 3825 CY

85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT

1047.92

1022.1

32+47.75

End Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:

STA 32+47.75 TO 32+47.75

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	101
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90

1047.65

\RTE71A\CORDREL0.TEM

32+50

CL A EXC 25 SF
COMP EMB 2502 SF

1021.7

TOO TOO

CL A EXC 2 CY COMP EMB 207 CY

85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT

1047.65

32+50

1021.7

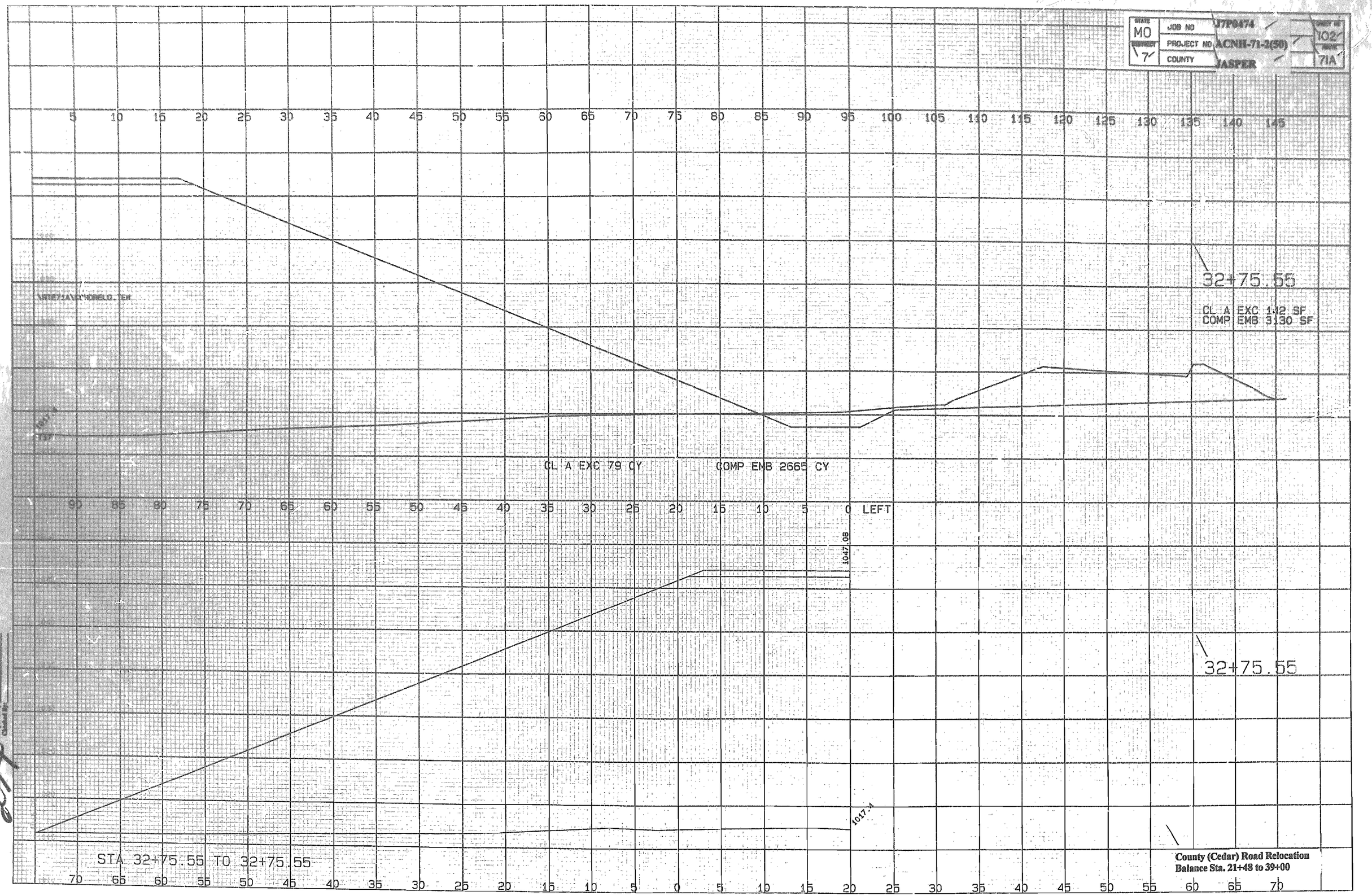
STA 32+50 TO 32+50

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

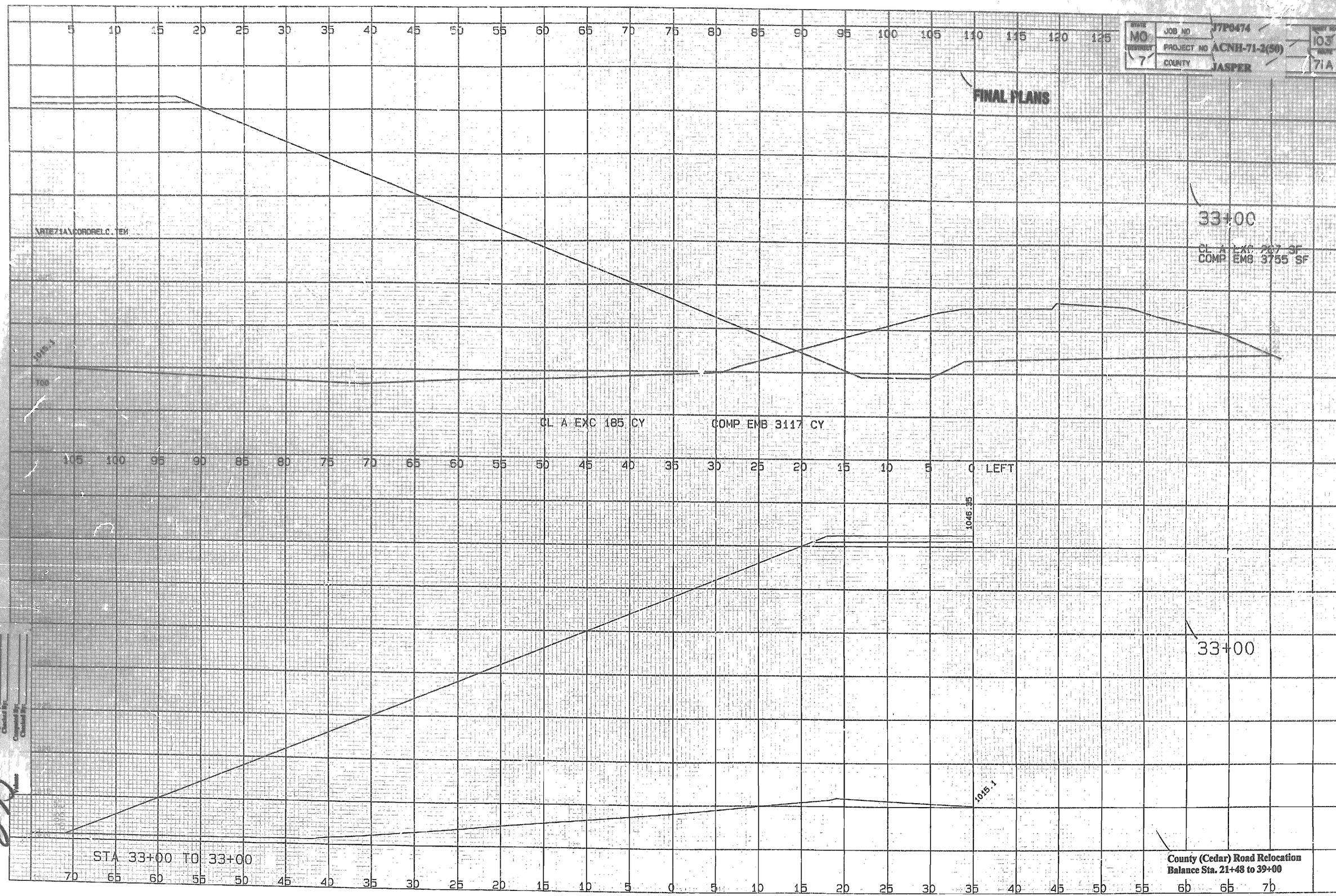
End Area Model Constructed By: _____
Checked By: _____
Computed By: _____
Checked By: _____
Computed By: _____
Checked By: _____

223
Volume

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

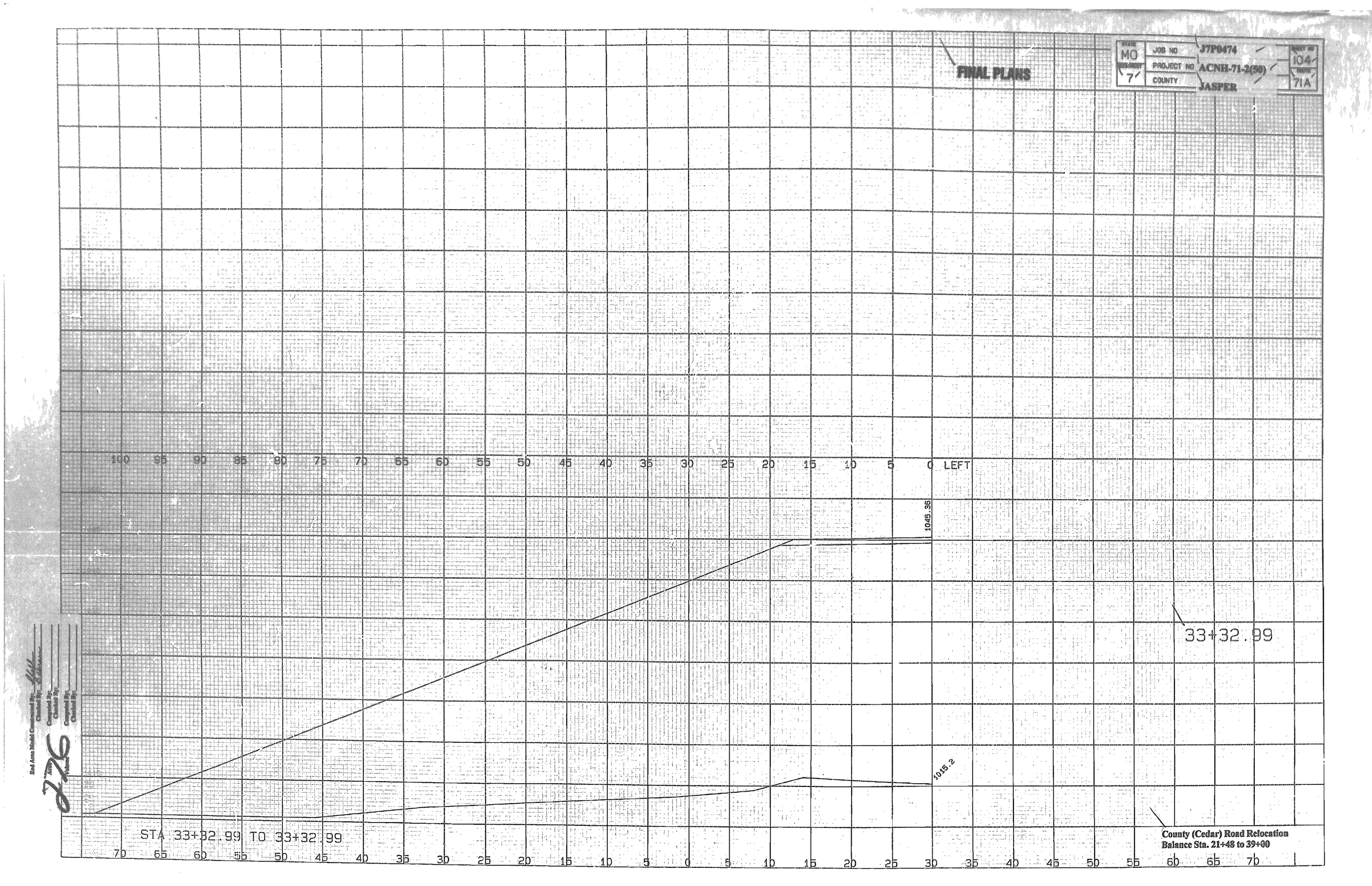


STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 102
ROUTE 71A
32+75.55
CL A EXC 142 SF
COMP EMB 3130 SF
CL A EXC 79 CY
COMP EMB 2665 CY
LEFT
1047.08
1017.4
32+75.55
STA 32+75.55 TO 32+75.55
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 103
ROUTE 71A
FINAL PLANS
33+00
CL A EXC 267 SF
COMP EMB 3755 SF
\RTE71A\CORDRELC.TEM
CL A EXC 185 CY
COMP EMB 3117 CY
LEFT
1046.35
33+00
1015.1
STA 33+00 TO 33+00
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

275


FINAL PLANS
STATE MO
DESIGN 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 104
ROUTE 71A
100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
1045.36
33+32.99
1015.2
STA 33+32.99 TO 33+32.99
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00
End Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:
Area
Volume
276

STATE MO | JOB NO J7P0474 | SHEET NO 105
DISTRICT 7 | PROJECT NO ACNH-71-2(50) | ROUTE 71A
COUNTY JASPER

FINAL PLANS

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140

1045.36

\RTE714\CORDRELO.TEM

33+32.99

CL A EXC 378 SF
COMP EMB 3792 SF

1015.2

T29 T30

STA 33+32.99 TO 33+32.99

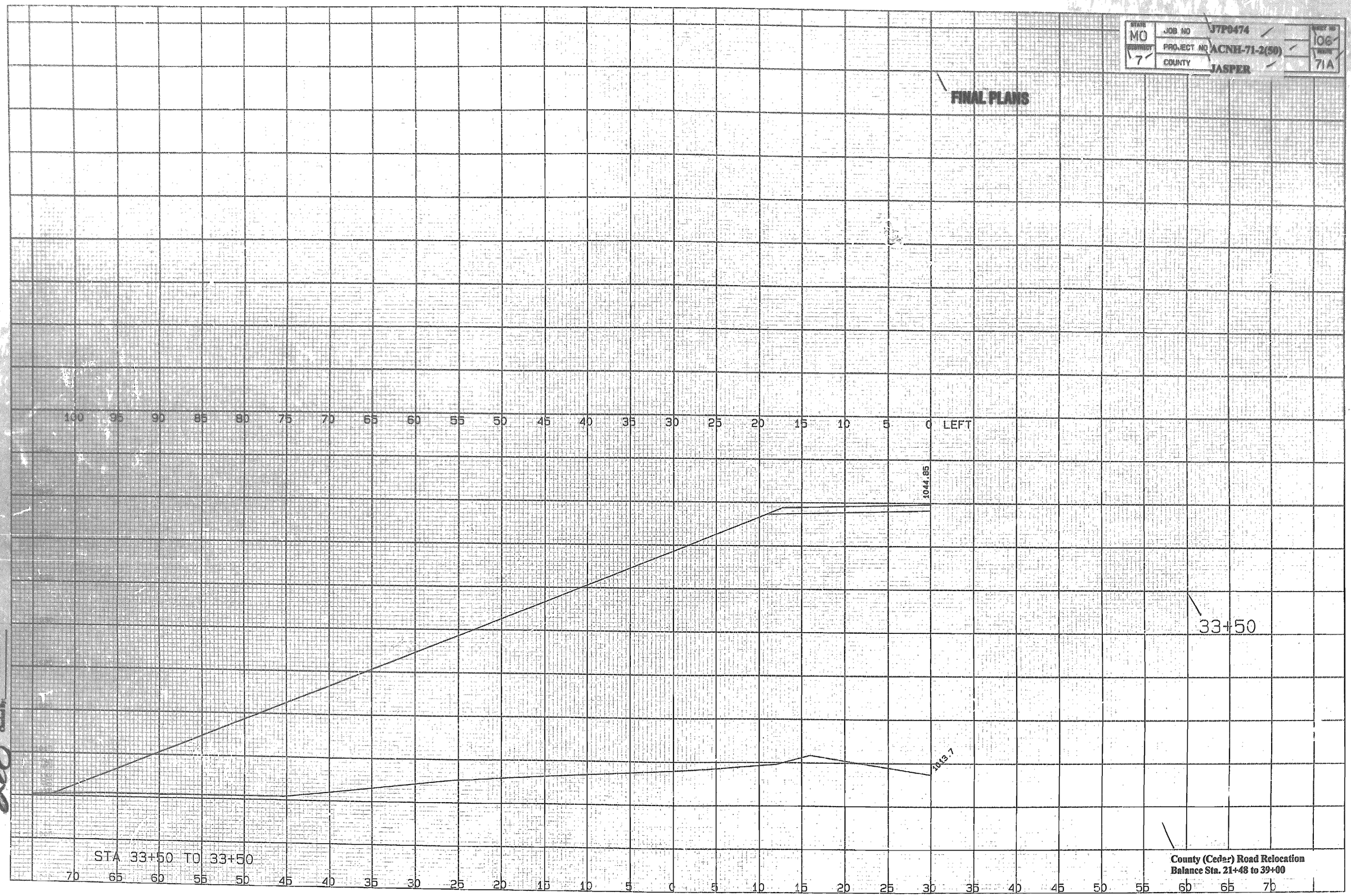
CL A EXC 394 CY

COMP EMB 4611 CY

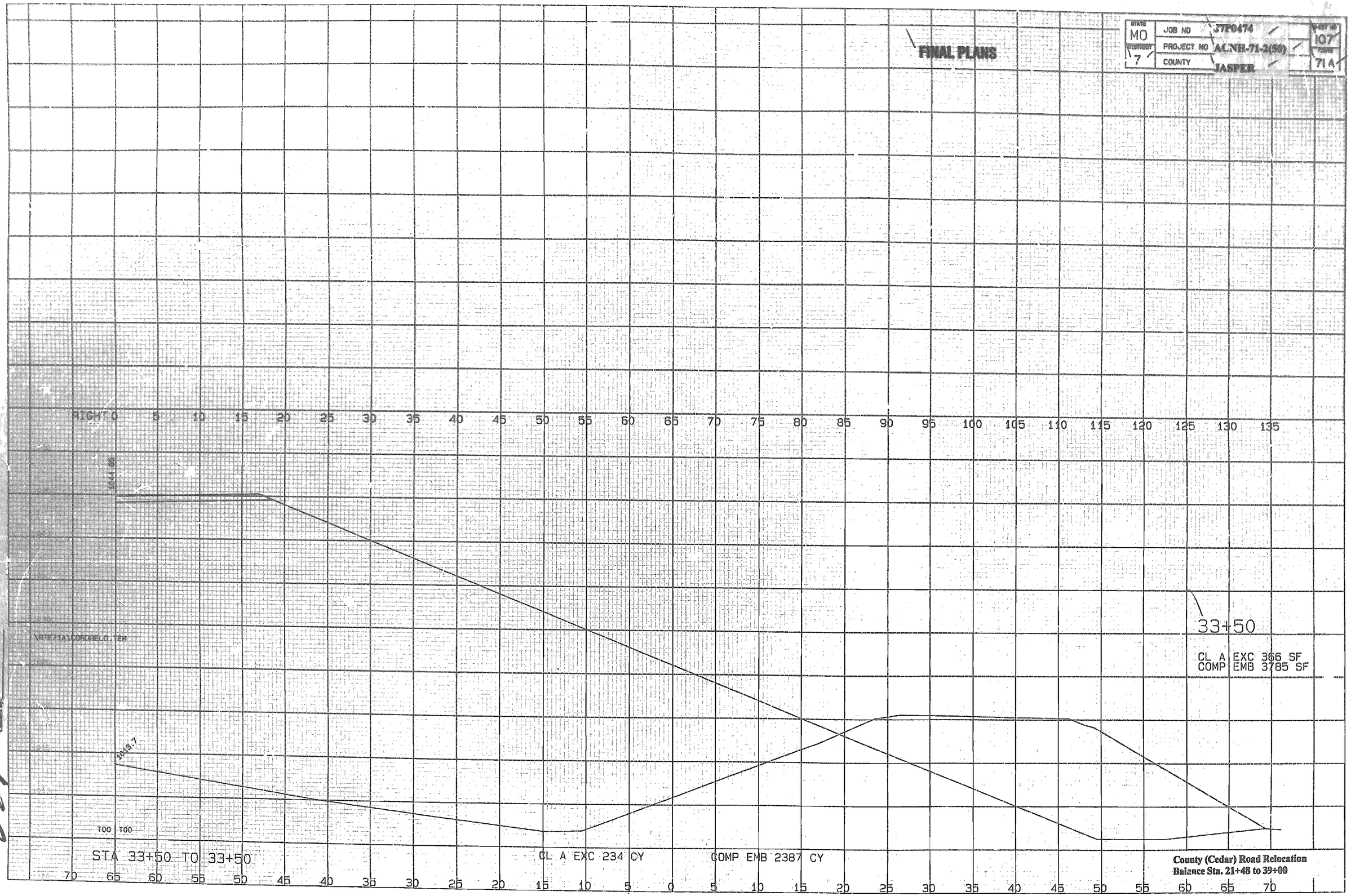
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

End Area Metal Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:
Area
Vol



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 106
ROUTE 71A
FINAL PLANS
100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
1044.85
1013.7
33+50
STA 33+50 TO 33+50
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00


FINAL PLANS
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 107
PLATE 71A
RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135
1044.85
1043.7
\RTE71A\CORDRELO.TEM
TOO TOO
33+50
CL A EXC 366 SF
COMP EMB 3785 SF
STA 33+50 TO 33+50
CL A EXC 234 CY
COMP EMB 2387 CY
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

FINAL PLANS

STATE	JOB NO	J7P0474	SHEET NO
MO			108
DISTRICT	PROJECT NO	ACNH-71-2(50)	ROUTE
7	COUNTY	JASPER	71A

100 95 90 85 80 75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT

1043.35

1012.3

34+00

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

STA 34+00 TO 34+00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

Checked By:
Computed By:
Checked By:
Computed By:
Checked By:

Area

230

STATE	JOB NO	J7P0474	SHEET NO
MO			109
DISTRICT	PROJECT NO	ACNH-71-2(50)	TOTAL SHEETS
7	COUNTY	JASPER	71A

FINAL PLANS

65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT

1041.85

1015.9

34+50

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135

\STEZ1A\CORDRELO.TEM

1012.3

34+00

CL A EXC 170 SF
COMP EMB 3439 SF

TOO TOO

STA 34+00 TO 34+50

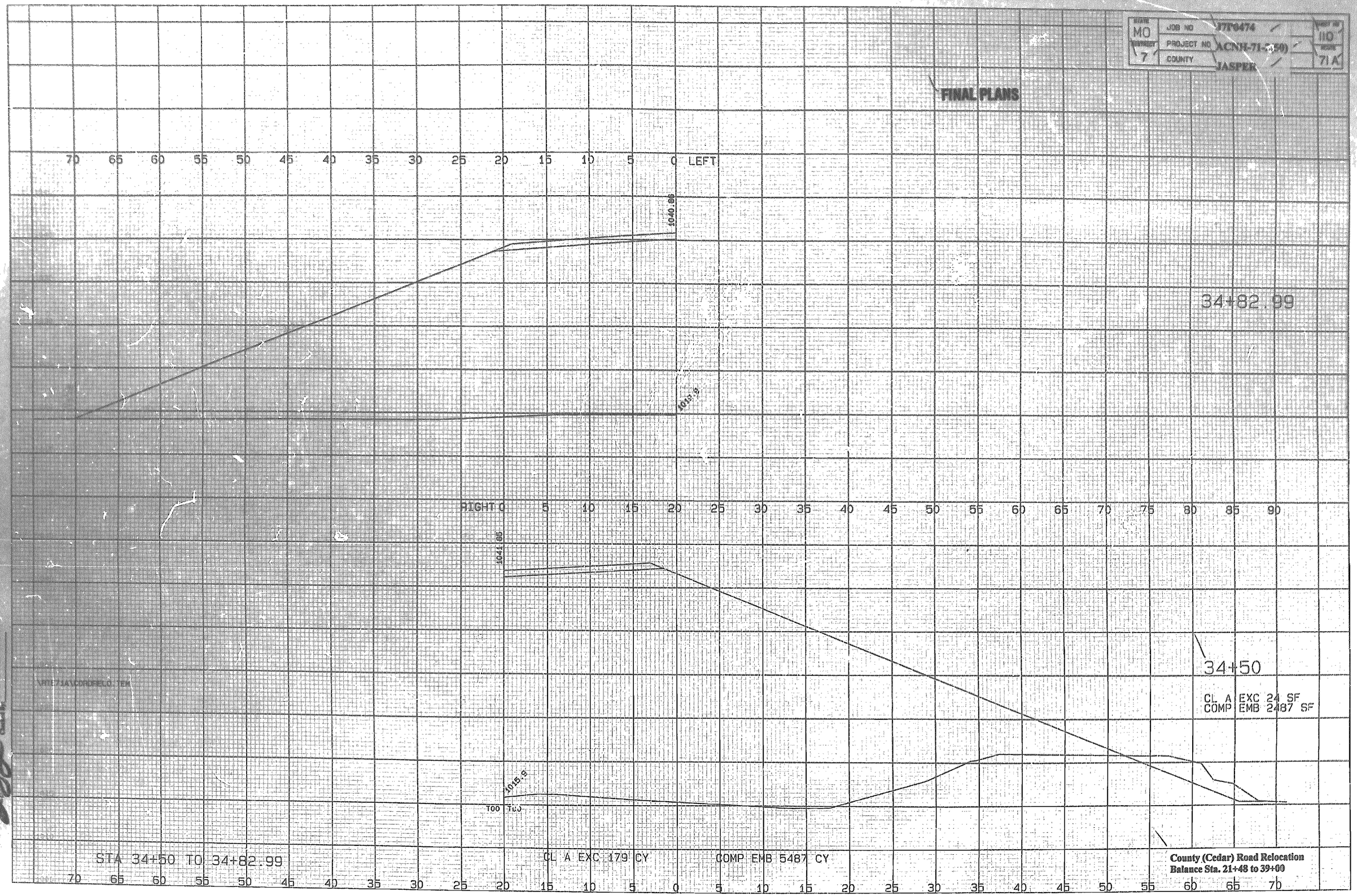
CL A EXC 496 CY

COMP EMB 6689 CY

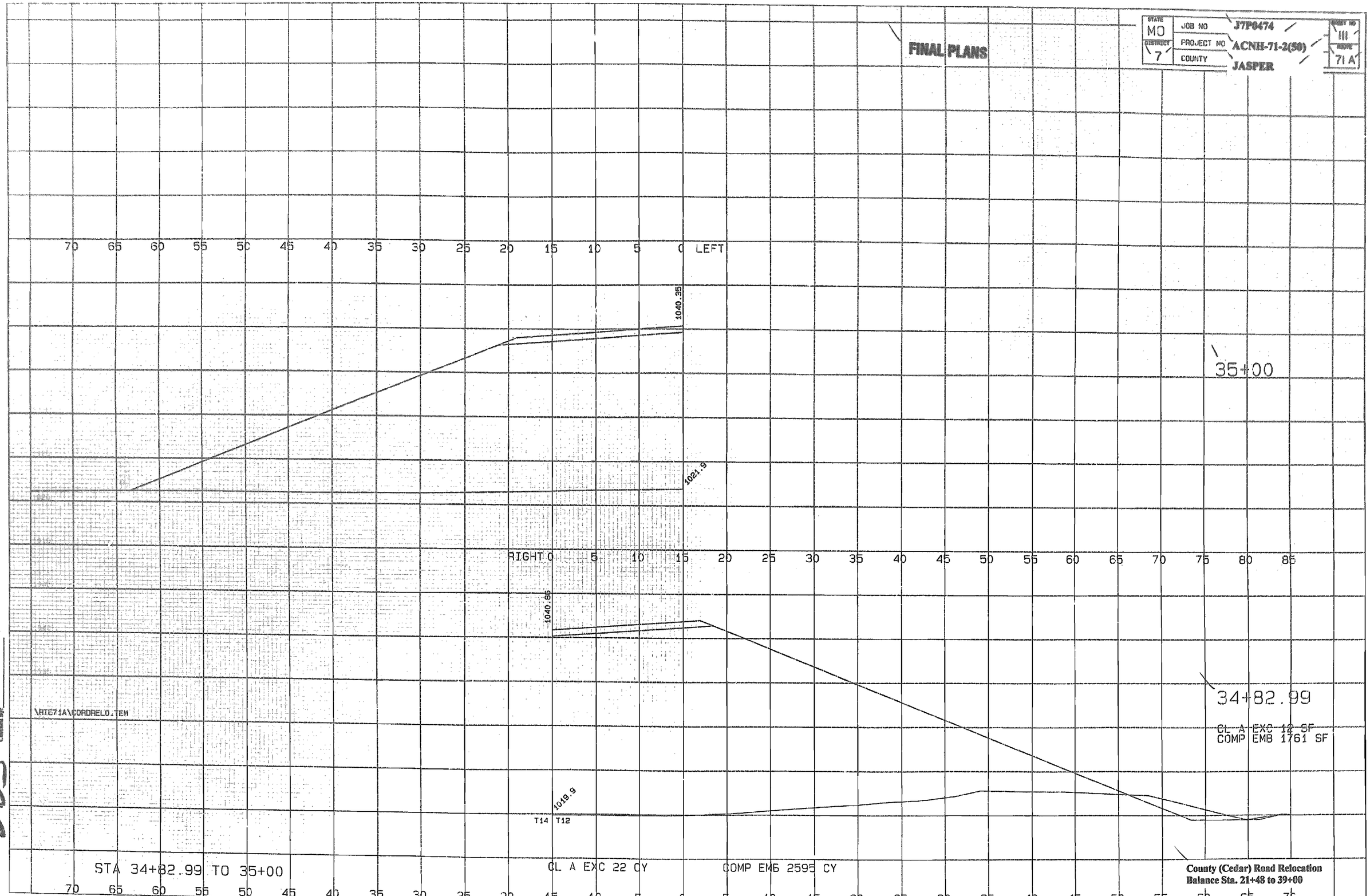
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

End Area Model Computed By: Checked By:
Computed By: Checked By:
Computed By: Checked By:
Area



STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-(50)
COUNTY JASPER
SHEET NO 110
ROUTE 71A
FINAL PLANS
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
1040.86
1019.9
34+82.99
RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90
1041.85
34+50
CL A EXC 24 SF
COMP EMB 2487 SF
1015.9
TOO TOO
STA 34+50 TO 34+82.99
CL A EXC 179 CY
COMP EMB 5487 CY
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00



End Area Model Constructed By: [signature]
Checked By: [signature]
Computed By:
Checked By:
Computed By:
Checked By:
Area 283

STATE MO | JOB NO J7P0474 | SHEET NO 112
DISTRICT 7 | PROJECT NO ACNH-71-2(50) | ROUTE 71A
COUNTY JASPER

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

1039.87

1028.3

T14 T12

CL A EXC 38 CY

COMP EMB 2124 CY

FINAL PLANS

35+50

CL A EXC 31 SF
COMP EMB 829 SF

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT

1039.87

1028.3

35+50

RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

1040.35

\RTE71A\CORDRELO.TEM

35+00

CL A EXC 11 SF
COMP EMB 1464 S.

1021.9

T14 T12

STA 35+00 TO 35+50

CL A EXC 7 CY

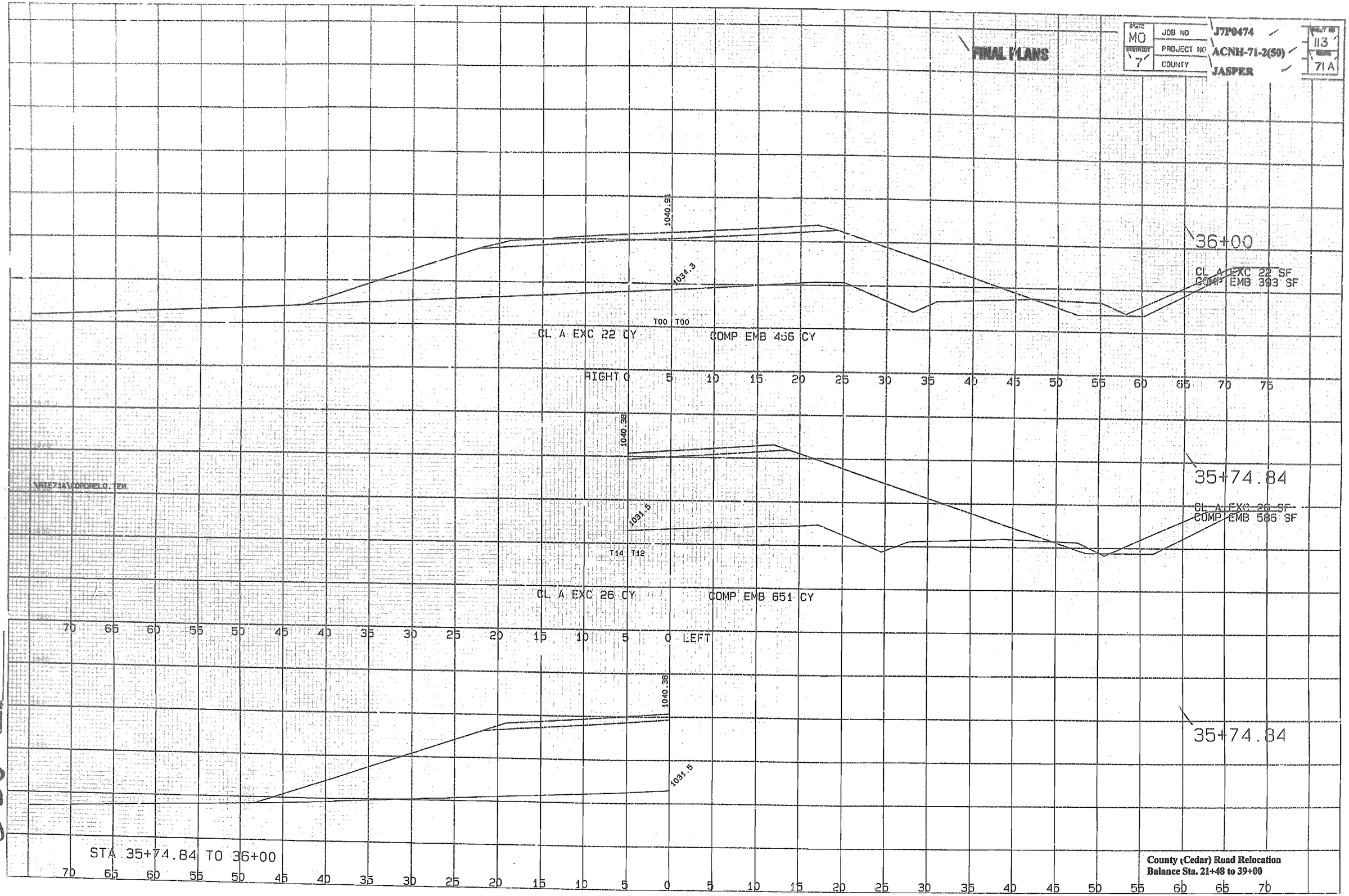
COMP EMB 1016 CY

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

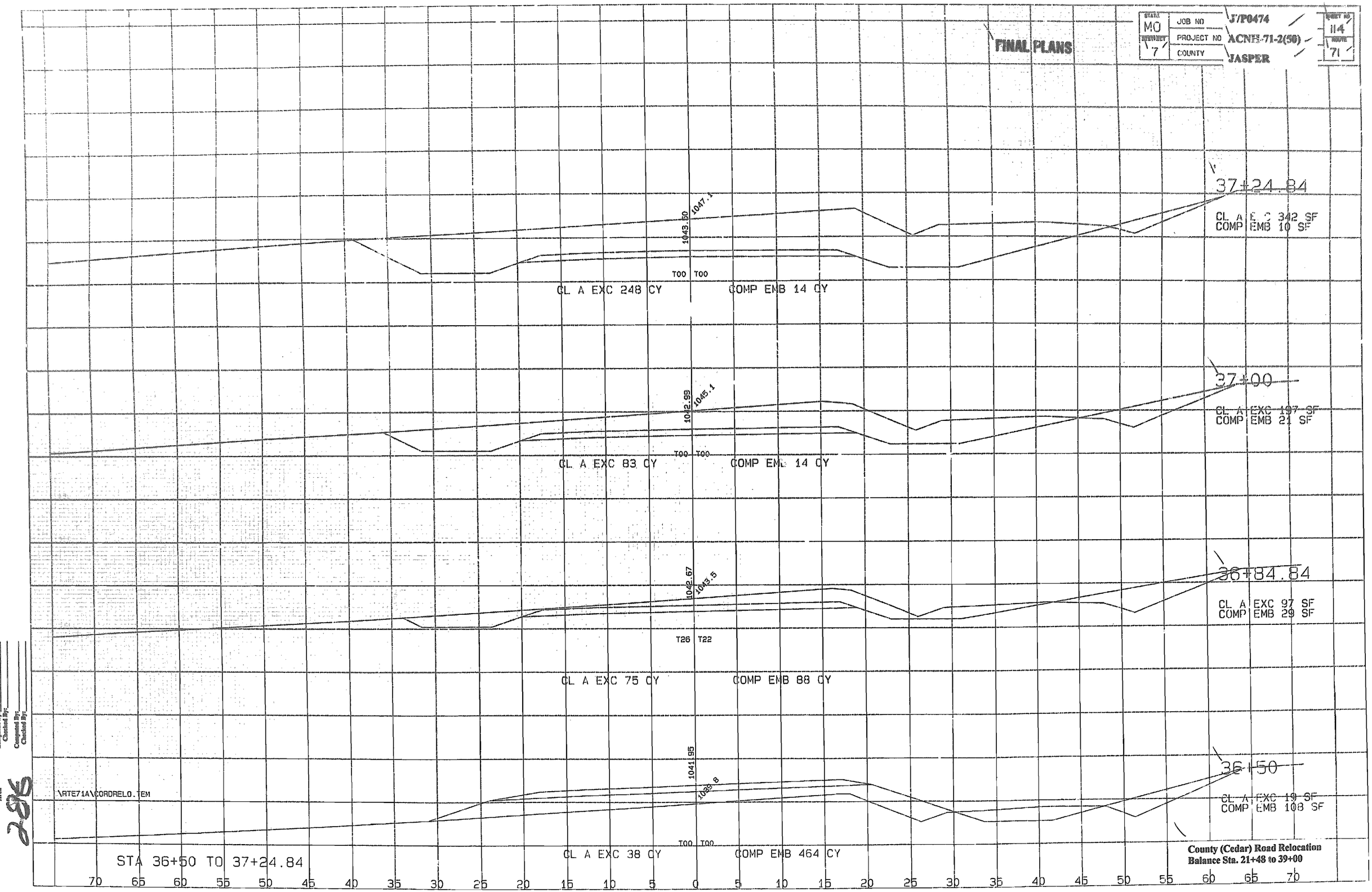
Red Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:

Area
239



FINAL PLANS
STATE MO
DISTRICT 7
JOB NO J7P0474
PROJECT NO ACNH-71-2(50)
COUNTY JASPER
SHEET NO 113
ROUTE 71A
36+00
CL A EXC 22 SF
COMP EMB 393 SF
1040.9
1034.3
T00 T00
CL A EXC 22 CY
COMP EMB 456 CY
RIGHT 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75
35+74.84
CL A EXC 26 SF
COMP EMB 586 SF
1040.38
1031.5
T14 T12
CL A EXC 26 CY
COMP EMB 651 CY
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 LEFT
35+74.84
1040.38
1031.5
STA 35+74.84 TO 36+00
70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70
County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

285



End Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:
Area
286

STATE	JOB NO	J7P0474	SHEET NO
MO	PROJECT NO	ACNH-71-2(50)	115
DISTRICT 7	COUNTY	JASPER	ROUTE 71A

FINAL PLANS

38+00

1053.5

1045.07

T16 T16

CL A EXC 894 CY COMP EMB 2 CY

CL A EXC 790 SF
COMP EMB 0 SF

37+64.84

1050.5

1044.33

T16 T16

CL A EXC 296 CY COMP EMB 2 CY

CL A EXC 584 SF
COMP EMB 3 SF

37+50

1049.2

1044.03

T00 T00

CL A EXC 388 CY COMP EMB 7 CY

CL A EXC 492 SF
COMP EMB 6 SF

\RTE71A\CORDRELO.ITEM

STA 37+50 TO 38+00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

Roll Area Model Constructed By:
Checked By:
Computed By:
Checked By:
Computed By:
Checked By:
Area

County (Cedar) Road
Bal. Sta. 21+48 to 39+00

Plan Cl. A Excavation	2701	Cu. Yd.
Total Plan Excavation	2701	Cu. Yd.
Additional Excavation	85	Cu. Yd.
Total Excavation	2786	Cu. Yd.

Adjustments to Profile and Aligument changes due to adjacent County Road Project.
See Final X-Sections for Additional Quantities
See Original X-Sections for Deduct Quantities

Deduct Excavation Sta. 28+59.14 to 39+50	<2053>	Cu. Yd.
Additional Excavation	9621	Cu. Yd.
Total Final Cl. A Excavation	10354	Cu. Yd.
Plan Compacting Embankment	90558	Cu. Yd.
Deduct Comp. Embankment Sta. 28+59.14 to 39+50	<52271>	Cu. Yd.
Add Compacting Embankment	46772	Cu. Yd.
Final Total Comp. Embank.	85059	Cu. Yd.

FINAL PLANS

STATE MO	JOB NO	J7P0474	SHEET NO 116
DISTRICT 7	PROJECT NO	ACNH-71-2(50)	ROUTE 71A
	COUNTY	JASPER	

1062.71 1062.7
T1 T10
CL A EXC 2061 CY

40+00
CL A EXC 0 SF
COMP EMB 0 SF

1059.7
1047.15
T16 T16
CL A EXC 1960 CY

39+00
CL A EXC 1213 SF
COMP EMB 0 SF

1056.7
1046.41
T16 T16
CL A EXC 1660 CY

38+50
CL A EXC 1003 SF
COMP EMB 0 SF

STA 38+50 TO 40+00

70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70

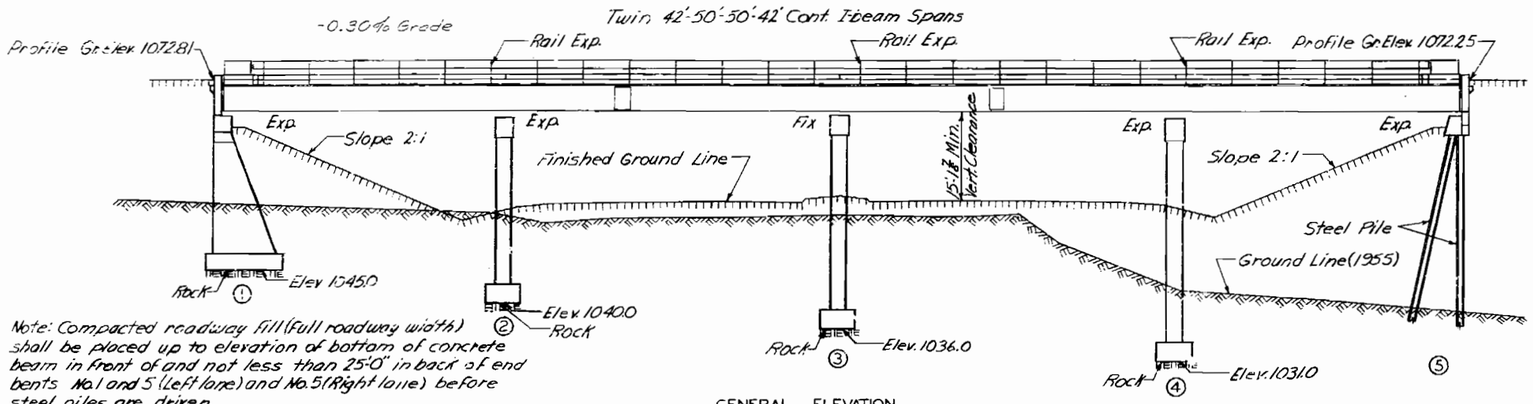
\RTE71A\CORDREL0.TEM

County (Cedar) Road Relocation
Balance Sta. 21+48 to 39+00

Area 288

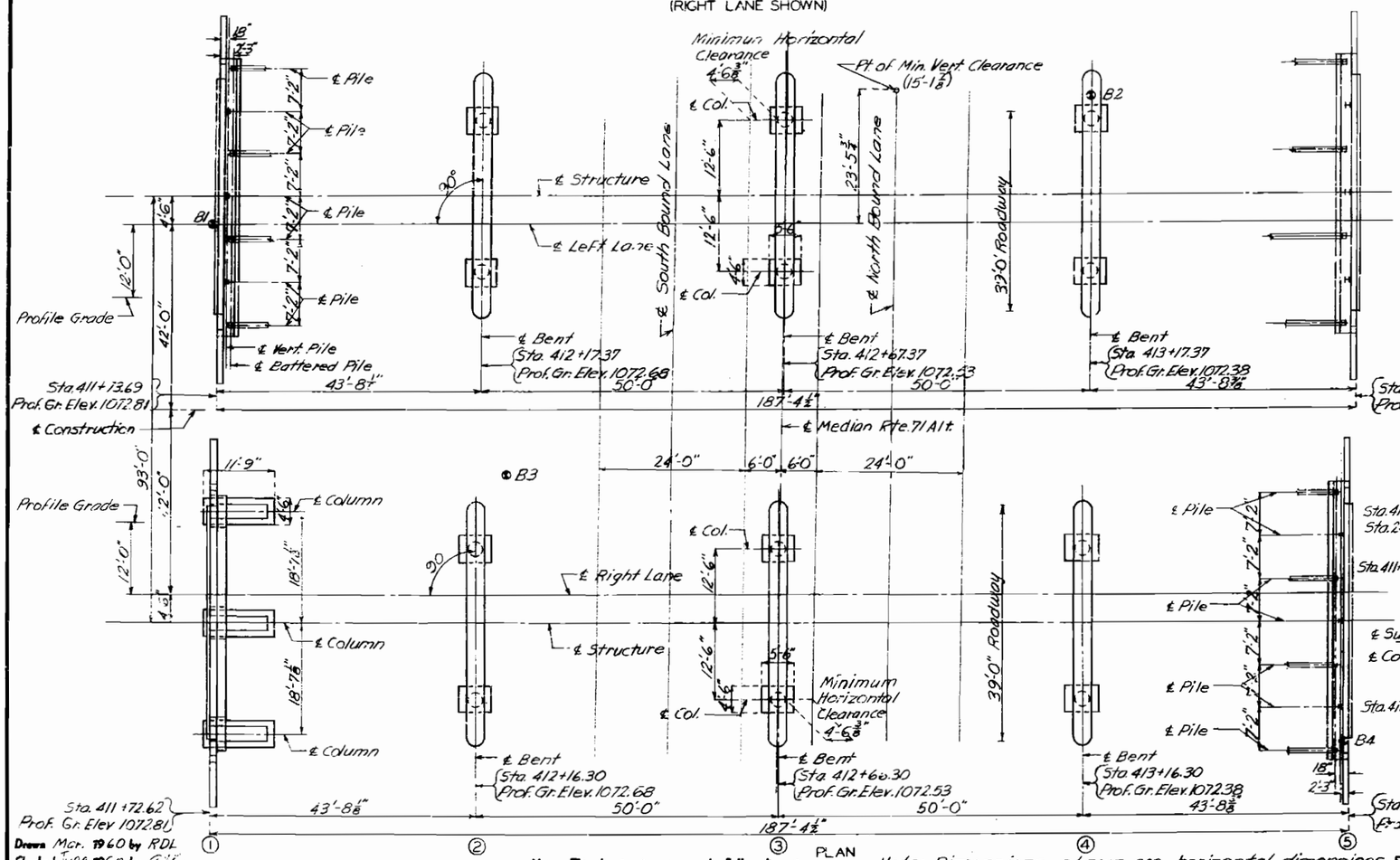
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	100	



Note: Compacted roadway fill (full roadway width) shall be placed up to elevation of bottom of concrete beam in front of and not less than 25'-0" in back of end bents No. 1 and 5 (Left lane) and No. 5 (Right lane) before steel piles are driven.

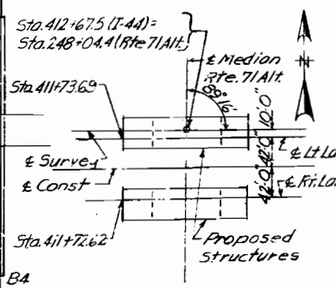
GENERAL ELEVATION
(RIGHT LANE SHOWN)



PLAN

Not.: This drawing is not to scale. Follow dimensions.

Note: Dimensions shown are horizontal dimensions



Note: All loose, shelly or disintegrated rock shall be removed and the footings placed on or into hard, solid, undisturbed rock. If soft rock or shale is encountered, the footings shall be carried at least 18" into and cast against vertical faces of same. Bearing of 10.5 tons/sq. ft. used in design.

All piling shall be 10" bearing piles at 42# and shall conform with details and notes on sheet No. 4 of design plans.

All steel pile required for this structure will be furnished by the State. (See Special Provisions)

All piles shall be driven to or into solid rock, boulders, shale, or cemented gravel; or to not less than Full length authorized and to sustain a load of at least 370 ton per pile.

All piles shall be driven with a steam hammer.

GENERAL NOTES

Design Specifications: A.A.S.H.O. 1957
Loading: H20-S16-44 (Modified 24,000 Tandem Axle) (15% Future Wearing Surface)
Structural Steel Stress: 18,000 lbs.
Reinforcing Steel Stress: 20,000 lbs.
Concrete, Class "B" Stress: 1,200 lbs.
Concrete, Class "B1" Stress: 1,600 lbs.
Superstructure concrete shall be Class "B1" (air-entrained.)
Substructure concrete shall be Class "B" (air-entrained.)

Rivets ¾" ϕ; holes 13/16" ϕ, except as noted.

Field connections except as noted in handrail details may be riveted or bolted with high tensile bolts. Final pay weight for Fabricated Structural Steel will be based on the use of field rivets except for bolted connections specified for handrail.

Paint: Shop, none; Field, contact surfaces of bolted field connections, except where high tensile bolts are used, one coat of red lead and surfaces inaccessible after erection three coats of red lead. All other exposed surfaces first coat red lead, second coat brown, third coat aluminum. Payment for cleaning and all painting will be made under unit price bid for painting. See Special Provisions for Aluminum paint.

Qualification of welding operators will be required.

See Section 22-9C of Standard Specifications for required painting of steel piles.

Where joint filler is specified on the plans it shall conform with the requirements for Gray Rubber Compound Joints as given in Section 59-22B of the Standard Specifications.

Superstructure deck to be waterproofed (See Special Provisions)

Permits must be obtained for all trucks loads over legal lengths.

B.M. "57 Elev. 1041.27 Center South Hdwl. Culv. 87 Lt. Sta. 414+98

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-K(8) (RTE I-44) **STA.** 411-72.62 (RT. LANE) STA. 411+73.69 (LT. LANE)

JASPER **COUNTY**

SUBMITTED BY R. A. Currie DATE 9-2-60
HIGHWAY ENGINEER
APPROVED BY Roy M. Colvitter DATE 9-2-60
CHIEF ENGINEER

STD.C-1(0R7)
A-630

Drawn Mar. 1960 by RDL
Checked June 1960 by G.F.K.

Sheet No. 1 of 10

SEE FINAL PLANS SHOWN ON LINES

617

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	

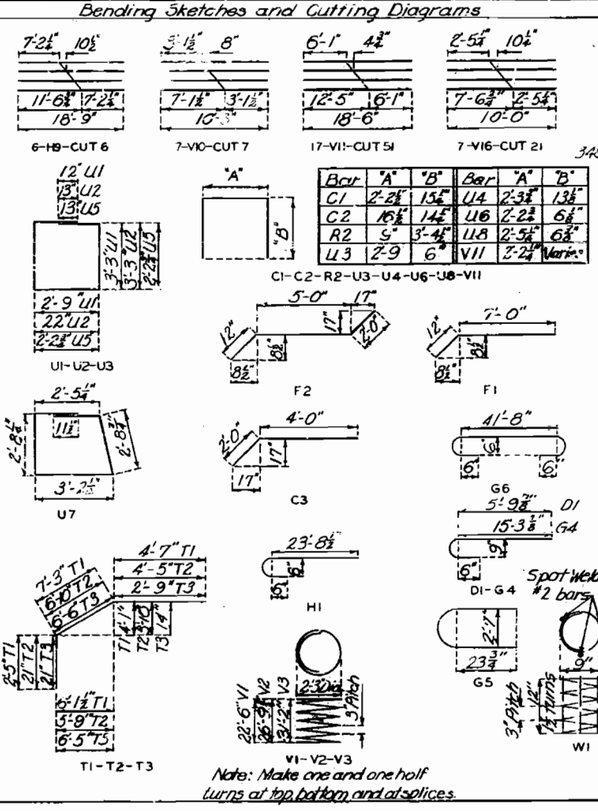
COMPLETE BILL OF REINFORCING STEEL

LEFT LANE

No.	Size	Length	Mark	Location
Superstructure				
486	#5	32'-3"	S2	Slab
168	#5	16'-0"	S3	"
40	#5	2'-6"	S5	"
1480	#6	22'-3"	S1	"
20	#5	4'-9"	C1	Curb
348	#5	3'-9"	C2	"
4	#5	6'-0"	C3	"
24	#5	22'-0"	C4	"
24	#5	25'-9"	C5	"
24	#5	3'-9"	R1	End Post
20	#5	7'-6	R2	" "
End Bent No 5				
16	#6	25'-0"	H1	Bm
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bknll
8	#6	9'-3"	H4	Wing
2	#6	7'-6"	H7	"
Substructure				
End Bent No. 1				
16	#6	25'-0"	H1	Bm
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bknll
6	#6	9'-3"	H4	Wing
8	#4	24'-0"	H5	Bknll
2	#5	6'-0"	H6	Wing
2	#6	7'-6"	H7	"
4	#6	13'-0"	T2	Wing
4	#5	11'-0"	T3	"
80	#5	6'-6"	V15	Bknll
7	#4	10'-0"	V16	"
6	#4	7'-9"	V17	"
46	#4	12'-0"	U7	Bm
14	#4	3'-6"	U8	"
10	#2	19'-9"	W1	AB Wells
Int Bents No 2,3 & 4				
48	#11	7'-6"	D1	Ftg.
12	#11	16'-3"	G1	Bm
30	#11	37'-9"	G2	"
6	#6	40'-3"	G3	"
48	#11	17'-0"	G4	"
18	#6	6'-0"	G5	"

No.	Size	Length	Mark	Location
123	#4	13'-0"	U1	Bm
156	#4	11'-3"	U2	"
12	#4	3'-9"	U3	"
6	#4	4'-6"	U4	"
2	#4	659'-0"	V1	Col Bt 2
2	#4	781'-0"	V2	" Bt 3
2	#4	904'-0"	V3	" Bt 4
16	#11	24'-6"	V4	" Bt 2
18	#11	28'-9"	V5	" Bt 3
16	#11	33'-3"	V6	" Bt 4
30	#2	19'-9"	W1	AB Wells
16	#6	25'-0"	H1	Bm
4	#6	24'-0"	H2	"
6	#6	9'-3"	H4	Wing
2	#6	7'-6"	H7	"
4	#6	13'-0"	T2	Wing
4	#6	11'-0"	T3	"
80	#5	6'-6"	V15	Bknll
7	#4	10'-0"	V16	"
6	#4	7'-9"	V17	"
48	#4	12'-0"	U7	Bm
14	#4	3'-6"	U8	"
10	#2	19'-9"	W1	AB Wells

Bending Sketches and Cutting Diagrams



Bar	"A"	"B"	Bar	"A"	"B"
C1	2'-2½"	15½"	U4	2'-3½"	13½"
C2	16⅝"	14½"	U6	2'-2½"	6½"
R2	5"	3'-4½"	U8	2'-5½"	6¾"
U3	2'-9	6"	V11	2'-2¼"	Varies

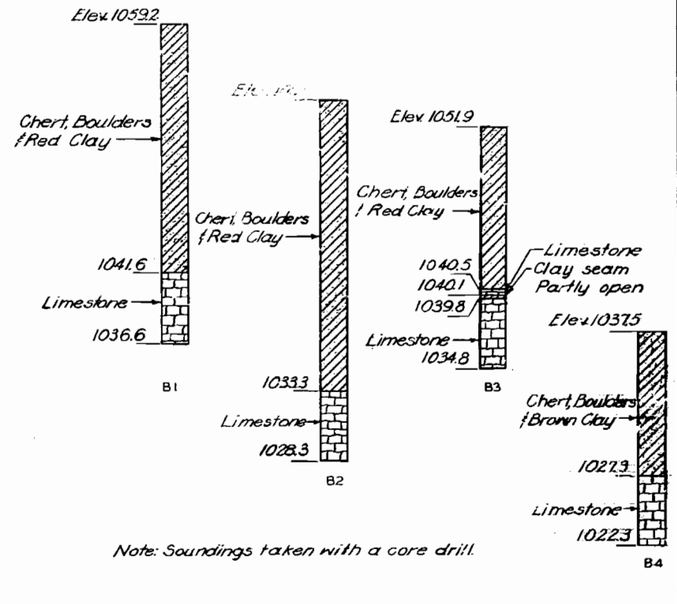
Note: Make one and one half turns at top, bottom and at splices.

RIGHT LANE

No.	Size	Length	Mark	Location
Superstructure				
1480	#6	22'-3"	S1	Slab
486	#5	32'-3"	S2	"
168	#5	16'-0"	S3	"
40	#5	2'-6"	S5	"
20	#5	4'-9"	C1	Curb
348	#5	3'-9"	C2	"
4	#5	6'-0"	C3	"
24	#5	22'-0"	C4	"
24	#5	25'-9"	C5	"
24	#5	3'-9"	R1	End Post
20	#5	7'-6"	R2	" "
Substructure				
End Bent No 1				
16	#6	8'-0"	F1	Hnch.
8	#6	8'-0"	F2	"
3	#7	44'-3"	G6	Beam
6	#10	42'-3"	G7	"
2	#6	42'-3"	G8	"
2	#6	44'-0"	G9	Bknll
8	#4	22'-9"	G10	"
4	#11	15'-0"	G11	Beam
10	#6	11'-6"	H8	Wing
6	#6	18'-9"	H9	"
4	#6	14'-3"	T1	Wing
43	#5	10'-0"	U5	Beam
14	#4	3'-3"	U6	"
80	#5	6'-6"	V8	Bknll
12	#4	7'-6"	V9	"
7	#4	10'-3"	V10	Wing
51	#3	18'-6"	V11	Column
18	#7	20'-3"	V12	"
12	#7	21'-0"	V13	"
24	#4	18'-3"	V14	"
10	#2	19'-9"	W1	AB Wells
90	#7	4'-9"	D2	Ftg.

No.	Size	Length	Mark	Location
Int Bents No. 2,3 & 4				
45	#11	7'-6"	D1	Ftg.
12	#11	16'-3"	G1	Beam
30	#11	37'-9"	G2	"
6	#6	40'-3"	G3	"
43	#11	17'-0"	G4	"
18	#6	8'-0"	G5	"
123	#4	13'-0"	U1	"
156	#4	11'-3"	U2	"
12	#4	3'-9"	U3	"
6	#4	4'-6"	U4	"
2	#4	659'-0"	V1	Col Bt 2
2	#4	781'-0"	V2	" Bt 3
2	#4	904'-0"	V3	" Bt 4
16	#11	24'-6"	V4	" Bt 2
16	#11	28'-9"	V5	" Bt 3
16	#11	33'-3"	V6	" Bt 4
30	#2	19'-9"	W1	AB Wells
End Bent No 5				
16	#6	25'-0"	H1	Beam
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bknll
6	#6	9'-3"	H4	Wing
8	#4	24'-0"	H5	Bknll
2	#6	6'-0"	H6	Wing
2	#6	7'-6"	H7	"
4	#6	14'-3"	T1	Wing
4	#6	11'-0"	T3	"
46	#4	12'-0"	U7	Beam
14	#4	3'-6"	U8	"
80	#5	6'-6"	V15	Bknll
7	#4	10'-0"	V16	"
6	#4	7'-9"	V17	"
10	#2	19'-9"	W1	AB Wells

72-13'-6"



Note: Soundings taken with a core drill.

LOG OF SOUNDINGS

ESTIMATED QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu.Yds.	530		530
Class "B" Concrete	Cu.Yds.	3348		3348
Class "B1" Concrete	Cu.Yds.		433.5	433.5
Reinforcing Steel	lbs.	66,530	143,300	209,830
~~Fabricated~~ Structural Steel	lbs.		326,500	326,500
Fabricated Structural Steel (Bearings)	lbs.		14,390	14,390
~~Steel Pile~~ in Place (State Furnished)	Lin. Ft.	792		792
Painting	Ton		170.4	170.4

Note: All excavation for bridge will be paid for as Class 1 Excavation for structures

Drawn Apr. 1960 by P.V.D.
Checked June 1960 by Q.F.K

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 10

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 50 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18)XRTE, I-44) **STA.** 411+72.62 (RT. LANE)
STA. 411+73.69 (LT. LANE)

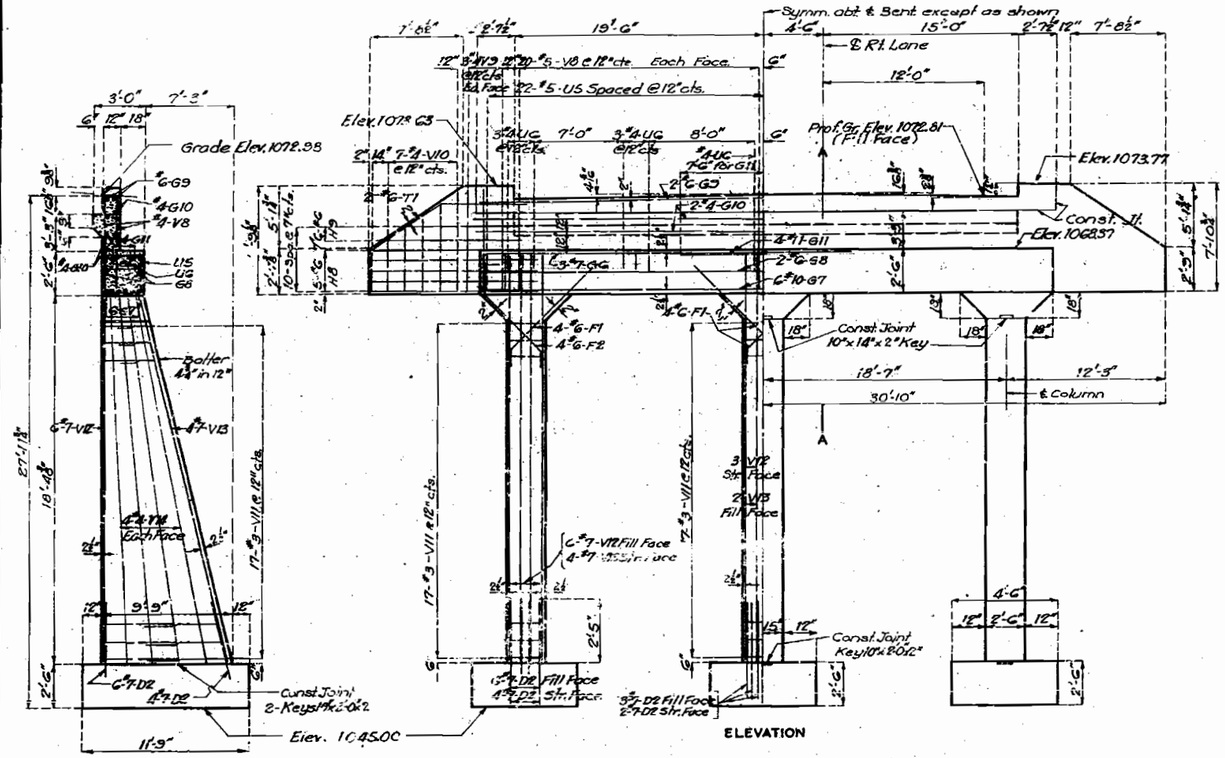
JASPER **COUNTY**

A-630

518

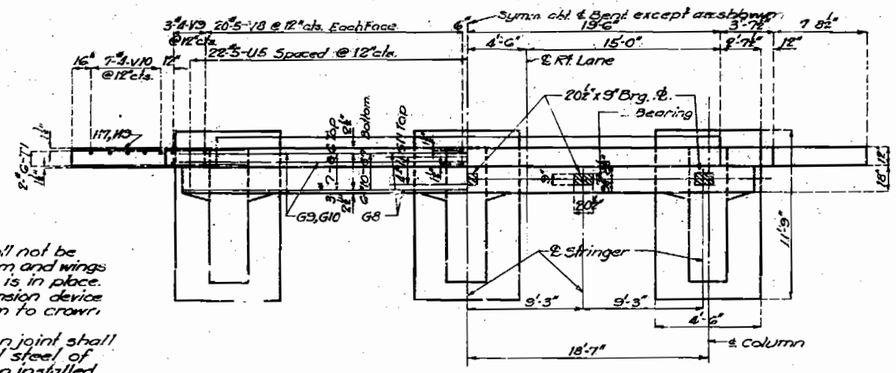
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	152	



ELEVATION

SECTION A-A



Note: Fill at end bent No. 1 shall not be carried above bottom of beam and wings until superstructure span (1-2) is in place.
Top of backwall and expansion device for end bent No. 1 to conform to crown of roadway.
Backwall above construction joint shall not be poured until structural steel of the expansion device has been installed and slab has been poured in adjacent span.

PLAN

DETAILS OF END BENT NO. 1 RT. LANE

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18)(RTE. I-44) STA. 411+72.62 (RT. LANE) 411+73.59 (LT. LANE)

JASPER COUNTY

FINISHED

FINISHED

A-630

Assembled Mar. 1960 by R.D.L. & J.H.K.
Checked June 1960 by O.F.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 10.

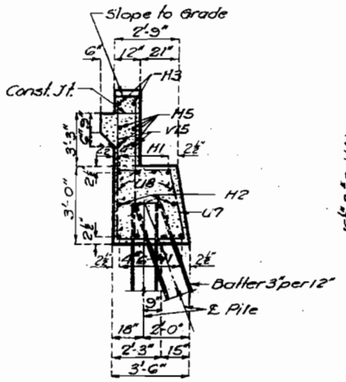
SEE FINAL PLANS BROWN-LINES

3 Col. End Square or Sk... } H15, H20 H20-S16

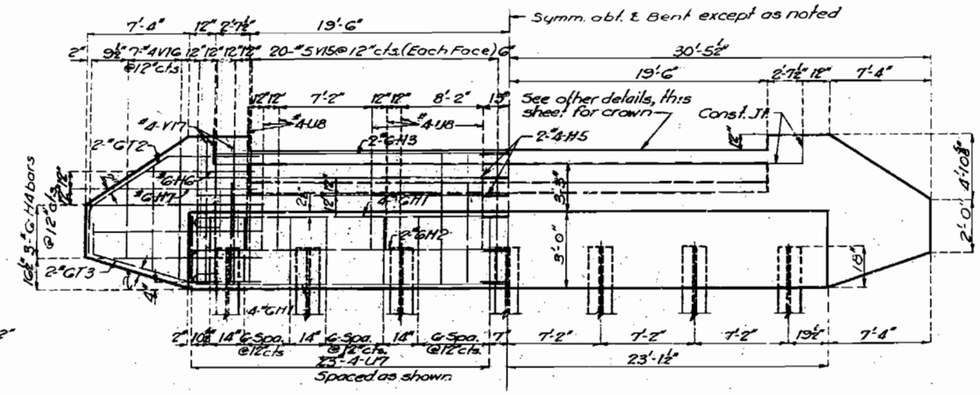
519

MISSOURI STATE HIGHWAY DEPARTMENT

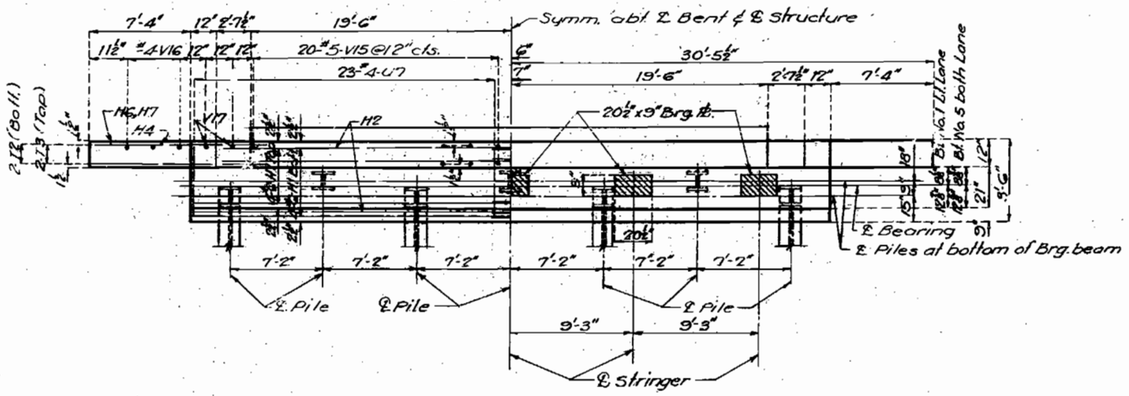
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19	103	



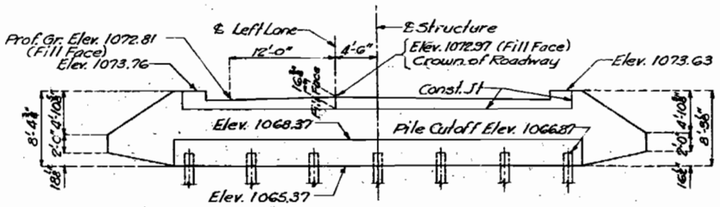
SECTION AT ℄



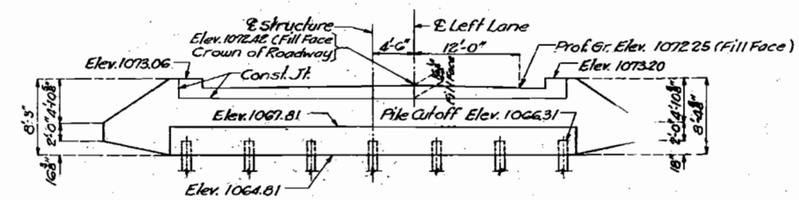
ELEVATION



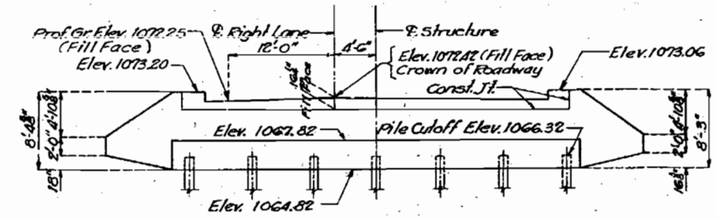
PLAN



END BENT NO. 1 (LT. LANE)



END BENT NO. 5 (LT. LANE)



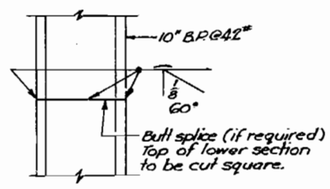
END BENT NO. 5 (RT. LANE)

DETAILS OF END BENTS NO. 1 & 5 LT. LANE
NO. 5 RT. LANE

Note: Top of backwall and expansion device for end bent No. 1 and No. 5, left lane and No. 5 right lane to conform to crown of roadway slab.

Backwall above construction joint shall not be poured until the structural steel of the expansion device has been installed and slab has been poured in adjacent span.

Fill at end bent No. 1 and 5 left lane and bent No. 5 right lane shall not be carried above bottom of beam and wings until superstructure spans (1-2) and (3-4) are in place.



DETAILS OF STEEL PILE SPLICE

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18) (RTE. I-44) STA. 411+72.62 (RT. LANE) 411+73.69 (LT. LANE)

JASPER COUNTY

FINISHED

FINISHED

A-630

Assembled Mar. 1960 by R.D.L. & J.H.K.
Checked June 1960 by Q.F.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 4 of 10

NO CONSTRUCTION CHANGES

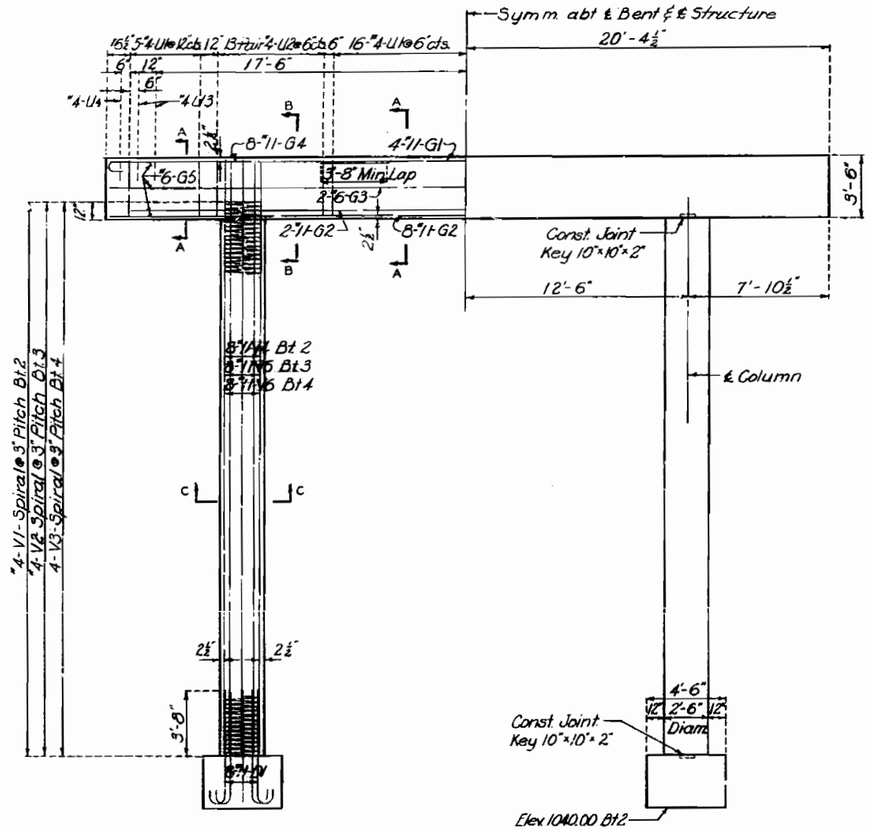
Skewed I-Bm. Conc. Cap Type End No Conc. Appr. Slab at End Bt.

Bt. on Piles May 58

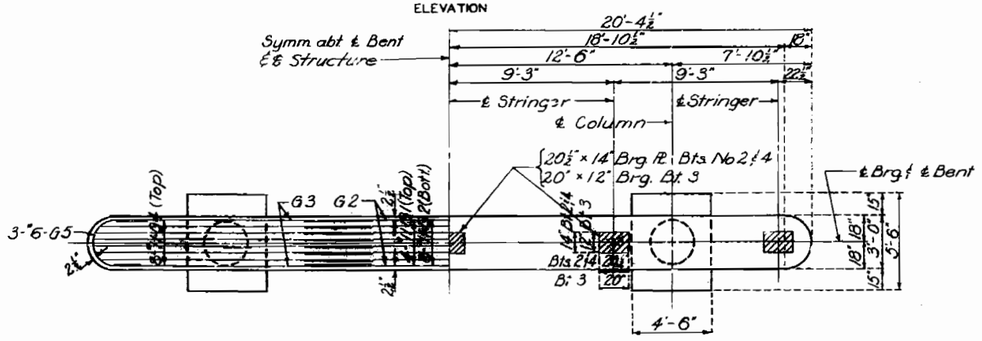
520

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YE'R	SHEET NO.	TOTAL SHEETS
5	MO.		19	10A	

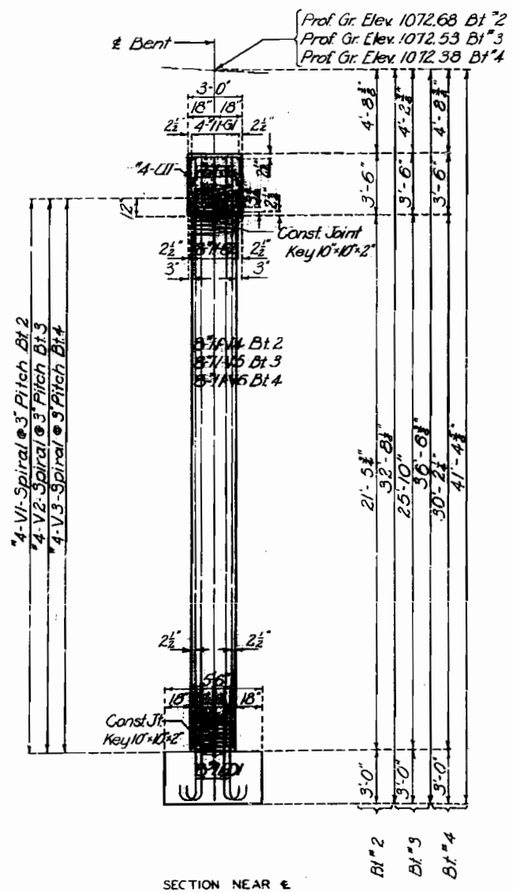


ELEVATION



PLAN

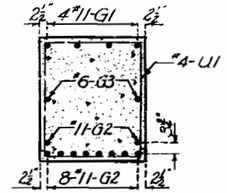
INTERMEDIATE BENTS 2, 3, & 4
(RIGHT & LEFT LANES)



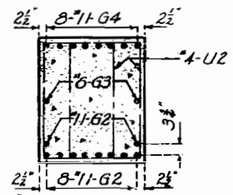
SECTION NEAR ℄

SECTION C - C

(Section C-C typical for all Int. Bents.)



SECTION A-A



SECTION B-B

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18) (RTE I-44) **STA.** 411+72.62 (RT. LANE)
STA. 411+73.69 (LT. LANE)

JASPER **COUNTY**

A-630

Drawn MAR 1960 by PVD
Checked June 1960 by G.F.K

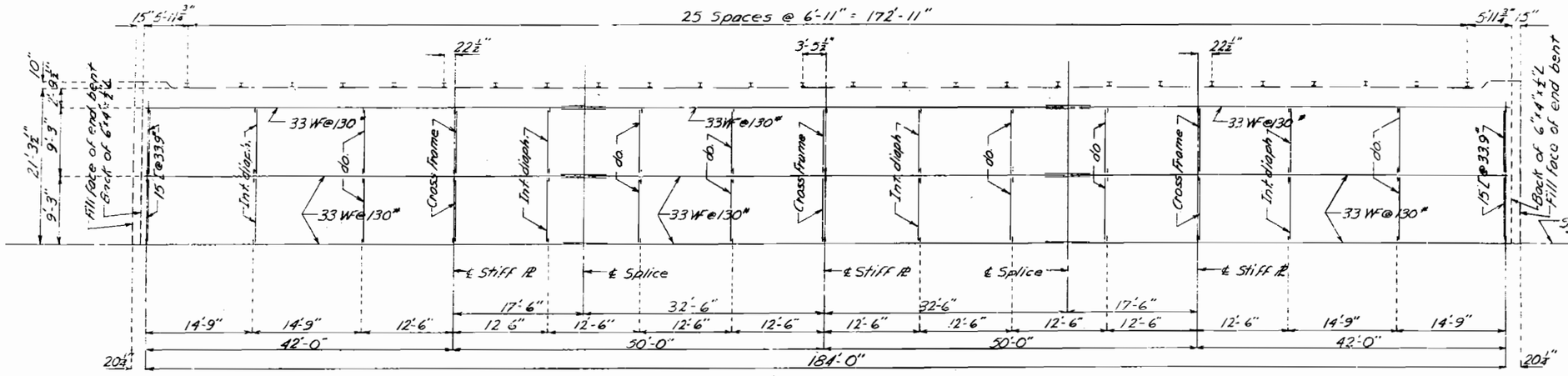
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5 of 10

SEE FINAL PLANS FOR ENGINEER

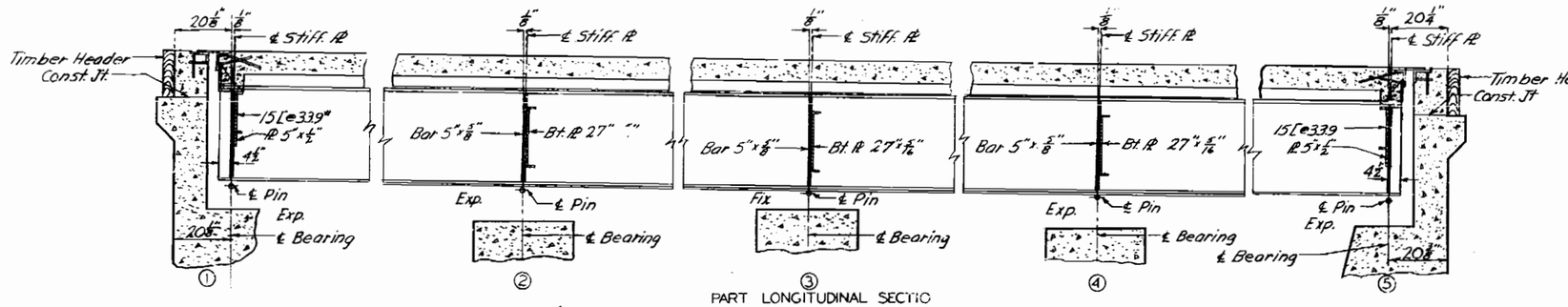
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	105	



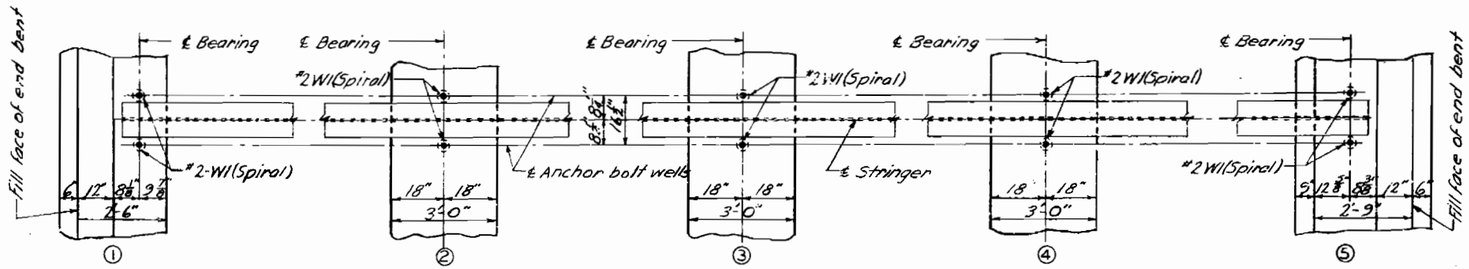
PART PLAN OF STRUCTURAL STEEL

Note: Longitudinal dimensions shown are parallel to grade at top of slab

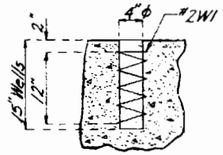


PART LONGITUDINAL SECTIO

Note: All Stiffener Pl's to be ground to bear top & bottom.

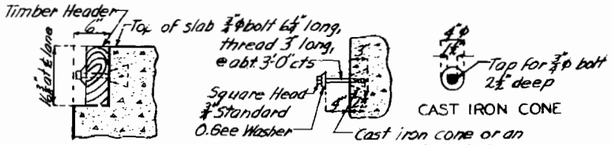


PART ANCHOR BOLT PLAN



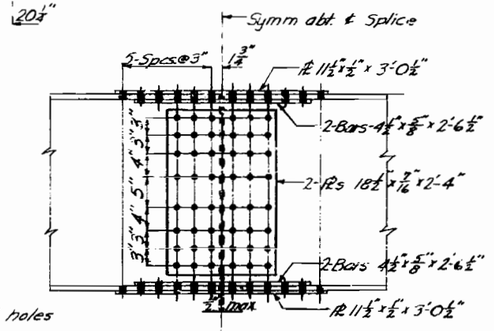
DETAIL OF SPIRAL AROUND ANCHOR BOLT

Note: Anchor bolts may be set in wells as shown or in holes drilled into concrete substructure. See Special Provisions for setting anchor bolts.



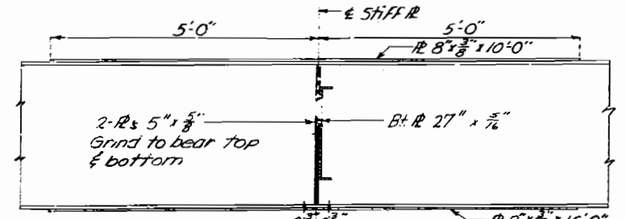
Note: Cost of timber headers complete in place to be included in price bid for concrete.

DETAILS OF TIMBER HEADER

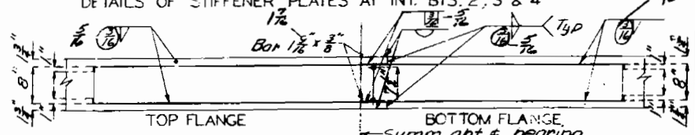


Note: 15/16"ϕ reamed holes for ⅞"ϕ rivets

DETAILS OF FIELD SPLICE



DETAILS OF STIFFENER PLATES AT INT. BTS. 2, 3 & 4



DETAILS OF WELDED PLATES OVER INT. BTS. 2, 3 & 4

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES SE OF ATLAS

PROJECT NO. I-44-1(18) (RTE. I-44) **STA.** 411+72.62 (RT. LANE)
STA. 411+73.69 (LT. LANE)

JASPER **COUNTY**

Drawn Mar. 1960 by RDL
Checked June 1960 by C.F.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 6 of 10

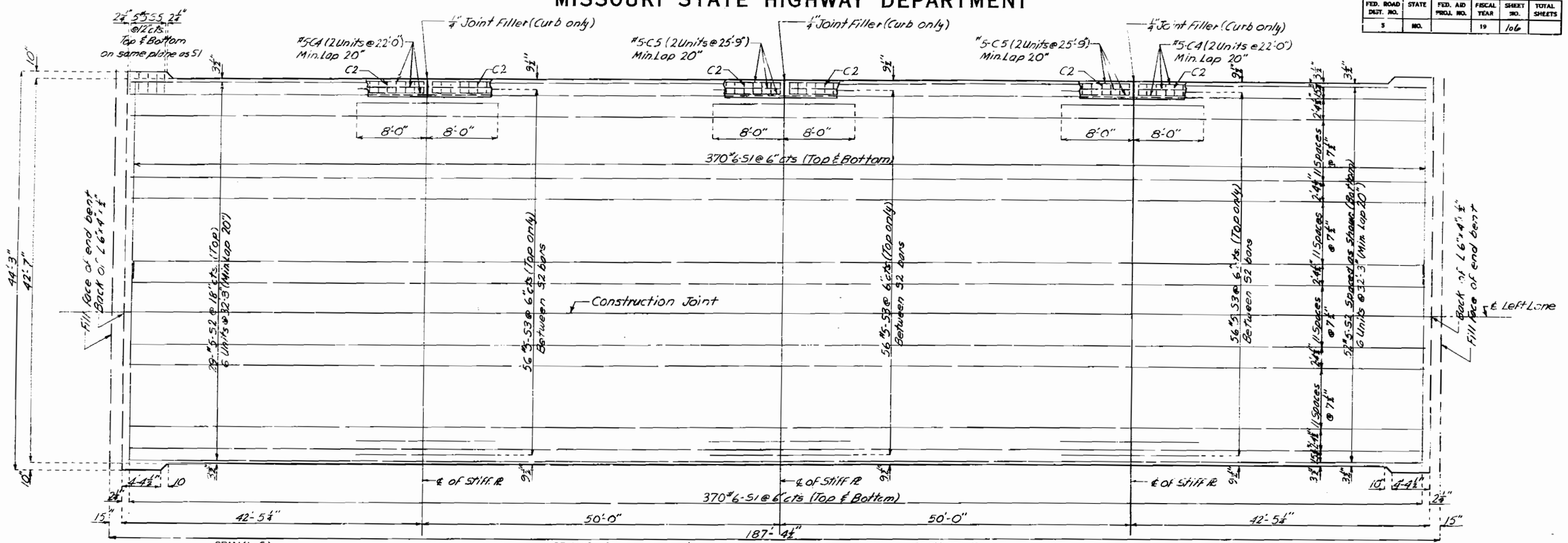
A-630

NO CONSTRUCTION CHANGES

225

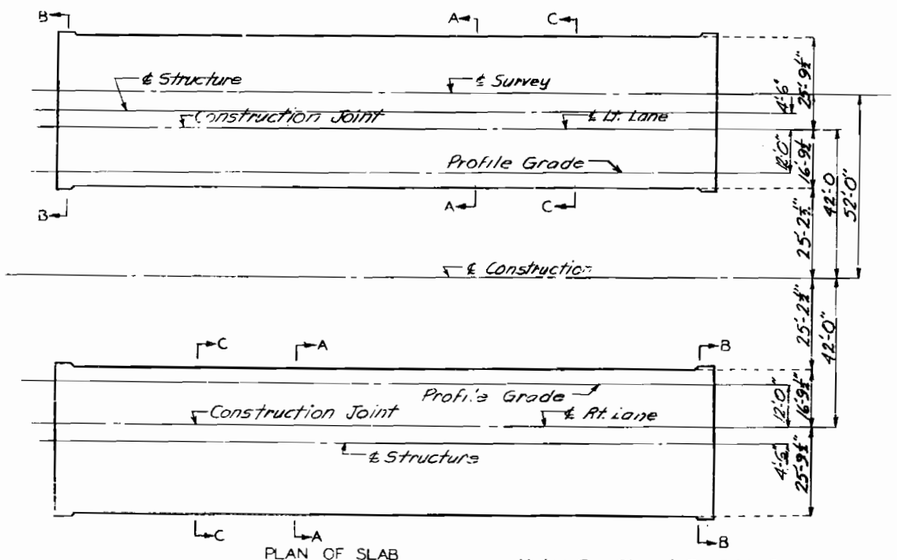
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	106	

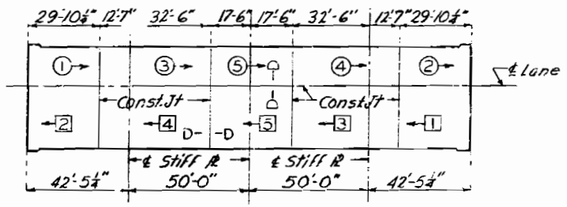


PLAN OF LEFT LANE SLAB SHOWING REINFORCING

Note: Longitudinal dimensions shown are parallel to grade at top of slab.

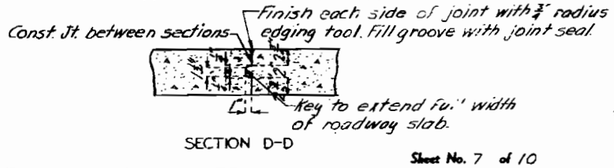


Note: See Sheet 8 of 10 For Sections A-A, B-B, and C-C

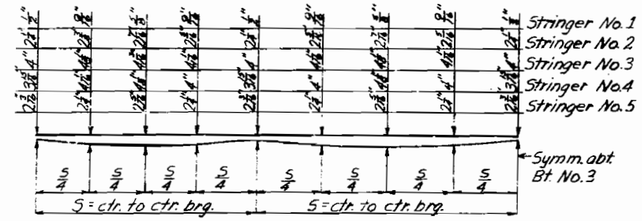


SLAB POURING SEQUENCE

Note: The slab shall be poured in sections of the lengths shown above and in the sequence indicated by the numbers ① ② ③ ④ ⑤ or, as an alternate, by the numbers [1] [2] [3] [4] [5]. The separate pours shall progress in the direction indicated by the arrows. The above pouring sequence and the number of construction joints may be altered by the Engineer in order to obtain a more satisfactory surface finish. See Section 16-3E of the Supplemental Specifications.



SECTION D-D



SLAB HAUNCHING DIAGRAM

Note: The slab shall be built parallel to grade and to a uniform thickness of 7 1/2". Dead load deflection, difference in depth of stringers, and crown shall be taken care of by haunching to stringers by the amounts shown above. This additional concrete is included in Estimated Quantities.

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 3.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18) (RTE I-44) **STA.** 411+72.62 (RT. LANE) STA. 411+72.69 (LT. LANE)

JASPER **COUNTY**

Drawn Mar 1960 by RDL
Checked June 1960 by A.T.K

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 7 of 10

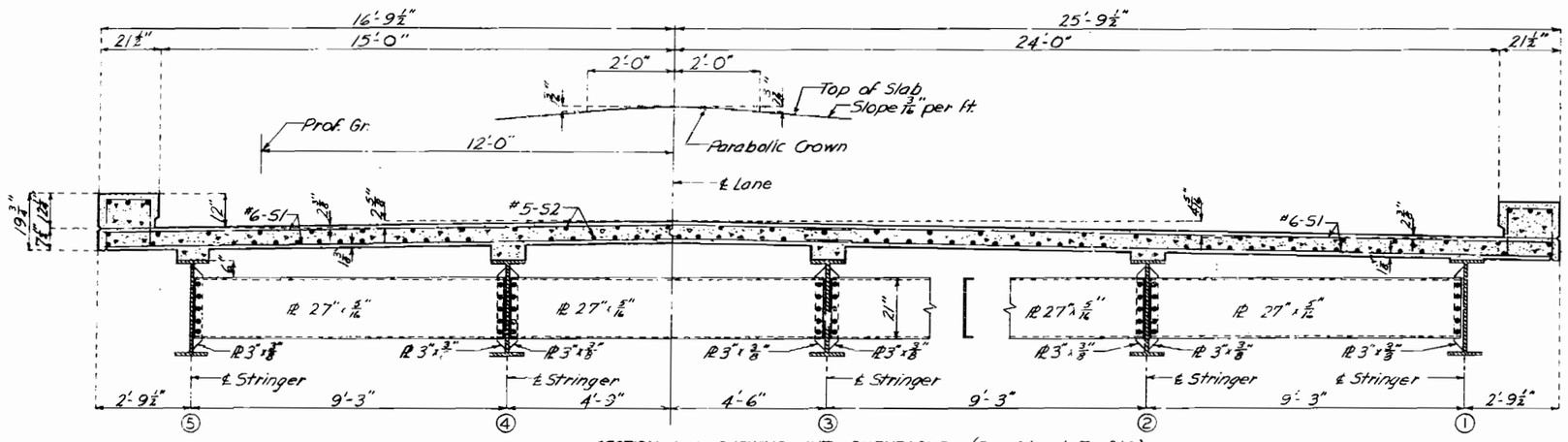
A-630

523

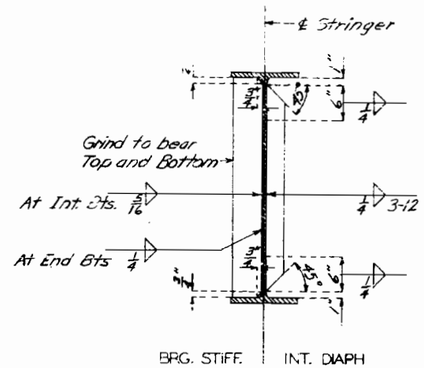
NO CONSTRUCTION WORK

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	107	

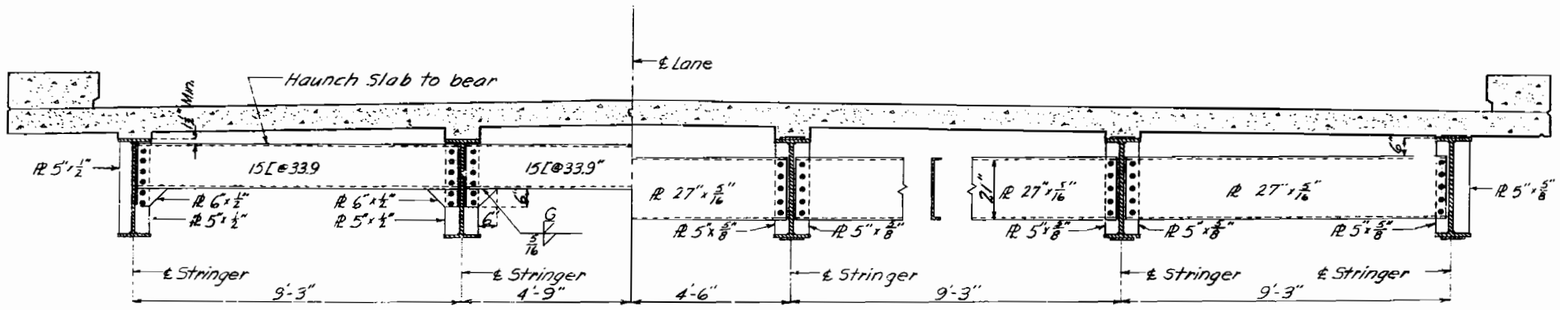


SECTION A-A SHOWING INT. DIAPHRAGMS *(See Sheet 7 of 10)*



WELDING DETAILS

Note: Curbs to be cast independently of slab.
Slab to be constructed to a uniform depth of not less than 7½, or, if desired, bottom of slab may be built on chords between top of haunches at stringers.
See Sheet 10 of 10 for details of curbs and handrail.



PART SECTION B-B NEAR END BENTS *(See Sheet 7 of 10)*

PART SECTION C-C SHOWING CROSS FRAMES *(See Sheet 7 of 10)*

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(5) (STE I-44) **STA.** 411+72.62 (RT. LANE)
STA. 411+73.69 (LT. LANE)

JASPER **COUNTY**

Drawn Mar 1960 by R.D.L.
Checked June 1960 by C.F.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 8 of 10

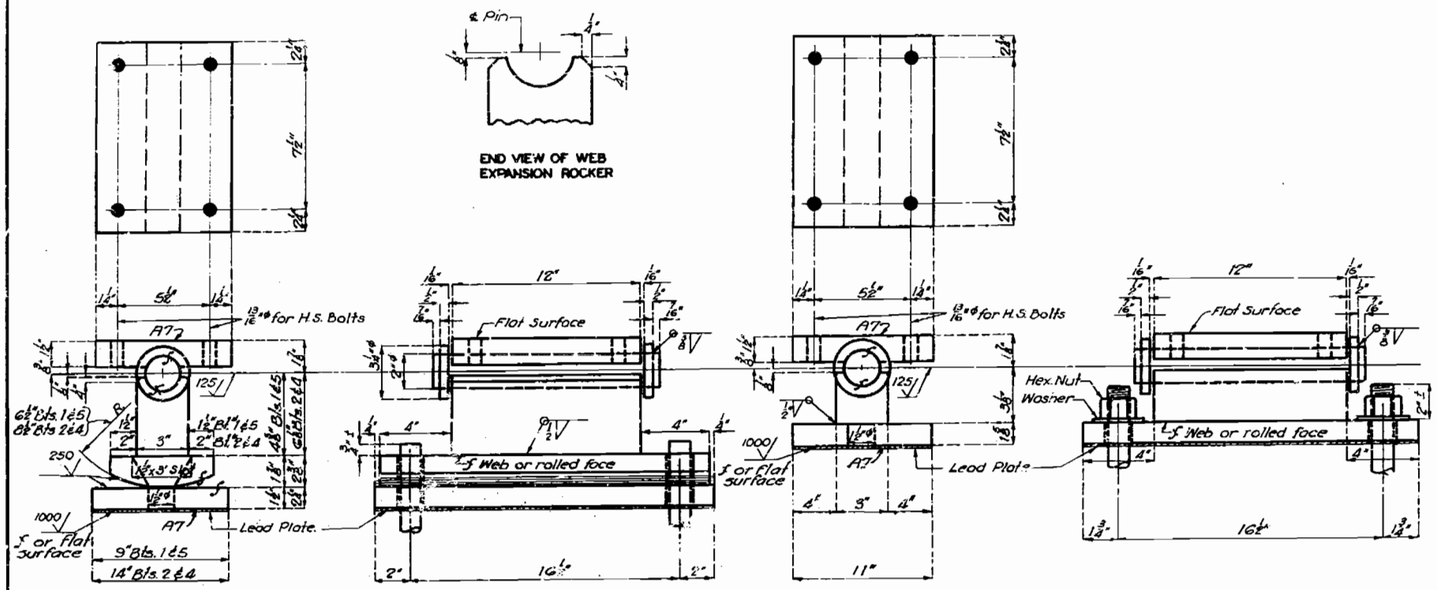
A-630

NO CONSTRUCTION DRAWINGS

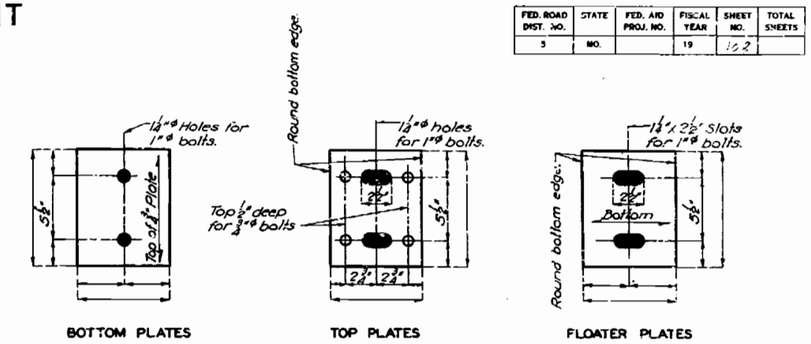
524

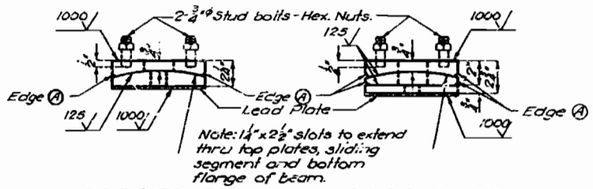
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10.2	



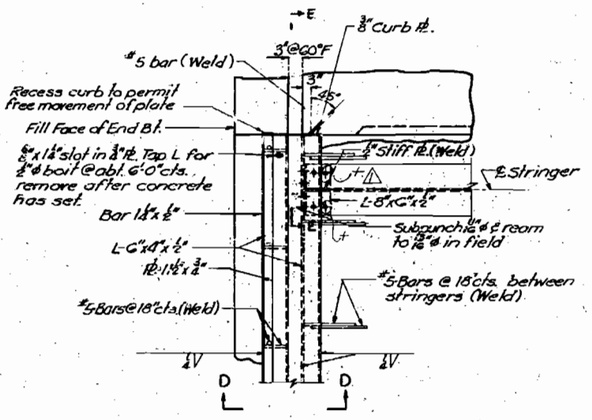
TYPE "D" BEARINGS



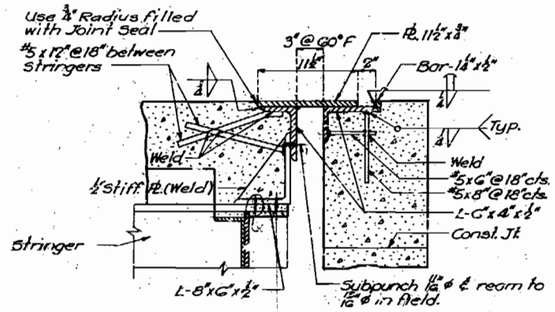


Required: Sets Each set consists of 5 plates each.

TYPE "C" BEARINGS

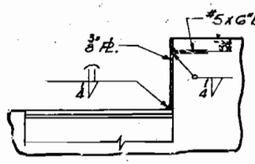


Note: Expansion Device to be Fabricated in one section and shall be bent to conform to crown of roadway #5 bars for expansion device shall be structural grade. Approved stud welded anchors may be used in lieu of #5 bars shown.



PART SECTION D-D

19/16"ø Holes, Use regular ⅞"ø machine bolts.
⚠ Loosen nuts after concrete has set.



CURB PLATE SECTION E-E

DETAILS OF EXPANSION DEVICE

GENERAL NOTES:

Material for Type "D" Bearings shall be A.S.T.M. A-373 steel or A-7 meeting the carbon and manganese requirements of A-373, except as noted.

Material for Type "C" Bearings shall be Gray Iron Alloy or Cast Steel but payment will be made as Gray Iron Alloy.

Material for Pins shall be A.I.S.I. C-1018.

Anchor Bolts for Type "D" Bearings shall be 1¼"ø Swedged Bolts and shall extend 12" into concrete, with hexagon nuts and plain washers for Fixed Bearing.

Anchor Bolts for Type "C" Bearing shall be 1"ø Swedged Bolts, no heads or nuts and shall extend 10" into concrete. Top of Anchor Bolts shall be approximately ½" above top of Casting or Fill Plate.

Anchor Bolts and Studs for Type "C" Castings will be paid for as Fabricated Structural Steel.

Lead Plates under bearings shall be approximately ⅛" thickness and weigh 8 #/sq. Foot. Cost of lead plates shall be included in price bid for other items.

Edge Ⓐ to be rounded. (1/16" to 8" Radius.)

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18) (RTE. I-44) STA. 411+72.62 (RT. LANE) 411+73.69 (LT. LANE)

JASPER COUNTY

FINISHED

FINISHED

525

Assembled Mar. 1960 by R.D.L. & J.H.K.
Checked June 1960 by G.F.K.

Note: This drawing is not to scale. Follow dimensions

Sheet No. 9 of 10.

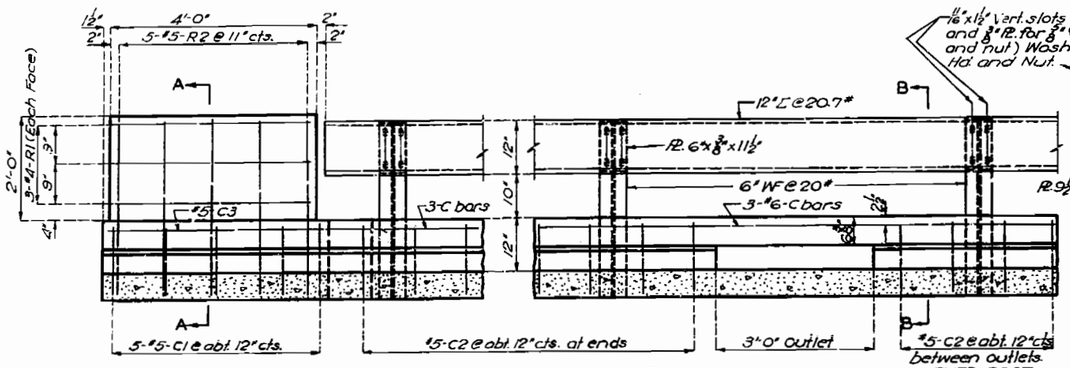
⚠ Revised 1-5-61

A-630

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	109	

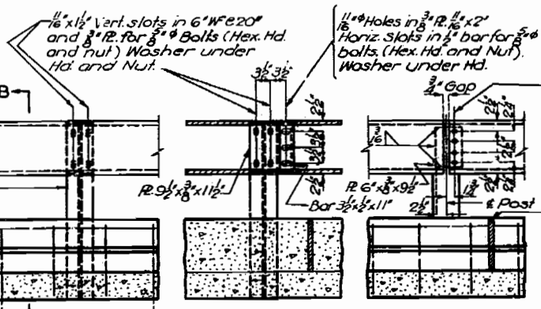


ELEV. CONCRETE END POST
(SQUARE SPAN)

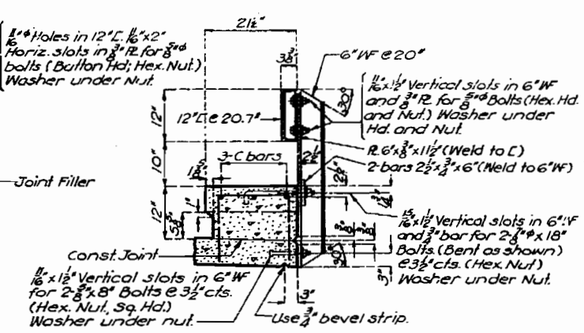
FIXED POST

FIXED POST

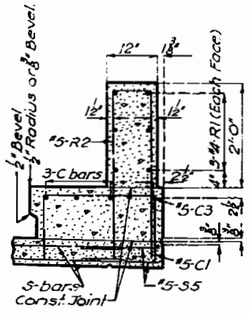
Note: Outlets to be centered between rail posts. For location of outlets if any, see Sheet No. 1 of design plans.
C2 bars in curb to be spaced at abt. 12" cts. from end post to end post on bridges having no outlets.



SECTION F-F ELEVATION
SPLICE POST OR EXP. POST

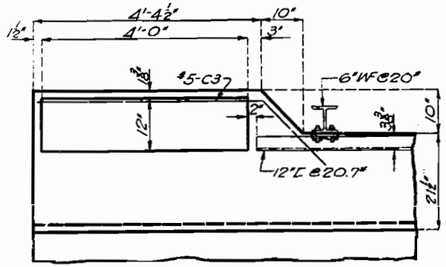


SECTION B-B

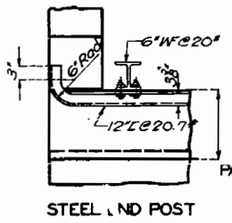


SECTION A-A

Note: Channel rail to be adjusted for horizontal alignment by use of full size metal shims placed between 6"WF and connection PL. shims of ⅛" and ¼" thickness to be furnished with structural steel. Cost of shims to be included in price bid for other items.

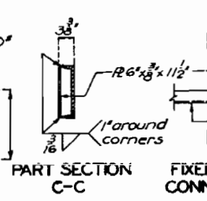


CONCRETE END POST

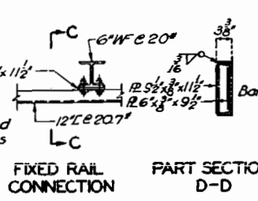


STEEL END POST

PLAN OF END POST (SQUARE SPANS)



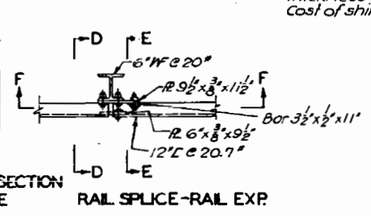
PART SECTION C-C



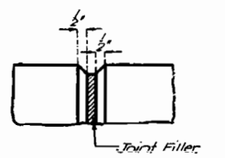
FIXED RAIL CONNECTION

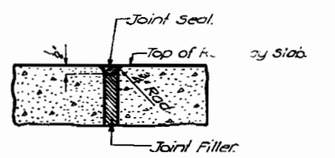
PART SECTION D-D

PART SECTION E-E



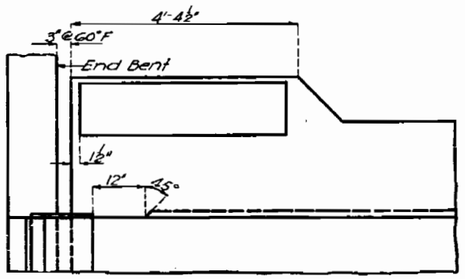
RAIL SPLICE-RAIL EXP.





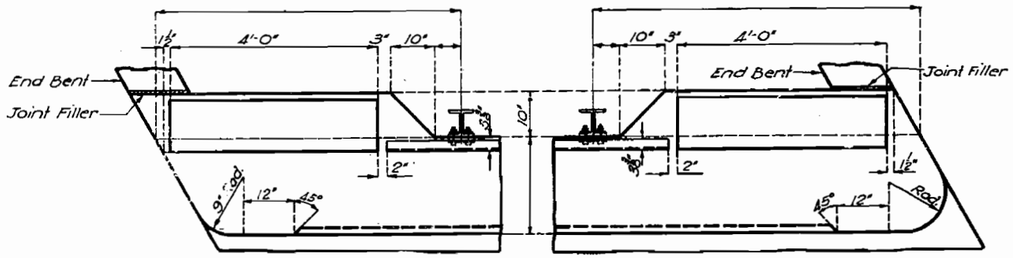
Note: Use bevel as shown for exposed faces of all filled joints except at top surface of roadway slab. Use edging tool with ¾" radius at top surface of roadway slab each side of joint and fill flush with joint seal as shown.

DETAILS OF BEVEL FOR FILLED JOINTS

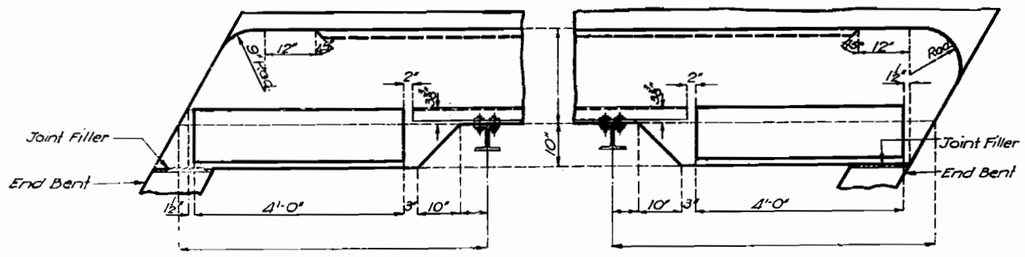


PLAN OF END POST WITH EXPANSION DEVICE AT END BENT

Note: Details not shown same as other end post.



PLAN OF END POSTS (SKEWED RIGHT ADVANCE)



PLAN OF END POSTS (SKEWED LEFT ADVANCE)

Note: Omit 9" radius curve on curb at ends of bridge where drain basin is provided on approach pavement.

Note: This drawing is not to scale. Follow dimensions.

Assembled Mar. 1960 by R.D.L. & I.H.K.
Checked June 1960 by G.F.K.

Sheet No. 10 of 10.

GENERAL NOTES:

Top of curbs and end posts to be built parallel to grade. Vertical faces of end posts to be vertical. All exposed edges of end posts to be beveled ½". 6"WF posts to be set normal to grade. 12"℄ rails shall be fabricated to conform to horizontal and vertical alignment of curb.

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE
STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY
ABOUT 5.0 MILES S.E. OF ATLAS
PROJECT NO. I-44-1(18)XRTE. I-44) STA. 411+72.62 (RT. LANE) 411+73.69 (LT. LANE)
JASPER COUNTY

FINISHED

FINISHED

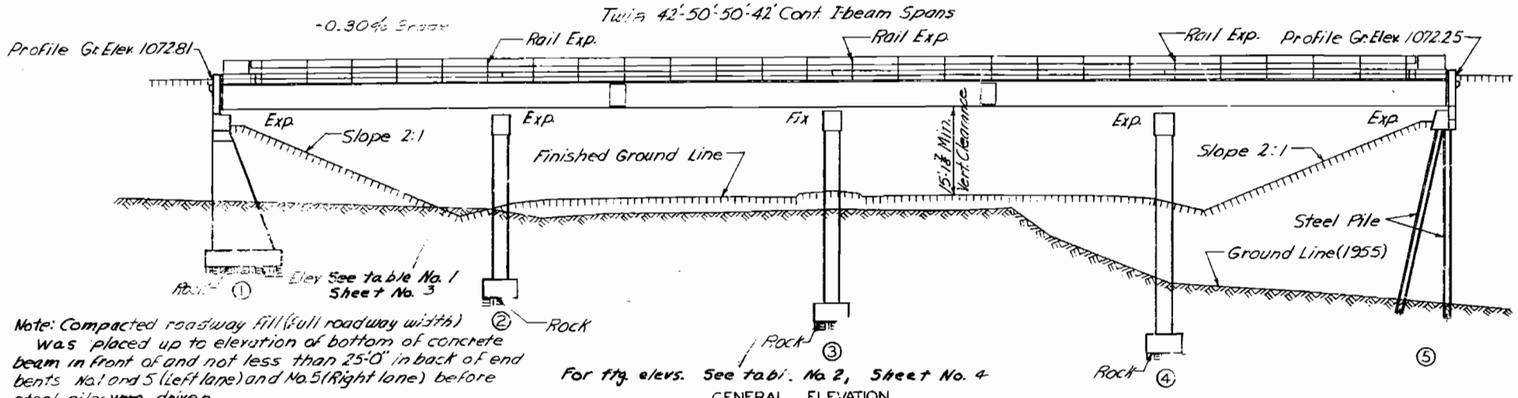
A-630

926

NO CONSTRUCTION CHANGES

MISSOURI STATE HIGHWAY DEPARTMENT

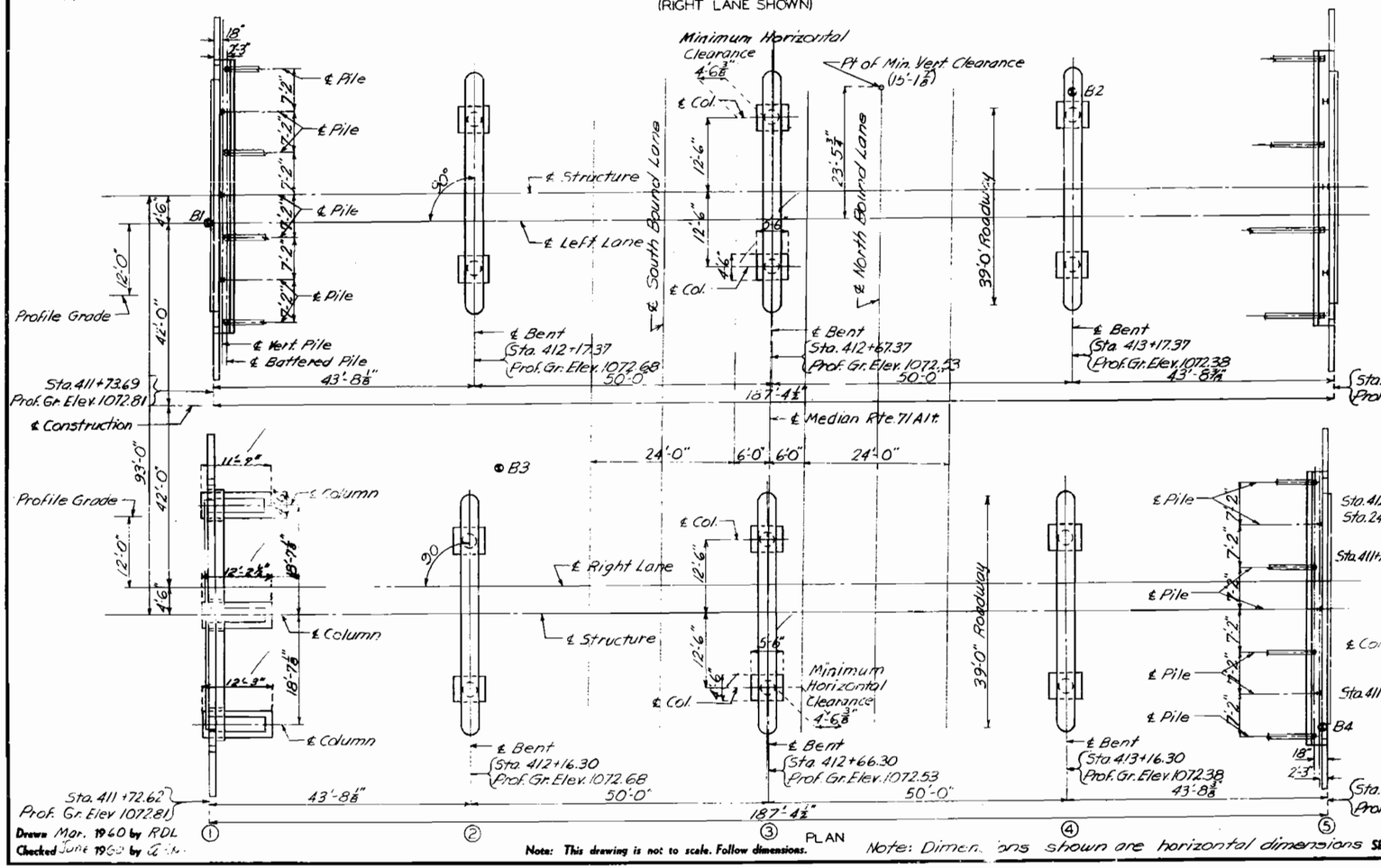
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	100	



Note: Compacted roadway fill (full roadway width) was placed up to elevation of bottom of concrete beam in front of and not less than 25-0" in back of end bents No. 1 and 5 (Left lane) and No. 5 (Right lane) before steel piles were driven.

For fin. elevs. See table No. 2, Sheet No. 4

GENERAL ELEVATION
(RIGHT LANE SHOWN)



PLAN

Note: Dimensions shown are horizontal dimensions

Drawn Mar. 1960 by RDL
Checked June 1960 by [illegible]

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1A of 4

Note: All loose shelly or disintegrated rock was removed and the footings placed on hard solid undisturbed rock.

All piling was 10" bearing piles at 42# and did conform with details and notes on sheet No. 4 of design plans.
All steel pile required for this structure was furnished by the State.

All piles were driven to or into solid rock, boulders, shale, or cemented gravel.

All piles were driven with a steam hammer.

GENERAL NOTES
Design Specifications: A.A.S.H.O. 1957
Loading: H20-S16-44 (Modified 24,000 Tandem Axle) (15% Future Wearing Surface)
Structural Steel Stress: 18,000 #/□".
Reinforcing Steel Stress: 20,000 #/□".
Concrete, Class "B" Stress: 1,200 #/□".
Concrete, Class "B1" Stress: 1,600 #/□".
Superstructure concrete was Class "S1" (air-entrained.)
Substructure concrete was Class "B" (air-entrained.)

Bolts 7/8" ϕ; holes 13/16" ϕ, except as noted.
Field connections except as noted in handrail details were bolted with high tensile bolts. Final pay weight for fabricated structural steel was based on the use of field rivets except for bolted connections specified for handrail.
Paint: Shop, none; Field, contact surfaces of bolted field connections, except where high tensile bolts were used, one coat of red lead and surfaces inaccessible after erection three coats of red lead. All other exposed surfaces first coat red lead, second coat brown, third coat aluminum. Payment for cleaning and all painting was made under unit price bid for painting.

Qualification of welding operators was required.

Where joint filler was specified on the plans it did conform with the requirements for Gray Rubber Compound Joints as given in Section 59-22B of the Standard Specifications.
Superstructure deck was waterproofed.
Permits were obtained for all trucks loads over legal lengths.

B.M. # □ in center of Lt. Wing Bk. #5 Sta. 413+61.0 Elev. 1073.07

B.M. # □ in center of Lt. Wing Bk. #1 Sta. 411+73.7 Elev. 1073.64

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18)5 (RTE. I-44) **STA.** 411+72.62 (RT. LANE)
STA. 411+73.69 (LT. LANE)

JASPER **COUNTY**

FINISHED

SUBMITTED BY R. A. Currie BRIDGE ENGINEER DATE 9-2-60

APPROVED BY Ray M. Cothitten CHIEF ENGINEER DATE 9-2-60

FINISHED

STD.C-110R7

A-630

527

FINAL PLANS

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	101	

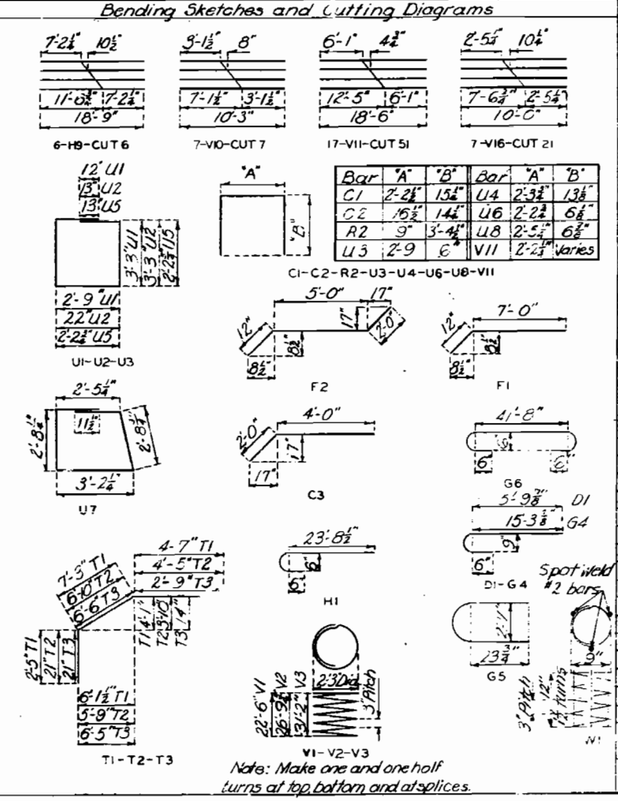
COMPLETE BILL OF REINFORCING STEEL

LEFT LANE

No.	Size	Length	Mark	Location
Superstructure				
486	#5	32'-3"	S2	Slab
168	#5	16'-0"	S3	"
40	#5	2'-6"	S5	"
1480	#6	22'-3"	S1	"
20	#5	4'-9"	C1	Curb
348	#5	3'-9"	C2	"
4	#5	6'-0"	C3	"
24	#5	22'-0"	C4	"
24	#5	25'-9"	C5	"
24	#5	3'-9"	R1	End Post
20	#5	7'-6"	R2	" "
Substructure				
End Bent No. 1				
16	#6	25'-0"	H1	Bm
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bkwll
6	#6	9'-3"	H4	Wing
8	#4	24'-0"	H5	Bkwll.
2	#6	6'-0"	H6	Wing
2	#6	7'-6"	H7	"
4	#6	13'-0"	T2	Wing
4	#6	11'-0"	T3	"
80	#5	6'-6"	V15	Bkwll.
7	#4	10'-0"	V16	"
6	#4	7'-9"	V17	"
46	#4	12'-0"	U7	Bm
14	#4	3'-6"	U8	"
10	#2	19'-9"	W1	A.B.Wells
Int Bents No.2,3,4				
48	#11	7'-6"	D1	Ftg.
12	#11	16'-3"	G1	Bm
30	#11	37'-9"	G2	"
6	#6	40'-3"	G3	"
48	#11	17'-0"	G4	"
18	#6	8'-0"	G5	"

No.	Size	Length	Mark	Location
123	#4	13'-0"	U1	Bm
156	#4	11'-3"	U2	"
12	#4	3'-9"	U3	"
6	#4	4'-6"	U4	"
2	#4	659'-0"	V1	Col.Bt.2
2	#4	78'-0"	V2	" Bt.3
2	#4	904'-0"	V3	" Bt.4
16	#11	24'-6"	V4	" Bt.2
16	#11	28'-9"	V5	" Bt.3
16	#11	33'-3"	V6	" Bt.4
30	#2	19'-9"	W1	A.B.Wells
End Bent No.5				
16	#6	25'-0"	H1	Bm
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bkwll
6	#6	9'-3"	H4	Wing
2	#6	7'-6"	H7	"
4	#6	13'-0"	T2	Wing
4	#6	11'-0"	T3	"
80	#5	6'-6"	V15	Bkwll.
48	#4	12'-0"	U7	Bm
14	#4	3'-6"	U8	"
10	#2	19'-9"	W1	A.B.Wells
Int Bents No.2,3,4				
48	#11	7'-6"	D1	Ftg.
12	#11	16'-3"	G1	Bm
30	#11	37'-9"	G2	"
6	#6	40'-3"	G3	"
48	#11	17'-0"	G4	"
18	#6	8'-0"	G5	"

Bending Sketches and Cutting Diagrams



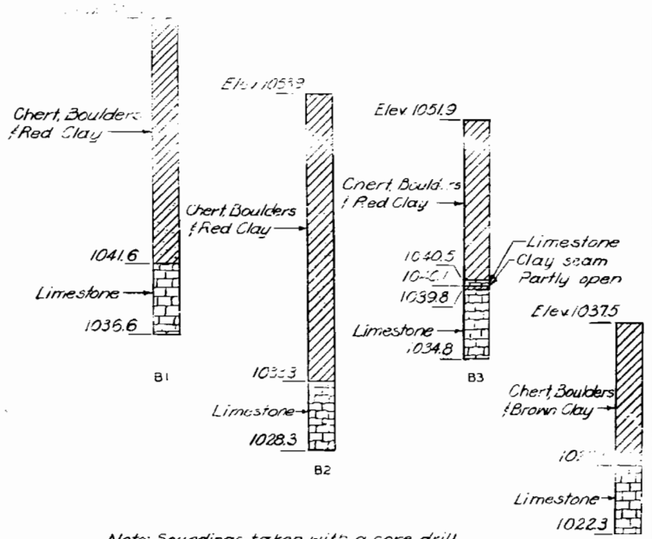
Bar	"A"	"B"
C1	2'-2½"	15¼"
C2	16½"	14¼"
R2	9"	3'-4½"
U3	2'-9	6"
U4	2'-3½"	13⅜"
U6	2'-2⅜"	6⅛"
U8	2'-5½"	6½"
V11	2'-2½"	Varies

Note: Make one and one half turns at top, bottom and at splices.

RIGHT LANE

No.	Size	Length	Mark	Location
Superstructure				
1480	#6	22'-3"	S1	Slab
486	#5	32'-3"	S2	"
168	#5	16'-0"	S3	"
40	#5	2'-6"	S5	"
20	#5	4'-9"	C1	Curb
348	#5	3'-9"	C2	"
4	#5	6'-0"	C3	"
24	#5	22'-0"	C4	"
24	#5	25'-9"	C5	"
24	#5	3'-9"	R1	End Post
20	#5	7'-6"	R2	" "
Substructure				
End Bent No 1				
16	#6	8'-0"	F1	Hnch.
8	#6	8'-0"	F2	"
3	#7	44'-3"	G6	Beam
6	#10	42'-3"	G7	"
2	#6	42'-3"	G8	"
2	#6	44'-0"	G9	Bkwll
4	#4	22'-9"	G10	"
4	#11	15'-0"	G11	Beam
10	#6	11'-6"	H8	Wing
6	#6	18'-9"	H9	"
4	#6	14'-3"	T1	Wing
43	#5	10'-0"	U5	Beam
14	#4	3'-3"	U6	"
80	#5	6'-6"	V8	Bkwll.
12	#4	7'-6"	V9	"
7	#4	10'-3"	V10	Wing
51	#3	18'-6"	V11	Column
18	#7	20'-3"	V12	"
12	#7	21'-0"	V13	"
24	#4	18'-3"	V14	"
10	#2	13'-9"	W1	A.B.Wells
30	#7	4'-9"	D2	Ftg.

No.	Size	Length	Mark	Location
Int Bents No. 2,3 & 4				
48	#11	7'-6"	D1	Ftg.
12	#11	16'-3"	G1	Beam
30	#11	37'-9"	G2	"
6	#6	40'-3"	G3	"
48	#11	17'-0"	G4	"
18	#6	8'-0"	G5	"
123	#4	13'-0"	U1	"
156	#4	11'-3"	U2	"
12	#4	3'-9"	U3	"
6	#4	4'-6"	U4	"
2	#4	659'-0"	V1	Col.Bt.2
2	#4	78'-0"	V2	" Bt.3
2	#4	904'-0"	V3	" Bt.4
16	#11	24'-6"	V4	" Bt.2
16	#11	28'-9"	V5	" Bt.3
16	#11	33'-3"	V6	" Bt.4
30	#2	19'-9"	W1	A.B.Wells
End Bent No 5				
16	#6	25'-0"	H1	Beam
4	#6	24'-0"	H2	"
4	#6	23'-0"	H3	Bkwll.
6	#6	9'-3"	H4	Wing
8	#4	24'-0"	H5	Bkwll.
2	#6	6'-0"	H6	Wing
2	#6	7'-6"	H7	"
4	#6	14'-3"	T2	Wing
4	#6	11'-0"	T3	"
46	#4	12'-0"	U7	Beam
14	#4	3'-6"	U8	"
80	#5	6'-6"	V15	Bkwll.
7	#4	10'-0"	V16	"
6	#4	7'-9"	V17	"
10	#2	19'-9"	W1	A.B.Wells



Note: Soundings taken with a core drill.

LOG OF SOUNDINGS

FINAL QUANTITIES

Item		Substr.	Superstr.	Total
Class 1 Excavation for Structures	Cu.Yds.	506		506
Class "B" Concrete	Cu.Yds.	337		337
Class "B1" Concrete	Cu.Yds.		433.5	433.5
Reinforcing Steel	lbs.	66,530	143,300	209,830
Fabricated Structural Steel	lbs.		326,100	326,100
Fabricated Structural Steel (Bearings)	lbs.		13590	13,590
Steel Pile in Place (State Furnished)	Lin.Ft.	694		694
Painting	Ton		169.8	169.8
Class 1 Excavation Below Plan		18.5		18.5
Foundation Test Holes		166.8		166.8

Note: All excavation for bridge will be paid for as Class 1 Excavation for structures

Drawn Apr. 1960 by R.V.D.
Checked June 1960 by Q.T.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2A of 4

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 50 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(6)(RTE. I-44) **STA.** 41+72.62 (RT. LANE) STA. 41+73.89 (LT. LANE)

JASPER **COUNTY** FINISHED

FINISHED

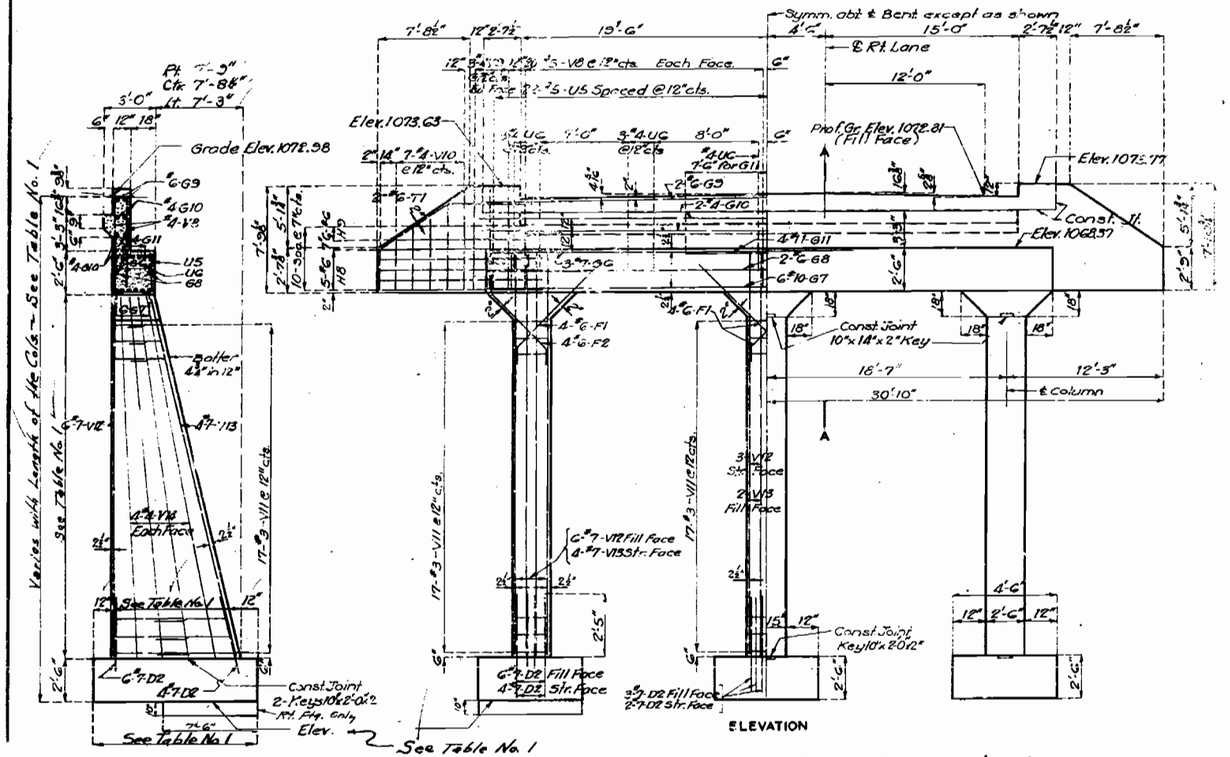
A-630

FINAL PLANS

528

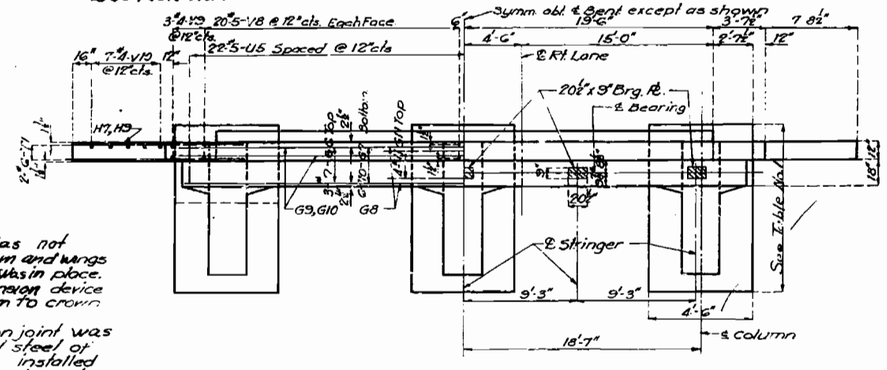
MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		19		



SECTION A-A

ELEVATION



Note: Fill at end bent No. 1 was not carried above bottom of beam and wings until superstructure span (1-2) was in place.
Top of backwall and expansion device for end bent No. 1 did conform to crown of roadway.
Backwall above construction joint was not poured until structural steel of the expansion device was installed and slab had been poured in adjacent span.

PLAN

DETAILS OF END BENT NO. 1 RT. LANE

TABLE NO. 1					Total Lengths
Location	Elev.	Length	Width	Depth	
Rt. Ftg.	1043.6	12'-3	4'-6"	2'-6"	
Rt. Col.		19'-9⅛	10'-3"	2'-6"	Right
					23'-4½"
Ctr. Ftg.	1043.8	12'-2½"	4'-6"	2'-6"	
Ctr. Col.		19'-6¾"	10'-2½"	2'-6"	Center
					29'-2⅛"
Lt. Ftg.	1045.0	11'-9"	4'-6"	2'-6"	
Lt. Col.		18'-4¾"	9'-9"	2'-6"	Left
					27'-11¾"

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-(08)15 (RTE. I-44) STA. 411+72.62 (RT. LANE) 411+73.69 (LT. LANE)

JASPER COUNTY

FINISHED

FINISHED

A-630

Assembled Mar. 1960 by R.D.L. & J.H.K.
Checked June 1960 by O.F.K.

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3A of 4

FINAL PLANS

3 Col. End Square or Sk. } H15, H20 H27-S16

6.25

MISSOURI STATE HIGHWAY DEPARTMENT

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	10A	

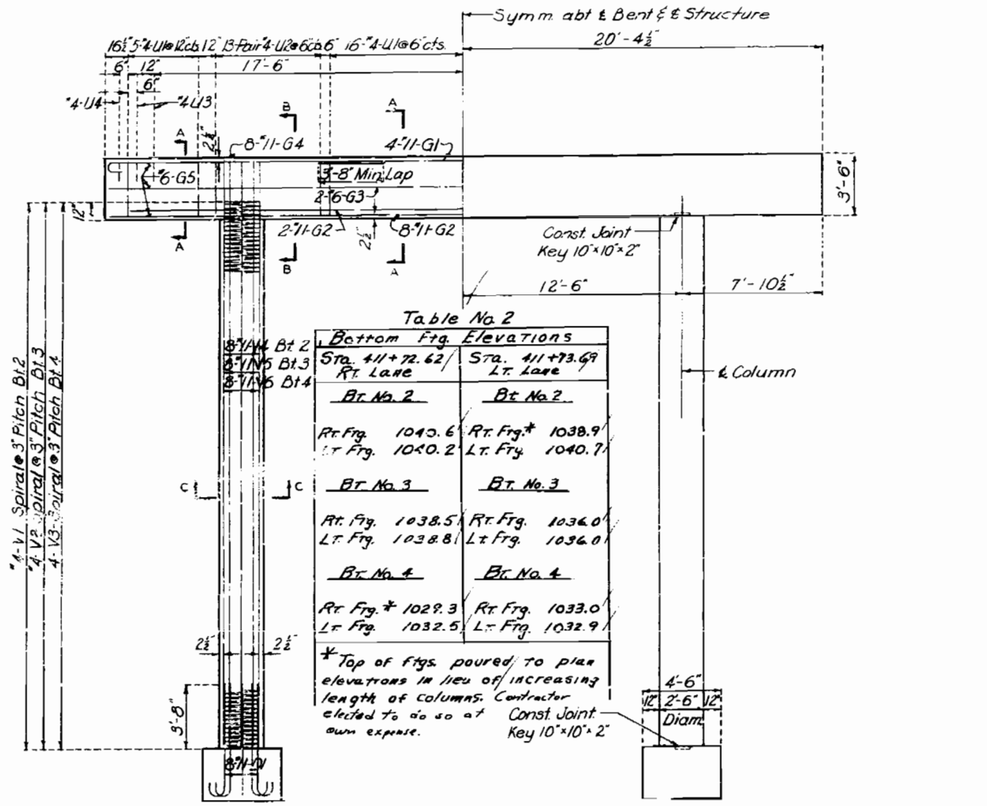
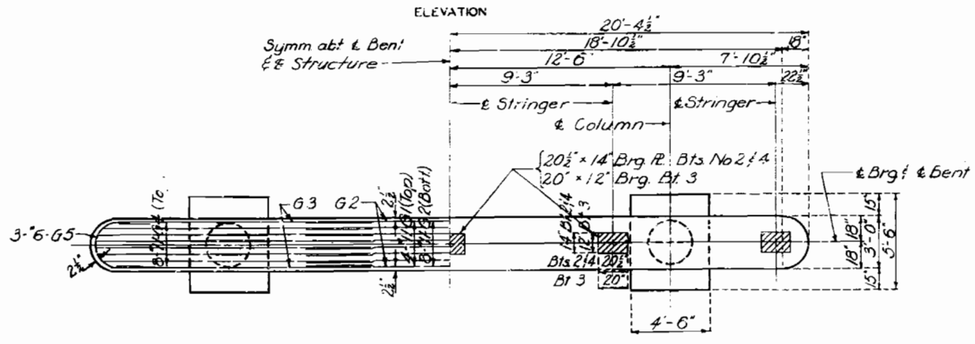


Table No. 2

Bottom Ftg. Elevations	
Sta. 41+72.62 Rt. Lane	Sta. 41+73.69 Lt. Lane
Bt. No. 2	Bt. No. 2
Rt. Ftg. 1040.6	Rt. Ftg.* 1038.9
Lt. Ftg. 1040.2	Lt. Ftg. 1040.7
Bt. No. 3	Bt. No. 3
Rt. Ftg. 1038.5	Rt. Ftg. 1036.0
Lt. Ftg. 1038.8	Lt. Ftg. 1036.0
Bt. No. 4	Bt. No. 4
Rt. Ftg.* 1029.3	Rt. Ftg. 1033.0
Lt. Ftg. 1032.5	Lt. Ftg. 1032.9

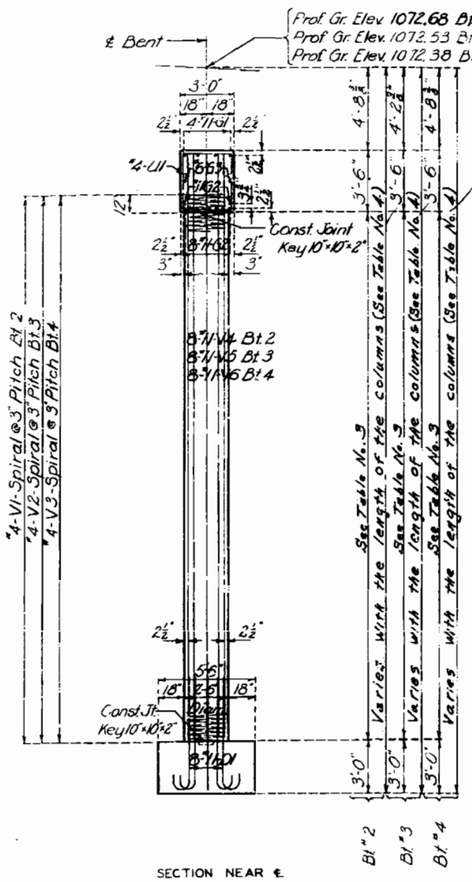
*Top of ftgs. poured to plan elevations in lieu of increasing length of columns. Contractor elected to do so at own expense.

ELEVATION

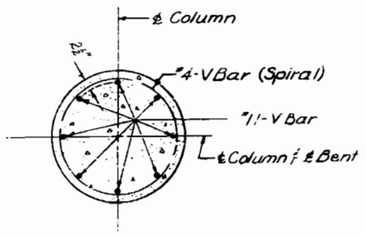


PLAN

INTERMEDIATE BENTS 2, 3, & 4
(RIGHT & LEFT LANES)

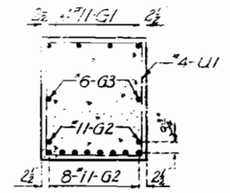


SECTION NEAR ℄

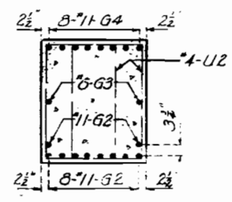


SECTION C-C

(Section C-C typical for all Int. Bents.)



SECTION A-A



SECTION B-B

Table No. 3

Column Lengths	
Sta. 41+72.62 Rt. Lane	Sta. 41+73.69 Lt. Lane
Bt. No. 2	Bt. No. 2
Rt. Col. 20'-10⅝"	Rt. Col. 22'-7"
Lt. Col. 21'-5⅜"	Lt. Col. 20'-9⅜"
Bt. No. 3	Bt. No. 3
Rt. Col. 23'-3⅞"	Rt. Col. 25'-10"
Lt. Col. 23'-8⅛"	Lt. Col. 25'-10"
Bt. No. 4	Bt. No. 4
Rt. Col. 31'-10¾"	Rt. Col. 28'-2½"
Lt. Col. 28'-8⅛"	Lt. Col. 28'-5½"

Table No. 4

Total Lengths	
Sta. 41+72.62 Rt. Lane	Sta. 41+73.69 Lt. Lane
Bt. No. 2	Bt. No. 2
Bt. 32'-1"	Bt. 33'-9⅜"
Lt. 32'-5⅜"	Lt. 31'-11¾"
Bt. No. 3	Bt. No. 3
Bt. 34'-0¼"	Bt. 36'-6⅜"
Lt. 33'-8⅜"	Lt. 36'-6⅜"
Bt. No. 4	Bt. No. 4
Bt. 43'-1⅞"	Bt. 39'-4⅝"
Lt. 39'-10⅜"	Lt. 39'-3⅜"

FINISHED

BRIDGE OVER ROUTE 71 ALTERNATE

STATE ROAD FROM EAST OF SCOTLAND TO EAST OF FIDELITY

ABOUT 5.0 MILES S.E. OF ATLAS

PROJECT NO. I-44-1(18)5 (RTE I-44) **STA.** 41+72.62 (RT. LANE)
STA. 41+73.69 (LT. LANE)

JASPER **COUNTY**

FINISHED

FINISHED

A-630

Drawn MAR 1960 by PVD
Checked June 1960 by A.F.K

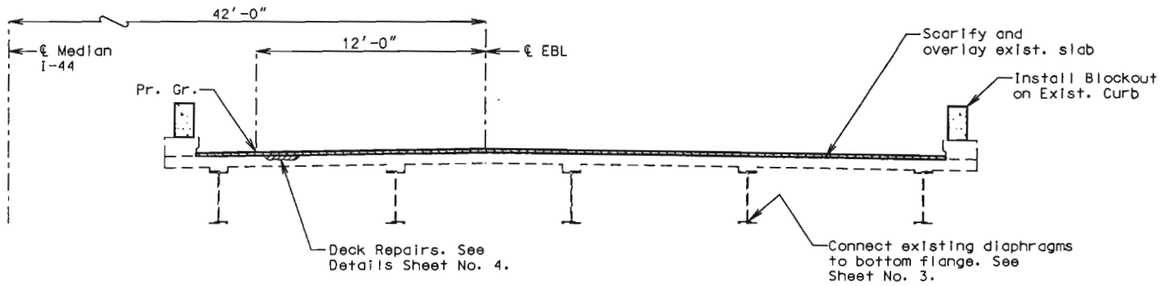
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 5A of 4

530

FINAL PLANS

State	Proj. No.	Sheet No.
MO		B52
SEC/SUR 9.10	TWP 27N	RGE 31W



SECTION THRU SLAB

Estimated Quantities

Item		Total
Removal and Storage of Existing Bridge Rail	Lin. Ft.	353
Curb Removal (Bridges)	Lin. Ft.	16
Replacement of Expansion Device and Adjacent Concrete	Lin. Ft.	89
Bridge Approach Slab (Bridge)	Sq. Yd.	225
Substructure Repair (Formed)	Sq. Ft.	160
Substructure Repair (Unformed)	Sq. Ft.	10
Protective Coating for Concrete Bents and Concrete Piers under Expansion Devices	Lump Sum	1
Curb Blockout	Lin. Ft.	375
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	100
Full Depth Repair	Sq. Ft.	50
Low Slump Concrete Wearing Surface	Sq. Yd.	807
Strip Seal Expansion Device	Lin. Ft.	89
Reinforcing Steel (Epoxy Coated)	Lb.	2530
Cleaning and Coating Existing Bearings	Each	10
Transporting Residue to Storage Area	Lump Sum	1
Transporting Residue to the Smelter	Lump Sum	1
Disposal of Residue	Lump Sum	1

Cost of any required excavation for bridge shall be included in the contract unit price for other items.

All concrete above the upper construction joint in backwall and at the slab ends shall be Class B2.

The contract unit price for Curb Blockout shall include all concrete and reinforcement, complete in place.

General Notes:

Design Specifications:
AASHTO-1996 and Interims thru 2000

Design Unit Stresses:

Class B1 Concrete (Curb Blockout)	f'c = 4,000 psi
Class B2 Concrete (Slab and Top of Backwall)	f'c = 4,000 psi
Reinforcing Steel (Grade 60)	fy = 60,000 psi

Fabricated Steel Connections:
Field connections shall be made with 3/4" diameter high strength bolts and 13/16" diameter holes, except as noted.

High strength bolts, nuts and washers will be sampled for quality assurance as specified in Standard Specification 106 and Field Section (FS-712) from Materials Manual.

Joint Filler:
All joint filler shall meet the requirements of Section 1057.2.4 of the Missouri Standard Specifications, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars, unless otherwise noted.

Old Work:
Outline of old work is indicated by dashed lines. Heavy lines indicate new work.

Maintain Traffic:
See Roadway Plans for traffic control during construction.

Verify Dimensions:
Contractor shall verify all dimensions in field before ordering new material.

Roadway Surfacing:
Roadway surfacing adjacent to bridge ends to match top of concrete wearing surface. (See Roadway Plans)

Existing Bridge Rail:
Salvage and store existing bridge rail at the Missouri Department of Transportation Carthage Maintenance Facility. (See Special Provisions)

Maintain Grade:
In order to maintain grade and a minimum thickness of overlay as shown on the plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

Anchors:
The Contractor shall use one of the resin anchor systems listed in the job special provisions. These anchor systems shall be installed according to the manufacturer's specifications, except as modified by the job special provisions.

Cost of furnishing and installing the anchor systems complete in place shall be included in the price bid for Curb Blockout.

The 7/8" diameter resin anchor systems shall have a minimum ultimate pullout strength of 27,500 lbs. in concrete with f'c = 4,000 psi, see Special Provisions.

An epoxy coated #7 Grade 60 reinforcing bar 2'-4" long shall be substituted for the 7/8" threaded rod stud.

Miscellaneous:
The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved bituminous paint below the ground line and a special mortar above ground line.

Traffic Handling:
Bridge will be closed to traffic during repairs.

REPAIRS TO BRIDGE OVER ALTERNATE ROUTE 71 / ROUTE 59

STATE ROAD FROM ROUTE 66 TO ROUTE 37
ABOUT 9 MILES EAST OF ROUTE 71
PROJECT NO. STA. 411+72.62 EBL
(Match Exist.)
JOB NO. J7I0690 RTE. I-44 EBL

JASPER COUNTY

STATE OF MISSOURI — KEITH L. WILLIS — NUMBER E-25019 — REGISTERED PROFESSIONAL ENGINEER
8-27-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2666

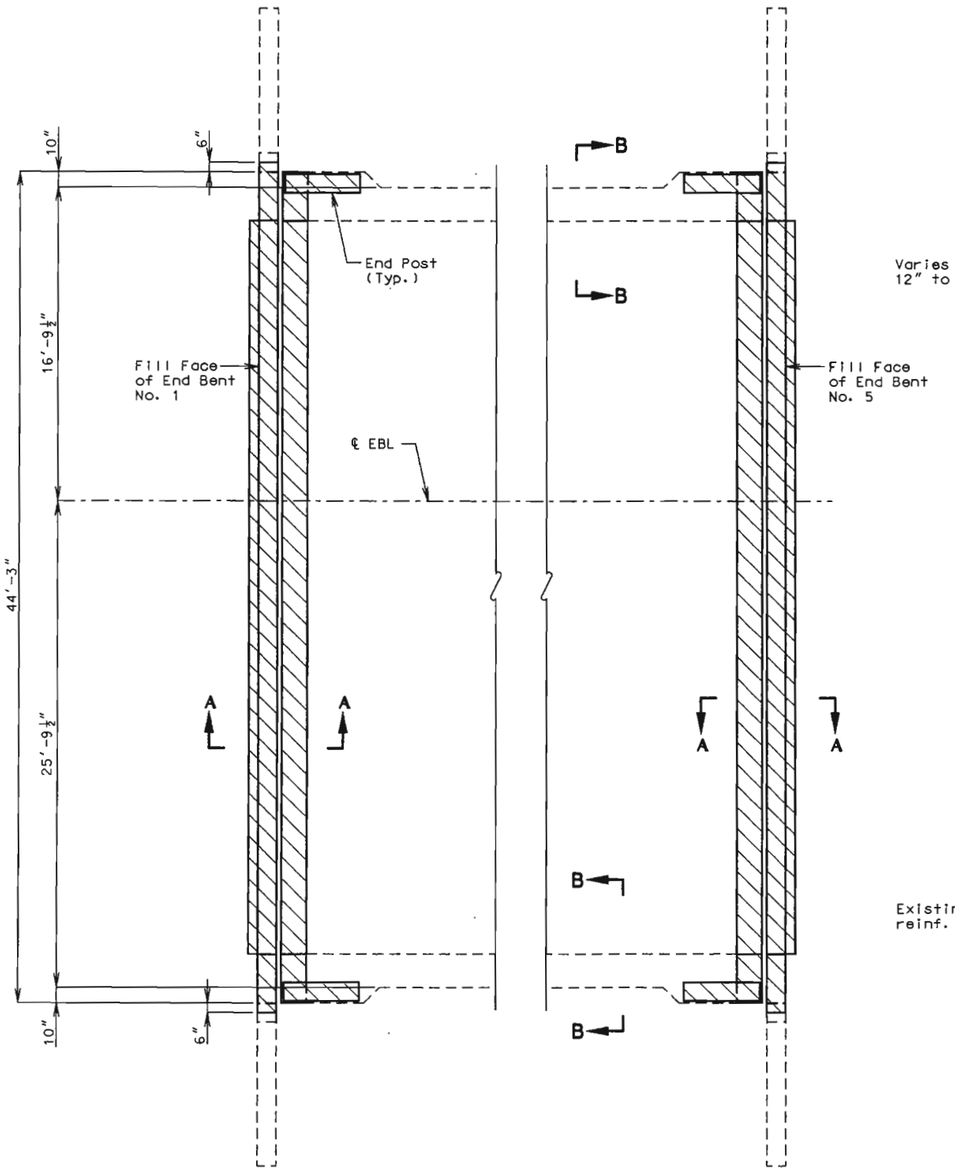
DRAWN BY:	RMH	APR. 2002
TRACED BY:	JTC	APR. 2002
CHECKED BY:	KLW	APR. 2002

STD.609.00
STD.706.35
A06301

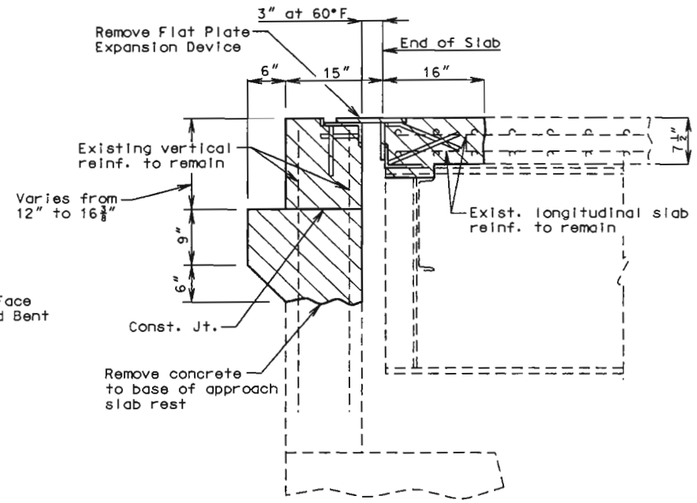
Date: 8-27-02

2001-059--STR--A630--DGN--EASTBOUND--630EB_NOTES.DGN

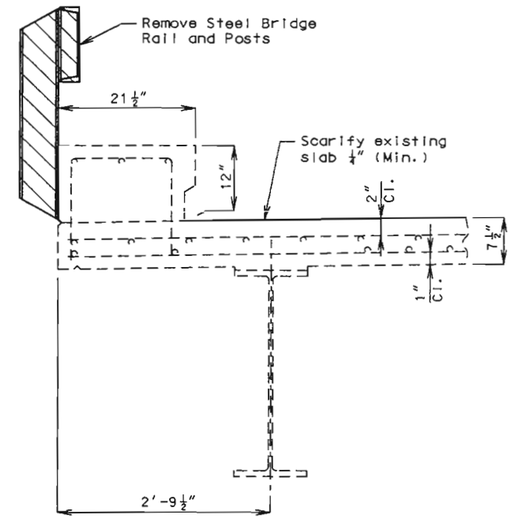
State	Proj. No.	Sheet No.
MO		B53



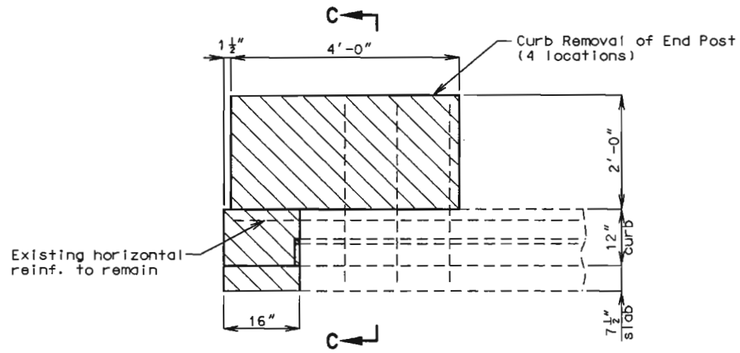
PLAN



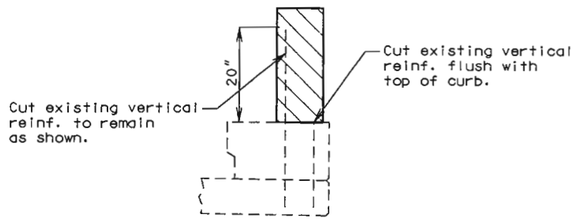
SECTION A-A



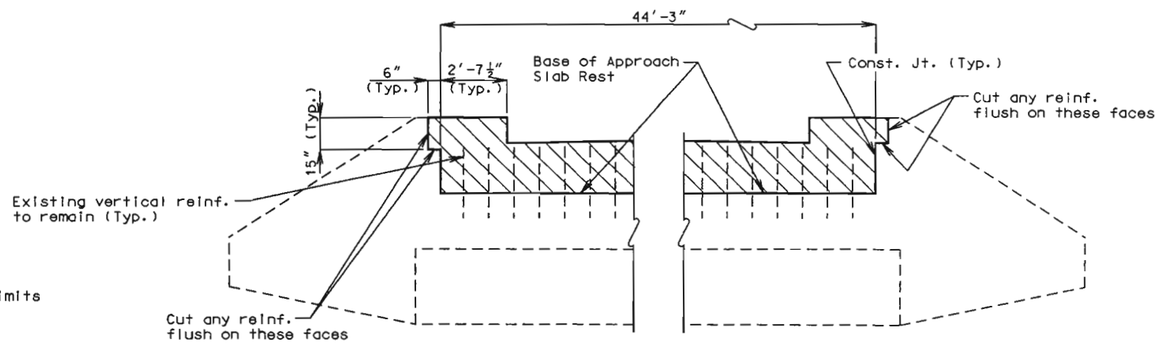
SECTION B-B



END POST ELEVATION



SECTION C-C



END BENT ELEVATION

Notes:

Sawcut or chip vertically first ½" of all slab removal edges (top and bottom).

Removal of end posts is included with Curb Removal (Bridges).

Removal of ends of slab and top of end bent backwalls is included with Replacement of Expansion Device and Adjacent Concrete. (See Special Provisions)

Removal Limits

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	MAH	MAR 2002
TRACED BY:	MAH	MAR 2002
CHECKED BY:	KLW	APR 2002

Note: This drawing is not to scale. Follow dimensions.

REMOVAL DETAILS

JASPER COUNTY

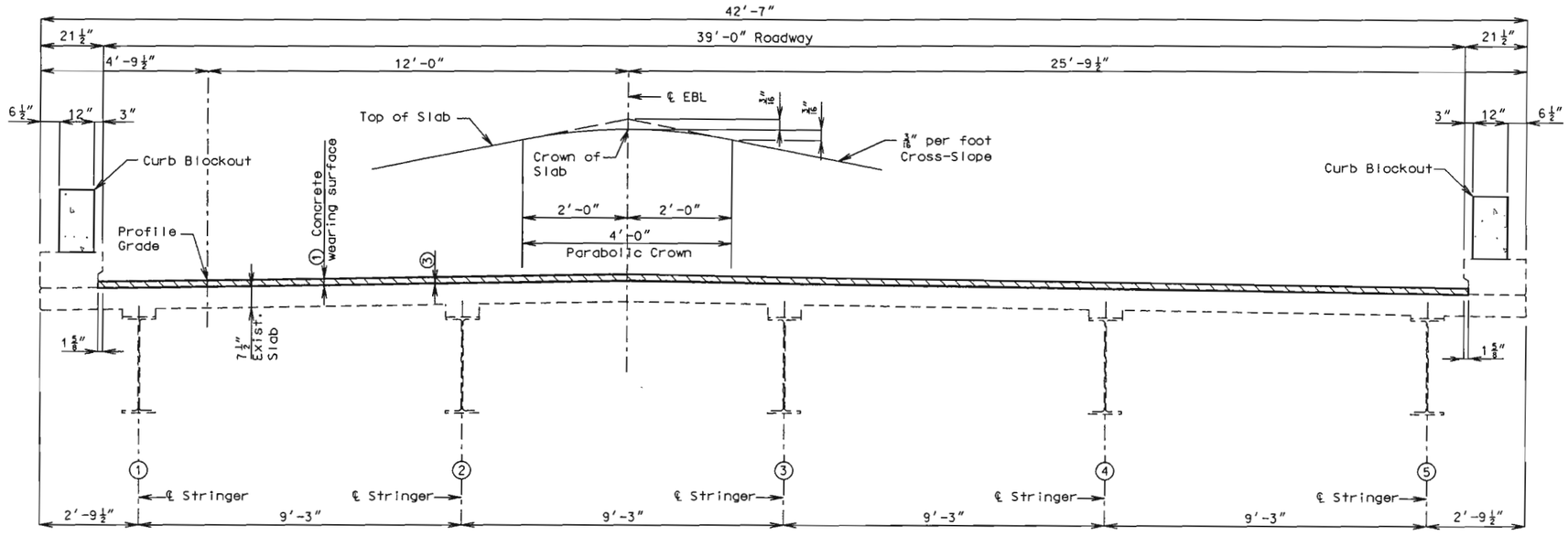
A06301

STATE OF MISSOURI KEVIN L. WILLIS NUMBER E-25019 REGISTERED PROFESSIONAL ENGINEER

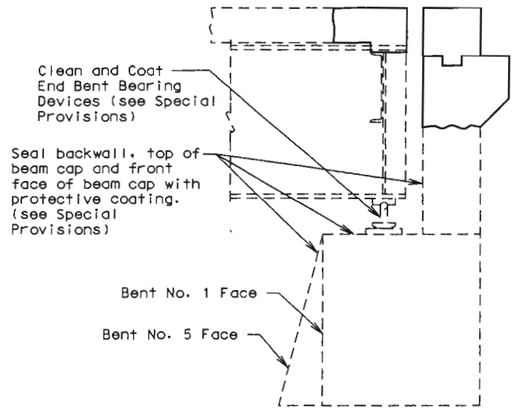
8-23-2002

2001-059--ST-30--DGN--EASTBOUND--630EB_REMOVAL.DGN

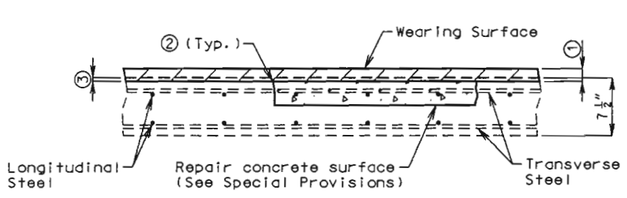
State	Proj. No.	Sheet No.
MO		B 54



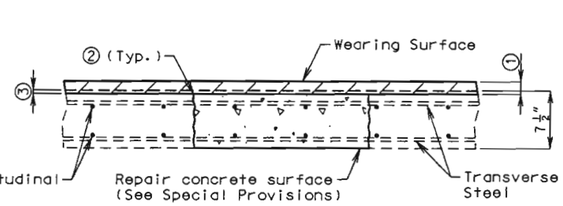
TYPICAL SECTION



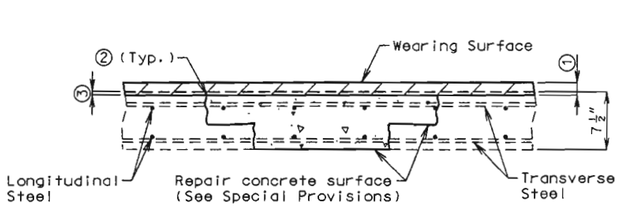
TYPICAL END BENT REPAIR



HALF-SOLED AREA



FULL DEPTH REPAIR

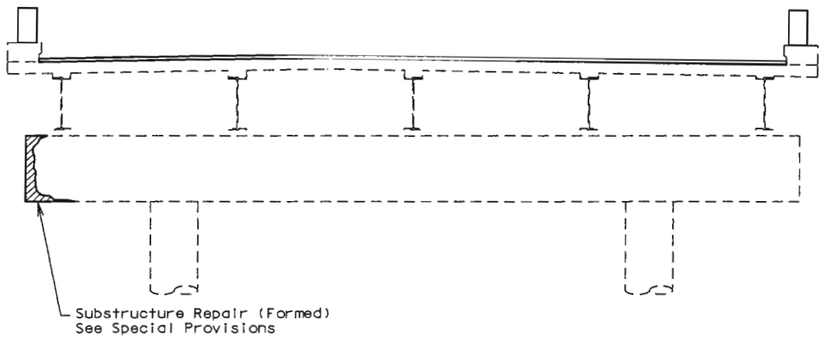


FULL DEPTH REPAIR IN HALF-SOLED AREA

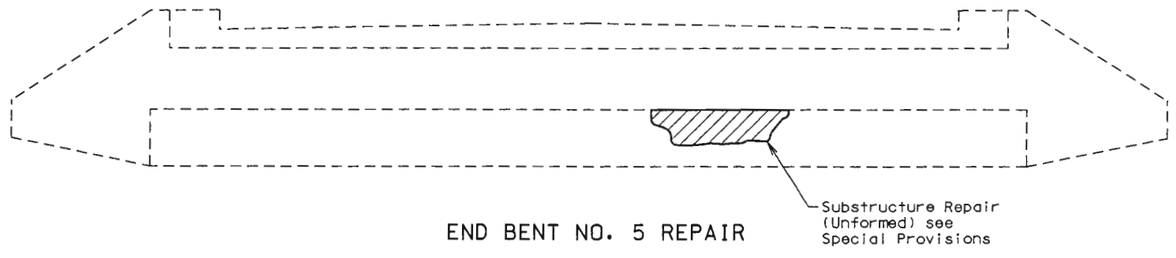
① 2-1/4" (min.) Low Slump Concrete

② Saw cut or chip vertically first ½" of all deck repair (Hydroblasting allowed by Special Provisions)

③ Scarify existing slab (1/4" min.)



INTERMEDIATE BENT CAP REPAIR
(Typical at Bent 2, 3 and 4)



END BENT NO. 5 REPAIR

STATE OF MISSOURI
KEITH L. KETCHUM
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-02

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	MAH	APR. 2002
TRACED BY:	MAH/TOK	APR. 2002
CHECKED BY:	KLW	APR. 2002

Note: This drawing is not to scale. Follow dimensions.

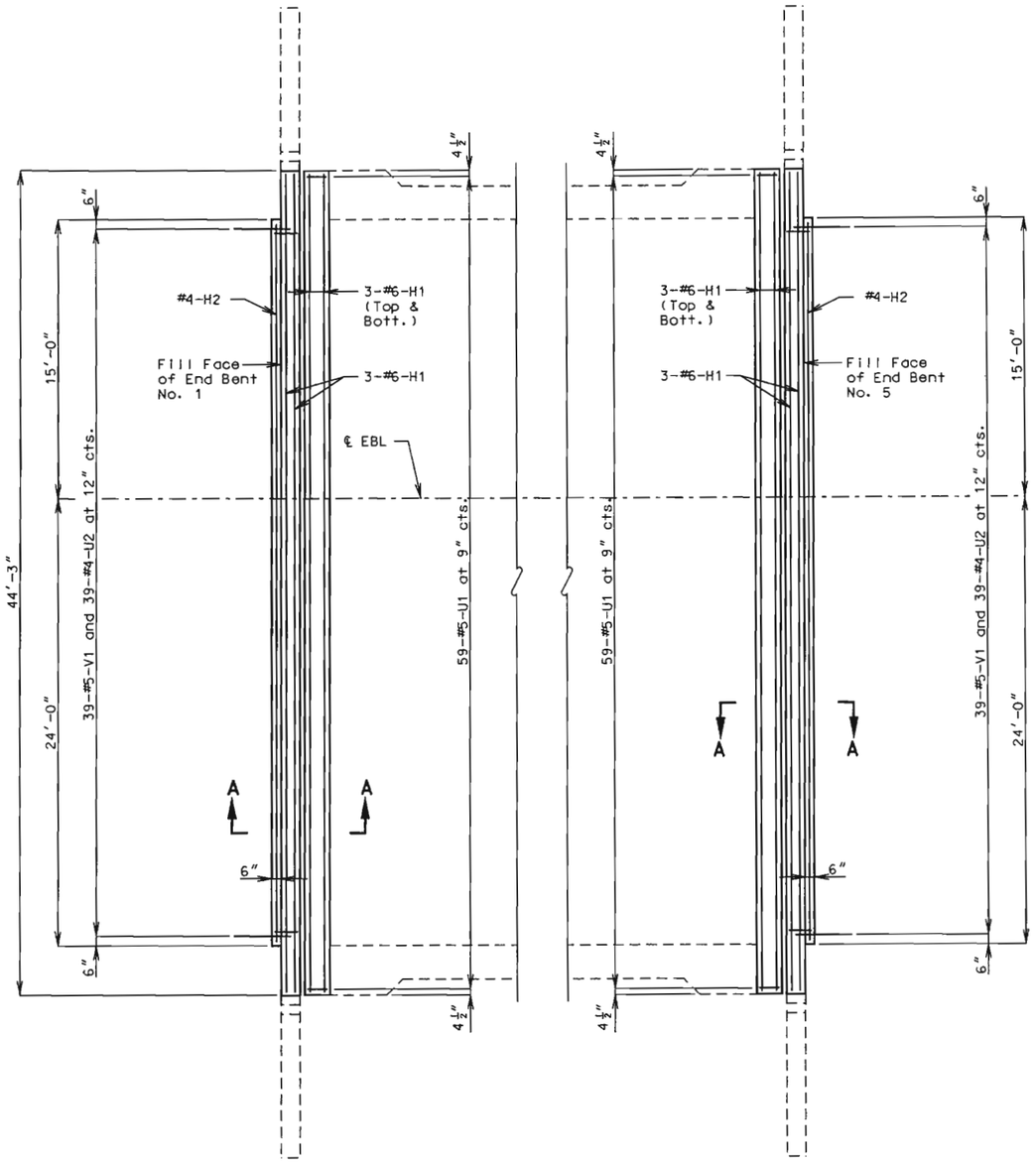
SLAB CROSS SECTION AND REPAIR DETAILS

JASPER COUNTY

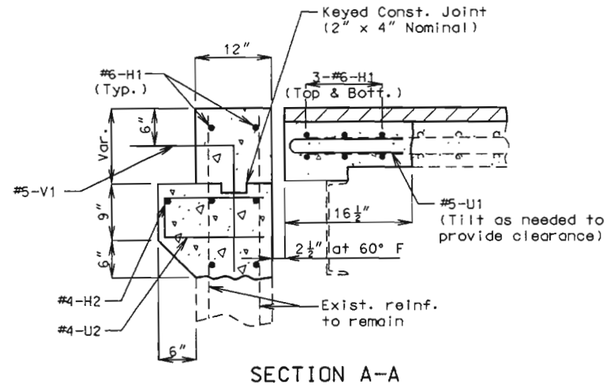
A06301

2001-059--STR--A630--DGN--EASTBOUND--630EB_SLABSEC.DGN

State	Proj. No.	Sheet No.
MO		B 55



PLAN



SECTION A-A

Note:
For details and notes for strip seal expansion device, see Sheet No. 5.

STATE OF MISSOURI
KEITH LAWRENCE
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	KLW	JUNE 2002
TRACED BY:	JTC	JUNE 2002
CHECKED BY:	DJS	JUNE 2002

Note: This drawing is not to scale. Follow dimensions.

CONCRETE REPLACEMENT AT EXPANSION DEVICES

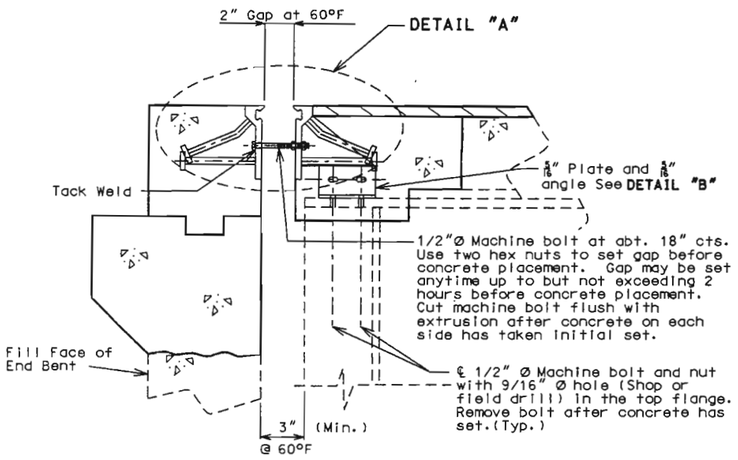
Sheet No. 4 of 8

JASPER COUNTY

A06301

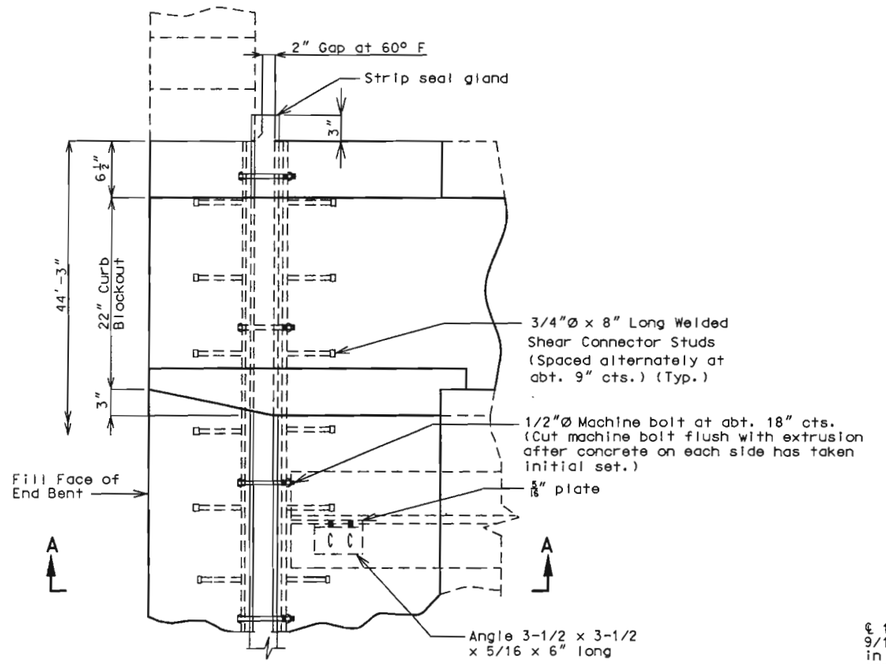
2001-059--5 630--DGN--EASTBOUND--630EB_CONCREPLACE.DGN

State	Proj. No.	Sheet No.
MO		B 56

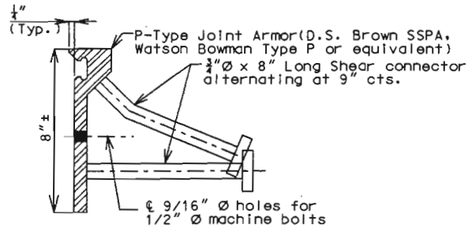


Note: Strip seal gland not shown for clarity.

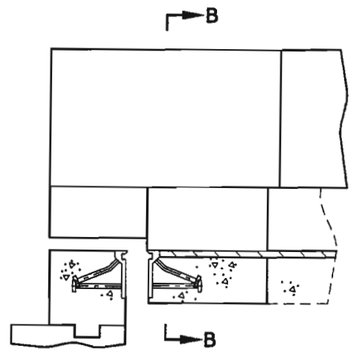
SECTION A-A



PART PLAN

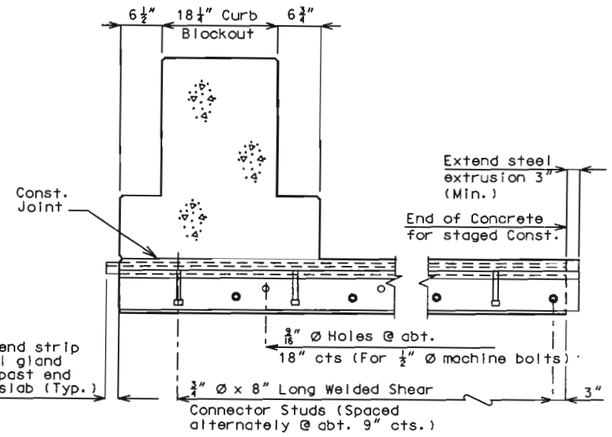


DETAIL OF JOINT ARMOR

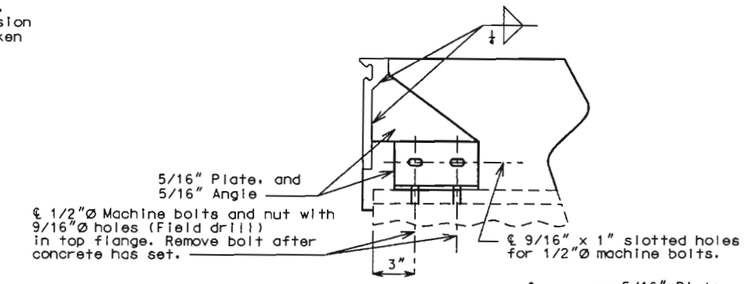


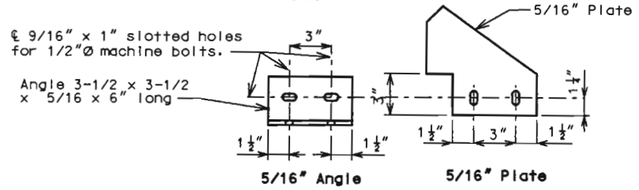
Note: Strip seal gland not shown for clarity.

PART ELEVATION OF BARRIER CURB

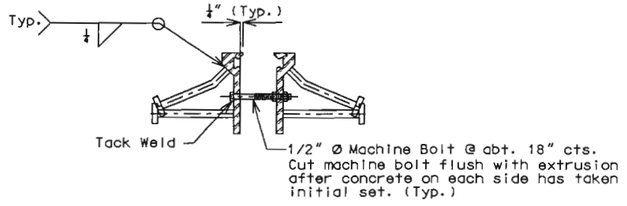


PART SECTION B-B

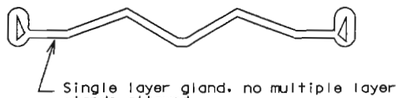




DETAIL "B"



DETAIL "A"



Strip seal gland size = 3"

DETAIL OF GLAND

GENERAL NOTES:

The expansion device shall be fabricated and installed in accordance with the recommendations of the manufacturer, and as set forth in the Special Provisions.

The contractor must verify all dimensions prior to fabrication.

All welds shall conform to Section 712 of the Missouri Standard Specifications.

Splices of steel extrusion shall develop full strength.

All steel shall be ASTM A709 Grade 36, except steel extrusions shall be ASTM A709 Grade 50W or Grade 36.

Neoprene Strip Seal shall meet ASTM D-2628.

Anchors for the extrusions or armor shall be approved welded studs (C1010 thru C1020).

Structural steel for the expansion device shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum) or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

Payment for furnishing, coating or galvanizing and placing steel extrusions, miscellaneous structural steel, and neoprene strip seal shall be made under the contract unit price for Strip Seal Expansion Device.

Plan dimensions are based on installation at 60°F. The gap shall be increased 1/16" for each 10° fall in temperature and decreased 1/16" for each 10° rise in temperature from the installation temperature.

#5-U1 Bars shall be placed so that the end shall not be more than 1"± from vertical leg of extrusion at Expansion Device.

Concrete shall be forced under and around strip seal extrusions and studs. Proper consolidation of the concrete shall be achieved by localized internal vibration.

Top of backwall and expansion device at end bents shall conform to the Crown of Roadway slab.

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2690

DRAWN BY:	DJS/MAH	APR 2002
TRACED BY:	TWM/MAH	APR 2002
CHECKED BY:	KLW	APR 2002

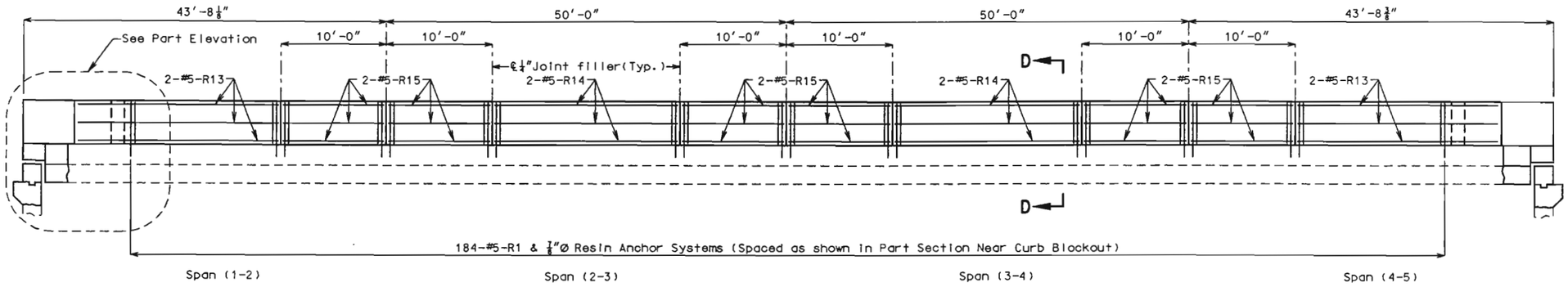
Note: This drawing is not to scale. Follow dimensions.

STRIP SEAL AT END BENTS

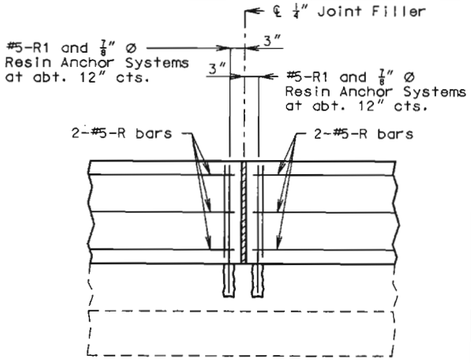


2001-059--STR--A630--DGN--EASTBOUND--630EB_STRIPSEAL.DGN

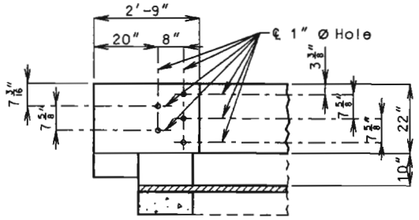
State	Proj. No.	Sheet No.
MO		B57



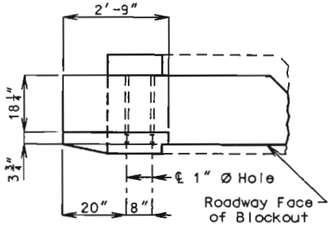
SECTION NEAR CURB BLOCKOUT



PART SECTION NEAR CURB BLOCKOUT

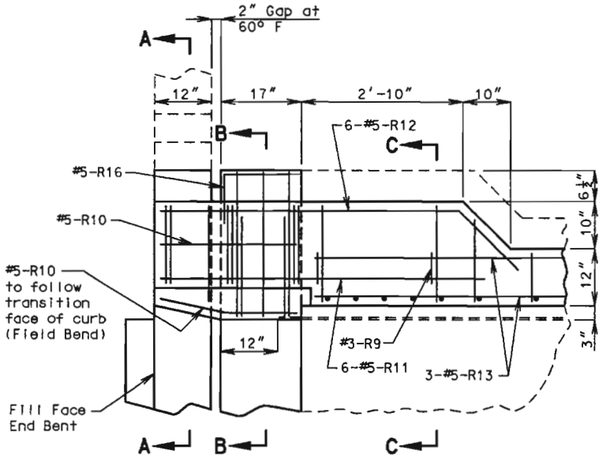


ELEVATION

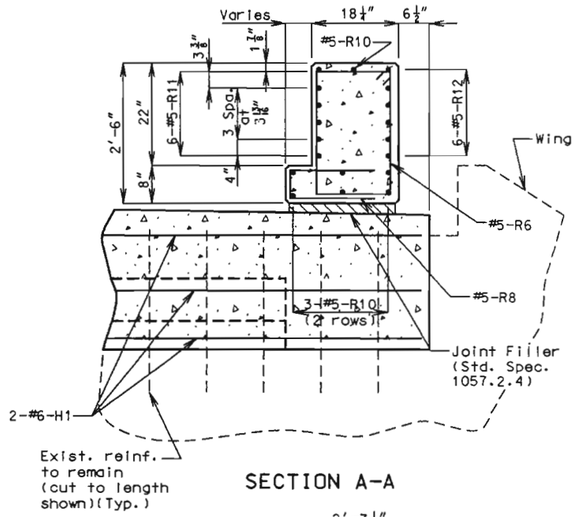


PLAN

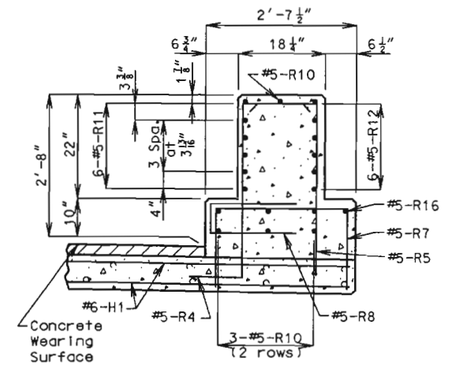
DETAILS OF GUARD RAIL ATTACHMENT



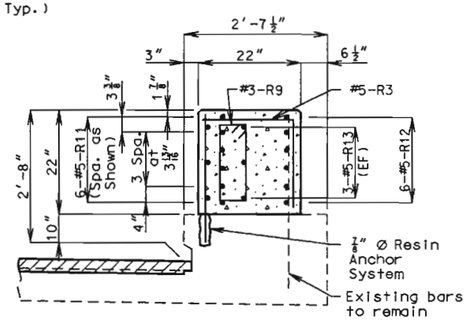
PART PLAN



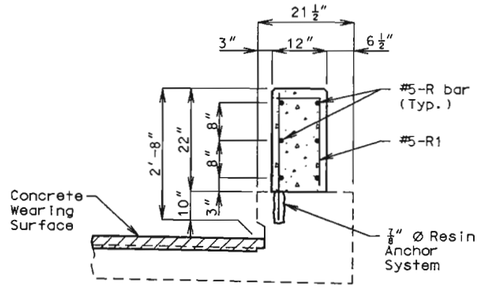
SECTION A-A



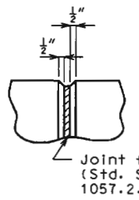
SECTION B-B



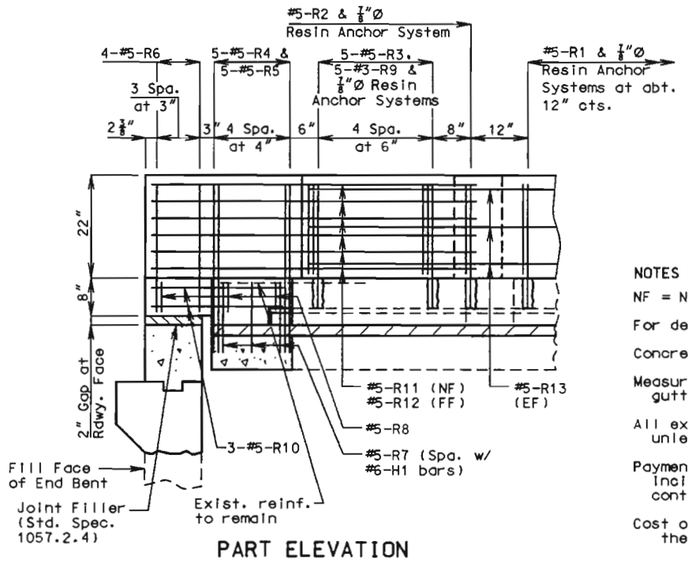
SECTION C-C



SECTION D-D



FILLED JOINT DETAIL



PART ELEVATION

NOTES FOR CURB BLOCKOUT:

NF = Near Face, FF = Far Face, EF = Each Face.

For details of strip seal expansion device, see Sheet No. 5.

Concrete in curb blockout shall be Class B1.

Measurement of curb blockout is to the nearest linear foot measured at the gutter line from end of curb blockout to end of curb blockout.

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Payment for concrete, reinforcing steel, resin anchors and any other work incidental to the curb blockout complete in place shall be included in the contract unit price for the Curb Blockout per linear foot.

Cost of any concrete curb repair shall be considered completely covered in the unit price bid for Curb Blockout.

STATE OF MISSOURI — KEITH WILLIS — NUMBER E-25019 — REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 NAPO PARKWAY, KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	MAH	APR 2002
TRACED BY:	MAH/TOK	APR 2002
CHECKED BY:	KLW	APR 2002

Note: This drawing is not to scale. Follow dimensions.

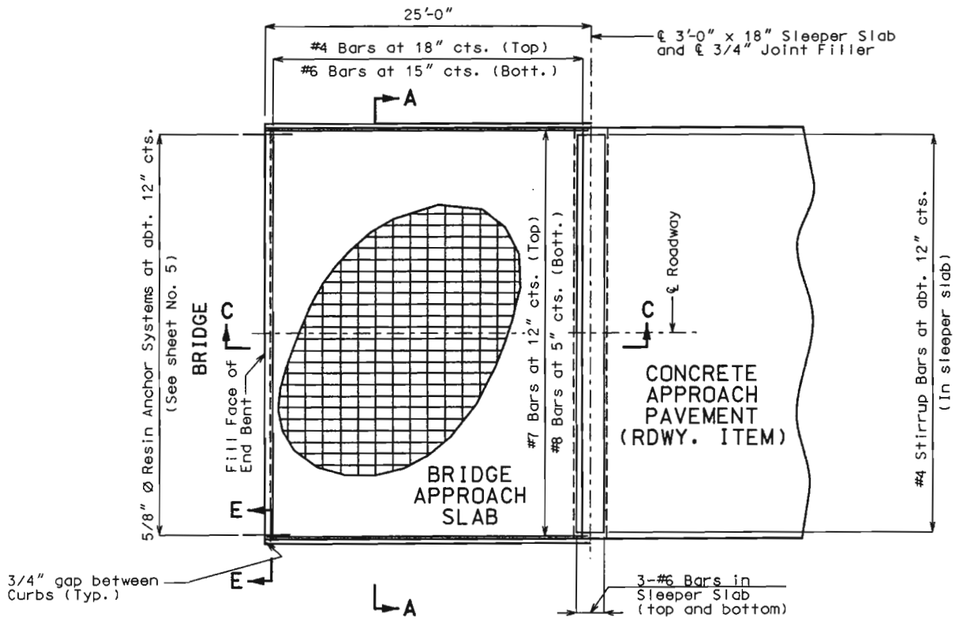
CURB BLOCKOUT DETAILS

Sheet No. 6 of 8

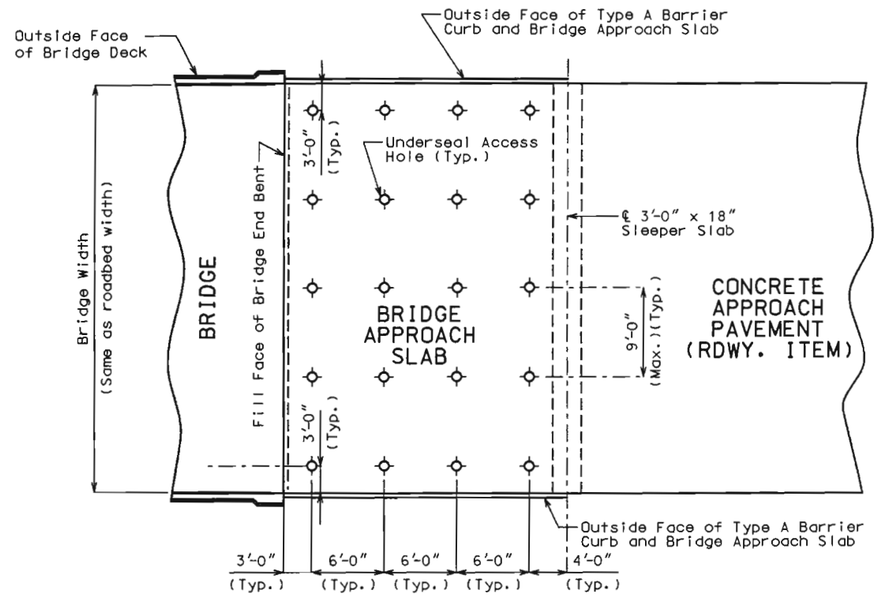
JASPER COUNTY | A06301

2001-059--STR--DGN--EASTBOUND--630EB_BLOCKOUT.DGN

State	Proj. No.	Sheet No.
MO		B58



PART PLAN SHOWING REINFORCEMENT



PART PLAN
(SHOWING TYPICAL UNDERSEAL ACCESS HOLE LOCATIONS)

GENERAL NOTES:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Section 503 (f'c = 4,000 psi) of the Missouri Standard Specifications.

All joint filler shall meet the requirements of Section 1057.2.5 of the Missouri Standard Specifications, except as noted.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with Fy = 60,000 psi.

Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by lap splicing the #4 & #6 bars 18" and 26" respectively.

Mechanical bar splices will be permitted and shall develop at least 125 percent of the specified yield strength of the reinforcing bars being spliced. The contractor shall furnish the Engineer the manufacturer's certification that this requirement is met and is required to follow the manufacturer's recommendation for installation.

Mechanical bar splices shall be epoxy coated in accordance with Section 710 of the Missouri Standard Specifications.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures. Stirrup and Tie Dimensions.

The contractor shall pour and satisfactorily finish the bridge slab before pouring the bridge approach slabs.

Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge slab overlay.

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base and all other appurtenances and incidental work as shown on this sheet, complete in place, shall be considered as completely covered under the contract unit price for Bridge Approach Slab (Bridge), per sq. yd.

For Concrete Approach Pavement details, see roadway plans.

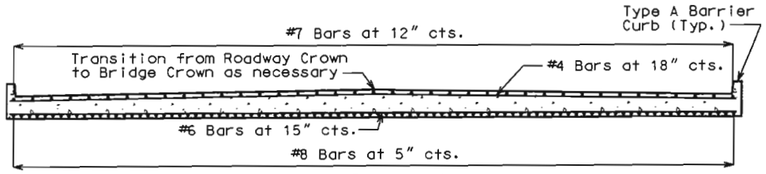
See Missouri Standard Plans Drawing 609.00 for details of Type A Barrier Curb.

When a lap splice is required for the use of a mechanical bar splice, the minimum lap length shall be 40" for transverse approach slab bar splices.

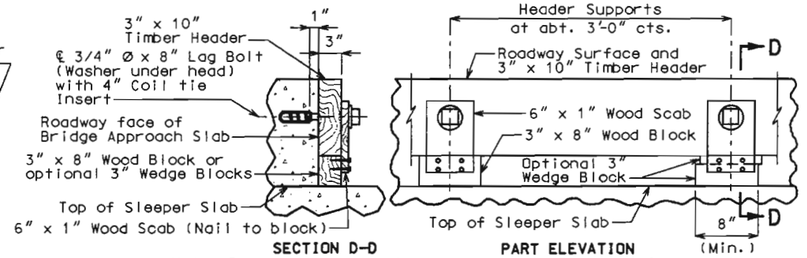
At the contractor's option, Grade 40 reinforcement may be substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment. No additional payment will be made for this substitution.

When Grade 40 reinforcement is substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment, the reinforcement may be bent up to 90 degrees with a 2" minimum radius near the abutment to allow compaction of the backfill material near the abutment. Damage to epoxy coating shall be repaired according to Section 710.3.3 of the Missouri Standard Specifications.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

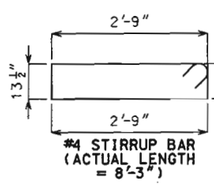


SECTION A-A

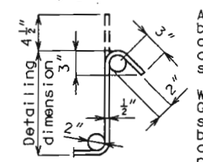


Note: Remove timber header when concrete pavement is placed.

DETAILS OF TIMBER HEADER

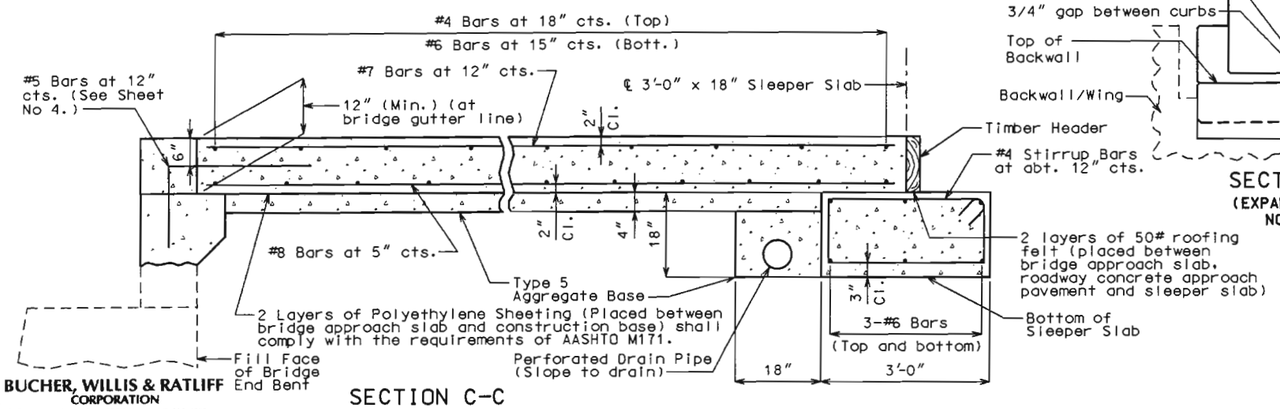


#4 STIRRUP BAR
(ACTUAL LENGTH = 8'-3")

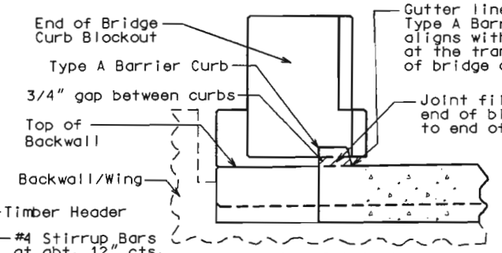


TYPICAL 135° STIRRUP HOOK DIMENSIONS BENDING DIAGRAM

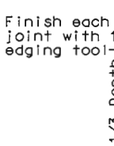
Note:
Nominal lengths are based on out to out dimensions shown in bending diagram and are listed for fabricators use (nearest inch).



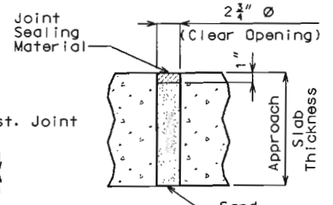
SECTION C-C



SECTION E-E
(EXPANSION DEVICE NOT SHOWN)



CONST. JOINT DETAIL
(IF REQUIRED)



TYPICAL UNDERSEAL ACCESS HOLE DETAIL

STATE OF MISSOURI
KEITH L. WILLIS
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7911 Euro Parkway Kansas City, Missouri 64141 816-363-2696

DRAWN BY:	DJS	NOV. 2001
TRACED BY:	TOK	NOV. 2001
CHECKED BY:	KLW	APR. 2002

Note: This drawing is not to scale. Follow dimensions.

BRIDGE APPROACH SLAB

JASPER COUNTY | A06301

2001-059--STR--A630--DGN--EASTBOUND--630EB_APPRSLAB.DGN

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.
Superstructure																			
26	6	H1	Slab & Backwall	E	20					44 0.000							44 0	44 0	1718
2	4	H2	Appr. Haunch	E	20					38 9.000							38 9	38 9	52
118	5	U1	Slab	E	7					15.000	3.750						2 7	2 7	318
78	4	U2	Appr. Haunch	E	10						15.000	6.000					3 0	2 10	147
78	5	V1	Backwall	E	19					20.000	2 0.000						3 8	3 7	291
368	5	R1	Curb Blockout	E	19	S				20.000	9.000						2 5	2 4	894
4	5	R2	Curb Blockout	E	19	S				19.000	15.000						2 10	2 9	11
20	5	R3	Curb Blockout	E	19	S				19.000	19.000						3 2	3 1	64
20	5	R4	Curb Blockout	E	10	S				15.000	3 0.000	12.000					5 3	5 1	106
20	5	R5	Curb Blockout	E	19	S				3 0.000	15.000						4 3	4 2	87
16	5	R6	Curb Blockout	E	13	S				15.000	2 2.000	15.000	2 2.000				7 9	7 5	124
12	5	R7	Curb Blockout	E	10	S					17.000	2 4.000					5 2	5 0	63
12	5	R8	Curb Blockout	E	10	S					19.000	5.000					3 7	3 4	42
22	3	R9	Curb Blockout	E	13	S				6.000	18.000	6.000	18.000				4 8	4 6	37
28	5	R10	Curb Blockout	E	20					2 4.000							2 4	2 4	68
24	5	R11	Curb Blockout	E	20					6 0.000							6 0	6 0	150
24	5	R12	Curb Blockout	E	15					23.000	5 2.000				16.250	16.250	7 1	7 0	175
24	5	R13	Curb Blockout	E	20					30 8.000							30 8	30 8	768
26	5	R14	Curb Blockout	E	20					29 9.000							29 9	29 9	807
72	5	R15	Curb Blockout	E	20					9 9.000							9 9	9 9	732
4	5	R16	Curb Blockout	E	10						15.000	12.000					2 3	2 2	9
Totals																			
	3			E															37
	4			E															199
	5			E															4709
	6			E															1718
Reinforcing Steel (Epoxy Coated)																			
	4			E															208
	5			E															609
	6			E															1835
Curb Blockout																			
	3			E															37
	5			E															4100

Two additional H1, R9 and R14 are included in bar bill for testing.

BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B FT. IN.	C FT. IN.	D FT. IN.	E FT. IN.	F FT. IN.	H FT. IN.	K FT. IN.	NOMINAL LENGTH FT. IN.	ACTUAL LENGTH FT. IN.	WEIGHT LBS.

State	Proj. No.	Sheet No.
MO		B 59

SHAPE 6 SHAPE 7 SHAPE 8

SHAPE 9 SHAPE 10 SHAPE 11

SHAPE 12 SHAPE 13 SHAPE 14

SHAPE 15 SHAPE 16

SHAPE 19 SHAPE 20

SHAPE 21 SHAPE 22

SHAPE 23 SHAPE 24

6d FOR #4 AND #5,
12d FOR #6

90° STIRRUP 135° STIRRUP

STIRRUP HOOK DIMENSIONS
GRADES 40-50-60 KSI

BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#3	1 1/2"	4"	4"	2 1/2"
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS DTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

DETAILING DIMENSION — HOOK A or G — 4d or 2-1/2" MIN. — 180°

DETAILING DIMENSION — 90°

END HOOK DIMENSIONS

BAR SIZE	ALL GRADES D (IN.)	180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

Note: This drawing is not to scale. Follow dimensions.

Notes:

All standard hooks and bends other than 180 degree are to be bent with same procedure as for 90 degree standard hooks. Hooks and bends shall be in accordance with the procedures as shown on this sheet. Unless otherwise noted, diameter "D" is the same for all bends and hooks on a bar.
E = Epoxy coated reinforcement
S = Stirrup
X = Bar is included in substructure quantities
V = Bar dimensions vary in equal increments between dimensions shown on this line and the following line.
No. ea. = Number of bars of each length.
Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed for fabricator's use. (Nearest inch)
Actual lengths are measured along centerline bar to the nearest inch.
Payweights are based on actual lengths.
Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.
Reinforcing steel (Grade 60) fy = 60.000 psi.

SHAPE 25 SHAPE 26 SHAPE 27 SHAPE 28

SHAPE 29 SHAPE 30

SHAPE 31 SHAPE 32 SHAPE 33 SHAPE 34

BENDING DIAGRAMS

SHAPE 35
(SHAPE 35 SHALL BE A SMOOTH BAR OR WIRE.)

SHAPE 36

SPOT WELD
AASHTO M32
SIZE W5
WIRE (TYP.)
3" PITCH
1½ TURNS

STATE OF MISSOURI
KEITH KLAWITTER
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7223 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	MAH	APR 2002
TRACED BY:	TOK	APR 2002
CHECKED BY:	KLW	APR 2002

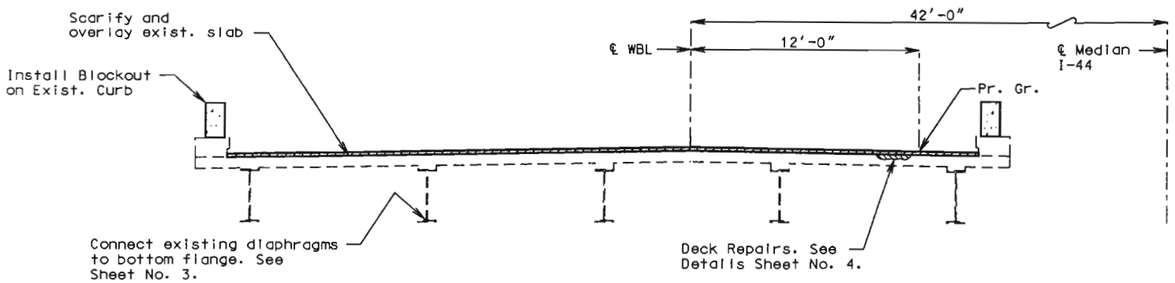
REINFORCING SCHEDULE

Sheet No. 8 of 8

JASPER COUNTY A06301

2001-059--S--30--DGN--EASTBOUND--630EB_BOR.DGN

State	Proj. No.	Sheet No.
MO		B60
SEC/SUR 9,10	TWP 27N	RGE 31W



SECTION THRU SLAB

Estimated Quantities

Item		Total
Removal and Storage of Existing Bridge Rail	Lin. Ft.	353
Curb Removal (Bridges)	Lin. Ft.	16
Replacement of Expansion Device and Adjacent Concrete	Lin. Ft.	89
Bridge Approach Slab (Bridge)	Sq. Yd.	225
Substructure Repair (Formed)	Sq. Ft.	160
Protective Coating for Concrete Bents and Concrete Piers under Expansion Devices	Lump Sum	1
Curb Blockout	Lin. Ft.	375
Repairing Concrete Deck (Half-Soling)	Sq. Ft.	100
Full Depth Repair	Sq. Ft.	50
Low Slump Concrete Wearing Surface	Sq. Yd.	807
Strip Seal Expansion Device	Lin. Ft.	89
Reinforcing Steel (Epoxy Coated)	Lb.	2530
Cleaning and Coating Existing Bearings	Each	10
Transporting Residue to Storage Area	Lump Sum	1
Transporting Residue to the Smelter	Lump Sum	1
Disposal of Residue	Lump Sum	1

Cost of any required excavation for bridge shall be included in the contract unit price for other items.

All concrete above the upper construction joint in backwall and at the slab ends shall be Class B2.

The contract unit price for Curb Blockout shall include all concrete and reinforcement, complete in place.

General Notes:

Design Specifications:
AASHTO-1996 and Interims thru 2000

Design Unit Stresses:

Class B1 Concrete (Curb Blockout)	f'c = 4,000 psi
Class B2 Concrete (Slab and Top of Backwall)	f'c = 4,000 psi
Reinforcing Steel (Grade 60)	fy = 60,000 psi

Fabricated Steel Connections:
Field connections shall be made with 3/4" diameter high strength bolts and 13/16" diameter holes, except as noted.

High strength bolts, nuts and washers will be sampled for quality assurance as specified in Standard Specification 106 and Field Section (FS-712) from Materials Manual.

Joint Filler:
All joint filler shall meet the requirements of Section 1057.2.4 of the Missouri Standard Specifications, except as noted.

Reinforcing Steel:
Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

Bars bonded in old concrete not removed shall be cleanly stripped and embedded into new concrete where possible. If length is available, old bars shall extend into new concrete at least 40 diameters for smooth bars and 30 diameters for deformed bars, unless otherwise noted.

Old Work:
Outline of old work is indicated by dashed lines. Heavy lines indicate new work.

Maintain Traffic:
See Roadway Plans for traffic control during construction.

Verify Dimensions:
Contractor shall verify all dimensions in field before ordering new material.

Roadway Surfacing:
Roadway surfacing adjacent to bridge ends to match top of concrete wearing surface. (See Roadway Plans)

Existing Bridge Rail:
Salvage and store existing bridge rail at the Missouri Department of Transportation Carthage Maintenance Facility. (See Special Provisions)

Maintain Grade:
In order to maintain grade and a minimum thickness of overlay as shown on the plans it may be necessary to use additional quantities of overlay at various locations throughout the structure. No payment will be allowed for additional labor, materials or equipment for variations in thickness of overlay.

Anchors:
The Contractor shall use one of the resin anchor systems listed in the job special provisions. These anchor systems shall be installed according to the manufacturer's specifications, except as modified by the job special provisions.

Cost of furnishing and installing the anchor systems complete in place shall be included in the price bid for Curb Blockout.

The 7/8" diameter resin anchor systems shall have a minimum ultimate pullout strength of 27,500 lbs. in concrete with f'c = 4,000 psi, see Special Provisions.

An epoxy coated #7 Grade 60 reinforcing bar 2'-4" long shall be substituted for the 7/8" threaded rod stud.

Miscellaneous:
The area exposed by the removal of concrete and not covered with new concrete shall be coated with an approved bituminous paint below the ground line and a special mortar above ground line.

Traffic Handling:
Bridge will be closed to traffic during repairs.

REPAIRS TO BRIDGE OVER ALTERNATE ROUTE 71 / ROUTE 59

STATE ROAD FROM ROUTE 66 TO ROUTE 37
ABOUT 9 MILES EAST OF ROUTE 71
PROJECT NO. STA. 411+72.62 WBL (Match Exist.)
JOB NO. J7I0690 RTE. I-44 WBL

JASPER COUNTY

STATE OF MISSOURI
KEITH LAWRENCE WILLIAMS
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-27-2002

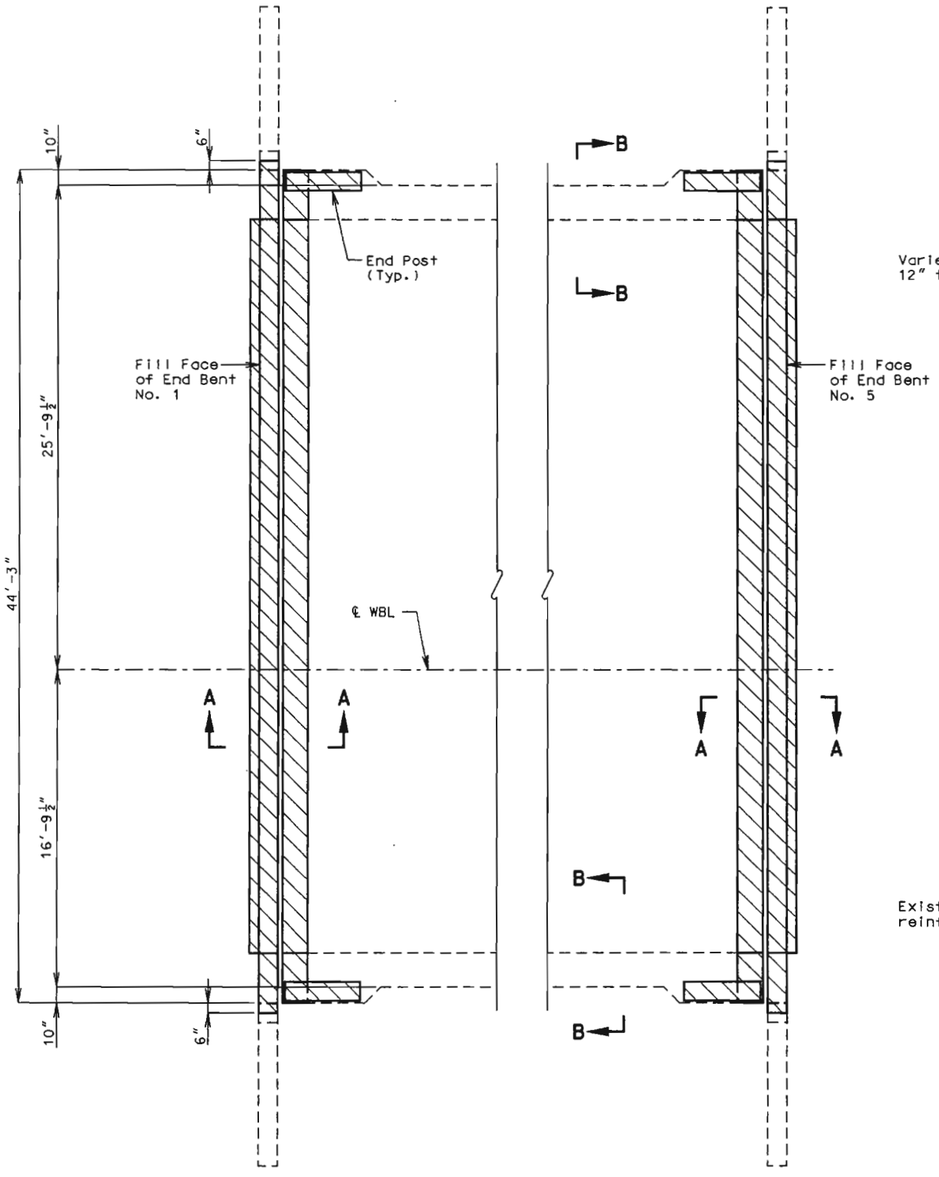
STD.609.00
STD.706.35
A06302

BUCHER, WILLIS & RATLIFF CORPORATION
7920 BEARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

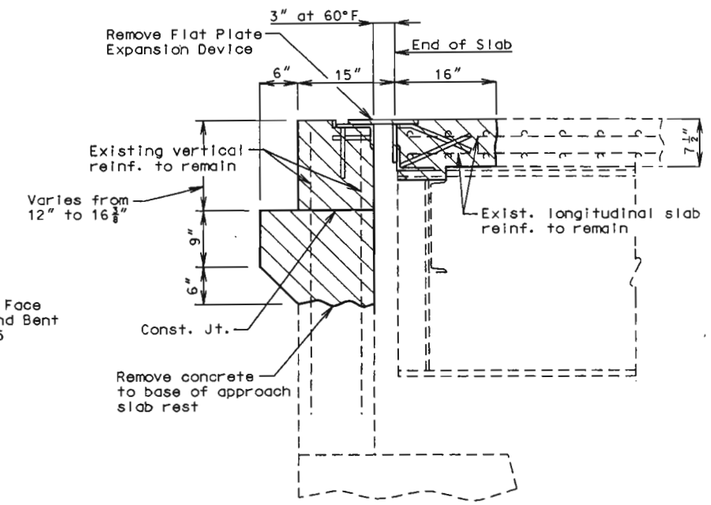
DRAWN BY:	RMH	APR. 2002
TRACED BY:	TWM	APR. 2002
CHECKED BY:	MAH	APR. 2002

2001-059---STR---A630---DGN---WESTBOUND---630WB_NOTES.DGN

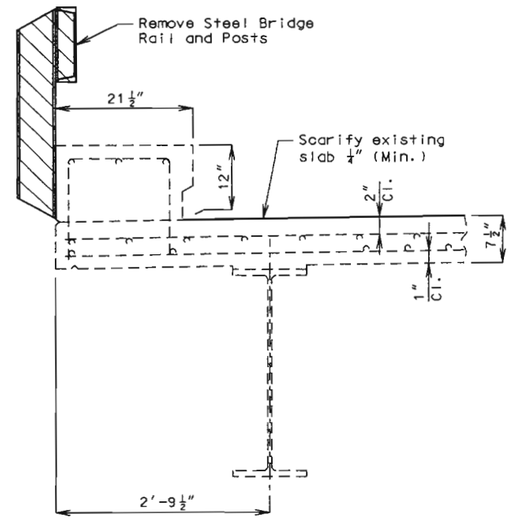
State	Proj. No.	Sheet No.
MO		B61



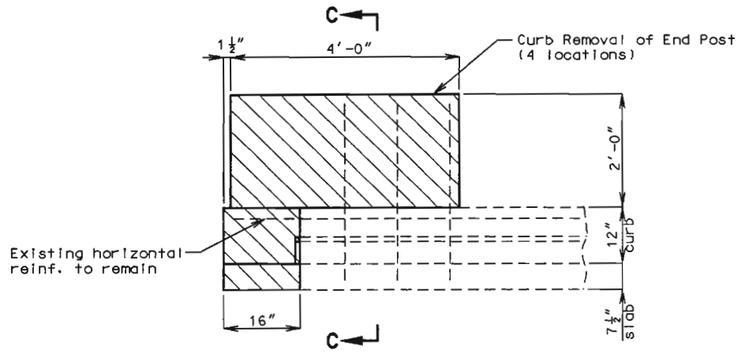
PLAN



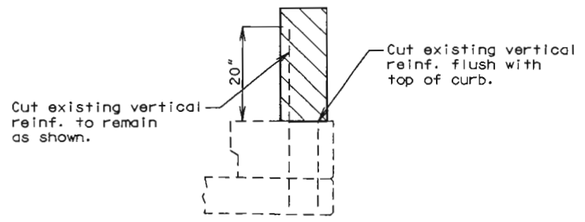
SECTION A-A



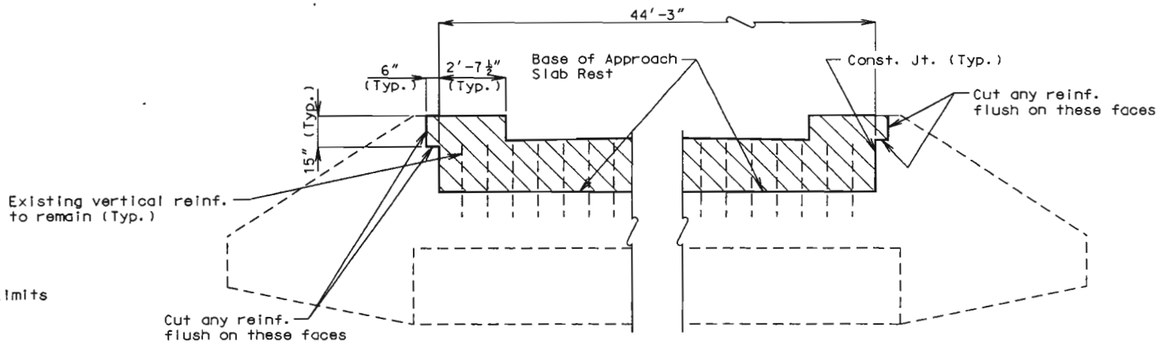
SECTION B-B



END POST ELEVATION



SECTION C-C



END BENT ELEVATION

Notes:

Sawcut or chip vertically first ½" of all slab removal edges (top and bottom).

Removal of end posts is included with Curb Removal (Bridges).

Removal of ends of slab and top of end bent backwalls is included with Replacement of Expansion Device and Adjacent Concrete. (See Special Provisions)

Removal Limits

STATE OF MISSOURI
KEITH LAWRENCE WILLIS
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7820 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2896

DRAWN BY:	RMH	APR 2002
TRACED BY:	TWM	APR 2002
CHECKED BY:	MAH	APR 2002

Note: This drawing is not to scale. Follow dimensions.

REMOVAL DETAILS

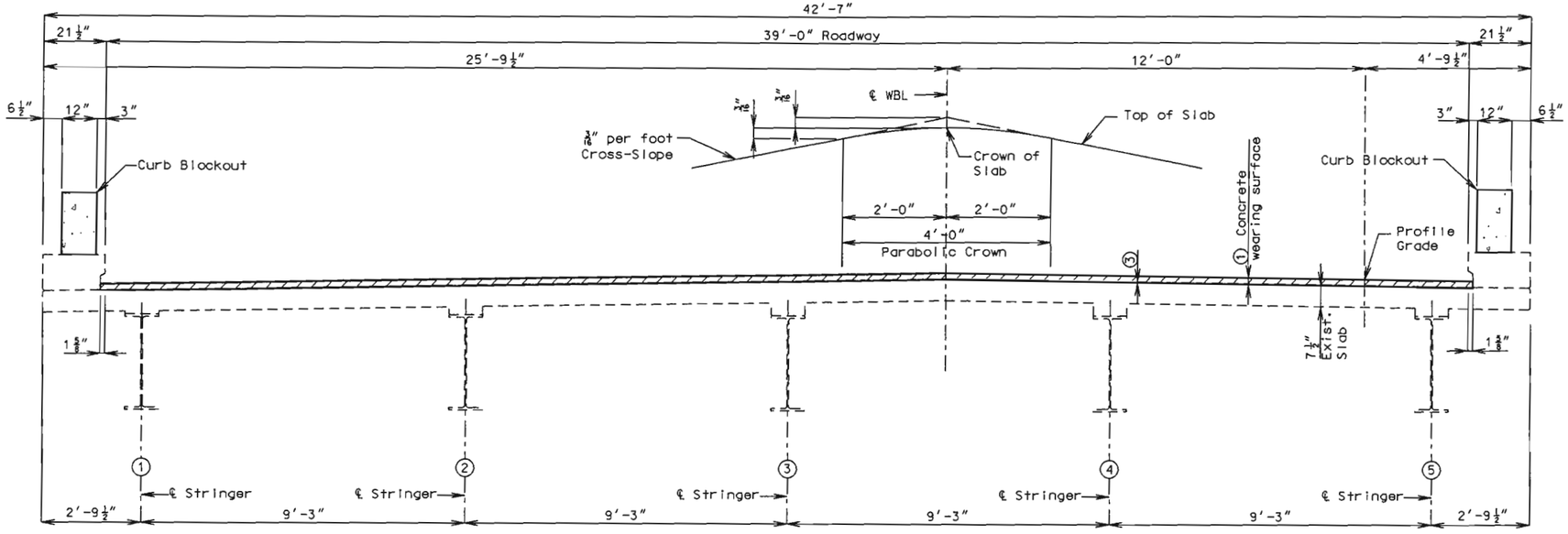
Sheet No. 2 of 8

JASPER COUNTY

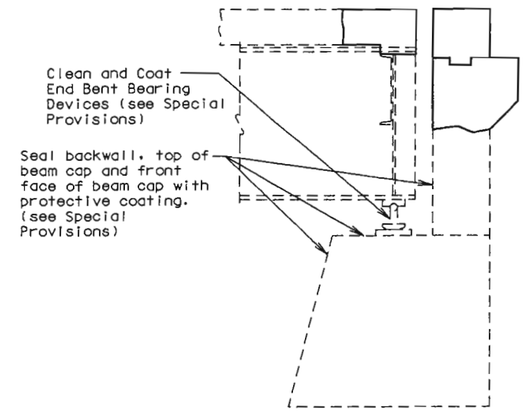
A06302

2001-059--S 30--DGN--WESTBOUND--630WB_REMOVAL.DGN

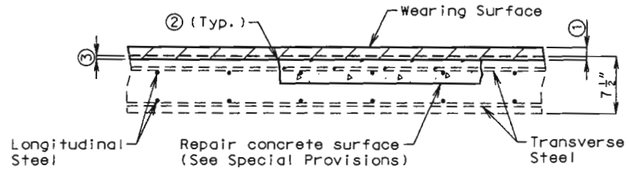
State	Proj. No.	Sheet No.
MO		B62



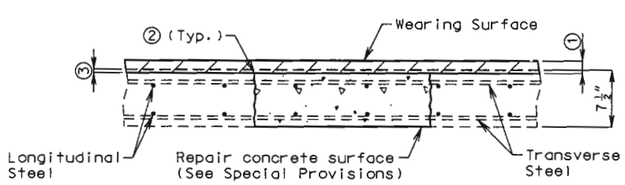
TYPICAL SECTION



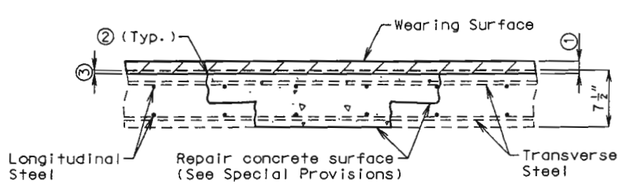
TYPICAL END BENT REPAIR



HALF-SOLED AREA



FULL DEPTH REPAIR

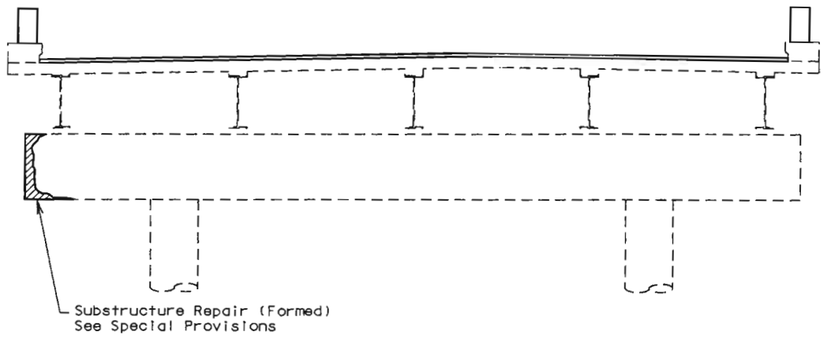


FULL DEPTH REPAIR IN HALF-SOLED AREA

① 2-1/4" (min.) Low Slump Concrete

② Saw cut or chip vertically first ½" of all deck repair (Hydroblasting allowed by Special Provisions)

③ Scarify existing slab (1/4" min.)



INTERMEDIATE BENT CAP REPAIR
(Typical at Bent 2, 3 and 4)

STATE OF MISSOURI
KEITH LAWRENCE RETTER
NUMBER E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2698

DRAWN BY:	RMH	APR. 2002
TRACED BY:	TWM	APR. 2002
CHECKED BY:	MAH	APR. 2002

Note: This drawing is not to scale. Follow dimensions.

SLAB CROSS SECTION AND REPAIR DETAILS

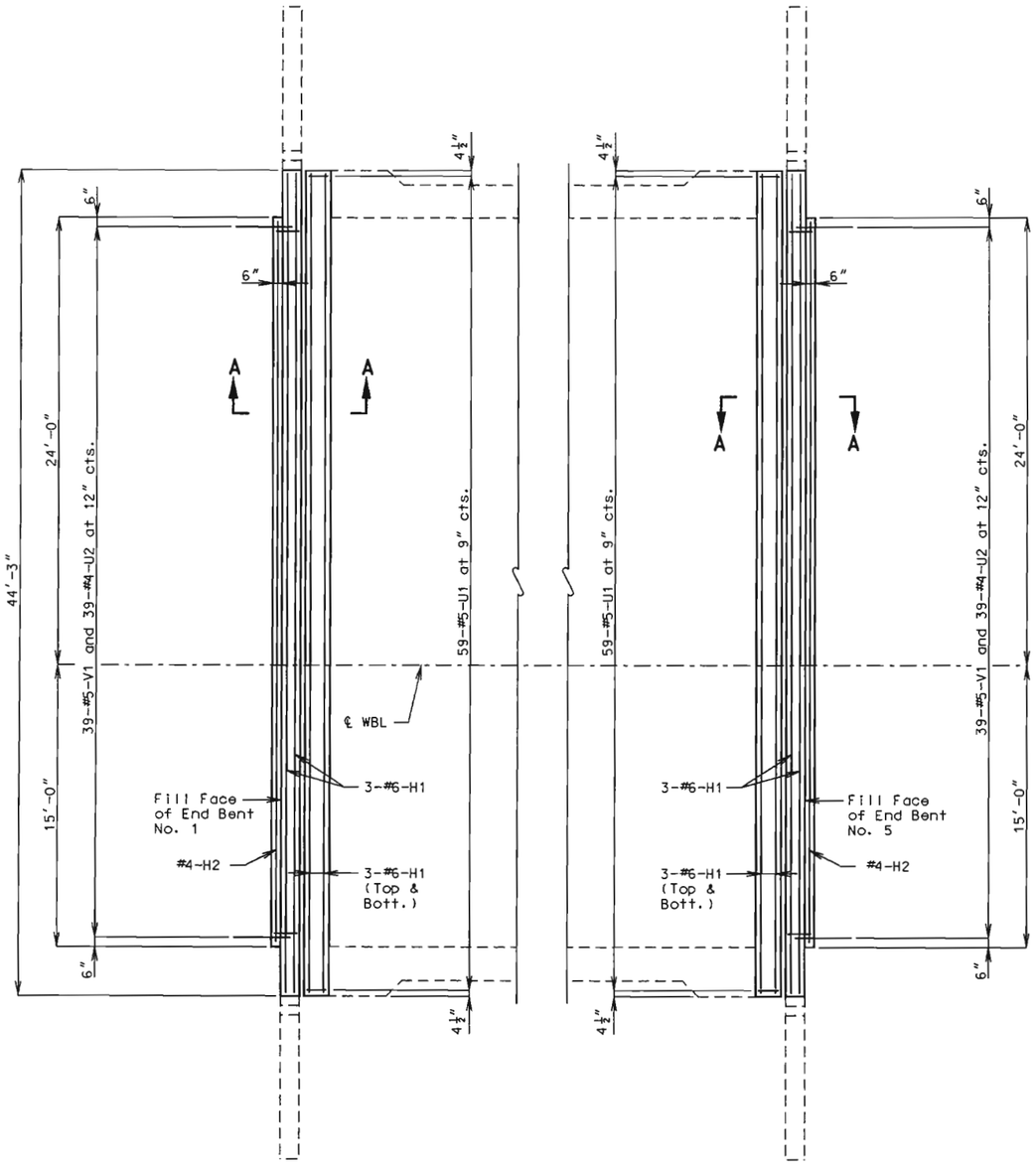
Sheet No. 3 of 8

JASPER COUNTY

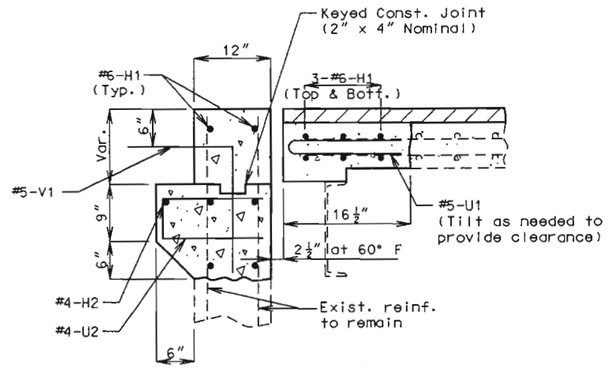
A06302

2001-059--STR--A630--DGN--WESTBOUND--630WB_SLABSEC.DGN

State	Proj. No.	Sheet No.
MO		B63



PLAN



SECTION A-A

Note:
For details and notes for strip seal expansion device, see Sheet No. 5.

STATE OF MISSOURI
KEITH LAWRENCE RUGER
E-25019
REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	KLW	JUNE 2002
TRACED BY:	JTC	JUNE 2002
CHECKED BY:	DJS	JUNE 2002

Note: This drawing is not to scale. Follow dimensions.

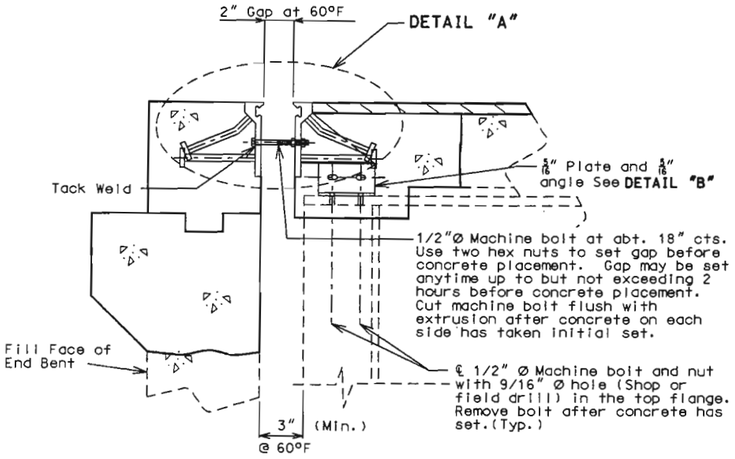
CONCRETE REPLACEMENT AT EXPANSION DEVICES

JASPER COUNTY

A06302

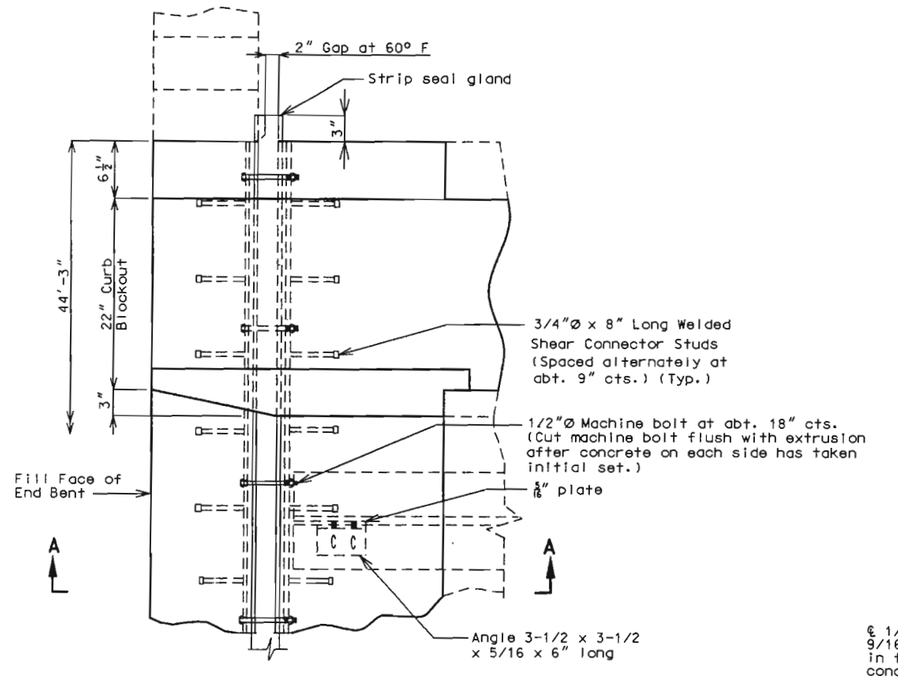
2001-059---S1030---DGN---WESTBOUND---630WB_CONCREPLACE.DGN

State	Proj. No.	Sheet No.
MO		B64

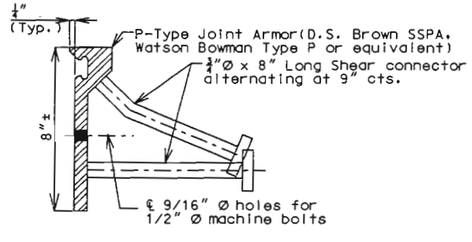


Note: Strip seal gland not shown for clarity.

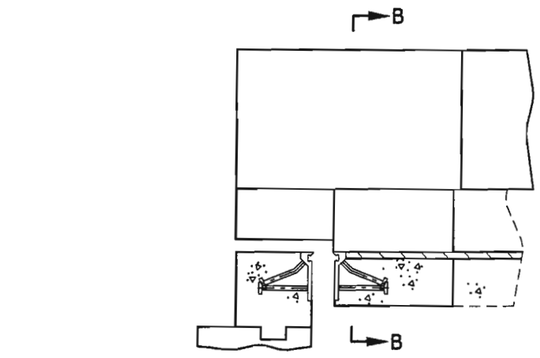
SECTION A-A



PART PLAN

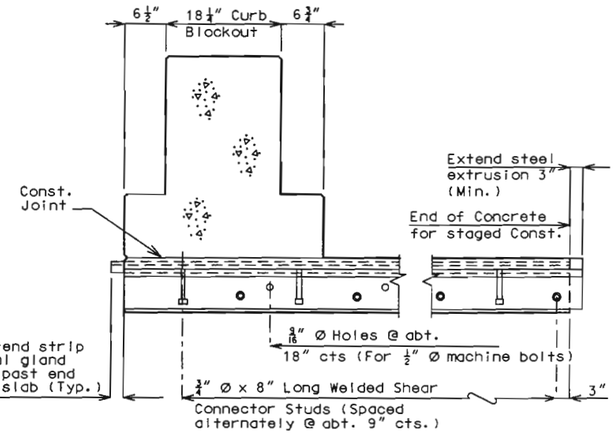


DETAIL OF JOINT ARMOR

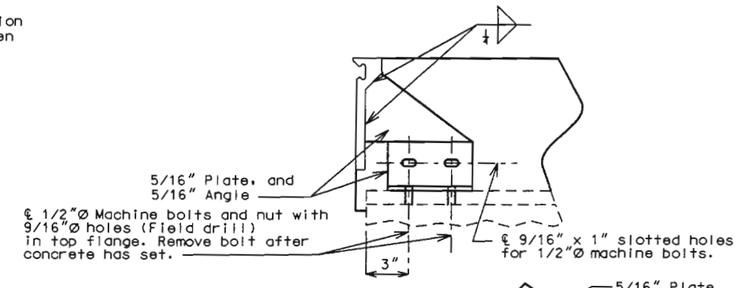


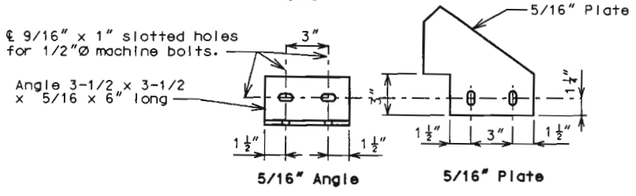
Note: Strip seal gland not shown for clarity.

PART ELEVATION OF BARRIER CURB



PART SECTION B-B





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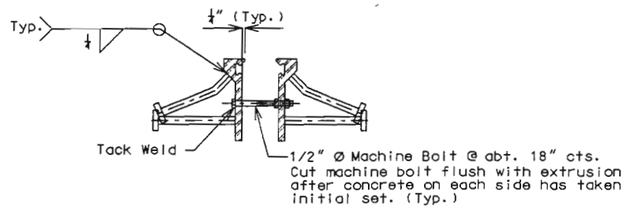
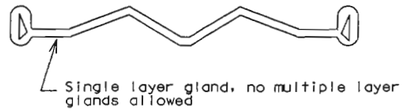


DETAIL "A"



Strip seal gland size = 3"

DETAIL OF GLAND

GENERAL NOTES:

The expansion device shall be fabricated and installed in accordance with the recommendations of the manufacturer, and as set forth in the Special Provisions.

The contractor must verify all dimensions prior to fabrication.

All welds shall conform to Section 712 of the Missouri Standard Specifications.

Splices of steel extrusion shall develop full strength.

All steel shall be ASTM A709 Grade 36, except steel extrusions shall be ASTM A709 Grade 50W or Grade 36.

Neoprene Strip Seal shall meet ASTM D-2628.

Anchors for the extrusions or armor shall be approved welded studs (C1010 thru C1020).

Structural steel for the expansion device shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum) or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

Payment for furnishing, coating or galvanizing and placing steel extrusions, miscellaneous structural steel, and neoprene strip seal shall be made under the contract unit price for Strip Seal Expansion Device.

Plan dimensions are based on installation at 60°F. The gap shall be increased 1/16" for each 10° fall in temperature and decreased 1/16" for each 10° rise in temperature from the installation temperature.

#5-U1 Bars shall be placed so that the end shall not be more than 1"± from vertical leg of extrusion at Expansion Device.

Concrete shall be forced under and around strip seal extrusions and studs. Proper consolidation of the concrete shall be achieved by localized internal vibration.

Top of backwall and expansion device at end bents shall conform to the Crown of Roadway slab.

BUCHER, WILLIS & RATLIFF CORPORATION
7620 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	RMH	APR 2002
TRACED BY:	TWM	APR 2002
CHECKED BY:	MAH	APR 2002

Note: This drawing is not to scale. Follow dimensions.

STRIP SEAL AT END BENTS

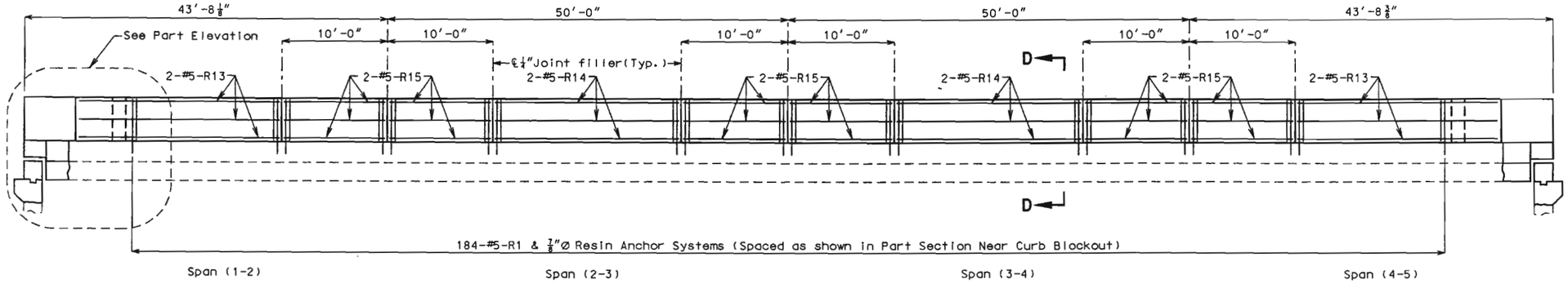
STATE OF MISSOURI KEITH M. WILLIAMS NUMBER E-25019 REGISTERED PROFESSIONAL ENGINEER
8-23-2002

JASPER COUNTY

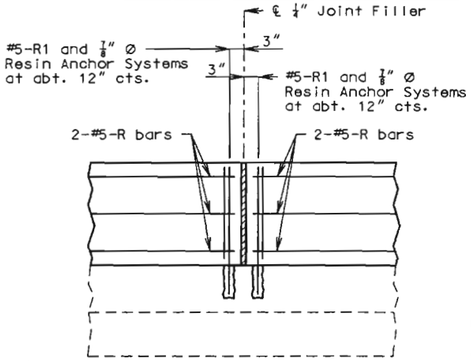
A06302

2001-059---STR---A630---DGN---WESTBOUND---630WB_STRIPSEAL.DGN

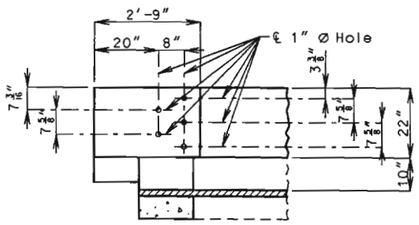
State	Proj. No.	Sheet No.
MO		B65



SECTION NEAR CURB BLOCKOUT



PART SECTION NEAR CURB BLOCKOUT



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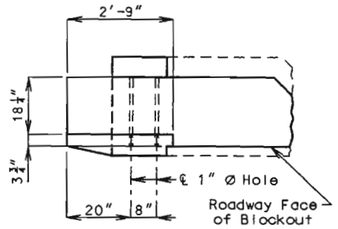
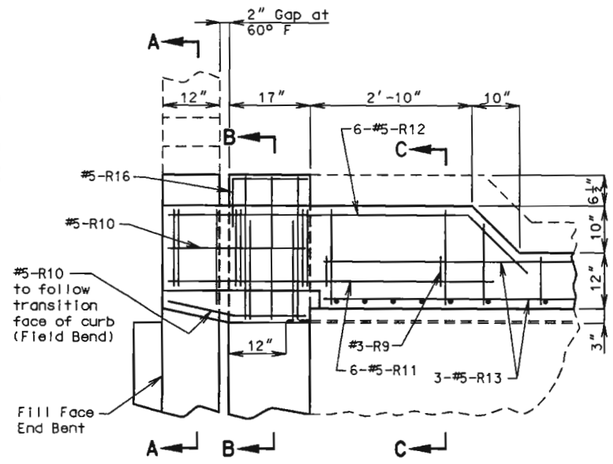
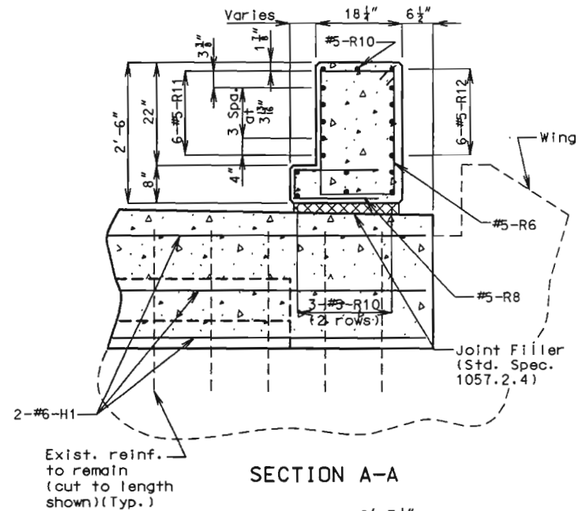


PLAN

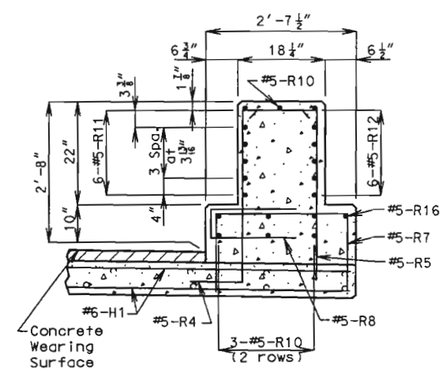
DETAILS OF GUARD RAIL ATTACHMENT



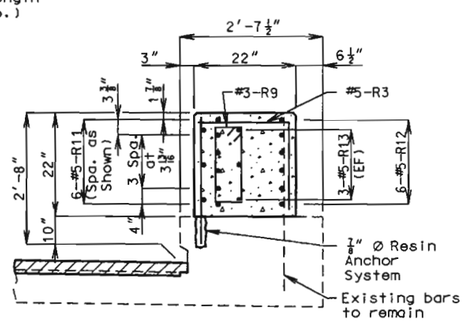
PART PLAN



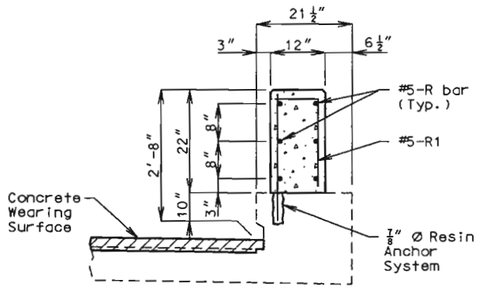
SECTION A-A



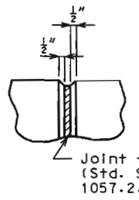
SECTION B-B



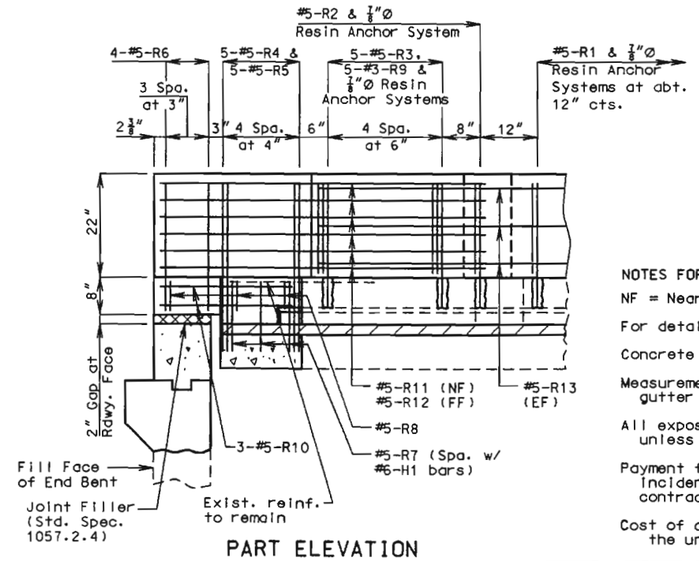
SECTION C-C



SECTION D-D



FILLED JOINT DETAIL



PART ELEVATION

NOTES FOR CURB BLOCKOUT:

NF = Near Face. FF = Far Face. EF = Each Face.

For details of strip seal expansion device, see Sheet No. 5.

Concrete in curb blockout shall be Class B1.

Measurement of curb blockout is to the nearest linear foot measured at the gutter line from end of curb blockout to end of curb blockout.

All exposed edges of curb blockout shall have 1/2" radius or 3/8" bevel unless otherwise shown.

Payment for concrete, reinforcing steel, resin anchors and any other work incidental to the curb blockout complete in place shall be included in the contract unit price for the Curb Blockout per linear foot.

Cost of any concrete curb repair shall be considered completely covered in the unit price bid for Curb Blockout.

STATE OF MISSOURI KEITH LAWRENCE RATLIFF NUMBER E-25019 REGISTERED PROFESSIONAL ENGINEER
8-23-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7220 I-HOD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	RMH	APR 2002
TRACED BY:	TWM	APR 2002
CHECKED BY:	MAH	APR 2002

Note: This drawing is not to scale. Follow dimensions.

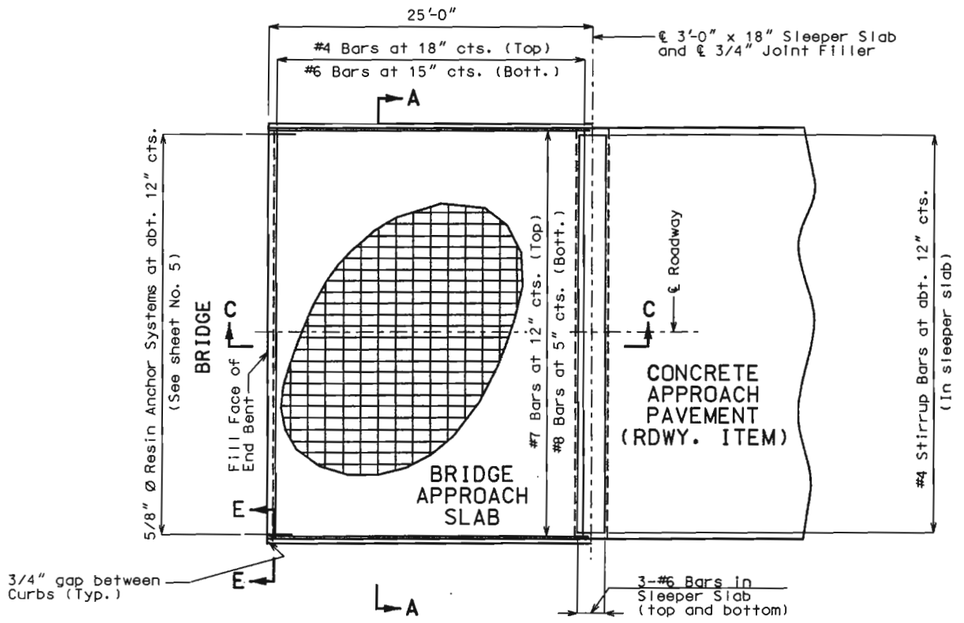
CURB BLOCKOUT DETAILS

Sheet No. 6 of 8

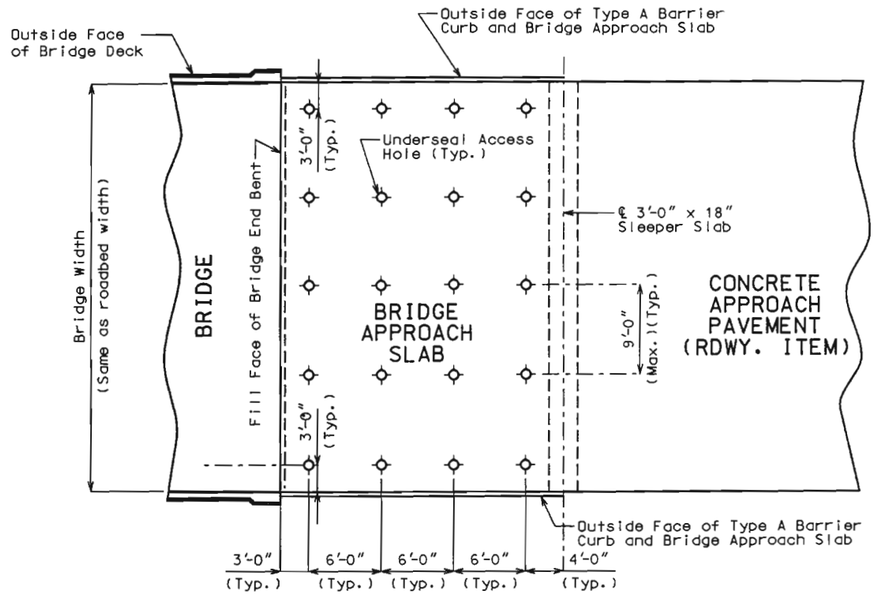
JASPER COUNTY | A06302

2001-059--9630--DGN--WESTBOUND--630WB_BLOCKOUT.DGN

State	Proj. No.	Sheet No.
MO		B 66



PART PLAN SHOWING REINFORCEMENT



PART PLAN
(SHOWING TYPICAL UNDERSEAL ACCESS HOLE LOCATIONS)

GENERAL NOTES:

All concrete for the bridge approach slab and sleeper slab shall be in accordance with Section 503 (f'c = 4,000 psi) of the Missouri Standard Specifications.

All joint filler shall meet the requirements of Section 1057.2.5 of the Missouri Standard Specifications, except as noted.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be epoxy coated Grade 60 with Fy = 60,000 psi.

Minimum clearance to reinforcing steel shall be 1-1/2", unless otherwise shown.

The reinforcing steel in the bridge approach slab and the sleeper slab shall be continuous. The transverse reinforcing steel may be made continuous by lap splicing the #4 & #6 bars 18" and 26" respectively.

Mechanical bar splices will be permitted and shall develop at least 125 percent of the specified yield strength of the reinforcing bars being spliced. The contractor shall furnish the Engineer the manufacturer's certification that this requirement is met and is required to follow the manufacturer's recommendation for installation.

Mechanical bar splices shall be epoxy coated in accordance with Section 710 of the Missouri Standard Specifications.

Hooks and bends shall be in accordance with the CRSI Manual of Standard Practice for Detailing Reinforced Concrete Structures, Stirrup and Tie Dimensions.

The contractor shall pour and satisfactorily finish the bridge slab before pouring the bridge approach slabs.

Longitudinal construction joints in approach slab and sleeper slab shall be aligned with longitudinal construction joints in bridge slab overlay.

Payment for furnishing all materials, labor and excavation necessary to construct the approach slab, including the timber header, sleeper slab, underdrain, Type 5 aggregate base and all other appurtenances and incidental work as shown on this sheet, complete in place, shall be considered as completely covered under the contract unit price for Bridge Approach Slab (Bridge), per sq. yd.

For Concrete Approach Pavement details, see roadway plans.

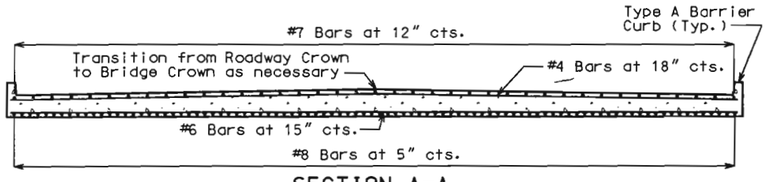
See Missouri Standard Plans Drawing 609.00 for details of Type A Barrier Curb.

When a lap splice is required for the use of a mechanical bar splice, the minimum lap length shall be 40" for transverse approach slab bar splices.

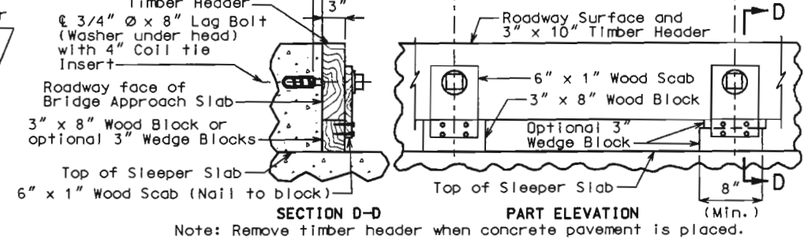
At the contractor's option, Grade 40 reinforcement may be substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment. No additional payment will be made for this substitution.

When Grade 40 reinforcement is substituted for the Grade 60 #5 dowel bars connecting the bridge approach slab to the bridge abutment, the reinforcement may be bent up to 90 degrees with a 2" minimum radius near the abutment to allow compaction of the backfill material near the abutment. Damage to epoxy coating shall be repaired according to Section 710.3.3 of the Missouri Standard Specifications.

Drain pipe may be either 6" diameter corrugated metallic-coated pipe underdrain, 4" diameter corrugated polyvinyl chloride (PVC) drain pipe, or 4" diameter corrugated polyethylene (PE) drain pipe.

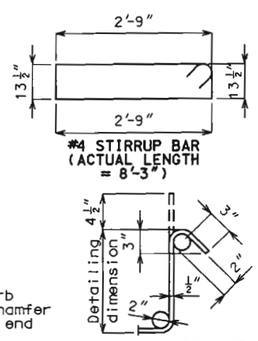


SECTION A-A



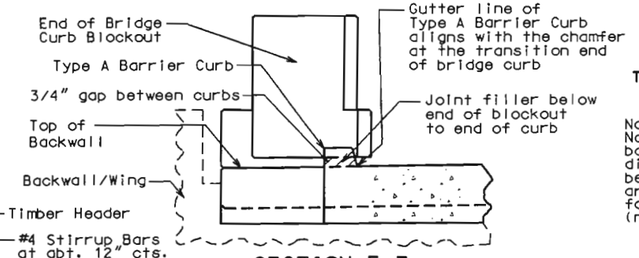
Note: Remove timber header when concrete pavement is placed.

DETAILS OF TIMBER HEADER

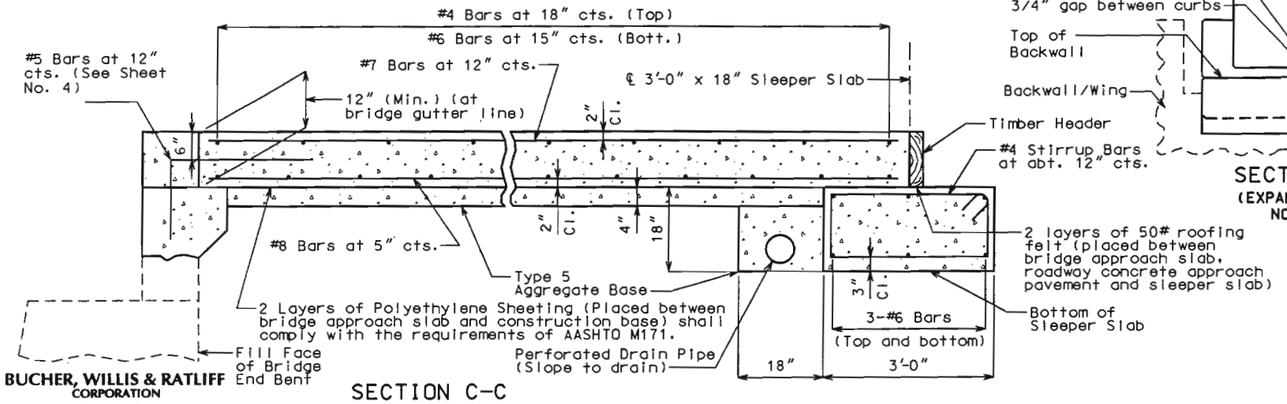


TYPICAL 135° STIRRUP HOOK DIMENSIONS BENDING DIAGRAM

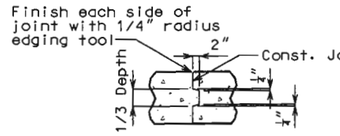
Note:
Nominal lengths are based on out to out dimensions shown in bending diagram and are listed for fabricators use (nearest inch).



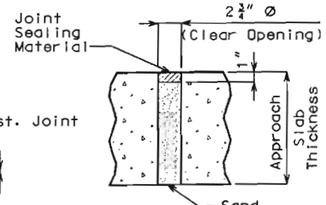
SECTION E-E
(EXPANSION DEVICE NOT SHOWN)



SECTION C-C



CONST. JOINT DETAIL
(IF REQUIRED)



TYPICAL UNDERSEAL ACCESS HOLE DETAIL

STATE OF MISSOURI KEITH LAWRENCE HUSTER NUMBER E-25019 REGISTERED PROFESSIONAL ENGINEER
8-13-2002

BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2696

DRAWN BY:	RMH	APR. 2002	
TRACED BY:	TWM	APR. 2002	
CHECKED BY:	MAH	APR. 2002	

Note: This drawing is not to scale. Follow dimensions.

BRIDGE APPROACH SLAB

JASPER COUNTY | A06302

2001-059--STR--A630--DGN--WESTBOUND--630WB_APPRSLAB.DGN

State	Proj. No.	Sheet No.
MO		B67

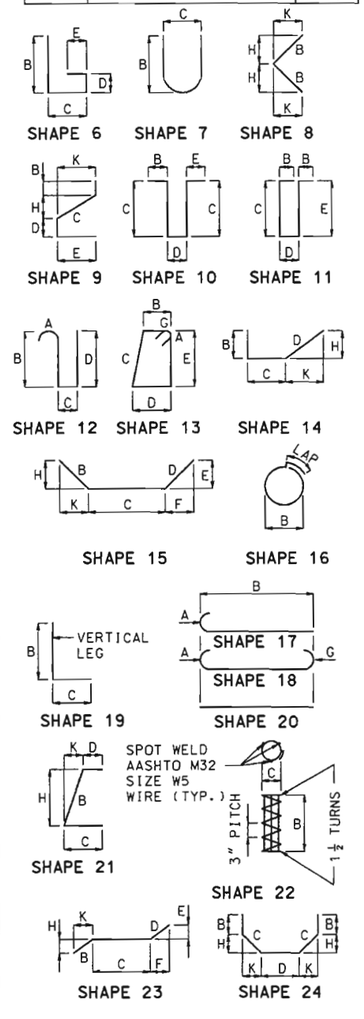
BILL OF REINFORCING STEEL

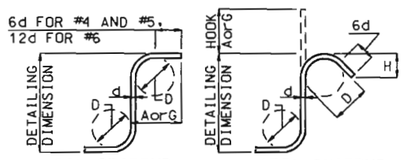
NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
										FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.
Superstructure																			
26	6	H1	Slab & Backwall	E	20					44 0.000							44 0	44 0	1718
2	4	H2	Appr. Haunch	E	20					38 9.000							38 9	38 9	52
118	5	U1	Slab	E	7					15.000	3.750						2 7	2 7	318
78	4	U2	Appr. Haunch	E	10						15.000	6.000					3 0	2 10	147
78	5	V1	Backwall	E	19					20.000	2 0.000						3 8	3 7	291
368	5	R1	Curb Blockout	E	19	S				20.000	9.000						2 5	2 4	894
4	5	R2	Curb Blockout	E	19	S				19.000	15.000						2 10	2 9	11
20	5	R3	Curb Blockout	E	19	S				19.000	19.000						3 2	3 1	64
20	5	R4	Curb Blockout	E	10	S				15.000	3 0.000	12.000					5 3	5 1	106
20	5	R5	Curb Blockout	E	19	S				3 0.000	15.000						4 3	4 2	87
16	5	R6	Curb Blockout	E	13	S				15.000	2 2.000	15.000	2 2.000				7 9	7 5	124
12	5	R7	Curb Blockout	E	10	S					17.000	2 4.000					5 2	5 0	63
12	5	R8	Curb Blockout	E	10	S					19.000	5.000					3 7	3 4	42
22	3	R9	Curb Blockout	E	13	S				6.000	18.000	6.000	18.000				4 8	4 6	37
28	5	R10	Curb Blockout	E	20					2 4.000							2 4	2 4	68
24	5	R11	Curb Blockout	E	20					6 0.000							6 0	6 0	150
24	5	R12	Curb Blockout	E	15					23.000	5 2.000				16.250	16.250	7 1	7 0	175
24	5	R13	Curb Blockout	E	20					30 8.000							30 8	30 8	768
26	5	R14	Curb Blockout	E	20					29 9.000							29 9	29 9	807
72	5	R15	Curb Blockout	E	20					9 9.000							9 9	9 9	732
4	5	R16	Curb Blockout	E	10						15.000	12.000					2 3	2 2	9
Totals																			
	3			E															37
	4			E															199
	5			E															4709
	6			E															1718
Reinforcing Steel (Epoxy Coated)																			
	4			E															208
	5			E															609
	6			E															1835
Curb Blockout																			
	3			E															37
	5			E															4100

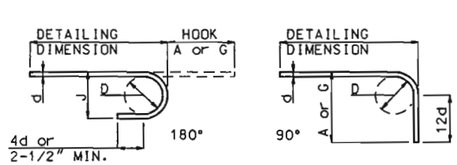
BILL OF REINFORCING STEEL

NO. REQ'D.	MARK NO. SIZE	MARK NO. MARK	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS B	C	D	E	F	H	K	NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
										FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.	LBS.

Two additional H1, R9 and R14 are included in bar bill for testing.







STIRRUP HOOK DIMENSIONS

GRADES 40-50-60 KSI

BAR SIZE	D (IN.)	90° HOOK HOOK A OR G	135° HOOK HOOK A OR G	135° HOOK APPROX. H
#3	1 1/2"	4"	4"	2 1/2"
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	6"	5-1/2"	3-3/4"
#6	4-1/2"	12"	8"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

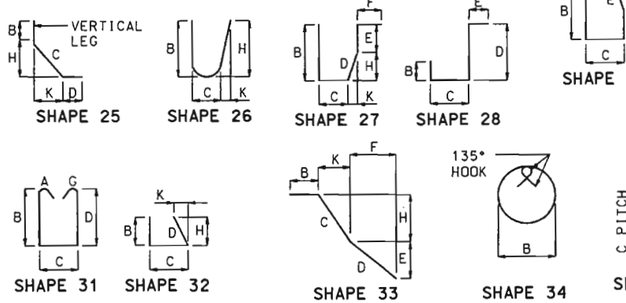
END HOOK DIMENSIONS

ALL GRADES

BAR SIZE	D (IN.)	180° HOOKS A OR G	180° HOOKS J	90° HOOKS A OR G
#3	2-1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3-3/4"	7"	5"	10"
#6	4-1/2"	8"	6"	12"
#7	5-1/4"	10"	7"	14"
#8	6"	11"	8"	16"
#9	9-1/2"	15"	11-3/4"	19"
#10	10-3/4"	17"	13-1/4"	22"
#11	12"	19"	14-3/4"	2'-0"
#14	18-1/4"	2'-3"	21-3/4"	2'-7"

Notes:

All standard hooks and bends other than 180 degree are to be bent with same procedure as for 90 degree standard hooks. Hooks and bends shall be in accordance with the procedures as shown on this sheet. Unless otherwise noted, diameter "D" is the same for all bends and hooks on a bor.
E = Epoxy coated reinforcement
S = Stirrup
X = Bar is included in substructure quantities
V = Bar dimensions vary in equal increments between dimensions shown on this line and the following line.
No. ea. = Number of bars of each length.
Nominal lengths are based on out to out dimensions shown in bending diagrams and are listed for fabricator's use. (Nearest inch)
Actual lengths are measured along centerline bar to the nearest inch.
Payweights are based on actual lengths.
Four angle or channel spacers are required for each column spiral. Spacers are to be placed on inside of spirals. Length and weight of column spirals do not include splices or spacers.
Reinforcing steel (Grade 60) fy = 60,000 psi.



BUCHER, WILLIS & RATLIFF CORPORATION
7920 WARD PARKWAY KANSAS CITY, MISSOURI 64114 816-363-2698

DRAWN BY:	RMH	APR 2002	
TRACED BY:	TWM	APR 2002	
CHECKED BY:	MAH	APR 2002	

Note: This drawing is not to scale. Follow dimensions.

REINFORCING SCHEDULE

Sheet No. 8 of 8

JASPER COUNTY

A06302

STATE OF MISSOURI LAWRENCE WETTER NUMBER E-25019 REGISTERED PROFESSIONAL ENGINEER
8-23-2002

2001-059--630--DGN--WESTBOUND--630WB_BOR.DGN

U.I.P. AND REPAIR COLLISION DAMAGED (42′–50′–50′–42′) CONTINUOUS WIDE FLANGE BEAM SPANS

SEC/SUR 9 TWP 27N RGE 31W

GENERAL NOTES:

Design Specifications:
2002–AASHTO LFD (17th Ed.) Standard Specifications

Design Loading:
HS20 Modified (New Construction)
15lb/Sq. Ft. Wearing Surface
H20–S16–44 & Military 24,000 lb. Tandem Axle (1957)

Design Unit Stresses:
Structural Carbon Steel (ASTM A709 Grade 36) fy = 36,000 psi

Fabricated Steel Connections:
Field connections shall be made with 3/4″ diameter ASTM F3125 Grade A325 Type 1 bolts and 13/16″ diameter holes, except as noted.

Recoating Existing Steel:
Protective Coating: System G in accordance with Sec 1081.

Surface Preparation: Surface preparation of the existing steel shall be in accordance with Sec 1081 for Recoating of Structural Steel (System G). The cost of surface preparation will be considered completely covered by the contract lump sum price for Surface Preparation for Recoating Structural Steel.

Prime Coat: The cost of the prime coat will be considered completely covered by the contract lump sum price for Field Application of Inorganic Zinc Primer.

Field Coat(s): The color of the field coat(s) shall be Gray (Federal Standard #26373). The cost of the intermediate field coat will be considered completely covered by the contract lump sum price for Intermediate Field Coat (System G). The cost of the finish field coat will be considered completely covered by the contract lump sum price for Finish Field Coat (System G).

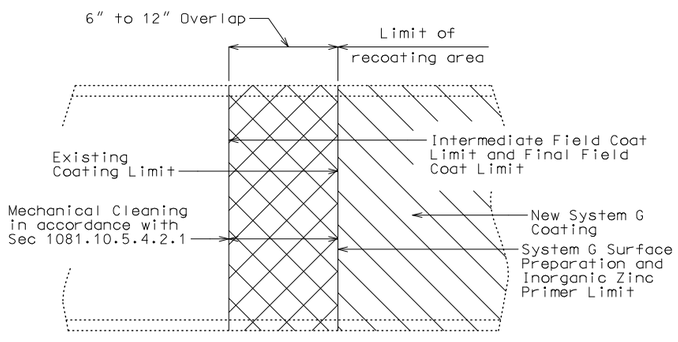
Limits of Paint Overlap: System G shall overlap the existing coating between 6 inches and 12 inches in order to achieve maximum coverage at the paint limit of each complete system. The final field coating shall be masked to provide crisp, straight lines and to prevent overspray beyond the overlap required.

Coating New Steel:
Protective Coating: System G in accordance with Sec 1081.

Prime Coat: The cost of the prime coat will be considered completely covered by the contract unit price for the fabricated structural steel.

Field Coat(s): The color of the field coat(s) shall be Gray (Federal Standard #26373). The cost of the intermediate field coat will be considered completely covered by the contract lump sum price for Intermediate Field Coat (System G). The cost of the finish field coat will be considered completely covered by the contract lump sum price for Finish Field Coat (System G).

At the option of the contractor, the intermediate field coat and finish field coat may be applied in the shop. The contractor shall exercise extreme care during all phases of loading, hauling, handling, erection and pouring of the slab to minimize damage and shall be fully responsible for all repairs and cleaning of the coating systems as required by the engineer.



PART ELEVATION SHOWING LIMITS OF PAINT OVERLAP

(Vertical or horizontal paint limit. Horizontal limit shown)

Miscellaneous:
The existing vertical clearance shall be maintained during construction when Route I–49 is open to traffic.

Lane closures on Route I–44 and Route I–49 shall be in accordance with traffic control plans.

High strength bolts, nuts and washers will be sampled for quality assurance as specified in Sec 106.

Outline of existing work is indicated by light dashed lines. Heavy lines indicate new work.

The contractor shall verify all dimensions in field before ordering new material.

All existing dimensions shown were taken from as–built drawings, or limited field measurements.

All concrete repairs shall be in accordance with Sec 704, unless otherwise noted.

The contractor shall complete a non–destructive test on the connection plate welds at all beam(s) in damaged areas where connection plates will be re–used to confirm suitability of re–use before installing new diaphragm(s). The cost of this work will be considered completely covered by the contract lump sum price for Non–Destructive Testing. See Special Provisions. Required paint removal for this work will be considered completely covered by the lump sum price for Surface Preparation for Recoating Structural Steel.

The contractor shall heat straighten the damaged portions of beam(s). The cost of this work will be considered completely covered by the contract lump sum price for Heat Straightening. See Special Provisions.

Removal and reinstallation of sign and sign supports as needed will be considered completely covered by the contract lump sum price for Heat Straightening.

The contractor shall grind smooth surface deformities related to the damage such as gouges. The cost of this work will be considered completely covered by the contract lump sum price for Grind Surface Deformities. See Special Provisions.

The cost of removing loose and delaminated concrete and epoxy coating spalled concrete will be considered completely covered by the contract lump sum price for Cleaning and Epoxy Coating.

PHASES OF WORK

Prior to Heat Straightening:

1. Complete surface preparation of existing steel that will be subjected to Non–Destructive Testing (NDT) or heat from the heat straightening process.
2. Repair gouges and other deformities in collision damaged beams.
3. Remove the intermediate diaphragms and connection plates as indicated in the plans or directed by the engineer. As approved by the engineer, existing connection plates may be re–used. Non–Destructive Testing (NDT) of the connection plate welds are required to assure suitability for re–use; paint shall be removed prior to any NDT of welds. Existing connection plates not re–used shall be removed and the beams ground smooth.
4. Inspect beam in the area of repair for cracks by any non–destructive means. If cracks are identified, repair cracks as directed by the engineer.

Heat Straightening:

1. Heat straighten beams covering the length of the collision damaged beams. The beams shall be heat straightened to remove web and bottom flange twisting. See Special Provisions.
2. The shoulder and adjacent lane of I–44 shall remain closed, and no traffic shall be allowed over the beam(s) being straightened during the heat straightening process.

Post Heat Straightening:

1. Install new connection plates and diaphragms.
2. Recoat beams over the length of damage and where paint was removed during the heat straightening process with System G (Gray).
3. Paint new diaphragms and connection plates with System G (Gray).

Estimated Quantities

Item		Quantity
Removal of Diaphragm	each	1
Cleaning and Epoxy Coating	lump sum	1
Fabricated Structural Carbon Steel (Misc.)	pound	300
Surface Preparation for Recoating Structural Steel	lump sum	1
Field Application of Inorganic Zinc Primer	lump sum	1
Intermediate Field Coat (System G)	lump sum	1
Finish Field Coat (System G)	lump sum	1
Non–Destructive Testing	lump sum	1
Heat Straightening	lump sum	1
Grind Surface Deformities	lump sum	1

STATE OF MISSOURI
JOSEPH L ALDERSON
NUMBER PE–2015000626
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 12/2/2021

ROUTE	STATE
I–44	MO
DISTRICT	SHEET NO.
BR	1

COUNTY: JASPER
JOB NO.: J7P3532B
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.: A06303

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

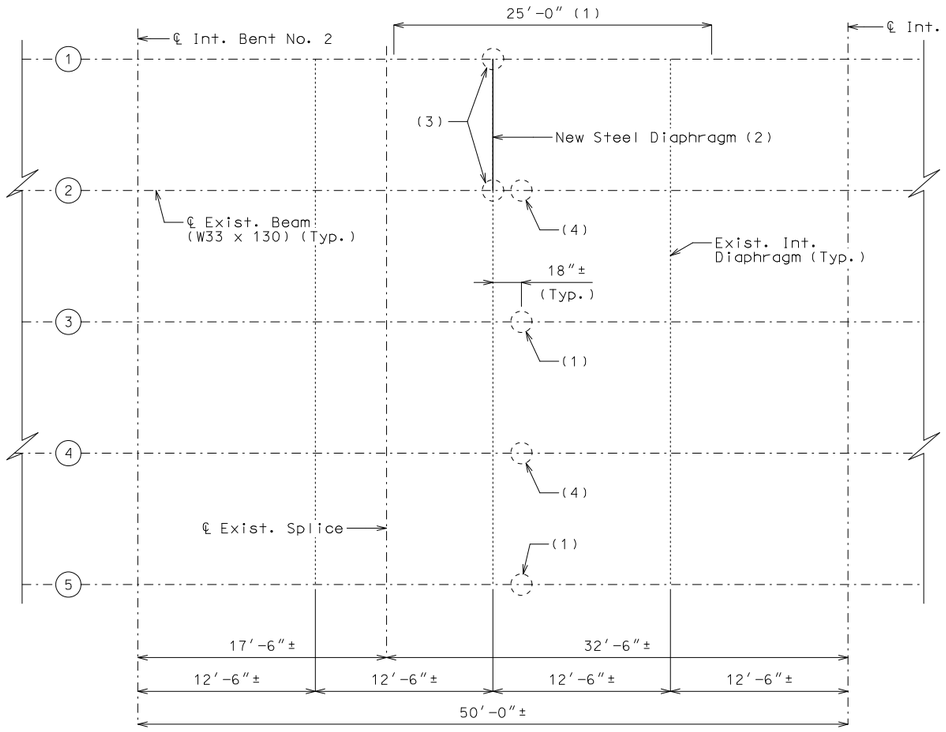
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1–888–ASK–MODOT (1–888–275–6636)

Detailed Nov. 2021
Checked Nov. 2021

Note: This drawing is not to scale. Follow dimensions.

REPAIRS TO BRIDGE: ROUTE I–44 WB OVER ROUTE I–49

ROUTE I–44 WB FROM ROUTE 249 TO ROUTE 37
ABOUT 8.1 MILES WEST OF ROUTE 37
BEGINNING STATION 411+73.69± (Match Existing)



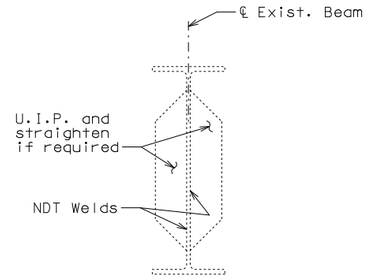
PART PLAN OF STRUCTURAL STEEL

(1) Approximate collision impact zone and limits of required heat straightening.

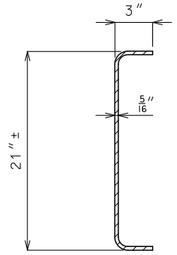
(2) Remove existing diaphragm prior to heat straightening.

(3) Remove and replace diaphragm connection plate.

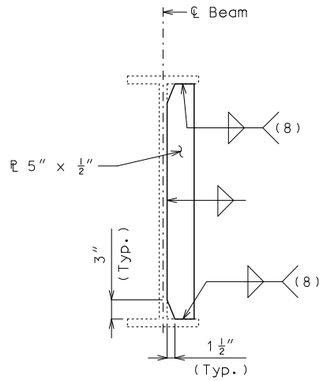
(4) Bottom flange gouges.



TYPICAL DETAIL OF EXISTING DIAPHRAGM CONNECTION PLATES WITHIN THE LIMITS OF HEAT STRAIGHTENING

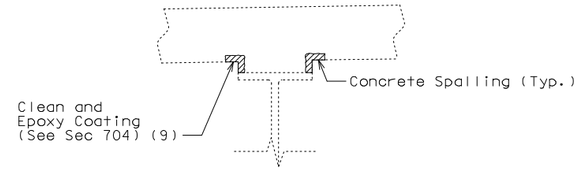


BENT PLATE DETAIL



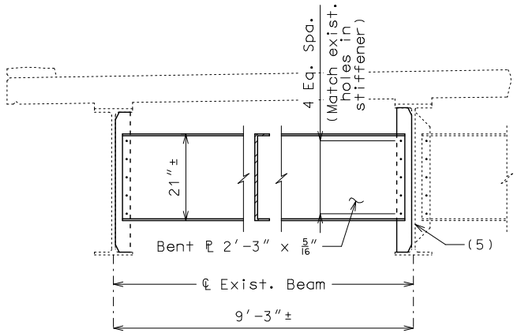
(8) Tight fit

DETAIL OF NEW CONNECTION PLATES



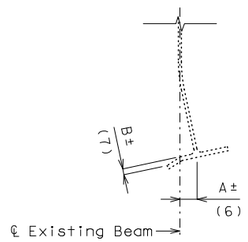
DETAILS OF CLEANING AND EPOXY COATING

(9) Remove loose and delaminated concrete prior to applying epoxy coating.



PART SECTION SHOWING NEW INTERMEDIATE DIAPHRAGM

(5) NDT shall be performed on welds to confirm stability for re-use of exist. connection plate



(6) Approximate beam sweep at point of impact

(7) Approximate vertical distortion of bottom flange

DETAIL OF BEAM SHOWING IMPACT DAMAGE

Beam No.	Dim. A	Dim. B
1	14″	3″
3	0″	2 1/2″
5	0″	1″

BEAM REPAIR DETAILS

Notes:

See Sheet No. 1 for phases of work.

Beams No. 1, 3 & 5 shall be heat straightened to remove web and bottom flange twisting. Cost will be considered completely covered by the contract lump sum price for Heat Straightening. See Special Provisions.

Limits of collision damage vary by beam. Field verify locations and limits of collision damage requiring repairs.

Estimated limits of new System G Coating are equivalent to approximate limits of heat straightening and shall also include areas where only gouge repairs occur.

The cost of non-destructive testing for connection plate welds evaluated for re-use will be considered completely covered by the contract lump sum price for Non-Destructive Testing. All of the other non-destructive testing will be completely covered by the contract lump sum price for Heat Straightening.

Remove existing diaphragms and their connection plates to Beams No. 1 and 2 per the locations shown. Grind smooth remnants of plates and weldment.

The cost of removing existing diaphragms, connection plates and removal of weld metal with the process of grinding will be considered completely covered by the contract unit price for Removal of Diaphragm. See Special Provisions.

The cost of furnishing and installing new diaphragm and connection plates will be considered completely covered by the contract unit price for Fabricated Structural Carbon Steel (Misc.).

Contact surfaces shall be in accordance with Sec 1081 for surface preparation.

Contractor may field drill holes with the approval of the Engineer to facilitate construction.

All longitudinal dimensions are parallel to grade.

Detailed Nov. 2021
Checked Nov. 2021

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STATE OF MISSOURI
JOSEPH L ALDERSON
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PROFESSIONAL ENGINEER
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DATE PREPARED 12/2/2021

ROUTE	STATE
I-44	MO
DISTRICT	SHEET NO.
BR	2

COUNTY JASPER
JOB NO. J7P3532B
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A06303

DESCRIPTION	DATE

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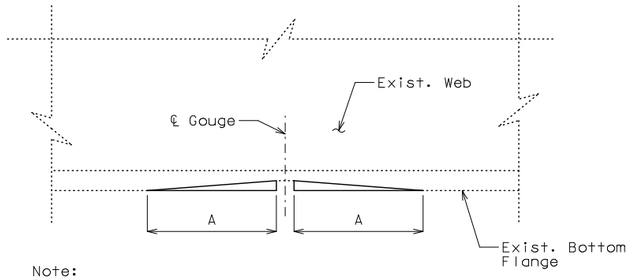
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

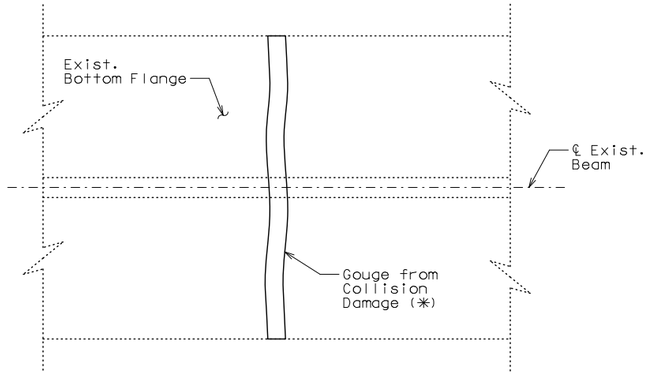
GOUGE REPAIR TYPE 1



Note:
Repairs by grinding shall have edges flared to the flange surface with a slope not exceeding 1 in 10.

GRIND DETAIL FOR FLANGE

DEPTH	A
≤ 3/16″	1 7/8″



PLAN OF GOUGE COLLISION DAMAGE

EVALUATION OF FLANGE GOUGE REPAIRS

If the length of gouge is less than or equal to 2″ and depth of the gouge is 1/16″ or less, then no repair is necessary.

If the length of the gouge is greater than 2″ and the depth of the gouge is 3/16″ or less, then use Gouge Repair Type 1.

If the depth of the gouge is greater than 3/16″, then use Gouge Repair Type 2.

Payment for beam gouge repairs will be completely covered by Grind Surface Deformities. See Special Provisions.

(*) The beam bottom flange shall be repaired for gouging resulting from collision damage as directed by the Engineer. The Contractor shall not perform any repairs until the defects have been reviewed and categorized by the Engineer, as Type 1 or Type 2.

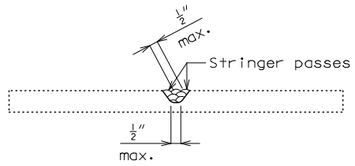
GOUGE REPAIR TYPE 2

Note:
Type 2 repairs shall consist of welding the gouge and grinding it smooth at the Engineer's discretion prior to coating. Welding shall be in accordance with AWS D1.5 standards.

WELD NOTES

(1) All welds shall be made using 1/8″ or 5/32″ E7018 electrodes only (Not E7028).

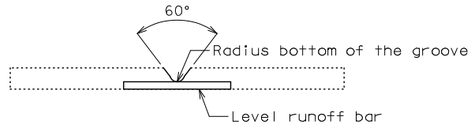
(2) Maximum weld size shall be 1/2″ across the face of the weld on each pass. Stringer passes shall be used to achieve this dimension.



(3) Preheat shall be 250°F min. prior to any tacking or welding.

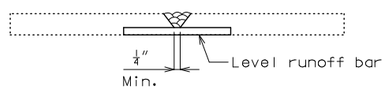
(4) All runoff bars and weld backing bars shall be 1/4″ x 1 1/2″ flat bar minimum, and shall extend 2″ beyond the edge of the flange.

(5) The groove welds shall have a min. of 60° inclined angle.



(6) All welds shall be started 1″ out on the runoff bar and continued toward the center of the flange. Runoff bars shall be level with the bottom of the groove.

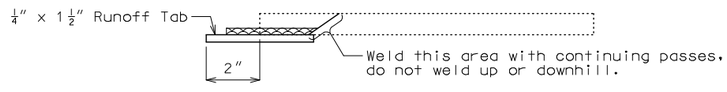
(7) 100% penetration welds shall have a min. 1/4″ root opening and all welding shall be done from the top side.



(8) All runoff bars shall be burned off 1/8″ min. beyond the edge of the flange and ground flush.

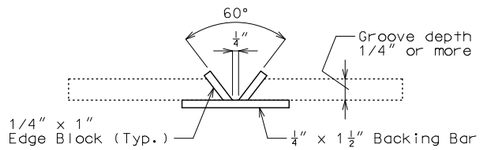
(9) All 100% groove weld backing bars shall be torched or arc gouged off to within 1/8″ of the flange and then grind smooth. The bottom of the flange shall be ground smooth after welding.

(10) All welds shall be made in the falt position with no welding up or down on incline slope.



(11) Use 1/4″ x 1″ flat bar to support the edge of welds that are layered, anytime the groove depth exceeds 1/4″.

GOUGE REPAIR TYPE 2 (CONT.)



Edge blocks shall extend 2″ from edge of flange, and be removed after welding in the same manner as the backing bar. All welds shall be ground smooth.

Notes:
All Type 2 Repairs to beam flanges shall be Q.C. inspected by ultra-sonic testing. Acceptance or rejection of the repair welds shall be based on the requirements of Table 9.2 of AWS D1.5-95.

Welders shall be AWS Certified for overhead welding.

DETAILS OF BEAM GOUGE REPAIRS

Detailed Nov. 2021
Checked Nov. 2021

Note: This drawing is not to scale. Follow dimensions.

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PROFESSIONAL ENGINEER
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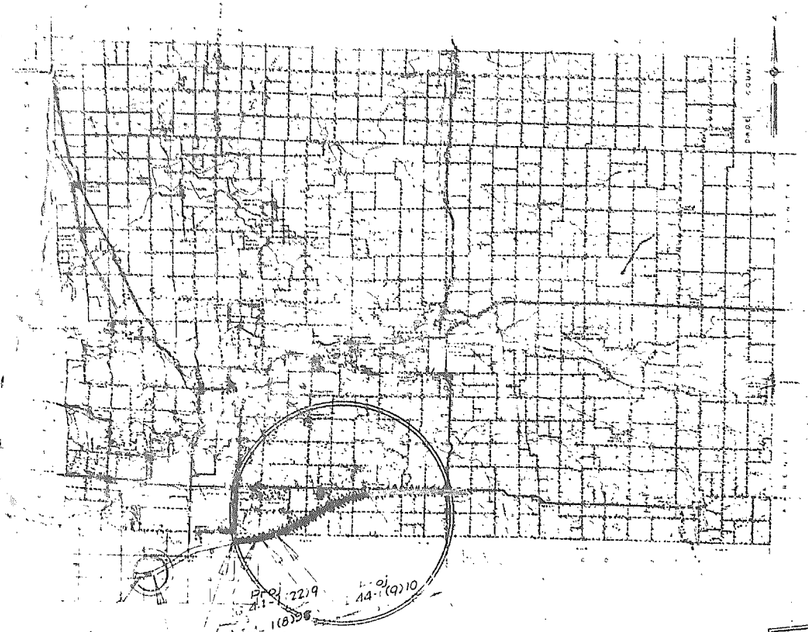
DATE PREPARED 12/2/2021
ROUTE I-44 | STATE MO
DISTRICT BR | SHEET NO. 3
COUNTY JASPER
JOB NO. J7P3532B
CONTRACT ID.
PROJECT NO.
BRIDGE NO. A06303

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

LOCATION MAP



MISSOURI
STATE HIGHWAY COMMISSION
PLAN AND PROFILE
OF PROPOSED
STATE ROAD

FEDERAL AID PROJECT

JASPER COUNTY

LIMITED ACCESS HIGHWAY

[illegible] is a fully limited access highway between Station [illegible] and Station [illegible] in Newton County and between Station 0+00 and Station [illegible] in Jasper County. No abutting owner shall have the right of direct access to said highway or the right of way except that access will be permitted to any adjacent interconnecting highway as not specifically prohibited by the Director except [illegible] Road Right of Way [illegible] to enter on the [illegible]

COUNTY
STATE ROUTE NO.
PROJECT NO.

INDEX OF SHEETS

Title Sheet	1
Typical Sections (6 Sheets)	2
Summary	2-A
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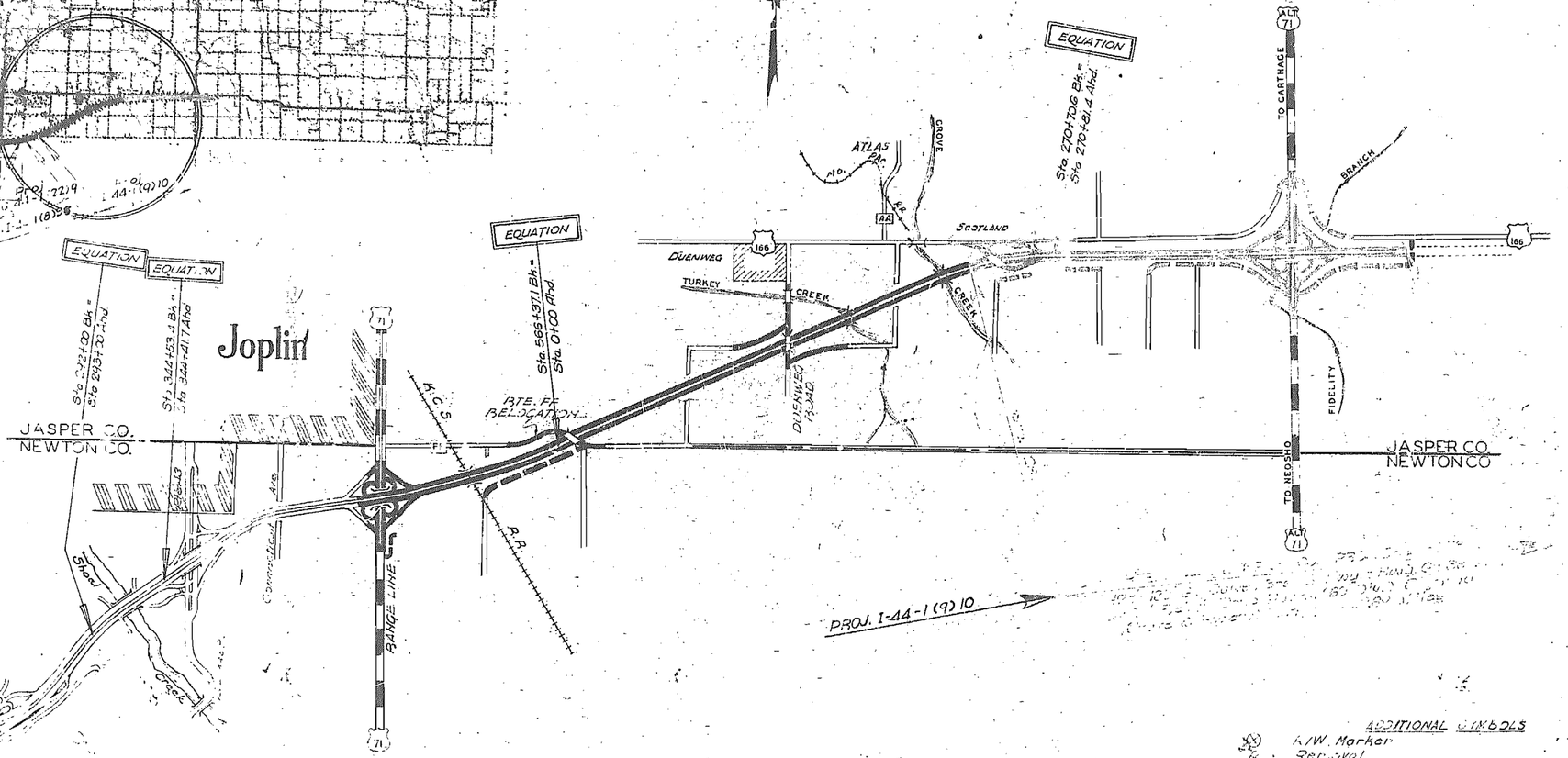
SHIPPING POINTS

Kansas City Southern Railway at Joplin
Missouri Pacific Railroad at Scotland or Atlas

DESIGN DESIGNATIONS

ADT (1960)	4000
ADT (1975)	12000
DVT	1440
D	50%
T	10%
V	70 M.P.H.
C of A	Full



CONVENTIONAL SIGNS

STATE AND NATIONAL LINE	LEVEE
COUNTY LINE	CULVERTS
CITY, VILLAGE OR BOROUGH	DROP INLET
TOWNSHIP LINE	TROLLEY POLE
SECTION LINE	POWER POLE
GRANT LINE	TELEPHONE OR TELEGRAPH POLE
FENCE LINE	MARSH
GUARD RAIL	HEDGE
UNFENCED PROPERTY	
RIGHT OF WAY LINE	GROUND ELEVATION
TRAVELED WAY	
RAILROADS	GRADE ELEVATION
RETAINING WALL	SURFACE LINE
BASE OR SURVEY LINE	GRADE LINE

0 1 Miles
Scale

ADDITIONAL SYMBOLS

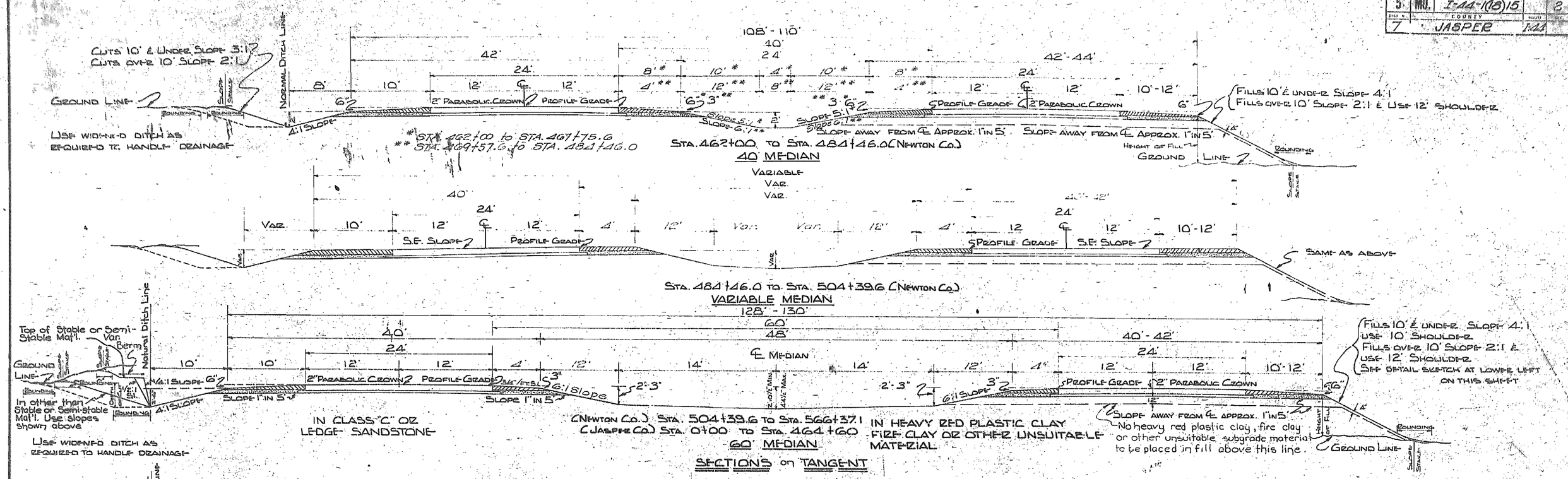
- R/W. Marker
- Removal
- Select Area
- Utility Aerial Line (Arrow Indicates Anchor Location, Straight Lines Indicate Direction of Wires.)
- Rigid Steel Conduit (In Trench)

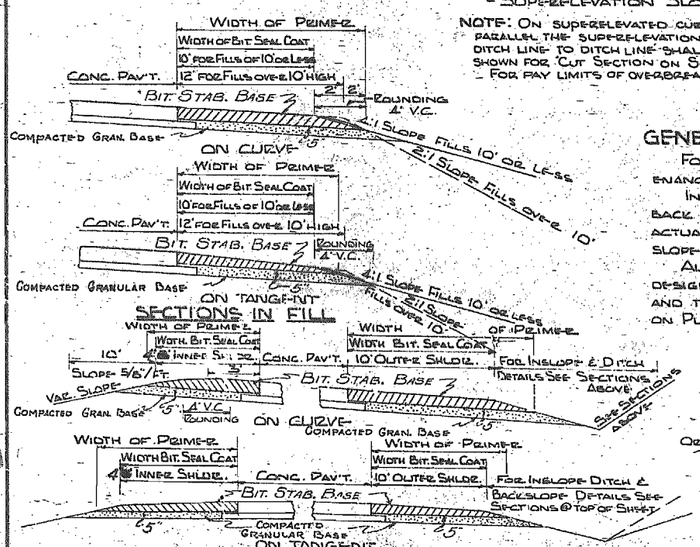
Existing	Relocation
Electric Pole	
Telephone Pole	
Joint Use (Electric on Telephone)	
Joint Use (Telephone on Electric)	
Underground Utilities (G, Gas; T, Telephone; E, Electric)	

SUBMITTE

MISSOURI

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)15		2
DIST. NO.	COUNTY		ROUTE	SEC.
7	JASPER		44	





NOTE: On superelevated curves, undercrading to parallel the superelevation & other details from ditch line to ditch line shall be identical to those shown for "Cut Section on Superelevated Curves." For pay limits of overbreak & backfill, see Specifications.

Cut Section on Superelevated Curves (Jasper Co.)

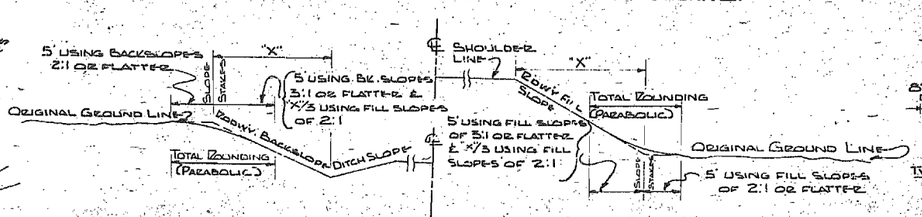
NOTE: Fill sections on superelevated curve to be identical to this section from shoulder to shoulder. Beyond shoulder use same as shown for sec. on tangent.

General Notes:

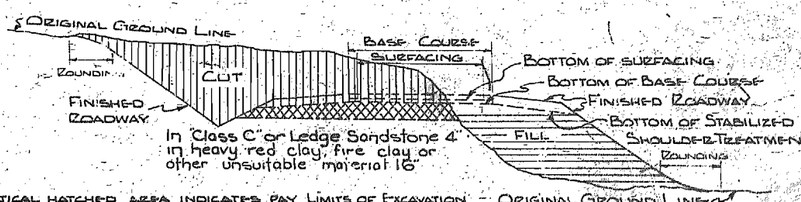
For details of superelevation & widening of horizontal curves, all pavement appurtenances, drainage items, etc., see other drawings.

In transitioning from one cut or fill to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25 in length, do not change to the steeper slope.

All information shown on these Typical Sections is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes and depths, and type of ditches, undercraded cuts and other features shall conform to the details shown on Plan and Profile and cross-section sheets, or as directed by the Engineer.

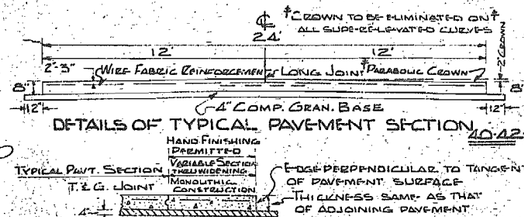


Parabolic rounding required at top of roadway backslopes and at toe of roadway fill slopes



Vertical hatched area indicates pay limits of excavation - Original Ground Line where cuts are not undercraded.

Cross-hatched area indicates additional area to be added to vertical hatched area in addition in pay limits of excavation where cuts are undercraded. For pay limits of overbreak and backfill, see Specifications. Horizontal hatched area indicates limits to which embankment can be constructed.



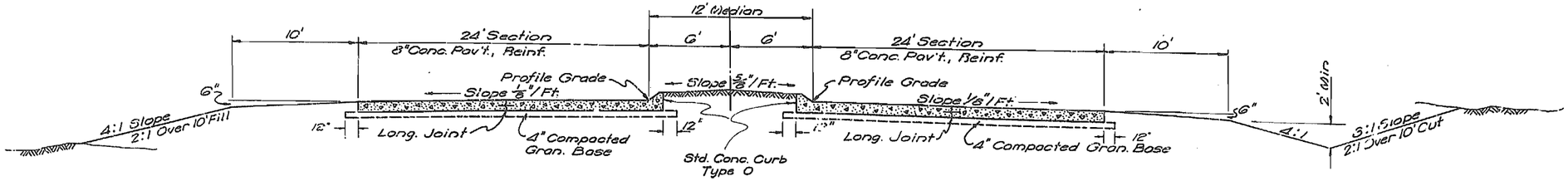
Typical Sections for 2-24 Ft. Concrete Pavements on 40-42-44 Ft. Roadbeds with 40'-0" Medians

Details of typical pavement section

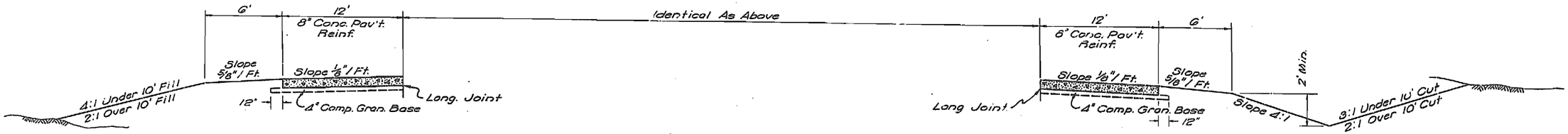
Route I-44 Proj. I-44-1(18)15 C.C. Jasper

Typical Section Showing Widening

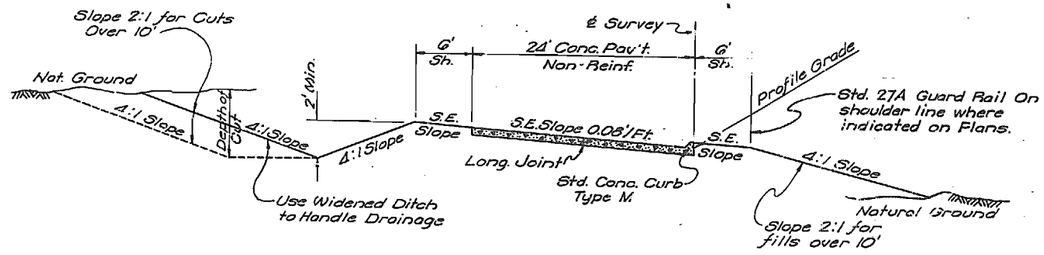
FED. ROAD / HWY. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)15		2
DIST. NO.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	



TYPICAL SECTION
RTE. 71 ALT.

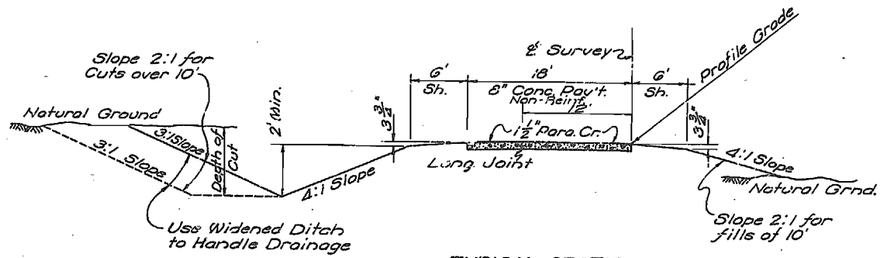


TYPICAL SECTION
WIDENING BETWEEN LOOPS



NOTE: For General Notes, typical section in undergraded cuts, and sketch showing Exc. Pay Limits, see Std Drwg. # 1AAT-10

TYPICAL SECTION
RAMPS A.C.E. & G



NOTE: For General Notes, typical section on superelevated curves and undergraded cut, and sketch showing Exc. Pay Limits, see Std. Drwg. # 1AA-13

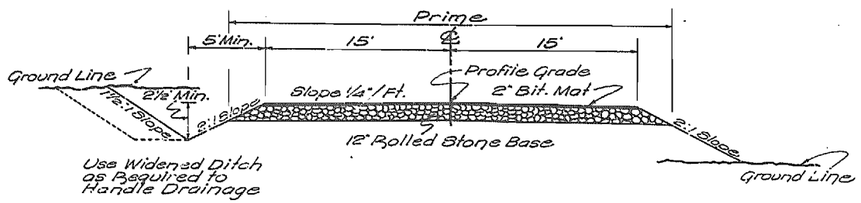
TYPICAL SECTION
RAMPS B. D. F. & H

TYPICAL SECTIONS
FIDELITY INTERCHANGE

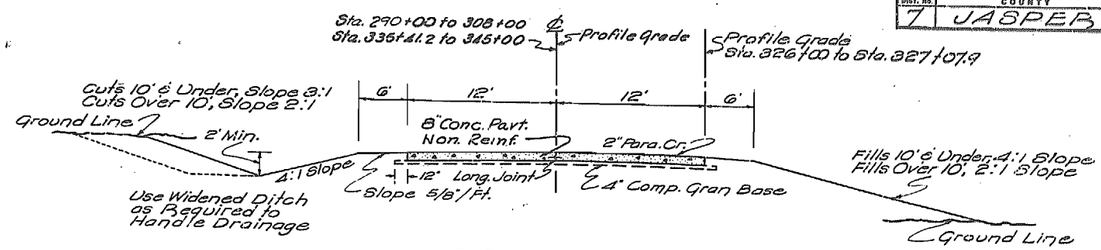
NOT TO SCALE

SHEET 2 OF 6

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18).15		2
DIST. NO.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

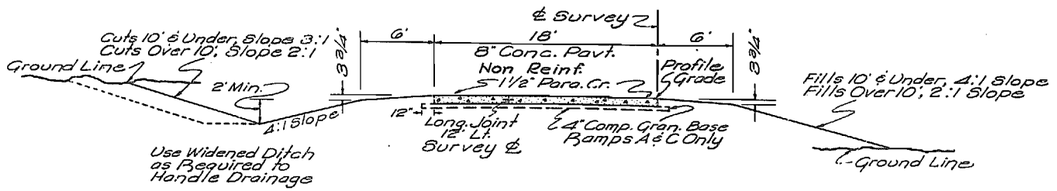


TYPICAL SECTION
TEMPORARY BY PASS

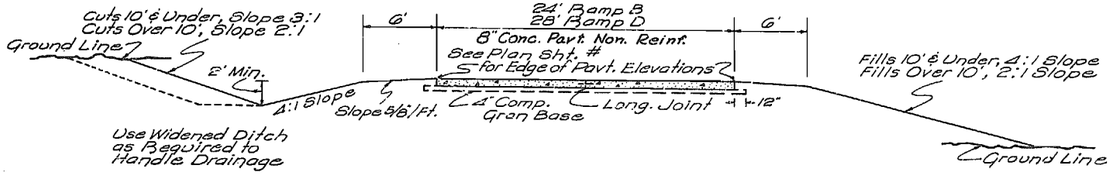


TYPICAL SECTION
BTE. 166 CONN.

NOTE: For General Notes, typical section on superelevated curves and undergraded cut, and sketch showing Exc. Pay Limits, see Std. Drwg. # 1AA-13 Pavement Section & Std. Drwg # TAB-6 For Temporary By Pass



TYPICAL SECTION
RAMPS A, C, & E



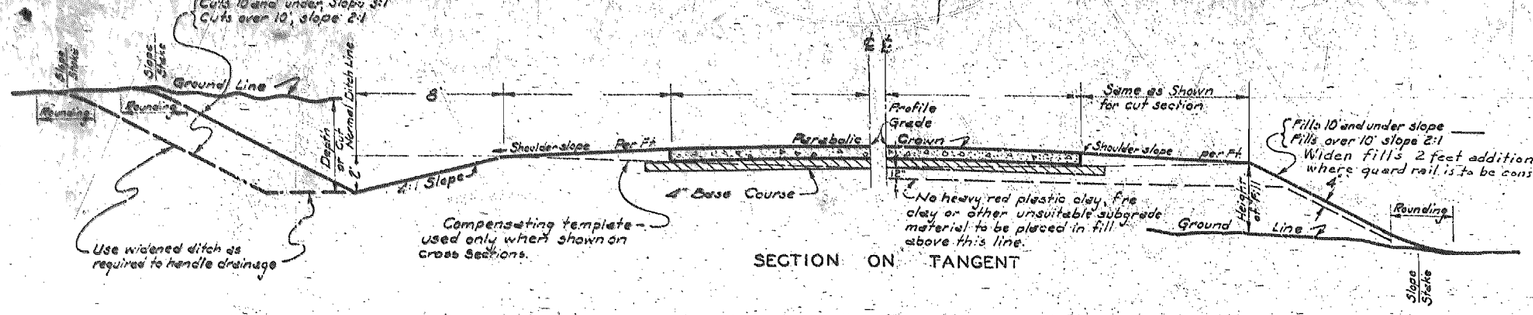
TYPICAL SECTION
RAMPS B & D

TYPICAL SECTIONS
SCOTLAND INTERCHANGE

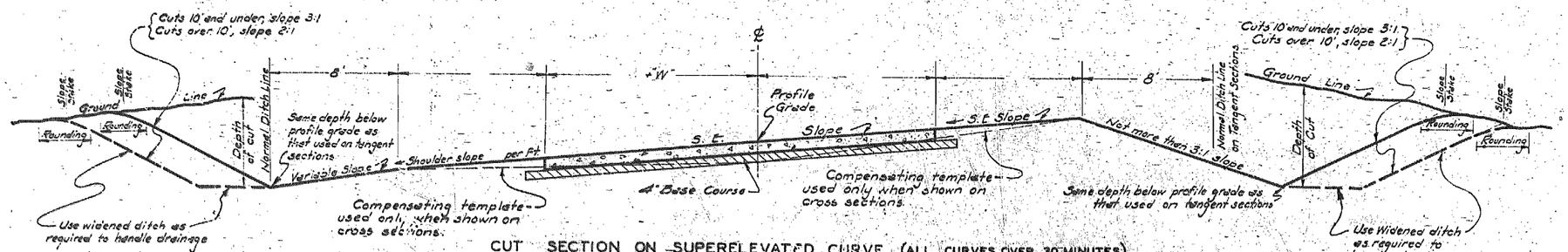
NOT TO SCALE

SHEET 3 OF 6

STATE	FEDERAL PROJECT No.	SHEET
7	JASPER	2

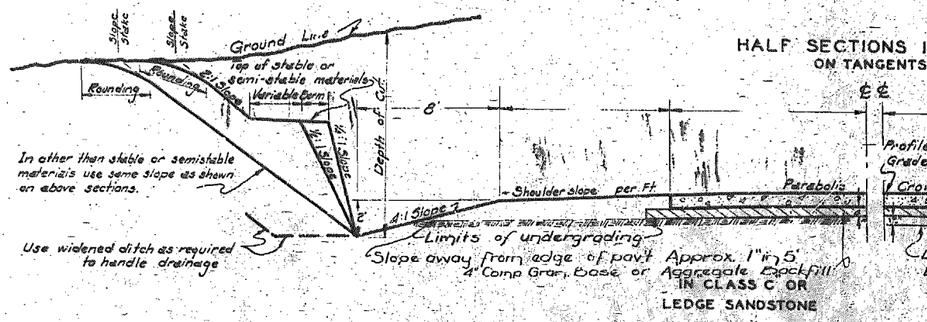


SECTION ON TANGENT

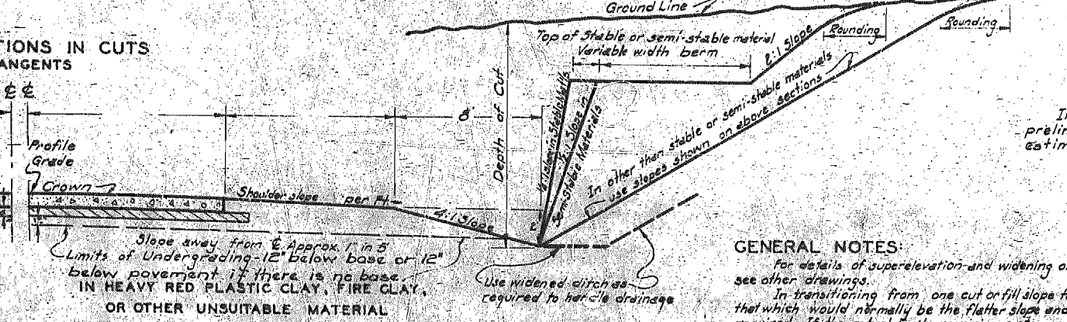


CUT SECTION ON SUPERELEVATED CURVE (ALL CURVES OVER 30 MINUTES)

NOTE: Fill sections on superelevated curve to be identical to this section from shoulder to shoulder. Beyond shoulders use same as shown for "Section on Tangent."

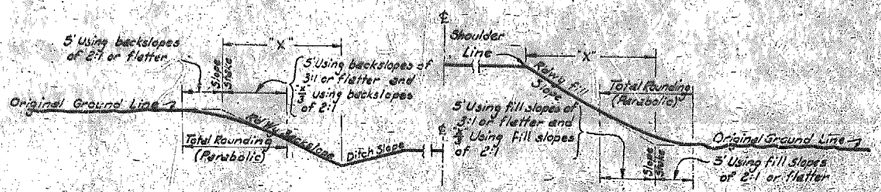


HALF SECTIONS IN CUTS ON TANGENTS

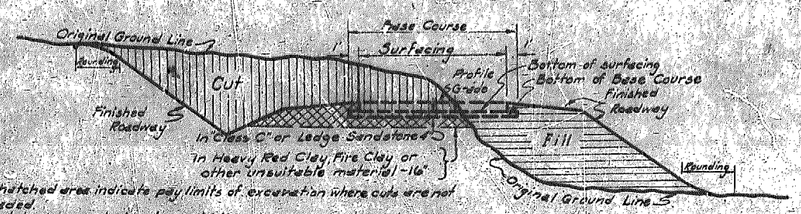


NOTE: On superelevated curves, undergrading to parallel the superelevation, and other details from ditch line to ditch line shall be identical to those shown for "Cut Section on Superelevated Curves."

For pay limits of overbreak and backfill, see specifications.

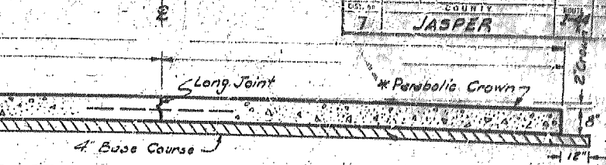


PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOE OF ROADWAY FILL SLOPES.

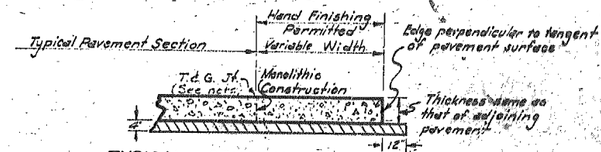


Vertical hatched area indicate pay limits of excavation where cuts are not undergraded.
Cross-hatched area indicates additional area, to be added to vertical hatched area, included in pay limits of excavation where cuts are undergraded. For pay limits of overbreak and backfill see Specifications.
Horizontal hatched area indicates limits to which embankment can be constructed.

SKETCH SECTION SHOWING EXCAVATION PAY LIMITS



DETAILS OF TYPICAL PAVEMENT SECTION



TYPICAL SECTION SHOWING WIDENING

Note: When width exceeds 2' construct a Tongue and groove joint between pavement and widening, see plan sheet.

NOTE: Crown to be eliminated on all superelevated curves

COMPENSATING TEMPLATE

If a compensating template is shown on the preliminary cross sections, such template is for estimating purposes only.

GENERAL NOTES:

For details of superelevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc., see other drawings.

In transitioning from one cut or fill slope to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to the steeper slope.

All information shown on these Typical Sections, is for the purpose of indicating general design and construction details. Actual construction of roadway widths, slopes, depths and type of ditches, undergraded cuts, and other features, shall conform to the details shown on Cross-Sections and Plan-Profile sheets or as directed by the Engineer.

RAMPS FOR FIDELITY INTERCHANGE & SCOTLAND INTERCHANGE

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS FOR GRADED EARTH AND CONCRETE PAVEMENT

(DESIGN SPEED M.P.H.)

ROUTE: I-44 COUNTY: JASPER

PROJ. OR SEC. I-44-1(18)15

REVISED			
10-55	9-57	10-58	6-59

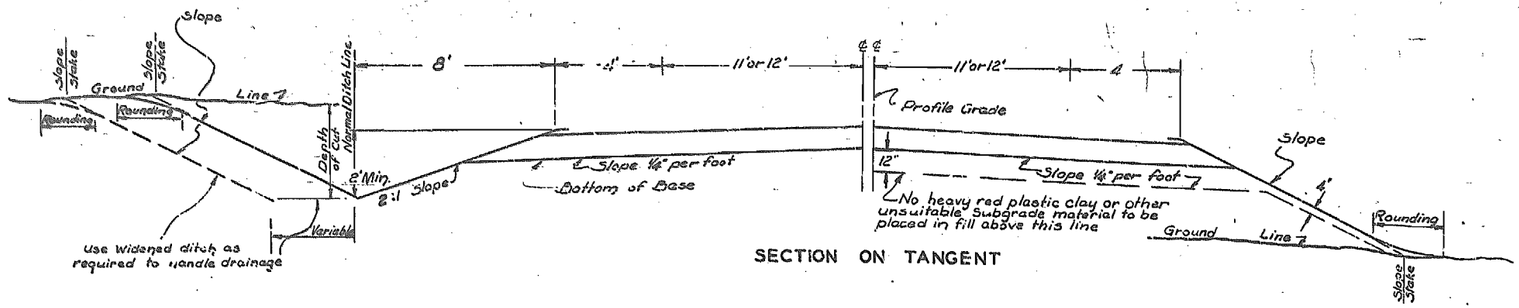
APPROVED _____ ENGR. SURVEYS AND PLANS

APPROVED _____ CHIEF ENGINEER

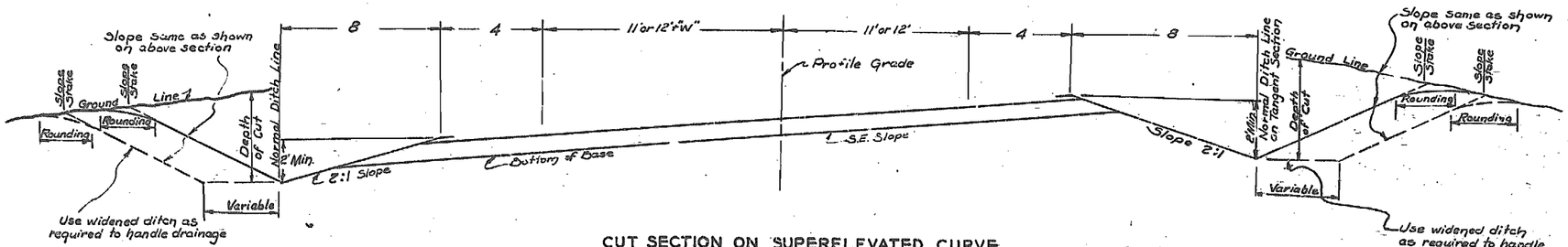
SHEET 4 OF 6

1AA-13

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEARS	SHEET No.
5	MO.	I-44-1(18)15		2
DIST. No.	COUNTY		ROUTE	SEC
7	JASPER		I-44	



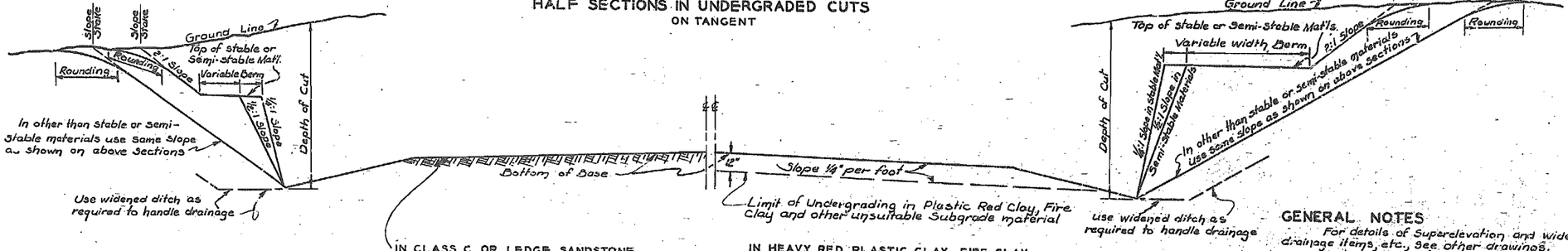
SECTION ON TANGENT



CUT SECTION ON SUPERELEVATED CURVE

Note:- Fill sections on superelevated curve to be identical to this section from shoulder to shoulder. Beyond Shoulders use same as shown for "Section on Tangent"

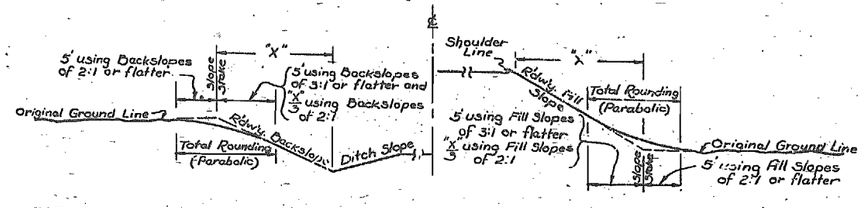
HALF SECTIONS IN UNDERGRADED CUTS
ON TANGENT



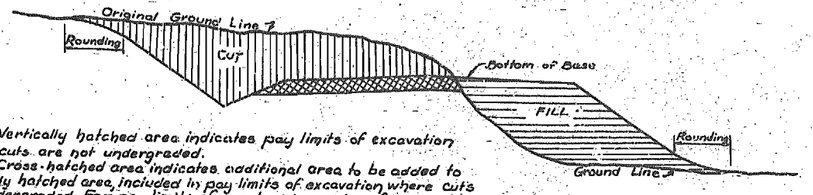
IN CLASS C OR LEDGE SANDSTONE

IN HEAVY RED PLASTIC CLAY FIRE CLAY OR OTHER UNSUITABLE SUBGRADE MATERIAL

NOTE:- On superelevated curves undergrading to parallel the superelevation and other details from ditch line to ditch line shall be identical to those shown for "Cut Sections on Superelevated Curve" and section on tangent. For pay limits of overbreak and back fill, See Specifications.



PARABOLIC ROUNDING REQUIRED AT TOP OF ROADWAY BACKSLOPES AND AT TOE OF ROADWAY FILL SLOPES



Vertically hatched area indicates pay limits of excavation where cuts are not undergraded.

Cross-hatched area indicates additional area to be added to vertically hatched area, included in pay limits of excavation where cuts are undergraded. For pay limits of overbreak and backfill, See Specifications.

Horizontally hatched area indicates limits to which embankment can be constructed.

GENERAL NOTES

For details of Superelevation and widening of horizontal curves, all pavement appurtenances, drainage items, etc., See other drawings.

In transitioning from one cut or fill slope to another, use a 25' transition beginning at a point 25' back along that which would normally be the flatter slope and ending the transition at the actual point where the steeper slope is required. If the actual limits requiring a steeper slope is less than 25' in length, do not change to steeper slope.

All information shown on these Typical Sections is for the purpose of indicating general design and construction details. Actual roadway widths, slopes, depth and type of ditches, undergraded cuts, and other features, shall conform to the details shown on Cross-Sections and Plan-Profile Sheets or as directed by the Engineer.

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS FOR GRADED EARTH AND 2" BIT. MAT. & 12" A.B. BASE

TEMP. BY-PASS @ SCOTLAND, OUTER RDWY. "A" OUTER RDWY. "B"; & OUTER RDWY. "C"

DESIGN STUDY

ROUTE: I-44 COUNTY: JASPER

PROJ. OR SEC: I-44-1(18)15 SHEET 5 OF 6

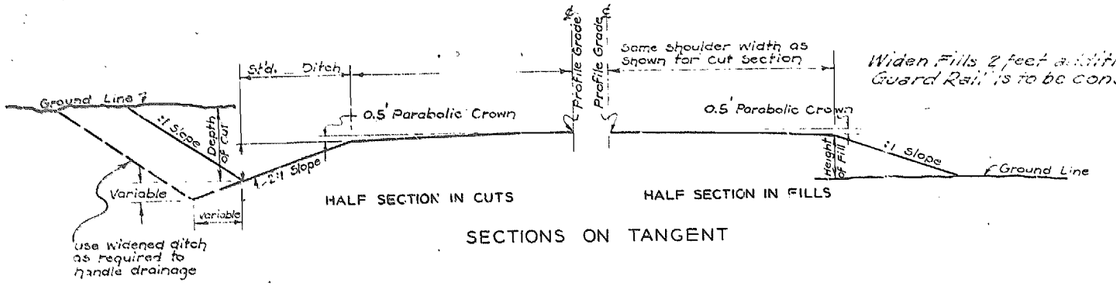
REVISED			
6-59			

APPROVED C. P. Owens ENGR. SURVEYS AND PLANS

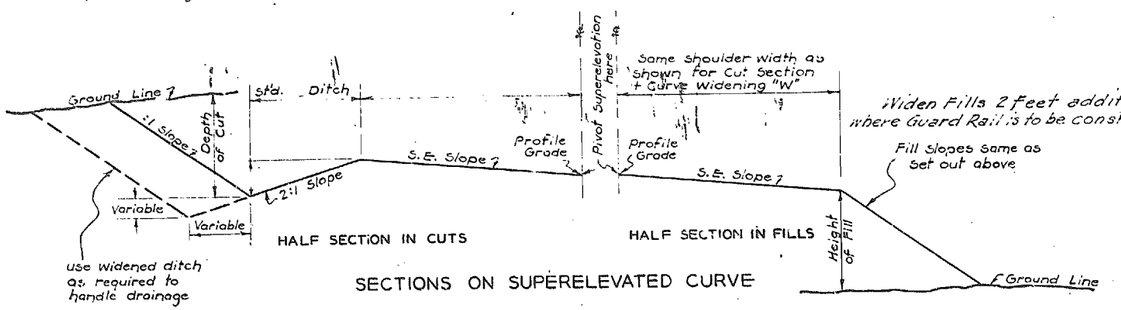
APPROVED Geo. M. Mattox CHIEF ENGINEER

IAB-6

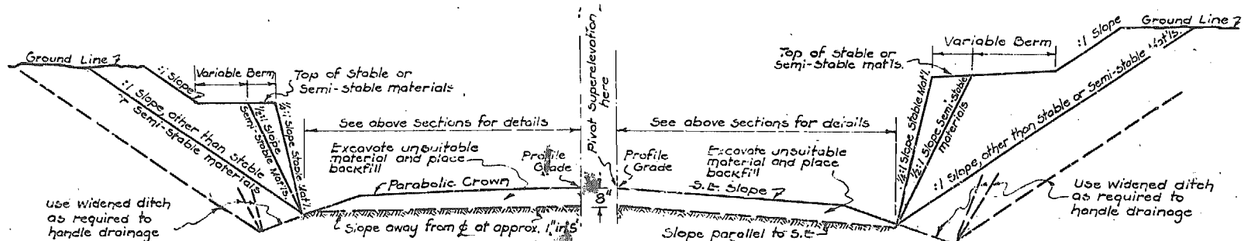
FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	FED. AID PROJ.	SHEET No.
5	MO.	I-44-1(18)15	-	21
7	COUNTY	JASPER	ROUTE I-44	SEC.



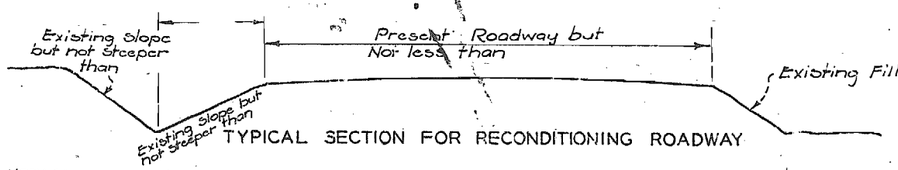
SECTIONS ON TANGENT



SECTIONS ON SUPERELEVATED CURVE



SECTIONS IN UNDERGRADED CUTS



TYPICAL SECTION FOR RECONDITIONING ROADWAY

GENERAL NOTES:—

Machine Grading and Reconditioning Rdwy. shall be completed in accordance with these Typical Sections using the standard depth of ditch except as otherwise noted on Plan Sheets and as required to provide proper drainage. Covering of at least 1 foot will be required over all drainage structures located within machine and Reconditioning Rdwy. sections.

In transitioning from one slope to another use a 25 foot length of transition.

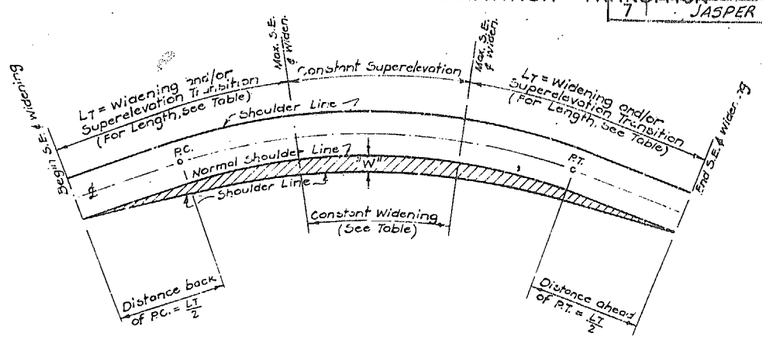
All information shown on these TYPICAL SECTIONS is for the purpose of indicating the required parabolic crown on tangent section, and general design and construction details. Actual construction of roadbed widths, slopes, depth and width of ditches, undergraded cuts and other features shall conform to the details shown on CROSS-SECTIONS and PLAN & PROFILE Sheets or as directed by the Engineer.

Hand Finishing of side slopes of cuts and fills will not be required. Machine finishing to a smooth plane will be considered satisfactory.

Unless otherwise shown on the plans, the roadway ditch at all cross road culverts shall be widened to five (5) feet at the inlet with a fifty (50) foot transition to the standard roadway ditch. In "Machine Grading" limits the cost of this excavation is to be included in the contract unit price for Machine Grading.

The cost of constructing Ditch Blocks in "Machine Grading" limits is to be included in the contract unit price for "Machine Grading".

SCHEME OF WIDENING AND SUPERELEVATION TRANSITION



SUPERELEVATION AND WIDENING DATA

Degree of Curve Dc	Design Speeds: 30 or Less S	W	LT	35 M.P.H. S	W	LT	40 M.P.H. S	W	LT	45 M.P.H. S	W	LT	50 M.P.H. S	W	LT	55 M.P.H. S	W	LT	
0° to 1°00'	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1°01' to 1°30'	.01	0	150	.01	0	150	.02	0	150	.02	0	150	.02	0	150	.03	0	150	
2°00'	.01	0	150	.02	0	150	.02	0	150	.03	0	150	.03	0	150	.04	0	150	
2°30'	.01	0	150	.02	0	150	.03	0	150	.03	0	150	.04	0	150	.05	0	150	
3°00'	.02	0	150	.02	0	150	.03	0	150	.04	0	150	.05	0	150	.06	0	150	
3°30'	.02	0	150	.03	0	150	.04	0	150	.05	0	150	.06	0	150	.07	0	150	
4°	.02	0	150	.03	0	150	.04	0	150	.05	0	150	.06	0	150	.08	0	200	
5°	.03	0	150	.04	0	150	.06	0	150	.07	0	150	.08	0	150	.08	2.0'	250	
6°	.03	0	150	.05	0	150	.06	0	150	.08	0	150	.08	2.0	200	.08	2.0'	300	
7°	.04	0	150	.06	0	150	.07	0	150	.08	2.0'	200	.08	2.0	250	.08	2.0'	350	7° MAX. CURVE
8°	.05	0	150	.06	0	150	.08	2.0	150	.08	2.0'	200	.08	2.0	300				
9°	.05	2.0'	150	.07	2.0'	150	.08	2.0	150	.08	2.0'	250	.08	3.0	300				9° MAX. CURVE
10°	.06	2.0'	150	.08	2.0'	150	.08	2.0	200	.08	3.0'	250	.08	3.0	300				
11°	.06	2.0'	150	.08	2.0'	150	.08	3.0	200	.08	3.0	300							
12°	.07	2.0'	150	.08	2.0'	150	.08	3.0	200										11° MAX CURVE
13°	.07	2.0'	150	.08	3.0'	150	.08	3.0	250										
14°	.08	2.0'	150	.08	3.0'	150	.08	3.0	250										14° MAX CURVE
15°	.08	3.0'	150	.08	3.0'	200													
15°00' to 22°59'	.08	3.0'	150	.08	3.0'	200													
23°00' to 23°59'	.08	4.0'	150	18° MAX. CURVE															
24°00' & above	.08	4.0'	200																

— NOTES —

S-denotes Superelevation in feet per foot.
W-denotes Widening of Surfacing and inside Shoulder in feet.
LT-denotes length of Superelevation and/or Widening transition in feet.
Crown is to be eliminated on all superelevated curves.
Values for degrees of curve not shown in above table shall be identical with those for the nearest tabulated curve. In case of tie, use values for next higher degree curve.

OUTER ROADWAY "2A", "2B", & "3"

MISSOURI STATE HIGHWAY COMMISSION

TYPICAL SECTIONS

FOR

___FT. GRADED EARTH

FOR

SUPPLEMENTARY ROADS

(DESIGN SPEED ____ M.P.H.)

ROUTE: I-44 COUNTY: JASPER

PROJ. OR SEC.: I-44-1(18)15 SHEET C-6

REVISED	
11-12-56	10-58

APPROVED _____ ENGR. SURVEYS AND PLANS

APPROVED _____ CHIEF ENGINEER

S & P - 2AS

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-24' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 1 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.
5	MO.	I-44-1(18)15		2-A
DIST. No.	COUNTY			ROUTE
7	JASPER			I-44

EXCAVATION

Station	Cl. A	Borrow	Cl. C	C. Comp.	Added F. Comp.	M.G. 1	M.G. 2	Stockpile Borrow	O.H.	Remarks
239+00										
262+90	61,489		3030	7806						
300+39	*75,524	23109		9173	1898				17363	*Incl. 1898 Undergrading
312+00	20,504			3150						
326+90	*25,985			4977	148					*Incl 148 Undergrading
339+90	45,946			3511						
355+14	71,503			3309						
371+05	67,045			3854						
397+00	171,396		258	7235						
411+73.7	*870,423		5259	5496	3228					*Incl. 3162 Undergrading
413+61.2	Bridge									
419+28	*1,549				400					*Incl. 400 Undergrading
434+55	*119,870		84	6184	823					*Incl. 823 Undergrading
464+50	75,849	910		7120						
Ramp A										Scotland Inter.
302+00										
313+96	340			637						
317+54	Bridge									
325+26	651			346						
Ramp C										Scotland Inter.
#166 Conn.										
6+15										
326+00	1968			2618						
Temp. By-pass										Scotland Inter.
6+15										
320+41	5332			1601						
Temp. By-pass										Scotland Inter.
339+70										
347+34.5	2676			2502						
Temp. By-pass Ramp A										
287+00										
312+50	*5702			8869	506					*Incl. 506 Undergrading
Rte. 166 Conn.										
290+00										
308+00	7185									
Rte. 166 Conn. Ramp C & E										
339+40										
347+34.6	3541				1655					*Incl. 1655 Undergrading
O.R. 2A										
2247+08										
2262+16.3						1.1	15.1			
O.R. 2B										
2294+17.4										
2307+92.5	1695									
O.R. 3										
2330+50										
2332+50						4.1				
2341+00	1966									
2349+00	2041									
2361+50						14.1				
2371+80	4221									
2383+50	7655									
2394+00						10.5				
2263+50	*13,202									*Incl. 2199 Ch.Ch.
2269+24.7	11,188		2							
O.R. #4										
2000+75.3										
2007+00	*7570			1329	296					*Incl. 296 Undergrading
2430+60	5580			3107						
2445+00	5209			3384						
2452+50	2579			1383						
2465+82	4727			2318						
Temp. Conn.										
2465+26										
0+00										
6+00	*1674			1282	208					*Incl. 208 Undergrading
Temp. X-Over										
456+62.5										
470+75.5	359			408						
O.R. 6										
1226+75.3										
1247+25	*8094		3	948	331			3433		*Incl. 331 Undergrading & 703 Ch.Ch.
456+00	2780			300						
O.R. 6										
2226+75.3										
2234+80	*13884		306	1722						*Incl. 3433 Stockpile Select
2+00	956			1366						
Sub-Totals	1,129,838	24019	8942	94137	9493	29.8	15.1	3433	17363	

DEFICIENT PAVEMENT

Deduct $1293.66 - See Sh. #131

LENGTH OF PROJECT

End of Project	Station	464+50
Beginning of Project	Station	239+00
Apparent Length		22550 Feet
Equations and Exceptions: Sta. 270+70.6 Bk. = 270+81.4 Ah. (-10.8')		
Total Corrections		-10.8 Feet
Net Length of Project		22539.21 Feet
State Length		4.269 Miles
Federal Length		4.269 Miles

EXCAVATION (CONT.)

Station	Cl. A	Borrow	Cl. C	C. Comp.	Added F. Comp.	M.G. 1	M.G. 2	Stockpile Borrow	O.H.	Remarks
Rte. 71 Alt.										
221+00										
250+00	*274394		4948	14429	400					*Incl. 285 Undergrading
260+35	*8457				2796					*Incl. 2796 Undergrading
272+50	20648			4102						
276+00	3734			1472						
Ramp B										Fidelity
5+50										
11+65	0									
Ramp D										Fidelity
6+00										
13+28	3188		14	944						
Ramp F										Fidelity
4+00										
13+00	34087		172	1859						
Ramp H										Fidelity
5+50										
12+50	70,882		205	2039	8					
Sub-Totals	1,545,228	24,019	14,281	120,982	12,689	29.8	15.1	3433	17363	
Borrow	24,019									
Rounding	2,878									
Entrances	2,386									
Plan Fill Comp.					1392,864					
TOTALS	1,574,511		14,281	120,982	1,405,553	29.8	15.1	3433	17363	

CONC. BOX CULVERTS

Station	Loc.	Std.	Size	Skew	Length	Cl. B	Reinf.	Cl. 3 Exc.	Fill	W.W. Slope	Remarks
266+60	℄ I-44	C-820	8'x6'	35° R.A.	231'	212.90	25,140	693	Variable	2:1	Sections
299+00	℄ Rte. 166 Conn.	C-530	3'x2'		10'	4.30	551	29	1'	2:1	Exten. 5' Rt. & Lt.
11+38.8	℄ Ramp C	C-820	8'x5'	50° R.A.	97'	85.98	10,104	203	Variable	2:1	Scot. Rt. Hdwl. 30° Sections
317+06	℄ I-44	C-530	4'x4'	30° R.A.	181'	72.84	8,164	107	Variable	2:1	Const. & Sections
346+26.1	℄ I-44	C-820	5'x4'	15° L.A.	195'	97.15	10,695	79	Variable	2:1	Sections
2345+86	℄ O.R. #3	C-810	5'x4'	15° L.A.	40'	20.53	1,766	37	4	1½:1	
371+85.3	℄ I-44	C-820	8'x7'	5° L.A.	224'	283.41	31,821	*587	Variable	2:1	1-24" Pipe Open.* Sections C.O.#1
2371+66.8	℄ O.R. #3	C-810	8'x7'	5° L.A.	26'	28.69	2,804	70	1'	1½:1	
12+15	℄ Ramp D	C-820	6'x4'	30° R.A.	274'	*169.11	*19,204	*490	Variable	2:1	Lt. Hdwl. 15°* Sections C.O.#1
2013+01.6	℄ O.R. #4	C-810	6'x4'	30° R.A.	44'	25.67	2,370	16	3'	1½:1	
458+30.8	℄ I-44	C-820	5'x4'	10° L.A.	185'	90.25	9,669	186	Variable	2:1	Sections
2458+54.7	℄ O.R. #4	C-810	5'x4'	10° L.A.	39'	20.02	1,743	38	3'	1½:1	
TOTALS						1110.85	124021	2535			

CROSS ROAD PIPE CULVERTS

Station	15" (Reinf. Conc. Pipe)	18"	24"	30"	36"	42"	Cl. 3	Type Hdwls.	Cl. B	Reinf.	Skew	Remarks
249+15			154'				160	2-C-230RC	2.80	283	17° L.A.	Hdwls 15° L.A. (Survey ℄)
259+00					217'		106	1-C-230RC 1-C-230RB	4.78	4[illegible]6	25° L.A.	Incl. 1-18" Tee Conn.
270+00		74'					35	2-C-230RC	1.66	126		Rt. Lane Median Relief
303+00	48'						6	1-C-230RC	0.64	52		D.I. Lt. Ramp A Scotland
305+50			64'				31	2-C-230RC	2.52	248		Ramp A Scotland
321+87.4			96'				75	2-C-230RC	3.10	300	24°20' L.A.	Ramp A Hdwls 25° L.A. Scotland
7+90	93'						18	1-C-230RC 1-C-230RB	2.04	157	45° L.A.	Ramp C Scotland
331+60	42'						24	2-C-230RC	1.28	103		Ramp E Scotland
329+33.6						80'	74	2-C-231RC	6.01	493		Rte. 166 Conn. Rt. Hdwl. 5° R.A.
335+50	70'						49	2-C-230RC	1.72	138	30° R.A.	Rte. 166 Conn.
280+00		61'					21	2-C-230RC	1.66	126		Rt. Lane Median Relief
291+00		51'					37	2-C-230RC	2.20	166	30° L.A.	Rt. Lane Median Relief
302+00		66'					*39	2-C-230RC	1.66	126		Lt. Lane Median Relief
304+23.2					173'		74	2-C-230RC	4.51	378		
313+50	48'						25	2-C-230RC	1.28	103		Lt. Lane Median Relief
317+05						49'	*179.5	2-C-231RB	6.16	470	30° R.A.	On Exist. 166 See C.O.#8B
322+00		52'					6	2-C-230RC	1.66	126		Lt. Lane Median Relief
Sub-Totals	301	304	314	—	390	129	949.5		45.88	3,810		

* Sh. #132A

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS
1-A	Clearing	Acre	100.6
1-B	Grubbing	Acre	41.4
1-D	Class A Excavation	C.Y.	1,574,511
1-DD	Stock Pile Borrow	C.Y.	3433
1-E	Class C Excavation	C.Y.	14281
1-I	Class 3 Excavation for Structures	C.Y.	5412.5
1-K	Compacting Embankments	C.Y.	1,405,553
1-L	Compacting in Cuts	C.Y.	120,982
1-N	Overhaul	1/4 Mi. Yd.	17363
1A-0	Machine Grading (Class 1)	Sta.	29.8
1A-00	Machine Grading (Class 2)	Sta.	15.1
1-Q	Removing Pavement	S.Y.	31362.0
1-S	Removing Curb	L.F.	1073
1-Z	Removing (9) Miscellaneous Items	L. Sum	1
1-ZZ	Miscellaneous Removals (Urban Areas)	L. Sum	1
1-CD	Grouted Rock Fill Surface	S.Y.	3989
1-DB	Placing Rock Blanket	C.Y.	2659
13-A	Chat Surface	C.Y.	1479
13-V	Salvage Surface	C.Y.	6269
15-A	Concrete Pavement (8") Reinforced	S.Y.	160617.2
15-A	Concrete Pavement (8") Non-Reinf.	S.Y.	40562.6
15-B	Approach Slab for Bridges	S.Y.	498.5
16-B	Class B Concrete (Box Culverts)	C.Y.	1110.9
16-B	Cl. B Conc. (Other than Box Culv.)	C.Y.	175.2
18-B	12" Corr. Metal Culv. Pipe (E. & S.R.)	L.F.	124
18-B	15" Corr. Metal Culv. Pipe (E. & S.R.)	L.F.	354
18-B	18" Corr. Metal Culv. Pipe (E. & S.R.)	L.F.	52
18-B	21" Corr. Metal Culv. Pipe (E. & S.R.)	L.F.	38
18-B	12" Corr. Metal Culv. Pipe	L.F.	46
18-B	15" Corr. Metal Culv. Pipe	L.F.	382
18-B	18" Corr. Metal Culv. Pipe	L.F.	46
18-B	24" Corr. Metal Culv. Pipe	L.F.	184
18-B	30" Corr. Metal Culv. Pipe	L.F.	54
18-B	36" Corr. Metal Culv. Pipe	L.F.	72
18-B	42" Corr. Metal Culv. Pipe	L.F.	156
18-C	15" Reinf. Conc. Culv. Pipe	L.F.	714
18-C	18" Reinf. Conc. Culv. Pipe	L.F.	1168
18-C	24" Reinf. Conc. Culv. Pipe	L.F.	633
18-C	30" Reinf. Conc. Culv. Pipe	L.F.	103
18-C	36" Reinf. Conc. Culv. Pipe	L.F.	511
18-C	42" Reinf. Conc. Culv. Pipe	L.F.	129
18-C	48" Reinf. Conc. Culv. Pipe	L.F.	251
18-CB	30" Reinf. Conc. Culv. Pipe (Extra Strength)	L.F.	124
18-CB	42" Reinf. Conc. Culv. Pipe (Extra Strength)	L.F.	265
18-CB	48" Reinf. Conc. Culv. Pipe (Extra Strength)	L.F.	227
18-DA	15" Bit. Coated (Paved Invert) C.M.P.	L.F.	12
18-DA	18" Bit. Coated (Paved Invert) C.M.P.	L.F.	38
18-DE	Metal End Section (For 15" Pipe)	Each	2
18-DE	Metal End Section (For 36" Pipe)	Each	2
18A-A	Metal Arch Culverts (Type B-1)	L.F.	0
18A-A	Metal Arch Culverts (Type B-7)	L.F.	62
18A-A	Metal Arch Culverts (Type B-9)	L.F.	66
18-DF	Pipe Collar	Each	1
19-A	Reinforcing Steel	Lb.	133,370
23-B	Grouted Light Stone Revetment	S.Y.	1185.1
24-A	Class A, Type 1 Underdrain	L.F.	461
25-H	Surface Drain Basins	Each	12
25-I	Surface Drains	L.F.	321.0
25-L	Paved Ditch	S.Y.	2613.4
27-A	Guard Rail (Type A)	L.F.	6363
28-C	Standard Signs, Flags & Flagging	L. Sum	1
28-E	Movable Barricades	Each	16
29-C	Right of Way Markers	Each	111
29-D	Drain Markers	Each	9
33-A	Removal of (1) Exist. Struct. (Bridge)	L. Sum	0
33-A	Removal of (33) Exist. Structs. (Culvs.) C.O.#1	L. Sum	35/33
36-C	Manhole Frame and Cover (36T)	Each	2
37-AB	Fertilizing	Acre	0
37-BB	Type 2 Mulch	Acre	71.6
37-BC	Asphalt Emulsion	Gal.	10,850
37-S	Seeding	Acre	0
	ROLLED STONE BASE		
1-BA	Water	100 Gal.	700
2-A	Aggregate	Ton	46211
2-B	Spreading, Shaping & Compacting (12")	Mi.	3.68
	COMPACTED GRAN. BASE (FOR CONC. PAVT. & SHOULDERS)		
1-BA	Water	100 Gal.	0
3C-A	Granular Base Material	Ton	58954
3C-B	Spreading, Shaping and Compacting	Mi.	11.70
	ASPHALTIC CONCRETE PAVEMENT		
7-B	Type B Asphaltic Concrete Pavement	Ton	23
7-D	Asphaltic Concrete Wedge Course	Ton	126

(Cont. on Sheet 2)

PROJECT ACCEPTED APRIL 16, 1963

Prepared By C.R. Baugher Date 5/30 1963 Checked in Dist. Office By H. G. Hau... Date 5/21 1963 Checked in Central Office By J. T. Johnson Date 1-28 1964 Revised By ______ Date ______ 19__

S & P - 2AS

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-24' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 2 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	I-44-1(13)16		2-A	143
DIST. No.	COUNTY			ROUTE	SEC. N
7	JASPER			I-44	

CROSS ROAD PIPE CULVERTS (CONT.)

Station	Reinf. Conc. Pipe 15"	18"	24"	30"	36"	42"	48"	Extra Strength Bit. Coated Pipe Invert 30"	42"	48"	18" CMP Pipe Collar (RCP)	Cl. 3 Exc. 9495	Type Hdwls.	Cl. B 46.88	Reinf. 3810	Skew	Remarks
Sub-Totals	301	304	314		370	129											
338+50										227		82	2-C-231 RB	7.72	534	30° L.A.	
343+00		79										12	2-C-230 RC	1.46	126		Lt. Lane Median Relief
350+00	67											26	2-C-230 RC	1.72	138	30° L.A.	Lt. Lane Median Relief
361+50		57										30	2-C-230 RC	2.20	166	30° L.A.	Lt. Lane Median Relief
378+515							265					101	2-C-231 RB	6.16	470	30° R.A.	
380+00		64										28	2-C-230 RC	1.46	126		Lt. Lane Median Relief
403+00		53										29	2-C-230 RC	2.20	166	30° R.A.	Rt. Lane Median Relief
410+30		56								38	1	55	1-C-230 RB	1.51	122		Lt. Lane Med. Relief, Lt. Hdwl. 5° L.A. Incl. 2-25° pipe bends.
227+00			95									136	2-C-230 RC	3.51	306		Rte. 71 Alt.
230+00	96											65	2-C-230 RC	1.28	103		Rte. 71 Alt.
245+564				121								234	2-C-230 RC 2-C-230 RB	3.97	336		Rte. 71 Alt.
411+15	101											52	2-C-230 RB	1.42	118	25°-25° R.A.	Ramp B - 30° Hdwl. Sk.
11+50	99	54										* 63	2-C-230 RC	1.35	106		Ramp B - * Sh. # 132 A
3+67						124						5	2-C-230 RB	3.68	322	30° L.A.	Ramp D
2+00		90										4	2-C-230 RC	2.78	195	60° L.A.	Ramp E - Lt. Hdwl. 35° L.A.
4+22			63									71	2-C-230 RC	2.52	248		Ramp G
10+35		79										83	2-C-230 RC	4.18	380	45° R.A.	Ramp G - Lt. Hdwl. 35° R.A., Rt. 50° R.A.
3+50		51										40	2-C-230 RC	1.46	126		Ramp H
11+45			55									59	2-C-230 RC	3.10	300	25° R.A.	Ramp H
423+50		90										17	2-C-230 RC	1.80	141		Rt. Lane Med. Relief, Rt. Hdwl. 20° R.A.
433+50		57										31	2-C-230 RC	2.20	166	30° L.A.	Rt. Lane Median Relief
447+72						190						35	2-C-231 RB	7.72	534	30° L.A.	
454+50	57											11	2-C-230 RC	1.28	103		Lt. Lane Median Relief
TOTALS	710	965	611	95	511	129	120	124	255	227	38	1	2218.6	113.16	9142		

CROSS ROAD CULVERTS ON OUTER ROADWAYS

Station	Reinf. Conc. Pipe 18"	24"	48"	Corr. Metal Pipe 16"	24"	30"	36"	42"	Metal End Sections 15"	36"	Cl. 3 Exc.	Type Hdwls.	Cl. B	Reinf.	Skew	Remarks
2248+49.7					38						30	2-C-230 RC	3.36	318	22°-50° L.A.	O.R.#2A Lt. Hdwl. 25° L.A. Rt. Hdwl. 35° L.A.
2258+12						34					38	2-C-230 RC	6.58	462	25° L.A.	O.R.#2A
2294+66		30					2		2		5					O.R.#2B
2306+23.2						38				2	11					O.R.#2B
2337+66							42				18	2-C-231 RC	7.78	604	30° L.A.	O.R.#3
2363+00				36							19	2-C-230 RC	4.62	392	30° L.A.	O.R.#3
2379+63							64				72	2-C-231 RC	7.78	604	30° R.A.	O.R.#3
2402+00			44								23	2-C-230 RC	1.72	138	30° R.A.	O.R.#3
1230+00	64										3	2-C-230 RC	1.66	126		O.R.#5
2011+00	105										40	2-C-230 RB	1.30	106		O.R.#4
1248+25		62									6	2-C-230 RC	3.32	312	30° R.A.	O.R.#6
2446+86.6			61								27	2-C-231 RC	9.84	684	30° L.A.	O.R.#4
3+46				48							22					Temp. Conn. O.R.#4
460+45				62							2				45° R.A.	Temp. X-over
464+89.2					50						0				10° E.A.	Temp. X-over
TOTALS	169	62	61	184	88	36	72	106	2	2	324		46.96	3746		

ADDITIONAL MISC. R.C.P. & C.M.P. (Paved Invert) (Bit. Coated)

Station	Location	R.C.P. 15"	18"	24"	30"	15" C.M.P.	Cl. 3 Exc.	Type Hdwls.	Cl. B	Reinf.	Remarks
259+50	From Med. to X-rd. Culv.		44				54	1-C-230 RB	0.65	53	Med. Relief, Incl. 1-35° Bend
371+275	From D.I. to X-rd. Culv.				60		126				Med. Relief, Incl. 2-25° Bends
4+50	Rt. from Curb Opening D.I.					12	* 5	1-C-230 RB	0.62	43	Ramp C Incl. 2-30° Bends * Sh. # 132 A
30+64	Fidelity Ch. Ch. D.I. to Culv.				4						Station on Fidelity Ch. Ch.
31+85	Fidelity Ch. Ch. D.I. to Culv.				4						" " " " "
6+60	Rt. from Curb Opening D.I.	4					7	1-C-230 RC	1.11	84	Ramp G Hdwl. Sk. 45°
TOTALS		4	44	60	8	12	192		2.28	180	

CROSS ROAD PIPE ON TEMPORARY BY-PASS CONNECTIONS

Station	CORR. Metal PIPE 12"	18"	24"	30"	42"	Metal Arch B-7	B-9	Cl. 3 Exc.	Skew	Remarks
288+90	46							11	30° R.A.	
299+00			46							Cl. 3 Incl. in 166 Culv.
329+33.6					60					Cl. 3 Incl. in 166 Culv.
393+63						66	9		38°-58° R.A.	
346+10.6			50							
317+06						62			30° R.A.	Cl. 3 Incl. in 166 Culv.
227+00				18						Rte. 71 Alt. Cl. 3 Incl. in 71 Culv.
1+00		46						24		Outer Rd. # 4' Temp. Connection
TOTALS	46	46	96	18	60	62	66	126		

LENGTH OF PROJECT

End of Project	Station	
Beginning of Project	Station	
Apparent Length		Feet
Equations and Exceptions:		
Total Corrections		Feet
Net Length of Project		Feet
State Length =		Miles
Federal Length		Miles

APPROACH SLAB FOR BRIDGES

Station	Station	Loc.	S.Y.	Skew	Remarks
313+67.7	313+96.0	℄	72.32	37° L.A.	Ramp A, Scotland
317+64.00	317+86.84	℄	83.92	49°-25' L.A.	Ramp A, Scotland
411+52.65	411+72.65	Rt. Lane	85.56	Rt. ⊥	
413+60.06	413+80.06	Rt. Lane	85.56	Rt. ⊥	
411+53.62	411+73.62	Lt. Lane	85.56	Rt. ⊥	
413+61.12	413+81.12	Lt. Lane	85.56	Rt. ⊥	
TOTALS			498.48	USE 498.5	

DRAIN BASINS & SURF DRAINS

Station	Loc.	Drain Basin	Drain Lin. Ft.	Remarks
313+92	Lt.	1	51.0	Brg. end - See C.O.#11
318+16	Lt.	1	47.0	End of closed Abut. See C.O.#11
413+76.06	Rt. Lane	2	43.9	Brg. end
413+76.12	Lt. Lane	2	46.6	Brg. end
1176	Rt.	1	12.4	Ramp A Fidelity
11+50	Rt.	1	13.2	Ramp C "
1125	Rt.	1	12.6	Ramp E "
9+90	Rt.	1	8.4	Ramp G "
5+00	Rt.	1	55.9	Ramp A "
4+50	Rt.	1	11.0	Ramp E "
TOTALS		12	* 321.0	

* Field Measured

GROUTED LIGHT STONE REVETMENT (See Sh. # 132)

Station	Station	Loc.	S.Y.	Remarks
258+40	258+50	Rt.	17.78	Rdwy. ditch
269+00		Rt.	29.09	Between Culvs.
	11+38.8	Lt.	269.92	(Ramp C Scotland) Inlet
	11+38.8	Rt.	556.68	(Ramp C Scotland) Outlet
329+33.6		Lt.	217.89	(Rte. 166 Conn.) Culv. Outlet & Jitches
377+35	377+85	Lt.	55.55	On Fill Slp. Exist. 166
4+16		Rt.	7.68	(Ramp B Fidelity) Between Culvs.
432+97	433+12	Rt.	15.37	Culv. Outlet
448+02		Rt.	15.28	Between Culvs.
TOTALS			1185.14	USE 1185.1 S.Y.

MISCELLANEOUS ITEMS

Sheet No.	Clearing Units	Grubbing Units	Class A Underdrains	Drain Markers	R/W Markers	Fertilizing & Seeding	Type Z Mulch	Remarks
3						17,600	14,800	
4	747	87			12	334,275	250,276	
6	114	66	44	1	14	117,200	117,200	Ramp A Rte 166 Conn.
7	37	1			1	62,725	62,725	Ramp A
8	170	44	143	4	10	61,525	61,625	Rte. 166 Conn. Ramp C & E
13	919	543			4	290,476	206,476	
14	1169	757			8	23,675	239,676	
15	1233	492			10	354,016	270,016	
17	626	228			4	419,885	335,885	
19	444	123			2	273,162	194,762	
22	84	49			10	98,200	98,200	Rte. 71 Alt.
25	1848	667	206	3	8	130,885	130,885	" " "
26	183	57	69	1	14	85,625	85,625	" " "
27						708,156	708,156	Ramps - Fidelity
35	879	368			7	358,615	274,615	
38	314	120			7	110,200	76,600	
TOTALS	8767	3611	461	9	111	3736,118	3117,318	
Acres	100.61	41.41				85.8	71.6	

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS THIS SHEET
	BITUMINOUS MAT			
4C-A	Primer (RC-0)	Gal.	22,180	
9-A	Hauling & Windrowing Aggr. (Gr. D)	Ton	6236	
9-B	Processing C.O.#88	Mi.	3.68	
9-D	Binder (MC-4)	Gal.	79980	
	SEAL COAT (SHOULDERS)			
10A-A	Bit. Material (1st Appl.) (200-250 Pen. Asph.)	Gal.	21330	
10A-B	Bit. Material (2nd Appl.) RC-1	Gal.	11620	
10A-C	Cover Material (No. 6)	Ton	772	
	BIT. STABILIZED BASE (SHOULDERS)			
4C-A	Primer (RC-0)	Gal.	25480	
12-A	Bit. Material (Base) (70-85 Pen. Asph.)	Gal.	269950	
12-B	Mineral Aggregate (Base)	Ton	19082	
	ROADWAY CONTINGENT ITEMS			
	Compacted Salvage Surface C.O.# 16B	Ton	1247	
	Stage Construction C.O.# 14	Lump Sum	1318.10	
	Placing Salvage Surface C.O.# 13-B	C.Y.	6179	
	Adjustment of drain basins C.O.# 11	Lump Sum	76.00	
	Fertilizing	Acre	86.8	
	Seeding	Acre	86.8	
	Placing State owned pipe 12"	Lin. Ft.	28	
	" " " " 15"	Lin. Ft.	402	
	" " " " 18"	Lin. Ft.	120	
	Reinf. Steel Recieved from Contractor C.O.#8B	Pound	2006	
	Adjust culv. reinf. steel to fit pipe Hdwl. "	Lump Sum	10.00	
	Asphalt Cut Samples	Each	39	
	Deficient Pavement	Lump Sum	-1293.51	
	BRIDGE STA. 5+31.48 (Ramp A) & Survey Dwg. No. H-526-R			
1-1	Class 3 Excavation for structures	C.Y.	1529.5	Sh.# 137
16-B	Class B Concrete	C.Y.	906.2	
19-A	Reinforcing Steel	Pound	98460	
	BRIDGE STA. 8+56 (Ramp C) & Survey Dwg. No. A-675			
1-1	Class 3 Excavation for structures	C.Y.	877.0	Sh.# 39
16-B	Class B Concrete	C.Y.	347.8	
19-A	Reinforcing Steel	Pound	36700	
	BRIDGE STA. 256+46.20 (Rte. 71 Alt.) & Survey Dwg. No. J-540-R			
1-1	Class 3 Excavation for structures	C.Y.	3396.5	Sh.# 134
16-B	Class B Concrete	C.Y.	1622.0	
19-A	Reinforcing Steel	Pound	184240	
	BRIDGE STA. 414+823 (Rte. I-44) & Survey Dwg. No. H-529-R			
1-1	Class 3 Excavation for structures	C.Y.	1872.5	Sh.# 140
16-B	Class B Concrete	C.Y.	1303.3	
19-A	Reinforcing Steel	Pound	144640	
33-A	Removal of Existing Structures	Lump Sum	1	
	BRIDGE STA. 242+76.83 (Rte. I-44) Scotland Dwg. No. A-625			
1-G	Class 1 Excavation for Structures	C.Y.	230.0	
16-B-1	Class B-1 Conc. (Superstr.)	C.Y.	756.9	
16-B	Class B Conc. (Substr.) (Incl. End Posts)	C.Y.	136.6	
17-B	Fab. Struct. Steel	Pound	34640	
19-A	Reinforcing Steel	Pound	245790	
22-DD	10" Steel Piles in Place (State furnished)	Lin. Ft.	644	
	CONTINGENT ITEMS			
	Class 1 Excav. below plan Elev. C.O.#6	C.Y.	14.6	
	Foundation Test Holes "	Lin. Ft.	56	

(Cont. on Sheet 3)

Prepared By C.R. Baughe Date 5/30 19 63 Checked in Dist. Office By H.G. Hamm Date 5/21 19 63 Checked in Central Office By J.T. Johnson Date 19 64 Revised By Date 19

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-24' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	I-44-1(18)15		2-A	14
DIST. No.	COUNTY			ROUTE	SEC. No.
7	JASPER			I-44	

F.E., P.E. & S.R. APPROACHES

Station	Type & Loc.	C.M.P. E.&S.R. 12"	15"	18"	21"	STATE FURN. C.M.P. 12"	15"	18"	R.C.P. 15"	Temp. 15" C.M.P.	Cl. 3 Exc.	Cl. A Exc. Incl. Borr.	Remarks
Rte. 166 Conn.													
290+90	F.E. Rt.		26										
291+58	P.E. Rt.		28										
292+97	S.R. Lt.		44										
294+30	P.E. Lt.		28							28			
293+36	P.E. Rt.		28										
297+95	P.E. Lt.												Crown
307+25	P.E. Lt.		40							38			
312+20	F.E. Lt.												Crown
312+68	C.E. Rt.		56										
321+71	P.E. Lt.												H.P.
324+85	P.E. Rt.	28											
325+44	P.E. Lt.						28			28			15"x28' Used from Temp. By-Pass
336+85	P.E. Lt.		28							28			
337+65	C.E. Lt.						48			48			15"x48' Used from Temp. By-Pass
340+12	C.E. Lt.		48										Temp. Crn. Entr. for Temp. By-Pass
341+00	P.E. Lt.						28			28			15"x28' Used from Temp. By-Pass
O.R. #3													
2353+49	P.E. Rt.											10	Crown
2360+31	S.R. Rt.				28						17		
2379+35	P.E. Rt.						34					330	
2386+15	P.E. Rt.						28					29	
2390+85	P.E. Rt.					28						19	
2397+68	C.E. Rt.						60					79	15"x60' C.M.P. Constr. by property owner
2399+16	C.E. Rt.												
2263+20	P.E. Rt.								28			103	
2268+29	P.E. Rt.	28											
O.R. #4													
2002+18	P.E. Rt.	40											
2004+70	P.E. Rt.	28											
2012+57	F.E. Rt.											113	Crown
2017+17	P.E. Rt.							30				25	
2434+06	P.E. Rt.								28			24	
2441+40	P.E. Rt.						28					41	
2452+26	P.E. Rt.											140	Crown
O.R. #5													
1228+05	P.E. Lt.												Crown
1232+66	P.E. Lt.								30			55	15"x60' C.M.P. Constr. by property owner
1249+37	C.E. Lt.												15"x60' R.C.P. Constr. by property owner
1251+70.5	C.E. Lt.												
O.R. #6													
2230+38	P.E. Rt.							30				822	
2231+05	P.E. Rt.							30				305	
2232+45	P.E. Rt.							30				250	
2234+23	P.E. Rt.						28					29	
2236+23	P.E. Rt.						28					12	
0+15	P.E. Rt.		28										
Rte. 71 Alt.													
276+35	P.E. Lt.			52									
278+75	P.E. Rt.												Crown: Incl. Crn. 100' Rt.
TOTALS		124	354	62	38	28	310	120	92	198	17	2386	

REMOVING PAVEMENT

TOTAL 31362 Sq. Yds. See Sh.# 129

REMOVING CURB

TOTAL 1073 Lin. Ft. See Sh.# 129

GUARD RAIL (TYPE A)

Station	Station	Loc.	Lin. Ft.	Remarks
312+96.1	313+83.6	Rt.	87.5	Ramp A Scotland Inter.
313+65.6	314+03.0	Lt.	37.6	Ramp A " "
344+50	346+00	Rt.	150.0	
346+00	348+00	Lt.	200.0	
359+56	361+06	Rt.	150.0	
369+25	379+50	Rt.	1025.0	
369+50	379+25	Lt.	975.0	
411+43.8	411+68.8	Rt.	25.0	
413+64.9	413+89.9	Rt.	25.0	
2401+25	2008+48	Lt.	625.0	O.R. #3
3+00	413+64.9	Rt.	1025.0	Ramp A Fidelity Inter.
413+64.9	9+97	Rt.	1112.5	Ramp C "
7+50	411+68.8	Rt.	587.5	Ramp E "
411+68.8	0+73	Rt.	212.5	Ramp G "
2464+57	2465+82	Rt.	125.0	O.R. #4
TOTAL			*6362.5 Use 6363'	

*Field Measured

MOVABLE BARRICADES

Station	Loc.	No.	Remarks
289+00	Rte. 166	2	
311+60	" "	2	
324+00	" "	2	
346+50	" "	2	
399+00	165' Lt.	2	On Exist. 166
1250+00	O.R. #5	2	
229+00	Rte. 71 Alt.	2	
268+00	Rte. 71 Alt.	1	
TOTAL		15	

CONCRETE PAVEMENT

	8" Reinf. S.Y.	8" Non Reinf. S.Y.	
Plan Quantity	160617.2	40552.6	Orig. computations were checked and the areas built to plan demensions.
TOTALS	160617.2	40552.6	

REMOVAL OF (1) EXIST. STRUCTURE (BRIDGE)

Station	Loc.	Description	Lump Sum	Remarks
414+98.1	Lt.	Double 10'x12'x51' Conc. Box	0	Paid under (Removal of Exist. Structures) Brg. 414+89.3

2' ROCK BLANKET (See Sh.#130)

Station	Loc.	Placing Cu. Yds.	Grouted Surf. Sq. Yds.	Remarks
8+85	Rt.	1054	1581	Ramp C Fidelity Branch
8+85	Lt.	460	675	Ramp C " "
9+59	Lt.	1010	1515	Ramp B " "
9+59	Rt.	145	218	Ramp B " "
TOTALS		2659	3989	

REMOVAL OF (33) EXIST. STRUCTURES (CULVS.)

Removal of (33) Existing Struct. (Culvs.) as per original plans with the addition of 3 & Subtraction of 1 items.

Station	Loc.	Size	Description	No.	
288+90	Temp. By-pass	12"x46'	C.M.P. X-Rd. Culv.	1	C.O. #1
299+00	Temp. By-pass	24"x46'	C.M.P. X-Rd. Culv.	1	"
317+05	Lt. on By-pass	B-7 x 62'	X-Rd. Culv.	1	"
			Sub Total	3	
Deduct. for Pipe not layed or removed.					
340+12	C.E. Lt.	15"x48'	CMP on Rte. 166 Conn.	-1	
			TOTAL	2	

33 (Plan) plus 2 = 35/33 of 1 Lump Sum

LENGTH OF PROJECT

End of Project		Station	
Beginning of Project		Station	
Apparent Length			Feet
Equations and Exceptions:			
Total Corrections			Feet
Net Length of Project			Feet
	State Length =		Miles
	Federal Length =		Miles

DROP INLETS (Cl. 3 Incl. with Culvs.)

Station	Loc.	Std.	Size	"D"	Type Cover	Conc.	Steel	Pipe Openings	Spillways	Remarks
249+15	℄	36 EE	5'x3'	3'-6"	A	1.73	164	2-24"		
303+00	Lt.	36 E	3'x2'	3'	A	1.00	79	1-15"	2	Ramp A
371+27.5	℄	36 EE	5'x3'	4'	A	1.85	171	1-24"	2	
11+50	Rt.	36 E	3'x2'	3'	A	0.95	79	1-15" & 1-18"	2	Ramp B Fidelity
30+54	Rt.	36 EE	5'x2'	7'-6"	A	2.50	240	1-30"	2	Ch.Ch. Fidelity
31+85	Rt.	36 EE	5'x2'	6'-0"	A	2.05	197	1-30"	2	" " "
TOTALS						10.08	930			

CURB OPENING TYPE DROP INLET (Cl. 3 Incl. with pipes)

Station	Loc.	Curb Opening "D"	Conc.	Steel	D.I. "L"	Extension Conc.	Steel	M.H. Frame & Cover	Remarks
6+50	Rt.	2'-6"	1.00	114	2'-6"	0.38	62	1	Ramp C Fidelity
6+50	Rt.	2'-6"	1.00	114	2'-6"	0.38	62	1	Ramp G "
TOTALS			2.00	228		0.76	124	2	

PAVED DITCH

Station	Station	Loc.	Width	"h"	*Lin. Ft.	Sq. Yds.	Remarks
245+06	245+20	Rt.			15	13.33	Rdwy. ditch-Field measured See Sh.# 132
259+00		Lt.	6'	1'	214.4	249.56	Between Culvs.
410+00		Lt.	4'	1'	234.0	220.19	Culv. Outlet
413+24	414+77	Rt.	2'	1'	168.8	121.54	At toe of Embk.
416+29	417+45	Rt.	6'	2'	222.8	369.85	Culv. Outlet to Fidelity Branch
245+40	245+60	Rt.	6'	1'	20	23.28	71 Alt. Rdwy. ditch
245+56.4		Rt.	6'	1'	143.8	167.38	71 Alt. Inlet ditch
245+56.4		Lt.	6'	1'	140.9	164.01	71 Alt. Outlet ditch to Fidelity Branch
253+87	257+27	Rt.	4'	1'	345.2	324.83	71 Alt. Rdwy. ditch
256+12	257+39	Lt.	4'	1'	132.7	124.87	71 Alt. Rdwy. ditch
3+67		Rt.	4'	1'	43.6	41.03	Ramp D Fidelity Between Culvs.
6+70	10+00	Lt.	4'	1'	393.5	370.22	Ramp D Rdwy. ditch to Fidelity Branch
10+00	10+10	Lt.	4'-6'	1'	10	10.53	Ramp D Transition
12+90	13+00	Rt.	6'-4'	1'	10	10.53	Ramp F Transition
13+00	14+72	Rt.	4'	1'	159.4	150.00	Ramp F Rdwy. ditch to D.I.
14+75	16+00	Rt.	4'	1'	120.0	112.92	Ramp F Rdwy. ditch to D.I.
16+00	16+10	Rt.	4'-6'	1'	10	10.53	Ramp F Transition
6+35	6+45	Rt.	2'	1'	10	7.20	Ramp H Rdwy. ditch
6+40		Rt.	2'	1'	50.3	36.22	Ramp H Bk. Slope
6+40		Rt.	6'-2'	1'	10	9.42	Ramp H Bk. Slope Transition
11+46	11+57	Rt.	4'	1'	11	10.35	Ramp H Rdwy. ditch
11+50		Rt.	4'	1'	28.4	26.72	Ramp H Bk. Slope
11+50		Rt.	6'-4'	1'	10	10.53	Ramp H Transition
458+90		Rt.	6'	1'	24.3	28.29	Culv. Inlet
TOTAL						2613.39	USE 2613.4 Sq. Yds.

*Field Measured

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS FED. AID ONLY
	BRIDGE STA. 411+72.62 (RT. LANE) STA. 411+75.69 (LT. LANE) DWG. NO. A-630			
1-G	Class 1 Excavation for structures	Cu. Yd.	506.0	
16-B-1	Class B-1 Concrete (Superstr.)	Cu. Yd.	433.5	
16-B	Class B Concrete (Substr.)	Cu. Yd.	337.0	
17-B	Fab. Struct. Steel (Bearings)	Pound	13590	
17-B	Fab. Struct. Steel (I-Bm. Spans)	Pound	326100	
19-A	Reinforcing Steel	Pound	209830	
22-DD	10" Steel Piles in Place (State Furnished)	Lin. Ft.	694	
34-A	Painting	Ton	169.8	
	CONTINGENT ITEMS			
	Class 1 Excavation Below Plan	Cu. Yd.	18.5	
	Foundation Test Holes	Lin. Ft.	166.8	

Prepared By C.R. Baugh Date 5/30 1963 Checked in Dist. Office By H. G. Haun Jr. Date 5/21 1963 Checked in Central Office By T. T. Johnson Date 1-29 1964 Revised By ______ Date ______ 19__

S & P - 245

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., Culvs., Bridges, Signing & 2-24' CO/C. PYTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 4 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No	TOTAL SHEETS
5	MO.	I-44-1(18)15		2-A	
DIST. No.	COUNTY			ROUTE	SEC. No
7	JASPER			I-44	

LENGTH OF PROJECT

End of Project	Station	
Beginning of Project	Station	
Apparent Length		Feet
Equations and Exceptions:		
Total Corrections		Feet
Net Length of Project		Feet
		Miles
State Length / Federal Length		Miles

SPECIAL SHOULDER MOUNT SIGNS

SIGNS

W SECTIONS FABRICATED STRUCTURAL STEEL

COVER PLATES

5" ZEE ASSEMBLY → BASE PLATES

Station	Sign No.	Location	Sign Size	Post Design No.	Post No.1 Length	Post No.2 Length	Post No.3 Length	W Lin. Ft. Total	W Lbs./Ft.	W Cut Off Pounds	W Total Pounds	Cover Plates No. Each	Cover Plates Length Lin. Ft.	Cover Plates Total Length	Cover Plates Lbs./Ft.	Cover Plates Total Pounds	5" ZEE Post No. Each	5" ZEE Post Space	5" ZEE Lbs. Each	5" ZEE Total Pounds	Base Plates Lbs.	Base Plates Total Lbs.	Footings Grand C.Y.	Footings Cl.B Conc.	Remarks
297+00	219	Bus Loop 44 Rt.	12'-6"x3'-6"	1	11'-3"	11'		22.25	13	6	283										42	325	0.94		
271+41	237	I-44	Lt. 6'x5'	1	12'-6"	13'-3"		25.75	13	6	329										42	371	0.88		
282+00	239a	I-44	Lt. 10'-6"x10'	7	18'-6"	20'		38.50	25	33	930										164	1094	2.99		
285+10	241	I-44	Rt. 15'-6"x5'	2	12'-9"	14'	14'-9"	41.50	16	15	649										90	739	1.44		
294+00	242	I-44	Rt. 9'x6'	2	13'-6"	14'-6"		28.00	16	10	438										60	498	1.00		
320+71	Special	I-44	Rt. 16'x6'	6	14'-3"	15'-9"		30.00	21	28	602										150	752	3.14	See C.O.#18	Type STRC
329+00	244a	I-44	Lt. 9'-6"x9'-6"	6	18'-6"	21'-3"		39.75	21	28	807										150	957	3.52		
347+20	245a	I-44	Rt. 12'-6"x11'-6"	10	20'-9"	24'-6"		45.25	25	33	1098	4	8.5	34	5.11	174					226	1498	4.32		
347+20	245b	I-44	Rt. 9'x4' (Below 245a)														2	7'-6"	545	109		109			
349+00	246	I-44	Lt. 8'x6'-6"	2	14'	15'-3"		29.25	16	10	468										60	518	1.00	Littering Sign	
369+00	248	I-44	Lt. 10'-6"x5'	2	13'-3"	16'-6"		29.75	16	10	466										60	526	1.12		
393+00	252a	I-44	Rt. 12'x10'	7	18'-9"	18'-9"		37.50	25	33	904										164	1068	3.33		
408+26	258	I-44	Lt. 14'-6"x7'-6"	5	15'-3"	16'-9"		32.00	20	21	619										96	715	1.74		
253+20	262	71 Alt.	Rt. 12'-6"x2'-6"	1	10'-3"	10'-3"		20.50	13	6	261										42	303	0.91		
265+00	268	71 Alt.	Lt. 10'x3'-6"	1	11'-6"	11'-9"		23.25	13	6	296										42	338	0.94	3.5' Std. Clearance	
242+95	276	71 Alt.	Lt. 11'x2'-6"	1	10'	10'-6"		20.50	13	6	261										42	303	0.88	3.5' Std. Clearance	
232+00	281	71 Alt.	Rt. 10'x3'-6"	1	11'-6"	11'-6"		23.00	13	6	293										42	335	0.94		
417+07	289	I-44	Rt. 15'x7'-6"	6	15'-9"	19'-6"		35.25	21	28	712										150	862	3.40		
432+00	295a	I-44	Lt. 12'-6"x10'	7	18'-9"	18'-6"		37.25	21	33	898										164	1062	3.53		
TOTALS																						12373	36.02		

← SIGNS → FAB. STRUCT. STEEL 6"x4" W Posts @ 8.5# Cutoff Each Post = 3.3#

Station	Sign No.	Location	Each	Each	Length	Pounds	Remarks
EXIT ↗ (6'x6')							
271+41	237	I-44 Lt.	1				See Special Shoulder Mount Signs
Total			1				
NEXT EXIT ... MILES (9'x4') See C.O.#7							
329+00	244b	I-44 Lt.	1				See Special Shoulder Mount Signs (8 Miles)
347+2	245b	I-44 Rt.	1				" " " " " (13 Miles)
Total			2				
THRU TRAFFIC (13'x9')							
401+14	254a	I-44	1				Overhead Truss
423+63	292a	I-44	1				"
Total			2				
GAS · FOOD · LODGING (9'x6') See C.O.#7							
294+00	242	I-44 Rt.	1				See Special Shoulder Mount Signs (2 Miles)
Total			1				
NEXT SERVICES ... MILES (8'x5') See C.O.#7							
282+00	239b	I-44 Lt.	1				See Special Shoulder Mount Signs (7 Miles)
393+00	252b	I-44 Rt.	1				" " " " " (12 Miles)
432+00	296b	I-44 Lt.	1				" " " " " (3 Miles)
Total			3				
$25 TO $500 FINE FOR LITTERING HIGHWAYS (8'x6.5')							
349+00	246	I-44 Lt.	1				See Special Shoulder Mount Signs
Total			1				
EXIT ... M.P.H. (4'x6') See C.O.#7							
274+00	238	I-44 Lt.	1	2	16'-6"	274	40 M.P.H.
400+00	253	I-44 Rt.	1	2	16'-9"	278	40 M.P.H.
402+90	259	I-44 Lt.	1	2	16'-6"	274	30 M.P.H.
415+30	288	I-44 Rt.	1	2	18'-0"	299	30 M.P.H.
425+00	296	I-44 Lt.	1	2	16'-9"	278	40 M.P.H.
Totals			5			1403	

← SIGNS → FAB. STRUCT. STEEL 6"x4" W Posts @ 8.5# Cutoff Each Post = 3.3#

Station	Sign No.	Location	Each	Each	Length	Pounds
KEEP OFF MEDIAN (4'x6')						
271+50	236	I-44 Rt.	1	2	16'-6"	274
385+00	250	I-44 Lt.	1	2	16'-6"	274
441+00	297	I-44 Rt.	1	2	16'-6"	274
Totals			3			822
KEEP LEFT (4'x5')						
335+30	231	Ramp E Rt.	1	2	16'-6"	257
Totals			1			257
KEEP RIGHT (4'x5')						
16+00	226	Ramp C Lt.	1	2	16'-9"	278
334+00	227	Ramp E Lt.	1	2	16'-9"	278
Totals			2			556
MERGING TRAFFIC (4'x4' Diamond)						
251+00	224	I-44 Rt.	1	2	16'-6"	257
404+50	256	I-44 Lt.	1	2	16'-0"	266
406+00	257	I-44 Rt.	1	2	15'-6"	257
255+00	264	71 Alt. Lt.	1	2	14'-9"	244
266+00	266	71 Alt. Rt.	1	2	16'-0"	266
262+00	277	71 Alt. Rt.	1	2	16'-6"	257
240+30	278	71 Alt. Lt.	1	2	16'-3"	270
419+00	290	I-44 Lt.	1	2	17'-3"	287
421+00	291	I-44 Rt.	1	2	17'-3"	287
Totals			9			2391
NO LEFT TURN (4'x6')						
338+00	234	Ramp E Lt.	1	2	17'-3"	287
Totals			1			287
EMERGENCY STOPPING ONLY (4'x3') See C.O.#7						
305+00	243	I-44 Rt.	1	2	16'-6"	274
305+00	247	I-44 Lt.	1	2	16'-6"	274
Totals			2			548

← SIGNS → FAB. STRUCT. STEEL 6"x4" W Posts @ 8.5# Cutoff Each Post = 3.3#

Station	Sign No.	Location	Each	Each	Length	Pounds
SPEED LIMIT 70 (4'x6')						
277+10	240	I-44 Rt.	1	2	16'-9"	278
379+00	249	I-44 Lt.	1	2	18'-0"	299
447+00	298	I-44 Rt.	1	2	18'-0"	299
Totals			3			876
YIELD (6' Triangle) See C.O.#7						
335+00	228	Ramp E Lt.	1	1	15'-6"	128
334+10	230	Ramp E Rt.	1	1	15'-6"	128
17+36	267	Ramp F Rt.	1	1	16'-6"	137
16+55	280	Ramp B Rt.	1	1	15'-6"	128
Totals			4			521
DO NOT ENTER (4'x4')						
11+00	232	Ramp C Lt.	1	2	15'-6"	257
Totals			1			257
STOP (3' Octagon)						
267+60	269	71 Alt. Lt.	1	1	12'-3"	101
268+30	273	71 Alt. Rt.	1	1	12'-3"	101
228+46	282	71 Alt. Rt.	1	1	12'-3"	101
227+50	285	71 Alt. Lt.	1	1	12'-3"	101
Totals			4			404
SPECIAL SIGNS						
302+76	221	Bus Loop 44 Rt.	6'-6"x2'-6"	2	14'-6"	240
334+20	229	Ramp E Rt.	30"x30"	1	13'-6"	111
* 401+14	254b	I-44	13'-6"x9'-6"		Overhead Truss	
* 401+14	254c	I-44	15'x7'-6"		"	"
* 267+26	270	71 Alt. Rt.	5'-6"x4'-6"	2	16'-6"	267
* 226+90	284	71 Alt. Rt.	5'-6"x4'-6"	2	16'-6"	257
* 229+10	271	71 Alt. Lt.	5'-6"x4'-6"	2	16'-6"	257
* 229+10	283	71 Alt. Lt.	5'-6"x4'-6"	2	16'-6"	257
* 423+63	292b	I-44	13'-6"x9'-6"		Overhead Truss	
* 423+63	292c	I-44	15'x7'-6"		"	"
Total						1379
* See C.O.#7						

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS THIS SHEET
16-B	Class B Concrete (Sign Footings)	Cu. Yd.	86.4	
17-B	Fabricated Structural Steel	Pound	22730	
27-A	Guard Rail (Type A)	Lin. Ft.	250	
40-K	Photoelectric Control	Each	2	
40-Q	18" Trenching and Backfilling	Lin. Ft.	134	
40-T	No. 8 Single Conductor Cable (600V)	Lin. Ft.	310	
41-A	Two Digit Mile Marker Panel	Each	2	
41-C	9'-5" Mile Post (Steel)	Each	2	
41-D	4 Pound Sign Post (Steel)	Lin. Ft.	146	
41-E	Overhead Truss (Sign No. 254)	Lump Sum	1	
41-E	Overhead Truss (Sign No. 292)	Lump Sum	1	
41-F	Service Pole	Each	2	
41-G	Power Supply Assembly	Lump Sum	2	
41-GG	1.6 KVA Dry Type Transformer	Each	0	
	STANDARD SIGNS			
41-H	Exit (6'x5')	Each	1	
41-H	Next Exit ... Miles (8'x4')	"	0	
41-H	Thru Traffic (13'x9')	"	2	
41-I	Gas-Food-Lodging (8'x6')	"	0	
41-I	Next Services ... Miles (10.5'x4')	"	0	
41-J	#25 to #500 Fine for Littering Highways (8'x6.5')	"	1	
41-J	Arrow, Slant (20"x16")	"	0	
41-J	Arrow, Straight (20"x12")	"	0	
41-J	East (18"x9")	"	6	
41-J	West (18"x9")	"	0	
41-J	East (24"x12")	"	2	
41-J	West (24"x12")	"	0	
41-J	Exit Speed ... (4'x5')	"	0	
41-J	Jct. (20"x12")	"	0	
41-J	Keep Off Median (4'x5')	"	3	
41-J	Keep Left (4'x5')	"	1	
41-J	Keep Right (4'x5')	"	2	
41-J	Merging Traffic (4'x4' Diamond)	"	5	
41-J	No Left Turn (4'x5')	"	1	
41-J	No Stopping Except for Repairs (4'x5')	"	0	
41-J	Shield, U.S. Missouri 166 (16")	"	10	
41-J	Shield, U.S. Missouri 166 (20" on 24")	"	5	
41-J	Shield, Interstate 44 (24")	"	10	
41-J	Shield, Interstate 44 (36")	"	5	
41-J	Speed Limit 70 (4'x5')	"	3	
41-J	To (14" Circle)	"	1	
41-J	Yield Right of Way (5' Triangle)	"	0	
41-J	Do Not Enter (4'x4')	"	1	
41-K	Stop (3' Octagon)	"	4	
	SPECIAL SIGNS			
41-L	Sign No. 219 (12'-6"x3'-6")	Each	1	
41-L	Sign No. 221 (6'-6"x2'-6")	"	1	
41-L	Sign No. 229 (30"x30")	"	1	
41-L	Sign No. 239(a) (10'-6"x10')	"	1	
41-L	Sign No. 241 (15'-6"x5')	"	1	
41-L	Sign No. 244(a) (9'-6"x9'-6")	"	1	
41-L	Sign No. 245(a) (12'-6"x11'-6")	"	0	
41-L	Sign No. 248 (10'-6"x5')	"	1	
41-L	Sign No. 252(a) (12'x10')	"	0	
41-L	Sign No. 254(b) (13'-6"x9'-6")	"	0	
41-L	Sign No. 254(c) (15'x7'-6")	"	0	
41-L	Sign No. 258 (14'-6"x7'-6")	"	0	
41-L	Sign No. 262 (12'-6"x2'-6")	"	1	
41-L	Sign No. 268 (10'x3'-6")	"	1	
41-L	Sign No. 270 & 284 (5'-6"x3'-6")	"	0	
41-L	Sign No. 271 & 283 (5'-6"x3'-6")	"	0	
41-L	Sign No. 276 (11'x2'-6")	"	1	
41-L	Sign No. 281 (10'x3'-6")	"	1	
41-L	Sign No. 289 & 292(c) (15'x7'-6")	"	0	
41-L	Sign No. 292(b) (13'-6"x9'-6")	"	0	
41-L	Sign No. 295(a) (12'-6"x10')	"	0	
	CONTINGENT ITEMS			
7'-0"	Delineator Post (Double Amber)	Each	115	
7'-6"	" " (Single White)	"	1	
7'-6"	" " (Double Amber)	"	224	
7'-6"	" " (Triple Amber)	"	1	
8'-0"	" " (Single White)	"	23	
8'-0"	" " (Double Amber)	"	90	
8'-0"	" " (Triple Amber)	"	4	
8'-6"	" " (Single White)	"	12	
8'-6"	" " (Double Amber)	"	19	
8'-6"	" " (Triple Amber)	"	1	

(Continued)

Prepared By C.R. Bangle Date 5/30 19 63 Checked in Dist. Office By H.A. Hamm Jr. Date 5/31 19 63 Checked in Central Office By Gradding Date 8-11 19 64 Revised By Date 19

S & P - 2AS

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-24' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 5 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	I-44-1(18)16		2-A	
DIST. No.	COUNTY			ROUTE	SPC. No.
7	JASPER			I-44	

LENGTH OF PROJECT

End of Project	Station	
Beginning of Project	Station	
Apparent Length		Feet
Equations and Exceptions:		
Total Corrections		Feet
Net Length of Project		Feet
	State Length =	Miles
	Federal Length =	Miles

STANDARD SIGN ASSEMBLIES AND POSTS

Station	Sign No.	Rte. or Ramp	Location	Arrow Slant 18"x9"	Arrow Straight 18"x9"	East 18"x9"	West 18"x9"	East 30"x15"	West 30"x15"	Jct. 18"x9"	U.S.166 Shield 16"	U.S.166 Shield 20" on 24"	I-44 Shield 24"	I-44 Shield 36"	TO 14" Circle	FAB. STRUCT. 6"x6" Wide Flange Posts Cutoff Each	Each Length	STEEL @ 2.25# Posts @ 3.66# Pounds	4 Pound Sign Post Each	Length
294+00	218	Bus. Loop	I-44 Rt.			1				1	1		1						1	15'
300+00	220	Bus. Loop	I-44 Rt.	1		1					1		1						1	15'
304+50	222	Bus. Loop	I-44 Lt.		1	1					1		1		1				1	15'-3"
307+00	223	Ramp A	Rt.			1					1		1						1	14'
267+00	233	I-44	Lt.						1			1		1		1	16'-3"	135		
267+00	235	I-44	Rt.					1				1		1		1	16'-3"	135		
389+00	251	I-44	Lt.						1			1		1		1	15'-6"	128		
251+35	261	71 Alt.	Rt.	1		1					1		1						1	14'-3"
261+60	266	71 Alt.	Lt.			1					1		1						1	14'-9"
274+50	272	71 Alt.	Lt.							1	1		1						1	14'-3"
245+15	275	71 Alt.	Lt.	1			1				1		1						1	14'-3"
236+00	279	71 Alt.	Rt.	1			1				1		1						1	14'
223+50	286	71 Alt.	Rt.							1	1		1						1	14'-3"
437+00	296	I-44	Rt.					1				1		1		1	16'-6"	128		
466+00	299	I-44	Lt.						1			1		1		1	16'-6"	128		
TOTALS				5	1	6	2	2	3	3	10	6	10	5	1			654		146

MILE POSTS

Station	Sign No.	Location	2 Digit Panel	5'-5" Post Each	Remarks
281+38	16	I-44 Rt. & Lt.	2	2	Mile Post #16
334+18	17	I-44 Rt. & Lt.	2	2	" " #17
386+98	18	I-44 Rt. & Lt.	2	2	" " #18
439+78	19	I-44 Rt. & Lt.	2	2	" " #19
TOTALS			8	8	

OVERHEAD STEEL TRUSS

Station	Sign No.	C.I.B. Conc.	18" Trenching	#8 Backfilling	#8 Cond. Cable	Span	Remarks
401+14	254	24.57	90'	44'	310' (Plan Quan.)	69'	Post Type II
423+63	292	24.82	44'			69'	" " II
TOTALS		*49.39	*134'				*Field Measured Quan.

SERVICE POLE & POWER SUPPLY ASSEMBLY

Station	Location	Power Supply Assembly	36' Service Pole
401+26	175' Rt.	1	1
423+40	130' Lt.	1	1
TOTALS		2	2

GUARD RAIL (TYPE A)

Station	Station	Location	Dist. off Pvmt. Edge	Lin. Ft.
400+70.3	401+20.3	I-44 Rt.	6' Rt.	50
400+70.3	401+20.3	I-44 Rt.	4' Lt.	50
401+07.8	401+32.8	I-44 Rt.	135' Lt.	25
423+44.3	423+69.3	I-44 Lt.	135' Lt.	25
423+56.8	424+06.8	I-44 Lt.	4' Lt.	50
423+66.8	424+06.8	I-44 Lt.	6' Rt.	50
TOTAL				260

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS FED. AID ONLY
	CONTINGENT ITEMS (SIGNS) - CONTINUED			
	Next Exit --- Miles (9' x 4')	Each	2	
	Gas - Food - Lodging (9' x 6')	"	1	
	Next Services --- Miles (8' x 5')	"	3	
	Arrow, Slant (18" x 9")	"	5	
	Arrow, Straight (18" x 9")	"	1	
	East (30" x 15")	"	2	
	West (30" x 15")	"	3	
	Exit --- M.P.H. (4' x 5')	"	6	
	Junction (18" x 9")	"	3	
	Emergency Stopping Only (4' x 3')	"	2	
	Yield	"	4	
	Sign No. 245(a) (12'-6" x 11'-6")	"	1	
	" " 252(a) (12' x 10')	"	1	
	" " 254(b) (13'-6" x 9'-6")	"	1	
	" " 254(c) (15' x 7'-6")	"	1	
	" " 258 (14'-6" x 7'-6")	"	1	
	" " 270 & 284 (5'-6" x 4'-6")	"	2	
	" " 271 & 285 (5'-6" x 4'-6")	"	2	
	" " 289 & 292(c) (15' x 7'-6")	"	2	
	" " 292(b) (13'-6" x 9'-6")	"	1	
	" " 295(a) (12'-6" x 10')	"	1	
	Type STRC Sign (16' x 6')	"	1	

Prepared By C.R. Baugher Date 5/30 19.63 Checked in Dist. Office By H.G. Hamm Date 5/21 19.63 Checked in Central Office By Date 19 Revised By Date 19

S & P - 248

LOCATION SCOTLAND EAST TO FIDELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-24' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 6 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	I-44-1(18)16		2-A	
DIST. No.	COUNTY			ROUTE	SEC. No.
7	JASPER			I-44	

DELINEATORS

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"
296+30	Ramp A Lt.					1					
298+00	Scotland Rt.						1				
299+29	Rt.						1				
300+67	Rt.						1				
301+03	Rt.						1				
301+59	Rt.						1				
302+15	Rt.									1	
302+71	Rt.									1	
303+27	Rt.									1	
303+83	Rt.									1	
304+39	Rt.									1	
304+95	Rt.									1	
305+51	Rt.									1	
306+07	Rt.									1	
306+64	Rt.									1	
307+32	Rt.									1	
308+32	Rt.						1				
309+32	Rt.						1				
310+32	Rt.			1							
311+32	Rt.			1							
312+00	Rt.			1							
312+68	Rt.			1							
313+20	Rt.			1							
318+00	Rt.			1							
318+48	Rt.			1							
318+97	Rt.			1							
319+46	Rt.			1							
319+95	Rt.			1							
320+44	Rt.			1							
320+93	Rt.			1							
321+41	Rt.			1							
322+27	Rt.			1							
323+24	Rt.			1							
324+21	Rt.			1							
325+18	Rt.			1							
325+18	Lt.			1							
326+07	Rt.			1							
326+07	Lt.			1							
326+56	Rt.			1							
327+06	Rt.			1							
327+56	Rt.			1							
328+06	Rt.			1							
328+56	Rt.			1							
256+21	I-44 Rt.						1				
257+06	Rt.						1				
257+87	Rt.						1				
258+87	Rt.									1	
259+87	Rt.									1	
260+87	Rt.									1	
261+87	Rt.								1		
263+87	Rt.								1		
282+00	Lt.					1					
281+00	Lt.						1				
280+00	Lt.						1				
279+00	Lt.						1				
278+00	Lt.						1				
277+00	Lt.						1				
276+16	Lt.						1				
275+33	Lt.						1				
1+50	Ramp C Rt.						1				
2+25	Rt.			1							
3+00	Rt.			1							
3+49	Rt.			1							
4+49	Rt.			1							
4+49	Lt.			1							
5+49	Rt.			1							
5+49	Lt.			1							
6+53	Rt.			1							
7+58	Rt.			1							
8+63	Rt.			1							
9+63	Rt.			1							
10+63	Rt.	1									
11+63	Rt.	1									
12+36	Rt.	1									
13+09	Rt.			1							
13+82	Rt.			1							
14+55	Rt.			1							
15+27	Rt.			1							
Sub Totals		3	—	40	—	2	18	—	1	13	1

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"	
16+27	Ramp C Rt.			1								
17+27	Rt.			1								
18+27	Rt.				1							
20+27	Rt.		1									
0+00	Ramp A E Rt.			1				*1				*A
0+37	Fidelity Rt.			2								
0+73	Rt.			2								
1+09	Rt.			2								
1+45	Rt.			2								
1+82	Rt.			2								
1+82	Lt.			2								
2+06	Lt.	2										
2+30	Lt.	2										
2+54	Lt.	2										
2+78	Lt.	2										
3+02	Lt.	2										
3+26	Lt.	2										
3+49	Lt.	* 1		1								*E
3+72	Lt.	1		1								
3+96	Lt.	1		1								
4+20	Lt.	1		1								
4+44	Lt.	1		1								
4+68	Lt.	1		1								
4+92	Lt.	1		1								
5+19	Lt.	1		1								
5+53	Lt.	1		1								
6+87	Lt.	1		1								
6+20	Lt.	1		1								
6+53	Lt.	1		1								
6+87	Lt.	1		1								
7+11	Lt.	1		1								
7+35	Lt.	1		1								
7+59	Lt.	1		1								
7+83	Lt.	1		1								
8+07	Lt.	1		1								
8+31	Lt.	1		1								
8+79	Lt.	1		1								
9+03	Lt.	1		1								
9+27	Lt.	1		1								
9+51	Lt.	1		1								
9+75	Lt.	1		1								
9+99	Lt.	1		1								
10+23	Lt.	1		1								
10+23	Rt.							2				
10+60	Rt.							2				
10+96	Rt.							2				
11+32	Rt.							2				
11+68	Rt.							2				
12+05	Rt.							2				
0+00	Ramp C&G Rt.							2				
0+37	Rt.			1				*1				*C
0+73	Rt.			1				1				
1+10	Rt.			1				1				
1+45	Rt.			1				1				
1+82	Rt.			1				1				
1+82	Lt.	2										
2+06	Lt.	2										
2+30	Lt.	1		* 1								*C
2+54	Lt.	1		1								
2+78	Lt.	1		1								
3+02	Lt.	1		1								
3+26	Lt.	1		1								
3+49	Lt.	1		1								
3+72	Lt.	1		1								
3+96	Lt.	1		1								
4+20	Lt.	1		1								
4+44	Lt.	1		1								
4+68	Lt.	1		1								
4+92	Lt.	1		* 1								*G
5+16	Lt.	1		1								
5+54	Lt.	1		1								
6+92	Lt.	1		1								
6+29	Lt.	1		1								
6+66	Lt.	1		1								
7+04	Lt.	1		1								
7+28	Lt.	1		1								
7+52	Lt.	1		1								
Sub Totals		63	1	67	1	—	20	—	—	—	—	

LENGTH OF PROJECT

End of Project Station

Beginning of Project Station

Apparent Length Feet

Equations and Exceptions:

Total Corrections Feet

Net Length of Project Feet

State Length = Miles

Federal Length = Miles

DELINEATORS

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"	
7+76	Ramp C&G Lt.	1		* 1								*C
8+00	Lt.	1		1								
8+24	Lt.	1		1								
8+48	Lt.	1		1								
8+71	Lt.	1		1								
8+95	Lt.	1		1								
9+19	Lt.	1		1								
9+43	Lt.	1		1								
9+67	Lt.	1		1								
9+91	Lt.	1		1								
10+15	Lt.	1		1								
10+39	Lt.	1		1								
10+39	Rt.			* 1			1					*G
10+76	Rt.			1			1					
11+12	Rt.			1			1					
11+48	Rt.			1			1					
11+84	Rt.			1			1					
12+21	Rt.			1			1					
0+00	Ramp B Rt.			1								
0+50	Rt.						1					
1+01	Rt.						1					
1+52	Rt.						1					
2+03	Rt.								1			
2+54	Rt.								1			
2+54	Lt.			1								
3+05	Lt.			1								
3+56	Lt.			1								
4+07	Lt.			1								
4+58	Lt.			1								
5+09	Lt.			1								
5+56	Lt.						1					
6+36	Lt.						1					
6+86	Rt.						1					
7+12	Rt.						1					
8+12	Rt.						1					
9+12	Rt.						1					
10+12	Rt.						1					
11+12	Rt.						1					
11+12	Lt.						1					
11+88	Lt.						1					
12+41	Lt.	1										
12+94	Lt.	1										
13+46	Lt.	1										
13+98	Lt.	1										
14+60	Lt.	1										
16+02	Lt.	1										
15+54	Lt.	1										
15+54	Rt.						1					
16+06	Rt.						1					
16+58	Rt.					1						
17+10	Rt.					1						
17+63	Rt.					1						
0+00	Ramp D Rt.					1						
0+61	Rt.						1					
1+02	Rt.						1					
1+53	Rt.						1					
2+04	Rt.								1			
2+64	Rt.								1			
2+64	Lt.			1								
3+04	Lt.			1								
3+54	Lt.			1								
4+04	Lt.			1								
4+55	Lt.			1								
5+06	Lt.			1								
5+57	Lt.			1						1		
Sub Totals		19	—	35	—	—	25	—	—	4	—	

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS REQ. PER UNIT

DELINEATORS

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"
6+34	Ramp D Lt.									1	
2+34	Rt.										
7+34	Rt.			1							
8+34	Rt.			1							
9+34	Rt.			1							
10+34	Rt.			1							
11+34	Rt.			1							
12+34	Rt.			1							
12+34	Lt.			1							
13+12	Lt.	1									
13+63	Lt.	1									
14+14	Lt.	1									
14+65	Lt.	1									
15+16	Lt.	1									
15+67	Lt.	1									
16+17	Lt.	1									
16+67	Lt.	1									
16+67	Rt.									1	
17+18	Rt.									1	
17+69	Rt.			1							
18+20	Rt.			1							
18+71	Rt.			1							
0+00	Ramp F Rt.			1							
0+51	Rt.			1							
1+02	Rt.			1							
1+53	Rt.			1							
2+04	Rt.									1	
2+04	Lt.	1									
2+54	Lt.	1									
3+04	Lt.	1									
3+54	Lt.	1									
4+04	Lt.	1									
4+54	Lt.	1									
5+05	Lt.	1									
5+56	Lt.			1							
6+43	Lt.			1							
6+43	Rt.			1							
7+43	Rt.			1							
8+43	Rt.			1							
9+43	Rt.			1							
10+43	Rt.			1							
11+43	Rt.			1							
Sub Totals		24	—	39	—	—	12	—	—	2	—

Prepared By C.R. Baughe Date 5/30 1963

Checked in Dist. Office By H.G. Hamm Date 5/21 1963

Checked in Central Office By Date 19

Revised By Date 19

S & P - 2A5

LOCATION SCOTLAND EAST TO DELITY

TYPE G.E., CULVS., BRIDGES, SIGNING & 2-25' CONC. PVTS.

MISSOURI STATE HIGHWAY COMMISSION

SUMMARY OF QUANTITIES

Sheet 7 of 7

FINAL PLANS

FED. ROAD DIST. No.	STATE	PROJECT	FISCAL YEAR	SHEET No.	TOTAL SHEETS
5	MO.	I-44-1(18)16		2-A	
DIST. No.	COUNTY			ROUTE	SEC. No.
7	JASPER			I-44	

DELINEATORS (CONT.)

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"
11+43	Rampt Lt			1							
12+30	Lt			1							
12+81	Lt			1							
13+32	Lt	1									
13+83	Lt	1									
14+34	Lt	1									
14+85	Lt	1									
15+36	Lt	1									
15+87	Lt	1									
15+87	Rt						1				
16+33	Rt						1				
16+89	Rt			1							
17+40	Rt			1							
17+90	Rt			1							
391+39	I-44 Rt					1					
393+39	Rt										
394+39	Rt			1							
395+39	Rt			1							
396+39	Rt			1							
397+39	Rt			1							
398+39	Rt			1							
399+14	Rt			1							
403+50	Rt					1					
405+50	Rt					1					
407+60	Rt					1					
410+96	Rt						1				
414+96	Rt						1				
418+30	Rt								1		
420+30	Rt								1		
422+30	Rt								1		
426+20	Rt			1							
426+95	Rt			1							
427+95	Rt			1							
428+95	Rt			1							
429+95	Rt			1							
430+95	Rt			1							
431+95	Rt							1			
433+95	Rt					1					
391+96 I-44	Lt					1					
393+96	Lt							1			
394+96	Lt			1							
395+96	Lt			1							
396+96	Lt			1							
397+96	Lt			1							
398+96	Lt			1							
399+71	Lt			1							
403+40	Lt					1					
405+40	Lt					1					
407+40	Lt					1					
410+98	Lt						1				
414+58	Lt						1				
417+70	Lt								1		
419+70	Lt								1		
421+70	Lt								1		
425+63	Lt			1							
426+38	Lt			1							
427+38	Lt			1							
428+38	Lt			1							
429+38	Lt			1							
430+38	Lt			1							
431+38	Lt						1				
433+38	Lt					1					
231+57 Rte 71 Alt	Rt					1					
233+57 Rte 71 Alt	Rt						1				
234+57	Rt			1							
255+32	Rt			1							
239+30	Rt					1					
241+30	Rt					1					
243+30	Rt					1					
246+63	Rt			1							
247+57	Rt			1							
248+57	Rt			1							
249+57	Rt			1							
250+51	Rt			1							
254+50	Rt					1					
256+50	Rt								1		
258+50	Rt								1		
262+20	Rt						1				
Sub Totals		6	—	37	—	15	10	2	8	—	—

DELINEATORS

Station	Location	Dbl. Amber 7'-0"	Single White 7'-6"	Dbl. Amber 7'-6"	Triple Amber 7'-6"	Single White 8'-0"	Dbl. Amber 8'-0"	Triple Amber 8'-0"	Single White 8'-6"	Dbl. Amber 8'-6"	Triple Amber 8'-6"
262+93 Rte 71 Alt	Rt			1							
263+93	Rt							1			
266+93	Rt					1					
231+71 Rte 71 Alt	Lt					1					
233+71	Lt							1			
234+71	Lt			1							
235+86	Lt			1							
238+93	Lt					1					
240+93	Lt					1					
242+93	Lt					1					
246+62	Lt						1				
247+56	Lt			1							
248+56	Lt			1							
249+56	Lt						1				
250+50	Lt						1				
254+00	Lt								1		
256+00	Lt								1		
258+00	Lt								1		
262+35	Lt						1				
263+10	Lt			1							
264+10	Lt						1				
266+10	Lt					1					
Sub Total #6		—	—	6	—	4	5	2	2	—	—
Sub Total #5		6	—	37	—	15	10	2	8	—	—
Sub Total #4		24	—	39	—	—	12	—	—	2	—
Sub Total #3		19	—	35	—	—	25	—	—	4	—
Sub Total #2		63	1	67	1	—	20	—	—	—	—
Sub Total #1		3	—	40	—	2	18	—	1	13	1
TOTALS		115	1	224	1	23	90	4	12	19	1

LENGTH OF PROJECT

End of Project	Station	
Beginning of Project	Station	
Apparent Length		Feet
Equations and Exceptions:		
Total Corrections		Feet
Net Length of Project		Feet
State Length =		Miles
Federal Length =		Miles

GENERAL SUMMARY

ITEM NO.	DESCRIPTION	UNIT	TOTAL UNITS	NO. UNITS THIS SHEET

Prepared By C.R. Baughe Date 5/20 19 63 Checked in Dist. Office By H.G. Harris Date 5/21 19 63 Checked in Central Office By _____ Date _____ 19 _____ Revised By _____ Date _____ 19 _____

P.O.T. STA. 212+56.1 | P.O.T. STA. 216+09.1 | P.O.T. STA. 221+80.1 | P.O.T. STA. 223+71.4 | P.O.T. STA. 224+91 | P.O.T. STA. 228+79.7 | P.O.T. STA. 234+68.4 | P.O.T. STA. 238+62.3

WALTER RAY CARTER ET AL

210 | 215 | 220 | 225 | 230 | 235

125 12W | 150 12W

1/4 1/4 Sec. Line

Ch Esmt.

Ch. Esmt.

D.B.

N66°53'E.

3' B. ch Blanket See Sketch and Ch. Ch. X-Sections

HALF SECTION of 3' BOCH BLANKET @ 221/18

Fill Face, East Abut.

Rebuild Berm See X-Secs.

2' Max. or to Solid Rock

Sta. 218/00 18" Median Relief with C-230 RB & C-230 RC Hdwll. Low Point

Sta. 221/18 2 Bridges Stk. 15" R. A. See Bridge Drawing A-542

Sta. 223/50 15" Median Relief with C-230 RC Hdwlls. Low Point

Sta. 227/00 18" Median Relief with C-230 RC Hdwlls.

Sta. 211/00 18" Median Relief with C-230 RB Hdwll.

Sta. 211/30 2.4 Ac. O.S Land 36" R.C. Pipe Culv. with C-230 RB Hdwl. Lt. & C-230 RC Rt.

10.00 CH. CH.= 221/18 P.T.E. L.A.

1/4 Sec. Line

Ch. Esmt.

Channel Block

(21) CHESTER R. & BEATRICE HIGGINS
SW¼ NE¼ 12-27-32
New R/W 15.20 Ac.
Ch. Esmt. 1.96 Ac

(22) HELEN LOUISE BAKER
NW¼ NE¼ 12-27-32
Ext. R/W 6.10 Ac.
Ch. R/W 1.00 Ac.
Const. Esmt. 0.17 Ac.

(23) SW¼ NW¼ 12-27-32
Ext. R/W 6.10 Ac.
Ch. R/W 1.00 Ac.
Const. Esmt. 0.17 Ac.

VIVIAN V. THUZEMAN ET AL
SE¼ NW¼
12-27-32

Grout L.S. Apron

Sta. 239/00 with C-230 RC Hdwlls.

END PROJECT

All Bearings used are based on the N.E. Corner of Sec 12, T.2 N, R.5 E W

11.23%

1050 | 1040 | 1030 | 1020 | 1010 | 1000 | 990

235 6 7 8 9 240

NOTE	BY	DATE
SURVEYED		
PLOTTED		
CHECKED		
BL. M.S. No.		
STRUCTURE ROTATING CW/CC.		

PLATE I - PLAN-PROFILE O P R & R E STANDARD

U S BLUE PRINT PAPER CO. - CHICAGO

ROUTE	STATE	FEDERAL PROJECT NO. & SEC.	SHEET
5	MO.	7-44 Hwys.	4
SEC. NO.	COUNTY		SHEETS
7	JASPER	7-44	

FINAL PLANS

POST. STA. 241+69.1 POST. STA. 246+55.8 POST. STA. 246+77.6 POST. STA. 249+05.6 POST. STA. 254+52.6 POST. STA. 255+70 POST. STA. 256+68 POST. STA. 257+17.9 PI STA. 259+343 POST. STA. PI+324

Sta. 249+18 ℄ Survey 2A Ac.
U.S Land R.B.P. 2'-6" X 154' Pipe Culv.
Sk. 17° L.A. with C-230 R.C.
Hdwlls. Sk. 15° L.A.
36 EE D.I. 5'x3'-0"-3'-6"
Type A Cover

STA. 248+76.4 1-4A ℄ SURVEY
STA. 11+00 S.R.

CHURCH HOUSE

℄ Town By Pass

RAMP E

RAMP A

RAMP C

℄ OUTER ROAD #2A

P.I. STA. 2247+80 O.R.#2A ℄ SURVEY
STA. 13+88.6 S.R.

P.C. STA. 2246+54.7 ℄ CONSTRUCTION

P.C. STA. 2247+54.7 ℄ SURVEY

P.T. STA. 2248+69.0

P.I. STA. 2247+80 O.R.#2A ℄ SURVEY
Δ 61°31' Rt.
D 38°12'
T 89.0'
L 161.0'
R 150'
S.E. Eliminate Crown

Sta. 2247+08.6
S.R. Approch. Brk.

Sta. 2248+49.7 O.R.#2A ℄ Survey
24 Ac. 0.5 Land CMP. 24"X38" Pipe Culv.
Sk. 22°50' L.A. with C-230 R.C. Hdwll. Lt.
Sk. 25° L.A. ℄ C-230 RC Hdwll Rt. Sk. 35° L.A.

Sta. 2258+12.0 R. #2A 31 Ac. 0.5 Land
CMP. 36"X31" Pipe Culv. with
C-230 R.C. Hdwlls. Sk. 28° L.A.

Sta. 2266+60 ℄ Const. 307 Ac.
0.5 Land C-820-B 7'X5'X231' Box
Culv. Sk. 35° R.A.

Sta. 259+00 ℄ Const 131 Ac.
0.5 Land R.B.P. 36"X217' Pipe Culv.
with C-230 R.C. Hdwll. Lt. ℄
C-230 R.B. Hdwll. Lt. Sk. 25° L.A.

Sta. 259+50 18'x44' Median Rc. 1ef R.B.P.
with C-230 R.B. Hdwll.

STA. 2270+00 18'X74' Median Relief R.B.P.
with C-230 R.C. Hdwlls.

P.I. Sta. 2258+02.66 ℄ Construction
STA. 2259+34.3 ℄ Survey
23° 16' Rt.
T 1179.6
L 2366.7
R 5729.65
S.E. 0.025 / Ft.

(29) OTIE ANDERSON
New R/W 14.53 Ac.
Old R/W 0.70 Ac.
Ch. Esmt. 0.36 Ac.

(33) WILLIAM & JUNA PATRICK ET AL
New R/W 14.22 Ac.
Old R/W 1.59 Ac.
Ch. Esmt. 0.45 Ac.
Const. Esmt. 0.09 Ac.

CHESTER & BEATRICE H. HIGGINS

NE¼ NE¼ 12-27-32

Lot 2 7-27-31

Lot 1

P.T. STA. 2268+60.0 ℄ Construction

P.I. STA. 2268+02.66 ℄ Survey

P.C. STA. 2269+34.3 ℄ Survey

℄ Const.

EXISTING R/W

+0.585 %

-1.637 %

600' Vert. Cur.

Elev. 1053.00

BM #27A P.P. Spike in 18" Hickory
45' Lt. of Sta. 245+00 Elev. 1058.20

BM #28 P.P. Spike in 42" Maple
200' Lt. of Sta. 250+35 Elev. 1054.59

BM #29A P.P. Spike in East Side of 24" Stump
130' Lt. of Sta. 256+22 Elev. 1050.26

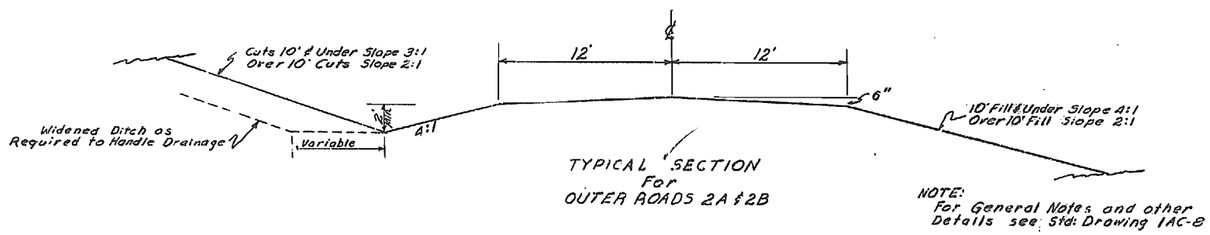
BM # N.E. Cor. Hdwl. Lt. Sta. 266+60
Elev. 1054.28

240 1 2 3 4 245 6 7 8 9 250 1 2 3 4 255 6 7 8 9 260 1 2 3 4 265 6 7 8 9 270

1060 1050 1040

PLAT 1—PLAN-PROFILE O.P.R.&E.C. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS



TYPICAL SECTION
For
OUTER ROADS 2A & 2B

NOTE:
For General Notes and other
Details see Std: Drawing 1AC-8

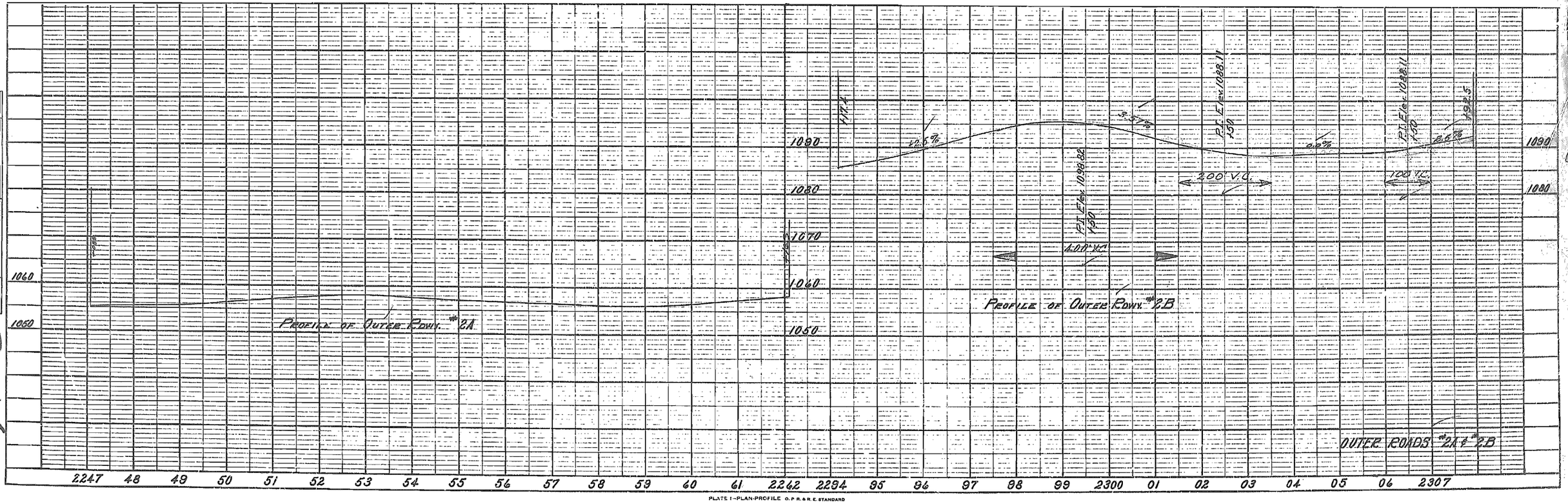


PLATE I—PLAN-PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

5 MO. I-44-1(615)
7 JASPER I-44

SE SW 1-27-32

(25) Ben R. Pim
New R/W = 0.62 Ac.
Old R/W = 0.62 Ac.
Const. Esmt = 0.29 Ac.

(26) Alma Patrick
New R/W = 0.75 Ac.
Old R/W = 1.05 Ac.
Const. Esmt = 0.79 Ac.

(27) Church of God
New R/W = 0.14 Ac.
Old R/W = 0.13 Ac.
Const. Esmt = 0.00 Ac.

(27A) Lawrence Wilson
Const. Esmt = 0.05 Ac.

(28A) S.M. & Dona Higgins
New R/W = 0.26 Ac.
Old R/W = 0.30 Ac.
Const. Esmt = 0.28 Ac.

JOINT LEGEND

C Contraction Joint (Sawed) with dowel bars
E Expansion Joint & Premoulded
L Longitudinal Joint (Sawed) with tie bars
K Tongue & Groove ('Key') Joint with tie bars
M Tongue & Groove ('Key') Joint without tie bars
— Monolithic Construction

NOTE: The variable width pavements are terminated at a contraction joint with a width of 1' to 2½'.

Transverse joints are placed at right angles to the center line or to the edge of the pavement on tangents and radially on curves.

No joints intersect at an acute angle.

POWER POLE LEGEND

Temporary Pole Location During Construction
Final Pole Location

R.O.T. Sta. 295+61.3
Sta. 294+20 P.E.
15'x28' C.M.P. P.Culv.

SW SE 1-27-32
12° 9' BC Sta. 299+89.7 Ramp A=
R.O.T. Sta 299+89.7

Sta. 307+25 P.E.
15'x44' C.M.P. Culv.

SE SE 1-27-32
Sta 312+20 P.E.
Crown

Sta. 297+95 Cr. P.E.

Sta. 303+00 O.E.
36 E 3'x2'x3'

Sta. 292+97 S.E.
15'x44' C.M.P. P.Culv.

Sta. 290+08.1 C.I.A Underdrain

Empire Dist. Elect Co

12 KV

EXIST. RTE. 166

Existing R/W

GROVE CREEK

Sec. Line

Began Temp. By-Pass

Asph. Conc. Wedged Out

Began Pvmt. Removal

WALTER RAY CARTER ETAL
New R/W = 0.62 Ac.
Old R/W = 0.62 Ac

Sta. 291+58 P.E.
15'x28' C.M.P. P.Culv.

Sta. 290+90 F.E.
15'x26' C.M.P. P.Culv.

Sta. 293+36 P.E.
15'x28' C.M.P. P.Culv.

U.I.P.
Sta. 299+00 3'x2'x33'
Conc. Box, 16.6' Rt. 16.4' Lt.
Extended 5 Rt. & Lt. with
C-530 3'x2' Box Culv.

HELEN LOUISE BAKER

Sta. 303+42.0 Exist Rte 166
12° Rt. P.I. Sta. 303+42.0 Ramp A
Δ = 40°29' Rt.
D = 6°
T = 352.3
L = 674.7
R = 965.37
SE = 0.06'/ft.
Spline @ 200' Trans.

P.I. Sta. 306+66.4

Sta. 303+00 Ramp A
15'x48' Conc. Box, 36.6' Rt.
& C-230 RC Pipe Rt.

Sta. 305+50 Ramp A
0.5 Lane 22'x64'
RCP Culv. with C-230 RC Pipe Rt.

Sta. 312+68 C.E.
15"x56' C.M.P. Culv.

RAMP A

S.M. & Dona Higgins

Chester A. Higgins

Lawrence Wilson

End Town By-Pass

NE NW 12-27-32

NW NE 12-27-32

NE NE 12-27-32

RTE. 166 CONN. PROFILE

+4.4%
+10.86%
+1.67%
+0.94%
+2.43%

600' V.C.
200' V.C.
140' V.C.

El. 1022.02
El. 1054.69

℄ RTE. 166 Conn.
℄ Spline
Ramp A Profile

RAMP A - RTE 166 CONN.
SCOTLAND INTERCHANGE

B.M.# S.E. Cor. Hdwl. Pl. Sta. 297+00 - Rte. 166
Elev. 1040.62

B.M.# N.W. Cor. Hdwl. Lt. Sta. 306+50 - Ramp A
Elev. 1048.14

Flar Markers
Underdrains 290+08.1 and

285 6 7 8 9 290 1 2 3 4 295 6 7 8 9 300 1 2 3 4 305 6 7 8 9 310

1060 1050 1040 1030 1020 1010

PLATE I - PLAN-PROFILE - O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO. - CHICAGO

5 MD. I-44-1(16)15 7

7 JASPER I-44

FINAL PLANS

Pl. Sta. 317+46.2 Ramp A Δ = 39° 52' Lt.

P.O.S.T. Sta. 249+77.6 Rte. I-44

Pl. Sta. 327+32.2 Ramp A Δ 14° 58' Rt.

RAMP A
Pl. Sta. 317+61.91 & Const.
Pl. Sta. 317+46.2 & Survey
Δ = 69° 52' Lt.
D: 8°
T: 500.7
L: 873.3
R: 716.78
SE: .0081/Ft.

Sta. 315+05 Ramp A & Const.
Sta. 2227+76.03 Rte. I-44

Sta. 315+80 Ramp A & Const.
Sta. 2227+41.26 Rte. I-44

Sta. 2249+77.6 Rte. I-44

Sta. 321+40.9 & Const.
Sta. 2211+76.9 Rte. I-44

Pl. Sta. 321+34.69 & Const.
Q.L. Sta. 321+41.17 & Survey

Survey ℄

℄ Const.

℄ RAMP A

℄ OUTER ROAD # 2A

℄ EXISTING RTE. 16G SEC. LINE

℄ ROUTE I-44

℄ Construct. ℄

Sta. 321+97.4 Ramp A 24 Ac. 0.5 Land . 24" x 96' Pipe Culv. R.C.P. 6h. 24° 20' L.A. with C-230 RC. Hdwlls. 6h. Hdwlls. 25° L.A.

Ramp A
Pl. Sta. 327+32.2
Δ 14° 58' Rt.
D 6°
T 1255.5'
L 2294.4'
R 955.366'
SE = 0.0051/Ft.
L.T. = 200'

INTERSTATE RTE 44
Pl. Sta. 339+34.3 Survey ℄
Pl. Sta. 258K+27 Construct. ℄
Δ = 23° 16' 8"
D = 1°
T = 1172.62
L = 2326.67
R = 5729.65
SE = .0025'/Ft.

Sta. 314+59.05 Ramp A
Conc. Box Girder Bridge
See Br. Drawing No. A625

CHESTER HIGGINS

NE NE
12-27-32

CHESTER & BEATRICE HIGGINS

OTIE ANDERSON

Lot 2
7-27-32

WILLIAM & JUNE PATRICK ET AL

Lot 1
7-27-32

1070
1060
1050
1040

300' V.C.

480' V.C.

Ex. Edge of Pvmt Rte. I-44

℄ Ramp A

B. PLINE

Sta. 321+97.4 Ramp A 24" RCP

Sta. 322+19.5 24" RCP

BM #27A P.P. Spike in 12" Hickory 150' Lt. Sta. 245+00 Elev. 1055.20

Elev. Markers = 1

254 255 256 257 (Rte. I-44)

310 1 2 3 4 315 6 7 8 9 320 1 2 3 4 325 6 7 8 9

RAMP A
PLAN & PROFILE
SCOTLAND
INTERCHANGE

PLATE I—PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

5 MO. I-44-1(18)15 3

7 JASPER I-44

(28) CORA A. LARGENT
NEW R/W = 0.00 Ac.
OLD R/W = 0.17 Ac.
CONST. ESMT. = 0.10 Ac.

(29) ROBERT J. LARGENT
NEW R/W = 0.74 Ac.
OLD R/W = 0.42 Ac.
CONST. ESMT. = 0.21 Ac.
CH. ESMT. 0.17 Ac.

(31) NOAH & THELMA BROWN
NEW R/W = 0.73 Ac.
OLD R/W = 0.41 Ac.
CONST. ESMT. = 0.21 Ac.

(32) LEO & ROSE POHLREICH
NEW R/W = 0.22 Ac.
O R/W = 0.22 Ac.
1ST. ESMT. = 0.19 Ac.

(34) ANABEL CALLEAY BAXTER
NEW R/W = 0.42 Ac.
OLD R/W = 0.46 Ac.
CONST. ESMT. = 0.37 Ac.

(35) A.L. & RUTH JEFFRIES
NEW R/W = 0.03 Ac.
OLD R/W = 0.17 Ac.
CONST. ESMT. = 0.69 Ac.

SE SW
G-27-31

T. 2
27-31

N

12' RANGE LINE

EXIST. R/W

SEC. LINE

EXIST. RTE. 166

R/W

Sta. 321+71 R.E.
U.I.P.

Sta. 325+40 P.E.
15'x28' CMP. Culv.
State Furn.

Sta. 326+00 U.D. - Cl. A
'V' Lateral Type

Gr. L.S. Reset.

Sta. 329+33.6 Rte. 166 Conn.
37 Ac. O.S. Land
42"x80" R.C. Pipe Culv. with C 231 RC Hdwlls., Sk. Rt. Hdwll. 5.5' R.A., Lt. Hdwll. 5.9'

Sta. 331+00 Ramp E
R.C. 15'x42" Pipe Culv. with C 230 RC Hdwlls.

S 89° 51' E

Sta. 334+08.7
U.D. Cl. A

Sta. 335+50 Rte. 166 Conn.
RC. 15'x70' Pipe Culv. with C 230 RC Hdwll. Sk. 30° R.A.

Sta. 337+15 C.E.
15'x48' CMP. Culv.
State Furn.

Sta. 340+12 C.E.
15'x48' CMP. Culv.

Sta. 341+00 P.E.
15'x28' CMP. Culv.
State Furn.

Sta. 344+90 P.E.
15'x28' CMP. Culv.
State Furn.

Sta. 347+60 Rte. 166 Conn.
Outer Roadway

EXIST. R/W

SEC. LINE

RAMP D

RAMP C

RAMP E

L.S. Reset
See Sp. Sh. No. 13

Sta. 335+61.2
Bd. Dr. 2.2
Ex. 15' Rte. 166 Conn.

Sta. 335+41.2
Ex. 15' Rte. 166 Conn.

Sta. 339+00 U.D. Lt. Rv.

Sta. 337+08.7
Ex. 15' Rte. 166 Conn.

Sta. 347+90
Ex. 15' Rte. 166 Conn.

Sta. 349+40
Ex. 15' Rte. 166 Conn.

Sta. 351+00
Ex. 15' Rte. 166 Conn.

Sta. 352+60
Ex. 15' Rte. 166 Conn.

Sta. 354+20
Ex. 15' Rte. 166 Conn.

Sta. 355+80
Ex. 15' Rte. 166 Conn.

Sta. 357+40
Ex. 15' Rte. 166 Conn.

Sta. 359+00
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Sta. 360+60
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Sta. 362+20
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Sta. 363+80
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Sta. 365+40
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Sta. 1000+60
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Sta. 1002+20
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Sta. 1003+80
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Sta. 1024+60
Ex. 15' Rte. 166 Conn.

Sta. 1026+20
Ex. 15' Rte. 166 Conn.

Sta. 1027+80
Ex. 15' Rte. 166 Conn.

Sta. 1029+40
Ex. 15' Rte. 166 Conn.

Sta. 1031+00
Ex. 15' Rte. 166 Conn.

Sta. 1032+60
Ex. 15' Rte. 166 Conn.

Sta. 1034+20
Ex. 15' Rte. 166 Conn.

Sta. 1035+80
Ex. 15' Rte. 166 Conn.

Sta. 1037+40
Ex. 15' Rte. 166 Conn.

Sta. 1039+00
Ex. 15' Rte. 166 Conn.

Sta. 1040+60
Ex. 15' Rte. 166 Conn.

Sta. 1042+20
Ex. 15' Rte. 166 Conn.

Sta. 1043+80
Ex. 15' Rte. 166 Conn.

Sta. 1045+40
Ex. 15' Rte. 166 Conn.

Sta. 1047+00
Ex. 15' Rte. 166 Conn.

Sta. 1048+60
Ex. 15' Rte. 166 Conn.

Sta. 1050+20
Ex. 15' Rte. 166 Conn.

Sta. 1051+80
Ex. 15' Rte. 166 Conn.

Sta. 1053+40
Ex. 15' Rte. 166 Conn.

Sta. 1055+00
Ex. 15' Rte. 166 Conn.

Sta. 1056+60
Ex. 15' Rte. 166 Conn.

Sta. 1058+20
Ex. 15' Rte. 166 Conn.

Sta. 1059+80
Ex. 15' Rte. 166 Conn.

Sta. 1061+40
Ex. 15' Rte. 166 Conn.

Sta. 1063+00
Ex. 15' Rte. 166 Conn.

Sta. 1064+60
Ex. 15' Rte. 166 Conn.

Sta. 1066+20
Ex. 15' Rte. 166 Conn.

Sta. 1067+80
Ex. 15' Rte. 166 Conn.

Sta. 1069+40
Ex. 15' Rte. 166 Conn.

Sta. 1071+00
Ex. 15' Rte. 166 Conn.

Sta. 1072+60
Ex. 15' Rte. 166 Conn.

Sta. 1074+20
Ex. 15' Rte. 166 Conn.

Sta. 1075+80
Ex. 15' Rte. 166 Conn.

Sta. 1077+40
Ex. 15' Rte. 166 Conn.

Sta. 1079+00
Ex. 15' Rte. 166 Conn.

Sta. 1080+60
Ex. 15' Rte. 166 Conn.

Sta. 1082+20
Ex. 15' Rte. 166 Conn.

Sta. 1083+80
Ex. 15' Rte. 166 Conn.

Sta. 1085+40
Ex. 15' Rte. 166 Conn.

Sta. 1087+00
Ex. 15' Rte. 166 Conn.

Sta. 1088+60
Ex. 15' Rte. 166 Conn.

Sta. 1090+20
Ex. 15' Rte. 166 Conn.

Sta. 1091+80
Ex. 15' Rte. 166 Conn.

Sta. 1093+40
Ex. 15' Rte. 166 Conn.

Sta. 1095+00
Ex. 15' Rte. 166 Conn.

Sta. 1096+60
Ex. 15' Rte. 166 Conn.

Sta. 1098+20
Ex. 15' Rte. 166 Conn.

Sta. 1099+80
Ex. 15' Rte. 166 Conn.

Sta. 1101+40
Ex. 15' Rte. 166 Conn.

Sta. 1103+00
Ex. 15' Rte. 166 Conn.

Sta. 1104+60
Ex. 15' Rte. 166 Conn.

Sta. 1106+20
Ex. 15' Rte. 166 Conn.

Sta. 1107+80
Ex. 15' Rte. 166 Conn.

Sta. 1109+40
Ex. 15' Rte. 166 Conn.

Sta. 1111+00
Ex. 15' Rte. 166 Conn.

Sta. 1112+60
Ex. 15' Rte. 166 Conn.

Sta. 1114+20
Ex. 15' Rte. 166 Conn.

Sta. 1115+80
Ex. 15' Rte. 166 Conn.

Sta. 1117+40
Ex. 15' Rte. 166 Conn.

Sta. 1119+00
Ex. 15' Rte. 166 Conn.

Sta. 1120+60
Ex. 15' Rte. 166 Conn.

Sta. 1122+20
Ex. 15' Rte. 166 Conn.

Sta. 1123+80
Ex. 15' Rte. 166 Conn.

Sta. 1125+40
Ex. 15' Rte. 166 Conn.

Sta. 1127+00
Ex. 15' Rte. 166 Conn.

Sta. 1128+60
Ex. 15' Rte. 166 Conn.

Sta. 1130+20
Ex. 15' Rte. 166 Conn.

Sta. 1131+80
Ex. 15' Rte. 166 Conn.

Sta. 1133+40
Ex. 15' Rte. 166 Conn.

Sta. 1135+00
Ex. 15' Rte. 166 Conn.

Sta. 1136+60
Ex. 15' Rte. 166 Conn.

Sta. 1138+20
Ex. 15' Rte. 166 Conn.

Sta. 1139+80
Ex. 15' Rte. 166 Conn.

Sta. 1141+40
Ex. 15' Rte. 166 Conn.

Sta. 1143+00
Ex. 15' Rte. 166 Conn.

Sta. 1144+60
Ex. 15' Rte. 166 Conn.

Sta. 1146+20
Ex. 15' Rte. 166 Conn.

Sta. 1147+80
Ex. 15' Rte. 166 Conn.

Sta. 1149+40
Ex. 15' Rte. 166 Conn.

Sta. 1151+00
Ex. 15' Rte. 166 Conn.

Sta. 1152+60
Ex. 15' Rte. 166 Conn.

Sta. 1154+20
Ex. 15' Rte. 166 Conn.

Sta. 1155+80
Ex. 15' Rte. 166 Conn.

Sta. 1157+40
Ex. 15' Rte. 166 Conn.

Sta. 1159+00
Ex. 15' Rte. 166 Conn.

Sta. 1160+60
Ex. 15' Rte. 166 Conn.

Sta. 1162+20
Ex. 15' Rte. 166 Conn.

Sta. 1163+80
Ex. 15' Rte. 166 Conn.

Sta. 1165+40
Ex. 15' Rte. 166 Conn.

Sta. 1167+00
Ex. 15' Rte. 166 Conn.

Sta. 1168+60
Ex. 15' Rte. 166 Conn.

Sta. 1170+20
Ex. 15' Rte. 166 Conn.

Sta. 1171+80
Ex. 15' Rte. 166 Conn.

Sta. 1173+40
Ex. 15' Rte. 166 Conn.

Sta. 1175+00
Ex. 15' Rte. 166 Conn.

Sta. 1176+60
Ex. 15' Rte. 166 Conn.

Sta. 1178+20
Ex. 15' Rte. 166 Conn.

Sta. 1179+80
Ex. 15' Rte. 166 Conn.

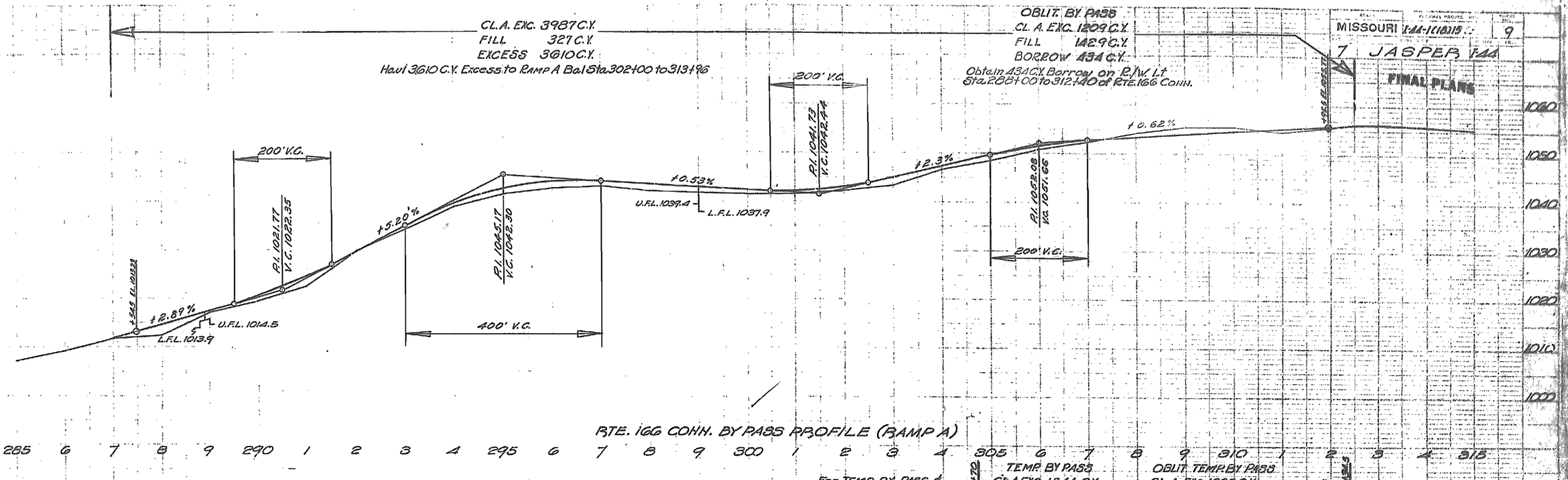
Sta. 1181+40
Ex. 15' Rte. 166 Conn.

Sta. 1183+00
Ex. 15' Rte. 166 Conn.

Sta. 1184+60

CL. A. EXC. 3987 C.Y.
FILL 327 C.Y.
EXCESS 3610 C.Y.
Haul 3610 C.Y. Excess to Ramp A Bal Sta 302+00 to 313+96

OBLIT. BY PASS
CL. A EXC. 1209 C.Y.
FILL 1429 C.Y.
BORROW 434 C.Y.
Obtain 434 C.Y. Borrow on R/W Lt Sta. 288+00 to 312+40 of Rte. 166 Conn.

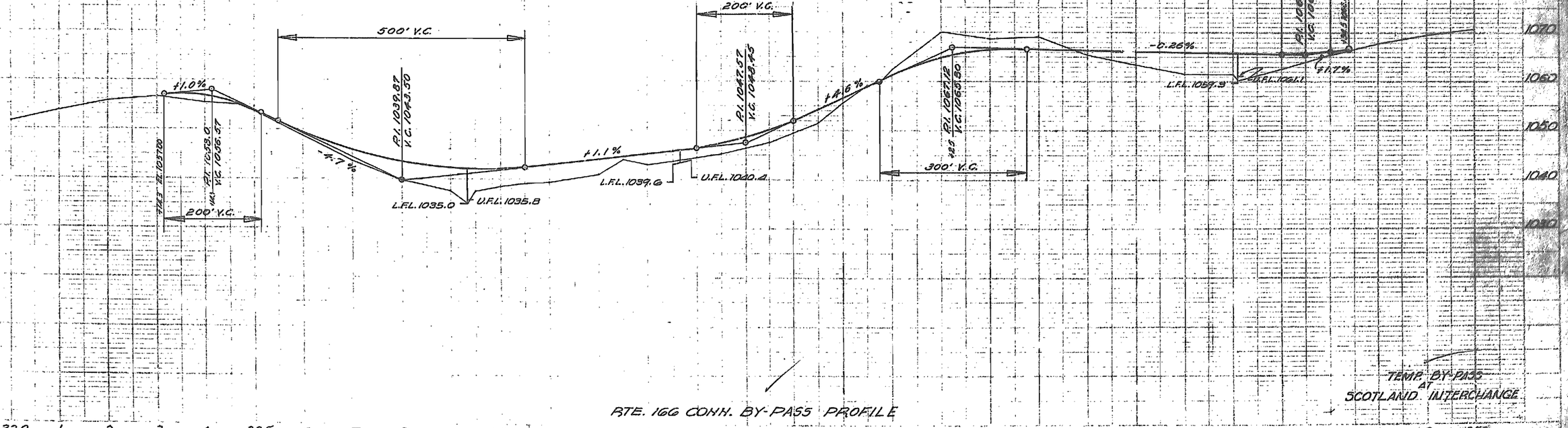


RTE. 166 CONN. BY PASS PROFILE (RAMP A)

For Temp. By Pass & Oblit. Temp. By Pass See Ramp C Profile

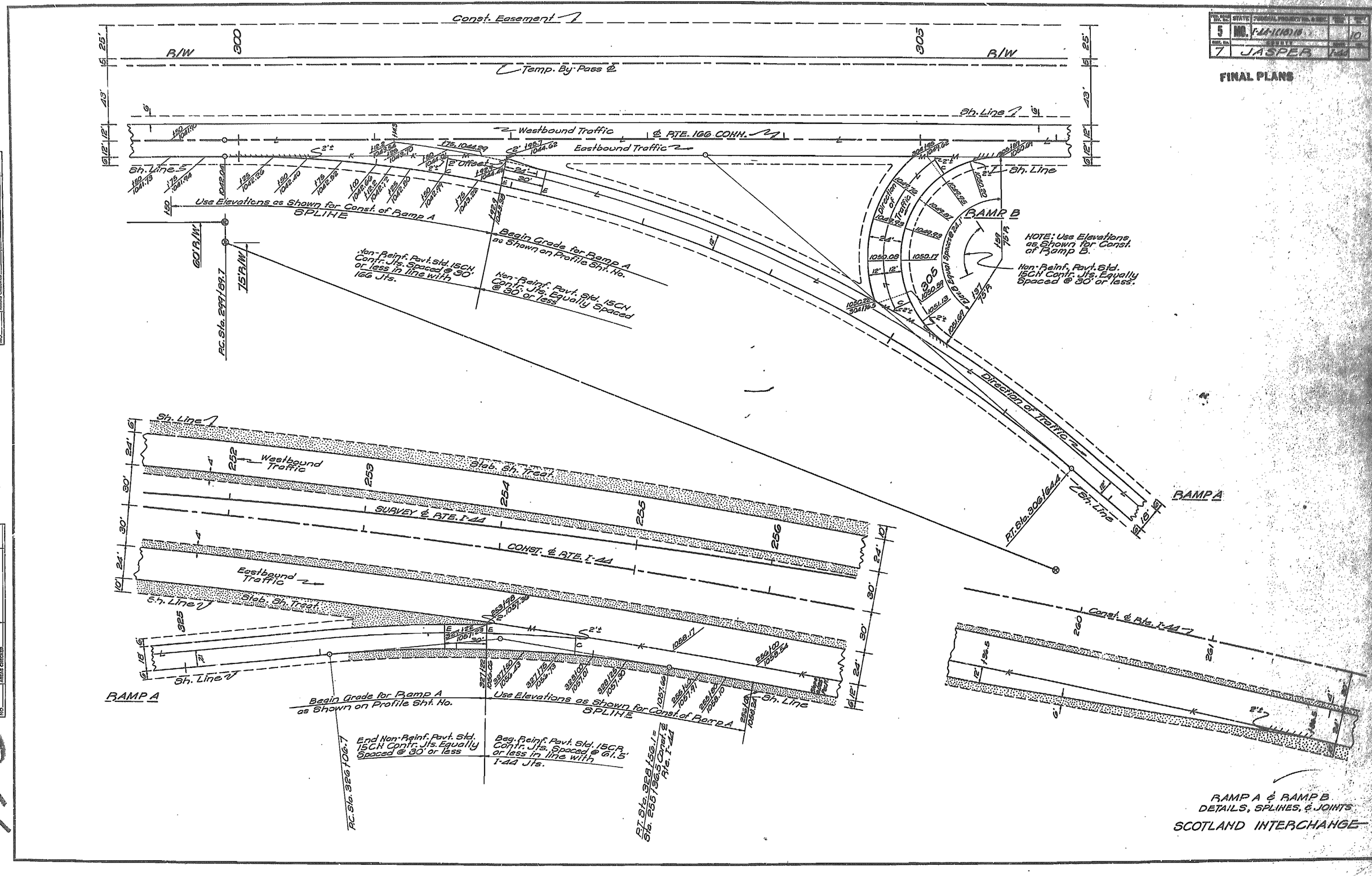
Temp. By Pass
CL. A EXC. 1344 C.Y.
FILL 1499 C.Y.
Use 380 C.Y. Excess from Rte 166 Conn. Bal. Sta. 339+50 to 341+34.5

Oblit. Temp. By Pass
CL. A. EXC. 1332 C.Y.
FILL 265 C.Y.
EXCESS 1028 C.Y.
Haul 1028 C.Y. Excess to Ramp C of Rte. 166 Conn.



RTE. 166 CONN. BY-PASS PROFILE

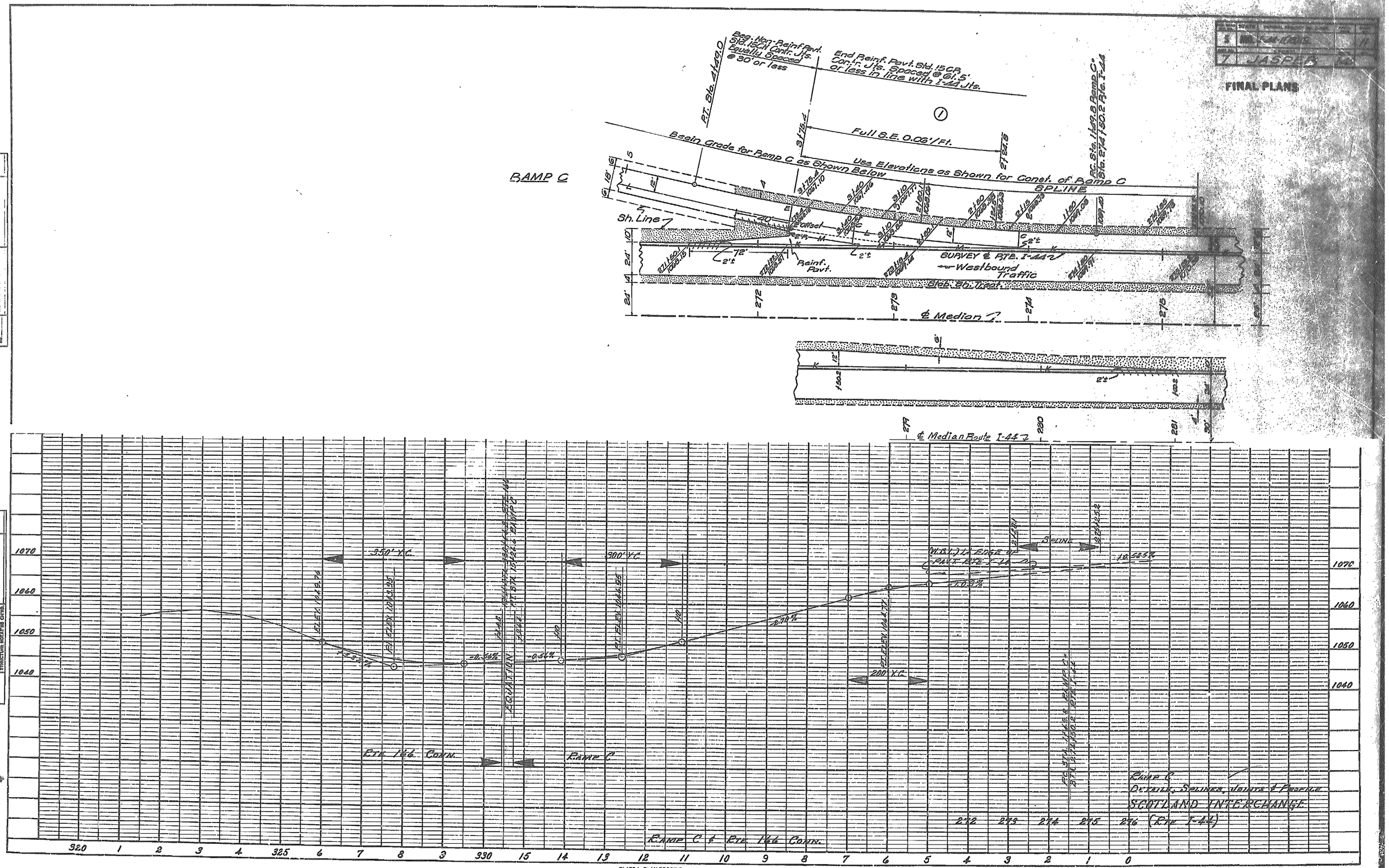
TEMP. BY-PASS AT SCOTLAND INTERCHANGE



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED

113



FINAL PLANS
JASPER
RAMP C
Beg. Non-Reinf. Pavt. Std. 15CH Contr. Jts. Equally Spaced @ 30' or less
End Reinf. Pavt. Std. 15CR Contr. Jts. Spaced @ 61.5' or less in line with I-44 Jts.
P.T. Sta. 4+49.0
Full S.E. 0.06'/Ft.
Begin Grade for Ramp C as Shown Below
Use Elevations as Shown for Const. of Ramp C
SPLINE
Sh. Line
Reinf. Pavt.
SURVEY ℄ RTE. I-44
Westbound Traffic
Slab Sh. Treat.
℄ Median
℄ Median Route I-44
350' V.C.
300' V.C.
200' V.C.
EQUATION
Rte. 166 Conn.
Ramp C
Ramp C
Details, Splines, Joints & Profile
SCOTLAND INTERCHANGE
(Rte. I-44)
Ramp C & Rte. 166 Conn.
PLATE 1—PLAN-PROFILE O.P.R. & R.E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT No. & SEC.		SHEET NO.
5	MO.	F-44-1(12)15.		12
DIST. NO.	COUNTY			TOTAL SHEETS
7	JASPER	F-44		

FINAL PLANS

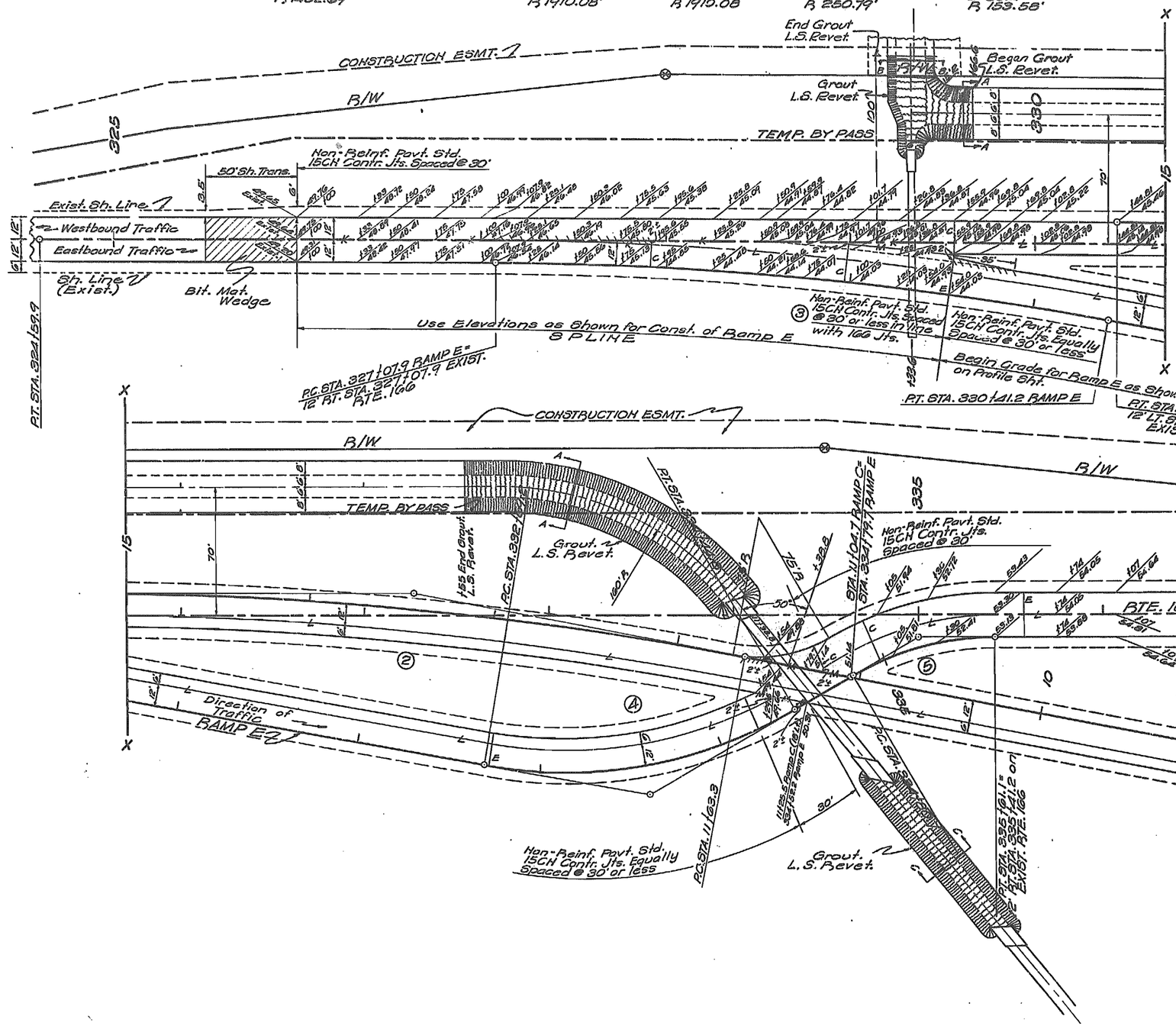
① RAMP C
Pl. Sta. 3100-14.4 Lt. Sta. 273+00 Rte. F-44
Δ 1°58' Rt.
D 4°
T 150.2'
L 299.2'
R 1432.69'

② RAMP C
Pl. Sta. 131+45.5
Δ 10°24'
D 6°
T 182.2'
L 363.3'
R 1910.08'

③ RAMP E
Pl. Sta. 328+75
Δ 10°00 Rt.
D 3°
T 167.1'
L 333.3'
R 1910.08

④ RAMP E
Pl. Sta. 333+60.5
Δ 40°00' Lt.
D 23°
T 91.3'
L 175.1'
R 250.79'

⑤ RAMP E
Pl. Sta. 335+21.9
Δ 90°00' Rt.
D 38°
T 41.2'
L 80.4'
R 153.58'

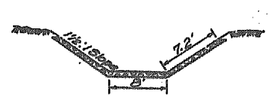




SECTION BB
Grouted Light Stone Revet.



SECTION AA
Grouted Light Stone Revet.

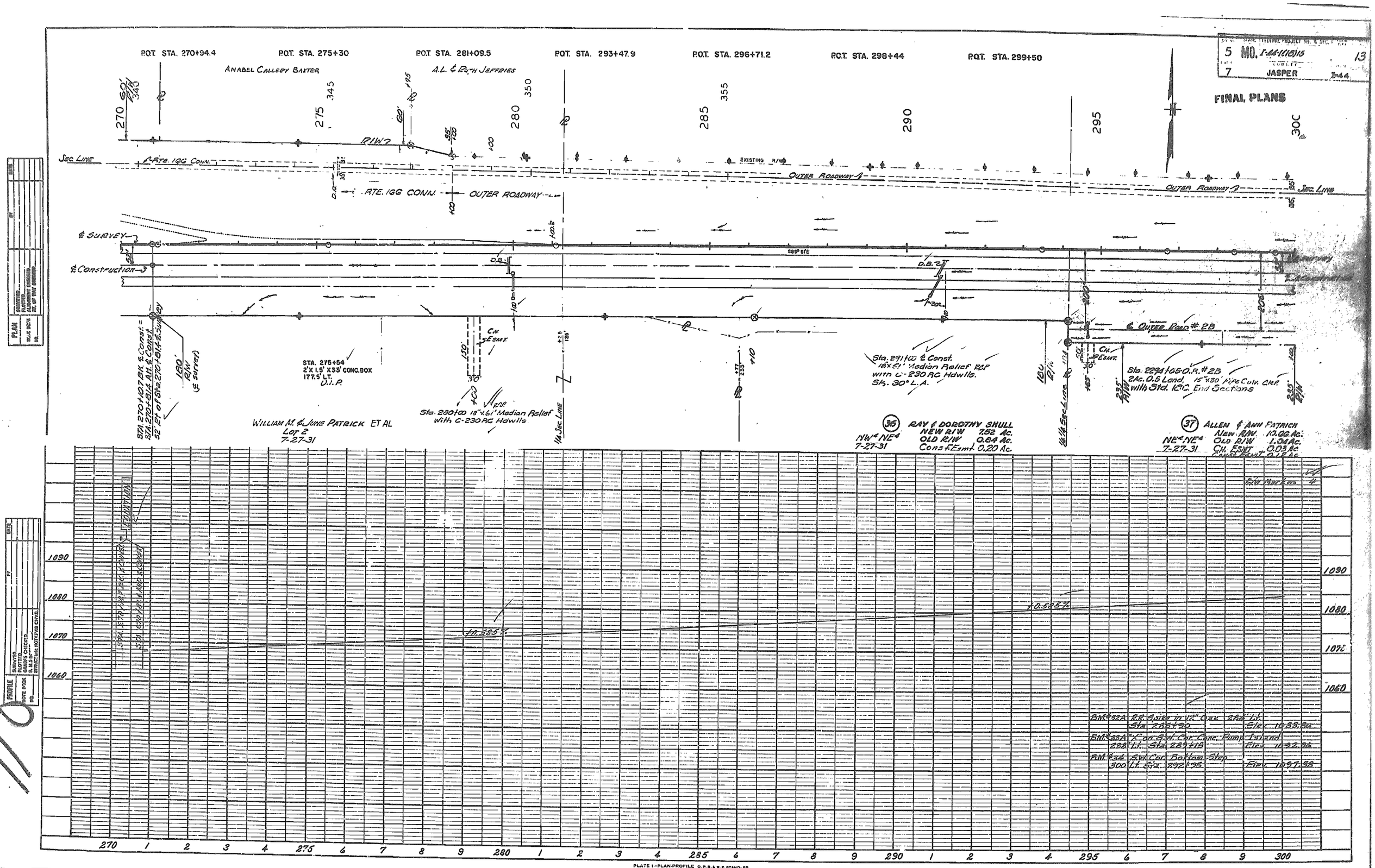


SECTION CC
Grouted Light Stone Revet.

RAMPS C, D, & E
Details, Splines, & Joints
SCOTLAND INTERCHANGE

FINAL SURVEY — SURVEYED, PLOTTED, TRIPLATE, AREAS CHECKED, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRIPLATE, AREAS CHECKED, NOTE BOOK, NO.



5 MO. I-44-1(18)16 13
7 JASPER I-44
FINAL PLANS
P.O.T. STA. 270+94.4
P.O.T. STA. 275+30
P.O.T. STA. 281+09.5
P.O.T. STA. 293+47.9
P.O.T. STA. 296+71.2
P.O.T. STA. 298+44
P.O.T. STA. 299+50
ANABEL CALLERY BAXTER
A.L. & RUTH JEFFRIES
SEC. LINE
RTE. 166 CONN.
OUTER ROADWAY
EXISTING R/W
℄ SURVEY
℄ CONSTRUCTION
℄ OUTER ROAD # 2B
STA. 275+54
2'X 1.5' X 33' CONC. BOX
177.5' LT.
U.I.P.
Sta. 280+00 18"x61' Median Relief
with C-230 RC Hdwlls.
Sta. 291+00 ℄ Const.
18"x51' Median Relief RCP
with C-230 RC Hdwlls.
Sk. 30° L.A.
Sta. 2294+65 O.R. # 2B
2 Ac. 0.5 Land, 15"x30' Pipe Culv. CMP
with Std. 18C. End Sections
STA. 270+10.7 BK. ℄ Const. =
STA. 270+81.4 AH. ℄ Const.
52' Rt. of Sta. 270+81.4 ℄ Survey
180' R/W (℄ Survey)
WILLIAM M. & JUNE PATRICK ET AL
Lot 2
7-27-31
1/4 SEC. LINE
36 RAY & DOROTHY SHULL
NW4 NE4 7-27-31
NEW R/W 7.52 Ac.
OLD R/W 0.84 Ac.
Cons. f. Esmt. 0.20 Ac.
37 ALLEN & ANN PATRICK
NE4 NE4 7-27-31
NEW R/W 10.66 Ac.
OLD R/W 1.04 Ac.
CH. ESMT. 0.03 Ac.
Const. Esmt. 0.12 Ac.
R/W Markers
+0.585%
BM #32A R.R. Spike in 12" Oak 284' Lt. Sta. 286+90 Elev. 1083.86
BM #33A "X" on S.W. Cor. Conc. Pump Island 238' Lt. Sta. 289+15 Elev. 1092.96
BM #34 S.W. Cor. Bottom Step 300' Lt. Sta. 292+95 Elev. 1097.38
1090
1080
1070
1060
270 1 2 3 4 275 6 7 8 9 280 1 2 3 4 285 6 7 8 9 290 1 2 3 4 295 6 7 8 9 300
PLATE 1—PLAN-PROFILE O.P.R. & R.E. STAND. RD
U. S. BLUE PRINT PAPER CO.—CHICAGO

5 MO. I-44-1(18)15 14
7 JASPER I-44

FINAL PLANS

SW SW 5-27-31

P.O.T. STA. 307+39 | P.O.T. STA. 312+02.1 | P.O.T. STA. 321+09.6 | P.O.T. STA. 327+45.6 | P.O.T. STA. 328+50

(38A) Cecilia Sampson Ch. Esm't 0.28 Ac.

Sta. 304+23.2 23 Ac. O.5 Land R.C.P. 36"x173' Pipe Culv. C-230 RC Hdwlls.

Sta. 317+05 42"x45' RC Pipe Culv. 220' 76 Ac. 0.5 Land C-231 RB Hdwlls. 30° Skew R.A.

Sec. Line — Outer Roadway #C — U.I.P. — Existing R/W — Conc. removed & replaced with 12" Asph. Conc. — Outer Roadway #C — Sec. Line

℄ Survey — ℄ Construction — D.B. — Sta. 308+81 E — Ditch Block

℄ Outer Road #2B — Sta. 304+23.2 5'x2'x34' Conc. Box 129' Lt. U.I.P.

Sta. 302+00 18"x46' R.C.P. Median Relief with C-230 RC Hdwlls.

Sta. 304+23.2 0.B.#2B 29.2 Ac. 0.5 Land 36"x39' Culv. with Std. C.M.P. 18C. End Sections

Allen & Anna Patrick NE¼NE¼ 7-27-31

P.I. Sta. 2307+07 Δ 91°17' T 153.0' L 298.6' R 150'

Sta. 313+50 15"x48" R.C.P. Median Relief with C-230 RC Hdwlls.

+92.5 End

Normal Bank Slope — 2:1 Slope — 1' Min. — A' — C'

TYPICAL SECTION for INTERCEPT DITCH RT. STA. 307+00 to STA. 312+00

(38) Barbara & Herbert J. & Homer W. Fleck NW¼NW¼ 8-27-31 — New R/W 18.11 Ac. Old R/W 2.14 Ac.

76 Ac. 0.5 Land C-530 4'x4'x181' Box Culv. 30° Skew R.A.

Sta. 317+05 ℄ Const.

Sta. 322+00 18"x52' R.C.P. Median Relief with C-230 RC Hdwlls.

NE¼NW¼ 8-27-31

Sec. Line

| | | |

STATE FEDERAL PROJECT No. & SHT. TOTAL SHTS.
5 MO. I-44-1(12)115 15
7 JASPER I-44

FINAL PLANS

P.O.T. STA. 334+00 | P.O.T. STA. 338+00 | P.O.T. STA. 343+72.3 | P.O.T. STA. 346+00 | P.O.T. STA. 349+00 | P.O.T. STA. 351+00 | P.O.T. STA. 353+50 | P.O.T. STA. 357+44.2

330 335 340 345 350 355 360

Sta. 338+50 Const. 48"x22ga Pipe Culv. (Extra Strength) RCP
.57 Ac. U.S Land. 30° Skew L.A. 2-C-231 R.C. Hdwlls.

Sta. 346+26.1 & Const. C-820 6'x4'x195' Box Culv.
1.24 Ac. U.S Land. 15° Skew L.A.

℄ Survey — Outer Roadway — Sec. Line — Existing R/W — ℄ Construction

S 88° 51' E

U.I.P. STA. 332+95.3 2'x1.5'x36' CONC. BOX 119' LT.

℄ Outer Roadway #3

Outer Roadway #3 Pi Sta. 2335+62.6 Δ 88° 30' Rt. D: 19° T: 311.4' L: 491.7' R: 319.623'

Ch. Esmt. Sta. 2337+65 O.R. #3 .37 Ac. U.S Land 42"x42' R.C.P. Culv. C.M.P. 30° Skew L.A. With C-231 R.C. Hdwlls.

Sta. 343+00 18"x.179 Median Relief with C-220 RC Hdwlls.

Sta. 2345+56 O.R. #3 1.24 Ac. U.S Land C-810 5'x4'x40' Box Culv. 15° Sk. L.A.

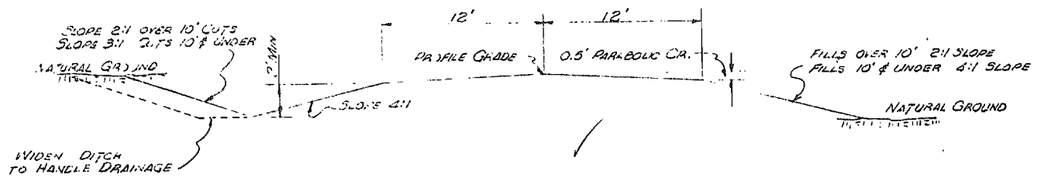
Ch. Esmt.

STA. 346+72.1 5'x5'x33' CONC. BOX 108.8' LT. U.I.P.

Guard Rail — Guard Rail — Guard Rail —

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT NO. & SEC.	SHEET NO.
5	[redacted]	I-44-1(18)15.	
DIST. NO.		COUNTY	
7		JASPER	

FINAL PLANS



TYPICAL SECTION
FOR
OUTER ROADWAY #3

NOTE: FOR GENERAL NOTES
Superelevated Curves &
Undergraded Cuts See
Std Drwg. #IAC-8

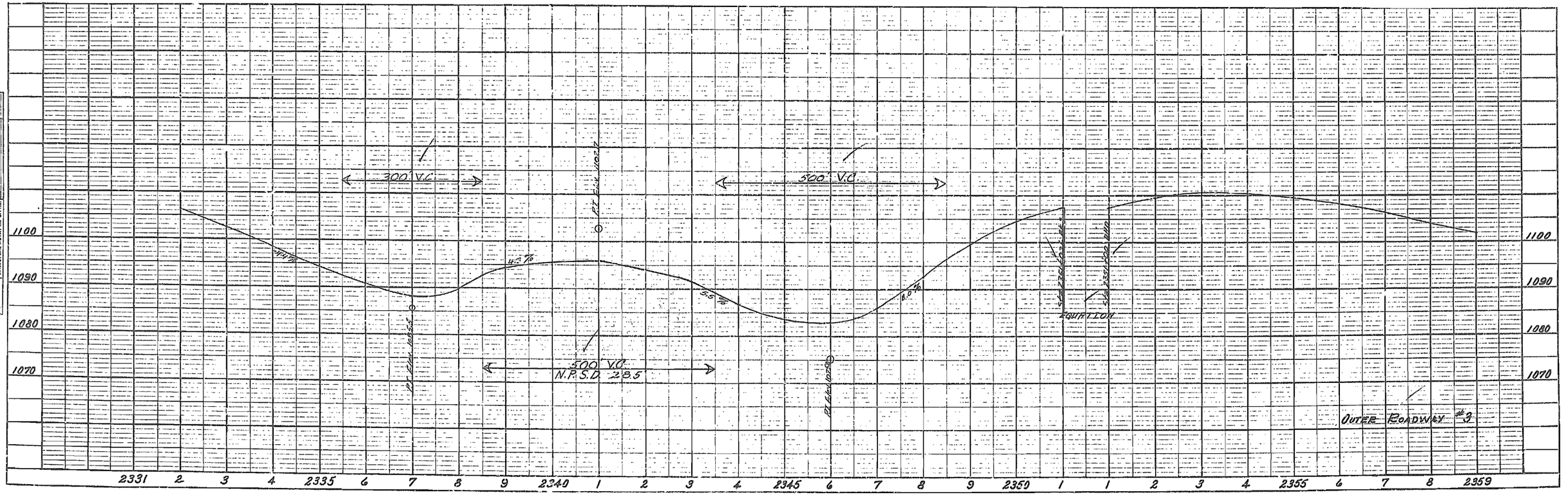


PLATE I PLAN PROFILE O.P.R. & R.E. STANDARD
U.S. BLUE PRINT PAPER CO. - CHICAGO

DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	SHT.
5	MO.		17
DIST. NO.	COUNTY		ROUTE
7	JASPER		

FINAL PLANS

P.O.T. STA. 361+00 · P.O.T. STA. 369+00 · P.O.T. STA. 369+35.4 · P.O.T. STA. 374+00 · P.O.T. STA. 377+00 · P.O.T. STA. 380+00 · P.O.T. STA. 384+00 · P.O.T. STA. 387+00

Sta. 371+85.3 ℄ Const. C-820 8'x7'x224' Box Culv. 5k. 5° L.A.

4.76 Ac. 0.5 Land Box Culv. 5k. 5° L.A.

Sta. 371+275 - 24'x60' Median R.I.P. Relief with 5'x3' 36 E.E. Drop Inlet 4'0"

.13 Ac. 0.5 Land. 30° Sk. B.A. With C-231 R.C. Hdwlls

Sta. 378+54.5 ℄ Const. 42"x255' Pipe Culv. (Extra Strength) R.C.P.

Grouted Light Stone Pavement

EXISTING R/W

℄ Survey

℄ Construction

Guard Rail

Outer Roadway

℄ Outer Rdwy #3

D.B.

U.I.P.

Sta. 2360+31 (C.R.#3) 8 Ac. 0.5 Land CMP. 21"x38" Pipe Culv. 75° Alt. of 2.

Sta. 2363+00 (C.R.#3) 12 Ac. 0.5 Land CMP. 30"x36" Pipe Culv. 30° Sk. L.A. with C-230 R.C. Hdwlls

Ch. Esmt.

STA. 371+98.7 10'x6'x32' CONC. BOX 102.2' LT. U.I.P.

Sta. 2371+66 (C.R.#3) 4.76 Ac. 0.5 Land Sta. 6010-8'x7'x26' Box Culv. 5k. 5° L.A.

Sta. 2379+63 (C.R.#3) 48 Ac. .015 Land CMP. 42"x 64' Culv. 30° Sk. B.A. With C-231 R.C. Hdwlls

POND

DAM

Sta. 380+00 - 18'x44' Median R.I.P. Relief with C-239 R.C. Hdwlls.

Sta. 2379+35 P.E. 15"x31' C.M.P. Culv. State furnished

Sta. 2386+15 P.E. 15"x28' C.M.P. Culv. State furnished

7.2 KV

Sta. 361+59 (℄ Const.) R.C.P. 3'x3' Median Relief with C-230 R.C. Hdwlls. 5k. 30° L.A.

NW¼NW¼ 9-27-31

(45) LOREN E. & DORIS D. MILLER
New R/W 12.28 Ac.
OLD R/W 0.91 Ac.
CH. Esmt. 0.52 Ac.

(46) JAMES H. KNIGHT
NEW R/W 2.94 Ac.
OLD R/W 0.18 Ac.

(47) C.C. & FAYE IRENE PEEBLES ET AL
NEW R/W 2.74 Ac.
OLD R/W 0.23 Ac.

(48) ORVAL & ETHEL ASCHER
NE¼NW¼ 9-27-31
New R/W 2.07 Ac.
OLD R/W 0.14 Ac.
CH. Esmt. 0.17 Ac.

(49) DAVID F. & JOAN L. MUMMERT
NEW R/W 4.28 Ac.
OLD R/W 0.33 Ac.
9-27-31

Sta. 2386+15 P.E. 15"x28' C.M.P. Culv. State Furnished

Joann Dunn & Dorothy Hammer
NW¼NE¼ 9-27-31

500' V.C.

-0.91%

+0.73%

-0.30%

500' V.C.

Elevation scale: 1030 · 1040 · 1050 · 1060 · 1070 · 1080

Station scale: 360 · 1 · 2 · 3 · 4 · 365 · 6 · 7 · 8 · 9 · 370 · 1 · 2 · 3 · 4 · 375 · 6 · 7 · 8 · 9 · 380 · 1 · 2 · 3 · 4 · 385 · 6 · 7 · 8 · 9 · 390

B.M.#46 Chi. Front edge Bottom Step 200' Lt. Sta. 361+00 — Elev. 1089.67

B.M.#47 Brad Spike in Base 20" R. Oak 200' Lt. Sta. 361+36 — Elev. 1081.58

B.M.# S.W. Cor. Top Drop Inlet Sta. 371+275 — Elev. 1053.68

B.M.#48 Chi. S. Hdwl. 102' Lt. Sta. 371+981 — Elev. 1065.65

B.M.#49 Brad Spike in Side 12" 165' Lt. Sta. 372+00 — Elev. 1054.31

B.M.#49A S.E. Cor. Median Relief Hdwl. Lt. Sta. 380+00 — Elev. 1075.52

B.M.#51 Chi. Front edge Bottom Step 220' Lt. Sta. 387+36 — Elev. 1025.02

F.M. Markers = 4

PLATE 1—PLAN-PROFILE O. P. R. & R. Z. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIST. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)15		18
CITY NO.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

FINAL PLANS

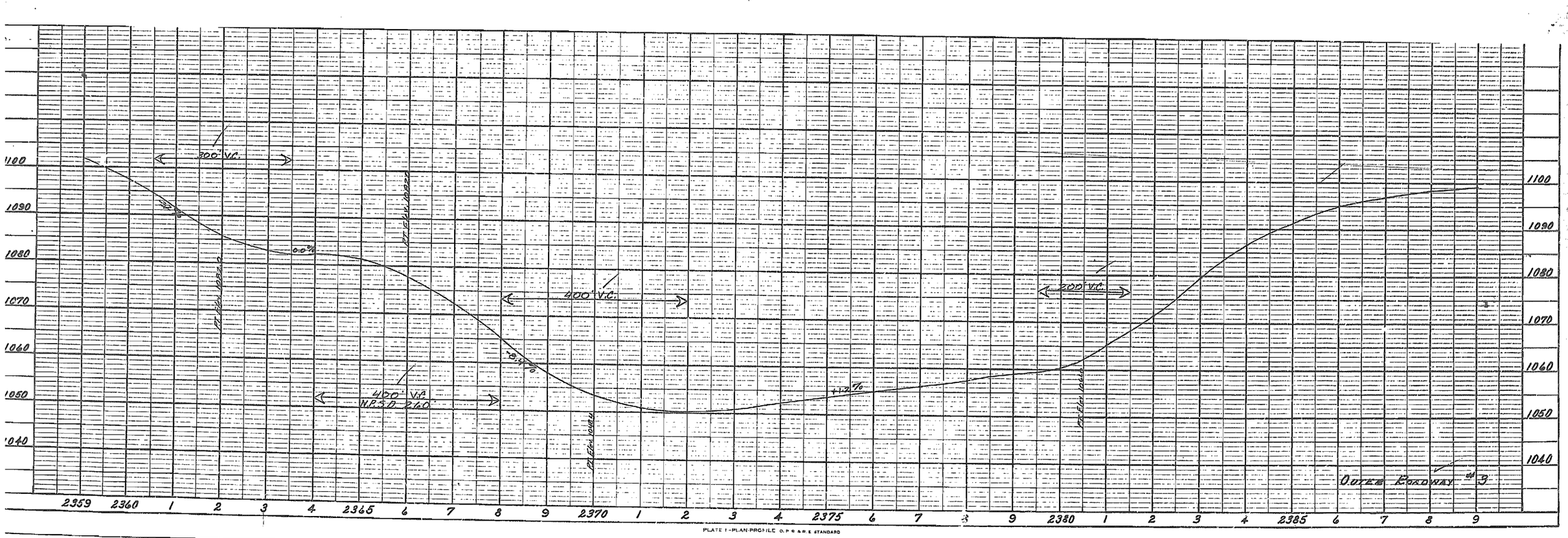


PLATE 1-PLAN-PROFILE O. P. R. & P. E. STANDARD

U. S. BLUE PRINT PAPER CO.-CHICAGO

DIV. NO.	STATE	FED. RAL PROJECT No. & SEC.	SHEET NO.	TOTAL SHEETS
5	MO.	S-441(16)15		19
DIST. NO.	COUNTY		STATE SEC.	
7	JASPER		S-44	

FINAL PLANS

P.O.T. STA. 391+87.2 | P.O.T. STA. 393+13.6 | P.O.T. STA. 398+51.2 | P.O.T. STA. 399+60.2 | P.O.T. STA. 401+13 | P.O.T. STA. 401+69.6 | P.O.T. STA. 409+76 | P.O.T. STA. 411+75.7 | P.O.T. STA. 412+67.5 | P.O.T. STA. 415+58 | P.O.T. STA. 416+58.3

390 | 395 | 400 | 405 | 410 | 415 | 420

SE¼ SE¼ 4-27-31

SW¼ SW¼ 3-27-31

Bertha A. Spencer New R/W 2.27 Ac. (63)

Carl & Rose Lockhart

Sec. Line

℄ Survey

℄ Construction

Outer Roadway #6 (Exist. Sta.6)

Outer Roadway #6 - (Exist. Rte. 166)

Existing R/W

12 KV

Power Cut on this Line

P.I. Sta. 400+00 Rt. 14 Ahead

589° 51' E

D.B.

℄ Outer Roadway #3

U.P. Sta. 396+97.3 2'X1.5'X41' Conc. Box 91.3' Lt.

O.R. #3 P.I. Sta. 2401+99.7 Δ = 44° 50' Rt. D = 10°

Outer Roadway #3 (Reloc.) P.I. Sta. 2403+00.1 Δ = 44° 50' Rt. D = 10° T = 337.85 L = 640.48 R = 819.01 S.E. = 0.06' / Ft. Ll = 128 E EQUA. P.T. Sta. 2404+11.3 BK = Sta. 2005+30.7 Ahd.

O.R. #3 Relocated

Sta. 2402+00 (O.R. #3) 3 Ac 0.5 Lead 15"x44' C.M.P. / Culv. - 30° Sk. R.A. with C-230 R.C. Hdwls.

Sta. 2397+68 C.E. 15"x60' CMP Culv. State Furnished

Sta. 2399+14 C.E. 15"x60' CMP Culv. Built by Prop. Owner

Sta. 2390+85 P.E. 12"x29' CMP Culv. State Furnished

(50) James Dilice & Paulin's Holman New R/W 7.28 Ac. Old R/W 0.57 Ac.

(51) M. S. & Ophelia Ledford New R/W 4.31 Ac. Old R/W 0.34 Ac.

(52) Arthur E. & Winifred Wehing New R/W 22.23 Ac. Old R/W 2.65 Ac. Ch. Esmt. 0.41 Ac.

Sta. 403+40 (℄ Const.) R.P. 18"x53' M.d. in Relief with C-230 R.C. Hdwls. Sk. 30° R.A.

Marguerite Guard Hackett New R/W 0.6 Ac.

Sta. 411+23.8 to 411+68.8

Sta. 410+00 - 18"x38' Bituminous Coated Pond Invert CMP. Relief with C-230 R.C. Hdwll. Rt. C-230 R.B. Hdwll. Lt. Sk. Lt. Hdwll. 5° L.A.

Sta. 411+78.7 to 413+61.2 2-42'-50-50-42' Cont. I-Bm. Brigs. - See Bldg. Des. # A-630

Sta. 415+02.8 Dbl. 12'x8' Box Culv. See Brdg. Des. # H-529 R

Sta. 412+67.5 Rte. I-44 to Sta. 248+04.4 Rte. 71 Alt. 413+89.9

Sta. 413+26.49 to Sta. 413+89.49 Guard Rail

Sta. 413+89.49 to Sta. 414+35.49 Guard Rail

Sta. 414+35.49 to Sta. 414+89.49 Guard Rail

Sta. 414+89.49 to Sta. 415+35.49 Guard Rail

Sta. 415+35.49 to Sta. 415+89.49 Guard Rail

Sta. 415+89.49 to Sta. 416+35.49 Guard Rail

Sta. 416+35.49 to Sta. 416+89.49 Guard Rail

Sta. 416+89.49 to Sta. 417+35.49 Guard Rail

Sta. 417+35.49 to Sta. 417+89.49 Guard Rail

Sta. 417+89.49 to Sta. 418+35.49 Guard Rail

Sta. 418+35.49 to Sta. 418+89.49 Guard Rail

Sta. 418+89.49 to Sta. 419+35.49 Guard Rail

Sta. 419+35.49 to Sta. 419+89.49 Guard Rail

Sta. 419+89.49 to Sta. 420+35.49 Guard Rail

Sta. 420+35.49 to Sta. 420+89.49 Guard Rail

NW¼ NE¼ 9-27-31

NE¼ NE¼ 9-27-31

NW¼ NW¼ 10-27-31

300' R/W

72 KV

52'

30'

2.5%

-0.30%

E/W Markers - 2.

BM #52 250' Lt. Ctr. Front edge Bottom Step Sta. 390+30 Elev. 1094.26

BM #54 250' Lt. S.W. Cor. Walk Sta. 400+05 Elev. 1093.24

BM #4 Rt. S.W. Cor. Median Relief Hdwl. Sta. 402+00 Elev. 1074.32

BM #5 69' Rt. X on Rt. Wing of E.B.L. Bridge Sta. 411+73 Elev. 1073.64

BM #6 69' Rt. X on Rt. Wing of E.B.L. Bridge Sta. 413+59.5 Elev. 1073.06

1090 | 1080 | 1070 | 1060 | 1050 | 1040 | 1030 | 1020

PLATE I - PLAN-PROFILE O. P. R. & B. E. STANDARD

U. S. BLUE PRINT PAPER CO. - CHICAGO

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.		
5	MO.	I-44-1(18)15.		20
DIST. No.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

FINAL PLANS

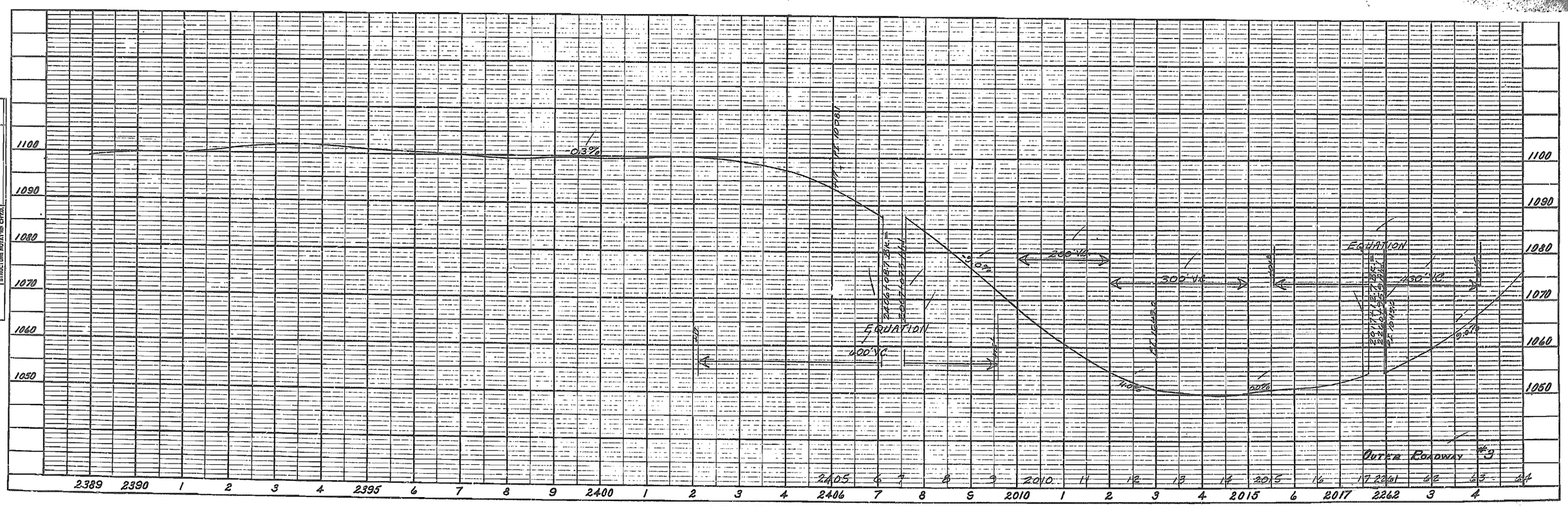


PLATE 1—PLAN-PROFILE O.P.R. & R.E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

PLAN NOTE BOOK No. — SURVEYED — PLOTTED — ALIGNMENT CHECKED — BY OF WAY CHECKED

PROFILE NOTE BOOK No. — SURVEYED — PLOTTED — GRADES CHECKED — R. & S. NOTES — STRUCTURE NOTATIONS CHKD. — BY — DATE

5 NO. I-44-1(18)15 21

7 JASPER I-44

FINAL PLANS

1110

1100

1090

1080

2264 2265 6 7 8 2269

Outer Roadway #3

PLATE I—PLAN-PROFILE O P R & R E STANDARD

U S. BLUE PRINT PAPER CO.—CHICAGO

5 MO. I-44-1(11)215 22
7 JASPER I-44
ROUTE 71 ALT.
FINAL PLANS

59 W. R. & Muriel L. Brewer
New R/W 1.44 Ac.
Old R/W 0.16 Ac.

Out. Rdwy. #5
P.I. Sta. 1228+37.8
Δ 90° Rt.
D 65° 51'
T 87.0'
L 136.7'
R 87.0
SE 0.02'/Ft
Lt 66'

NW¼ SW¼
3-27-31

Carl & Hope Lockhart

60 Merle & Virginia Endicott
New R/W = 1.41 Ac.
Old R/W = 0.19 Ac.

61 John & Lila Patrick
New R/W = 1.21 Ac.
Old R/W = 0.17 Ac.

Sta. 1232+66 P.E.
15"x36" R.C.P. Culv.
State Furnished

Sta. 1228+05 P.E. Cr.

12 KV

Septic Tank

Ca. P.E.

Outer Roadway #5

Sta. 1226+53 Out. Rd.
Sta. 226+10 Rt. of ℄

℄ Survey

Exist. R/W

Asph. Conc. Wedge

Sta. 224+45 Out. Rd.
Sta. 228+00 Rt. of ℄

Raised Median

℄ Const.

STATE

Out. Rdwy. #6
P.I. Sta. 222+37.3
Δ 90° Lt.
D 65° 51'
T 87.0'
L 136.7
R 87.0
SE 0.02'/Ft
Lt 66'

½ Sec. Line
12 KV

Sta. 227+00 12 Ac. 0.5 Land
R.C.P. 30"x95' Pipe Culv.
With C-230 AC Howls.

58 I. L. & Lucille Mc Chesney
New R/W 4.63 Ac.
Old R/W 1.13 Ac.

NE¼ SE¼
4-27-31

Sta. 230+00 3½ Ac. 0.5 Land
R.C.P. 15"x95' Pipe Culv.
With C-230 AC Howls

Out. Rdwy. #5
Sta. 1230+00 3½ Ac. 0.5
R.C.P. 18"x64' Pipe Culv.
With C-230 AC Howls

Sta. 2230+38 P.E.
18"x30' C.M.P. Culv.
State Furnished

Sta. 2231+05 P.E.
18"x30' C.M.P. Culv.
State Furnished

Sta. 2232+15 P.E.
18"x30 C.M.P. Culv.
State Furnished

Sta. 2234+29 P.E.
15"x28' C.M.P. Culv.
State Furnished

R/W Markers = ℓ

100' V.C.

Sta. 225+00 Elev. 1071.75

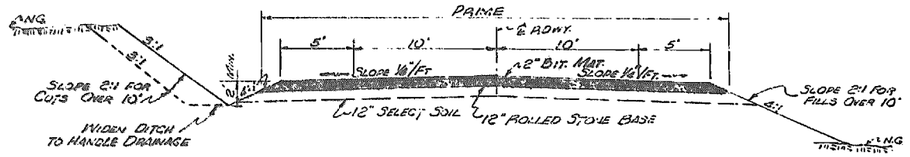
BM# P.K. Spike in N. Side of 36" Walnut
125' Lt. Sta. 223+10 Elev. 1061.73

Fidelity Interchange

1080
1070
1060

220 1 2 3 4 225 6 7 8 9 230 1 2 3 4 235

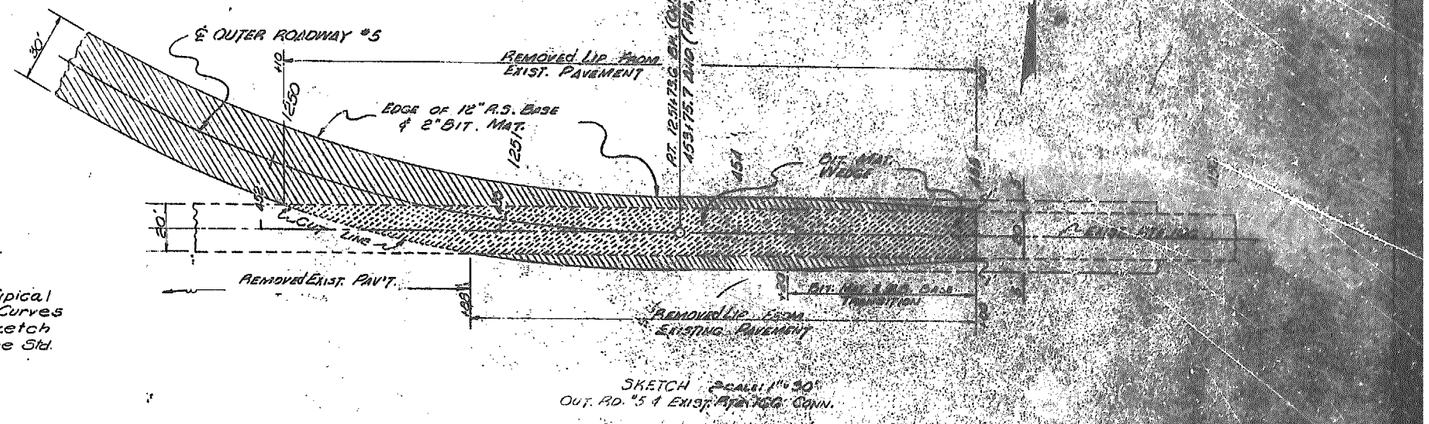
PLATE 1—PLAN PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO



TYPICAL SECTION
OUTER ROADWAY #5

NOT TO SCALE

NOTE: For General Notes, Typical Section on Superelevated Curves & Undergraded Cuts and Sketch Showing Exc. Pay Limits See Std. Drwg. #1 AB-6



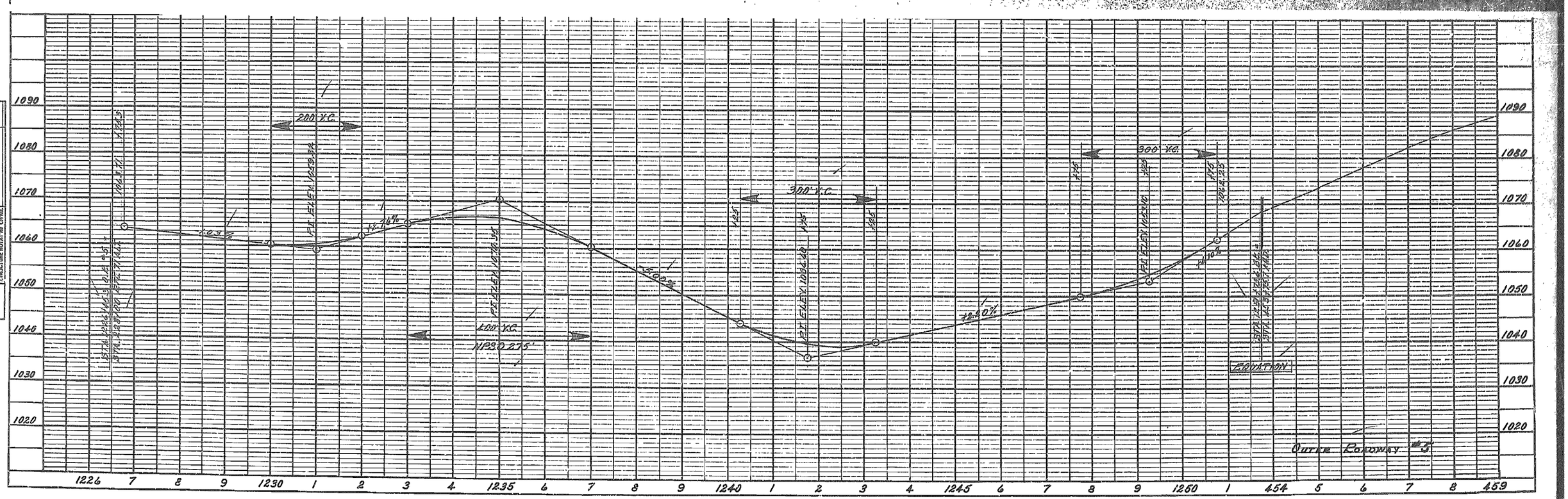
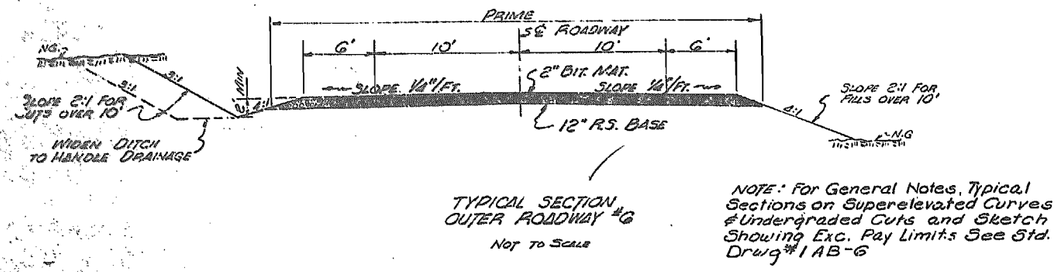


PLATE 1—PLAN-PROFILE C. P. R. & R. E. STAN DARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

5	NO. I-AA-1(118)6	24
7	JASPER	I-AA

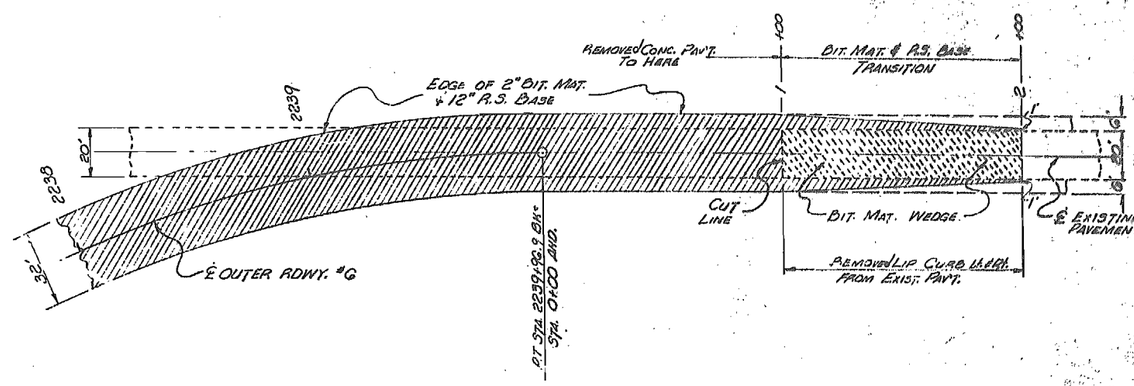
FINAL PLANS



TYPICAL SECTION OUTER ROADWAY #G

Not to Scale

NOTE: For General Notes, Typical Sections on Superelevated Curves & Undergraded Cuts and Sketch Showing Exc. Pay Limits See Std. Drwg. # 1 AB-6



SKETCH Scale: 1"=30'
OUT. RD. #G & EXIST. PAV'T. CONN.

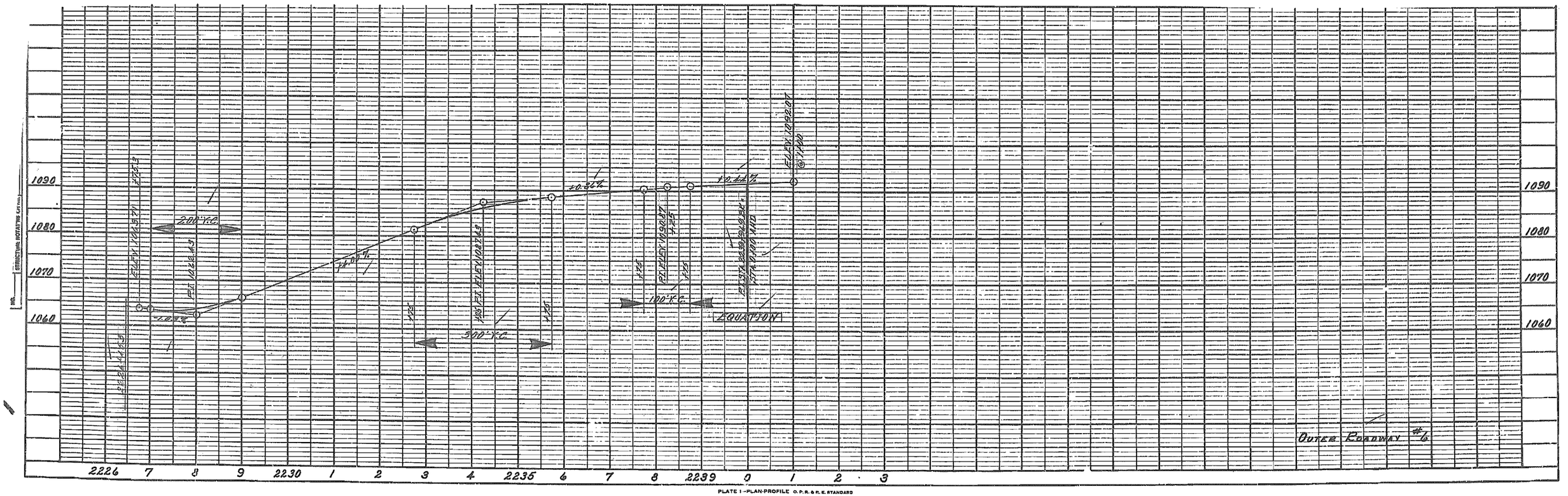


PLATE 1 -PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FINAL PLANS

5 MO. I-44-1(18)15 25

7 JASPER I44

RTE. 71 ALT.

SW¼ NW¼ 10-27-31

SW¼ SW¼ 3-27-31

(62) CARL & HOPE LOCKART
New R/W 8.3a Ac.
Old R/W 2.79 Ac.
Co. Esmt. 0.40 Ac.

P.I. Sta. 246+97.5
Δ=0°-43' Lt.

R.O.T. Sta. 248+04.4

See Brdg. Des. # H 526 R

BERTHA A SPENCER

P.I. 17+29
Δ 42°26' Lt.

See Brdg. Des. # H 529 R

See Brdg. Des. # A 675

See Brdg. Des. # J 640 R

Sta. 246+97.5 = P.I. 71 Alt. 2.5 Lt. To Sta. Co.

Sta. 242+19.1 Lt. Rt. Cl. A Underdrain

Sta. 255+00 Lt. Y-Lateral Pipe Cl. A Underdrain

Sta. 241+21.6 = P.I. 71 Alt. = Sta. 248+04.4 Rte. 71 Alt.

Sta. 245+66.4 44 Az. 0.5 Land 42 R. 36" 121 Pipe Culv. with C-230 Hdwlls. RB Lt. 1. R. "

(R.C.P.) Sta. 301+54 Ch. Ch. 4'x 30" Pipe with 5'x2'x7.5' 36 EE Drop Inlet

Sta. 311+85 Ch. Ch. (R.C.P.) 4'x 30" Pipe with 5'x2'x6' 36 EE Drop Inlet

Sta. 256+65 Dbl. 12'x8' Box Culv. Sk. 45° RA See Brdg. Des. # J 640 R

ARTHUR A. & WINIFRED WEAVING

NE¼ NE¼ 9-27-31

Outer Roadway #5
P.I. Sta. 1239+66.9
Δ 46°00' Lt.
D = 10°
T = 243.5'
L = 460.0'
R = 573.69'
S.E. = 0.087 Ft.
Lt. = 200'

Outer Roadway #6
P.I. Sta. 2237+80.1
Δ = 45°05' Rt.
D = 10°
T = 244.0'
L = 460.8'
R = 573.69'
S.E. = 0.087 Ft.
Lt. = 200'

Outer Roadway #3 (Reloc.)
P.I. Sta. 2012+87.7
Δ 49°06.5'
D = 10°
T = 256.27'
L = 421.08'
R = 573.686'
S.E. = 0.087 Ft.
Lt. = 200

Outer Roadway #3
P.I. Sta. 2013+08.8
Δ = 45°54' Rt.
D = 10°

Outer Roadway #3 (Reloc.)
P.I. Sta. 2010+72.5
Δ = 44°52' Rt.
D = 10°
T = 234.9'
L = 448.3'
R = 573.686'
S.E. = 0.087 Ft.
Lt. = 200'

PEARL & LORA BIED
P.I. Sta. 2001+39.2' Rt. 30°
Sta. 2005+59 Bk. Ahd.
Sta. 2011+57 On R.E.

D.C. & HAZEL ROOK
New R/W 3.64 Ac.
Old R/W 1.12 Ac.

(66)

(57A) ALLEN W. PRITSCHAN
New R/W 1.41 Ac.
Old R/W 1.22 Ac.
Sta. 2236+23 Rt.
15"x28' CMP Culv.
1 Safe Furnished

(67) JAMES E. & MARY LOCKHART
New R/W 2.91 Ac.
Old R/W 0.68 Ac.
Ch. Esmt. 0.43 Ac.

HERSCHEL M. ANDERSON
New R/W 1.16 Ac.
Old R/W 0.87 Ac.

Sta. 2236+23 Rt. P.E. 15"x28' CMP Culv. Safe Furnished

Sta. 2241+38 Rt. 15"x28' CMP Culv.

Sta. 2242+19.1 Lt. Rt. Cl. A Underdrain

Sta. 2245+66.4 Rt. 36" 121 Pipe Culv. with C-230 Hdwlls.

Sta. 2255+00 Lt. Y-Lateral Pipe Cl. A Underdrain

Sta. 2256+65 Dbl. 12'x8' Box Culv. Sk. 45° RA See Brdg. Des. # J 640 R

Sta. 2261+51.5 Rte. 71 Alt.

Sta. 2261+51.5 Ahd. = Sta. 2262+29.9 Brk. = P.I. Sta. 2011+27.8 Brk. = P.I. Sta. 2007+29.9 Ahd.

Sta. 2264+23.8 P.E. 15"x28' CMP Culv. Safe Furnished

Bk. Sta. 2239+38.7 On L.E.

Ch. Esmt.

EQUATION

Bk. Sta. 2239+38.7 On L.E.

Ahd. Sta. 2241+38 On L.E.

Ahd. Sta. 2236+23 On L.E.

Bk. Sta. 2236+23 On L.E.

Ahd. Sta. 2239+38.7 On L.E.

Bk. Sta. 2241+38 On L.E.

Ahd. Sta. 2261+51.5 On L.E.

Bk. Sta. 2261+51.5 On L.E.

Ahd. Sta. 2262+29.9 On L.E.

Bk. Sta. 2262+29.9 On L.E.

Ahd. Sta. 2264+23.8 On L.E.

Bk. Sta. 2264+23.8 On L.E.

Ahd. Sta. 2007+29.9 On L.E.

Bk. Sta. 2007+29.9 On L.E.

Ahd. Sta. 2011+27.8 On L.E.

Bk. Sta. 2011+27.8 On L.E.

Ahd. Sta. 2012+87.7 On L.E.

Bk. Sta. 2012+87.7 On L.E.

Ahd. Sta. 2010+72.5 On L.E.

Bk. Sta. 2010+72.5 On L.E.

Ahd. Sta. 2013+08.8 On L.E.

Bk. Sta. 2013+08.8 On L.E.

Ahd. Sta. 2001+39.2 On R.E.

Bk. Sta. 2001+39.2 On R.E.

Ahd. Sta. 2005+59 On R.E.

Bk. Sta. 2005+59 On R.E.

Ahd. Sta. 2011+57 On R.E.

Bk. Sta. 2011+57 On R.E.

Ahd. Sta. 2010+47.6 On R.E.

Bk. Sta. 2010+47.6 On R.E.

Ahd. Sta. 2008+34.6 On R.E.

Bk. Sta. 2008+34.6 On R.E.

Ahd. Sta. 2007+27.6 On R.E.

Bk. Sta. 2007+27.6 On R.E.

Ahd. Sta. 2004+27.6 On R.E.

Bk. Sta. 2004+27.6 On R.E.

Ahd. Sta. 2003+27.6 On R.E.

Bk. Sta. 2003+27.6 On R.E.

Ahd. Sta. 2002+27.6 On R.E.

Bk. Sta. 2002+27.6 On R.E.

Ahd. Sta. 2001+27.6 On R.E.

Bk. Sta. 2001+27.6 On R.E.

Ahd. Sta.

5 MO. I-44-1(18)15 2G

7 JASPER I-44

RTE. 71 ALT.

FINAL PLANS

SW¼ NW¼ 10-27-31 — P.I. Sta. 268+90, Δ 0°30' Rt.

NW¼ SW¼ 10-27-31

SW¼ SW¼ 10-27-31

OUTER RDWY. #2 — Pt. Sta. 2002+373, Δ 90°00' Lt., D 65°51', T 87.0, L 136.7, R 87.0, SE 0.02'/Ft., Lt. - 66'

OUTER RDWY. #3 — Pt. 2269+00, Δ 92°12'5 Lt., D 65°51'26" (arc), T 90.41, L 140.01, R 87.0, SE 0.04'/Ft., Lt. 66'

D.C. & Hazel Finch — Sta. 2004+70 Rt., 12"x28" CMP Culv.

(71) CEMETERY — New R/W 0.44 Ac., Old R/W 0.68 Ac. — Sta. 2002+18 Rt., 12"x40' CMP Culv.

(72) Charles Max & Mary T. Hahnen — New R/W 0.72 Ac., Old R/W 0.67 Ac. — Sta. 275+95 Rt., 18"x32' CMP Culv. — Sta. 276+00 to Rt. 4+45 C.I.A. Underdrain

Otto F. Heckmaster

Della F. Heckmaster

Existing R/W

Sta. 2005+00 to Sta. 2006+00 Outer Rdwy. #2

Sta. 2005+00 to Sta. 2006+00 Outer Rdwy. #3

2a Rdwy.

Limits of Grades

Asph. Conc. Wedge

Sta. 2268+29 Rt., 12"x28' CMP Culv.

Rock Wall

1100 Cr. Pt.

(69) Clancy Lee & Dorothy Parsons — New R/W 0.34 Ac., Old R/W 0.11 Ac.

(70) Charles Max & Mary T. Hahnen — New R/W 0.70 Ac., Old R/W 0.64 Ac., Const. Esmt. 0.07 Ac.

James M. & Mary P. Lochnart

(73) Gerald & Irene Whittenburg — New R/W 0.89 Ac., Old R/W 0.52 Ac. — Sta. 277+70 Double 10'x7'x63' Conc. Box Culv. 12" Howls 21.9 Lt. 21.9 Rt. (USED IN PLACE)

Ethel, Richard & Raymond Randall

Bert J. & Opal B. Shrum

NOTE: For Details of Median, Outer Rdwy Termini, Taper, & Temporary By-Pass — See other sheet

1/4 Sec. Line

1/4 1/4 Sec. Line

SE¼ NE¼ 9-27-31

NE¼ SE¼ 9-27-31

S 1°23' W

S 0°03' W

Elev. Markers Underdrains — Sta. 265+00 to Sta. 290+00 — Total — No. 1 — Dr. Markers No. 14 — No. 1 — No. 14

B.M.#1 — R.R. Spike in 24" P. Oak, 240' Lt. Sta. 269+00 — Elev. 1113.87

PROFILE — SURVEYED, PLOTTED, GRADES CHECKED, E. & M.'s, STRUCTURES ROTATED 180° CW/CCW, NOTE BOOK NO., DATE

Vert. Scale 1" = 10'

Horiz. Scale 1" = 100'

Sag Vert. Curve L = 400' K = 157

200' V.C.

2.25%

-1.45%

600' V.C.

2.25%

1110 1100 1090 1080 1070 1060

265 6 7 8 9 270 1 2 3 4 275 6 7 8 9 280 1 2 3 4 285 6 7 8 9 290

PLATE I - PLAN-PROFILE C. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO. — CHICAGO

STATE	FEDERAL PROJECT NO.	SHEET NO.	TOTAL SHEETS
5	I-44-1(16)12[illegible]		27
DIST. NO.	COUNTY		
7	JASPER	144	

FINAL PLANS

BRIDGES for INTERCHANGE

RTE. I-44 V
Sta. 411+79.7 to 413+61.2
2-42'-50'-50'-42' Cont. I-Bm.
Brdgs. - See Brdg. Dwg. #A-630

RTE. I-44
Sta. 415+10.8 Dbl.
12'x8' Box Culvert
See Brdg. Des. #H529B

RTE. 71 ALT
Sta. 2+86+65 Dbl.
12'x8' Box Culv. Included
For Ramp F & Ovl. Pdwy. #5
See Brdg. Des. #J540B

RAMP A
Sta. 5+31.5 Dbl.
12'x8' Box Culv. Included
For Ramp B & Out. Pdwy. #5
See Brdg. Des. #H526A

RAMP C
Sta. 2+55 Dbl.
12'x8' Box Culvert
See Brdg. Des. #A675

CULV'S. for RAMPS

Sta. 6+50 / Ramp C.
15"x12" Paved Invert with Curb Opening Drop Inlet & C-230 RB Headwall
Size D=2.1, L=2.8

Sta. 6+52 Ramp C.
15"x4" RCPA with Curb Opening Drop Inlet
C-230 RC Headwall 45° Sk.
D=2.1 L=2.5

RAMP B
Sta. 11+50 RCP 15" & 18"x153' P.Culv. with 3 E.O.I. C-230 Headwalls
Sl. 2.2% Dg. 3' R.B. Rt. - R.C.Lt.

RAMP D
Sta. 2+67 9 Ac. 0.5 Land
Extra Strength 30"x 124' P.Culv. 84.30° L.A.
RCP with C-230 Headwalls - R.B.

RAMP D
Sta. 12+15 1.0 Ac. 0.6 Land
C-220 6'x4'x274' Box Culv.
84.30° R.A.
In Sections

RAMP E
Sta. 6+00 RCP 18"x90' P.Culv.
84. 30° L.A. with C-230 Hdwlls. R.C.

RAMP B
Sta. 41+15 2 Ac. 0.5 Land
RCP 15"x101' P.Culv. 84.25° R.A.
with C-230 R.B. Hdwlls. - 30°

RAMP C
Sta. 41+22 1.1 Ac. 0.6 Land
RCP 24"x43' P.Culv. with
C-230 Headwalls - R.C.

RAMP G
Sta. 10+85 2 Ac. 0.5 Land
RCP 24"x79' P.Culv. 84. 30° L.A.
with C-230 Headwalls - R.C.

RAMP H
Sta. 3+50 2 Ac. 0.5 Land
RCP 18"x57' P.Culv. with
C-230 Headwalls - R.C.

RAMP H
Sta. 11+45 2 Ac. 0.6 Land
RCP 24"x55' P.Culv. with
C-230 Headwalls SL. 2.6% R.C.

OUTER RDWY. #3
Sta. 1+50 1.5 Ac. 0.6 Land
RCP 24"x42' P.Culv. 84. 30° L.A.
with C-230 Headwalls - R.C.

OUTER RDWY. #4
Sta. 20+11 1.0 Ac. 0.5 Land
RCP 18"x106' P.Culv. with
C-230 Hdwlls. - R.B.

OUTER RDWY. #4
Sta. 20+31 0.6 1.0 Ac. 0.6 Land
C-210 6'x4'x44' Box Culv.
84. 30° R.A.

TYPICAL SECTION
OF FIDELITY BRANCH CH. CH. &
2' ROCK BLANKET GROUT SURFACE
(ROUGH FINISH) INSIDE THE LOOPS & RAMPS

JOINT LEGEND
Transverse Contraction Joint with Tie Bars
Longitudinal Joint (Sawed) with Tie Bars

PLAN for BRIDGE APPROACH SLAB
FIDELITY INTERCHANGE

NOTE: For all joint details see Sheet [illegible]

FINAL SURVEY
SURVEYED
PLOTTED
CHECKED
NOTE BOOK
AREAS
AREAS CHECKED
NO.

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	SHEET No.	SHEET No.
5	MS.	I-44-1(12)15.		25
DIST. No.	COUNTY		SHEET No.	SHEET No.
7	JASPER		I-44	

FINAL PLANS

RAMP A
42'Lt. Sta.245+02.4 Rte.71 Alt.
= P.I. Sta. 0+92.35
Δ - 25°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - Spline & 0.08'/Ft.

RAMP A
P.I. Sta. 4+06.08
Δ - 96°37'30" Rt.
D - 28°38'52" Arc.
T - 224.57
L - 337.29
R - 200'
SE - 0.08'/Ft.

RAMP A
P.I. Sta. 6+03.88
Δ - 24°01' Rt.
D - 14°19'26" Arc.
T - 85.05
L - 167.67
R - 400'
SE - 0.08'/Ft.

RAMP A
P.I. Sta. 9+11.04
Δ - 96°37'30" Rt.
D - 28°38'52" Arc.
T - 224.57
L - 337.29
R - 200'
SE - 0.08'/Ft.

RAMP A
14'Lt. Sta. 415+96.9 Rte. I-44
= P.I. Sta. 11+16.11
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - 0.08'/Ft. & Spline

RAMP B
14'Rt. 421+92.5 Rte. I-44
= P.I. Sta. 2+95.19
Δ - 44°46' Rt.
D - 9°
T - 295.19
L - 559.58
R - 716.78
SE - Spline & 0.08'/Ft.
L.T. - 300'

RAMP B
42'Lt. 259+24.7 Rte. 71 Alt.
= P.I. Sta. 14+92.0
Δ - 45°58' Rt.
D - 8°
T - 304.01
L - 574.58
R - 716.78
SE - 0.08'/Ft. & Spline
L.T. - 300'

RAMP C
118' Rt. Sta. 415+95.3 I-44
= P.I. Sta. 0+92.35
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - Spline & 0.08'/Ft.

RAMP C
P.I. Sta. 4+03.37
Δ - 95°56' Rt.
D - 28°38'52" Arc.
T - 221.86
L - 334.87
R - 200'
SE - 0.08'/Ft.

RAMP C
P.I. Sta. 6+11.92
Δ - 26°52' Rt.
D - 14°19'26" Arc.
T - 95.54
L - 187.57
R - 400'
SE - 0.08'/Ft.

RAMP C
P.I. Sta. 9+25.3:
Δ - 95°56'
D - 28°38'52" Arc.
T - 221.86
L - 334.87
R - 200'
SE - 0.08'/Ft. & Spline

RAMP C
42'Lt. 252+09.2 Rte. 71 Alt.
= P.I. Sta. 11+31.17
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - Spline

RAMP D
42'Lt. 253+66.22 Rte. 71 Alt.
= P.I. Sta. 2+93.49
Δ - 44°32' Rt.
D - 8°
T - 293.49
L - 556.61
R - 716.78
SE - Spline & 0.08'/Ft.
L.T. - 300'

RAMP D
118' Rt. 422+50 Rte. I-44 =
P.I. Sta. 16+06.9
Δ - 44°40' Rt.
D - 8°
T - 294.46
L - 558.33
R - 716.78
SE - 0.08'/Ft. & Spline
L.T. - 300'

RAMP E
42' Rt. 252+10.3 Rte. 71 Alt.
= P.I. Sta. 0+92.4
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - Spline

RAMP E
P.I. Sta. 4+06.08
Δ - 90°37'30" Rt.
D - 28°38'52" Arc.
T - 224.57
L - 337.29
R - 200'
SE - Spline & 0.08'/Ft.

RAMP E
P.I. Sta. 6+03.88
Δ - 24°01' Rt.
D - 14°19'26" Arc.
T - 85.05
L - 167.67
R - 400'
SE - 0.08'/Ft.

RAMP E
P.I. Sta. 9+11.04
Δ - 97°37'30" Rt.
D - 28°38'52" Arc.
T - 224.57
L - 337.29
R - 200'
SE - 0.08'/Ft.

RAMP E
118' Rt. 409+36.4 Rte. I-44
= P.I. Sta. 11+16.11
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - 0.08'/Ft. & Spline

RAMP F
118' Rt. 402+35.0 Rte. I-44
= P.I. Sta. 2+95.68
Δ - 44°50' Rt.
D - 8°
T - 295.68
L - 560.42
R - 716.78
SE - Spline & 0.08'/Ft.
L.T. - 300'

RAMP F
42' Rt. 251+48.30 Rte. 71 Alt.
= P.I. Sta. 15+72.2
Δ - 45°58' Rt.
D - 8°
T - 303.40
L - 575.54
R - 716.78
SE - 0.08'/Ft. & Spline
L.T. - 300'

RAMP G
14'Lt. Sta. 410+30.5 Rte. I-44
= P.I. Sta. 0+92.35
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 400'
SE - Spline & 0.08'/Ft.

RAMP G
P.I. Sta. 4+03.37
Δ - 95°56' Rt.
D - 28°38'52" Arc.
T - 221.86
L - 334.87
R - 200'
S.E. - 0.08'/Ft.

RAMP G
P.I. Sta. 6+11.92
Δ - 26°52' Rt.
D - 14°19'26"
T - 95.54
L - 187.57
R - 400'
SE - 0.08'/Ft.

RAMP G
P.I. Sta. 9+25.81
Δ - 95°56' Rt.
D - 28°38'52" Arc.
T - 221.86
L - 334.87
R - 400'
SE - 0.08'/Ft. & Spline

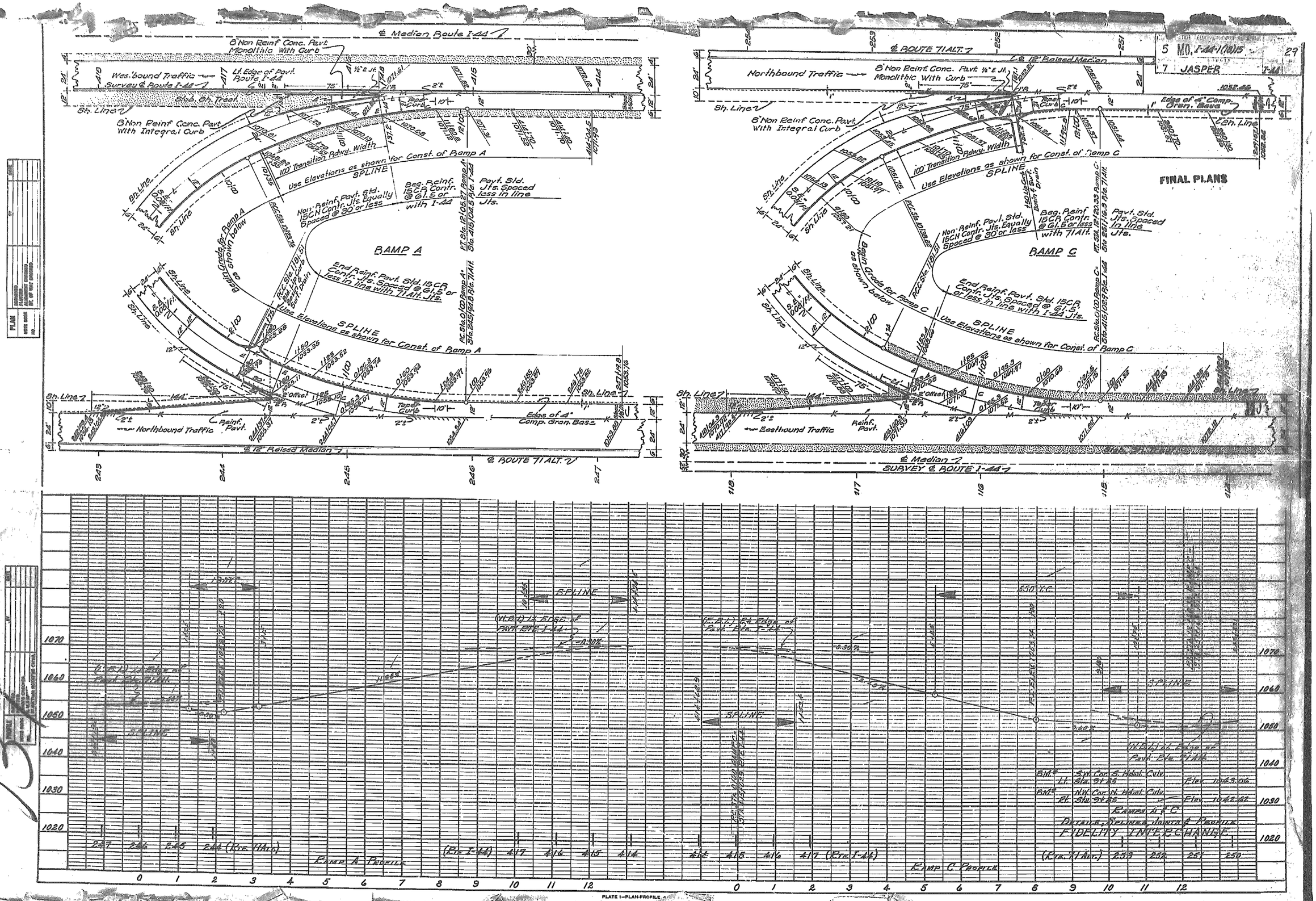
RAMP G
42' Rt. 245+03.5 Rte. 71 Alt.
= P.I. Sta. 11+31.17
Δ - 26°00' Rt.
D - 14°19'26" Arc.
T - 92.35
L - 181.51
R - 200'
SE - Spline

RAMP H
42' Rt. 239+00.20 Rte. 71 Alt.
= P.I. Sta. 2+92.88
Δ - 44°27' Rt.
D - 9°
T - 292.88
L - 555.63
R - 716.78
SE - Spline & 0.08'/Ft.
L.T. - 300'

RAMP H
14'Lt. Sta. 403+42.0 Rte. I-44
P.I. Sta. 15+25.40
Δ - 44°49' Rt.
D - 8°
T - 295.56
L - 560.21
R - 716.78
SE - 0.08'/Ft. & Spline
L.T. - 300'

CURVE DATA FOR FIDELITY INTERCHANGE

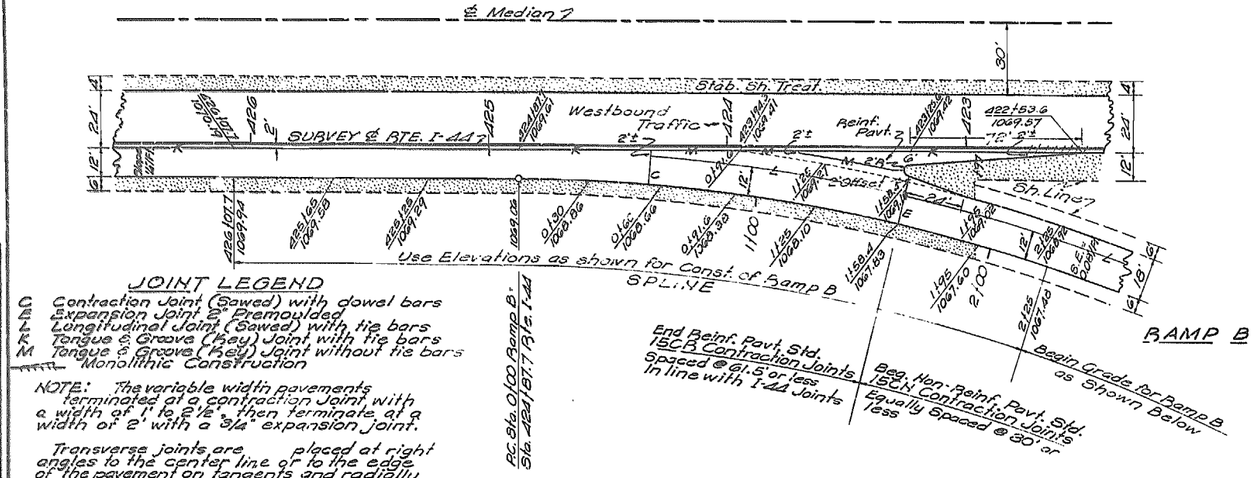
FINAL SURVEY	ORIGINAL SURVEYED	BY	DATE
	SURVEYED		
	PLOTTED		
	TRIP LIST		
NOTE BOOK	AREAS		
NO.	AREAS CHECKED		

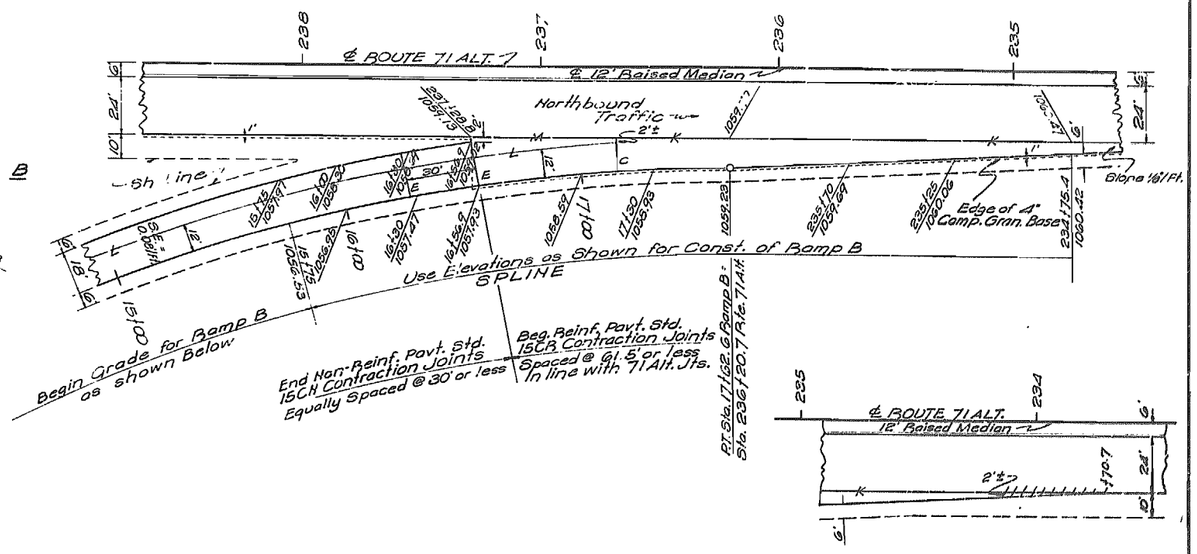


5 MO. I-44-1(18)15
7 JASPER
29
FINAL PLANS
℄ Median Route I-44
8" Non Reinf Conc. Pavt. Monolithic With Curb
Westbound Traffic
Survey ℄ Route I-44
Lt. Edge of Pavt. Route I-44
Slab. Sh. Treat.
Sh. Line
8" Non Reinf Conc. Pavt. With Integral Curb
100' Transition Rdwy. Width
Use Elevations as shown for Const. of Ramp A
SPLINE
Non-Reinf. Pavt. Std. 15CN Contr. Jts. Equally Spaced @ 30' or less
Beg. Reinf. 15CR Contr. @ 61.5' or with I-44
Pavt. Std. Jts. Spaced less in line Jts.
RAMP A
End Reinf. Pavt. Std. 15CR Contr. Jts. Spaced @ 61.5' or less in line with 71 Alt. Jts.
Begin Grade for Ramp A as shown below
Use Elevations as shown for Const. of Ramp A
Edge of 4" Comp. Gran. Base
Northbound Traffic
Reinf. Pavt.
℄ 12" Raised Median
℄ ROUTE 71 ALT.
℄ ROUTE 71 ALT.
℄ 12" Raised Median
Northbound Traffic
8" Non Reinf. Conc. Pavt. ½" E Jt. Monolithic With Curb
Edge of 4" Comp. Gran. Base
Sh. Line
8" Non Reinf Conc. Pavt. With Integral Curb
100' Transition Rdwy. Width
Use Elevations as shown for Const. of Ramp C
SPLINE
Non-Reinf. Pavt. Std. 15CN Contr. Jts. Equally Spaced @ 30' or less
Beg. Reinf. 15CR Contr. @ 61.5' or less with 71 Alt.
Pavt. Std. Jts. Spaced in line Jts.
RAMP C
End Reinf. Pavt. Std. 15CR Contr. Jts. Spaced @ 61.5' or less in line with I-44 Jts.
Begin Grade for Ramp C as shown below
Use Elevations as shown for Const. of Ramp C
Eastbound Traffic
Reinf. Pavt.
℄ Median
SURVEY ℄ ROUTE I-44
SPLINE
(W.B.L.) Lt. Edge of Pavt. Rte. I-44
(E.B.L.) Rt. Edge of Pavt. Rte. I-44
(W.B.L.) Lt. Edge of Pavt. Rte. 71 Alt.
550' Y.C.
(W.B.L.) Lt. Edge of Pavt. Rte. 71 Alt.
B.M.# Lt. S.W. Cor. S. Hdwl. Culv. Sta. 9+25 Elev. 1043.06
B.M.# Rt. N.W. Cor. N. Hdwl. Culv. Sta. 9+25 Elev. 1042.62
Ramps A & C
Details, Splines, Joints & Profile
FIDELITY INTERCHANGE
Ramp A Profile
Ramp C Profile
(Rte. 71 Alt.)
(Rte. I-44)
PLATE 1—PLAN-PROFILE

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)16		30
DIST. NO.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

FINAL PLANS





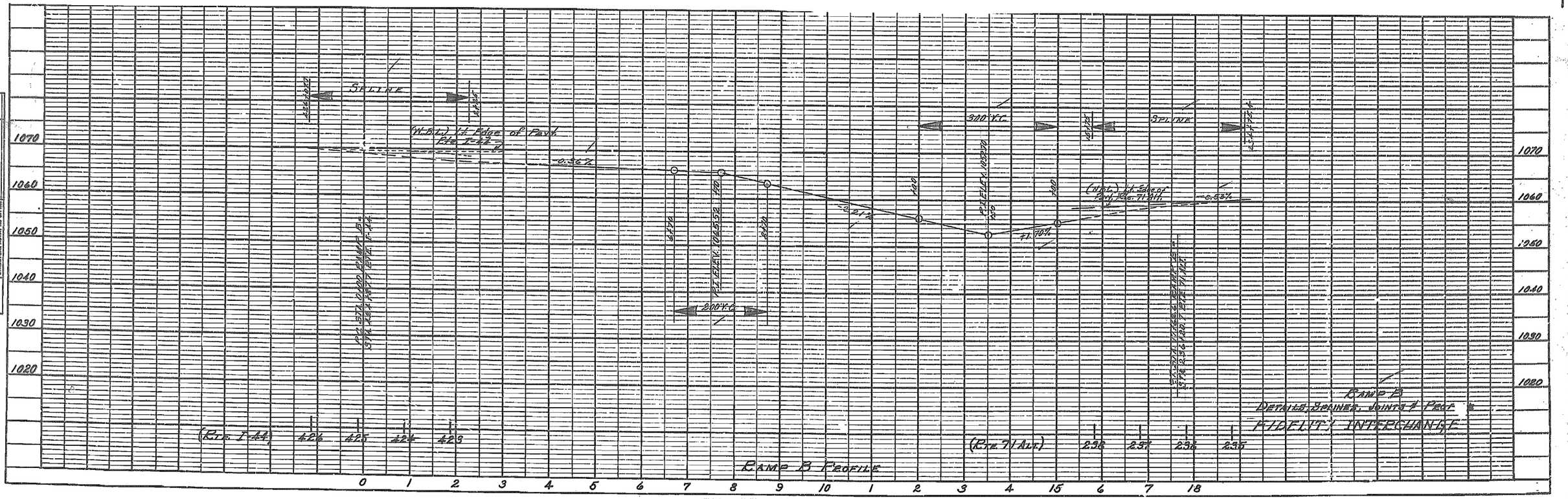


PLATE 1—PLAN-PROFILE C. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)15.		31
DIST. NO.	COUNTY		ROUTE	
7	JASPER		I-44	

FINAL PLANS

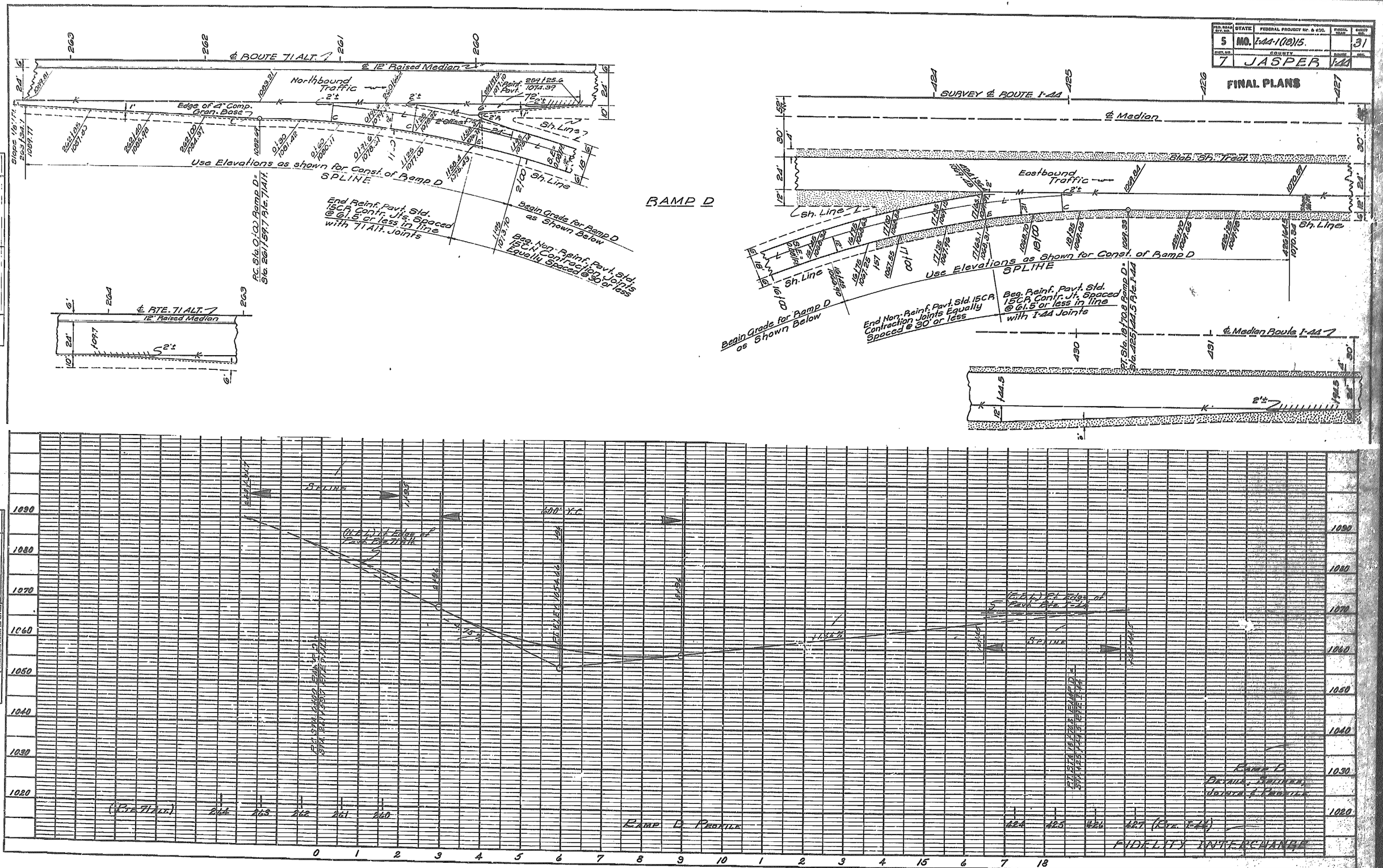


PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

5 MO. I-44-1(10)15. 32

7 JASPER I-44

FINAL PLANS

SURVEY ℄ ROUTE I-44

℄ Median

Eastbound Traffic

8" Non Reinf. Conc. Pavt. With Integral Curb

8" Non Reinf. Conc. Pavt. ½" E. Jt. Monolithic With Curb

Slab. Sh. Treat.

Sh. Line

100' Transition Pdwy. Width

Use Elevations as shown for Const. of Ramp E

SPLINE

Begin Grade for Ramp E as Shown Below

Non-Reinf. Pavt. Std. 15CH Contr. Jts. Equally Spaced @ 30' or less

Reinf. Pavt. Std. 15CR Contr. @ 61.5' or less with I-44

Pavt. Std. Jts. Spaced in line with Jts.

RAMP E

End Reinf. Pavt. Std. 15CR Contr. Jts. Spaced @ 61.5' or less in line with 71 Alt. Jts.

Use Elevations as shown for Const. of Ramp E

SPLINE

Southbound Traffic

℄ 12' Raised Median

℄ Route 71 Alt.

Southbound Traffic

8" Non Reinf. Conc. Pavt. With Integral Curb

8" Non Reinf. Conc. Pavt. ½" E. Jt. Monolithic With Curb

℄ 12' Raised Median

Edge of 4" Comp. Gran. Base

100' Transition Pdwy. Width

Use Elevations as shown for Const. of Ramp G

SPLINE

Begin Grade for Ramp G as Shown Below

Non-Reinf. Pavt. Std. 15CH Contr. Jts. Equally Spaced @ 30' or less

Reinf. Pavt. Std. 15CR Contr. @ 61.5' or less with 71 Alt.

Pavt. Std. Jts. Spaced in line with Jts.

RAMP G

End Reinf. Pavt. Std. 15CR Contr. Jts. Spaced @ 61.5' or less in line with I-44 Jts.

Use Elevations as shown for Const. of Ramp G

SPLINE

Slab. Sh. Treat.

Sh. Line

Westbound Traffic

Survey ℄ Rte. I-44

Lt. Edge of Pavt. Rte. I-44

℄ Median

RAMP E PROFILE

RAMP G PROFILE

PARTIAL INTERCHANGE

RAMPS E & G, DETAILS, SPLINES, QUANTS, & TYPICALS

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARDS

U. S. BLUE POINT PAP & CO.—CHICAGO

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1(18)15		35
DIST. NO.		COUNTY	ROUTE	SEC.
7		JASPER	I-44	

FINAL PLANS

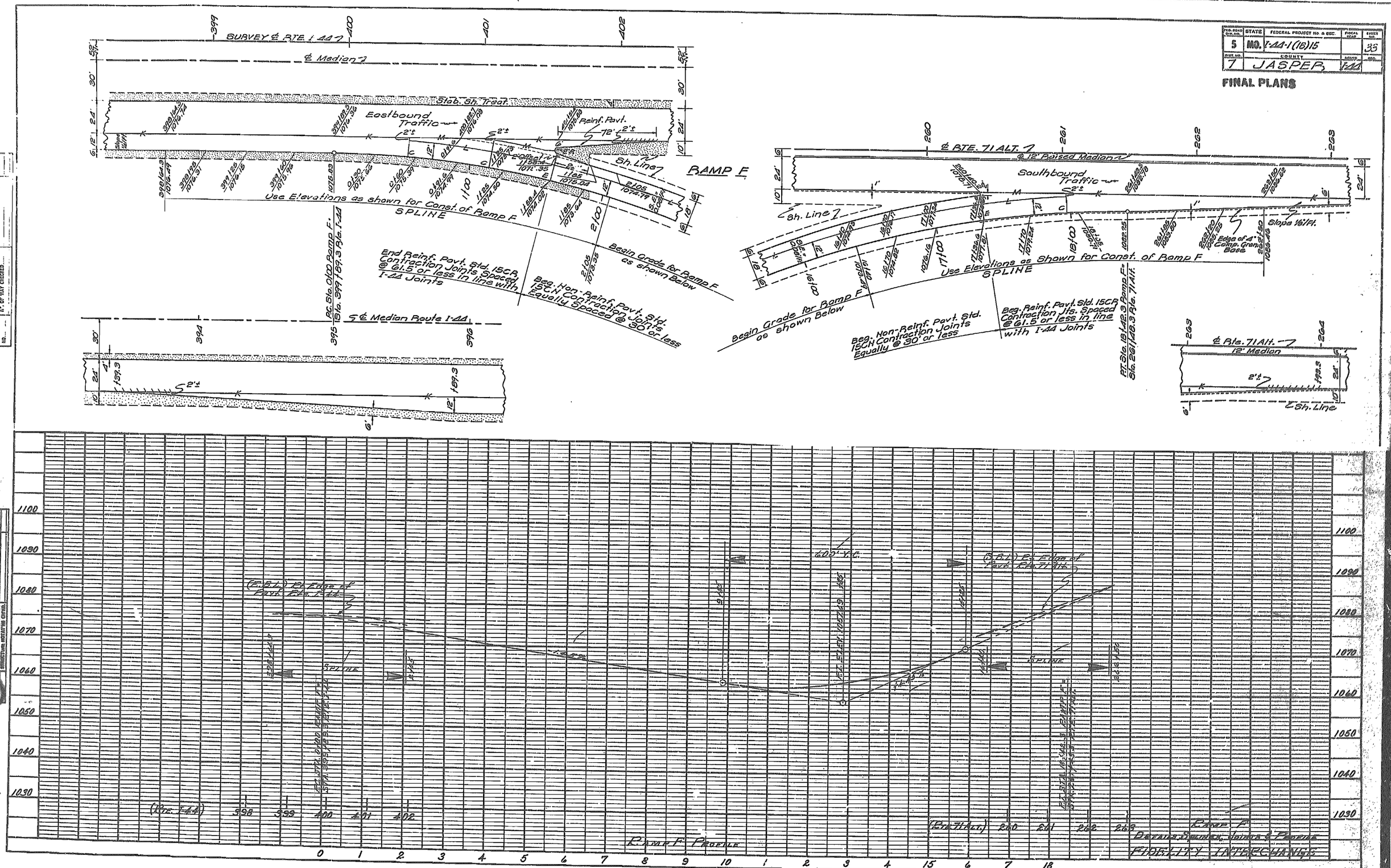
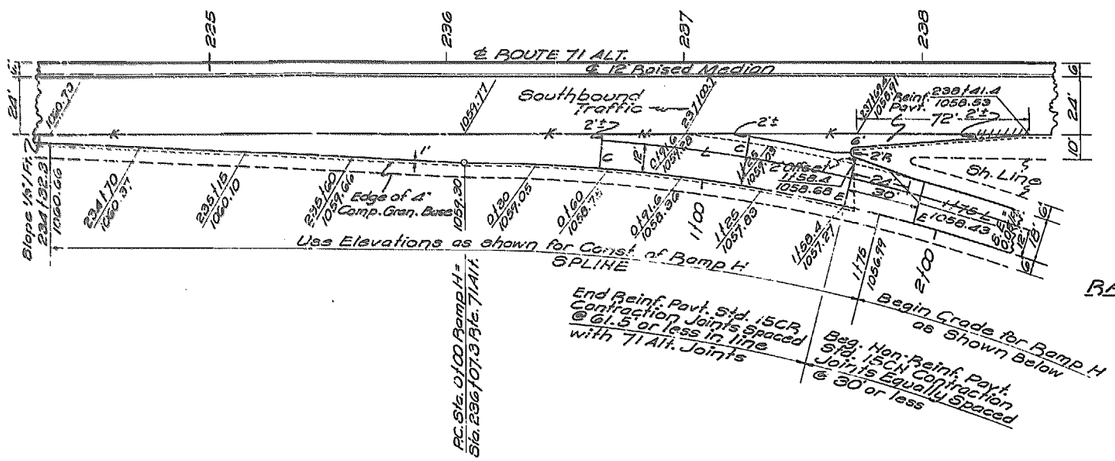
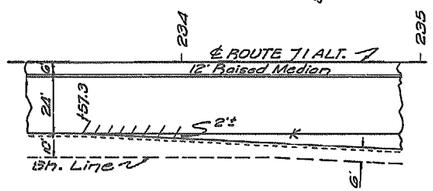


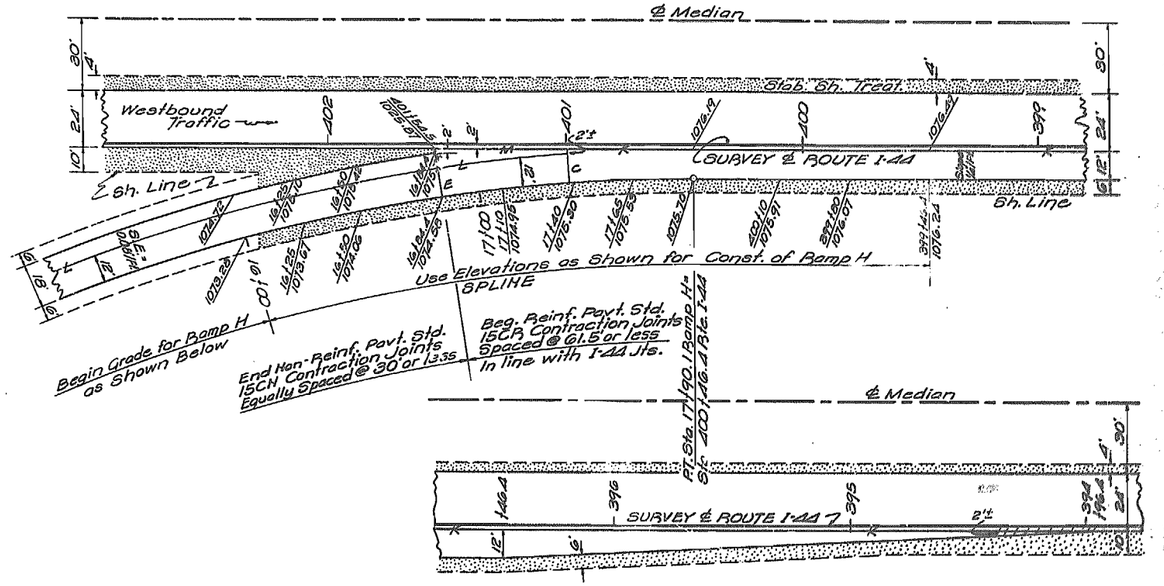
PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

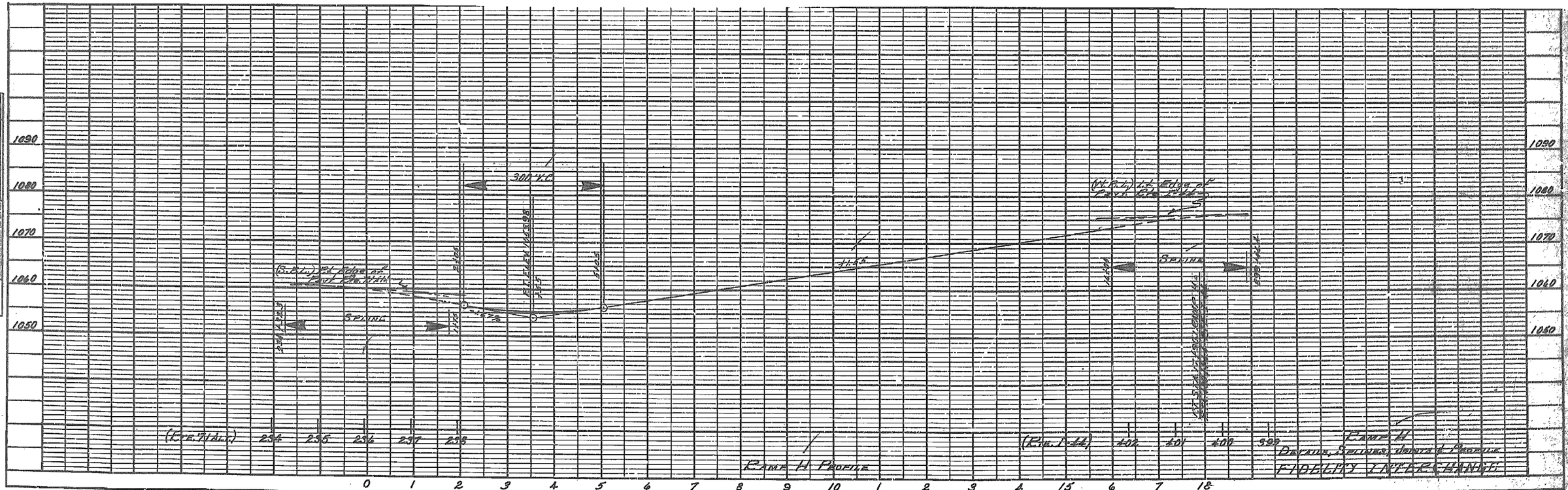
FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO. & SEC.	FISCAL YEAR	SHEET NO.
5	MO.	I-44-1-(18)15		34
DIST. NO.	COUNTY	ROUTE	FED.
7	JASPER	I-44	

FINAL PLANS









P.O.T. STA. 420+67.9 | P.O.T. STA. 425+51.9 | P.O.T. STA. 430+41.6 | P.O.T. STA. 430+83.9 | P.O.T. STA. 431+14.3 | P.O.T. STA. 432+87.1 | P.O.T. STA. 438+50 | P.O.T. STA. 441+00 | P.O.T. STA. 445+50

FINAL PLANS

SW¼ SE¼ 3-27-31 — Catherine Ford

SE¼ SW¼ 3-27-31 — John P. & Margaret Scott

SW¼ SW¼ 3-27-31 — Carl & Hope Lockhart

Outer Roadway "B" Pl. Sta. 1249+62.0 Δ = 44°49' Lt. D = 10° T = 235.6' L = 448.2 R = 573.69 SE 0.06 ft. L = 200'

Sta. 1249+37 CE 18" XLG CMP Culv. Const. by Prop. Owner

Sta. 1251+70.5 CE 15"x46" RCP Culv. Const. by Prop. Owner

Pt. Sta. 1851+72.5 Bk = Sta. 429+76.7 Ahd. Engr. Sta. 165

P.C. of Comp. Curve Sta. 429+16.7

End Outer Roadway "B" 257.00 Ahd. Engr. Sta. 168

Sec. Line — Existing R/W — Outer Roadway "B" — 30' 40'

℄ Survey — ℄ Construction — 80' Off ℄

Sta. 423+56 18"x20' RCP Median Relief With C-230 R.C. Hdwl. Ls. Rt. Hdwl. 20' Lt.

Pearl & Lora Bird

Outer Roadway "A" Pl. Sta. 2013+05.5 Δ = 44°40' Rt. D = 10° T = 235.7 L = 446.7 R = 573.69 SE 0.06 ft. L = 200'

Sta. 2017+17 P.E. 18"x30' CMP Culv. State to Furnished

Sta. 2018+17.5 Bk = Sta. 2225+90.9 Ahd. Engr. Sta. 185

Pt. Sta. 2015+12.5 Pt. Sta. 2018+17.5 Pt. Sta. 2020+46.5 Pt. Sta. 2022+46.5

℄ Outer Roadway "A"

Sta. 2434+06 16"x28' RCP "D.N." State Furnished

Sta. 2331+20 18"x57' RCP Median Relief With C-230 R.C. Hdwlls. Sk. 30° L.A.

10' Crushed Light Stone Revetment

Empire Dist. Elect. Co.

Sta. 2411+72 RCP 76 Ac. O.S. Land 49"x150' Pipe Culv. With C-231 BB Hdwls Sk 30° L.A.

Sta. 2411+72 CMP Culv. State Furnished

Out Relay "A"

Sta. 2416+96.5 RCP 76 Ac. O.S. Land 49"x61' Pipe Culv. With C-231 RC Hdwls Sk 30° L.A.

Crushed Light Stone Revetment ℄ Outer Roadway "B"

Ch. ℄ Esmt.

(74) Clyde & Wilma D. Smith — New R/W 7.92 Ac. — Old R/W 0.51 Ac.

(76) Victor & Mina Burkholder — New R/W 4.28 Ac. — Old R/W 0.60 Ac. — Const. Esmt. 0.13 Ac.

(77) Charles R. & Barbara D. Carlson — New R/W 3.66 Ac. — Old R/W 3.66 Ac. — Ch. Esmt. 0.12 Ac.

NW¼ NW¼ 10-27-31 — NE¼ NW¼ 10-27-31 — NW¼ NE¼ 10-27-31

Sec. Line — ½ Sec. Line — Equation

500' V.C. — 400' V.C. — -0.30% — +1.81.2% — -0.30%

BM #63 (200)	Pivot Spike in Base of 20" Walnut	Lt. Sta. 421+06	Elev. 1060.03
BM #64A (170)	S.W. Cor. Conc. Walk at Metal Office	Lt. Sta. 425+29	Elev. 1061.21
BM #65 (170)	Road Spike in Base of 24" Hickory	Lt. Sta. 428+80 Ac.	Elev. 1075.65
BM #60 (130)	Road Spike in Base of 36" Elm	Lt. Sta. 430+60	Elev. 1093.30
BM #61 (200)	S.W. Cor. of Bottom Step	Lt. Sta. 434+ Ac.	Elev. 1091.20
BM #62 (225)	Ctr. Front edge Bottom Step	Lt. Sta. 439+42	Elev. 1089.80
BM #63 (96)	Ctr. S. Hdwl.	Lt. Sta. 445+55.5	Elev. 1075.78

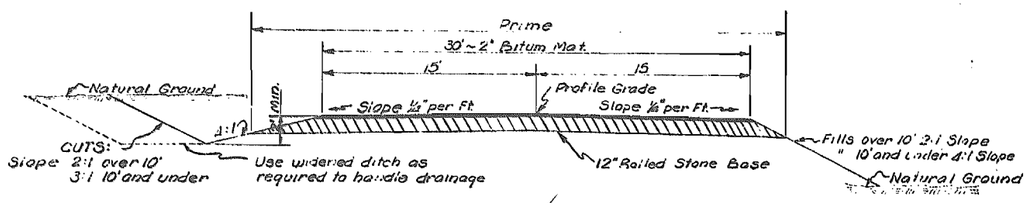
420 1 2 3 4 425 6 7 8 9 430 1 2 3 4 435 6 7 8 9 440 1 2 3 4 445 6 7 8 9 450

PLATE I—PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIV. NO.	STATE	FEDERAL PROJECT NO.
5	MO.	F-44-1 (...)
ST. NO.	COUNTY	
7	JASPER	

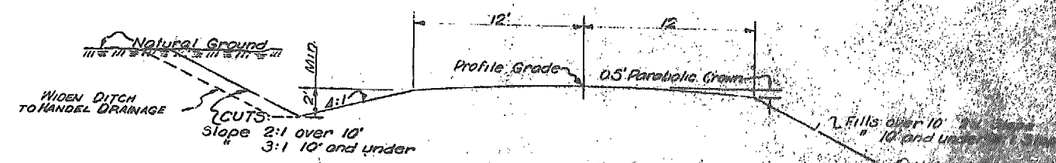
FINAL PLANS



TYPICAL SECTION

Sta. 2000+75.3 to Sta 2465+82
Outer Roadway #4

For General Notes: Typical Sections on Superelevated Curves & Undergraded Cuts and Sketch Showing Exc. Pay Limits See Std. Drwg. #1AB-6



TYPICAL SECTION

Sta. 2465+82 to Sta. 2476+50
Outer Roadway #4

For General Notes See Standard Drawing

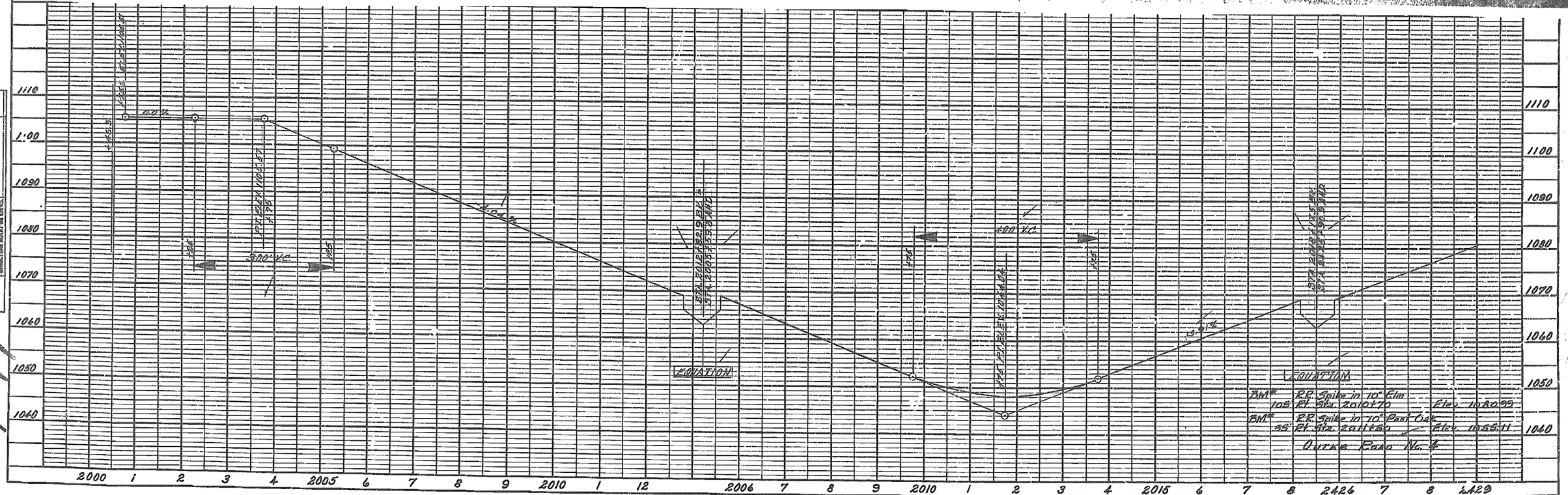


PLATE 1—PLAN-PROFILE O.P.R. & R.E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

5	MO. 1-44-1(18)15	
7	JASPER	

FINAL PLANS

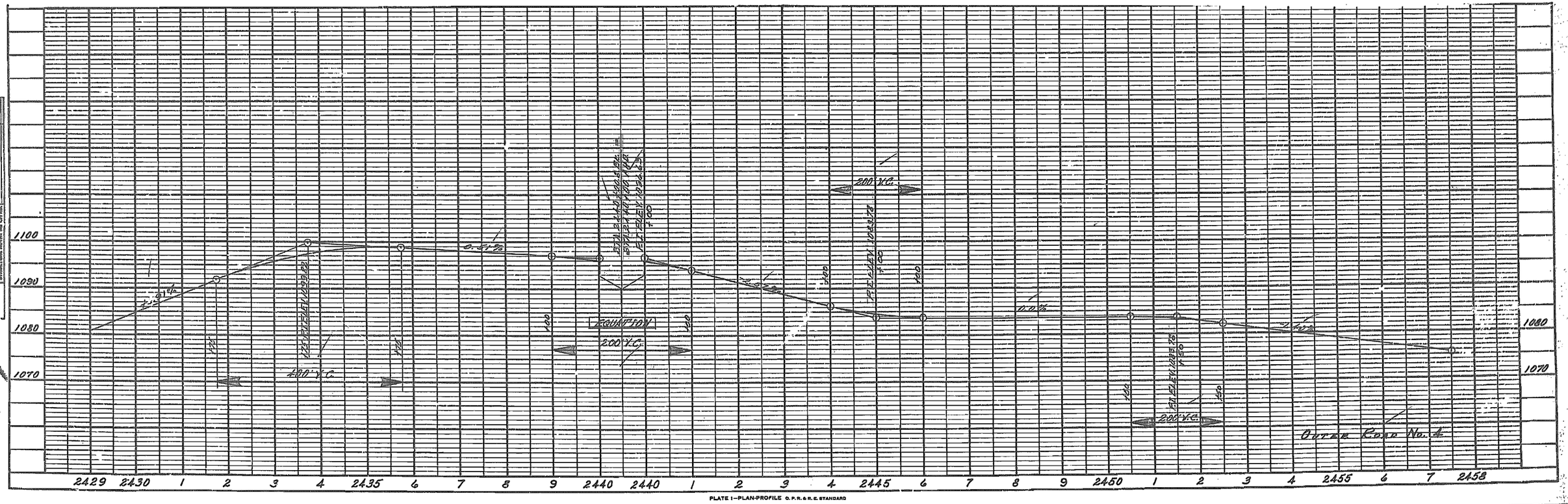


PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARD

U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT NO. & SEC.	FOR FED. AID	SHEET NO.
5	MO.	F-44-1(10)15		39
ST. NO. 7	COUNTY JASPER	ROUTE 44		SEC.

FINAL PLANS

P.O.T. STA. 452+50 | P.O.T. STA. 460+00 | P.O.T. STA. 464+00 | P.O.T. STA. 465+25 | P.O.T. STA. 471+70 | P.O.T. STA. 472+79 | P.O.T. STA. 473+25.3 | P.O.T. STA. 473+75

450 455 460 465 470 475 480

End Stab. Shoulder — Begin Earth Sh.

Sta. 0+00 Temp. Conn. 40' Edge Exist. Rte. 166

EXISTING R/W

Outer Roadway #5 (Exist. Rte. 166)

U.I.P.

Existing Rte. 166

S 89° 51' E

Temp. Cross-Over

Sta. 1+00 ± Temp. Conn. ± Sta. 465+25 Rte. 44

℄ SURVEY

℄ CONSTRUCTION

D.B.

Earth Barrier

18° R.P. Temp. Conn.

Guard Rail

℄ OUTER ROAD #4

2450' R/W

2455

2460

Sec. Line

Sta. 454+50 15"x5" Median Relief with C-230 R.C. Hdwlls.

(78) WINIFRED SUBLETTE, DABBS & WIFE, E. GWENDOLYN Ac. 0.15 Old R/W 1.23 New R/W

(79) CHAS. D. & THELMA BRANNON REP

ALLEN W. PRITCHAU & WIFE CLETA B.

Sta. 458+62.8 34 Ac. 05 Land. C-620 5'x4' R.C. Box Culv. Sk. 10° L.A.

Sta. 459+05 8'x5'x35' CONC. BOX 35.5' LT.

Out Rdwy. #4 Sta. 2458+62.7 1.34 Ac. 0.5 Land. Bld. C-810 5'x4' Conc. Box Culv. Sk. 10° L.A.

Sta. 454+09 15"x24" RCP 91' LT. U.I.P. Old R/W 0.15 Ac. New R/W 1.23 Ac.

NE¼ NE¼ 10-27-31

(80) W.R. BREWER & WIFE NORIEL L. Old R/W 0.94 Ac. New R/W 7.71 Ac. Ch. Esmt. 0.36 Ac.

NW¼ NW¼ 11-27-31

Sta. 460+45 cmp 15"x 62' P. Culv. For Temp. Cross-Over Sk. 45° R.A.

Sta. 460+89.2 cmp 24"x 50' P. Culv. For Temp. Crossover Sk. 10° R.A.

Sta. 1+00 Temp. Conn. For Outer Rdwy. #4 cmp 18"x 46' P. Culv.

Sta. 3+45 S.R. @ Temp. Conn. For Outer Rdwy. #4 cmp 15"x 48' Culv.

(81) IRVIN & ISLA BRAHNER Old R/W 1.26 Ac. New R/W 10.31 Ac.

250' R/W — 400 — 275' R/W — 100 — 40' R/W — 40' R/W

Sta. 464+58

Sta. 471+70

1556

1090 1080 1070 1060

-0.60%

3.00% V.C.

+1.40%

Temp. Cross-Over

End Project F-44-1(10)15 At a Point 116.3' South & 75' West of N.E. Corner of Sec. 10 T 27 N R 3 W

BM #4 A 3.5' Dia. Conc. Median Relief Hdwl. Lt. Sta. 454+50 Elev. 1088.09

BM #4 B 190 Lt. Sta. 456+82 Boat Spike in Base of 28" B.Oak Elev. 1074.24

BM #5 95 Lt. Sta. 459+05 Chr. S. Hdwl. Elev. 1070.66

BM #6 220 Lt. Sta. 462+06 Front edge of Bottom Step Elev. 1080.85

450 1 2 3 4 455 6 7 8 9 460 1 2 3 4 465 6 7 8 9 470 1 2 3 4 475 6 7 8 9 480

PLATE 1—PLAN-PROFILE O. P. R. & R. E. STANDARDS

U. S. BLUE PRINT PAPER CO.—CHICAGO

5	I-44-1(18)15		39
7	JASPER	I-44	

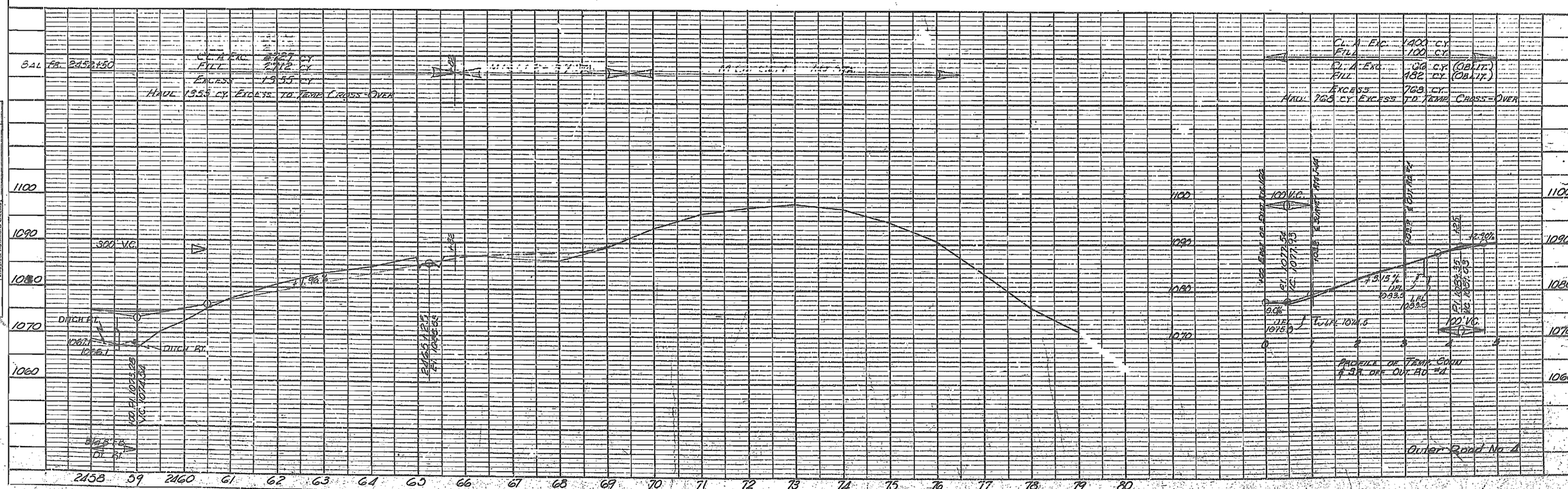
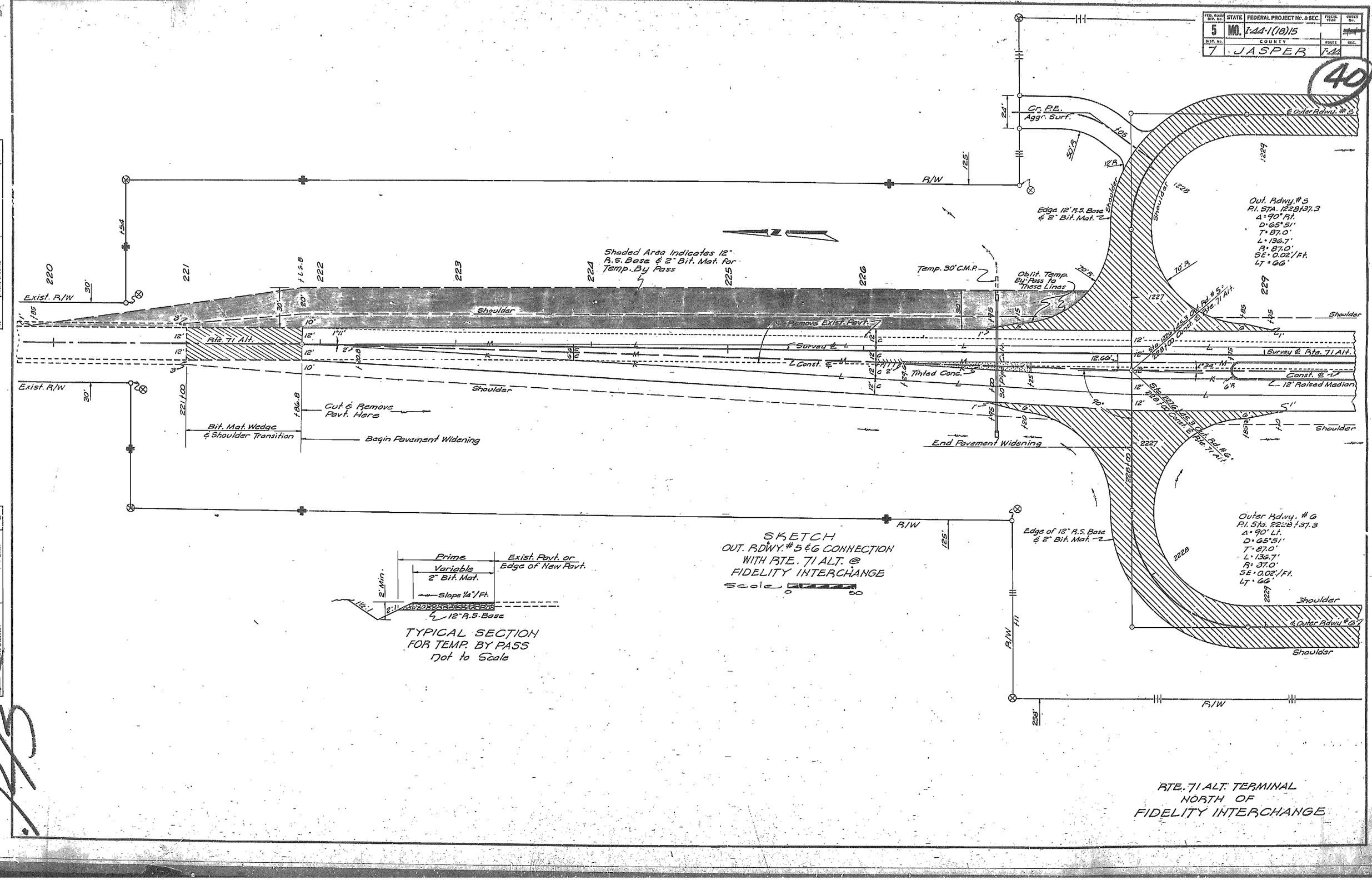


PLATE 1-PLAN-PROFILE O. P. R. & R. E. STANDARD
U. S. BLUE PRINT PAPER CO.—CHICAGO

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	I-44-1(18)15		
DIST. No.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

40

FINAL SURVEY	ORIGINAL SURVEY
SURVEYED	SURVEYED
PLOTTED	PLOTTED
TEMPLATE	TEMPLATE
NOTE BOOK	NOTE BOOK
AREAS CHECKED	AREAS CHECKED
NO	NO



TYPICAL SECTION
FOR TEMP. BY PASS
Not to Scale

SKETCH
OUT. RDWY. #5 & G CONNECTION
WITH RTE. 71 ALT. @
FIDELITY INTERCHANGE
Scale 0 50

RTE. 71 ALT. TERMINAL
NORTH OF
FIDELITY INTERCHANGE

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	F-AA-1(18)15		
DIST. No.	COUNTY		ROUTE	SEC.
7	JASPER		F-AA	

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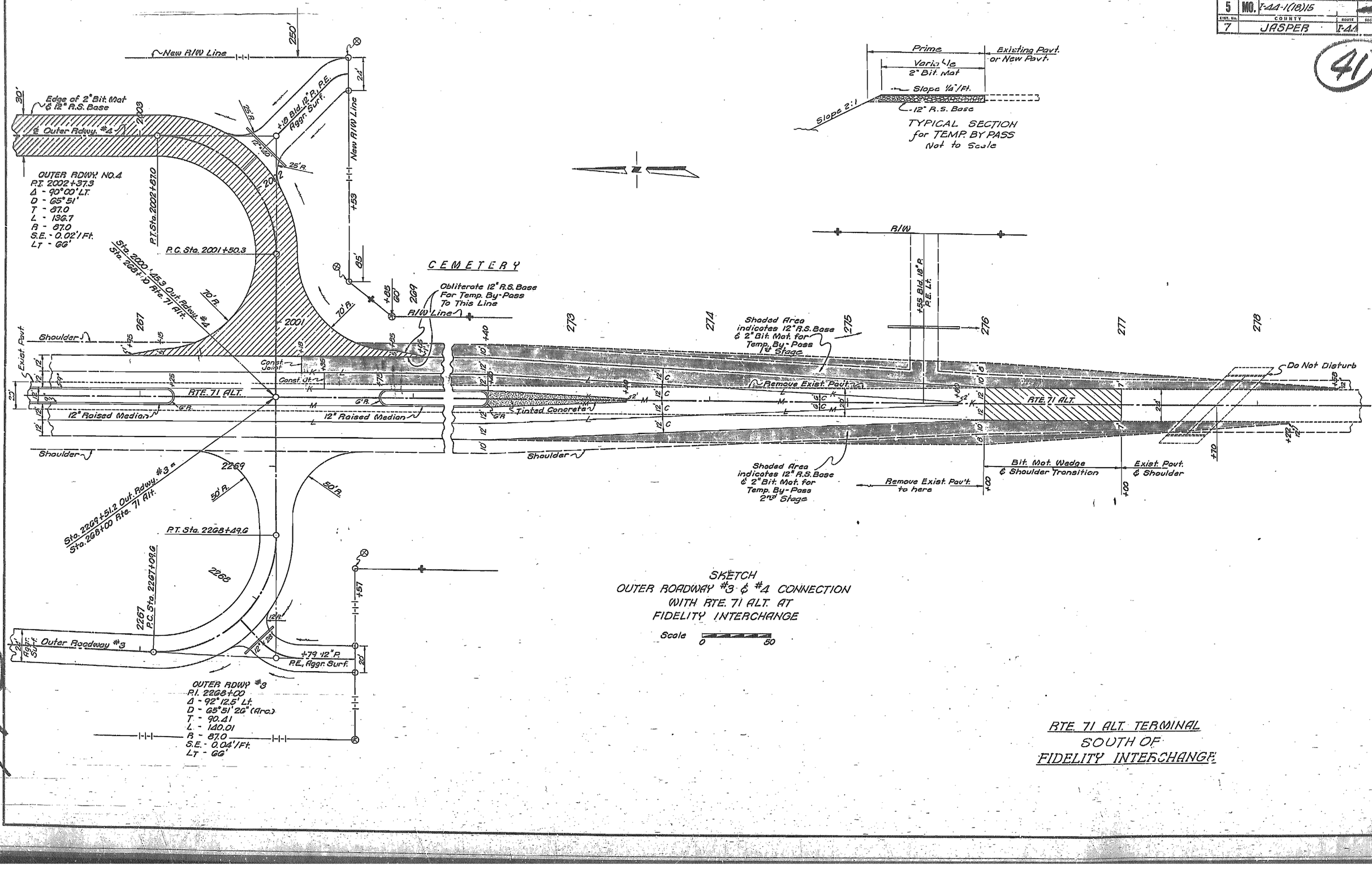
FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, No.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, No., DATE, BY



SKETCH
OUTER ROADWAY #3 & #4 CONNECTION
WITH RTE. 71 ALT. AT
FIDELITY INTERCHANGE

Scale 0 50

RTE. 71 ALT. TERMINAL
SOUTH OF
FIDELITY INTERCHANGE

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	I-44-1(18)15		
DIST. No.		COUNTY	ROUTE	SEC.
7		JASPER	I-44	

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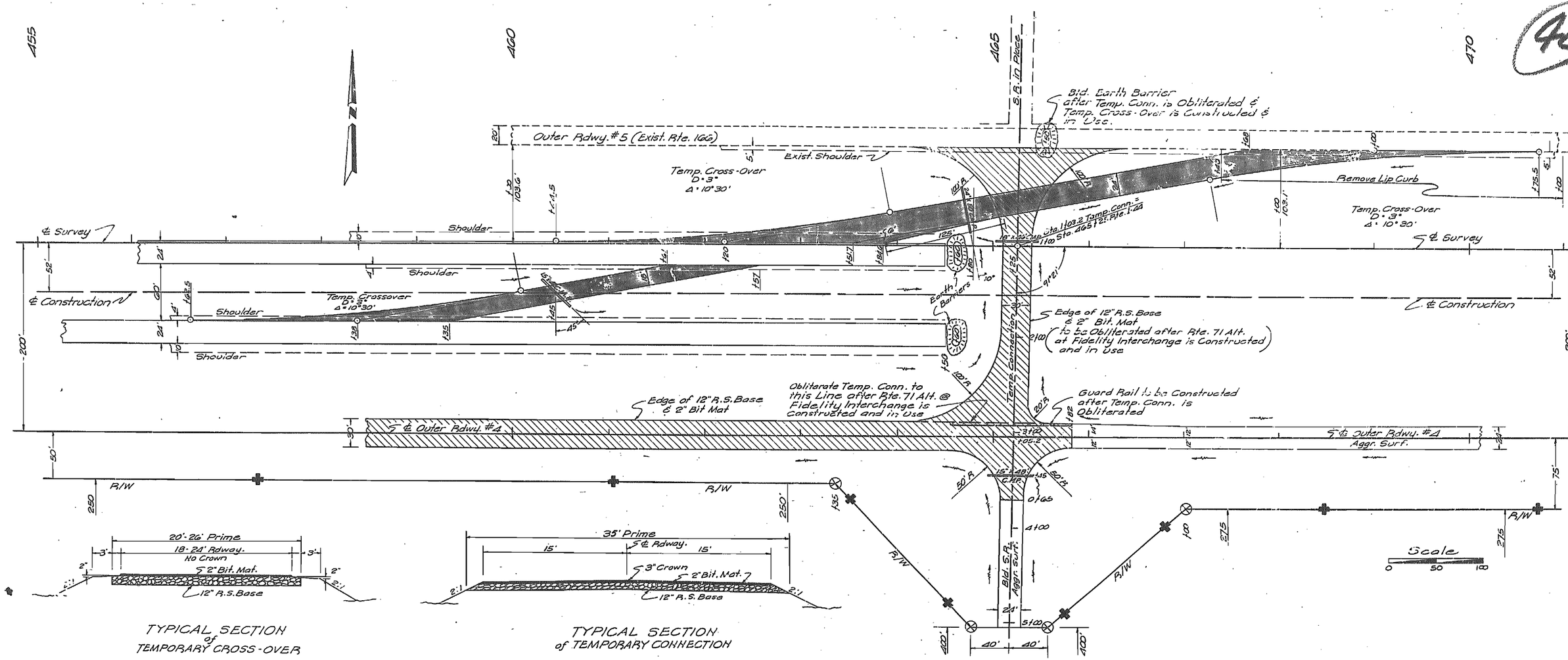


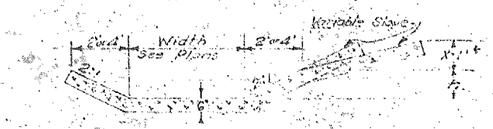
TYPICAL SECTION of TEMPORARY CROSS-OVER

TYPICAL SECTION of TEMPORARY CONNECTION

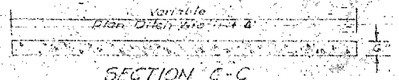
TEMP. CROSS-OVER & TEMP. CONNECTION EAST OF FIDELITY



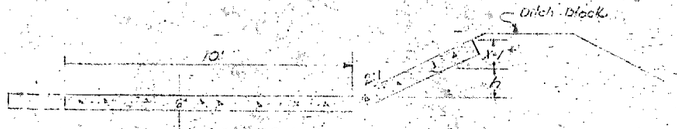
SECTION A-A



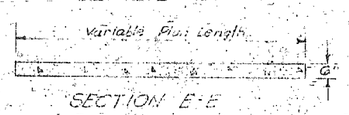
SECTION B-B



SECTION C-C

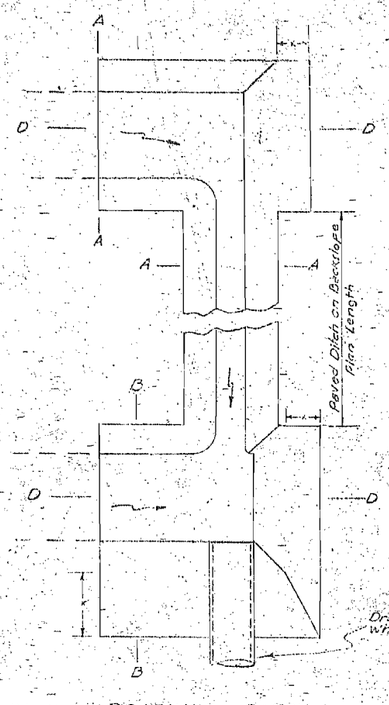


SECTION D-D



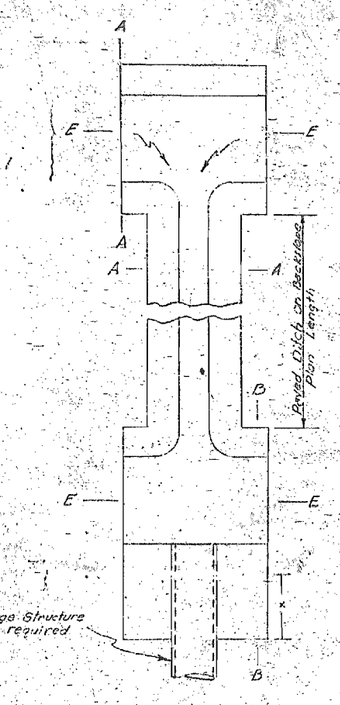
SECTION E-E

INTERCEPTION DITCH
TYPE A

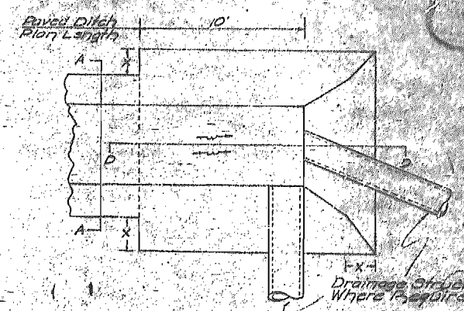


ROADWAY DITCH
TYPE A

INTERCEPTION DITCH
TYPE B



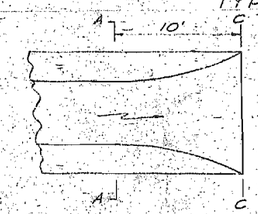
ROADWAY DITCH
TYPE B



ROADWAY DITCH
TYPE C

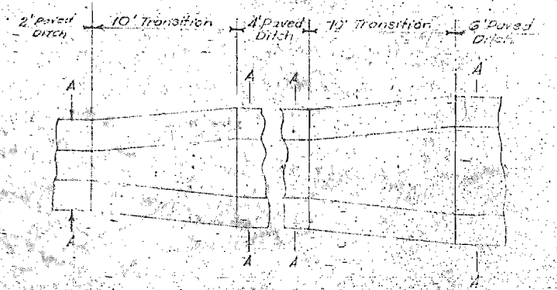
PAVED DITCH QUANTITIES FOR SECTION A-A		
Width	Square Yards per L.F.	
2'	0.720	0.868
4'	0.942	1.070
6'	1.164	1.312
Transitions	Square Yards per 10' Transition	
2' to 4'	8.31	9.97
2' to 6'	9.42	11.07
4' to 6'	10.53	12.01

*NOTE:
This portion may be omitted as directed by the Engineer.

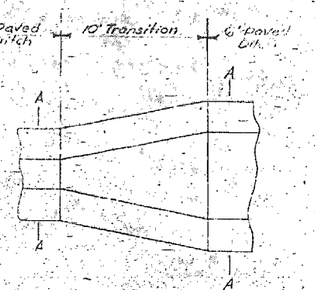


FLARED END SECTION
TYPE D

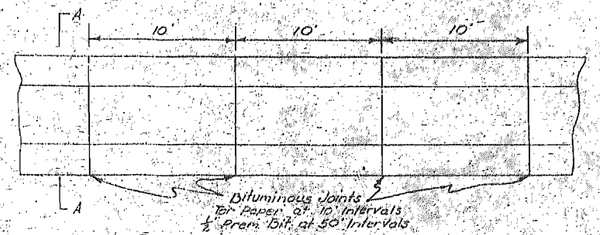
All concrete shall be Class "B"
This drawing not to scale, follow dimensions.



TRANSITION 2' to 4' PAVED DITCH
TRANSITION 4' to 6' PAVED DITCH



TRANSITION 2' to 6' PAVED DITCH



PLAN

DETAILS FOR PAVED DITCH

SHEET NO.	STATE	FEDERAL PROJ.	SHEET NO.
5	MO.	I-44-1(18)15	
7	JASPER		I-44

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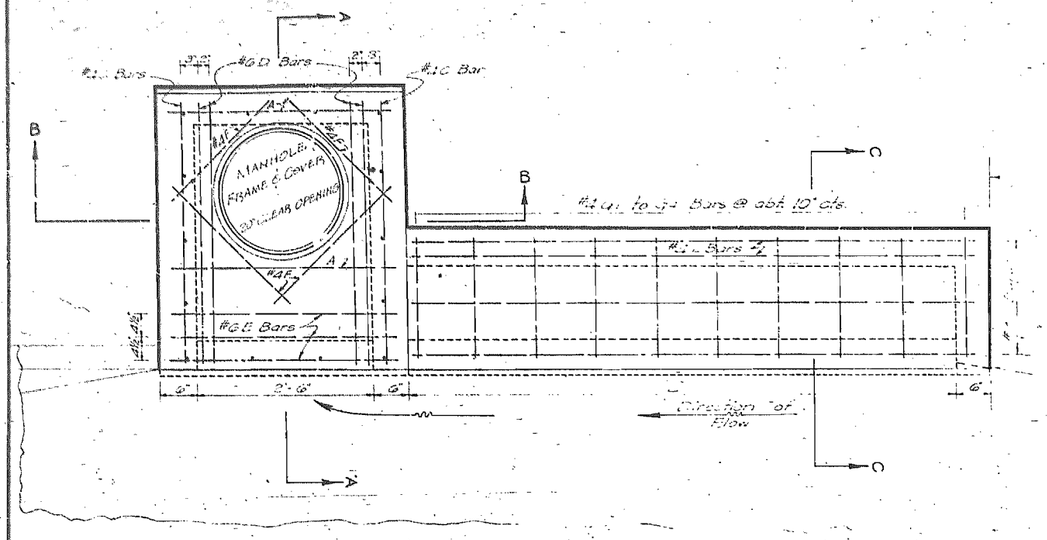
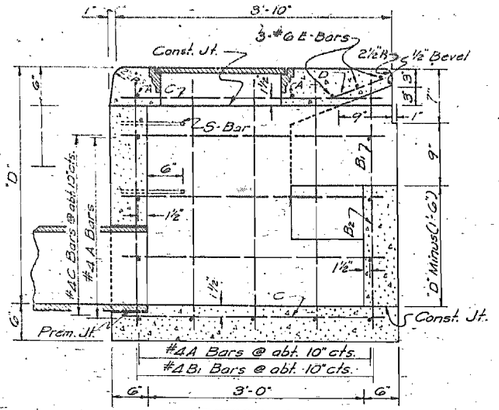
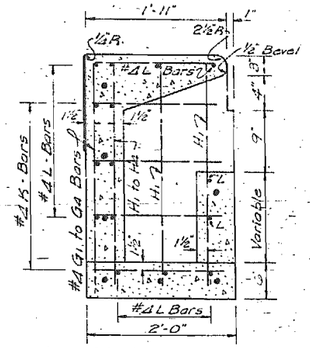


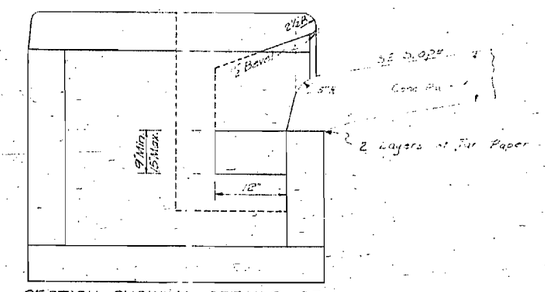
PLAN



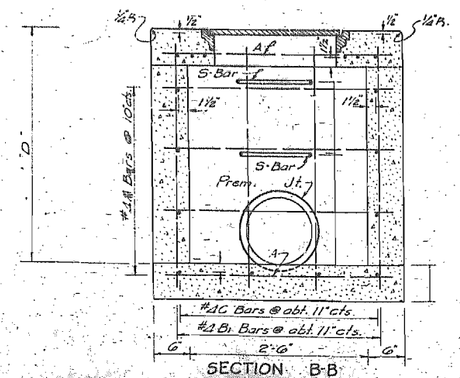
SECTION A-A
INTAKE BOX



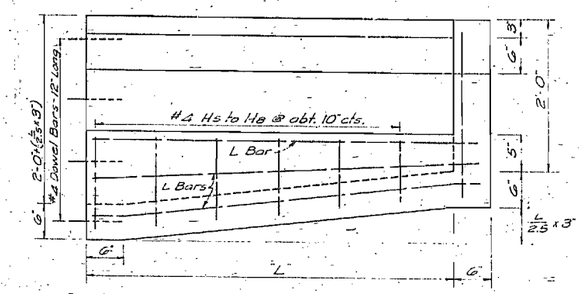
SECTION C-C
(EXTENSION)



SECTION SHOWING DETAILS OF OPENING AND SUMP IN PAVEMENT



SECTION B-B
INTAKE BOX



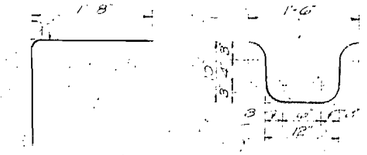
LONGITUDINAL SECTION
(EXTENSION)

BAR BILL - INTAKE BOX

Mark	Steel Point	#4 A Bars in Front Back Wall		#4 B Bars in Back and Side Walls		#4 B2 Bars in Front Wall		#4 C Bars in Front Wall		#6 D Bars in Top Slab		#6 E Bars in Top Slab		#4 F Bars in Top Slab		#4 S Bars Steps	
		No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.	No.	Lgth.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2	1'-3"	10	3'-9"	4	3'-9"	3	3'-3"	[illegible]	2'-3"		

BAR BILL EXTENSION

Length of Extension		2'-6"	
Mark	Size	No.	Lgth.
G1	#4	2	4'-3"
G2	#4	2	4'-6"
G3	#4		
G4	#4		
H1	#4	4	2'-3"
H2	#4	2	2'-6"
H3	#4		
H4	#4		
H5	#4	1	0'-9"
H6	#4	[illegible]	1'-0"
H7	#4		
H8	#4		
K	#4	7	1'-9"
L	#4	14	2'-9"
Dowel Bars	#4	8	[illegible]
Total Steel		62 Pounds	



CLASS B CONCRETE

INTAKE BOX		EXTENSION	
"D"	Cu. Yds.	"L"	Cu. Yds.
2'-6"	1.00	2'-6"	0.38

* Includes 0.15 Cu. Yd. Additional Concrete for invert and 0.04 Cu. Yd. Concrete deducted for 15" R.C. Pipe opening and 0.01 Cu. Yd. Concrete deducted for Extension opening.

◦ GENERAL NOTES ◦

All concrete shall be Class B.

Concrete for invert shall be placed after the intake box is in place.

All pipe shall fit flush with the inside face of the inlet wall. The cost of cutting pipe shall be considered as completely covered by the Unit price bid for pipe.

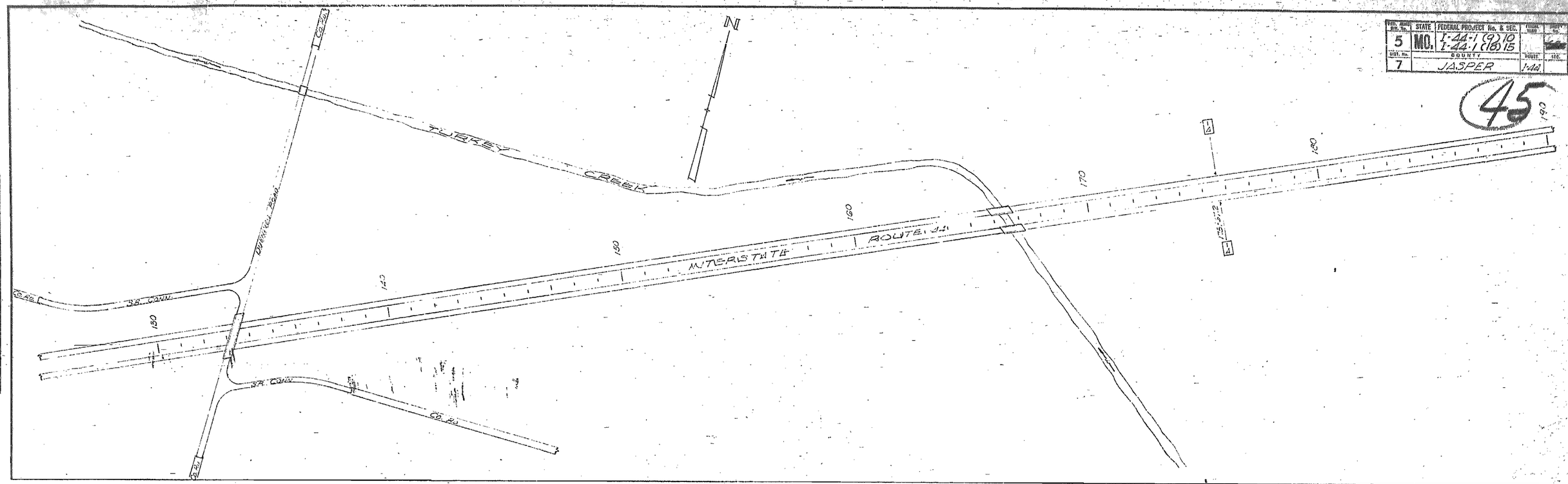
Reinforcing bars shall be cut and/or bent at pipe and extension openings, and the cost of same shall be included in the unit price bid for Reinforcing Steel.

Step bars shall clear all pipes and shall directed by the Engineer.

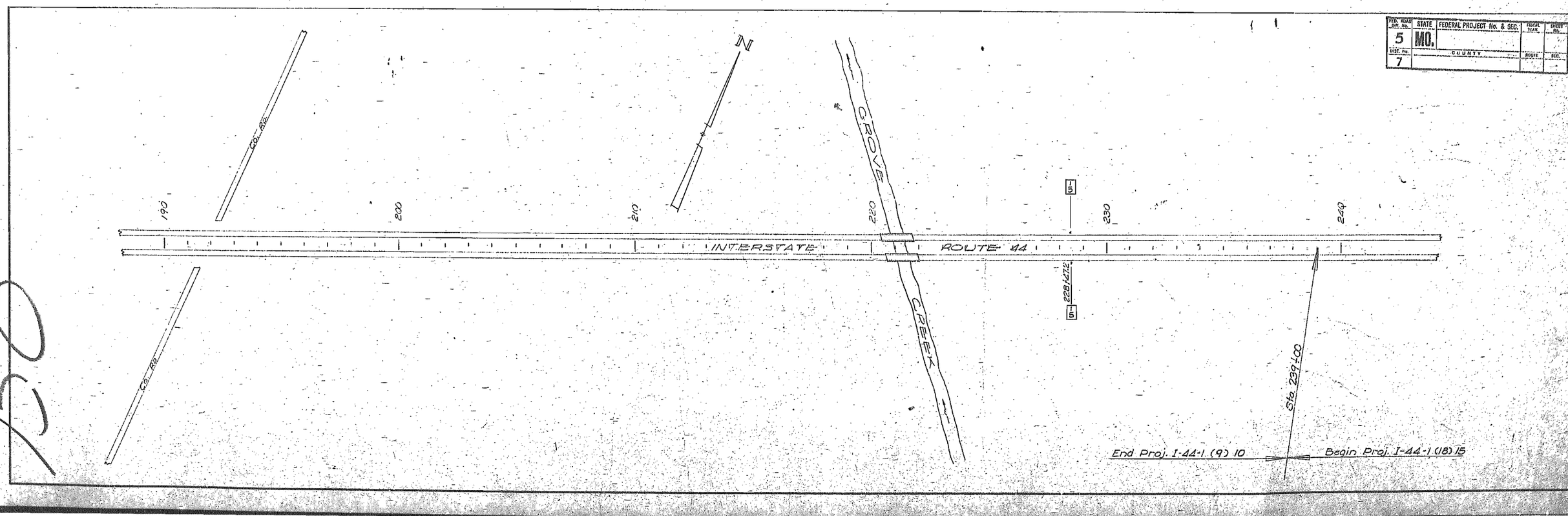
Manhole Frame and Cover shall be Neenah Foundry Company, Catalogue No. R-1787, or equal, Weight of frame and cover approximately 115 pounds.

That portion of the pipe surrounded by concrete in the drop inlet wall shall be wrapped with two (2) layers of 65# smooth roll roofing meeting ASTM specs. D 224-55.

DETAILS OF CURB OPENING
TYPE DROP INLET

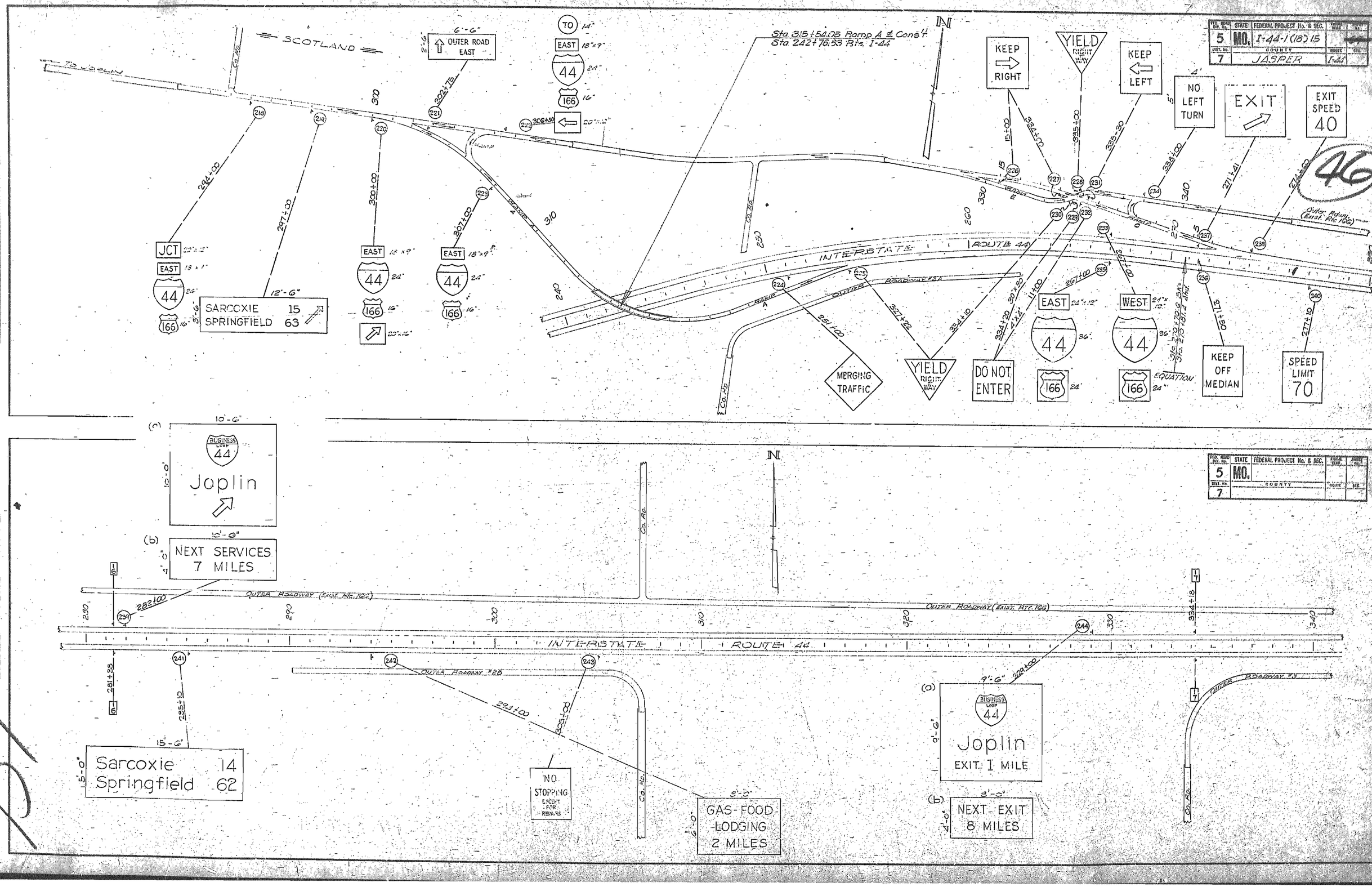


FED. ROAD DIV. No. 5
STATE MO.
FEDERAL PROJECT No. & SEC. I-44-1 (9) 10 I-44-1 (18) 15
DIST. No. 7
COUNTY JASPER
ROUTE I-44
45
N
TURKEY CREEK
INTERSTATE ROUTE 44
S.R. CONN.
CO. RD.
130
140
150
160
170
180
190
FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE



FED. ROAD DIV. No. 5
STATE MO.
FEDERAL PROJECT No. & SEC.
DIST. No. 7
COUNTY
ROUTE
SEC.
N
GROVE CREEK
INTERSTATE ROUTE 44
Co. Rd.
190
200
210
220
230
240
228+47.2
Sta. 239+00
End Proj. I-44-1 (9) 10
Begin Proj. I-44-1 (18) 15
ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

150



SCOTLAND
TO JOPLIN
OUTER ROAD EAST
TO
EAST
44
166
Sta 315+54.05 Ramp A & Const.
Sta 242+76.53 Rte. I-44
KEEP RIGHT
YIELD RIGHT WAY
KEEP LEFT
NO LEFT TURN
EXIT
EXIT SPEED 40
46
JCT
SARCOXIE 15
SPRINGFIELD 63
INTERSTATE ROUTE 44
OUTER ROADWAY #2A
MERGING TRAFFIC
YIELD RIGHT WAY
DO NOT ENTER
EAST
WEST
EQUATION
KEEP OFF MEDIAN
SPEED LIMIT 70
Outer Rdwy. (Exist. Rte. 166)
FEDERAL PROJECT No. & SEC.
I-44-1(18) 15
JASPER
FINAL SURVEY
ORIGINAL SURVEY
BUSINESS LOOP 44
Joplin
NEXT SERVICES 7 MILES
OUTER ROADWAY (EXIST. RTE. 166)
INTERSTATE ROUTE 44
OUTER ROADWAY #2B
OUTER ROADWAY #3
Sarcoxie 14
Springfield 62
NO STOPPING EXCEPT FOR REPAIRS
GAS-FOOD LODGING 2 MILES
Joplin EXIT 1 MILE
NEXT EXIT 8 MILES

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.		
5	MO.	I-44-1 (18) 15		
DIST. No.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

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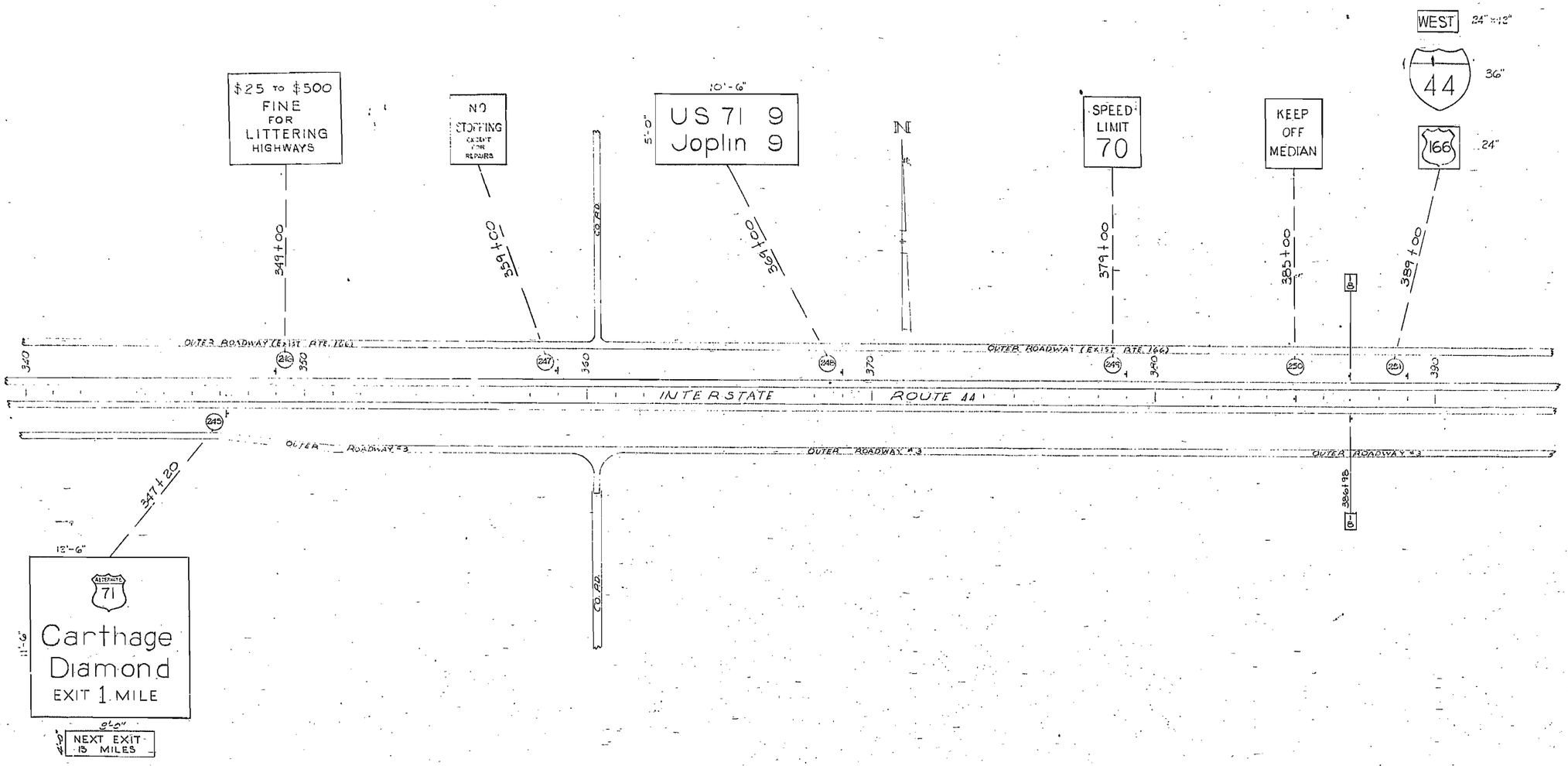
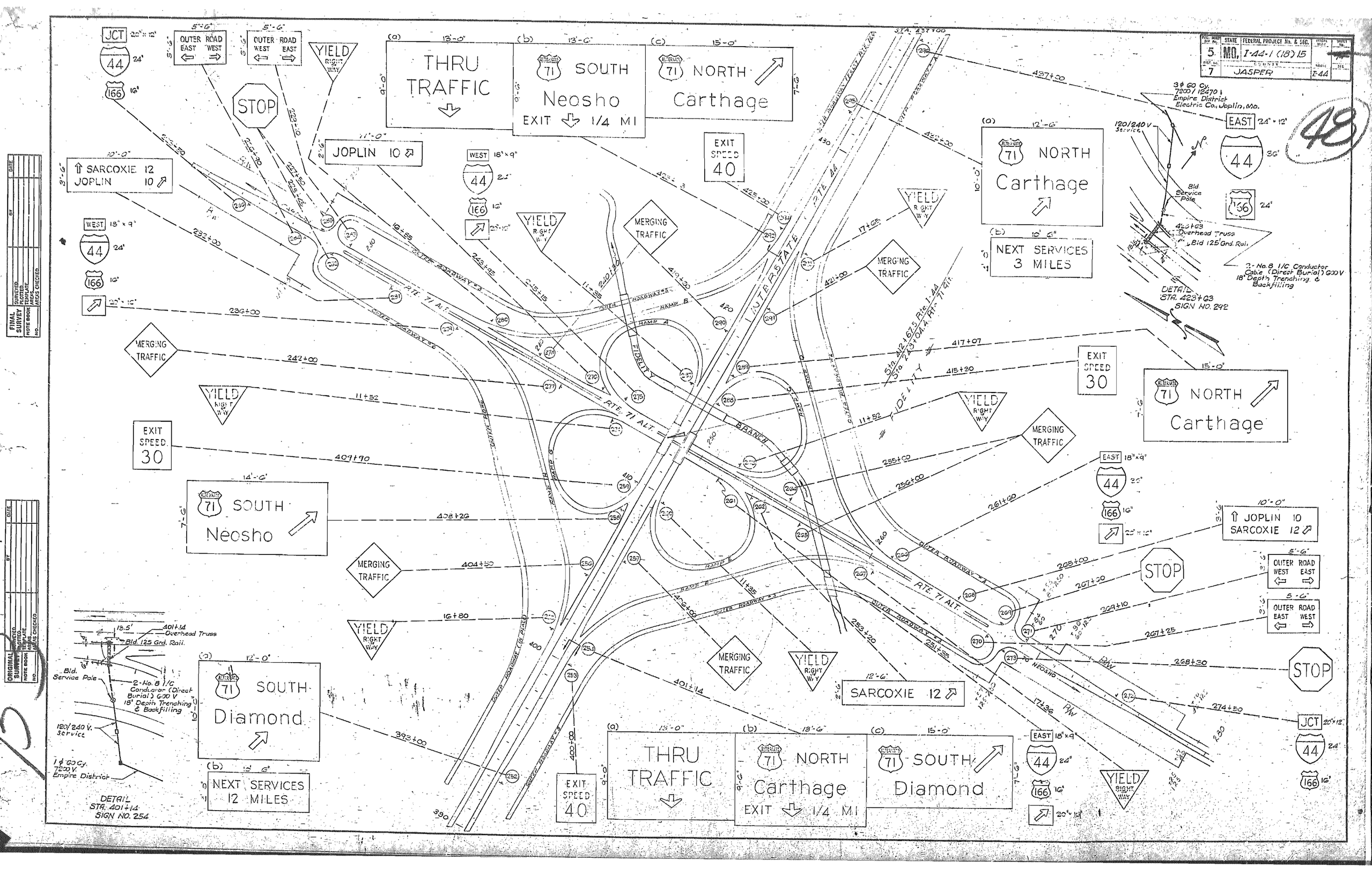


FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

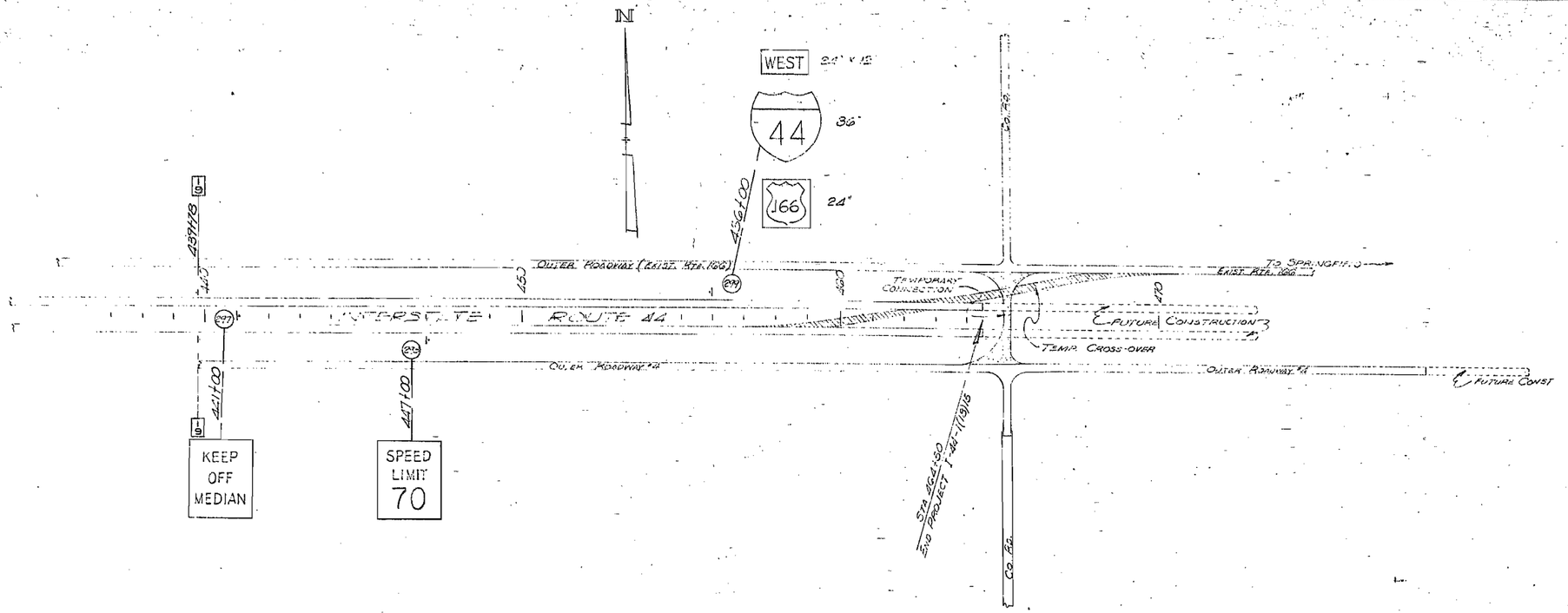
152



FEDERAL PROJECT No. & SEC.
I-44-1 (18) 15
MO.
JASPER
I-44
48
THRU TRAFFIC
SOUTH Neosho EXIT 1/4 MI
NORTH Carthage
EXIT SPEED 40
JOPLIN 10
SARCOXIE 12 JOPLIN 10
NORTH Carthage
NEXT SERVICES 3 MILES
EXIT SPEED 30
NORTH Carthage
SOUTH Neosho
JOPLIN 10 SARCOXIE 12
SOUTH Diamond
NEXT SERVICES 12 MILES
EXIT SPEED 40
THRU TRAFFIC
NORTH Carthage EXIT 1/4 MI
SOUTH Diamond
SARCOXIE 12
STOP
YIELD RIGHT WAY
MERGING TRAFFIC
INTERSTATE RTE 44
RTE. 71 ALT.
FIDELITY BRANCH
OUTER ROADWAY
3 ϕ 60 Cy. 7200 / 12470 Empire District Electric Co., Joplin, Mo.
120/240 V Service
Bld. Service Pole
423+63 Overhead Truss
Bld 125' Grd. Rail
2-No. 8 I/C Conductor Cable (Direct Burial) 600 V 18" Depth Trenching & Backfilling
DETAIL STA. 423+63 SIGN NO. 292
DETAIL STA. 401+14 SIGN NO. 254
401+14 Overhead Truss
Bld. 125 Grd. Rail
Bld. Service Pole
2-No. 8 I/C Conductor (Direct Burial) 600 V 18" Depth Trenching & Backfilling
120/240 V. Service
1 ϕ 60 Cy. 7200 V. Empire District
FINAL SURVEY
ORIGINAL SURVEY

FED. ROAD DIST. No.	STATE	FEDERAL PROJECT No. & SEC.	SHEET TOTAL	SHEET No.
5	MO.	I-44-1(13)13		49
DIST. No.	COUNTY		ROUTE	SEC.
7	JASPER		I-44	

49



FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
NO.
AREAS CHECKED

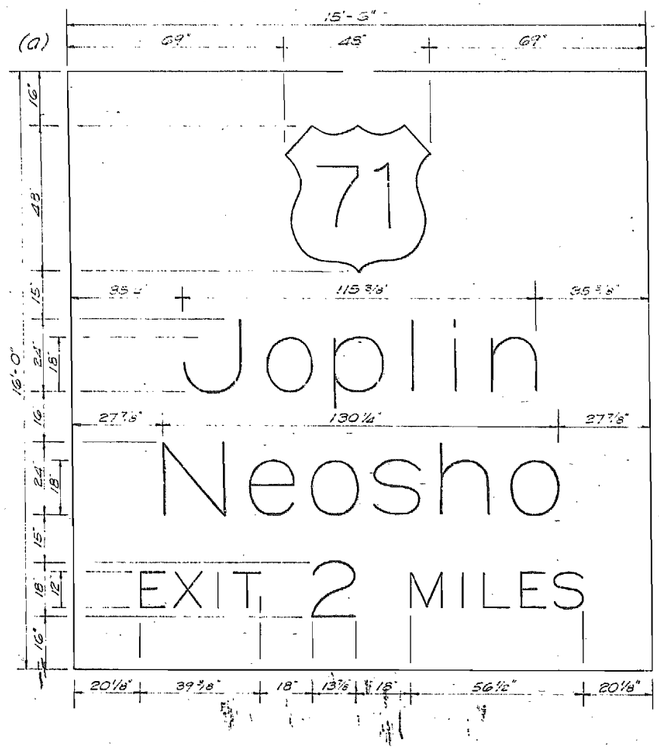
ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
NOTE BOOK
NO.
AREAS CHECKED
BY
DATE

13-2

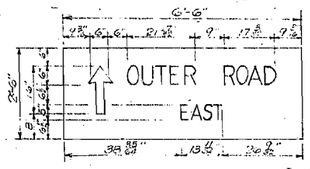
DIV. NO.	STATE	FEDERAL PROJECT No. & SEC.	FINAL PLANS	SHEET No.
5	MO.	I-44-1(9)10 I-44-1(18)15		70
DIST. No.	COUNTY		PROJECT	SHEET
7	JASPER		I-44	

50

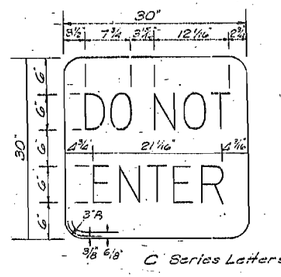
SIGN NO. 217 STA. 33+80 RTE I-44 LT



SIGN NO 221 STA 302+75
BUS. LOOP 44

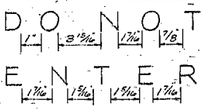


SIGN NO. 229 Sta. 334+20 Ramp E Rt.
Bus. Loop 44 Interchange

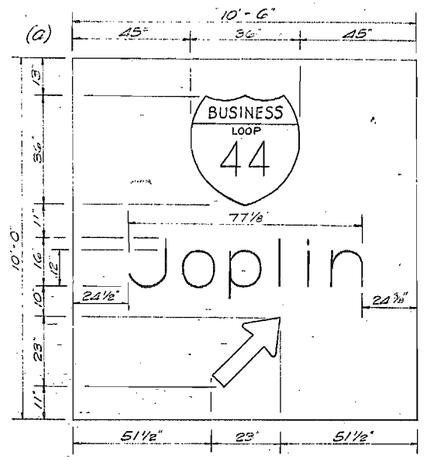


Black Silk Screen Letters
on White Reflectorized Background

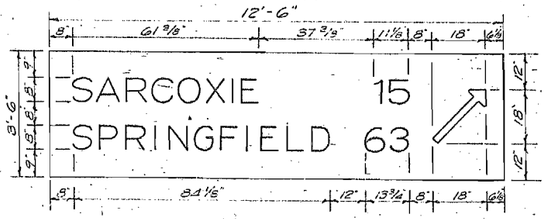
SPACING FOR 6" C. SERIES LETTERS



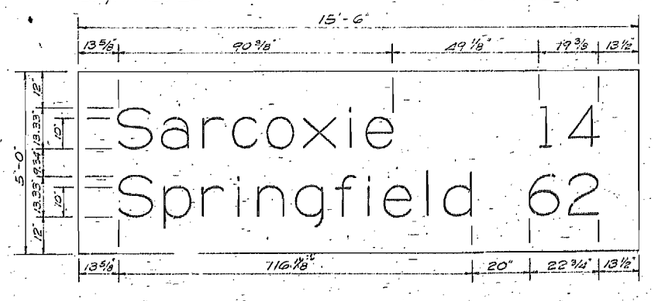
SIGN NO. 239 STA. 282+00 RTE I-44 LT



SIGN NO. 219 STA. 297+00 BUS. LOOP 44



SIGN NO. 241 STA. 285+10 RTE I-44 RT



SIGN NO. 217 is included
in Project I-44-1(9)10

SIGN NO'S 219, 221, 229,
239 & 241 are included
in Project I-44-1(18)15

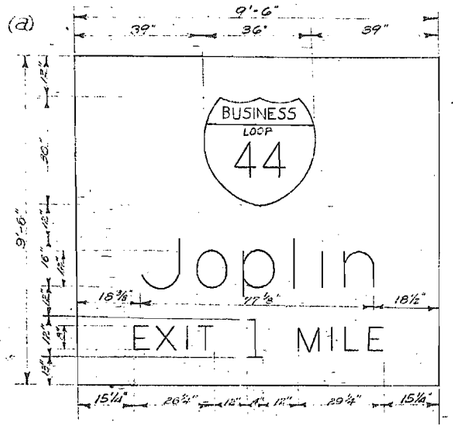
53

FED. ROAD DIV. No.	STATE	FEDERAL PROJECT No. & SEC.	FISCAL YEAR	SHEET No.
5	MO.	I-44-1(18)15		
DIST. No.		COUNTY		
7		JASPER	I-44	

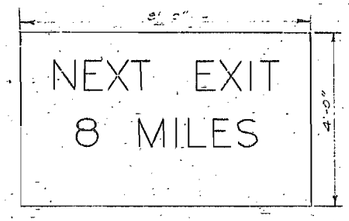
51

Sign No. 244 Sta. 329+00 Rte. I-44 Lt.

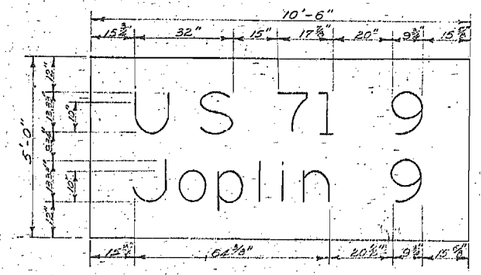
(a)



(b)

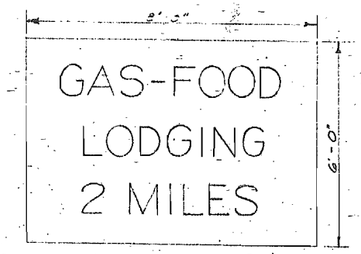


Sign No. 248 Sta. 369+00 Rte. I-44 Lt.



SIGN NO. 242 Sta. 294+00 Rte. I-44 Rt.

(b)



FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

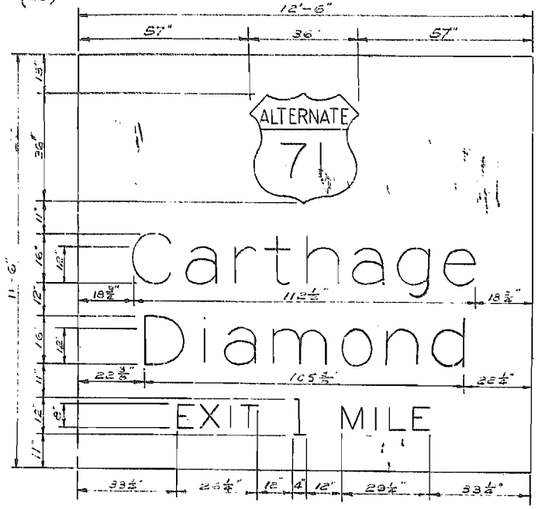
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

156

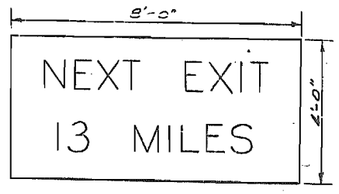
52

SIGN NO. 245 Sta. 347+20 Rte. I-44 Rt.

(a.)

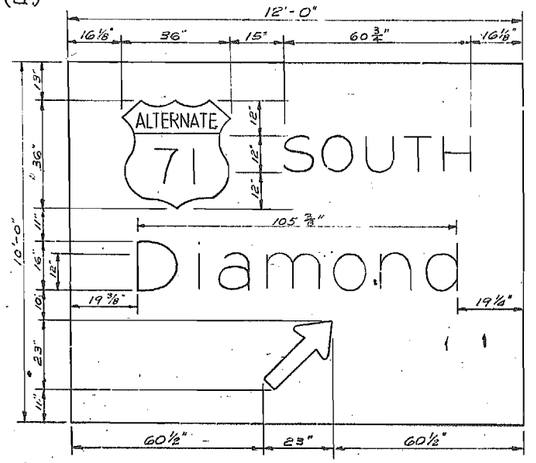


(b.)



SIGN NO. 252 Sta. 393+00 Rte. I-44 Rt.

(a.)

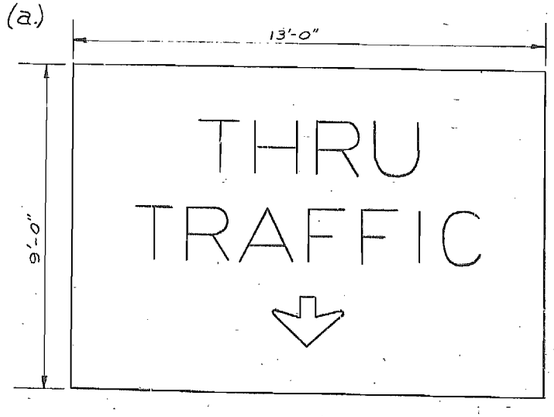


(b.)

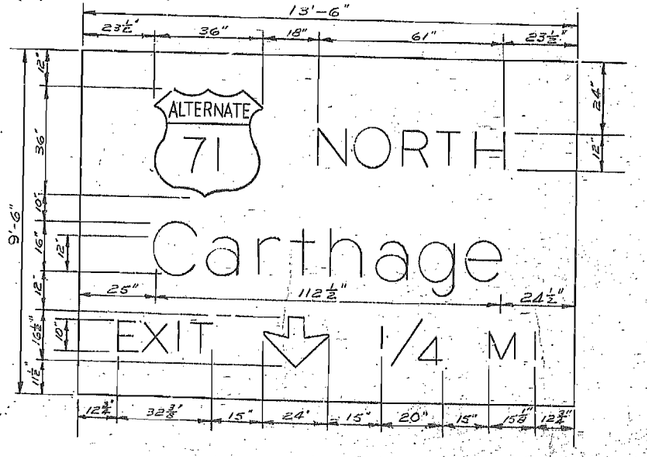


Overhead Signs on Simple Truss
SIGN NO. 254 Sta. 401+14 Rte. I-44 RT

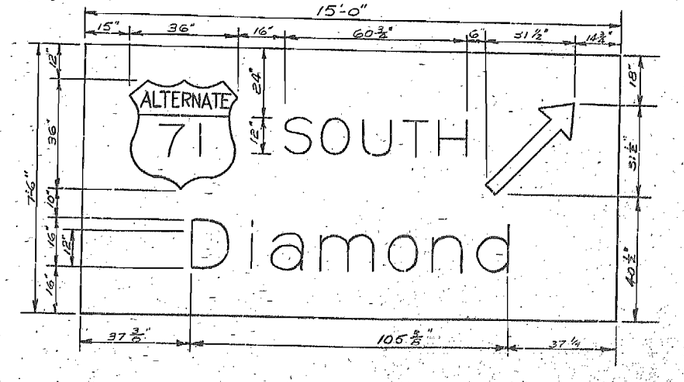
(a.)



(b.)



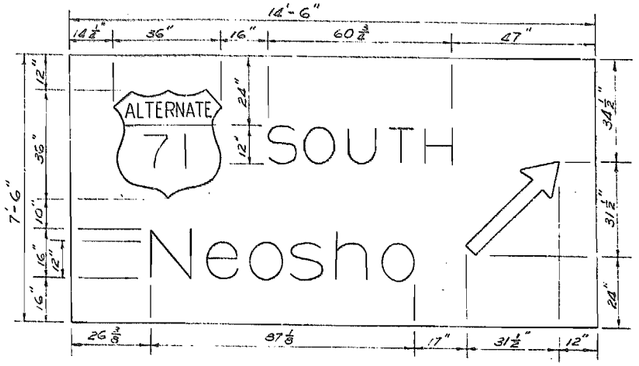
(c.)



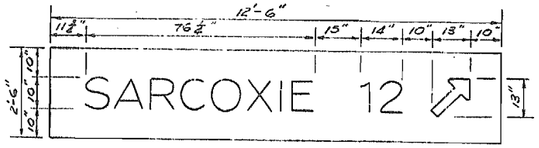
STATE	FEDERAL PROJECT No. & SEC.	SHEET NO.
5 MO.	I-44-1(18)15	
DIST. NO. 7-	COUNTY JASPER	ROUTE I-44

53

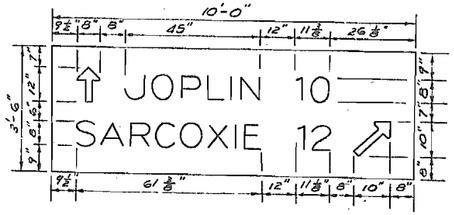
SIGN NO 258 STA 408+26 RTE I-44 LT.



SIGN NO 262 STA 253+20 RTE ALT 71 RT.



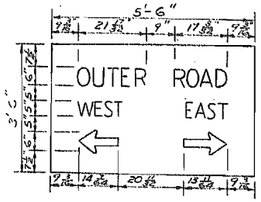
SIGN NO 268 STA 265+00 RTE ALT 71 LT.



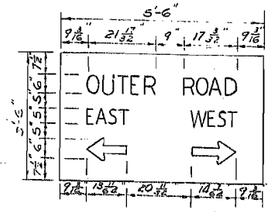
SIGN NO 281 STA. 232+00 RTE ALT 71 RT.



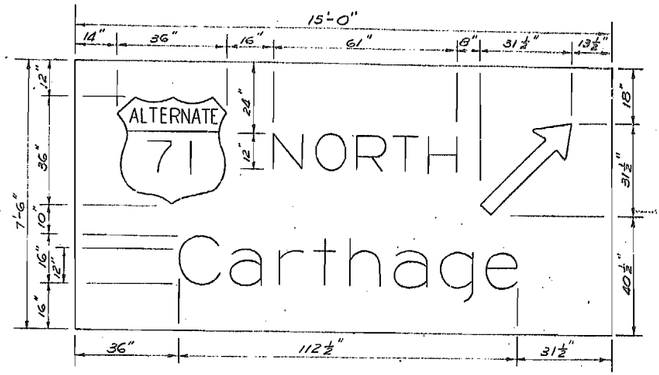
SIGN NO 271 STA 269+10 RTE ALT 71 LT
SIGN NO 283 STA 229+10 RTE ALT 71 LT



SIGN NO 270 STA 267+25 RTE ALT 71 RT.
SIGN NO 284 STA 226+90 RTE ALT 71 RT.

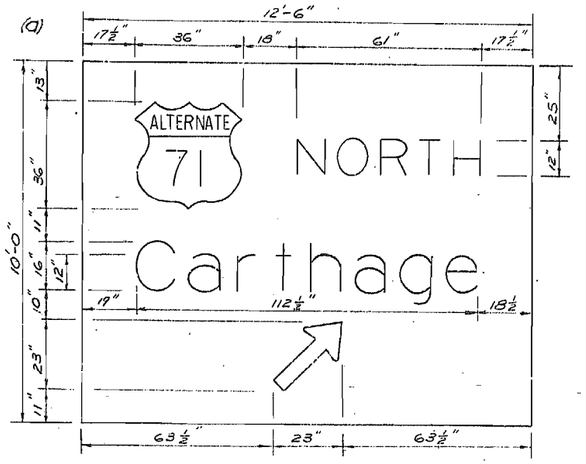


SIGN NO 287 STA 417+07 RTE I-44 RT.

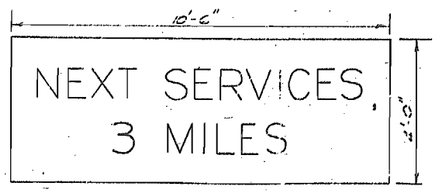


SIGN NO 295 STA. 432+00 RTE I-44 LT.

(a)



(b)



FINAL SURVEY	SURVEYED	DATE
	PLOTTED	
	TRACED	
	NOTE BOOK	
	NO.	AREAS CHECKED

ORIGINAL SURVEY	SURVEYED	BY
	PLOTTED	
	TRACED	
	NOTE BOOK	
	NO.	AREAS CHECKED

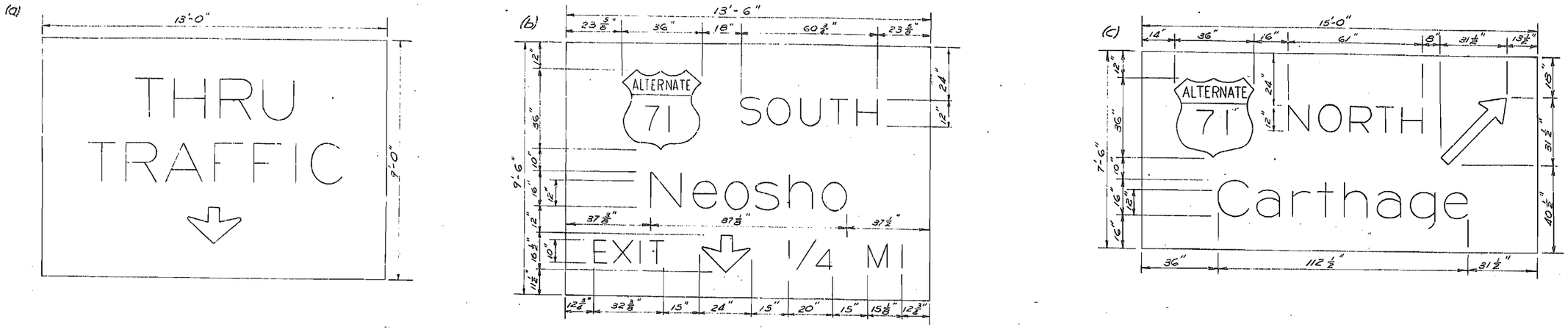
378

5	I-44-1(18)15		
7	JASPER	I44	

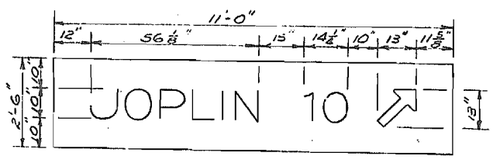
54

Overhead Signs on Simple Truss

SIGN NO. 292 STA 423+63 RTE I-44 LT



SIGN NO. 276 STA 243+95 RTE ALT 71 LT



FINAL SURVEY | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | NOTE BOOK | NO. | BY | DATE

ORIGINAL SURVEY | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | NOTE BOOK | NO. | BY | DATE

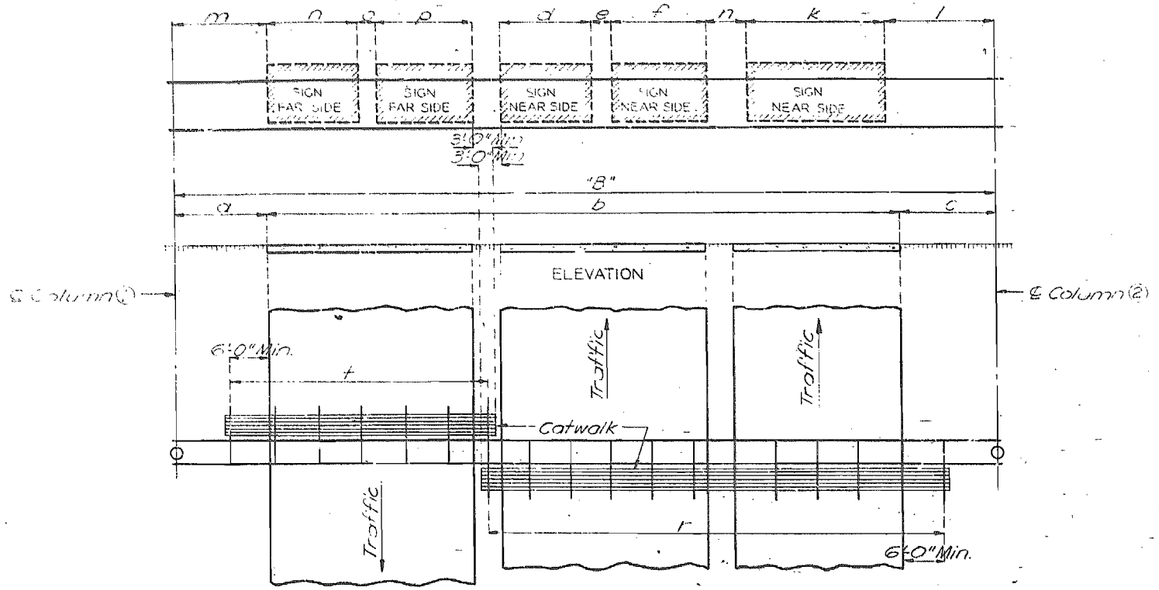
159

MISSOURI STATE HIGHWAY DEPARTMENT

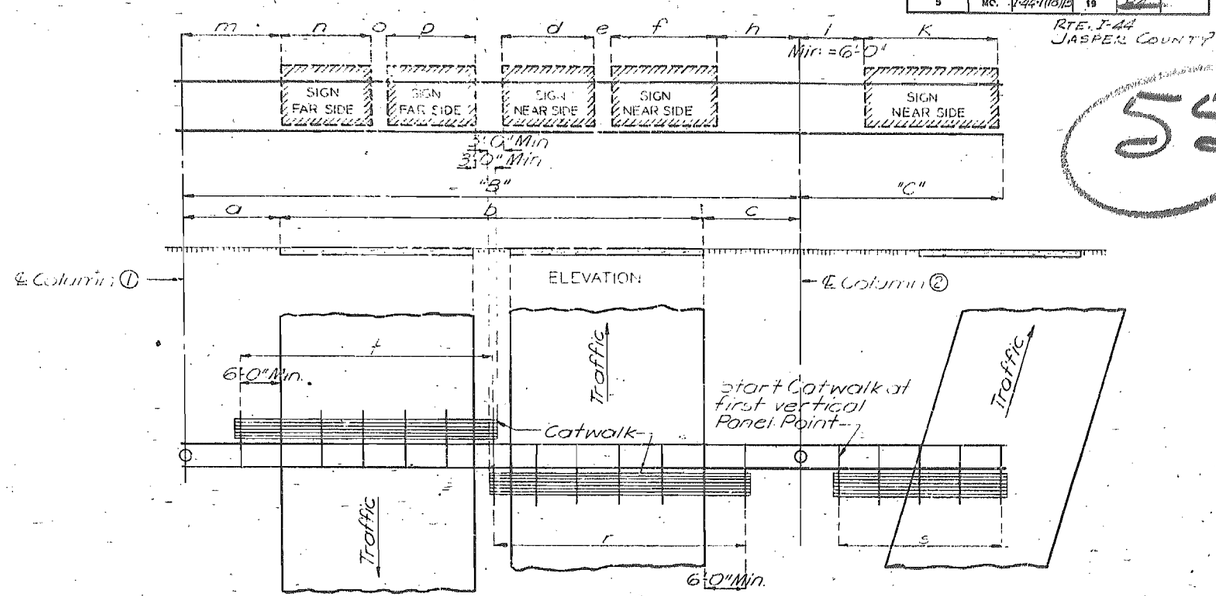
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.	I-44-1(18)12	19	24	

RTE. I-44
JASPER COUNTY

55



PLAN
DIMENSIONS TYPE B SIGN BRIDGE



PLAN
DIMENSIONS TYPE BC SIGN BRIDGE

SIGN BRIDGE DIMENSIONS

Sign No.	Station No.	Truss Description Type	"B"	"C"	Chord L	Roadway Description a	b	c	Sign Spacing Near Side d	ht	e	f	ht	h	k	ht.	J	Far Side m	n	ht	o	p	ht	Catwalk Near Side r	s	F. Side t	Column Data Col. 1 H	Type	Col. 2 H	Type	Ftg. & Pad C.Y.C.I. "B"	Lighting Data Power to Col. No.	Photo Elec. Switch	Luminaires 1 Lamp	2 Lamp	Transformer KVA	Sign No.
254	401+74	B	69'	—	4"x4"x⅜"	10'	46.9'	12.1'	13'	9'	1'-0"	13'-6"	9'-6"	3'-0"	15'	7'-6"	14'-6"							55.0'	—		16'-3"	II	18'-3"	II	24.75	2	1		7	1.5	254
292	423+63	B	69'	—	4"x4"x⅜"	10'	46.9'	12.1'	13'	9'	1'-0"	13'-6"	9'-6"	3'-0"	15'	7'-6"	14'-6"							55.0'	—		16'-6"	II	18'-3"	II	25.03	2	1		7	1.5	292

GENERAL NOTES:

Design Specifications: U.S. Department of Commerce Bureau of Public Roads Washington 25, D.C. Circular Memorandum of Aug. 11, 1959 - To: Regional and Division Engineers - From G.M. Williams, Assistant Commissioner - Subject: Structural Requirement for Highway Traffic Signs.

Structural Steel Stress: 18,000 #/□"
Reinforcing Steel Stress: 20,000 #/□"
Concrete Class "B" Stress: 1,200 #/□"
Footing Soil Pressure: 2,750 #/□'
Allowable unit stresses due to wind load, or wind load in combination with other forces, are increased 45 %.
Minimum Clearance: Vertical roadway clearance 17'-0".
Electrical: See fluorescent sign lighting equipment sheet.

Reinforcement: Embedment is to ℄ of bar and is 2".
to main reinforcement, except as noted.
Fabricated structural steel shall be A.S.T.M.-A373-56T or A7 meeting the carbon and manganese requirements of A373.
Truss shall be all-welded steel construction.
All welding to be continuous unless otherwise shown
Qualification of welding operators will be required.
See Specification 17-5 F (2) Structural Steel Welding and Specification 41-3 A (1) e 2 Structural Aluminum Welding.
Paint (Steel) Shop, one coat of red lead; Field, contact surfaces of bolted field connections (except where high strength bolts are used) one coat of red lead and surfaces inaccessible after erection two coats of red lead. All other exposed surfaces (Steel) second coat Brown and third coat aluminum. Payment for cleaning and painting such surfaces will be included in price bid for items painted. See Special Provisions for Aluminum Paint. No paint to be applied to aluminum surfaces except those in contact with steel surfaces. See sheet No. 5 of 7.

Note: This drawing is not to scale. Follow dimensions.

ASSEMBLED 19 by
Checked 19 by

OVERHEAD SIGN TRUSSES
STRUCTURAL STEEL

SPECIAL SHEET (SEE STANDARD 41BS-1)

56

69' Span

9'-0" | 13'-0" | 1'-0" | 13'-6" | 3'-0" | 15'-0" | 14'-6"

13'-0" | 13'-6" | 15'-0"

9'-6" | 9'-6" | 7'-6"

117 sq. ft. 272 (a) | 123.25 sq. ft. 272 (b) | 112.5 sq. ft. 272 (c)

℄ Column ①

℄ Column ②

55' Catwalk

℄ Span

10'

12.1'

℄ Median

1069.19 | 1069.44 | 1069.61 | 1069.84 | 1069.67 | 1068.10 | 1069.10

6:1

4.5%

½ of 60' Median

12' Through Traffic Lane

12' Through Traffic Lane

22.9' Off Ramp B

6' Shldr.

4.0%

2.0%

Exist. Ent. 166

Use 10 panels @ 6.90'

Sign No. 292
123 + 63

69' Span

9'-0" | 13'-0" | 1'-0" | 13'-6" | 3'-0" | 15'-0" | 14'-6"

13'-0" | 13'-6" | 15'-0"

9'-6" | 9'-6" | 7'-6"

117 sq. ft. 254 (a) | 120.25 sq. ft. 254 (b) | 112.5 sq. ft. 254 (c)

℄ Column ①

℄ Column ②

55' Catwalk

℄ Span

10'

12.1'

℄ Median

1075.77 | 1075.99 | 1076.16 | 1075.99 | 1075.73 | 1074.50 | 1074.10

6:1

4.5%

½ of 60' Median

12' Through Traffic Lane

12' Through Traffic Lane

22.9' Off Ramp F

6' Shldr.

4.0%

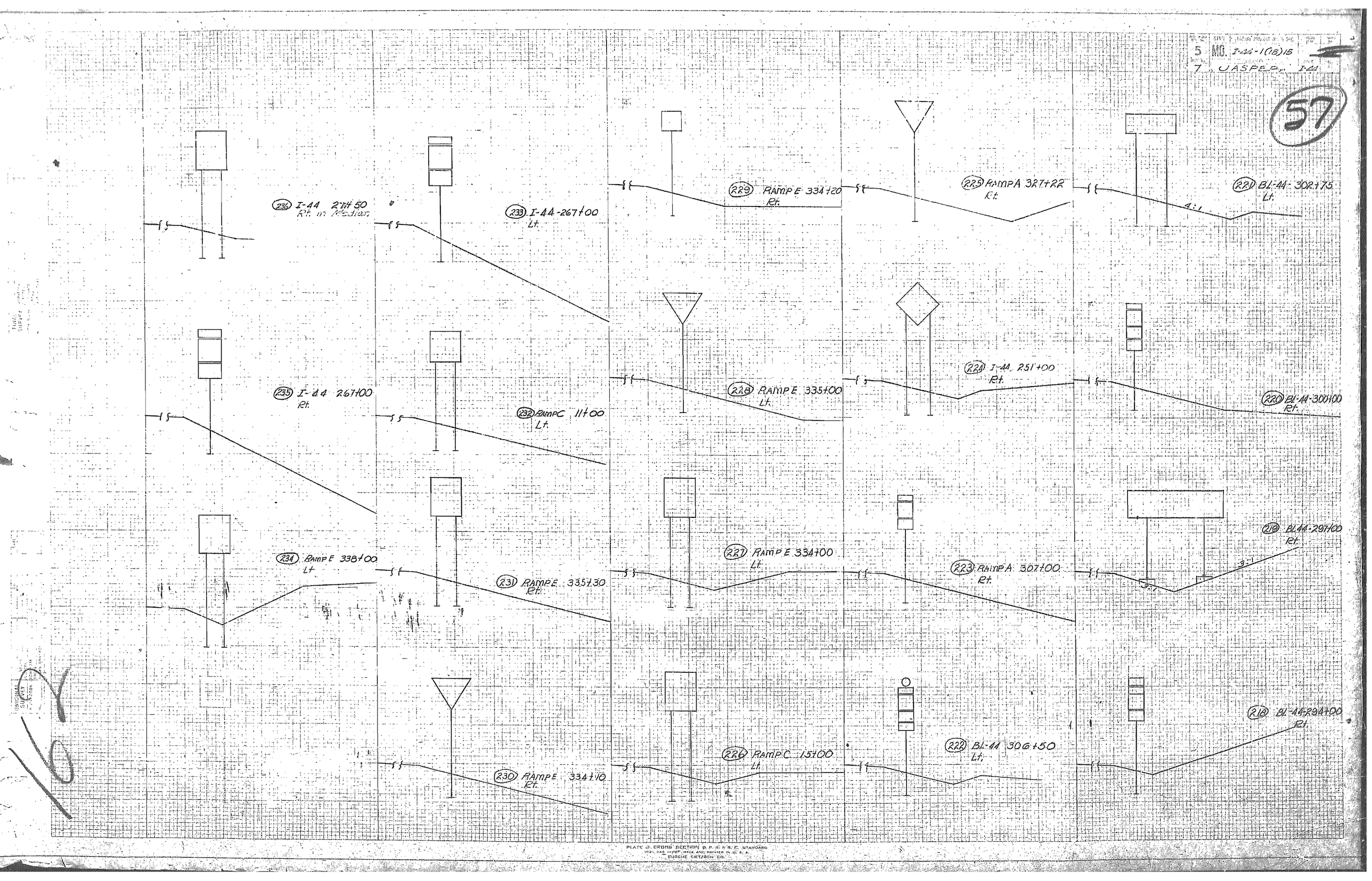
1.0%

1077.9 Rock

Use 10 panels @ 6.90'

Sign No. 254
101 + 14

PLATE 2 CROSS SECTION O.D.S.& E.E. STANDARD
1961 (53) PAPER MADE AND PRINTED IN U.S.A.
EUGENE DIETZGEN CO.


5 MO. I-44-1(18)15
7 JASPER I-44
57
236 I-44 271+50 Rt. in Median
233 I-44-267+00 Lt.
229 RAMP E 334+20 Rt.
225 RAMP A 327+22 Rt.
221 BL-44-302+75 Lt.
4:1
235 I-44 267+00 Rt.
232 RAMP C 11+00 Lt.
228 RAMP E 335+00 Lt.
224 I-44 251+00 Rt.
220 BL-44-300+00 Rt.
234 RAMP E 338+00 Lt.
231 RAMP E 335+30 Rt.
227 RAMP E 334+00 Lt.
223 RAMP A 307+00 Rt.
219 BL-44-297+00 Rt.
3:1
230 RAMP E 334+10 Rt.
226 RAMP C 15+00 Lt.
222 BL-44 306+50 Lt.
218 BL-44-294+00 Rt.
PLATE 3. CROSS SECTION B.P.R.&R.E. STANDARD
EUGENE DIETZGEN CO.

58

(256) I-44 404+50 Lt.

(252) I-44 393+00 Rt.

(248) I-44 369+00 Lt.

(244) I-44 329+00 Lt.

(240) I-44 277+10 Rt.

(255) Route H 16+80 Rt.

(251) I-44 389+00 Lt.

(247) I-44 359+00 Lt.

(243) I-44 305+00 Rt.

(239) I-44 282+00 Lt.

(254) Overhead Sign See X Sec Sheet

(250) I-44 385+00 Lt in Median

(246) I-44 349+00 Lt.

(242) I-44 294+00 Rt.

(238) I-44 274+00 Lt.

(253) I-44 400+00

(249) I-44 379+00 Lt.

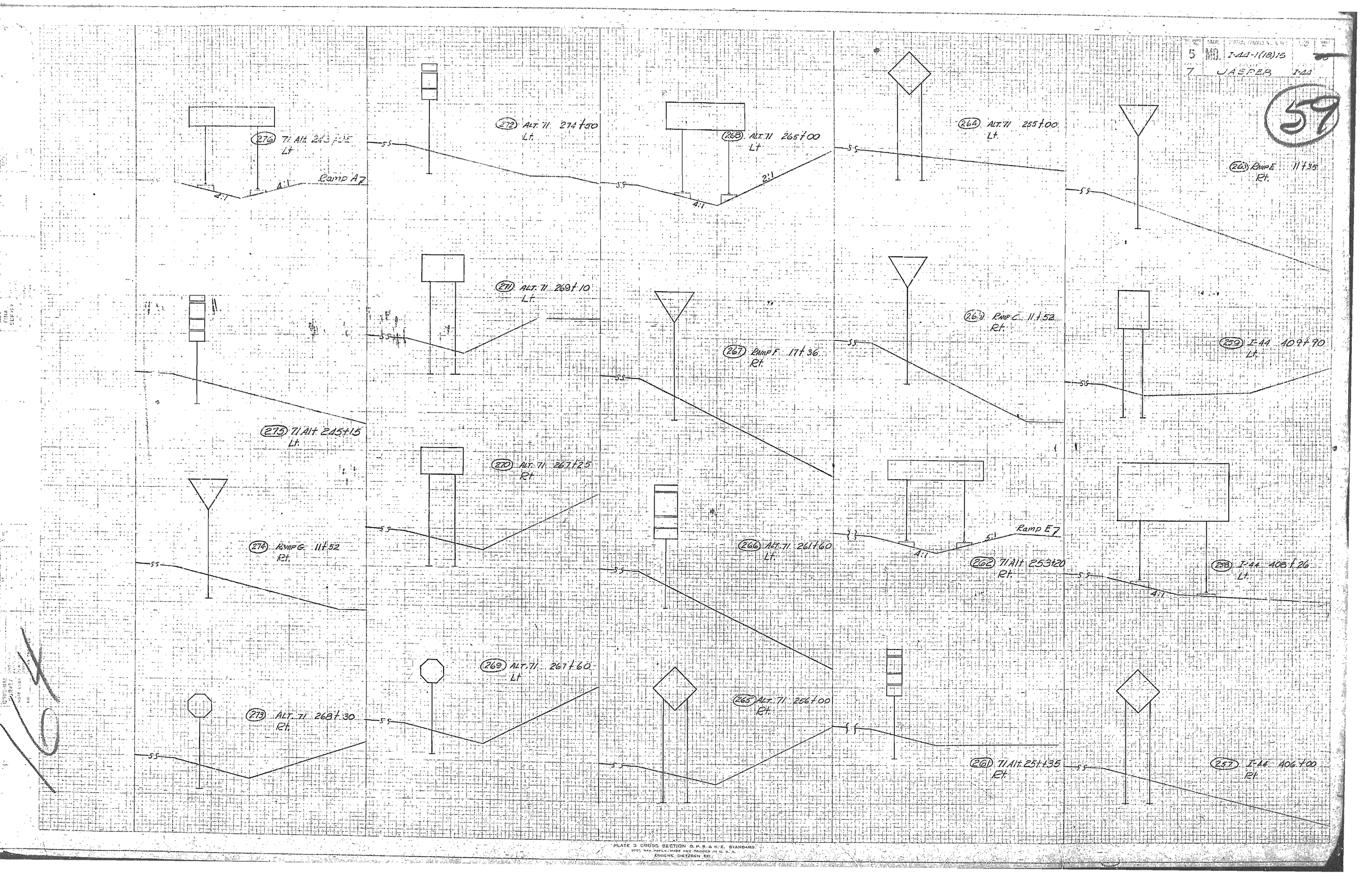
(245) I-44 347+20 Rt.

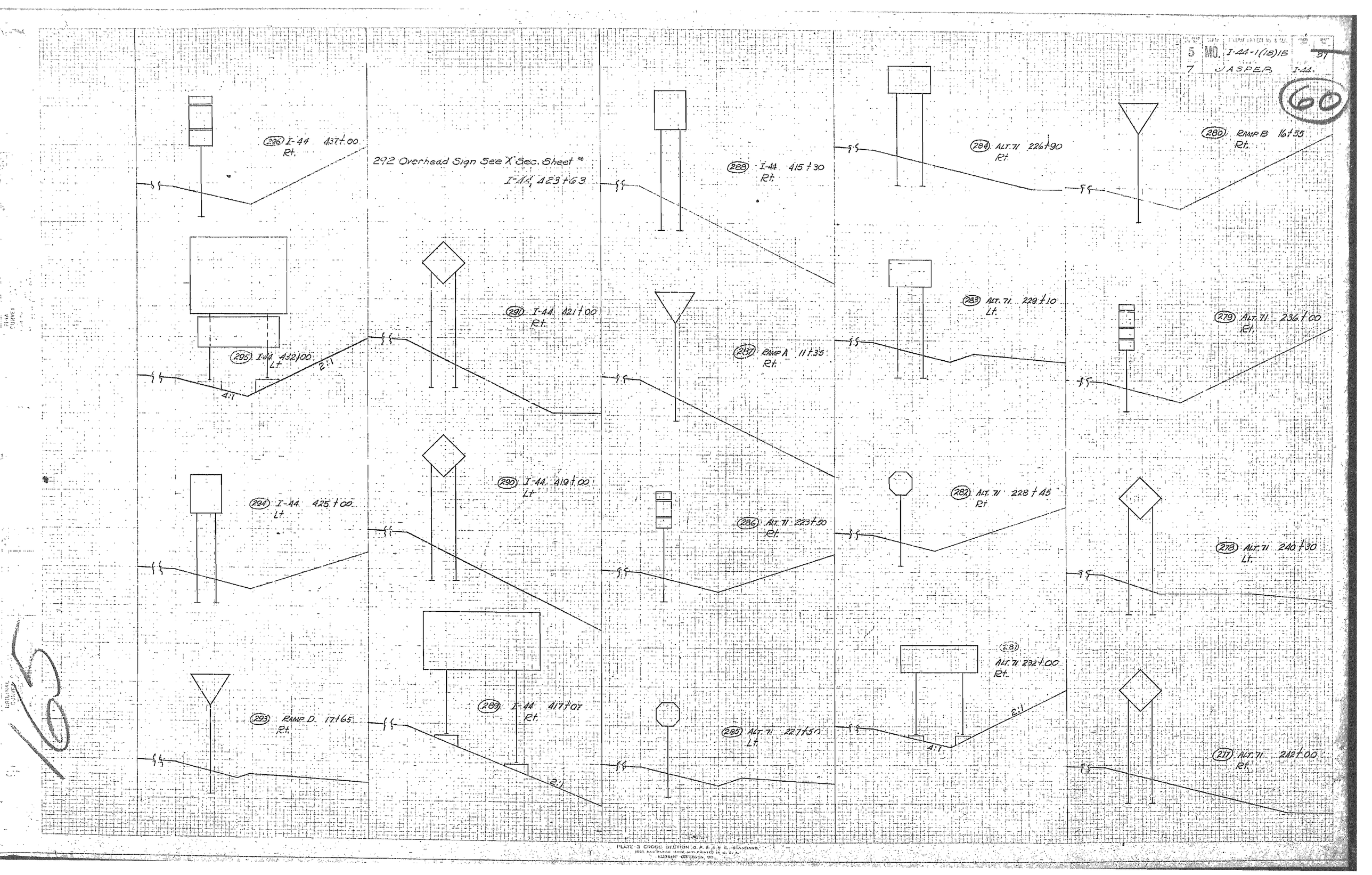
(241) I-44 285+10 Rt.

(237) I-44 271+41 Lt.

2:1 4:1 0:0

PLATE 3 CROSS SECTION S. P. R. & R. E. STANDARD
PRINTED ON PAPER MADE AND PRINTED IN U.S.A.
EUGENE DIETZGEN CO.


5 MO. I-44-1(18)15
7 JASPER I-44
59
276 71 Alt 243+05 Lt
Ramp A
4:1
272 ALT. 71 274+50 Lt.
268 ALT. 71 265+00 Lt
2:1
264 ALT. 71 255+00 Lt.
263 Ramp E 11+35 Rt.
271 ALT. 71 269+10 Lt.
267 Ramp F 17+36 Rt.
263 Ramp C 11+52 Rt.
259 I-44 409+90 Lt.
275 71 Alt 245+15 Lt.
270 ALT. 71 267+25 Rt.
274 Ramp G 11+52 Rt.
266 ALT. 71 261+60 Lt.
Ramp E
5:1
262 71 Alt 253+20 Rt.
258 I-44 408+26 Lt.
269 ALT. 71 267+60 Lt
273 ALT. 71 268+30 Rt.
265 ALT. 71 256+00 Rt.
261 71 Alt 251+35 Rt.
257 I-44 406+00 Rt.
PLATE 3 CROSS SECTION B.P.R. & R.E. STANDARD
EUGENE DIETZGEN CO.


5 MO. I-44-1(18)15
7 JASPER I-44
60
292 Overhead Sign See X Sec. Sheet *
I-44, 423+63
296 I-44 437+00 Rt.
295 I-44 432+00 Lt.
4:1
2:1
294 I-44 425+00 Lt.
293 RAMP D 17+65 Rt.
291 I-44 421+00 Rt.
290 I-44 419+00 Lt.
289 I-44 417+07 Rt.
2:1
288 I-44 415+30 Rt.
287 RAMP A 11+35 Rt.
286 ALT. 71 223+50 Rt.
285 ALT. 71 227+50 Lt.
284 ALT. 71 226+90 Rt.
283 ALT. 71 229+10 Lt.
282 ALT. 71 228+45 Rt.
281 ALT. 71 232+00 Rt.
4:1
2:1
280 RAMP B 16+55 Rt.
279 ALT. 71 236+00 Rt.
278 ALT. 71 240+30 Lt.
277 ALT. 71 242+00 Rt.
PLATE 3 CROSS SECTION
LUBBINE OREGON, CO.

5 MO. I-44-1(18)15 70

7 JASPER I-44

61

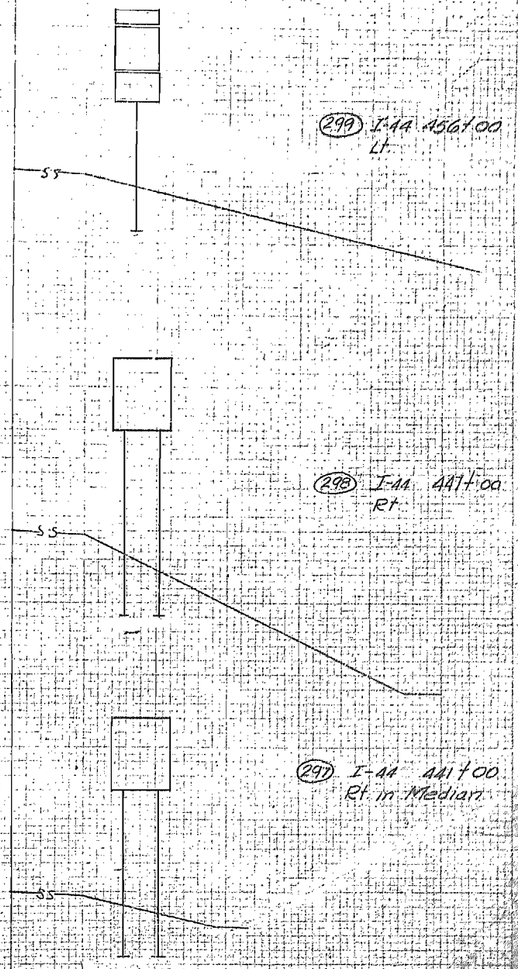


PLATE 3 CROSS SECTION C.P.R.R. STANDARD

5	NO. 1-44-1(18)15
1	JASPER 144

FINAL PLANS 62

FINAL SURVEY	SURVEYED
	PLOTTED
	TEMPLATE
NOTE BOOK	AREA
NO.	AREAS CHECKED

Ramp A & Ramp E

PC	0+00	
	0+37	
	0+73	
	1+09	
	1+45	
PCC	1+82	
	2+06	
	2+30	
	2+54	
	2+78	
	3+02	
	3+26	
	3+49	
	3+73	
PCC	4+92	
	5+19	
	5+53	
	5+87	
	6+20	
PCC	6+87	
	7+11	
	7+35	
	7+59	
	7+83	
	8+07	
	8+31	
	8+55	
	8+79	
	9+03	
	9+27	
	9+51	
	9+75	
	9+99	
PCC	10+23	
	10+60	
	10+96	
	11+32	
	11+68	
PT	12+05	

Ramp C & Ramp G

PC	0+00
	0+37
	0+73
	1+09
	1+45
PCC	1+82
	2+06
	2+30
	2+54
	2+78
	3+02
	3+26
	3+49
	3+73
	3+96
	4+20
	4+44
	4+68
PCC	4+92
	5+16
	5+54
	5+92
	6+29
	6+66
PCC	7+04
	7+28
	7+52
	7+76
	8+00
	8+24
	8+48
	8+71
	8+95
	9+19
	9+43
	9+67
	9+91
	10+15
PCC	10+39
	10+76
	11+12
	11+48
	11+84
PT	12+21

LEGEND

	Total
○ Single White Delineator	32
⊙ Double Amber Delineator	372
⊙⊙ Triple Amber Delineator	4

LOCATION OF DELINEATORS

FIDELITY INTERCHANGE

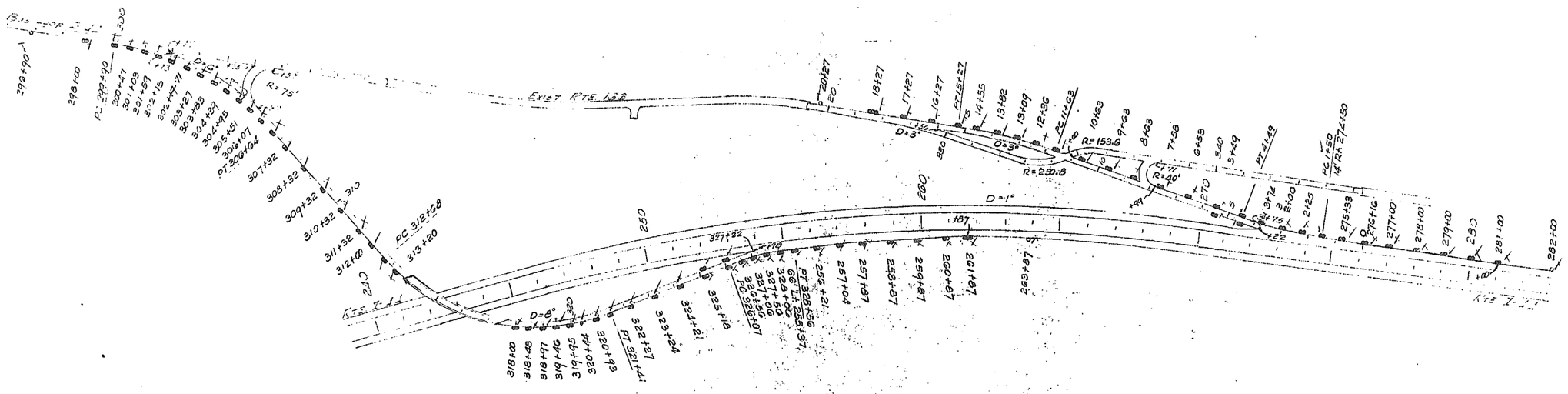
RTE. ALT. US 71

SHEET NO.	STATE	FEDERAL PROJECT No. & SEC.	FINAL PLANS	SHEET NO.
5 OF 7	MO.	I-44-1(18)15		
	COUNTY		ROUTE	SEC.
	JASPER		I-44	

FINAL PLANS

63

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, NO., AREAS CHECKED, BY, DATE



LEGEND	Total
○ Single White Delineator	4
⊟ Double Amber Delineator	76
⊟ Triple Amber Delineator	2

LOCATION OF DELINEATORS

SCOTLAND INTERCHANGE
BUS. LOOP 44

LIST OF STANDARD PLANS

PROJ.	SHEET
I-44-1(18)	64
CO. JASPER	RTE. I-44

41A1-1 1of6	C-530 (4-24-59)	41A-7 3of11
41A1-1 2of6	C-10	41A-7 4of11
41A1-1 3of6	C-20	41A-7 5of11
41A1-1 4of6	C110R7	41A-7 6of11
41A1-1 5of6	C-112R1	41A-7 7of11
41A1-1 6of6	1BA-5 (6-11-59)	41A-7 8of11
41A2-1 1of5	1BB-3 (6-1-54)	41A-7 9of11
41A2-1 2of5	1TR-2 (8-20-52)	41A-7 10of11
41A2-1 3of5	1TRD-2 (1-55)	41A-7 11of11
41A2-1 4of5	15AB-10 (8-60)	72.20 1of9 (3-15-61)
41A2-1 5of5	15CN-4 (6-59)	72.21 2of9 (3-15-61)
41B5-1 1of7	15CR-5 (6-59)	72.22 3of9 (3-15-61)
41BS-1 2of7	15DE-9	72.23 4of9 (3-15-61)
41BS-1 3of7	18A-2	72.24 5of9 (3-15-61)
41BS-1 4of7	18C-2 (8-15-58)	72.25 6of9 (3-15-61)
41BS-1 5of7	18D-1 (7-58)	72.26 7of9 (3-15-61)
41BS-1 6of7	24A-5 (4-22-55)	72.27 8of9 (3-15-61)
41BS-1 7of7	24D-5	72.28 9of9 (3-15-61)
C-230R2 (3-56)	25K-12 (5-60)	
C-231R (3-16-56)	27A-22 (1-60)	
C-245R	28A-3 (8-60)	
C-810 1of3	28B-3 (5-59)	
C-810 2of3	36E-11 (2-26-57)	
C-810 3of3	36T-3 (11-56)	
C-820 1of3 (4-23-59)	36EE-3 (2-26-57)	
C-820 2of3	41A-7 1of11	
C-820 3of3	41A-7 2of11	

DESIGN DESIGNATION

A.A.D.T. – 2022 = 2,308
A.A.D.T. – 2042 = 3,529
D.H.V. = 9.5%
T = 22.4%
V = 45 M.P.H.
D = N/A
FUNCTIONAL CLASSIFICATION– INTERSTATE

NO NEW RIGHT OF WAY

CONVENTIONAL SYMBOLS
(USED IN PLANS)

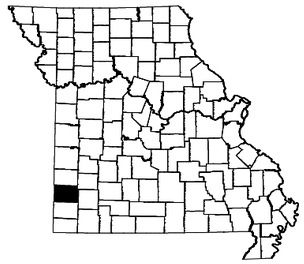
	EXISTING	NEW
BUILDINGS AND STRUCTURES		
GUARD RAIL		
GUARD CABLE		
CONCRETE RIGHT-OF-WAY MARKER		
STEEL RIGHT-OF-WAY MARKER		
LOCATION SURVEY MARKER		
UTILITIES		
FIBER OPTICS	–FO–	FO
OVERHEAD CABLE TV	–OTV–	OTV
UNDERGROUND CABLE TV	–UTV–	UTV
OVERHEAD TELEPHONE	–OT–	OT
UNDERGROUND TELEPHONE	–UT–	UT
OVERHEAD POWER	–OE–	OE
UNDERGROUND POWER	–UE–	UE
SANITARY SEWER	–S–	S
STORM SEWER	–SS–	SS
GAS	–G–	G
WATER	–W–	W
MANHOLE	SAN	
FIRE HYDRANT	HYD	
WATER VALVE	WV	
WATER METER	WM	
DROP INLET	DI	
DITCH BLOCK		
GROUND MOUNTED SIGN	SIGN	
LIGHT POLE		
H-FRAME POWER POLE		
TELEPHONE PEDESTAL	PED	
FENCE		
CHAIN LINK	–V–	
WOVEN WIRE	–X–	
GATE POST		
BENCHMARK	BM	

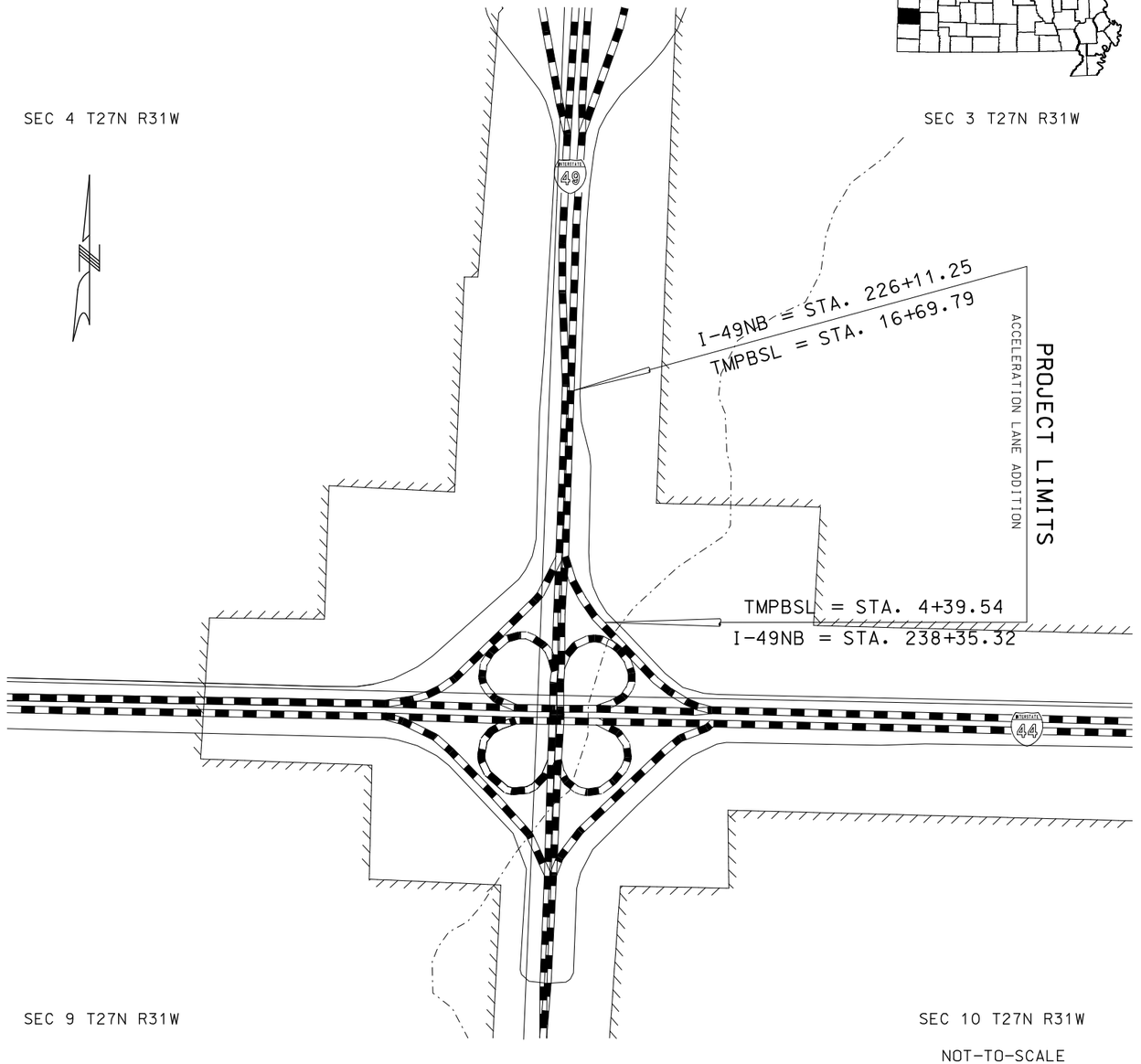
NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

PLANS FOR PROPOSED STATE HIGHWAY

JASPER COUNTY





NOT-TO-SCALE

THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

INDEX OF SHEETS

DESCRIPTION	SHEET NUMBER
TITLE SHEET	1
TYPICAL SECTIONS (TS) (2 SHEETS)	2
QUANTITIES (QU) (3 SHEETS)	3
PLAN-PROFILE (PP)	4-6
RIGHT OF WAY (RW)	N/A
REFERENCE POINTS (RP)	N/A
COORDINATE POINTS (CP)	7
SPECIAL SHEETS (SS)	N/A
TRAFFIC CONTROL SHEETS (TC)	8-14
EROSION CONTROL SHEETS (EC)	15-17
LIGHTING (LT)	18-20
SIGNALS (SG)	N/A
SIGNING (SN)	N/A
PAVEMENT MARKING (PM)	21-23
CULVERT SECTIONS (CS)	24
CROSS SECTIONS (XS)	25-30

LENGTH OF PROJECT

BEGINNING OF PROJECT	STA. 226 + 11.25	
END OF PROJECT	STA. 238 + 35.32	
APPARENT LENGTH	1224.07	FEET
EQUATIONS AND EXCEPTIONS:		
TOTAL CORRECTIONS	0.00	FEET
NET LENGTH OF PROJECT	1224.07	FEET
STATE LENGTH	0.234	MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	1	ACRES

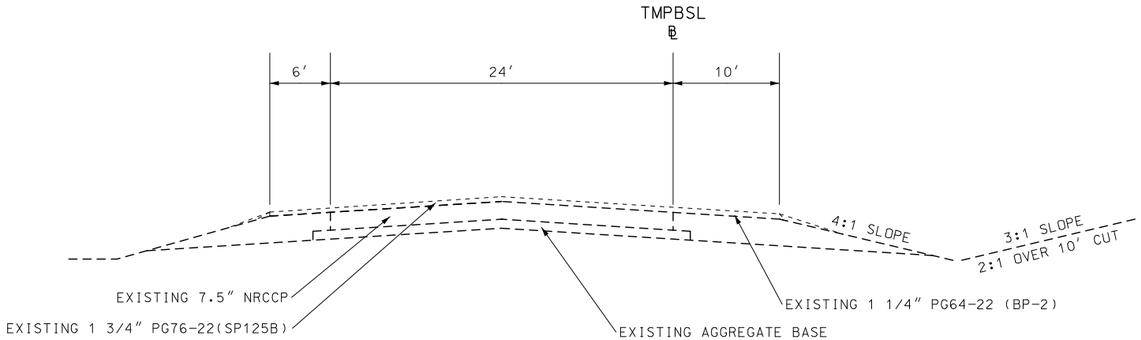
STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

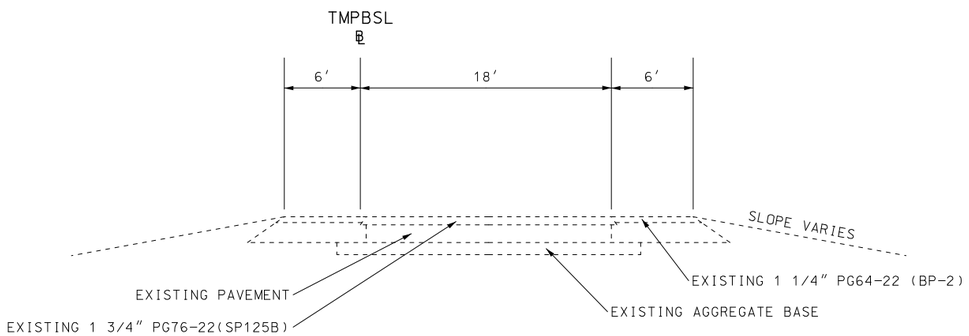
DATE PREPARED: 10/5/2021
ROUTE: I49 | STATE: MO
DISTRICT: SW | SHEET NO.: 1
COUNTY: JASPER
JOB NO.: J7I3530
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE
ADDED SHEET 02 (TS)	
ADDED SHEET 03 (QU)	
ADDED SHEET 04 (PP)	
ADDED SHEET 05 (PP)	
ADDED SHEET 06 (PP)	
ADDED SHEET 07 (CP)	
ADDED SHEET 08 (TC)	
ADDED SHEET 09 (TC)	
ADDED SHEET 10 (TC)	
ADDED SHEET 11 (TC)	
ADDED SHEET 12 (TC)	
ADDED SHEET 13 (TC)	
ADDED SHEET 14 (TC)	
ADDED SHEET 15 (EC)	
ADDED SHEET 16 (EC)	
ADDED SHEET 17 (EC)	
ADDED SHEET 18 (LT)	
ADDED SHEET 19 (LT)	
ADDED SHEET 20 (LT)	
ADDED SHEET 21 (PM)	
ADDED SHEET 22 (PM)	
ADDED SHEET 23 (PM)	
ADDED SHEET 24 (CS)	
ADDED SHEET 25 (XS)	
ADDED SHEET 26 (XS)	
ADDED SHEET 27 (XS)	
ADDED SHEET 28 (XS)	
ADDED SHEET 29 (XS)	
ADDED SHEET 30 (XS)	

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



I49NB EXISTING
STA. 6+52.02-16+69.79



I44WB TO I49NB RAMP EXISTING
STA. 5+00.00-6+15.40

NOTES:
NOT TO SCALE

STATIONING BASED ON CONSTRUCTION ALIGNMENT TMPBSL NOT I49

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

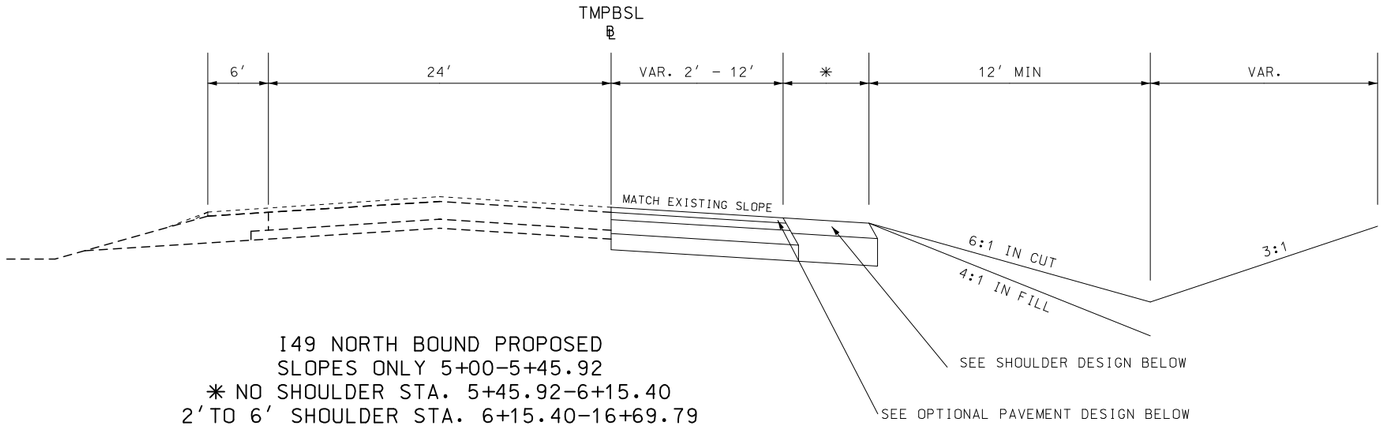
PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



I49 NORTH BOUND PROPOSED
SLOPES ONLY 5+00-5+45.92
✳ NO SHOULDER STA. 5+45.92-6+15.40
2′TO 6′ SHOULDER STA. 6+15.40-16+69.79

OPTIONAL PAVEMENT DESIGN				
LOCATION	BASE TYPE	HMA DESIGN	PCCP DESIGN	SHOULDERS
I44WB TO I49NB RAMP	6″ TYPE 5 AGGREGATE BASE	11 1/2″ HMA 1 3/4 SP125C W/ PG70-22 OVER 3″ SP250C W/ PG70-22 OVER 6 3/4″ SP250C W/ PG64-22	9″ PCCP 15 FT. JOINT SPACING AND 1 3/4″ DOWELS	A2 OR FULL DEPTH

NOTES:
NOT TO SCALE

SEE MODOT STANDARD PLAN 401.00C
FOR A2 SHOULDER AND SAFETY EDGE

SEE MODOT STANDARD PLAN 626.00H
FOR RUMBLE STRIP

STATIONING BASED ON TMPBSL
ALIGNMENT NOT I49

TYPICAL SECTION SHEET
SHEET 2 OF 2

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	2

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

REMOVAL OF IMPROVEMENTS

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	ITEM	UNIT	TOTAL	REMARKS
4	TMPBSL	4+40.00	12.67' LT	–	–	SIGN	EACH	1	FLASHING YIELD
4	TMPBSL	4+40.58	32.57' RT	–	–	SIGN	EACH	1	FLASHING YIELD
4,5,6	TMPBSL	–	–	–	–	SAWCUT	LF	–	SEE SAWCUT TABLE
4,5,6	TMPBSL	5+45.92	18.12' RT	16+69.80	12.85' RT	PAVEMENT REMOVAL	SY	1193.2	SHOULDER
18	TMPBSL	6+64.43	29.97' RT	6+64.43	29.97' RT	LIGHT	EACH	–	FOUNDATION, POLE, AND LIGHT
24	TMPBSL	12+81.18	19.47' RT	–	–	HEADWALL	EACH	1	CULVERT HEADWALL
							TOTAL	1 LUMP SUM	

PAVEMENT QUANTITIES

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	ASPHALT	CONCRETE	SHOULDER	AGG BASE	PAVEMENT EDGE TREATMENT
						SY	SY	SY	SY	LF
4,5,6	TMPBSL	5+45.92	RT	16+69.80	RT	1185.30	1185.30		1185.30	1123.9
4,5,6	TMPBSL	6+14.99	RT	16+69.80	RT			654.34	654.34	
					TOTAL	1185.30	1185.30	654.34	1839.64	1123.9
					USE	1185.3	1185.3	654.3	1840	1124

1 DELETED

SAWCUT (INCLUDED IN REMOVAL OF IMPROVEMENTS)

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	LF
4	TMPBSL	5+45.92	13.71' RT	5+45.92	18.52' RT	4.81
4	TMPBSL	5+45.92	13.71' RT	5+81.11	12.61' RT	34.56
4, 5	TMPBSL	5+81.11	12.61' RT	8+47.13	2.46' RT	265.00
5, 6	TMPBSL	8+47.13	2.46' RT	16+69.79	2.05' RT	822.66
					TOTAL	1127.03
					USE	1128.00

CONTRACTOR FURNISHED SURVEY AND STAKING

ONE LUMP SUM

MOBILIZATION

ONE LUMP SUM

ADDITIONAL MOBILIZATION FOR SEEDING AND MULCHING

EACH

4

TEMPORARY EROSION CONTROL

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	SILT FENCE	ROCK DITCH CHECK	SEDIMENT REMOVAL	SEEDING – COOL SEASON MIXTURE
						LF	LF	CY	ACRE
15,16,17	TMPBSL	4+39.54	RT	16+69.79	RT				1
15	TMPBSL	4+39.54	RT				10	1	
15	TMPBSL	6+41.81	RT				10	1	
15	TMPBSL	7+91.89	RT				10	1	
16	TMPBSL	9+45.64	RT				10	1	
16	TMPBSL	10+95.64	RT				10	1	
16	TMPBSL	12+45.64	RT				10	1	
16	TMPBSL	12+77.79	RT				10	1	
16,17	TMPBSL	13+07.05	RT	16+85.31	RT	382.2		3.8	
17	TMPBSL	15+74.84	RT				10	1	
17	TMPBSL	15+87.38	RT				10	1	
					TOTAL	382.2	90	12.8	1
					USE	383	90	13	1

HIGHBUILD MARKING PAINT WITH TYPE L BEADS

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	6" YELLOW LF	6" WHITE LF	12" WHITE LF	REMARKS
21, 22	TMPBSL	5+45.92	14.04' RT	8+47.12	14.01' RT		298.8		SOLID
21,22,23	TMPBSL	5+66.97	2.96' LT	16+69.79	2.35' RT		1103.0		DOTTED
22	TMPBSL	8+47.12	14.01' RT	13+69.80	14.56' RT		522.6		SOLID
22,23	TMPBSL	13+69.80	14.56' RT	16+69.79	2.39' RT		300.2		SOLID
ONLY REMOVE CONTRADICTORY PAINT MARKINGS					TOTAL		2224.6		
					USE		2225		

DRAINAGE

SHEET	ALIGNMENT	STATION	OFFSET	STATION	OFFSET	GROUP A 15" PIPE	FLARED END SECTION 15"	CLASS 3 EXCAVATION	ROCK LINING CULVERT OUTLET	PIPE COLLAR
						LF	EA	CY	CY	EACH
5, 24	TMPBSL	12+81.18	20.82' RT	12+81.16	32.82' RT	12	1	15	2	1
					TOTAL	12	1	15	2	1
					USE	12	1	15	2	1

SUMMARY OF QUANTITIES
SHEET 1 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/25/2021
ROUTE I49 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY JASPER
JOB NO. J7I3530
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

LUMINAIRE POLE AND EQUIPMENT

SHEET	POLE NUMBER	ALIGNMENT	STATION	OFFSET	POLE FOUNDATION 45 FT EACH	POLE 45 FT TYPE AT DESIGN 2 EACH	BRACKET ARM 15 FT EACH	LUMINAIRE LED-B EACH	CABLE, #10 AWG 1C POLE AND BRACKET FT	REMARKS
20	1A01	TMPBSL	13+70.15	34.33′ RT	1	1	1	1	120	
				TOTAL	1	1	1	1	120	
				USE	1	1	1	1	120	

CABLE

SHEET	FROM	TO	CENTER TO CENTER FT	WIRE #8 AWG BARE NEUTRAL FT	CABLE CONDUIT #8 AWG FT	TYPE 1 TRENCHING FT	REMARKS
18,19	1	2	500	508	1016	500	
19,20	2	1A01	205	213	426	205	
			TOTAL	721	1442	705	
			USE	730	1450	705	

1 DELETED

537′
226′
763′
770′

1 REVISED

PULLBOXES

SHEET	NUMBER	ALIGNMENT	STATION	OFFSET	PULLBOX CONCRETE EACH	TYPE 1 DRAIN EACH
18	1	TMPBSL	6+64.43	29.97′ RT	1	1
19	2	TMPBSL	11+65.33	29.77′ RT	1	1
				TOTAL	2	2
				USE	2	*

* NO DIRECT PAY

EARTHWORK

ALIGNMENT	UNCLASSIFIED EXCAVATION CY	COMPACTING EMBANKMENT CY	EMBANKMENT IN PLACE CY	COMPACTING IN CUT STA.	REMARKS **
TMPBSL	3798	143	143	11.2	
USE	3798	143	143	11.2	

1 DELETED

** Dispose approximately 3,022 CY of excess excavation on right of way at a location approved by the engineer. There shall be no direct payment for disposal of excess material, including no direct payment for erosion control and seeding of the disposal area.

1 ADDED

SIGN ITEMS

SHEET	SIGN NUMBER	ALIGNMENT	STATION	OFFSET	RELOCATE TO NEW POST EACH	STRUCTURAL STEEL POST LB	2 IN. PSST POST - 12 GA. LF	SH FLAT SHEET SF	POST ANCHOR FOR 2 IN. PSST - 7 GA. LF	ST STRUCTURAL SF	BREAKAWAY ASSEMBLY (PSST) EACH	CONCRETE FOOTINGS EMBEDDED CY	REMARKS
5		TMPBSL	11+19.81	47.47′ RT	1	351				84		0.5	"EXIT 47. CEDAR ROAD 1/2 MILE"
5		TMPBSL	13+06.64	24.41′ RT	1		7	8	3		1	0.2	MILE MARKER
6		TMPBSL	14+82.64	25.66′ RT	1		14	20	6		2	0.3	SPEED LIMIT 70MPH
				TOTAL	3	351	21	28	9	84	3	1	
				USE	3	351	21	28	9	84	3	1	

1 DELETED

1 DELETED

SUMMARY OF QUANTITIES
SHEET 2 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 10/25/2021
ROUTE I49 | STATE MO
DISTRICT SW | SHEET NO. 3
COUNTY JASPER
JOB NO. J7I3530
CONTRACT ID.
PROJECT NO.
BRIDGE NO.

DESCRIPTION | DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

EFFECTIVE: 04-01-2021

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL AREA SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
WARNING SIGNS								
W01-1L	48X48	16.00						TURN (SYMBOL LEFT ARROW)
W01-1R	48X48	16.00						TURN (SYMBOL RIGHT ARROW)
W01-2L	48X48	16.00						CURVE (SYMBOL LEFT ARROW)
W01-2R	48X48	16.00						CURVE (SYMBOL RIGHT ARROW)
W01-3L	48X48	16.00						REVERSE TURN (SYMBOL LEFT ARROW)
W01-3R	48X48	16.00						REVERSE TURN (SYMBOL RIGHT ARROW)
W01-4L	48X48	16.00						REVERSE CURVE (SYMBOL LEFT ARROW)
W01-4R	48X48	16.00						REVERSE CURVE (SYMBOL RIGHT ARROW)
W01-4bL	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
W01-4bR	48X48	16.00						DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
W01-4cL	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)
W01-4cR	48X48	16.00						TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)
W01-6	60X30	12.50						HORIZONTAL ARROW (SYMBOL)
W01-6a	72X36	18.00						HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)
W01-7	60X30	12.50						DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)
W01-7a	72X36	18.00						DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)
W01-8	18X24	3.00						CHEVRON (SYMBOL)
W01-8a	30X36	7.50						CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)
W03-1	48X48	16.00						STOP AHEAD (SYMBOL)
W03-2	48X48	16.00						YIELD AHEAD (SYMBOL)
W03-3	48X48	16.00						SIGNAL AHEAD (SYMBOL)
W03-4	48X48	16.00						BE PREPARED TO STOP
W03-5	48X48	16.00						SPEED LIMIT AHEAD
W04-1L	48X48	16.00						MERGE (SYMBOL FROM LEFT)
W04-1R	48X48	16.00						MERGE (SYMBOL FROM RIGHT)
W04-1aL	48X48	16.00	1	16.00			9	MERGE (ARROW SYMBOL)
W04-1aR	48X48	16.00						MERGE (ARROW SYMBOL)
W04-2R	48X48	16.00	1	16.00			1	LANE ENDS (RIGHT)
W05-3	48X48	16.00						ONE LANE BRIDGE
W05-5	48X48	16.00						NARROW LANES
W06-1	48X48	16.00						DIVIDED HIGHWAY (SYMBOL)
W06-2	48X48	16.00						DIVIDED HIGHWAY END (SYMBOL)
W06-3	48X48	16.00						TWO WAY TRAFFIC (SYMBOL)
W07-3a	30X24	5.00						NEXT XX MILES (PLAQUE)
W08-1	48X48	16.00						BUMP
W08-2	48X48	16.00						DIP
W08-3	48X48	16.00						PAVEMENT ENDS
W08-4	48X48	16.00						SOFT SHOULDER
W08-5	48X48	16.00						SLIPPERY WHEN WET (SYMBOL)
W08-6	48X48	16.00						TRUCK CROSSING (WITH FLAGS)
W08-6c	48X48	16.00						TRUCK ENTRANCE
W08-7	36X36	9.00						LOOSE GRAVEL
W08-7a	36X36	9.00						FRESH OIL/LOOSE GRAVEL
W08-9	48X48	16.00						LOW SHOULDER
W08-11	48X48	16.00						UNEVEN LANES
W08-12	48X48	16.00						NO CENTER LINE
W08-15	48X48	16.00						GROOVED PAVEMENT
W08-15P	30X24	5.00						MOTORCYCLE (PLAQUE)
W08-17	48X48	16.00						SHOULDER DROP-OFF (SYMBOL)
W08-17P	30X24	5.00						SHOULDER DROP-OFF (PLAQUE)
W10-1	42RND.	9.62						RAILROAD CROSSING
W012-1	24X24	4.00						DOUBLE DOWN ARROW (SYMBOL)
W012-2	48X48	16.00						LOW CLEARANCE (SYMBOL)
W012-2X	24X18	3.00						LOW CLEARANCE (PLAQUE)
W012-2a	84X24	14.00						OVERHEAD LOW CLEARANCE (FEET AND INCHES)
W012-4	120X60	50.00						LOW CLEARANCE XX FT XX IN XX MILES AHEAD
W012-5	120X60	50.00						WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD
W013-1	30X30	6.25						ADVISORY SPEED (PLAQUE)
W016-2	30X24	5.00						XXX FEET (PLAQUE)
W016-3	30X24	5.00						X MILE (PLAQUE)
W020-1	48X48	16.00	3	48.00			4	ROAD/BRIDGE/RAMP WORK AHEAD
W020-2	48X48	16.00	1	16.00			18	DETOUR AHEAD
W020-3	48X48	16.00	1	16.00			5	ROAD CLOSED AHEAD
W020-4	48X48	16.00						ONE LANE ROAD AHEAD
W020-5	48X48	16.00	2	32.00			6	RIGHT/CENTER/LEFT LANE CLOSED AHEAD
W020-5a	48X48	16.00						2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD
W020-6a	48X48	16.00	1	16.00			8	RIGHT/CENTER/LEFT LANE CLOSED
W020-7a	48X48	16.00						FLAGGER (SYMBOL, WITH FLAGS)
W021-2	36X36	9.00						FRESH OIL
W021-5	48X48	16.00						SHOULDER WORK AHEAD
W022-1	48X48	16.00						BLASTING ZONE AHEAD
W022-2	42X36	10.50						TURN OFF 2-WAY RADIO AND PHONE
W022-3	42X36	10.50						END BLASTING ZONE
G022-1	21X15	2.19						WET PAINT (ARROW PIVOTS)

SIGN	SIZE IN.	AREA SQ.FT.	QTY EACH	TOTAL SQ.FT.	QTY RELOC EACH	TOTAL RELOC SQ.FT.	SIGN NUM.	DESCRIPTION
GUIDE SIGNS								
E05-1	36X48	12.00	1	12.00			12	GORE EXIT
E05-2	48X36	12.00						EXIT OPEN
E05-2a	48X36	12.00	2	24.00			29	EXIT CLOSED
G020-1	60X24	10.00	1	10.00			14	ROAD WORK NEXT 1 MILES
G020-2	48X24	8.00	2	16.00			13	END ROAD WORK
G020-4	36X18	4.50						PILOT CAR FOLLOW ME
G020-4a	42X30	8.75						PILOT CAR IN USE WAIT & FOLLOW
G020-4a	18X12	1.50						PILOT CAR IN USE WAIT & FOLLOW
G020-5aP	36X24	6.00	2	12.00			10	WORK ZONE (PLAQUE)
M04-8a	24X18	3.00	2	6.00			52	END DETOUR
M04-9L	48X36	12.00						DETOUR (LEFT ARROW)
M04-9R	48X36	12.00						DETOUR (RIGHT ARROW)
M04-9P	48X12	4.00						STREET NAME (PLAQUE)
M04-10L	48X18	6.00						DETOUR (ARROW LEFT)
M04-10R	48X18	6.00						DETOUR (ARROW RIGHT)
REGULATORY SIGNS								
R1-1	48X48	13.25						STOP
R1-2	48TRI.	6.93						YIELD
R1-2a	36X36	9.00						TO ONCOMING TRAFFIC (PLAQUE)
R1-3P	30X12	2.50						ALL WAY (PLAQUE)
R2-1	36X48	12.00	2	24.00				SPEED LIMIT 50
R3-1	48X48	16.00						NO RIGHT TURN (SYMBOL)
R3-2	48X48	16.00						NO LEFT TURN (SYMBOL)
R3-3	36X36	9.00						NO TURNS
R3-4	48X48	16.00						NO U-TURN (SYMBOL)
R3-7L	30X30	6.25						LEFT LANE MUST TURN LEFT
R3-7R	30X30	6.25						RIGHT LANE MUST TURN RIGHT
R4-1	36X48	12.00						DO NOT PASS
R4-2	36X48	12.00						PASS WITH CARE
R4-8a	36X48	12.00						KEEP LEFT (HORIZONTAL ARROW)
R4-7a	36X48	12.00						KEEP RIGHT (HORIZONTAL ARROW)
R5-1	30X30	6.25						DO NOT ENTER
R5-1a	36X24	6.00						WRONG WAY
R6-1L	54X18	6.75						ONE WAY ARROW (LEFT)
R6-1R	54X18	6.75						ONE WAY ARROW (RIGHT)
R6-2L	24X30	5.00						ONE WAY (LEFT)
R6-2R	24X30	5.00						ONE WAY (RIGHT)
R9-9	24X12	2.00						SIDEWALK CLOSED
R9-11L	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW LEFT) CROSS HERE
R9-11R	24X18	3.00						SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE
R10-6	24X36	6.00						STOP HERE ON RED (45° ARROW)
R11-2	48X30	10.00						ROAD CLOSED
R11-3a	60X30	12.50						ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY
R11-4	60X30	12.50						ROAD CLOSED TO THRU TRAFFIC
CONST-3A	60X48	20.00						FINE SIGN
CONST-3X	56X12	4.67						SPEEDING/PASSING (PLATE)
MISCELLANEOUS SIGNS								
CONST-5	48X36	12.00						POINT OF PRESENCE
CONST-5	96X48	32.00	1	32.00			61	POINT OF PRESENCE
CONST-7	48X24	8.00						RATE OUR WORK ZONE
CONST-7	72X36	18.00	1	18.00			14A	RATE OUR WORK ZONE
CONST-8	48X36	12.00	1	12.00			14B	WORK ZONE NO PHONE ZONE
SPECIAL-1	96X84	56.00	1	56.00			49	EXIT 18B CLOSED, USE EXIT 13
SPECIAL-2	24X96	16.00	3	48.00				"CLOSED" PLAQUE
DETOURS	78X36	19.5	13	253.50			VAR	DETOUR DIRECTIONAL SIGNS

616-10.05 CONSTRUCTION SIGNS	TOTAL 684
616-10.10 RELOCATED SIGNS	TOTAL 0

ITEM NUMBER	TOTAL QTY	DESCRIPTION
6122008		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)
6122009		IMPACT ATTENUATOR 45 MPH (SAND BARRELS)
6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)
6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)
6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)
6122017		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)
6122019		IMPACT ATTENUATOR 70 MPH (SAND BARRELS)
6122020		REPLACEMENT SAND BARREL
6122030		IMPACT ATTENUATOR (RELOCATION)
6123000A		TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
6161008	6	ADVANCED WARNING RAIL SYSTEM
6161012		BUOYS (BOATS KEEP OUT)
6161013		BUOYS (NO WAKE)
6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)
6161025	300	CHANNELIZER (TRIM LINE)
6161030	8	TYPE III MOVEABLE BARRICADE
6161033		DIRECTION INDICATOR BARRICADE
6161040	2	FLASHING ARROW PANEL
6161047		TYPE III OBJECT MARKER
6161051		WARNING LIGHT, TYPE A
6161052	16	WARNING LIGHT, TYPE B
6161053		WARNING LIGHT, TYPE C
6161055		SEQUENTIAL FLASHING WARNING LIGHT
6161070		TUBULAR MARKER
6161095		RADAR SPEED ADVISORY SYSTEM
6161096		CHANGEABLE MESSAGE SIGN, COMMISSION FURNISHED/RETAINED
6161098A		CHANGEABLE MESSAGE SIGN W/O COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6161099	6	CHANGEABLE MESSAGE SIGN WITH COMM. INTERFACE, CONTRACTOR FURNISHED/RETAINED
6162000A		WORK ZONE TRAFFIC SIGNAL SYSTEM
6162002	2	TEMPORARY LONG-TERM RUMBLE STRIPS
6162004		TEMPORARY SHORT-TERM RUMBLE STRIPS
6173600D		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/RETAINED
6173602B		TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED
6174000A		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION
6175010A		RELOCATING TEMPORARY TRAFFIC BARRIER
6176000B		TEMPORARY TRAFFIC BARRIER COMMISSION FURNISHED/RETAINED
6177000B		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION COMMISSION FURNISHED/RETAINED
6208064A		TEMPORARY RAISED PAVEMENT MARKER
9029400		TEMPORARY TRAFFIC SIGNALS
9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING

SUMMARY OF QUANTITIES
SHEET 3 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	3

COUNTY: JASPER
JOB NO.: J7I3530
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

I-49 SB

I-49 NB

SIGN

SIGN (R)

SAW CUT JOINT
MATCH TO EXISTING

SAW CUT ALONG
EXISTING JOINT

PT STA. 6+52.02

TMPBSL

UE

STA. 2+70.00

CURVE TMPBSL_3
PI 3+81.94
PC 3+79.33
PT 6+52.02
Δ 45° 49' 27.8" (RT)
D 45° 49' 51.0"
L 272.69'
T 142.61'
R 717.00'

BEGIN PROJECT
STA. 4+39.64

BEGIN FULL DEPTH
PAVEMENT
STA. 5+45.92
OFF. 18.52 RT

BEGIN FULL DEPTH
WITH A2 SHOULDER
STA. 6+14.98
OFF. 20.74 RT

EXISTING LIGHT (R)

STA. 8+42.68

L.O.C.

S. GRAND AVE

SRM

OE

NOTES:
ANY WORK INDICATED ON THE PLANS THAT EXTEND BEYOND PROJECT LIMITS IS CONSIDERED INCIDENTAL TO AND A PART OF THE CONSTRUCTION OF THIS PROJECT.

ALL BEARINGS BASED ON STATE PLAN BEARINGS CENTRAL OR WESTERN ZONE.

SCALE
0 20 40 60

1 DELETED

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
10/25/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	4

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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PLAN SHEET
SHEET 1 OF 3

UT UT UT UT UT UT UT UT UT

I-49 SB

I-49 NB

TMPBSL TMPBSL

STA. 8+18.00

STA. 13+77.00

RELOCATE SIGN ON NEW POST

L.O.C.

L.O.C.

L.O.C.

REMOVE AND REPLACE ON NEW POSTS STA. 11+19.81 OFF. 47.47 RT

15" GROUP A PIPE STA. 12+80.56 OFF. 20.82 RT

STA. 12+80.56
SEE CULVERT SECTION SHEET FOR PIPE DETAILS

RELOCATED SIGN STA. 13+06.64 OFF. 24.41 RT

EDGE OF PAVEMENT STA. 13+69.80 OFF. 14.23 RT

EDGE OF SHOULDER STA. 13+69.92 OFF. 20.23 RT

S. GRAND AVE

SCALE

0 20 40 60

PLAN SHEET
SHEET 2 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	5

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
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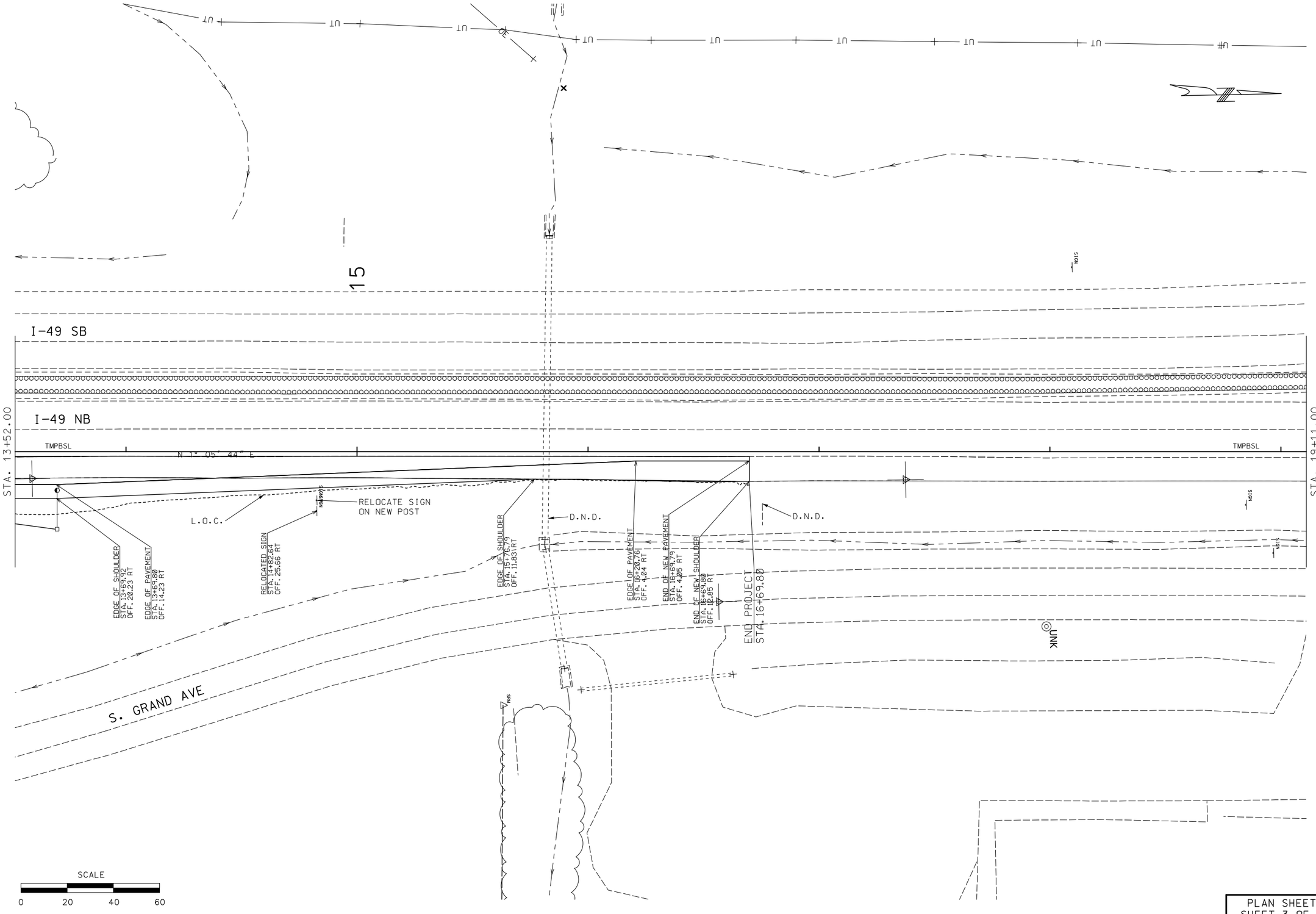

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	
8/9/2021	
ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	6
COUNTY	
JASPER	
JOB NO.	
J7I3530	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
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COORDINATE POINT LISTING

SHEET NO	STATION	LOCATION	OFFSET (USFT)	MODIFIED STATE PLANE (GROUND) NORTHING (US SURVEY FT)	EASTING (US SURVEY FT)	ELEVATION (US SURVEY FT)	DESCRIPTION	GPK POINT ID
PROJECT CONTROL POINTS								
plansheet 1	10+19.54	TMPBSL	65.12' RT	334,867.726	2,843,843.695	1,069.623	5/8 ROD W/ ALUMINUM CAP	503
–	–	–		336,345.669	2,843,912.268	1,071.387	5/8 ROD W/ ALUMINUM CAP	504
–	–	–		333,441.763	2,841,097.455	1,095.036	5/8 ROD W/ ALUMINUM CAP	505
ALIGNMENTS								
–	0+00.00	℄ CON ALIGN	0	333,927.3391	2,844,034.2780	–	BEGIN TMPBSL CHAIN	TMPBSL1
–	0+79.33	℄ CON ALIGN	0	333,983.7552	2,843,978.5105	–	PC CURVE TMPBSL_3	
–	3+81.94	℄ CON ALIGN	0	334,190.9652	2,843,765.7740	–	PI CURVE TMPBSL_3	
5	6+52.02	℄ CON ALIGN	0	334,501.5183	2,843,771.5599	–	PT CURVE TMPBSL_3	
–	22+25.92	℄ CON ALIGN	0	336,075.1295	2,843,801.6489	–	END TMPBSL CHAIN	TMPBSL5
–	220+55.22	℄ I-49	0	336,075.3136	2,843,794.4841	–		POINT 7
–	245+01.26	℄ I-49	0	333,630.4430	2,843,718.9404	–		POINT 8
–	245+51.26	℄ I-49	0	333,580.4660	2,843,717.3961	–		POINT 9
–	11+14.46	℄ RAMP	0	333,934.7431	2,844,041.9165	–		RMPB1
	11+88.00	℄ RAMP	0	333,987.4710	2,843,990.6487	–	PC CURVE RMPB_3	
	14+92.00	℄ RAMP	0	334,205.4280	2,843,778.7268	–	PI CURVE RMPB_3	
	17+63.04	℄ RAMP	0	334,509.2832	2,843,788.1156	–	PT CURVE RMPB_3	

ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE.

PROJECT COORDINATE INFORMATION

COORDINATE SYSTEM	MISSOURI WEST ZONE
HORIZONTAL DATUM	US STATE PLANE NAVD83
VERTICAL DATUM	NAVD88
GEOID MODEL	NGS 12B
ELEVATIONS DETERMINED BY	88 DATAM
PROJECT PROJECTION FACTOR	1.00010631

REFERENCE CONTROL INFORMATION

COORDINATE SYSTEM	NAD83 (2011) EPOCH 2010.00 SPC MO W
CONTROL STATION	MODOT VRS
DESIGNATION	MODOT CARTHAGE CORS ARP
CORS_ID	MOCA
PID	DL6014
LATITUDE	37 10 39.16612
LONGITUDE	94 21 27.24307
NORTHING (M)	112181.729 (m)
EASTING (M)	862647.874 (m)
ZONE	MISSOURI WEST
PROJECT AVERAGE GRID FACTOR	0.999893701

EXAMPLE OF PROJECT COORDINATE TO S.P.C.

PROJECT NORTHING X AVERAGE GRID FACTOR
= STATE PLANE NORTHING
PROJECT EASTING X AVERAGE GRID FACTOR
= STATE PLANE EASTING

EXAMPLE: CONTROL POINT #503
N 334867.726 X 0.999893701 = N 334832.130
E 2843843.695 X 0.999893701 = E 2843541.397

LINEAR UNIT CONVERSION

1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT SHEET
SHEET 1 OF 1

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED: 8/9/2021
ROUTE: I49 | STATE: MO
DISTRICT: SW | SHEET NO.: 7
COUNTY: JASPER
JOB NO.: J7I3530
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

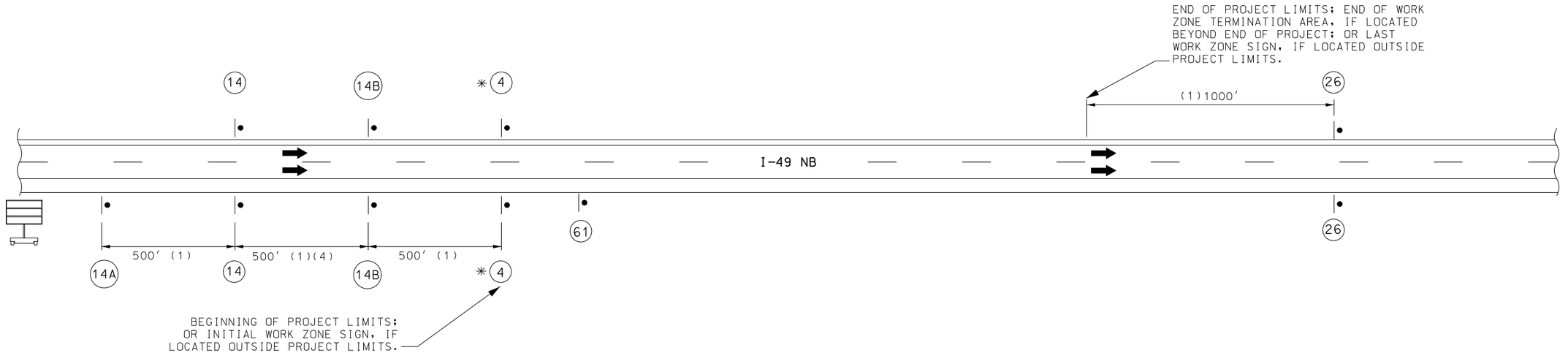
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

GENERAL NOTES:

1. ANY EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.
2. TEMPORARY SIGNING SHOWN IS FOR WORK ON ONE SIDE OF THE ROAD. FOR WORK ON THE OTHER SIDE, REVERSE ORDER OF THE SIGNS AND CHANNELIZERS.
3. SIGNING SHOWN SHALL REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETE.
4. ALTERNATE TRAFFIC CONTROL MAY BE USED AS NEEDED AT THE APPROVAL OF THE ENGINEER.
5. REFER TO STANDARD DRAWING 616.10, 619.10, AND 620.10 FOR ADDITIONAL DETAILS AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
6. SPEED LIMIT SIGNS INDICATING THE NORMAL SPEED LIMIT SHALL BE INSTALLED AT THE END OF THE WORK ZONE, PROVIDED NO FURTHER WORK ZONES WILL BE ENCOUNTERED WITHIN THE NEXT 1/2 MILE.
7. TEMPORARY SPEED LIMIT SIGNS SHALL BE COVERED OR REMOVED WHEN THE CONDITIONS REQUIRING REDUCED SPEEDS DO NOT EXIST.
8. NO DIRECT PAYMENT WILL BE MADE FOR THE RELOCATION OF CHANNELIZERS, CONSTRUCTION SIGNS, OR FLASHING ARROW PANEL.
9. ALL SIGNS, EXCEPT "RATE OUR WORK ZONES" SHALL BE PORTABLE MOUNT AND ARE TO BE MOVED AS WORK PROGRESSES, UNLESS OTHERWISE NOTED. ALL TRAFFIC CONTROL ITEMS SHALL BE REMOVED FROM THE ROADWAY DURING NON-WORKING HOURS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING PROPER TRAFFIC CONTROL SETUPS THROUGHOUT CONSTRUCTION AS DESCRIBED IN THESE PLANS OR AS APPROVED BY THE ENGINEER.
11. WHERE MINIMUM LANE WIDTHS CANNOT BE ACHIEVED ON THE SIDE STREETS, THE CONTRACTOR SHALL CLOSE HALF OF THE APPROACH AND POSITION A FLAGGER AT EACH END OF THE WORK AREA. LOCATION TO BE DETERMINED BY THE ENGINEER. ADVANCE FLAGGER SIGNING SHALL BE INSTALLED AS OUTLINED IN THE MUTCD.
12. THE CONTRACTOR SHALL MAINTAIN PUBLIC ACCESS TO ALL BUSINESSES AND STREETS. NO STREET OR ENTRANCE SHALL BE COMPLETELY BLOCKED.
13. SPACING & DISTANCES OF TRAFFIC CONTROL DEVICES ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD & APPROVED BY THE ENGINEER.
14. TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



(1) DISTANCE MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

(2) SIGN CONST-7-72 IS PLACED 500 FEET BEFORE THE BEGINNING OF PROJECT LIMITS OR THE ROAD WORK AHEAD SIGN OR ROAD WORK NEXT XX MILES SIGN OR WORK ZONE NO PONE ZONE SIGN, IF USED, WHEN THESE SIGNS ARE LOCATED OUTSIDE THE PROJECT LIMITS.

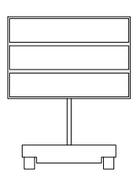
(3) CONST-5-96 SIGN IS PLACED IN A VISIBLE AREA WITHIN THE PROJECT LIMITS PROVIDED ITS PLACEMENT DOES NOT DISRUPT A SEQUENCE OF SIGNS. IF A VISIBLE LOCATION WITHIN THE PROJECT IS NOT AVAILABLE, THE SIGN MAY BE PLACED 500 FEET BEFORE SIGN CONST-7-72.

(4) THE "WORK ZONE NO PHONE ZONE" SIGN IS PLACED A MINIMUM OF 500 FEET BEFORE THE ROAD WORK AHEAD SIGN.

(5) CMS PLACEMENT SHALL BE APPROVED BY THE ENGINEER.

TYPICAL BEGINNING AND END OF PROJECT

(DIVIDED HIGHWAY)

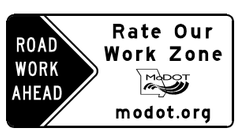


CMS (5)



CONST-8-48 (4)

14B



CONST-7-72 (2)

14A



GO20-1

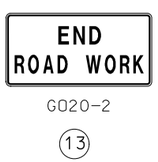
14



WO20-1

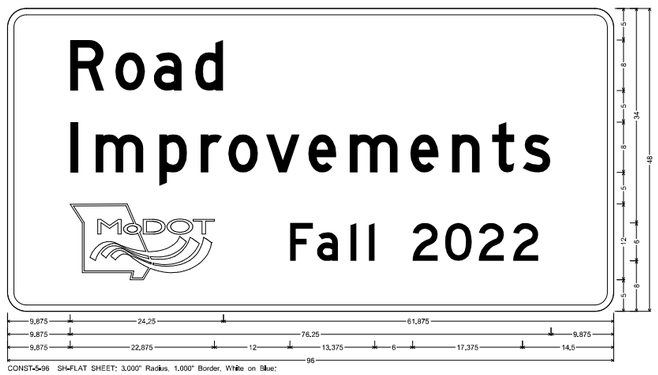
4 *

* SIGN 4 WITH AWRS MUST BE GROUND OR SKID MOUNTED.



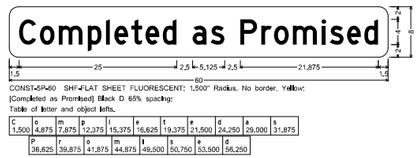
GO20-2

13



CONST-5-96

61 (3)



NOT TO SCALE

TRAFFIC CONTROL
SHEET 1 OF 7

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	8

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

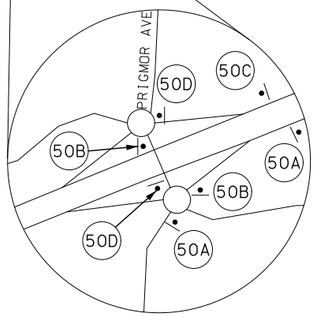
BRIDGE NO.

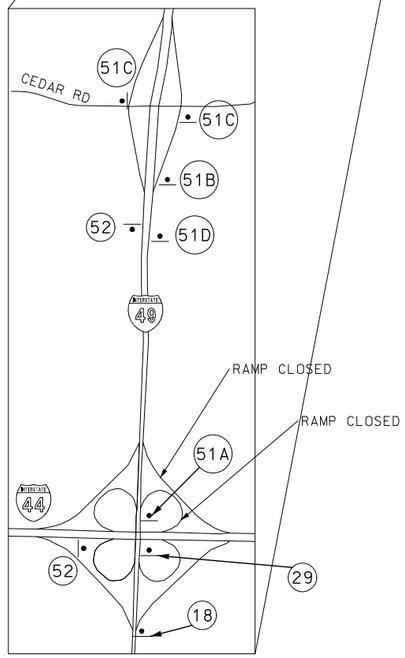
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)









W020-2

(18)



E05-2a

(29)



M04-8a

(52)

(49)



SPECIAL SHF-FLAT SHEET FLUORESCENT;
6.000" Radius, 1.000" Border, Black on, Orange;
Interstate 49 12.000" C; "EXIT 18 B", E Mod; "CLOSED", E Mod; "USE EXIT 13", E Mod;
"PRIGMOR AVE", E Mod;
Table of letter and object lefts

6.000	E 36.000	X 43.625	I 52.125	T 55.375	I 69.375	8 73.750	B 83.625
6.000	C 39.875	L 47.875	O 55.500	S 63.750	E 72.250	D 79.750	
1.000							
U 10.500	S 19.000	E 27.375	E 41.250	X 48.875	I 57.500	T 60.750	I 74.625	3 79.125
P 6.000	R 14.500	I 22.875	G 26.500	M 35.000	O 44.375	R 53.125	A 66.500	V 75.000	E 84.000

NOTES:
NOT-TO-SCALE
SEE TRAFFIC CONTROL SHEET 3
FOR DETOUR SIGN LEGEND

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	9

COUNTY: JASPER
JOB NO.: J7I3530
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

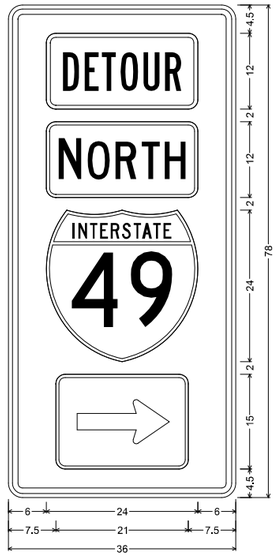
TO BE WORKED WITH TRAFFIC CONTROL SHEET 2



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 49 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

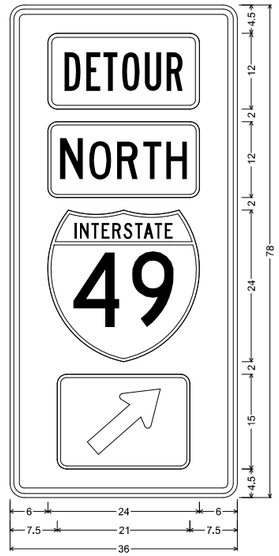
50A



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 49 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

50B



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 49 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

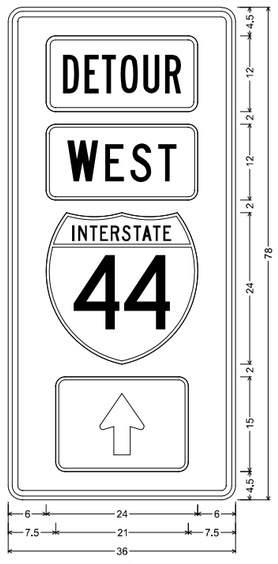
50C



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 49 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6,000
	7.500

50D



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 44 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

51A



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 44 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

51B



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 44 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

51C



MO4-11-36 SHF-FLAT SHEET FLUORESCENT;
2.250" Radius, 0.875" Border, 0.625" Indent, Black on, Orange;
Interstate 44 12.000" C;
Table of letter and object lefts

	6.000
	6.000
	6.000
	7.500

51D

TRAFFIC CONTROL SHEET
SHEET 3 OF 7

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	10

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

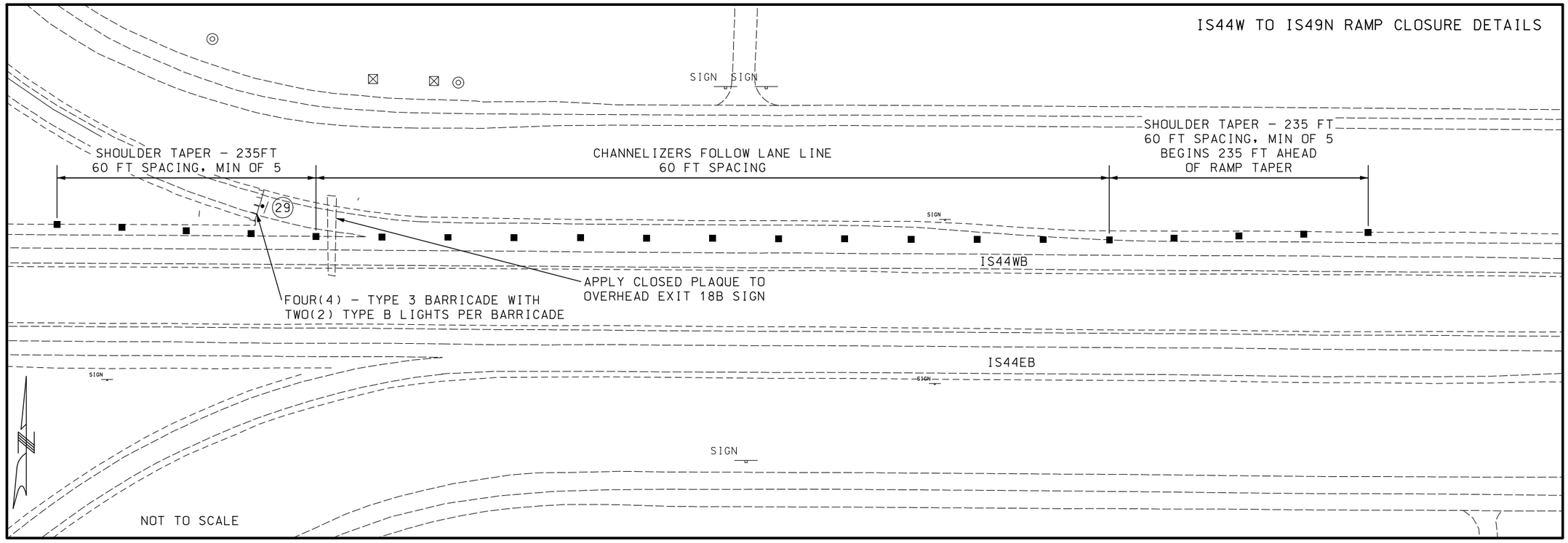
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

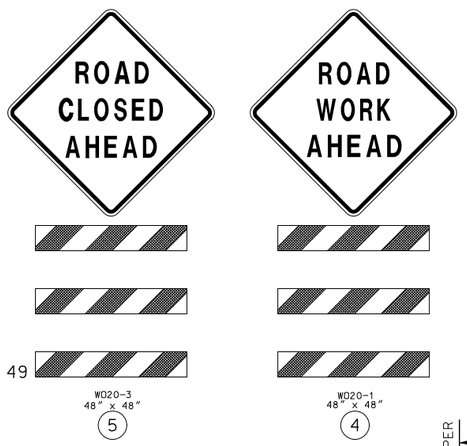
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

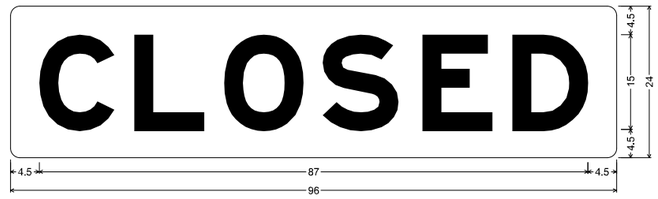
IS44W TO IS49N RAMP CLOSURE DETAILS







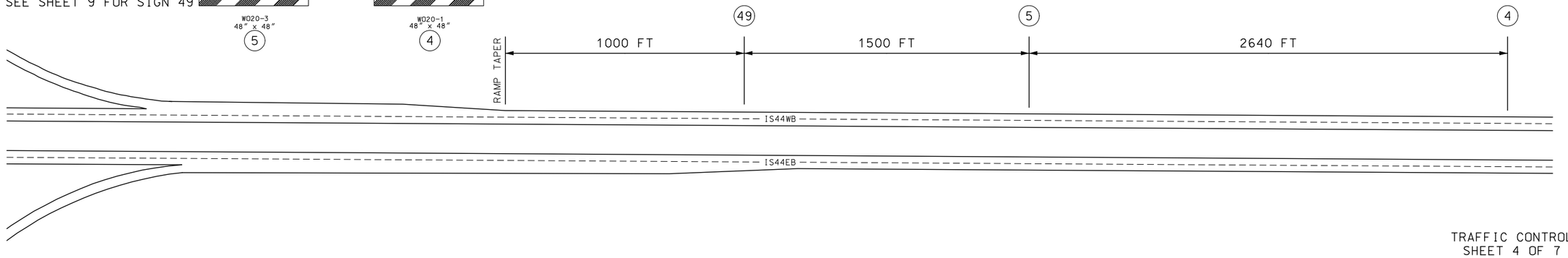




SPECIAL SHF-FLAT SHEET FLUORESCENT;
1,500" Radius, No border, Orange;
"CLOSED" Black, E Mod;
Table of letter and object lefts

C	L	O	S	E	D
4.500	19.625	33.875	49.500	65.250	79.500

NOTES:
NOT TO SCALE
SEE SHEET 9 FOR SIGN 49



STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

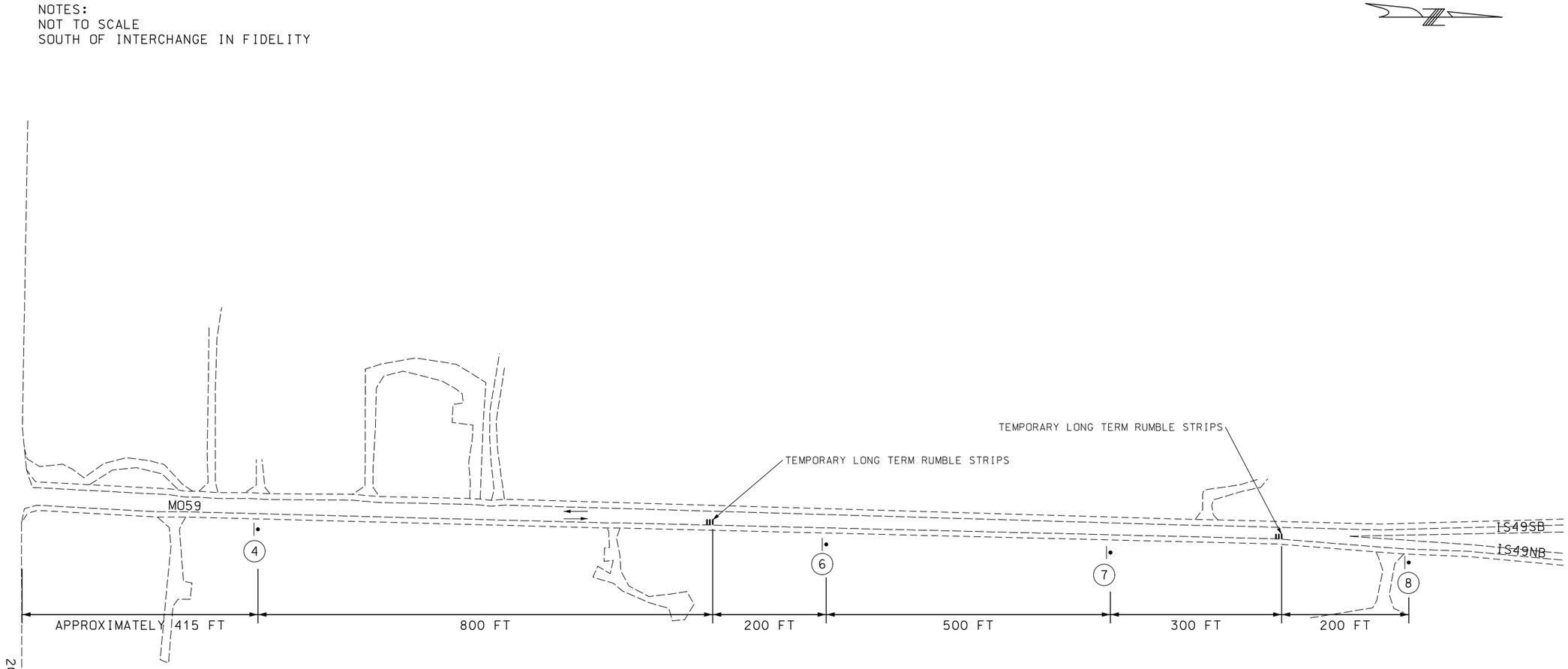
DATE PREPARED: 8/9/2021
ROUTE: I49 | STATE: MO
DISTRICT: SW | SHEET NO.: 11
COUNTY: JASPER
JOB NO.: J7I3530
CONTRACT ID.:
PROJECT NO.:
BRIDGE NO.:

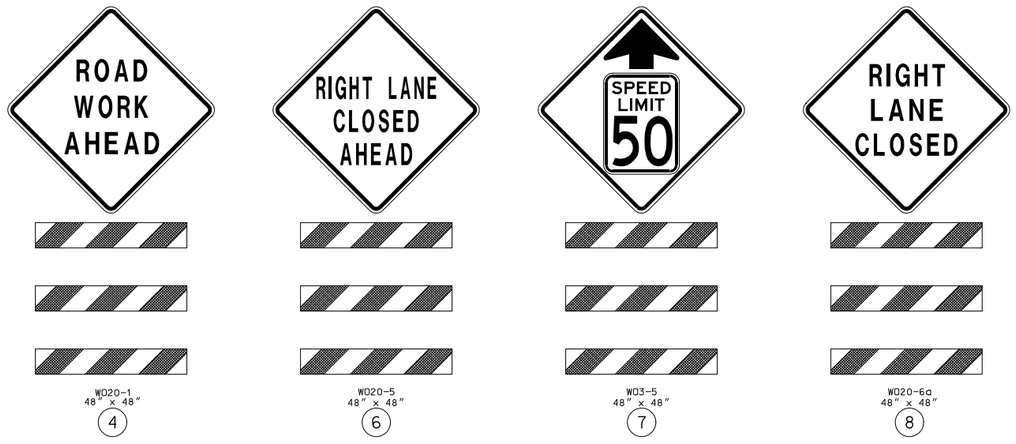
DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

NOTES:
NOT TO SCALE
SOUTH OF INTERCHANGE IN FIDELITY





TRAFFIC CONTROL
SHEET 5 OF 7

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO

DISTRICT	SHEET NO.
SW	12

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

NOTES:
NOT TO SCALE
SIGNS 4, 6, AND 9 ARE SPACED 300 FT APART BASED ON SIGN 9 WHICH IS 300 FT FROM THE FLASHING ARROW SIGN AT THE END OF THE 840 FT LANE TAPER DETAILED ON SHEET 14.





TRAFFIC CONTROL
SHEET 6 OF 7

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
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IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

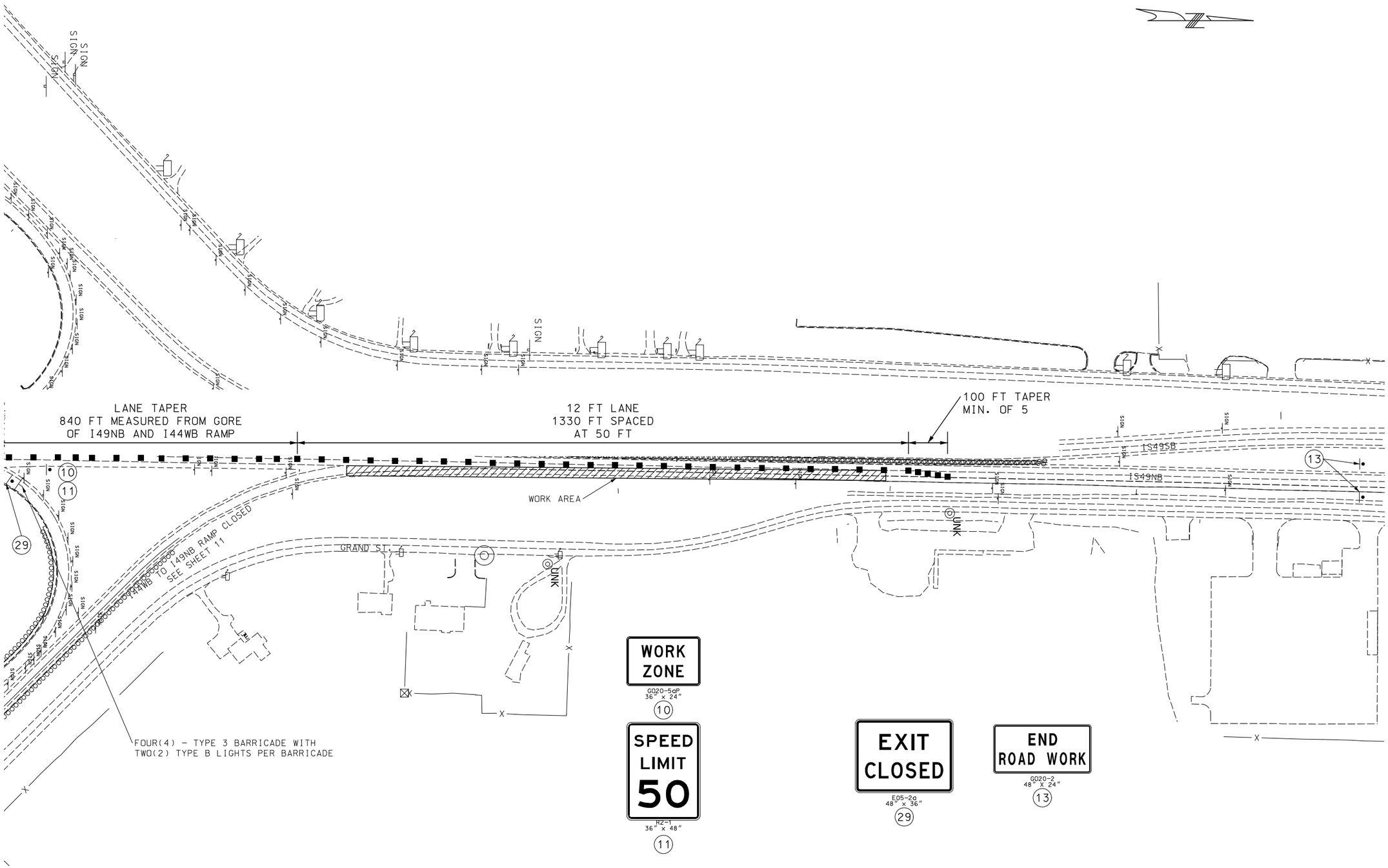
DATE PREPARED	
8/9/2021	
ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	13
COUNTY	
JASPER	
JOB NO.	
J7I3530	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

NOTES:
NOT TO SCALE
SIGN 13 PLACED 1000 FT BEYOND FINAL CHANNELIZER



TRAFFIC CONTROL
SHEET 7 OF 7

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	14

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

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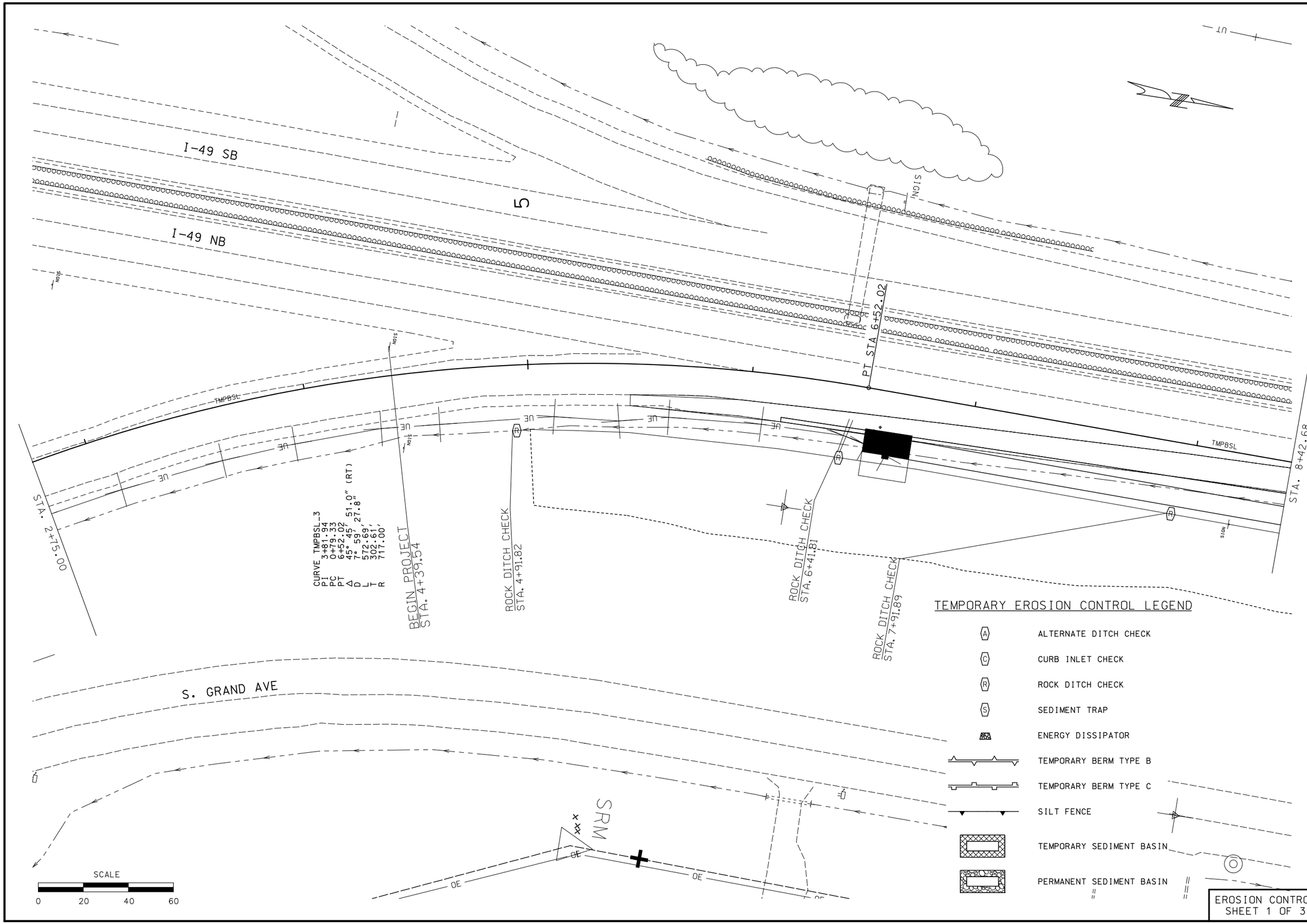
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



TEMPORARY EROSION CONTROL LEGEND

- (A) ALTERNATE DITCH CHECK
- (C) CURB INLET CHECK
- (R) ROCK DITCH CHECK
- (S) SEDIMENT TRAP
- ENERGY DISSIPATOR
- TEMPORARY BERM TYPE B
- TEMPORARY BERM TYPE C
- SILT FENCE
- TEMPORARY SEDIMENT BASIN
- PERMANENT SEDIMENT BASIN

EROSION CONTROL
SHEET 1 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

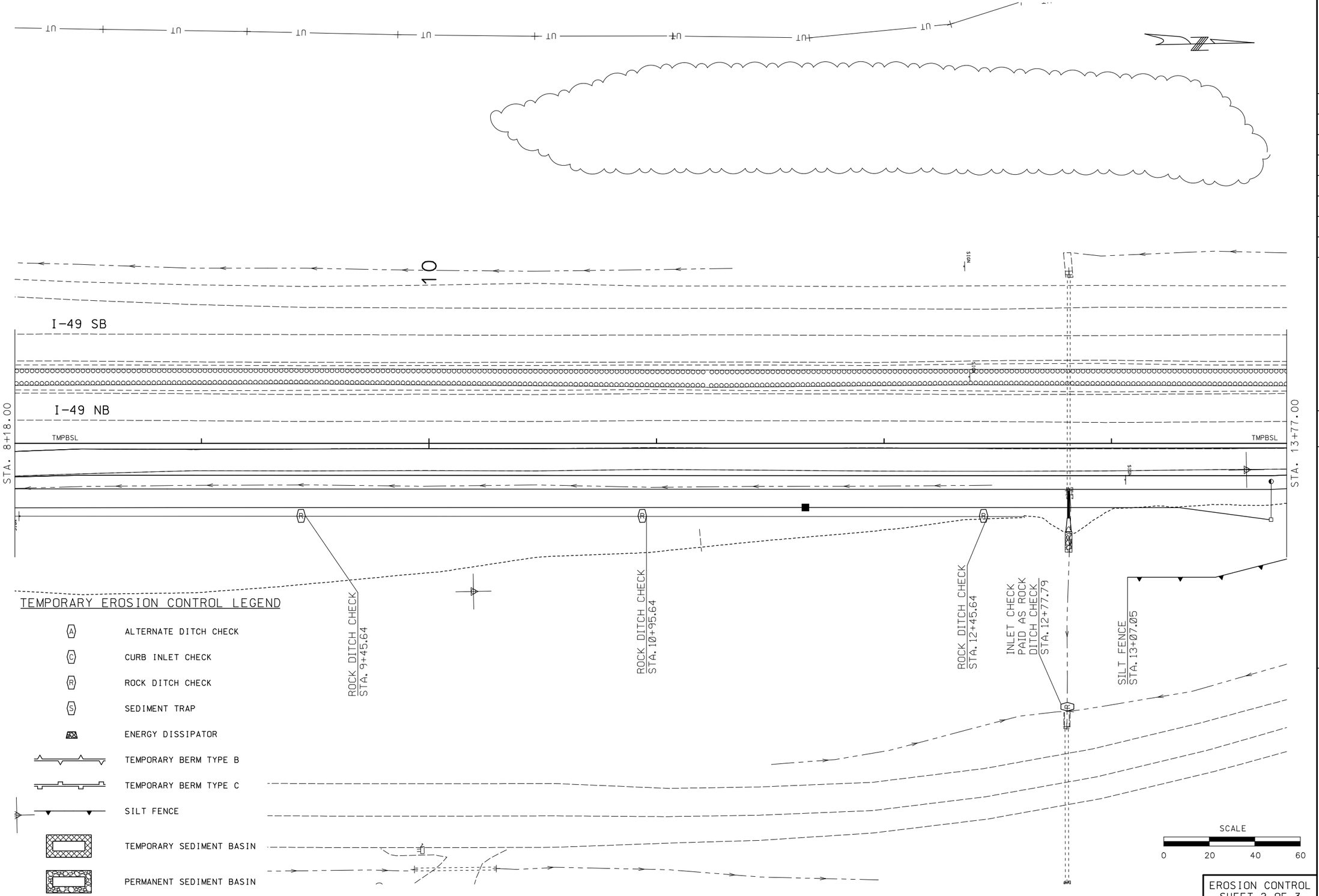
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 8/9/2021	
ROUTE I49	STATE MO
DISTRICT SW	SHEET NO. 15
COUNTY JASPER	
JOB NO. J7I3530	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
MoDOT
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	16

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

EROSION CONTROL
SHEET 2 OF 3

I-49 SB

I-49 NB

STA. 13+52.00

STA. 19+11.00

TMPBSL

TMPBSL

N 1° 05' 44" E

15

S. GRAND AVE

UNK

INLET CHECK PAID AS ROCK DITCH CHECK STA. 15+74.84

INLET CHECK PAID AS ROCK DITCH CHECK STA. 15+87.38

END PROJECT STA. 16+69.80

SILT FENCE STA. 16+85.31

TEMPORARY EROSION CONTROL LEGEND

- (A) ALTERNATE DITCH CHECK
- (C) CURB INLET CHECK
- (R) ROCK DITCH CHECK
- (S) SEDIMENT TRAP
- ENERGY DISSIPATOR
- TEMPORARY BERM TYPE B
- TEMPORARY BERM TYPE C
- SILT FENCE
- TEMPORARY SEDIMENT BASIN
- PERMANENT SEDIMENT BASIN

SCALE

0 20 40 60

EROSION CONTROL
SHEET 3 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	17

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

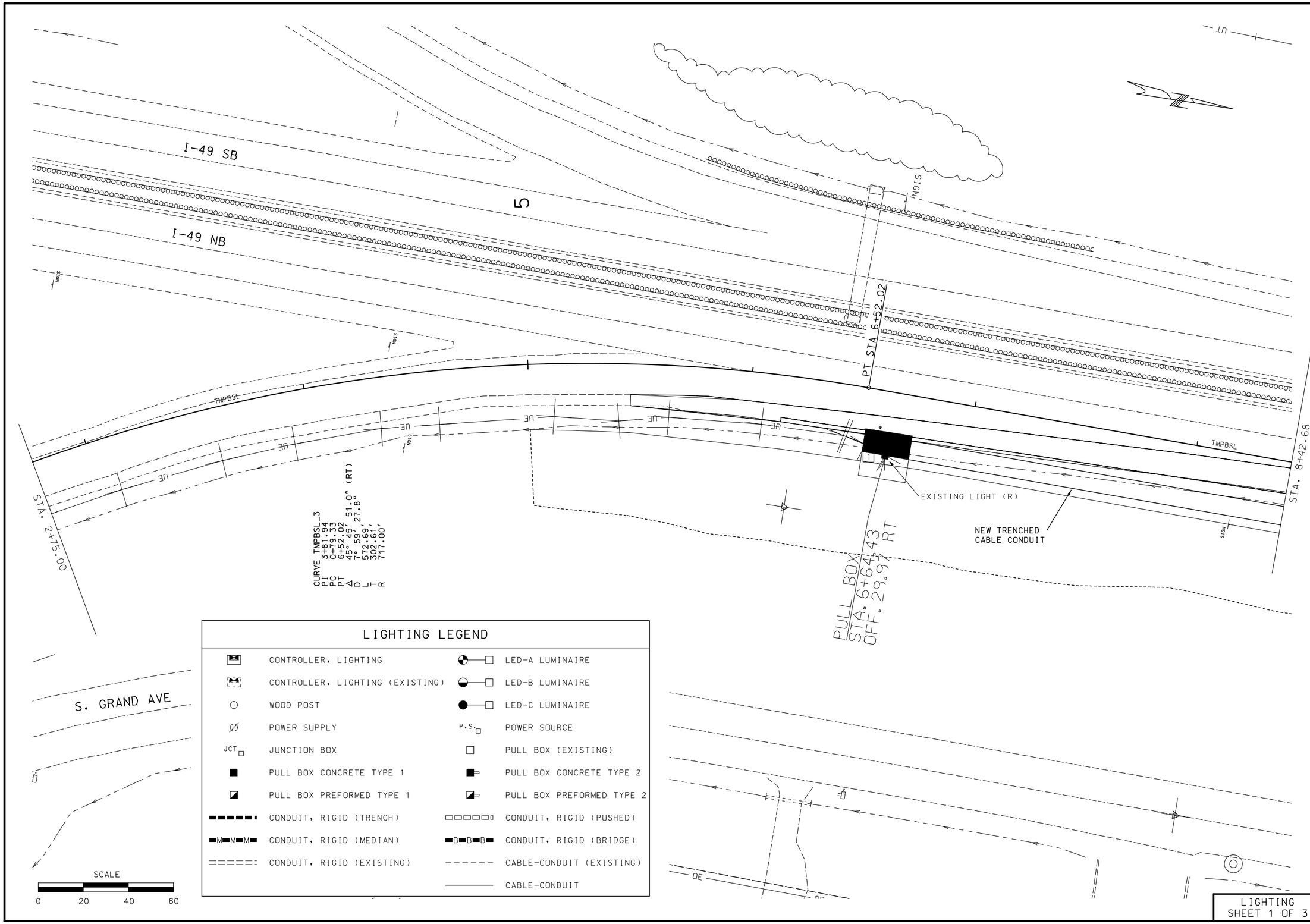
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



LIGHTING LEGEND

	CONTROLLER, LIGHTING		LED-A LUMINAIRE
	CONTROLLER, LIGHTING (EXISTING)		LED-B LUMINAIRE
	WOOD POST		LED-C LUMINAIRE
	POWER SUPPLY	P.S.	POWER SOURCE
JCT	JUNCTION BOX		PULL BOX (EXISTING)
	PULL BOX CONCRETE TYPE 1		PULL BOX CONCRETE TYPE 2
	PULL BOX PREFORMED TYPE 1		PULL BOX PREFORMED TYPE 2
	CONDUIT, RIGID (TRENCH)		CONDUIT, RIGID (PUSHED)
M M M	CONDUIT, RIGID (MEDIAN)	B B B	CONDUIT, RIGID (BRIDGE)
	CONDUIT, RIGID (EXISTING)		CABLE-CONDUIT (EXISTING)
			CABLE-CONDUIT

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED 8/9/2021	
ROUTE I49	STATE MO
DISTRICT SW	SHEET NO. 18
COUNTY JASPER	
JOB NO. J7I3530	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

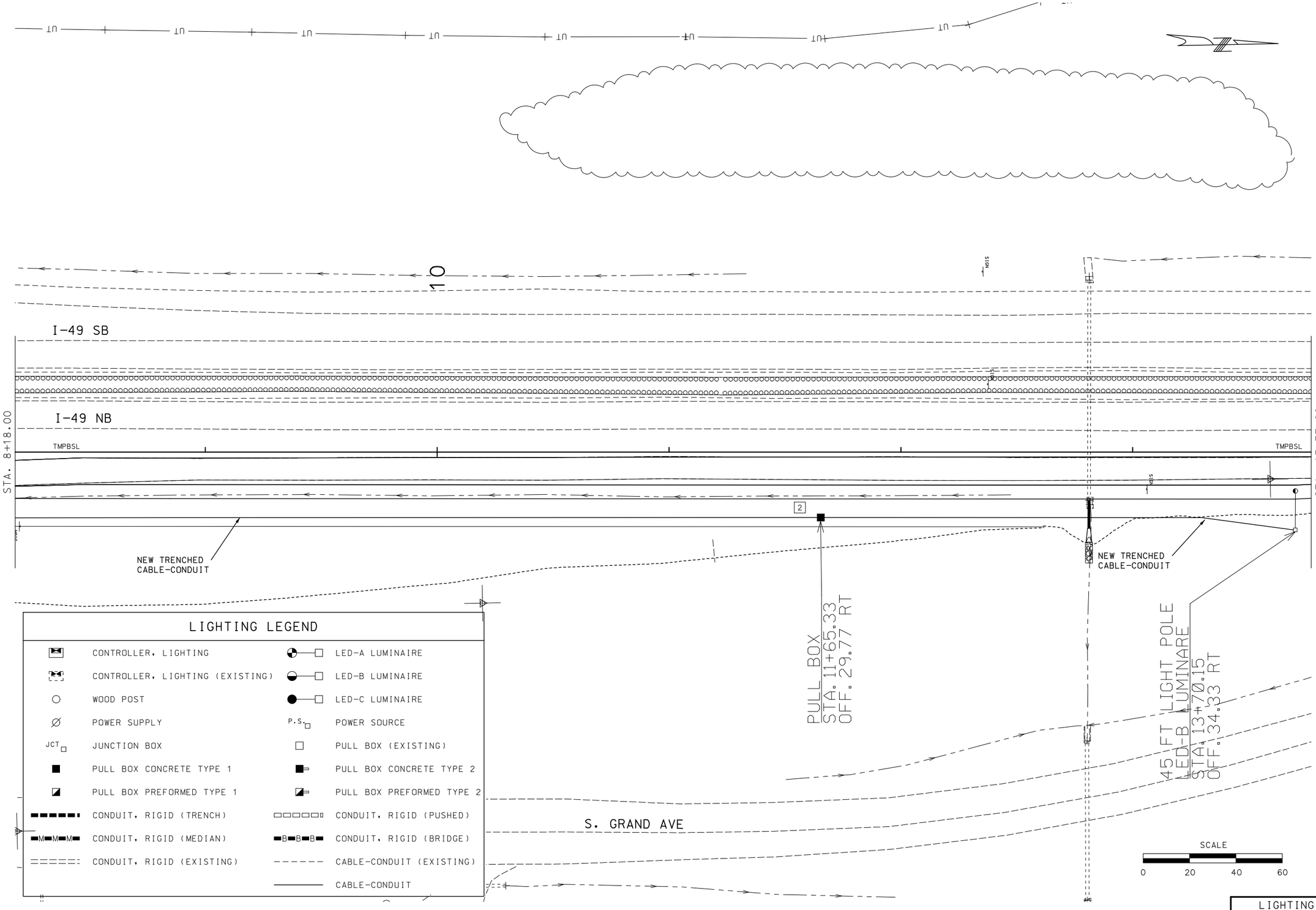
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

MoDOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

LIGHTING
SHEET 1 OF 3



STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	19

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

LIGHTING
SHEET 2 OF 3

45 FT LIGHT POLE
LED-B LUMINARE
STA. 13+70.15
OFF. 34.33 RT

I-49 SB

I-49 NB

STA. 13+52.00

STA. 19+11.00

TMPBSL

TMPBSL

N 1° 05' 44" E

S. GRAND AVE

UNK

SCALE
0 20 40 60

LIGHTING LEGEND

	CONTROLLER, LIGHTING		LED-A LUMINAIRE
	CONTROLLER, LIGHTING (EXISTING)		LED-B LUMINAIRE
	WOOD POST		LED-C LUMINAIRE
	POWER SUPPLY	P.S.	POWER SOURCE
JCT	JUNCTION BOX		PULL BOX (EXISTING)
	PULL BOX CONCRETE TYPE 1		PULL BOX CONCRETE TYPE 2
	PULL BOX PREFORMED TYPE 1		PULL BOX PREFORMED TYPE 2
	CONDUIT, RIGID (TRENCH)		CONDUIT, RIGID (PUSHED)
M	CONDUIT, RIGID (MEDIAN)	B	CONDUIT, RIGID (BRIDGE)
	CONDUIT, RIGID (EXISTING)		CABLE-CONDUIT (EXISTING)
			CABLE-CONDUIT

LIGHTING
SHEET 3 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED	8/9/2021
ROUTE	I49
STATE	MO
DISTRICT	SW
SHEET NO.	20
COUNTY	JASPER
JOB NO.	J7I3530
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

I-49 SB

I-49 NB

S. GRAND AVE

TMPBSL

UE

SIGN

PT STA. 6+52.02

STA. 2+75.00

STA. 8+42.68

CURVE TMPBSL_3
PI 3+81.94
PC 3+79.33
PT 6+52.02
Δ 45°45'51.0" (RT)
D 7° 59'27.8"
L 572.69'
T 302.61'
R 717.00'

BEGIN PROJECT
STA. 5+45.92

6" SOLID WHITE LINE
STA. 5+45.92
OFF. 14.04 RT

6" DOTTED WHITE LINE
STA. 5+66.97
OFF. 2.96 LT

SRMS

OE

SCALE
0 20 40 60

PAVEMENT MARKING
SHEET 1 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
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DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	21

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

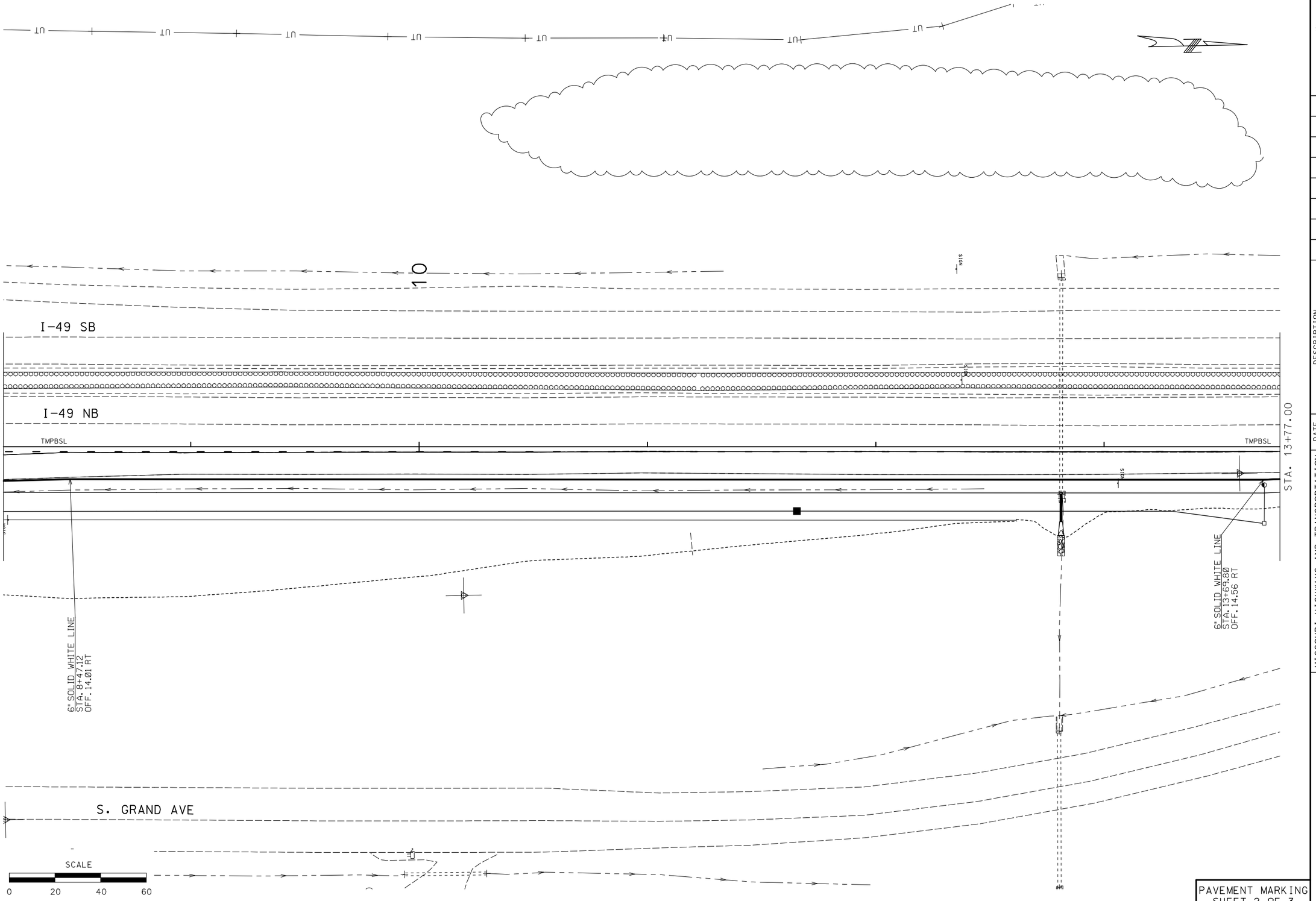
BRIDGE NO.

DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



PAVEMENT MARKING
SHEET 2 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	22

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

I-49 SB

I-49 NB

STA. 13+52.00

STA. 19+11.00

TMPBSL

TMPBSL

N 1° 05' 44" E

15

S. GRAND AVE

6" SOLID WHITE LINE
STA. 13+69.80
OFF. 14.56 RT

6" SOLID WHITE LINE
MATCH TO EXISTING
STA. 16+69.79
OFF. 2.39 RT

6" DOTTED WHITE LINE
STA. 16+69.79
OFF. 2.35 RT

UNK

SCALE

0 20 40 60

PAVEMENT MARKING
SHEET 3 OF 3

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	23

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

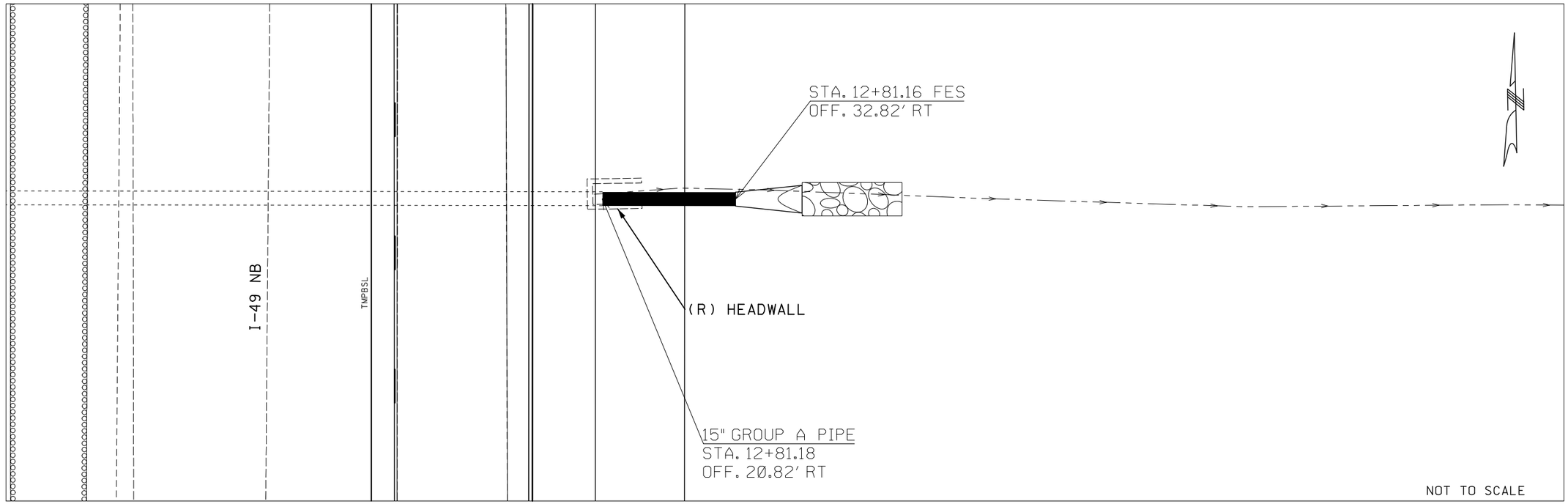
BRIDGE NO.

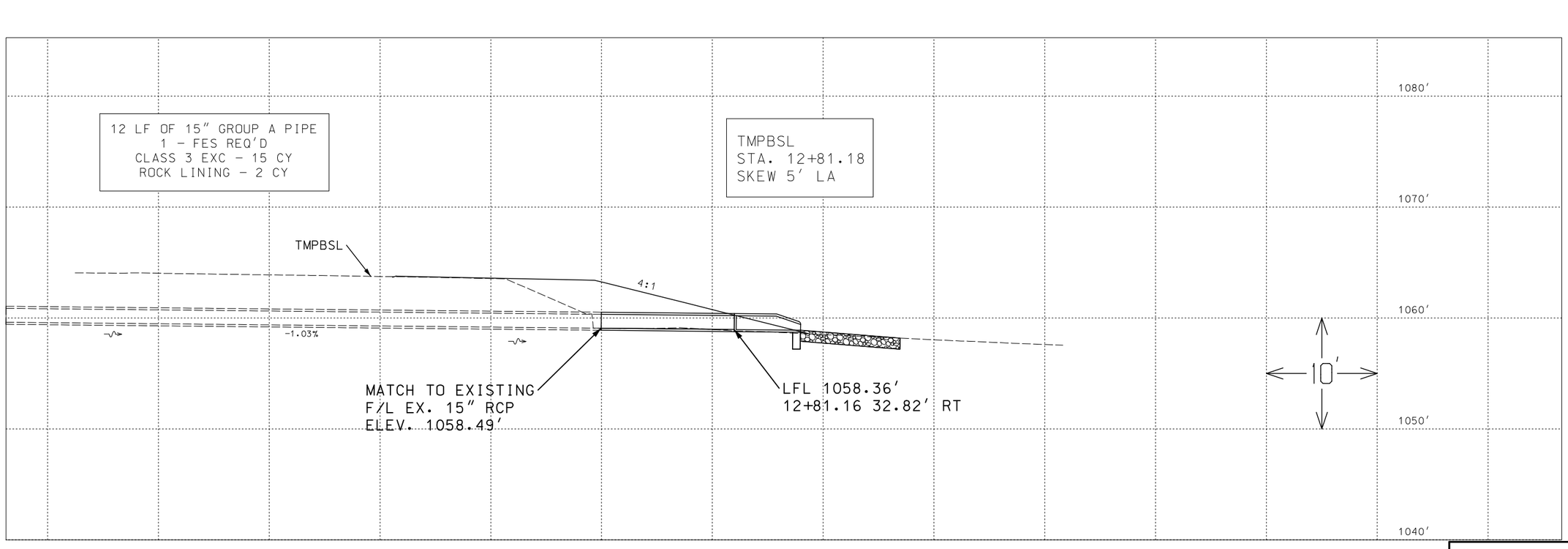
DATE	DESCRIPTION

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)





CULVERT SHEET
SHEET 01 OF 01

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

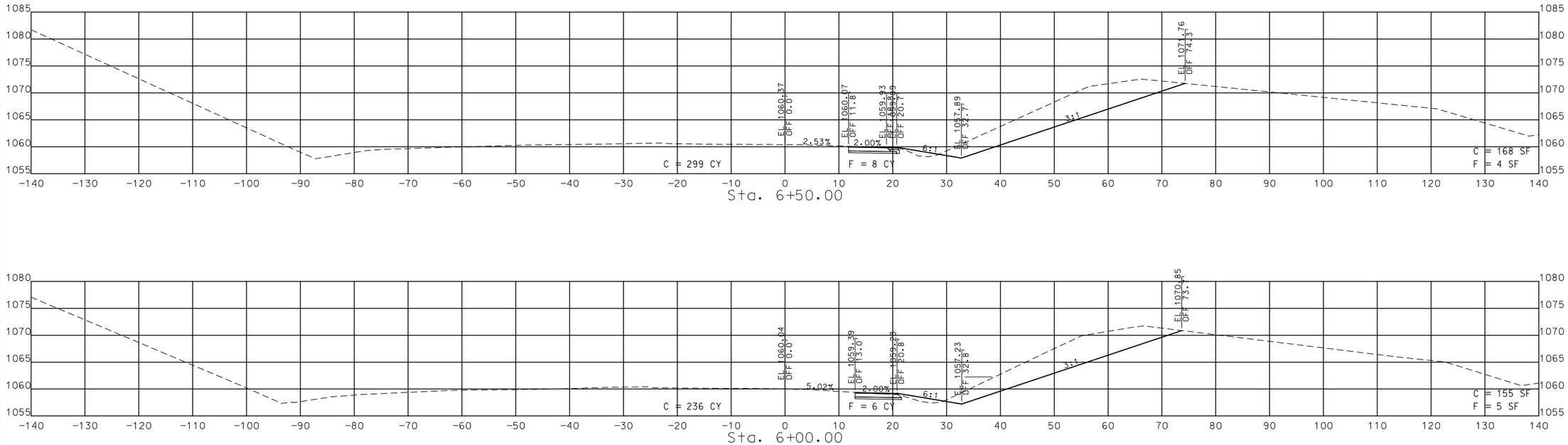
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

DATE PREPARED	
8/9/2021	
ROUTE	STATE
I-49	MO
DISTRICT	SHEET NO.
SW	24
COUNTY	
JASPER	
JOB NO.	
J7I3530	
CONTRACT ID.	
PROJECT NO.	
BRIDGE NO.	

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)



STA. 5+00.00 TO STA. 6+50.00

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	25

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

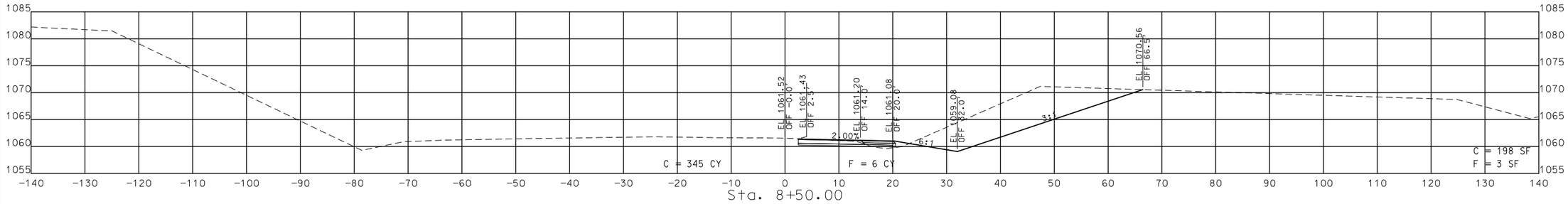
DESCRIPTION	DATE

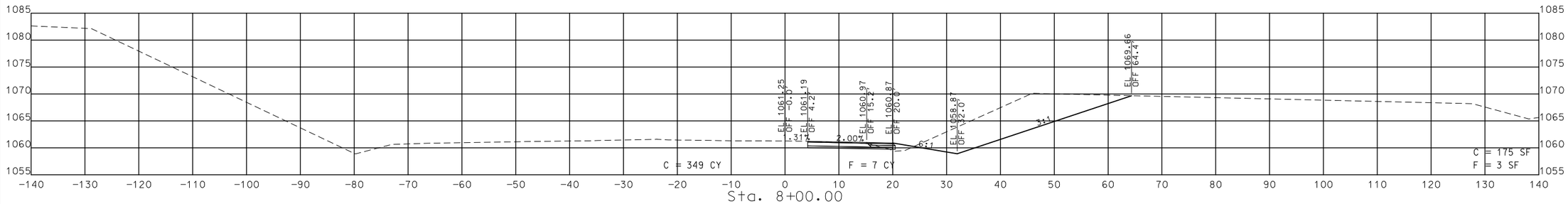
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

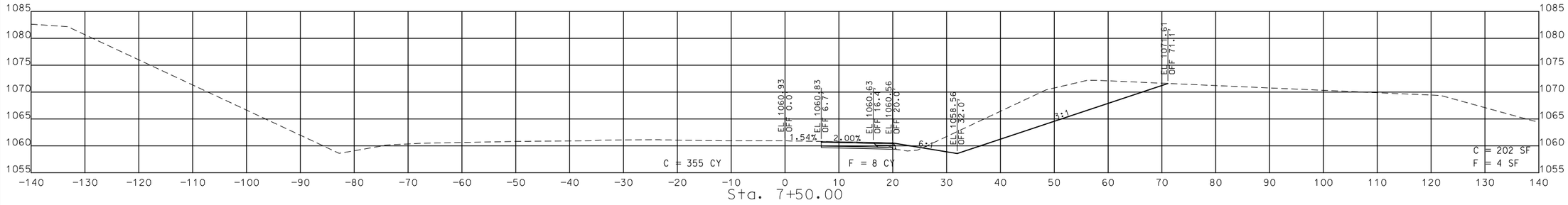
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

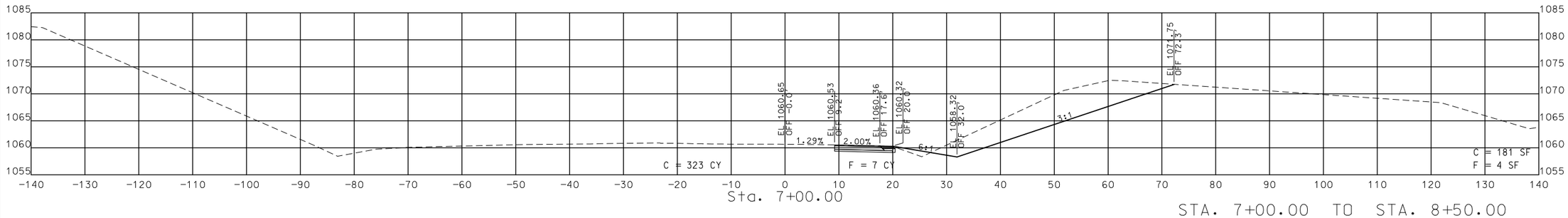
SHEET 1 OF 6

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.









STA. 7+00.00 TO STA. 8+50.00

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	26

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

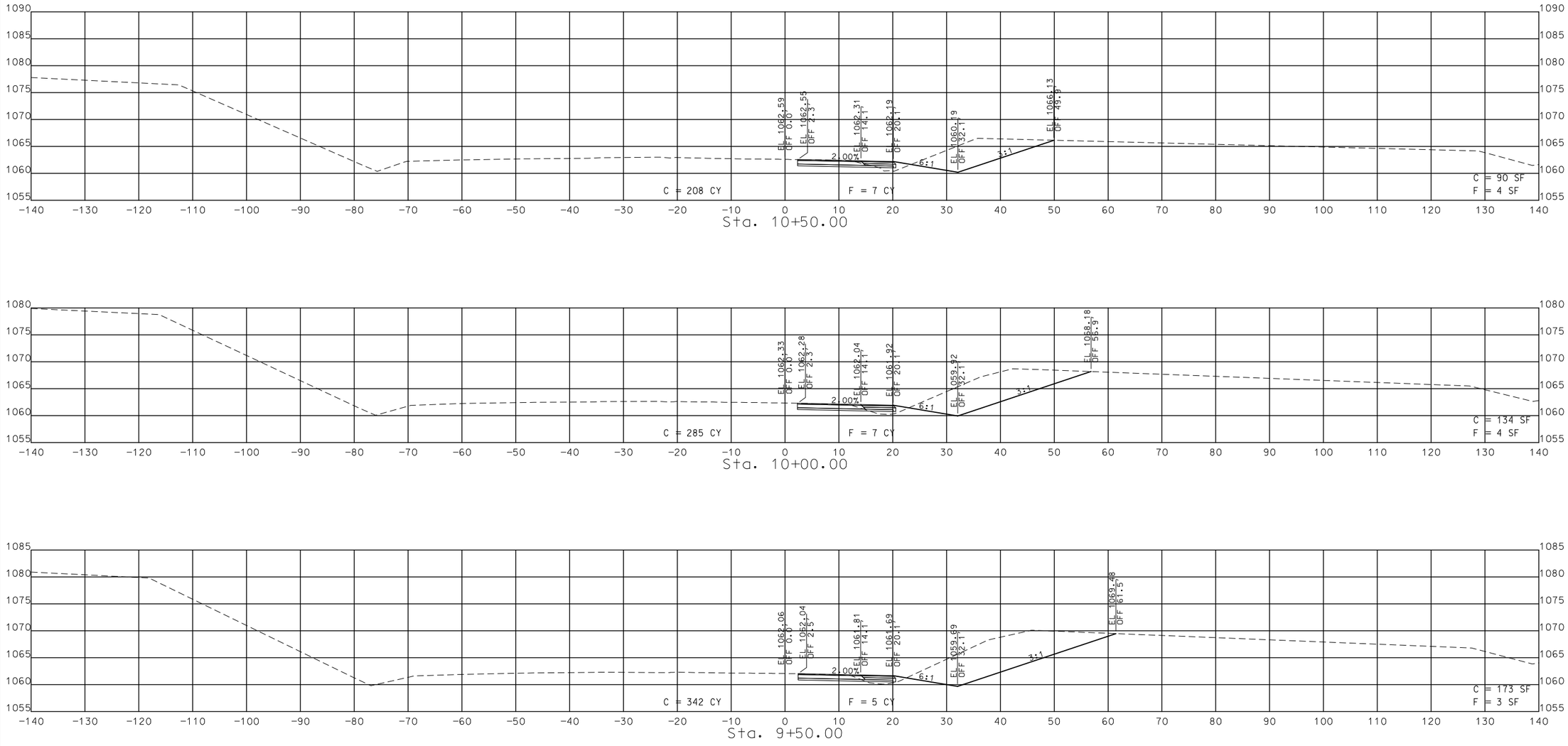
BRIDGE NO.

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SHEET 2 OF 6

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



STA. 9+00.00 TO STA. 10+50.00

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

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DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	27

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

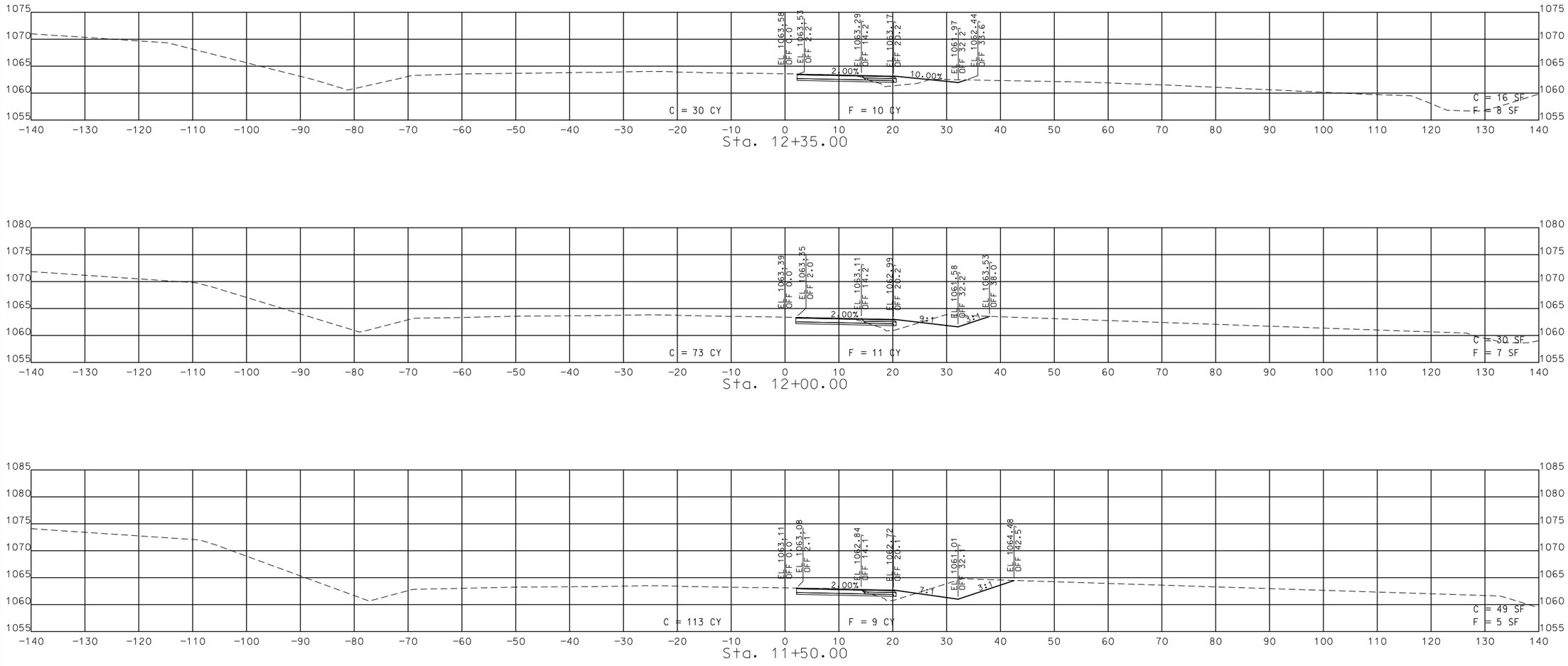
DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SHEET 3 OF 6

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



STA. 11+00.00 TO STA. 12+35.00

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	28

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

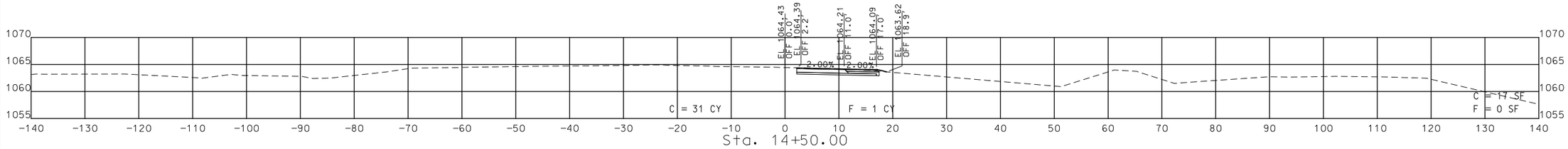
DESCRIPTION	DATE

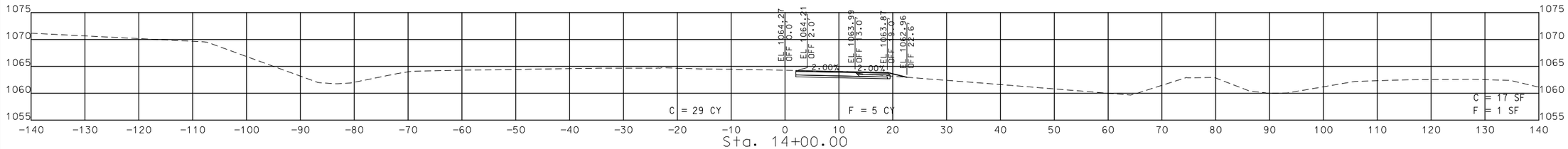
MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

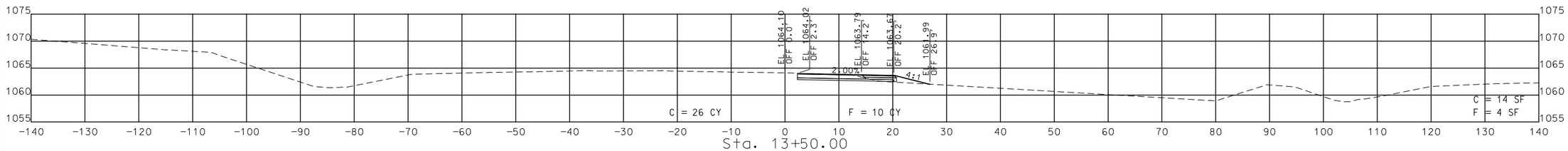
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

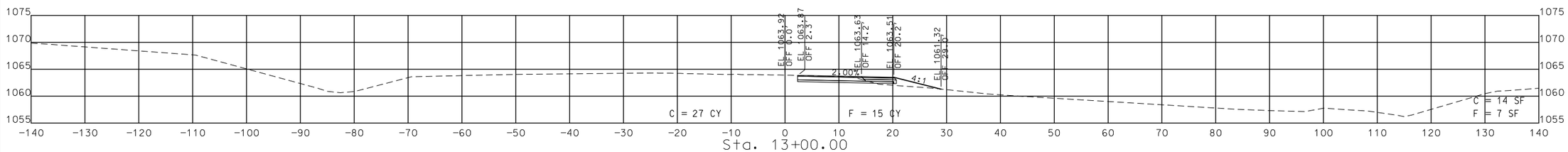
SHEET 4 OF 6

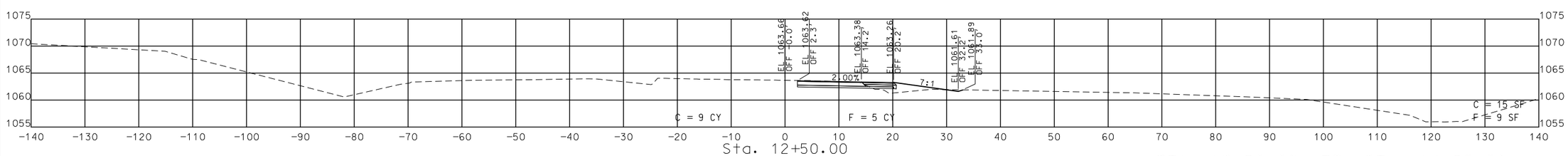
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.











STA. 12+50.00 TO STA. 14+50.00

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	29

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DESCRIPTION

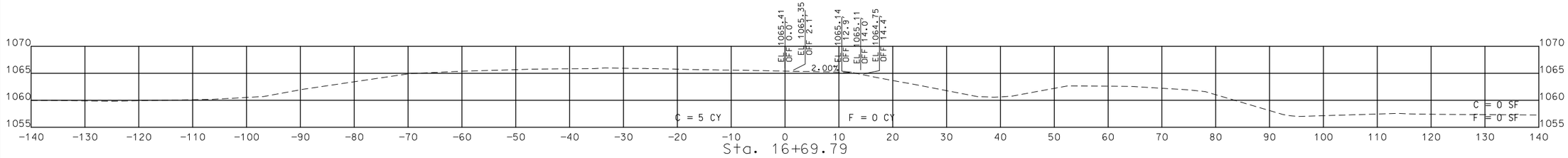
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

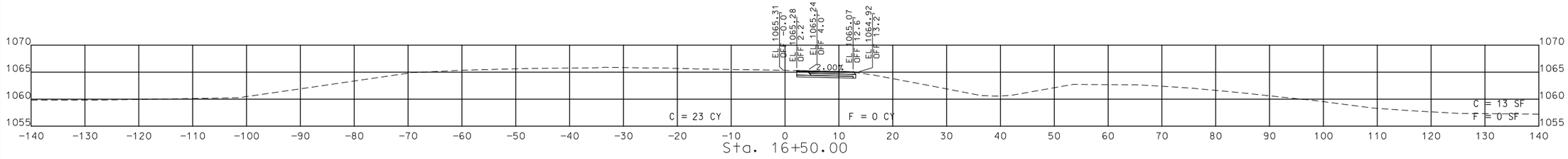
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SHEET 5 OF 6

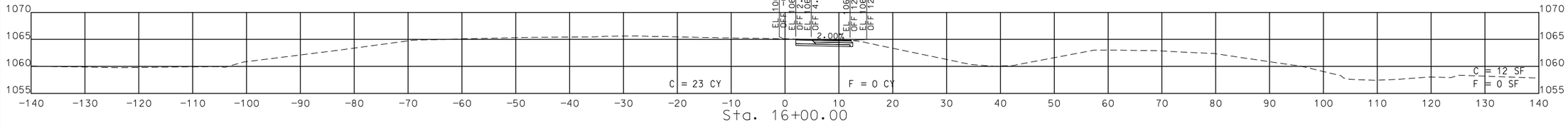
IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



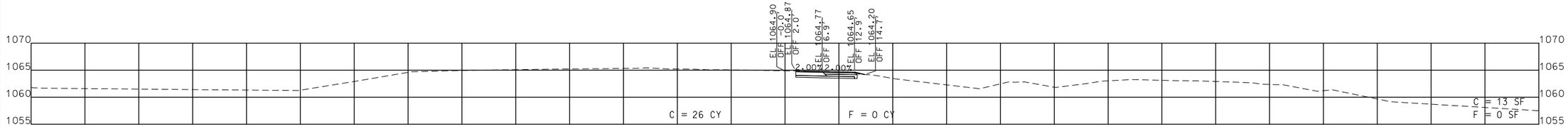
Sta. 16+69.79



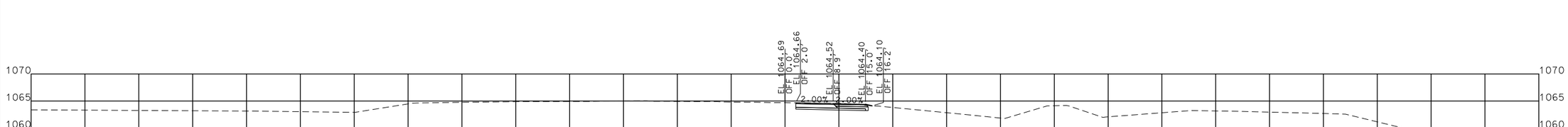
Sta. 16+50.00



Sta. 16+00.00



Sta. 15+50.00



Sta. 15+00.00

STA. 15+00.00 TO STA. 16+69.79

STATE OF MISSOURI
CRAIG ALAN SWITZER
NUMBER PE-2003015045
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

DATE PREPARED
8/9/2021

ROUTE	STATE
I49	MO
DISTRICT	SHEET NO.
SW	30

COUNTY
JASPER

JOB NO.
J7I3530

CONTRACT ID.

PROJECT NO.

BRIDGE NO.

DATE	DESCRIPTION

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

SHEET 6 OF 6

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.