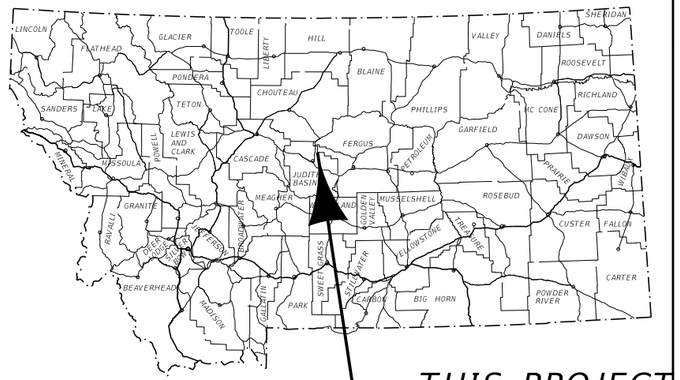
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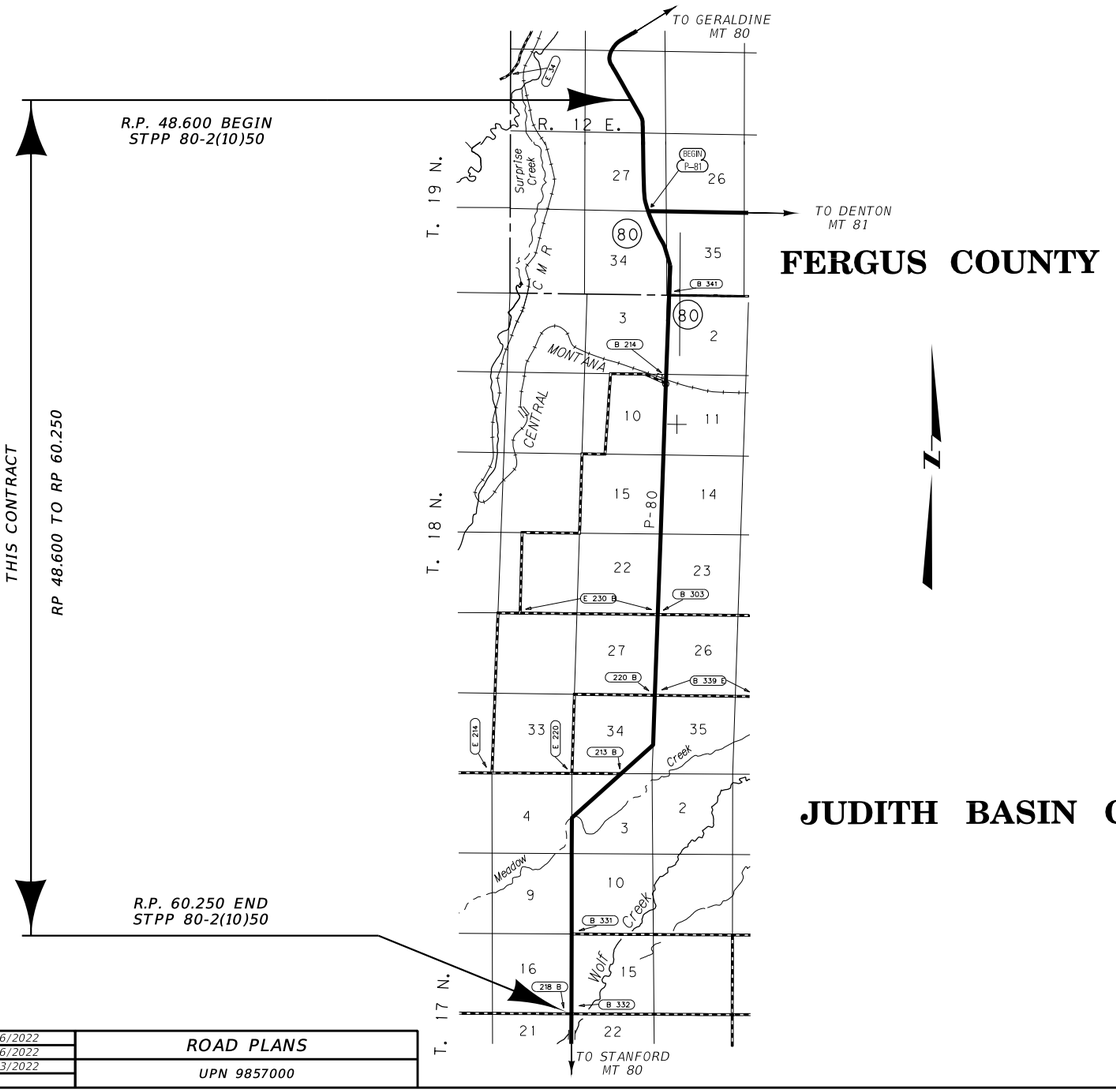
MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT STPP 80-2(10)50
OVERLAY, SEAL & COVER, DIGOUTS
JCT MT-81 - SOUTH (MT-80)
JUDITH BASIN AND FERGUS COUNTIES

PROJECT DESIGN DATA		
PRESENT	2020	A.D.T. = 260
LETTING	2022	A.D.T. = 260
DESIGN	2042	A.D.T. = 320
		D.H.V. = 40
		TRUCKS = 28.4 %
		V. = 60 MPH
		18 KIP ESAL'S = 43 DAILY
		GROWTH RATE = 1.0 % ANNUALLY

LENGTH 11.650 MILES

SURFACING SOURCES – CONTRACTOR FURNISHED



3	MONTANA Department of Transportation	C:\DGN\9857000rdtl001.dgn	DESIGNED BY	S. BAKER & J. GOTSCHALL	4/26/2022	ROAD PLANS
2		1/29/2025	REVIEWED BY	K. SHUCK & C. HOPKINS	4/26/2022	
		4:04:12 PM CPS - U6120	CHECKED BY	J. FLEMING	6/23/2022	UPN 9857000

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NOTES

BASIS OF PLAN QUANTITIES

(QUANTITIES FOR ESTIMATING PURPOSES ONLY)

COMP. AGGREGATE WEIGHT	= 3625 LBS. PER CUBIC YARD
COMP. WEIGHT OF PL. MIX BIT. SURF.	= 4167 LBS. PER CUBIC YARD
ASPHALT BINDER - GRADE S - 3/4" AGG.	= 5.4% OF PL.MIX BIT.SURF.
HYDRATED LIME	= 1.4% OF PL.MIX BIT.SURF.
BITUMINOUS MATERIAL	= 8.5 LBS. PER GAL.
EMULSIFIED ASPHALT - TACK (ALL OTHER SURFACES)	= 0.05 GAL. PER SQ.YARD (UNDILUTED)
SEAL	= 0.42 GAL. PER SQ.YARD
COVER	= 25 LBS. PER SQ.YARD

WETLANDS

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE PROJECT LIMITS. A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR THIS PROJECT. IMPACTS TO WETLAND AREAS ARE NOT ANTICIPATED IN ASSOCIATION WITH THE PROPOSED WORK. NO PERMITS HAVE BEEN OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED FOR UTILITIES ARE FROM EXISTING GROUND LINE.

AS-BUILTS

FOR HORIZONTAL ALIGNMENT LAYOUT, REFER TO THE FOLLOWING "AS-BUILT" PROJECT(S):
S-307(7) Unit 1 & Unit 2 (Reconstruction - 1953)

RAILROAD WORK

WORK RELATED TO THE MONTANA CENTRAL RAILROAD CROSSING AT RP 51.957 WILL BE PERFOMED BY OTHERS.

APPROACHES (FOR INFORMATION ONLY)

RP	TYPE	linear feet: WIDTH*	linear feet: RADIUS # NORTH	linear feet: RADIUS # SOUTH	linear feet: LENGTH FROM EDGE OF PAVEMENT **	SURFACE AREA (sq. foot) ##	EXISTING SURFACING	PROPOSED SURFACE	feet: PLANT MIX DEPTH	tons: PLANT MIX SURF.	gals.: EMULSIFIED ASPHALT TACK	REMARKS
48.562	FIELD	24	25	25	12	437	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
48.562	FIELD	24	25	25	12	440	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	RT.
48.749	FIELD	12	25	25	12	295	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	RT.
48.755	FIELD	40	40	40	12	690	GRAVEL	12' PLANT MIX STRIP	0.20	11	4	LT.
49.288	FIELD	12	25	25	12	295	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	RT.
49.288	FIELD	12	25	25	12	295	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	LT.
49.571	FIELD	12	25	25	12	295	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	LT.
49.649	PRIVATE	12	40	5	48	1,016	GRAVEL	PLANT MIX TO R/W	0.20	16	6	LT.
49.657	PRIVATE	24	20	25	48	1,880	GRAVEL	PLANT MIX TO R/W	0.20	29	10	LT.
49.787	FIELD	63	20	35	12	384	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	RT.
49.792	PUBLIC	148	80	45	48	2,865	GRAVEL	PLANT MIX TO R/W	0.20	44	16	MT HWY 81 - LT.
50.022	PRIVATE	12	25	25	12	366	GRAVEL	PLANT MIX TO R/W	0.20	6	2	LT.
50.171	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	RT.
50.172	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
50.334	FIELD	105	10	NONE	12	1,938	GRAVEL	12' PLANT MIX STRIP	0.20	30	11	LT.
50.387	FIELD	24	25	25	12	512	GRAVEL	12' PLANT MIX STRIP	0.20	8	3	RT.
50.387	FIELD	24	25	25	12	436	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
50.728	FIELD	24	25	25	12	774	GRAVEL	12' PLANT MIX STRIP	0.20	12	4	RT.
50.844	PRIVATE	20	25	25	38	1,028	GRAVEL	PLANT MIX TO R/W	0.20	16	6	RT.
50.860	PRIVATE	12	25	25	38	724	GRAVEL	PLANT MIX TO R/W	0.20	11	4	RT.
50.890	PRIVATE	18	25	35	48	1,258	GRAVEL	PLANT MIX TO R/W	0.20	19	7	LT.
50.890	PRIVATE	10	25	35	38	779	GRAVEL	PLANT MIX TO R/W	0.20	12	4	RT.
51.301	FIELD	24	25	25	12	582	GRAVEL	12' PLANT MIX STRIP	0.20	9	3	RT.
51.348	PRIVATE	24	40	40	30	1,322	GRAVEL	PLANT MIX TO R/W	0.20	20	7	LT.
51.397	FIELD	24	25	25	12	582	GRAVEL	12' PLANT MIX STRIP	0.20	9	3	RT.
51.554	PRIVATE	24	25	25	48	1,531	GRAVEL	PLANT MIX TO R/W	0.20	24	9	RT.
51.615	PRIVATE	24	25	25	48	1,420	GRAVEL	PLANT MIX TO R/W	0.20	22	8	RT.
51.688	PRIVATE	12	25	25	48	844	GRAVEL	PLANT MIX TO R/W	0.20	13	5	RT.
51.741	FIELD	24	25	25	12	690	GRAVEL	12' PLANT MIX STRIP	0.20	11	4	RT.
51.816	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
51.900	PRIVATE	12	25	25	31	641	GRAVEL	PLANT MIX TO R/W	0.20	10	4	LT.
51.900	PRIVATE	12	35	35	48	1,102	GRAVEL	PLANT MIX TO R/W	0.20	17	6	RT.
51.955	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
51.977	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
52.008	PUBLIC	24	25	35	28	1,043	GRAVEL	PLANT MIX TO R/W	0.20	16	6	CO RD 214 - RT.
52.398	FIELD	24	25	25	12	435	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
52.398	FIELD	24	25	25	12	435	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	RT.
52.669	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
53.236	FIELD	12	25	25	12	284	GRAVEL	12' PLANT MIX STRIP	0.20	4	2	RT.
53.374	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
53.408	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.

*WIDTH OF APPROACH MEASURED BEYOND RADII
ALL RADII MEASURED TO EDGE OF SHOULDER
** LENGTHS OF SURFACING ARE MEASURE ALONG THE CENTERLINE OF THE APPROACH FROM THE MAINLINE EDGE OF PAVEMENT
MEASURED IN CAD

NOTES

APPROACHES (FOR INFORMATION ONLY)

RP	TYPE	linear feet				SURFACE AREA (sq. foot) ##	EXISTING SURFACING	PROPOSED SURFACE	feet	tons	gals.	REMARKS
		WIDTH*	RADIUS #		LENGTH FROM EDGE OF PAVEMENT **				PLANT MIX DEPTH	PLANT MIX SURF.	EMULSIFIED ASPHALT TACK	
			NORTH	SOUTH								
53.586	FIELD	12	20	20	12	267	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	LT.
53.904	FIELD	12	25	25	12	330	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	LT.
53.904	FIELD	15	25	25	12	601	GRAVEL	12' PLANT MIX STRIP	0.20	9	3	RT.
54.144	PRIVATE	12	30	40	43	1,046	GRAVEL	PLANT MIX TO R/W	0.20	16	6	LT.
54.352	FIELD	24	25	25	12	630	GRAVEL	12' PLANT MIX STRIP	0.20	10	4	RT.
54.375	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
54.596	PRIVATE	12	15	35	48	833	GRAVEL	PLANT MIX TO R/W	0.20	13	5	LT.
54.659	FIELD	24	25	15	12	407	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	RT.
54.760	PRIVATE	12	20	50	48	1,172	GRAVEL	PLANT MIX TO R/W	0.20	18	7	LT.
54.913	FIELD	20	30	20	12	390	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	RT.
54.914	PUBLIC	24	40	60	48	2,203	GRAVEL	PLANT MIX TO R/W	0.20	34	12	CO RD 303 - LT.
54.956	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
55.612	FIELD	12	15	15	12	233	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	LT.
55.612	FIELD	20	25	25	12	390	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	RT.
55.916	PUBLIC	12	35	45	48	1,267	GRAVEL	PLANT MIX TO R/W	0.20	20	7	CO RD 339 - LT.
55.916	PUBLIC	20	40	40	68	2,066	GRAVEL	PLANT MIX TO R/W	0.20	32	11	CO RD 220 - RT.
56.571	FIELD	24	25	25	12	434	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
57.027	PRIVATE	16	20	60	73	1,785	GRAVEL	PLANT MIX TO R/W	0.20	28	10	LT.
57.037	PUBLIC	20	75	25	87	2,876	GRAVEL	PLANT MIX TO R/W	0.20	44	16	CO RD 213 - RT.
57.208	FIELD	18	25	25	12	606	GRAVEL	12' PLANT MIX STRIP	0.20	9	3	RT.
57.320	PRIVATE	15	40	35	58	1,387	GRAVEL	PLANT MIX TO R/W	0.20	21	8	LT.
57.530	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	RT.
57.546	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
57.836	FIELD	20	20	20	12	363	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	LT.
57.836	FIELD	20	20	20	12	363	GRAVEL	12' PLANT MIX STRIP	0.20	6	2	RT.
58.292	FIELD	15	15	15	12	269	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	LT.
58.292	FIELD	15	15	15	12	269	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	RT.
58.704	FIELD	12	10	25	12	238	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	LT.
58.742	FIELD	20	20	15	12	346	GRAVEL	12' PLANT MIX STRIP	0.20	5	2	RT.
58.991	FIELD	15	15	15	12	269	GRAVEL	12' PLANT MIX STRIP	0.20	4	1	RT.
59.093	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
59.318	PUBLIC	28	40	40	48	2,053	GRAVEL	PLANT MIX TO R/W	0.20	32	11	N SEVEN MILE RD - LT.
59.320	FIELD	24	25	25	12	509	GRAVEL	12' PLANT MIX STRIP	0.20	8	3	RT.
59.820	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	RT.
59.825	FIELD	24	25	25	12	438	GRAVEL	12' PLANT MIX STRIP	0.20	7	2	LT.
59.884	PRIVATE	24	40	40	48	1,847	GRAVEL	PLANT MIX TO R/W	0.20	29	10	RT.

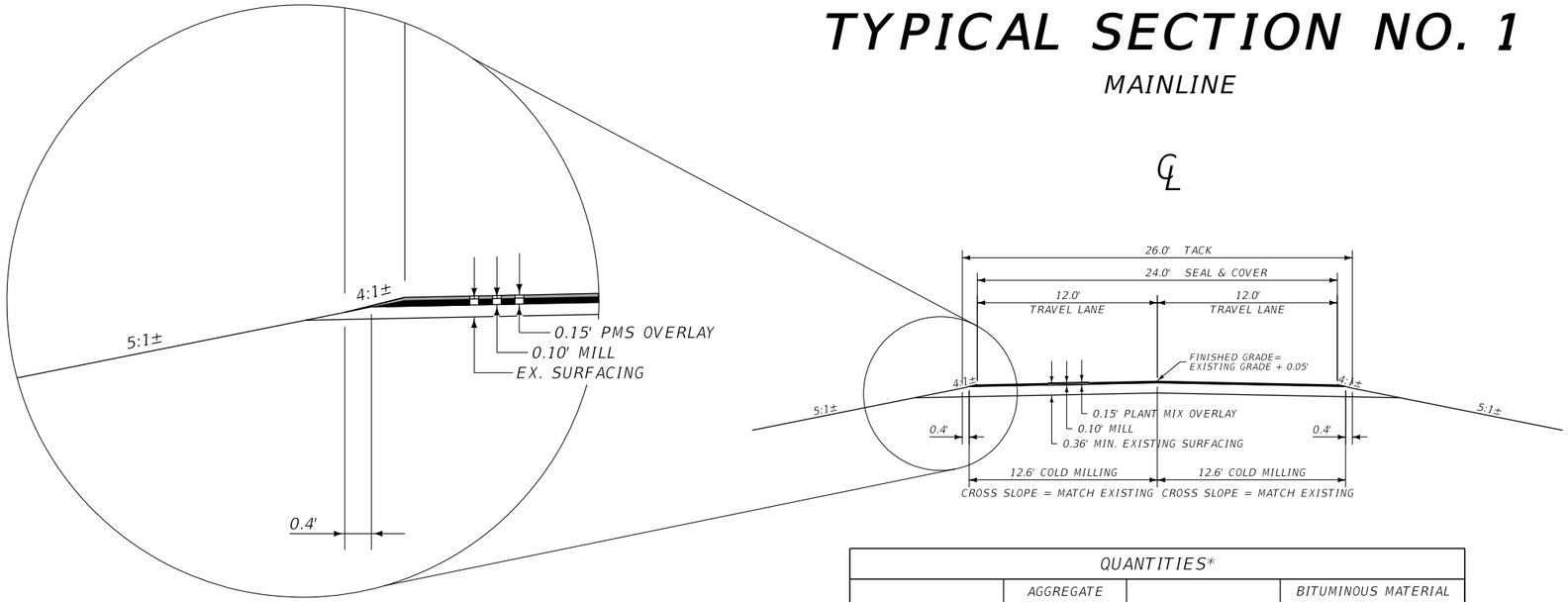
*WIDTH OF APPROACH MEASURED BEYOND RADII
ALL RADII MEASURED TO EDGE OF SHOULDER
** LENGTHS OF SURFACING ARE MEASURE ALONG THE CENTERLINE OF THE APPROACH FROM THE MAINLINE EDGE OF PAVEMENT
MEASURED IN CAD

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TYPICAL SECTION NO. 1

MAINLINE

R.P. 48.600 TO R.P. 51.956 — TYP. NO. 1
R.P. 51.956 TO R.P. 51.958 — RAILROAD CROSSING
R.P. 51.958 TO R.P. 60.250 — TYP. NO. 1



QUANTITIES*						
UNIT	AGGREGATE		UNIT	BITUMINOUS MATERIAL		
	COVER	PLANT MIX		ASPHALT BINDER	SEAL	EMULSIFIED ASPHALT TACK
AREA square feet		3.70	square yards PER STATION		267	289
cubic yards PER STATION		13.7	tons PER STATION	1.54	0.48	
tons PER STATION		28.5	gallons PER STATION			14
square yards PER STATION	267					

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SUMMARY

SURFACING

REFERENCE POST FROM	REFERENCE POST TO	linear feet GROSS	linear feet NET	linear feet +	linear feet -	FOR	tons HYDRATED LIME	AGGREGATE sq. yards COVER TYPE 1	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - 3/4"	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - MISC.	AGGREGATE cubic yards CRUSHED AGG. COURSE	BITUMINOUS MATERIAL tons ASPHALT BINDER PG 58V-34	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT TACK	BITUMINOUS MATERIAL sq. yards AGG. TREATMENT	REMARKS
48.600	51.956	17,672.16	17,672.16					47,185	5,037			272.2	84.8	2,474		TYP. NO. 1
51.956	51.958				10.56	RAILROAD CROSSING										
51.958	60.250	44,103.84	44,103.84					117,757	12,570			679.2	211.7	6,175		TYP. NO. 1
						ADDITIONAL SURFACING		534	279	1,698	2,589	106.9	1.0	796	10,945	
TOTAL		61,786.56	61,776.00	~	10.56		274	165,476	17,886	1,698	2,589	1,058.3	297.5	9,445	10,945	

NOTE: GROSS AND NET DISTANCES ARE CALCULATED USING ACCUMULATED MILES.

ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)

REFERENCE POST FROM	REFERENCE POST TO	linear feet GROSS	linear feet NET	linear feet +	linear feet -	FOR	tons HYDRATED LIME	AGGREGATE sq. yards COVER TYPE 1	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - 3/4"	AGGREGATE tons PLANT MIX BIT. SURF. GR. S - MISC.	AGGREGATE cubic yards CRUSHED AGG. COURSE	BITUMINOUS MATERIAL tons ASPHALT BINDER PG 58V-34	BITUMINOUS MATERIAL tons EMULSIFIED ASPHALT CHFRS-2P	BITUMINOUS MATERIAL gals. EMULSIFIED ASPHALT TACK	BITUMINOUS MATERIAL sq. yards AGG. TREATMENT	REMARKS
						19 - PRIVATE APPROACHES				340		18.4		122	2,442	PLANT MIX TO R/W
						51 - FIELD APPROACHES				367		19.8		129	2,587	12' PLANT MIX
						7 - PUBLIC APPROACHES			222			12.0		80	1,597	PLANT MIX TO R/W
48.562	48.600	200	200			BEGIN CONNECTION		534	57			3.1	1.0	28		TYP. NO. 1
53.100	53.150	264	264			DIGOUT TYP. NO. 1				96	247	5.2		42	417	NORTHBOUND LANE ONLY
54.452	54.527	396	396			DIGOUT TYP. NO. 1				287	750	15.5		127	1,251	FULL WIDTH
58.376	58.509	702	702			DIGOUT TYP. NO. 1				254	672	13.8		112	1,109	NORTHBOUND LANE ONLY
59.028	59.083	290	290			DIGOUT TYP. NO. 1				105	272	5.7		46	458	NORTHBOUND LANE ONLY
59.083	59.148	343	343			DIGOUT TYP. NO. 1				249	648	13.4		110	1,084	FULL WIDTH
SUBTOTAL		~	~	~	~		~	534	279	1,698	2,589	106.9	1.0	796	10,945	

NOTE: FOR DIGOUTS - SEAL, COVER, AND 0.15' OF PMS ARE INCLUDED IN THE MAINLINE QUAANTITIES. QUANTITIES INCLUDE TAPER TRANSITION AREAS.

COLD MILLING

REFERENCE POST FROM	REFERENCE POST TO	sq. yards COLD MILLING 0.10 ft	sq. yards COLD MILLING 0.10 ft - 0.15 ft	REMARKS
48.562	48.600		560	MAINLINE MILLING - FULL WIDTH TYP. NO. 1
48.600	51.950	49,330		MAINLINE MILLING - FULL WIDTH TYP. NO. 1
51.950	51.956		88	MAINLINE MILLING - FULL WIDTH TYP. NO. 1
51.958	51.964		88	MAINLINE MILLING - FULL WIDTH TYP. NO. 1
51.964	60.212	121,455		MAINLINE MILLING - FULL WIDTH TYP. NO. 1
60.212	60.250		560	MAINLINE MILLING - FULL WIDTH TYP. NO. 1
SUBTOTAL		170,785	1,296	
TOTAL		172,081		

* SEE DETAILS

PAVEMENT MARKINGS

ITEM	UNIT	INTERIM APPLICATION #	FINAL APPLICATION	TOTAL
STRIPING - WHITE PAINT	gallon	847		847
STRIPING - YELLOW PAINT	gallon	249		249
WORDS & SYMBOLS - WHITE PAINT	gallon	7		7
STRIPING - WHITE EPOXY	gallon		565	565
STRIPING - YELLOW EPOXY	gallon		166	166
WORDS & SYMBOLS - WHITE EPOXY	gallon		5	5
TEMPORARY STRIPING	foot			77,062
FINAL SWEEP AND BROOM	course mile			11.7

BASED ON 2 APPLICATIONS.

DIGOUT EXCAVATION *

STATION FROM	STATION TO	cu. yards DIGOUT EXCAVATION	cu. yards SPECIAL BORROW NEAT LINE	sq. yards GEOTEXT. STABIL	REMARKS
53.100	53.150	303		519	NORTHBOUND LANE ONLY
54.452	54.527	920		1,557	FULL WIDTH
58.376	58.509	824		1,380	NORTHBOUND LANE ONLY
59.028	59.083	335		571	NORTHBOUND LANE ONLY
59.083	59.148	795		1,350	FULL WIDTH
TOTAL		3,177	~	5,377	

* SEE DETAIL - QUANTITIES INCL. TAPER TRANSITION AREAS

EQUIPMENT

REFERENCE POST FROM	REFERENCE POST TO	hours MOTOR GRADER	hours MISC. EQUIPMENT	REMARKS
48.600	60.250	74		APPROACH SHAPING LT. & RT.
TOTAL		74	~	

REVEGETATION

REFERENCE POST FROM	REFERENCE POST TO	acres REVEGE-TATION	cu. yards TOPSOIL SALVAGING & PLACING	acres SEED	acres FERTILIZER	acres CONDITION SEEDBED	REMARKS
53.100	53.150	0.03	16	0.03	0.03	0.03	DIGOUT, NORTHBOUND LANE ONLY
54.452	54.527	0.09	49	0.09	0.09	0.09	DIGOUT, FULL WIDTH
58.376	58.509	0.08	43	0.08	0.08	0.08	DIGOUT, NORTHBOUND LANE ONLY
59.028	59.083	0.03	18	0.03	0.03	0.03	DIGOUT, NORTHBOUND LANE ONLY
59.083	59.148	0.08	42	0.08	0.08	0.08	DIGOUT, FULL WIDTH
TOTAL		0.3	#168	#0.3	#0.3	#0.3	

#FOR INFORMATION ONLY

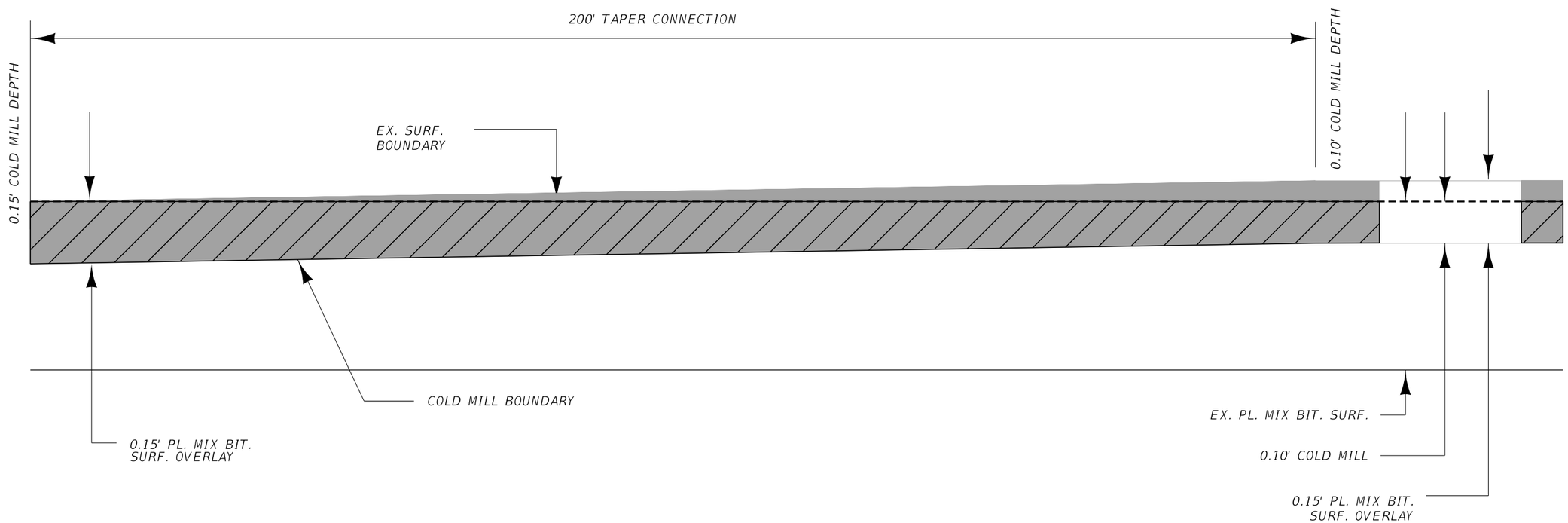
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PROPOSED PAVEMENT

COLD MILL AREA

R.P. 48.562 TO R.P. 48.600 BEGIN OF PROJECT CONNECTION

R.P. 60.212 TO R.P. 60.250 END OF PROJECT CONNECTION

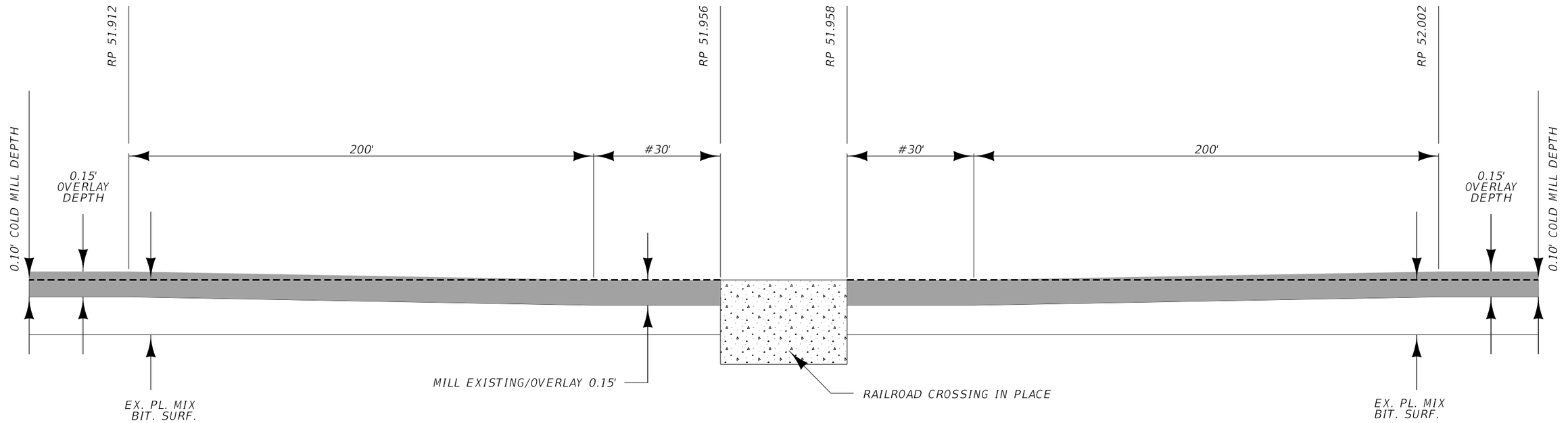


PROJECT BEGIN & END CONNECTION DETAIL

NO SCALE

3	MONTANA Department of Transportation	C:\DGN\9857000rddet001.dgn	DESIGNED BY	S. BAKER & J. GOTSCHALL	4/26/2022	ROAD PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		1/29/2025	REVIEWED BY	K. SHUCK & C. HOPKINS	4/26/2022			
		4:05:03 PM CPS - U6120	CHECKED BY	J. FLEMING	6/23/2022	JUDITH BASIN & FERGUS COUNTIES	UPN 9857000	6

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ACTUAL REMOVAL DISTANCES TO BE DETERMINED DURING CONSTRUCTION BY THE PROJECT MANAGER

RAILROAD CROSSING TRANSITION DETAIL

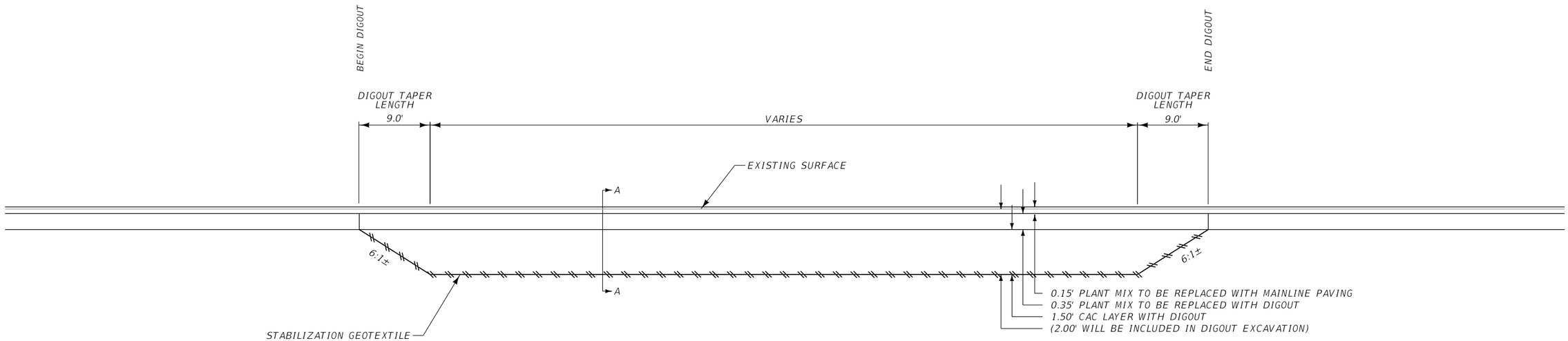
NO SCALE

3 / 1	MONTANA Department of Transportation	C:\DGN\9857000rddet001.dgn	DESIGNED BY	S. BAKER & J. GOTSCHALL	4/26/2022	ROAD PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
		1/29/2025	REVIEWED BY	K. SHUCK & C. HOPKINS	4/26/2022			
		4:05:07 PM CPS - U6120	CHECKED BY	J. FLEMING	6/23/2022	JUDITH BASIN & FERGUS COUNTIES	UPN 9857000	7

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RP 53.100	TO	RP 53.150	NORTHBOUND LANE ONLY
RP 54.452	TO	RP 54.527	FULL WIDTH
RP 58.376	TO	RP 58.509	NORTHBOUND LANE ONLY
RP 59.028	TO	RP 59.083	NORTHBOUND LANE ONLY
RP 59.083	TO	RP 59.148	FULL WIDTH

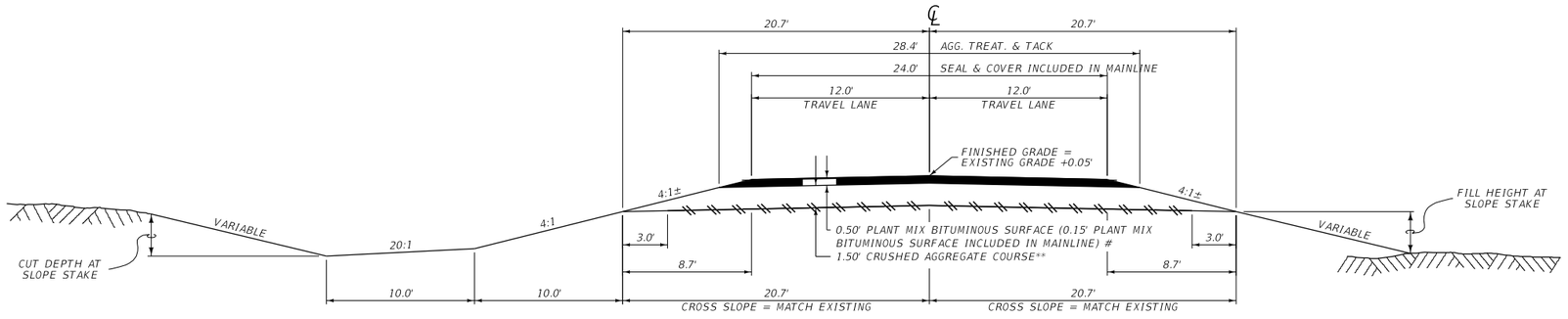
MT 80



SECTION A-A

DIGOUT TYPICAL 1

MAINLINE



QUANTITIES

UNIT	AGGREGATE		UNIT	BITUMINOUS MATERIAL			
	PLANT MIX ##	CR. AGG. COURSE		ASPHALT BINDER	AGG. TREATMENT	EMULSIFIED ASPHALT TACK*	GEOTEXTILE STABILIZATION
AREA square feet	9.40	52.35	square yards PER STATION				
cubic yards PER STATION	34.8	193.9	tons PER STATION	3.92	316	632	393
tons PER STATION	72.5		gals. PER STATION			32	
square yards PER STATION							

*BASED ON 2 APPLICATIONS
##PLANT MIX QUANTITIES REFLECT 0.35' LAYER (DOES NOT INCLUDE 0.15' TO BE PAVED WITH MAINLINE)

**CAN CREATE A 50/50 BLEND WITH COLD MILLINGS

NOTE: FOR DIGOUTS - SEAL, COVER, AND 0.15' OF PMS ARE INCLUDED IN THE MAINLINE QUANTITIES.

NOTE: FINAL DIGOUT LOCATION, LENGTH, AND DEPTH IS AT THE PROJECT MANAGER'S DISCRETION.

DIGOUT DETAIL

NO SCALE

NOTES AND ABBREVIATIONS:

MOUNTING HEIGHT REQUIREMENTS: MOUNTING HEIGHTS SHOWN REFER TO THE BOTTOM OF THE MAJOR PANEL. SEE DETAILED DRAWINGS 619-00 & 619-08

ALL MARKINGS ARE PAINT, EXCEPT AS NOTED. WHERE SPECIFIED ON THE PLANS AS PLASTIC, INSTALL INLAID HOT EXTRUDED HYDRO-CARBON THERMOPLASTIC PAVEMENT MARKINGS.

SEE LOCATION AND SPECIFICATION SHEETS FOR PORTIONS OF PROJECT NOT INCLUDED WITHIN SIGNING PLAN SHEETS.

SIGN POSTS SYMBOLS SHOWN ARE FOR REFERENCE ONLY TO SHOW EXISTING SIGNS THAT REQUIRE NO ACTION.

SIGNING LOCATIONS ARE APPROXIMATE. ENGINEERING PROJECT MANAGER TO FIELD ADJUST AS NECESSARY.

ADOPT A HIGHWAY: IF SIGNS N7-1/N7-1P EXIST, CONTRACTOR WILL CONFIRM THAT THE GROUP NAME ON THE SIGN(S) EXISTING AT THE TIME OF CONSTRUCTION CORRESPONDS TO THE GROUP NAME ON THE SIGN(S) SHOWN IN PLANS. IF NAME IS DIFFERENT, ENGINEERING PROJECT MANAGER WILL CONTACT TRAFFIC & SAFETY BUREAU SIGNING SECTION WITH THE CORRECT NAME AND A NEW SIGN DESIGN WILL BE PROVIDED.

FY = FLUORESCENT YELLOW SHEETING REQUIRED

FYG = FLUORESCENT YELLOW-GREEN SHEETING REQUIRED

✕ = STANDARD BREAKAWAY DEVICE:
- FOR WOOD POST SEE DETAILED DRAWING 619-20.
- FOR STRUCTURAL STEEL SEE DETAILED DRAWING 619-13.

▲ = SINGLE SQUARE TUBE REQUIRED. MOUNTED IN HEAVY DUTY STUB.

★ = TELESCOPED SQUARE TUBES (2-1/4" & 2-1/2") WITH SLIP BASE BREAKAWAY REQUIRED. MOUNTED IN HEAVY DUTY STUB.

■ = FRANGIBLE SIGN POST. BREAKAWAY DEVICE REQUIRED.

AIR = ANGLE IRON REQUIRED
2 1/2" x 2 1/2" x 3/8" x 6'-4" (37 lbs.)

BBR = BACKBRACING REQUIRED:
- FOR WOOD POLE SEE DET. DWG 619-22
- FOR STEEL POST 2" X 2" X 1/4" REQUIRED. SEE DET. DWG 619-16
- FOR STRUCTURAL STEEL POST 2 3/4" X 2 3/8" EXTRUDED "T" SECTION BACKBRACE REQUIRED. SEE DET. DWG 619-19
- FOR CANTILEVER POST, SEE DET. DWG 619-18
- FOR GUIDE SIGN PANELS, USE EXTRUDED "T" SECTION BACKBRACE. SEE DET. DWG 619-04

USE HARDWARE MEETING REQUIREMENTS OF SECTION 704

BGR = BEHIND GUARDRAIL

MBB = MOUNT BACK TO BACK

RSFO = REPLACE SIGN FACE ONLY

SUMMARY
SIGNING & DELINEATION QUANTITIES

MATERIAL	FERGUS TOTALS	JUDITH BASIN TOTALS	TOTALS	UNIT
SIGNS-SHEET ALUM SHT INCR XI	139	0	**139.0**	SQFT
SIGNS-ALUM REFL SHEET XI	101.6	320.8	**422.4**	SQFT
REMOVE SIGN	16	22	**38**	EACH
REMOVE SIGN-GUIDE	3	0	**3**	EACH
POSTS-TUBULAR STEEL	142	0	**142**	LB
POSTS-STEEL U SIGN	20	180	**200**	LB
POSTS-STEEL STRUCTURAL SIGN	754	0	**754**	LB
POLES-TREATED WOOD 4 IN	148	222	**370**	LNFT
POLES-TREATED WOOD 5 IN	104	210	**314**	LNFT
FRANG SIGN POST BKWY-S4 X 7.7 (S100X11)	6	0	**6**	EACH
FRANG SIGN POST BKWY-4 IN RD (100 MM)	1	0	**1**	EACH
DELINEATOR TYPE 1	159	274	**433**	EACH

DELINEATION SPECIFICATIONS FERGUS COUNTY

SYMBOL	DESIGN	TOTALS
⊣	A	134
⊣⊢	D	16
⊢	F	9

DELINEATION SPECIFICATIONS JUDITH BASIN COUNTY

SYMBOL	DESIGN	TOTALS
⊣	A	242
⊣⊢	D	12
⊢	F	20

SHEET NO.
S1

SIGNING SUMMARY
FRAMES AND NOTES

PROJECT NAME: JCT MT-81 - SOUTH (MT-80)
COUNTY: FERGUS AND JUDITH BASIN
PROJECT ID: STPP 80-2(10)50
UPN: 9857000

DESIGNED BY: S.MORANO 01/2025
REVIEWED BY:
CHECKED BY: N.STYREN 01/2025

9857000SISUM001.DWG

MONTANA Department of Transportation

SIGNING PLANS

3/11/2025 10:43 AM

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SIGN LOCATION				SIGN PANEL SPECIFICATIONS						SIGN ASSEMBLY SPECIFICATIONS										SIGN ASSEMBLY QUANTITIES										ADDITIONAL INFORMATION	
STATION / R.P.		DIRECTION	RAMP NO.	SIGN NO. (MUTCD)	PANEL SIZE (INCHES)	FY OR FYG	BACK BRACING REQ'D ANGLE IRON REQ'D	MOUNT BACK TO BACK	REPLACE SIGN FACE ONLY	FEET	TYPE OF SUPPORT	FEET					CANTILEVER	BREAKAWAY TYPE	BEHIND GUARDRAIL	PANEL (SQ. FT.)		WOOD POLE (LNR. FT.)		STEEL POST (LBS.)				REMOVE		RESET		SIGN IMAGE	SIGN STATUS & REMARKS
LFT	MDN	RGT			W X H					CLEARANCE/OFFSET (SHOULDER TO EDGE OF SIGN)		SIGN SUPPORT SPACING	MOUNTING HEIGHT	SIGN HEIGHT + GAPS	FOUNDATION DEPTH	SUPPORT LENGTH (ESTIMATED) X	Y	Z				SHEET ALUMINUM	SHEET ALUMINUM INCREMENT	4" TOP DIA.	5" TOP DIA.	ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	SIGN	GUIDE	SIGN	GUIDE		
RP 48.768																																	
		X		W23-1a	30 X 30					10.0	4" Treated Wood Pole		5.83		3.0	13.83						6.3			14					1				SLIDE AREA	REPLACE
				W7-3A	24 X 18																	3.0											NEXT 2 MILES	REPLACE
RP 48.868																																	
		X		W1-2L	30 X 30					10.0	4" Treated Wood Pole		5.0		3.0	13.83						6.3		14						1					REPLACE
				W13-1	18 X 18																	2.3											45 MPH	REPLACE
RP 49.000																																	
X				D10-2	10 X 27			MBB		4.0	2.0lb Steel U Post		4.0		3.0	10.0						3.8							20	1				MILE 49	RP(49) REPLACE
RP 49.033																																	
		X		W7-1A	48 X 48					10.0	4.0" Tubular Stl-Round		5.58		3.0	13.2				■		16.0				142				1				6%	REPLACE
				W7-3A	24 X 18																	3.0											NEXT 2 MILES	REPLACE
RP 49.611																																	
X				M2-1	21 X 15					10.0	4" Treated Wood Pole		5.0		3.0	13.0						2.2		14						1				JCT	REPLACE
				M1-5	24 X 24																	4.0											MONTANA 81	REPLACE
RP .49.631																																	
		X		R1-1	30 X 30					6.0	4" Treated Wood Pole		5.0		3.0	11.8						5.2		12						1				STOP	REPLACE
RP 49.655																																	
		X		M3-1	24 X 12					10.0	4" Treated Wood Pole		5.0		3.0	13.0						2.0		14						1				NORTH	REPLACE
				M1-5	24 X 24																	4.0											MONTANA 80	REPLACE

SHEET NO.
S2

SIGN LOCATION AND SPECIFICATION

PROJECT NAME: JCT MT-81 - SOUTH (MT-80)
COUNTY: FERGUS
PROJECT ID: STPP 80-2(10)50
UPN: 9857000

DESIGNED BY: S.MORANO 01/2025
REVIEWED BY:
CHECKED BY: N.STYREN 01/2025

MONTANA Department of Transportation

SIGNING PLANS

3/11/2025 10:43 AM

9857000SISUM001.DWG

SIGN LOCATION				SIGN PANEL SPECIFICATIONS							SIGN ASSEMBLY SPECIFICATIONS											SIGN ASSEMBLY QUANTITIES												ADDITIONAL INFORMATION	
STATION / R.P.		DIRECTION	RAMP NO.	SIGN NO. (MUTCD)	PANEL SIZE (INCHES)	FY OR FYG	BACK BRACING REQ'D ANGLE IRON REQ'D	MOUNT BACK TO BACK	REPLACE SIGN FACE ONLY	FEET		FEET										PANEL (SQ. FT.)		WOOD POLE (LNR. FT.)		STEEL POST (LBS.)				REMOVE		RESET		SIGN IMAGE	SIGN STATUS & REMARKS
										CLEARANCE/OFFSET (SHOULDER TO EDGE OF SIGN)	TYPE OF SUPPORT	SIGN SUPPORT SPACING	MOUNTING HEIGHT	SIGN HEIGHT + GAPS	FOUNDATION DEPTH	SUPPORT LENGTH (ESTIMATED)			CANTILEVER	BREAKAWAY TYPE	BEHIND GUARDRAIL	SHEET ALUMINUM	SHEET ALUMINUM INCREMENT	4" TOP DIA.	5" TOP DIA.	ROUND TUBULAR	SQUARE TUBULAR	STRUCTURAL STEEL	"U" POST	SIGN	GUIDE	SIGN	GUIDE		
LFT	MDN	RGT			W X H										X	Y	Z																		
RP 49.747																																			
X				G80-49b	96 X 48		BBR			30.0	S4x7.7 Structural Steel		7.0		3.5	16.8	16.3			■			32.0					255			1				REPLACE
RP 49.740																																			
		X		G80-49a	132 X 36		BBR			30.0	S4x7.7 Structural Steel		7.0		3.5	15.10	15.1			■			33.0					233			1				REPLACE
RP 49.755																																			
				M1-5	24 X 24					10.0	4" Treated Wood Pole		5.0		3.0	13.0						4.0		14							1				REPLACE FROM 2+94.80
				M6-1L	21 X 15																	2.2												REPLACE
RP 49.785																																			
X				W7-1A	72 X 42	FY			RSFO														21.0							1				RSFO
RP 49.770																																			
		X		R1-1	48 X 48					6.0	5" Treated Wood Pole		5.0		3.5	13.50				✕		13.3			14						1				REPLACE
PROJECT TOTALS																						101.6	139.0	370	314	142		754	200	38	3				

SHEET NO.
S3

SIGN LOCATION AND SPECIFICATION

PROJECT NAME: JCT MT-81 - SOUTH (MT-80)
COUNTY: FERGUS
PROJECT ID: STPP 80-2(10)50
UPN: 9857000

DESIGNED BY: S.MORANO 01/2025
REVIEWED BY:
CHECKED BY: N.STYREN 01/2025

MONTANA Department of Transportation

SIGNING PLANS

3/11/2025 10:43 AM

9857000SISUM001.DWG

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SIGN LOCATION AND SPECIFICATIONS

REF. POST	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG TYPE: BACK-GROUND	REFL SHTG TYPE: LEGEND	FEET: CLEARANCE	FEET: SIGN SUPPORT SPACING	TYPE OF SUPPORT	FEET: CANTILEVER	FEET: SUPPORT LENGTH (ESTIMATED)	FEET: SUPPORT LENGTH (INSTALLED)	FEET: MOUNTING HEIGHT	FEET: FOUNDATION DEPTH	SIGN PANEL (SQ. FT.): SHEET ALUMINUM	SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT	SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY	TIMBER POLE (LINEAR FT.): 4" TOP DIA.	TIMBER POLE (LINEAR FT.): 5" TOP DIA.	STEEL POST(LBS.): ROUND TUBULAR	STEEL POST(LBS.): SQUARE TUBULAR	STEEL POST(LBS.): STRUCTURAL STEEL	STEEL POST(LBS.): "U" POST	BREAKAWAY	SIGNS: REMOVE	SIGNS: RESET	GUIDE: REMOVE	GUIDE: RESET	REMARKS
49.905 RT		M3-3 M1-5	24 X 12 24 X 24	XI XI		10-0		4" DIA POLE		12-11		5-0	3-0	6.0 XI			14							1					REPLACE - SOUTH REPLACE - MT-80
49.923 LT		G80-49a	108 X 48	XI	XI	30-0		S4x7.7		X=16-10 Y=17-9		7-0	3-6		36.0 XI						266		■			1			REPLACE - FORT BENTON DENTON
49.940 RT		G80-49b	102 X 24	XI	XI	30-0		5" DIA POLE		X=17-10 Y=18-8		7-0	3-6	17.0 XI				38					X			1			REPLACE -STANFORD
50.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 50
50.033 LT		M2-1 M1-4	21 X 15 24 X 24	XI XI		10-0		4" DIA POLE		13-2		5-0	3-0	2.2 XI 4.0 XI			14							1					REPLACE - JCT REPLACE - MT-81
50.880 RT		N6-3	48 X 24	XI	XI	10-0		4" DIA POLE		12-0		5-0	3-0	8.0 XI			12							1					REPLACE - JCT JUDITH BASIN COUNTY
								FERGUS-TOTALS						101.6 XI	139.0 XI		148	104			754	20		16		5			
50.909 LT		N6-3	30 X 24	XI	XI	10-0		4" DIA POLE		11-11		5-0	3-0	5.0 XI			12							1					REPLACE - FERGUS COUNTY
51.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 51
51.295 RT		M3-3 M1-5	24 X 12 24 X 24	XI XI		10-0		4" DIA POLE		12-11		5-0	3-0	2.0 XI 4.0 XI			14							1					REPLACE - SOUTH REPLACE - MT-80
51.397 RT		W10-1	36 DIA	XI		10-0		4" DIA POLE		12-11		5-0	3-0	7.1 XI			14							1					REPLACE - RAILROAD TRACKS
51.905 RT		(2) D-3	42 X 18	XI	XI									5.3 XI 5.3 XI															
		R1-1	30 X 30	XI	XI	6-0		5" DIA POLE		13-4		5-0	3-0	5.2 XI				14					X	1					REPLACE - ARROW CRK BK TRL REPLACE
51.951 RT		RAILROAD CROSSING	BY OTHERS																										
51.970 LT		RAILROAD CROSSING	BY OTHERS																										
52.000 RT		D10-2	10 X 27	XI	XI	10-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 52
52.009 RT		D-3 (2) D-3	REMOVE 42 x 10	XI	XI									2.9 XI 2.9 XI															REMOVE - MT HWY 80 REPLACE - ARROW CR BK TRL
		R1-1	30 x 30	XI	XI	6-0		4" DIA POLE		12-8		5-0	3-0	5.2 XI			14							1					REPLACE
52.175 LT		W10-1	36 DIA	XI		10-0		4" DIA POLE		12-11		5-0	3-0	7.1 XI			14							1					REPLACE - RAILROAD TRACKS

FERGUS COUNTY

DELINEATION TABLE		
⊣	DESIGN "A"	36
⊣⊢	DESIGN "D"	4
⊢	DESIGN "F"	0

3	MONTANA Department of Transportation	C:\DGN\9857000sisum001.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025	REVISED BY	NATHAN STYREN	11/2024	FERGUS/JUDITH BASIN COUNTY	UPN #9857000	S4
1		10:27:57 AM CPS - U7498						

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SIGN LOCATION AND SPECIFICATIONS

REF. POST	RAMP NO.	SIGN NO.	PANEL SIZE	REFL SHTG TYPE: BACK-GROUND	REFL SHTG TYPE: LEGEND	FEET: CLEARANCE	FEET: SIGN SUPPORT SPACING	TYPE OF SUPPORT	FEET: CANTILEVER	FEET: SUPPORT LENGTH (ESTIMATED)	FEET: SUPPORT LENGTH (INSTALLED)	FEET: MOUNTING HEIGHT	FEET: FOUNDATION DEPTH	SIGN PANEL (SQ. FT.): SHEET ALUMINUM	SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT	SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY	TIMBER POLE (LINEAR FT.): 4" TOP DIA.	TIMBER POLE (LINEAR FT.): 5" TOP DIA.	STEEL POST(LBS.): ROUND TUBULAR	STEEL POST(LBS.): SQUARE TUBULAR	STEEL POST(LBS.): STRUCTURAL STEEL	STEEL POST(LBS.): "U" POST	BREAKAWAY	SIGNS: REMOVE	SIGNS: RESET	GUIDE: REMOVE	GUIDE: RESET	REMARKS
53.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 53
54.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 54
54.784 RT		W2-2	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14							1					REPLACE - SIDE ROAD INTERSECTION
54.926 LT		D-3 (2) D-3	REMOVE 30 X 18	XI	XI									3.8 XI 3.8 XI															REMOVE - MT HWY 80 REPLACE - LOWER DENTON RD
		R1-1	30 X 30	XI	XI	6-0		4" DIA POLE		13-4		5-0	3-0	5.2 XI			14							1					REPLACE - STOP SIGN
55.033 LT		W2-2	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14							1					REPLACE - SIDE ROAD INTERSECTION
55.906 LT		D3 R1-1	REMOVE 42 X 10	XI XI	XI XI									2.9 XI 2.9 XI															REMOVE - MT HWY 80 REPLACE - BROKEN POST RD
		R1-1	30 X 30	XI	XI	6-0		4" DIA POLE		12-8		5-0	3-0	5.2 XI			14							1					REPLACE
55.912 RT		D3 D3	REMOVE 42 X 10	XI XI	XI XI									2.9 XI 2.9 XI															REMOVE - MT HWY 80 REPLACE - WESTWIND RD
		R1-1	30 X 30	XI	XI	6-0		4" DIA POLE		12-8		5-0	3-0	5.2 XI			14							1					REPLACE
56.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 56
56.476		W1-2R	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14											FY	NEW
56.500 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.530 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.560 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.590 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.620 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.650 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
56.680 LT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW

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SIGN LOCATION AND SPECIFICATIONS

REF. POST		SIGN NO.	PANEL SIZE	REFL SHTG TYPE: BACK-GROUND	REFL SHTG TYPE: LEGEND	FEET: CLEARANCE	FEET: SIGN SUPPORT SPACING	TYPE OF SUPPORT	FEET: CANTILEVER	FEET: SUPPORT LENGTH (ESTIMATED)	FEET: SUPPORT LENGTH (INSTALLED)	FEET: MOUNTING HEIGHT	FEET: FOUNDATION DEPTH	SIGN PANEL (SQ. FT.): SHEET ALUMINUM	SIGN PANEL (SQ. FT.): ALUMINUM SHEET INCREMENT	SIGN PANEL (SQ. FT.): ALUMINUM SHEET OVERLAY	TIMBER POLE (LINEAR FT.): 4" TOP DIA.	TIMBER POLE (LINEAR FT.): 5" TOP DIA.	STEEL POST(LBS.): ROUND TUBULAR	STEEL POST(LBS.): SQUARE TUBULAR	STEEL POST(LBS.): STRUCTURAL STEEL	STEEL POST(LBS.): "U" POST	BREAKAWAY	SIGNS REMOVE	SIGNS RESET	GUIDE REMOVE	GUIDE RESET	REFLECTIVITY	REMARKS
56.704		W1-2L	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14											FY	NEW
57.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 57
57.045 RT		D3 (2) D3	REMOVE 42 X 10	XI XI	XI XI									2.9 XI 2.9 XI															REMOVE - MT HWY 80 REPLACE - ELEVATOR RD
		R1-1	30 X 30	XI	XI	6-0		4" DIA POLE		12-8		5-0	3-0	5.2 XI			14							1					REPLACE
57.890 RT		W1-2L	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14											FY	NEW
57.914 RT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
57.944 RT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
57.974 RT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
58.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	3.8 XI								20		1					REPLACE - REF. POST 58
58.004 RT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
58.034 RT		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
58.064		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
58.094		(2) W1-8	24 X 30	XI		10-0		5" DIA POLE		12-8		5-0	3-6	5.0 XI 5.0 XI				14					X					FY	NEW
58.118		W1-2R	30 X 30	XI		10-0		4" DIA POLE		13-4		5-0	3-0	6.3 XI			14											FY	NEW
59.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 59
59.342 LT		D3 (2) D3	REMOVE 42 X 10	XI	XI									2.9 XI 2.9 XI															REMOVE - MT HWY 80 REPLACE -NORTH SEVEN MILE RD
		R1-1	30 X 30	XI	XI	6-0		4" DIA POLE		12-8		5-0	3-0	5.2 XI			14							1					REPLACE
60.000 RT		D10-2	10 X 27	XI	XI	4-0		STL U-POST		9-11		4-0	3-0	1.9 XI 1.9 XI								20		1					REPLACE - REF. POST 60
											PROJECT TOTAL			320.8			222	210				180		22					

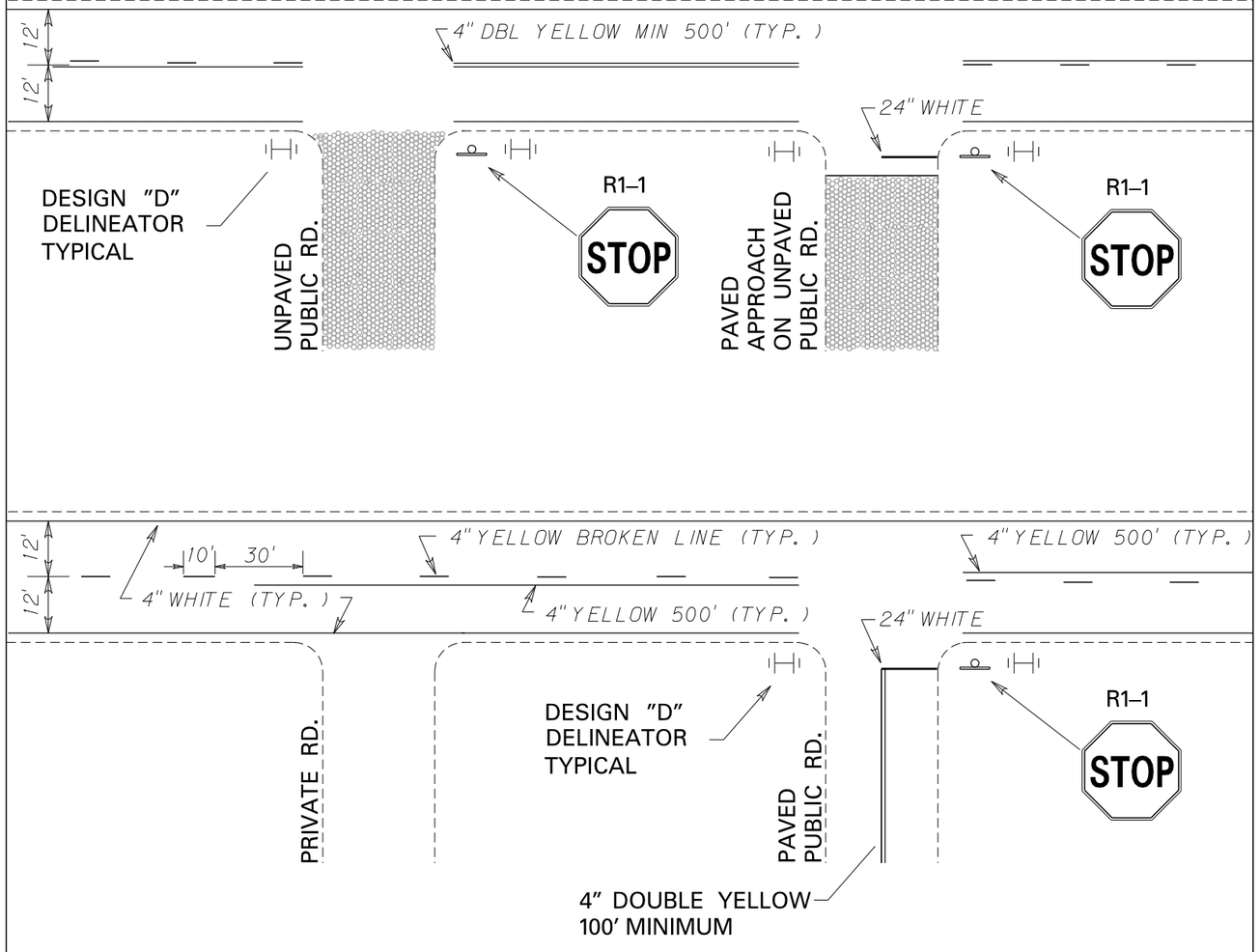
DELINEATION TABLE		
⊣	DESIGN "A"	242
⊣⊢⊣	DESIGN "D"	12
⊣⊢	DESIGN "F"	20

3	MONTANA Department of Transportation	C:\DGN\9857000sisum002.dgn	DESIGN BY: LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80) / STPP 80-2(10)50
2		3/11/2025	REVISED BY: NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000 / S6
1		1:51:16 PM CPS - U7498				

DETAILS

TYPICAL PAVEMENT MARKINGS

NO SCALE

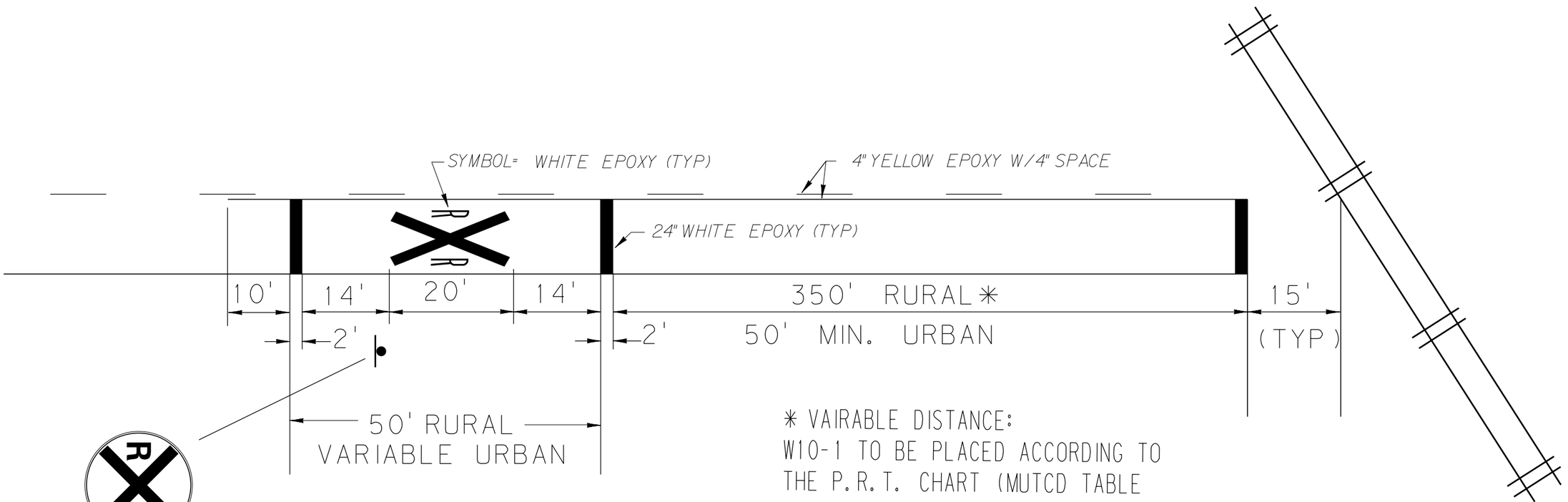


NOTE: FINAL CENTERLINE CONFIGURATION AND NO PASSING ZONES TO BE DETERMINED BY THE PROJECT MANAGER.

ALL PAVEMENT MARKINGS TO BE EPOXY UNLESS OTHERWISE SPECIFIED.

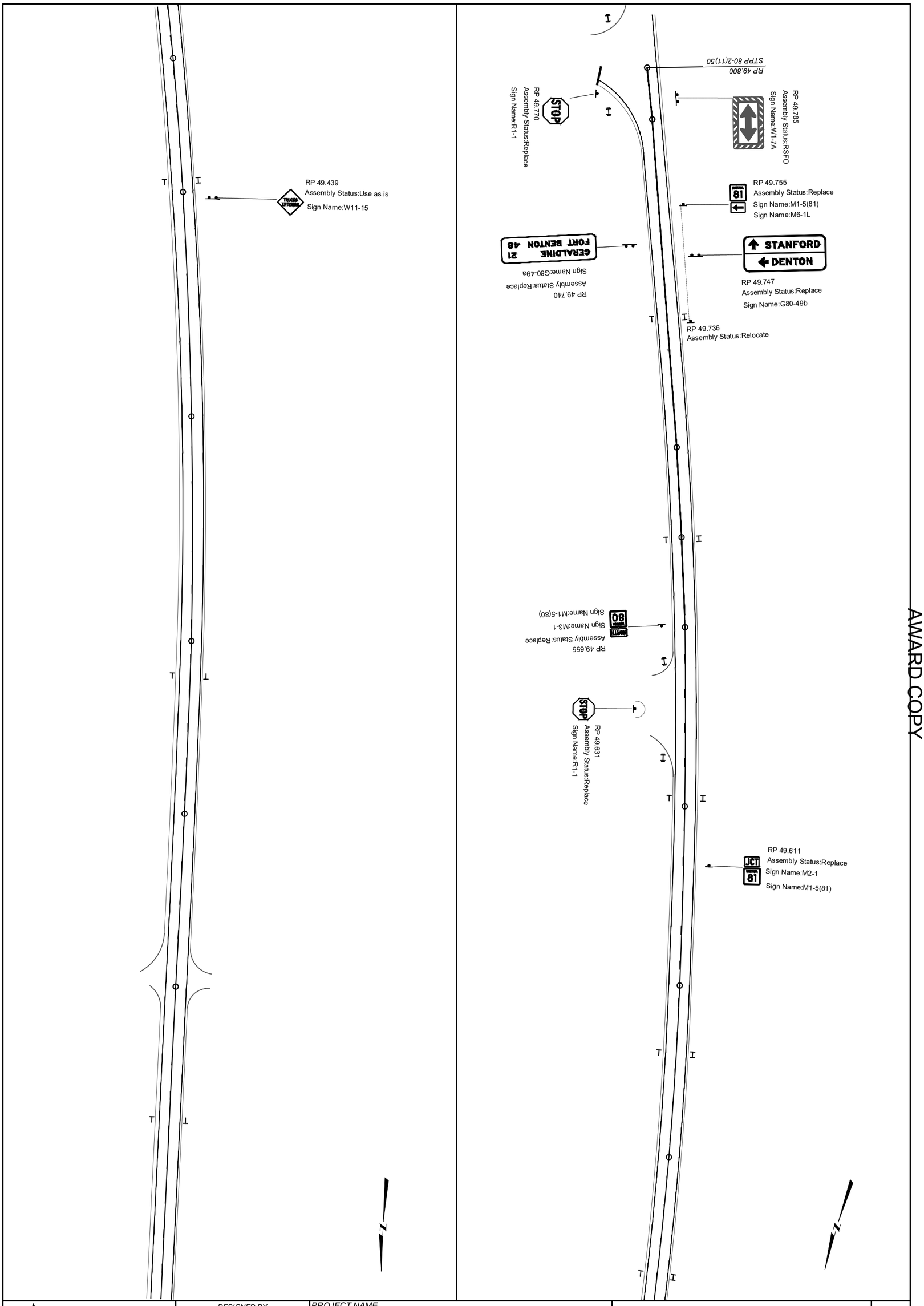
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DETAILS



RAILROAD CROSSING
PAVEMENT MARKINGS
TYPICAL

3	MONTANA Department of Transportation	C:\DGN\9857000sidet001.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025	CHECK BY	NATHAN STYREN		FERGUS/JUDITH BASIN COUNTY	UPN #9857000	S8
1		10:28:21 AM CPS - U7498						



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MONTANA Department of Transportation	DESIGNED BY: S.MORANO 01/2025	PROJECT NAME: JCT MT-81 - SOUTH (MT-80)	PLAN SHEET
SIGNING PLANS	REVIEWED BY:	COUNTY: FERGUS	SHEET NO. S9
3/6/2025 11:15 AM	CHECKED BY: N.STYREN 01/2025	PROJECT ID: STPP 80-2(10)50	
9857000SIPLN001.DWG		UPN: 9857000	

AWARD COPY

N

RP 49.000
Assembly Status:Replace
Sign Name:(2)D10-2 (49)

RP 49.033
Assembly Status:Replace
Sign Name:W7-1A
Sign Name:W7-3A

BEGIN RP 48.619
STPP 80-2(11)50

RP 48.768
Assembly Status:Replace
Sign Name:W23-1
Sign Name:W7-1A

RP 48.868
Assembly Status:Replace
Sign Name:W1-2L
Sign Name:W13-1

SHEET NO.
S10

PLAN SHEET

MONTANA
Department of Transportation

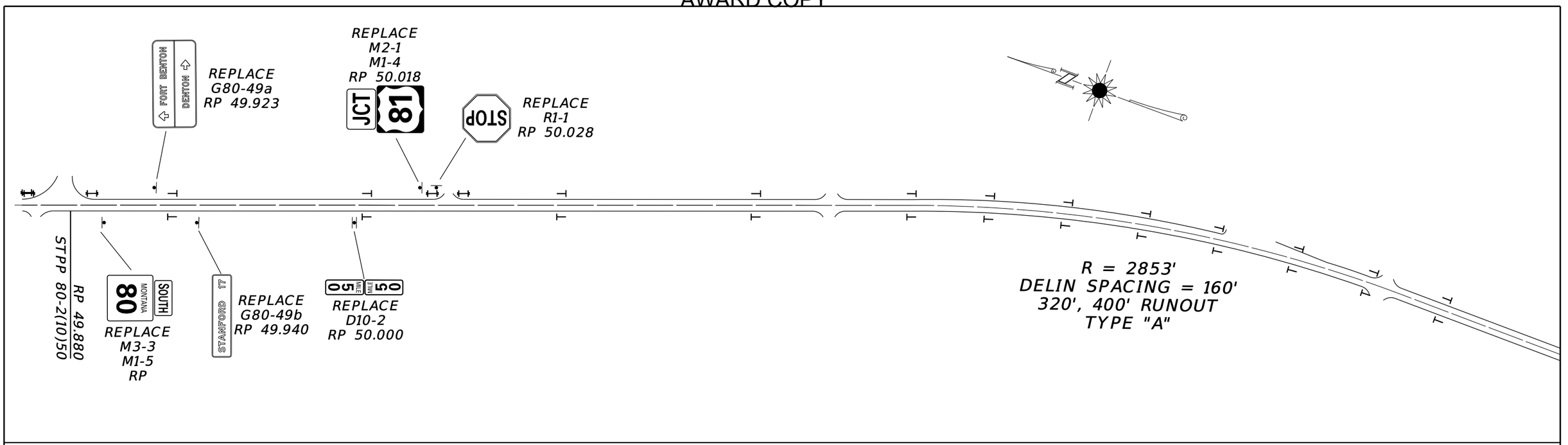
SIGNING PLANS

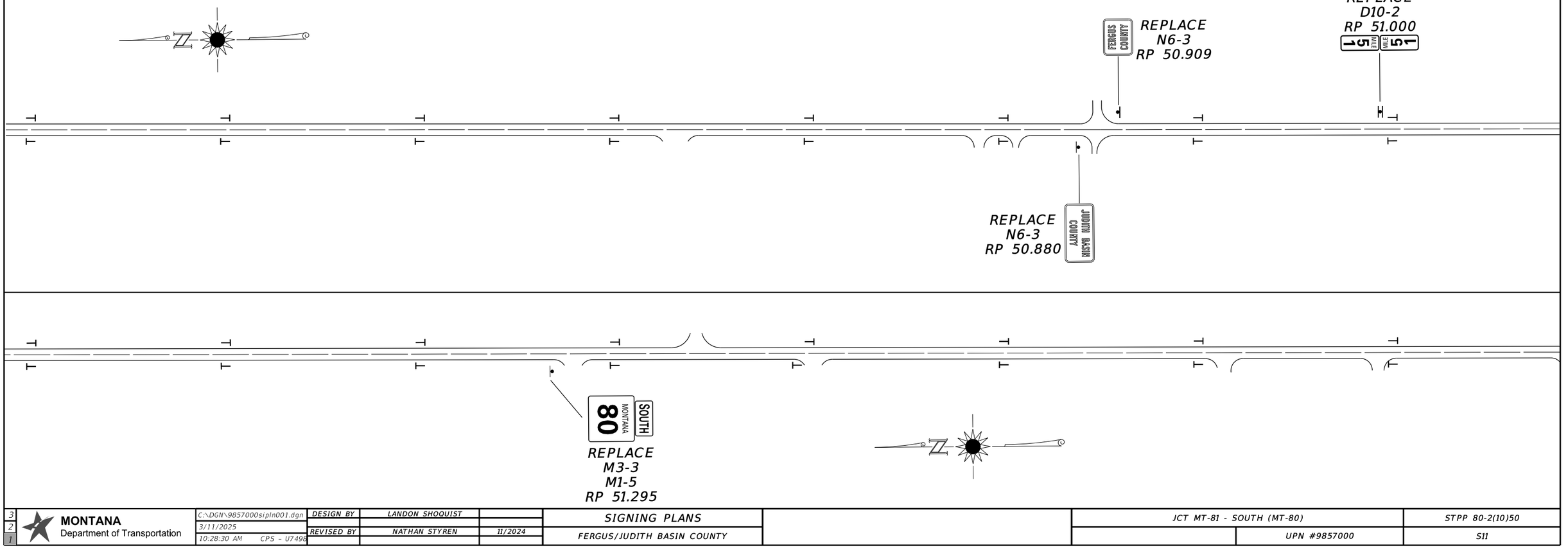
DESIGNED BY	S.MORANO	01/2025
REVIEWED BY		
CHECKED BY	N.STYRIEN	01/2025

PROJECT NAME: JCT MT-81 - SOUTH (MT-80)
COUNTY: FERGUS
PROJECT ID: STPP 80-2(10)50
UPN: 9857000

3/6/2025 11:15 AM
9857000SIPLN001.DWG

AWARD COPY





3	MONTANA Department of Transportation	C:\DGN\9857000sipln001.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025						
1		10:28:30 AM CPS - U7498	REVISED BY	NATHAN STYREN	11/2024	FERGUS/JUDITH BASIN COUNTY	UPN #9857000	S11

AWARD COPY

BY OTHERS
RAILROAD CROSSING
RP 51.970

RAILROAD CROSSING

RAILROAD CROSSING

REPLACE
W10-1
RP 51.705

BY OTHERS
RAILROAD CROSSING
RP 51.951

REPLACE
D10-2
RP 52.000

REMOVE
D-3
REPLACE
D-3
R1-1
RP 52.009

REPLACE
W10-1
RP 52.175

REPLACE
D10-2
RP 53.000

REPLACE
D10-2
RP 54.000

3	MONTANA Department of Transportation	C:\DGN\9857000sipln001.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025						
1		10:28:33 AM CPS - U7498	REVISED BY	NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000	S12

AWARD COPY

REPLACE
W2-2
RP 54.784

REMOVE
D-3
REPLACE
D-3
R1-1
RP 54.784

REPLACE
W2-2
RP 55.033

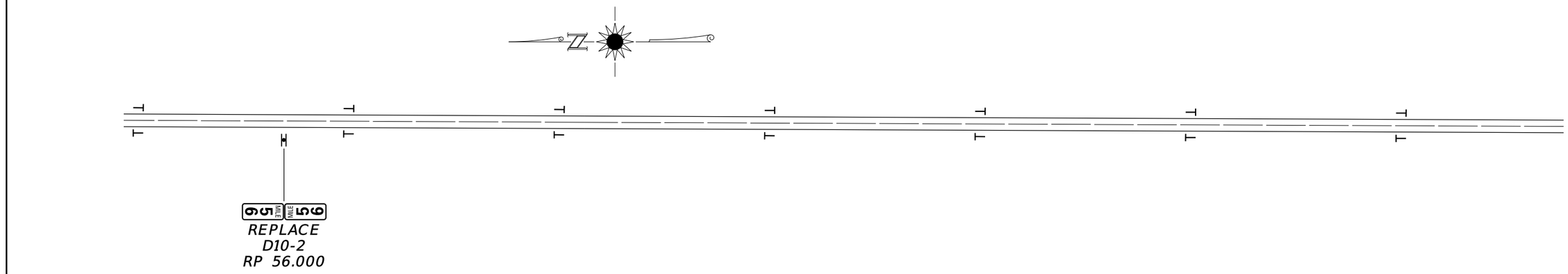
REPLACE
D10-2
RP 55.000

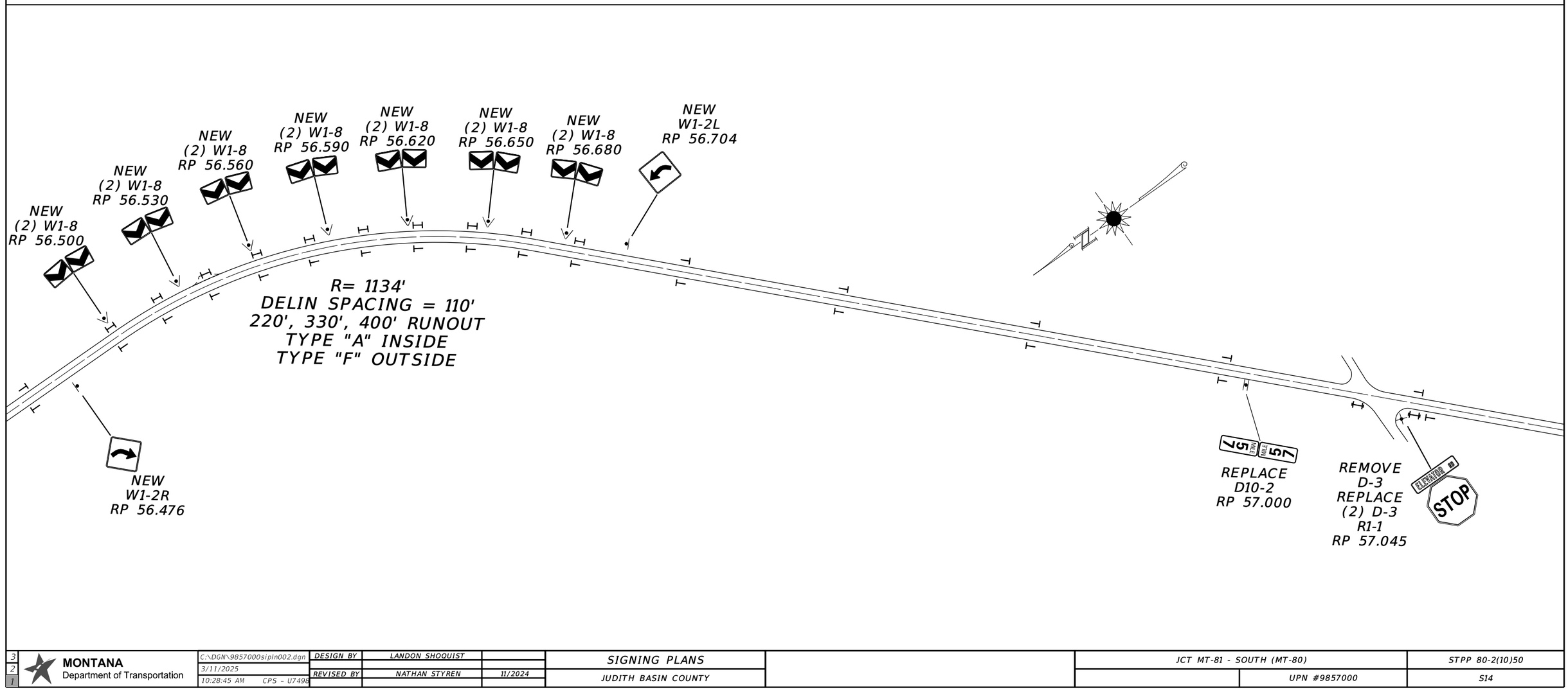
REMOVE
D-3
REPLACE
D-3
R1-1
RP 55.906

REMOVE
D-3
REPLACE
D-3
R1-1
RP 55.912

3	MONTANA Department of Transportation	C:\DGN\9857000sipln001.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025	REVISED BY	NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000	S13
1		10:28:36 AM CPS - U7498						

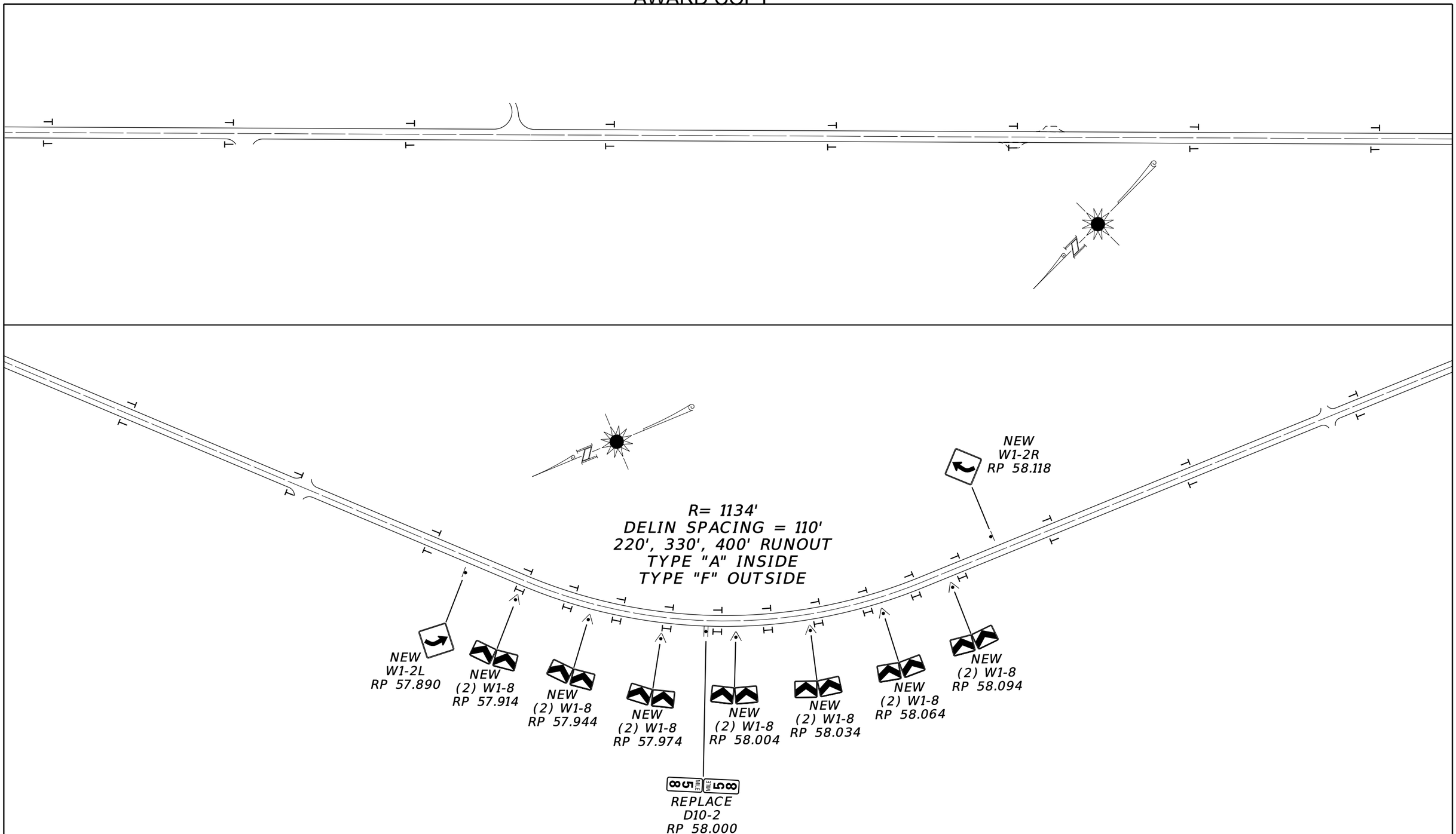
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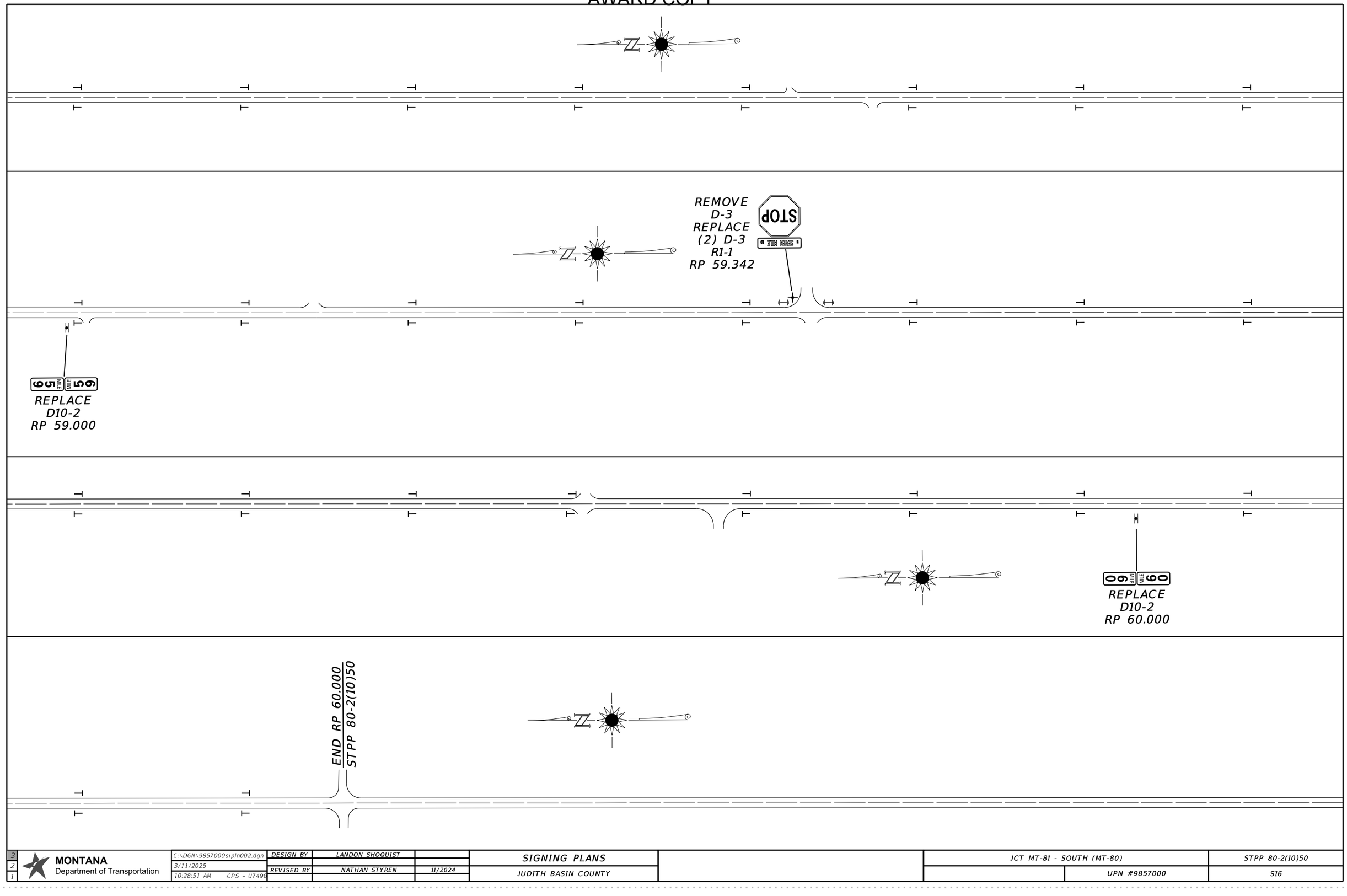
3	MONTANA Department of Transportation	C:\DGN\9857000sipln002.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025						
1		10:28:45 AM CPS - U7498	REVISED BY	NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000	S14

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3	MONTANA Department of Transportation	C:\DGN\9857000sipln002.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025	REVISED BY	NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000	S15
1		10:28:48 AM CPS - U7498						

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3	MONTANA Department of Transportation	C:\DGN\9857000sipln002.dgn	DESIGN BY	LANDON SHOQUIST		SIGNING PLANS	JCT MT-81 - SOUTH (MT-80)	STPP 80-2(10)50
2		3/11/2025						
1		10:28:51 AM CPS - U7498	REVISED BY	NATHAN STYREN	11/2024	JUDITH BASIN COUNTY	UPN #9857000	S16