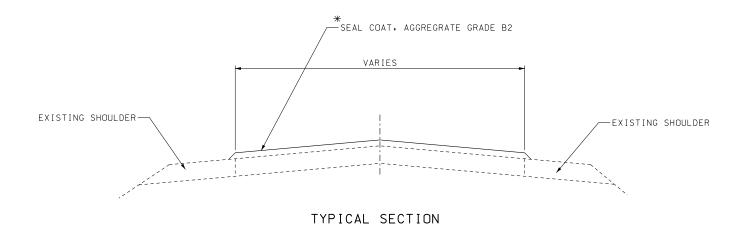


	SEAL COAT LOCATIONS								
LOG MILE	LOG MILE	ROUTE	DIRECTION	COUNTY					
0.000	5.800	N	S	BOONE					
0.869	9.815	WW	E	BOONE/CALLAWAY					
0.000	9.219	F	E	CALLAWAY					
0.049	20.462	J	S	CALLAWAY					
11.134	11.150	J/DD	S	CALLAWAY					
0.002	5.687	MM	W	CALLAWAY					
0.000	6.808	NN	S	CALLAWAY					



\* ROUTE J INCLUDES SURFACE LEVEL SCRATCH COURSE (BP-3 GRADATION PG64-22) AND TACK.

WHILE SCRATCHING HIGH SPOTS OF THE ROADWAY, BREAKING OF AGGREGATE WILL BE ACCEPTABLE.

ESTIMATE FACTORS:

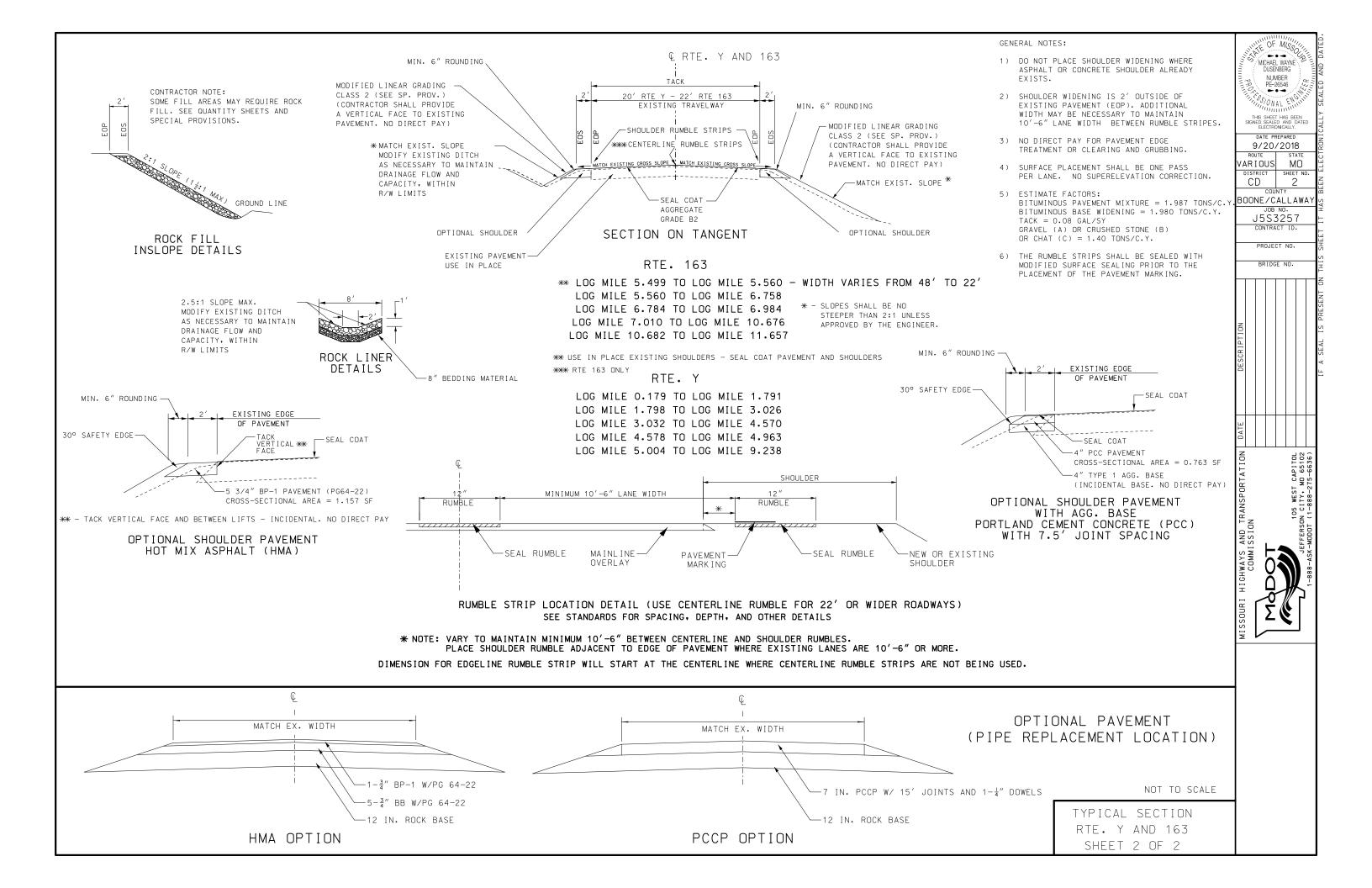
SURFACE LEVEL SCRATCH COURSE (BP-3 GRADATION PG64-22) - 1.893 TONS/C.Y.

TACK = 0.08 GAL/SY

EMULSIFIED ASPHALT, SEAL COAT= 0.38 GAL./S.Y.

ESTIMATED AVERAGE THICKNESS OF SCRATCH COURSE=\( \frac{3}{8} \)"

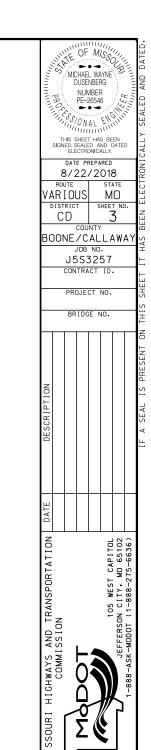
MICHAEL WAYNE DUSENBERG 8/22/2018 VARIOUS MO SHEET NO CD BOONE/CALLAWA J5S3257 CONTRACT ID. PROJECT NO. BRIDGE NO.



		REMUV	AL OF IMPROVEMENTS		
LOG MILE	LOG MILE	LOCATION	ITEM	QTY	REMARKS
NE COUNTY					
5.321	5.448	RTE N	GUARDRAIL & END TERMINAL	625 LF	
5.569		RTE 163	20" CMP	34 LF	SEE CULVERT SECTION SHEET
5.569		RTE 163	FULL DEPTH PAVEMENT	43.0 SY	SEE CULVERT SECTION SHEET
5.569		RTE 163	FULL DEPTH SAW CUT	42.3 LF	SEE CULVERT SECTION SHEET
6.745		RTE. 163 - LT & RT	GUARDRAIL, BRIDGE ANCHOR & END TERMINAL	140 LF	BR. A5794
6.784		RTE. 163 - LT & RT	GUARDRAIL, BRIDGE ANCHOR & END TERMINAL	140 LF	BR. A5794
6.962		RTE. 163 - LT	GUARDRAIL & TURNDOWN END	125 LF	BR.1803
6.958		RTE. 163 - RT	GUARDRAIL & TURNDOWN END	125 LF	BR.1803
7.012		RTE. 163 - LT	GUARDRAIL & TURNDOWN END	125 LF	BR.1803
7.008		RTE. 163 - RT	GUARDRAIL & TURNDOWN END	125 LF	BR.1803
10.907		RTE 163	36"X22" PIPE ARCH(B-5)	64 LF	SEE CULVERT SECTION SHEET
10.907		RTE 163	FULL DEPTH PAVEMENT	51.8 SY	SEE CULVERT SECTION SHEET
10.907		RTE 163	FULL DEPTH SAW CUT	48.4 LF	SEE CULVERT SECTION SHEET
11.153		RTE 163	30" CMP	66 LF	SEE CULVERT SECTION SHEET
11.153		RTE 163	FULL DEPTH PAVEMENT	58.0 SY	SEE CULVERT SECTION SHEET
11.153		RTE 163	FULL DEPTH SAW CUT	43.6 LF	SEE CULVERT SECTION SHEET
0.140		RTE. Y - LT	GUARDRAIL & END TERMINAL	630 LF	BR. N0038
0.181		RTE. Y - LT	GUARDRAIL & TURNDOWN END	275 LF	BR. N0038
0.240		RTE. Y - LT	GUARDRAIL & TURNDOWN END	225 LF	BR. N0038
4.949		RTE. Y - RT	GUARDRAIL, BRIDGE ANCHOR & END TERMINAL	70 LF	BR. N0038
5.005		RTE. Y - LT	GUARDRAIL, BRIDGE ANCHOR & END TERMINAL	70 LF	BR. N0038
AWAY COUNT	Υ				
1.866	1.980	RTE F	BRIDGE ANCHOR & END TERMINAL	75 LF	BR. B0334 - MILLERS CREEK
1.966	1.980	RTE F	GUARDRAIL, BRIDGE ANCHOR & END ANCHOR	80 LF	BR. B0334 - MILLERS CREEK
1.966	1.980	RTE F	BRIDGE ANCHOR & END TERMINAL	70 LF	BR. B0334 - MILLERS CREEK
2.002	2.016	RTE F	BRIDGE ANCHOR & END TERMINAL	70 LF	BR. B0334 - MILLERS CREEK
0.141		CALLAWAY CO RTE J WB OFF RAMP - RT	GUARDRAIL & END TERMINAL	163 LF	I-70 INTERCHANGE
0.000		CALLWAY CO RTE J WB ON RAMP - RT	GUARDRAIL, END ANCHOR & END TERMINAL	855 LF	I-70 INTERCHANGE
0.000		CALLWAY CO RTE J EB OFF RAMP - RT	GUARDRAIL & END TERMINAL	150 LF	I-70 INTERCHANGE
0.000		CALLAWAY CO RTE J WB OFF RAMP - LT	GUARDRAIL & BRIDGE ANCHOR	70 LF	BRDGE OVER I-70
0.000		CALLAWAY CO RTE J WB ON RAMP - LT	GUARDRAIL, BRIDGE ANCHOR & END ANCHOR	76 LF	BRDGE OVER I-70
0.049		CALLWAY CO RTE J EB OFF RAMP - LT	GUARDRAIL & BRIDGE ANCHOR	70 LF	BRDGE OVER I-70
0.049		CALLAWAY CO RTE J EB ON RAMP - LT	GUARDRAIL & BRIDGE ANCHOR	70 LF	BRDGE OVER I-70
			TOTAL	1	LUMP SUM

					(	CULVERTS	
			CORRUGATED				
			METALLIC-COATED				
		GROUP B	STEEL PIPE ARCH	GROUP B	B-5	CLASS 3	
APPROX.		30" PIPE	TYPE B-5	30" FES	FES	EXCAVATION	
OG MILE	LOCATION	LF	LF	EA	EΑ	CY	REMARKS
5.569	RTE 163	35		2		45	CULVERT REPLACEMENT - SEE CULVERT SECTION SHEET 1
10.907	RTE 163		59		2	86	CULVERT REPLACEMENT - SEE CULVERT SECTION SHEET 2
11.153	RTE 163	59		2		96	CULVERT REPLACEMENT - SEE CULVERT SECTION SHEET 3
	TOTAL	94	59	4	2	227	
	USE		59	4	2	227	

			SURI	FACE LEV	EL SCR	RATCH COUF	RSE (BP-3 GR.	ADATION)(P	G64-22) (ROUTE J)
			NET		AVG	AVERAGE	QUANTITY	TACK	
LOG	LOG		LENGTH	LENGTH	WIDTH	AREA	1.893 TONS/CY	0.08 GAL/SY	
MILE	MILE	LOCATION	MILES	FT	FT	SF	TONS	GALLONS	REMARKS
0.040	3.483	ROUTE J	3.443	18179.040	21	381759.840	836.43	3393.40	BEGIN AT SOUTH END OF I-70 BRIDGE
3.483	3.504	ROUTE J	0.021	110.880	VAR	6197.880	13.58	55.10	RADIUS AT INTERSECTION WITH RTE WW
3.504	4.314	ROUTE J	0.810	4276.800					EXCEPTION
4.314	4.332	ROUTE J	0.018	95.040	VAR	5201.480	11.40	46.20	RADIUS AT INTERSECTION WITH RTE F
4.332	7.112	ROUTE J	2.780	14678.400	22	322924.800	707.52	2870.40	
7.112	7.135	ROUTE J	0.023	121.440					BRIDGE EXCEPTION - A7277 AT MILLERS CREEK
7.135	7.207	ROUTE J	0.072	380.160	22	8363.520	18.32	74.30	
						TOTAL	1,587.25	6,439.40	
						USE	1587.3	6,439	
NOTE A	BOVE AR	EAS ARE F	IGURED	AT AVERAG	E DEPTH	OF 3/8"			
								·	



SUMMARY OF QUANTITIES SHEET 1 OF 13

					0	PTIONAL SH	OULDERS -	RTE. 163
			NET	NET	5 3/4" BP-1. PAVEMEN	IT MIX PG64-2	2	
LOG	LOG		l <sub>i ENGTH</sub>	LENGTH	CROSS SECTIONAL*	VOLUME	QUANTITY**	
MILE	MILE	LOCATION	MILES	1	AREA SQ. FT.	CY	TONS	REMARKS
5.589	6.721	ROUTE 163 - LT	1.132	2	1.157	256.12	498.93	NEMANO
6.721	6.813	ROUTE 163 - LT	0.092		1.131	230.12	130.33	EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.813	6.986	ROUTE 163 - LT	0.173	2	1.157	39.14	76.25	
6.986	7.012	ROUTE 163 - LT	0.026					EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.012	10.652	ROUTE 163 - LT	3.640	2	1.157	823.60	1604.38	
10.652	10.706	ROUTE 163 - LT	0.054					EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
10.706	11.647	ROUTE 163 - LT	0.941	2	1.157	212.93	414.79	
5.593	6.721	ROUTE 163 - RT	1.128	2	1.157	255.22	497.17	
6.721	6.813	ROUTE 163 - RT	0.092		4.457	70.04	7.4.40	EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.813	6.982	ROUTE 163 - RT	0.169	2	1.157	38.24	74.49	EVACUATION DRIPOS MARCA OVER ANNO AR
6.982 7.008	7.008	ROUTE 163 - RT	0.026 3.644	2	1.157	024 51	1000 14	EXCEPTION - BRIDGE A1803 OVER GANS CR.
0.652	10.632	ROUTE 163 - RT ROUTE 163 - RT	0.054	2	1.151	824.51	1606.14	EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
0.706	11.647	ROUTE 163 - RT	0.034	2	1.157	212.93	414.79	EXCEPTION - BRIDGE WOSSS OVER BONNE FEMINE CR. INCLUDES GUARDRAIL LENGTH
	11.041	MOULE 100 MI	0.341		1.131	∠1∠•JJ	714+13	
							EXCEPTIONS	
5.585	5.593	ROUTE 163 - RT	0.009	2	1.157	1.97	-3.84	ROCK BRIDGE ELEMENTARY SCHOOL
5.656	5.672	ROUTE 163 - RT	0.017	2	1.157	3.77	-7.35	PRIVATE ENTRANCE
5.772	5.784	ROUTE 163 - LT	0.012	2	1.157	2.74	-5.34	E. GANS RD ASPH. PAD
6.115	6.121	ROUTE 163 - RT	0.007	2	1.157	1.54	-3.01	HAPPY HOLLOW
6.206	6.212	ROUTE 163 - RT	0.006	2	1.157	1.29	-2.50	PRIVATE ENTRANCE
6.289	6.303	ROUTE 163 - RT	0.013	2	1.157	3.00	-5.84	ROCK BRIDGE STATE PARK
6.379	6.389	ROUTE 163 - RT	0.011	2	1.157	2.40	-4.67	ROCK BRIDGE STATE PARK
6.655	6.661	ROUTE 163 - LT	0.006	2	1.157	1.29	-2.50	PRIVATE ENTRANCE
6.938	6.942	ROUTE 163 - LT	0.005	2	1.157	1.03	-2.00	SOUTH ROCK QUARRY RD.
7.052	7.076	ROUTE 163 - RT	0.024	2	1.157	5.40	-10.52	ROCK BRIDGE STATE PARK
7.625	7.633	ROUTE 163 - LT	0.007	2	1.157	1.63	-3.17	WHISENHUNT DR
7.700	7.716	ROUTE 163 - LT	0.015	2	1.157	3.43	-6.68	PRIVATE ENTRANCE - DOUBLE
7.725	7.731	ROUTE 163 - RT	0.006	2	1.157	1.37	-2.67	PRIVATE ENTRANCE - CIRCLE DRIVE
7.729	7.735	ROUTE 163 - RT	0.006	2	1.157	1.29	-2.50	PRIVATE ENTRANCE - CIRCLE DRIVE
7.763	7.773	ROUTE 163 - LT	0.011	2	1.157	2.49	-4.84	PRIVATE ENTRANCE
7.822 7.969	7.826 7.975	ROUTE 163 - RT ROUTE 163 - LT	0.005	2	1.157 1.157	1.11	-2.17 -2.34	PRIVATE ENTRANCE PRIVATE ENTRANCE
8.002	8.008	ROUTE 163 - LT	0.005	2	1.157	1.29	-2.50	PRIVATE ENTRANCE
8.205	8.211	ROUTE 163 - LT	0.005	2	1.157	1.20	-2.34	PRIVATE ENTRANCE
8.212	8.218	ROUTE 163 - LT	0.005	2	1.157	1.46	-2.84	PRIVATE ENTRANCE
8.403	8.409	ROUTE 163 - LT	0.007	2	1.157	1.54	-3.01	PRIVATE ENTRANCE
9.086	9.092	ROUTE 163 - LT	0.007	2	1.157	1.54	-3.01	PRIVATE ENTRANCE
9.777	9.799	ROUTE 163 - RT	0.023	2	1.157	5.14	-10.02	SOUTH BENNETT DR.
0.155	10.161	ROUTE 163 - RT	0.006	2	1.157	1.37	-2.67	PRIVATE ENTRANCE
0.279	10.289	ROUTE 163 - LT	0.009	2	1.157	2.06	-4.01	PRIVATE ENTRANCE
10.361	10.373	ROUTE 163 - LT	0.012	2	1.157	2.74	-5.34	PRIVATE ENTRANCE
0.585	10.591	ROUTE 163 - LT	0.006	2	1.157	1.46	-2.84	PRIVATE ENTRANCE
0.921	10.933	ROUTE 163 - RT	0.012	2	1.157	2.74	-5.34	WALDEN ESTATES
1.191	11.203	ROUTE 163 - LT	0.011	2	1.157	2.57	-5.01	PRIVATE ENTRANCE
1.419	11.495	ROUTE 163 - LT	0.077	2	1.157	17.31	-33.72	COMMERCIAL ENTRANCE - TRIPLE
1.496	11.508	ROUTE 163 - LT	0.012	2	1.157	2.74	-5.34	COMMERCIAL ENTRANCE
1.514	11.530	ROUTE 163 - LT	0.016	2	1.157	3.51	-6.84	COMMERCIAL ENTRANCE
1.552	11.564	ROUTE 163 - LT	0.011	2	1.157	2.57	-5.01	COMMERCIAL ENTRANCE
1.592	11.612	ROUTE 163 - LT	0.019	2	1.157	4.37	-8.51	COMMERCIAL ENTRANCE
1.600	11.612	ROUTE 163 - RT	0.012	2	1.157	2.83	-5.51	COMMERCIAL ENTRANCE
					DTE 407	CUDTOTAL (4)	F 004 40	
					=	SUBTOTAL (1)		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
					KIE Y	TOTAL (2)		★★ 5 3/4" BP-1 - 1.948 TON/CY   LOG MILES ARE APPROXIMATE
SE IN DI	VCE EAT	STING PAVED DITCH	H I DG MT	10 775 T	O LOG MI 10.810 - RT	USE		BITUMINOUS PAVEMENTS SHALL CONSIST OF BP-1 MIX
		UDES SAFETY EDG		10.113	2 500 MI 10.010 - KI	USE	1 1 2 9 0 2 3 • 3	1 - ALTOWINGOS LAVEMENTS SHALL CONSIST OF DE-1 MIV

					TYPE	3 ROCK DITCH L	INER	
				FURNISH	PLACING	BEDDING	PERMANENT	
				TYPE 3	TYPE 3	MATERIAL FOR	EROSION CONTROL	
APPROX.		APPROX.		ROCK DITCH LINER	ROCK DITCH LINER	ROCK DITCH LINER	GEOTEXTILE	
LOG MILE	TO	LOG MILE	LOCATION	CY	CY	CY	SY	REMARKS
2.878		2.958	RTE Y - RT	151.8	151.8	101.2	549.1	DITCH LINER
3.059		3.158	RTE Y - RT	187.8	187.8	125.2	679.5	DITCH LINER
4.302		4.438	RTE Y - LT	258.0	258.0	172.0	933.5	DITCH LINER
4.266		4.438	RTE Y - RT	326.3	326.3	217.5	1180.6	DITCH LINER
			TOTAL	923.8	923.8	615.9	3342.8	
			USE	923.8	923.8	616	3343	DITCH LINER LOCATIONS ARE APPROXIMATE
DITCH LINER	WIDTH	FIGURED AT 8	B' WIDE					FINAL LOCATIONS TO BE APPROVED BY THE ENGINEER

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED SECTIONCALLY.

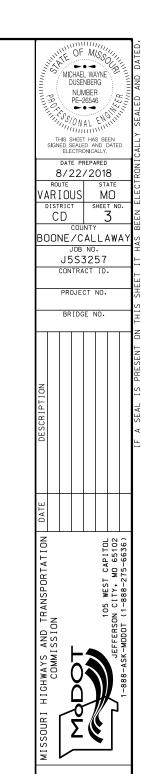
DATE PREPARED 9/20/2018

ROUTE STATE VARIOUS MO
DISTRICT SHEET NO.
CD 3 COUNTY
BOONE/CALLAWAY
JOB NO.
J5S3257
CONTRACT ID. PROJECT NO.

SUMMARY OF QUANTITIES SHEET 2 OF 13

						OPTIONAL SH	HOULDERS -	- RTE. Y
			NET		5 3/4" BP-1. PAVEMEN	IT MIX PG64-2:	2	
LOG	LOG		LENGTH	WIDTH	CROSS SECTIONAL*	VOLUME	QUANTITY**	
MILE	MILE	LOCATION	MILES	FT	AREA SQ. FT.	CY	TONS	REMARKS
0,179	1.790	ROUTE Y - LT	1.611	2	1.157	364.56	710.17	
1.790	1.792	ROUTE Y - LT	0.002	VARIES	0.918	0.34	0.66	
1.792	1.798	ROUTE Y - LT	0.006	1	0.678	0.75	1.47	CULVERT LOG MI 1.795 FOWLER CR.
1.798	1.800	ROUTE Y - LT	0.002	VARIES	0.918	0.34	0.66	
1.800	3.025	ROUTE Y - LT	1.225	2	1.157	277.15	539.88	
3.025	3.027	ROUTE Y - LT	0.002	VARIES	0.918	0.34	0.66	
3.027	3.031	ROUTE Y - LT	0.005	1	0.678	0.65	1.27	CULVERT LOG MI 3.029 BRUSHY CR.
3.031	3.033	ROUTE Y - LT	0.002	VARIES	0.918	0.34	0.66	
3.033	4.569	ROUTE Y - LT	1.535	2	1.157	347.38	676.70	
4.569	4.571	ROUTE Y - LT	0.002	VARIES	0.918	0.34	0.66	CILL VEDT. LOC MI. 4.574 CONNOD CD
4.571	4.577 4.579	ROUTE Y - LT ROUTE Y - LT	0.006	1 VARIES	0.678 0.918	0.83	0.66	CULVERT LOG MI 4.574 CONNOR CR.
4.579	4.947	ROUTE Y - LT	0.368	2	1.157	83.32	162.31	
4.947	5.026	ROUTE Y - LT	0.366		1.131	03.34	102.31	EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.026	9.238	ROUTE Y - LT	4.212	2	1.157	953.00	1856.44	ENGL. 115.1 SAIDGE MOUSS STEN GEBAN SHEEK THOUGHES GUANDHAIL
				<u> </u>			1223711	
0,179	1.790	ROUTE Y - RT	1.611	2	1.157	364.56	710.17	
1.790	1.792	ROUTE Y - RT	0.002	VARIES	0.918	0.34	0.66	
1.792	1.798	ROUTE Y - RT	0.006	1	0.678	0.75	1.47	CULVERT LOG MI 1.795 FOWLER CR.
1.798	1.800	ROUTE Y - RT	0.002	VARIES	0.918	0.34	0.66	
1.800	3.025	ROUTE Y - RT	1.225	2	1.157	277.15	539.88	
3.025	3.027	ROUTE Y - RT	0.002	VARIES	0.918	0.34	0.66	
3.027	3.031	ROUTE Y - RT	0.005	1	0.678	0.65	1.27	CULVERT LOG MI 3.029 BRUSHY CR.
3.031	3.033	ROUTE Y - RT	0.002	VARIES	0.918	0.34	0.66	
3.033	4.569	ROUTE Y - RT	1.536	2	1.157	347.51	676.95	
4.569	4.571	ROUTE Y - RT	0.002	VARIES	0.918	0.34	0.66	
4.571	4.577	ROUTE Y - RT	0.006	1	0.678	0.83	1.61	CULVERT LOG MI 4.574 CONNOR CR.
4.577	4.579 4.941	ROUTE Y - RT	0.002	VARIES 2	0.918 1.157	0.34 81.84	0.66 159.42	
4.941	5.020	ROUTE Y - RT	0.362		1.157	81.84	159.42	EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.020	9.238	ROUTE Y - RT	4.218	2	1.157	954.36	1859.08	EACEPTION - BRIDGE NOOSO OVER CEDAN CREEK - INCLUDES GUANDRAIL
3.020	3.230	NOOTE 1 INT	4.210		1.131	334.30	1033.00	
1.887		ROUTE Y - RT				0.98	1.91	ENTRANCE REPLACEMENT FOR DRIVEWAY PIPE
11001						0.00	1101	E. W. W. C.
							EXCEPTIONS	
0.173	0.194	ROUTE Y - LT	0.020	2	1.044	4.14	-8.06	RAMP 63 NORTH
0.239	0.255	ROUTE Y - LT	0.016	2	1.044	3.36	-6.55	INDUSTRIAL DR.
0.379	0.396	ROUTE Y - LT	0.017	2	1.044	3.56	-6.93	SILVER SNIPE ST.
0.463	0.473	ROUTE Y - LT	0.010	2	1.044	2.01	-3.92	COMMERCIAL ENTRANCE
0.618	0.638	ROUTE Y - LT	0.020	2	1.044	4.10	-7.98	AMERICAN SETTER DR.
1.081	1.095	ROUTE Y - LT	0.015	2	1.044	3.02	-5.88	ROBBIE FORBIS RD - ASPH PAD
1.081	1.095	ROUTE Y - RT	0.014	2	1.044	2.86	-5.57	ROBBIE FORBIS RD - ASPH PAD
1.833	1.841	ROUTE Y - LT	0.007	2	1.044	1.47	-2.86	COMMERCIAL ENTRANCE - CHURCH
1.885	1.889	ROUTE Y - LT	0.005	2	1.044	0.93	-1.81	PRIVATE ENTRANCE
2.059	2.075	ROUTE Y - LT	0.015	2	1.044	3.09	-6.03	SOUTH RANGELINE RD.
2.375	2.381	ROUTE Y - RT	0.006	2	1.044	1.24	-2.41	PRIVATE ENTRANCE
2.738	2.756 3.455	ROUTE Y - LT	0.017	2	1.044	3.56 1.39	-6.93 -2.71	SOUTH HAWKINS RD BOB VEACH RD
4.883	4.895	ROUTE Y - LT	0.007	2	1.044	2.32	-4.52	CLINKEN BEARD RD
6.740	6.764	ROUTE Y - LT	0.023	2	1.044	4.79	-9.34	PINE RIDGE RECREATIONAL AREA
8.353	8.363	ROUTE Y - LT	0.023	2	1.044	2.01	-3.92	BLESSING LN
10,000	3.303		0.010		1.011	2.01	3.32	
			1		RTF Y	SUBTOTAL (2)	7,824.15	** 5 3/4" BP-1 - 1.948 TON/CY
					,,,,,		1.52.110	LOG MILES ARE APPROXIMATE
								BITUMINOUS PAVEMENTS SHALL CONSIST OF BP-1 MIX
* PER SI	DE - INCL	LUDES SAFETY EDG	E					

			FU	LL DEPTH	OPTIONAL PA	AVEMENT REPLACEMENT
					FURNISHING	
				OPTIONAL	AND PLACING	
APPROX.		LENGTH	WIDTH	PAVEMENT	12" ROCK BASE	
LOG MILE	LOCATION	FT	FT	SY	SY	REMARKS
5.569	RTE 163	18.40	21.15	43.2	43.2	AT CULVERT REPLACEMENT
10.907	RTE 163	19.30	21.20	51.8	51.8	SKEWED - AT CULVERT REPLACEMENT
11.153	RTE 163	24.00	21.76	58.0	58.0	AT CULVERT REPLACEMENT
			TOTAL	95.0	95.0	HMA - 1-3/4" BP-1 OVER 5-3/4" BIT. BASE
			USE	95.0	95.0	PCCP - 7" PCCP W/ 15' JOINTS AND 1-1/4" DOWELS
						CULVERT REPLACEMENT AREAS ARE APPROXIMATE



10.706				MODIFIED	LINEAR GRADII	NG, CLASS 2 - RTE. 163
1.00 MILE   LOG MILE   LOCATION   FT					MODIFIED LINEAR	
1.588   6.721   NOUTE 163   LT   5976.96   59.77   EXCEPTION - BRIDGE AST94 OVER QUEAR DK. INCLIDES EXIST SHOULDER				LENGTH	GRADING, CL 2	
1.588   6.721   NOUTE 163   LT   5976.96   59.77   EXCEPTION - BRIDGE AST94 OVER QUEAR DK. INCLIDES EXIST SHOULDER	ING MILE	ling MILE	LOCATION	FT	STA	REMARKS
6.731   6.873   FRUTE 163 LT   485.76   EXCEPTION   BRIDGE ARTS OVER GLAR CR.   NOLUCES EXIST BIBLIORS   6.936   7.072   ROLT 163 LT   137.78   9.13   6.937   ROLT 163 LT   137.78   9.13   6.938   7.072   ROLT 163 LT   137.78   9.13   6.939   ROLT 163 LT   137.78   9.15   6.939   ROLT 163 LT   137.78   9.95   6.931   ROLT 163 LT   137.78   9.95   6.931   ROLT 163 LT   137.78   9.95   6.931   ROLT 163 LT   137.78   6.932   ROLT 163 LT   137.78   6.933   ROLT 163 LT   137.78   6.934   ROLT 163 LT   137.78   6.935   ROLT 163 LT   137.78   6.936   ROLT 163 LT   137.78   6.937   ROLT 163 LT   137.78   6.938   ROLT 163 LT   137.78   6.939   ROLT 163 LT   137.78   6.930   ROLT 163 LT   137.78   6.930   ROLT 163 LT   137.78   6.930   ROLT 163						TIE MINITO
1.0   1.0					33111	EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
1.0.562   7.0.12   PODIT 163 - LT   137.78   EXCEPTION - RETIDE ALBOS GYER BANGER.					9.13	
2.012   10.682   ROUTE 163 - LT   19219-76   192-20   EXCEPTION - BRIDGE WOSS9 OVER BONNE FERME CR. INCLIDES CUMPORALL LENDT 10.706   11.647   ROUTE 163 - LT   4969.04   49.69						EXCEPTION - BRIDGE A1803 OVER GANS CR.
10.706	7.012	10.652	ROUTE 163 - LT	19219.76	192.20	
Second Color	10.652	10.706	ROUTE 163 - LT	284.00		EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
6.121   6.813   ROUTE 163 - RT	10.706	11.647	ROUTE 163 - LT	4969.04	49.69	
6.121   6.813   SQUEE 163 - 81   485.76   EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER (5.813 6.922   7.000   SQUEE 163 - 81   137.28   EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES GUARDRAIL LENGTH (7.005 1) (6.622   80.17 163 - 81   19240.88   192.41	5.593	6.721	ROUTE 163 - RT	5955.84	59.56	
5.982   7.008   ROLTE 163 - RT   137.28   EXCEPTION - BRIDGE A1803 DVER SANS CR.	6.721		ROUTE 163 - RT	485.76		EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
1,0552	6.813	6.982	ROUTE 163 - RT	892.32	8.92	
10.766	6.982	7.008	ROUTE 163 - RT	137.28		EXCEPTION - BRIDGE A1803 OVER GANS CR.
10.706		10.652	ROUTE 163 - RT	19240.88	192.41	
S.188	10.652	10.706	ROUTE 163 - RT	284.00		EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
5.585 5.593 ROUTE 163 - RT 1 20.00 -1.20 ROCK BRIDGE ELEMENTARY SCHOOL 5.772 5.784 ROUTE 163 - RT 88.00 -0.88 PRIVATE ENTRANCE 5.772 5.784 ROUTE 163 - RT 10.00 -1.10 HAPPY HOLLOW 6.206 6.212 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.289 6.303 ROUTE 163 - RT 70.00 -0.70 ROCK BRIDGE STATE PARK 6.379 6.389 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.457 6.661 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.458 6.661 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.559 6.303 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.559 6.304 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.559 6.305 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.479 6.389 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.479 7.052 7.076 ROUTE 163 - LT 30.00 -0.24 SOUTH ROCK OUARRY RD. 7.052 7.076 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 6.470 ROCK BRIDGE STATE PARK 7.052 7.763 ROUTE 163 - LT 38.00 -0.38 WHISENHALD RD. 7.700 7.716 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE DOUBLE 7.726 7.731 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.726 7.731 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.762 7.735 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.763 7.777 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.763 7.777 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.764 7.757 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.765 7.767 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.777 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 ROUTE 163 - LT 30.00 -0.36 P	10.706	11.647	ROUTE 163 - RT	4969.04	49.69	
5.585 5.593 ROUTE 163 - RT 1 20.00 -1.20 ROCK BRIDGE ELEMENTARY SCHOOL 5.772 5.784 ROUTE 163 - RT 88.00 -0.88 PRIVATE ENTRANCE 5.772 5.784 ROUTE 163 - RT 10.00 -1.10 HAPPY HOLLOW 6.206 6.212 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.289 6.303 ROUTE 163 - RT 70.00 -0.70 ROCK BRIDGE STATE PARK 6.379 6.389 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.457 6.661 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.458 6.661 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.559 6.303 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.559 6.304 ROUTE 163 - RT 56.00 -0.56 ROCK BRIDGE STATE PARK 6.559 6.305 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.479 6.389 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6.479 7.052 7.076 ROUTE 163 - LT 30.00 -0.24 SOUTH ROCK OUARRY RD. 7.052 7.076 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 6.470 ROCK BRIDGE STATE PARK 7.052 7.763 ROUTE 163 - LT 38.00 -0.38 WHISENHALD RD. 7.700 7.716 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE DOUBLE 7.726 7.731 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.726 7.731 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.762 7.735 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.763 7.777 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.763 7.777 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.764 7.757 ROUTE 163 - LT 30.00 -0.26 RRIVATE ENTRANCE - CIRCLE DRIVE 7.765 7.767 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.777 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 7.779 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 ROUTE 163 - LT 30.00 -0.36 PRIVATE ENTRANCE 7.769 ROUTE 163 - LT 30.00 -0.36 P			EXCEPTIONS			
S.772   S.784   ROUTE 163 - LT	5.585	5.593		120.00	-1.20	ROCK BRIDGE ELEMENTARY SCHOOL
6.115 6.121 ROUTE 163 - RT 10.00 -1.10 HAPPY HOLLOW 6.289 6.292 ROUTE 163 - RT 70.00 -0.30 PRIVATE ENTRANCE 6.289 6.303 ROUTE 163 - RT 70.00 -0.70 ROCK BRIDGE STATE PARK 6.6379 6.389 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 6.655 6.661 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 6.938 6.942 ROUTE 163 - LT 24.00 -0.24 SOUTH ROCK GUARRY RD. 7.052 7.076 ROUTE 163 - LT 38.00 -0.38 WHISENHUNT DR 7.052 7.076 ROUTE 163 - LT 38.00 -0.38 WHISENHUNT DR 7.700 7.716 ROUTE 163 - LT 80.00 -0.30 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - LT 80.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - LT 80.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - LT 80.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE -0.00 RD REPROPERTIES AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE ROUTE STATE AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE ROUTE STATE AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE ROUTE STATE AND ROUTE 163 - RT 30.00 PRIVATE ENTRANCE ROUTE STATE AND ROUTE STATE ST	5.656	5.672	ROUTE 163 - RT	88.00	-0.88	PRIVATE ENTRANCE
6-206 6.212 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE 6-289 6.303 ROUTE 163 - RT 70.00 -0.70 ROUK BRIDGE STATE PARK 6-655 6.661 ROUTE 163 - RT 50.00 -0.56 ROUK BRIDGE STATE PARK 6-655 6.661 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 6-338 6.942 ROUTE 163 - LT 24.00 -0.24 SOUTH ROUK GUARRY RD. 7.052 7.06 ROUTE 163 - RT 126.00 -1.26 ROUK BRIDGE STATE PARK 7.052 7.06 ROUTE 163 - LT 38.00 -0.38 WHISENBURD OR ROUTE 163 - LT 36.00 -1.26 ROUK BRIDGE STATE PARK 7.700 7.716 ROUTE 163 - LT 38.00 -0.38 WHISENBURD OR ROUTE 163 - LT 38.00 -0.38 WHISENBURD OR ROUTE 163 - LT 36.00 -0.80 PRIVATE ENTRANCE - CIRCLE DRIVE 7.729 7.735 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE - CIRCLE DRIVE 7.729 7.735 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.999 7.975 ROUTE 163 - RT 30.00 -0.38 PRIVATE ENTRANCE - CIRCLE DRIVE 7.999 7.975 ROUTE 163 - RT 30.00 -0.38 PRIVATE ENTRANCE - CIRCLE DRIVE 7.999 8.002 8.008 ROUTE 163 - LT 36.00 -0.26 PRIVATE ENTRANCE ROUTE	5.772	5.784	ROUTE 163 - LT	64.00	-0.64	E. GANS RD ASPH. PAD
6.289	6.115	6.121	ROUTE 163 - RT	110.00	-1.10	HAPPY HOLLOW
6.379	6.206	6.212	ROUTE 163 - RT	30.00	-0.30	
6.655 6.661 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 7.625 7.676 ROUTE 163 - LT 126.00 -1.26 ROCK BRIDGE STATE PARK 7.625 7.633 ROUTE 163 - LT 38.00 -0.38 WHISENHUIT DR 7.726 7.736 ROUTE 163 - LT 38.00 -0.80 PRIVATE ENTRANCE -DOUBLE 7.727 7.731 ROUTE 163 - LT 32.00 -0.32 PRIVATE ENTRANCE -CIRCLE DRIVE 7.728 7.731 ROUTE 163 - LT 58.00 -0.80 PRIVATE ENTRANCE -CIRCLE DRIVE 7.729 7.735 ROUTE 163 - LT 58.00 -0.58 PRIVATE ENTRANCE -CIRCLE DRIVE 7.763 7.773 ROUTE 163 - LT 58.00 -0.58 PRIVATE ENTRANCE -CIRCLE DRIVE 7.782 7.782 ROUTE 163 - LT 58.00 -0.58 PRIVATE ENTRANCE 7.999 7.975 ROUTE 163 - LT 28.00 -0.28 PRIVATE ENTRANCE 8.002 8.008 ROUTE 163 - LT 28.00 -0.28 PRIVATE ENTRANCE 8.205 8.211 ROUTE 163 - LT 28.00 -0.28 RIVATE ENTRANCE 8.212 8.218 ROUTE 163 - LT 34.00 -0.34 PRIVATE ENTRANCE 8.213 8.218 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.006 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.007 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 8.009 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 8.009 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.008 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.0091 10.299 ROUTE 163 - LT 36.00 -0.64 PRIVATE ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.00 -0.00 PRIVATE ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.64 PRIVATE ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.64 PRIVATE ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.60 PRIVATE ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.60 COMMERCIAL ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.60 COMMERCIAL ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.60 COMMERCIAL ENTRANCE 9.0092 ROUTE 163 - LT 36.00 -0.66 COMMERCIA	6.289	6.303	ROUTE 163 - RT	70.00	-0.70	
6.938 6.942 ROUTE 163 - LT 24.00 -0.24 SOUTH ROCK OUARRY RD. 7.052 7.076 ROUTE 163 - RT 126.00 -1.26 ROCK BRIGGE STATE PARK 7.052 7.076 ROUTE 163 - LT 38.00 -0.38 WHISENHUNT DR 7.100 7.716 ROUTE 163 - LT 80.00 -0.60 PRIVATE ENTRANCE - CIRCLE DRIVE 7.727 7.731 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE - CIRCLE DRIVE 7.729 7.735 ROUTE 163 - RT 30.00 -0.30 PRIVATE ENTRANCE - CIRCLE DRIVE 7.749 7.735 ROUTE 163 - LT 56.00 -0.66 PRIVATE ENTRANCE 7.749 7.757 ROUTE 163 - RT 26.00 -0.26 PRIVATE ENTRANCE 7.749 7.757 ROUTE 163 - RT 26.00 -0.26 PRIVATE ENTRANCE 7.969 7.975 ROUTE 163 - LT 26.00 -0.28 PRIVATE ENTRANCE 7.969 7.975 ROUTE 163 - LT 26.00 -0.28 PRIVATE ENTRANCE 8.205 8.211 ROUTE 163 - LT 26.00 -0.28 PRIVATE ENTRANCE 8.205 8.211 ROUTE 163 - LT 36.00 -0.30 PRIVATE ENTRANCE 8.403 8.409 ROUTE 163 - LT 36.00 -0.34 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.777 9.799 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.777 9.799 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.777 9.799 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.026 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.027 9.028 PRIVATE ENTRANCE 9.029 PRIVATE ENTRANCE 9.029 PRIVATE ENTRANCE 9.020 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.004 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.005 9.092 ROUTE 163 - LT 36.00 -0.32 PRIVATE ENTRANCE 9.006 9.092 ROUTE 163 - LT 36.00 -0.32 PRIVATE ENTRANCE 9.007 9.008 9.0092 ROUTE 163 - LT 36.00 -0.34 PRIVATE ENTRANCE 9.008 9.0092 ROUTE 163 - LT 36.00 -0.34 PRIVATE ENTRANCE 9.0094 9.0092 ROUTE 163 - LT 36.00 -0.32 PRIVATE ENTRANCE 9.0095 9.0	6.379	6.389	ROUTE 163 - RT	56.00	-0.56	ROCK BRIDGE STATE PARK
7.052 7.076 ROUTE 163 - RT 126.00 -1.26 ROCK BRIDDE STATE PARK 7.625 7.633 ROUTE 163 - LT 38.00 -0.38 WHISENHUNT DR 7.700 7.716 ROUTE 163 - LT 80.00 -0.80 PRIVATE ENTRANCE - DOUBLE 7.725 7.731 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE - CIRCLE DRIVE 7.725 7.731 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE - CIRCLE DRIVE 7.729 7.735 ROUTE 163 - LT 58.00 -0.58 PRIVATE ENTRANCE - CIRCLE DRIVE 7.763 7.773 ROUTE 163 - LT 58.00 -0.58 PRIVATE ENTRANCE 7.969 7.975 ROUTE 163 - LT 28.00 -0.26 PRIVATE ENTRANCE 8.002 8.008 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 8.205 8.211 ROUTE 163 - LT 30.00 -0.30 PRIVATE ENTRANCE 8.212 8.218 ROUTE 163 - LT 34.00 -0.30 PRIVATE ENTRANCE 8.212 8.218 ROUTE 163 - LT 36.00 -0.34 PRIVATE ENTRANCE 8.212 8.218 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.077 9.799 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.004 PRIVATE ENTRANCE 9.048 PRIVATE ENTRANCE	6.655	6.661		30.00	-0.30	PRIVATE ENTRANCE
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9.086 9.092 ROUTE 163 - LT 36.00 -0.36 PRIVATE ENTRANCE 9.777 9.799 ROUTE 163 - RT 120.00 -1.20 SOUTH BENNETT DR. 10.155 10.161 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE 10.279 10.289 ROUTE 163 - LT 48.00 -0.48 PRIVATE ENTRANCE 10.361 10.373 ROUTE 163 - LT 64.00 -0.64 PRIVATE ENTRANCE 10.585 10.591 ROUTE 163 - LT 34.00 -0.34 PRIVATE ENTRANCE 10.921 10.933 ROUTE 163 - RT 64.00 -0.64 WALDEN ESTATES 11.191 11.203 ROUTE 163 - LT 60.00 -0.60 PRIVATE ENTRANCE 11.419 11.495 ROUTE 163 - LT 60.00 -0.60 PRIVATE ENTRANCE 11.496 11.508 ROUTE 163 - LT 64.00 -0.64 COMMERCIAL ENTRANCE 11.514 11.530 ROUTE 163 - LT 82.00 -0.82 COMMERCIAL ENTRANCE 11.552 11.564 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.552 11.561 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 102.00 -1.02 COMMERCIAL ENTRANCE 11.600 11.612 ROUTE 163 - RT 66.00 -0.66 COMMERCIAL ENTRANCE 11.600 11.612 ROUTE 163 - RT 66.00 -0.66 COMMERCIAL ENTRANCE 11.600 11.612 ROUTE 163 - RT 66.00 -0.66 COMMERCIAL ENTRANCE 11.553 18 TOTAL (2) 936.24 TOTAL (1) 597.63						
9.777 9.799 ROUTE 163 - RT 120.00 -1.20 SOUTH BENNETT DR. 10.155 10.161 ROUTE 163 - RT 32.00 -0.32 PRIVATE ENTRANCE 10.279 10.289 ROUTE 163 - LT 48.00 -0.48 PRIVATE ENTRANCE 10.373 ROUTE 163 - LT 64.00 -0.64 PRIVATE ENTRANCE 10.585 10.591 ROUTE 163 - LT 34.00 -0.34 PRIVATE ENTRANCE 10.921 10.933 ROUTE 163 - RT 64.00 -0.64 WALDEN ESTATES 11.191 11.203 ROUTE 163 - LT 60.00 -0.60 PRIVATE ENTRANCE 11.419 11.495 ROUTE 163 - LT 64.00 -0.60 PRIVATE ENTRANCE 11.496 11.508 ROUTE 163 - LT 64.00 -0.64 COMMERCIAL ENTRANCE 11.514 11.530 ROUTE 163 - LT 82.00 -0.82 COMMERCIAL ENTRANCE 11.552 11.564 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.552 11.564 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.552 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.592 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.593 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.594 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.595 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.594 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.595 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE 11.597 11.612 ROUTE 163 - LT 60.00 -0.60 COMMERCIAL ENTRANCE						
10.155						
10.279						
10.361   10.373   ROUTE 163 - LT   64.00   -0.64   PRIVATE ENTRANCE     10.585   10.591   ROUTE 163 - LT   34.00   -0.34   PRIVATE ENTRANCE     10.921   10.933   ROUTE 163 - RT   64.00   -0.64   WALDEN ESTATES     11.191   11.203   ROUTE 163 - LT   60.00   -0.60   PRIVATE ENTRANCE     11.419   11.495   ROUTE 163 - LT   404.00   -4.04   COMMERCIAL ENTRANCE   TRIPLE     11.508   ROUTE 163 - LT   64.00   -0.64   COMMERCIAL ENTRANCE     11.514   11.530   ROUTE 163 - LT   82.00   -0.82   COMMERCIAL ENTRANCE     11.552   11.564   ROUTE 163 - LT   60.00   -0.60   COMMERCIAL ENTRANCE     11.592   11.612   ROUTE 163 - LT   102.00   -1.02   COMMERCIAL ENTRANCE     11.600   11.612   ROUTE 163 - RT   66.00   -0.66   COMMERCIAL ENTRANCE     11.600   RTE 163   SUB TOTAL (1)   597.63     RTE Y   SUB TOTAL (2)   936.24     TOTAL   1533.87						
10.585						
10.921   10.933   ROUTE 163 - RT   64.00   -0.64   WALDEN ESTATES     11.191   11.203   ROUTE 163 - LT   60.00   -0.60   PRIVATE ENTRANCE     11.419   11.495   ROUTE 163 - LT   404.00   -4.04   COMMERCIAL ENTRANCE - TRIPLE     11.496   11.508   ROUTE 163 - LT   64.00   -0.64   COMMERCIAL ENTRANCE     11.514   11.530   ROUTE 163 - LT   82.00   -0.82   COMMERCIAL ENTRANCE     11.552   11.564   ROUTE 163 - LT   60.00   -0.60   COMMERCIAL ENTRANCE     11.592   11.612   ROUTE 163 - LT   102.00   -1.02   COMMERCIAL ENTRANCE     11.600   11.612   ROUTE 163 - RT   66.00   -0.66   COMMERCIAL ENTRANCE     RTE 163   SUB TOTAL (1)   597.63     RTE Y   SUB TOTAL (2)   936.24     TOTAL   1533.87						
11.191						
11.419						
11.496						
11.514						
11.552						
11.592						
11.600 11.612 ROUTE 163 - RT 66.00 -0.66 COMMERCIAL ENTRANCE  RTE 163 SUB TOTAL (1) 597.63  RTE Y SUB TOTAL (2) 936.24  TOTAL 1533.87						
RTE Y SUB TOTAL (2) 936.24 TOTAL 1533.87						
RTE Y SUB TOTAL (2) 936.24 TOTAL 1533.87			RTF 163	SUB TOTAL (1)	597.63	
TOTAL 1533.87						
	-			USE	1533.9	

					TEMPORAR'	Y EROSION (	CONTROL			
			EXCEPTION LENGTH	LENGTH	SILT FENCE	ROCK DITCH CHECK	ALTERNATE DITCH CHECK	SEDIMENT TRAP ROCK	SEDIMENT REMOVAL	
LOG MILE	LOG MILE	LOCATION	ΜI	ΜI	LF	LF	LF	CY	CY	REMARKS
5.499	11.647	RTE, 163	0.158	6.148	5990	1797	123	61.5	221	
0.179	9.238	RTE. Y	0.041	9.059	9018	2705	181	90.6	331	
				TOTAL	15008	4502	304	152.1	553	
				USE	15008	4502	304	152.1	553	
	ESTI	MATED AT 100	D LF OF SILT	FENCE/MILE	, 300 LF OF ROO	CK DITCH CHECK/N	MILE, 20 LF OF	ALTERNATE DITCH	CHECK/MILE, 10	CY OF SEDIMENT TRAP/MILE



SUMMARY OF QUANTITIES SHEET 4 OF 13

			IVIOD		GRADING, CLASS 2 - RTE, Y
				MODIFIED LINEAR	
			LENGTH	GRADING, CL 2	
DG MILE	LOG MILE	LOCATION	FT	STA	REMARKS
0.179	1.790	ROUTE Y - LT	8507.48	85.07	
1.790	1.800	ROUTE Y - LT	50.00	0.50	CULVERT LOG MI 1.795 FOWLER CR.
1.800	3.025	ROUTE Y - LT	6467.52	64.68	
3.025	3.033	ROUTE Y - LT	46.00	0.46	CULVERT LOG MI 3.029 BRUSHY CR.
3.033	4.569	ROUTE Y - LT	8109.60	81.10	
4.569	4.579	ROUTE Y - LT	53.00	0.53	CULVERT LOG MI 4.574 CONNOR CR.
4.579	4.947	ROUTE Y - LT	1941.44	19.41	
4.947	5.026	ROUTE Y - LT	417.12		EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.026	9.238	ROUTE Y - LT	22239.36	222.39	
0.179	1.790	ROUTE Y - RT	8507.48	85.07	
1.790	1.800	ROUTE Y - RT	50.00	0.50	CULVERT LOG MI 1.795 FOWLER CR.
1.800	3.025	ROUTE Y - RT	6467.52	64.68	
3.025	3.033	ROUTE Y - RT	46.00	0.46	CULVERT LOG MI 3.029 BRUSHY CR.
3.033	4.569	ROUTE Y - RT	8109.60	81.10	
4.569	4.579	ROUTE Y - RT	53.00	0.53	CULVERT LOG MI 4.574 CONNOR CR.
4.579	4.941	ROUTE Y - RT	1909.76	19.10	
4.941	5.020	ROUTE Y - RT	417.12		EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.020	9.238	ROUTE Y - RT	22271.04	222.71	
		EXCEPTIONS			
0.173	0.194	ROUTE Y - LT	120.00	-1.20	RAMP 63 NORTH
0.239	0.255	ROUTE Y - LT	87.00	-0.87	INDUSTRIAL DR.
0.379	0.396	ROUTE Y - LT	92.00	-0.92	SILVER SNIPE ST.
0.463	0.473	ROUTE Y - LT	110.00	-1.10	COMMERCIAL ENTRANCE
0.618	0.638	ROUTE Y - LT	106.00	-1.06	AMERICAN SETTER DR.
1.081	1.095	ROUTE Y - LT	78.00	-0.78	ROBBIE FORBIS RD - ASPH PAD
1.081	1.095	ROUTE Y - RT	74.00	-0.74	ROBBIE FORBIS RD - ASPH PAD
1.833	1.841	ROUTE Y - LT	38.00	-0.38	COMMERCIAL ENTRANCE - CHURCH
1.885	1.889	ROUTE Y - LT	24.00	-0.24	PRIVATE ENTRANCE
2.059	2.075	ROUTE Y - LT	80.00	-0.80	SOUTH RANGELINE RD.
2.375	2.381	ROUTE Y - RT	32.00	-0.32	PRIVATE ENTRANCE
2.738	2.756	ROUTE Y - LT	92.00	-0.92	SOUTH HAWKINS RD
3.449	3.455	ROUTE Y - LT	36.00	-0.36	BOB VEACH RD
4.883	4.895	ROUTE Y - LT	60.00	-0.60	CLINKEN BEARD RD
6.740	6.764	ROUTE Y - LT	124.00	-1.24	PINE RIDGE RECREATIONAL AREA
8.353	8.363	ROUTE Y - LT	52.00	-0.52	BLESSING LN
		RTF. Y	SUB TOTAL (2)	936.24	

MOBILIZATION
TOTAL = 1 LUMP SUM

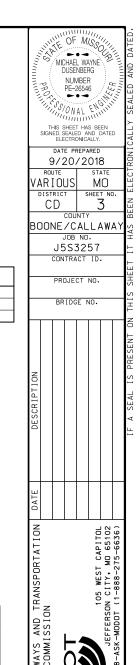
	ADDITIONAL	MOBILIZATION	FOR	SEEDIN
	-	TOTAL = 4 EACH		
_				

CONTRACTOR FURNISHED SURVEYING AND STAKING

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			FURN I	SHING AND P	LACING ROCK	K FILL
				FURNISHING	PLACING	
APPROX.		APPROX.		ROCK FILL	ROCK FILL	
LOG MILE	TO	LOG MILE	LOCATION	CY	CY	REMARKS
5.569			RTE 163 - LT	60.0	60.0	
5.569			RTE 163 - RT	63.0	63.0	
5.569			RTE 163	70.0	70.0	BACKFILL FOR CULVERT REPLACEMENT 1
6.647		6.663	RTE 163 - LT	112.3	112.3	
6.722		6.741	RTE 163 - LT	102.0	102.0	
10.907			RTE 163	114.0	114.0	BACKFILL FOR CULVERT REPLACEMENT 2
11.153			RTE 163	173.0	173.0	BACKFILL FOR CULVERT REPLACEMENT 3
2.878		2.958	RTE Y - RT	165.2	165.2	
3.059		3.158	RTE Y - RT	204.4	204.4	
4.302		4.438	RTE Y - LT	280.8	280.8	
4.266		4.438	RTE Y - RT	355.2	355.2	
4.950		4.962	RTE Y - RT	87.6	87.6	
5.003		5.020	RTE Y - RT	131.1	131.1	
			TOTAL	1918.7	1918.7	
			USE	1918.7	1918.7	

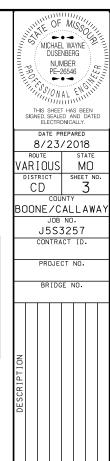
				ROCK LININ	G
APPROX.		APPROX.		ROCK LINING	
LOG MILE	TO	LOG MILE	LOCATION	CY	REMARKS
5.569			RTE 163	4.0	CULVERT OUTLET
10.907			RTE 163	4.0	CULVERT OUTLET
11.153			RTE 163	4.0	CULVERT OUTLET
			TOTAL	12.0	
			USE	12.0	



LOC   LOCATION   MILES   FT   FT   SY   CALL COAT							SEAL COAT	GRADE B2	
NILE   LOCATION   MILES   FT   FT   SY   SALE COAT   REMARKS									
LOCATION   MILES   FT   FT   SY   GAL						AVG			
MILE   MILE   LOCATION   MILES   FT   FT   SY   GAL   REMARKS    DOMES-CALLAXY COUNTY   STATE   STATE	1.00	1.00			LENCTH				
BOONE_CALLANAY COUNTY			LOCATION	LATI EC					DEMARKS
0.685	<u> </u>			MILES	FI	FI	51	GAL	KEMARKS
0.945				0.016	0.4.40	7.0	7.00.00	170 11	WIDTH WIDIES 40/ TO 76/
									WIDTH VARIES 42" TU 36"
0.984   0.987									WIDTH VARIES 36' TO 28'
1.007   1.007   1.001F W   0.073   121.74   7153.81   2715.75   7150F FXCPTION - 30324 AT GRINDSTON CR									WIDTH VARIES SO TO 20
1.476									BRIDGE EXCEPTION - BO334 AT GRINDSTONE CR
1.571	1.007	1.476	ROUTE WW	0.469	2476.32	26	7153.81	2718.45	
1.271   2.286   ROUTE IN	1.476	1.571	ROUTE WW	0.095	501.6	31	1727.73	656.54	WIDTH VARIES 26' TO 36'
2.283   2.293   ROUTE WW   0.007   36.98   37   151.95   57.74   NIDTH VARIES 30' TO 44'									
2.239   2.411   ROUTE IN									
2.471   2.518   ROUTE WW   0.047   248.16									WIDTH VARIES 30' TU 44'
2.516   2.780   ROUTE RW   0.026   3383.38   42   6455.88   2453.16   2.180   2.894   ROUTE RW   0.024   126.72   32   450.66   171.21   2.190   2.894   2.811   ROUTE RW   0.007   36.96   29   119.09   45.26   MIDTH VARIES 32' TO 26'   2.811   3.513   ROUTE RW   0.702   3768.56   29   119.09   45.26   MIDTH VARIES 32' TO 26'   3.513   6.871   ROUTE RW   0.702   3758.56   28   10707.84   4088.98   3.513   6.871   ROUTE RW   0.520   3273.6   28   10707.84   4088.98   3.513   6.871   ROUTE RW   0.550   1848   44   90.44.07   3433.17   4.221   7.841   ROUTE RW   0.550   1848   44   90.44.07   3433.17   4.221   7.841   ROUTE RW   0.550   3273.6   28   10184.53   870.12   4.221   7.841   ROUTE RW   0.550   1848   44   90.44.07   3433.17   4.221   7.841   ROUTE RW   0.616   756.6   44   3189.59   4.032   8.383   ROUTE RW   0.032   168.96   44   9189.59   4.033   8.383   ROUTE RW   0.032   169.96   44   9189.59   4.8389   9.800   ROUTE RW   0.016   81.4   27   244.20   92.80    CALLAWAY COUNTY  CALLAWAY COUNTY  COOD   1.980   ROUTE F   0.022   4.980   2.002   ROUTE F   0.022   4.980   2.002   ROUTE F   0.022   4.980   1.991   ROUTE F   0.239   126.192   44   1669.39   2344.37   4.314   11.150   ROUTE D   0.016   81.48   27   14625.28   15076.81   8650   8651   8750   8750   4.331   4.332   ROUTE D   0.016   80.48   27   147.12   4.332   7.101   ROUTE D   0.018   80.48   27   147.12   4.334   4.332   ROUTE D   0.018						44	4594.11	1746.01	EVCEPTION - POLITING HILLS POUNDAROUT
2.781						42	6455.68	2453.16	EXOLITION ROLLLING HILLS ROUNDADOUT
2.810   2.811   ROUTE Wa									
2.811 3.513 6.0VT									WIDTH VARIES 32' TO 26'
6.811   7.221   ROUTE RW   0.550   1948   44   9034.67   3433.17     7.221   7.841   ROUTE RW   0.520   3273.6   28   1014.53   3870.12     7.841   7.856   ROUTE RW   0.1015   79.2   36   316.60   120.38     8.001   8.033   ROUTE RW   0.105   755.6   44   3742.93   122.31     8.001   8.033   ROUTE RW   0.105   1879.68   44   9189.55   3492.03     8.383   9.800   ROUTE RW   0.105   8179.68   44   9189.55   3492.03     8.383   9.800   ROUTE RW   0.105   81.74   27   22350.24   8493.09     8.380   9.815   ROUTE RW   0.105   81.4   27   2244.20   92.80     CALLAWAY COUNTY     0.000   1.980   ROUTE F   0.022   10454.4   28   32224.80   12359.42     2.002   8.980   ROUTE F   0.022   1261.92   44   6169.79   2344.37     11.134   11.150   ROUTE DD7J   0.016   84.48   21   197.12   74.91   FROM SME TO NORTH END OF 1-70 BRIDGE     1.004   3.483   ROUTE J   0.021   110.88   VAR   68.65   261.69   RADJUS AT INTERSECTION WITH RIFE RW     3.300   4.314   ROUTE J   0.110   4276.8   26   12355.20   4694.98     3.185   3.504   ROUTE J   0.110   4276.8   26   12355.20   4694.98     3.185   3.504   ROUTE J   0.110   4276.8   26   12355.20   4694.98     3.196   4.314   ROUTE J   0.150   436.48   VAR   28   25224.80     3.197   8					3706.56			4068.98	
7.221 7.841 ROUTE WW 0.0520 3273.6 28 10184.53 3870.12 7.845 8.001 ROUTE WW 0.0155 79.2 36 316.80 122.38 8.001 8.001 ROUTE WW 0.0356 1879.6 44 3742.93 1422.31 8.003 8.353 ROUTE WW 0.0356 1879.68 44 9789.55 3492.03 8.003 8.359 ROUTE WW 0.0356 1879.68 44 9789.55 3492.03 8.360 ROUTE WW 0.0155 11.4 27 244.20 92.80  2.010 9.815 ROUTE WW 0.015 81.4 27 224.20 92.80  2.010 9.815 ROUTE WW 0.015 81.4 27 224.20 92.80  2.010 9.815 ROUTE WW 0.015 81.4 27 244.20 92.80  2.010 9.815 ROUTE WW 0.015 81.4 27 244.20 92.80  2.010 9.815 ROUTE F 0.022 80 1.980 2.022 ROUTE F 0.022 44 6769.39 2344.37  8.980 9.219 ROUTE F 0.023 1261.92 44 6769.39 2344.37  11.134 11.150 ROUTE DVJ 0.016 84.48 21 197.12 74.91 FROM SME TO NORTH END OF 1-70 BRIDGE 0.049 3.483 ROUTE J 0.021 110.88 VAR 688.65 261.69 RADIUS AT INTERSCTION WITH RE WW 1.332 ROUTE J 0.021 110.88 VAR 688.65 261.69 RADIUS AT INTERSCTION WITH RE WW 1.332 ROUTE J 0.023 14678.4 22 5880.55 1353.60  3.143 1.350 ROUTE J 0.028 14678.4 22 5880.55 1353.60  3.143 1.350 ROUTE J 0.028 127.28 14678.4 22 15880.55 1353.60  3.143 1.350 ROUTE J 0.028 127.28 128.29 199.22 RADIUS AT INTERSCTION WITH RE F 1.350 ROUTE J 1.361 ROUTE J 0.023 14678.4 22 15880.55 1353.60  3.143 1.350 ROUTE J 1.361									
T.481   7.856   ROUTE WW   0.165   79.2   36   316.80   120.38									
T.856   8.001   ROUTE NW   0.145   765.6   44   3742.93   1422.31   SIRIDGE EXCEPTION - A4612 AT CEDAR CREEK									
8.031   8.033   ROUTE PW   0.032   168.96									
8.033 8.389 ROUTE WW 1.0.556 1879.68 44 9189.55 3492.03 80.389 9.800 ROUTE WW 1.0.11 7450.08 27 22550.24 8093.09 9.815 ROUTE WW 1.0.015 81.4 27 244.20 92.80 92.90 92.80 92.80 92.90 92.90 92.80 92.80 92.90						44	3142.93	1422.31	BRIDGE EXCEPTION - A4612 AT CEDAR CREEK
8.389 9.800 ROUTE WW 0.015 81.4 27 244.20 92.80 92.80 92.80 9.805 ROUTE WW 0.015 81.4 27 244.20 92.80 92.90 80UTE F 6.978 36843.84 28 114625.28 43557.61 92.90 80UTE F 6.978 36843.84 82 114625.28 43557.61 92.90 80UTE F 6.978 36843.84 82 11 197.12 74.91 FROM SME TO NORTH END OF 1-70 BRIDGE 92.04 11.80						44	9189.55	3492.03	DNIDGE EXCEPTION - AFOIZ AT CEDAN CHEEK
9.800   9.815   RQUITE WW   0.015   81.4   27   244.20   92.80									
1.980									
1.980									
1.980   2.002   ROUTE F   0.022   ROUTE F   0.978   SGR43.84   28   114625.28   43557.61   RIDGE EXCEPTION - A7277 AT MILLERS CREEK									
2.002   8.980   ROUTE F   6.978   36843.84   28   114625.28   43557.61					10454.4	28	32524.80	12359.42	
8.980 9.219 ROUTE F 0.239 1261.92 44 6169.39 2344.37  11.134 11.150 ROUTE DD/J 0.016 84.48 21 197.12 74.91 FROM SME TO NORTH END OF I-70 BRIDGE 0.049 3.483 ROUTE J 3.434 18131.52 21 42306.88 16076.61 BEGIN AT SOUTH END OF I-70 BRIDGE 3.483 8.304 ROUTE J 0.021 110.88 VAR 68.65 61.69 ROUTE J 0.018 95.04 VAR 68.65 61.69 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.314 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.314 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.314 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.332 7.112 ROUTE J 0.023 121.44 52 35880.33 13634.60 BRIDGE EXCEPTION WITH RTE F 4.332 7.112 ROUTE J 0.023 121.44 52 5880.35 13634.60 BRIDGE EXCEPTION NOTH RTE F 4.332 ROUTE J 0.066 348.48 VAR 2392.69 909.22 ROUTE J 0.066 348.48 VAR 2392.69 909.22 ROUTE J 0.221 1694.88 23 4331.36 1645.92 80.123 ROUTE J 0.125 660 23.5 1723.33 654.87 80.042 ROUTE J 0.228 1203.84 24 3210.24 1219.89 20.109 ROUTE J 0.228 1203.84 24 3210.24 1219.89 20.0462 ROUTE J 0.228 1203.84 24 3210.24 1219.89 20.0462 ROUTE J 0.125 660 23.5 1723.33 654.87 80.0462 ROUTE J 0.125 600 23.84 24 3210.24 1219.89 80.0462 ROUTE J 0.125 600 23.5 1723.33 654.87 80.0462 ROUTE J 0.125 600 23.8 128.48 80.0464 A958.48 80.0464 A958					70047 04	20	111605 00	47EE7 C1	BRIDGE EXCEPTION - A7277 AT MILLERS CREEK
11.134 11.150 ROUTE DD/J 0.016 84.48 21 197.12 74.91 FROM SME TO NORTH END OF 1-70 BRIDGE 0.049 3.483 3.504 ROUTE J 0.021 110.88 VAR 688.65 261.69 RADIUS AT INTERSECTION WITH RTE WW 3.504 4.314 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.332 ROUTE J 0.018 95.04 VAR 577.94 219.62 RADIUS AT INTERSECTION WITH RTE F 4.332 ROUTE J 0.018 95.04 VAR 577.94 219.62 RADIUS AT INTERSECTION WITH RTE F 4.332 ROUTE J 0.023 121.44 22 35880.53 13634.60 BRIDGE EXCEPTION - NO743 AT MILLERS CREEK 7.135 18.976 ROUTE J 0.023 121.44 BRIDGE EXCEPTION - NO743 AT MILLERS CREEK 7.135 18.976 ROUTE J 0.066 348.48 VAR 2392.69 909.22 RADIUS AT INTERSECTION WITH RTE MM 99.042 ROUTE J 0.066 348.48 VAR 2392.69 909.22 RADIUS AT INTERSECTION WITH RTE MM 99.042 ROUTE J 0.0521 189.48 23 4331.36 146.92 20.109 ROUTE J 0.321 1894.88 23 4331.36 146.92 20.109 ROUTE J 0.321 1894.88 23 4331.36 146.92 20.109 ROUTE J 0.226 1690 23.5 1723.33 654.87 20.234 20.462 ROUTE J 0.228 1203.84 24 3210.24 1219.89 20.224 20.462 ROUTE J 0.228 1203.84 24 3210.24 1219.89 20.224 ROUTE M 0.513 2708.64 20 6019.20 2287.30 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 111.93 INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 295.35 112.23 RADIUS AT INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 295.35 112.23 RADIUS AT INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 295.35 112.23 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 ROUTE NN 0.012 63.36 VAR 13.084 4952. RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 ROUTE NN 0.012 63.36 VAR 13.084 897.2 RADIUS AT INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 13.084 9.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 ROUTE NN 0.012 63.36 VAR 13.084 9.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 ROUTE NN 0.012 63.36 VAR 13.084 9.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.									
0.049   3.483	0.300	3.213	110012 1	0.233	1201.32		0103.33	2311.31	
3.483 3.504 ROUTE J 0.021 110.88 VAR 688.65 261.69 RADIUS AT INTERSECTION WITH RTE WW 3.504 4.314 ROUTE J 0.810 4276.8 26 12355.20 4694.98 4.314 4.332 ROUTE J 0.018 95.04 VAR 577.94 219.62 RADIUS AT INTERSECTION WITH RTE F 4.332 7.112 ROUTE J 2.780 14678.4 22 35880.53 13634.60 7.112 7.135 ROUTE J 0.023 121.44 7.136 18.976 ROUTE J 0.023 121.44 8.8976 19.042 ROUTE J 0.066 348.48 VAR 2392.69 909.22 RADIUS AT INTERSECTION WITH RTE MM 91.042 19.788 ROUTE J 0.321 1694.88 23 4331.36 1645.92 20.109 ROUTE J 0.321 1694.88 23 4331.36 1645.92 20.109 20.234 ROUTE J 0.228 1203.84 24 3210.24 1219.89  0.029 2.0402 ROUTE MM 2.011 10618.08 21.5 25365.41 9638.86 2.040 3.051 ROUTE MM 2.123 11209.44 21 26155.36 9939.04 5.174 S.687 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.000 0.011 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.029 ROUTE NN 0.918 4847.04 22 11848.32 4502.66  0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 0.929 ROUTE NN 0.928 ROUTE NN 0.928 ROUTE NN 0.928	11.134	11.150	ROUTE DD/J	0.016	84.48	21	197.12	74.91	FROM SME TO NORTH END OF I-70 BRIDGE
3.504	0.049	3.483	ROUTE J	3.434	18131.52	21	42306.88	16076.61	BEGIN AT SOUTH END OF I-70 BRIDGE
4.332				0.021					RADIUS AT INTERSECTION WITH RTE WW
4.332									
7.112 7.135 ROUTE J 0.023 121.44									RADIUS AT INTERSECTION WITH RTE F
7.135						22	35880.53	13634.60	RDIDGE EVCEDTION - NOTAR AT MILLEDS OBEEV
18.976   19.042   ROUTE J						22	152827 84	58074.58	DITTOOL LACET TION NOTES AT MILLERS CREEK
19.042   19.788   ROUTE J									RADIUS AT INTERSECTION WITH RTE MM
19.788   20.109   ROUTE J   0.321   1694.88   23   4331.36   1645.92									
20.234   20.462   ROUTE J   0.228   1203.84   24   3210.24   1219.89				0.321			4331.36	1645.92	
O.029   2.040   ROUTE MM   2.011   10618.08   21.5   25365.41   9638.86									
2.040 3.051 ROUTE MM 1.011 5338.08 22 13048.64 4958.48 3.051 5.174 ROUTE MM 2.123 11209.44 21 26155.36 9939.04 5.174 5.687 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.000 0.011 ROUTE NN 0.011 58.08 VAR 295.35 112.23 RADIUS AT BUS RTE 54 0.011 0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 0.929 ROUTE NN 120.5 22 294.56 111.93 INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 130.84 49.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731.251.38 277.875.52 SUB TOTAL (2) 251.519.38 95.577.36 TOTAL 982.770.76 373.452.89	20.234	20.462	ROUTE J	0.228	1203.84	24	3210.24	1219.89	
2.040 3.051 ROUTE MM 1.011 5338.08 22 13048.64 4958.48 3.051 5.174 ROUTE MM 2.123 11209.44 21 26155.36 9939.04 5.174 5.687 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.000 0.011 ROUTE NN 0.011 58.08 VAR 295.35 112.23 RADIUS AT BUS RTE 54 0.011 0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 0.929 ROUTE NN 120.5 22 294.56 111.93 INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 130.84 49.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731.251.38 277.875.52 SUB TOTAL (2) 251.519.38 95.577.36 TOTAL 982.770.76 373.452.89	0.000	0.010	DOUTE 141	0.014	10010 00	04.5	05765 44	0670.00	
3.051 5.174 ROUTE MM 2.123 11209.44 21 26155.36 9939.04 5.174 5.687 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.000 0.011 ROUTE NN 0.011 58.08 VAR 295.35 112.23 RADIUS AT BUS RTE 54 0.011 0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 0.929 ROUTE NN 120.5 22 294.56 111.93 INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 130.84 49.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731,251.38 277,875.52 SUB TOTAL (2) 251,519.38 95,577.36 TOTAL 982,770.76 373,452.89									
5.174 5.687 ROUTE MM 0.513 2708.64 20 6019.20 2287.30  0.000 0.011 ROUTE NN 0.011 58.08 VAR 295.35 112.23 RADIUS AT BUS RTE 54  0.011 0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36  0.929 ROUTE NN 120.5 22 294.56 111.93 INTERSECTION WITH OLD RTE 54  0.929 0.941 ROUTE NN 0.012 63.36 VAR 130.84 49.72 RADIUS AT INTERSECTION WITH OLD RTE 54  0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731.251.38 277.875.52  SUB TOTAL (2) 251.519.38 95.577.36  TOTAL 982.770.76 373.452.89									
0.000									
0.011		5.501		0.010			33.3423	2231700	
0.011 0.929 ROUTE NN 0.918 4847.04 22 11848.32 4502.36 0.929 ROUTE NN 120.5 22 294.56 111.93 INTERSECTION WITH OLD RTE 54 0.929 0.941 ROUTE NN 0.012 63.36 VAR 130.84 49.72 RADIUS AT INTERSECTION WITH OLD RTE 54 0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731,251.38 277,875.52 SUB TOTAL (2) 251,519.38 95,577.36 TOTAL 982,770.76 373,452.89	0.000	0.011	ROUTE NN	0.011	58.08	VAR	295.35	112.23	RADIUS AT BUS RTE 54
0.929	0.011	0.929		0.918	4847.04	22	11848.32		
0.941 6.808 ROUTE NN 5.867 30977.76 22 75723.41 28774.90  SUB TOTAL (1) 731,251.38 277,875.52  SUB TOTAL (2) 251,519.38 95,577.36  TOTAL 982,770.76 373,452.89									
SUB TOTAL (1) 731,251.38 277,875.52 SUB TOTAL (2) 251,519.38 95,577.36 TOTAL 982,770.76 373,452.89									RADIUS AT INTERSECTION WITH OLD RTE 54
SUB TOTAL (2) 251,519.38 95,577.36 TOTAL 982,770.76 373,452.89	0.941	6.808	ROUTE NN	5.867	30977.76	22	75723.41	28774.90	
SUB TOTAL (2) 251,519.38 95,577.36 TOTAL 982,770.76 373,452.89					SUR TO	<u> </u> ΓΔΙ (1)	731.251.38	277.875.52	
TOTAL 982,770.76 373,452.89									
					222 .0				

	GI	RAVEL (A) OR CRUS	HED STO	ONE (B)	
				GRAVEL OR	
			LENGTH	CRUSHED STONE	
LOG MILE	LOG MILE	LOCATION	ΜI	TONS	REMARKS
5.499	11.647	RTE 163 - LT AND RT	6.148	123.0	
0.179	9.238	RTE Y - LT AND RT	9.059	181.2	
			TOTAL	304.1	
			USE	304	
USE AT EXIS	ST. AGGREGA	TE ENTRANCES AND COUNTY RO	DADS	•	
ESTIMATED /	AT 20.0 TON:	S / MILE			

		SE	EDING A	ND MULCH	
				SEEDING	TEMPORARY
			LENGTH	COOL SEASON MIX	SEEDING AND MULCH
LOG MILE	LOG MILE	LOCATION	ΜI	ACRE	ACRE
5.499	11.647	RTE. 163	6.148	6.15	1.72
0.179	9.238	RTE. Y	9.059	9.06	2.72
			TOTAL	15.21	4.44
			USE	15.2	4.4
SEEDING ESTI	MATED AT 1.0	AC / MILE			
	·	·		·	·



MISSOURI HIGHWAYS AND TRANS
COMMISSION
COMMISSION
105 W
105 W

						SEAL CO	DAT, GRADE	B2
						SEAL COAT	EMULSIFIED	
					AVG	AGGREGATE	ASPHALT	
LOG	LOG			LENGTH	WIDTH	GRADE B2	SEAL COAT	
	MILE	LOCATION	LATIFO	FT				DEMARKS
MILE		LOCATION	MILES	FI	FT	SY	GAL	REMARKS
BOONE (						1		
0.000	5.783	ROUTE N	5.783	30534.24	20	67853.87	25784.47	
5.499	5.631	ROUTE 163	0.132	696.96	VARIES	1830.68	695.66	WIDTH VARIES 54' TO 22'
5.631	6.721	ROUTE 163	1.090	5755.2	22	14068.27	5345.94	
6.758	6.784	ROUTE 163	0.026	137.28				EXCEPTION - BRIDGE A5794 OVER CLEAR CR.
6.813	6.984	ROUTE 163	0.171	902.88	22	2207.04	838.68	
6.984	7.010	ROUTE 163	0.026	137.28				EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.010	8.118	ROUTE 163	1.108	5850.24	22	14300.59	5434.22	
8.118	8.153	ROUTE 163	0.035	184.8	VARIES	928.04	352.65	INTERSECTION IN PIERPONT AT RTE N - INCLUDES A PORTION OF RTE N
8.153	10.652	ROUTE 163	2.499	13195.28	22	32255.13	12256.95	
10.676	10.682	ROUTE 163	0.006	31.68				EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR.
10.706	11.637	ROUTE 163	0.931	4916.24	22	12017.48	4566.64	
11.637	11.647	ROUTE 163	0.010	52.8	VARIES	130.62	49.64	WIDTH VARIES 22' TO 25'
0.179	4.963	ROUTE Y	4.784	25259.52	20	56132.27	21330.26	
4.963	5.004	ROUTE Y	0.041	216.48				EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK
5.026	9.233	ROUTE Y	4.207	22212.96	20	49362.13	18757.61	
9.233	9.238	ROUTE Y	0.005	26.4	VARIES	244.31	92.84	
9.244		ROUTE Y - LT	0.008	42.24	VARIES	188.96	71.81	S. RANGELINE RD - INTERSECTION AREA
				SIIR TO	TAL (2)	251 510 30	95,577,36	
				300 10	TAL (Z)	231,319.30	33,311.36	

					SHOU	LDER RUMBLE STRIPS
					BITUMINOUS	
					SHOULDER	
APPROX.	APPROX.		LENGTH	LENGTH	RUMBLE STRIPS	
LOG MILE	LOG MILE	LOCATION	ΜI	LF	STA	REMARKS
5,631	6.721	ROUTE 163 - LT	1.1	5755.0	57.6	
6.721	6.813	ROUTE 163 - LT	0.1	486.0		EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.813	6.986	ROUTE 163 - LT	0.2	913.0	9.1	
6.986	7.012	ROUTE 163 - LT	0.0	137.0		EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.012	10.652	ROUTE 163 - LT	3.6	19220.0	192.2	
10.652	10.706	ROUTE 163 - LT	0.1	284.0		EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
10.706	11.647	ROUTE 163 - LT	0.9	4969.0	49.7	
5.631	6.721	ROUTE 163 - RT	1.1	5755.0	57.6	
6.721	6.813	ROUTE 163 - RT	0.1	486.0		EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.813	6.982	ROUTE 163 - RT	0.2	892.0	8.9	
6.982	7.008	ROUTE 163 - RT	0.0	137.0		EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.008	10.652	ROUTE 163 - RT	3.6	19241.0	192.4	
10.652	10.706	ROUTE 163 - RT	0.1	284.0		EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
10.706	11.647	ROUTE 163 - RT	0.9	4969.0	49.7	
0.179	4.947	ROUTE Y - LT	4.8	25175.0	251.8	
4.947	5.026	ROUTE Y - LT	0.1	417.0		EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.026	9.238	ROUTE Y - LT	4.2	22239.0	222.4	
0.179	4.941	ROUTE Y - RT	4.8	25143.0	251.4	
4.941	5.020	ROUTE Y - RT	0.1	417.0		EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.020	9.238	ROUTE Y - RT	4.2	22271.0	222.7	
			_	23561.0	235.6	EXCEPTIONS FOR ENTRANCES, STATE ROUTES AND COUNTY ROADS
				TOTAL	1107.1	
				USE		

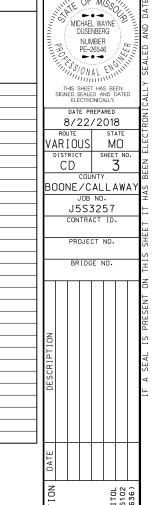
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				CEN	TERLINE RUMB	LE STRIPS
					BITUMINOUS	
					CENTERLINE	
APPROX.	APPROX.		LENGTH	LENGTH	RUMBLE STRIPS	
LOG MILE	LOG MILE	LOCATION	ΜI	LF	STA	REMARKS
5.631	6.758	ROUTE 163	1.1	5951.0	59.5	
6.758	6.784	ROUTE 163	0.0	137.0		EXCEPTION - BRIDGE A5794 OVER CLEAR CR.
6.784	6.984	ROUTE 163	0.2	1056.0	10.6	
6.984	7.010	ROUTE 163	0.0	137.0		EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.010	10.676	ROUTE 163	3.7	19356.0	193.6	
10.676	10.682	ROUTE 163	0.0	32.0		EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR.
10.682	11.647	ROUTE 163	1.0	5095.0	51.0	
				TOTAL	314.6	
				USE	314.6	

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SUMMARY OF QUANTITIES
SHEET 7 OF 13

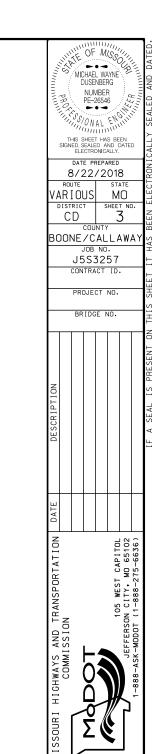
							GU	ARDRAIL			
			MGS	MGS	BRIDGE APPROACH	MGS BLOCK	MGS TYPE A CRASHWORTHY		SHAPING		MANHITHE
			GUARDRAIL	GUARDRAIL			END TERMINAL	MGS	SLOPES		l la
			6 FT. POSTS	8 FT. POSTS			(MASH)	END ANCHOR	CLASS III		- 11,
LOG MILE LOG	MILE	LOCATION	I F	I F	EA	EA	EA	EA	100 FT	REMARKS	
	.448	BOONE CO ROUTE N - LT		525	LA		2	LA	1.5	NE MATING	$\dashv$
	980	CALLAWAY CO ROUTE F - LT		323	1		1		1.3	MILLERS CREEK	-11
	.980	CALLAWAY CO ROUTE F - RT		50	1			1	0.5	MILLERS CREEK	$\dashv$
	.016	CALLAWAY CO ROUTE F - LT			1		1		1.3	MILLERS CREEK	
2.002 2.	.016	CALLAWAY CO ROUTE F - RT			1		1		1.3	MILLERS CREEK	
0.147		CALLAWAY CO RTE J WB OFF RAMP - RT	87.5			1	1		0.8	I-70 INTERCHANGE - INCLUDES SEGMENT ALONG RTE J	
0.004		CALLWAY CO RTE J WB ON RAMP - RT		800			1	1	0.8	I-70 INTERCHANGE - INCLUDES SEGMENT ALONG RTE J	
0.000		CALLWAY CO RTE J EB OFF RAMP - RT		75		1	1		0.8	I-70 INTERCHANGE	$\neg$ $\vdash$
0.140		BOONE CO ROUTE Y - LT	580				1	1	6.7	FROM RTE 63 INTERCHANGE DOWN RTE. 63 OUTER ROAD	
0.181		BOONE CO ROUTE Y - LT	225				1		3.2	FROM RTE. 63 OUTER ROAD TO INDUSTRIAL DRIVE - UIP 262.5' GUARD RAIL DOWN RAMP FROM GR RADIUS	ΠF
0.240		BOONE CO ROUTE Y - LT	125				2		2.8	EAST OF INDUSTRIAL DRIVE	
4.938		BOONE CO ROUTE Y - RT	25		1		1		1.4	CEDAR CR BRIDGE	
4.938		BOONE CO ROUTE Y - LT			1		1		1.1	CEDAR CR BRIDGE	
4.999		BOONE CO ROUTE Y - RT			1		1		1.1	CEDAR CR BRIDGE	
4.999		BOONE CO ROUTE Y - LT	25		1		1		1.4	CEDAR CR BRIDGE	
6.961		BOONE CO ROUTE 163 - RT	25		1		1		1.4	GANS CR BRIDGE	
6.969		BOONE CO ROUTE 163 - LT	12.5		1		1		1.3	GANS CR BRIDGE	⊦
7.008		BOONE CO ROUTE 163 - RT	12.5		1		1		1.3	GANS CR BRIDGE	
7.012		BOONE CO ROUTE 163 - LT	25		1		1		1.4	GANS CR BRIDGE	
7.527		BOONE CO ROUTE 163 - RT	25		1		1		1.4	CLEAR CR BRIDGE	
7.527		BOONE CO ROUTE 163 - LT			1		1		1.1	CLEAR CR BRIDGE	,
7.567		BOONE CO ROUTE 163 - RT			1		1		1.1	CLEAR CR BRIDGE	
7.567		BOONE CO ROUTE 163 - LT	25		1		1		1.4	CLEAR CR BRIDGE	
											[-
		SUB TOTAL (1:							36		[2
		SUB TOTAL (2)						_	6		-
		TOTAL		1450	16	2	24	3	41		
		USE	1193	1450	16	2	24	3	41		

	(	GUARDRAIL					
		BRIDGE					
		ANCHOR	TRANSITION	TYPE A	END	SHAPING	
		SECTION	SECTION	GUARDRAIL	ANCHOR	SLOPES	
		6.5' POSTS	6.5' POSTS			CLASS III	
LOG MILE LOG MILE	LOCATION	EΑ	EA	LF	EΑ	100 FT	REMARKS
0.000	CALLAWAY CO RTE J WB OFF RAMP - LT	1	1	87.5		1.1	BRDGE OVER I-70
0.000	CALLAWAY CO, - RTE J WB ON RAMP - LT	1	1	200	1	2.2	BRDGE OVER I-70
0.049	CALLWAY CO RTE J EB OFF RAMP - LT	1	1	87.5		1.1	BRDGE OVER I-70
0.049	CALLAWAY CO RTE J EB ON RAMP - LT	1	1	100		1.2	BRDGE OVER I-70
	SUB TOTAL (2)					6	
	TOTAL	4	4	475	1		
	USE	4	4	475	1		





						SURFACE SE	ALING (RUMBLE STRIPS)
						SURFACE	
						SEALING	
APPROX.	APPROX.		LENGTH	LENGTH	WIDTH	TREATMENT	
		LOCATION					DEMOKE
	LOG MILE	LOCATION	MI	LF	LF	SY	REMARKS
5.631	6.721	ROUTE 163 - LT	1.1	5755.0	1.0	639.4	
6.721	6.813	ROUTE 163 - LT	0.1	486.0	1.0		EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.813	6.986	ROUTE 163 - LT	0.2	913.0	1.0	101.4	
6.986	7.012	ROUTE 163 - LT	0.0	137.0	1.0	0.4.7.5	EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.012	10.652	ROUTE 163 - LT	3.6	19220.0	1.0	2135.6	TUGGET IOU DELICATION OF DELICATION OF THE CO.
10.652	10.706	ROUTE 163 - LT	0.1	284.0	1.0	550.4	EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
10.706	11.647	ROUTE 163 - LT	0.9	4969.0	1.0	552.1	
5.631	6.721	ROUTE 163 - RT	1.1	5755.0	1.0	639.4	EVOCETION DELOCE ASTOLOGED OF SAD ON THOUSE STATE CHOILED
6.721	6.813 6.982	ROUTE 163 - RT ROUTE 163 - RT	0.1	486.0 892.0	1.0	99.1	EXCEPTION - BRIDGE A5794 OVER CLEAR CR. INCLUDES EXIST SHOULDER
6.982		ROUTE 163 - RT	0.2	137.0	1.0	99.1	EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.008	7.008 10.652	ROUTE 163 - RT	0.0	19241.0	1.0	2137.9	EXCEPTION - BRIDGE ATOUS OVER GANS CR.
10.652	10.652	ROUTE 163 - RT	3.6	284.0	1.0	2131.9	EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR. INCLUDES GUARDRAIL LENGTH
10.652	11.647	ROUTE 163 - RT	0.1	4969.0	1.0	552.1	EXCEPTION - BRIDGE WOSSY OVER BUNNE FEMME CR. INCLUDES GUARDRAIL LENGTH
0.179	4.947	ROUTE Y - LT	4.8	25175.0	1.0	2797.2	
4.947	5.026	ROUTE Y - LT	0.1	417.0	1.0	2191.2	EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.026	9.238	ROUTE Y - LT	4.2	22239.0	1.0	2471.0	EXCEPTION - BRIDGE NOUSO OVER CEDAR CREEK - INCLUDES GUARDRAIL
0.179	4.941	ROUTE Y - RT	4.8	25143.0	1.0	2793.7	
4.941	5.020	ROUTE Y - RT	0.1	417.0	1.0	2133•1	EXCEPTION - BRIDGE NOO38 OVER CEDAR CREEK - INCLUDES GUARDRAIL
5.020	9.238	ROUTE Y - RT	4.2	22271.0	1.0	2474.6	EXCENTION DIVIDUE NOOSE EVEN CEDAN CHEEK INCLUDES COMMUNATE
5.631	6.758	ROUTE 163	1.1	5951.0	1.0	661.2	
6.758	6.784	ROUTE 163	0.0	137.0	1.0	001•2	EXCEPTION - BRIDGE A5794 OVER CLEAR CR.
6.784	6.884	ROUTE 163	0.0	528.0	1.0	58.7	Enter the State of
6.884	7.010	ROUTE 163	0.1	665.0	1.0	50.1	EXCEPTION - BRIDGE A1803 OVER GANS CR.
7.010	10.676	ROUTE 163	3.7	19356.0	1.0	2150.7	Enter 120. Stilled mode of the one on
10.676	10.682	ROUTE 163	0.0	32.0	1.0	2.00	EXCEPTION - BRIDGE W0559 OVER BONNE FEMME CR.
10.682	11.647	ROUTE 163	1.0	5095.0	1.0	566.1	The state of the s
			1.5	3000.0		555.	
			-	23561.0	1.0	2617.9	EXCEPTIONS FOR ENTRANCES, STATE ROUTES AND COUNTY ROADS
				TOTAL	TOTAL	18212.3	
				USE	USE	18212.3	



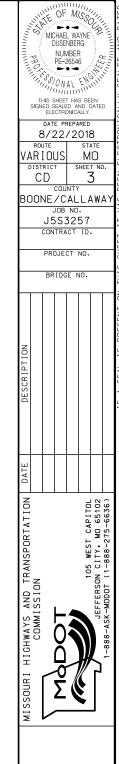
						PAVEN	MENT MARKI	NG		
				WATERBORNE		. ,				
					ARKING PAIN	T PREFOR	MED THERMOP	LASTIC		
				TYPE P BEAD	os		VEMENT MARKI			
				4 "	4 "	24" SOLID	24" SOLID	30" MIDBLOCK	LEFT/RIGHT	
LOG	LOG		LENGTH	YELLOW	WHITE	YELLOW	WHITE	WHITE	ARROW	
MILE	MILE	LOCATION	(FT)	(LF)	(LF)	(LF)	(LF)	(EA)	(EA)	REMARKS
BOONE CO		200/111011	(117	(21)	(21)	(21)	(21)	(2///	(2///	THE MATRICE
5.499	5.511	ROUTE 163	63		63					LANE LINE
5.499	11.647	ROUTE 163	32461	64923	64923					
5.505		ROUTE 163							1	LEFT ARROW
BOONE CO	YTNUC									
0.000	5.783	ROUTE N	30534	61068	61068					
BOONE CO	YTNUC									
0.179	9.238	ROUTE Y	47832	95663	95663					
BOONE/CA		COUNTY						1		
0.869	1.552	ROUTE WW	3606	0.054 55	7212	150.55				
1.552	1.673	ROUTE WW	712.80	2851.20		150.00			4	DOUBLE LINE - LT & RT WITH CHEVRONS
1.637		ROUTE WW ROUTE WW							1	RIGHT ARROW RIGHT ARROW
1.669		ROUTE WW					12,00			INTOIT ANNOTE
1.631	1.673	ROUTE WW	222		221.76					LANE LINE
1.693	1.725	ROUTE WW	169		168.96					LANE LINE
1.705		ROUTE WW							1	LEFT ARROW
1.723		ROUTE WW							1	LEFT ARROW
1.693	1.854	ROUTE WW	850	1531.20		447.00				DOUBLE LINE - RT
1.735	1.854 2.471	ROUTE WW ROUTE WW	628 3258	1256.64 6516	6516	113.00				DOUBLE LINE - LT WITH CHEVRONS
2.471	2.471	ROUTE WW	248	6516	9109					EXCEPTION - ROLLING HILLS ROUNDABOUT
2.518	2.808	ROUTE WW	1531	3062	3062					EXCELLION HIEES ROCKPADOOT
2.808	2.922	ROUTE WW	602	1204	0002	100				DOUBLE LINE - RT WITH CHEVRONS
2.808	2.948	ROUTE WW	739		1478					DOUBLE LINE - LT
2.926		ROUTE WW							1	LEFT ARROW
2.926	2.948	ROUTE WW	116		116					LANE LINE
2.963 3.064	3.273	ROUTE WW ROUTE WW	1637	4092	3274				1	INTERMITTENT AND SOLID LINE - LT & RT LEFT ARROW
3.068		ROUTE WW							1	LEFT ARROW
3.159		ROUTE WW							1	LEFT ARROW
3.163		ROUTE WW							1	LEFT ARROW
3.244		ROUTE WW							1	LEFT ARROW
3.248		ROUTE WW							1	LEFT ARROW
3.273	3.343	ROUTE WW	370	739	739				4	DOUBLE LINE - RT
3.295 3.297	3.343	ROUTE WW ROUTE WW	243		243				1	LEFT ARROW  LANE LINE
3.328	3.343	ROUTE WW	243		243				1	LEFT ARROW
3.350	3.500	ROUTE WW	792	3168	1584	100				DOUBLE LINE - LT & RT WITH CHEVRONS
3.500	9.815	ROUTE WW	33343	66686	66686					
CALLAWA	COUNTY									
0.000	9.219	ROUTE F	48676	97353	97353					
CALLAWA										
11.134	11.331	ROUTE DD/J	1040	2080	2080					FROM SME TO SOUTH END OF I-70 BRIDGE
0.049	20.462	ROUTE J	107781	215561	215561					BEGIN AT SOUTH END OF I-70 BRIDGE
18.997	19.022 19.022	ROUTE J ROUTE J			240 210			1		STRIPED ISLAND
19.000	13.022	ROUTE J			210		12			STOP BAR
2.025		ROUTE J					, ,	5		CROSSWALK IN NEW BLOOMFIELD
CALLAWAY	COUNTY				L	l.		1	1	•
0.000	5.687	ROUTE MM	30027	60055	60055					
CALLAWA	COUNTY					1		•	•	
0.000	6.808	ROUTE NN	35946	71892	71892					
								<u> </u>		
			TOTAL USE	759702 759702	760411 760411	463 463	24 24	5 5	1 4 1 4	NOTE: ALL PAVEMENT MARKING SHALL MATCH EXISTING, LOCATE BEFORE RESURFACING.

MISSOURI HIGHWAYS AND TRANSPORTATION	DATE	DESCRIPTION				ВС					THITITITI	
COMMISSION						100	AR DIST C	ROI	SIGN		S PAO	1111
			BR		J5	٧E		3/2 JTE	ED, S		MIC	1111 TE
_ MoDOT			IDG	DJE	JOB SS TRA	cou /C		22.	E PI	0 N	USE	OF
			E N		32	ΑL	s		T HA ED A ONIC		L 447	M,
105 WEST CAPITOL			10.			L	HEE	01	S BE ND I ALLY.	iiii, EM	RG R	1111, 185
JEFFERSON CITY, MO 65102						<u>ر</u> ۷۷.	O T NO <b>Z</b>	B ATE	EN DATE	3/1/1	JAN 193	
1-888-ASK-MODOT (1-888-275-6636)						ΔY	).		D	1	THE THINKING	· ·

APPROX I MATE			
LOG MILE	LOCATION	ITEM	POST
	LUCATION	1 I E M	1031
RTE 163 SB LOG			
5.640	RTE 163	CURVE SYMBOL/35 MPH PLAQUE	1
5.660	RTE 163	ADOPT A HIGHWAY	1
5.921	RTE 163	SPEED LIMIT 55	1
6.001	RTE 163	SHARE THE ROAD/BICYCLE SYMBOL	1
6.142	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
6.950	RTE 163	GANS CREEK TRAIL HEAD/TO HIGH RIDGE TRAIL PARK	2
6.961	RTE 163	WEIGHT LIMIT 40 TONS	1
6.982	RTE 163	OBJECT MARKER	1
7.040	RTE 163	OBJECT MARKER	1
7.200	RTE 163	CURVE SYMBOL/50 MPH PLAQUE	1
7.619	RTE 163	ADOPT A HIGHWAY	1
7.678	RTE 163	CURVE SYMBOL/40 MPH PLAQUE	1
7.936	RTE 163	PIERPONT	1
8.076	RTE 163	MO 163 /ADVANCE LEFT TURN ARROW	1
8.118	RTE 163	STOP SIGN/4 WAY	1
8.118	RTE 163	MO 163/LEFT/N /RIGHT	1
8.120	RTE 163	MO 163/STRAIGHT & LEFT TURN ARROW	
8.180	RTE 163	SPEED LIMIT 55	1
8.879	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	· ·
9.418	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
9.498	RTE 163	ADOPT A HIGHWAY  WEIGHT LIMIT 19 TONS EXCEPT TRUCKS ORVER 30 TONS 15 MPH ON BRIDGE	1
10.639			1
RTE 163 NB LOG	RTE 163	CREEK SIGN - BONNE FEMME CREEK	
2.703	RTE 163	NORTH/163	1 1
2.720	RTE 163	ADOPT A HIGHWAY	1
2.759	RTE 163	STOP FOR SCHOOL BUS	1
2.912	RTE 163	SPEED LIMIT 55	1
3.610	RTE 163	WEIGHT LIMIT 19 TONS EXCEPT TRUCKS ORVER 30 TONS 15 MPH ON BRIDGE	1
3.634	RTE 163	CREEK SIGN - BONNE FEMME CREEK	1
4.502	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
4.818	RTE 163	ADOPT A HIGHWAY	1
5.008	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
5.634	RTE 163	PIERPONT	1
5.976	RTE 163	JCT/N	1
6.016	RTE 163	DESTINATION SIGN - STRAIGHT ARROW SAPP - 4/COLUMBIA - 6 RIGHT TURN ARROW	2
6.058	RTE 163	STOP AHEAD SYMBOL	1
6.078	RTE 163	MO 163 /ADVANCE RIGHT TURN ARROW	1
6.184	RTE 163	STOP SIGN/4 WAY	1
6.184	RTE 163	N/STRIGHT ARROW/163/RIGHT TURN ARROW	1
6.226	RTE 163	MO 163 /NORTH	1
6.269	RTE 163	SPEED LIMIT 55	1
6.301	RTE 163	WINDING ROAD SYMBOL/40 MPH PLAQUE	1
6.697	RTE 163	ADOPT A HIGHWAY	1
6.823	RTE 163	CURVE SYMBOL/50 MPH PLAQUE	1
7.083	RTE 163	SHARE THE ROAD/BICYCLE SYMBOL	1
7.270	RTE 163	WEIGHT LIMIT 40 TONS	1
7.270	RTE 163	OBJECT MARKER	1
7.300	RTE 163	CREEK SIGN - GANS CREEK	1
7.526	RTE 163	CREEK SIGN - CLEAR CREEK	1
7.586	RTE 163	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
8.027	RTE 163	PICNIC AREA/WILD CAVE TOUR CENTER	2
8.364	RTE 163	CURVE SYMBOL/35 MPH PLAQUE	1
8.630	RTE 163	LEFT TURN ARROW MCBAINE 7 / COLUMBIA 3	2
8.690	RTE 163	SCHOOL	1
8.710	RTE 163	LEFT TURN ARROW KATY TRAIL/7 STATE PARK	2
8.740	RTE 163	MO 163 /ADVANCE RIGHT TURN ARROW	1
		SUBTOTAL (1)	
		SUBTOTAL (2)	
		TOTAL	1 L

LOG MILE RTE Y EB LOG			
RTF Y FR I NG	LOCATION	ITEM	POS1
INTE I EB EGG			
0.218	RTE Y	SPEED LIMIT 45	1
0.298	RTE Y	LITTERING FINE SIGN	1
0.318	RTE Y	GUTHRIE 9 MI.	2
1.718	RTE Y	SPEED LIMIT 55	1
0.740	RTE Y	ADDRESS # SIGN	1
1.937	RTE Y	CURVE SYMBOL/40 MPH PLAQUE	1
2.398	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE/NEXT 1 MILE	1
2.658	RTE Y	HILL	1
2.958	RTE Y	CHEVRON	1
2.971	RTE Y	CHEVRON	1
2.985	RTE Y	CHEVRON	1
2.998	RTE Y	CHEVRON	1
3.013	RTE Y	CHEVRON	1
3.019	RTE Y	CHEVRON	1
3.026	RTE Y	CHEVRON	1
3.032 3.758	RTE Y	CHEVRON	1
	RTE Y	CURVE SYMBOL/45 MPH PLAQUE	1
4.079 4.198	RTE Y	CURVE SYMBOL/40 MPH PLAQUE HILL	1
4,198	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
4.600	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE WINDING ROAD SYMBOL/45 MPH PLAQUE	1
4.958	RTE Y	CEDER CREEK/ENTERING CALLAWAY COUNTY	1
5.098	RTE Y	WATER GUAGE MARKER	1
5.580	RTE Y	SIDE ROAD	1
8.737	RTE Y	WINDING ROAD SYMBOL/50 MPH PLAQUE	1
8.998	RTE Y	JCT J	1
9.038	RTE Y	REDUCED SPEED LIMIT AHEAD 40	1
9.118	RTE Y	SPEED LIMIT 40	1
9.158	RTE Y	β MILLERS BURG 13 NEW BLOOMFIELD 4 ¢	2
RTE Y WB LOG			
0.041	RTE Y	ADOPT A HIGHWAY	1
0.170	RTE Y	SPEED LIMIT 50	1
0.262	RTE Y	CURVE SYMBOL/50 MPH PLAQUE	1
2.579	RTE Y	SIDE ROAD	1
3.039	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
3.359	RTE Y	SIDE ROAD	1
3.617	RTE Y	CURVE SYMBOL/45 MPH PLAQUE	1
3.657	RTE Y	HILL	1
3.697	RTE Y	CURVE SYMBOL/20 MPH PLAQUE	1
3.802	RTE Y	CURVE SYMBOL/35 MPH PLAQUE	1
3.822	RTE Y	IMPASSABLE DURING HIGH WATER	1
3.882	RTE Y	WINDING ROAD SYMBOL/45 MPH PLAQUE	1
4.162	RTE Y	WATER GUAGE MARKER	1
4.282	RTE Y	OBJECT MARKER	1
4.285	RTE Y	OBJECT MARKER	1
4.302	RTE Y	WINDING ROAD SYMBOL/45 MPH PLAQUE	1
4.381	RTE Y	ADOPT A HIGHWAY	1
4.641	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE	1
4.919	RTE Y	CURVE SYMBOL/45 MPH PLAQUE	1
5.177	RTE Y	CURVE SYMBOL/45 MPH PLAQUE	1
5.878	RTE Y	WINDING ROAD SYMBOL/35 MPH PLAQUE/NEXT 1 MILE	1
6.000	RTE Y	HILL	1
6.416	RTE Y	SIDE ROAD	1
6.997	RTE Y	CURVE SYMBOL/45 MPH PLAQUE	1
		SUBTOTAL (2)	

EXTRA CARE SHALL BE TAKEN TO MAKE SURE THE WATER GAGE MARKER AT LM 4.998 EB AND LM 4.162 WB IS SET AT THE EXISTING ELEVATION

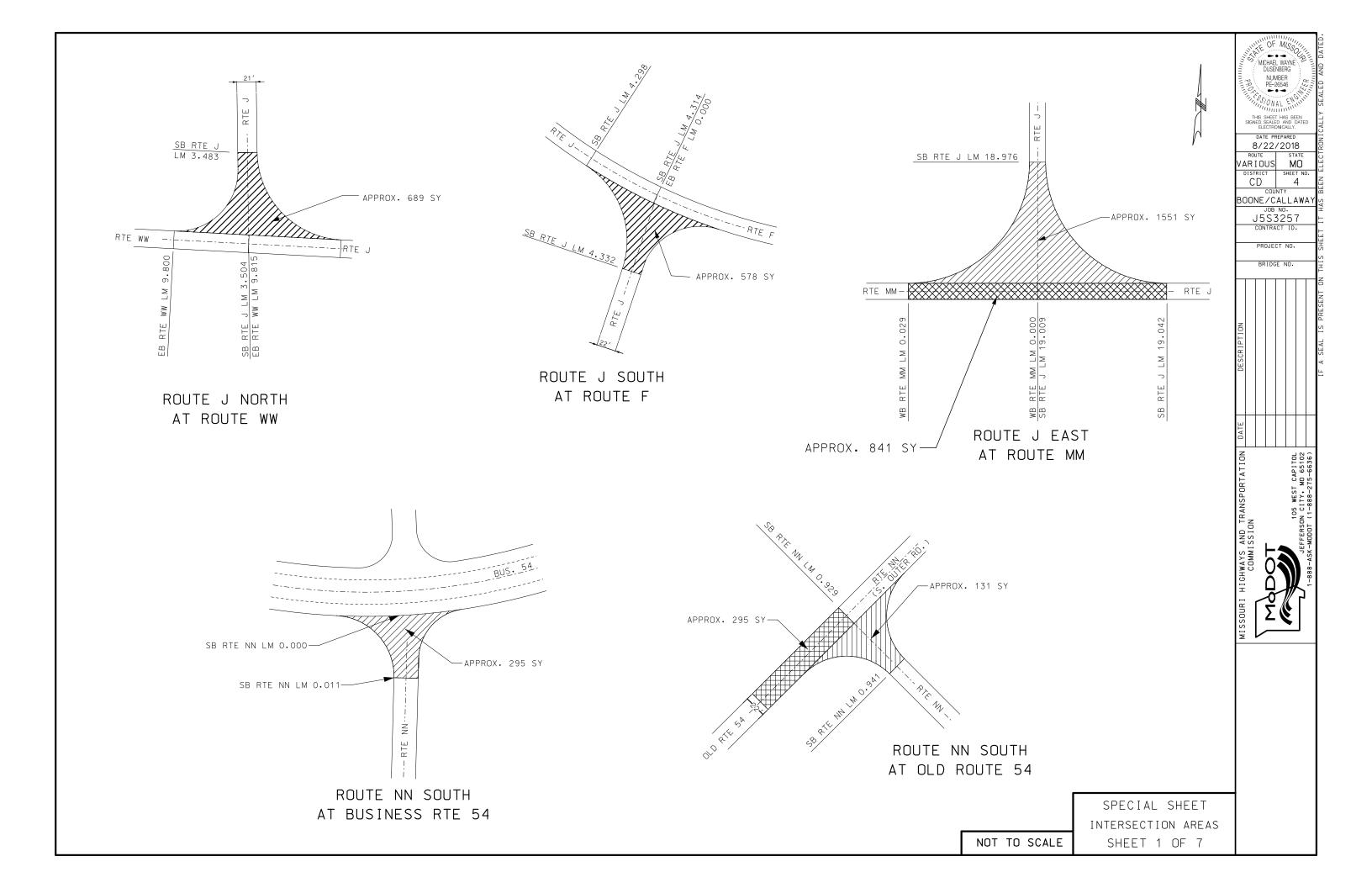


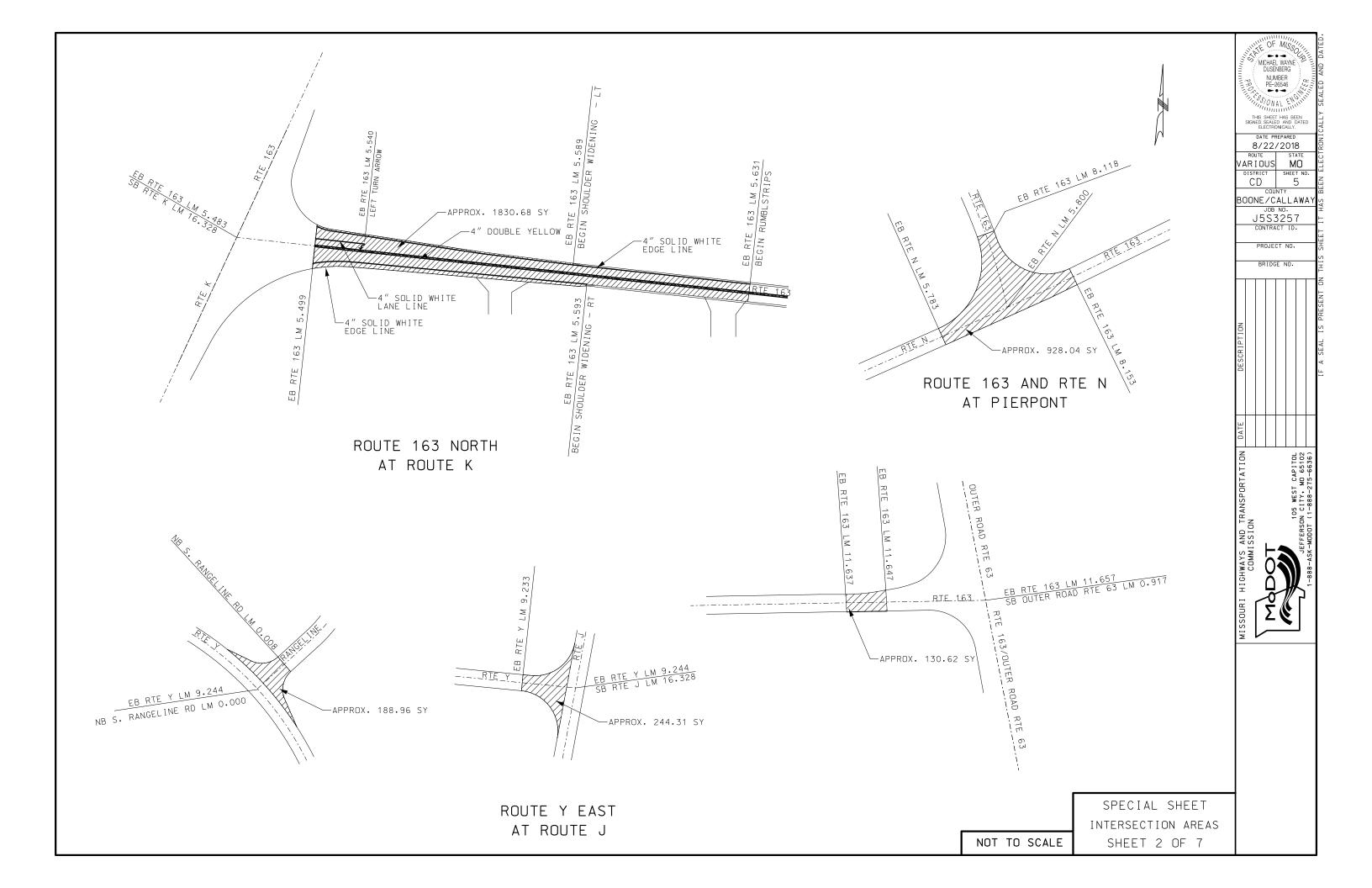
				ENTR	RANCE	CULV	/ERT	PIPES	- R	RTE Y
		GROUP	В							
		LENGT	Н			FES				1
LOG		(FT)				(EACH	1)			
MILE	LOCATION		15"	18"	21"	12"	15"	18"	21"	REMARKS
0.754	LT.	12	13	34	2	12	13	2		ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
0.913	LT.			34				2		ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
0.986	LT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.022	RT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.160	RT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.246	LT.	30				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.258	RT.	33				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.334	RT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.373	LT.			28				2		ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.471	LT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.536	RT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.588	RT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.598	LT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.870	LT.		26				2			ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.893	RT.		28				2			ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
1.928	LT.		28				2			ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.165	RT.	32				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.239	LT.	32				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.294	RT.		28				2			ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.649	RT.	28				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.677	RT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
2.722	LT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
3.261	LT.	38				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
3.355	LT.	38				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
3.531	RT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
3.938	RT.	26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
3.975 4.236	LT.	26 26				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.  ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
4.658	LT.	26			30	2			2	ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
4.919	LT.				34				2	ENTRANCE FIFE - NO DIRECT PAY FOR EXC.
4.919	RT.	30			34	2				ENTRANCE FIFE - NO DIRECT PAY FOR EXC.
5.138	RT.	32				2				ENTRANCE FIFE - NO DIRECT PAY FOR EXC.
6.639	RT.	30				2				ENTRANCE FIFE - NO DIRECT PAY FOR EXC.
6.701	RT.	36				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
6.838	RT.	42				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
6.878	LT.	25				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.098	RT.	33				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.099	LT.	33				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.138	LT.	32				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.139	RT.	35				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.398	LT.	34				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
7.458	RT.	30				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
8.057	LT.	30				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
8.378	RT.	30				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
8.658	LT.	27				2				ENTRANCE PIPE - NO DIRECT PAY FOR EXC.
	TOTAL	1084	110	96	64	72	8	6	4	

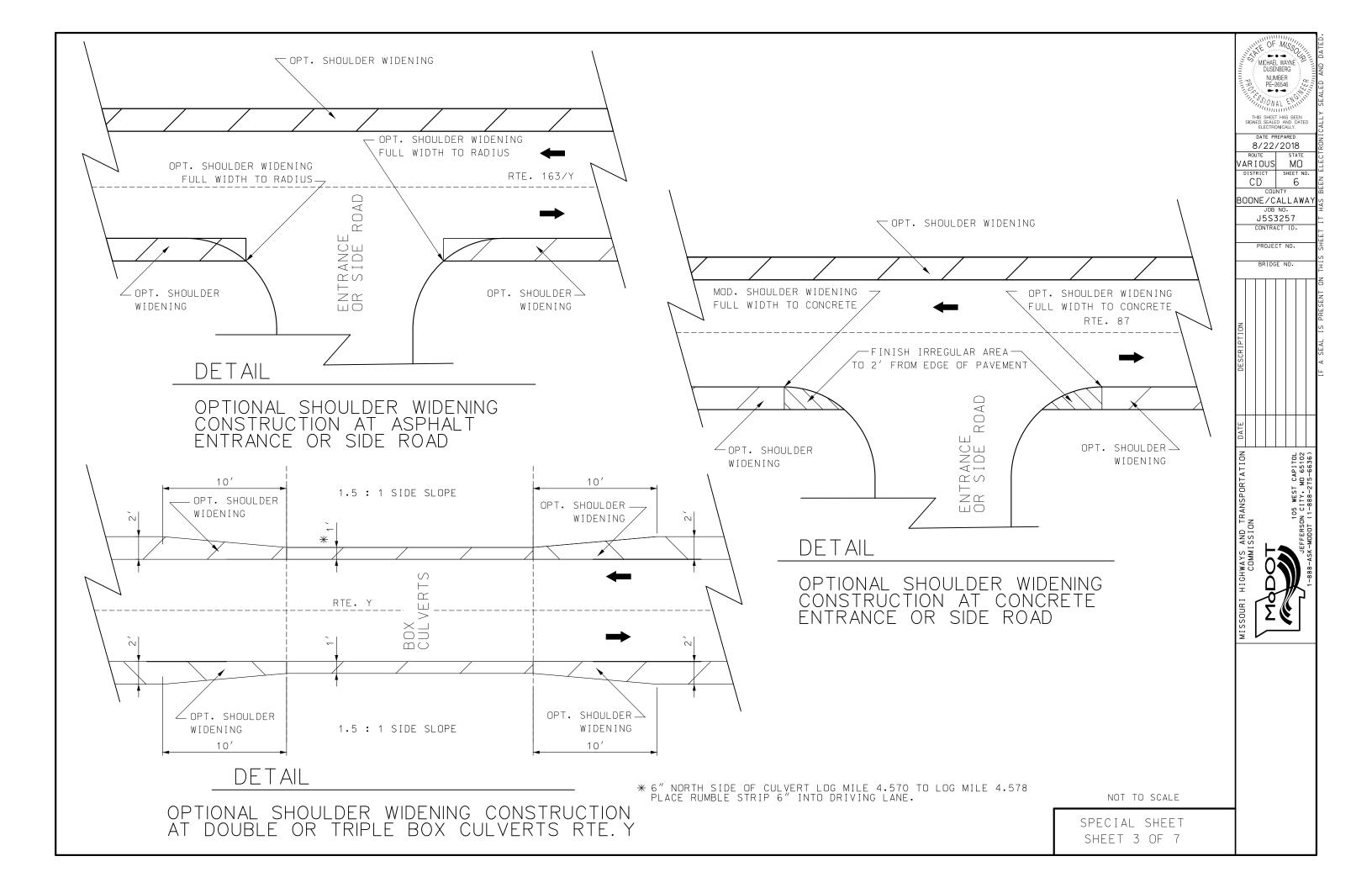
PIPE MEASUREMENTS ARE APPROXIMATE. VERIFY BEFORE REPLACEMENT.

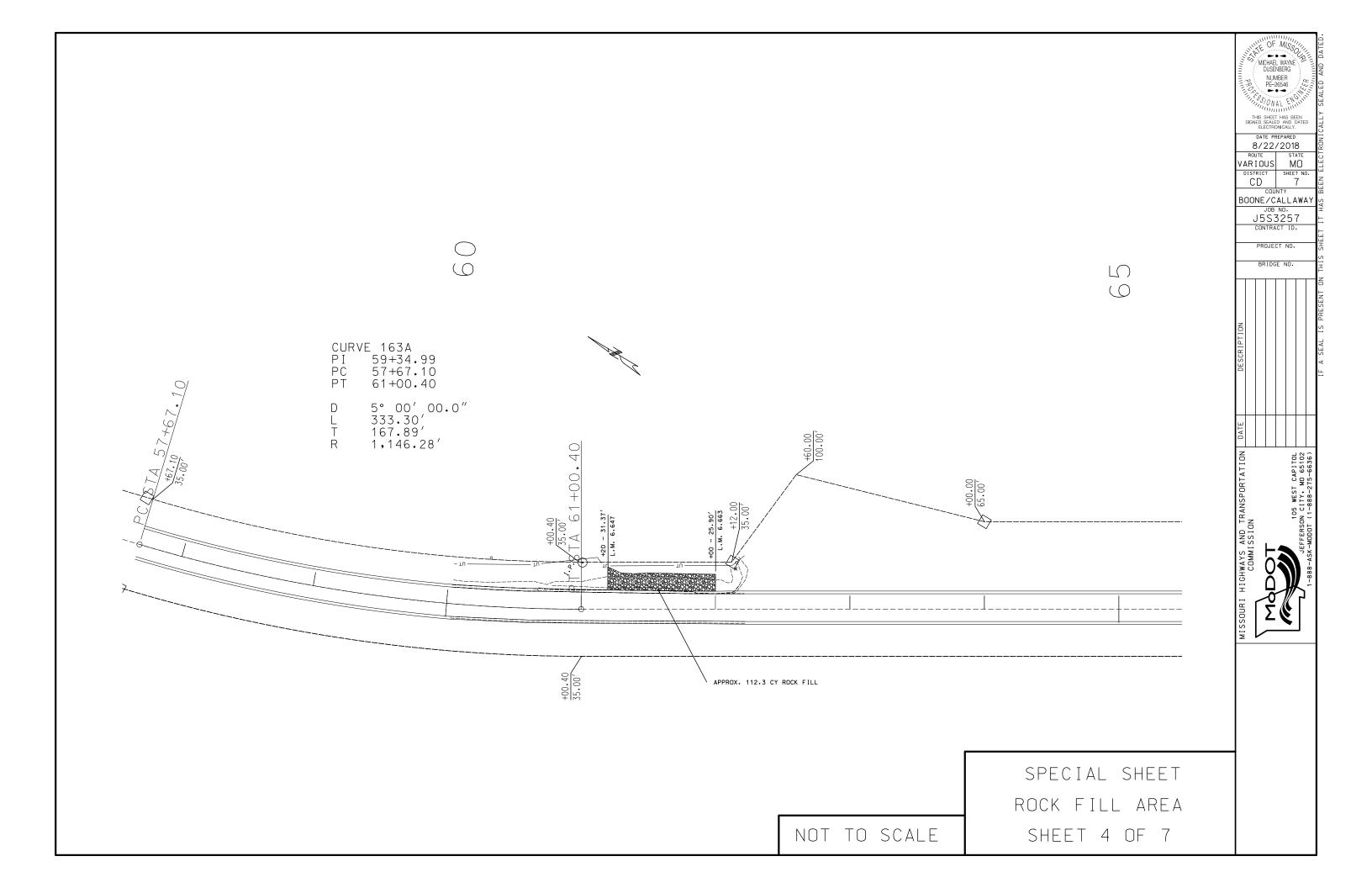
MISSOURI HIGHWAYS AND TRANSPORTATION	DATE	DESCRIPTION			ВС		\ \/ /		THITITITI	
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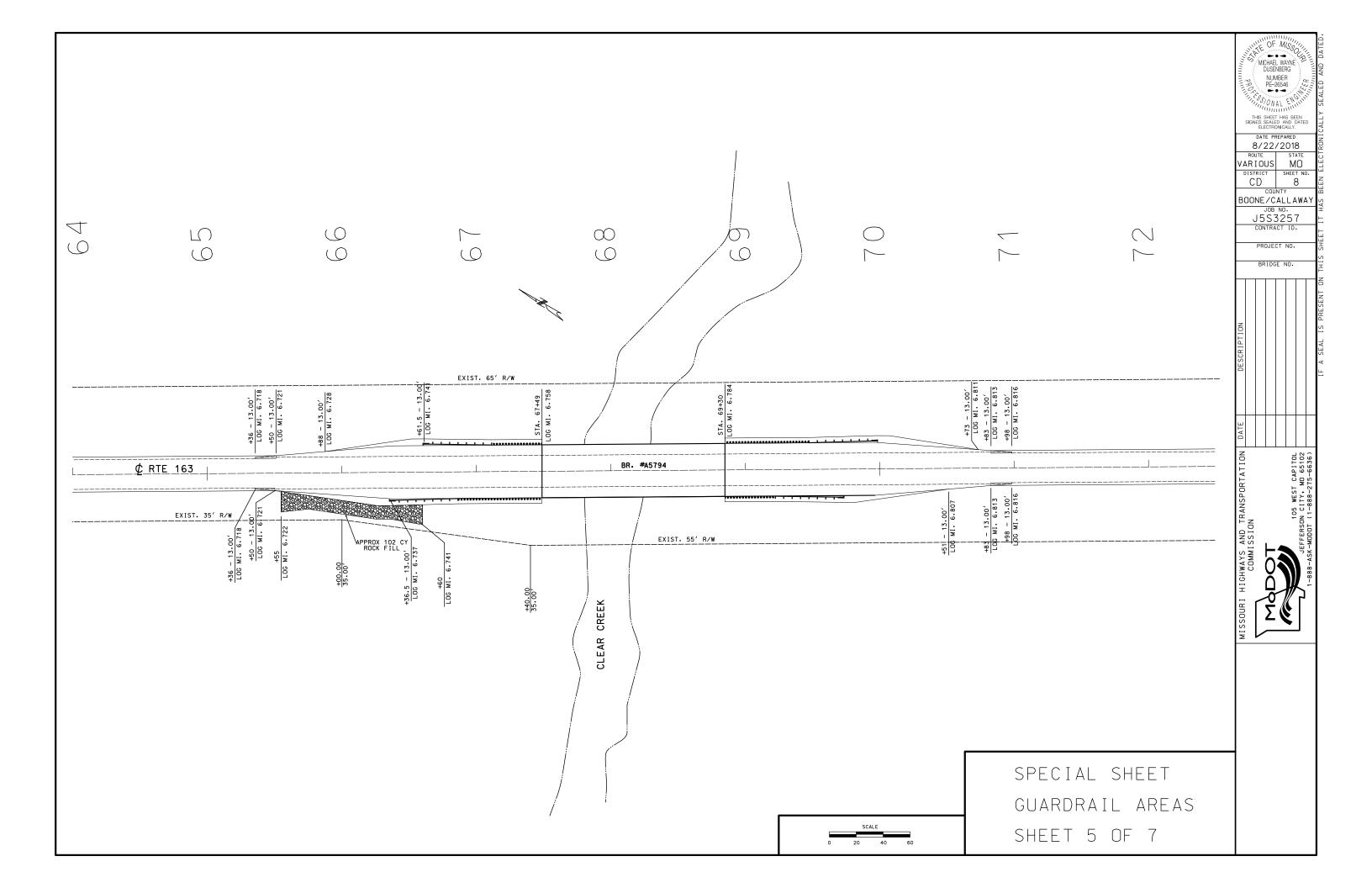
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TOTAL QTY TOTAL   SIZE AREA QTY AREA RELOCRELOC			QTY TOTAL RELOC RELOC						≥ S/MICHAEL V
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	DECODIBLION			•	DECODIDATION	ITEM		DECODIDATION	PE-265
WARNING SIGNS	DESCRIPTION		GUIDE SIGNS		DESCRIPTION	NUMBER		DESCRIPTION	III, SSIONAL
1-1L   48X48   16.00	TURN (SYMBOL LEFT ARROW) TURN (SYMBOL RIGHT ARROW)	E05-1 36X48 12.00 E05-2 48X36 12.00		_	GORE EXIT  EXIT OPEN	6122008 6122009		IMPACT ATTENUATOR (8 SAND BARRELS)  IMPACT ATTENUATOR (9 SAND BARRELS)	777411111
1-2L 48X48 16.00	CURVE (SYMBOL LEFT ARROW)	E05-2a 48X36 12.00			EXIT CLOSED	6122010		IMPACT ATTENUATOR (10 SAND BARRELS)	THIS SHEET H SIGNED, SEALED ELECTRONIO
1-2R 48X48 16.00	CURVE (SYMBOL RIGHT ARROW)	G020-1 60X24 10.00		_	ROAD WORK NEXT XX MILES	6122010		IMPACT ATTENUATOR (12 SAND BARRELS)	L
-3L 48X48 16.00	REVERSE TURN (SYMBOL LEFT ARROW)	1 0020 1 00X2 1 10100	1 10100	'	2 @ 5, 4 @ 6, 2 @ 7, 6 @ 9, 2	@621222014		IMPACT ATTENUATOR (14 SAND BARRELS)	8/22/2
1-3R 48X48 16.00	REVERSE TURN (SYMBOL RIGHT ARROW)	G020-2 48X24 8.00	4 32.00	26	END ROAD WORK	6122017		IMPACT ATTENUATOR (17 SAND BARRELS)	ROUTE
-4L   48X48   16.00	REVERSE CURVE (SYMBOL LEFT ARROW)	GO20-4 36X18 4.50	2 9.00	53	PILOT CAR FOLLOW ME	6122019		IMPACT ATTENUATOR (19 SAND BARRELS)	Variou\$
-4R 48X48 16.00	REVERSE CURVE (SYMBOL RIGHT ARROW)	GO20-4a 42X30 8.75	18 157.50	58	PLEASE WAIT FOR PILOT CAR	6122020		REPLACEMENT SAND BARREL	DISTRICT
1-4bL 48X48 16.00	DOUBLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)	G020-5aP 36X24 6.00			WORK ZONE (PLAQUE)	6122030		IMPACT ATTENUATOR (RELOCATION)	CD
I-4bR 48X48 16.00	DOUBLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)	MO4-8a 24X18 3.00			END DETOUR	6123000 <i>A</i>	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)	BOONE/CAI
1-4cL 48X48 16.00	TRIPLE ARROW REVERSE CURVE (SYMBOL LT ARROWS)	MO4-9L 48X36 12.00			DETOUR (LEFT ARROW)	6161007		SPEED LIMIT AND STROBE LIGHT ASSEMBLY	JOB N
1-4cR 48X48 16.00	TRIPLE ARROW REVERSE CURVE (SYMBOL RT ARROWS)	MO4-9R 48X36 12.00		_	DETOUR (RIGHT ARROW)	6161008		ADVANCED WARNING RAIL SYSTEM	J5S32
1-6 60X30 12.50	HORIZONTAL ARROW (SYMBOL)	MO4-9P 48X12 4.00			STREET NAME (PLAQUE)	6161009		FLAG ASSEMBLY	CONTRACT
1-6a   72X36   18.00	HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)  DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4-10L 48X18 6.00 MO4-10R 48X18 6.00		_	DETOUR (ARROW LEFT) DETOUR (ARROW RIGHT)	6161012 6161013		BUOYS (BOATS KEEP OUT) BUOYS (NO WAKE)	200,1507
1-7a 72X36 18.00	DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.)	MU4-10R  48X18  8:00	REGULATORY SIGN		DETOUR (ARROW RIGHT)	6161013		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)	PROJECT
1-8 18X24 3.00	CHEVRON (SYMBOL)	R1-1 48X48 13.25			STOP	6161024		CHANNELIZER (TRIM LINE) WITH LIGHT	BRIDGE
1-8a 30X36 7.50	CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)	R1-2 48TRI 6.93			YIELD	6161025		CHANNELIZER (TRIM LINE)	
3-1 48X48 16.00	STOP AHEAD (SYMBOL)	R1-2a 36X36 9.00			TO ONCOMING TRAFFIC (PLAQUE)	6161030		TYPE III MOVEABLE BARRICADE	
3-2 48X48 16.00	YIELD AHEAD (SYMBOL)	R1-3P 30X12 2.50			ALL WAY (PLAQUE)	6161031		TYPE III MOVEABLE BARRICADE WITH LIGHT	1
3-3 48X48 16.00	SIGNAL AHEAD (SYMBOL)	R2-1 36X48 12.00			SPEED LIMIT XX	6161033		DIRECTION INDICATOR BARRICADE	1
3-4 48X48 16.00 16 256.00	11 BE PREPARED TO STOP	R3-1 48X48 16.00			NO RIGHT TURN (SYMBOL)	6161034		DIRECTION INDICATOR BARRICADE, WITH LIGHT	1
3-5 48X48 16.00	SPEED LIMIT AHEAD	R3-2 48X48 16.00			NO LEFT TURN (SYMBOL)	6161040		FLASHING ARROW PANEL	[8]
4-1L 48X48 16.00	MERGE (SYMBOL FROM LEFT)	R3-3 36X36 9.00			NO TURNS	6161047		TYPE III OBJECT MARKER	
4-1R 48X48 16.00	MERGE (SYMBOL FROM RIGHT)	R3-4 48X48 16.00			NO U-TURN (SYMBOL)	6161052		WARNING LIGHT, TYPE B	
4-1aL 48X48 16.00	MERGE (ARROW SYMBOL)	R3-7L 30X30 6.25	+ + + + + + + + + + + + + + + + + + + +		LEFT LANE MUST TURN LEFT	6161055		SEQUENTIAL FLASHING WARNING LIGHT	
4-1aR 48X48 16.00 5-1 48X48 16.00 2 32.00	MERGE (ARROW SYMBOL)  34 ROAD/BRIDGE/RAMP NARROWS	R3-7R 30X30 6.25 R4-1 36X48 12.00		_	RIGHT LANE MUST TURN RIGHT DO NOT PASS	6161070 6161095		TUBULAR MARKER RADAR SPEED ADVISORY SYSTEM	
5-1 48X48 16.00 2 32.00 5-3 48X48 16.00	ONE LANE BRIDGE	R4-1 36X48 12.00 R4-2 36X48 12.00			PASS WITH CARE	10101035		CHANGEABLE MESSAGE SIGN,	1
5-5 48X48 16.00	NARROW LANES	R4-7aL 36X48 12.00			KEEP LEFT (HORIZONTAL ARROW)	6161096		COMMISSION FURNISHED/RETAINED	
6-1 48X48 16.00	DIVIDED HIGHWAY (SYMBOL)	R4-7a 36X48 12.00			KEEP RIGHT (HORIZONTAL ARROW)			CHANGEABLE MESSAGE SIGN W/O COMM.	1
6-2 48X48 16.00	DIVIDED HIGHWAY END (SYMBOL)	R5-1 30X30 6.25		_	DO NOT ENTER	6161098		INTERFACE, CONTRACTOR FURNISHED/RETAINED	
6-3 48X48 16.00	TWO WAY TRAFFIC (SYMBOL)	R5-1a 36X24 6.00			WRONG WAY			CHANGEABLE MESSAGE SIGN WITH COMM.	삗
7-3a 30X24 5.00	NEXT XX MILES (PLAQUE)	R6-1L 54X18 6.75			ONE WAY ARROW (LEFT)	6161099	7	INTERFACE, CONTRACTOR FURNISHED/RETAINED	DA
8-1 48X48 16.00	ВИМР	R6-1R 54X18 6.75			ONE WAY ARROW (RIGHT)	6162000 <i>A</i>		WORK ZONE TRAFFIC SIGNAL SYSTEM	
8-2 48X48 16.00 6 96.00	17 DIP	R6-2L 24X30 5.00			ONE WAY (LEFT)	6162002		TEMPORARY LONG-TERM RUMBLE STRIPS	8
8-3 48X48 16.00	PAVEMENT ENDS	R6-2R 24X30 5.00			ONE WAY (RIGHT)	6162004	8	TEMPORARY SHORT-TERM RUMBLE STRIPS	Ę
8-4 48X48 16.00	SOFT SHOULDER	R9-9 24X12 2.00			SIDEWALK CLOSED			TEMPORARY TRAFFIC BARRIER	1 1
8-5 48X48 16.00	SLIPPERY WHEN WET (SYMBOL)	1 0 11			SIDEWALK CLOSED AHEAD,	61736000	)	CONTRACTOR FURNISHED/RETAINED	Įρ̈́
8-6 48X48 16.00 8-6c 48X48 16.00	TRUCK CROSSING TRUCK ENTRANCE	R9-11L 24X18 3.00			(ARROW LEFT) CROSS HERE	6173602E	,	TEMPORARY TRAFFIC BARRIER CONTRACTOR FURNISHED/COMMISSION RETAINED	is i
8-7 36X36 9.00	LOOSE GRAVEL	R9-11R 24X18 3.00			SIDEWALK CLOSED AHEAD, (ARROW RIGHT) CROSS HERE	61740004		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION	A A
8-7a 36X36 9.00	FRESH OIL/LOOSE GRAVEL	R10-6 24X36 6.00			STOP HERE ON RED (45° ARROW)	61750104		RELOCATING TEMPORARY TRAFFIC BARRIER	FS
8-9 48X48 16.00	LOW SHOULDER	R11-2 48X30 10.00	2 20.00		ROAD CLOSED	01100107	1	TEMPORARY TRAFFIC BARRIER	AND
8-11 48X48 16.00	UNEVEN LANES		6		ROAD CLOSED XX MILES AHEAD	6176000E	3	COMMISSION FURNISHED/RETAINED	▼SI L⊿
8-12 48X48 16.00 74 1184.00	35 NO CENTER LINE	R11-3a 60X30 12.50			LOCAL TRAFFIC ONLY			TEMP TRAFFIC BARRIER HEIGHT TRANSITION	S W Z
8-15 48X48 16.00	GROOVED PAVEMENT				3 @ 3, 2 @ 6, 1 @ 7	6177000E	3	COMMISSION FURNISHED/RETAINED	[ <u>₹</u> 8 ()∢
8-15P 30X24 5.00	MOTORCYCLE (PLAQUE)	R11-4 60X30 12.50			ROAD CLOSED TO THRU TRAFFIC	6208064 <i>A</i>		TEMPORARY RAISED PAVEMENT MARKER	HIGHWAY CON
8-17 48X48 16.00 18 288.00	23 SHOULDER DROP-OFF (SYMBOL)	CONST-3A 60X48 20.00			FINE SIGN	9029400			I≅ ¥∕
8-17P 30X24 5.00 18 90.00	23a SHOULDER DROP-OFF (PLAQUE)	CONST-3X 56X12 4.67			SPEEDING/PASSING (PLATE)	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	
0-1 42RND, 9.62	RAILROAD CROSSING	CONCT 5 40V70 40 00	MISCELLANEOUS S		DOINT OF DESCRICE	<del> </del>			15 I <b>5</b> (
12-1 24X24 4.00	DOUBLE DOWN ARROW (SYMBOL)	CONST-4 96×49 32 00			POINT OF PRESENCE POINT OF PRESENCE	l			
12-2 48X48 16.00 12-2X 24X18 3.00	LOW CLEARANCE (SYMBOL)  LOW CLEARANCE (PLAQUE)	CONST-4 96X48 32.00 CONST-7 48X24 8.00			RATE OUR WORK ZONE	l <del></del>			
12-2x 24x18 3.00 12-2a 84x24 14.00	OVERHEAD LOW CLEARANCE (FEET AND INCHES)	CONST-7 72X36 18.00			RATE OUR WORK ZONE	Ц	1		F
12-4 120X60 50.00	LOW CLEARANCE XX FT XX IN XX MILES AHEAD	CONST-8 48X36 12.00			WORK ZONE NO PHONE ZONE				
12-5 120X60 50.00	WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD	SPECIAL 36X78 19.5			DETOUR NUMBER ROUTE ASSEMBLY				
13-1 30X30 6.25	ADVISORY SPEED (PLAQUE)	1			50A (8), 50B (2), 50C (3),	TRAFFI	C CONT	ROL QUANTITIES ARE INCLUDED	
16-2 30X24 5.00	XXX FEET (PLAQUE)				50D (3), 50E (2), 50F (5),			ONE SHOULDERING ROUTE AND	
16-3 30X24 5.00	X MILE (PLAQUE)				50G (5), 50H (5), 50I (2),			L ROUTE SIMULTANEOUSLY.	
20-1 48X48 16.00 44 704.00	2 ROAD/BRIDGE/RAMP WORK AHEAD				50J (2), 50K (1), 50L (1),				
20-2 48X48 16.00 6 96.00	18 DETOUR AHEAD				50M (1), 50N (1)				
20-3 48×48 16.00 2 32.00	20 ROAD CLOSED AHEAD	616-10.05	TOTAL						
20-4 48X48 16.00 12 192.00	7 ONE LANE ROAD AHEAD	CONSTRUCTION SI		Н					
20-5 48X48 16.00	RIGHT/CENTER/LEFT LANE CLOSED AHEAD	616-10.10	TOTAL	4					
20-5a 48X48 16.00	2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD	RELOCATED SIGNS	0	_					
20-6d 48X48 16.00	RIGHT/CENTER/LEFT LANE CLOSED	-							
20-7d 48X48 16.00 20 320.00	8 FLAGGER (SYMBOL) WITH FLAGS	-							
21-2   36X36   9.00	FRESH OIL 21 SHOULDER WORK AHEAD	1							
22-1 48X48 16.00 4 64.00 2	BLASTING ZONE AHEAD	1							_
22-2 42X36 10.50	TURN OFF 2-WAY RADIO AND PHONE	†						CHAMADY CHEET	
		1						SUMMARY SHEET	1
22-3 42X36 10.50	END BLASTING ZONE	1							

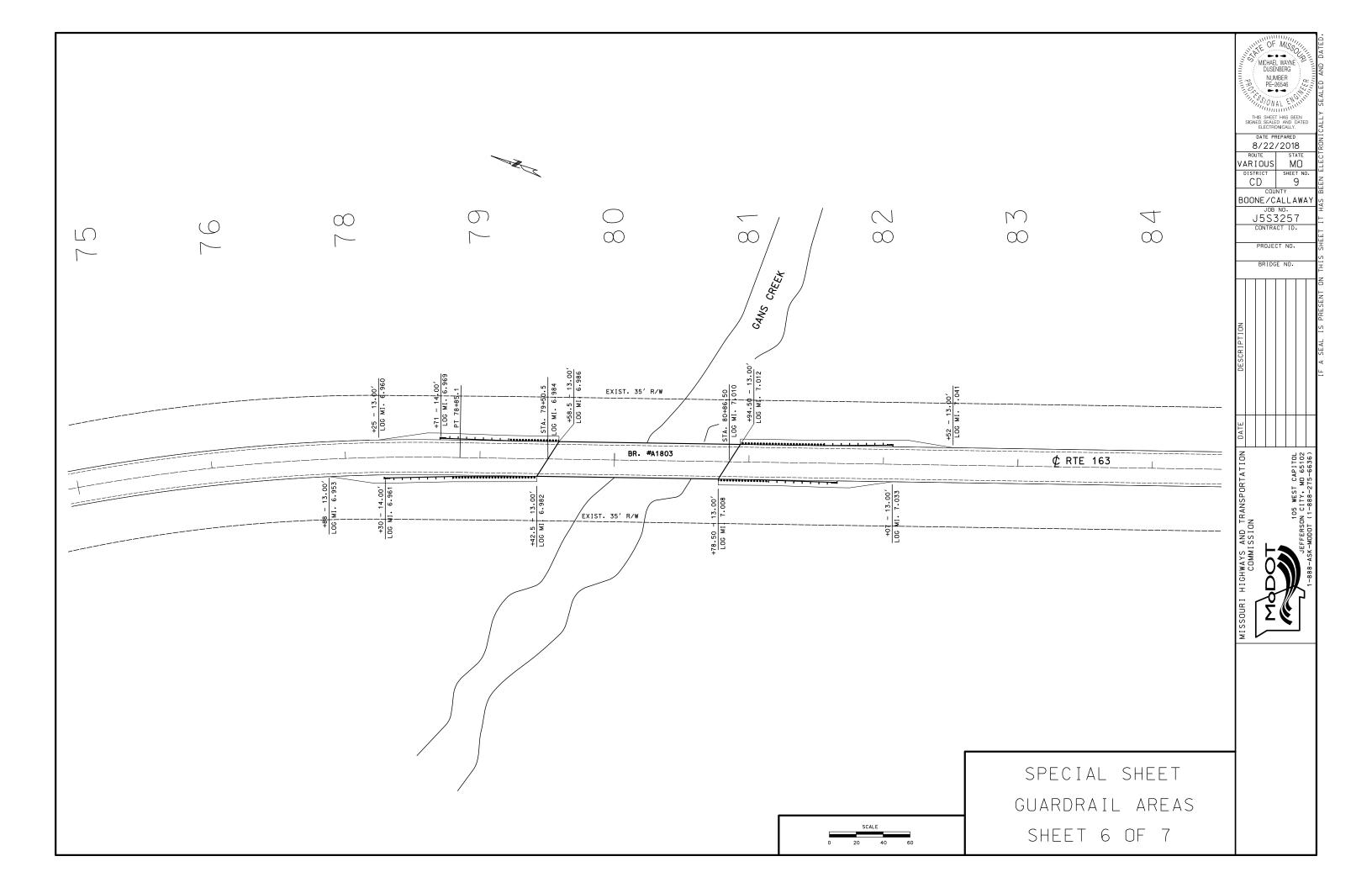


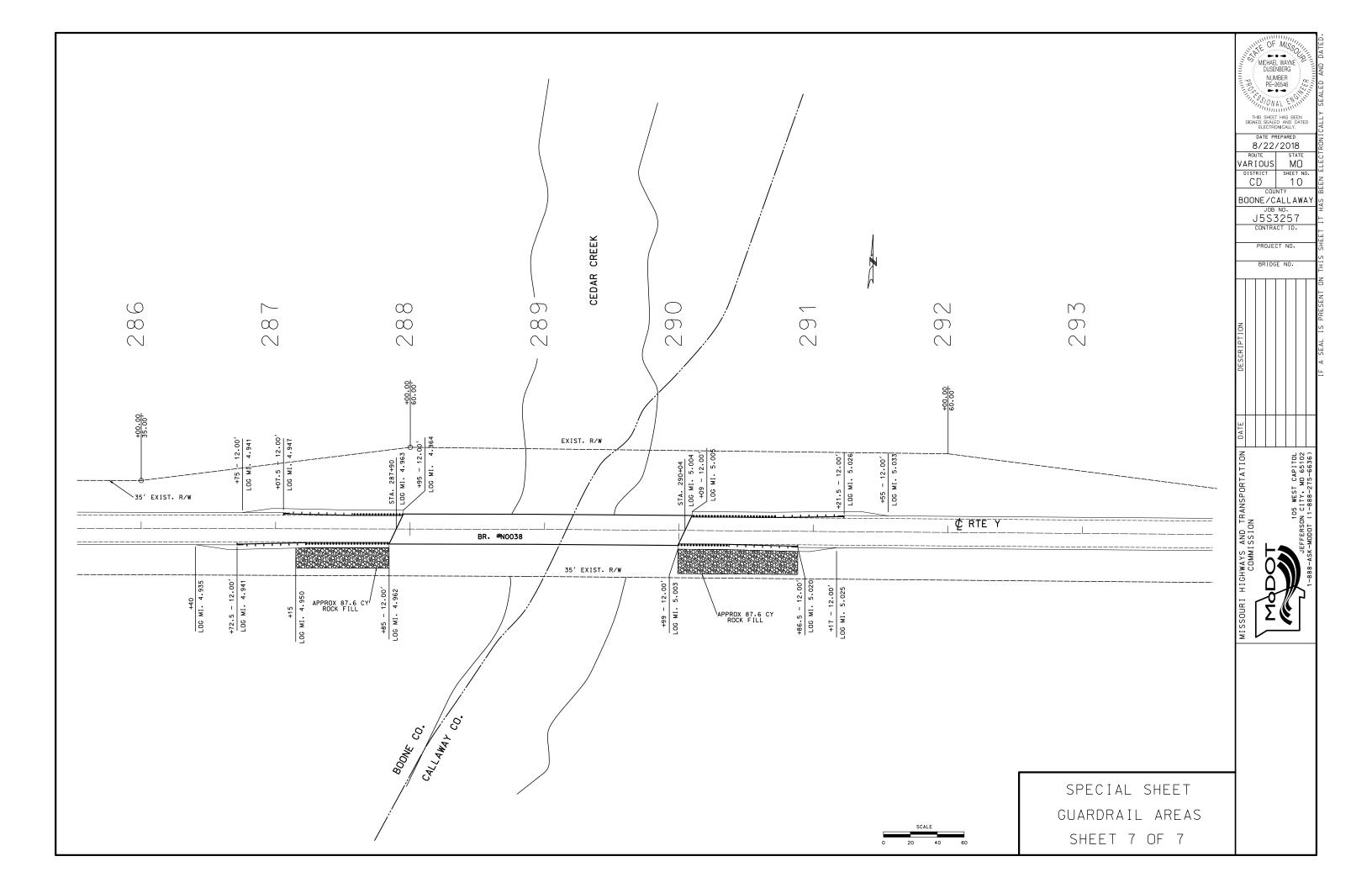






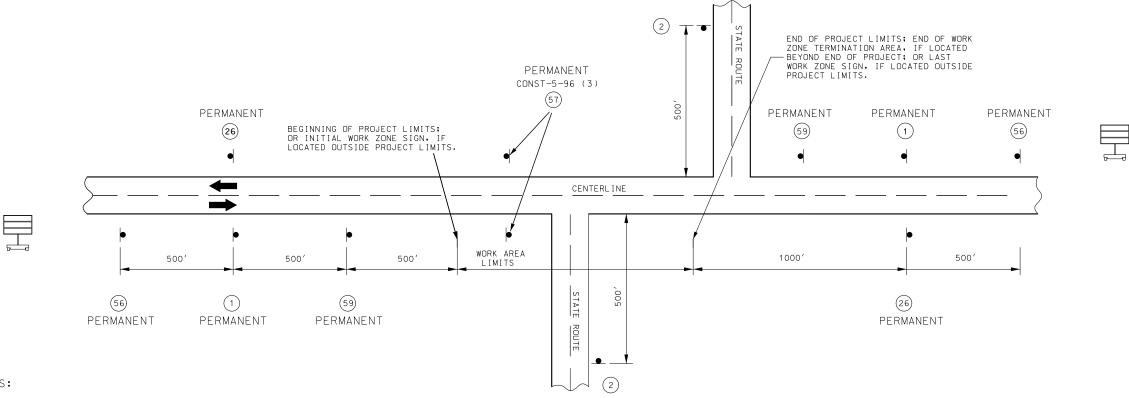






# TRAFFIC CONTROL PLAN

### BEGINNING AND END OF PROJECT



GENERAL NOTES:

ALL SIGNS SHALL BE PORTABLE UNLESS OTHERWISE NOTED.

ANY EXISTING SIGNING THAT CONFLICTS WITH THE TRAFFIC CONTROL SIGNING SHALL BE COMPLETELY COVERED OR REMOVED.

DISTANCES MAY BE ADJUSTED ACCORDING TO FIELD CONDITIONS. WHERE TRAFFIC BACKUPS ARE EXPECTED BEYOND THE ADVANCE WARNING AREA, ADDITIONAL SIGNING MAY BE NEEDED.

PERMANENT SIGNS SHALL BE INSTALLED FOR THE DURATION OF THE PROJECT.

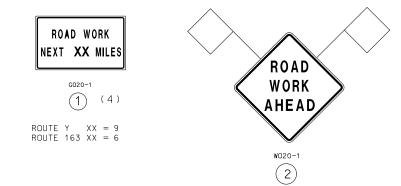
CONTRACTOR MUST MAINTAIN INGRESS AND EGRESS AT ALL SIDE ROADS, STATE ROUTES AND PRIVATE ENTRANCES.

CHANGEABLE MESSAGE SIGNS (CMS) SHALL BE LOCATED AS APPROVED BY THE ENGINEER.

### NOTES:

SIGN(1) IS REQUIRED PER EPG 616.2.3. SIGN (26) IS USED ON ALL PROJECTS WHERE SIGN (1) IS USED.

- (2) SIGN CONST-7-48 IS PLACED 500 FEET BEFORE THE BEGINNING OF PROJECT LIMITS OR THE ROAD WORK AHEAD SIGN OR ROAD WORK NEXT XX MILES SIGN, IF USED, WHEN THESE SIGNS ARE LOCATED OUTSIDE THE PROJECT LIMITS
- (3) SIGN CONST-5-96 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-7-48.



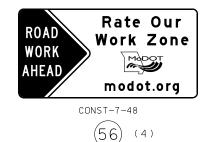
Road **Improvements FALL 2019** 

CONST-5-96 (3)

(57) (4)

(4) SIGNS 1, 26, 56, 57 TO BE USED ON ROUTE Y AND ROUTE 163 ONLY.





(4)





TRAFFIC CONTROL PLANS SHEET 1 OF 9

MICHAEL WAYNE DUSENBERG NUMBER 8/22/2018 various MO SHEET NO DISTRICT

CD 11 BOONE/CALLAWA J5S3257 CONTRACT ID

PROJECT NO. BRIDGE NO.

NOT TO SCALE



### LANE CLOSURE FOR ONE-LANE TWO-WAY OPERATION

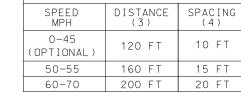
- SEAL COAT AGGREGATE APPLICATION

TO STOP

WO3-4

11)

- SHOULDER WIDENING OPERATIONS



SHORT-TERM RUMBLE STRIPS





BOONE/CALLAWA J5S3257 CONTRACT ID

SHEET NO

12

MICHAEL WAYNE DUSENBERG

NUMBER

PE-26546

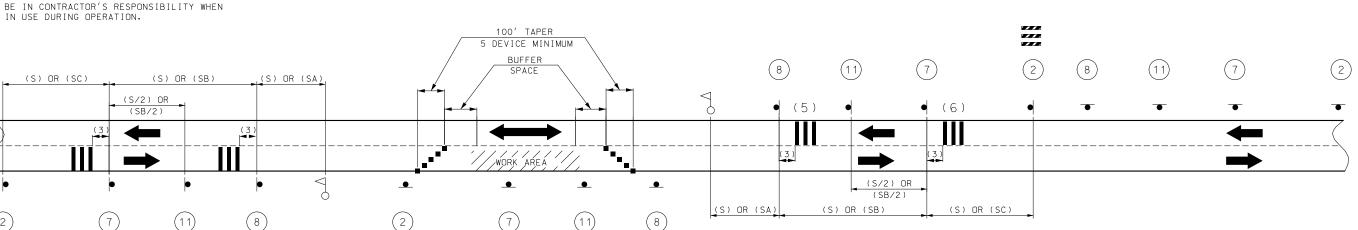
ISSONAL EN

PROJECT NO.

BRIDGE NO.

ROAD AHEAD W020-4

ONE LANE



SET 1 **ACTIVE** 

ROAD

WORK

AHEAD

W020-1

(2)

**PILOT CAR** 

FOLLOW ME

G020-4

(53)

SIGN 53, "PILOT CAR FOLLOW ME" SHALL

SET 2

INACTIVE

SET 3

W020-7a

(8)

ACTIVE

SET 4

INACTIVE

### NOTES:

SIGN SETS 1 AND 3 ARE ACTIVE (I.E., SIGNS FACE ONCOMING TRAFFIC) AND SIGN SETS 2 AND 4 ARE INACTIVE (I.E., SIGNS DO NOT FACE EITHER DIRECTION OF TRAFFIC) WHEN THE RESURFACING OPERATION IS LOCATED BETWEEN SIGN SETS 1 AND 3.

WHEN SIGN SETS 2 AND 4 ARE ACTIVE, SIGN SETS
1 AND 3 BECOME INACTIVE AND ARE ADVANCED TO BECOME
SETS 2 AND 4 WITH SIGN LEGENDS TURNED AWAY FROM
BOTH DIRECTIONS OF TRAFFIC. WHEN THE RESURFACING OPERATION ADVANCES TO BETWEEN SIGN SETS 2 AND 4. SIGN SETS 2 AND 4 BECOME ACTIVE (I.E., NEW SIGN SETS 1 AND 3) AND SIGN SETS 1 AND 3 ADVANCED IN THE DIRECTION OF THE OPERATION (I.E., NEW SIGN SETS 2 AND 4).

- CHANNELIZERS

- FLAGGER

### NOTES:

DAYLIGHT FLAGGING OPERATIONS ONLY.

FLAG ASSEMBLIES FOR SIGNS WILL BE PAID FOR AS EACH PER SIGN, EXCEPT FOR SIGN W020-7a WHICH IS SUBSIDIARY

DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.

CHANNELIZING DEVICES LOCATED DOWNSTREAM OF THE ONE-LANE, TWO-WAY TAPER ARE OPTIONAL. THESE DEVICES SHOULD BE ELIMINATED WHEN THEIR USE WILL REDUCE THE USABLE LANE WIDTH, INCLUDING ANY ACCEPTABLE SHOULDERS, TO LESS THAN 10' OR WILL SIGNIFICANTLY AFFECT THE SHOULDERING OPERATION.

ADVANCED WARNING RAIL SYSTEM (AWRS) TO BE USED ON SIGN (2) ON THE ACTIVE SIGN SERIES.

TWO SETS OF RUMBLE STRIPS (5 & 6) MAY BE USED SIMULTANEOUSLY OR ONE SET OF RUMBLE STRIPS MAY BE USED. IF ONE SET OF RUMBLE STRIPS ARE USED, THE PREFERRED PLACEMENT IS AT LOCATION (5).

SPEED	SIGN SPAC	
PERMANENT POSTED (MPH)	NON-DIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200	200
40-45	350	500
50-55	500	1000
60-70	1000	(SA)-1000 (SB)-1500 (SC)-2640

(1) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED

SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

(2) SIGN MANDATORY WHEN TEMPORARY ROAD CLOSURE IS NEEDED. FOR TEMPORARY ROAD CLOSURE BOTH DIRECTIONS MAY BE STOPPED AT THE SAME TIME UP TO A MAXIMUM OF 20 MINUTES.

PERMANENT POSTED	BUFFER SPACE				
SPEED LIMIT	LENGTH				
(MPH)	(FT)				
0 - 35	280				
40 – 45	400				
50 - 55	560				
60 - 70	840				

### TRAFFIC CONTROL LEGEND

SIGN (SINGLE SIDED)

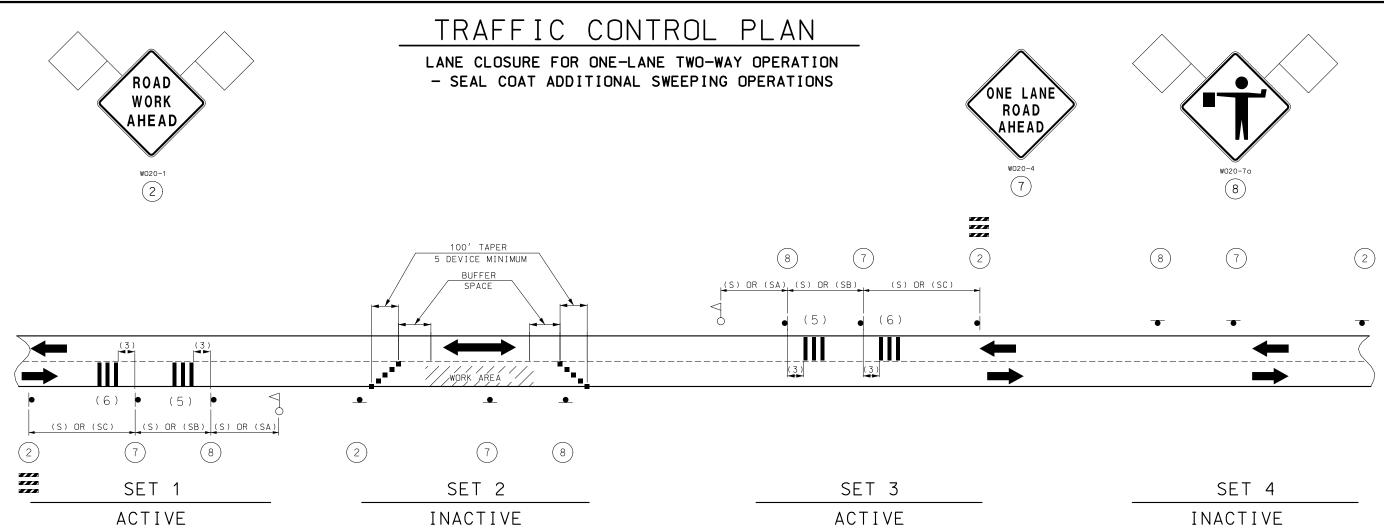
CHANNELIZER

FLAGGER

ADVANCED WARNING RAIL SYSTEM (AWRS)

TRAFFIC CONTROL PLAN SHEET 2 OF 9

TEMPORARY SHORT TERM RUMBLE STRIPS



SIGN SETS 1 AND 3 ARE ACTIVE (I.E., SIGNS FACE ONCOMING TRAFFIC) AND SIGN SETS 2 AND 4 ARE INACTIVE (I.E., SIGNS DO NOT FACE EITHER DIRECTION OF TRAFFIC) WHEN THE RESURFACING OPERATION IS LOCATED BETWEEN SIGN SETS 1 AND 3.

WHEN SIGN SETS 2 AND 4 ARE ACTIVE, SIGN SETS 1 AND 3 BECOME INACTIVE AND ARE ADVANCED TO BECOME SETS 2 AND 4 WITH SIGN LEGENDS TURNED AWAY FROM BOTH DIRECTIONS OF TRAFFIC. WHEN THE RESURFACING OPERATION ADVANCES TO BETWEEN SIGN SETS 2 AND 4, SIGN SETS 2 AND 4 BECOME ACTIVE (I.E., NEW SIGN SETS 1 AND 3) AND SIGN SETS 1 AND 3 ADVANCED IN THE DIRECTION OF THE OPERATION (I.E., NEW SIGN SETS 2 AND 4).

- CHANNELIZERS

- FLAGGER

- TEMPORARY SHORT TERM RUMBLE STRIPS

NOTES:

DAYLIGHT FLAGGING OPERATIONS ONLY.

FLAG ASSEMBLIES FOR SIGNS WILL BE PAID FOR AS EACH PER SIGN, EXCEPT FOR SIGN W020-7d WHICH IS SUBSIDIARY TO THE SIGN.

DIMENSIONS IN FEET UNLESS OTHERWISE NOTED.

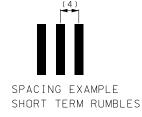
CHANNELIZING DEVICES LOCATED DOWNSTREAM OF THE ONE-LANE, TWO-WAY TAPER ARE OPTIONAL. THESE DEVICES SHOULD BE ELIMINATED WHEN THEIR USE WILL REDUCE THE USABLE LANE WIDTH, INCLUDING ANY ACCEPTABLE SHOULDERS, TO LESS THAN 10' OR WILL SIGNIFICANTLY AFFECT THE SHOULDERING OPERATION.

ADVANCED WARNING RAIL SYSTEM (AWRS) TO BE USED ON SIGN (2) ON THE ACTIVE SIGN SERIES.

PERMANENT POSTED	BUFFER SPACE
SPEED LIMIT	LENGTH
(MPH)	(FT)
0 - 35	280
40 - 45	400
50 - 55	560
60 - 70	840

TWO SETS OF RUMBLE STRIPS (5 & 6) MAY BE USED SIMULTANEOUSLY OR ONE SET OF RUMBLE STRIPS MAY BE USED. IF ONE SET OF RUMBLE STRIPS ARE USED, THE PREFERRED PLACEMENT IS AT LOCATION (5).

SHORT-TE	STRIPS	
SPEED MPH	DISTANCE (3)	SPACING (4)
O-45 (OPTIONAL)	120 FT	10 FT
50-55	160 FT	15 FT
60-70	200 FT	20 FT
	SPEED MPH 0-45 (OPTIONAL) 50-55	MPH (3) 0-45 (OPTIONAL) 120 FT 50-55 160 FT



SPEED	SIGN SPACING (FT.) (1)	
PERMANENT POSTED (MPH)	NON-DIVIDED HIGHWAYS (S)	DIVIDED HIGHWAYS (S)
0-35	200	200
40-45	350	500
50-55	500	1000
60-70	1000	(SA)-1000 (SB)-1500 (SC)-2640

### NOTES:

(1) SPACING BETWEEN SIGNS, BETWEEN LAST SIGN AND FLAGGER, BEGINNING OF TAPER OR SIGNED CONDITION.

SPACINGS MAY BE ADJUSTED AS NECESSARY TO MEET FIELD CONDITIONS.

### TRAFFIC CONTROL LEGEND

● SIGN (SINGLE SIDED)

■ CHANNEL IZER

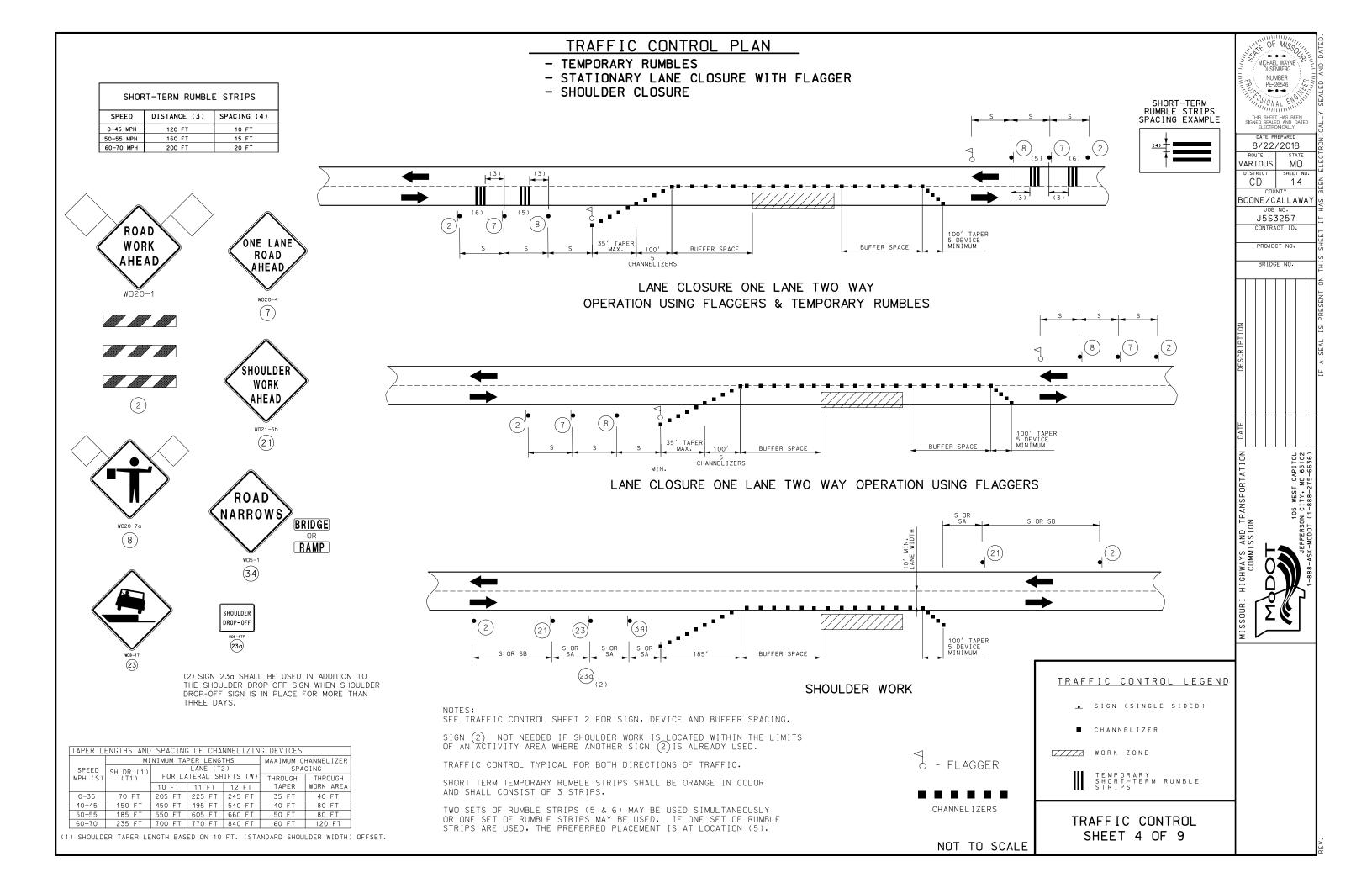
¶ FLAGGER

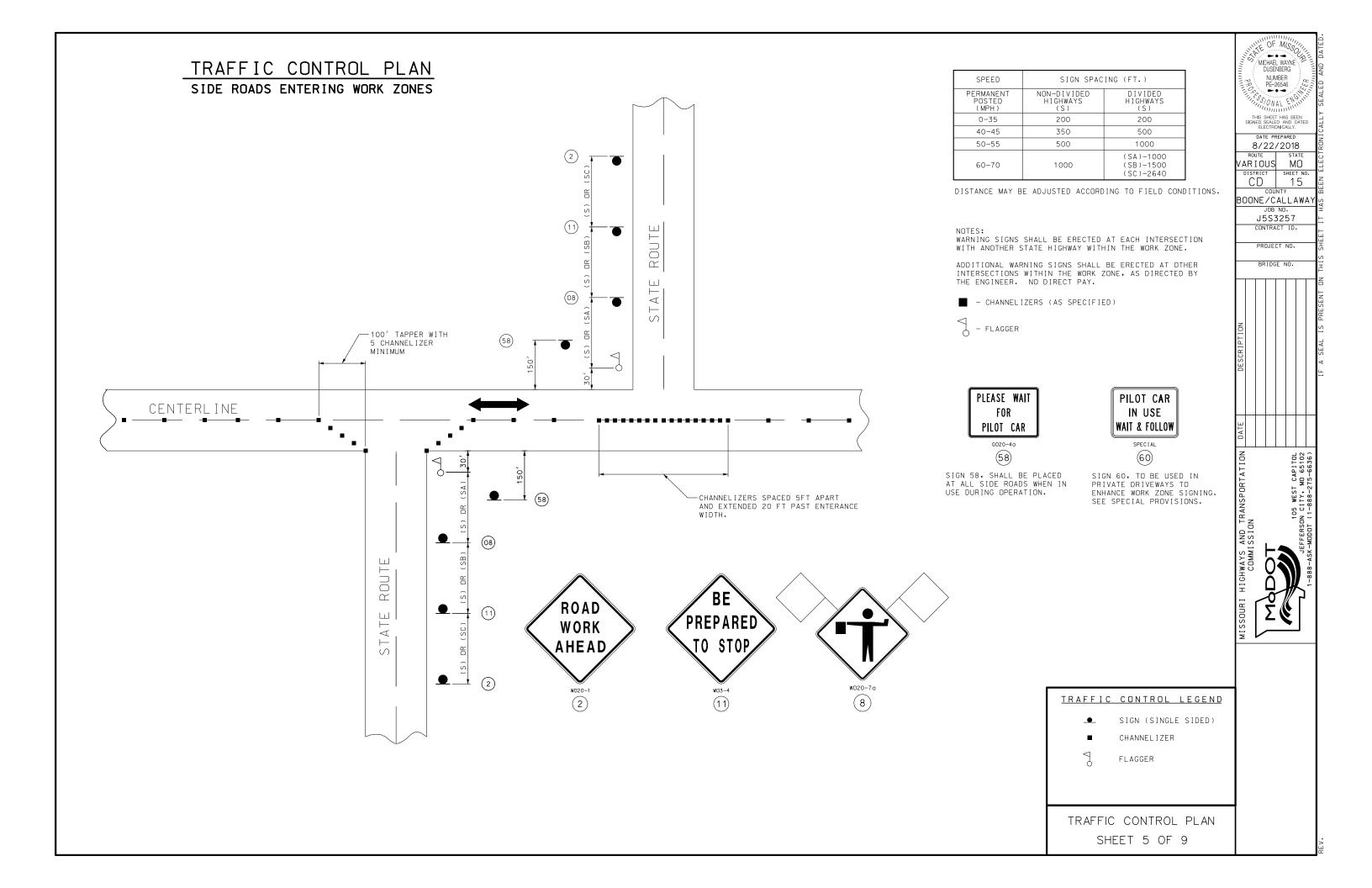
ADVANCED WARNING RAIL SYSTEM (AWRS)

TRAFFIC CONTROL PLAN
SHEET 3 OF 9

MICHAEL WAYNE DUSENBERG NUMBER PE-26546 ISSONAL EN DATE PREPARED 8/22/2018 /ARIOUS MO SHEET NO DISTRICT CD 13 BOONE/CALLAWA J5S3257 CONTRACT ID PROJECT NO. BRIDGE NO.



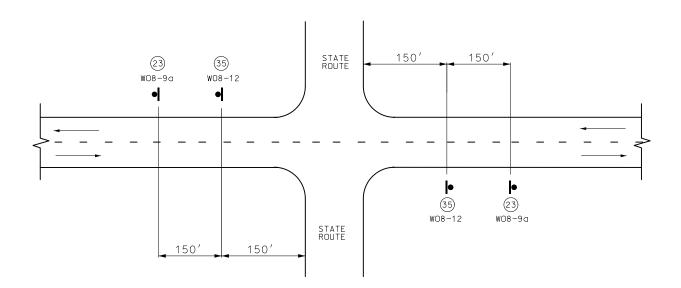




### PROJECT LIMITS 2 MILE INTERVAL 150' 1 MILE INTERVAL 23 WO8-9a (1) W08-9a WO8-12 WO8-12 (35) (23) W08-12 W08-9a WO8-12 WO8-9a (1) 150 1 MILE INTERVAL 2 MILE INTERVAL

### SIGN SPACING FOR MAINLINE

(DETAIL SHOWN IS BASED ON A PROJECT MEETING ALL CONDITIONS: NO CENTER STRIPE AND SHOULDER DROP OFF) (1) IF ONLY ONE CONDITION EXISTS (UNEVEN LANES OR SHOULDER DROP OFF), THE SIGN SPACING SHALL BE AT 1 MILE INTERVALS.



SIGN SPACING AT STATE ROUTE INTERSECTIONS

### TRAFFIC CONTROL PLAN

### NO CENTER LINE SHOULDER DROP-OFF





GENERAL NOTES:

FOR DETAILS OF TEMPORARY PAVEMENT MARKING SEE STANDARD PLAN 620.19.

SIGN 23 SHALL BE INSTALLED WHEN TRENCH FOR SHOULDER WIDENING HAS BEEN STARTED. SIGNS ARE TO REMAIN IN PLACE UNTIL THE TRENCH DEPTH IS ≤ 2".

SIGN (23) IS PLACED AT APPROXIMATELY ONE MILE INTERVALS AND AT STATE ROUTE JUNCTIONS. WHEN THE INSTALLATION AT A JUNCTION IS WITHIN ONE-HALF MILE OF THE NORMAL MAINLINE SIGN 23, THE LATTER MAY BE ELIMINATED.

SIGN (35) AND TEMPORARY PAVEMENT MARKING INSTALLED WHERE CENTERLINE STRIPING HAS BEEN COVERED OR REMOVED. SIGNS ARE TO REMAIN IN PLACE UNTIL THE PERMANENT CENTERLINE PAVEMENT MARKINGS ARE IN PLACE. SIGNS SHALL BE COVERED OR REMOVED WHEN PAVEMENT CENTERLINE MARKING HAS BEEN INSTALLED.

SIGN (35) IS PLACED AT APPROXIMATELY TWO-MILE INTERVALS AND AT STATE ROUTE JUNCTIONS. WHEN THE INSTALLATION AT A JUNCTION IS WITHIN ONE-EIGHTH MILE OF THE NORMAL MAINLINE SIGN (35) , THE LATTER MAY BE ELIMINATED.

ALL SIGNS SHALL BE POST MOUNTED AND IN ACCORDANCE WITH STANDARD PLAN 616.10 AND 903.03.

WHEN SHOULDER DROP-OFF SIGNS ARE IN PLACE FOR GREATER THAN THREE DAYS, THE SHOULDER DROP-OFF PLAQUE SHOULD BE USED IN ADDITION WITH THE SHOULDER DROP-OFF SIGN.

TRAFFIC CONTROL LEGEND

SIGN (SINGLE SIDED)

TRAFFIC CONTROL PLAN SHEET 6 OF 9

MICHAEL WAYNE DUSENBERG NUMBER PE-26546

8/22/2018

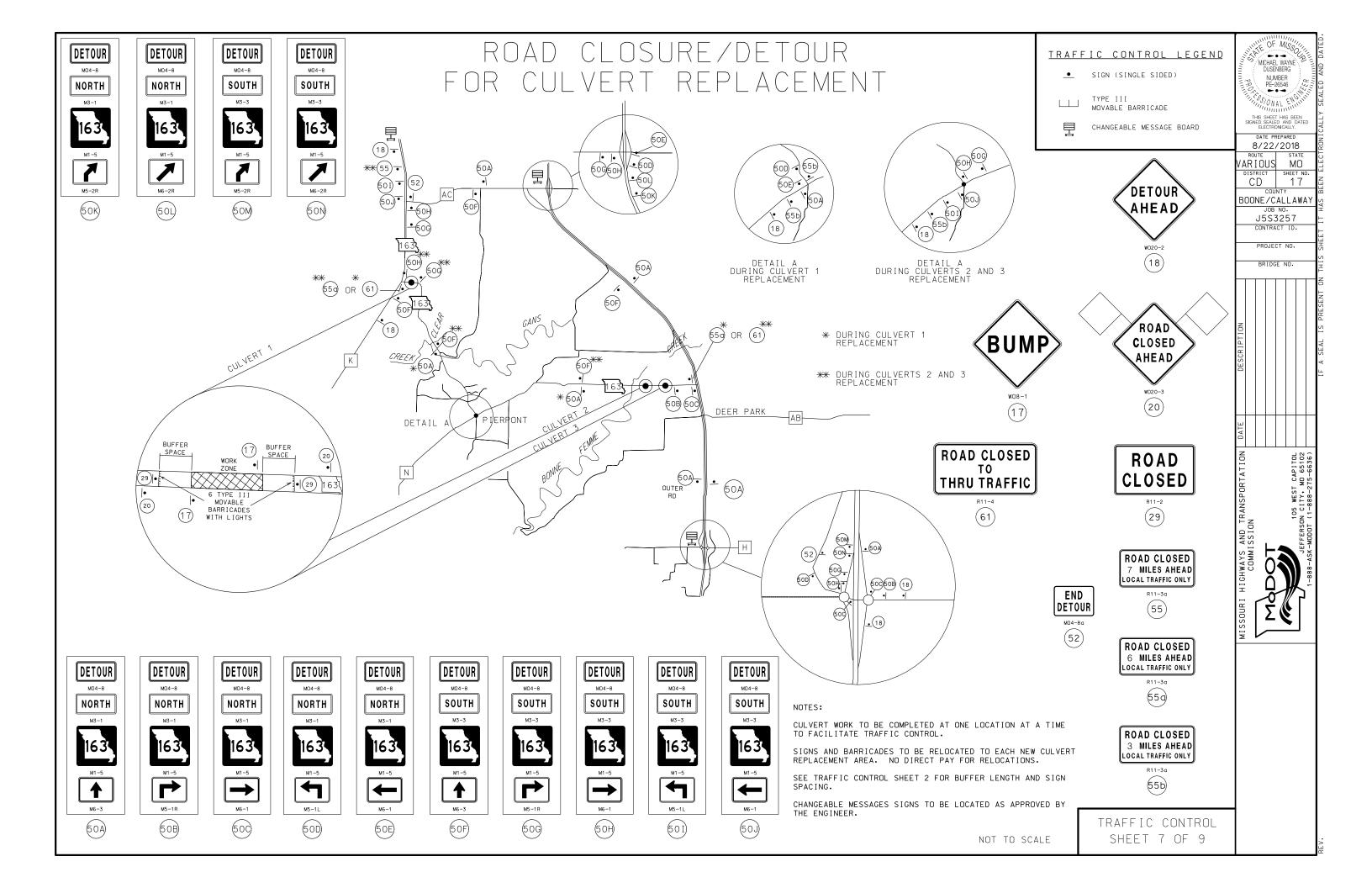
various MO SHEET NO DISTRICT CD 16

BOONE/CALLAWA J5S3257 CONTRACT ID

PROJECT NO.

BRIDGE NO.

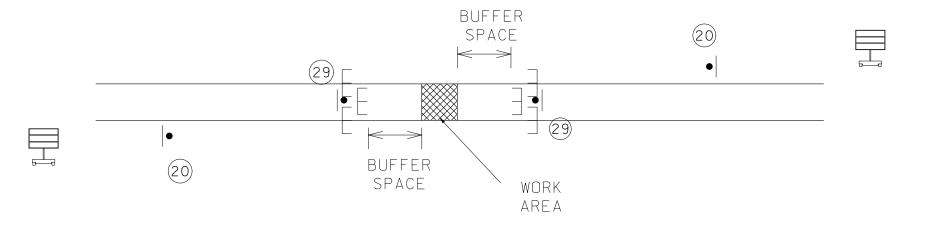
NOT TO SCALE











# ATION DATE DESCRIPTION PITOL 65102 6636)

8/22/2018
ROUTE STATE
VARIOUS MO

BOONE/CALLAWA
JOB NO.
J5S3257
CONTRACT ID.

PROJECT NO.

BRIDGE NO.

CD

SHEET NO.

18

### NOTES:

CULVERT WORK TO BE COMPLETED AT ONE LOCATION AT A TIME TO FACILITATE TRAFFIC CONTROL.

SIGNS AND BARRICADES TO BE RELOCATED TO EACH NEW CULVERT REPLACEMENT AREA. NO DIRECT PAY FOR RELOCATIONS.

SEE TRAFFIC CONTROL SHEET 2 FOR BUFFER LENGTH AND SIGN SPACING.

CHANGEABLE MESSAGES SIGNS TO BE LOCATED AS APPROVED BY THE ENGINEER.

TRAFFIC CONTROL LEGEND

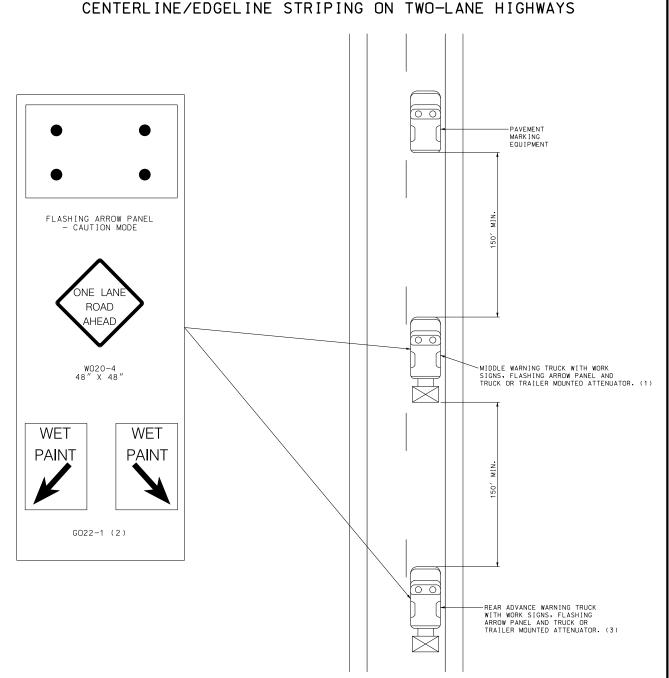
SIGN (SINGLE SIDED)

TYPE III MOVABLE BARRICADE WITH 2 TYPE B WARNING LIGHTS

CHANGEABLE MESSAGE SIGN (CMS)

TRAFFIC CONTROL PLAN
SHEET 8 OF 9

NOT TO SCALE



### NOTES:

UPON APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PROVIDE ADDITIONAL PROTECTIVE TRUCK EQUIPPED WITH PROPER WARNING DEVICES.

PROTECTIVE TRUCK AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS.

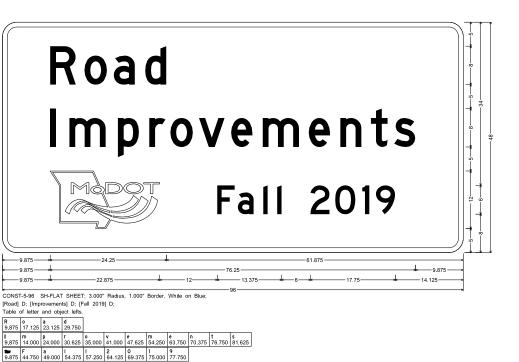
VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROPE LIGHTS.

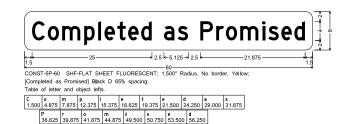
FLASHING ARROW PANELS SHALL BE INCIDENTAL TO TRUCK MOUNTED ATTENUATORS, WHEREVER USED. NO ADDITIONAL PAYMENT SHALL BE MADE.

(1) TRUCK IS OPTIONAL ON TWO-LANE UNDIVIDED HIGHWAYS IF SIGNING AND ARROW BOARD IS MOUNTED ON THE PAVEMENT MARKING EQUIPMENT.

(2) WET PAINT SIGNS ARE INSTALLED TO INDICATE THE SIDE IN WHICH THE PAVEMENT MARKING MATERIAL IS BEING APPLIED. AT THE CONTRACTOR'S OPTION, A FRONT FACING WET PAINT SIGN MAY BE INSTALLED ON THE LEFT SIDE OF THE PAVEMENT MARKING EQUIPMENT.

(3) REAR ADVANCE WARNING TRUCK IS POSITIONED AT THE NO TRACK POINT OF THE PAVEMENT MARKING MATERIAL, OR VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE, OR SPACING SHOWN.



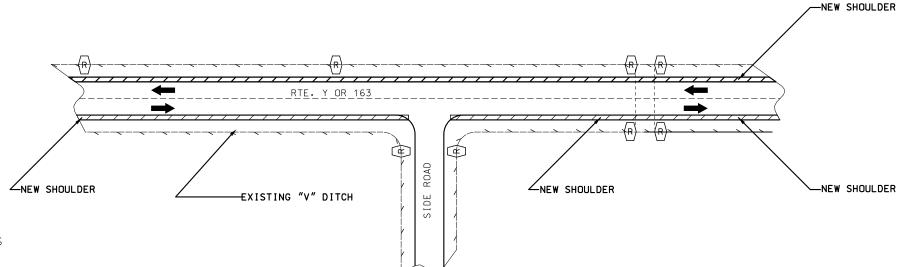


MICHAEL WAYNE DUSENBERG NUMBER 8/22/2018 /ARIOUS MO SHEET NO CD19 BOONE/CALLAWA J5S3257 CONTRACT ID PROJECT NO. BRIDGE NO.

TRAFFIC CONTROL PLAN
SHEET 9 OF 9

# EROSION CONTROL - NEW SHOULDER CONSTRUCTION ROUTE Y & ROUTE 163

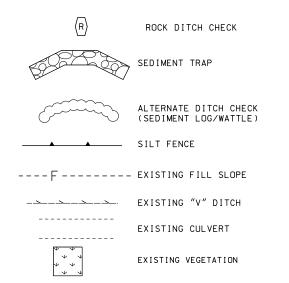
SEE EROSION CONTROL SHEET 2 FOR FOR DRAINAGE STRUCTURES

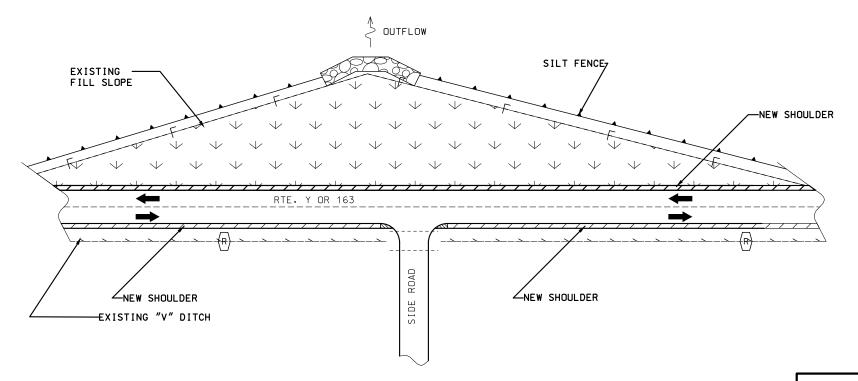


### GENERAL NOTES:

- 1) ALL TEMPORARY EROSION CONTROL MEASURES TO BE PLACED IN A LOCATION THAT PREVENTS SEDIMENT FROM ENTERING ANY STREAM OR FROM LEAVING THE RIGHT OF WAY. EXACT SIZE AND LOCATION OF ALL TEMPORARY EROSION CONTROL MEASURES TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- 2) REFER TO JOB SPECIAL PROVISIONS AND STANDARD PLAN 806.10J FOR ALL TEMPORARY EROSION CONTROL MEASURES.

### TEMPORARY EROSION CONTROL LEGEND





MCHAEL WAYNE DUSENBERG PL-26346 PL-2634

DATE PREPARED 8/22/2018

ROUTE STATE
VARIOUS MO
DISTRICT SHEET NO
CD 20

BOONE/CALLAWA JOB NO. J5S3257 CONTRACT ID.

PROJECT NO.

BRIDGE NO.

TATION DATE DESCR

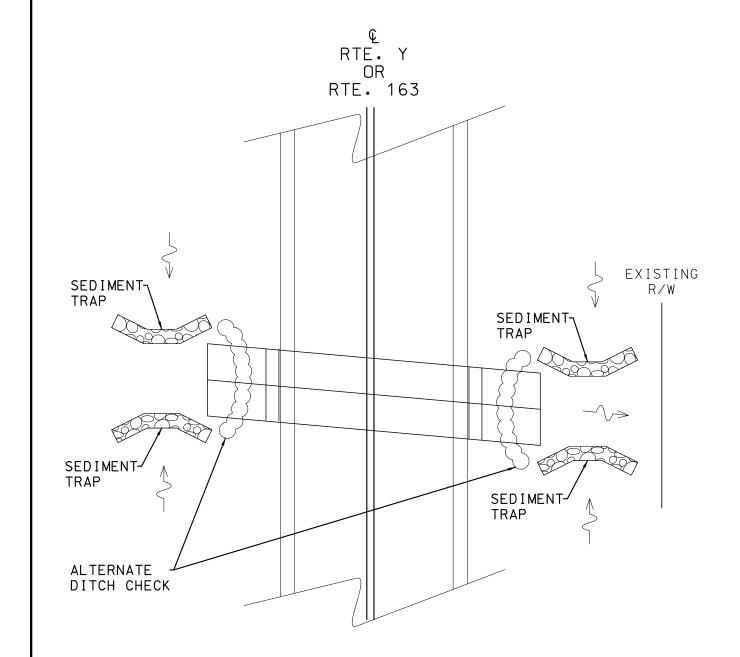
SOURI HIGHWAYS AND TRANSPORTATION
COMMISSION
MODOT

105 WEST CAPITOL
JEFFERSON CITY, MO 65102

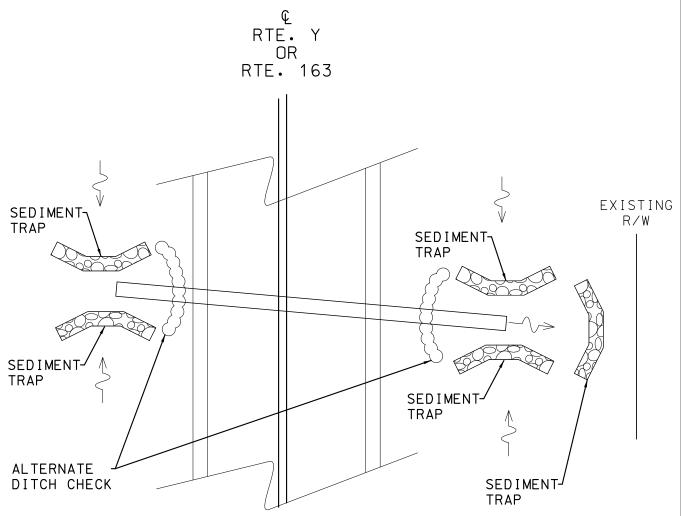
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EROSION CONTROL
SHEET 1 OF 2

# EROSION CONTROL - NEW SHOULDER CONSTRUCTION ROUTE Y & ROUTE 163



LARGE DRAINAGE STRUCTURE CROSSINGS PLACING DETAILS



SMALL DRAINAGE STRUCTURE CROSSINGS PLACING DETAILS

NOT TO SCALE

EROSION CONTROL
SHEET 2 OF 2

OF MISSONAL CONTROL OF MIS

CD 21

COUNTY

BOONE/CALLAWAY

JOB NO.

J5S3257

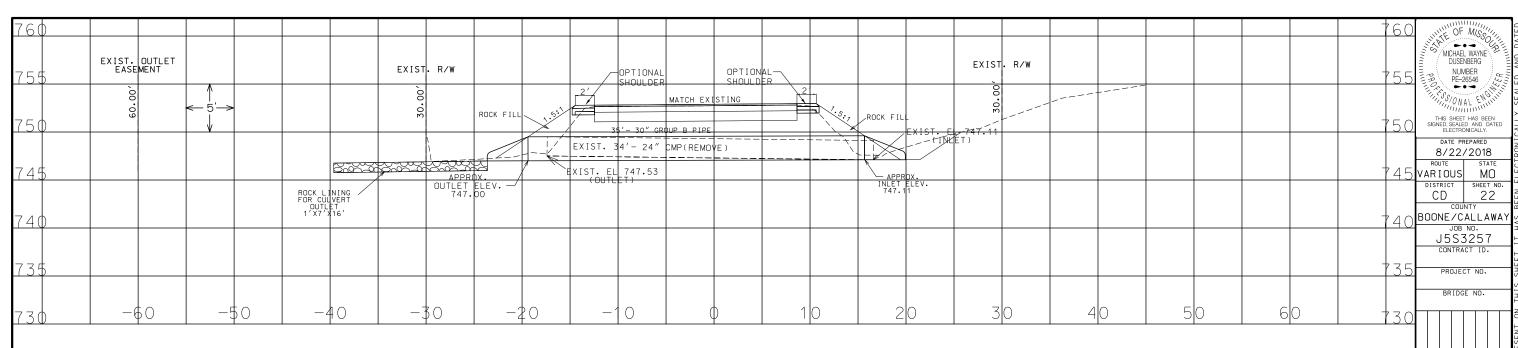
CONTRACT ID.

PROJECT N

DESCRIPTION

SSOURI HICHWAYS AND TRANSPORTATION
COMMISSION
105 WEST CAPITOL
1-888-ASK-MODOT (1-888-275-6636)

2



### NOTES:

CLASS 3 EXCAVATION IS COMPUTED FOR THE AREA BOUNDED BY VERTICAL PLANES 18" OUTSIDE THE CULVERT, AS PER SECTION 206.5.2 OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION. ANY OTHER EXCAVATION REQUIRED TO REMOVE THE EXISTING CULVERT AND INSTALL THE NEW CULVERT IS CONSIDERED INCIDENTAL TO THE CULVERT INSTALLATION, NO DIRECT PAY.

THE LIMITS OF PAVEMENT REPLACEMENT HAVE BEEN SET USING THEORETICAL 1:1 SLOPES FROM THE BOTTOM OF EXCAVATION TO THE GROUND SURFACE. THESE THEORETICAL EXCAVATION LIMITS YIELD A VOLUME OF 70 CY (NOT INCLUDING THE PROVIDED CLASS 3 EXCAVATION). THIS VOLUME IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

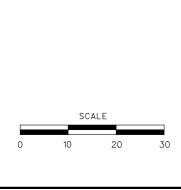
EXCAVATION & PAVEMENT LIMITS AND METHODS MAY VARY FROM WHAT IS SHOWN IN THE PLANS. AS APPROVED BY THE ENGINEER. (NO DIRECT PAY)

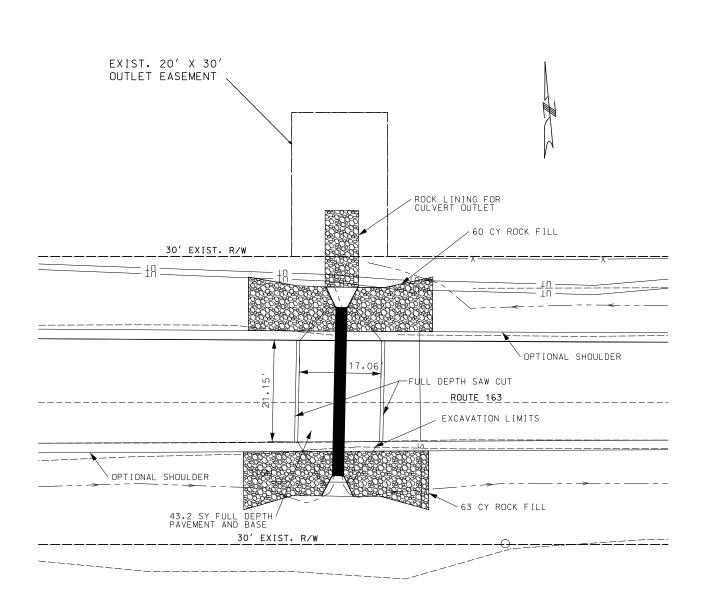
THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE EXISTING PAVEMENT GRADES.

EXCAVATION SHALL BE BACKFILLED WITH ROCK FILL. EXCAVATED MATERIAL MAY BE USED FOR SHOULDER CONSTRUCTION AS APPROVED BY THE ENGINEER.

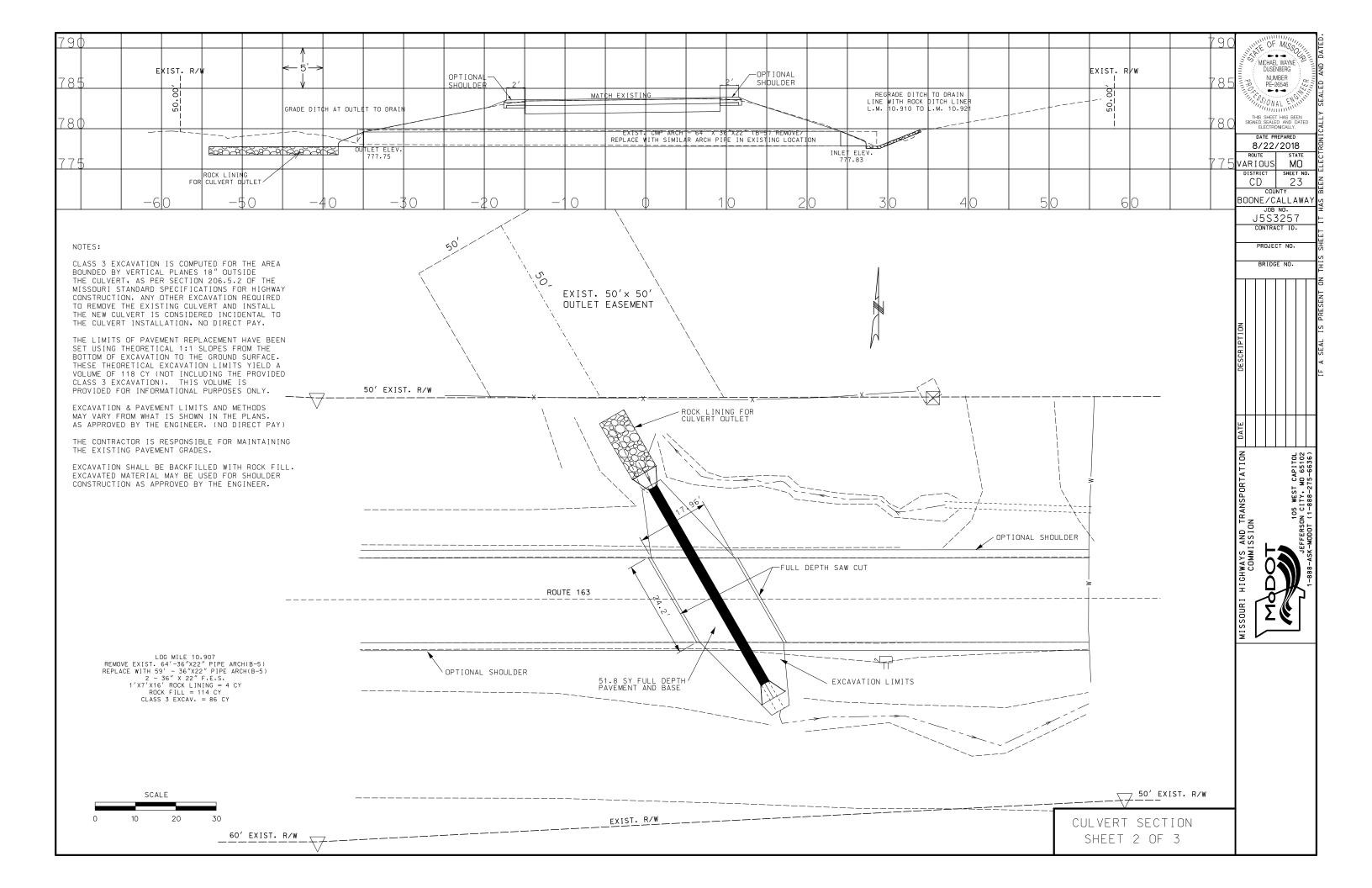
SB LOG MILE 5.569

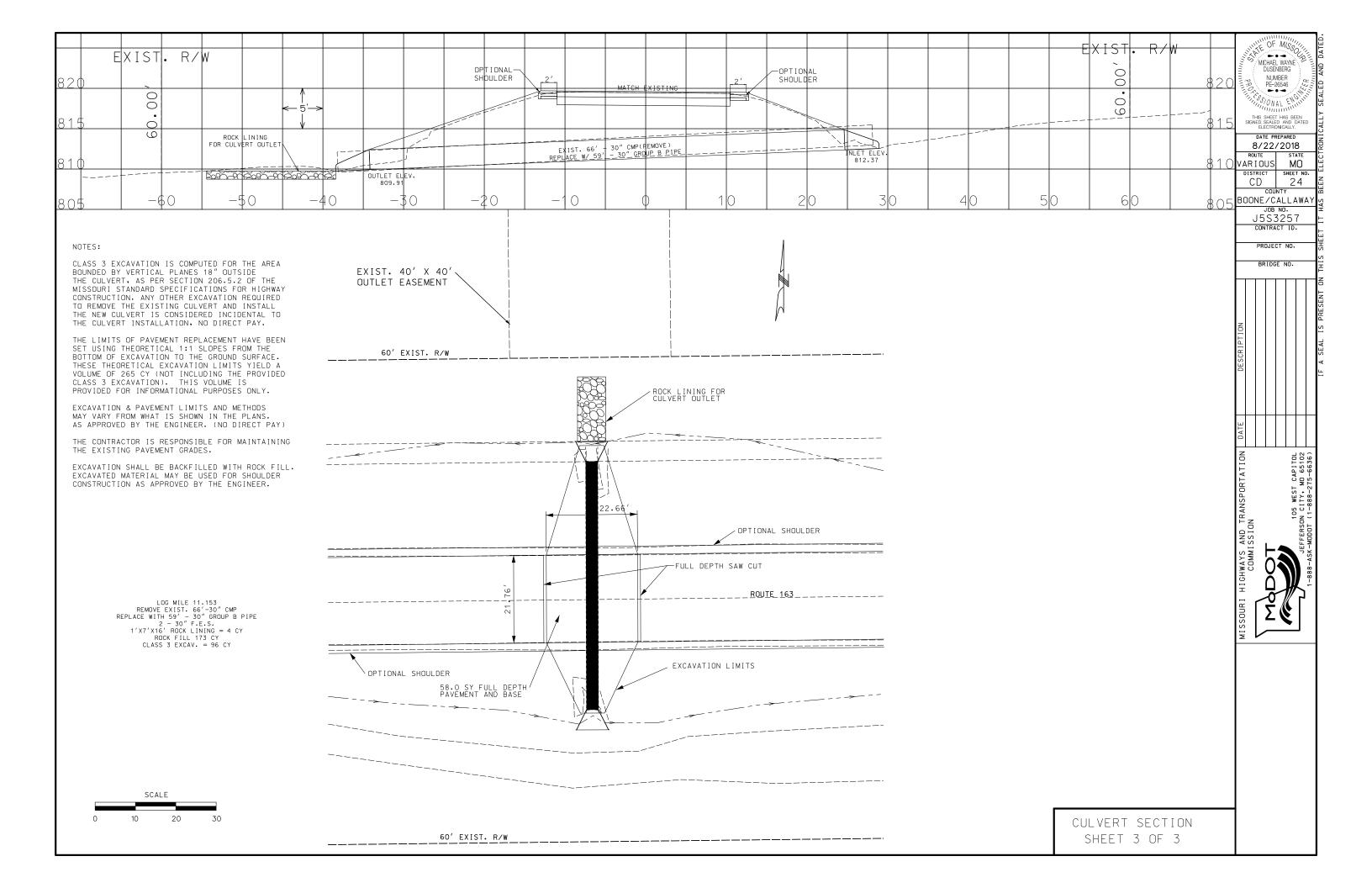
REPLACE EXIST. 24"X34' CMP
W/ 30" X 35' GROUP B PIPE
2 - 30" F.E.S.
4 CY OF ROCK LINING
70 CY ROCK FILL
CL. 3 EXCAV. = 45 CY

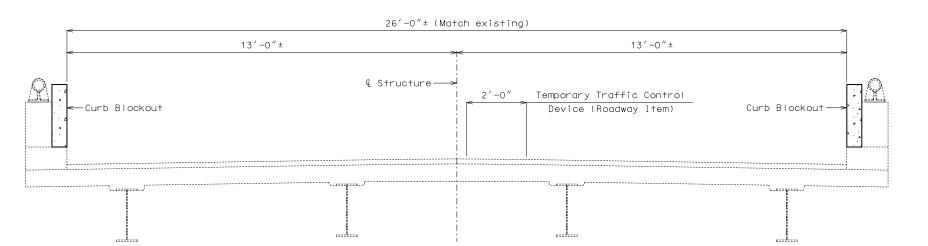




CULVERT SECTION
SHEET 1 OF 3







### TYPICAL SECTION THRU SLAB

### GENERAL NOTES:

Design Specifications: 2002 - AASHTO LFD (17th Ed.) Standard Specifications

### Design Unit Stresses: Class B-1 Concrete

f'c = 4,000 psiReinforcing Steel (Grade 60) fy = 60,000 psi

### Reinforcing Steel:

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

All curb blockout reinforcement shall be epoxy coated.

### Joint Filler:

All joint filler shall be in accordance with Sec 1057 for preformed sponge rubber expansion and partition joint filler, except as noted.

### Resin Anchors:

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor system shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the 5/8" Ø threaded rod.

Cost of furnishing and installing the resin anchor system complete in place will be considered completely covered by the contract unit price for Curb Blockout.

### Miscellaneous:

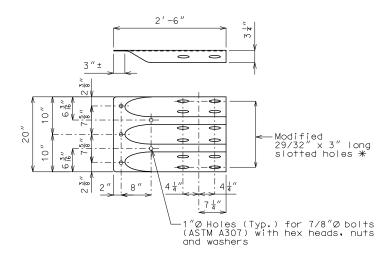
Maintain traffic on structure during construction. See Roadway plans for traffic control.

All exposed edges of curb blockout shall have either a 1/2  $^{\prime\prime}$  radius or a 3/8  $^{\prime\prime}$  bevel unless otherwise shown.

Outline of old work is indicated by light dashed lines. Heavy line indicate new work.

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

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 plain bars and 30 diameters for deformed bars, unless otherwise noted.



\* Tighten bolts, back off 1/2 turn and burr threads. Allow for sliding between Modified Bridge Anchor Section and End Post.

MODIFIED TERMINAL CONNECTION AT END BENT NO. 4 (ROADWAY ITEM)

Estimated Quantities	5
I+em	Total
Curb Blockout linear foo	o† 268

### REPAIRS TO BRIDGE: ROUTE 163 OVER GANS CREEK

SEC/SUR 7

TWP 47N

RGE 12W

OF MISSOLE

BRYAN A. HARTNAGEL NUMBER NUMBEH PE-2002024473

THIS SHEET HAS BEEN SIGNED, SEALED AND DATE! ELECTRONICALLY.

8/17/2018

BOONE

J5S3257 CONTRACT ID

PROJECT NO.

A18031

MΩ

SHEET NO

1

163

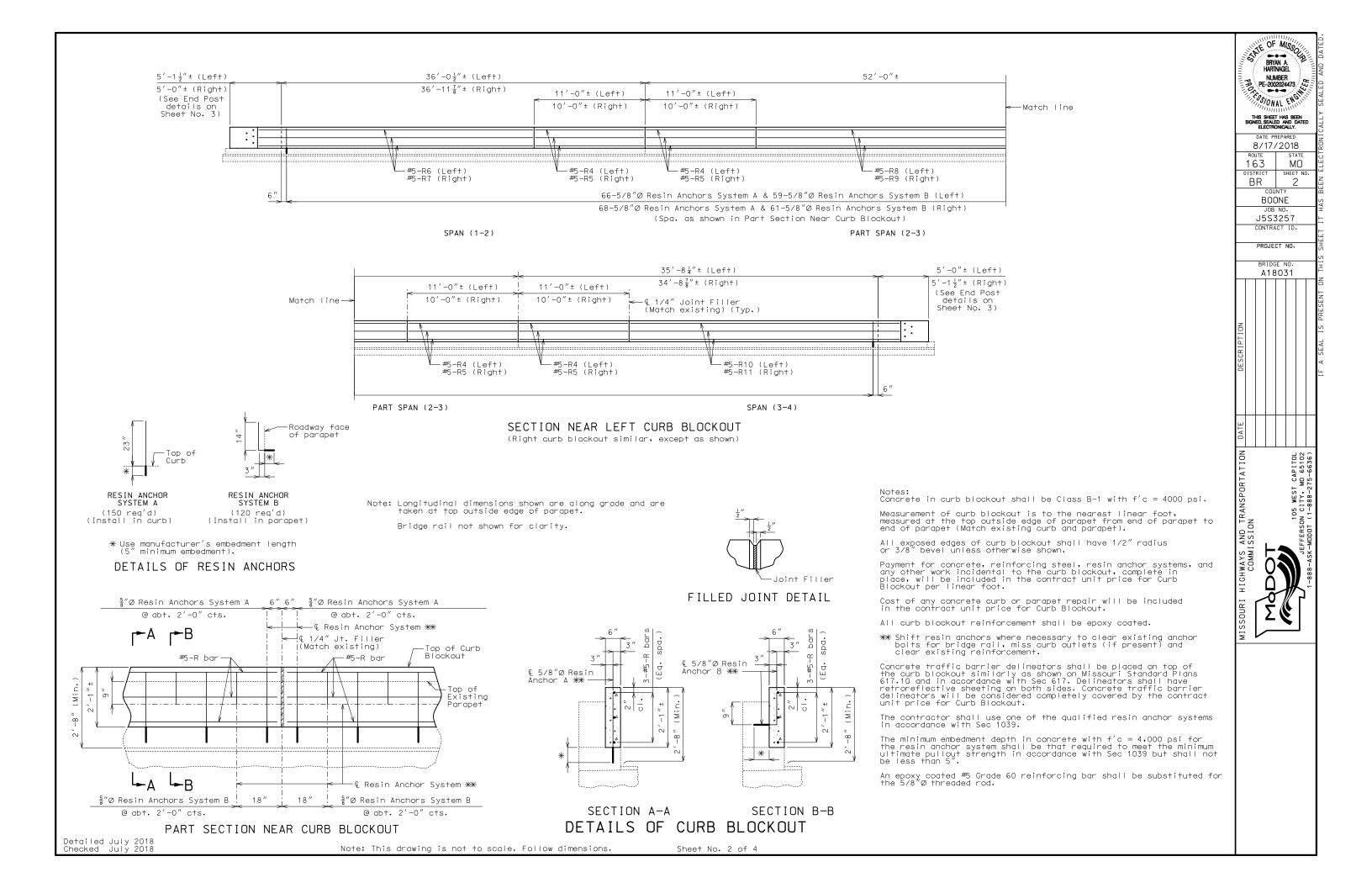
DISTRICT

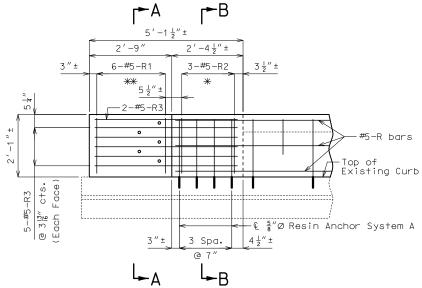
BR

ROUTE 163 FROM ROUTE K TO ROUTE N ABOUT 1.1 MILES NORTH OF ROUTE N BEG. STA. 79+50.50± (Match Existing)

STD.	606.60
STD.	617.10
STD.	706.35

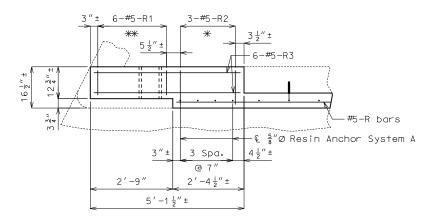
Detailed July 2018 Checked July 2018



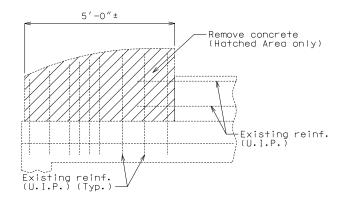


# ELEVATION SHOWING LEFT (NE) END POST AT EXISTING END BENT NO. 1

(Right (SW) End Post at End Bent No. 4 similar)



PLAN SHOWING LEFT (NE) END POST AT EXISTING END BENT NO. 1



PART ELEVATION SHOWING END POST CONCRETE REMOVAL

### Notes

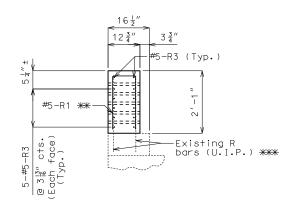
Cost of removing existing end posts will be considered completely covered by the contract unit price for Curb Blockout.

Cut existing R bars to clear top of new end post by at least 1 1/2".

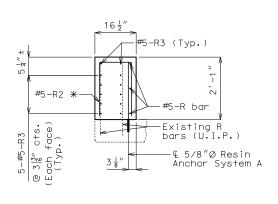
### \* Spaced with existing R bars

\*\*\* Spaced with existing R bars, with additional bars at about 5 1/2" cts. Shift new R bars as required to miss 1"Ø holes. Bend existing R bars as required to miss 1"Ø holes.

\*\*\* At the discretion of the engineer, additional resin anchors may be used at roadway face of end post if existing R bars have deteriorated.



SECTION A-A



SECTION B-B

### Notes:

All exposed edges of curb blockout shall have 1/2  $^{\prime\prime}$  radius or 3/8  $^{\prime\prime}$  bevel unless otherwise shown.

Payment for concrete, reinforcing steel, resin anchor systems, and any other work incidental to the curb blockout, complete in place, will be included in the contract unit price for Curb Blockout per linear foot.

Cost of any concrete curb or parapet repair will be included in the contract unit price for  ${\tt Curb\ Blockout.}$ 

All reinforcement shall be epoxy coated.

The contractor shall use one of the qualified resin anchor systems in accordance with Sec 1039.

The minimum embedment depth in concrete with f'c = 4,000 psi for the resin anchor system shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5".

An epoxy coated #5 Grade 60 reinforcing bar shall be substituted for the 5/8  $^{\prime\prime}\!\!/\!\!/$  d threaded rod.

For details of Resin Anchors, System A, see Sheet No. 2.

16 required Resin Anchors, System A, are included in the resin anchor quantity on Sheet No. 2.

## 

3"± 3 Spa.

BRYAN A.
HARTINAGEL

NUMBER PE-2002024473

THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

8/17/2018

BOONE

J5S3257

PROJECT NO.

A18031

105 ON CI

MO SHEET NO

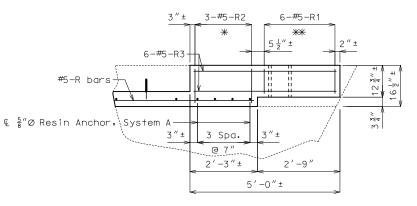
3

163

BR

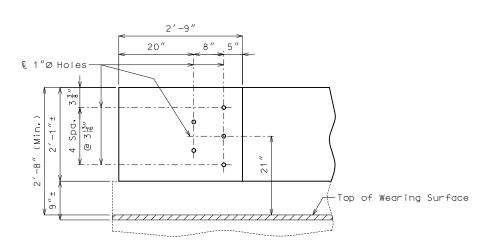
# ELEVATION SHOWING LEFT (SE) END POST AT EXISTING END BENT NO. 4

(Right (NW) End Post at End Bent No. 1 similar) Existing R bars (U.I.P.) not shown for clarity.



# PLAN SHOWING LEFT (SE) END POST AT EXISTING END BENT NO. 4

Existing R bars (U.I.P.) not shown for clarity.



DETAILS OF GUARD RAIL ATTACHMENT

### DETAILS OF END POST AT END BENTS

Detailed July 2018 Checked July 2018

