#### **DESIGN DESIGNATION**

A.A.D.T. - 2022 = 38,700 A.A.D.T. - 2046 = 42,800 D.H.V. = 5% V = 60 M.P.H.

FUNCTIONAL CLASSIFICATION -

I-270 EASTBOUND I-270 WESTBOUND A.A.D.T. - 2022 = 38,200 A.A.D.T. - 2046 = 42,300 D.H.V. = 3% V = 60 M.P.H.

FUNCTIONAL CLASSIFICATION -

KEY MAP LOCATION OF ST. LOUIS COUNTY

NO RIGHT-OF-WAY WILL BE **ACQUIRED ON THIS** PROJECT.

### **CONVENTIONAL SYMBOLS**

NEW **BUILDINGS AND STRUCTURES** ㄷㅜ=의 GUARD RAIL •••• 00000 GUARD CABLE CONCRETE RIGHT-OF-WAY MARKER STEEL RIGHT-OF-WAY MARKER LOCATION SURVEY MARKER 0 UTILITIES <del>-F0-</del> FIBER OPTICS -CATV-- OT -- UT -- OE -- UE -CABLE TV OVERHEAD TELEPHONE
UNDERGROUND TELEPHONE — UT— — UE— OVERHEAD POWER UNDERGROUND POWER SANITARY SEWER STORM SEWER WATER ITS EQUIPMENT MANHOLE FIRE HYDRANT WATER VALVE WATER METER DROP INLET = DITCH BLOCK GROUND MOUNTED SIGN LIGHT POLE H-FRAME POWER POLE TELEPHONE PEDESTAL FENCE CHAIN LINK

 $\boxtimes$ 

NOTE: DASHED OR OPEN SYMBOLS INDICATE EXISTING FEATURES

WOVEN WIRE

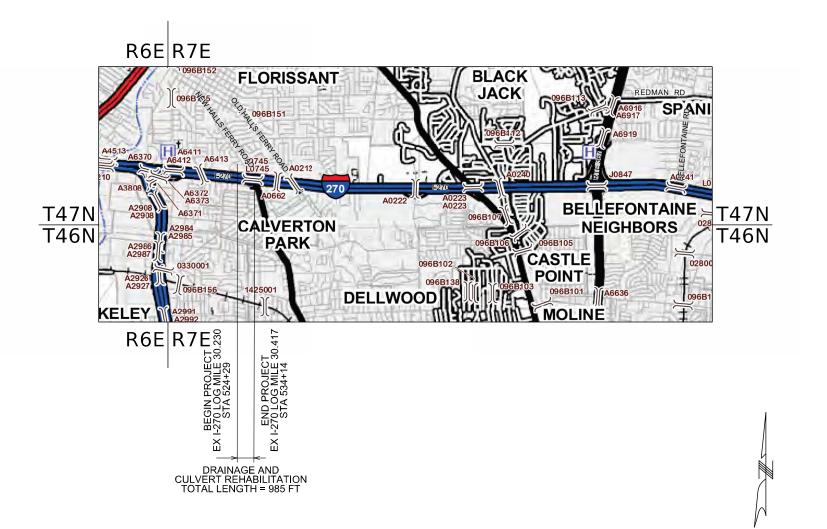
GATE POST

BENCHMARK

# MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION PLANS FOR PROPOSED

**INTERSTATE 270** 

ST. LOUIS COUNTY



THE EXISTENCE AND APPROXIMATE LOCATION OF UTILITY FACILITIES KNOWN TO EXIST, AS SHOWN ON THE PLANS, ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE COMMISSION AT THIS TIME. THIS INFORMATION IS PROVIDED BY THE COMMISSION "AS-IS" AND THE COMMISSION EXPRESSLY DISCLAIMS ANY REPRESENTATION OR WARRANTY AS TO THE COMPLETENESS, ACCURACY, OR SUITABILITY OF THE INFORMATION FOR ANY USE. RELIANCE UPON THIS INFORMATION IS DONE AT THE RISK AND PERIL OF THE USER, AND THE COMMISSION SHALL NOT BE LIABLE FOR ANY DAMAGES THAT MAY ARISE FROM ANY ERROR IN THE INFORMATION. IT IS, THEREFORE, THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, LOCATION AND STATUS OF ANY FACILITY. SUCH VERIFICATION INCLUDES DIRECT CONTACT WITH THE LISTED UTILITIES.

#### **INDEX OF SHEETS**

DESCRIPTION	SHEET NUMBER
TITLE SHEET — — — — — — —	1
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COORDINATE POINTS (CP) — — — —	4
RIGHT OF WAY (RW) — — — — —	5
TRAFFIC CONTROL (TC) — — — — —	6 - 8
BRIDGE DRAWINGS CULVERT J08883 — — — — — — —	1 - 4



LENGTH OF PROJE	ECT
BEGINNING OF PROJECT	STA 524+29
END OF PROJECT	STA 534+14
APPARENT LENGTH	985 FEET
EQUATIONS AND EXCEPTIONS:	NONE
TOTAL CORRECTIONS	NONE
NET LENGTH OF PROJECT	985 FEET
STATE LENGTH	0.187 MILES
FOR INFORMATION ONLY ESTIMATED DISTURBED ACRES	0 ACRES



MSD PROJECT NO. 25MSD-00264 MSD BASE MAP NO.: 10G1

NOT TO SCALE

	REMOVAL OF IMPROVEMENTS - INFORMATION ONLY									
SHEET FROM TO										
NO.	STA	STA	ROADWAY	LOCATION	DESCRIPTION	REMARKS				
3	-	-	PERSHALL RD	LT	CHAIN-LINK FENCE	55 LF				
3	-	-	HAUL ROAD	-	GRAVEL FOR HAUL ROAD	43 TONS				
3	-	-	HAUL ROAD	-	RESTORATION OF HAUL ROAD					
	LUMP SUM = 1									

STREAM SEDIMENT REMOVAL											
				STREAM							
				SEDIMENT							
	FROM	тоі		REMOVAL							
SHEET NO.	STA	STA	ROADWAY	LS	REMARKS						
3	530+49.87	530+80.05	I - 270	1	APPROX. 14 CY OF SILT TO BE REMOVED						
	·		SUBTOTAL	1							
			PAY TOTAL	1							

TREE AND BRUSH CLEARING									
	TREE AND								
				BRUSH CLEARING					
	FROM	то		(FOR INFORMATION ONLY)					
SHEET NO.	STA	STA	ROADWAY	ACRE					
3	524+28.80	524+78.80	I - 270	0.1					
3	529+17.75	534+13.55	I - 270	1.2					
			LUMP SUM =	= 1					

TEMPORARY EROSION CONTROL									
				SILT	SEDIMENT				
	FROM	ТО		FENCE	REMOVAL				
SHEET NO.	STA	STA	ROADWAY	LF	CY				
3	-	-	HAUL ROAD, LT	109	11				
3	•	•	HAUL ROAD, RT	107	11				
			SUBTOTAL	216	22				
			PAY TOTAL	216	22				

PERMANENT SEEDING AND MULCHING											
				SEEDING - COOL							
	FROM	то		SEASON MIXTURE	MULCHING						
SHEET NO.	STA	STA	ROADWAY	AC	AC	REMARKS					
3	-	-	HAUL ROAD	0.1	0.1	HAUL ROAD AREA					
3	529+17.75	534+13.55	I - 270	1.2	1.2	TREE CLEARING AREA					
			SUBTOTAL	1.3	1.3						
			PAY TOTAL	1.3	1.3						

FENCING									
CHA I N - L I Nk									
	FROM	ТО		FENCE (48 IN.)					
SHEET NO.	STA	STA	ROADWAY	LF					
3	-	-	PERSHALL RD	55					
			SUBTOTAL	55					
			PAY TOTAL	55					

HAUL ROAD CONSTRUCTION									
				GRAVEL (A)	GRADING				
	FROM	ТО		6" THICK	CLASS 1				
SHEET NO.	STA	STA	ROADWAY	SY	STA				
3	530+61.95	530+92.36	I - 270	153	1.0				
			SUBTOTAL	153	1.0				
			PAY TOTAL	153	1.0				

MOBILIZATION LUMP SUM = 1

CONTRACTOR FURNISHED SURVEYING & STAKING LUMP SUM =

MSD SUBMITTALS LUMP SUM = 1



THIS SHEET HAS BEEN SIGNED, SEALED, AND DATED ELECTRONICALLY.

DATE PREPARED
9/23/2025
ROUTE STATE
I - 270 MO
DISTRICT SHEET NO.
SL 2

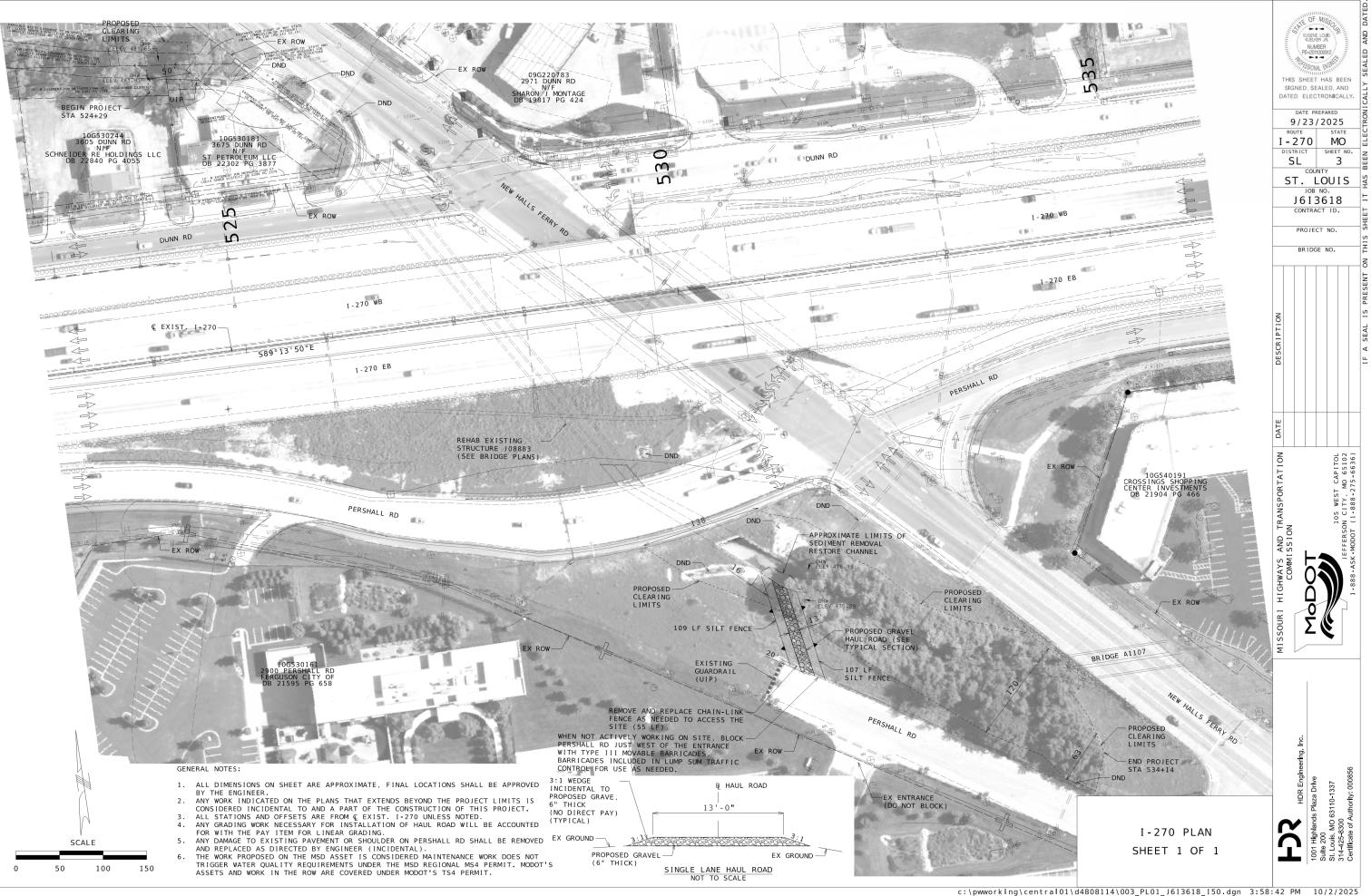
ST. LOUIS
JOB NO.
J6 I 36 18
CONTRACT ID.

PROJECT NO.

SUMMARY OF QUANTITIES SHEET 1 OF 2

			TOTAL	QTY TOTAL					T			QTY TOTAL		ľ	ĺ		EFFECTIVE: 07-01-2025		
SIGN				RELOC RELOC			SIGN	1		,		RELOC RELOC			ITEM	TOTAL		JULIA OF	OF MISSO
	IN.	SQ FT EAC			. NO.	DESCRIPTION		IN.	SQ.FT.	EACH			NO.	DESCRIPTION	NUMBER	R QTY	DESCRIPTION		ENE LOUIS ELKER JR.
WO1-1L	48X48	16.00	WARN	IING SIGNS	$\overline{}$	TURN (SYMBOL LEFT)	E05-1	36X48	12.00	,	GU1	IDE SIGNS		GORE EXIT	6122008 6122009		IMPACT ATTENUATOR 40 MPH (SAND BARRELS)  IMPACT ATTENUATOR 45 MPH (SAND BARRELS)	= \PE-201	UMBER 2011000912/
		16.00			+	TURN (SYMBOL RIGHT)	E05-2		12.00		+			EXIT OPEN	6122010		IMPACT ATTENUATOR 50 MPH (SAND BARRELS)	111780F5880	ONIAL ENGINE
WO1-2L	48X48	16.00				CURVE (SYMBOL LEFT)	E05-2a	48X36	12.00					EXIT CLOSED	6122012		IMPACT ATTENUATOR 55 MPH (SAND BARRELS)	THIS SHEET	illininini ET HAS
		16.00				CURVE (SYMBOL RIGHT)	GO20-1	60X24						ROAD WORK NEXT XX MILES	6122014		IMPACT ATTENUATOR 60 MPH (SAND BARRELS)	SIGNED, SI	
		16.00				REVERSE TURN (SYMBOL RECHT)	GO20-2 GO20-4	48X24 36X18						END ROAD WORK	6122017 6122019		IMPACT ATTENUATOR 65 MPH (SAND BARRELS)  IMPACT ATTENUATOR 70 MPH (SAND BARRELS)	DATED ELEC	CTRON
		16.00				REVERSE TURN (SYMBOL RIGHT) REVERSE CURVE (SYMBOL LEFT)	GO20-4 GO20-4a			_				PILOT CAR FOLLOW ME PILOT CAR IN USE WAIT & FOLLOW	6122019		REPLACEMENT SAND BARREL	1	PREPAREI
		16.00				REVERSE CURVE (SYMBOL RIGHT)	GO20-4a				+			PILOT CAR IN USE WAIT & FOLLOW	6122030		IMPACT ATTENUATOR (RELOCATION)	9 / 23 ROUTE	
WO1-4bL	48X48	16.00				DOUBLE ARROW REVERSE CURVE (SYMBOL LEFT)	GO20-5aP	P 36X24	6.00					WORK ZONE (PLAQUE)	6122040		WORK ZONE CRASH CUSHION (NARROW)	I-270	
		16.00				DOUBLE ARROW REVERSE CURVE (SYMBOL RIGHT)	MO4-8a	24X18	3.00					END DETOUR	6122041		WORK ZONE CRASH CUSHION (RELOCATION)	DISTRICT	
		16.00				TRIPLE ARROW REVERSE CURVE (SYMBOL LEFT)	MO4 - 9L MO4 - 9R	48X36				<del>                                     </del>		DETOUR (LEFT)	6123001	***	TRUCK MOUNTED ATTENUATOR (TMA)	SL	DUNTY
		16.00			+	TRIPLE ARROW REVERSE CURVE (SYMBOL RIGHT) HORIZONTAL ARROW (SYMBOL)	MO4 - 9R MO4 - 9P	48X36 48X12						DETOUR (RIGHT) STREET NAME (PLAQUE)	6161012 6161013		BUOYS (BOATS KEEP OUT) BUOYS (NO WAKE)	ST.	
		18.00			+	HORIZ. ARROW (SYMBOL ON PERMANENT BARRICADE)	MO4 - 10L	48X18	6.00		+			DETOUR ARROW (LEFT)	6161014		SPECIAL SIGN ASSEMBLY (BOATS KEEP OUT)		B NO.
WO1-7	60X30	12.50				DOUBLE HEAD HORIZONTAL ARROW (SYMBOL)	MO4 - 10R	48X18		_				DETOUR ARROW (RIGHT)	6161020		CHANNELIZER (DRUM-LIKE)	J6I.	RACT I
		18.00				DOUBLE HEAD HORIZ. ARROW (SYMBOL ON PERM. BARR.					REGUL	ATORY SIGNS			6161022		CHANNELIZER (CONE)	4	
		3.00				CHEVRON (SYMBOL)	R1-1		13.25			<del>                                     </del>		STOP	6161025	30	CHANNELIZER (TRIM-LINE)	PROJE	ECT NO
		7.50				CHEVRON (SYMBOL FOR DIVIDED HIGHWAYS)  STOP AHEAD (SYMBOL)	R1-2 R1-2a	48TRI.	9.00		+	<del>                                     </del>		YIELD TO ONCOMING TRAFFIC (PLAQUE)	6161026 6161030	4	CHANNELIZER (VERTICAL PANEL) TYPE 3 MOVEABLE BARRICADE	BRID	DGE NO
		16.00				YIELD AHEAD (SYMBOL)	R1-2a	30X12			+			ALL WAY (PLAQUE)	6161033	_	DIRECTION INDICATOR BARRICADE	1	
		16.00				SIGNAL AHEAD (SYMBOL)	R2 - 1	36X48						SPEED LIMIT XX	6161040		FLASHING ARROW PANEL		$\Box$
		16.00				BE PREPARED TO STOP	R3 - 1	48X48						NO RIGHT TURN (SYMBOL)	6161047		TYPE 3 OBJECT MARKER	4	
		16.00				SPEED LIMIT AHEAD	R3-2	48X48					<u> </u>	NO LEFT TURN (SYMBOL)	6161055	1	SEQUENTIAL FLASHING WARNING LIGHT	4	
		16.00				MERGE (SYMBOL FROM LEFT) MERGE (SYMBOL FROM RIGHT)	R3-3 R3-4	36X36 48X48		_		<del>                                     </del>		NO TURNS NO U-TURN (SYMBOL)	6161070 6161095	1	TUBULAR MARKER RADAR SPEED ADVISORY SYSTEM		
		16.00				MERGE (LEFT)	R3 - 7L	30X30			_			LEFT LANE MUST TURN LEFT	0101095		CHANGEABLE MESSAGE SIGN,		
		16.00				MERGE (RIGHT)	R3-7E	30X30			+			RIGHT LANE MUST TURN RIGHT	6161096		COMMISSION FURNISHED/RETAINED	[8]	
		16.00				ROAD/BRIDGE/RAMP NARROWS	R4-1	36X48						DO NOT PASS	1		CHANGEABLE MESSAGE SIGN WITHOUT COMM.	[R]	
WO5 - 3	48X48	16.00				ONE LANE BRIDGE	R4-2	36X48						PASS WITH CARE	6161098	А	INTERFACE, CONTRACTOR FURNISHED/RETAINED		
		16.00				NARROW LANES	R4-7a	36X48		_				KEEP RIGHT (HORIZONTAL ARROW)			CHANGEABLE MESSAGE SIGN WITH COMM.		
		16.00				DIVIDED HIGHWAY (SYMBOL) DIVIDED HIGHWAY END (SYMBOL)	R4-8a R5-1	36X48 30X30				<del>                                     </del>		KEEP LEFT (HORIZONTAL ARROW) DO NOT ENTER	6161099 6162000	^	INTERFACE, CONTRACTOR FURNISHED/RETAINED WORK ZONE TRAFFIC SIGNAL SYSTEM	1	
		16.00			-	TWO WAY TRAFFIC (SYMBOL)	R5-1a	36X24						WRONG WAY	6162002	4	TEMPORARY LONG-TERM RUMBLE STRIPS	1	
		5.00				NEXT XX MILES (PLAQUE)	R6-1L	54X18			+			ONE WAY ARROW (LEFT)	1		TEMPORARY TRAFFIC BARRIER,	+++	++
WO8 - 1	48X48	16.00				BUMP	R6-1R	54X18	6.75					ONE WAY ARROW (RIGHT)	6173600	D	CONTRACTOR FURNISHED/RETAINED	<u> </u> ≝	
		16.00				DIP	R6-2L	24X30						ONE WAY (LEFT)	1		TEMP. TRAFFIC BARRIER ANCHORED,		
		16.00				PAVEMENT ENDS	R6-2R	24X30						ONE WAY (RIGHT)	61737001	В	CONTRACTOR FURNISHED/RETAINED		
		16.00				SOFT SHOULDER SLIPPERY WHEN WET (SYMBOL)	R9-9	24X12	2.00	+				SIDEWALK CLOSED SIDEWALK CLOSED AHEAD,	6173706		TEMP. TRAFFIC BARRIER STIFFNESS TRANSITION CONTRACTOR FURNISHED/RETAINED	0	i
		16.00			+	TRUCK CROSSING	R9-11L	24X18	3.00				í	(ARROW LEFT) CROSS HERE	0173700		TEMP. TRAFFIC BARRIER HEIGHT TRANSITION,	TA.	í
WO8 - 6 c	48X48	16.00				TRUCK ENTRANCE								SIDEWALK CLOSED AHEAD,	6174000	A	CONTRACTOR FURNISHED/RETAINED	L L	
WO8 - 7	36X36	9.00				LOOSE GRAVEL	R9-11R	24X18	3.00					(ARROW RIGHT) CROSS HERE	6175010	А	RELOCATING TEMPORARY TRAFFIC BARRIER	SP(	
	36X36					FRESH OIL / LOOSE GRAVEL	R10-6	24X36	_		!	1		STOP HERE ON RED (45^ ARROW)	61750111		RELOCATING TEMP. TRAFFIC BARRIER ANCHORED	A	
		16.00				LOW SHOULDER UNEVEN LANES	R11-2	48X30	10.00	+				ROAD CLOSED XX MILES AHEAD	6175013 6175020		RELOCATING TEMP. TRAFFIC BARRIER STIFFNESS RELOCATING TEMP. TRAFFIC BARRIER HEIGHT	H ≥	
WO8 - 11 WO8 - 12					+	NO CENTER LINE	R11-3a	60X30	12 50	,			ł	ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	6208064	_	TEMPORARY RAISED PAVEMENT MARKER	SIS	
		16.00				GROOVED PAVEMENT	R11-4		12.50		+			ROAD CLOSED TO THRU TRAFFIC	9029400		TEMPORARY TRAFFIC SIGNALS	I S L	_
WO8-15P	30X24	5.00				MOTORCYCLE (PLAQUE)	CONST - 3A	A 60X48	20.00					FINE SIGN	9029401		TEMPORARY TRAFFIC SIGNALS AND LIGHTING	NIMO	1
		16.00				SHOULDER DROP-OFF (SYMBOL LEFT)	CONST - 3X	x 56X12	4.67					SPEEDING/PASSING (PLATE)				1≩8 U	
WO8-17R WO8-17P						SHOULDER DROP-OFF (SYMBOL RIGHT)	CONST-5	T40V26	T 12 00		MISCELL	ANEOUS SIGN		DOINT OF PRECENCE					1
		5.00				SHOULDER DROP-OFF (PLAQUE) RAILROAD CROSSING	CONST-5	_						POINT OF PRESENCE POINT OF PRESENCE				╚╶╱	<b>;</b>
		4 00				DOUBLE DOWN ARROW (SYMBOL)	CONST-8				+			WORK ZONE NO PHONE ZONE			FLAG ASSEMBLY IS INCLUDED IN SIGN COST	18 Z	<u> </u>
WO12-2	48X48	16.00				LOW CLEARANCE (SYMBOL)									* ITEMS CONTROL		CLUDED IN LUMP SUM TEMPORARY TRAFFIC	So   <b>Z</b>	- (E
W012-2x						LOW CLEARANCE (PLAQUE)									** NO D	DIRECT P	AY FOR RELOCATING TEMPORARY TRAFFIC	MIS	
WO12-2a						OVERHEAD LOW CLEARANCE (FEET AND INCHES)				+	!				CONTROL		S OR TO COVER/UNCOVER EXISTING OR TCP	2 /	
WO12-4 1 WO12-5 1		50.00				LOW CLEARANCE XX FT XX IN XX MILES AHEAD WIDTH RESTRICTION XX FT XX IN XX MILES AHEAD	_	+	+	+		<del>                                     </del>			SIGNS.	) I CATES	TMAs WILL BE REQUIRED FOR MOBILE	1	
		6.25				ADVISORY SPEED (PLAQUE)	_	+	+	+	+				OPERATI	ONS ON	THIS JOB BUT AT NO DIRECT PAY. THE	1	
		5.00				XXX FEET (PLAQUE)				<b>†</b>	+ -						USE TMAS AT STATIONARY LOCATIONS OF HIS OSING BUT NO PAYMENT SHALL BE MADE FOR		
WO16-3	30X24	5.00				X MILE (PLAQUE)									THESE T				
			16.00	1 16.00		ROAD/BRIDGE/RAMP WORK AHEAD	_										TEMPORARY TRAFFIC CONTROL		
		16.00				DETOUR AHEAD ROAD CLOSED AHEAD	616 10	) OF			TOTAL	<del>                                     </del>				-	TEMPORARY TRAFFIC CONTROL		
		16.00				ONE LANE ROAD AHEAD	616-10 CONSTR		N SIGN	NS	32	1	i				PAY TOTAL: 1 LUMP SUM	<u>H</u>	
		16.00				RIGHT/CENTER/LEFT LANE CLOSED AHEAD	616-10		* 210l	•		TOTAL	NO.	TE: QUANTITIES PROVIDED ARE SET	THE HELV	G GENER	IC TRAFFIC CONTROL	l gine	
		16.00				2 RIGHT/CENTER/LEFT LANES CLOSED AHEAD	RELOCA		I GNS			**	IF	THE CONTRACTOR CHOOSES TO SETUP	TRAFFIC	CONTROL	DIFFERENTLY, THEN	gine	_
		16.00				RIGHT/CENTER/LEFT LANE CLOSED								OSE ADDITIONAL QUANTITIES SHALL E NTRACTOR.	E PAID	AI THE E	EXPENSE OF THE	Eng.	Jrive 37
		16.00				FLAGGER (SYMBOL)	_											HDR HDR	Za L
		9.00		1		FRESH OIL	_												Pla 211
			16.00	1 16.00		SHOULDER WORK / SHOULDER WORK AHEAD	$\dashv$												hlands Plaza Driv I MO 63410 4337
WO22-1		16.00				BLASTING ZONE AHEAD TURN OFF 2-WAY RADIO AND PHONE	$\dashv$										SUMMARY OF QUANTITIES		ighi: 00 is M
WO22-2	// J ()	10.50			+		$\dashv$										SHEET 2 OF 2	<b>       </b>	1001 High Suite 200
	42X36	10.50	I	l l		END BLASTING ZONE												. = 10	
					+	WET PAINT (ARROW PIVOTS)	TON	TE: ALL	TRAFFI	C CON	TROL ITE	MS ARE INCLUDED	DINF	PAY ITEM 616-99.01, LUMP SUM TEMF HESE QUANTITIES ARE ONLY AN ESTIM	ORARY T	RAFFIC	SHEET 2 OF 2	<b></b>   ÷	Su. S

SHEET THAS BEEN ELECTRONICALLY SEALED AND DATED

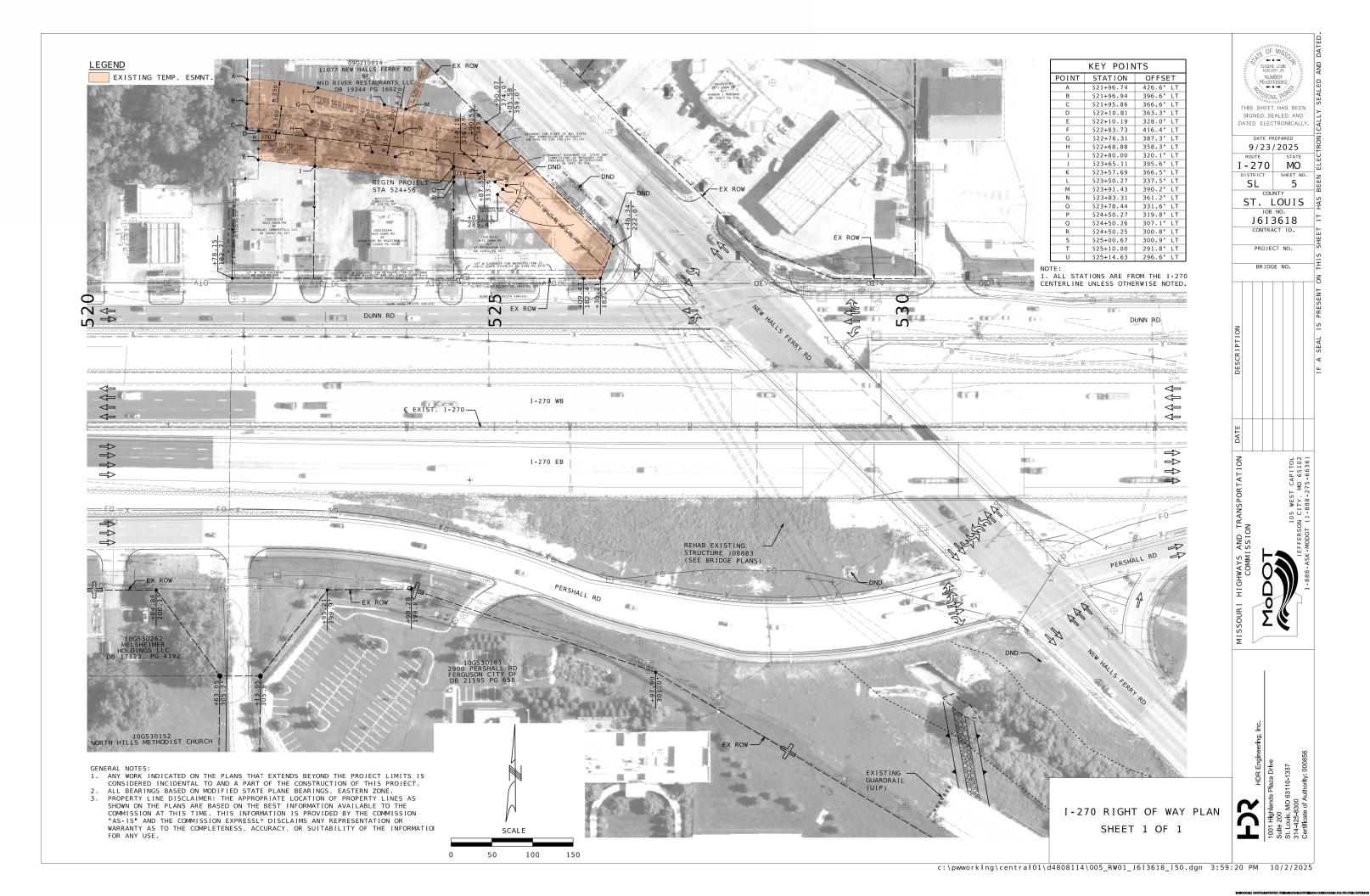


ALL PROJECT COORDINATES HAVE BEEN PROJECTED FROM THE MISSOURI STATE PLANE COORDINATE (SPC) SYSTEM OF 1983 USING AN AVERAGE PROJECT PROJECTION (GRID TO GROUND) FACTOR. TO GET BACK TO STATE PLANE COORDINATES, MULTIPY THE PROJECT COORDINATES BY THE AVERAGE GRID FACTOR AS SHOWN IN THE "REFERENCE CONTROL INFORMATION" PORTION OF THIS TABLE. PROJECT COORDINATE INFORMATION COORDINATE SYSTEM Stateplane MO East FIPS 2401
HORIZONTAL DATUM NAD 83
VERTICAL DATUM NAVD 88
GEOID MODEL Geoid 12B Geoid 12B ELEVATIONS DETERMINED BY PROJECT PROJECTION FACTOR 1.0000855 REFERENCE CONTROL INFORMATION COORDINATE SYSTEM | Missouri Coordinate System of 1983 CONTROL STATION | MOEF DESIGNATION MODOT OFALLON CORS ARP
CORS\_ID MOOF CORS\_ID DM4688 LATITUDE 38°45'14.06179
LONGITUDE 90°41'44.78025
NORTHING (M) 324131.1530
EASTING (M) 232983.4880
ZONE 2401 PROJECT AVERAGE GRID FACTOR 0.99991451 EXAMPLE OF PROJECT COORDINATE TO S.P.C. PROJECT NORTHING X AVERAGE GRID FACTOR = STATE PLANE NORTHING PROJECT EASTING X AVERAGE GRID FACTOR = STATE PLANE EASTING EXAMPLE: CONTROL POINT #3 N 1083739.801 X 0.99991221 = N 1083644.659 E 713463,461 X 0,99991221 = E 713400,826 LINEAR UNIT CONVERSION 1 METER = 3.280833333 US SURVEY FEET (USFT)

COORDINATE POINT LISTING										
MODIFIED STATE PLANE (GROUND)										
SHEET NO	STATION	LOCATION	(USFT)	(US SURVEY FT)	(US SURVEY FT)	(US SURVEY FT)	DESCRIPTION	POINT ID		
PROJECT CO	NTROL PO	INTS								
AL I GNMENTS	5									
5	5 520+00.00 EXIST. I-270 0.00 1069775.1585 885729.0133 BEGINNING OF EXIST. CENTERLINE									
3	522+70.00	EXIST. I-270	0.00	1069771.5326	885998.9889		POINT			
3 536+20.00 EXIST. I-270 0.00 1069753.4030 887348.8672 END OF EXIST. CENTERLINE										



COORDINATE POINT SHEET
SHEET 1 OF 1



#### NOTES:

- EXISTING GUIDE, WARNING, AND REGULATORY SIGNS WITHIN THE WORK ZONE SHALL NOT CONFLICT WITH THE CONSTRUCTION SIGNING (SUCH AS SPEED LIMIT, BRIDGE CLEARANCE, ETC.) AND SHALL BE COVERED, REMOVED, OR RELOCATED WITH NO DIRECT PAYMENT. CONSTRUCTION SIGNS SHALL NOT OBSTRUCT EXISTING SIGNS REMAINING IN PLACE.
- 2. ALL SPACING AND DISTANCES ARE APPROXIMATE. THEY MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.
- 3. SEE STANDARD PLAN 616.10BE FOR TEMPORARY TRAFFIC CONTROL DEVICES DETAILS.
- 4. SEE STANDARD PLAN 620.10G FOR TEMPORARY PAVEMENT MARKING DETAILS.
- CONSTRUCTION SIGNS NOTED AS POST-MOUNTED (POST) SHALL BE MOUNTED PER STANDARD PLAN 616.10BE.
- 6. THE SPEED LIMIT DURING ACTIVE CONSTRUCTION SHALL REMAIN 45 M.P.H. UNLESS OTHERWISE NOTED IN THE TRAFFIC CONTROL PLAN.
- 7. CONFLICTING STRIPING SHALL BE REMOVED PRIOR TO GUIDING TRAFFIC THROUGH WORK ZONES. ANY STRIPING WHICH IS DAMAGED DURING A DAYS WORK SHALL BE RE-STRIPED NO LATER THAN THE END OF THE SAME DAY.
- 8. ALL WARNING SIGNS SHALL HAVE A FLUORESCENT SHEETING.
- 9. WORDING FOR CHANGEABLE MESSAGE SIGNS SHALL BE AS APPROVED OR DIRECTED BY THE ENGINEER.
- 10. EXACT LOCATIONS FOR CHANGEABLE MESSAGE SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.
- 11. MISSOURI ONE CALL (800 DIG RITE) SHALL BE CONTACTED FOR LOCATES (800-344-7483 OR 811) BEFORE BEGINNING ANY EXCAVATION OR BORING ACTIVITIES.
- 12. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHOWN ON PLANS HAVE BEEN DRAFTED FROM AVAILABLE SURVEYS AND RECORDS; THE COMMISSION DOES NOT WARRANT THE LOCATIONS OF THESE FACILITIES AS PRECISE. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXISTENCE AND PRECISE LOCATION OF ALL FACILITIES AND TO AVOID DAMAGE TO THEM. SEE THE JOB SPECIAL PROVISIONS FOR A LIST OF UTILITY COMPANIES ON OR WITHIN THE VICINITY OF THE PROJECT LIMITS.

#### TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS NOTES:

- 1. REMOVE AND/OR MODIFY ANY EXISTING PAVEMENT MARKINGS AS NEEDED.
- ALTERNATIVE TEMPORARY TRAFFIC CONTROL SET-UPS SHOULD BE CONSIDERED WHEN REDUCTION IN CAPACITY CANNOT BE TOLERATED. SET-UPS MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTATION.
- 3. UPON APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY PROVIDE ADDITIONAL PROTECTIVE TRUCKS EQUIPPED WITH PROPER WARNING DEVICES.

#### SUGGESTED SEQUENCE OF CONSTRUCTION:

PRIOR TO PERFORMING CULVERT WORK, THE FOLLOWING ACTIVITIES WILL NEED TO OCCUR. TYPICAL APPLICATIONS AS SHOWN ON "TRAFFIC CONTROL PLAN TYPICAL APPLICATIONS SHEET 1 OF 2" WILL BE USED TO PERFORM THE WORK FOR TRAFFIC CONTROL:

- INSTALL ADVANCE SIGNING.
- 2. PLACE BARRICADES USING THE TYPICAL APPLICATIONS. COMPLETE THE TREE CLEARING AND CULVERT CLEANOUT.

#### TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- ▲ DIRECTIONAL INDICATOR BARRICADE



WORK AREA



TRAFFIC USAGE

FIGURE LOUS PROPERTY OF THE PR

9/23/2025

ROUTE | STATE |
I - 270 | MO |
DISTRICT | SHEET NO |
SL | 6

ST. LOUIS

J6I3618

PROJECT NO

DESCRIPTION

SOURI HIGHWAYS AND TRANSPORTATIO
COMMISSION

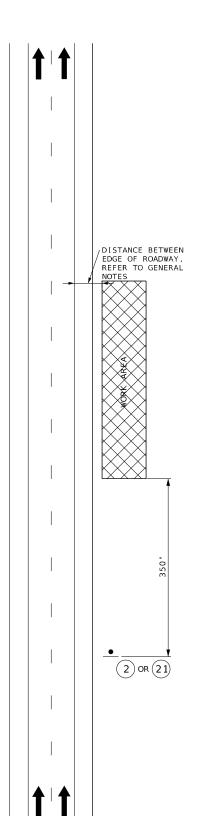
MODOT

105 WEST CAPITO

TEERESON CITY MO 6510

HDR Engineering, Inc. Plaza Drive

TRAFFIC CONTROL GENERAL NOTES AND LEGEND SHEET 1 OF 1



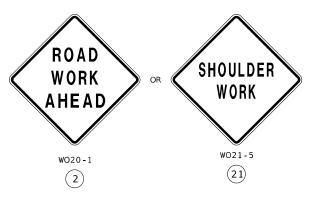
STATIONARY WORK BEYOND THE SHOULDER

### TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- DIRECTIONAL INDICATOR BARRICADE

WORK AREA

TRAFFIC USAGE



GENERAL NOTES:

ADVANCE WARNING SIGNS MAY BE ELIMINATED IF AT LEAST ONE OF THE FOLLOWING CONDITIONS ARE MET:

1. WORK SPACE IS 15 FEET OR MORE FROM THE EDGE OF ANY ROADWAY.

2. WORK SPACE IS BEHIND THE CURB.

3. WORK SPACE IS BEHIND BARRIER OR GUARDRAIL.

4. HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS ARE ACTIVATED.

NOT TO SCALE

TRAFFIC CONTROL PLAN TYPICAL APPLICATIONS SHEET 1 OF 2



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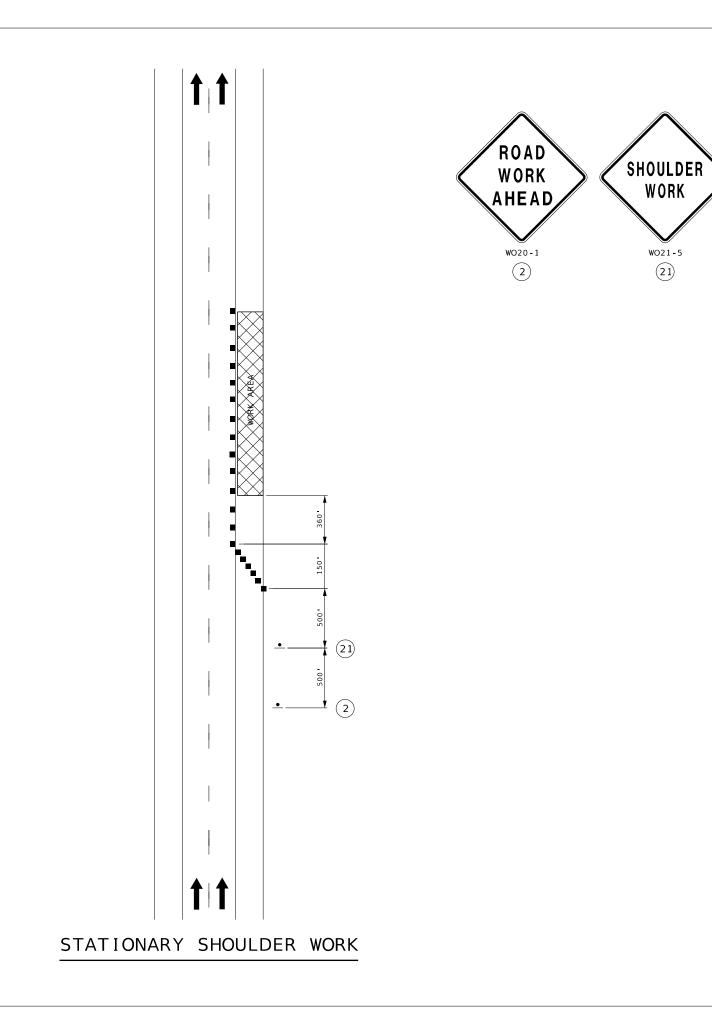
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J6I3618

PROJECT NO



#### TRAFFIC CONTROL LEGEND

- SIGN (SINGLE SIDED)
- CHANNELIZER
- DIRECTIONAL INDICATOR BARRICADE

WORK AREA

TRAFFIC USAGE

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9/23/2025

I - 270 MO SL DISTRICT

ST. LOUIS

JOB NO.
J6I3618
CONTRACT ID.

PROJECT NO

NOT TO SCALE

TRAFFIC CONTROL PLAN TYPICAL APPLICATIONS SHEET 2 OF 2

#### U.I.P. AND REHABILITATE EXISTING 2(10'x15') REINFORCED CONCRETE BOX CULVERT

			υ.							
	Estimated Quantities									
	(MoDOT Sections: 1931 and 1961)									
	I t em	Unit	Total							
(*)	Dewatering	Lump Sum	1							
(*)	Culvert Cleanout	Lump Sum	1							
	Total Surface Hydro Demolition	Sq. Yd.	296							
	Supplementary Wearing Surface Material	Cu. Yd.	15							
	Latex Modified Concrete Wearing Surface	Sq. Yd.	296							
	Class B-1 Concrete (Culverts-Bridge)	Cu. Yd.	10.3							
	Substructure Repair (Unformed)	Sq. Ft.	576							
	Superstructure Repair (Unformed)	Sq. Ft.	455							
	Epoxy Pressure Injecting	Lin. Ft.	40							
	Clean Out and Seal Transverse Joints	Lin. Ft.	806							
	Reinforcing Steel (Culverts-Bridge)	Lbs.	1460							

Estimated Quantities(MSD	Еx	tensio	n, 1968)
I t em		Unit	Total
Substructure Repair (Unformed)		Sq. Ft.	262
Superstructure Repair (Unformed)		Sq. Ft.	207
Epoxy Pressure Injecting		Lin Ft	20

#### Estimated Quantities Notes:

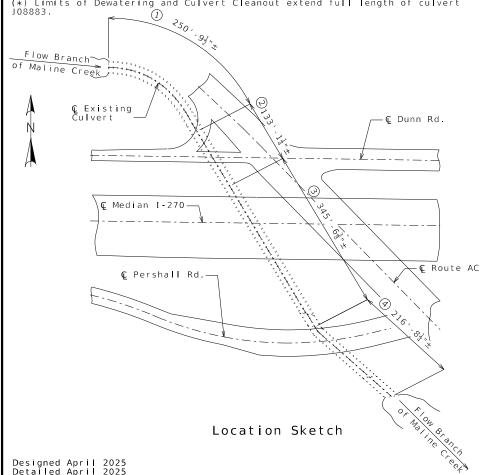
Estimated quantities for MSD Culvert Extension (1968), shall be quantified and paid for separately from the work in the remaining sections of culvert.

Prior to performing Substructure Repair (Unformed), Superstructure Repair (Unformed) and Epoxy Pressure Injecting items the Contractor and Engineer shall agree on the limits for each repair area.

Estimated quantities are based on a limited site visit, a full hands on inspection of the culvert was not performed.

The 2025 edition of the Missouri Department of Transportation's "Missouri Standard Specifications for Highway Construction" and supplemental Interim Specification Revisions, and the job special provisions shall govern for all repairs within the 1968 MSD culvert extension segment

(\*) Limits of Dewatering and Culvert Cleanout extend full length of culvert



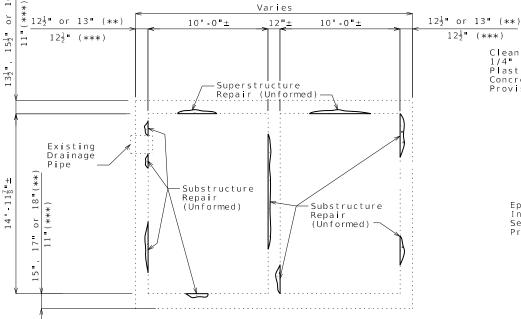
#### General Notes:

Design Specifications: 2002 AASHTO LFD (17th Ed.) Standard Specifications (New Construction) Culvert Condition Rating = 4

Design Loading:
Bridge No. J0888 (1931 Original Culvert): 1931 Specifications
Bridge No. J08881 (1961 Extension): H20-516-44
(1968 MSD Extension): H20-44, Earth = 120 lb/cf, Equivalent Fluid Pressure = 42 lb/cf Bridge No. J08882 (2021 Extension): HL-93 minus lane load, Earth = 120 lb/cf, Equivalent Fluid Pressure = 30 lb/cf (min.) 60 lb/cf (max.)

Design Unit Stresses: Class B-1 Concrete (Box Culvert) Reinforcing Steel (ASTM A706 Grade 60) fy = 60,000 psi

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



#### TYPICAL SECTION OF BOX CULVERT SHOWING REPAIRS TO (1961) EXTENSION AND (1968) MSD EXTENSION

Location Sketch Key:

- (1) Existing MSD Culvert Extension (Constructed in 1968)
- 2 Existing Original Culvert (Constructed in 1931) (Bridge No. J0888)
- Existing Culvert Extension (Constructed in 1961) (Bridge No. J08881)
- Existing Culvert Extension (Constructed in 2021) (Bridge No. J08882) Shown for information only, no repairs are anticipated in this section of culvert.

#### Notes:

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

Unformed concrete repair areas, crack lengths and locations, and transverse joint details shown are for informational purposes only. Identifying, locating and determining the limits of these repairs will be the responsibility of the Contractor and Engineer. Prior to any unformed concrete repair, crack repair, or joint repair work being performed the Contractor and Engineer shall agree to the repair location and limits proposed.

Epoxy pressure injecting shall be performed in accordance with Special Provisions for Epoxy Pressure Injecting and Section 704

The cost of all labor, equipment and material necessary to complete the crack repairs shown will be considered completely covered by the contract unit price for Epoxy Pressure Injecting.

### LOCATION PLAN, TYPICAL SECTION AND ELEVATION, GENERAL NOTES AND ESTIMATED OUANTITIES

Sheet No. 1 of 4

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

Contractor shall verify all dimensions in field before ordering new material

Existing structure dimensions and longitudinal dimensions are based on the original design plans.

Contractor will be responsible for Dewatering and Culvert Cleanout within the culvert limits in accordance with Special Provisions for Dewatering, Special Provisions for Culvert Cleanout and Sec 206.

For limits and payment of maintenance clean out of the existing channel, including sediment and debris removal and vegetation trimming within the channel limits, see Roadway

12½" (\*\*\*)

Traffic Handling: Traffic to be maintained on structure during construction.

Clean out and seal existing 1/4" transverse joint with Plastic Joint Compound for Concrete Pipe See Special Provisions. Epoxy Pressure Top Slab of Inject crack. See Special Exist Culvert Provisions. Existing Drainage joint lin Pipe Epoxy Pressure ransverse of clean Inject crack See Special Provisions. Wall of Exist. Culvert — Bottom Slab of Exist. Culvert

#### TYPICAL ELEVATION OF BOX CULVERT SHOWING CLEAN OUT AND SEAL OF EXISTING TRANSVERSE JOINTS AND CRACK REPAIRS

(\*\*) Extension (1961), dimensions based on as-built plans  $\pm$ .

(\*\*\*) MSD Extension (1968), dimensions based on as-built plans  $\pm$ .

Notes (continued):

Superstructure Repairs (Unformed) are limited to the existing top slab of culvert.

Substructure Repairs (Unformed) are limited to the existing walls and bottom slab of culvert

Unformed concrete repairs shall be preformed in accordance with Special Provisions, Shotcrete Concrete Repair and Sec 704.

The cost of all labor, equipment and material necessary to complete the unformed concrete repairs shown will be considered completely covered by the contract unit prices for Superstructure Repair (Unformed) and Substructure Repair (Unformed).

Sealant of transverse joints shall be performed in accordance with Special Provisions for Clean Out and Seal Transverse Joints and Section 1057

The cost of all labor, equipment and material necessary to complete the joint repairs shown will be considered completely covered by the contract unit price for Clean Out and Seal Transverse Joints.

#### REPAIRS TO CULVERT - BRIDGE: DUNN ROAD, I-270 & PERSHALL ROAD OVER BRANCH OF MALINE CREEK

ROUTE I-270 FROM ROUTE AC TO ROUTE N ABOUT 0.0 MILES WEST OF ROUTE AC € MEDIAN I-270 TIE STATION 527+77.29± (MATCH EXISTING)



THE SHEET HAS BEE SKINED, SEALED AND DA ELECTRICARANA

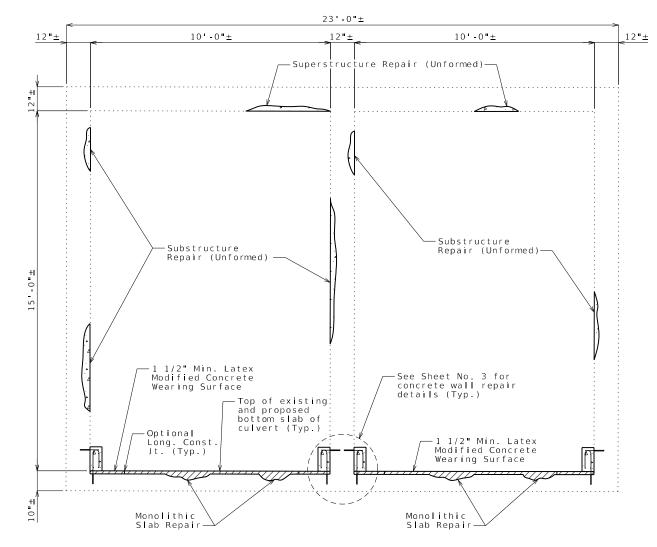
9/19/2025 1-270 MO SHEET NO BR 1

ST. LOUIS

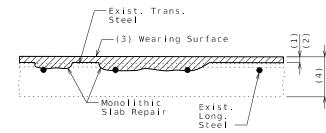
J6I3618

PROJECT NO

J08883



TYPICAL SECTION OF BOX CULVERT SHOWING REPAIRS TO ORIGINAL (1931) SECTION



#### BOTTOM SLAB OF EXISTING CULVERT SHOWING MONOLITHIC REPAIR

- (1) Total Surface Hydro Demolition to remove 1 1/2" (min.) and any deteriorated existing slab.
- (2) 1 1/2" (min.) Latex Modified Concrete Wearing Surface.
- (3) Top of proposed Latex Modified Concrete Wearing Surface to match top of original bottom slab of culvert elevation.
- (4) Original and proposed thickness of bottom slab of culvert, 10".

#### Notes:

Order of Repairs:

- 1. Dewater and clean out west barrel of culvert.
- 2. Complete Total Surface Hydro Demolition, within the limits shown.
- 3. Complete the following repairs:
  - a. Superstructure and Substructure Repairs (Unformed) b. Crack repair, Epoxy Pressure Injecting c. Clean Out and Seal Transverse Joints
- 4. Install Resin Anchor System for concrete wall repair.
- Place new Latex Modified Concrete Wearing Surface, within the limits shown, including additional material for areas with monolithic slab repair
- 6. Place reinforcement and concrete for concrete wall repair.
- 7. Repeat steps for east barrel of culvert.

Total Surface Hydro Demolition, installation of Latex Modified Concrete Wearing Surface and concrete wall repair to be performed within the original culvert (1931) limits.

Top of proposed Latex Modified Concrete Wearing Surface to match the top of existing bottom slab elevation.

Superstructure Repairs (Unformed) are limited to the existing top slab

Substructure Repairs (Unformed) are limited to the existing walls of

Identifying, locating and determining the limits of unformed concrete repairs will be the responsibility of the Contractor and Engineer. Prior to any unformed concrete repair being performed the Contractor and Engineer shall agree to the repair location and limits proposed.

Unformed concrete repairs shall be performed in accordance with Special Provisions, Shotcrete Concrete Repair and Sec 704.

Supplementary wearing surface material for monolithic slab repair will be paid for at the fixed unit price in accordance with Sec 109.

The cost of all labor, equipment and material necessary to complete the unformed concrete repairs shown will be considered completely covered by the contract unit prices for Superstructure Repair (Unformed) and Substructure Repair (Unformed).

Concrete crack filler shall be applied over any optional longitudinal or transverse construction joints in the latex modified concrete wearing surface in accordance with Special Provisions for Concrete Crack Filler and Sec 704. The cost of all labor, equipment and material necessary to complete the application of the concrete crack filler will be considered incidental to the contract unit price for Latex Modified Concrete Wearing Surface.

Work this sheet with Sheet No. 3.



9/19/2025 I - 270 MO SHEET NO BR 2

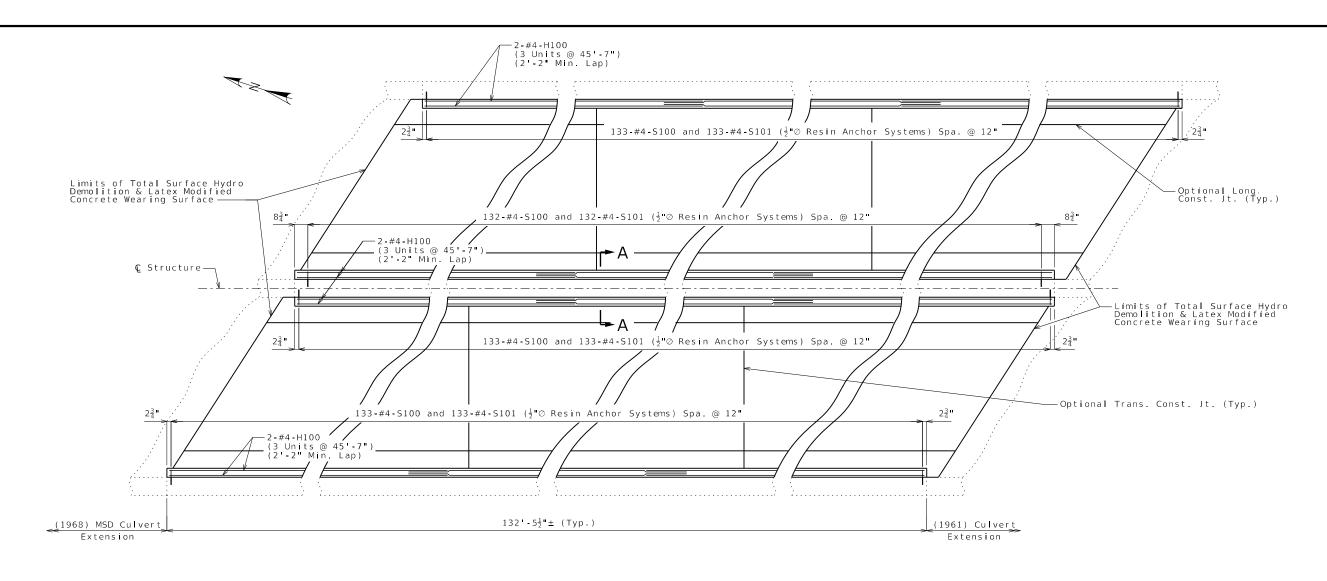
ST. LOUIS

J6I3618

PROJECT NO.

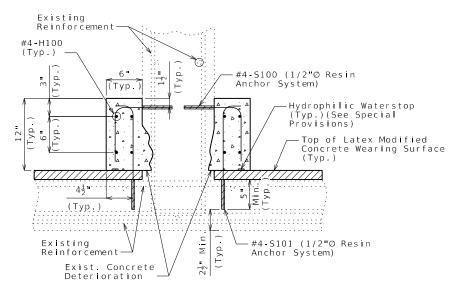
J08883

(1931) CULVERT SECTION - REPAIR DETAILS



#### PART PLAN OF BOX CULVERT SHOWING REPAIRS TO ORIGINAL (1931) SECTION

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



SECTION A-A

Designed April 2025 Detailed April 2025

(1931) CULVERT SECTION - REPAIR DETAILS

Sheet No. 3 of 4

Notes:

Dimensions shown are horizontal and based on original design

Exposed edge of concrete block shall have either a 1/2" radius or a 3/8" bevél.

Concrete for the concrete block shall be Class B-1 Concrete.

Cost of furnishing and installing the waterstop, complete in place, will be considered completely covered by the contract unit price for Class B-1 Concrete (Culverts-Bridge).

The contractor shall use one of the qualified resin anchor systems

Cost of furnishing and installing the resin anchor systems, complete in place, will be considered completely covered by the contract unit price for Class B-1 Concrete (Culverts-Bridge).

The minimum embedment depth in concrete with f'c = 3,000 psi for the resin anchor systems shall be that required to meet the minimum ultimate pullout strength in accordance with Sec 1039 but shall not be less than 5" into existing concrete.

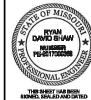
Epoxy Coated #4-S100 and #4-S101 Grade 60 reinforcing bars shall be substituted for the  $1/2\,{}^{\!\!\!/}\!\!\!/\!\!\!/$  threaded rods.

#4-S100 and #4-S101 reinforcing bar weights provided on Sheet No. 4 are for informational purposes only. Cost of furnishing and installing the reinforcing bars will be considered completely covered by the contract unit price for Class B-1 Concrete (Culverts-Bridge).

Contractor to locate and map existing box culvert reinforcement and ensure resin anchors miss reinforcement. If spacing of resin anchors conflicts with existing reinforcement, the location of resin anchors may be shifted up to 2" along the interior wall, and up to 3" at all other locations to avoid hitting reinforcement.

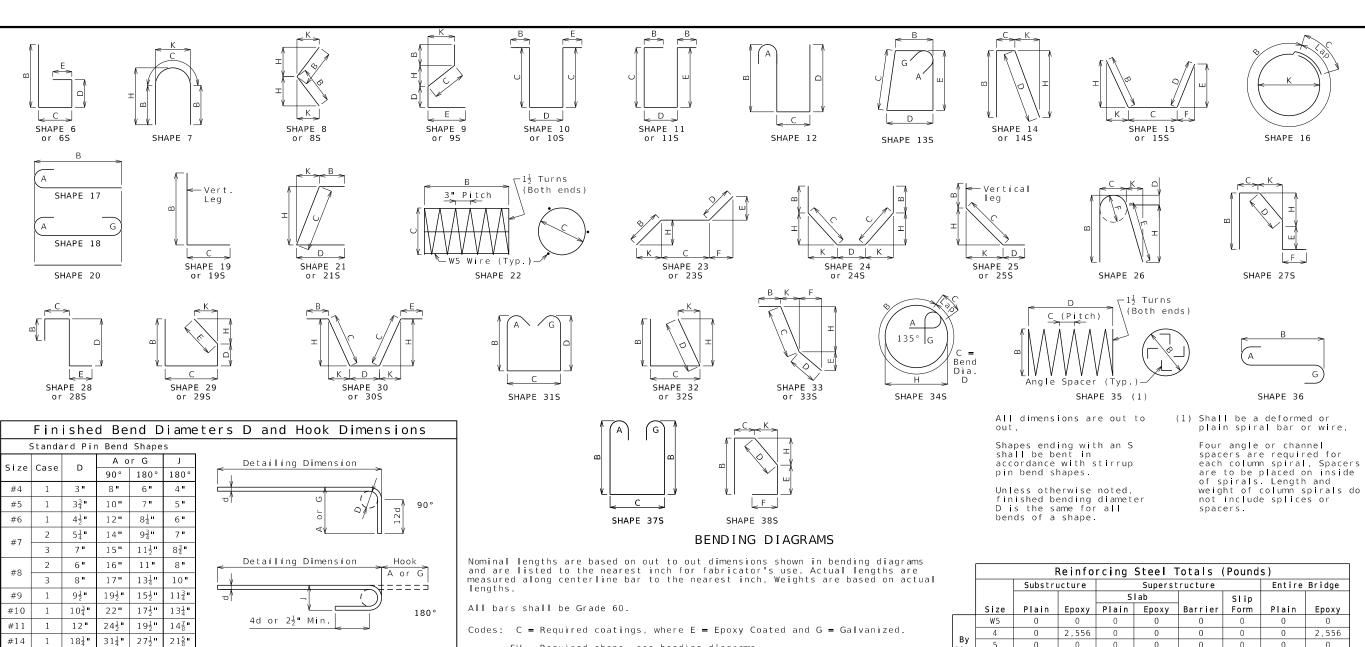
For bending diagram and quantity of Resin Anchor Systems, see Sheet No. 4.

Work this sheet with Sheet No. 2.



THIS SHEET HAS BEEN SIGNED, SEALED AND DATE FLECTROMICALLY 9/19/2025 I - 270 MO SHEET NO 3 BR ST. LOUIS J6I3618 PROJECT NO

		88	
DESCRIPTION			
DATE			
-		_	



SH = Required shape, see bending diagrams.

V = Sets of varied bars and number of bars of each length. Bar dimensions vary in equal increments between dimensions shown on this line and the following line and the actual length dimension shown on this line and the following line vary by the specified

	Reinforcing Steel Totals (Pounds)													
		Substr	ucture		Superst	Entire Bridge								
				S	lab		Slip							
	Size	Plain	Epoxy	Plain	Epoxy	Barrier	Form	Plain	Epoxy					
	W5	0	0	0	0	0	0	0	0					
<sub>B</sub> [	4	0	2,556	0	0	0	0	0	2,556					
By Size	5	0	0	0	0	0	0	0	0					
3126	6	0	0	0	0	0	0	0	0					
	7	0	0	0	0	0	0	0	0					
Ву	Туре	0	2,556	0	0	0	0	0	2,556					

All superstructure reinforcing steel shall be epoxy coated unless otherwise specified.

			<u> </u>	Bill of Reinforcing Steel Dimensions														T		т—				
No. Size/ Req. Mark L		Codes		В		С		D		E		5   F		Н		K		Nom. Length		Actual Length		Weight		
		Location	С	_	_	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.	ft	in.		in.	Ib
		Barrel Section																						
48	4 H100	COLLAR	E	20		45	7.000													45	7	45	7	1,462
531	4 5100	COLLAR	E	195	-		9.000		9.500											1	7	1	6	532
531	4 S101	COLLAR	E	195			17.000		3.000											1	8	1	7	562
																								-
			+	_								-		-				-						

## BENDING DIAGRAMS AND REINFORCING STEEL TOTALS

Hook

180°

#18

#4

Size Case

1 24"

D

3 "

2<del>1</del> "

Case 1 applies to all

galvanized bars only.

Designed April 2025 Detailed April 2025 Checked May 2025

3 3 3 3 4 "

 $41\frac{1}{2}$   $36\frac{1}{4}$ 

A or G

41 " 5 "

5<del>1</del>" 6 "

 $5\frac{3}{4}$ "  $5\frac{3}{4}$ "  $5\frac{3}{4}$ "  $6\frac{1}{4}$ "  $6\frac{1}{2}$ " 7"

90° 135° 180° 135°

Stirrup Pin Bend Shapes (S)

41 "

1  $4\frac{1}{2}$  12  $7\frac{3}{4}$  8 $\frac{1}{4}$ Applicable for all grades of steel

reinforcement. Case 2 applies to all reinforcement except for galvanized bars. Case 3 applies to

28½"

Н

27"

3"

35"

37"

1809

6d for #4 & #5, 12d for #6—

Detailing Dimension

4d or  $2\frac{1}{2}$  Min.

RYAN DAVID SHAW

9/19/2025

ST. LOUIS

J6I3618

PROJECT NO.

J08883

MO

SHEET NO

4

I - 270

BR