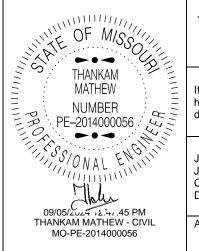
JOB SPECIAL PROVISIONS TABLE OF CONTENTS

(Job Special Provisions shall prevail over General Provisions whenever in conflict therewith.)

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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION 105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102

Phone 1-888-275-6636

If a seal is present on this sheet, JSP's have been electronically sealed and dated.

JOB NUMBER: JKU0044, JKU0069, JKU0069, JKU0435 CASS AND JACKSON COUNTY, MO DATE PREPARED: 8/5/2024

ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: $\ensuremath{\mathsf{ALL}}$

<u>JOB</u> SPECIAL PROVISION

A. General - Federal JSP-09-02K

- **1.0 Description.** The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.
- 1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.
- **1.2** The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2024 Missouri Standard Plans For Highway Construction

These supplemental bidding documents contain all current revisions to the published versions and have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

B. Contract Liquidated Damages

- **1.0 Description.** Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.
- **2.0 Period of Performance.** Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed Date: December 9, 2024 Contract Completion Date: November 1, 2025

2.1 Calendar Days and Completion Dates. Completion of the project is required as specified herein. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job Number	Calendar Days	Daily Road User Cost
JKU0044	26	\$1800
JKU0069	22	\$1800
JKU0265	32	\$1800
JKU0435	18	\$1800

- **3.0 Liquidated Damages for Contract Administrative Costs.** Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of \$750 per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.
- **4.0 Liquidated Damages for Road User Costs.** Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management

- **1.0 Description.** Work zone traffic management shall be in accordance with applicable portions of Division 100 and Division 600 of the Standard Specifications, and specifically as follows.
- 1.1 Maintaining Work Zones and Work Zone Reviews. The Work Zone Specialist (WZS) shall maintain work zones in accordance with Sec 616.3.3 and as further stated herein. The WZS shall coordinate and implement any changes approved by the engineer. The WZS shall ensure all traffic control devices are maintained in accordance with Sec 616, the work zone is operated within the hours specified by the engineer, and will not deviate from the specified hours without prior approval of the engineer. The WZS is responsible to manage work zone delay in accordance with these project provisions. When requested by the engineer, the WZS shall submit a weekly report that includes a review of work zone operations for the week. The report shall identify any problems encountered and corrective actions taken. Work zones are subject to unannounced inspections by the engineer and other departmental staff to corroborate the validity of the WZS's review and may require immediate corrective measures and/or additional work zone monitoring.
- **1.2 Work Zone Deficiencies.** Failure to make corrections on time may result in the engineer suspending work. The suspension will be non-excusable and non-compensable regardless if road user costs are being charged for closures.

2.0 Traffic Management Schedule.

- **2.1** Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.
- **2.2** The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height and weight restrictions.
- **2.3** The engineer shall be notified as soon as practical of any postponement due to weather, material or other circumstances.
- **2.4** In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.
- 2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

2.5.1 Traffic Safety.

- **2.5.1.1 Recurring Congestion.** Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.
- **2.5.1.2 Non-Recurring Congestion.** When traffic queues extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway infrequently, the contractor shall deploy a means of providing advance warning of the traffic congestion, as approved by the engineer. The warning location shall be no less than 1000 feet and no more than 0.5 mile in advance of the end of the traffic queue on divided highways and no less than 500 feet and no more than 0.5 mile in advance of the end of the traffic queue on undivided highways.

3.0 Work Hour Restrictions.

3.1 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day Labor Day

Thanksgiving Christmas New Year's Day

3.1.1 Independence Day. The lane restrictions specified in Section 3.1 shall also apply to Independence Day, except that the restricted periods shall be as follows:

When Independence Day falls on:	The Holiday is Observed on:	Halt Lane Closures beginning at:	Allow Lane Closures to resume at:
Sunday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Monday	Monday	Noon on Friday	6:00 a.m. on Tuesday
Tuesday	Tuesday	Noon on Monday	6:00 a.m. on Wednesday
Wednesday	Wednesday	Noon on Tuesday	6:00 a.m. on Thursday
Thursday	Thursday	Noon on Wednesday	6:00 a.m. on Friday
Friday	Friday	Noon on Thursday	6:00 a.m. on Monday
Saturday	Friday	Noon on Thursday	6:00 a.m. on Monday

3.2 The contractor shall not perform any construction operation on the roadway, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

4.0 Detours and Lane Closures.

- **4.1** When a changeable message sign (CMS) is provided, the contractor shall use the CMS to notify motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. If a CMS with Communication Interface is required, then the CMS shall be capable of communication prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.
- **4.2** At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.
- **5.0 Basis of Payment.** No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. Emergency Provisions and Incident Management

1.0 The contractor shall have communication equipment on the construction site or immediate access

to other communication systems to request assistance from law enforcement or other emergency agencies for incident management. In case of traffic accidents or the need for law enforcement to direct or restore traffic flow through the job site, the contractor shall notify law enforcement or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.

2.0 In addition to the 911 emergency telephone number for ambulance, fire or law enforcement services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol 816-622-0800							
City of Pleasant Hill	City of Peculiar	City of Lone Jack					
Fire: 816-540-9108 Fire: 816-779-5766 Fire: 816-697-2018							
Police: 816-540-9109	Police: 816-779-5102	Police: 816-697-2417					
Cass Cou	Cass County Sheriff Department 816-380-5200						
Jackson Co	ounty Sheriff Department 816-	541-8017					

- **2.1** This list is not all inclusive. Notification of the need for wrecker or tow truck services will remain the responsibility of the appropriate law enforcement agency.
- **2.2** The contractor shall notify law enforcement and emergency agencies before the start of construction to request their cooperation and to provide coordination of services when emergencies arise during the construction at the project site. When the contractor completes this notification with law enforcement and emergency agencies, a report shall be furnished to the engineer on the status of incident management.
- **3.0** No direct pay will be made to the contractor to recover the cost of the communication equipment, labor, materials or time required to fulfill the above provisions.

E. <u>Project Contact for Contractor/Bidder Questions</u>

All questions concerning this project during the bidding process shall be forwarded to the project contact listed below.

Thankam Mathew, Project Contact Kansas City District 600 NE Colbern Road Lee's Summit. MO 64086

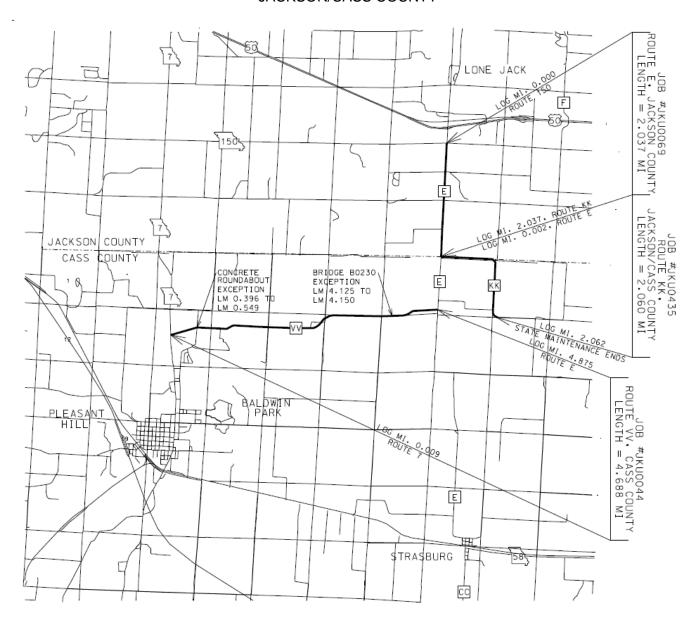
Telephone Number: 816-607-2047 Email: thankam.mathew@modot.mo.gov

All questions concerning the bid document preparation can be directed to the Central Office – Design at (573) 751-2876.

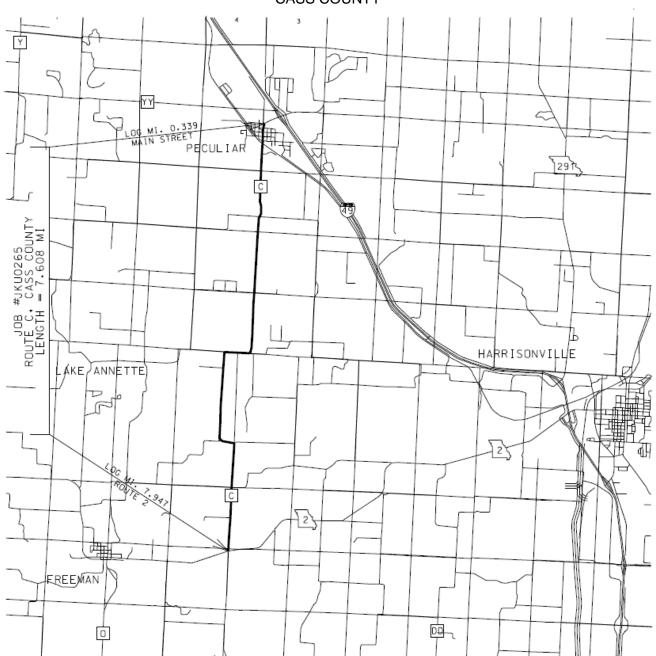
F. Project Details and Quantities

1.0 Description. This project consists of applying a plant mix bituminous pavement (surface leveling) as described here in. The project limits and total length of pavement limits are shown in the sketch below:

JACKSON/CASS COUNTY



CASS COUNTY

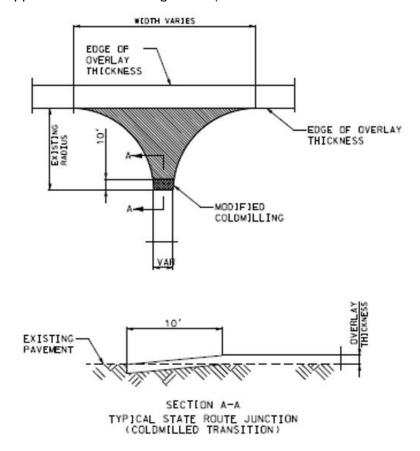


Pavement will not be placed at the following exception locations listed below:.

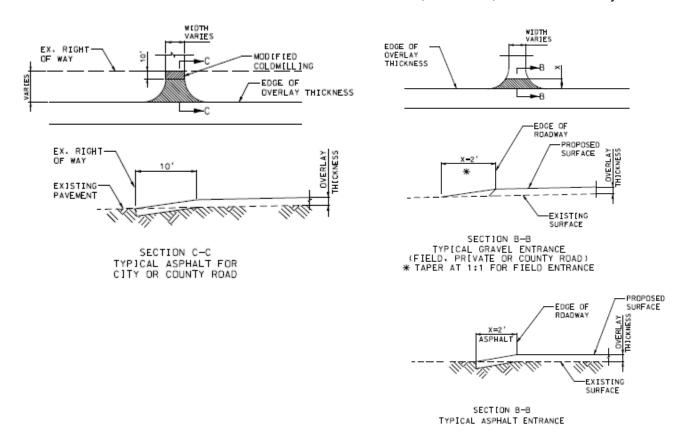
	EXCEPTIONS									
JOB	APPROX.	LOG MILE	DIRECTION	ROUTE	LENGTH	COMMENTS/BRIDGE NUMBERS				
NUMBER	FROM	ТО	EB/SB		(FT)	COMMENTS/BRIDGE NOMBERS				
JKU0044	0.396	0.549	EB	VV	808	CONCRETE ROUNDABOUT				
JKU0044	4.125	4.150	EB	VV	132	BRIDGE B0230				
				TOTAL	940					

2.0 Mix and Pavement Transitions.

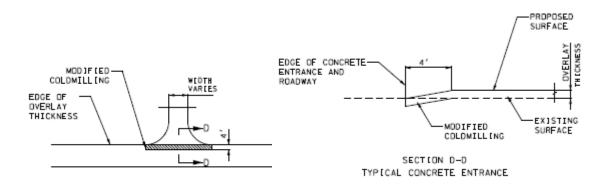
- **2.1** 1" Plant Mix Bituminous Surface PG 64-22 pavement shall be placed the entire width of the lanes, one pass per lane with no superelevation correction. Tack coat shall be applied at the rate of 0.08 gal/yd² the entire width of the traveled way for the length of the pavement limits.
- **2.2** Permanent Aggregate Edge Treatment shall be placed 2' wide and 3" deep in the locations shown in the quantities.
- **2.3** Depth transitions when beginning and ending at a state route shall be coldmilled at the rate of 1" in 25'. When beginning or ending mid-route, including exceptions, shall be coldmilled at the rate of 1" in 50'.
- **2.4** Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).



2.5 The bituminous pavement shall be tapered at entrances and non-state routes (see pavement taper details below).



2.6 The bituminous pavement shall be edge coldmill for concrete curb, entrances or non-state routes (see pavement taper details below).



- 3.0 Pavement and Coldmilling Quantities.
- **3.1** Pavement quantities are as follows:

				BITUMII	NOUS PAVEN	IENT MIXT	URE PG64-22 SURFAC	CE LEVELING
				AVERAGE	1.975	0.08	2 TONS/CY	
					TONS/CY	GAL/SY	PERMANENT	
APPROX.	LOG MILE		LENGTH	WIDTH	1"		AGGREGATE	25141242
		ROUTE			SURFACE	TACK	EDGE TREATMENT	REMARKS
					LEVELING	COAT	(INCL. ENTRANCES)	
FROM	то	1	(MI)	(FT)	(TONS)	(GAL)	(TONS)	
			. ,	, ,	JOB #JKU	0044 - ROL	JTE VV, CASS COUNTY	Y
0.009	0.051	VV EB	0.042	VARIES	64.0	93	-	FROM ROUTE 7 (INCL RADIUS) THRU RIGHT TURN LANE
0.051	0.098	VV EB	0.047	22	33.3	49	-	FROM RIGHT TURN LANE TO CURB SHOULDER
0.098	0.153	VV EB	0.055	VARIES	13.9	20	-	CURB SHOULDER
0.153	0.396	VV EB	0.243	22	172.4	251	-	FROM CURB SHOULDER TO CONCRETE ROUNDABOUT
0.396	0.549	VV EB	0.153	VARIES	0.0	0	-	CONCRETE ROUNDABOUT EXCEPTION
0.549	4.125	VV EB	3.576	22	2532.1	3692	-	FROM CONCRETE ROUNDABOUT TO BRIDGE B0230
4.125	4.150	VV EB	0.025	22	0.0	0	-	BRIDGE B0230 EXCEPTION
4.150	4.875	VV EB	0.725	22	526.3	768	-	FROM BRIDGE B0230 TO ROUTE E (INCL RADIUS)
0.959	1.062	VV EB	0.103	2	-		20	INSIDE OF CURVE
1.082	1.18	VV EB	0.098	2	-	-	19	INSIDE OF CURVE
2.498	2.699	VV EB	0.201	2	-	•	39	INSIDE OF CURVE
2.840	3.038	VV EB	0.198	2	-	•	39	INSIDE OF CURVE
4.258	4.379	VV EB	0.121	2	-	1	24	INSIDE OF CURVE
4.400	4.498	VV EB	0.098	2	-	•	19	INSIDE OF CURVE
					14.8	22	-	9 ASPHALT ENTRANCES/CROSSROADS
					-	,	48	65 GRAVEL ENTRANCES
					835.5	-	-	25% IRREGULARITIES
		JOB#	JKU0044 I	PAY TOTAL	4192.3	4895	208	

	JOB #JKU0069 - ROUTE E, JACKSON COUNTY									
0.000 0.047 E SB 0.047 28 42.4 62 18.4 FROM ROUTE 150										
0.047	2.037	E SB	1.990	22	1409.1	2055	778.3	TO ROUTE KK		
					20.3	41	-	6 ASPHALT ENTRANCES/CROSSROADS		
	362.9 25% IRREGULARITIES									
	JOB #JKU0069 PAY TOTAL 1834.5 2158 797									

	JOB #JKU0265 - ROUTE C, CASS COUNTY									
0.339	0.616	C SB	0.277	24	214.0	312	-	FROM MAIN ST TO PECULIAR DR		
0.616	7.947	C SB	7.331	21	4977.8	7258	-	FROM PECULIAR DR TO ROUTE 2 (INCL RADIUS)		
0.339	0.398	C SB	0.059	20	-	-	23.1	GRAVEL SHOULDERS		
0.404	0.429	C SB	0.025	8	-	-	9.7	GRAVEL SHOULDERS		
0.455	0.481	C SB LT	0.026	4	-	-	5.1	GRAVEL SHOULDERS		
0.491	0.611	C SB	0.120	20	-	-	46.9	GRAVEL SHOULDERS		
1.577	1.636	C SB	0.059	2	-	-	12	INSIDE OF CURVE		
1.636	1.737	C SB	0.101	2	-	-	20	INSIDE OF CURVE		
1.777	1.859	C SB	0.082	2	-	-	16	INSIDE OF CURVE		
1.879	1.938	C SB	0.059	2	-	-	12	INSIDE OF CURVE		
4.054	4.201	C SB	0.147	2	-	-	29	INSIDE OF CURVE		
4.479	4.595	C SB	0.116	2	-	-	23	INSIDE OF CURVE		
5.916	6.055	C SB	0.139	2	-	-	27	INSIDE OF CURVE		
6.115	6.277	C SB	0.162	2	-	-	32	INSIDE OF CURVE		
			·		271.9	496	-	36 ASPHALT ENTRANCES/CROSSROADS		
							41	56 GRAVEL ENTRANCES		
					1298.0	-	-	25% IRREGULARITIES		
	JOB #JKU0265 PAY TOTAL			6761.7	8066	297				

	JOB #JKU0435 - ROUTE KK, JACKSON COUNTY									
0.002	2.062	KK SB	2.060	21	1406.0	2050	-	FROM ROUTE E (INCL RADIUS) TO END OF MAINTENANCE		
						37	-	7 ASPHALT ENTRANCES/CROSSROADS		
					-	-	20	27 GRAVEL ENTRANCES		
				25% IRREGULARITIES						
		JOB #J	KU0435	PAY TOTAL						

3.2 Coldmilling Quantities are as follows:

MODIFIED COLDMILLING (DEPTH TRANSITIONS)									
APPRO	OX LOG			AVERAGE					
М	ILE	ROUTE	LENGTH	WIDTH	QUANTITY	REMARKS			
FROM	TO	1	(FT)	(FT)	(SY)				
JOB #JKU0044 - ROUTE VV, CASS COUNTY									
0.009	0.014	VV EB	25	VARIES	231	BEGINNING OF PROJECT			
0.014	0.051	VV EB LT	195	4	87	RIGHT TURN LANE AT CURB			
0.051	0.065	VV EB LT	73	4	32	CONCRETE ENTRANCE			
0.105	0.146	VV EB RT	216	4	96	CURB SHOULDER			
0.387	0.396	VV EB	50	22	122	CONCRETE ROUNDABOUT			
0.549	0.558	VV EB	50	22	122	CONCRETE ROUNDABOUT			
4.116	4.125	VV EB	50	22	122	BRIDGE B0230			
4.150	4.159	VV EB	50	22	122	BRIDGE B0230			
4.870	4.875	VV EB	25	VARIES	208	END OF PROJECT			
					111	9 ASPHALT ENTRANCES/CROSSROADS			
					136	11 CONCRETE ENTRANCES			
		JOB#	KU0044 I	PAY TOTAL	1253				
			JOB #JI	KU0069 - R	OUTE E, JAC	KSON COUNTY			
0.000	0.005	E SB	25	28	78	BEGINNING OF PROJECT			
2.032	2.037	E SB	25	22	61	END OF PROJECT			
					353	6 ASPHALT ENTRANCES/CROSSROADS			
					33	3 CONCRETE ENTRANCES			
		JOB #J	KU0069 I	PAY TOTAL	525				
			JOB :	#JKU0265 -	ROUTE C, C	ASS COUNTY			
0.339	0.344	C SB	25	24	67	BEGINNING OF PROJECT (MAIN ST)			
0.426	0.491	C SB RT	343	4	152	CURB FROM N. PECULIAR DR TO CENTER ST			
0.431	0.455	C SB LT	127	4	56	CURB AT CASEY'S DRIVEWAY			
0.665	0.683	C SB LT	95	4	42	CURB AT S. PECULIAR DR			
7.942	7.947	2 EB	25	104	289	END OF PROJECT			
					1082	36 ASPHALT ENTRANCES/CROSSROADS			
					351	8 CONCRETE ENTRANCES			
		JOB #J	IKU0265 I	PAY TOTAL	2039				
			JOB #JK	U0435 - RO	UTE KK, JAC	CKSON COUNTY			
0.002	0.005	KK SB	25	69	192	BEGINNING OF PROJECT			
2.057	2.062	KK SB	25	43	119	END OF PROJECT			
					162	7 ASPHALT ENTRANCES/CROSSROADS			
		JOB #J	KU0435 I	PAY TOTAL	473				

- **4.0 Temporary Traffic Control Plans.** See <u>Standard Plans 616.20</u> for standard temporary traffic control requirements.
- **4.1** Construction signs and channelizers are as follows:

		J	OB #JKU0	044 - CON	STRUCTIO	N SIGNING
SIGN			AREA		TOTAL	
NO.	SIGN	SIZE (in.)	(FT.2)	QTY.	AREA	DESCRIPTION
1*	G020-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	10	160	FLAGGER (SYMBOL)
11	W03-4	48 X 48	16	6	96	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	W08-12	48 X 48	16	5	80	NO CENTER LINE
36	W08-11	48 X 48	16	10	160	UNEVEN LANES
53	GO20-4	36 X 18	4.5	1	5	PILOT CAR FOLLOW ME
58	GO20-4a	42 X 30	8.75	4	35	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	6	9	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
	G022-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	W0817	48 X 48	16.00	5	80	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	5	25	SHOULDER DROP-OFF (PLAQUE)
					975	CONSTRUCTION SIGNS SUBTOTAL
			ITEM NO.	516-10.05	975	USE
			ITEM NO.	516-10.25	226	CHANNELIZERS (TRIM LINE)
* 15.1500	THAN TWA	O (2) MILE	C DELETE	CICNINO 1		

^{* -} IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
REFER TO STANDARD PLAN 619.10 FOR SIGN PLACEMENT OF WO8-17 AND WO8-17P

^{** -} ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

		J	OB #JKU0	069 - CON	STRUCTIO	N SIGNING
SIGN			AREA		TOTAL	
NO.	SIGN	SIZE (in.)	(FT.2)	QTY.	AREA	DESCRIPTION
1*	G020-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	10	160	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	10	160	FLAGGER (SYMBOL)
11	W03-4	48 X 48	16	6	96	BE PREPARED TO STOP
26	G020-2	48 X 24	8	2	16	END ROAD WORK
35	W08-12	48 X 48	16	2	32	NO CENTER LINE
36	W08-11	48 X 48	16	4	64	UNEVEN LANES
53	G020-4	36 X 18	4.5	1	5	PILOT CAR FOLLOW ME
58	GO20-4a	42 X 30	8.75	4	35	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	6	9	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
	G022-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	W0817	48 X 48	16.00	2	32	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	2	10	SHOULDER DROP-OFF (PLAQUE)
					768	CONSTRUCTION SIGNS SUBTOTAL
			ITEM NO.	616-10.05	768	USE
			ITEM NO.	616-10.25	226	CHANNELIZERS (TRIM LINE)
* 10.1000	THAN TW	O (2) MILE	DELETE C	SIGN NO. 1		·

^{* -} IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
REFER TO STANDARD PLAN 619.10 FOR SIGN PLACEMENT OF WO8-17 AND WO8-17P

^{** -} ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

	JOB #JKU0265 - CONSTRUCTION SIGNING										
SIGN	AREA		AREA	TOTAL							
NO.	SIGN	SIZE (in.)	(FT.2)	QTY.	AREA	DESCRIPTION					
1*	G020-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES					
2**	W020-1	48 X 48	16	20	320	ROAD WORK AHEAD					
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD					
8	WO20-7a	48 X 48	16	20	320	FLAGGER (SYMBOL)					
11	W03-4	48 X 48	16	16	256	BE PREPARED TO STOP					
26	G020-2	48 X 24	8	2	16	END ROAD WORK					
35	W08-12	48 X 48	16	8	128	NO CENTER LINE					
36	W08-11	48 X 48	16	16	256	UNEVEN LANES					
53	GO20-4 36 X 18 4.5 1		1	5	PILOT CAR FOLLOW ME						
58	GO20-4a	GO20-4a 42 X 30 8.		4	35	PILOT CAR IN USE WAIT & FOLLOW					
58	GO20-4a	18 X 12	1.5	16	24	PILOT CAR IN USE WAIT & FOLLOW					
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE					
	G022-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)					
	W0817	48 X 48	16.00	8	128	SHOULDER DROP-OFF (SYMBOL)					
·	W08-17P	30 X 24	5.00	8	40	SHOULDER DROP-OFF (PLAQUE)					
·		·			1677	CONSTRUCTION SIGNS SUBTOTAL					
			ITEM NO.	616-10.05	1677	USE					
			ITEM NO.	616-10.25	496	CHANNELIZERS (TRIM LINE)					
* 15150		30 X 24	5.00 ITEM NO.	8 616-10.05 616-10.25	40 1677 1677	SHOULDER DROP-OFF (PLAQUE) CONSTRUCTION SIGNS SUBTOTAL USE					

^{* -} IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.
REFER TO STANDARD PLAN 619.10 FOR SIGN PLACEMENT OF WO8-17 AND WO8-17P

^{** -} ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED BY ENGINEER.

JOB #JKU0435 - CONSTRUCTION SIGNING									
SIGN			AREA		TOTAL				
NO.	SIGN	SIZE (in.)	(FT.2)	QTY.	AREA	DESCRIPTION			
1*	G020-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES			
2**	WO20-1	48 X 48	16	7	112	ROAD WORK AHEAD			
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD			
8	WO20-7a	48 X 48	16	7	112	FLAGGER (SYMBOL)			
11	W03-4	48 X 48	16	3	48	BE PREPARED TO STOP			
26	GO20-2 48 X 24 8		2	16	END ROAD WORK				
35	W08-12 48 X 48		16	2	32	NO CENTER LINE			
36	W08-11 48 X 48 16		16	4	64	UNEVEN LANES			
53	G020-4	36 X 18	4.5	1	5	PILOT CAR FOLLOW ME			
58	GO20-4a)20-4a 42 X 30 8.75		4	35	PILOT CAR IN USE WAIT & FOLLOW			
58	GO20-4a	GO20-4a 18 X 12 1.5 3		3	5	PILOT CAR IN USE WAIT & FOLLOW			
59	CONST-8 48 X 36 12 2		2	24	WORK ZONE NO PHONE ZONE				
	GO22-1 21 X 15 2.19 4				9	WET PAINT (ARROW PIVOTS)			
	W0817	48 X 48	16.00	2	32	SHOULDER DROP-OFF (SYMBOL)			
WO8-17P 30 X 24 5.00 2 10 SHOULDER DROP-OFF (PLAQUE)									
620 CONSTRUCTION SIGNS SUBTOTAL									
ITEM NO. 616-10.05 620 USE									
ITEM NO. 616-10.25 145 CHANNELIZERS (TRIM LINE)									
* - IF LESS THAN TWO (2) MILES, DELETE SIGN NO. 1.									
** - ADDITIONAL SIGN NO. 2 USED AS SHOWN ON TRAFFIC CONTROL SHEET 3 OF 5 AND AS DIRECTED									

^{4.2} Mobilization is as follows:

JOB #JKU0044									
ITEM NO. QTY. DESCRIPTION									
618-10.00	LUMP SUM	MOBILIZATION							
JOB #JKU0069									
ITEM NO. QTY. DESCRIPTION									
618-10.00	LUMP SUM	MOBILIZATION							
JOB #JKU0265									
ITEM NO. QTY. DESCRIPTION									
618-10.00	LUMP SUM	MOBILIZATION							
JOB #JKU0435									
ITEM NO.	ITEM NO. QTY. DESCRIPTION								
618-10.00	LUMP SUM	MOBILIZATION							

REFER TO STANDARD PLAN 616.10 AND 903.03 FOR SIGN AND SIGN MOUNTING REQUIREMENTS.

REFER TO STANDARD PLAN 619.10 FOR SIGN PLACEMENT OF WO8-17 AND WO8-17P

5.0 Pavement Marking. Pavement marking quantities are as follows:

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS									
JOB	APPROX. LOG MILE				4" INT.	4" SOLID	4" SOLID	24" DIAGONAL	
NUMBER	AFF	NOX. LOG I	VIILE	LENGTH	YELLOW	YELLOW	WHITE	YELLOW	REMARKS
	FROM	1 TO ROUTE		(FT)	LF	LF	LF	LIN FT	
JKU0044	0.009 4.875 VV EB 25692 1941 4		40688	51385	-	ROUTE VV			
JKU0044	0.396	0.549	VV EB	808	0	2512	2515	88	CONCRETE ROUNDABOUT LIMITS
JOB #JKU0044 F			PAY TOTAL	45141		53900	88		
JKU0069	0.000	2.037	E EB	10755	1964	11980	21511	-	
		JOB #JKU0069 PAY TOTAL			13944		21511	-	
JKU0265	0.339	7.947	C SB	40170.24	5819	55118	80340	-	
		JOB #JKU0265 PAY TOTAL			60937		80340	-	
JKU0435	0.002	2.062	KK EB	10887	1348	16171	0	-	
JOB #JKU0435 PAY			PAY TOTAL	17	519	0	-		

	PAVEMENT MARKING - PREFORMED THERMOPLASTIC PAVEMENT MARKING									
	ROUTE	LOG	LOG	4" SOLID	4" SOLID 4" INT		LEFT/RIGHT	REMARKS		
JOB		MILE	MILE	WHITE	WHITE	WHITE	ARROW			
NUMBER						MIDBLOCK				
				LIN FT	LIN FT	EACH	EACH			
JKU0044	VV EB	0.009	0.051	226	0	0	1	RIGHT TURN LANE AT ROUTE 7		
JKU0044	VV EB	0.396	0.549	0	52	6	0	ACROSS DRIVING LANES AT CONCRETE		
	JOB #JKU0044 SUBTOTAL			226	52	6	1	ROUNDABOUT		
	JOB #JKU0044 PAY TOTAL			278		6	1			
JKU0265	C SB	0.470	-	-	-	7	-	NORTHSIDE OF CENTER ST		
JKU0265	C SB	0.537	-	-	-	7	-	NORTHSIDE OF BROADWAY ST		
JKU0265	C SB	0.681	-	-	-	5	-	SOUTHSIDE OF PECULIAR DR.		
	JOB #JJKU0265 SUBTOTAL				0	19	0			
	JOB #JKU0265 PAY TOTAL)	19	0			

G. Supplemental Revisions JSP-18-01CC

Compliance with <u>2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance</u> Services or Equipment.

The Missouri Highways and Transportation Commission shall not enter into a contract (or extend or renew a contract) using federal funds to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as substantial or as critical technology as part of any system where the video surveillance and telecommunications equipment was produced by Huawei Technologies Company, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

Stormwater Compliance Requirements

1.0 Description. This provision requires the contractor to provide a Water Pollution Control Manager (WPCM) for any project that includes land disturbance on the project site and the total area of land disturbance, both on the project site, and all Off-site support areas, is one (1) acre or more. Regardless of the area of Off-site disturbance, if no land disturbance occurs on the project site, these provisions do not apply. When a WPCM is required, all sections within this provision shall be applicable, including assessment of specified Liquidated Damages for failure to correct Stormwater Deficiencies, as specified herein. This provision is in addition to any other stormwater, environmental, and land disturbance requirements specified elsewhere in the contract.

- **1.1 Definitions.** The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.
- **1.2 Reporting of Off-Site Land Disturbance.** If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.
- **2.0 Water Pollution Control Manager (WPCM).** The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

- (a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;
- (b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;
- (c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;
- (d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the engineer;
- (e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;
- (f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected as soon as possible, but no later than stated in Section 5.0.
- **3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point.** A Pre-Activity meeting for grading/land disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity meeting except work necessary

to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

- **3.1 Hold Point.** Following the pre-activity meeting for grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.
- **4.0 Inspection Reports.** Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).
- **5.0 Stormwater Deficiency Corrections.** All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.
- **5.1 Liquidated Damages.** If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines, and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.
- **6.0** Basis of Payment. No direct payment will be made for compliance with this provision.

Delete Sec 106.9 in its entirety and substitute the following:

106.9 Buy America Requirements.

Buy America Requirements are waived if the total amount of Federal financial assistance applied to the project, through awards or subawards, is below \$500,000.

106.9.1 Buy America Requirements for Iron and Steel.

On all federal-aid projects, the contractor's attention is directed to Title 23 CFR 635.410 *Buy America Requirements*. Where steel or iron products are to be permanently incorporated into the contract work, steel and iron material shall be manufactured, from the initial melting stage through the application of coatings, in the USA except for "minimal use" as described herein. Furthermore, any coating process of the steel or iron shall be performed in the USA. Under a general waiver from FHWA the use of pig iron

and processed, pelletized, and reduced iron ore manufactured outside of the USA will be permitted in the domestic manufacturing process for steel or iron material.

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.

A manufactured item will be considered iron and steel if it is "predominantly" iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

- **106.9.2** Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.
- **106.9.3** "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or \$2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.
- **106.9.4** Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.
- **106.9.4.1** Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.
- **106.9.4.2** Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.
- **106.9.4.3** Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would

be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

106.9.5 When permitted in the contract, alternate bids may be submitted for foreign steel and iron products. The award of the contract when alternate bids are permitted will be based on the lowest total bid of the contract based on furnishing domestic steel or iron products or 125 percent of the lowest total bid based on furnishing foreign steel or iron products. If foreign steel or iron products are awarded in the contract, domestic steel or iron products may be used; however, payment will be at the contract unit price for foreign steel or iron products.

106.9.6 Buy America Requirements for Construction Materials other than iron and steel materials. Construction materials means articles, materials, or supplies that consist of only one of the items listed. Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. Upon request by the engineer, the contractor shall submit a domestic certification for all construction materials listed that are incorporated into the project.

- (a) Non-ferrous metals
- (b) Plastic and Polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables)
- (c) Glass (including optic glass)
- (d) Fiber optic cable (including drop cable)
- (e) Optical fiber
- (f) Lumber
- (g) Engineered wood
- (h) Drywall

106.9.6.1 Minimal Use allowance for Construction Materials other than iron or steel.

"The total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project." The contractor shall submit to the engineer any non-domestic materials and their total material cost to the engineer. The contractor and the engineer will both track these totals to assure that the minimal usage allowance is not exceeded.

106.9.7 Buy America Requirements for Manufactured Products.

Manufactured products means:

- (a) Articles, materials, or supplies that have been:
 - (i) Processed into a specific form and shape; or
 - (ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.
- (b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

- **106.9.7.1** Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.
- **106.9.7.2** Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

Pavement Marking Paint Requirements for Standard Waterborne and Temporary

- **1.0 Description.** High Build acrylic waterborne pavement marking paint shall be used in lieu of standard acrylic waterborne pavement marking paint for all Standard Waterborne Pavement Marking Paint items and all Temporary Pavement Marking Paint items. Paint thickness, bead type, bead application rate, retroreflectivity requirements, and all other specifications shall remain as stated in the Missouri Standard Specifications for Highway Construction, except as otherwise amended in the contract documents.
- **2.0 Material Requirements.** Material requirements for Sec 620.20.2.5 Standard Waterborne Paint, and Sec 620.10.2 Temporary Pavement Marking Paint shall be per Sec 1048.20.1.2 High Build Acrylic Waterborne Pavement Marking Paint.
- H. Contractor Quality Control for Plant Mix Bituminous Surface Leveling NJSP-15-21A
- **1.0 Description.** The contractor shall provide Quality Control (QC) testing and shall perform verification procedures associated with the production and placement of Plant Mix Bituminous Surface Leveling Mixture in accordance with this provision.
- **2.0 Asphalt Plant Requirements.** The contractor shall perform quality control testing in the production of the Surface Leveling Mixture and report the results electronically on MoDOT-provided forms. All reports shall include the Contract ID, Project Number, Route, County, and Job Mix number.
- **2.1** Calibration of the asphalt plant shall be in accordance with Sec 403.17.2.2. Record retention for verification of test reports shall be in accordance with Sec 403.17.3.2.
- **2.2** At a minimum, the contractor shall perform one QC sieve analysis test for each day of production of Surface Level mixture in excess of 100 tons to verify the aggregate is within the required gradation range. Results of the QC sieve analysis test shall be reported to the engineer daily. A split of each sample shall be clearly labeled and stored by the contractor in a manner that prevents contamination. The engineer will collect a minimum of one random QC split sample, and one full sample from plant production, for testing per each 10,000 tons of production. Uncollected QC split samples shall be retained by the contractor until the engineer authorizes disposal or until the Final Inspection, whichever occurs earlier.
- **2.3** The contractor shall monitor the quantity of asphalt binder used in the production of the mix, including any commercial mix, and report that quantity to the engineer. Original asphalt binder delivery tickets shall accompany the report submitted to the engineer. The engineer will perform a minimum of one asphalt binder content test per each 10,000 tons of production for any project that exceeds a total of 5,000 tons of production.

- **2.4** The contractor shall take a daily QC sample of the asphalt binder per instructions in Section 460.3.13 of the EPG. The engineer will collect the QC samples and ship to the MoDOT Central lab for random testing. In addition, the engineer will take a minimum of one random Quality Assurance sample per project from the binder line. The engineer sample will be shipped to the Central Lab along with the daily samples and will be designated for testing.
- **2.5** The contractor shall perform one moisture content test for each day of production of Surface Level mixture in excess of 100 tons. The frequency of the moisture test may be reduced if approved by the engineer.
- **3.0 Roadway Requirements.** The contractor shall perform quality control verification of the Surface Leveling Mixture on the roadway and shall monitor the asphalt tonnage placed in relation to plan quantity.
- **3.1 Irregularities.** Additional tons of Surface Leveling mix will be provided for irregularities in the existing roadway surface. The tonnage specified for irregularities is an estimated quantity and shall only be placed at locations where it is necessary to fill ruts and other low points. Prior to placing the mix, the contractor and engineer shall evaluate the entire route and develop a plan that best utilizes the tonnage needed for irregularities. Any excess quantity of irregularities shall not be placed.
- **3.2 Tack.** On the first day of production, the contractor shall demonstrate proper application of tack coat in the presence of the engineer. Thereafter, when the engineer is not present to witness the application of the tack coat, the contractor shall document the tack application by taking a minimum of two high-resolution date/time stamped photographs of the tacked surface per one-mile segment. Pictures should be taken just in front of the paver in order to account for loss of tack from truck tires. The contractor shall also monitor and document the application rate. The contractor shall take distributor readings at the beginning and ending of each shift and document the quantity used.
- **3.3 Spreading and Rolling.** On the first day of production, the contractor shall demonstrate successful spreading and compaction of the mixture, including proper rolling patterns, in the presence of the engineer. Thereafter, the contractor shall monitor all roadway production procedures and document daily. Use of approved Intelligent Compaction technology is an allowable substitute for daily documentation.
- **3.4 Monitoring of Quantity.** The contractor shall monitor the quantity of Surface Level mix placed and report that information to the engineer and production staff as specified herein.
- **3.4.1** The contractor shall verify that the quantity of Surface Leveling mix in the contract for each route is sufficient to cover the roadway as shown on the typical sections, including any surface irregularities. Any discrepancies shall be brought to the engineer's attention in writing prior to the pre-construction conference. Plan quantity shall be defined as the total tons computed to cover the surface area according to the typical section, plus any amount pre-approved by the engineer for pavement irregularities.
- **3.4.2** The contractor shall provide temporary log mile reference points at no less than ½ mile intervals along each route to monitor the tons of Surface Leveling mix laid in relation to plan quantity. Entrances, shoulders, or other irregular areas will be monitored as directed by the engineer.
- **3.4.3** During production, the contractor shall document the total tons placed in each one-mile segment, along with the plan quantity and the percent over/under for that segment. The cumulative quantity and percent over/under for the route should also be documented. After each one-mile segment, the contractor shall provide a status report to the production manager and the engineer. When the engineer is not present on the project, the contractor shall send an electronic status report to the engineer.

- **3.4.4** The goal is to keep the placed quantity within 2% of plan quantity for the project. The engineer will monitor the status reports and will advise the contractor on how to proceed when there is an excessive variance from plan quantity. The engineer may decrease the frequency of the electronic status reports when the variances are consistently low.
- **3.4.5** The contractor shall collect asphalt tickets from the delivery trucks and group them per each one-mile segment. The contractor shall submit to the engineer a daily summary report that includes all of the information specified in Section 3.4.3. The contractor shall sign the summary report confirming that the information is accurate and that the attached tickets represent the asphalt material placed.
- **3.4.6** The contractor shall be equipped with a contractor-furnished cellular device capable of providing and maintaining a reliable means of immediate communication with the engineer when the engineer is not present on the project.
- **4.0 Excessive Quantity.** If the contractor places Surface Level mix on any one-mile segment, or any other isolated areas, in excess of plan quantity by 5% or more, without prior approval from the engineer, further investigation may be required to determine if the excess was warranted. If directed by the engineer, the contractor shall core the pavement at locations established by the engineer to determine the amount that was excessive, if any. No payment will be made for the cost to core the pavement or for the tons of Surface Level mix that the engineer determines to be excessive. If the amount of Surface Level mix is determined to be justified, payment will be made for the mix, and for the cost of coring at the fixed price established in Sec 109. Placement of asphalt in excess of plan quantity for two consecutive segments without prior approval from the engineer may result in issuance of an Order Record to stop work.
- **5.0 Basis of Payment.** No direct payment will be made for compliance with this provision. All costs shall be considered completely covered under the pay items provided in the contract.

I. Bridge End Transitions

1.0 At all bridge exceptions, the engineer will determine in the field the ending point of the transition. This point will not necessarily be at the bridge end, but will be located at a point which provides the smoothest transition and approach to the bridge. Where bridges are to be resurfaced, the surfacing shall be from curb to curb.

J. Pavement Marking Log

- **1.0 Description.** The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement marking at the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.
- **2.0 Basis of Payment.** No direct payment will be made for logging of existing pavement marking.

- K. Permanent Aggregate Edge Treatment NJSP-15-40B
- **1.0 Description.** This work shall consist of furnishing and installing a permanent aggregate edge treatment along the edge of shoulder or pavement as shown on the plans or as directed by the engineer.
- **2.0 Construction Requirements.** Aggregate shall be simultaneously deposited and spread on the subgrade and shall not be deposited on the pavement or shoulder and bladed into place. Aggregate material shall be shaped according to the typical section and compacted until there is no visible evidence of further consolidation.
- **3.0 Material Requirements.** Material used for the aggregate edge treatment shall be Type 1, 5, or 7 Aggregate in accordance with Sec 1007 or an allowable substitute approved by the engineer. Bituminous cold millings meeting the gradation for Type 1, 5 or 7 Aggregate may be used in lieu of aggregate. Limestone screenings or other material with excessive fines will not be allowed. Material will be accepted based on certification in lieu of testing contingent upon satisfactory results being obtained in the field.
- **4.0 Measurement by Weight.** Measurement of the aggregate edge treatment material shall be per ton and in accordance with Sec 310.5.3.
- **5.0 Basis of Payment.** The accepted quantities of aggregate edge treatment will be paid for at the contract unit price for 304-99.10, Permanent Aggregate Edge Treatment, per ton and will be full compensation for all labor, equipment and material to complete the described work. No fuel adjustment will be made for Permanent Aggregate Edge Treatment.