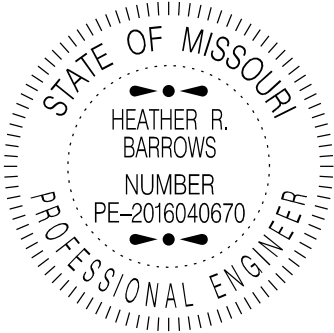


Job No.: JKRM0042
Route: D, FF
County: LAFAYETTE

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

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

A.	General – State JSP-09-03J	1
B.	Contract Liquidated Damages JSP-13-01C	1
C.	Work Zone Traffic Management JSP-02-06N	2
D.	Emergency Provisions and Incident Management JSP-90-11A	5
E.	Project Contact for Contractor/Bidder Questions JSP-96-05	5
F.	Supplemental Revisions JSP-18-01Z	6
G.	Contractor Quality Control for Plant Mix Bituminous Surface Leveling NJSP-15-21A	14
H.	Bridge End Transitions	16
I.	Pavement Marking Log	16
J.	Multi-Year, Multi-Location Project – Special Requirements NJSP-22-02	16
K.	Add Alternate Sections JSP-12-03A	18
L.	Permanent Aggregate Edge Treatment NJSP-15-40B	19

 <p>09/01/2023 2:08:43 PM HEATHER R. BARROWS - CIVIL MO-PE-2016040670</p>	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: JKRM0042 LAFAYETTE COUNTY, MO DATE PREPARED: 07/12/2023
	ADDENDUM DATE:
Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: ALL	

JOB
SPECIAL PROVISION

A. General – State JSP-09-03J

1.0 Description. The Federal Government is not participating in the cost of construction of this project.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of worker required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations. The current State Wage Rates can be found on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources" for the applicable bid opening. This supplemental bidding document has 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.

State Wage Rates

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 2023 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 JSP-13-01C

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 (job numbers) shall be completed on or before the Contract Completion date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed Date: December 4th, 2023
Contract Completion Date: November 1st, 2024

Job No.: JKRM0042
Route: D, FF
County: LAFAYETTE

2.1 Calendar Days. 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
JKRM0042	N/A	\$1,800

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 **\$2000** 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 above 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 JSP-02-06N

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, roadbed or active lanes, 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

Job No.: JKRM0042
Route: D, FF
County: LAFAYETTE

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 JSP-90-11A

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 1-800-525-5555		
City of Oak Grove	City of Odessa	City of Wellington-Napoleon
Fire: 816-690-3773	Fire: 816-633-7575	Fire: 816-934-2330
Police: 816-690-6990	Police: 816-633-7182	Police: 816-240-8429

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. Project Contact for Contractor/Bidder Questions JSP-96-05

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

Heather Barrows, P.E., Project Contact
Transportation Project Manager
Kansas City District
600 NE Colbern Rd
Lee's Summit, MO 64086

Telephone Number: 816-607-2209

Job No.: JKRM0042
Route: D, FF
County: LAFAYETTE

Email: heather.barrows@modot.mo.gov

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

F. Supplemental Revisions JSP-18-01Z

Compliance with [2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance 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

Job No.: JKRM0042
Route: D, FF
County: LAFAYETTE

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.

Anti-Discrimination Against Israel Certification

By signing this contract, the Company certifies it is not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel, companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel, or persons or entities doing business in the State of Israel as defined by Section 34.600 RSMo. This certification shall not apply to contracts with a total potential value of less than One Hundred Thousand Dollars (\$100,000) or to contractors with fewer than ten (10) employees.

Ground Tire Rubber (GTR) Dry Process Modification of Bituminous Pavement Material

1.0 Description. This work shall consist of the dry process of adding ground tire rubber (GTR) to modify bituminous material to be used in highway construction. Existing GTR requirements in Section 1015 pertain to the wet process method of GTR modification that blends GTR with the asphalt binder (terminal blending or blending at HMA plant). The following requirements shall govern for dry process GTR modification. The dry process method adds GTR as a fine aggregate or mineral filler during mix production. All GTR modified asphalt mixtures shall be in accordance with Secs 401, 402, or 403 as specified in the contract; except as revised by this specification.

2.0 Materials. The contractor shall furnish a manufacturer's certification to the engineer for each shipment of GTR furnished stating the name of the manufacturer, the chemical composition, workability additives, and certifying that the GTR supplied is in accordance with this specification.

2.1 Product Approval. The GTR product shall contain a Trans-Polyoctenamer (TOR) added at 4.5 % of the weight of the crumb rubber or an engineered crumb rubber (ECR) workability additive that has proven performance in Missouri. Other GTR additives shall be demonstrated and proven prior to use such as a five-year field performance history in other states or performance on a federal or state-sanctioned accelerated loading facility.

2.2 General. GTR shall be produced from processing automobile or truck tires by ambient or cryogenic grinding methods. Heavy equipment tires, uncured or de-vulcanized rubber will not be permitted. GTR shall also meet the following material requirements:

Table 1 – GTR Material Properties		
Property	Test Method	Criteria
Specific Gravity	ASTM D1817	1.02 to 1.20
Metal Contaminates	ASTM D5603	$\leq 0.01\%$
Fiber Content	ASTM D5603	$\leq 0.5\%$
Moisture Content	ASTM D1509	$\leq 1.0\%^*$
Mineral Filler	AASHTO M17	$\leq 4.0\%$

*Moisture content of the GTR shall not cause foaming when combined with asphalt binder and aggregate during mix production

2.3 Gradation. The GTR material prior to TOR or ECR workability additives shall meet the following gradation and shall be tested in accordance with ASTM D5603 and ASTM D5644.

Table 2 – GTR Gradation	
Sieve	Percent Passing by Weight
No. 20	100
No. 30	98-100
No. 40	50-70
No. 100	5-15

3.0 Delivery, Storage, and Handling. The GTR shall be supplied in moisture-proof packaging or other appropriate bulk containers. GTR shall be stored in a dry location protected from rain before use. Each bag or container shall be properly labeled with the manufacturer's designation for the GTR and specific type, mesh size, weight and manufacturer's batch or Lot designation.

4.0 Feeder System. Dry Process GTR shall be controlled with a feeder system using a proportioning device that is accurate to within ± 3 percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

Flow indicators or sensing devices for the system shall be interlocked with the plant controls to interrupt mixture production if GTR introduction rate is not within ± 3 percent. This interlock will immediately notify the operator if GTR introduction rate exceeds introduction tolerances. All plant production will cease if the introduction rate is not brought back within tolerance after 30 seconds. When the interlock system interrupts production and the plant has to be restarted, upon restarting operations; the modifier system shall run until a uniform feed can be observed on the output display. All mix produced prior to obtaining a uniform feed shall be rejected.

4.1 Batch Plants. GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations.

4.2 Drum Plants. The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

5.0 Testing During Mixture Production. Testing of asphalt mixes containing GTR shall not begin until at least 30 minutes after production or per additive supplier's recommendation.

6.0 Construction Requirements. Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.

7.0 Mix Design Test Method Modification. A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be

prepared and fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.

8.0 Mix design Volumetrics. Mix design volumetric equations shall be modified as follows:

8.1 Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder

8.2 GTR shall be included as part of the aggregate when calculating VMA of the mix.

8.2.1 GTR SPG shall be 1.15

8.3 Mix G_{sb} used to determine VMA shall be calculated as follows:

$$G_{sb (JMF)} = \frac{(100 - P_{bmv})}{\left(\frac{P_s}{G_{sb}} + \frac{P_{GTR}}{G_{GTR}}\right)}$$

where:

$G_{sb (JMF)}$ = bulk specific gravity of the combined aggregate including GTR

P_{bmv} = percent virgin binder by total mixture weight

P_s = percent aggregate by total mixture weight (not including GTR)

P_{GTR} = percent GTR by total mixture weight

G_{sb} = bulk specific gravity of the combined aggregate (not including GTR)

G_{GTR} = GTR specific gravity

8.4 G_{se} shall be calculated as follows:

$$G_{se} = \frac{(100 - P_b - P_{GTR})}{\left(\frac{100}{G_{mm}} - \frac{P_b}{G_b} - \frac{P_{GTR}}{G_{GTR}}\right)}$$

8.5 P_{be} shall be calculated as follows:

$$P_{be} = P_b - \frac{P_{ba}}{100} * (P_s + P_{GTR})$$

9.0 Minimum GTR Amount. The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

Contract Binder Grade	Percent Effective Virgin Binder Replacement Limits	Required Virgin Binder Grade	Minimum GTR Dosage Rate
PG 76-22	0 - 20	PG 70-22	5 %
		PG 64-22	10 %
PG 70-22	0 - 30	PG 64-22	5 %
		PG 58-28	10 %
PG 64-22	0 – 40*	PG 58-28	5 %
		PG 52-34	10 %
PG 58-28	0 – 40*	PG 52-34	5 %
		PG 46-34	10 %

* Reclaimed Asphalt Shingles (RAS) may be used when the contract grade is PG 64-22 or PG 58-28. RAS replacement shall follow the 2 x RAS criteria when calculating percent effective binder replacement in accordance Sec 401.

Buy America

In addition to Section 106.9 of the Missouri Standard Specifications for Highway Construction, the following requirements will also be in effect for this project.

1.0 Description. The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:

- Iron and steel – no changes to the current specification requirements.
- Manufactured products – these are currently exempted under the 1983 waiver from FHWA.

c) Construction materials consisting primarily of:

- Non-ferrous metals;
- Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
- Glass (including optic glass);
- Lumber; or
- Drywall

1.1 All products and or materials will only be classified under one of these categories and not under multiple categories. It is the prime contractor's responsibility to assure all submittals required for Buy America are submitted to the Engineer prior to the products and or materials being incorporated in the job. The implementation of this policy will be in effect for all projects awarded after November 10, 2022.

1.2 New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form ([link to certificate form](#)) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.

1.3 Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.

1.4 The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

2.0 Basis of Payment. Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum subplot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in

accordance with [Sec 403.23.7.4.1](#). A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with [Sec 403.11](#).

G. 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 EPG 460.3.13. 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.

H. 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.

I. 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.

J. Multi-Year, Multi-Location Project – Special Requirements NJSP-22-02

1.0 Description. Whereas this project is identified by a single Job Number, and the project requires work be performed at multiple Locations, and the contract allows for work to be performed in multiple calendar years, these special requirements and allowances shall apply. A Location is generally identified in the contract or plans by Route and County but may be otherwise identified.

2.0 Winter Shut-Down Period. A Winter Shut-Down Period is required if all work on the project is not completed prior to December 1 of the calendar year in which the Notice to Proceed is made. The date

range of the Winter Shut-Down Period shall be determined by the contractor and shall be shown on the contractor's most current Progress Schedule. The contractor's designated Winter Shut-Down Period shall begin no later than December 1 of the calendar year in which the Notice to Proceed is made and shall end on or after March 15 of the following year. No work shall be performed during the Winter Shut-Down Period, except for maintenance work that may be required per Sec 104.7 or 105.13 unless approved by the Engineer. Regardless of the length of the Winter Shut-Down Period, all work shall be complete prior to the contract Completion Date. All weather limitations specified elsewhere in the contract shall apply.

3.0 Completion of Work per Location. This contract includes work at multiple Locations, with non-contiguous project limits defined at each Location. Once work begins at a Location, the contractor shall diligently pursue completion of the work at that Location until all work is complete. If work at a Location begins prior to the Winter Shut-Down Period, all work at that Location shall be fully completed prior to the Winter Shut-Down Period, including permanent or temporary pavement marking. Work shall not begin at a Location if the long-range forecast is not conducive for completion of all work at that Location prior to the Winter Shut-Down Period.

3.1 Partial Acceptance per Location. Upon request by the contractor, a Location of work will be evaluated by the engineer for partial acceptance in accordance with Sec 105.15.1 after completion of all work at that Location.

4.0 Administration of Calendar Days. The total number of Calendar Days allowed to complete the work on this project and administration of Calendar Days shall be as specified in the Contract Liquidated Damages job special provision, except as specified herein. The count of Calendar Days will be paused during the Winter Shut-Down Period. The count of Calendar Days will be paused when work is complete at all Locations in which work had begun.

5.0 Pavement Marking. Pavement marking shall be as specified elsewhere in the contract, except as specified herein.

5.1 Temporary Raised Pavement Markers. All Temporary Raised Pavement Markers shall be removed as part of the Temporary Pavement Marking prior to the Winter Shut-Down Period. If Temporary Pavement Marking is required during the Winter Shut-Down Period, the contractor shall use and maintain Temporary Pavement Marking Paint at the contractor's expense.

5.2 Cold Weather Pavement Marking Paint. If permanent pavement marking paint cannot be completed due to weather limitations specified in Sec 620.20.2.4, the contractor shall apply cold weather paint, as specified in Sec 620.10.6, in lieu of Standard Waterborne Paint, at no additional cost to the Commission. Retroreflectivity acceptance requirements and payment adjustments for Standard Waterborne Paint shall apply when using Cold weather paint. Cold weather paint that meets all contract requirements will be accepted in lieu of Standard Waterborne Paint and paid for as such. If retroreflectivity does not meet the minimum requirements for Standard Waterborne Paint but does meet the minimum requirements for Temporary Pavement Marking Paint, the Cold weather paint shall be considered Temporary Pavement Marking Paint and shall be re-marked with Standard Pavement Marking Paint when temperatures allow. No payment will be made until the Standard Pavement Marking Paint or Cold Weather Paint is accepted.

6.0 Basis of Payment. No additional payment will be made for compliance with these Special Requirements and Allowances provisions.

K. Add Alternate Sections JSP-12-03A

1.0 Description. This contract requires bidders to bid on additional contract work that will be considered for award. The award of this project does not guarantee work for all add alternate sections.

Routes	Proposal Section Description
D	Base
FF	Add Alternate

Note: See plans for a breakdown of all quantities for each add alternate section.

2.0 Consideration of Bids. The contractor shall submit a bid for each add alternate section. The Commission reserves the right to award, to the lowest responsible bidder, the combination of base plus add alternate sections that will allow the most work to be completed within the Commission's budget of **\$1,477,000**. If the Commission chooses to exercise this right, the award of add alternate sections will be selected in accordance with the following priorities: Base + Add Alt

2.1 The Commission reserves the right to award the combination of highest priority add alternate sections over the Commission's budget as long as the low bidder does not change and the award of the combination of highest priority alternate sections does not exceed more than ten percent or \$250,000 of the Commission's budget, whichever is less.

2.2 The Commission's budget is the basis for award of add alternates but not the basis for award of the base section. The base section of the contract will be awarded or rejected in accordance with Sec 100.

2.3 The awarded bidder will be notified, on MoDOT's website, of the Commission's selection of the combination of add alternate sections to be awarded the day of the Commission meeting.

3.0 Bid Bond Requirements. The contractor shall be required to obtain a bid bond for 5% of the total bid amount for the base bid and all add alternates. This bid bond will be considered applicable to the proposed work for any option.

4.0 DBE Goal. The DBE contract goal percentage applies to all work awarded. The bidder shall meet the DBE Goal in the base section and any add alternates awarded. The award of any add alternates will be determined by the Commission budget as described in Section 2.0.

4.1 The contractor may elect to complete the electronic form to be submitted with their bid but should not rely on the color of the DBE Goal folder to determine if the goal is met.

5.0 Basis of Payment. The accepted quantities of the chosen combination of base plus add alternate sections will be paid for by the contract unit bid price for item numbers found within the schedule of items for each section.

L. 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 sub-grade 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.

Job No.: JKRP0002

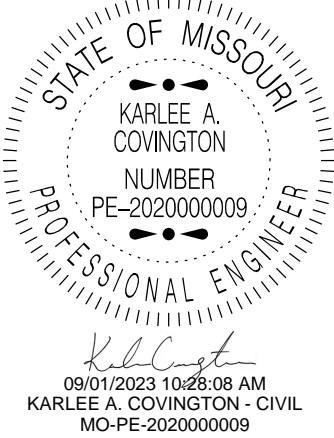
Route: Various

County: Johnson

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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

A.	General – State JSP-09-03J	1
B.	Contract Liquidated Damages	1
C.	Work Zone Traffic Management	2
D.	Emergency Provisions and Incident Management	5
E.	Project Contact for Contractor/Bidder Questions	5
F.	Supplemental Revisions JSP-18-01Z	6
G.	Knob Noster State Park Coordination	13
H.	Liquidated Damages for Winter Months JSP-04-17A	13
I.	Pavement Marking Log	13
J.	Share the Road Symbol	14
K.	Permanent Aggregate Edge Treatment NJSP-15-40B	15
L.	Liquidated Damages Specified	15
M.	Special Conditions for Archaeological Site Preservation	15

	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: JKRP0002 JOHNSON COUNTY, MO DATE PREPARED: 7/25/2023
	ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are
authenticated by this seal: All

JOB
SPECIAL PROVISION

A. General – State JSP-09-03J

1.0 Description. The Federal Government is not participating in the cost of construction of this project.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of worker required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations. The current State Wage Rates can be found on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources" for the applicable bid opening. This supplemental bidding document has 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.

State Wage Rates

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 2023 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 (job numbers) shall be completed on or before the Contract Completion date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed Date: September 1, 2024
Contract Completion Date: June 1, 2025

Job No.: JKRP0002
Route: Various
County: Johnson

2.1 Calendar Days. 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
JKRP0002	N/A	\$1,800

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 **\$2000** 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 above 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.

2.6 Transportation Management Plan. The contractor Work Zone Specialist (WZS) shall review the Transportation Management Plan (TMP), found as an electronic deliverable on MoDOT's Online Plans Room and discuss the TMP with the engineer during the preconstruction conference. Throughout the construction project, the WZS is responsible for updating any changes or modifications to the TMP and getting those changes approved by the engineer a minimum of two weeks in advance of implementation. The WZS shall participate in the post construction conference and provide recommendations on how future TMPs can be improved.

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, roadbed or active lanes, including the hauling of material within the project limits, during restricted periods, holiday periods or other special events specified in the contract documents.

3.3 The contractor shall be aware that traffic volume data indicates construction operations on the roadbed between the following hours will likely result in traffic queues greater than 15 minutes. Based on this, the contractor's operations will be restricted accordingly unless it can be successfully demonstrated the operations can be performed without a 15 minute queue in traffic. It shall be the responsibility of the engineer to determine if the above work hours may be modified. Working hours for evenings, weekends and holidays will be determined by the engineer. The contractor may not work during the following listed hours:

Knob Noster State Park
7:00 p.m. - 7:00 a.m. Monday through Friday

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.

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 Knob Noster	City of Warrensburg	City of Leeton
Fire: 660-563-8000	Fire: 660-747-9136	Police: 660-653-4520
Police: 660-563-2233	Police: 660-747-9133	

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. Project Contact for Contractor/Bidder Questions

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

Robert Simpson, Project Contact
Missouri State Parks
P.O. Box 176
Jefferson City, MO 65102

Telephone Number: 573-751-5380
Email: Robert.simpson@dnr.mo.gov

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

F. Supplemental Revisions JSP-18-01Z

Compliance with [2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance 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.

Anti-Discrimination Against Israel Certification

By signing this contract, the Company certifies it is not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel, companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel, or persons or entities doing business in the State of Israel as defined by Section 34.600 RSMo. This certification shall not apply to contracts with a total potential value of less than One Hundred Thousand Dollars (\$100,000) or to contractors with fewer than ten (10) employees.

Ground Tire Rubber (GTR) Dry Process Modification of Bituminous Pavement Material

1.0 Description. This work shall consist of the dry process of adding ground tire rubber (GTR) to modify bituminous material to be used in highway construction. Existing GTR requirements in Section 1015 pertain to the wet process method of GTR modification that blends GTR with the asphalt binder (terminal blending or blending at HMA plant). The following requirements shall govern for dry process GTR modification. The dry process method adds GTR as a fine aggregate or mineral filler during mix production. All GTR modified asphalt mixtures shall be in accordance with Secs 401, 402, or 403 as specified in the contract; except as revised by this specification.

2.0 Materials. The contractor shall furnish a manufacturer's certification to the engineer for each shipment of GTR furnished stating the name of the manufacturer, the chemical composition, workability additives, and certifying that the GTR supplied is in accordance with this specification.

2.1 Product Approval. The GTR product shall contain a Trans-Polyoctenamer (TOR) added at 4.5 % of the weight of the crumb rubber or an engineered crumb rubber (ECR) workability additive that has proven performance in Missouri. Other GTR additives shall be demonstrated and proven prior to use such as a five-year field performance history in other states or performance on a federal or state-sanctioned accelerated loading facility.

2.2 General. GTR shall be produced from processing automobile or truck tires by ambient or cryogenic grinding methods. Heavy equipment tires, uncured or de-vulcanized rubber will not be permitted. GTR shall also meet the following material requirements:

Table 1 – GTR Material Properties		
Property	Test Method	Criteria
Specific Gravity	ASTM D1817	1.02 to 1.20
Metal Contaminates	ASTM D5603	$\leq 0.01\%$
Fiber Content	ASTM D5603	$\leq 0.5\%$
Moisture Content	ASTM D1509	$\leq 1.0\%^*$
Mineral Filler	AASHTO M17	$\leq 4.0\%$

*Moisture content of the GTR shall not cause foaming when combined with asphalt binder and aggregate during mix production

2.3 Gradation. The GTR material prior to TOR or ECR workability additives shall meet the following gradation and shall be tested in accordance with ASTM D5603 and ASTM D5644.

Table 2 – GTR Gradation	
Sieve	Percent Passing by Weight
No. 20	100
No. 30	98-100
No. 40	50-70
No. 100	5-15

3.0 Delivery, Storage, and Handling. The GTR shall be supplied in moisture-proof packaging or other appropriate bulk containers. GTR shall be stored in a dry location protected from rain before use. Each bag or container shall be properly labeled with the manufacturer's designation for the GTR and specific type, mesh size, weight and manufacturer's batch or Lot designation.

4.0 Feeder System. Dry Process GTR shall be controlled with a feeder system using a proportioning device that is accurate to within ± 3 percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

Flow indicators or sensing devices for the system shall be interlocked with the plant controls to interrupt mixture production if GTR introduction rate is not within ± 3 percent. This interlock will immediately notify the operator if GTR introduction rate exceeds introduction tolerances. All plant production will cease if the introduction rate is not brought back within tolerance after 30 seconds. When the interlock system interrupts production and the plant has to be restarted, upon restarting operations; the modifier system shall run until a uniform feed can be observed on the output display. All mix produced prior to obtaining a uniform feed shall be rejected.

4.1 Batch Plants. GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations.

4.2 Drum Plants. The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

5.0 Testing During Mixture Production. Testing of asphalt mixes containing GTR shall not begin until at least 30 minutes after production or per additive supplier's recommendation.

6.0 Construction Requirements. Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.

7.0 Mix Design Test Method Modification. A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be prepared and fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.

8.0 Mix design Volumetrics. Mix design volumetric equations shall be modified as follows:

8.1 Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder

8.2 GTR shall be included as part of the aggregate when calculating VMA of the mix.

8.2.1 GTR SPG shall be 1.15

8.3 Mix G_{sb} used to determine VMA shall be calculated as follows:

$$G_{sb (JMF)} = \frac{(100 - P_{bmv})}{\left(\frac{P_s}{G_{sb}} + \frac{P_{GTR}}{G_{GTR}}\right)}$$

where:

$G_{sb (JMF)}$ = bulk specific gravity of the combined aggregate including GTR
 P_{bmv} = percent virgin binder by total mixture weight
 P_s = percent aggregate by total mixture weight (not including GTR)
 P_{GTR} = percent GTR by total mixture weight
 G_{sb} = bulk specific gravity of the combined aggregate (not including GTR)
 G_{GTR} = GTR specific gravity

8.4 G_{se} shall be calculated as follows:

$$G_{se} = \frac{(100 - P_b - P_{GTR})}{\left(\frac{100}{G_{mm}} - \frac{P_b}{G_b} - \frac{P_{GTR}}{G_{GTR}}\right)}$$

8.5 P_{be} shall be calculated as follows:

$$P_{be} = P_b - \frac{P_{ba}}{100} * (P_s + P_{GTR})$$

9.0 Minimum GTR Amount. The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

Contract Binder Grade	Percent Effective Virgin Binder Replacement Limits	Required Virgin Binder Grade	Minimum GTR Dosage Rate
PG 76-22	0 - 20	PG 70-22	5 %
		PG 64-22	10 %
PG 70-22	0 - 30	PG 64-22	5 %
		PG 58-28	10 %
PG 64-22	0 - 40*	PG 58-28	5 %
		PG 52-34	10 %
PG 58-28	0 - 40*	PG 52-34	5 %
		PG 46-34	10 %

* Reclaimed Asphalt Shingles (RAS) may be used when the contract grade is PG 64-22 or PG 58-28. RAS replacement shall follow the 2 x RAS criteria when calculating percent effective binder replacement in accordance Sec 401.

Buy America

In addition to Section 106.9 of the Missouri Standard Specifications for Highway Construction, the following requirements will also be in effect for this project.

1.0 Description. The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:

- a) Iron and steel – no changes to the current specification requirements.
- b) Manufactured products – these are currently exempted under the 1983 waiver from FHWA.
- c) Construction materials consisting primarily of:
 - Non-ferrous metals;
 - Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
 - Glass (including optic glass);
 - Lumber; or
 - Drywall

1.1 All products and or materials will only be classified under one of these categories and not under multiple categories. It is the prime contractor's responsibility to assure all submittals required for Buy America are submitted to the Engineer prior to the products and or materials being incorporated in the job. The implementation of this policy will be in effect for all projects awarded after November 10, 2022.

1.2 New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form ([link to certificate form](#)) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.

1.3 Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.

1.4 The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

2.0 Basis of Payment. Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum sublot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in accordance with [Sec 403.23.7.4.1](#). A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with [Sec 403.11](#).

G. Knob Noster State Park Coordination

The contractor shall provide a minimum of two weeks notice to Knob Noster State Park before work begins. It is the responsibility of the contractor to coordinate all work with Knob Noster State Park.

Knob Noster State Park contact information for contractor coordination:

Daniel Brigman
Park Superintendent
(660) 563-2463
Daniel.Brigman@dnr.mo.gov

H. Liquidated Damages for Winter Months JSP-04-17A

Delete Sec 108.8.1.3 (a)

Liquidated damages for failure to complete the work on time shall not be waived from December 15 to March 15, both dates inclusive.

I. 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

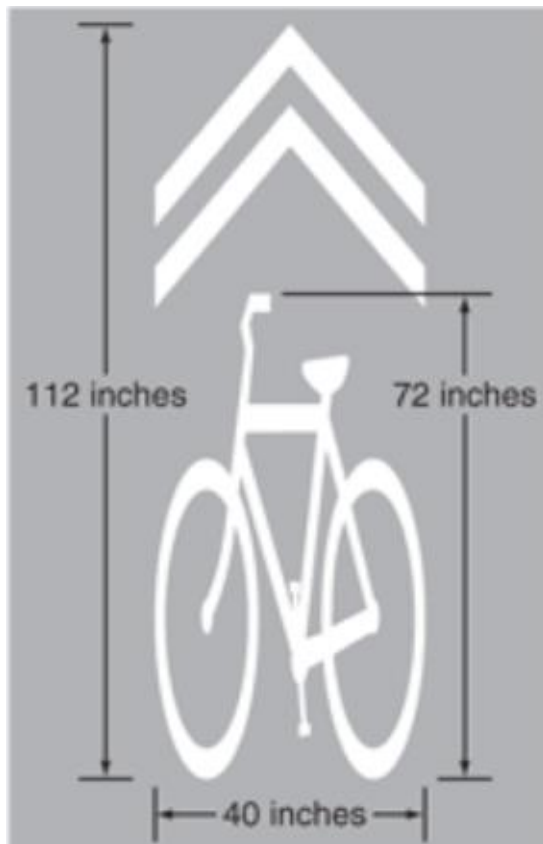
the same locations as the existing pavement marking, unless otherwise directed by the engineer or shown on the plans.

2.0 Basis of Payment. No direct payment will be made for logging of existing pavement marking.

J. Share the Road Symbol

Description. This work shall consist of furnishing and installing Share the Road pavement symbols as shown on the plans or as directed by the engineer.

Material Requirements The pavement marking symbol shown below shall be of preformed thermoplastic pavement marking. The application and material shall be in accordance with Section 620 in the standard specifications and as shown on the plans or established by the engineer.



Method of Measurement. Measurement shall be made per each as shown on the plans.

Basis of Payment. All expenses incurred by the contractor by reason of their compliance with this provision shall be considered as completely covered by the unit price bid for Item No. 620-99.02, "Preformed Thermoplastic Pavement Marking, Share the Road Symbol", per each.

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 sub-grade 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.

L. Liquidated Damages Specified

1.0 Description. If resurfacing is not complete and open to traffic prior to June 1, 2025, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to, increased construction administration cost, potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public. 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 \$500 per day for each full day that resurfacing is not complete and open to traffic in excess of the limitation as specified elsewhere in this special provision. It shall be the responsibility of the engineer to determine the quantity of excess closure time.

1.1 The said liquidated damages specified will be assessed regardless of whether it would otherwise be charged as liquidated damages under the Missouri Standard Specification for Highway Construction, as amended elsewhere in this contract.

M. Special Conditions for Archaeological Site Preservation

1.0 Description. The contractor is notified that a National Register of Historic Places (NRHP)-eligible archaeological sites are present within the area of construction. This special provision has been written to keep this project in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §§ 470 et seq.). The intent of this special provision is to minimize construction impacts to these significant archaeological sites and to preserve the archaeological deposits. Prior to implementation of any exceptions, changes, or

modifications to this provision the contractor, the MoDOT Resident Engineer and the MoDOT Historic Preservation Manager must mutually agree, and that agreement must be formally documented (e.g., in an email). If the contractor fails to comply with this provision, federal funding could be jeopardized.

2.0 Construction Requirements. Minimization of impacts throughout the archaeological site areas will require:

2.1 No Disturbance. The following locations will be marked as do not disturb (DND) on the plans. No off-roadway activity, including but not limited to parking, staging or driving equipment, shall occur within these locations. The contractor shall notify the Resident Engineer, Construction Inspector and the MoDOT Historic Preservation Manager ten (10) working days prior to the activity if disturbance is needed in these locations.

- Sta. 287+75 (South SE591st Rd) to Sta. 290+75 (entrance to Angel Haven Early Childhood Center), on both sides of the highway.
- Sta. 331+45 (SE 691st Rd) to Sta. 333+67, on both sides of the highway.

3.0 Method of Measurement. This item will not be measured for payment.


4.0. Basis of Payment. No direct pay shall be provided for any labor, equipment, time, or materials necessary to complete this work. The contractor shall have no claim, or basis for any claim or suit whatsoever, resulting from compliance with this provision. No time extensions will be granted due to the contractor's failure to comply with this provision.

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

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

A.	General – State JSP-09-03J	1
B.	Contract Liquidated Damages	1
C.	Work Zone Traffic Management	2
D.	Emergency Provisions and Incident Management	4
E.	Project Contact for Contractor/Bidder Questions	5
F.	Project Details and Quantities	5
G.	Supplemental Revisions JSP-18-01Z	19
H.	Contractor Quality Control for Plant Mix Bituminous Surface Leveling NJSP-15-21A	27
I.	Bridge End Transitions	29
J.	Pavement Marking Log	30
K.	Multi-Year, Multi-Location Project – Special Requirements NJSP-22-02	30
L.	Cooperation Between Contractors	31
M.	Permanent Aggregate Edge Treatment NJSP-15-40B	31
N.	The Kansas City Southern Railway Company Requirements	32

 <p>09/01/2023 11:08:25 AM HEATHER R. BARROWS - CIVIL MO-PE-2016040670</p>	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: JST0022, JST0023, JST0024, JST0025, JST0026 VARIOUS COUNTY, MO DATE PREPARED: 7/3/2023
	ADDENDUM DATE:

Only the following items of the Job Special Provisions (Roadway) are
 authenticated by this seal: ALL

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

JOB
SPECIAL PROVISION

A. General – State JSP-09-03J

1.0 Description. The Federal Government is not participating in the cost of construction of this project.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of worker required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations. The current State Wage Rates can be found on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources" for the applicable bid opening. This supplemental bidding document has 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.

State Wage Rates

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 2023 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 (job numbers) shall be completed on or before the Contract Completion date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed Date: December 4, 2023
Contract Completion Date: November 1, 2024

2.1 Calendar Days. The count of calendar days will begin on the date the contractor starts any construction operations on the project.

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

Job Number	Calendar Days	Daily Road User Cost
JST0022	NA	\$1800
JST0023	NA	\$1800
JST0024	NA	\$1800
JST0025	NA	\$1800
JST0026	NA	\$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 **\$2000** 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 above 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.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
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 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

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 roadbed or active lanes, 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.

4.3 The Engineer will ensure any disruptions to trails or other Section 4(f) resources during construction will not last no more than 30 minutes so as not to cause a significant delay of the public's use of those resources.

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

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

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 Bates City	City of Leeton	City of Warrensburg
Fire: 816-690-6990	Fire: 660-747-5220	Fire: 660-747-5220
Police: 816-690-6575		Police: 660-747-9133
Johnson County Sheriff Department 660-747-6469		

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. Project Contact for Contractor/Bidder Questions

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

Heather Barrows, Project Contact
 Kansas City District
 600 NE Colbern Road
 Lee's Summit, MO 64086

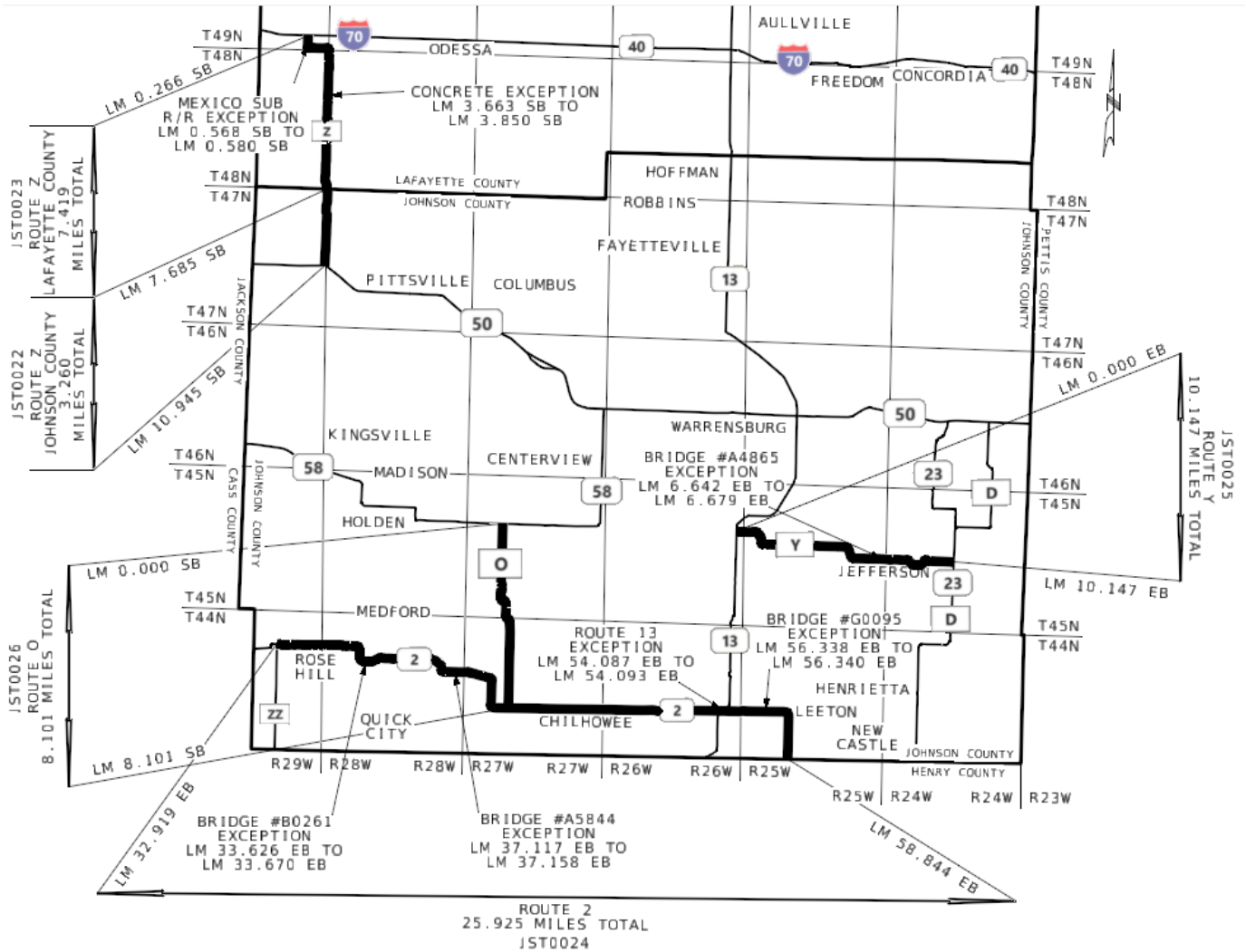
Telephone Number: 816-607-2209
 Email: Heather.Barrows@modot.mo.gov

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

F. Project Details and Quantities

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

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:



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

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

EXCEPTIONS						
JOB NUMBER	APPROX. LOG MILE		DIRECTION EB/SB	ROUTE	Length (FT)	COMMENTS/BRIDGE NUMBERS
	FROM	TO				
JST0023	0.568	0.580	SB	Z	63	MEXICO SUB R/R
JST0023	3.663	3.850	SB	Z	987	CONCRETE
JST0024	33.626	33.670	EB	2	232	BRIDGE #B0261
JST0024	37.117	37.158	EB	2	216	BRIDGE #A5844
JST0024	54.087	54.093	EB	2	32	ROUTE 13
JST0024	56.338	56.340	EB	2	11	BRIDGE #G0095
JST0025	6.642	6.679	EB	Y	195	BRIDGE #A4865
TOTAL					1736	

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.

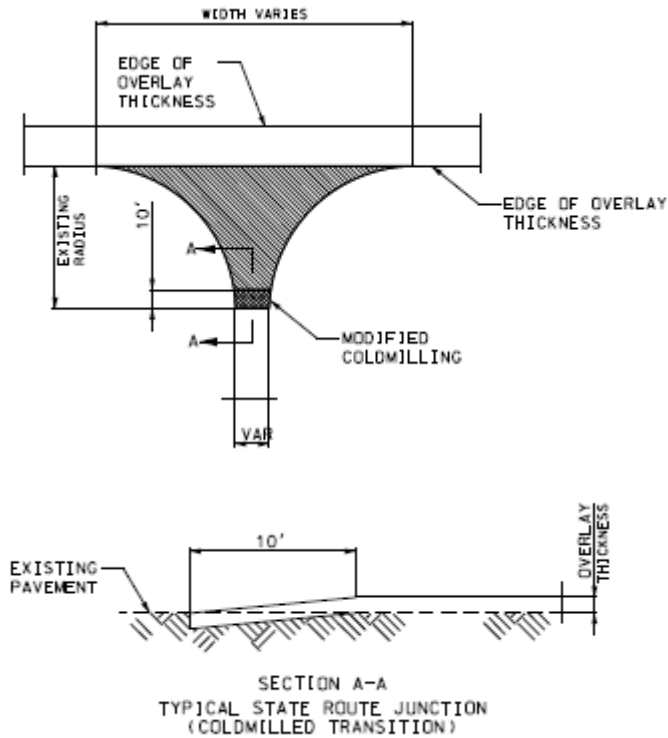
2.2 Permanent Aggregate Edge Treatment shall be place 2' on both sides of the travelway. See below for the depths of the edge drop offs.

Job Number	JST0022	JST0023	JST0024	JST0025	JST0026
Routes	Route Z Johnson County	Route Z Lafayette County	Route 2 Johnson County	Route Y Johnson County	Route O Johnson County
Edge Drop Off (IN)	2	3	3	3	3

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'.

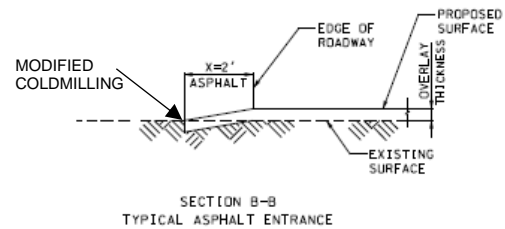
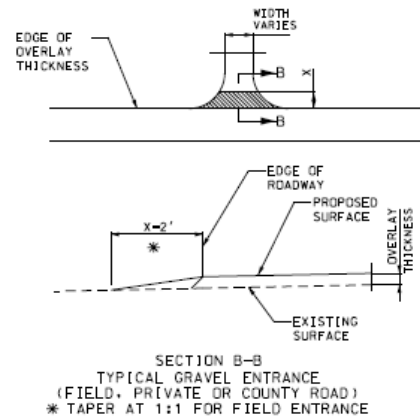
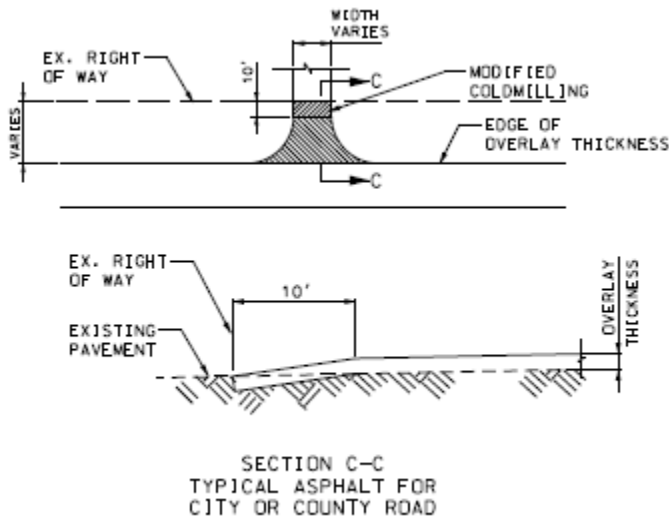
2.4 Coldmilling and pavement tapers at intersecting state routes will vary. See quantities for the approximate paved approach and coldmilling areas (see transition area details below).

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

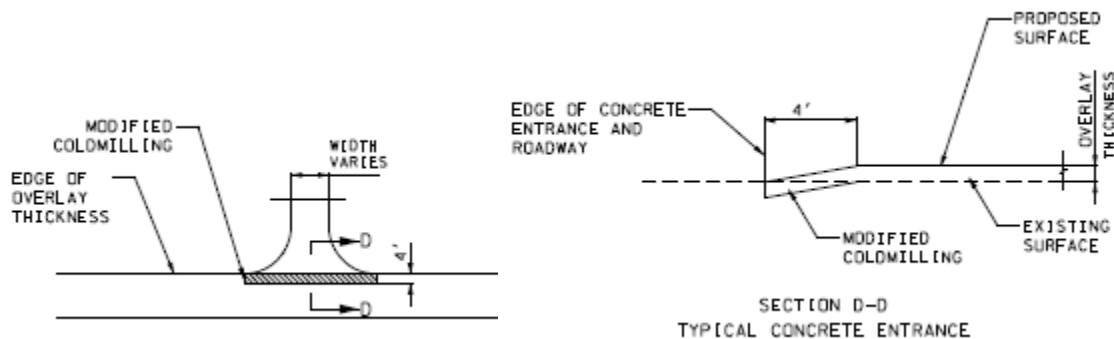


2.5 The bituminous pavement shall be coldmilled and tapered at entrances and non-state routes (see pavement taper details below).

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

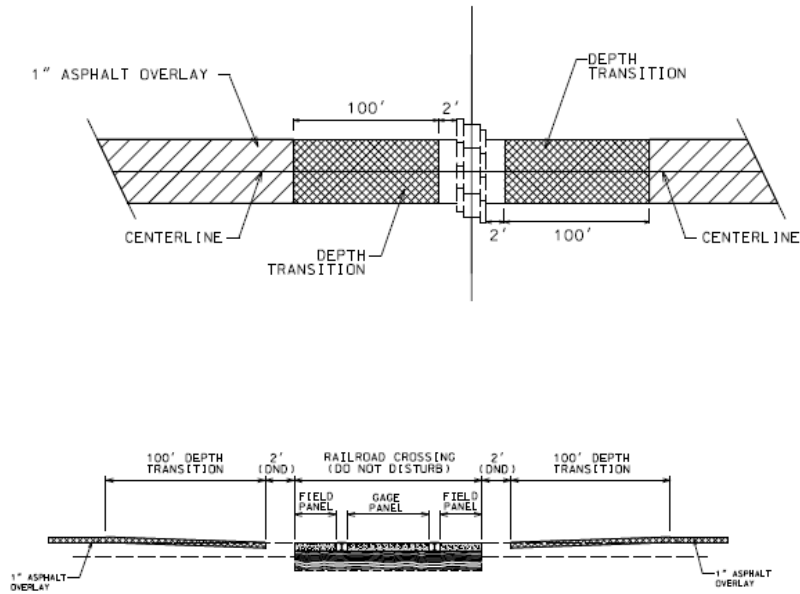


2.6 The bituminous pavement shall be edge coldmill for concrete entrances or non-state routes (see pavement taper details below).



2.7 The bituminous pavement shall be coldmilled and tapered at the Railroad (see pavement taper details below).

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County



3.0 Pavement and Coldmilling Quantities.

3.1 Pavement quantities are as follows:

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

BITUMINOUS PAVEMENT MIXTURE PG64-22 SURFACE LEVELING								
APPROX. LOG MILE		ROUTE	LENGTH (MI)	AVERAGE WIDTH (FT)	1.983 TONS/CY 1" SURFACE LEVELING (TONS)	0.08 GAL/SY TACK COAT (GAL)	2 TONS/CY PERMANENT AGGREGATE EDGE TREATMENT (INCL. ENTRANCES) (TONS)	REMARKS
FROM	TO							
JOB #JST0022 - ROUTE Z JOHNSON COUNTY								
7.685	10.945	Z SB	3.26	22	2326.7	3366	850.0	1000TH RD TO 50 HWY
					25.6			7 ASPHALT ENTRANCES/CROSSROADS
					581.7			25% IRREGULARITIES
SUBTOTAL					2933.9	3366	850.0	
JOB #JST0022 PAY TOTAL					2933.9	3366	850.0	
JOB #JST0023 - ROUTE Z LAFAYETTE COUNTY								
0.266	0.568	Z SB	0.302	23	224.5	326	118.1	E OLD HWY 40 TO RAILROAD
0.580	0.744	Z SB	0.164	23	121.9	177	64.1	RAILROAD TO GOLDEN BELT RD
0.744	3.663	Z SB	2.919	22	2075.2	3014	1141.7	GOLDEN BELT RD TO TT CONCRETE EXCEPTION
3.850	6.361	Z SB	2.511	23	1866.3	2711	982.1	TT CONCRETE EXCEPTION TO QUARRY
6.361	7.685	Z SB	1.324	22	941.3	1367	517.8	QUARRY TO 1000TH RD
					48.1			26 ASPHALT ENTRANCES/CROSSROADS
					1307.3			25% IRREGULARITIES
SUBTOTAL					6584.6	7595	2823.8	
JOB #JST0023 PAY TOTAL					6584.6	7595	2823.8	
JOB #JST0024 - ROUTE 2								
32.919	33.626	2 EB	0.707	21	479.8	697	277.0	FROM ROUTE ZZ TO BRIDGE B0261
33.670	34.398	2 EB	0.728	21	494.0	718	284.7	FROM BRIDGE B0261 TO ROUTE T
34.398	37.117	2 EB	2.719	20	1757.3	2552	1063.4	FROM ROUTE T TO BRIDGE A5844
37.158	44.920	2 EB	7.762	20	5016.7	7286	3035.8	FROM BRIDGE A5844 TO ROUTE O
44.920	54.087	2 EB	9.167	22	6517.2	9465	3585.3	FROM ROUTE O TO ROUTE 13 (INCL RADIUS)
54.093	56.338	2 EB	2.245	20	1451.0	2107	878.0	FROM HWY 13 (INCL. RADIUS) TO BRIDGE G0095
56.340	58.844	2 EB	2.504	20	1618.4	2350	979.3	FROM BRIDGE G0095 TO HENRY COUNTY LINE
					229.4	333	0.0	38 ASPHALT ENTRANCES/CROSSROADS
					4333.6			25% IRREGULARITIES
SUBTOTAL					21897.4	25508	10103.7	
JOB #JST0024 PAY TOTAL					21897.4	25508	10103.7	
JOB #JST0025 - ROUTE Y								
0.000	6.602	Y EB	6.602	21	4480.3	6507	2582.0	FROM ROUTE 13 (INCLUDES RADIUS) TO BRIDGE A4865
6.602	6.642	Y EB	0.040	29	37.5	54	16.0	
6.679	6.722	Y EB	0.043	29	40.3	59	17.0	
6.722	10.147	Y EB	3.425	21	2324.2	3375	1339.0	FROM BRIDGE A4865 TO ROUTE 23 (INCLUDES RADIUS)
					50.4	74		8 ASPHALT ROADS/ENTRANCES
					1720.6			25% IRREGULARITIES
SUBTOTAL					8653.3	10069	3954.0	
JOB #JST0025 PAY TOTAL					8653.3	10069	3954.0	
JOB #JST0026 - ROUTE O								
0.000	8.101	O SB	8.101	21	5510.3	8002	3168.0	FROM ROUTE 58 (INCL RADIUS) TO ROUTE 2 (INCL RADIUS)
					7.2	10		3 ASPHALT ENTRANCES/CROSSROADS
					1377.6			25% IRREGULARITIES
SUBTOTAL					6895.1	8012	3168.0	
JOB #JST0026 PAY TOTAL					6895.1	8012	3168.0	

3.2 Coldmilling Quantities are as follows:

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

MODIFIED COLDMILLING (DEPTH TRANSITIONS)						
APPROX LOG MILE		ROUTE	LENGTH (FT)	AVERAGE WIDTH (FT)	QUANTITY (SY)	REMARKS
FROM	TO					
JST0022 - ROUTE Z JOHNSON COUNTY						
10.940	10.945	Z SB	25	22	61	END OF PROJECT
					139	7 ASPHALT ENTRANCES/CROSSROADS
JOB #JST0022 PAY TOTAL					200	
JST0023 - ROUTE Z LAFAYETTE COUNTY						
0.266	0.271	Z SB	25	23	64	BEGINNING OF PROJECT
0.559	0.568	Z SB	50	23	128	MEXICO SUB R/R
0.580	0.589	Z SB	50	23	128	MEXICO SUB R/R
3.654	3.663	Z SB	50	120	667	ROUTE TT CONCRETE EXCEPTION
3.850	3.859	Z SB	50	23	128	ROUTE TT CONCRETE EXCEPTION
					264	26 ASPHALT ENTRANCES/CROSSROADS
					102	6 CONCRETE ENTRANCES
JOB #JST0023 PAY TOTAL					1481	
JST0024 - ROUTE 2						
32.919	32.924	2 EB	50	21	117	ROUTE ZZ
33.617	33.626	2 EB	50	21	117	BRIDGE B0261
33.670	33.679	2 EB	50	21	117	BRIDGE B0261
37.108	37.117	2 EB	50	20	111	BRIDGE A5844
37.158	37.167	2 EB	50	20	111	BRIDGE A5844
54.078	54.087	2 EB	50	60	333	ROUTE 13 (INCL RADIUS)
54.093	54.102	2 EB	50	135	750	ROUTE 13 (INCL RADIUS)
56.329	56.338	2 EB	50	20	111	BRIDGE G0095
56.340	56.349	2 EB	50	20	111	BRIDGE G0095
58.839	58.844	2 EB	50	20	111	HENRY COUNTY LINE
					2107	38 ASPHALT ENTRANCES/CROSSROADS
					151	3 CONCRETE ENTRANCES
JOB #JST0024 PAY TOTAL					4247	
JST0025 - ROUTE Y						
0.000	0.009	Y EB	25	70	194	BEGINNING OF PROJECT (INCL RADIUS)
6.633	6.642	Y EB	50	29	161	BRIDGE A4865
6.679	6.688	Y EB	50	29	161	BRIDGE A4865
10.138	10.147	Y EB	25	112	311	END OF PROJECT (INCL RADIUS)
					249	8 ASPHALT ROADS/ENTRANCES
JOB #JST0025 PAY TOTAL					1076	
JST0026 - ROUTE O						
0.000	0.005	O SB	25	69	192	BEGINNING
8.096	8.101	O SB	25	43	119	END
					69	3 ASPHALT ENTRANCES/CROSSROADS
JOB #JST0026 PAY TOTAL					380	

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

4.0 Temporary Traffic Control Plans. See [Standard Plans 616.20](#) for standard temporary traffic control requirements.

4.1 Construction signs and channelizers are as follows:

JOB #JST0022 - CONSTRUCTION SIGNING						
SIGN NO.	SIGN	SIZE (in.)	AREA (FT.2)	QTY.	TOTAL AREA	DESCRIPTION
1*	GO20-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	9	144	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	9	144	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 X 48	16	5	80	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	WO8-12	48 X 48	16	6	96	NO CENTER LINE
36	WO8-11	48 X 48	16	10	160	UNEVEN LANES
53	GO20-4	36 X 18	4.5	0	-	PILOT CAR FOLLOW ME
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE
58	GO20-4a	42 X 30	8.75	0	0	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	5	8	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
60	SPECIAL	18 X 12	1.5	2	3	PILOT CAR IN USE WAIT & FOLLOW
	GO22-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	WO8--17	48 X 48	16.00	6	96	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	6	30	SHOULDER DROP-OFF (PLAQUE)
616-10.5 CONSTRUCTION SIGNS TOTAL					942	
PAY TOTAL					942	
* - 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 BY ENGINEER.						
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						

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB #JST0023 - CONSTRUCTION SIGNING						
SIGN NO.	SIGN	SIZE (in.)	AREA (FT.2)	QTY.	TOTAL AREA	DESCRIPTION
1*	GO20-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	6	96	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	6	96	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 X 48	16	2	32	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	WO8-12	48 X 48	16	10	160	NO CENTER LINE
36	WO8-11	48 X 48	16	18	288	UNEVEN LANES
53	GO20-4	36 X 18	4.5	0	-	PILOT CAR FOLLOW ME
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE
58	GO20-4a	42 X 30	8.75	2	18	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	2	3	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
60	SPECIAL	18 X 12	1.5	23	35	PILOT CAR IN USE WAIT & FOLLOW
	GO22-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	WO8--17	48 X 48	16.00	10	160	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	10	50	SHOULDER DROP-OFF (PLAQUE)
616-10.5 CONSTRUCTION SIGNS TOTAL					1119	
PAY TOTAL					1119	
* - 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 BY ENGINEER.						
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						

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB #JST0024 - CONSTRUCTION SIGNING						
SIGN NO.	SIGN	SIZE (in.)	AREA (FT.2)	QTY.	TOTAL AREA	DESCRIPTION
1*	GO20-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	21	336	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	21	336	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 X 48	16	17	272	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	WO8-12	48 X 48	16	26	416	NO CENTER LINE
36	WO8-11	48 X 48	16	52	832	UNEVEN LANES
53	GO20-4	36 X 18	4.5	2	-	PILOT CAR FOLLOW ME
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE
58	GO20-4a	42 X 30	8.75	8	70	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	19	29	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
60	SPECIAL	18 X 12	1.5	24	36	PILOT CAR IN USE WAIT & FOLLOW
	GO22-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	WO8--17	48 X 48	16.00	16	256	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	16	80	SHOULDER DROP-OFF (PLAQUE)
616-10.5 CONSTRUCTION SIGNS TOTAL					2844	
PAY TOTAL					2844	
* - 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 BY ENGINEER.						
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						

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB #JST0025 - CONSTRUCTION SIGNING						
SIGN NO.	SIGN	SIZE (in.)	AREA (FT.2)	QTY.	TOTAL AREA	DESCRIPTION
1*	GO20-1	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) WITH FLAGS
11	WO3-4	48 X 48	16	6	96	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	WO8-12	48 X 48	16	12	192	NO CENTER LINE
36	WO8-11	48 X 48	16	22	352	UNEVEN LANES
53	GO20-4	36 X 18	4.5	0	-	PILOT CAR FOLLOW ME
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE
58	GO20-4a	42 X 30	8.75	0	0	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
60	SPECIAL	18 X 12	1.5	2	3	PILOT CAR IN USE WAIT & FOLLOW
	GO22-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	WO8--17	48 X 48	16.00	12	192	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	12	60	SHOULDER DROP-OFF (PLAQUE)
616-10.5 CONSTRUCTION SIGNS TOTAL					1405	
PAY TOTAL					1405	
* - 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 BY ENGINEER.						
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						

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB #JST0026 - CONSTRUCTION SIGNING						
SIGN NO.	SIGN	SIZE (in.)	AREA (FT.2)	QTY.	TOTAL AREA	DESCRIPTION
1*	GO20-1	60 X 24	10	2	20	ROAD WORK NEXT XX MILES & XX MILES
2**	WO20-1	48 X 48	16	4	64	ROAD WORK AHEAD
7	WO20-4	48 X 48	16	6	96	ONE LANE ROAD AHEAD
8	WO20-7a	48 X 48	16	4	64	FLAGGER (SYMBOL) WITH FLAGS
11	WO3-4	48 X 48	16	0	0	BE PREPARED TO STOP
26	GO20-2	48 X 24	8	2	16	END ROAD WORK
35	WO8-12	48 X 48	16	10	160	NO CENTER LINE
36	WO8-11	48 X 48	16	18	288	UNEVEN LANES
53	GO20-4	36 X 18	4.5	0	-	PILOT CAR FOLLOW ME
56	CONST-7	48 X 24	8	2	16	RATE OUR WORK ZONE
58	GO20-4a	42 X 30	8.75	2	18	PILOT CAR IN USE WAIT & FOLLOW
58	GO20-4a	18 X 12	1.5	0	0	PILOT CAR IN USE WAIT & FOLLOW
59	CONST-8	48 X 36	12	2	24	WORK ZONE NO PHONE ZONE
60	SPECIAL	18 X 12	1.5	2	3	PILOT CAR IN USE WAIT & FOLLOW
	GO22-1	21 X 15	2.19	4	9	WET PAINT (ARROW PIVOTS)
	WO8--17	48 X 48	16.00	10	160	SHOULDER DROP-OFF (SYMBOL)
	WO8-17P	30 X 24	5.00	10	50	SHOULDER DROP-OFF (PLAQUE)
616-10.5 CONSTRUCTION SIGNS TOTAL					988	
PAY TOTAL					988	
* - 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 BY ENGINEER.						
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						

4.2 Other Traffic Control Devices and Mobilization are as follows:

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

JOB #JST0022		
ITEM NO.	QTY.	DESCRIPTION
616-10.25	200	CHANNELIZERS (TRIM-LINE)
612-30.00A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
618-10.00	LUMP SUM	MOBILIZATION

JOB #JST0023		
ITEM NO.	QTY.	DESCRIPTION
616-10.25	210	CHANNELIZERS (TRIM-LINE)
612-30.00A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
618-10.00	LUMP SUM	MOBILIZATION

JOB #JST0024		
ITEM NO.	QTY.	DESCRIPTION
616-10.25	285	CHANNELIZERS (TRIM-LINE)
612-30.00A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
618-10.00	LUMP SUM	MOBILIZATION

JOB #JST0025		
ITEM NO.	QTY.	DESCRIPTION
616-10.25	225	CHANNELIZERS (TRIM-LINE)
612-30.00A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
618-10.00	LUMP SUM	MOBILIZATION

JOB #JST0026		
ITEM NO.	QTY.	DESCRIPTION
616-10.25	100	CHANNELIZERS (TRIM-LINE)
612-30.00A	2	TRUCK OR TRAILER MOUNTED ATTENUATOR (TMA)
618-10.00	LUMP SUM	MOBILIZATION

5.0 Pavement Marking. Pavement marking quantities are as follows:

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

STANDARD WATERBORNE PAVEMENT MARKING PAINT, TYPE P BEADS								
JOB NUMBER	APPROX. LOG MILE			LENGTH (FT)	4" INT. YELLOW LF	4" SOLID YELLOW LF	4" SOLID WHITE LF	REMARKS
	FROM	TO	ROUTE					
JST0022	7.685	10.945	Z SB	17213	2664	16928	34426	JOHNSON COUNTY
			JOB #JST0022 PAY TOTAL		19591		34426	
JST0023	0.266	7.685	Z SB	39172	3969	58244	75926	LAFAYETTE COUNTY
			JOB #JST0023 PAY TOTAL		62213		75926	
JST0024	32.919	58.844	2 EB	136884	14211	181041	248878	
			JOB #JST0024 PAY TOTAL		195252		248878	
JST0025	0	10.147	Y EB	53576	5304	80858	107152	
			JOB #JST0025 PAY TOTAL		86162		107152	
JST0026	0	8.101	O SB	42773	5846	59205	0	
			JOB #JST0026 PAY TOTAL		65051		0	

PAVEMENT MARKING - PREFORMED THERMOPLASTIC PAVEMENT MARKING							
JOB NUMBER	ROUTE	LOG MILE	30" WHITE MIDBLOCK EACH	24" WHITE STOP BAR LIN FT	RAILROAD CROSSING EACH	LEFT/RIGHT ARROW EACH	REMARKS
JST0022	Z SB	10.910	-	-	-	1	RIGHT ARROW
			0	0	0	1	
JST0023	Z SB	0.505	-	24	1	-	RAILROAD
JST0023	Z SB	0.645	-	24	1	-	RAILROAD
JST0023	Z SB	0.735	-	12	-	-	GOLDEN BELT RD
JST0023	Z SB	0.747	-	12	-	-	GOLDEN BELT RD
			0	72	2	0	
JST0024	2 EB	47.22	5	-	-	-	ROCK ISLAND SPUR
JST0024	2 EB	57.465	5	-	-	-	ROCK ISLAND SPUR
			10	0	0	0	

G. Supplemental Revisions JSP-18-01Z

Compliance with [2 CFR 200.216 – Prohibition on Certain Telecommunications and Video Surveillance 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

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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;

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

- (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.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

By signing this contract, the Company certifies it is not currently engaged in and shall not, for the duration of the contract, engage in a boycott of goods or services from the State of Israel, companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel, or persons or entities doing business in the State of Israel as defined by Section 34.600 RSMo. This certification shall not apply to contracts with a total potential value of less than One Hundred Thousand Dollars (\$100,000) or to contractors with fewer than ten (10) employees.

Ground Tire Rubber (GTR) Dry Process Modification of Bituminous Pavement Material

1.0 Description. This work shall consist of the dry process of adding ground tire rubber (GTR) to modify bituminous material to be used in highway construction. Existing GTR requirements in Section 1015 pertain to the wet process method of GTR modification that blends GTR with the asphalt binder (terminal blending or blending at HMA plant). The following requirements shall govern for dry process GTR modification. The dry process method adds GTR as a fine aggregate or mineral filler during mix production. All GTR modified asphalt mixtures shall be in accordance with Secs 401, 402, or 403 as specified in the contract; except as revised by this specification.

2.0 Materials. The contractor shall furnish a manufacturer's certification to the engineer for each shipment of GTR furnished stating the name of the manufacturer, the chemical composition, workability additives, and certifying that the GTR supplied is in accordance with this specification.

2.1 Product Approval. The GTR product shall contain a Trans-Polyoctenamer (TOR) added at 4.5 % of the weight of the crumb rubber or an engineered crumb rubber (ECR) workability additive that has proven performance in Missouri. Other GTR additives shall be demonstrated and proven prior to use such as a five-year field performance history in other states or performance on a federal or state-sanctioned accelerated loading facility.

2.2 General. GTR shall be produced from processing automobile or truck tires by ambient or cryogenic grinding methods. Heavy equipment tires, uncured or de-vulcanized rubber will not be permitted. GTR shall also meet the following material requirements:

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

Table 1 – GTR Material Properties		
Property	Test Method	Criteria
Specific Gravity	ASTM D1817	1.02 to 1.20
Metal Contaminates	ASTM D5603	$\leq 0.01\%$
Fiber Content	ASTM D5603	$\leq 0.5\%$
Moisture Content	ASTM D1509	$\leq 1.0\%^*$
Mineral Filler	AASHTO M17	$\leq 4.0\%$

*Moisture content of the GTR shall not cause foaming when combined with asphalt binder and aggregate during mix production

2.3 Gradation. The GTR material prior to TOR or ECR workability additives shall meet the following gradation and shall be tested in accordance with ASTM D5603 and ASTM D5644.

Table 2 – GTR Gradation	
Sieve	Percent Passing by Weight
No. 20	100
No. 30	98-100
No. 40	50-70
No. 100	5-15

3.0 Delivery, Storage, and Handling. The GTR shall be supplied in moisture-proof packaging or other appropriate bulk containers. GTR shall be stored in a dry location protected from rain before use. Each bag or container shall be properly labeled with the manufacturer's designation for the GTR and specific type, mesh size, weight and manufacturer's batch or Lot designation.

4.0 Feeder System. Dry Process GTR shall be controlled with a feeder system using a proportioning device that is accurate to within ± 3 percent of the amount required. The system shall automatically adjust the feed rate to always maintain the material within this tolerance and shall have a convenient and accurate means of calibration. The system shall provide in-process monitoring, consisting of either a digital display of output or a printout of feed rate, in pounds per minute, to verify feed rate. The supply system shall report the feed in 1-pound increments using load cells that will enable the user to monitor the depletion of the GTR. Monitoring the system volumetrically will not be allowed. The feeder shall interlock with the aggregate weight system and asphalt binder pump to maintain correct mixture proportions at all production rates.

Flow indicators or sensing devices for the system shall be interlocked with the plant controls to interrupt mixture production if GTR introduction rate is not within ± 3 percent. This interlock will immediately notify the operator if GTR introduction rate exceeds introduction tolerances. All plant production will cease if the introduction rate is not brought back within tolerance after 30

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

seconds. When the interlock system interrupts production and the plant has to be restarted, upon restarting operations; the modifier system shall run until a uniform feed can be observed on the output display. All mix produced prior to obtaining a uniform feed shall be rejected.

4.1 Batch Plants. GTR shall be added to aggregate in the weigh hopper. Mixing times shall be increased per GTR manufacturer recommendations.

4.2 Drum Plants. The feeder system shall add GTR to aggregate and liquid binder during mixing and provide sufficient mixing time to produce a uniform mixture. The feeder system shall ensure GTR does not become entrained in the exhaust system of the drier or plant and is not exposed to the drier flame at any point after introduction.

5.0 Testing During Mixture Production. Testing of asphalt mixes containing GTR shall not begin until at least 30 minutes after production or per additive supplier's recommendation.

6.0 Construction Requirements. Mixes containing GTR shall have a target mixing temperature of 325 F or as directed by the GTR additive supplier. The additive supplier's recommendations shall be followed to allow for GTR binder absorption/reaction. This may include holding mix in the silo to allow time for binder to absorb into the GTR. Rolling operations may need to be modified.

7.0 Mix Design Test Method Modification. A formal mixing procedure from the additive supplier shall be provided to the contractor and engineer that details the proper sample preparation, including blending GTR with the binder or other additives. Samples shall be prepared and fabricated in accordance with this procedure by the engineer and contractor throughout the duration of the project.

8.0 Mix design Volumetrics. Mix design volumetric equations shall be modified as follows:

8.1 Additional virgin binder added to offset GTR absorption of binder shall be counted as part of the mix virgin binder

8.2 GTR shall be included as part of the aggregate when calculating VMA of the mix.

8.2.1 GTR SPG shall be 1.15

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

8.3 Mix G_{sb} used to determine VMA shall be calculated as follows:

$$G_{sb (JMF)} = \frac{(100 - P_{bmv})}{\left(\frac{P_s}{G_{sb}} + \frac{P_{GTR}}{G_{GTR}}\right)}$$

where:

$G_{sb (JMF)}$ = bulk specific gravity of the combined aggregate including GTR

P_{bmv} = percent virgin binder by total mixture weight

P_s = percent aggregate by total mixture weight (not including GTR)

P_{GTR} = percent GTR by total mixture weight

G_{sb} = bulk specific gravity of the combined aggregate (not including GTR)

G_{GTR} = GTR specific gravity

8.4 G_{se} shall be calculated as follows:

$$G_{se} = \frac{(100 - P_b - P_{GTR})}{\left(\frac{100}{G_{mm}} - \frac{P_b}{G_b} - \frac{P_{GTR}}{G_{GTR}}\right)}$$

8.5 P_{be} shall be calculated as follows:

$$P_{be} = P_b - \frac{P_{ba}}{100} * (P_s + P_{GTR})$$

9.0 Minimum GTR Amount. The minimum dosage rate for GTR shall be 5 % by weight of total binder for an acceptable one bump grade or 10 % by weight of total binder for an acceptable two bump grade as detailed in the following table. Varying percentage blends of GTR and approved additives may be used as approved by the engineer with proven performance and meeting the specified requirements of the contract grade.

Job No.: JST0022, Route Z, Johnson County
 Job No.: JST0023, Route Z, Lafayette County
 Job No.: JST0024, Route 2, Johnson County
 Job No.: JST0025, Route Y, Johnson County
 Job No.: JST0026, Route O, Johnson County

Contract Binder Grade	Percent Effective Virgin Binder Replacement Limits	Required Virgin Binder Grade	Minimum GTR Dosage Rate
PG 76-22	0 - 20	PG 70-22	5 %
		PG 64-22	10 %
PG 70-22	0 - 30	PG 64-22	5 %
		PG 58-28	10 %
PG 64-22	0 – 40*	PG 58-28	5 %
		PG 52-34	10 %
PG 58-28	0 – 40*	PG 52-34	5 %
		PG 46-34	10 %

* Reclaimed Asphalt Shingles (RAS) may be used when the contract grade is PG 64-22 or PG 58-28. RAS replacement shall follow the 2 x RAS criteria when calculating percent effective binder replacement in accordance Sec 401.

Buy America

In addition to Section 106.9 of the Missouri Standard Specifications for Highway Construction, the following requirements will also be in effect for this project.

1.0 Description. The Bipartisan Infrastructure Law (BIL) was enacted on November 15, 2021. The BIL includes Build America, Buy America Act Publication L. No. 117-58. This provision expands the Buy America requirements beyond what is currently only required for steel and iron products. The steel and iron provisions have not changed with the new bill. Cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives are excluded from this requirement. All other materials and manufactured products permanently incorporated into the project will be subject to Buy America requirements. There are three categories requiring Buy America Certification:

- a) Iron and steel – no changes to the current specification requirements.
- b) Manufactured products – these are currently exempted under the 1983 waiver from FHWA.
- c) Construction materials consisting primarily of:
 - Non-ferrous metals;
 - Plastic and polymer-based products (including polyvinylchloride, composite build materials, and polymers used in fiber optic cables);
 - Glass (including optic glass);
 - Lumber; or
 - Drywall

1.1 All products and or materials will only be classified under one of these categories and not under multiple categories. It is the prime contractor's responsibility to assure all submittals required for Buy

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

America are submitted to the Engineer prior to the products and or materials being incorporated in the job. The implementation of this policy will be in effect for all projects awarded after November 10, 2022.

1.2 New items designated as construction materials under this requirement will require the prime contractor to submit a material of origin form certification prior to incorporation into the project. The Certificate of Material origin form ([link to certificate form](#)) from the supplier and/or fabricator must show all steps of the manufacturing being completed in the United States. The Certificate of Material form shall be filed with the contract documents.

1.3 Any minor miscellaneous construction material items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. The certification shall read "I certify all materials permanently incorporated in this project covered under this provision have been to the best of my knowledge procured and all manufactured domestically." The certification shall be signed by an authorized representative of the prime contractor.

1.4 The National Transportation Product Evaluation Program (NTPEP) compliance program verifies that some non-iron and steel products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and an acceptable standard per 23 CFR 635.410(d). NTPEP compliant suppliers will not be required to submit step certification documentation with the shipment for some selected non-iron and steel materials. The NTPEP compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

2.0 Basis of Payment. Any costs incurred by the contractor by reason of compliance with the above requirements shall be considered as included in and completely covered by the unit price bid for the various items of work included in the contract.

Delete Sec 403.19.2 and substitute the following:

403.19.2 Lots. The lot size shall be designated in the contractor's QC Plan. Each lot shall contain no less than four sublots and the maximum sublot size shall be 1,000 tons. The maximum lot size shall be 4,000 tons for determination of pay factors. Sublots from incomplete lots shall be combined with the previous complete lot for determination of pay factors. When no previous lot exists, the mixture shall be treated in accordance with [Sec 403.23.7.4.1](#). A new lot shall begin when the asphalt content of a mixture is adjusted in accordance with [Sec 403.11](#).

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.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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. Multi-Year, Multi-Location Project – Special Requirements NJSP-22-02

1.0 Description. Whereas this project is identified by a single Job Number, and the project requires work be performed at multiple Locations, and the contract allows for work to be performed in multiple calendar years, these special requirements and allowances shall apply. A Location is generally identified in the contract or plans by Route and County but may be otherwise identified.

2.0 Winter Shut-Down Period. A Winter Shut-Down Period is required if all work on the project is not completed prior to December 1 of the calendar year in which the Notice to Proceed is made. The date range of the Winter Shut-Down Period shall be determined by the contractor and shall be shown on the contractor's most current Progress Schedule. The contractor's designated Winter Shut-Down Period shall begin no later than December 1 of the calendar year in which the Notice to Proceed is made and shall end on or after March 15 of the following year. No work shall be performed during the Winter Shut-Down Period, except for maintenance work that may be required per Sec 104.7 or 105.13 unless approved by the Engineer. Regardless of the length of the Winter Shut-Down Period, all work shall be complete prior to the contract Completion Date. All weather limitations specified elsewhere in the contract shall apply.

3.0 Completion of Work per Location. This contract includes work at multiple Locations, with non-contiguous project limits defined at each Location. Once work begins at a Location, the contractor shall diligently pursue completion of the work at that Location until all work is complete. If work at a Location begins prior to the Winter Shut-Down Period, all work at that Location shall be fully completed prior to the Winter Shut-Down Period, including permanent or temporary pavement marking. Work shall not begin at a Location if the long-range forecast is not conducive for completion of all work at that Location prior to the Winter Shut-Down Period.

3.1 Partial Acceptance per Location. Upon request by the contractor, a Location of work will be evaluated by the engineer for partial acceptance in accordance with Sec 105.15.1 after completion of all work at that Location.

4.0 Administration of Calendar Days. The total number of Calendar Days allowed to complete the work on this project and administration of Calendar Days shall be as specified in the Contract Liquidated Damages job special provision, except as specified herein. The count of Calendar Days will be paused during the Winter Shut-Down Period. The count of Calendar Days will be paused when work is complete at all Locations in which work had begun.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

5.0 Pavement Marking. Pavement marking shall be as specified elsewhere in the contract, except as specified herein.

5.1 Temporary Raised Pavement Markers. All Temporary Raised Pavement Markers shall be removed as part of the Temporary Pavement Marking prior to the Winter Shut-Down Period. If Temporary Pavement Marking is required during the Winter Shut-Down Period, the contractor shall use and maintain Temporary Pavement Marking Paint at the contractor's expense.

5.2 Cold Weather Pavement Marking Paint. If permanent pavement marking paint cannot be completed due to weather limitations specified in Sec 620.20.2.4, the contractor shall apply cold weather paint, as specified in Sec 620.10.6, in lieu of Standard Waterborne Paint, at no additional cost to the Commission. Retroreflectivity acceptance requirements and payment adjustments for Standard Waterborne Paint shall apply when using Cold weather paint. Cold weather paint that meets all contract requirements will be accepted in lieu of Standard Waterborne Paint and paid for as such. If retroreflectivity does not meet the minimum requirements for Standard Waterborne Paint but does meet the minimum requirements for Temporary Pavement Marking Paint, the Cold weather paint shall be considered Temporary Pavement Marking Paint and shall be re-marked with Standard Pavement Marking Paint when temperatures allow. No payment will be made until the Standard Pavement Marking Paint or Cold Weather Paint is accepted.

6.0 Basis of Payment. No additional payment will be made for compliance with these Special Requirements and Allowances provisions.

L. Cooperation Between Contractors

1.0 This contract is one of several projects essential to the overall improvements along Route 2. The other area project that will or may be under construction during this project is:

Job No. J3S3156, Johnson County, Route 2, Bridge Replacement

2.0 When necessary for proper prosecution of work, each contractor shall permit the other access through the overlapping construction areas and will cooperate to coordinate temporary traffic control activities.

M. 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 sub-grade 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.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

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.

N. The Kansas City Southern Railway Company Requirements

To report an emergency on The Kansas City Southern Railway Company right-of-way call: (800) 527-9464. This Project is located on Route Z on the Mexico Subdivision, MP 455.33, designated as DOT # 293565Y in Bates City, MO.

1.0 Authority of Railroad Engineer and State Engineer.

1.1 The authorized representative of The Kansas City Southern Railway Company, herein called "Railroad Engineer", shall have final authority in all matters affecting the safety of employees of The Kansas City Southern Railway Company, herein called "Railroad", the public, and the safe maintenance and operation of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks. The Railroad designates the following individual as the Railroad Engineer for this project. Except as otherwise provided in this document, herein called "Railroad Requirements", the Missouri Highway and Transportation Commission's Contractor, herein called "Contractor", shall address all notices to the Railroad concerning this Project to the following person:

Mr. Justin Meyer
Senior Vice President, Engineering and Mechanical
The Kansas City Southern Railway Company
427 West 12th Street
Kansas City, MO 64105
c/o Mr. Bentley Tomlin
Office: 816-983-1138 Fax: (816) 983-1605
E-mail: bentley.tomlin@cpkcr.com

1.2 The authorized representative, herein called "Engineer", of the Missouri Highways and Transportation Commission, herein called "Commission", shall have authority over all other matters as prescribed herein and in the project plans and specifications.

1.3 The Railroad's right of way (hereinafter, "Railroad ROW") is located within this Project, which requires the Contractor to perform work on Railroad ROW. Therefore, the Contractor shall coordinate its work activities with the activities of the Railroad as required in this document.

1.4 Indemnification of Railroad by Contractor.

1.4.a. The term Contractor as used herein includes any and all subcontractors.

1.4.b. The Contractor agrees to defend, indemnify and hold harmless Railroad, its directors, officers, employees, agents, successors and assigns from and against any injury or death of persons whomsoever

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

or from any loss or damage to the Railroad's property, right of way, tracks and other facilities, herein called "Railroad's property," and from the Railroad's liability or loss incurred for damage to any other property in Railroad's care, custody or control in or upon Railroad's property, caused by acts or omissions of the Contractor in performing work on this Project, whether on, over, under or in the vicinity of the Railroad's property.

1.4.c. In the event the Contractor shall fail to restore the Railroad's property immediately to a condition acceptable to the Railroad when any such loss or damage to the Railroad's property is called to the Contractor's attention by the Railroad, then the Railroad may perform such corrective work at the cost of the Contractor. The term "loss or damage" as used herein shall include, but not be limited to, the erosion and silting of, water damage to, and the accidental or intentional placing or dropping of objects on the Railroad's property.

2.0 Right of Entry. At least forty-five (45) days in advance of the date the contractor proposes to begin work on the Railroad's Property, the contractor shall enter into a Right of Entry Agreement with Railroad prior to working on Railroad property. Request application for Right of Entry Agreement from:

Denise Case – Permit Manager
JLL – Rail Practice Group
4200 Buckingham Road, Suite 110
Fort Worth, TX 76155
Phone: (817) 230-2614
Email: denise.case@am.jll.com

Online Permit Application: https://jllrpg.360works.com/fmi/webd/rpo_web_kcs.fmp12

2.1 Processing Fee. A One Thousand Dollar (\$1,000) non-refundable processing fee must accompany the application, made payable to JLL, or the application will be returned.

2.2 Permit Fee. A one-time permit fee of \$1,000 will be required once the Right of Entry Agreement is returned to the contractor.

3.0 Construction Requirements. The Contractor's work on the Railroad's ROW shall be performed in accordance with these Railroad Requirements. The Contractor shall supply adequate equipment, labor and materials to perform the proposed work at the job site. The Contractor shall take special precaution and care to prevent any debris or material from falling on the Railroad's right of way. The safe operation of the Railroad shall take precedence over all work and nothing shall be done by the Contractor that will endanger the Railroad's operations. The Contractor shall protect the Railroad property from any damage resulting from the Contractor's acts or omissions during the highway Project.

4.0 Contractor Plans and Procedures. Before performing any excavation, demolition, blasting, lifting of structural members or construction of falsework on or over Railroad's ROW or adjacent to the Railroad's ROW that may interfere with the safe operation of the trains, the Contractor shall submit its excavation, shoring, demolition, blasting, lifting of structural members and falsework plans and relevant procedures to the Engineer for review, and to the Railroad Engineer for review and approval. These plans and procedures shall be signed and sealed by a Professional engineer licensed in the State of Missouri. However, such approval shall not relieve the Contractor from any liability relating to this Project. During the course of the Project, the Contractor shall submit any proposed changes to the approved plans or procedures to the Engineer for review and to the Railroad Engineer for review and approval. Any clearing and grubbing to increase the sight distance for a safer construction operation, or erection of temporary structures within the Railroad property shall not be done prior to the approval of the Railroad.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

The Railroad Engineer shall make a decision within 30 days. Should the Railroad Engineer deny the plans and requires a resubmittal, the Railroad Engineer shall provide approval or denial and requirement for resubmittal within 30 days after receipt of the revised plans.

4.1 The Contractor shall be required to take special precautions and care in connection with excavating and shoring. Excavations for construction of footings, piers, columns, walls or other facilities that require shoring shall comply with requirements of OSHA, AREMA and Section IV, Design and Construction of Shoring Adjacent to and on Railroad Right-Of-Way contained within the "KCS Guidelines for the Design and Construction of Railroad Overpasses and Underpasses".

4.2 The Contractor shall abide by the following minimum temporary clearances during the course of construction:

- (a) 14 feet horizontal from centerline of track
- (b) 22 feet vertical above top of rail.

4.3 The Contractor shall comply with the Railroad's rules and regulations concerning protection of persons and property and the Contractor shall consult with the Railroad Engineer concerning the Railroad's rules and regulations. Any questions arising about coordination of work between the Contractor and the Railroad Engineer or between the Contractor and others shall be taken up with the Engineer and the Contractor, Railroad Engineer and Engineer shall agree upon a method of coordination before commencing the work.

4.4 Prior to commencing any work upon, over or under the Railroad's ROW, the Contractor shall furnish to the Railroad Engineer evidence that the Contractor's insurance is in compliance with Section 6 of this special provision.

4.5 The Contractor shall be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from Contractor's operations; to promptly repair eroded areas within Railroad's ROW and to repair any other damage to the property of the Railroad or its tenants which may result from Contractor's operations. All such maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense. If the Contractor's method of erosion control differs from the approved plans, the Contractor shall submit a proposed method of erosion control and have the method reviewed by the Railroad and Commission prior to beginning any grading work on the Project site. Erosion control methods must comply with all applicable local, state and federal regulations.

4.6 The Contractor shall, reasonably throughout each work day and at the end of each work day when performing work near the Railroad's tracks, inspect the track area and clean up any debris that may have been dropped on or within ten (10) feet of Railroad's tracks. Upon completion of the Project, the Contractor shall return the Railroad ROW and all other Railroad property to a condition equal to or better than existed prior to commencement of the work. Contractor shall remove all waste, excess materials, false work and other temporary structures, and equipment, leaving the location of the work cleaned to the reasonable satisfaction of Railroad. The Contractor shall repair to the reasonable satisfaction of Railroad Engineer, and at the Contractor's sole cost and expense, any and all damages to the Railroad's property caused during construction of the Project.

5.0 Site Inspections By Railroad's Designated Representative.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

5.1 In addition to the office review of construction submittals, site inspections may be performed by Railroad's Designated Representative at milestone events during construction, including but not limited to the following:

- (a) Preconstruction meetings.
- (b) Excavations, shoring placement/removal, pile driving, drilling of caissons or drilledshafts adjacent to tracks.
- (c) Reinforcement and concrete placement for near track piers.
- (d) Erection of precast concrete or steel overpass bridge superstructure.
- (e) Reinforcement and concrete placement of overpass bridge decks.
- (f) Completion of the bridge structure.

5.2 The Railroad Designated Representative can either be an employee of the Railroad or a hired outside consultant. Site inspection is not limited to the milestone events listed above. Site visits to check progress of the work may be performed at any time throughout the construction as deemed necessary by the Railroad.

5.3 In addition to the project schedule required by the Commission, the Contractor shall provide to the Engineer a detailed construction schedule for its work on Railroad ROW, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to be performed on Railroad ROW. The Contractor shall submit a copy of this detailed construction schedule to Railroad's Designated Representative for review prior to the start of the work. This schedule shall also include the anticipated dates when the milestone events listed in subsection 5.1 will occur. The Contractor shall update the schedule for these milestone events as necessary, but at least monthly, and shall provide a copy of all updates to the Railroad so that site visits may be scheduled. The Commission shall reimburse the Railroad all costs associated with Site Inspection work by the Railroad.

6.0 Safety and Railroad Flagging.

6.1 The safe operation of the Railroad shall take precedence over Commission's work on, under and above the Railroad ROW. Contractor shall not, without Railroad's prior consent, come within 25 feet of Railroad's tracks. All work of the Contractor to be performed on, above, below or adjacent to the Railroad ROW shall be coordinated with Railroad so as to avoid, to the greatest extent possible, interference with railroad operations and to assure, at a minimum, sufficient advance notice to Railroad to ensure operational safety. Contractor shall be solely responsible with complying with any applicable laws, rules and regulations, including but not limited to OSHA regulations governing multi-employer work sites.

6.2 While on the Railroad's ROW, Contractor shall comply with Railroad's rules and regulations concerning protection of persons and property. Railroad shall make its applicable rules available to the Contractor for review and copying.

6.3 Except as authorized by Railroad the Contractor shall not work within the "Minimum Clearance Zone" of any track. The "Minimum Clearance Zone" is defined as an area measured 25 feet, horizontally, on either side of the centerline of track with unlimited vertical distance within the horizontal limits. Additionally, Contractor will locate all equipment, devices, and materials at a sufficient distance from any

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

track to ensure that no apparatus or part of any equipment, device, or material, such as the boom of a crane or a dragline, could under any circumstances encroach on the "Minimum Clearance Zone" of any track. A railroad flagger will also be required when any equipment or its attachment or booms, even though stationed outside the above-mentioned 25 feet of the nearest rail but within the railroad ROW, has a potential to come within the 25 feet of the nearest rail.

6.4 Flagging services provided by a Railroad-qualified flagging contractor will be required whenever agents, employees or equipment of the Contractor or any of its contractors or subcontractors on this Project shall be within twenty-five feet (25') of the nearest rail or if conditions as noted in item 6.3 above arise, unless specifically waived in writing by the Railroad.

6.5 Contractor shall notify the Railroad concerning any flagging services that will be required during the course of the Project, but the Contractor shall make all arrangements for flagging protection directly with a Railroad-qualified flagging contractor. Railroad's designation of a flagging contractor as a "Railroad-qualified" flagging contractor shall be construed solely as Railroad's willingness to allow that flagging contractor to provide flagging services on Railroad's property without further proof of qualification, and shall not be construed as an endorsement or other verification of the abilities or qualifications of that flagging contractor. Under these Railroad Requirements, all flagging contractors utilized on the Project shall be treated solely as independent contractors of the Contractor for all purposes under these Railroad Requirements.

6.6 The Contractor shall contract directly with any of the Railroad-qualified flagging contractors and pay them directly. The Contractor shall provide at least one month's notice prior to the first use of flaggers. Current Railroad-qualified flagging contractors are:

Railpros Field Services

Joel Ashcraft 417-362-9007 joel.ashcraft@railpros.com

Bottom Line On-Track Safety Services

Jeff Yarbrough	972-824-3348	jeff.yarbrough@alliedtrack.com
Nick Loar	214-394-5237	nick.loar@alliedtrack.com

6.7 Contractor may also obtain a list of Railroad-qualified flagging contractors together with their address and telephone numbers for flagging purposes at the proposed site by written request, sent at least 30 (thirty) days in advance, by U.S. mail or by e-mail addressed to:

Mr. Bentley Tomlin
CPKC Limited
427 West 12th Street
Kansas City, MO 64079
Bentley.Tomlin@cpkcr.com
Office: 816-983-1605

6.8 Contractor shall clear the tracks when directed to do so by the flagger. The presence of the flagger will not relieve Contractor of its duty to keep all of its agents, employees and contractors clear of the tracks when trains are in dangerous proximity to the area where construction is occurring.

6.9 All railroad tracks within and adjacent to the Project site are active, and rail traffic over these facilities shall be maintained throughout the Project. Railroad signal facilities within the project limits shall be protected at all times. KCS shall be notified if any of its facilities are in conflict with the planned work.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

Activities may include both through moves and switching moves to local customers. Railroad traffic and operations will occur continuously throughout the day and night on the tracks. The Contractor shall coordinate and schedule the work so that construction activities do not interfere with railroad operations. Any and all costs associated with delays caused to the train traffic by the Contractor shall be reimbursed by the Contractor. The Commission or the Contractor may audit these costs.

6.10 The Contractor shall notify Railroad of the completion of work on Railroad ROW within 30 days after the completion of work on Railroad ROW. Railroad shall inspect Railroad's property within 30 days after the Contractor has given this notice, to verify the Contractor's compliance with these Railroad Requirements. Railroad shall notify the Engineer of any outstanding issues to be addressed on Railroad ROW. Engineer will notify the Contractor of work to be completed.

7.0 Insurance Requirements. The amount of work to be performed upon, over or under Railroad's right of way is estimated to be one percent of the Contractor's total bid for the Project. In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Contractor shall be required to carry insurance of the following kinds:

(a) Commercial General Liability Insurance, including contractual liability and products completed/operations, against claims arising out of bodily injury, illness and death and from damage to or destruction of property of others, including loss of use thereof, with minimum limits for bodily injury and property damage of \$2,000,000 for each occurrence, with an aggregate of \$6,000,000.

1. The definition of "insured contract" shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.

2. No other endorsement limiting the coverage required by paragraph (a) of section 7.0 of these Railroad Requirements shall be included on the policy with regard to the work being performed under the contract between the contractor and the Commission.

(b) Business Automobile Policy Insurance, including owned, non-owned, and hired vehicles with minimum limits for bodily injury and property damage of \$1,000,000 per occurrence, on all vehicles used on Railroad's property during the term of the contract between the contractor and the Commission.

(c) Worker's Compensation Insurance or coverage as required under the Worker's Compensation Act of the State of Missouri. The policy shall include occupational disease to required statutory limits, employer's liability of \$1,000,000 to include FELA, if appropriate, and an "all states" endorsement.

(d) A Railroad Protective Liability policy issued in the name of the Railroad with limits of \$2,000,000 for bodily injury and property damage per occurrence, with an aggregate of \$6,000,000. The policy shall remain in force during the construction phase of the Project and shall be provided prior to start of work. The following provisions apply to the endorsements to this policy:

1. The policy shall be endorsed to include the Pollution Exclusion Amendment (ISO form CG 28 31 10 93).

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

2. The policy shall be endorsed to include the Limited Seepage and Pollution Endorsement.
3. The policy shall be endorsed to remove any exclusion for punitive damages.
4. The policy shall be endorsed to include Evacuation Expense Coverage Endorsement.
5. No other endorsements restricting coverage shall be added to the policy, except as authorized by paragraph 7.1.2 of these Railroad Requirements.
6. The Contractor shall provide the original policy to the Railroad before performing any work or services under the contract between the Contractor and the Commission.

7.1 Evidence of Insurance. The Declarations shall include the description of operations matching the Project description in the Contractor's contract with the Commission and shall include the appropriate Commission project and contract identification numbers. The job number and Project location shall appear on the Declarations and shall include the city, state and appropriate highway designation as follows:

Route Z Lafayette County, in Bates City, MO
Job No. JST0023
Mexico Subdivision, MP 455.33, DOT# 293565Y

7.1.1 The name and address of the Contractor shall appear on the Declarations. The name and address of the Commission shall be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party".

7.1.2 Other endorsements/forms that will be accepted are:

- (a) Broad Form Nuclear Exclusion – Form IL 00 21.
- (b) 30-day Advance Notice of Non-renewal or cancellation.
- (c) Required State Cancellation Endorsement.
- (d) Quick Reference or Index Form CL/IL 240.

7.1.3 Endorsements/forms that will NOT be acceptable are:

- (a) Any Pollution Exclusion Endorsement except CG 28 31.
- (b) Any Punitive or Exemplary Damages Exclusion.
- (c) Known injury or Damage Exclusion form CG 00 59.
- (d) Any Common Policy Conditions form.
- (e) Any other endorsement/form not specifically authorized in this special provision.

Job No.: JST0022, Route Z, Johnson County
Job No.: JST0023, Route Z, Lafayette County
Job No.: JST0024, Route 2, Johnson County
Job No.: JST0025, Route Y, Johnson County
Job No.: JST0026, Route O, Johnson County

7.1.4 If any part of the work is sublet, similar insurance and evidence thereof as specified above, shall be provided by or on behalf of the subcontractor to cover the subcontractor's operations on the Railroad ROW, including such operations by any Railroad-qualified flagging contractor.

7.1.5 Prior to entry on the Railroad's ROW, the Contractor shall submit the original Railroad Protective Liability Insurance Policy to the Commission and to the Railroad at the addresses below, for review by the Commission and approval by the Railroad. In addition, the Contractor shall submit certificates of insurance evidencing the Contractor's and any subcontractor's Commercial General Liability Insurance to the Railroad and the Commission at the addresses below, for review by the Commission and approval by the Railroad. The certificates of insurance shall state that the insurance coverage shall not be suspended, voided, canceled or reduced in coverage or limits without 30 days advance written notice to the Railroad and the Commission. No work shall be permitted on the Railroad's right-of-way until the Railroad has reviewed and approved the evidence of insurance required herein.

Railroad

Mr. Bentley Tomlin
CPKC Limited
427 West 12th Street
Kansas City, MO 64079
P.O. Box 219335
Kansas City, MO 64121-9335

Commission

Mr. Brandi Baldwin
State Construction & Material Engineer
MoDOT
P.O. Box 270
Jefferson City, MO 65102

8.0 Failure to Comply. If the Contractor violates or fails to comply with any of these Railroad Requirements, then the provisions in paragraphs (a) and (b) of this section shall apply, and shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

(a) The Railroad Engineer may require that the Contractor shall vacate the Railroad's property.

(b) The Engineer may withhold all monies due to the Contractor until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Engineer.

9.0 Payment for Cost of Compliance. No separate payment will be made for any extra cost incurred by the Contractor on account of compliance with these Railroad Requirements. The Contractor shall include all such costs in its contract unit price for other items included in its contract with the Commission.