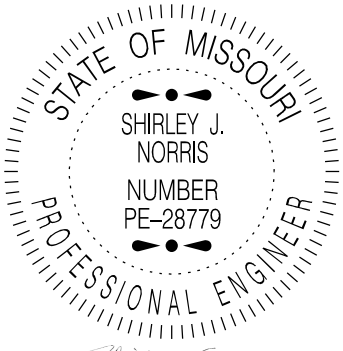
Job No.: J6S3611
Route: T
County: Franklin/St. Louis

JOB SPECIAL PROVISIONS TABLE OF CONTENTS (ROADWAY)

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



09/29/2025 12:47:39 PM
SHIRLEY J. NORRIS - CIVIL
MO-PE-28779

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: J6S3611
FRANKLIN COUNTY, ST. LOUIS COUNTY, MO
DATE PREPARED:

ADDENDUM DATE:

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

Job No.: J6S3611
Route: T
County: Franklin/St. Louis

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02L

1.0 Description. The Federal Government is participating in the cost of construction of this project. All applicable Federal laws, and the regulations made pursuant to such laws, shall be observed by the contractor, and the work will be subject to the inspection of the appropriate Federal Agency in the same manner as provided in Sec 105.10 of the Missouri Standard Specifications for Highway Construction with all revisions applicable to this bid and contract.

1.1 This contract requires payment of the prevailing hourly rate of wages for each craft or type of work required to execute the contract as determined by the Missouri Department of Labor and Industrial Relations and requires adherence to a schedule of minimum wages as determined by the United States Department of Labor. For work performed anywhere on this project, the contractor and the contractor's subcontractors shall pay the higher of these two applicable wage rates. State Wage Rates, Information on the Required Federal Aid Provisions, and the current Federal Wage Rates are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT", "Contractor Resources". Effective Wage Rates will be posted 10 days prior to the applicable bid opening. These supplemental bidding documents have important legal consequences. It shall be conclusively presumed that they are in the bidder's possession, and they have been reviewed and used by the bidder in the preparation of any bid submitted on this project.

1.2 The following documents are available on the Missouri Department of Transportation web page at www.modot.org under "Doing Business with MoDOT"; "Standards and Specifications". The effective version shall be determined by the letting date of the project.

General Provisions & Supplemental Specifications

Supplemental Plans to July 2025 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- 13-01D

1.0 Description. Liquidated Damages for failure or delay in completing the work on time for this contract shall be in accordance with Sec 108.8. The liquidated damages include separate amounts for road user costs and contract administrative costs incurred by the Commission.

2.0 Period of Performance. Prosecution of work is expected to begin on the date specified below in accordance with Sec 108.2. Regardless of when the work is begun on this contract, all work on all projects shall be completed on or before the date specified below. Completion by this date shall be in accordance with the requirements of Sec 108.7.1.

Notice to Proceed: January 5, 2026
Contract Completion Date: November 1, 2026

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

Project	Calendar Days	Daily Road User Cost
J6S3611	**N/A**	**$2,300**

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 **$2,000.00** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.

4.0 Liquidated Damages for Road User Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged road user costs in accordance with Sec 108.8 in the amount specified in Section 2.1 for each calendar day, or partial day thereof, that the work is not fully completed. These damages are in addition to the contract administrative damages and any other damages as specified elsewhere in this contract.

C. Work Zone Traffic Management 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.

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:

Route T at intersection with 100 (East End – St. Louis County)
6:00 a.m. - 8:00 a.m. Monday through Friday
4:00 p.m. - 6:00 p.m. Monday through Friday

Route T at intersection with 100 (West End – Franklin County):
6:00 a.m. - 7:00 a.m. Monday through Friday
4:00 p.m. - 6:00 p.m. Monday through Friday

Route T from Labadie School to intersection with Route MM
7:15 a.m. - 8:15 a.m. Monday through Friday
2:30 p.m. - 3:15 p.m. Monday through Friday

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

4.0 Detours and Lane Closures.

4.1 When a changeable message sign (CMS) is provided, the contractor shall use the CMS to notify motorists of future traffic disruption and possible traffic delays one week before traffic is shifted to a detour or prior to lane closures. The CMS shall be installed at a location as approved or directed by the engineer. If a CMS with Communication Interface is required, then the CMS shall be capable of communication prior to installation on right of way. All messages planned for use in the work zone shall be approved and authorized by the engineer or its designee prior to deployment. When permanent dynamic message signs (DMS) owned and operated by MoDOT are located near the project, they may also be used to provide warning and information for the work zone. Permanent DMS shall be operated by the TMC, and any messages planned for use on DMS shall be approved and authorized by the TMC at least 72 hours in advance of the work.

4.2 At least one lane of traffic in each direction shall be maintained at all times except for brief intervals of time required when the movement of the contractor's equipment will seriously hinder the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

5.0 Basis of Payment. No direct payment will be made to the contractor to recover the cost of equipment, labor, materials, or time required to fulfill the above provisions, unless specified elsewhere in the contract document. All authorized changes in the traffic control plan shall be provided for as specified in Sec 616.

D. Emergency Provisions and Incident Management 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 State Highway Patrol
1-800-525-5555 Cellular: *55
Troop C Headquarters 891 Technology Drive

Weldon Spring, MO 63141 (636) 300-2800	
Boles Fire Protection District – City of Labadie	2731 Highway T Labadie, Missouri 63055 Phone: (636) 742-2515
Boles Fire Protection District – City of St. Albans	741 Hwy T St. Albans, MO 63073 Phone: (636) 273-5580
Metro West Fire Protection District – City of Wildwood	18601 Starck Lane Wildwood, MO 63069 Phone: (636) 458-2100
City of Wildwood Police Department	16860 Main St. Wildwood, MO 63040 Phone: (636) 458-9194 or (314) 615-5601

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-96-05A

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

Shirley Norris, Project Contact
St. Louis District
1590 Woodlake Drive
Chesterfield, MO 63017

Telephone Number: 314-453-5032
Email: Shirley.Norris@modot.mo.gov

1.1 All questions concerning the bid document preparation can be directed to the Central Office – Design as listed below.

Telephone Number: (573) 751-2876
Email: BCS@modot.mo.gov

2.0 Upon award and execution of the contract, the successful bidder/contractor shall forward all questions and coordinate the work with the engineer listed below:

Christine Redhage, Resident Engineer
St. Louis District

3595 Plass Rd.
Festus, MO 63028

Telephone Number: 314-220-6670
Email: christine.redhage@modot.mo.gov

F. Supplemental Revisions JSP-18-01JJ

- 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.

- ***Delete Sec 106.9 in its entirety and substitute the following:***

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

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

106.9.1.1 Buy America Requirements for Iron and Steel for Manufactured items.
A manufactured item will be considered iron and steel if it is "predominantly" iron or steel. Predominantly iron or steel means that the cost of iron or steel content of a product is more than 50 percent of the total cost of all its components.

106.9.2 Any sources other than the USA as defined will be considered foreign. The required domestic manufacturing process shall include formation of ingots and any subsequent process. Coatings shall include any surface finish that protects or adds value to the product.

106.9.3 "Minimal use" of foreign steel, iron or coating processes will be permitted, provided the cost of such products does not exceed 1/10 of one percent (0.1 percent) of the total contract cost or $2,500.00, whichever is greater. If foreign steel, iron, or coating processes are used, invoices to document the cost of the foreign portion, as delivered to the project, shall be provided and the engineer's written approval obtained prior to placing the material in any work.

106.9.4 Buy America requirements include a step certification for all fabrication processes of all steel or iron materials that are accepted per Sec 1000. The AASHTO Product Evaluation and Audit Solutions compliance program verifies that all steel and iron products fabrication processes conform to 23 CFR 635.410 Buy America Requirements and is an acceptable standard per 23 CFR 635.410(d). AASHTO Product Evaluation and Audit Solutions compliant suppliers will not be required to submit step certification documentation with the shipment for some selected steel and iron materials. The AASHTO Product Evaluation and Audit Solutions compliant supplier shall maintain the step certification documentation on file and shall provide this documentation to the engineer upon request.

106.9.4.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

106.9.4.2 Items designated as Category 2 will include all other steel or iron products not in Category 1 and permanently incorporated in the project. Category 2 items shall consist of, but not be limited to items such as fencing, guardrail, signing, lighting and signal supports. The prime contractor is required to submit a material of origin form certification prior to incorporation into the project from the fabricator for each item that the product is domestic. The Certificate of Materials Origin form (link to certificate form) from the fabricator must show all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements and be signed by a fabricator representative. The engineer reserves the right to request additional information and documentation to verify that all Buy America requirements have been satisfied. These documents shall be submitted upon request by the engineer and retained for a period of 3 years after the last reimbursement of the material.

106.9.4.3 Any minor miscellaneous steel or iron items that are not included in the materials specifications shall be certified by the prime contractor as being procured domestically. Examples of these items would be bolts for sign posts, anchorage inserts, etc. The certification shall read "I certify that all steel and iron materials permanently incorporated in this project during all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements procured and

processed domestically in accordance with CFR Title 23 Section 635.410 Buy America Requirements. Any foreign steel used was submitted and accepted under minor usage". The certification shall be signed by an authorized representative of the prime contractor.

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

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

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

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

106.9.7 Buy America Requirements for Manufactured Products.
Manufactured products means:

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

106.9.7.1 Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least

one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

106.9.7.2 Manufactured items are covered under a general waiver to exclude them from Buy America Requirements. To qualify for the exemption the components must comprise of 55% of the value of materials in the item. The final assembly must also be performed domestically.

- Third-Party Test Waiver for Concrete Aggregate

1.0 Description. Third party tests may be allowed for determining the durability factor for concrete pavement and concrete masonry aggregate.

2.0 Material. All aggregate for concrete shall be in accordance with Sec 1005.

2.1 MoDOT personnel shall be present at the time of sampling at the quarry. The aggregate sample shall be placed in an approved tamper-evident container (provided by the quarry) for shipment to the third-party testing facility.

2.2 AASHTO T 161 Method B Resistance of Concrete to Rapid Freezing and Thawing, shall be used to determine the aggregate durability factor. All concrete beams for testing shall be 3-inch wide by 4-inch deep by 16-inch long or 3.5-inch wide by 4.5-inch deep by 16-inch long. All beams for testing shall receive a 35-day wet cure fully immersed in saturated lime water prior to initiating the testing process.

2.3 Concrete test beams shall be made using a MoDOT approved concrete pavement mix design.

3.0 Testing Facility Requirements. All third-party test facilities shall meet the requirements outlined in this provision.

3.1 The testing facility shall be AASHTO accredited.

3.1.1 For tests ran after January 1, 2025, accreditation documentation shall be on file with the Construction and Materials Division prior to any tests being performed.

3.1.2 Construction and Materials Division may consider tests completed prior to January 1, 2025, to be acceptable if all sections of this provision are met, with the exception of 3.1.1. Accreditation documentation shall be provided with the test results for tests completed prior to January 1, 2025. No tests completed prior to September 1, 2024, will be accepted.

3.2 The testing facility shall provide their testing process, list of equipment, equipment calibration documentation, and testing certifications or qualifications of technicians performing the AASHTO T 161 Procedure B tests. The testing facility shall provide details on their freezing and thawing apparatus including the time and temperature profile of their freeze-thaw chamber. The profile shall include the temperature set points throughout the entirety of the freeze-thaw cycle. The profile shall show the cycle time at which the apparatus drains/fills with water and the cycle time at which the apparatus begins cooling the specimens.

3.3 Results, no more than five years old, from the third-party test facility shall compare within ±2.0 percent of an independent test from another AASHTO accredited test facility or with MoDOT test records, in order to be approved for use (e.g. test facility results in a durability factor of 79,

MoDOT's recent durability test factor is 81; this compared within +2 percent). The independent testing facility shall be in accordance with this provision. The comparison test can be from a different sample of the same ledge combination.

3.4 When there is a dispute between the third party durability test results and MoDOT durability test results, the MoDOT durability test result shall govern.

3.5 Test results shall be submitted to MoDOT's Construction and Materials division electronically for final approval. Test results shall include raw data for all measurements of relative dynamic modulus of elasticity and percent length change for each individual concrete specimen. Raw data shall include initial measurements made at zero cycles and every subsequent measurement of concrete specimens. Raw data shall include the cycle count and date each measurement was taken. Test results shall also include properties of the concrete mixture as required by AASHTO T 161. This shall include the gradation of the coarse aggregate sample. If AASHTO T 152 is used to measure fresh air content, then the aggregate correction factor for the mix determined in accordance with AASHTO T 152 shall also be included.

4.0 Method of Measurement. There is no method of measurement for this provision. The testing requirements and number of specimens shall be in accordance with AASHTO T 161 Procedure B.

5.0 Basis of Payment. No direct payment will be made to the contractor or quarry to recover the cost of aggregate samples, sample shipments, testing equipment, labor to prepare samples or test samples, or developing the durability report.

- ***Delete paragraph 15.0 of the General Provision Disadvantaged Business Enterprise (DBE) Program Requirements and substitute the following*:**

15.0 Bidder's List Quote Summary. MoDOT is a recipient of federal funds and is required by 49 CFR 26.11 to provide data about its DBE program. All bidders who seek to work on federally assisted contracts must submit data about all DBE and non-DBEs in accordance with Sec 102.7.9. MoDOT will not compare the submitted Bidder's List Quote Summary to any other documents or submittals, pre or post award. All information will be used by MoDOT in accordance with 49 CFR 26.11 for reporting to USDOT and to aid in overall DBE goal setting**.**

- ***Add Sec 102.7.9 to include the following:***

102.7.9 Bidder's List Quote Summary. Each bidder shall submit with each bid a summary of all subcontractors, material suppliers, and service providers (e.g. hauling) considered on federally funded projects pursuant to 49 CFR 26.11. The bidder will provide the firm's name, the corresponding North American Industry Classification System (NAICS) code(s) the firm(s) were considered for, and whether or not they were used in the bid. The information submitted should be the most complete information available at the time of bid. The information shall be disclosed on the Bidder's List Quote Summary form provided in the bidding documents and submitted in accordance with Sec 102.10. Failure to disclose this information may result in a bid being declared irregular.

G. Contractor Quality Control NJSP-15-42

1.0 The contractor shall perform Quality Control (QC) testing in accordance with the specifications and as specified herein. The contractor shall submit a Quality Control Plan (QC Plan) to the engineer for approval that includes all items listed in Section 2.0, prior to beginning work.

2.0 Quality Control Plan.

(a) The name and contact information of the person in responsible charge of the QC testing.
(b) A list of the QC technicians who will perform testing on the project, including the fields in which they are certified to perform testing.
(c) A proposed independent third party testing firm for dispute resolution, including all contact information.
(d) A list of Hold Points, when specified by the engineer.
(e) The MoDOT Standard Inspection and Testing Plan (ITP). This shall be the version that is posted at the time of bid on the MoDOT website (www.modot.org/quality).

3.0 Quality Control Testing and Reporting. Testing shall be performed per the test method and frequency specified in the ITP. All personnel who perform sampling or testing shall be certified in the MoDOT Technician Certification Program for each test that they perform.

3.1 Reporting of Test Results. All QC test reports shall be submitted as soon as practical, but no later than the day following the test. Test data shall be immediately provided to the engineer upon request at any time, including prior to the submission of the test report. No payment will be made for the work performed until acceptable QC test results have been received by the engineer and confirmed by QA test results.

3.1.1 Test results shall be reported on electronic forms provided by MoDOT. Forms and Contractor Reporting Excel2Oracle Reports (CRE2O) can be found on the MoDOT website. All required forms, reports and material certifications shall be uploaded to a Microsoft SharePoint® site provided by MoDOT, and organized in the file structure established by MoDOT.

3.2 Non-Conformance Reporting. A Non-Conformance Report (NCR) shall be submitted by the contractor when the contractor proposes to incorporate material into the work that does not meet the testing requirements or for any work that does not comply with the contract terms or specifications.

3.2.1 Non-Conformance Reporting shall be submitted electronically on the Non-Conformance Report form provided on the MoDOT Website. The NCR shall be uploaded to the MoDOT SharePoint® site and an email notification sent to the engineer.

3.2.2 The contractor shall propose a resolution to the non-conforming material or work. Acceptance of a resolution by the engineer is required before closure of the non-conformance report.

4.0 Work Planning and Scheduling.

4.1 Two-week Schedule. Each week, the contractor shall submit to the engineer a schedule that outlines the planned project activities for the following two-week period. The two-week schedule shall detail all work and traffic control events planned for that period and any Hold Points specified by the engineer.

4.2 Weekly Meeting. When work is active, the contractor shall hold a weekly project meeting with the engineer to review the planned activities for the following week and to resolve any outstanding issues. Attendees shall include the engineer, the contractor superintendent or project manager and any foreman leading major activities. This meeting may be waived when, in the opinion of the engineer, a meeting is not necessary. Attendees may join the meeting in person, by phone or video conference.

4.3 Pre-Activity Meeting. A pre-activity meeting is required in advance of the start of each new activity, except when waived by the engineer. The purpose of this meeting is to review construction details of the new activity. At a minimum, the discussion topics shall include: safety precautions, QC testing, traffic impacts, and any required Hold Points. Attendees shall include the engineer, the contractor superintendent and the foreman who will be leading the new activity. Pre-activity meetings may be held in conjunction with the weekly project meeting.

4.4 Hold Points. Hold Points are events that require approval by the engineer prior to continuation of work. Hold Points occur at definable stages of work when, in the opinion of the engineer, a review of the preceding work is necessary before continuation to the next stage.

4.4.1 A list of typical Hold Point events is available on the MoDOT website. Use of the Hold Point process will only be required for the project-specific list of Hold Points, if any, that the engineer submits to the contractor in advance of the work. The engineer may make changes to the Hold Point list at any time.

4.4.2 Prior to all Hold Point inspections, the contractor shall verify the work has been completed in accordance with the contract and specifications. If the engineer identifies any corrective actions needed during a Hold Point inspection, the corrections shall be completed prior to continuing work. The engineer may require a new Hold Point to be scheduled if the corrections require a follow-up inspection. Re-scheduling of Hold Points require a minimum 24-hour advance notification from the contractor unless otherwise allowed by the engineer.

5.0 Quality Assurance Testing and Inspection. MoDOT will perform quality assurance testing and inspection of the work, except as specified herein. The contractor shall utilize the inspection checklists provided in the ITP as a guide to minimize findings by MoDOT inspection staff. Submittal of completed checklists is not required, except as specified in 5.1.

5.1 Inspection and testing required in the production of concrete for the project shall be the responsibility of the contractor. Submittal of the 501 Concrete Plant Checklist is required.

6.0 Basis of Payment. No direct payment will be made for compliance with this provision.

H. DBE Prompt Payment Reporting JSP-24-05B

1.0 Description.

1.1 This provision will only apply to contracts that have a Disadvantaged Business Enterprise (DBE) goal greater than 0% and have at least one DBE subcontractor.

1.2 MoDOT monitors the payments made by prime contractors and subcontractors to DBEs for compliance with DBE payment monitoring rules as outlined in 49 CFR 26.37. To facilitate this

monitoring, MoDOT requires prime contractors to report their remitted payments to DBEs and subcontractors to report their remitted payments to lower-tier DBEs.

1.3 Tracking of DBE payments are made through the Signet™ application (Signet). Signet is a third-party service, supported by the vendor, for usage by the prime contractor and all subcontractors. Signet is only a reporting tool; it does not process financial transactions. MoDOT does not provide direct technical support for Signet. Information about Signet may be found at https://signet-help.zendesk.com/hc/en-us.

1.4 Upon completion of the first pay estimate on the contract, Signet will automatically send an email to the prime contractor prompting registration. The prime will be required to pay a one-time, fixed fee of $1,000 for this contract directly to the Signet vendor. Use of Signet to track DBE payments will be available for the life of the contract, regardless of the contract value, contract duration, number of subcontractors, or payments reported. No additional fee will be charged to subcontractors that are required to report payments or DBEs that are required to verify payments through Signet. The contractor may also, at no additional cost, report payments through Signet to subcontractors that are not DBEs.

1.5 After each estimate, when contractor reporting of payments is complete, the subcontractor will receive an email notifying them of the payment and requesting verification of the reported payment. A subcontractor that has not completed registration with Signet will be prompted to do so at this time.

1.6 Users will be set up automatically based on information in MoDOT's vendor list. Additional users under each contractor may be added once registration has been completed within Signet. The current vendor list can be found at https://www.modot.org/bid-opening-info.

1.7 For purposes of this requirement, payer is defined as the prime contractor or subcontractor that reports a payment in Signet to a vendor that is either a subcontractor, trucker, manufacturer, regular dealer, or broker. Payee is defined as the vendor that receives notification of payment through Signet from the prime contractor or a higher-tier subcontractor. Payment is defined as issuing an Electronic Funds Transfer (EFT) or mailing a check to a payee.

2.0 Requirements. Payers must report remitted payment to DBEs within Signet, for work performed by the DBE subcontractor, DBE trucking, materials supplied from a DBE manufacturer, dealer, or broker, as well as a return of retainage (and/or other amounts withheld), within 15 calendar days.

2.1 Prime contractors must report remitted payments to DBEs within 15 calendar days of each payment it receives from MoDOT. Prime contractors must also report payments to non-DBE subcontractors if that subcontractor is making payment to a lower tier DBE subcontractor, trucker, manufacturer, regular dealer, or broker.

2.2 The payer must report the following information within Signet:

a. The name of the payee.
b. The dollar amount of the payment to the payee.
c. The date the payment was made.
d. Any retainage or other amount withheld (if any) and the reason for the withholding (if other than retainage).

e. The DBE function performed for this payment (e.g., contracting, trucking, or supplying as a manufacturer, dealer, or broker).
f. Other information required by Signet.

The payer must report its return of retainage (and/or other amounts withheld) in separate, standalone payment entries (i.e., without being comingled with a payment for work performed or materials supplied).

2.3 In the event that no work has been completed by a DBE during the estimate period, such that no payment is due to a DBE subcontractor, trucker, manufacturer, regular dealer, or broker, then the prime contractor will mark payment complete within Signet, and no other payments are required to be reported.

2.4 Each subcontractor making a payment to a lower-tier DBE must report remitted payments within Signet, as detailed in Section 2.2, within 15 days of receipt of each payment from the prime contractor.

2.5 DBE payees must verify in Signet each payment reported by a payer within 15 calendar days of the payment being reported by the payer. This verification includes whether the payment was received, and if so, whether it was as expected.

3.0 Basis of Payment. A fixed cost of $1,000 will be paid on this contract for the required software to report payments to DBEs through Signet. Regardless of the number of projects in a contract, a single payment will be made under item 108-10.00, SIGNET DBE REPORTING, per lump sum. The engineer reserves the right to underrun this item for any reason. Any additional costs for registration, software, usage, time, labor, or other costs will be considered incidental and no direct payment will be made.

I. Utilities JSP-93-26F

1.0 For informational purposes only, the following is a list of names and contact details for the known utility companies in the area of the construction work limits:

Utility Name	**Known Required Adjustment**	**Type**
Public Water District #3 Terry McDaniel Phone: (314) 713-9623 Email: tmcdaniel@alliancewater.com	2.0 None	Water
ATT Distribution Justin Courtosie Phone: (314) 277-4708 Email: Jc660s@att.com	None	Communications
Spectrum Mid-America, LLC Donald Hatfield Phone: (314) 341-4450	None	Communications

Email: Donald.Hatfield@charter.com		
Lumen Jeff Mattingly Phone: (904) 9236-8126 Email: jmattingly@stalcupassociates.com	None	Communications
Sho-Me Technologies, LLC Kyler Bybee Phone: (417)859-2615 Email: kbybee@shomepower.com	None	Communications

1.1 The existence and approximate location of utility facilities known to exist, as shown on the plans, are based upon the best information available to the Commission at this time. This information is provided by the Commission "as-is" and the Commission expressly disclaims any representation or warranty as to the completeness, accuracy, or suitability of the information for any use. Reliance upon this information is done at the risk and peril of the user, and the Commission shall not be liable for any damages that may arise from any error in the information. It is, therefore, the responsibility of the contractor to verify the above listing information indicating existence, location, and status of any facility. Such verification includes direct contact with the listed utilities.

2.0 Public Water District #3 has an 8" watermain situated within the northwest quadrant of Labadie Bottom Road that intersects the proposed guardrail installation at Lane Mile 3.8715. Contractor is advised to pothole watermain to verify location and depth of watermain prior to the installation of guardrail post. The contractor shall not install guard rail post within 1' of the water main.

3.0 If utility facilities are discovered, the contractor shall contact the MoDOT Area Utility Coordinator Michael Quadrini at 314-648-4079. The engineer will determine whether relocation of the utility is necessary to accommodate construction or if the work can be installed in accordance with Missouri Standard Plans for Highway Construction for the item of work specified.

4.0 Basis of Payment: No direct payment will be made for complying with this provision.

J. Protection of Missouri Eastern Railroad Facilities and Traffic

To report an emergency on the Missouri Eastern Railroad call: (833) 261-7790
The project location is at the following location in Franklin:
Route T under US DOT 596274X MP 46.03 in Labadie, MO.

1.0 Authority of Railroad Engineer and State Engineer.

1.1 The authorized representative of the Missouri Eastern Railroad, herein called "Railroad Engineer," shall have final authority in all matters affecting the safe maintenance and operation of railroad traffic.

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

1.3 The right of way of the Missouri Eastern Railroad, herein called “Railroad,” is located within the limits of this project and care shall be taken to ensure that no debris or material is dropped on the Railroad's property.

2.0 Right of Entry. The contractor shall not commence any work upon, over nor under the Railroad’s right of way until contractor has obtained a Right of Entry Permit and complied with the following conditions:

2.1 At least 5 working days in advance of the date the contractor proposes to begin work upon, over or under the Railroad’s right of way, the contractor shall notify the Railroad Engineer (listed below) by e-mail or written notice to the address below with a copy to the Engineer.

Darl Farris
President
1027 South Main Street Suite 403
Joplin, MO 64801
dfarris@jag-transport.com
(636) 779-3063

2.2 Contractor shall obtain an Executed Right of Entry Permit by mail or e-mail from the Railroad Engineer to begin work upon, over or under the Railroad’s right of way, such authorization will include an outline of specific conditions with which the contractor shall comply.

3.0 Insurance. 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. Contractor shall secure railroad protective liability insurance naming only the Railroad as the insured with a combined single limit of $2,000,000 per occurrence with a $6,000,000 aggregate, and this insurance shall conform to all the requirements as specified by Sec 107.13.4 of the Missouri Standard Specifications for Highway Construction.

4.0 Job Briefing. Contactor will contact the Railroad Engineer, Darl Farris, by phone (contact number above) at least 3 working days before beginning work upon, over or under the Railroad’s right of way to make arrangements for a job briefing.

4.1 Railroad Engineer will arrange a meeting with the contractor’s representative and a Railroad Employee each day work is scheduled to be performed upon, over or under the Railroad’s right of way. A job briefing shall be held, usually at the job site and usually in the morning, to discuss the contractor’s work to be performed that day and to discuss the relevant railroad operations. The meeting shall be held before any work is done within 25 feet of the centerline of any track. If any train movements are scheduled for that day, the train moves will be made under the direct supervision of the Railroad Engineer or a Railroad Representative after the contractor has cleared the work site. Flagging services typically provided by the Railroad may not be required depending on the Railroad’s schedule of operations.

5.0 Reimbursement of Flagging Costs. The Commission may reimburse the Railroad directly for the cost of flagging services associated with the highway project if flagging services are provided. Flagging costs will be deducted from the contractor’s payments from the Commission.

If the contractor pays the flagger directly, the contractor must notify the MoDOT Engineer of such payments for flagging.

6.0 Payment for Cost of Compliance. No separate payment will be made for any extra cost incurred on account of compliance with this special provision. All such cost shall be included in contract unit price for other items included in the contract.

7.0 No Payment by Railroad pursuant to this JSP. Railroad will not be responsible for paying the contractor for any work performed under this special provision.

8.0 The Contractor must adhere to all other policies, procedures and insurance coverage not specifically mentioned in these special provisions. These can be found in the Contractor Occupancy/Access Agreement included below.

CONTRACTOR OCCUPANCY/ACCESS AGREEMENT

This Agreement (hereinafter "Agreement") made this **<Day>th day** of **<Month> <Year>** by and between **Missouri Eastern Railroad, LLC,** its successors, assigns or affiliated companies (hereinafter "Railroad"), whose address is 1027 South Main Street Suite 403, Joplin, MO 64801 and **<Contractor>** (hereinafter referred to as "Company"), whose address is <Contractor Address>.

WITNESSETH:

1 Upon payment of a **one-time fee of Two Thousand U.S. Dollars ($2,000)** and compliance with the provisions herein contained, Railroad hereby permits Company to enter the property of Railroad, at **Mile Post 46.03, in Labadie, Franklin County Route T,** for purpose of resurfacing (mill/fill) (hereinafter referred to as "Work"), under the **Bridge in the MER ROW,** (hereinafter "Structure"). Said permit is granted for a period not to extend beyond **sixty (60) days from the date of execution of this Agreement by** Railroad. Provided, however, this permit may be canceled by Railroad at any time Company is deemed by Railroad not to be in compliance with any of the terms herein.

2. The term "Contractor" shall be used to identify the party that will perform the Work as described in Section 1, whether or not Contractor is signatory to **MER-<ContractNumber>A**. If Contractor is other than **<Contractor>,** Contractor warrants to Railroad that Contractor (hereinafter termed "Third Party"), has entered into a "Contract" with **<Contractor>** covering the Work to be performed in connection with Structure at said locations.

3. As additional consideration, Company agrees to reimburse Railroad for all cost and expense incurred by Railroad in connection with the Work. Such costs and expenses shall include, but are not limited to, furnishing of inspectors, watchmen and flagmen as Railroad deems necessary to protect its property, tracks, engines, trains and cars and the operation thereof, the installation and removal of any necessary falsework beneath the tracks of Railroad and the restoration of Railroad property. No vehicular crossing over Railroad's tracks shall be installed or used by Company without prior written permission of Railroad.

4. Company shall give Railroad at least five (5) days' notice in advance of any work done upon or adjacent to Railroad property under this Agreement. Company shall notify Railroad **President** by calling (636) 779-3063, in advance of the start of the Work, give the General Manager notification of the date said Work is completed, and also the date the Contractor's work is accepted by Third Party. Upon completion of the Work, Company shall promptly remove from Railroad property all tools, equipment and materials placed thereon by Company and Company's agents. Company shall restore Railroad

property to the same state and condition as when Company entered thereon and shall leave said property in a clean and presentable condition. Company, after completion of construction or termination of work, at its sole cost, hereby agrees to restore in a good and workman like manner all property disturbed by Company use or construction or maintenance activities from the date of execution of this document. Said restoration shall include, but not be limited to, any and all harm, damage or injury done to Railroad property and/or to any other public or private property by acts or occurrences subject to Federal, State or local environmental enforcement or regulatory jurisdiction, and shall include necessary and appropriate testing and cleanup.

5. Company's work shall be performed in accordance with plans and specifications approved by Railroad and in such manner and at such times as shall not endanger or interfere with the safe operation of the tracks and other facilities of Railroad at said location. No materials, tools or equipment shall be stored within ten (10) feet of the centerline of any track. The regulations of Railroad and the instructions of its representatives shall be complied with relating to the proper manner of protecting the tracks, pipelines, wire lines, signals and all other property at said location, the traffic moving on such tracks and the removal of tools, equipment and materials. Provided, no bailment shall be created by the storage of any materials, tools or equipment on Railroad property.

5. Before said Work, Company shall, at its sole cost and expense, obtain all necessary authority from any public authorities having jurisdiction in the premises, and shall thereafter observe and comply with the requirements of such public authority or authorities and all applicable laws and regulations. Company shall secure written approval by Railroad of plans and/or specifications submitted to Railroad prior to the commencement of any Work.
6. The Structure shall be installed at the sole risk, cost and expense of Company, in accordance with American Railway Engineering Association Specifications or other Industry Standard Specifications as may apply or be appropriate for the use intended. Said specifications are incorporated herein and made a part hereof by reference. Approval of plans or completed work by Railroad's designated representative shall not, in itself, be considered acknowledgment that said project is in conformity with said standards.

7. COMPANY AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS RAILROAD, ITS OFFICERS, AGENTS, AND EMPLOYEES FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITIES OF EVERY KIND (INCLUDING REASONABLE ATTORNEYS' FEES, COURT COSTS, AND OTHER EXPENSES RELATED THERETO) FOR INJURY TO OR DEATH OF A PERSON OR FOR LOSS OF OR DAMAGE TO ANY PROPERTY, ARISING OUT OF OR IN CONNECTION WITH ANY WORK DONE, ACTION TAKEN OR PERMITTED BY COMPANY, ITS SUBCONTRACTORS, AGENTS OR EMPLOYEES UNDER THIS CONTRACT.

   LICENSEE HEREBY ASSUMES, AND SHALL AT ALL TIMES HEREAFTER RELEASE, INDEMNIFY, DEFEND AND SAVE RAILROAD HARMLESS FROM AND AGAINST ANY AND ALL LIABILITY, LOSS, CLAIM, SUIT, DAMAGE, CHARGE OR EXPENSE WHICH RAILROAD MAY SUFFER, SUSTAIN, INCUR OR IN ANY WAY BE SUBJECTED TO, ON ACCOUNT OF DEATH OF OR INJURY TO ANY PERSON (INCLUDING OFFICERS, AGENTS, EMPLOYEES OR INVITEES OF RAILROAD), AND FOR DAMAGE TO OR LOSS OF OR DESTRUCTION OF ANY PROPERTY WHATSOEVER, ARISING OUT OF, RESULTING FROM, OR IN ANY WAY CONNECTED WITH THE PRESENCE, EXISTENCE, OPERATIONS, OR USE, OF WIRELINE, EXCEPT TO THE EXTENT PROVEN TO HAVE BEEN CAUSED BY THE FAULT, OR NEGLIGENCE OF RAILROAD. HOWEVER, DURING ANY PERIOD OF ACTUAL CONSTRUCTION, REPAIR, MAINTENANCE, REPLACEMENT OR REMOVAL OF WIRELINE, WHEREIN AGENTS OR PERSONNEL OF LICENSEE ARE ON THE RAILROAD RIGHT-OF-

WAY, LICENSEE'S LIABILITY HEREUNDER SHALL BE ABSOLUTE, IRRESPECTIVE OF ANY FAULT OR NEGLIGENCE OF RAILROAD.

8. Should Railroad bring suit to compel performance of or to recover for breach of any covenant or condition contained herein, Company shall pay to Railroad reasonable attorneys' fees in addition to the amount of judgment and costs.

9. Prior to the performance of any work upon or adjacent to Railroad's property under this Agreement:

   (a) Company shall furnish Railroad, at Company expense, a certified copy of a public liability and property damage liability insurance policy issued in the name of Company covering the contractual liability assumed by Company under Section 8 hereof. The form, substance and limits of said insurance policy shall be subject to the approval of Railroad and shall be in compliance with the provisions contained in the insert marked Exhibit "A", hereto attached and made a part hereof.

   (b) Company shall furnish Railroad, at Company expense, a certificate of Workers Compensation coverage, including Federal Employee Liability Act coverage if applicable, for its workers and subcontractors in accordance with the requirements of the State or States in which said work is to be performed.

   (c) Company shall furnish a policy of Railroad Protective coverage in the amount of Two million and no/100 dollars ($2,000,000.00) per occurrence, Six million and no/100 dollars ($6,000,000.00) aggregate with named insured as outlined in COMPANY OCCUPANCY/ACCESS AGREEMENT, Exhibit "A". WARNING: ONLY A POLICY OF RAILROAD PROTECTIVE INSURANCE WHICH SPECIFICALLY NAMES **Missouri Eastern Railroad, LLC** AS THE INSURED PARTIES IS ACCEPTABLE AND A COPY OF SAID POLICY MUST BE RECEIVED PRIOR TO THIS PERMIT BEING APPROVED ON BEHALF OF RAILROAD.

   Company shall keep said insurance in full force and effect until all work to be performed upon or adjacent to Railroad property under said contract is completed to the satisfaction of and accepted by Third Party and thereafter until Company has fulfilled the provisions of this agreement with respect to the removal of tools, equipment and materials from Railroad property. Said policy shall name Railroad as additional insured.

10. The permission herein given shall not be assigned by Company without the prior written consent of Railroad, except in the case of subcontractors who shall be deemed agents of Company, subject to the terms of this Agreement. Railroad Requirements for Company working on Railroad Right-of-Way are attached as Company OCCUPANCY/ACCESS AGREEMENT, Exhibit "B" and made a part hereof. Failure to comply with all of said requirements shall be grounds for cancellation of this Agreement at the sole option of Railroad.

11. CONSTRUCTION PROVISIONS: In relation to Railroad's track and Railroad operations:

    a. Company warrants it will place no bore pit closer than 25 feet from the end of the ties of the nearest track, as measured at right angles from said track; that all of the lines to be installed under Railroad's track shall be a minimum of five feet six inches below the base of the rail; that carrier pipe(s) and/or wire lines shall be encased in Steel Casing Pipe in accordance with the attached Company OCCUPANCY/ACCESS AGREEMENT, Exhibit "D" casing criteria attached hereto; and that casing shall extend a minimum of 25 feet from the center line of the outside track on

each side of said crossing, measured at a right angle to said track.

a. Company shall be solely liable for location and protection of any subgrade railroad signal wires or other railroad facilities, which may be impacted by Company Work. If same shall be damaged by said Work, Contractor shall, at its own expense, immediately cause said damage to be corrected. Contractor shall be solely liable to Railroad for any and all costs resulting for any interruption of train service resulting from Company Work.

b. Said provisions shall prevail over any lesser provision or standard set out for occupancy of adjoining or underlying lands.

THIS AGREEMENT IS hereby declared to be binding upon the parties hereto.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand and seals this _____ day of _____ **20___**.

Railroad

Missouri Eastern Railroad, LLC

By: **Anthony Cox**
Senior Vp

Signed: _____

Company

<Contractor>

By: _____

Its: _____

Signed: _____

EXHIBIT A

The coverage afforded hereunder shall include the liability assumed by the named insured under the

following indemnification provisions contained in an agreement in writing between the named insured and **Missouri Eastern Railroad, LLC**, covering work to be performed upon or adjacent to its property.

Company AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS Railroad, ITS OFFICERS, AGENTS, AND EMPLOYEES FROM AND AGAINST ANY AND ALL CLAIMS, DEMANDS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, AND LIABILITIES OF EVERY KIND (INCLUDING REASONABLE ATTORNEYS' FEES, COURT COSTS, AND OTHER EXPENSES RELATED THERETO) FOR INJURY TO OR DEATH OF A PERSON OR FOR LOSS OF OR DAMAGE TO ANY PROPERTY, ARISING OUT OF OR IN CONNECTION WITH ANY Work DONE, ACTION TAKEN OR PERMITTED BY Company, ITS SUBCONTRACTORS, AGENTS OR EMPLOYEES UNDER THIS CONTRACT.

IT IS THE EXPRESS INTENTION OF THE PARTIES HERETO, BOTH Company AND Railroad, THAT THE INDEMNITY PROVIDED FOR IN THIS PARAGRAPH INDEMNIFIES Railroad FOR ITS OWN NEGLIGENCE, WHETHER THAT NEGLIGENCE IS ACTIVE OR PASSIVE, OR IS THE SOLE OR A CONCURRING CAUSE OF THE INJURY, DEATH OR DAMAGE; PROVIDED THAT SAID INDEMNITY SHALL NOT PROTECT Railroad FROM LIABILITY FOR DEATH, INJURY OR DAMAGE ARISING SOLELY OUT OF THE CRIMINAL ACTIONS OF Railroad, ITS OFFICERS, AGENTS AND EMPLOYEES. IT IS STIPULATED BY THE PARTIES THAT Railroad OWES NO DUTY TO Company, ITS CLIENT, OR THEIR DIRECTORS, OFFICERS, EMPLOYEES AGENTS OR INVITEES TO PROVIDE A REASONABLY SAFE WORK PLACE AND THAT ALL PARTIES ENTERING ONTO Railroad PROPERTY DO SO AT THEIR SOLE RISK. "

The policy or policies shall provide coverage in amount of not less than Two Million Dollars ($2,000,000) combined single limit for all damages arising out of bodily injury to or death of persons and for loss of or damage to property.

The policy or policies, where applicable and available, shall contain Insurance Services Office Standard Endorsement CG 2417.

No cancellation of this policy or modification of the coverage afforded under this endorsement shall be effective until ten (10) days' notice thereof has been given to: Missouri Eastern Railroad, LLC, C/O IMGRail, 1629 Race Track Rd. Suite 206, St. John's, FL 32259, E-mail contact@imgonline.net

The policy as required in section 10(a) of the Agreement shall name Railroad as an additional insured.

The policy as required in section 10(b) shall name Railroad and affiliates as listed below as additional insured with respect to F.E.L.A. coverage, and/or if applicable under the laws of the State in which the work is performed.

The policy as required in section 10(c) shall name **Missouri Eastern Railroad, LLC** as insured.

Railroad requires each Insurance Carrier providing coverage must be an Admitted Company in the State for which this Agreement is written and has an A.M. Best rating of "A" or better and a financial class rating of 10 or better.

EXHIBIT B

Requirements for Contractors working on Railroad Right-of-Way:

A. In order to protect Railroad's investment in its right-of-way and for the safety of persons coming onto Railroad property, Railroad has established certain requirements. The following constitute minimum requirements for all persons coming on or near Railroad right-of-way. Company is encouraged to develop

their own safety rules that meet or exceed the following requirements. Company will not be allowed to occupy or work on Railroad right-of-way prior to signing and dating this Agreement and returning it to the Railroad contact person noted herein.

B. All permits and agreements must be in effect, required payments made and insurance certificates received and approved prior to Company entering Railroad right-of-way. Insurance must remain in effect during the entire project.

C. Any dewatering utilizing drains or ditches on Railroad property must be approved by Railroad.

D. Company must have approved "Construction Plans" prior to commencing work on a project. No changes will be made to "Construction Plans" without approval by all parties involved. Approved revised plans will be furnished to all parties prior to implementation of changes.

E. Company will incur all costs for track work, including flagging, etc., made necessary due to the Work.

F. Pursuant to Federal Regulation, flagging protection is always required when equipment crosses or is working within 25 feet of center of any live track. When deemed necessary by Railroad, a flagman may be required at all times while working on Railroad right-of-way.

G. Crossing of any Railroad tracks must be done at approved locations and must be over full depth timbers, rubber, etc. Any equipment with steel wheels, lugs or tracks must not cross steel rails without aid of rubber tires or other approved protection.

H. If temporary construction crossings are necessary, they must be covered by a Private Roadway and Crossing Agreement and must be barricaded when not in use. A Private Roadway and Crossing Agreement is prepared by Railroad under the same general terms as this Agreement.

I. Company must furnish details on how Company will perform work that may affect existing drainage and/or possible fouling of track ballast as well as removal of overhead bridges/structures. (Structures and bridge spans over tracks must be removed intact).

J. Absolutely no piling of construction materials or any other material, including dirt, sand, etc., within 15 feet of center on any secondary track (25 feet of Main Line and siding tracks) or on property of Railroad not covered by an existing Construction Easement, permit, lease or agreement. A 10' clear area on both sides of a main track must remain unobstructed at all times to allow for stopped train inspection.

K. **(a)** All bore pits must be a minimum of 25 feet from the nearest outside rail of any track, measured at a 90 degree angle to said track and all under track bores shall be no less than six feet below the bottom of the ties.

(b) No construction will be allowed within 15 feet of center of any track unless authorized by Railroad and as shown on plans approved by Railroad. This includes any excavation, slope encroachment and driving of sheet piles.

L. No vehicles or machines shall remain unattended within 15 feet of a secondary track or within 25 feet of a Main Line track.

M. Should Company in any way interfere with Railroad operations or damage property during construction operations over Railroad's tracks and right-of-way, Company, upon demand by Railroad to Company and/or Client, shall immediately stop work on Railroad's right-of-way for a period of not less than 48 hours

to allow Railroad to investigate. Any necessary repairs shall be made by Railroad at Company's sole cost and expense. No work will proceed until authorized by Railroad.

N. Company's safety rules, including rules regarding personal Safety Equipment, must not conflict with Railroad safety policies or rules.

O. Articles included in any agreement with Railroad, which complement this document or exceed its contents, include Company OCCUPANCY/ACCESS AGREEMENT, Exhibit "C".

Company's Acknowledgement: Work Site Location

Company_____ Address:_____

By: _____ Town: _____

Title: _____ State:_____

Date: _____ Project No. _____

Railroad Contact Person:

Missouri Eastern Railroad

Darl Farris
Name

President
Title

1027 South Main Street Suite 403
Address

Joplin, MO 64801
City, State, Zip

(636) 779-3063
Telephone Number

(801) 393-7733
Fax Number

DFarris@jag-transport.com
Email

EXHIBIT "C"

Statement of Conditions when Flagmen, Protective Services and Devices or other appropriate personnel will be furnished by Railroad at sole expense of Company:

A. Railroad flagmen will be required for, but not limited to, the following conditions:

1. When, in the sole opinion of Railroad, protection is necessary to safeguard Railroad's trains, engines, facilities and property.

2. When work is performed, in any way, over, under, or in close proximity to tracks or any Railroad facilities.

3. When work in any way interferes with the operation of trains at usual speeds or threatens,

damages, or endangers track or Railroad facilities.

4. When any hazard is presented Railroad communications, signal, electrical, or other facilities due to persons, material, equipment, or blasting in the vicinity.

5. When and where material is being hauled across tracks. Provided, however, special clearance must be obtained from Railroad before moving heavy or cumbersome objects and equipment which might result in making the track impassable for any period of time.

B. Protective Services and Devices, Other Specialized Personnel shall be provided when, in the sole opinion of Railroad, such are necessary in addition to flagging.

COST OF FLAGGING AND OTHER PROTECTIVE SERVICES AND DEVICES

A. Flagging

1. Shall be billed a minimum of **actual cost (please verify rates with the Railroad office)** per day plus any expenses incurred for each flagman required, for each day, or for any portion thereof, for up to eight hours in one shift Monday through Friday, excepting holidays recognized by Railroad in its personnel policy manual.

2. Time worked in excess of eight hours in one shift Monday through Friday, or worked in any amount on Saturday, Sunday and on holidays recognized by Railroad in its personnel policy manual, shall be billed at the rate of **actual cost (please verify rates with the Railroad office)** per eight-hour day, per flagman required, for each day or portion thereof worked.

B. Communications Linemen, Signalmen, Protective Services and Devices

All services required shall be billed at Railroad's contracted rate with service provider plus a 20 percent Railroad administrative fee.

EXHIBIT "D"

MINIMUM WALL THICKNESS FOR CASING PIPES UNDER Railroad TRACKS

1. STEEL CASING PIPE (A.R.E.A. SPEC. 1964)

NOMINAL DIAMETER (Inches)	NOMINAL WALL THICKNESS (Inches)	
	PROTECTED	NOT PROTECTED*
Under 14	0.188	0.188
14 and 16	0. 219	0.281 (9/32)
18	0.250	0.312
20	0.281	0.344
22	0.312	0.375
24	0.344	0.406
26	0.375	0.438
28 and 30	0.406	0.469
32	0.438	0.500

34 and 36	0.469	0.531
38, 40 and 42	0.500	0.562

Steel Pipe to have minimum yield strength of 35,000 psi.

* When casing is installed without benefit of a protective coating and said casing is not cathode protected, the wall thickness shall be increased to the nearest standard size which is a minimum of 0.063 inches greater than the thickness shown for protected pipe except for diameters under 12.75 inch.

2. CONCRETE PIPE

All diameters of concrete pipe under main tracks shall be specified, as A.S.T.M. C-76 (Latest Revision) Table V. Concrete pipe under siding and yard tracks may be Table IV. (Either Wall "B" or "C" is acceptable.

3. CORRUGATED METAL PIPE

Table shows permissible minimum and maximum height of cover for both riveted and helical pipe.

NOMINAL DIAMETER (Inches)	16 GAGE	14 GAGE	12 GAGE
12	4-53 (ft)	4-80 (ft)	
15	4-42	4-64	
18	4-34	4-53	
21	4-28	4-45	4-79 (ft)
24	5-23	4-40	4-70
30		4-31	4-56
36		5-23	4-46
42		4-49	4-78

K. Optional Surface Treatment Prior to Asphalt Overlay NJSP-15-33D

1.0 Description. This work shall consist of furnishing and applying an optional surface treatment to fill and seal cracks on the existing roadway prior to an asphaltic concrete overlay. The optional surface treatment may be placed concurrently with the overlay with a spray paver, as specified herein, or may be placed in advance of the overlay in accordance with Sec 413.20.

2.0 Surface Treatment. All materials and construction requirements shall be in accordance as follows:

Treatment Options	Requirements
Scrub Seal Treatment	Sec 413.20
Polymer Modified Emulsion Membrane Applied using a Spray Paver	Section 4.0 of this JSP

2.1 Scrub Seal Emulsion (SSE-1). Scrub seal emulsion shall be in accordance with Sec 1015.20.5.3.

3.0 Construction.

3.1 Emulsion Application Rates. The surface treatment shall be applied uniformly across the entire width to be overlaid at the target rates indicated in the following table. The application rate shall be within +/- 0.02 gallon per square yard of the target application rate. No dilution of the emulsified asphalt material shall be allowed. The surface shall be clean of all dirt before emulsion is placed.

Treatment Options	Target Application Rate (gal/sq yd)
Scrub Seal Emulsion	0.25
Polymer Modified Emulsion Membrane Applied using a Spray Paver	0.25

3.2 Application Temperatures. The emulsified asphalt material shall be heated at the time of application to a temperature as indicated in the following table or as recommended by the manufacturer.

Treatment Options	Spray Temperature, °F	
	Min	Max
Scrub Seal Emulsion	110	160
Polymer Modified Emulsion Membrane Applied using a Spray Paver	120	180

3.3 Scrub Seal Aggregate Application Rate. The application rate of fine aggregate placed on the scrub seal shall be a target rate of 10 lb/yd^2. The intent of the fine aggregate coverage is to be used as a blotter material to assist with opening to traffic. Adjustments to this rate shall be approved by the engineer. If the fine aggregate application rate exceeds 10 lb/yd^2, then a tack coat shall be applied prior to the asphalt overlay at a rate of 0.05 gal/yd^2 at no direct pay.

3.4 Curing. Prior to opening to traffic or placing the asphaltic concrete overlay, the scrub seal treatment shall be allowed to set and cure until the treatment does not track under construction traffic.

3.5 Opening to Traffic. If the surface is treated with a scrub seal, it shall remain closed to traffic until the surface is tack-free and does not track under construction traffic. The surface shall be clean of all dirt and loose sand before the asphaltic concrete overlay is placed.

3.6 Tack Coat. If the surface is treated with a scrub seal and is opened to traffic for more than 3 days, then the surface shall be tacked in accordance with Sec 407 at an application rate of 0.05 gal/yd^2 prior to placing the asphaltic concrete overlay. If the treated pavement is open to traffic for less than 3 days and the fine aggregate application rate was 10 lb/yd^2 or less, then no additional tack coat is required prior to placing the asphaltic concrete overlay. No direct pay will be made for the application of tack coat.

4.0 Polymer Modified Emulsion Membrane.

4.1 Description. This work shall consist of placing a Polymer Modified Emulsion Membrane (PEM-1 or CPEM-1) prior to a bituminous overlay of hot asphaltic concrete pavement. The Polymer Modified Emulsion Membrane shall be spray applied immediately prior to the application of the hot asphaltic concrete pavement so as to produce a homogeneous surface in accordance with Secs 401, 402, or 403.

4.2 Materials. The Polymer Modified Emulsion Membrane shall be in accordance with Sec 1015.20.6.2.

4.3 Construction Requirements. The asphaltic concrete pavement shall be placed in accordance with Secs 401, 402, or 403, except as modified herein.

4.4 Equipment. No wheel, track or other part of the paving machine or any hauling equipment shall come in contact with the Polymer Modified Emulsion Membrane before the asphaltic concrete pavement mixture is applied.

4.5 Application of Polymer Modified Emulsion Membrane. The sprayer shall accurately and continuously monitor the rate of spray and provide a uniform application across the entire width to be overlaid. The target application rate of the asphalt emulsion membrane shall be as shown under Section 3.1 of this Job Special Provision. The application rate of the Polymer Modified Emulsion Membrane shall be verified by dividing the volume (of Polymer Modified Emulsion Membrane used) by the area of paving for that day. No additional water shall be added to the Polymer Modified Emulsion Membrane.

5.0 Method of Measurement. Measurement of the crack sealing treatment will be made to the nearest gallon of Polymer Modified Emulsion Membrane or Scrub Seal Emulsion applied and accepted by the engineer, regardless of the method of application. Measurement will be in accordance with Sec 1015.

6.0 Basis of Payment. The accepted quantity of the crack seal treatment will be paid for at the contract unit price 413-99.12, Misc. Optional Surface Treatment, per gallon. No separate payment will be made for the sand used in the Scrub Seal option or for any additional construction methods, materials, or processes to fulfill the requirements of this provision.

L. Lump Sum Temporary Traffic Control JSP-22-01B

1.0 Delete Sec 616.11 and insert the following:

616.11 Method of Measurement. Measurement for relocation of post-mounted signs will be made to the nearest square foot of sign area only for the signs designated for payment on the plans. All other sign relocations shall be incidental. Measurement for construction signs will be made to the nearest square foot of sign area. Measurement will be made per each for each of the temporary traffic control items provided in the contract.

616.11.1 Lump Sum Temporary Traffic Control. No measurement will be made for temporary traffic control items grouped and designated to be paid per lump sum. The list of lump sum items provided in the plans or contract is considered an approximation and may be subject to change based on field conditions. This is not a complete list and may exclude quantities for duplicate work zone packages used in simultaneous operations. The contractor shall provide all traffic control devices required to execute the provided traffic control plans for each applicable operation, stage, or phase. No measurement will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer.

2.0 Delete Sec 616.12 and insert the following:

616.12 Basis of Payment. All temporary traffic control devices authorized for installation by the engineer will be paid for at the contract unit price for each of the pay items included in the contract. Whether the devices are paid individually, or per lump sum, no direct payment will be made for the following:

(a) Incidental items necessary to complete the work, unless specifically provided as a pay item in the contract.

(b) Installing, operating, maintaining, cleaning, repairing, removing, or replacing traffic control devices.

(c) Covering and uncovering existing signs and other traffic control devices.

(d) Relocating temporary traffic control devices, including permanent traffic control devices temporarily relocated, unless specifically included as a pay item in the contract.

(e) Worker apparel.

(f) Flaggers, AFADs, PFDs, pilot vehicles, and appurtenances at flagging stations.

(g) Furnishing, installing, operating, maintaining, and removing construction-related vehicle and equipment lighting.

(h) Construction and removal of temporary equipment crossovers, including restoring pre-existing crossovers.

(i) Provide and maintaining work zone lighting and work area lighting.

616.12.1 Lump Sum Temporary Traffic Control. Traffic control items grouped together in the contract or plans for lump sum payment shall be paid incrementally per Sec 616.12.1.1. Alternately, upon request from the contractor, the engineer will consider a modified payment schedule that more accurately reflects completion of traffic control work. No payment will be made for any additional signs or devices needed except for changes in the traffic control plan directed by the engineer. Additional items directed by the engineer will be paid for in accordance with Sec 109.4. No adjustment to the price will be made for overruns or underruns of other work or for added work that is completed within existing work zones.

616.12.1.1 Partial payments. For purposes of determining partial payments, the original contract amount will be the total dollar value of all original contract line items less the price for Lump Sum

Temporary Traffic Control (LSTTC). If the contract includes multiple projects, this determination will be made for each project. Partial payments will be made as follows:

(a) The first payment will be made when five percent of the original contract amount is earned. The payment will be 50 percent of the price for LSTTC, or five percent of the original contract amount, whichever is less.

(b) The second payment will be made when 50 percent of the original contract amount is earned. The payment will be 25 percent of the price for LSTTC, or 2.5 percent of the original contract amount, whichever is less.

(c) The third payment will be made when 75 percent of the original contract amount is earned. The payment will be 20 percent of the price for LSTTC, or two percent of the original contract amount, whichever is less.

(d) Payment for the remaining balance due for LSTTC will be made when the contract has been accepted for maintenance or earlier as approved by the engineer.

616.12.1.2 Temporary traffic control will be paid for at the contract lump sum price for Item:

Item No.	Unit	Description
616-99.01	Lump Sum	Misc. Lump Sum Temporary Traffic Control

M. ADA Compliance and Final Acceptance of Constructed Facilities JSP-10-01C

1.0 Description. The contractor shall comply with all laws pertaining to the Americans with Disabilities Act (ADA) during construction of pedestrian facilities on public rights of way for this project. An ADA Checklist is provided herein to be utilized by the contractor for verifying compliance with the ADA law. The contractor is expected to familiarize himself with the plans involving pedestrian facilities and the ADA Post Construction Checklist prior to performing the work.

2.0 ADA Checklist. The contractor can locate the ADA Checklist form on the Missouri Department of Transportation website:

https://www.modot.org/forms-contractor-use

2.1 The ADA Checklist is not to be considered all-inclusive, nor does it supersede any other contract requirements. The ADA checklist is a required guide for the contractor to use during the construction of the pedestrian facilities and a basis for the commission's acceptance of work. Prior to work being performed, the contractor shall bring to the engineer's attention any planned work that is in conflict with the design or with the requirement shown in the checklist. This notification shall be made in writing. Situations may arise where the checklist may not fully address all requirements needed to construct a facility to the full requirements of current ADA law. In those situations, the contractor shall propose a solution to the engineer that is compliant with current ADA law using the following hierarchy of resources: 2010 ADA Standards for Accessible Design, Draft Public Rights of Way Accessibility Guidelines (PROWAG) dated November 23, 2005, MoDOT's Engineering Policy Guidelines (EPG), or a solution approved by the U.S. Access Board.

2.2 It is encouraged that the contractor monitor the completed sections of the newly constructed pedestrian facilities in attempts to minimize negative impacts that his equipment, subcontractors or general public may have on the work. Completed facilities must comply with the requirements of ADA and the ADA Checklist or have documented reasons for the non-compliant items to remain.

3.0 Coordination of Construction.

3.1 Prior to construction and/or closure on an existing pedestrian path of travel, the contractor shall submit a schedule of work to be constructed, which includes location of work performed, the duration of time the contractor expects to impact the facility and an accessible signed pedestrian detour compliant with MUTCD Section 6D that will be used during each stage of construction. This plan shall be submitted to the engineer for review and approval at or prior to the pre-construction conference. Accessible signed detours shall be in place prior to any work being performed that has the effect of closing an existing pedestrian travel way.

3.2 ***When consultant survey is included in the contract, the contractor shall use their survey crews to verify that the intended design can be constructed to the full requirements as established in the 2010 ADA Standards. When 2010 ADA Standards do not give sufficient information to construct the contract work, the contractor shall refer to the PROWAG.***

3.3 When consultant survey is not included in the contract, the contractor shall coordinate with the engineer, prior to construction, to determine if additional survey will be required to confirm the designs constructability.

4.0 Final Acceptance of Work. The contractor shall provide the completed ADA Checklist to the engineer at the semi-final inspection. ADA improvements require final inspection and compliance with the ADA requirements and the ADA Checklist. Each item listed in the checklist must receive either a “YES” or an “N/A” score. Any item receiving a “NO” will be deemed non-compliant and shall be corrected at the contractor’s expense unless deemed otherwise by the engineer. Documentation must be provided about the location of any non-compliant items that are allowed to remain at the end of the construction project. Specific details of the non-compliant items, the ADA requirement that the work was not able to comply with, and the specific reasons that justify the exception are to be included with the completed ADA Checklist provided to the engineer.

4.1 Slope and grade measurements shall be made using a properly calibrated, 2 foot long, electronic digital level approved by the engineer.

5.0 Basis of Payment. The contractor will receive full pay of the contract unit cost for all sidewalk, ramp, curb ramp, median, island, approach work, cross walk striping, APS buttons, pedestrian heads, detectible warning systems and temporary traffic control measures that are completed during the current estimate period as approved by the engineer. Based upon completion of the ADA Checklist, the contractor shall complete any necessary adjustments to items deemed non-compliant as directed by the engineer.

5.1 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 documents.

N. Removal and Delivery of Existing Signs JSP-12-01C

1.0 Description. All Commission-owned signs removed from the project shall be disassembled, stored, transported, and disposed of as specified herein. Sign supports, structures and hardware removed from the project shall become the property of the contractor.

2.0 Disassembly and Delivery.

2.1 All Commission-owned signs, (excluding abandoned billboard signs), designated for removal in the plans, or any other signs designated by the Engineer, shall be removed from the sign supports and structures, disassembled, stored, transported, and delivered by the contractor to the recycling center for destruction.

2.2 The contractor shall coordinate and make arrangements with the recycling center for delivery of the signs. Sign panels shall be disassembled and/or cut into sizes as required by the recycling center.

2.3 The contractor shall provide the Engineer with a "Sign Delivery Certification" attesting to completion of delivery of all existing sign material from the project to the recycler. In addition, the contractor shall provide to the Engineer a final "Sign Certification of Destruction" from the recycler that documents the total pounds of scrap sign material received from the project and attests that all such material will not be re-purposed and will be destroyed in a recycling process. The contractor can locate the required certification statements from the Missouri Department of Transportation website:

https://www.modot.org/forms-contractor-use

2.4 Funds received from the disposal of the signs from the recycling center shall be retained by the Contractor.

3.0 Basis of Payment. All costs associated with removing, disassembling and/or cutting, storing, transporting, and disposing of signs shall be considered as completely covered by the contract unit price for Item No. 202-20.10, "Removal of Improvements", per lump sum.

O. Shaping Slopes Class III (Modified Material Requirements) NJSP-20-03B

Delete Sec 215.1.3 and 215.1.3.1 and substitute the following:

215.1.3 Shaping Slopes, Class III, shall consist of providing rock fill material and shaping slopes to construct additional shoulder width for the installation of guardrail and Type A crashworthy end terminals in accordance with Missouri Standard Plans for Highway Construction. The rock fill material used shall meet the requirements specified in Sec 215.1.3.1. The shoulder surface shall be finished smooth such that it is traversable and without significant voids or depressions.

215.1.3.1 Material Requirements. Rock fill material used for Shaping Slopes, Class III, shall consist of a durable crushed stone, shot rock or broken concrete, with a predominant size of 3 inches and a maximum size of 6 inches. Acceptance by the engineer will be made by visual inspection.

215.4 Basis of Payment. The accepted quantity will be paid at the contract unit bid price for 215-99.10 Misc. Shaping Slopes Class III – Modified Material Requirement, per 100F.

P. Truck Mounted Attenuator (TMA) for Stationary Activities JSP-23-04

1.0 Description. Provide and maintain Truck Mounted Attenuators (TMA) in accordance with Sec 612 and as specified herein.

2.0 Construction Requirements. Truck Mounted Attenuators (TMA) shall be used for the work activities indicated in the plans or specified herein.

2.1 Work Activity:

- Slope stabilization between station 103+33.00 and station 109+27
- Pavement repairs (locations shown in Summary of Quantity sheets)
- Guardrail installation (locations shown on plans)
- Pedestrian crossing (Plan Sheet 66)

3.0 Method of Measurement. No measurement will be made for Truck Mounted Attenuators (TMA).

4.0 Basis of Payment. Delete Sec 612.5.1 and substitute with the following:

612.5.1 No payment will be made for truck mounted attenuators (TMAs) used in mobile operations or for any TMAs designated as optional.

612.5.1.1 Payment for TMAs required for stationary work activities will be paid for at the contract unit bid price for Item 612-30.01, Truck Mounted Attenuator (TMA), per lump sum. The lump sum payment includes all work activities that require a TMA, regardless of the number of deployments, relocations, or length of time utilized. No payment will be made for repair or replacement of damaged TMAs.

Q. Rectangular Rapid Flashing Beacon Assembly Draft Date 8-01-2025

1.0 Description. Rectangular Rapid Flashing Beacon (RRFB) Assemblies shall be installed at the locations indicated in the plans. Rectangular Rapid Flashing Beacon Assemblies shall consist of one signal post with pedestrian crossing signs and rapid flashing beacons (RRFBs) facing traffic. At minimum, each pedestrian crossing shall have two RRFB post assemblies, one on each side. See the special detail sheet(s) for the exact number of RRFB post assemblies being constructed for each pedestrian crossing shown within the plans.

2.0 Beacon Requirements.

2.1 General Conditions. RRFB assemblies shall meet requirements set forth by this JSP and in the MUTCD 11th Edition and found at:

MUTCD 11th Edition - Part 4

An RRFB assembly shall consist of two rapidly-flashed rectangular-shaped yellow indications, each with a LED-array based pulsing light sources, and shall be designed, located, and operated in accordance with the detailed requirements specified below.

a. Each Rectangular Rapid Flashing Beacon Assembly – Front & Rear Facing (2 Sided) shall have front and rear facing signs and RRFBs for a total of 2 pedestrian (W11-2 crossing warning signs, 2 instructional signs (R10-25), 2 diagonal downward arrow plaques (W16-7P) and 4 RRFBs.
b. Each Rectangular Rapid Flashing Beacon Assembly – Front Facing Only (1 Sided) shall have front facing signs and RRFBs for a total of 1 pedestrian crossing warning sign (W11-2), 1 instructional sign (R10-25), 1 diagonal downward arrow plaque (W16-7P) and 2 RRFBs
c. Power for the RRFBs (1 or 2 sided) shall be supplied from solar panel and battery capable of supplying the appropriate power sufficient for each assembly on 1 post. The solar panel and battery shall be installed on the same post.
d. The yellow warning signs shall be fluorescent yellow signs.

2.2 Restrictions.

(a) An RRFB shall only be used to supplement a W11-2 (Pedestrian) with a diagonal downward arrow (W16-7p) plaque, located at or immediately adjacent to a marked crosswalk.
(b) An RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, or traffic control signals. This prohibition is not applicable to a crosswalk across the approach to and/or egress from a roundabout.
(c) An RRFB shall not be installed independent of the crossing signs for the approach the RRFB faces. The RRFB shall be installed on the same support as the associated W11-2 (Pedestrian) and plaque.

2.3 Beacon Dimensions and Placement in Sign Assembly.

(a) Each RRFB shall consist of two rapidly-flashed rectangular-shaped yellow indications, each with an LED-array based pulsing light source. Each RRFB indication shall be a minimum of approximately 5 inches wide by approximately 2 inches high.
(b) The two RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7 in), measured from nearest edge of one indication to nearest edge of the other indication.
(c) The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2 sign that it supplements.

2.4 Beacon Flashing Requirements.

(a) When activated, the two yellow indications in each RRFB unit shall flash in a rapidly flashing sequence. As a specific exception to the requirements for the flash rate of beacons provided in Paragraph 3 of Section 4S.01, RRFBs shall use a much faster flash rate and shall provide 75 flashing sequences per minute.

(b) The flash rate of each individual yellow indication, as applied over the full flashing sequence, shall not be more than 5 flashes per second, to avoid frequencies that might cause seizures.

(c) The light intensity of the yellow indications during daytime conditions shall meet the minimum specifications for Class 1 yellow peak luminous intensity in the publication "Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles J595," 2005, Society of Automotive Engineers (SAE)

2.5 Beacon Operation.

(a) The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation, or with passive detection, after the pedestrian clears the crosswalk. The length of actuation shall be programmable and changeable.

(b) All RRFBs associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and then shall also cease operation simultaneously.

(c) A pedestrian instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS should be mounted adjacent to or integral with each pedestrian pushbutton. Push buttons shall meet American's with Disabilities Act (ADA) requirements in both location and design with Tactile (if braille is required by project), visible and audible feedback when pushed, as well as the requirements set forth in the JSP titled "Audible Pedestrian Signals and Signing."

(d) The audible message should be a speech message that says, "Warning lights are flashing to cross XX Street." The audible message should be spoken twice.

(e) The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals.

(f) A small light directed at and visible to pedestrians in the crosswalk will be installed integral to the RRFB or push button to give confirmation that the RRFB is in operation.

(g) In addition to the push button used to activate the RRFB, the contractor shall install a passive pedestrian detection system, per JSP – Passive Pedestrian Detection for RRFBs, which allows the RRFB to be activated when the installed system detects a pedestrian near the new midblock crossing per the selected manufacturer's equipment and specification.

2.6 Crosswalk Illuminator:

Upon activation by pedestrian during times of low ambient light, the controllers shall activate all crosswalk illuminators in the crosswalk system simultaneously and then cease operation after a programmable timeout coordinated with the flashing beacons.

(a) Shall operate in conjunction with the crosswalk controller and intelligent warning devices.

(b) Shall activate when less than 10 lux of ambient light is present (when activated by a pedestrian).
(c) Designed to provide at least 20 vertical lux at 5 feet for a standard 2 lane crosswalk.
(d) Activate with a 0.5 second soft start.
(e) Allow for multiple brightness options for each of illuminator
(f) Be housed in its own IP66 type enclosure.
(g) Be made of weather resistant materials (aluminum or stainless steel).
(h) Be able to be adjusted and aimed both horizontally and vertically.
(i) Be independently replaceable.
(j) Operate between the temperatures of -40° to +176°F (-40° to +80°C).
(k) Mounting height and illumination angle should be considered when selecting RRFB pole height.
(l) The illuminator and crosswalk light shall be evaluated after installation by the contractor and Engineer at night to access how it functions with other light sources in the area. The illuminator may require adjustment as directed by the Engineer after evaluation.

2.7 Other.

(a) Except as otherwise provided above, all other provisions of the MUTCD applicable to Warning Beacons shall apply to RRFBs.
(b) The signs shall meet the requirements of Sec 903. The minimum height of the lowest sign shall be seven feet if mounted in sidewalk to meet ADA requirements.
(c) The post shall be meet MoDOT signal standards in Sec 902. The post will be located so that a minimum of four feet of walkable sidewalk is maintained.
(d) The Engineer and the District Engineer or his/her designee must approve the site for the RRFB installation. The Engineer, Contractor and the District Traffic Engineer or designee shall field check the location together at least 7 days in advance before the planned installation date. The contractor should coordinate with them in advance and follow their instructions and recommendations. Contact Information is below:

Lisa Kuntz
(314)-453-1879

3.0 Method of Measurement. Measurement for installation of RRFBs will be made per each post assembly. No measurement will be made for individual items that make up a RRFB post assembly. As described in Section 2.1 above, the RRFBs will be measured depending on whether the signs and the yellow indications of each assembly faces front only or if the assembly faces both directions of travel along the given roadway.

4.0 Basis of Payment. All labor, equipment, and materials necessary to install the beacons, signs, pedestrian actuation, post, foundation, solar panels, batteries, and other equipment to have a fully operational RRFB system will be included in the pay item below.

Item No.	Unit	Description
902-99.02	Each	Rectangular Rapid Flashing Beacon Assembly – Front Facing Only (1 Sided)

902-99.02	Each	Rectangular Rapid Flashing Beacon Assembly – Front & Rear Facing (2 Sided)

R. Dynamic Curve Warning System

1.0 Description. This work will consist of furnishing and installing the Dynamic Curve Warning System as shown in the plans or as directed by the engineer.

2.0 Material. All material shall be in accordance with Sec 903.2, except as modified herein.

3.0 System Requirements. The Dynamic Curve Warning System shall consist of the following items: Radar Detection, Double-sided Chevron Signs enhanced with LED lighting, solar power supply systems, radar detection, system controller, pipe posts, concrete footings, hardware and all other ancillary components needed for a fully functional system.

3.1 Radar Detection. The Radar Detection System shall be capable of detecting a compact vehicle within 300 feet of the leading chevron sign. The detection system shall activate the blinker system and wirelessly signal the downstream LED chevrons in the curve to sequentially turn on. The radar and transmitter shall be housed in a control box mounted on the Lead LED advanced curve sign at each entry to the curve. RTE T is an undivided 2 lane highway requiring the radar to be able to read a vehicle entering from either side of the curve. LED chevrons in the system shall flash sequentially from sign to sign in the direction of travel as viewed by the motorist and flash duration is predetermined. The radar shall provide real time vehicle detection (within 112 milliseconds of vehicle arrival).

3.3 Double-sided Chevron Signs. Chevron signs shall be installed as shown on the plans or as directed by the Engineer. Chevrons signs shall be 18 inches by 24 inches, double-sided and shall include embedded LED lights in accordance with MUTCD Section 2A-12 (11th Edition, Dec. 2023). LEDs within the signs shall be 1 W, high power luxeon, and wired in a manner (parallel) that all LEDs continue to flash in the event of failure of an individual LED. Sign shall output 550,000 millicandelas minimum at daytime peak ensuring sign is daylight visible. LEDs shall have dimming capabilities and automatically adjust flash brightness due to varying light conditions. The system shall include 1 transmitter and additional receivers for each additional chevron. Communication between devices on a curve shall occur wirelessly. Transmitter will be included with the Lead LED chevron sign.

3.4 Solar Power Supply Systems. All components of the Dynamic Curve Warning System shall operate on solar power. The system shall be provided with solar panels by the manufacturer. Provided solar panels sized to allow system to work as needed 24/7 based on the 20 year projected traffic count of the facility. Batteries shall be provided by the manufacturer and shall be installed in a box mounted on a pole underneath the solar panel. Provide a curve warning system capable of being monitored and controlled through a web-based system. The system shall allow for management of device settings (such as solar and battery output and wireless signal), schedules (flash durations), and impact detection, including but not limited to number of activations and alerts via text or email if system is triggered and/or down.

4.0 System Installation and Acceptance. During the installation of the system, the contractor shall have on-site a representative of the system manufacturer. The manufacturer's representative shall be trained and knowledgeable in all aspects of the systems installation,

setup operation and maintenance. The manufacturer's representative shall provide one training on the system's operation and maintenance to the Engineer and other MoDOT staff who will operate and maintain the system. The Contractor shall furnish to the Engineer an electronic copy in Adobe PDF format of the manufacturer's operations and maintenance manual(s) for the system. Upon completion of the system installation and initial activation, the contractor shall operate the system for a minimum of 15 consecutive day test period. Any failure of the system or any component thereof shall be corrected at the Contractor's expense and the system tested for an additional 15 consecutive day test period. This procedure will be repeated until the system has operated to the Engineer's satisfaction for 15 consecutive days. Upon completion of the test period, the system may be accepted for maintenance per Sec. 105.15.

5.0 Method of Measurement. This work will not be measured for payment but will be considered per each per location.

6.0 Basis of Payment. Payment for furnishing and installing the Dynamic Curve Warning System per location shall include all materials, equipment, tools, and labor; and shall be considered completely paid for at the contract unit price for:

Item No.	Type	Description
903-99.02	Each	Dynamic Curve Warning System (XX Double-Sided Chevron signs)
903-99.02	Each	Dynamic Curve Warning System (10 Double-Sided Chevron signs)

S. Tree Clearing Restriction

1.0 Description. The project is within the known range of the federally endangered Indiana bat, northern long-eared bat, and proposed endangered tricolored bat. These bats are known to roost in trees with suitable habitat characteristics during summer months.

1.1 MoDOT has determined that suitable trees for one or more of these bat species exist within the project area.

1.2 To avoid negative impacts to these bat species, removal of any trees/limbs greater than three (3) inches in diameter shall only occur between October 16 and March 31.

2.0 Basis of Payment. No direct pay shall be provided for any labor, equipment, time, or materials necessary to complete this work.

T. Tree Planting

1.0 Description. In addition to the applicable portion of Section 808, the planting of trees as shown on the plans shall conform to the following requirements.

1.1 The contractor shall provide trees that have a minimum height of 6 feet. The trees shall be planted using the spacing as directed by the engineer.

1.2 Trees should be planted in fall, between September 15 and December 15.

2.0 Basis of Payment. The quantities of trees will be paid for at the contract unit price for each of the following:

Item No. 808-01.02 Red Maple
Item No. 808-01.09 Red Oak
Item No. 808-01.10 Scarlet Oak
Item No. 808-01.11 Shingle Oak
Item No. 808-01.12 Pin Oak
Item No. 808-01.19 Black Gum
Item No. 808-03.04 Flowering Dogwood
Item No. 808-04.04 Red Cedar

U. Seeding and Mulching Requirements JSP-25-03

1.0 Seeding. Seeding shall be in accordance with Sec. 805 except as otherwise stated herein. Cool season grasses shall be utilized in accordance with Standard Plan 805.00.

1.1 Temporary Seeding. Temporary seeding shall be in accordance with Sec. 806.50 except as otherwise stated herein.

2.0 Mulching. Mulching shall be in accordance with Sec. 802 except as otherwise stated herein.

3.0 Method of Measurement. No measurement will be made for seeding, temporary seeding or mulching. Seeding and mulching of all disturbed areas, including any additional areas disturbed beyond what is shown on the plans, shall be considered included in the single lump sum item provided.

4.0 Basis of Payment. All labor, equipment, and materials necessary to complete all seeding, temporary seeding and mulching shall be completely covered under the lump sum price for item **805-99.01, Seeding and Mulching - Cool Season Grasses.**

V. Pavement Marking Removal

1.0 Description. Pavement Marking Removal shall be in accordance with Section 620.50 and specifically as follows.

2.0 Construction Requirements. Removal of all pavement marking within the project limits shall be as shown on the plans or as approved by the engineer. Pavement marking shall be completely removed to the satisfaction of the engineer with minimal damage to the pavement. The contractor shall use an approved sand or water blasting method to remove the pavement marking. No more than five percent of the existing marking shall remain. The pavement surface shall not be left scarred with an image that might mislead traffic. Any excess damage or scarring of the pavement shall be repaired at the contractor's expense. It shall be the contractor's responsibility to determine what type of material needs to be removed.

3.0 Method of Measurement. Final measurement will be made in accordance with Section 620.50.3, except as described below:

The first sentence of Sec 620.50.3.2 shall be removed and replaced with the following:

> Where required, measurement for the removal of pavement markings will be made to the nearest linear foot per 4-inches of width. No additional pay factor, based upon 4-inches of width, shall be included for removals unless the striping width is greater than 6-inches. Final measurement will not be made except for authorized changes during construction or where appreciable errors are found in the contract quantity. The revision or correction will be computed and added to or deducted from the contract quantity.

4.0 Basis of Payment. The accepted quantity of pavement marking removal including all labor, equipment, and material necessary to remove the existing marking will be paid for at the contract unit price for the following pay items:

Item No.	Type	Description
620-70.01	LF	Pavement Marking Removal

W. 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, 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.

X. Pavement Repair Delineation

1.0 Description. The pavement repair work shall consist of removing, furnishing, preparing, and placing material to repair existing asphalt pavement by performing partial depth bituminous repairs as specified in the plans or as approved by the engineer. All work shall be in accordance with Section 613 except as herein modified.

2.0 Construction. After the contract award, MoDOT will delineate the area of repair in the field. The contractor shall accompany MoDOT personnel on this site visit.

2.1 During this visit, the contractor shall provide temporary traffic control including lane closures as needed.

2.2 The repair sizes may range from full lane widths in some areas to 7.5’ widths in other areas, and may include correction of some edge failures. Locations will be at the direction of the engineer.

3.0 Basis of Payment. The cost of compliance with this provision will be incidental to the unit price of items in the contract. No direct payment will be made for any additional materials or labor required under this provision.

3.1 Pavement repair quantities have been estimated. All cost for the repair work, including labor, equipment and materials shall be included in the items listed below.

613-30.20 Furnishing and Placing Bituminous Material or BP 1 for Class C Partial Depth Pavement Repair per Ton

613-30.21 Removal for Class C Partial Depth Pavement Repair per SQYD

3.2 The temporary traffic control shall be considered as incidental to the item listed below and no separate payment will be made.

616-99.01 Misc. Lump Sum Temporary Traffic Control

Y. Rigid Geogrid Geotextile Reinforcement

1.0 Description. This work shall consist of furnishing and installing rigid geogrids for slope stabilization in accordance with the manufacturer's recommendations, as shown in the plans, specified in the Missouri Standard Specifications for Highway Construction, this Job Special Provision, the Special Slope Investigation Report dated August 1, 2023, the Addendum to Slope Investigation Report dated March 6, 2025, or as directed by the Engineer. Recommendations in the addendum supersede those in the report.

2.0 Materials. The geogrids are composed of two differing strengths and shall be manufactured from high density polyethylene (HDPE) uniaxial, Polypropylene (PP) biaxial resins, or high tenacity polyester (PET) fibers. The geogrids shall have a minimum 4000 lb/ft ultimate tensile strength (machine direction) and a minimum 1,500 lb/ft allowable strength (machine direction) when placed in rock fill. They shall be stored according to the manufacturer's recommendations. The geogrids shall have high resistance to damage during construction, ultraviolet degradation, and all naturally encountered forms of chemicals, alkalis, acids, and biological degradation encountered in the materials being reinforced. Woven geotextiles or flexible geogrids will not be allowed. Fill material shall be comprised of Rock Fill per Spec 214.

3.0 Certifications. All materials shall be pre-qualified and approved before the contract is awarded. The contractor shall submit a manufacturer's certification to the Engineer for each lot of material furnished stating the name of the manufacturer, the chemical composition, and certification that the material supplied is in accordance with this JSP. The certification shall include or have attached typical results of tests from specific lots for all specified requirements. Geogrids will be rejected at installation if they have defects, rips, holes, flaws, or deterioration or damage incurred during manufacturing, transport, handling, or storage.

4.0 Construction.

4.1 Handling. Each roll of geogrids shall be clearly marked with manufacturer's name, brand name, and lot number. During all periods of shipping and storage, the geogrids shall be protected from temperatures greater than 140 deg. F and all deleterious materials that might otherwise

become affixed to the geogrids and affect their performance. The manufacturer's recommendations shall be followed regarding protection from direct sunlight. The geogrids shall be stored off the ground in a clean, dry environment.

4.1 Exposure. The geogrids shall be covered with rock fill the same day of placement to protect against unnecessary exposure. Place only the geogrids required for immediately pending work.

4.3 Geogrid Placement. Geogrids shall be placed in accordance with the manufacturer recommendations.

4.4 Fill Material Placement. Rock fill shall be placed, spread and compacted in a manner to avoid the development of wrinkles and/or displacement of the geogrids. Fill shall be graded away from the road and rolled at the end of each work day to prevent ponding of water. A minimum fill thickness of 2 ft is required prior to the operation of tracked vehicles/equipment over the reinforcement. Turning of tracked vehicles should be kept to a minimum to prevent displacement of the reinforcement. No rubber-tired wheel traffic will be allowed in direct contact with the geogrids unless approved by the Engineer and the speed is kept less than 10 mph. Compaction of rock fill shall be achieved by the use of light weight mechanical tamper, rollers, vibratory system, or other methods to provide short and long term slope stability.

4.5 Damaged Areas. If any geogrids are damaged during installation, the contractor shall repair or replace the geogrids in accordance with manufacturer's recommendations. The contractor shall replace any geogrids damaged prior to or during installation at no expense to the commission.

5.0 Method of Measurement. Measurements will be made to the nearest square yard. Incidental overlaps for connections and splices are not included in the pay item.

6.0 Basis of Payment. Payment for the geogrids will be paid for at the contract unit price for 304-99.05, Rigid Geogrid Geotextile Reinforcement, per square yard.

Z. Transverse Rumble Strips

1.1 Description. The work shall consist of constructing transverse rumble strips as shown on the plans or as directed by the engineer.

2.0 Construction Requirements. Transverse Rumble strips shall be milled into bituminous and concrete pavements to produce a neat and uniform finish. Milled material shall be handled in accordance with Sec 622 of the Standard Specifications. Any damage to the pavement or pavement marking resulting from the contractor's operations shall be repaired or replaced to the satisfaction of the engineer by the contractor, at the contractor's expense. On roadways open to traffic, rumble strips shall be in place no later than five days after the final paving operations.

3.**0 Method of Measurement.** Measurement for Transverse Rumble Strips will be made to the nearest foot.

2.0 Basis of Payment. The accepted quantities of Transverse Rumble Strips will be paid for at the unit price for the pay item 626-99.03 Misc. Transverse Rumble Strips, per SY.

AA. MISC. BITUMINOUS PAVEMENT MIXTURE PG58-28 (SURFACE LEVELING)

1.0 Description. The surface treatment for this project shall consist of a 1.5" Surface Level Mix with PG58-28.

2.0 Basis of Payment. Payment for the Bituminous Pavement Mixture as described in this provision will be made at the contract unit price for pay item 402-99.10 MISC. BITUMINOUS PAVEMENT MIXTURE PG58-28 (SURFACE LEVELING), per ton.