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MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636

HANSON PROFESSIONAL SERVICES INC.

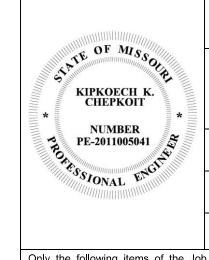
600 Washington Ave Suite 950 St. Louis, MO 63101 Certificate of Authority: 001632 Consultant Phone: (314) 770-0467

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

JOB NUMBER: J6S3289 JEFFERSON, MO DATE PREPARED: 7/22/2025

ADDENDUM DATE: R004 October 14, 2025

Only the following items of the Job Special Provisions (Roadway) are authenticated by this seal: A-R, & W- $\overline{\mathbf{Z}}$



MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 W. CAPITOL AVE. JEFFERSON CITY, MO 65102 Phone 1-888-275-6636

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JOB NUMBER: J6S3289 JEFFERSON, MO DATE PREPARED: 7/22/2025

ADDENDUM DATE:

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

JOB <u>SPECIAL PROVISIO</u>N

A. <u>General - Federal</u> 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: December 8, 2025 Contract Completion Date: June 30, 2028

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 J6S3289 N/A \$3200

- **3.0 Liquidated Damages for Contract Administrative Costs.** Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of \$2000 per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the 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 **15 minutes** to prevent congestion from escalating beyond this delay threshold. If disruption of the traffic flow occurs and traffic is backed up in queues equal to or greater than the delay time threshold listed above, 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. When a Work Zone Analysis Spreadsheet is provided, the contractor will find it in the electronic deliverables on MoDOT's Online Plans Room. The contractor may refer to the Work Zone Analysis Spreadsheet for detailed information on traffic delays.

2.5.1 Traffic Safety.

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

3.0 Work Hour Restrictions.

3.1 Except for emergency work, as determined by the engineer, and long term lane closures required by project phasing, all lanes shall be scheduled to be open to traffic during the five major

holiday periods shown below, from 12:00 noon on the last working day preceding the holiday until 6:00 a.m. on the first working day subsequent to the holiday unless otherwise approved by the engineer.

Memorial Day Labor Day Thanksgiving Christmas New Year's Day

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

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

3.1.2 The contractor's working hours will be restricted for the Special Events as shown below. All lanes shall be scheduled to be open to traffic during these Special Events.

Contractor to coordinate with the Federated Auto Parts Raceway at I-55 for their events during the life of this project. The World of Outlaws events, in particular, generates a large volume of traffic

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

4.0 Detours and Lane Closures.

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

the safe movement of traffic. Periods during which the contractor will be allowed to interrupt traffic will be designated by the engineer.

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

D. Emergency Provisions and Incident Management JSP-90-11A

- **1.0** The contractor shall have communication equipment on the construction site or immediate access to other communication systems to request assistance from law enforcement or other emergency agencies for incident management. In case of traffic accidents or the need for law enforcement to direct or restore traffic flow through the job site, the contractor shall notify law enforcement or other emergency agencies immediately as needed. The area engineer's office shall also be notified when the contractor requests emergency assistance.
- **2.0** In addition to the 911 emergency telephone number for ambulance, fire or law enforcement services, the following agencies may also be notified for accident or emergency situation within the project limits.

Missouri Highway Patrol Troop C 636.300.2800			
City of Herculaneum	City of Pevely		
Fire: 636.475.3080	Fire: 636.475.7401		
Police: 636.479.4791	Police: 636.475.4498		

- **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
Project Manager, Jefferson/Franklin Counties
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:

Frank Vance, Resident Engineer St Louis District 3595 Plass Road Festus, MO 63028

Telephone Number: 314.220.6655 Email: <u>Franklin.Vance@modot.mo.gov</u>

- 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 webbased 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. <u>Utilities</u> JSP-93-26F

1.0 For informational purposes only, the following is a list of names, addresses, and telephone numbers of the <u>known</u> utility companies in the area of the construction work for this improvement:

Utility Company	Known Required Adjustment	<u>Type</u>
Ameren Missouri	Yes	Power
Matt Everding		
Telephone: 618-806-0229	See 3.0	
Email: meverding@ameren.com		
AT&T Distribution	None	Communications
Herb Connors		
Telephone: 314-250-7971	See 4.0	
Email: hc1549@att.com		
Charter/Spectrum Communications Don Hatfield	Yes	Communications
Telephone: 314-341-4450	See 5.0	
Email: donald.hatfield@charter.com		
MoDOT St. Louis District	None	Signal
Brian Ducote		
Telephone: 314-681-8395	See 6.0	
Email: <u>brian.ducote@modot.mo.gov</u>		
City of Herculaneum	None	Water
Mark Johnson	_	
Telephone: 314-435-7006	See 7.0	
Email: mjohnson@cityofherculaneum.org		

MCI/Verizon Domenic Nicastro Telephone:	None	Communication
Telephone: 636-459-1600 Email: domenic.nicastro@verizon.com	See 8.0	
City of Pevely Andrew Hixson Telephone:	None	Street Lighting
Telephone: 314-471-6046 Email: ahixson@cityofpevelymo.gov	See 9.0	
Spire Energy Ryan Rzadca	Yes	Gas
Telephone: 314-575-5087 Email: <u>ryan.rzadca@spireenergy.com</u>	See 10.0	

1.1 The existence and approximate location of utility facilities 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 contractor. The Commission shall not be liable for any damages that may arise from any error in the utility information shown on the plans. It is, therefore, the responsibility of the contractor to comply with Missouri CSR 319 to get utilities marked and verify the existence, location, and status of any marked utility prior to any excavations. Such verification may require direct contact with the listed utilities. The contractor shall use necessary precautions to protect the integrity of any existing utility facility located near construction activities.

There shall be no direct pay for compliance with this provision.

- **2.0** Project Specific Provisions: The utilities listed above are known to be within the limits of this project. Besides the utility adjustments noted in this JSP, no other utility adjustments are anticipated for this project.
- **3.0 Ameren Missouri.** Ameren has overhead electric lines crossing the pavement at station 820+50, centerline of 61/67, and at station 24+20, centerline of Herky-Horine Rd. Ameren also has existing overhead electric lines within the RW parallel to the pavement from stations 793+00 to 798+50, right of centerline relocated 61/67 and from stations 20+35 to 24+00, right of centerline Herky-Horine Rd. Ameren advised that no conflicts are anticipated with the listed overhead electric lines and crossings and the proposed work for this project.

The contractor shall discuss their planned work with Ameren as it relates to the energized, overhead power lines and coordinate with Ameren for the installation of any insulated covers over the lines and/or any other designated requirements to fulfill the contractor's safety needs. Please note, Ameren Missouri has revised their policy regarding the charges for placement, length of use, and the relocation of covers on their power lines. The contractor is advised to contact Ameren Missouri regarding their current policy so, the anticipated costs to the contractor for covering the power lines, can be estimated when payment is required. The Contractor shall contact Ameren Missouri at least six weeks in advance of the scheduled start date for any work that requires Ameren's power lines to be covered, to request the power lines be covered at any given location.

There shall be no direct pay to the contractor for compliance with this provision. The contractor shall make payments directly to Ameren Missouri for any costs billed from Ameren Missouri for covering or de-energizing any Ameren electric lines requested by the contractor for work on this project.

- 3.1 New Ameren Poles and Underground Electric Duct. Prior to the road construction starting on this project, Ameren Missouri removed their existing overhead electric lines along the west side of existing Route 61/67 from Herky-Horine road to Scenic Drive. These existing overhead electric lines were in conflict with construction of the new roadway fill and bridge. Ameren has a job set up to replace the overhead electric facilities previously removed from Herky-Horine road to Scenic Drive sometime during the construction of this project. Ameren requested to install the poles and boring Joachim Creek, as shown on plan sheet 4, 5 and 6 soon after the road contractor builds the roadway fill to each abutment. The contractor advised their contractor plans to take 4-6 weeks to complete their OH and UG relocation work. The contractor shall contact Ameren to coordinate the schedule to replace the overhead electric lines with the contractor's schedule to finish the roadway work. Ameren also requested to place the new overhead electric lines before the contractor places the Type 2 rock blanket on the fill slopes, right of centerline for relocated 61/67, through the project limits.
- **3.2** The contractor shall directly contact Ameren Missouri to verify the location of marked facilities. The contractor shall coordinate construction activities with Ameren Missouri and take measures to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by Ameren Missouri. **There shall** be no direct pay for compliance with this provision.

- **4.0 AT&T (Distribution).** AT&T has existing overhead and underground facilities inside the limits of this project. AT&T completed the relocation of their underground facilities in conflict with construction of this project. There are abandoned underground AT&T facilities remaining within the Right of Way. These abandoned facilities should be inactive and no longer in service. AT&T has abandoned underground conduits from 793+00 to 820+00 left of centerline Route 61/67 and from 797+50 to 819+35 right of centerline Route 61/67. The contractor may encounter these abandoned conduits during construction of the project. The contractor shall contact MO1Call (811) and AT&T to verify the status of any unmarked utility lines encountered during construction.
- **4.1** AT&T relocated underground facilities with the Right of Way from 793+00 to 806+00 left of centerline relocated Route 61/67, on easement parallel with the Right of Way from 806+00 to 819+55 left of centerline relocated Route 61/67, crossing Route 61/67 at 819+55, and from 819+35 to 820+40 right of centerline Route 61/67. The AT&T underground facilities from 806+00 to 808+35 left of centerline relocated 61/67 cross through the excavation limits for placement of the Type 2 rock blanket. The contractor shall contact CMT's Utility Coordinator (Chris Duffner-636.232.4912) prior to starting any excavation for placement of the Type 2 rock blanket in order to confirm there are no conflicts with the AT&T underground facilities. AT&T advised there are no other conflicts are anticipated with the AT&T underground facilities within the Right of Way and on easement with construction of this project.
- **4.2** AT&T has relocated underground facilities along Herky-Horine Road from 20+30 to 24+50 left of centerline. AT&T advised there are no conflicts are anticipated with the AT&T underground facilities along Herky-Horine road and with construction of this project.

4.3 AT&T has overhead facilities along Wall Street from 10+70 to 13+18 right of centerline. AT&T advised there are no conflicts anticipated with the AT&T overhead facilities along Wall Street and with road construction of this project.

4.4 The contractor shall directly contact AT&T to verify the location of marked facilities. The contractor shall coordinate construction activities with AT&T and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing AT&T facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by AT&T. There shall be no direct pay for compliance with this provision.

- **5.0 Charter/Spectrum.** Charter/Spectrum has existing overhead and relocated underground facilities within the project limits. Charter/Spectrum has overhead facilities in conflict with the slide repair work on this project from 772+40 to 784+10 right of centerline Route 61/67, as shown on plan sheet 8. Charter/Spectrum advised they plan to relocate their overhead facilities in conflict with the slide repair work with relocated underground facilities from 772+40 to 784+10 right of centerline 61/67. The contractor shall contact CMT's Utility Coordinator prior to starting work on the slide repairs to verify the status of the Charter/Spectrum relocation work. Charter/Spectrum advised they plan to complete the underground relocation by August 1, 2025.
- **5.1** Charter/Spectrum relocated underground facilities within the RW from 794+80 to 797+50 right of centerline of relocated Route 61/67, crossing Route 61/67 at 797+50, in the RW from 797+50 to 806+00 left of centerline relocated 61/67, within easement adjacent to the RW from 806+00 to 819+80 left of centerline relocated Route 61/67, crossing Route 61/67 at 819+80, and in the RW from 819+80 to 821+00 (shown on plan sheet 4 & 8). The Charter/Spectrum underground facilities from 806+00 to 808+35 left of centerline relocated Route 61/67 cross through the excavation limits for placement of the Type 2 rock blanket. The contractor shall contact CMT's Utility Coordinator (Chris Duffner 636.232.4912) prior to starting any excavation for placement of the Type 2 rock blanket, in order to confirm there are no conflicts with the Charter/Spectrum underground facilities. No other conflicts are expected with the Charter/Spectrum underground facilities in the RW and on easement with construction of this project.
- **5.2** The contractor shall directly contact Charter/Spectrum to verify the location of marked facilities. The contractor shall coordinate construction activities with Charter/Spectrum and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing Charter/Spectrum facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by Charter/Spectrum. **There shall be no direct pay for compliance with this provision.**

6.0 MoDOT St. Louis District. MoDOT Signals has an existing span wire-warning flasher crossing over Route 61/67 at 820+40. There are no plans to relocate the span wire and flasher or its poles for this project. The contractor shall perform their work in a manner as to not disturb the flasher, poles, and span wire. The flasher shall always remain in service during construction of this project. Any adjustment or relocation of the flasher, poles, or span wire necessary to accommodate the contractor's choice of operations to construct work on this project, shall be solely at the expense of the contractor. There are no conflicts anticipated with MoDOT facilities and work for this project.

6.1 The contractor shall directly contact MoDOT to verify the location of marked facilities. The contractor shall take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing MoDOT facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by MoDOT. There shall be no direct pay for compliance with this provision.

- 7.0 City of Herculaneum Public Works. The City of Herculaneum has an 8" water main, control valves, concrete cross-blocks, and pressure monitoring gauges within the limits of this project. The City of Herculaneum completed the relocation of their water main facilities in conflict with construction of this project. There are abandoned water main facilities remaining in the RW. These abandoned facilities should be inactive and no longer in service. There is an abandoned 6" CIP water main in the RW crossing existing Route 61/67 at 798+25. The 6" CIP water main pipe turns and runs parallel with the existing RW from 798+25 to 819+60 right of centerline relocated Route 61/67 (shown on plan sheet 4, 5 and 6). The abandoned 6" CIP main pipe should be in the limits of the new roadway fill and bridge structure. The contractor may encounter the abandoned 6" CIP water main pipe during construction of the project. The contractor shall contact MO1Call (811) and the City of Herculaneum to verify the status of any unmarked utility lines encountered during construction.
- 7.1 The City of Herculaneum has an 8" water main, control valves, concrete cross-blocks, and pressure monitoring gauges within the RW from 11+45 left of centerline Wall Street to 806+00 left of centerline relocated Route 61/67, within easement adjacent to the RW from 806+00 to 819+60 left of centerline relocated Route 61/67, crossing Route 61/67 in a 16" steel casing pipe at 819+60, and in the RW from 819+60 to 820+40 right of centerline Route 61/67 (shown on plan sheet 5 and 6). The 8" HDPE water main pipe from 806+00 to 808+35 left of centerline relocated Route 61/67 and from 810+90 to 812+80 left of centerline relocated Route 61/67, crosses through the limits of the Type 2 rock blanket. The contractor shall contact CMT's Utility Coordinator (Chris Duffner 636.232.4912) prior to starting any excavation for placement of the Type 2 rock blanket, to order to confirm there are no conflicts with the 8" water main pipe or any water facilities. No other conflicts are expected with the City of Herculaneum's water main and water facilities located in the RW and within easement with construction of this project.)
- **7.2** The contractor shall directly contact the City of Herculaneum Public Works to verify the location of marked facilities. The contractor shall coordinate construction activities with Herculaneum Public Works and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing city of Herculaneum utility facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by Herculaneum Public Works. There shall be no direct pay for compliance with this provision.

8.0 MCI/Verizon. MCI/Verizon had existing overhead and underground facilities with the project limits. MCI/Verizon completed the relocation their underground facilities in conflict with construction of this project. As a result of these relocations, MCI/Verizon has abandoned underground facilities remaining within the RW. These abandoned facilities should be inactive and no longer in service. MCI/Verizon has abandoned underground facilities within the RW from 794+30 to 798+20 right of centerline relocated Route 61/67 (shown on plan sheet 4). The contractor could encounter these abandoned utilities during construction of the project. The

contractor shall contact MO1Call (811) and MCI/Verizon to verify the status of any unmarked utility lines encountered during construction of the project.

- 8.1 MCI/Verizon has relocated underground facilities in the RW from 794+80 to 797+50 right of centerline relocated Route 61/67, crossing Route 61/67 at 797+50, in the RW from 797+50 to 806+00 left of centerline relocated Route 61/67, and on easement adjacent to the RW from 806+00 to 820+40 left of centerline relocated Route 61/67 (shown on plan sheet 4, 5 and 6). The MCI/Verizon underground facilities from 806+00 to 808+35 left of centerline relocated Route 61/67, cross through the excavation limits for placement of the type 2 rock blanket. The contractor shall contact CMT's Utility Coordinator (Chris Duffner 636.232.4912) prior to starting any excavation for placement of the Type 2 rock blanket, to confirm there are no conflicts with the MCI/Verizon underground facilities. No other conflicts are expected with the MCI/Verizon underground facilities in the RW and on easement with construction of this project.
- **8.2** The contractor shall directly contact MCI/Verizon to verify the location of marked facilities. The contractor shall coordinate construction activities with MCI/Verizon and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing MCI/Verizon facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by MCI/Verizon. There shall be no direct pay for compliance with this provision.

- **9.0 City of Pevely (Street Lights).** The City of Pevely has existing street light poles within the project limits on Herky-Horine Road, as shown on plan sheet 7. The City of Pevely has two (2) lights in conflict with the project. This work is included in the road contract. The contractor is directed to plan sheet 31 (Lighting Plan) for all work pertaining to the removal and relocation of the City of Pevely street light poles in conflict with this project. No other conflicts are anticipated with any City of Pevely utility facilities for this project.
- **9.1** The contractor shall directly contact the City of Pevely Public Works to verify the location of marked facilities. The contractor shall coordinate construction activities with Pevely Public Works and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing City of Pevely utility facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by the City of Pevely Public Works. **There will be no direct pay for compliance with this provision.**

10.0 Spire Energy. Spire has an existing 4" high pressure steel gas main within the RW from 772+00 to 798+00 right of centerline Route 61/67, crossing Route 61/67 around 798+00, and in Wall Street for the limits of this project, as shown on plan sheet 4 and 8. The 4" HP gas main pipe is not anticipated to be in conflict with any of the proposed grading and storm drainage work shown at the intersection of Wall Street and relocated Route 61/67 for this project. The 4" HP gas main pipe is in conflict with the proposed slide repair work from 772+40 to 784+10 right of centerline 61/67, as shown on sheet 8. Spire plans to relocate the 4" HP gas main pipe in conflict with the slide repair work from right of centerline to left of centerline from 772+40 to 784+10 left of centerline 61/67, as shown on sheet 4 and 8. Spire advised they plan to complete the gas relocation by August 1, 2025.

10.1 The contractor shall directly contact Spire to verify the location of marked facilities. The contractor shall coordinate construction activities with Spire and take precautions to ensure the integrity of existing facilities are not disturbed. The contractor shall protect the integrity of any existing Spire facility near their work while performing construction activities for this project.

The Commission cannot warrant the information above provided by Spire. **There will be no direct pay for compliance with this provision.**

H. Maintenance of Traffic Restrictions

The contractor will not be given a notice to proceed for permanent lane closures until December 16, 2026, unless approved by the engineer. All contracts shall be executed and returned to the Commission prior to beginning work.

I. Coordination With Other Projects

1.0 Description. The contractor shall coordinate traffic management between the following projects within the same project limits:

(J6I3526B I-55 Corridor Improvement)

- **1.1** This list of projects is not all inclusive. The contractor shall be aware that there may be other projects including, but not limited to, utility, Jefferson County, City, private, MoDOT maintenance, permit, or other projects that may impact project construction or traffic control in the vicinity of this project. It shall be the responsibility of the contractor to determine what, if any projects other than the ones listed above may impact this project and work to coordinate construction and traffic management efforts between this project and any other project involved.
- **1.2** I-55 Corridor Improvement project (J6I3526B) is currently under construction from Route M to Route 67. J6I3526B requires numerus detours with ramp closures directly impacting closures and detours for this project (J6S3289). All work must be complete and ramps at I-55 and Route Z must be fully open to traffic before any permanent reduction in number of through lanes on Route 61/67 can begin. All planned work on J6I3526B along Herky Horine Road must be competed including the I-55 bridge replacement over Herky Horine Road and pavement replacement on Herky Horine Road under I-55 before altering any traffic configuration on Route 61/67 for J6S3289. These improvements are currently scheduled to be complete by December 15, 2026. However, this date may be subject to change due to material availability and/or weather impacts.
- **2.0 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.
- J. 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 preexisting 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

K. 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.

L. Optional Pavements JSP 06-06H

- **1.0 Description.** This work shall consist of a pavement composed of either Portland cement concrete or asphaltic concrete constructed on a prepared subgrade. This work shall be performed in accordance with the standard specifications and as shown on the plans or established by the engineer.
- **2.0** The quantities shown reflect the total square yards of pavement surface designated for each pavement type as computed and shown on the plans.
- **2.1** No additional payment will be made for asphaltic concrete mix quantities to construct the required 1:1 slope along the edge of the payement, or for tack applied between lifts of asphalt.
- **2.2** No additional payment will be made for aggregate base quantities outside the limits of the final surface area as computed and shown on the plans. When A2 shoulders are specified, payment for aggregate base will be as shown on the plans.
- **2.3** The grading shown on the plans was designed for the thicker pavement option. For projects with grading in the contract, there will be no adjustment of the earthwork quantities due to adjusting the roadway subgrade for optional pavements.
- **2.4** The contractor shall comply with Sections 401 through 403 for the asphalt option and Sections 501 and 502 for the concrete option.
- **2.5** Pavement options composed of Portland cement concrete shall have contrast pavement marking for intermittent markings (skips), dotted lines, and solid intersection lane lines. The pavement markings shall be in accordance with Section 620. No additional payment will be made for the contrast pavement markings.
- **3.0 Method of Measurement**. The quantities of concrete pavement will be measured in accordance with Section 502.14. The quantities of asphaltic concrete pavement will be measured in accordance with Section 403.22.
- **4.0 Basis of Payment.** The accepted quantity of the chosen option will be paid for at the contract unit bid price for Item 401-99.05, Optional Payement, per square yard.

4.1 For projects with previously graded roadbeds, any additional quantities required to bring the roadway subgrade to the proper elevation will be considered completely covered by the pay item for Subgrading and Shouldering.

4.2 Price Adjustment for Fuel. If the contractor accepts the option for fuel adjustment in the bid proposal, a fuel adjustment will be applied in accordance with Sec 109.14 for the type of pavement constructed.

M. 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.

N. Restrictions for Migratory Birds NJSP-16-06A

1.0 Description. Swallows or other bird species protected by the Migratory Bird Treaty Act may be nesting under the bridge or bridges that will be repaired under this contract.

2.0 Restrictions. To comply with the Migratory Bird Treaty Act, nests of protected species cannot be disturbed when active (eggs or young are present). Generally, nests are active between April 1 and July 31, but active nests can be present outside of these dates.

- **3.0 Avoidance Measures.** The contractor shall not disturb active nests or destroy adults, eggs, or young birds. In an effort to comply with the Migratory Bird Treaty Act, the contractor operations will be limited to the options established in the following sections.
- 3.1 Inactive or Partially Constructed Nests. If nests are present and MoDOT determines that the nests are inactive or partially constructed, the contractor may remove the nests provided that the colony's inactive or partially constructed nests are completely removed by March 15 and the contractor maintains a nest free condition until the bridge work is complete. Dry removal methods shall be used when practicable. If dry removal is not practicable, hydro cleaning may be used if approved by the Engineer and only if water is free of blasting grit, chemicals, or detergents, and applied using pressure less than 5,000 PSI. Clean water such as that from municipal water treatment plants or wells shall be used. Use of source water from Waters of the State (i.e., streams or lakes), is allowable, if the appropriate methods to prevent the possible spread of invasive aquatic species are implemented.
- **3.2 Water and Equipment Used for Hydro cleaning.** Aquatic invasives such as zebra mussels and some algae species have infested several bodies of water in the United States and can be transported by vessels (barges, boats, tugs, tankers, etc.) and equipment (tanks, tubing, pumps, etc.) that have been used in areas that contain these invasive species. If equipment is not properly inspected and treated to prevent the spread of invasives, these species can be introduced into areas not currently known to have a population. These invasive species are detrimental to existing ecosystems and can outcompete native species. To assist in preventing the introduction and spread of aquatic invasive species through MoDOT projects in Missouri streams and lakes, the following precautions shall be followed.
- **3.2.1 Use of Water from Streams, Lakes or Ponds.** Contractors shall not use water for nest removal from streams, lakes or ponds, unless they have implemented appropriate methods to prevent the possible spread of invasive aquatic species. Water sources from municipal water treatment plants or wells may be used without following these measures provided the equipment to be used has not previously contained waters from streams, lakes or ponds. If the equipment has previously contained waters from other streams or lakes, the following measures must be implemented prior to use.
- **3.2.1.1 Equipment Washing.** Prior to the use or re-use of equipment following any use with water from streams, lakes or ponds, all equipment shall be washed and rinsed thoroughly with hard spray (power wash) and hot (minimum 120° F) water, for at least one minute.
- **3.2.1.2 Equipment Treating or Drying.** Equipment shall be treated or dried in one of the following manners.
- **3.2.1.2.1** Equipment interior and/or other surfaces shall be treated with a 10% bleach solution to kill any aquatic nuisance species. This solution must also be run through all intake lines and hoses, to sterilize interior components. When chlorine treatment is used, all chlorine runoff from equipment washing must be collected and properly treated and/or disposed of in accordance with Sec 806.
- **3.2.1.2.2** Equipment interior and/or other surfaces shall be treated with 140° F water for a minimum of 10 seconds contact on all surfaces. 140 ° F water must also be run through all intake lines and hoses, to purge any standing water.

3.2.1.2.3 Equipment shall be flushed of all non-municipal water, and dried thoroughly, in the sun before using in or transporting between streams and lakes. Dry times will depend on the season the equipment is being used. Equipment must dry a minimum of 7 days for June-September, 18 days for March-May; 18 days for October-November, and 30 days for December-February. The drying method should be reserved as a last resort option.

- **3.2.2** Prior to use of equipment, contractors shall provide the MoDOT inspector written documentation of the equipment's geographic origin (including the water body it was last used in), as well as defining the specified treatment method used to adequately ensure protection against invasive species. The written documentation will include a statement indicating the contractor is aware of these provisions and will also treat the equipment appropriately after completion of the project.
- **3.3** Active Nests. The contractor may work on the bridge if active nests are present, as long as the work does not impact or disturb the birds and/or nests. At a minimum, work shall not be performed within 10 feet of an active nest; however, the contractor is responsible for ensuring their activities do not impact the nests, eggs, or young.
- **4.0 Additional Responsibilities.** If active bird nests remain after all reasonable avoidance measures have been taken, or if bird nests are observed during project construction, the contractor shall notify the Resident Engineer and contact the MoDOT Environmental Section (573-526-4778) to determine if there are other allowable options.

O. 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.

P. <u>Tree Clearing Restriction</u>

- **1.0 Description.** The project is within the known range of several federally protected bat species. 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.
- Q. <u>Slurry and Residue Produced During Surface Treatment of PCCP and Bridge Decks JSP-06-05A</u>
- **1.0 Description.** This work covers the requirements for controlling residue or slurry produced by milling, grinding, planing, grooving or other methods of surface treatments on new or existing PCCP and bridge decks in addition to Section 622.
- **2.0 Construction Requirements.** The following shall be considered the minimum requirements for performing this work within the project limits.
- **2.1** The contractor shall submit to the Engineer for approval in writing prior to the pre-construction meeting, the best management practices (BMP's) to be used to protect the environment, including the method of disposal of the residue whether on right of way or off-site.
- **2.2** When slurry is dispersed on the right of way, BMP's shall be installed to keep slurry or residue from entering paved ditches or structures discharging within the areas restricted by Section 622.303.8.6, from entering any waterways or from leaving the right of way.

2.3 Upon approval of the contractor's BMP and residue disposal plan and prior to the contractor beginning surface treatment operations, the Engineer will identify slurry or residue "no discharge zones".

- **2.4** Operations may be suspended by the Engineer during periods of rainfall or during freezing temperatures.
- **3.0 Basis of Payment.** No direct payment for slurry or residue control requirements for BMP's will be made. Compliance with this specification along with the cost of all materials, labor, and equipment necessary for the surface treatment work shall be included in and completely covered by the unit price bid for each of the items of work for surface treatment included in contract.

R. Video Inspection of Sewers

1.0 Description. This work shall consist of inspecting existing storm sewer pipes to assess their existing condition and potential repair needs. Inspections shall be performed at locations indicated in the plans.

The camera inspection shall provide adequate resolution and clarity that any existing and subsequent defects and condition can be determined. Reports shall be provided documenting the existing condition and potential repair needs. The sewer shall be cleaned out prior to the inspection.

- **1.1** Video copies all inspected pipes shall be provided. Still-frame snapshots shall be provided in a hard copy of any defect areas. The reports, video, and still-frame snapshots of the existing conditions shall be provided for review prior to any construction activities within the vicinity of the sewer mains.
- **1.2** The reports, video and still-frame snapshots of the subsequent conditions shall be provided for review upon completion of construction. The engineer may request additional periodic inspection reports if there is any reason to assume that any construction activities has damaged any of the storm sewer pipes indicated in the plans.
- **2.0 Method of Measurement.** No measurement will be made.
- **3.0 Basis of Payment.** Payment for the above described work including all material, equipment, labor, and any other incidental work necessary will be considered completely covered by the contract unit price for 604-99.01 Video Inspection of Sewers, per lump sum.

S. Wick Drain System

1.0 Description. The work shall consist of furnishing all necessary materials and equipment to construct a sand drainage blanket to form a horizontal drainage layer between the proposed embankment and what is considered the ground surface. Thickness of the sand blanket is to be 2 feet. Once the sand layer is constructed pre-fabricated vertical wick drains are to be installed at the locations and to such elevations as indicated on the plans or as directed by the engineer. Settlement gauges will be installed to monitor the settlement of the native soil under the new soil mass.

2.0 General Requirements. It shall be the responsibility of the contractor to furnish all necessary material, labor, and equipment for the purpose of installing vertical wick drains according to the plans and provisions of the contract. The contractor shall drill at least two borings within the area designated on the plans to select the equipment, method, and materials suitable for the existing site conditions and capable of producing a satisfactory drain installation to the minimum depth. Drains that are defective, either in terms of material or as a result of unacceptable installation methods, will be repaired or replaced at the contractor's expense.

3.0 Installation. At least 2 weeks prior to installation of the drains, the Contractor shall submit to the Engineer for review and approval a layout plan. The wick drain locations shall be located, numbered, and staked by the contractor. The contractor shall take the necessary precautions to protect and preserve the stakes. The locations of the installed wick drains shall not vary by more than 6 inches from the locations indicated in the plans.

Prior to installation of the wick drains, the existing ground shall be graded to drain as shown in the plans and or as directed by the engineer. Care shall be taken when installing the wick drains to minimize disturbance of the prepared ground. Vertical wick drains shall be installed through the two- foot thick sand blanket and prior to the placement of the embankment. No embankment shall be placed prior to installation of the wick drains except what is necessary to shape the existing ground as shown in the plans.

The contractor shall demonstrate that his or her equipment, methods and materials produce a satisfactory installation in accordance with these specifications. For this purpose, the contractor shall install six trial drains at locations within the work area, as designated by the engineer. Six trial drains conforming to these specifications will be included in the total number of wick drains required by this pay item.

Any drains that deviate from the plan location by more than 6 inches, or that are damaged or improperly installed, will be rejected. Rejected drains may be removed or abandoned in place at the contractor's option. Replacement drains shall be offset approximately 18 inches from the location of the rejected drain as directed by the engineer.

Drains shall be installed vertically, within a tolerance of not more than 0.25 inches per foot. The equipment shall be carefully checked for plumbness and the contractor shall provide the engineer with a suitable means of verifying the plumbness of the mandrel and of determining the depth of the drain at any time.

Splices or connections in the vertical drain material will not be allowed. The prefabricated drain shall be cut such that at least a 6-inch length protrudes above the top of the sand drainage blanket, at each drain location.

The contractor shall be permitted to use augering or other methods to clear obstructions and to facilitate the installation of the drains through the working platform or a stiffer natural deposit above the compressible soil strata. The depth to which pre-augering is used shall be subject to the approval of the engineer but should not extend more than 1 foot into underlying compressible soils.

Where obstructions are encountered within the compressible strata, which cannot be penetrated by augering, or spudding, the contractor shall abandon the hole. At the direction of the engineer, the contractor shall then install a new drain no more than 18 inches from the obstructed drain. A

maximum of two attempts shall be made, as directed by the engineer, to install a new drain for each obstructed drain. If the drain still cannot be installed to the design tip elevation, the drain location shall be abandoned, and the installation equipment should be moved to the next drain location. Drains shall be installed to the depth necessary to reach the layer of non-compressible soil.

Installation of the drains shall be coordinated with the installation of the settlement monitoring devices. Special care should be taken to install the drains in such a manner so as not to disturb the instrumentation already in place. The replacement of any damaged devices as a result of the contractor's activities will be the responsibility of the contractor.

5.0 Equipment. Vertical wick drains shall be installed with equipment, which will cause a minimum amount of disturbance to the sand blanket or the subsoil during the installation. The prefabricated drains shall be installed by pushing or vibrating a mandrel or sleeve through the soils to the required depth. Jetting shall not be permitted for installation of the drain, except with the approval of the engineer, to lubricate the mandrel when working in highly plastic clays.

The mandrel shall protect the prefabricated drain material from tears, cuts and abrasions during installation and shall be withdrawn after the installation of the drain. The drain shall be provided with an anchor plate or rod at the bottom to anchor the drain at the required depth at the time of mandrel removal. The projected cross-sectional area of the mandrel and anchor combination shall not be greater than 12 square inches.

At least 3 weeks prior to the installation of the wick drains, the contractor shall submit to the engineer for review the details, sequence, and method of the installation. The submittal shall, as a minimum, contain the following specific information:

Size, type, weight, maximum pushing force and configuration of the installation rig.

Dimensions and length of mandrel

Details of drain anchorage

Detailed description of proposed installation procedures Proposed methods of overcoming obstructions

Acceptance of the contractor's methodology by the engineer will not relieve the contractor of his/her responsibility to install wick drains in accordance with the plans and specifications. If, at any time, the engineer considers that the method of installation does not produce a satisfactory drain, the contractor shall alter his method and/or equipment as necessary to comply with plans and specifications.

6.0 Materials

6.1 Wick Drains

Wick drains shall be a prefabricated type constructed by fully wrapping a perforated high flow capacity polystyrene core with a non-woven synthetic geotextile filter fabric with an opening size of not greater than 210 microns. The geotextile wrap shall be tight around the core and shall be securely seamed in a manner that will not introduce any new materials nor present an obstruction that will impede flow in the channels of the core.

The contractor shall submit a five (5) foot sample of the vertical drain material to the engineer prior to usage and shall allow three weeks for evaluation of the material. The sample shall be stamped or labeled by the manufacturer as being representative of the drain material having the

specified trade name. Approval of the sample material by the engineer shall be required prior to site delivery of the wick drain material. One single type of wick drain material shall be used on the project unless otherwise approved by the engineer.

The contractor shall state which wick drain product he/she intends to install at the time of the preconstruction conference. The drains shall be free of defects, rips, holes, or flaws. During shipment, the drain shall be protected from damage, and during storage on-site, the storage area shall be such that the drain is protected from sunlight, mud, dirt, dust, debris, and detrimental substances. Manufacturer certification shall be provided and show that the material meets the following minimum specifications.

Test Item	<u>Designation</u>	Minimum Roll Value
Grab Tensile Strength	ASTM D 4632	80 lb.
Trapezoidal Tear	ASTM D 4533	25 lb.
Puncture Strength	ASTM D 4833	50 lb.
Burst Strength	ASTM D 3786	130 psi.
Permittivity	ASTM D 4491	100 gal/min/ft ²

6.2 Sand Drainage Blanket

The sand drainage blanket shall be constructed of a clean, free-draining, natural sand meeting the gradation requirements for fine aggregate in Sec 1005 of the Missouri Standard Specifications for Highway Construction. The sand shall be compacted such that it provides a stable working surface.

The horizontal sand drainage blanket shall cover the entire area enclosed by the wick drain boundary as indicated on the plans. The drainage blanket shall not be placed until the existing ground has been shaped and sloped to drain as shown on the plan sheet. Care shall be taken during placement of the embankment to prevent damage to the drainage system. Any pipes that are damaged during placement of the embankment will be repaired at the contractor's expense. Markers shall be placed at each outlet pipe for protection and the outlets shall remain unobstructed at all times.

7.0 Method of Measurement

No measurement will be made.

8.0 Basis of Payment

Payment for the above described work including all material, equipment, labor, and any other incidental work necessary to complete the temporary MSE wall will be considered completely covered by the contract lump sum price for Wick Drain System.

In instances where pre-auguring is permitted, the cost of pre-auguring and subsequent backfilling with sand shall be considered incidental to the price bid for Wick Drain System.

The cost of borings drilled to select the equipment, method, and materials suitable for the existing site conditions to produce a satisfactory drain installation shall be considered incidental to the price bid for Wick Drain System.

No direct payment will be made for unacceptable drains, or for any delays or expenses incurred through changes of method or equipment where directed by the engineer, but the costs of such shall be included in the contract lump sum for this work.

T. <u>Settlement Guage</u>

It shall be the responsibility of the contractor to furnish all necessary material, labor, and equipment for the purpose of constructing and installing the settlement gauges in accordance with the standard specifications and standard drawings, Embankment Monitoring Sec 204. The contractor will notify the engineer a minimum of 48 hours in advance of installation of the settlement gauges. In addition, the contractor will notify the engineer 24 hours in advance each time that the settlement gauge length will be modified during construction of the embankment and will coordinate with the engineer to get all required settlement data prior to proceeding with the embankment construction.

Soil Investigation has revealed that there are multiple areas throughout the project that will require monitoring before, during and after placement of the embankment. Settlement Gauges will be placed at the centerline of the roadway in the following locations:

Plate #1: Station 799+50 Plate #2: Station 802+50 Plate #3: Station 804+75 Plate #4: Station 806+50 Plate #5: Station 811+50 Plate #6: Station 813+75

Paving construction and surcharge removal will not be able to proceed in the areas as shown in the plans for the areas where wick drains are to be installed until the settlement is complete. Settlement will also have to be complete for the construction of the bridge abutments to be permitted. Settlement will be considered complete when less than 0.125 of an inch of settlement is recorded for 2 consecutive 2- week periods. For the area requiring wick drains it is estimated that the settlement will require at least 90 calendar days after completion of the embankment and surcharge. The settlement gauges shall be read and recorded every 2 weeks by the engineer after fill operations start and continue until the settlement is complete.

Settlement rates and times are based on information gathered during the geotechnical investigation. The actual rates and times may vary. No additional compensation will be made for work stoppages or delays related to additional time required to complete the settlement.

U. Pre-Load Embankment Construction

Proposed preload embankment shall be placed in two stages.

Stage 1, as indicated in the preload profiles, will place 20 feet of embankment for the northern approach and 15 feet of embankment for the southern approach. Top of embankment shall be slope drain away from the existing roadway and toward the proposed ditches.

Stage 2 is the construction of the remaining embankment and will commence after a waiting period of 30 days following completion of Stage 1. The engineer shall review and revise the waiting period between completion of Stage 1 and commencement of Stage 2 based on settlement plate readings. The contractor will place the embankment in Stage 2 to the grades indicated in the Pre-Load plans which includes a minimum of a 2 feet surcharge above the final condition roadway grade.

V. <u>Temporary MSE Wall System</u>

1.0 Description. This work shall consist of furnishing material and placement of a temporary mechanically stabilized earth (MSE) wall system constructed in accordance with these special provisions and in reasonably close conformance with the location shown on the plans or otherwise established.

- **1.1** The temporary MSE wall system (temporary wire face wall) is located on the plans for staging of the embankment construction. The contractor may locate the temporary wall differently than that shown on the plans with the approval of the engineer. No additional payment will be made for a change in wall location or subsequent changes in labor or material for the relocation.
- **1.2** The contractor will be solely responsible for determining the dimensions of the temporary MSE wall and ensuring that the temporary MSE wall is compatible with the construction of the MSE walls and bridges.
- **2.0 Design Requirements.** The design by the wall system supplier shall be in accordance with acceptable engineering practice and these special provisions. The design life of the structure shall be 3 years unless otherwise specified by the owner. Design calculations in accordance with the AASHTO specifications shown on the plans shall be provided to the engineer.
- **2.1** Temporary MSE wall shall be designed and detailed by the same wall designer and wall manufacturer responsible for the design of the MSE wall.
- **2.2** The contractor shall be responsible for the internal stability, external stability, compound stability, and overall global stability of the structure.
- **2.3** The contractor shall ensure that the temporary MSE wall is capable of supporting all applicable dead loads, any contributed live load from staged traffic handling, and any construction loads while not interfering with load distribution of final roadway. Submittals shall be required in accordance with Secs 720.3.3, 720.3.4, 720.3.5 and 720.3.6.
- **2.4** The structure's design height, H, shall be from the bottom of the excavation cut to the top of the embankment or where the ground surface intercepts the embankment slope.. Any deviation to wall extents shall be approved by the engineer.
- **2.5** The soil reinforcement length shall be the same length from top to bottom of the wall. The minimum soil reinforcement length shall be greater than or equal to 80 percent of the design height, H. The minimum reinforcement length shall be 8 feet.
- **2.6** The soil parameters assumed for the temporary MSE wall design shall be those shown on the plan details for the MSE wall and shown in the foundation report.
- **2.7** The lateral earth pressure to be resisted by the reinforcement at each reinforcement layer shall be calculated using the appropriate coefficient of earth pressure, K, times the vertical stress at each reinforcement layer. The vertical soil stress at each reinforcement layer shall consider the local equilibrium of all the forces acting above the layer under investigation.
- 2.8 For temporary MSE walls, the contractor may adjust the stiffness of the facing and spacing of the reinforcements such that the local deformation between the reinforcement is within the

elastic range in bending and tension, and the overall geometry meets the line and grade requirements for the temporary walls.

- **3.0 Material**. The contractor shall make arrangements to purchase the material covered by this section of the special provisions.
- **3.1** Select granular backfill shall be in accordance with Sec 1010 or embankment fill as per specifications may be used. Granular backfill shall be removed in construction of permanent roadway embankment.
- **3.2** Geotextile fabric shall be in accordance with Sec 1011.
- **3.3** Soil reinforcement and attachment devices shall be in accordance with Sec 1052. Metallic or non-metallic soil reinforcement may be used for temporary MSE walls.
- **3.4** Metallic soil reinforcement, fasteners, and wire facing for temporary MSE wall will not require galvanization in accordance with Sec 1052 if the contractor ensures that a 3-inch minimum clearance will be provided between any ungalvanized steel used in the temporary wall and the galvanized steel provided for the MSE wall. Damage done to the galvanization prior to the soil reinforcement installation shall be repaired in accordance with ASTM A 780.
- **3.5** Wire facing shall be shop fabricated of cold drawn steel wire and welded into the finished configuration in accordance with AASHTO M 32 (ASTM A 1064).
- **3.6** Inspection of the foundation conditions, the materials of construction, and the construction procedures will be the responsibility of the owner or their agents.

4.0 Construction Requirements.

- **4.1** Foundation preparation shall be in accordance with Sec 720.
- **4.2** The wall system components for the temporary MSE wall shall be constructed in accordance with the wall system supplier's recommendations and construction manual. The temporary MSE wall shall be constructed vertical or as near vertical as the wall system will allow. The erection of the first level of facing elements requires only a level grade. Wire face panel height shall be limited to a maximum of 18 inches. The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet. Batter requirements shall be in accordance with Sec 720.
- **4.3** The contractor shall coordinate construction of the embankment and temporary MSE wall, and the walls shall be constructed simultaneously. Backfill material shall be placed and compacted in layers not exceeding a loose lift thickness of 8 inches and brought up evenly. A minimum fill thickness of 6 inches over non-metallic and 3 inches over metallic reinforcement shall be required prior to operating any compaction equipment. Lifts within 3 feet of the wall shall not exceed 6 inches. Placement of select granular backfill or embankment fill for temporary MSE walls shall be in accordance with Sec 720.
- **4.4** Wall materials damaged during backfill placement shall be removed and replaced at the contractor's expense.
- **4.5** Technical assistance shall be in accordance with Sec 720.
- **5.0 Method of Measurement.** No measurement will be made.

6.0 Basis of Payment. Payment for the above described work including all material, equipment, labor, and any other incidental work necessary to complete the temporary MSE wall will be considered completely covered by the contract lump sum price for Temporary Shoring.

W. Memorandum of Agreement

Notice to Proceed cannot be given until the stipulations of the Memorandum of Agreement (MOA) with SHPO and FHWA is complete, or the MOA is extended. Contact MoDOT Historic Preservation Manager, Rachel Campbell, at 573-526-3593 for further details on progress.

ADDED X. Embankment Restrictions

The use of limestone screenings will not be allowed in the construction of roadway embankment.

ADDED Y. Type C Berm

Mulch berms will not be an allowable erosion control device near Joachim Creek.

ADDED Z. Liquidated Damages Specified JSP-03-05B

1.0 Description. If the complete closure of Route 61/67 and Herky-Horine Road, to construct the pavement connections from the proposed alignment to existing, is not completed within 90 days of closure, the Commission, the traveling public, and state and local police and governmental authorities will be damaged in various ways, including but not limited to potential liability, traffic and traffic flow regulation cost, traffic congestion and motorist delay, with its resulting cost to the traveling public.

2.0 Liquidated Damages Specified for Failure To Complete Work on Time.

These costs are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of \$5,000 per day for each full day that roadways are not complete and open to bidirectional traffic, in excess of the limitation as specified elsewhere in the special provision. It will be the responsibility of the engineer to determine the quantity of excess closure time.

- **2.1** The said liquidated damages specified will be assessed in addition to any other liquidated damages charged under the Missouri Standard Specifications for Highway Construction, as indicated elsewhere in this contract.
- **2.2** This deduction will continue until such time as the necessary work is completed and traffic is restored.