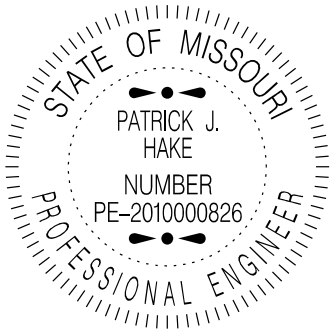
Job No.: JCD0064
Route: V, U
County: Boone

JOB SPECIAL PROVISIONS TABLE OF CONTENTS

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



08/08/2024 8:42:47 AM
PATRICK J. HAKE - CIVIL
MO-PE-2010000826

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 W. CAPITOL AVE.
JEFFERSON CITY, MO 65102
Phone 1-888-275-6636

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

JOB NUMBER: JCD0064
BOONE COUNTY, MO
DATE PREPARED: 07/01/2024

ADDENDUM DATE:

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

Job No.: JCD0064
Route: V, U
County: Boone

JOB
SPECIAL PROVISION

A. General - Federal JSP-09-02K

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

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

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

General Provisions & Supplemental Specifications

Supplemental Plans to July 2024 Missouri Standard Plans
For Highway Construction

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

B. Contract Liquidated Damages 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: November 4, 2024
Contract Completion Date: November 1, 2025

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

Project	Calendar Days	Daily Road User Cost
JCD0064	54	$1800

3.0 Liquidated Damages for Contract Administrative Costs. Should the contractor fail to complete the work on or before the contract completion date specified in Section 2.0, or within the number of calendar days specified in Section 2.1, whichever occurs first, the contractor will be charged contract administrative liquidated damages in accordance with Sec 108.8 in the amount of **$750** per calendar day for each calendar day, or partial day thereof, that the work is not fully completed. For projects in combination, these damages will be charged in full for failure to complete one or more projects within the specified contract completion date or calendar days.

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

C. Work Zone Traffic Management 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.

2.0 Traffic Management Schedule.

2.1 Traffic management schedules shall be submitted to the engineer for review prior to the start of work and prior to any revisions to the traffic management schedule. The traffic management schedule shall include the proposed traffic control measures, the hours traffic control will be in place, and work hours.

2.2 The traffic management schedule shall conform to the limitations specified in Sec 616 regarding lane closures, traffic shifts, road closures and other width, height, and weight restrictions.

2.3 The engineer shall be notified as soon as practical of any postponement due to weather, material, or other circumstances.

2.4 In order to ensure minimal traffic interference, the contractor shall schedule lane closures for the absolute minimum amount of time required to complete the work. Lanes shall not be closed until material

is available for continuous construction and the contractor is prepared to diligently pursue the work until the closed lane is opened to traffic.

2.5 Traffic Congestion. The contractor shall, upon approval of the engineer, take proactive measures to reduce traffic congestion in the work zone. The contractor shall immediately implement appropriate mitigation strategies whenever traffic congestion reaches an excess of 10 minutes to prevent congestion from escalating to 15 minute or above threshold. If disruption of the traffic flow occurs and traffic is backed up in queues of 15 minute delays or longer, then the contractor shall immediately review the construction operations which contributed directly to disruption of the traffic flow and make adjustments to the operations to prevent the queues from reoccurring. Traffic delays may be monitored by physical presence on site or by utilizing real-time travel data through the work zone that generate text and/or email notifications where available. The engineer monitoring the work zone may also notify the contractor of delays that require prompt mitigation. The contractor may work with the engineer to determine what other alternative solutions or time periods would be acceptable.

2.5.1 Traffic Safety.

2.5.1.1 Recurring Congestion. Where traffic queues routinely extend to within 1000 feet of the ROAD WORK AHEAD, or similar, sign on a divided highway or to within 500 feet of the ROAD WORK AHEAD, or similar, sign on an undivided highway, the contractor shall extend the advance warning area, as approved by the engineer.

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

3.0 Work Hour Restrictions.

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

Memorial Day
Labor Day
Thanksgiving
Christmas
New Year's Day

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

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

3.1.2 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.

All University of Missouri Home Football Games

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.

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. Utilities

1.0 The Contractor shall be aware there are numerous utilities present along the routes in this contract. Utility locates were not performed during the design phase of the project; therefore, the extent of conflicts with utilities are unknown. It is the inherent risk of the work under this contract that the contractor may encounter utilities above and/or below the ground or in the vicinity of any given work item which may interfere with their operations. The contractor expressly acknowledges and assumes this risk even though

the nature and extent are unknown to both the contractor and the Commission at the time of bidding and award of the contract. 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 utilities. For informational purposes only, the below list includes some of the known utilities along the routes. Any conflicts discovered and cleared before construction begins will help the contractor's progress on the project. MoDOT utilities staff will assist in relocation of utilities if necessary. There will be no direct pay for compliance to the above specification.

Utility Name	**Known Required Adjustment**	**Type**
Boone Co. PWSD #4 Contact: Chris West Phone: (573) 864-5243 **Email: pwsd4cwest@gmail.com**	None	Water
Boone Electric Cooperative Contact: Andrew Petri Phone: (573) 441-7243 Email: **apetri@booneelectric.com**	None	Electric
BrightSpeed Contact: Devin Kilgore Phone: (870) 425-6647 Email: **devin.kilgore@lumen.com**	None	Communications
Chariton Valley Communications Contact: Jimmy Hendrix Phone: (660) 395-9622 Email: **jhendrix@charitonvalley.com**	None	Communications

E. 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: 573-751-1000 (or *55 from cell)
Boone County Sheriff: 573-875-1111
Boone County Joint Communications: 573-554-1000 (or 311 for non-emergencies)

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.

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

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

Patrick Hake, Project Contact
MoDOT Central District
1511 Missouri Blvd.
PO Box 718
Jefferson City, MO 65102

Telephone Number: 573-526-5093
Email: Patrick.Hake@modot.mo.gov

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

G. Bridge End Transitions

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

H. Pavement Marking Log

1.0 Description. The contractor shall log the locations of existing pavement marking prior to any construction operations that may affect the existing pavement marking. The log shall contain all existing pavement marking and shall include but it not limited to: center stripes, no passing stripes, lane lines, turn arrows, hash bars, cross walks, railroad crossing and stop bars. The contractor shall provide a copy of the existing pavement marking log to the engineer. The contractor shall place the new pavement

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

2.0 Method of Measurement. The quantities of pavement marking for which payment will be made will be those shown in the contract plans for the various pavement marking items. Final measurement will not be made except where appreciable errors are found in the contract quantity.

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

I. Additional Flaggers

1.0 Additional flagger(s) and appropriate construction signs shall be provided at each of the specified locations when work zone extends through the following intersections and/or approaches:

All State Routes, County Roads, and City Streets

2.0 Basis of Payment. There will be no direct pay for all labor and equipment necessary to provide additional flaggers. All cost shall be considered completely covered under the pay items provided in the contract.

J. Contractor Quality Control for Plant Mix Bituminous Surface Leveling NJSP-15-21A

1.0 Description. The contractor shall provide Quality Control (QC) testing and shall perform verification procedures associated with the production and placement of Plant Mix Bituminous Surface Leveling Mixture in accordance with this provision.

2.0 Asphalt Plant Requirements. The contractor shall perform quality control testing in the production of the Surface Leveling Mixture and report the results electronically on MoDOT-provided forms. All reports shall include the Contract ID, Project Number, Route, County, and Job Mix number.

2.1 Calibration of the asphalt plant shall be in accordance with Sec 403.17.2.2. Record retention for verification of test reports shall be in accordance with Sec 403.17.3.2.

2.2 At a minimum, the contractor shall perform one QC sieve analysis test for each day of production of Surface Level mixture in excess of 100 tons to verify the aggregate is within the required gradation range. Results of the QC sieve analysis test shall be reported to the engineer daily. A split of each sample shall be clearly labeled and stored by the contractor in a manner that prevents contamination. The engineer will collect a minimum of one random QC split sample, and one full sample from plant production, for testing per each 10,000 tons of production. Uncollected QC split samples shall be retained by the contractor until the engineer authorizes disposal or until the Final Inspection, whichever occurs earlier.

2.3 The contractor shall monitor the quantity of asphalt binder used in the production of the mix, including any commercial mix, and report that quantity to the engineer. Original asphalt binder delivery tickets shall accompany the report submitted to the engineer. The engineer will perform a minimum of one asphalt binder content test per each 10,000 tons of production for any project that exceeds a total of 5,000 tons of production.

2.4 The contractor shall take a daily QC sample of the asphalt binder per instructions in EPG 460.3.13. The engineer will collect the QC samples and ship to the MoDOT Central lab for random testing. In addition, the engineer will take a minimum of one random Quality Assurance sample per project from the binder line. The engineer sample will be shipped to the Central Lab along with the daily samples and will be designated for testing.

2.5 The contractor shall perform one moisture content test for each day of production of Surface Level mixture in excess of 100 tons. The frequency of the moisture test may be reduced if approved by the engineer.

3.0 Roadway Requirements. The contractor shall perform quality control verification of the Surface Leveling Mixture on the roadway and shall monitor the asphalt tonnage placed in relation to plan quantity.

3.1 Irregularities. Additional tons of Surface Leveling mix will be provided for irregularities in the existing roadway surface. The tonnage specified for irregularities is an estimated quantity and shall only be placed at locations where it is necessary to fill ruts and other low points. Prior to placing the mix, the contractor and engineer shall evaluate the entire route and develop a plan that best utilizes the tonnage needed for irregularities. Any excess quantity of irregularities shall not be placed.

3.2 Tack. On the first day of production, the contractor shall demonstrate proper application of tack coat in the presence of the engineer. Thereafter, when the engineer is not present to witness the application of the tack coat, the contractor shall document the tack application by taking a minimum of two high-resolution date/time stamped photographs of the tacked surface per one-mile segment. Pictures should be taken just in front of the paver in order to account for loss of tack from truck tires. The contractor shall also monitor and document the application rate. The contractor shall take distributor readings at the beginning and ending of each shift and document the quantity used.

3.3 Spreading and Rolling. On the first day of production, the contractor shall demonstrate successful spreading and compaction of the mixture, including proper rolling patterns, in the presence of the engineer. Thereafter, the contractor shall monitor all roadway production procedures and document daily. Use of approved Intelligent Compaction technology is an allowable substitute for daily documentation.

3.4 Monitoring of Quantity. The contractor shall monitor the quantity of Surface Level mix placed and report that information to the engineer and production staff as specified herein.

3.4.1 The contractor shall verify that the quantity of Surface Leveling mix in the contract for each route is sufficient to cover the roadway as shown on the typical sections, including any surface irregularities. Any discrepancies shall be brought to the engineer's attention in writing prior to the pre-construction conference. Plan quantity shall be defined as the total tons computed to cover the surface area according to the typical section, plus any amount pre-approved by the engineer for pavement irregularities.

3.4.2 The contractor shall provide temporary log mile reference points at no less than ½ mile intervals along each route to monitor the tons of Surface Leveling mix laid in relation to plan quantity. Entrances, shoulders, or other irregular areas will be monitored as directed by the engineer.

3.4.3 During production, the contractor shall document the total tons placed in each one-mile segment, along with the plan quantity and the percent over/under for that segment. The cumulative quantity and percent over/under for the route should also be documented. After each one-mile segment, the contractor shall provide a status report to the production manager and the engineer. When the engineer is not present on the project, the contractor shall send an electronic status report to the engineer.

3.4.4 The goal is to keep the placed quantity within 2% of plan quantity for the project. The engineer will monitor the status reports and will advise the contractor on how to proceed when there is an excessive variance from plan quantity. The engineer may decrease the frequency of the electronic status reports when the variances are consistently low.

3.4.5 The contractor shall collect asphalt tickets from the delivery trucks and group them per each one-mile segment. The contractor shall submit to the engineer a daily summary report that includes all of the information specified in Section 3.4.3. The contractor shall sign the summary report confirming that the information is accurate and that the attached tickets represent the asphalt material placed.

3.4.6 The contractor shall be equipped with a contractor-furnished cellular device capable of providing and maintaining a reliable means of immediate communication with the engineer when the engineer is not present on the project.

4.0 Excessive Quantity. If the contractor places Surface Level mix on any one-mile segment, or any other isolated areas, in excess of plan quantity by 5% or more, without prior approval from the engineer, further investigation may be required to determine if the excess was warranted. If directed by the engineer, the contractor shall core the pavement at locations established by the engineer to determine the amount that was excessive, if any. No payment will be made for the cost to core the pavement or for the tons of Surface Level mix that the engineer determines to be excessive. If the amount of Surface Level mix is determined to be justified, payment will be made for the mix, and for the cost of coring at the fixed price established in Sec 109. Placement of asphalt in excess of plan quantity for two consecutive segments without prior approval from the engineer may result in issuance of an Order Record to stop work.

5.0 Basis of Payment. No direct payment will be made for compliance with this provision. All costs shall be considered completely covered under the pay items provided in the contract.

K. Protection of Norfolk Southern Railway Interests

1.0 Authority of Railroad Engineer and Department Engineer:

1.1 Norfolk Southern Railway Company, hereinafter referred to as “Railroad”, and their authorized representative shall have final authority in all matters affecting the safe maintenance of railroad traffic including the adequacy of the foundations and structures supporting the railroad tracks. For Public Projects impacting the Railroad, the Railroad’s Public Improvements Engineer or Engineer Planning, hereinafter referred to as “Railroad Engineer”, will serve as the authorized representative of the Railroad.

1.2 A general engineering consultant may be utilized to assist the Railroad Engineer in handling the Project, hereinafter referred to as “Construction Engineering Representative”.

1.3 Other designated personnel by the Railroad Engineer shall hereinafter be referred to as "Railroad Representative".

1.4 The authorized representative of the Project Sponsor ("Sponsor"), hereinafter referred to as the "Sponsor's Engineer", shall have authority over all other matters as prescribed herein and in the Project Specifications.

1.5 The Sponsor's Prime Contractor, hereinafter referred to as "Contractor" shall be responsible for completing any and all work in accordance with the terms prescribed herein and in the Project Specifications. This shall include the qualified protective services of a contractor directly hired by the Contractor to protect their workers and construction activities while working on or adjacent to Railroad property, hereinafter referred to as "Contractor Protective Services".

1.6 This document titled Protection of Norfolk Southern Railway Interests shall hereinafter be referred to as "Special Provisions".

1.7 These terms and conditions are subject to change without notice at the sole discretion of the Railroad. The Contractor must request the latest version of these Special Provisions from the Railroad prior to commencing work and must follow the requirements outlined therein.

2.0 Authorization to Proceed::

2.1 The Contractor shall not commence mobilizing to the Premises, as defined in the Norfolk Southern Contractor Right of Entry Agreement, until the Contractor has complied with the following conditions:

2.1.1 Signed and received a fully executed copy of the required Norfolk Southern Contractor Non-Environmental Right of Entry obtained through te following link: https://www.norfolksouthern.com/en/rail-development-property/ns-property/projects-on-ns-property/access-ns-property There is a $1,500 application fee.

2.1.2 Obtained written approval from the Railroad of Railroad Protective Liability Insurance coverage as required by paragraph 15 herein. It should be noted that the Railroad does not accept notation of Railroad Protective insurance on a certificate of liability insurance form or Binders as Railroad must have the full original countersigned policy. Further, please note that mere receipt of the policy is not the only issue but review for compliance. Due to the number of projects system-wide, it typically takes a minimum of 30-45 days for the Railroad to review.

2.1.3 Held a preconstruction meeting between the Contractor, the Sponsor, Railroad Engineer and/or their Construction Engineering Representative and the Railroad Representative(s). NOTE: Railroad Representative(s) may choose to not attend the preconstruction meeting at their discretion.

2.1.4 Obtained Railroad Protective Services as required by paragraph 7 herein.

2.1.5 Furnished a schedule for all construction activities which may impact the Railroad's property or operations. NOTE: Contractor Protective Services shall be provided any time construction activities are taking place on or adjacent to the Railroad Property and/or has the potential to foul the Railroad's track or operations as required by Section 8 herein.

2.1.6 Schedule an onsite start-of-work meeting between the Contractor, Contractor Protective Services personnel, Railroad Engineer and/or their Construction Engineering Representative and the Railroad Representative(s). NOTE: Railroad Representative(s) may choose to not attend the start-of-work meeting at their discretion.

2.1.7 Obtained written authorization to proceed from the Railroad to begin mobilization to the Premises, as defined in the Norfolk Southern Contractor Right of Entry Agreement, such authorization to include an outline of specific conditions with which the Contractor must comply. Written Authorization will be issued by the Railroad once all items on the Norfolk Southern Checklist for Construction - Direct Hire have been completed.

2.2 The Railroad's written authorization to proceed with the work shall include the names, addresses, and telephone numbers of the Railroad Representative(s) and any specific Construction Engineering Representative who shall be notified as hereinafter required. Where more than one representative is designated, the area of responsibility of each representative shall be specified.

2.3 All project-related utility work that is to occur on, over, or under Railroad right-of-way must be coordinated with the Norfolk Southern Pipe and Wire Program. The Contractor must receive approval from the Norfolk Southern Pipe and Wire Program prior to commencing any utility work.

3.0 . NOTICE OF STARTING WORK:

3.1 Before undertaking any construction activities on the Premises, as defined in the Norfolk Southern Contractor Right of Entry Agreement, the Contractor shall.

3.1.1 Notify the Railroad Representative(s) at least 72 hours in advance of any construction activities that Contractor Protective Services have been obtained for use.

3.1.2 Hold an onsite start-of-work meeting between the Contractor, Contractor Protective Services personnel, Railroad Engineer and/or their Construction Engineering Representative and the Railroad Representative(s). NOTE: Railroad Representative(s) may choose to not attend the start of work meeting at their discretion.

3.1.3 Receive assurance from the qualified protective services contractor that the Contractor Protective Services are properly equipped and have been site specific trained by the Railroad Representative prior to performing the full duties of protecting the Contractor. Until assurance from the qualified protective services contractor is obtained, Contractor Protective Services may act as an observer until such Contractor Protective Services are site specific trained by the Railroad Representative. The reference to an "observer" is defined as a person who has the authority to deny access to Contractor's workers and machinery to a specified Railroad operation zone as directed to the qualified protective services contractor by Railroad and prevent those potential to foul work events which may put the Contractor's workers and machinery at risk for injury or damage.

4.0 Interference with Railroad Operations:

4.1 The Contractor shall so arrange and conduct the Contractor's work that there will be no interference with Railroad's operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, wires, and other facilities of tenants on the rights-of-way of the

Railroad. Whenever work is liable to affect the operations or safety of trains, the method of doing such work shall first be submitted to the Railroad Engineer for approval, but such approval shall not relieve the Contractor from liability. Any work to be performed by the Contractor which requires Construction Engineering Representative inspection services shall be deferred by the Contractor until the Construction Engineering Representative inspection services are available at the job site. Contractor Protective Services shall be provided onsite any time construction activities are taking place on or adjacent to the Railroad Property and/or has the potential to foul the Railroad's track or operations.

4.2 Whenever work within Railroad's rights-of-way is of such a nature that impediment to Railroad's operations such as use of runaround tracks or necessity for reduced speed is unavoidable, the Contractor shall schedule and conduct the Contractor's operations so that such impediment is reduced to the absolute minimum.

4.3 Should conditions arising from, or in connection with the work, require that immediate and unusual provisions be made to protect operations and property of the Railroad, the Contractor shall make such provisions. If in the judgment of the Railroad Engineer, or in the Railroad Engineer's absence, the Railroad's Division Engineer, such provisions are insufficient, either may require or provide such provisions as the Railroad deems necessary. In any event, such unusual provisions shall be at the Contractor's expense and without cost to the Railroad or the Sponsor.

4.4 "One Call" Services do not locate buried Norfolk Southern Signals and Communications Lines. The contractor shall contact the Railroad's representative 7 days in advance of work at those places where excavation, pile driving, or heavy loads may damage the Railroad's underground facilities. Upon request from the Contractor or Sponsor, Railroad forces will locate and paint mark or flag the Railroad's underground facilities. The Contractor shall avoid excavation or other disturbances of these facilities. If disturbance or excavation is required near a buried Railroad facility, the contractor shall coordinate with the Railroad to have the facility potholed manually with careful hand excavation. The facility shall be protected by the Contractor during the course of the disturbance under the supervision and direction of the Railroad's Representative.

5.0 Track Clearances:

5.1 The minimum track clearances to be maintained by the Contractor during construction are shown on the Project Plans. If temporary clearances are not shown on the project plans, the following criteria shall govern the use of falsework and formwork above or adjacent to operated tracks.

5.1.1 A minimum vertical clearance of 22'-0" above top of highest rail shall be maintained at all times.

5.1.2 A minimum horizontal clearance of 13'-0" from centerline of tangent track or 14'-0" from centerline of curved track shall be maintained at all times. Additional horizontal clearance may be required in special cases to be safe for operating conditions. This additional clearance will be as determined by the Railroad Engineer.

5.1.3 All proposed temporary clearances which are less than those listed above must be submitted to Railroad Engineer for approval prior to construction and must also be authorized by the regulatory body of the State if less than the legally prescribed clearances.

5.1.4 The temporary clearance requirements noted above shall also apply to all other physical obstructions including, but not limited to: stockpiled materials, parked equipment, placement or driving of piles, and bracing or other construction supports.

6.0 Construction Procedures:

6.1 General:

6.1.1 Construction work and operations by the Contractor on Railroad property shall be:

a. Subject to the inspection and approval of the Railroad Engineer or their designated Construction Engineering Representative.

b. In accordance with the Railroad's written outline of specific conditions.

c. In accordance with the Railroad's general rules, regulations and requirements including those relating to safety, fall protection and personal protective equipment.

d. In accordance with these Special Provisions.

6.1.2 Submittal Requirements

a. The Contractor shall submit all construction related correspondence and submittals electronically to the Railroad Engineer and/or their designated Construction Engineering Representative.

b. The contractor should anticipate a minimum of 45 days for NS and their Construction Engineering Representative to complete the review of all construction submittals. Time frames for reviews can vary significantly depending on the complexity of the project and the quality of submittals. Submittals requiring input from other departments may require additional time.

c. All work in the vicinity of the Railroad's property that has the potential to affect the Railroad's train operations or disturb the Railroad's property must be submitted and approved by the Railroad prior to work being performed.

d. All submittals and calculations must be signed and sealed by a registered engineer licensed in the state of the project work.

e. All submittals shall first be approved by the Sponsor's Engineer prior to submission to the Railroad Engineer for review. Submittals are reviewed by the Railroad for impacts to Railroad operations only; therefore, approval from the Railroad Engineer shall not relieve the Contractor from liability.

f. For all construction projects, the following submittals, but not limited to those listed below, shall be provided for review and approval when applicable:

1) General Means and Methods
2) Ballast Protection

3) Construction Excavation & Shoring
4) Pipe, Culvert, & Tunnel Installations
5) Demolition Procedure
6) Erection & Hoisting Procedure
7) Debris Shielding or Containment
8) Blasting
9) Formwork for the bridge deck, diaphragms, overhang brackets, and protective platforms
10) Bent Cap Falsework. A lift plan will be required if the contractor want to move the falsework over the tracks.

g. For Undergrade Bridges (Bridges carrying the Railroad) the following submittals in addition to those listed above shall be provided for review and approval:

1) Girder Shop Drawings including welding/fabrication procedures
2) Bearing Shop Drawings and Material Certifications
3) Shop Drawings for drainage, handrails/fencing, and expansion dams
4) Concrete Mix Design
5) Structural Steel, Rebar, and/or Strand Certifications
6) 28-day Cylinder Test for Concrete Strength
7) Waterproofing Material Certification
8) Dampproofing materials
9) Test Reports for all steel
10) Foundation Construction Reports

Other submittals may be required upon request from the Railroad. Fabrication may not begin until the Railroad has approved the required shop drawings

h. The Contractor shall include in all submissions a detailed narrative indicating the progression of work with the anticipated timeframe to complete each task. Work will not be permitted to commence until the Contractor has provided the Railroad with a satisfactory plan that the project will be undertaken without scheduling, performance, or safety related issues. Submissions shall also provide: a listing of the anticipated equipment to be used, plan and profile views showing the location of all equipment to be used relative to the track centerline(s) shown, and a contingency plan of action covering the event that a primary piece of equipment malfunctions.

6.2 Ballast Protection

6.2.1 The Contractor shall submit the proposed ballast protection system detailing the specific filter fabric and anchorage system to be used during all construction activities.

6.2.2 The ballast protection is to extend 25’ beyond the proposed limit of work, be installed at the start of the project and be continuously maintained to prevent all contaminants from entering the ballast section of all tracks for the entire duration of the project.

6.3 Excavation:

6.3.1 The subgrade of an operated track shall be maintained with edge of berm at least 10'-0" from centerline of track and not more than 24-inches below top of rail. Contractor will not be required to make existing section meet this specification if substandard, in which case the existing section will be maintained.

6.3.2 Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.

6.4 Excavation for Structures and Shoring Protection:

6.4.1 The subgrade of an operated track shall be maintained with edge of berm at least 10'-0" from centerline of track and not more than 24-inches below top of rail. Contractor will not be required to make existing section meet this specification if substandard, in which case the existing section will be maintained.

6.4.2 The use of shoring systems utilizing tiebacks shall not be permitted without written approval from the Railroad Engineer.

6.4.3 Shoring systems utilizing trench boxes shall not be permitted within the Theoretical Railroad Embankment (Zones 1, 2, or 3) as shown on NS Typical Drawing No. 4 – Shoring Requirements without written approval from the Railroad Engineer.

6.4.4 All plans and calculations for shoring shall be prepared, signed, and sealed by a Registered Professional Engineer licensed in the state of the proposed project, in accordance with Norfolk Southern' s Overhead Grade Separation Design Criteria, subsection H.1.6 - Construction Excavation (Refer to Norfolk Southern Public Improvement Projects Manual Appendix H). The Registered Professional Engineer will be responsible for the accuracy for all controlling dimensions as well as the selection of soil design values which will accurately reflect the actual field conditions.

6.4.5 The Contractor shall provide a detailed installation and removal plan of the shoring components. Any component that will be installed via the use of a crane or any other lifting device shall be subject to the guidelines outlined in Section 6.G of these Special Provisions.

6.4.6 The Contractor shall be required to survey the track(s) and Railroad embankment and provide a cross section of the proposed excavation in relation to the tracks.

6.4.7 Calculations for the proposed shoring should include deflection calculations. The maximum deflection for excavations within 18'-0" of the centerline of the nearest track shall be 3/8". For all other cases, the max deflection shall not exceed ½".

6.4.8 Additionally, the Railroad will require the installation of an OSHA approved handrail and orange construction safety fencing for all excavations of the Railroad right-of-way.

6.4.9 The front face of shoring located closest to the NS track for all shoring setups located in Zone 2 (shown on NS Typical Drawing No. 4 – Shoring Requirements in Appendix I) shall remain in place and be cut off 2'-0" below the final ground elevation. The remaining shoring in Zone 2 and all shoring in Zone 1 may be removed and all voids must be backfilled with flowable fill.

6.5 Pipe, Culvert, & Tunnel Installations

6.5.1. Pipe, Culvert, & Tunnel Installations shall be in accordance with the appropriate Norfolk Southern Design Specification as noted below:

6.5.1.1 For Open Cut Method refer to Norfolk Southern Public Improvement Projects Manual Appendix H.4.6.

6.5.1.2. For Jack and Bore Method refer to Norfolk Southern Public Improvement Projects Manual Appendix H.4.7.

6.5.1.3. For Tunneling Method refer to Norfolk Southern Public Improvement Projects Manual Appendix H.4.8.

6.5.2. The installation methods provided are for pipes carrying storm water or open flow run-off. All other closed pipeline systems shall be installed in accordance Norfolk Southern's Pipe and Wire Program and the NSCE-8.

6.6 Demolition Procedures

6.6.1. General

6.6.1.1. Demolition plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right-of-way and within a distance of the boom length plus 15'-0" from the centerline of track.

6.6.1.2. Railroad tracks and other Railroad property must be protected from damage during the procedure.

6.6.1.3. A pre-demolition meeting shall be conducted with the Sponsor, the Railroad Engineer or their representative, and the key Contractor's personnel prior to the start of the demolition procedure.

6.6.1.4. The Railroad Engineer or the Railroad Engineer's designated representative must be present at the site during the entire demolition procedure period.

6.6.1.5. Demolition of existing bridge decks in spans over the Railroad shall be performed in a controlled manner (i.e. saw-cutting). No impact equipment (track-mounted hoe-ram, jackhammers, etc.) may be used over the Railroad without approval by the Railroad Engineer.

6.6.1.6. Existing, obsolete, bridge piers shall be removed to a sufficient depth below grade to enable restoration of the existing/proposed track ditch, but in no case less than 2'-0" below final grade.

6.6.2. Submittal Requirements

6.6.2.1 In addition to the submittal requirements outlined in Section 6.1.2 of these Special Provisions, the Contractor shall submit the following for approval by the Railroad Engineer:

6.6.2.1.1. A plan showing the location of cranes, horizontally and vertically, with proposed boom lengths, operating radii, counterweights, and delivery or disposal locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.

6.6.2.1.2. Rating sheets showing that cranes or lifting devices are adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.

6.6.2.1.3. Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the existing structure showing complete and sufficient details with supporting data for the demolition of the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.

6.6.2.1.4. The Contractor shall provide a sketch of all rigging components from the crane's hook block to the object being hoisted. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered whendeter mining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.

6.6.2.1.5. A complete demolition procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.

6.6.2.1.6. Design and supporting calculations for the temporary support of components, including but not limited to the stability of the superstructure during the temporary condition, temporary girder tie- downs and falsework.

6.6.3. Overhead Demolition Debris Shield

6.6.3.1. The demolition debris shield shall be installed prior to the demolition of the bridge deck or other relevant portions of the superstructure over the track area to catch all falling debris.

6.6.3.2. The demolition debris shield shall provide a minimum vertical clearance as specified in Section 5.1.1 of these Special Provisions or maintain the existing vertical clearance if the existing clearance is less than that specified in Section 5.1.1.

6.6.3.3. The Contractor shall include the demolition debris shield installation/removal means and methods as part of the proposed demolition procedure submission.

6.6.3.4. The Contractor shall submit the demolition debris shield design and supporting calculations for approval by the Railroad Engineer.

6.6.3.5. The demolition debris shield shall have a minimum design load of 50 pounds per square foot plus the weight of the equipment, debris, personnel, and other loads to be carried.

6.6.3.6. The Contractor shall include the proposed bridge deck removal procedure in its demolition means and methods and shall verify that the size and quantity of the demolition debris generated by the procedure does not exceed the shield design loads.

6.6.3.7. The Contractor shall clean the demolition debris shield daily or more frequently as dictated either by the approved design parameters or as directed by the Railroad Engineer.

6.6.4. Vertical Demolition Debris Shield

6.6.4.1. A vertical demolition debris shield may be required for substructure removals in close proximity to the Railroad's track and other facilities, as determined by the Railroad Engineer.

6.7. Erection & Hoisting Procedures

6.7.1. General

6.7.1.1. Erection plans are required for all spans over the track(s), for all spans adjacent to the track(s), if located on (or partially on) Railroad right-of-way; and in all situations where cranes will be situated on, over, or adjacent to Railroad right- of-way and within a distance of the boom length plus 15'-0" from the centerline of track.

6.7.1.2. Neither crane handoffs nor "walking" of cranes with suspended load will be permitted for erection on or over Railroad right-of-way.

6.7.1.3. Railroad tracks and other Railroad property must be protected from damage during the erection procedure.

6.7.1.4. A pre-erection meeting shall be conducted with the Sponsor, the Railroad Engineer and/or the Construction Engineering Representative, and the key Contractor's personnel prior to the start of the erection procedure.

6.7.1.5. The Railroad Engineer or the Railroad Engineer's designated representative must be present at the site during the entire erection procedure period.

6.7.1.6. For field splices located over Railroad property, a minimum of 50% of the holes for each connection shall be filled with bolts or pins prior to releasing the crane. A minimum of 50% of the holes filled shall be filled with bolts. All bolts must be appropriately tightened. Any changes to previously approved field splice locations must be submitted to the Railroad for review and approval. Refer to Norfolk Southern' s Overhead Grade Separation Design Criteria for additional splice details (Norfolk Southern Public Improvement Projects Manual Appendix H.1, Section 4.A.3.).

6.7.2. Submittal Requirements

6.7.2.1. In addition to the submittal requirements outlined in Section 6.1.2 of these provisions, the Contractor shall submit the following for approval by the Railroad Engineer.

6.7.2.1.1. As-built beam seat elevations - All as-built bridge seats and top of rail elevations shall be furnished to the Railroad Engineer for review and verification at least 30 days in advance of the erection, to ensure that minimum vertical clearances as approved in the plans will be achieved.

6.7.2.1.2. A plan showing the location of cranes, horizontally and vertically, with proposed boom lengths, operating radii, counterweights, and delivery or staging locations shown. The location of all tracks and other Railroad facilities as well as all obstructions such as wire lines, poles, adjacent structures, etc. must also be shown.

6.7.2.1.3. Rating sheets showing that cranes or lifting devices are adequate for 150% of the actual weight of the pick, including all rigging components. A complete set of crane charts, including crane, counterweight, and boom nomenclature is to be submitted. Safety factors that may have been "built-in" to the crane charts are not to be considered when determining the 150% factor of safety.

6.7.2.1.4. Plans and computations showing the weight of the pick must be submitted. Calculations shall be made from plans of the proposed structure showing complete and sufficient details with supporting data for the erection of the structure. If plans do not exist, lifting weights must be calculated from field measurements. The field measurements are to be made under the supervision of the Registered Professional Engineer submitting the procedure and calculations.

6.7.2.1.5. The Contractor shall provide a sketch of all rigging components from the crane's hook block to the object being hoisted. Catalog cuts or information sheets of all rigging components with their lifting capacities shall be provided. All rigging must be adequate for 150% of the actual weight of the pick. Safety factors that may have been "built-in" to the rating charts are not to be considered when determining the 150% factor of safety. All rigging components shall be clearly identified and tagged with their rated lifting capacities. The position of the rigging in the field shall not differ from what is shown on the final plan without prior review from the Sponsor and the Railroad.

6.7.2.1.6. A complete erection procedure, including the order of lifts, time required for each lift, and any repositioning or re-hitching of the crane or cranes.

6.7.2.1.7. Design and supporting calculations for the temporary support of components, including but not limited to temporary girder tie-downs and falsework.

6.8. Blasting

6.8.1 The Contractor shall obtain advance approval of the Railroad Engineer and the Sponsor Engineer for use of explosives on or adjacent to Railroad property. The request for permission to use explosives shall include a detailed blasting plan. If permission for use of explosives is granted, the Contractor will be required to comply with additional provisions as designated by the Railroad Engineer:

6.9 Track Monitoring

6.9.1 At the direction of the Railroad Engineer, any activity that has the potential to disturb the Railroad track structure may require the Contractor to submit a detailed track monitoring program for approval by the Railroad Engineer.

6.9.2 The program shall specify the survey locations, the distance between the location points, and frequency of monitoring before, during, and after construction. Railroad reserves the right to modify the survey locations and monitoring frequency as necessary during the project.

6.9.3 The survey data shall be collected in accordance with the approved frequency and immediately furnished to the Railroad Engineer for analysis.

6.9.4 If any movement has occurred as determined by the Railroad Engineer, the Railroad will be immediately notified. Railroad, at its sole discretion, shall have the right to immediately require all Contractor operations to be ceased and determine what corrective action is required. Any corrective action required by the Railroad or performed by the Railroad including the monitoring of corrective action of the Contractor will be at project expense.

6.10 Maintenance of Railroad Facilities:

6.10.1 The Contractor will be required to maintain all ditches and drainage structures free of silt or other obstructions which may result from the Contractor's operations and provide and maintain any erosion control measures as required. The Contractor will promptly repair eroded areas within Railroad rights-of-way and repair any other damage to the property of the Railroad or its tenants.

6.10.2 If, in the course of construction, it may be necessary to block a ditch, pipe or other drainage facility, temporary pipes, ditches, or other drainage facilities shall be installed to maintain adequate drainage, as approved by the Railroad Engineer. Upon completion of the work, the temporary facilities shall be removed, and the permanent facilities restored.

6.10.3 All such maintenance and repair of damages due to the Contractor's operations shall be done at the Contractor's expense.

6.11 Storage of Materials and Equipment:

6.11.1 Materials and equipment shall not be stored where they will interfere with Railroad operations, nor on the rights-of-way of the Railroad without first having obtained permission from the Railroad Engineer, and such permission will be with the understanding that the Railroad will not be liable for damage to such material and equipment from any cause and that the Railroad Engineer may move or require the Contractor to move, at the Contractor's expense, such material and equipment.

6.11.2 All grading or construction machinery that is left parked near the track unattended by Contractor Protective Services shall be effectively immobilized so that it cannot be moved by unauthorized persons. The Contractor shall protect, defend, indemnify and save the Railroad, and any associated, controlled or affiliated corporation, harmless from and against all losses, costs, expenses, claim, or liability for loss or damage to property or the loss of life or personal injury, arising out of or incident to the Contractor's failure to immobilize grading or construction machinery.

6.12 Cleanup:

6.12.1 Upon completion of the work, the Contractor shall remove from within the limits of the Railroad rights-of-way, all machinery, equipment, surplus materials, falsework, rubbish or temporary buildings of

the Contractor, and leave said rights-of-way in a neat condition satisfactory to the Railroad Engineer or the Railroad Representative.

7.0 Damages:

7.1 The Contractor shall assume all liability for any and all damages to the Contractor's work, employees, servants, equipment, and materials caused by Railroad traffic.

7.2 Any cost incurred by the Railroad for repairing damages to its property or to property of its tenants, caused by or resulting from the operations of the Contractor, shall be paid directly to the Railroad by the Contractor.

8.0 RAILROAD PROTECTIVE SERVICES:

8.1 Requirements:

8.1.1 Qualified protective services are those services of a contractor, directly hired by the Prime Contractor, that have been vetted through the Railroad and are allowed to be performed on Railroad property.

8.1.2 Contractor Protective Services shall be onsite anytime construction activities are taking place on or adjacent to the Railroad Property and/or have the potential to foul the Railroad's track or operations.

8.1.3 Contractor Protective Services shall be those services of a subcontractor to the Contractor who have the ability to fully protect the Contractor's workers and machinery once the qualified protective services contractor confirms the Contractor Protective Services are properly equipped and site specific trained by the Railroad Representative. Contractor Protective Services may act as an observer until such Contractor Protective Services are site specific trained by the Railroad Representative. The reference to an "observer" is defined as a person who has the authority to deny access to Contractor's workers and machinery to a specified Railroad operation zone as directed to the qualified protective services contractor by Railroad and prevent those potential to foul work events which may put the Contractor's workers and machinery at risk for injury or damage.

8.1.4 Contractor Protective Services will not be allowed on the property until all items on the Norfolk Southern Checklist for Construction- Direct Hire have been completed and the authorization to proceed is given by the Railroad Engineer.

8.1.5 Under the terms of the agreement between the Sponsor and the Railroad, the Railroad has sole authority to determine the need for any Railroad Protective Services required to protect its operations or work designated to be done by the Railroad through the force account estimate.

8.2 Scheduling and Notification:

8.2.1 The Contractor's work requiring Railroad Protective Services should be scheduled to limit the presence of such personnel at the site. Railroad approval will be required for any Railroad Protective Services requests in excess of 40 hours per week, and in such cases, should be limited to a maximum of 50 hours per week.

8.2.2 Not later than the time that approval is initially requested to begin work on Railroad right-of-way, the Contractor shall furnish to the Railroad and the Sponsor a schedule for all work required to complete the portion of the project within Railroad right-of-way and arrange for a job site meeting between the Contractor, the Sponsor, and the Railroad's authorized representative. The Railroad Protective Services personnel may not be provided until the job site meeting has been conducted and the Contractor's work has been scheduled.

8.2.3 The Contractor will be required to give the Railroad representative at least 10 working days of advance written notice of the intent to begin work within Railroad right-of-way in accordance with this special provision, and must receive written or verbal confirmation of this request from the Railroad representative. Once begun, when such work is then suspended at any time, or for any reason, the Contractor will be required to give the Railroad representative at least 10 working days of advance notice before resuming work on Railroad right-of-way. Such notices shall include sufficient details of the proposed work to enable the Railroad representative to determine if Railroad Protective Services will be required. If such notice is in writing, the Contractor shall furnish the Engineer a copy; if notice is given verbally, it shall be confirmed in writing with copy to the Engineer. If Railroad Protective Services are required, no work shall be undertaken until the Railroad Protective Services personnel is present at the job site. It may take 30 days or longer to obtain Railroad Protective Services initially from the Railroad. When Railroad Protective Services begin, the Railroad Protective Services personnel is usually assigned by the Railroad to work at the project site on a continual basis until no longer needed and cannot be called for on a spot basis. If Railroad Protective Services become unnecessary and are suspended, it may take 30 days or longer to again obtain Railroad Protective Services from the Railroad. Due to Railroad labor agreements, it is necessary to give 5 working days notice before Railroad Protective Service may be discontinued and responsibility for payment stopped.

8.2.4 If, after the Railroad Protective Services personnel is assigned to the project site, an emergency arises that requires the personnel's presence elsewhere, then the Contractor shall delay work on Railroad right-of-way until such time as the personnel is again available. Any additional costs resulting from such delay shall be borne by the Contractor and not the Sponsor or Railroad.

8.3 Payment:

8.3.1 The Contractor will be responsible for paying the Railroad Protective Services Company directly for any and all costs of Railroad Protective Services which may be required to accomplish the construction.

9.0 Haul Across Railroad Track:

9.1 Where the plans show or imply that materials of any nature must be hauled across the Railroad's track, unless the plans clearly show that the Sponsor has included arrangements for such haul in its agreement with the Railroad, the Contractor will be required to make all necessary arrangements with the Railroad regarding means of transporting such materials across the Railroad's track. The Contractor or Sponsor will be required to bear all costs incidental to such crossings whether services are performed by the Contractor's own forces or by Railroad personnel.

9.2 No crossing may be established for use by the Contractor for transporting materials or equipment across the tracks of the Railroad unless specific authority for its installation, maintenance, use, until the

Contractor has a fully executed a temporary private crossing agreement between the Contractor and Railroad. The approval process for an agreement normally takes 90 days.

10.0 Work for the Benefit of the Contractor:

10.1 All temporary or permanent changes in wire lines or other facilities which are considered necessary to the project are shown on the plans; included in the force account agreement between the Sponsor and the Railroad or will be covered by appropriate revisions to same which will be initiated and approved by the Sponsor and/or the Railroad.

10.2 Should the Contractor desire any changes in addition to the above, then the Contractor shall make separate arrangements with the Railroad for same to be accomplished at the Contractor's expense.

11.0 Cooperation and Delays:

11.1 It shall be the Contractor's responsibility to arrange a schedule with the Railroad for accomplishing stage construction involving work by the Railroad or tenants of the Railroad. In arranging the Contractor's schedule, the Contractor shall ascertain, from the Railroad, the lead time required for assembling crews and materials and shall make due allowance therefore.

11.2 No charge or claim of the Contractor against either the Sponsor or the Railroad will be allowed for hindrance or delay on account of railroad traffic; any work done by the Railroad or other delay incident to or necessary for safe maintenance of railroad traffic or for any delays due to compliance with these Special Provisions.

12.0 Trainman's Walkways:

12.1 Along the outer side of each exterior track of multiple operated track, and on each side of single operated track, an unobstructed continuous space suitable for trainman's use in walking along trains, extending to a line not less than 10 feet from centerline of track, shall be maintained. Any temporary impediments to walkways and track drainage encroachments or obstructions allowed during work hours while Railroad's Protective Service is provided shall be removed before the close of each workday. If there is any excavation near the walkway, a handrail, with 10'-0" minimum clearance from centerline of track, shall be placed and must conform to AREMA and/or FRA standards.

13.0 Guidelines for Personnel on Railroad Right-of-Way:

13.1 The Contractor and/or the Sponsor's personnel authorized to perform work on the Railroad's property as specified in Section 2 above are not required to complete Norfolk Southern Roadway Worker Protection Training; However, the Contractor and the Sponsor's personnel must be familiar with Norfolk Southern' s standard operating rules and guidelines, should conduct themselves accordingly, and may be removed from the property for failure to follow these guidelines.

13.2 All persons shall wear hard hats. Appropriate eye and hearing protection must be used. Working in shorts is prohibited. Shirts must cover shoulders, back and abdomen. Working in tennis or jogging shoes, sandals, boots with high heels, cowboy and other slip-on type boots is prohibited. Hard-sole, lace-up footwear, zippered boots or boots cinched up with straps which fit snugly about the ankle are adequate. Wearing of safety boots and reflective vests are required.

13.3 No person is allowed to perform construction activities which may impact the Railroad's property or operations without specific authorization from the Contractor Protective Services.

13.4 All persons working near track while train is passing are to lookout for dragging bands, chains and protruding or shifted cargo.

13.5 No person is allowed to cross tracks without specific authorization from the Contactor Protective Services.

13.6 All welders and cutting torches working within 25' of track must stop when train is passing.

13.7 No steel tape or chain will be allowed to cross or touch rails without permission from the Railroad.

14.0 Guidelines for Equipment on Railroad Right-of-Way:

14.1 No crane or boom equipment will be allowed to set up to work or park within boom distance plus 15' of centerline of track without specific permission from Railroad Representative and Contractor Protective Services personnel.

14.2 No crane or boom equipment will be allowed to foul track or lift a load over the track without the authorization from the Contractor Protective Services personnel who are site specific trained and properly equipped.

14.3 All employees will stay with their machines when crane or boom equipment is pointed toward track.

14.4 All cranes and boom equipment under load will stop work while train is passing (including pile driving).

14.5 Swinging loads must be secured to prevent movement while train is passing.

14.6 No loads will be suspended above a moving train.

14.7 No equipment will be allowed within 25' of centerline of track without specific authorization of the Railroad official and Railroad Protective Services personnel.

14.8 Trucks, tractors, or any equipment will not touch ballast line without specific permission from Railroad Representative and Contractor Protective Services personnel. At the beginning of each project that involves the Contractor working within 25' of the centerline of any track, orange construction fencing must be established. Orange construction fencing shall be established in accordance with the minimum temporary horizontal clearances contained in Section 5.1.2 and shall be maintained for the duration of construction.

14.9 No equipment or load movement is permitted within 25' or above a standing train or Railroad equipment without specific authorization of the Railroad Protective Services personnel.

14.10 All operating equipment within 25' of track must halt operations when a train is passing. All other operating equipment may be halted by the Railroad Protective Services personnel if said personnel views the operation to be dangerous to the passing train.

14.11 All equipment, loads and cables are prohibited from touching rails.

14.12 While clearing and grubbing, no vegetation will be removed from Railroad embankment with heavy equipment without specific permission from the Railroad Engineer and Railroad Protective Services personnel.

14.13 No equipment or materials will be parked or stored on Railroad's property unless specific authorization is granted from the Railroad Engineer.

14.14 All unattended equipment that is left parked on Railroad property shall be effectively immobilized so that it cannot be moved by unauthorized persons.

14.15 All cranes and boom equipment will be turned away from track after each workday or whenever unattended by an operator.

14.16 Prior to performing any crane operations, the Contractor shall establish a single point of contact for the Contractor Protective Services personnel to remain in communication with at all times. Contractor Protective Services personnel must also be in direct contact with the individual(s) directing the crane operation(s).

15.0 Insurance:

15.1 In addition to any other forms of insurance or bonds required under the terms of the contract and specifications, the Prime Contractor will be required to carry insurance of the following kinds and amounts:

15.1.1 A Commercial General Liability ("CGL") policy containing products and completed operations, bodily injury, property damage, and contractual liability coverage, with a combined single limit of not less than $5,000,000 for each occurrence with a general aggregate limit of not less than $5,000,000. Any portion of this requirement may be satisfied by a combination of General Liability and/or Excess/Umbrella Liability Coverage. The CGL policy shall provide additional insured coverage equivalent to at least as broad as ISO CG 20 10 11/85.

15.1.2 Automobile Liability Insurance with a current ISO occurrence form policy (or equivalent) and apply on an "any auto" (Symbol 1) basis, including coverage for all vehicles used in connection with the Work or Services on the leased property, providing annual limits of at least $1,000,000 per occurrence for bodily injury and property damage combined including uninsured and underinsured motorist coverage, medical payment protection, and loading and unloading. This policy shall be endorsed to include Transportation Pollution Liability Broadened Coverage ISO CA 99 48 03 06 or MCS-90 if vehicles are subject to Federal jurisdiction. If this coverage is on a claims-made form, the Retro Active Date must be prior to the date of this Agreement and the policy endorsement must be maintained for not less than seven (7) years.

15.1.3 Workers' Compensation Insurance to meet fully the requirement of any compensation act, plan, or legislative enactment applicable in connection with the death, disability or injury of Licensee's officers, agents, servants, or employees arising directly or indirectly out of the performance of the work.

15.1.4 Employers' Liability Insurance with limits of not less than $1,000,000 each accident, $1,000,000 policy limit for disease, and $1,000,000 each employee for disease.

15.1.5 All insurance required in Section 15.1 (excluding any Workers' Compensation policy) shall name Norfolk Southern Railway and its parent, subsidiary, and affiliated companies as additional insureds with an appropriate endorsement to each policy.

15.1.6 All policies secured by Contractor, whether primary, excess, umbrella or otherwise, and providing coverage to the Railroad as an additional insured (i) are intended to take priority in responding and to pay before any insurance policies Railroad may have secured for itself must respond or pay and (ii) may not seek contribution from any policies the Railroad may have secured for itsel.

15.1.7 No cross-liability exclusions are permitted that would apply to the additional insureds, and there may not be any restrictions in any policy that limits coverage for a claim brought by an additional insured against a named insured.

15.1.8 To the fullest extent permitted by law, all insurance furnished by Contractor in compliance with Section 15.1 shall include a waiver of subrogation in favor of Railroad with an appropriate endorsement to each policy.

15.1.9 All policies required in Section 15.1 shall not be subject to cancellation, termination, modification, changed, or non-renewed except upon thirty (30) days' prior written notice to the additional insureds.

15.1.10 The insurance coverages maintained by Contractor shall not limit any indemnity obligations or other liabilities. The insurance available to Railroad and its parent, subsidiary and affiliated companies as additional insureds shall not be limited by these requirements should Licensee maintain higher coverage limits.

15.1.11 Any deductibles or retentions in excess of $50,000 maintained on any insurance required in 15.1 shall be disclosed and approved by Railroad with a request made for approval to NSRISK3@nscorp.com.

15.1.12 Anyone subcontractor providing work on this project must extend CG 20 38 (or broader coverage) additional Insured endorsement to provide coverage for up stream parties.

15.1.13 Contractor shall require all subcontractors who are not covered by the insurance carried by Contractor to obtain commercially reasonable insurance coverage, but not less than the requirements of 15.1.

15.2 Contractor shall require all subcontractors who are not covered by the insurance carried by Contractor to obtain commercially reasonable insurance coverage, but not less than the requirements of 15.1:

15.2.1 Railroad Protective Liability (RPL) Insurance having a combined single limit of not less than $5,000,000 each occurrence and $10,000,000 in the aggregate applying separately to each annual

period. Said policy shall provide coverage for all loss, damage or expense arising from bodily injury and property damage liability, and physical damage to property attributed to acts or omissions at the job site.

15.2.2 The standards for the Railroad Protective Liability Insurance are as follows:

a) The insurer must be rated A- or better by A.M. Best Company, Inc.
b) The policy must be written using one of the following combinations of Insurance Services Office ("ISO") RPL Insurance Form Numbers:
    1) CG 00 35 01 96 and CG 28 31 10 93; or
    2) CG 00 35 07 98 and CG 28 31 07 98; or
    3) CG 00 35 10 01; or
    4) CG 00 35 12 04; or
    5) CG 00 35 12 07; or
    6) CG 00 35 04 13.

c) The named insured shall read:
    Norfolk Southern Corporation and its subsidiaries and affiliates
    650 West Peachtree Street NW – Box 46
    Atlanta, GA 30308
    Attn: Risk Manager
    (NOTE: Railroad does not share coverage on RPL with any other entity on this policy)

d) The description of operations must appear on the Declarations, must match the project description in this agreement, and must include the appropriate Sponsor project and contract identification numbers.
e) The job location must appear on the Declarations and must include the city, state, and appropriate highway name/number. **NOTE: Do not include any references to milepost, valuation station, or mile marker on the insurance policy**.
f) The name and address of the prime Contractor must appear on the Declarations.
g) The name and address of the Sponsor must be identified on the Declarations as the "Involved Governmental Authority or Other Contracting Party."
h) Endorsements/forms that are **required** are:
    1) Physical Damage to Property Amendment.
    2) Terrorism Risk Insurance Act (TRIA) coverage must be included.

i) Other endorsements/forms that will be accepted are:
    1) Broad Form Nuclear Exclusion – Form IL 00 21
    2) 30-day Advance Notice of Non-renewal or cancellation
    3) Required State Cancellation Endorsement
    4) Quick Reference or Index Form CL/IL 240

j) Endorsements/forms that are NOT acceptable are:
    1) Any Pollution Exclusion Endorsement except CG 28 31
    2) Any Punitive or Exemplary Damages Exclusion
    3) Known injury or Damage Exclusion form CG 00 59
    4) Any Common Policy Conditions form
    5) An Endorsement that limits or excludes Professional Liability coverage

6) A Non-Cumulation of Liability or Pyramiding of Limits Endorsement
7) An Endorsement that excludes TRIA coverage
8) A Sole Agent Endorsement
9) Any type of deductible endorsement or amendment
10) Any other endorsement/form not specifically authorized in item no. 14.2.2.h above.

SPONSOR:
Mrs. Brandi Baldwin
State Construction & Materials Engineer
Missouri Department of Transportation
P.O. Box 270
Jefferson City, MO 65102

RAILROAD:
Risk Management
Norfolk Southern Corporation
and its subsidiaries
650 West Peachtree Street – NW
Box 46 Atlanta, GA 30308
NSRISK3@NSCORP.COM

15.3 All insurance required under Section 15.1 and 15.2 shall be underwritten by insurers and be of such form and content, as may be acceptable to the Railroad. Prior to entry on Railroad right-of- way, the original electronic RPL Insurance Policy shall be submitted by the Prime Contractor to the Railroad at NSRISK3@NSCORP.COM for review and approval. In addition, certificates of insurance evidencing the Prime Contractor's insurance compliant with the requirements in 15.1 shall be issued to the Railroad at NSRISK3@NSCORP.COM at the same time the RPL Policy is submitted.

15.4 The insurance required herein shall in no way serve to limit the liability of Sponsor or its Contractors under the terms of this agreement.

15.5 Insurance Submission Procedures

15.5.1 The Railroad will only accept initial insurance submissions via email to NSRISK3@NSCORP.COM. The Railroad will NOT accept initial insurance submissions via hard copies that would be sent either US Mail or Overnight carrier or faxes as only electronic versions only are to be submitted to Railroad. **Please provide point of contact information with the submission including a phone number and email address**.

15.5.1.1 For email insurance submissions, the subject line should follow the format provided unless otherwise directed by the Railroad Engineer:

15.5.1.2 Insurance Submittal: City, State – NS File Number – NS Milepost – Project Name – Sponsor Project #.

15.5.2 Railroad requires the following two (2) forms of insurance in the initial electronic insurance submission to NSRISK3@NSCORP.COM to be submitted under a cover letter providing details of the project and containing the contact information:

a. The full original or certified true electronic countersigned copy of the RPL Insurance Policy in its entirely inclusive of all declarations, schedule of forms and endorsements along with the policy forms and endorsements as required in Section 15.2.

b. A certificate of insurance from the Contractor evidencing the Contractor's insurance in Section 15.1 (i.e. the Contractor's commercial general, automobile, and workers' compensation liability insurance, etc.). The certificate must show Norfolk Southern Railroad and its subsidiaries and affiliated companies as an additional insured on the General Liability and Auto policies. The certificate should also indicate that the Workers' Compensation policy waives subrogation against Norfolk Southern Corporation and its subsidiaries. See Appendix J for a Sample Certificate of Insurance.

16.0 Failure to Comply:

16.1 In the event the Contractor violates or fails to comply with any of the requirements of these Special Provisions.

16.1.1 The Railroad Engineer may require that the Contractor vacate Railroad property.

16.1.2 The Sponsor's Engineer may withhold all monies due the Contractor on monthly statements.

16.2 Any such orders shall remain in effect until the Contractor has remedied the situation to the satisfaction of the Railroad Engineer and the Sponsor's Engineer.

17.0 Payment for Cost of Compliance:

17.1 No separate payment will be made for any extra cost incurred on account of compliance with these Special Provisions. All such costs shall be included in prices bid for other items of the work as specified in the payment items.

18.0 Project Information:

Date: 09/20/2024
NS File No.:
NS Milepost: S-131.91
Sponsor's Project No.: CD0064

L. Supplemental Revisions JSP-18-01CC

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

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

Stormwater Compliance Requirements

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

1.1 Definitions. The project site is defined as all areas designated on the plans, including temporary and permanent easements. The project site is equivalent to the "permitted site", as defined in MoDOT's State Operating Permit. An Off-site area is defined as any location off the project site the contractor utilizes for a dedicated project support function, such as, but not limited to, staging area, plant site, borrow area, or waste area.

1.2 Reporting of Off-Site Land Disturbance. If the project includes any planned land disturbance on the project site, prior to the start of work, the contractor shall submit a written report to the engineer that discloses all Off-site support areas where land disturbance is planned, the total acreage of anticipated land disturbance on those sites, and the land disturbance permit number(s). Upon request by the engineer, the contractor shall submit a copy of its land disturbance permit(s) for Off-site locations. Based on the total acreage of land disturbance, both on and Off-site, the engineer shall determine if these Stormwater Compliance Requirements shall apply. The Contractor shall immediately report any changes to the planned area of Off-site land disturbance. The Contractor is responsible for obtaining its own separate land disturbance permit for Off-site areas.

2.0 Water Pollution Control Manager (WPCM). The Contractor shall designate a competent person to serve as the Water Pollution Control Manager (WPCM) for projects meeting the description in Section 1.0. The Contractor shall ensure the WPCM completes all duties listed in Section 2.1.

2.1 Duties of the WPCM:

(a) Be familiar with the stormwater requirements including the current MoDOT State Operating Permit for construction stormwater discharges/land disturbance activities; MoDOT's statewide Stormwater Pollution Prevention Plan (SWPPP); the Corps of Engineers Section 404 Permit, when applicable; the project specific SWPPP, the Project's Erosion & Sediment Control Plan; all applicable special provisions, specifications, and standard drawings; and this provision;

(b) Successfully complete the MoDOT Stormwater Training Course within the last 4 years. The MoDOT Stormwater Training is a free online course available at MoDOT.org;

(c) Attend the Pre-Activity Meeting for Grading and Land Disturbance and all subsequent Weekly Meetings in which grading activities are discussed;

(d) Oversee and ensure all work is performed in accordance with the Project-specific SWPPP and all updates thereto, or as designated by the engineer;

(e) Review the project site for compliance with the Project SWPPP, as needed, from the start of any grading operations until final stabilization is achieved, and take necessary actions to correct any known deficiencies to prevent pollution of the waters of the state or adjacent property owners prior to the engineer's weekly inspections;

(f) Review and acknowledge receipt of each MoDOT Inspection Report (Land Disturbance Inspection Record) for the Project within forty eight (48) hours of receiving the report and ensure that all Stormwater Deficiencies noted on the report are corrected as soon as possible, but no later than stated in Section 5.0.

3.0 Pre-Activity Meeting for Grading/Land Disturbance and Required Hold Point. A Pre-Activity meeting for grading/land disturbance shall be held prior to the start of any land disturbance operations. No land disturbance operations shall commence prior to the Pre-Activity meeting except work necessary to install perimeter controls and entrances. Discussion items at the pre-activity meeting shall include a review of the Project SWPPP, the planned order of grading operations, proposed areas of initial disturbance, identification of all necessary BMPs that shall be installed prior to commencement of grading operations, and any issues relating to compliance with the Stormwater requirements that could arise in the course of construction activity at the project.

3.1 Hold Point. Following the pre-activity meeting for grading/land disturbance and subsequent installation of the initial BMPs identified at the pre-activity meeting, a Hold Point shall occur prior to the start of any land disturbance operations to allow the engineer and WPCM the time needed to perform an on-site review of the installation of the BMPs to ensure compliance with the SWPPP is met. Land disturbance operations shall not begin until authorization is given by the engineer.

4.0 Inspection Reports. Weekly and post run-off inspections will be performed by the engineer and each Inspection Report (Land Disturbance Inspection Record) will be entered into a web-based Stormwater Compliance database. The WPCM will be granted access to this database and shall promptly review all reports, including any noted deficiencies, and shall acknowledge receipt of the report as required in Section 2.1 (f.).

5.0 Stormwater Deficiency Corrections. All stormwater deficiencies identified in the Inspection Report shall be corrected by the contractor within 7 days of the inspection date or any extended period granted by the engineer when weather or field conditions prohibit the corrective work. If the contractor does not initiate corrective measures within 5 calendar days of the inspection date or any extended period granted by the engineer, all work shall cease on the project except for work to correct these deficiencies, unless otherwise allowed by the engineer. All impact costs related to this halting of work, including, but not limited to stand-by time for equipment, shall be borne by the Contractor. Work shall not resume until the engineer approves the corrective work.

5.1 Liquidated Damages. If the Contractor fails to complete the correction of all Stormwater Deficiencies listed on the MoDOT Inspection Report within the specified time limit, the Commission will be damaged in various ways, including but not limited to, potential liability, required mitigation, environmental clean-up, fines, and penalties. These damages are not reasonably capable of being computed or quantified. Therefore, the contractor will be charged with liquidated damages specified in the amount of $2,000 per day for failure to correct one or more of the Stormwater Deficiencies listed on the Inspection Report within the specified time limit. In addition to the stipulated damages, the stoppage of work shall remain in effect until all corrections are complete.

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

Delete Sec 106.9 in its entirety and substitute the following:

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

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

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

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

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

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

106.9.4.1 Items designated as Category 1 will consist of steel girders, piling, and reinforcing steel installed on site. Category 1 items require supporting documentation prior to incorporation into the project showing all steps of manufacturing, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410 Buy America Requirements. This includes the Mill Test Report from the original producing steel mill and certifications documenting the manufacturing process

for all subsequent fabrication, including coatings. The certification shall include language that certifies the following. That all steel and iron materials permanently incorporated in this project was procured and processed domestically and all manufacturing processes, including coating, as being completed in the United States and in accordance with CFR Title 23 Section 635.410.

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

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

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

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

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

(h) Drywall

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

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

(a) Articles, materials, or supplies that have been:

(i) Processed into a specific form and shape; or
(ii) Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.

(b) If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under § 184.4(e) and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under § 184.4(e) and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials.

106.9.7.1 Manufactured products are exempt from Buy America requirements. To qualify as a manufactured product, items that consist of two or more of the listed construction materials that have been combined together through a manufacturing process, and items that include at least one of the listed materials combined with a material that is not listed through a manufacturing process, should be treated as manufactured products, rather than as construction materials.

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

Pavement Marking Paint Requirements for Standard Waterborne and Temporary

1.0 Description. High Build acrylic waterborne pavement marking paint shall be used in lieu of standard acrylic waterborne pavement marking paint for all Standard Waterborne Pavement Marking Paint items and all Temporary Pavement Marking Paint items. Paint thickness, bead type, bead application rate, retroreflectivity requirements, and all other specifications shall remain as stated in the Missouri Standard Specifications for Highway Construction, except as otherwise amended in the contract documents.

2.0 Material Requirements. Material requirements for Sec 620.20.2.5 Standard Waterborne Paint, and Sec 620.10.2 Temporary Pavement Marking Paint shall be per Sec 1048.20.1.2 High Build Acrylic Waterborne Pavement Marking Paint.