SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by digital signature and electronic submission via Bid Express of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO.	1	DATED	1/21/2026	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revised Table of Contents; Deleted NTB No. 5750; Revised NTB No. 7410; Adding NTB No. 7648; Revised Wage Rates; Revised Bid Items; Revised or Added Plan Sheet Nos. 2-3, 14-16, 29, 6051-6052, 6056, 6302-6306, 6314, 6317-6318, 6352, 6358-6359, 6362-6364 & 6366; Amendment EBSx Download Required.

TOTAL ADDENDA: 1
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

_____
Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____
President Address

_____
Secretary Address

_____
Treasurer Address

The following is my (our) itemized proposal.

BR-2904-00(018)/ 107643302000

Rankin County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
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(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

01/21/2026 03:44 PM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 7410 **CODE: (SP)**

DATE: 01/21/2026

SUBJECT: Sewer System Requirements

PROJECT: BR-2904-00(018) / 107643302 – Rankin County

Bidders are hereby advised that the attached Document and Details are to be used with the following pay items:

907-260-PP001 Utility Work – Sewer, Sewer Line Connection

907-260-PP002 Utility Work – Sewer, 8” Sewer Pipe

SECTION 02900
WASTEWATER COLLECTION (SANITARY SEWER) SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Work to be performed under these specifications consists of furnishing all materials and performing all work necessary for or incidental to completing and making ready for the operation of the wastewater collection system as indicated on the Contract Drawings.

B. The Work shall include the excavation, trenching and backfilling; furnishing and installing all trench sheeting and bracing; furnishing and installing all pipe, specials, services, manholes, and related appurtenances; storage and protection of materials; testing, cleanup, and all other operations necessary to complete the work in accordance with the detailed plans and project specifications contained herein.

C. Structures shall conform in shape, size, dimensions, materials and other respects to the Contract Drawings or as ordered by the Engineer.

1.02 COORDINATION WITH INTERESTED PARTIES

The Contractor shall duly notify and coordinate any work with interested parties such as the Mississippi Department of Transportation, the Mississippi Department of Environmental Quality and the appropriate City or County Officials. No work which affects these interested parties will commence until satisfactory coordination has been achieved.

1.03 SUBMITTALS

A. Contractor shall furnish a certified affidavit of compliance from the manufacturer/supplier for all materials, fittings and structures furnished confirming that the materials supplied fully conform to the requirements specified herein.

B. Shop Drawings:

1. Pipes and Fittings

   a. Submit size, class and other details of the pipe to be used.

   b. Submit information on typical joint and harnessing details.

2. Manholes

   a. Submit design and construction details of all precast concrete manholes.

   b. Submit manufacturer's data on interior lining material, preformed mastic joint material and rubber manhole boots, manhole water stops, and/or lateral connectors.

   c. Submit an affidavit from the coating applicator that each manhole section and special has been coated in accordance with these specifications.

C. Tests: Submit a description of the proposed testing methods, procedures, and apparatus. Submit copies of all test reports.

D. Record Drawings: During progress of the Work, keep an up to date set of drawings

showing field modifications. Submit drawings at a scale satisfactory to the Engineer that show the actual in-place installation of all piping and manholes installed under this section. The drawings shall show all piping and manholes on the plans with all reference dimensions and elevations required for complete record drawings of the piping systems. The drawings shall be furnished no later than 30 days after Substantial Completions of the Work. See Section 01720 for more detailed information on Record Drawings and requirements.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Delivery, storage and handling of pipes, fittings and accessories shall be in complete compliance with the manufacturer's recommendations and instructions.

B. Handle all pipes, fittings and accessories carefully with approved handling devices. Do not drop or roll pipes off of trucks. Do not otherwise drop, roll or skid pipes. Materials cracked, gouged, chipped, dented or otherwise damaged will not be approved.

C. Pipes, fittings and accessories shall be unloaded opposite to or as close to the place where they are to be laid as is practicable to avoid unnecessary handling. Interiors shall be kept free from dirt and foreign matter.

1.05 QUALITY ASSURANCE

A. Quality assurance procedures shall be performed by the product manufacturer fully in accordance with the requirements of this Specification and industry standards for all materials required of this contract. The certification shall include certified laboratory data confirming that said tests have been performed on a sample of the material to be provided under this contract, or material from that production run, and that satisfactory results were obtained prior to any installation of said pipe.

B. Pipe joining and other procedures necessary for correct assembly of PVC or HDPE pipe shall be done only by personnel trained in those skills to the satisfaction of the Engineer and the pipe supplier.

C. Only those tools designed for the required procedures and approved by the product manufacturer/supplier and the Engineer shall be used for assembly of the required improvements.

1.06 CLEARANCE BETWEEN WATER AND SEWER LINES

A. Sewer lines and manholes shall be laid at least 10 feet horizontally from any water line.

B. Where this 10-foot horizontal separation cannot be maintained, the sewer line shall be ductile iron with the joints located at least 10 feet from the water line or the sewer line shall be totally encased in concrete.

C. Sewer lines crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the sewer line and the outside of the water main (water over sewer). The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where this separation cannot be met the sewer line shall be constructed to the same specifications as the water line and be water tight until such a point where the separation can be met.

1.07 CONFLICTS WITH OTHERS UTILITIES

A. Where construction conflicts with underground utilities which are to remain in place or are indicated to be removed and/or relocated by the Contractor, the Contractor shall at his

own expense, protect these facilities, restore the portions of those lines which are damaged or severed as a result of his operations, and remove and/or relocate existing facilities as indicated on the Contract Drawings.

B. Where existing lines in conflict are indicated to be removed by others, the Contractor shall cooperate with the Owner of these utilities to the end that these conflicts are removed prior to excavation for the sewer lines.

1.08 RAILROAD AND HIGHWAY CROSSING

All work incidental to the construction of sewer lines under railroads and highways shall be done in strict compliance with the regulations prescribed by the owners of these properties and shall be done with extreme care to safeguard life and property. After the necessary permits and agreements for these crossings have been approved and executed. The Contractor shall confer with the representatives of the Railroad Company, the Mississippi Department of Transportation or the City or County owning these properties and arrange schedules, and the manner for constructing the work in accordance therewith.

1.09 MAINTENANCE

A. The Contractor shall be responsible for, without extra compensation, the maintenance of all sewer lines and structures, for the stability of all backfills and the finished grades above the sewer lines and around the structures and for the repair, replacement, and restoration of all items which were damaged or removed during construction.

B. The Contractor shall be responsible for, without extra compensation, the restoration of all permanent surfaces and landscaped areas such as pavements, sidewalks, driveways, curbs, gutters, shrubbery, decorative plantings, fences, poles and other property and surface structures removed, disturbed and/or damaged during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the work began.

C. The Contractor shall take such measures necessary to prevent, control and correct any dust nuisance or muddy conditions developing on roadways as a result of his operation. Direct payment for maintenance of the site shall not be provided as such but shall be considered a subsidiary obligation of the Contractor.

1.10 TRAFFIC CONTROL

Traffic control shall be the responsibility of the Contractor and should be implemented in accordance with the Manual on Uniform Traffic Control Devices.

1.11 TEMPORARY SURFACES OVER TRENCHES

Whenever the sewer lines are constructed under traveled roadways, driveways, sidewalks or other traveled surfaces, a temporary surface shall be placed over the top of the trench as soon as possible after placement and compaction of the backfill has been satisfactorily completed. The temporary surface shall consist of a minimum of twelve inches (12") of clay gravel or crushed limestone. The top of the temporary surface shall be smooth and meet the grade of the adjacent undisturbed surface. The temporary surface shall be maintained at the Contractor's expense until final restoration of the street surface is completed as specified.

1.12 WARRANTY

A. The contractor shall warranty all materials of construction and repair and all workmanship for a period of one year from the date of acceptance of final work.

B. Should defects of failures occur during the period of warranty, the contractor shall

promptly take whatever steps are necessary to return the work to first class condition.

1.13 APPLICABLE DOCUMENTS

A. The following publications form a part of this Specification and where referred to by basic designation only, are applicable to the extent indicated. Reference is to the latest edition of each unless specified otherwise.

1. American Society of Testing and Materials (ASTM)
   a. C-76 Reinforced Concrete Culvert, Storm Drain and Sewer Pipe.
   b. C-443 Joints for Circular Concrete Sewer and Culvert Pipe.
   c. C-478 Precast Reinforced Concrete Manhole Sections.
   d. D1784 Rigid PVC Compounds and CPVC Compounds
   e. D-3034 Type PSM - PVC Sewer Pipe and Fittings.
   f. D-3212 Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
   g. D-2321 Underground Installation of Flexible Thermoplastic Sewer Pipe.
   h. F-477 Elastomeric Seals for Joining Plastic Pipe.
   i. F-679 PVC Large Diameter Plastic Gravity Sewer Pipe and Fittings

2. American Water Works Association (AWWA)

   a. C-151 Standard for Ductile Iron Pipe, Centrifugally Cast in Metal Molds.
   b. C-111 Joints for Ductile Iron Pipe, Rubber Gasket.
   c. C-110 Gray Iron and Ductile Iron Fittings.
   d. C-301 Prestressed Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids.
   e. C-304 Design of Prestressed Concrete Cylinder Pipe.

B. Local Building Codes: City, County, State or Federal Codes applying to the work.

C. Mississippi Department of Transportation Standard Specifications for Road and Bridge Construction, latest edition: Sections as referenced herein.

PART 2 - MATERIALS & EQUIPMENT

2.01 GENERAL

A. The Contractor shall furnish all materials necessary for or incidental to constructing the wastewater collection system. All materials shall be new and of first quality with certified tests for all pipe and pipe fittings made at the manufacturer's plant to assure conformance with these technical specifications. Two (2) certified copies of each test result shall be furnished to the Engineer.

B. The kinds and classes of materials incorporated into the work shall be as indicated on the Contract Drawings or the Bid Form. The Contractor shall not construe or interpret the several kinds of materials described herein as being equal in their application.

2.02 WATER FOR CONSTRUCTION AND TESTING

A. The Contractor shall be responsible for all water needed in constructing the work, flushing the completed system, testing and other incidental needs. All water used shall be from an approved source free of pollution and shall be of a satisfactory bacteriological quality.

B. Water used in mixing concrete and mortar shall be fresh, clean and free from injurious amounts of sewage, oil, acid, alkalis, salts or organic matter.

2.03 DUCTILE CAST IRON PIPE AND FITTINGS

A. Ductile iron pipe shall be as designed by AWWA C150 (ANSI A21.50) and manufactured in accordance with AWWA C 151 (ANSI A21.51). Pipe shall be supplied in minimum Pressure Class (PC) 350 for 4" through 12", PC 250 for 14" through 20", PC 200 for 24" and PC 150 for 30" and larger.

B. Ductile iron pipe thickness shall conform in all respects to the AWWA C150 standard based on a minimum of 200psi working pressure.

C. Joints for ductile cast iron pipe shall be rubber gasket, push-on type unless mechanical joint or flanged joint type is specified on the drawings or proposal. Push-on joint shall conform to the latest edition of AWWA C 111 (ANSI A21.11). Lubricants shall be non-toxic, odorless, tasteless and shall not support bacteria and shall be specifically manufactured for the pipe utilized.

D. Mechanical joint pipes shall conform to the latest edition of AWWA C 111 (ANSI A21.11).

E. Flanged pipe shall conform to AWWA C115 and be based on a minimum of 200 psi working pressure.

F. All fittings shall be full-bodied, ductile iron and shall be manufactured in accordance with the latest requirements of ANSI Standard Specification A-21.11 and shall have a working pressure of 250psi for 12" and smaller. Fitting joints shall be push-on, mechanical or flanged type and shall be determined by the pipe joint type.

G. All mechanical joint fittings shall be connected with MEGALUGS.

H. All ductile iron pipe and fittings shall be factory-coated on the outside with bituminous coating confirming to the latest edition of AWWA C151 (ANSI A21.51) and lined inside with a 40 mil. epoxy coating, 2 coats of 20 mil. each in accordance with the latest edition of AWWA C116. Epoxy coating shall be one of the following:

1. Induron Ceramapure PL90
2. Permite Permox CTF
3. Tnemec Series 431, Perma-Shield PL

I. All pipe and fittings shall be encased with an 8-mil thick loose polyethylene encasement in accordance with the latest edition of AWWA C-105 (ANSI A21.5).

J. If flexible joint or river crossing pipe is required and/or indicated in the project plans or specifications the joint shall be designed for a maximum deflection of 15 degrees, and a maximum working pressure rating of 250 psi. The type shall be the USIFLEX joint as manufactured by U.S. Pipe or an approved equal.

2.04 POLYVINYL CHLORIDE (PVC) PIPE

GRAVITY PVC PIPING

A. All gravity PVC sewer pipe and fittings smaller than 18" shall be unplasticized polyvinyl chloride meeting the minimum of SDR 26 of the requirements of ASTM Specification D 3034 and with a minimum "pipe stiffness" (F/Y = 115 psi at 5% deflection - maximum allowable for installed pipe for SDR 26) when tested in accordance with ASTM D 2412. All pipe and fittings shall be joined by means of an integral wall bell and spigot joint and sealed with a rubber ring conforming to ASTM D 3212. The pipe and fittings shall be shipped to the job with a solid cross section rubber sealing ring securely locked in place in the bell.

All gravity PVC sewer pipe and fittings 18” and larger shall be unplasticized polyvinyl chloride meeting the minimum of SDR 26 of the requirements of ASTM Specification F679 and with a minimum "pipe stiffness" (F/Y = 115 psi at 5% deflection - maximum allowable for installed pipe for SDR 26) when tested in accordance with ASTM D 2412. All pipe and fittings shall be joined by means of an integral wall bell and spigot joint and sealed with a rubber ring conforming to ASTM D 3212. The pipe and fittings shall be shipped to the job with a solid cross section rubber sealing ring securely locked in place in the bell.

B. The pipe shall be made from white PVC compound having physical properties and chemical resistance of cell classification 12454-B and fittings shall be made from white PVC compound having physical properties and chemical resistance of cell classifications 12454-B, 12454-C or 13343-C as defined in ASTM D 1784.

C. All jointing shall be made in accordance with the manufacturer's recommendations.

D. All pipes shall bear the National Sanitation Foundation (NSF) seal of approval.

FORCE MAIN PVC PIPING

A. All force main PVC sewer pipe and fittings four inches and larger in diameter shall conform to the latest edition of AWWA C-900 and shall be made from Class 12454-A or B materials per the latest edition of ASTM D-1784. Pipe shall be a minimum of SDR 18 unless otherwise specified for a working pressure of 150psi. All pipe shall conform with the outside diameter dimensions of ductile iron pipe to facilitate use of ductile iron fittings, standard cast iron valves and specials. All joints shall be elastomeric seals conforming to the latest edition of ASTM F-477.

B. All force main PVC sewer pipe and fittings three inches and smaller in diameter shall conform to the latest edition of ASTM D-1784 Pipe shall be a minimum of SDR 21, PC 200. The thermoplastic material shall be virgin, rigid PVC plastic conforming to ASTM D-1784 for a minimum cell class of 12454. Pipe joints shall be integral bell and spigot and shall conform to the latest edition of ASTM D 3139. Flexible seals shall be elastometric conforming to the latest edition of ASTM F-477. Gaskets shall be factory applied and fittings shall conform to ASTM D2241 and D 1784 and be pressure class 200

C. All jointing shall be made in accordance with the manufacturer's recommendations.

D. All pipes shall bear the National Sanitation Foundation (NSF) seal of approval.

2.05 POLYETHYLENE PIPE AND FITTINGS (HDPE)

A. Pipe shall be high molecular weight, high-density polyethylene pipe. The material shall be listed by the Plastic Pipe Institute (PPI) with a designation of PE 3408/3608 and have a minimum cell classification of 345434C, D, or E as described in ASTM D3350. The pipe material shall meet the requirements for Type III, Class B or C, Category 5, Grade P34 material as described in ASTM D1248. The pipe shall contain no recycled compound except that generated in the manufacturer’s own plant from resin of the same specification from the same raw material pipe. Pipe (excluding black colored pipe) stored outside shall not be recycled. Pipe and fittings shall be made in conformance with ASTM F714 and ASTM D3261 as modified for the specified material. The pipe shall be homogeneous throughout and free of visible cracks, holes, foreign inclusions or other injurious defects. It shall be uniform in density and other physical properties. All HDPE piping shall be designed with an adequate wall thickness to withstand loading, and under no conditions shall the SDR measurements of the pipe be greater than 11. Fittings shall also be SDR 11 maximum unless otherwise specified. Pipe ends shall be connected using butt fusion per ASTM D2657, or using stainless steel couplings of a design approved by the Engineer. The pipe shall be provided with a lightly pigmented interior coating to aid in

pipeline inspection. Any pipe not meeting these criteria shall be rejected.

B. Pipe Color:

Pipe shall conform to the following:

1. Pipe shall be black or gray only.

2.. Color shall homogeneous throughout.

C. Heat fusion fittings shall be made from PE 3408/3608 or PE 4710 High Density Polyethylene. Socket fittings shall comply with ASTM D2683. Butt fusion fittings shall comply with ASTM D3261. Electrofusion fittings shall comply with ASTM F1055.

D. The material shall be manufactured and tested in accordance with AWWA 901 for ½" – 3" pipe and AWWA C906 for 4" – 63" pipe.

2.06 ON-PIPE & UNDERGROUND PIPE MARKING

A. Pipe materials are specified under 2.03 & 2.04 of this section.

B. On-Pipe markings shall be legibly marked by the pipe manufacturer. The following shall be printed on each pipe:

1. Name and trademark of manufacturer.
2. Nominal pipe size.

3. Dimension ratio.

4. The letters PE followed by the polyethylene grade per ASTM D1248, followed by the Hydrostatic Design Basis in hundreds of psi.

5. Manufacturing Standard Reference.

6. A production code from which the date and place of manufacture can be determined.

7. Each piece of pipe or fitting shall be clearly marked with a designation which shall conform to designations shown on the shop drawings.

8. Class designation shall be cast or painted on each piece of pipe or fitting four inches in diameter or larger.

9. Piping smaller than 4 inches in diameter shall be clearly marked by the manufacturer as to material, type and rating.

C. Underground Marking. Tracer Wire Required on Force Mains Only

a. See Section 02825 for specifications on tracer wire

b. Contractor shall place magnetic warning tape approximately 12 to 18 inches below grade in all pressure pipe force main trenches. It shall be 3 inches wide, green background with black lettering and read "Caution-Buried Sewer Line"

D. See Contract Drawings for required pipe material.

2.07 PRECAST CONCRETE MANHOLES

A. Precast manholes shall conform to the details shown. Manhole bases may be precast.

B. Except where otherwise specified, manhole sections shall conform to ASTM C 478.

C. Precast manhole bases shall be of approved design and of sufficient strength to withstand the loads to be imposed upon them. An approved joint shall be provided to receive the riser sections forming the barrel.

D. Mark date of manufacture and name or trademark of manufacturer on inside of barrel.

E. Unless a larger size is required by the Drawings, the barrel of precast manholes shall be constructed of 48-inch diameter standard reinforced concrete manhole sections. The barrel shall be constructed of various lengths in combination to provide the correct height with the fewest joints. Wall sections shall not be less than five inches thick. For 72-inch and larger manholes, a transition slab, as shown on the Contract Drawings, is required for manholes greater than 12 feet deep.

F. Joints shall be tongue and groove with preformed mastic joint compound. Preformed joint compound shall be Preformed Asphalt and Butyl Gasket Material, a product of the Blue Ridge Rubber Company, or “Ram-Nek” as manufactured by K.T. Snyder Company, Inc. of Houston, Texas, or “Kent-Seal” as manufactured by Hamilton-Kent Manufacturing Company or equal.

G. A precast slab or precast eccentric cone, as shown or approved, shall be provided at the top of the manhole barrel to receive the cast iron frame and cover. The slab or cone shall be of acceptable design and of sufficient strength to safely support an H-20 loading. Concrete slabs shall be not less than 8 inches thick.

H. Manhole sections shall contain manhole steps, uniformly spaced, 12 inches minimum, 16 inches maximum on centers, accurately positioned and embedded in the concrete. Manhole steps shall be M.A. Industries, Model PS1-PF or equal.

I. Rubber gaskets shall be the "0" ring type conforming to the requirements of the latest edition of ASTM Standard Specification A-443. The gaskets shall be as manufactured by the Blue Ridge Company of Flecher, North Carolina, or the Tylox "0" Ring Gasket produced by Hamilton-Kent Manufacturing Company of Kent, Ohio, or approved equal. Lubricants used with the selected gaskets shall be as furnished or recommended by the gasket manufacturer.

J. All manholes shall be produced with crystalline concrete waterproofing admixture in the concrete.

2.08 INTERIOR MANHOLE COATINGS

A. Coal Tar Epoxy

1. The interior of all precast manhole sections, slabs and adjusting rings shall be coated with a coal tar epoxy coating unless otherwise specified.

2. Surface Preparation:

a. Surface to be coated must be clean, dry, properly cured and free from all surface contaminants.

b. “Brush off Blast” (SSPC-SP7) is to provide an etched surface and to

remove contaminants and laitance.

c. Remove dust before coating.

3. Coating shall be applied in strict accordance with the manufacturer's requirements.

4. Coating shall be applied at the concrete casting facility.

5. Field touch-up and repair shall be performed in strict accordance with the manufacturer's requirements.

6. Thickness as recommended by the manufacturer

7. Number of coats as recommended by the manufacturer.

8. Product and Manufacturer:

a. CB-42 by International Oil Company

b. 40-AX-7 Coal Tar Solution by BLP Mobile Paints

c. Or equal

B. 100% Solids Epoxy

1. The interior of all manholes noted to be coated shall be visually inspected prior to beginning work and areas of hazardous structural damage reported to the engineer.

2. Pressure clean the manhole (minimum 3,500 psi) to remove all dirt, grease, sand and surface contaminants on the wall and floor leaving a clean, wet or dry surface. If a detergent or de-greaser solution is used, the surface shall be thoroughly rinsed and neutralized prior to the installation of the liner system.

3. Coating shall be applied in strict accordance with the manufacturer's requirements.

4. Field touch up and repair shall be performed in strict accordance with the manufacturer's requirements.

5. Thickness shall be a minimum of 250mils.

6. Number of coats as recommended by the manufacturer.

7. Product and Manufacturer

a. Warren Environmental System 100% Solids Epoxy

c. Approved equal.

C. Crystalline Concrete Waterproofing

1. The concrete waterproofing admixture shall be of the cementitious crystalline type that chemically controls and permanently fixes a non-soluble crystalline structure throughout the capillary voids of the concrete.

2. The design shall include the use of the crystalline waterproofing repair materials

that generate a non-soluble crystalline formation in the concrete.

3. The manufacturers shall be the following:

a. Xypex Chemical Corporation, Richmond, B.C., Canada.

b. Equivalent materials as approved by the engineer 10 days prior to acceptance of bids.

4. The material shall be the following:

a. Xypex Admix C-1000-T containing red dye to ensure detection in the concrete.
b. Xypex Concrete

2.09 MANHOLE FRAMES AND COVERS

Provide standard manhole frames with covers where noted as manufactured by one of the following:

A. "Paved Areas" Manholes:

1. East Jordan Iron Works, V-1115

2. Or equal.

B. "Non-Paved Areas" Manholes:

1. East Jordan Iron Works, V-1115

2. Or equal.

Provide watertight manhole frames with covers where noted as manufactured by one of the following:

A. East Jordan Iron Works V-2358

B. Or Equal

2.10 DROP INLET CONNECTIONS

Drop inlet connections for manholes shall be constructed where shown and shall conform to the design and details shown. Pipes and fittings shall be the same as the inlet pipe except where noted on the details or described herein. Concrete shall be bonded to manhole in a manner shown or otherwise approved by Engineer.

2.11 RUBBER MANHOLE BOOTS

A. Rubber manhole boots complying with ASTM C923 shall be employed in the connection of each sewer pipe with outside diameter less than 59 inches to precast manholes.

B. Connector will consist of rubber EPDM and elastomers designed to resist ozone, acids, alkalis, oils and petroleum products.

C. Banding mechanism shall be totally non-magnetic 304 stainless steel and torqued for 60-70 inch/lbs.

D. Manufacturer:

1. Kor-N-Seal.

2. Or equal.

2.12 LATERAL CONNECTIONS

A. Lateral connectors can be employed in the connection of sewer pipe 15" in diameter or less in lieu of rubber manhole boots.

B. Lateral connectors shall consist of a PVC hub, rubber sleeve, and stainless-steel band.

C. PVC hub shall meet ASTM D3034 and be SDR 26 and gasket in hub shall meet ASTM F477. Rubber sleeve shall meet ASTM C443. Band and housing shall be type 301 stainless steel and screw shall be type 305 stainless steel.

D. Model and Manufacturer:

1. Inserta Tee by Inserta Fittings Company.

2. Or equal.

2.14 SWING CHECK VALVES

A. Check valves shall be iron body, bronze mounted, swing type conforming to the requirements of AWWA Standard Specification C508. Unless otherwise specified, all check valves shall have Class 125 flange joint ends in accordance with AWWA C110. Each joint shall be fitted with a full-face rubber gasket.

B. Check valves in sizes four inches (4") through twelve inches (12") shall be designed for a working pressure of 175 psi and hydrostatically tested to 350 psi. Check valves fourteen inches (14") and larger shall be designed for a working pressure of 150 psi and hydrostatically tested to 300 psi. All connecting hardware shall be T304 stainless steel, hinge pine and key shall be stainless steel, and the seat shall be bronze or T304 stainless steel. The chamber and plunger shall be bronze.

C. Generally, check valves shall be the outside lever with adjustable weight type unless gravity type is specified on the Drawings or in the proposal for direct bury.

D. Check valves shall be Model A-2600-6-01 as manufactured by Mueller or approved equal and certified by the manufacturer and supplier that above specifications are met.

2.15 SEWERAGE AIR AND VACUUM VALVES (COMBINATION)

A. Shall allow unrestricted venting or re-entry of air thru it, during filling or draining of the force main to prevent vacuum.

B. All valves shall be installed per the manufacturer’s recommendations.

C. Valves shall be installed on a section of pipe no closer than 18” to a bell, coupling, joint or fitting.

D. Valves shall be suitable for use with strained raw sewage.

E. Valves shall be capable of providing air release and vacuum break.

F. Valves shall be designed to ensure that no leaking, deformation or damage of any kind will occur when subjected to 1.5 times the working pressure rating.

G. Connection shall be NPT male or ANSI B16.5 Class 150 flanged, depending on the valves size. Flanged ends shall be supplied with the requisite number of stainless-steel screwed studs inserted for alignment with ANSI B16.5 Class 150 bolt pattern.

H. Valve shall be 3” inlet and outlet nominal in size. Shall be one of the following:
1. ARI Model D-026
2. Vent O Mat Model RGX
3. Pre-approved equal.

I. The valve shall be supplied with the following:

1. Cutoff/Isolation valve of the same nominal size installed between the connection with the force main and the valve to permit future maintenance.

2. All piping, nipples, plugs, additional valves, etc shall be stainless steel rated for same pressure as valve and for sanitary sewer use.

3. Use short body valves where height restricts the use of long body valves.

4. Tapping saddle shall be double strap stainless steel and rated for same pressure as valve and for sanitary use.

J. The valve shall be equipped with a “Flushing Attachment” consisting of: stainless steel shut off valves, quick-disconnect couplings and rubber hose, for back washing with clear water.

K. Valve body and cover shall be made of nylon

L. Valve shall be rated for minimum working pressure of 200 PSI

M. Valve manhole:

1. Use 60” diameter precast manhole wall sections coated 100% solids epoxy meeting specifications.

2. Manhole frame and cover shall be of the vented type, and shall be Model CAP-24-BD as made by Composite Access Products or pre-approved equal.

2.16 GATE VALVES AND VALVE BOXES

A. Gate valves shall be non-rising stem, iron body, bronze mounted type, 200 psi working pressure, tested to 400psi and shall conform to AWWA standard C-500. Valves shall open by turning counter clockwise, be equipped with "O" Ring Seals at the top of the stem, shall be suitable for underground service and provided with 2” square operating nuts.

B. Generally, gate valves shall be mechanical joint type unless otherwise specified.

C. Gate valves shall be Mueller 2360 Series or approved equal.

D. Valve boxes shall be installed on valves 2" and larger. Valve boxes shall be cast iron, two-piece screw type with a 5-1/4" screw type shaft, flared base and drop in lid which reads “SEWER”. Base shall be sized to fit the specified size valve. Valve boxes shall be as manufactured by East Jordan Iron Works or approved equal. Valve boxes shall be adjusted to grade as shown on the drawings. No additional compensation shall be made to Contractor for adjustment of the length of valve boxes.

2.17 PLUG VALVES AND VALVE BOXES

A. Plug valves shall be non-lubricated type, drip tight shut off with pressure in each direction and eccentric in design. Plug valves larger than 14" shall be rated for 150 psi working pressure and less than 12" shall be rated for 175 psi working pressure. The port area shall be 100% of the connecting pipe area.

B. Cast body, flanged (ANSI B16.1, Class 125 or 150) or threaded ends (NPT requirements of ANSI B1.20.2) for rigid joints and mechanical joints for buried valves. Design similar to MSS SP-108. Body shall be cast iron, ASTM A126, Class B, or Carbon steel, ASTM A216 Grade 65-45-12 with bolted bonnet of same material.

C. Plug with upper and lower shaft in a one-piece casting, with round or rectangular port. Plug shall be made of same material as body with resilient facing of NBR.

D. Body and Bonnet Bearing: Type 316L or Type 316 stainless steel

E. Packing: NBR or PTFE V-Type

F. Bonnet screws and Nuts shall be stainless steel.

G. Manufacturer:

1. DeZurik
2. Pratt/Milliken
3. Val-Matic

2.18 COATINGS

A. All valve bodies and non stainless ferrous metals associated with valves including but not limited to stem, actuator, and related components shall be coated in accordance with AWWA C550 "Protective Epoxy Interior Coatings for Valves and Hydrants", unless otherwise specified.
B. Epoxy coating shall be NSF approved for use in potable water.
C. Minimum 12-mil dry film thickness except where limited by valve operating tolerances. Epoxy coating shall be spark tested at the valve manufacture's factory in accordance with AWWA C550 to verify uniform thickness. A certified test report on valve manufacturer's letterhead shall be supplied for each valve furnished.
D. Epoxy coating shall meet the following:
    1. Surface Preparation: SSPC-SP 10.
    2. Amine-cured epoxy.
    3. Manufacturers:
        i. PPG Protective and Marine Coatings.
        ii. Sherwin Williams Co.
        iii. Tnemec
    4. Type: High build.
    5. Minimum Solids Content: 80 percent by volume.
    6. Number of Coats: Two.
    7. Dry Film Thickness per Coat: 5 mils.
E. Any materials which shall receive coatings shall inspected prior to installation. Coatings shall meet the following field quality control requirements:
    1. Surface shall be prepared in accordance with SSPC-SP10
    2. All Submerged surfaces and surfaces within vapor area shall be holiday tested.
    3. Dry film thickness shall be measured and documented prior to installation according to SSPC-PA2
    4. All areas containing holidays or not meeting minimum thickness requirements shall be repaired or recoated according to manufacturer instructions; areas shall then be retested prior to acceptance/installation

2.19 SPECIALS

Specials shall be of the same material as the pipe material being used or as approved by the Engineer. The term specials shall include plugs, caps, and other items as needed. Specials shall conform to the applicable AWWA/ASTM/ANSI Standards.

2.20 OTHER MATERIAL

A. Concrete: Concrete shall be in accordance with Section 03000, Concrete, and shall develop a compressive strength of 3,000 pounds per square inch at twenty-eight (28) days.

B. Steel Casing: The steel casing pipe shall conform to requirements of Section 2300.

C. Pipe Embedment: Pipe Embedment (Select Bedding pay item if not absorbed) shall consist of the following per ASTM D 2321:

1. Foundation Material: Foundation material is required where unsuitable material is encountered at the bottom of the trench or over-excavation has occurred.

2. Bedding Material

3. Haunching Material

4. Initial Backfill

D. Select material for Pipe Embedment which includes foundation, bedding, haunching and initial backfill zones shall be referred to as “Select Bedding Material” and shall:

1. Meet the requirements to be classified as a Class I, or II per ASTM Standard Specification D 2321 (Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications) Table 1 according to particle size, shape and gradation; or

2. Be a mixture of coarse concrete aggregate and coarse river run sand. The mixture shall consist of two (2) parts coarse aggregate conforming with ASTM C-33 to one (1) part coarse sand. The embedment material shall be thoroughly blended by the Contractor to produce a well-graded uniform mixture prior to placement in the trench. Prior to blending, the coarse concrete aggregate shall conform to the gradation sizing number 467 specified in Table 2 of ASTM C-33 as follows:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
2 inch	100
1-1/2 inch	95 - 100
3/4 inch	35 - 70
3/8 inch	10 - 30
No. 4	0 - 5

The grading limits for fine aggregate shall be as follows:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3/8 inch	100
No. 4	95 - 100

No. 8	80 - 100
No. 16	50 - 90
No. 30	30 - 70
No. 50	3 - 30
No. 100	0 - 5

E. Initial Backfill Material: See above.

F. Final Backfill Material (Select Backfill pay item if not absorbed):

1. Native material will be considered as an acceptable final backfill material in unpaved areas. Contractor shall provide the Engineer with geotechnical evaluation of material for consideration.

2. In paved areas, select material for backfilling trenches and other designated excavations shall meet the requirements of select material per the geotechnical report (if report is available) or be composed of a natural or artificial mixture of sand silt and clay or soil binder or shall be a select well-graded sand-gravel material as specified and approved by the Engineer. The following limits (percentage, by weight, passing square mesh sieves) shall apply to the sand-clay material:

a. 30-100% passing the No. 10 sieve

The material passing the No. 10 sieve shall meet the following:

a. 100% passing the No. 10

b. 20-85% passing the No.40

c. 15-70% passing the No. 60

d. 8-40% passing the No. 200

The material passing the number 40 sieve shall meet the following:

Liquid Limit (LL)----------Not more than 25
Plasticity Index (PI)----------Not more than 6

The fraction passing the number 200 sieve shall not be greater than two-thirds (2/3) the fraction passing the number 40 sieve.

G. All testing shall be done by licensed professionals in related field. Costs required by the Engineer associated with verifying that off-site material or material from trench excavations or on-site excavations meet the requirements of select material are the responsibility of the Contractor.

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor shall duly notify and coordinate any work with interested parties such as the Mississippi Department of Transportation, the Mississippi Department of Environmental Quality and the appropriate City or County Officials. No work which affects these interested parties will commence until satisfactory coordination has been achieved.

B. The work required shall consist of excavation and trenching for open cut construction, installation of pipe, manholes and appurtenances, backfilling, testing, repair and

restoration of property, and final cleanup.

3.02 EXCAVATION FOR PIPING

A. No more than 200 feet of trench may be opened in advance of pipe laying.

B. Trench width shall be minimized to greatest extent practical but shall conform to the following:

1. Sufficient to provide room for installing, jointing and inspecting piping, but in no case wider at top of pipe than pipe barrel O.D. plus 3 feet.

2. Enlargements at pipe joints may be made if required and approved by Engineer.

3. Sufficient for sheeting, bracing, sloping, and dewatering.

4. Sufficient to allow thorough compacting of backfill adjacent to bottom half of pipe.

5. Do not use excavating equipment which requires the trench to be excavated to excessive width.

C. Depth of trench shall be as shown. If required and approved by Engineer depths may be revised.

D. The Contractor shall perform all excavation of every description and of whatever substances encountered to the depth specified in the Contract Drawings or as directed by the Engineer. All trenches shall be excavated along the lines and to the grades established in the Contract Drawings.

E. The bottom of all trenches shall be carefully shaped, graded and aligned. Care shall be taken not to excavate below the depth specified; however, in the event this should occur, the bottom of the trench shall be filled back to grade with approved material and thoroughly compacted in a manner satisfactory to the Engineer.

F. The bed for each piece of pipe is to be shaped either by trimming the bottom of the trench or by placing excavated earth therein and tamping so that each piece of pipe will have uniform bearing and be in continuous contact with the supporting ground for its entire length. The trench shall be further excavated around each bell or hub, if necessary, so that it will entirely be clear of the ground and leave ample room for making up joints.

G. When rock is encountered, the Contractor shall excavate to a depth at least 4 inches below the required grade and a minimum clearance of 12 inches on each side of pipe and backfilled to grade with 4 inches of sand cushion.

H. Water will not be permitted in the trenches while the pipe is being laid. The Contractor shall not open up more trench than the available pumping facilities are able to dewater to the satisfaction of the Engineer.

I. Should conflicts in grade occur with other utilities, the sewer line grade shall be changed to avoid the conflict as directed by the Engineer.

J. All material suitable for backfilling shall be piled in an orderly manner a sufficient distance from the banks of the trench to avoid overloading and to prevent slides or cave-ins. Contractor to pile material so that free access is provided at all times to all fire hydrants and water valves in the vicinity of the Work and to cause as little inconvenience as possible to public travel and the abutting property. All excavated materials not required or not suitable for backfill shall be removed and wasted as indicated or as directed by the Engineer. Such grading shall be done as may be necessary to prevent surface water from flowing into trenches or other excavations and any water accumulating therein shall be

removed by pumping or by other approved methods.

K. The disposal of all surplus and unsuitable excavation shall be the responsibility of the contractor at his own expense. The surplus and unsuitable material not to be used in the construction of the project shall not be left on the right-of-way or easement of the project or adjacent thereto.

L. Contractor shall excavate only the length of trench as needed for same day pipe installation. No open trenches shall be left at the end of each work day.

3.03 EXCAVATION FOR MANHOLES, PUMPING STATION AND OTHER STRUCTURES

A. Excavation for structures shall be sufficient to permit the carrying out of the construction as required by these specifications and Contract Drawings.

B. Care shall be taken not to excavate for the structures below the depths specified on the plans in correspondence with the detail sheet. If extra depth of excavation is necessitated by the nature of the soil and is ordered by the engineer, the contractor will be paid for the selected fill material as provided elsewhere in these Contract Documents for “Extra Work”, unless the contract contains unit prices for the materials used.

3.04 SHEETING, SHORING AND BRACING

A. The Contractor shall furnish and place such sheeting and bracing as may be required to support the sides of the trench and to protect the workmen and pipe or adjacent structures from injury by the sloughing off or caving in of the trenches.

B. When using movable trench support, care shall be exercised not to disturb the pipe location, jointing or embedment.

C. Any voids left in the embedment material by support removal shall be carefully filled with granular material and adequately compacted.

D. The sheeting and bracing may be removed as the trench is backfilled, or may be left in place where necessary to prevent damage. In the event the sheeting or bracing is left in place, it shall not extend nearer than three feet (3') to the surface of the ground.

E. In no case will extra compensation be allowed for furnishing, placing, removing or leaving in place any sheeting and bracing, but the cost of this work shall be included in the unit price bid for installing the pipe.

F. The sides of the trench shall be maintained in strict compliance with OSHA regulations.

3.05 DEWATERING, DRAINAGE AND FLOTATION

A. The Contractor shall furnish all materials and equipment and perform all work required to install and maintain the drainage systems he proposes for handling groundwater and surface water encountered during construction of structures, pipelines, and compacted fills.

B. The Contractor shall construct and place all pipelines, concrete work, structural fill, bedding, and base course, in-the-dry. In addition, the Contractor shall make the final 24-inches of excavation for this work in the-dry, and not until the water level is a minimum of twelve (12) inches below proposed bottom of excavation.

C. The Contractor shall, at all times during construction, provide and maintain proper equipment and facilities to promptly remove and dispose of all water entering excavations and keep such excavations dry so as to obtain a satisfactory undisturbed sub-grade

foundation condition, until the fill, structure, or pipes to be built thereon have been completed to such extent that they will not be floated or otherwise damaged by allowing water levels to return to natural elevations.

D. Dewatering shall at all times be conducted in such a manner as to preserve the natural undisturbed bearing capacity of the sub-grade soils at proposed bottom of excavation.

E. Well-points may be required for pre-drainage of the soils prior to final excavation for some of the deeper below ground structures of piping, and for maintaining the lowered groundwater level, until construction has been completed to such an extent that the structure, pipeline, or fill will not be floated or otherwise damaged. Well-points shall be surrounded by suitable filter sand and no fines shall be removed by pumping. Pumping from well-points shall be continuous and standby pumps shall be provided.

F. If requested by the Engineer, the Contractor=s proposed method of dewatering shall include a minimum of two (2) 4-inch, Schedule 40, operating groundwater observation wells at each structure to be used to determine the water level during construction of the structure. Locations of the observations wells shall be at structures and along pipelines as approved by the Engineer prior to their installation.

G. Prior to excavation, the Contractor shall submit his proposed method of dewatering and maintaining dry conditions to the Engineer. The Contractor shall be responsible for the satisfactory performance of the system. The Contractor shall be responsible for correcting any disturbance or natural bearing of soils or damage to structures caused by an inadequate dewatering system or by interruption of the continuous operation of the system as specified.

H. As part of the submittal of his dewatering system, the Contractor may be required to demonstrate the adequacy of the proposed system and well-point filter sand by means of a test installation. Discharge water shall be clear, with no visible soil particles in a one-quart sample.

I. During backfilling and construction, water levels shall be measured in observation wells located as directed by the Engineer.

J. Continuous pumping will be required as long as water levels are required to be below natural levels.

K. While dewatering for new construction in the vicinity of existing structures, depletion of the groundwater level underneath these existing structures may cause settlement. To avoid this settlement, the groundwater level under these structures shall be maintained by appropriate methods of construction.

3.06 PROTECTION OF PERSONS AND PROPERTY:

A. Barricade open excavations occurring as part of this work and post with warning light in accordance with local requirements. Operate warning lights as recommended by authorities having jurisdiction.

B. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.

3.07 PIPE EMBEDMENT

A. Select embedment material used around and under pipes is as specified in 2.18 of this section.

B. Select Embedment Installation:

1. Foundation: If required, as recommended for material class in Table 2 of ASTM D 2321 compacted to 96% Standard Proctor Dry Density ASTM D 698

2. Bedding: As recommended for material class in Table 2 of ASTM D 2321 compacted to 96% Standard Proctor Dry Density ASTM D 698

3. Haunching: As recommended for material class in Table 2 of ASTM D 2321 compacted to 96% Standard Proctor Dry Density ASTM D 698

4. Initial Backfill: As recommended for material class in Table 2 of ASTM D 2321 compacted to 96% Standard Proctor Dry Density ASTM D 698

C. No pipe shall be brought into position until the preceding length has been embedded and secured in its final position.

D. Place embedment materials so that the pipe after installation will be true to line and to grade.

3.08 PIPE LAYING

A. Pipes, specials and fittings shall be carefully laid to the line and grade established on the Contract Drawings or as directed by the Engineer. All pipes shall be laid in compliance with the manufacturer's instructions, technical specifications and details on contract drawings and at such depths that a minimum cover is maintained as specified previously. Extra depth will not be measured unless noted on the Bid Form.

B. Install all pipes accurately to the line and grade shown unless otherwise approved by the Engineer. Remove and relay pipes that are not laid correctly.

C. Pipe laying will not be permitted when trench contains water.

D. Slope piping uniformly between elevations given.

E. Start laying pipes at lowest point and proceed towards higher elevations, unless otherwise approved by Engineer.

F. Place bell and spigot so that bells face the direction of laying, unless otherwise approved by the Engineer.

G. Excavate around the joints in bedding and lay pipes so that only the barrel receives bearing pressure from the trench bottom.

H. Blocking is not allowed to bring pipe to grade.

I. Permissible deflections at joints shall not exceed the amount allowed by the manufacturer.

J. Take every precaution to ensure that no foreign material enters the piping prior to and during installation.

K. All pipes and fittings shall be carefully examined for cracks, damage or other defects while suspended above the trench before installation. Defective materials shall be immediately removed from site.

L. Interior of all pipes and fittings shall be inspected and all dirt, gravel, sand, debris or other foreign materials shall be completely removed from pipe interior before it is moved into the trench.

M. Bell and spigot mating surfaces shall be thoroughly wire brushed and wiped clean and dry immediately before pipe is laid.

O. Every time that pipe laying is not actively in progress the open ends of pipe shall be closed by a watertight plug.

P. Field cutting pipe, where required, shall be made with a machine specially designed for cutting piping. Cuts shall be carefully done, without damage to pipe or lining, so as to leave a smooth end at right angles to the axis of pipe. Cut ends shall be tapered and sharp edges filed off smooth. Flame cutting will not be allowed.

Q. Touch up protective coatings in a satisfactory manner prior to backfilling.

R. All piping shall be inspected by the Engineer prior to any backfilling operations. Contractor shall notify Engineer in advance of any backfilling operations.

3.09 HORIZONTAL AND VERTICLE ALIGNMENT OF PIPES

A. The Contractor shall utilize a commercial grade laser beam specifically manufactured to aid in maintaining grade and alignment of pipelines during installation. The primary unit shall be mounted on a heavy-duty base and firmly anchored in the downstream manhole of the reach under construction. The maximum distance shall not exceed 400 feet per setup.

B. Each joint of pipe will be installed using an approved target to align the pipe with the projected laser beam. The methods and procedures shall be in strict accordance with the manufacturer's recommendations and instructions.

C. Proper ventilation shall be maintained at all times and care shall be exercised to avoid bumping or misalignment of the projected beam.

D. Sewer pipe shall be laid so that the installation variation of invert elevations when compared with the construction plans does not exceed 0.10 feet. If the variation exceeds 0.10 feet the line shall be rejected.

3.10 MAKING JOINTS

A. PVC PIPE

1. Joints shall be constructed in accordance with the recommendations of the manufacturer.

2. Clean completely all jointing surfaces and adjacent areas immediately before matting joint.
3. Lubricate and adjust gaskets as recommended by manufacturer.

4. After gaskets are compressed and before pipe is brought fully home, each gasket shall be checked for proper position around full circumference of the joint.

B. HDPE PIPE

1. All jointing shall be done by butt fusion welding and shall be performed in accordance with manufacturer's recommendations by a certified operator for the method allowed.

2. Fusion equipment shall be operated only by technicians who have been certified by the pipe manufacturer or supplier and who have a minimum of 2 years' experience of fusion welding 8 inches or larger diameter pipelines. The

technician's experience and verifiable references shall be documented in the HDPE pipe submittal.

4. See Section 02815 for additional information on jointing and complete installation.

C. DUCTILE IRON PIPE JOINT CONSTRUCTION

1. The installation and joint of ductile iron pipe shall generally conform to the applicable provisions of AWWA Standard Specification C-600 for pipe laying.

2. Where mechanical joint pipe is used, the surfaces which come in contact with the gasket shall be thoroughly brushed with a wire brush just prior to assembly. The gasket should be brushed with soapy water prior to installation to remove loosed dirt and to lubricate gasket as it is forced into its retaining space.

3. When tightening bolts, it is essential that the gland be brought up toward the pipe flange evenly. The bolts should be partially tightened; the bottom bolt first, then the top; next the bolts on either side; and last, the remaining bolts. Overstressing of bolts to compensate for poor installation will not be permitted. Bolt torque shall be in accordance with manufacturer's recommendations.

4. When push-on joint pipe is used, the pipe must be cleaned with a wire brush and the spigot end of the pipe lubricated with a thin film of lubricant. The gasket shall be inserted into bell socket recess and the spigot end pushed home. The joint shall be installed in accordance with the manufacturer's specifications.

5. All joints of whatever type shall be completely watertight after being subjected to the required tests.

3.11 TRANSITION FROM ONE TYPE OF PIPE TO ANOTHER

Provide all necessary adapters, specials and connection pieces required when connecting different types and sizes of pipe or when connecting pipe made by different manufacturers.

3.12 SERVICE ASSEMBLES AND SERVICE LINE INSTALLATION

A. Assemblies shall consist of appurtenances needed to complete the assembly in accordance with the Contract Drawings. They shall be installed in a good and workmanlike manner in the places designated on the Plans or as directed by the Engineer.

B. Service line shall be as specified herein and will be measured and paid for separately as detailed herein.

C. Service lines to be marked as shown in the Contract Drawings.

3.13 CONNECTION TO EXISTING MANHOLES

A. Where indicated on the Contract Drawings, the Contractor will be required to make a water tight connection to an existing wastewater collection system. The Contractor shall furnish all labor and materials and service required for the excavating, removal and relocation of sections of old pipe, de-watering the trench, connecting of the sewer line with the existing lift station or manhole and the setting of necessary fittings, specials and required replacement of manhole coatings as shown on the Contract Drawings.

B. The size of the opening cut (must be core drilled) in the existing manhole wall shall be

restricted to a normal diameter sufficient only to insert the sewer pipe. After insertion of the pipe, the void between the outside of the pipe and the manhole shall be dry packed with a Portland cement-sand mix. The moisture content of the cement-sand mixture shall be minimized in order to avoid undue shrinkage after drying.

3.14 MANHOLE BASES

Precast bases shall be set on a concrete foundation or compacted granular material as shown in the Contract Drawings. Precast bases shall be set at the proper grade and carefully leveled and aligned.

3.15 PRECAST MANHOLE SECTIONS

A. Set sections vertical with sections true to alignment.

B. Install sections in accordance with manufacturer's recommendations.

C. Lifting holes shall be sealed water tight with non-shrink grout inside and out.

3.16 MANHOLE CHANNELS

A. For straight through flow, inverts shall be formed of concrete and shall be given a hard trowel finish. The invert shall be a minimum of ½ the diameter of the pipe in height.

B. Where side channels occur, the channels within the manholes shall be formed of concrete and shall be given a hard trowel finish.

3.17 GRADING RINGS

A. Grading rings shall be used on all concrete manholes where required. Stacks shall be a maximum of 12 inches in height. The height of the stack shall be such as is necessary to bring the manhole frame to the proper grade.

B. The outside of the grading rings shall be neatly plastered with 1/2 inch of cement mortar as the work progresses.

C. Each grading ring shall be laid in a full bed of mortar and shall be thoroughly bonded.

3.18 MANHOLES WATER TIGHNESS

A. All manholes shall be free of visible leaks.

B. All leaks shall be repaired in a manner subject to the Engineer's approval.

C. All lift holes to be sealed water tight inside and out with non-shrink grout.

3.19 FLEXIBLE PIPE CONNECTOR AND WATERSTOP AT MANHOLE BASES

An approved flexible connector shall be provided between each pipe entering and exiting manhole. The joint into the manhole base shall be completely watertight.

3.20 DROP MANHOLES

A. In manholes where the free fall inside the manhole exceeds 2 feet measured from the invert of the pipe to the top of the manhole floor, drop manholes shall be constructed in the same manner as specified for standard manholes except that the bottom shall be extended to support the drop line.

B. One joint of ductile iron pipe shall be extended upstream from the drop manhole and secured on the undisturbed bedding of the adjacent pipe trench.

3.21 BACKFILLING TRENCHES

A Backfilling shall be carefully performed and the original surface restored, to the full satisfaction of the Engineer. The trenches shall be backfilled with fine, loose earth, free form large clods, stones or rocks, frozen material or debris.

B. The trenches shall be backfilled carefully and rammed until enough has been placed to provide a cover of not less than one foot (1') above the pipe prior to placing Final Backfill.

C. Proper compaction procedures should be exercised to provide the required soil densities.

D. The Final Backfill procedures shall be as follows and dependent on location of trench:

1. Open areas or cross-country: Backfill material suitable for this method shall be machine-placed in successive layers and compacted until a density of at least the adjacent undisturbed ground is obtained (90% min.). This operation will continue until all settlement has occurred and to the full satisfaction of the Engineer.

2. Under or within 5’ of paved (concrete or asphalt) surfaces or concrete structures the backfill material shall be placed in successive layers, not to exceed six inches (6"). Each lift shall be thoroughly compacted with mechanical tampers so that at least 98% of the density determined by the Proctor Method, ASTM D-698, shall be obtained before the next lift is placed.

3. Backfill in unpaved areas shall be made as above specified, except the backfill lifts above the pipes may be deposited in layers not to exceed 6 inches and thoroughly tamped until a density of at least that of the adjacent soil is obtained (90% Min.).

C. Each lift of the backfill material shall have the proper moisture content to permit compaction to the required density.

D. Whenever the trenches have not been properly filled, or if settlement occurs, they shall be refilled, smoothed off, and finally made to conform to the surface of the ground at no additional cost to the Owner. Surplus material shall be disposed of as directed by the Engineer at no cost to the Owner.

3.22 DISPOSAL OF UNSUITABLE AND SURPLUS MATERIAL

A. Unsuitable and surplus excavated materials, unless specified otherwise below, and pavement shall become the property of the Contractor to be removed and disposed of by the Contractor off the project site.

B. Usable, excavated material may be used for fill or backfill if it meets the specifications and is approved by the Engineer. Excavated materials so approved may be neatly stockpiled at the site where designated by the Engineer provided there is an area available that will not interfere with the Owner=s access nor inconvenience traffic or adjoining property owners.

C. Surplus suitable excavated material shall be used to fill depressions as the Engineer may direct.

D. In instances where the Owner can use surplus excavated materials and so desires to retain possession of the material, the Contractor will be directed in the Special Provisions

to transport the material to a specific soil storage area and either stockpile or spread the material. Broken pavement shall not be hauled to the Owner's storage area.

3.23 WORK AFFECTING EXISTING PIPING

A. Location of Existing Piping:

1. Locations of existing piping shown should be considered approximate.

2. Contractor is responsible for determining exact location of existing piping to which connections are to be made, or which may become disturbed during earth moving operations, or which may be affected by the work in anyway.

B. Work on Existing Pipelines:

1. Cut pipes as shown or required with machines specifically designed for this work.
2. Install temporary plugs to keep out all mud, dirt, water and debris.

3. Provide all necessary adapters, fittings, pipes and appurtenances required.

3.24 TESTING OF GRAVITY SEWER LINES

A. General:

1. Contractor shall conduct a low-pressure air test and a deflection test for all gravity sewer piping. For gravity sewer pipe 30" and larger, an infiltration/exfiltration test shall be performed.

2. Notify Engineer 48 hours in advance of testing.

3. Provide all testing apparatus.

4. Pipelines which fail to hold specified test pressure or which exceed the allowable leakage rate shall be repaired and retested.

5. Test pressures required are at the lowest elevation of the pipeline section being tested unless otherwise specified.

6. Unless otherwise approved, conduct all tests in the presence of the Engineer.

B. Installed Low Pressure Air Test: UNI-Bell's UNI-B-6.

1. Procedure:

The sewer line to be tested shall be tested between manholes. The line shall be sealed at both ends. The seal at one end shall have an orifice through which to pass air into the pipe. An air supply shall be connected to the orifice at one end of the line. the air supply line will contain an on-off gas valve and a pressure gauge having a range of 0 to 15 psi. The gauge shall have minimum divisions of .10 psi and shall have an accuracy of +/- .04 psi. Pressuring equipment should include a regulator or relief valve to avoid overpressuring and damaging an otherwise acceptable line.

The pipe line under test shall be pressurized to 4 PSIG for a period of no less than 5 minutes. If necessary, air should be added to the line to maintain the pressure above 3.5 PSIG. After stabilization period, the gas valve shall be closed. When the line pressure drops to 3.5 PSIG, commence timing with a stop watch. The stop watch should be allowed to run until such time as line pressure drops to 2.5 PSIG. Then the watch should be stopped and the time lapse compared with the allowable time

lapse in Table I in this Section and for pipe size and leakage allowance specified by the Engineer. If the time lapse is greater than that specified, the section undergoing testing shall have passed, and the test may be discontinued at that time. If the time is less than that specified, the line has not passed the test and the Contractor will be required to find the leak(s), repair them and retest until the section passes at his own expense.

2. Table I: Line Pressure Air Test Using Low-Pressure Air Specification Time Required for a 1.0PSIG Pressure Drop for Size and Length of Pipe Indicate

Pipe Diameter (in)	Minimum Time (min)	Length for Min. Time (ft)	Time for Longer Length (sec)	Specification Time for Length (L) Shown, Min.'s							
				100'	150'	200'	250'	300'	350'	400'	450'
4	3:46	597	.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	14:10	17:48	22:15	26:42	31:09	35:36	40:04
18	17:00	133	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19.50	114	10.471L	19:50	22:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33

C. Deflection Test:

1. Deflection tests shall be performed on all PVC and ductile iron gravity sewer pipe. The test shall be conducted after the final backfill has been in place at least 30 days.

2. No pipe shall exceed a deflection of 5%.

3. If the deflection test is to be run using a rigid ball or mandrel, it shall have a diameter equal to 95% of the inside diameter of the pipe. The test shall be performed without mechanical pulling devices.

4. The mandrel shall be drawn through the pipe by hand. Irregularities or obstructions encountered in the line shall be corrected by the Contractor.

5. If a section of pipe with excessive deflection is found, the Contractor shall uncover the pipe for inspection. Damaged pipe will be replaced. If the pipe is undamaged, the Contractor may reinstall the bedding and backfill and retest the pipe. Retesting shall include mandrel and low-pressure air testing.

D. Infiltration/Exfiltration Test:

1. Infiltration/Exfiltration Test shall be performed in those sections of sewer pipe that lie under the groundwater table.

2. Contractor shall supply needed equipment and personnel to perform the infiltration/exfiltration test.

3. Allowable infiltration/exfiltration shall not exceed 50 gallons per inch of nominal diameter per mile of sewer per day.

4. An exfiltration test shall be performed where the crown of the entire reach of sewer being tested lies less than five feet under the existing water table. Minimum upstream testing head shall be five feet above existing water table.

5. An infiltration test shall be performed where the crown of the entire reach of sewer being tested lies five feet or more under the existing water table.

6. Sections of installed piping shall be tested from manhole to manhole.

7. The Contractor shall install a calibrated weir at lower end of section being tested and shall measure leakage for a minimum of four hours if infiltration test is performed. Provide bulkhead at upper end of pipe section being tested.

8. The Contractor shall measure required water to maintain minimum upstream testing head if exfiltration test is performed.

3.25 TESTING OF FORCE MAIN SEWER LINES

Hydrostatic Test for Force Main Sewer Lines:

1. After the pipe has been laid and partially backfilled, all newly laid pipe, or any valved section thereof, shall be subjected to a hydrostatic pressure of 150 psi. The duration of each pressure test shall be at least two (2) hours. Pressure shall not vary by more than ± 5 psi for the duration of the test.

2. Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point on the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Engineer. The Contractor shall furnish all necessary assistance for conducting the test.

3. Before applying the specified test pressure, all air shall be expelled from the pipe. If permanent air vents are not located at all high points, the Contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all air has been expelled, the corporation cocks shall be closed and the test pressure applied.

Leakage Test for Force Main Sewer Lines:

1. A leakage test shall be conducted by the Contractor at his expense and in the presence of the Engineer or his representative for installed force main line. The duration of each leakage test shall be 12 hours. During the test, the main shall be subjected to a pressure of not less than 150 psi measured at the average elevation of the pipe to be tested. The leakage test shall be conducted by the Contractor after the pressure test has been satisfactorily completed

2. Leakage shall be defined as the quantity of water that must be supplied in the newly laid pipe, or any valved section thereof, to maintain the specified leakage test pressure, within 5 psi, after the air in the pipe has been expelled and pipe has been filled with water.

3. No pipe installation will be accepted if the leakage is greater than that determined by the formula $L=(SD\sqrt{P})/133{,}200$ where L is the allowable leakage in gallons per hour, S is the length of pipe tested in feet, D is the nominal diameter of the pipe in inches, and P is the average test pressure during the leakage test in psi gauge.

4. If any test of pipe laid discloses leakage greater than that specified, the Contractor shall at his own expense locate and repair the defective joints until the leakage is within the specified allowance. All visible leaks shall be repaired regardless of the amount of leakage.

3.26 FLUSHING

A. All piping shall be thoroughly cleaned and flushed in a manner approved by the Engineer prior to placing in service. Piping 48 inches in diameter and larger shall be inspected from the inside and all debris, dirt and foreign matter removed.

B. Water for flushing and testing shall be furnished and paid for by the Contractor. Contractor shall provide all temporary piping, hose, valves, appurtenances and services required.

C. The completed gravity flow system shall be clean of all muck, siltation and other foreign matter deposited or collected during construction. Flushing shall continue downstream manhole to manhole.

D. Flushing shall be accomplished prior to testing should the collected matter be sufficient in quantity to obstruct or effect the testing. Flushing will not be required in those sections of the installed pipes and manholes where the exfiltration test has adequately cleaned the mains.

3.27 CLEAN-UP

A. In areas where the wastewater collection system has been backfilled, the Contractor shall clear the right-of-way and surrounding ground, and shall dispose of all waste materials and debris resulting from his operations. He shall fill and smooth holes and ruts and shall repair all miscellaneous and unclassified ground damage done by him and shall restore the ground to such a stable and suitable condition as may be reasonably required, consistent with the condition of the ground prior to construction.

B. Clean-up, including grading, disposal, dress work and other incidentals shall be completed by the Contractor at no additional cost to the Owner to the extent directed by the Engineer.

PART 4 - COMPENSATION

4.01 GENERAL

No separate payment shall be made for any item necessary for the completion of the work indicated on the Contract Drawings and in the Specifications but not shown as a pay item on the proposal form; therefore, full compensation for these items shall be considered absorbed in the Contract Lump Sum or related pay items.

4.02 MEASUREMENT AND PAYMENT

A. Gravity Mains

1. General: Gravity mains will be measured and paid for in linear feet along the centerline of the pipe from the center to center of manholes and from center of manhole to center of junction with existing main or plugged end. The total length of pipe thus measured will be separated into the various kinds and sizes for each increment of depth to establish the quantities of each Pay Item. Depth zones will be measured from existing ground line or the finished ground to the invert of pipe, whichever is less.

2. No deduction in length of main will be made for diameter of manholes 60" and smaller, or for space occupied by other specials installed.

3. Gravity mains installed in cased or tunneled openings will be measured along the centerline of the pipe from end to end of the casing.

4. Gravity mains designated to be jacked or bored through open cut barriers or restrictions shall be

measured for payment along the centerline of the pipe from trench end to trench end. Trench end shall be defined as the vertical face of the trench that is perpendicular to the centerline of the jacked or bored pipe and is adjacent to the open cut barrier or restrictive area.

B. Force Mains

1. General: Force mains will be measured and paid for in linear feet along the centerline of the pipe from the center of the valve pit to center of junction with existing main or plugged end.

2. Force mains installed in cased or tunneled openings will be measured along the centerline of the pipe from end to end of the casing.

3. Gravity mains designated to be jacked or bored through open cut barriers or restrictions shall be measured for payment along the centerline of the pipe from trench end to trench end. Trench end shall be defined as the vertical face of the trench that is perpendicular to the centerline of the jacked or bored pipe and is adjacent to the open cut barrier or restrictive area.

C. Manholes: Manholes will be measured and paid for as the type, size and number of completed and accepted units in place and of incremental depths indicated in the Proposal. Incremental depths shall be determined from the finished elevation of the top of the completed unit to the invert of the outlet pipe. Manholes constructed over existing sewer mains will include a separate, measurement item per each for installation of the manhole and connection to the existing sewer main. Manholes flotation straps installed at the locations shown on the plans shall be cost absorbed in the manhole. Manhole coatings shall be cost absorbed in the price of manholes.

D. Pipe Connections: Pipe connections to existing manholes or structures will be measured and paid for in units of each, with no allowance of incremental depths of bury.

E. Removal and Restoration of Permanent Surfaces

1. General: No separate measurement for payment purposes will be made for removal of permanent surfaces. This shall be considered an absorbed cost item unless otherwise specified on the Proposal.

2. No separate measurement for payment for restoration of concrete pavements, sidewalks, driveways, curb and gutter or for clay gravel will be made. These shall be considered as absorbed cost items unless otherwise specified on the Proposal.

3. No separate measurement for payment for restoration of asphalt pavements will be made. This shall be considered an absorbed cost item unless otherwise specified on the Proposal.

F. Removal and Restoration of Landscaping: Items designated to be removed and restored shall not be measured for payment, unless otherwise indicated on the Proposal.

G. Timber Sheeting or Sheet Piling Left in Place: Timber sheeting or sheet piling left in place will not be measured for payment but shall be considered an absorbed cost item.

H. Supplementary Items: If provided for in the Proposal, work performed in support of the gravity main construction shall be measured for payment in the manner prescribed in the respective Sections of the SPECIFICATIONS covering new construction of these items. Otherwise, these items will be absorbed costs.

I. Select Bedding Material hauled in from off-site areas shall not be measured for separate payment but shall be considered an absorbed cost item unless itemized as a pay item on the Proposal. If shown as a pay item it shall be referred to as “Select Bedding Material” and paid for per cubic yard, compacted and in-

place. Should on-site excavated trench material meet the requirements to be classified as select bedding material, the Contractor shall use this material for such purpose and, in turn, the use of and placement of this material shall be considered an absorbed cost per foot of pipe.

J. Final Backfill shall not be measured for separate payment but shall be considered an absorbed cost item unless itemized as a pay item on the Proposal. If shown as a pay item it shall be referred to as “Select Backfill Material” and paid for per cubic yard, compacted and in-place.

K. Pipe on Piers: Sewer pipe installed on piers across creeks, sloughs and low areas shall be measured along the centerline of the pipe from the point at which the top of the pipe leaves the natural ground to the point where the top of the pipe re-enters the natural ground. Measurement will not be made of excavation, grading or other items incidental to completion of the work. Measurement of piers and related appurtenances shall be per each installed.

L. Sanitary sewer service lines shall be measured along the centerline of the pipe per linear foot of each type installed with no allowance for cut depth differentials. No separate measurement for payment shall be made of specials, fittings, plugs, marker posts or other incidentals. Service assemblies including wye, bend, cap, post and other incidentals shown on the drawings and shall be measured per each installed.

M. Sewer Main Bores and Service Line Bores shall be measured in the units specified in the Proposal.

--END OF SECTION 02900--

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 7648 **CODE: (SP)**

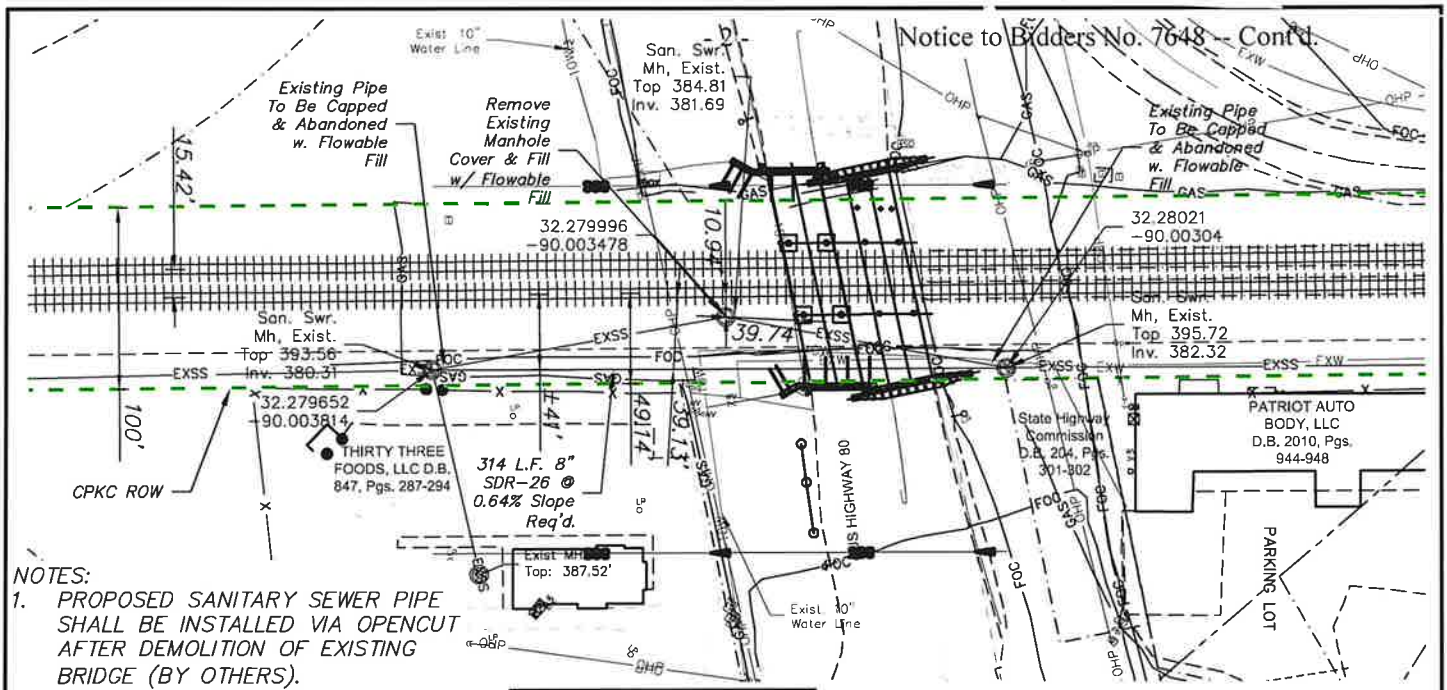
DATE: **01/21/2026**

SUBJECT: **Sewer Line Relocation**

PROJECT: **BR-2904-00(018) / 107643302 – Rankin County**

Bidders are hereby advised that the project includes the installation of approximately 314 linear feet of 8-inch SDR-26 pipe; the removal of an existing manhole cover and the top 18 inches of the concrete riser; the filling of the existing manhole with flowable fill; and the capping and abandonment of an existing sewer line using flowable fill. All work associated with the removal of the existing manhole cover and the placement of flowable fill shall be considered cost absorbed and included in Pay Item **907-260-PP002**. Attached are the permit drawings as approved by CPKC. The contractor is required to adhere to all applicable CPKC requirements, conditions, and provisions.

Prior to the commencement of any work, the contractor shall be responsible for submitting all pertinent documentation and obtaining a Right of Entry permit from CPKC. Applying for the Right of Entry permit can be completed online at https://jll-permitting.360works.com/login. The work plans and Certificate of Insurance will need to be submitted, and a required processing fee will be charged. All work shall be done in accordance with the Mississippi Department of Transportation and CPKC's specifications.



NOTES:

1. PROPOSED SANITARY SEWER PIPE SHALL BE INSTALLED VIA OPENCUT AFTER DEMOLITION OF EXISTING BRIDGE (BY OTHERS).
2. NO CASING PIPE SHALL BE REQUIRED.
3. ALL PIPE AND FITTING SHALL BE JOINED BY MEANS OF INTERGRAL WALL BELL AND SPIGOT JOINT AND SEALED WITH A RUBBER RING

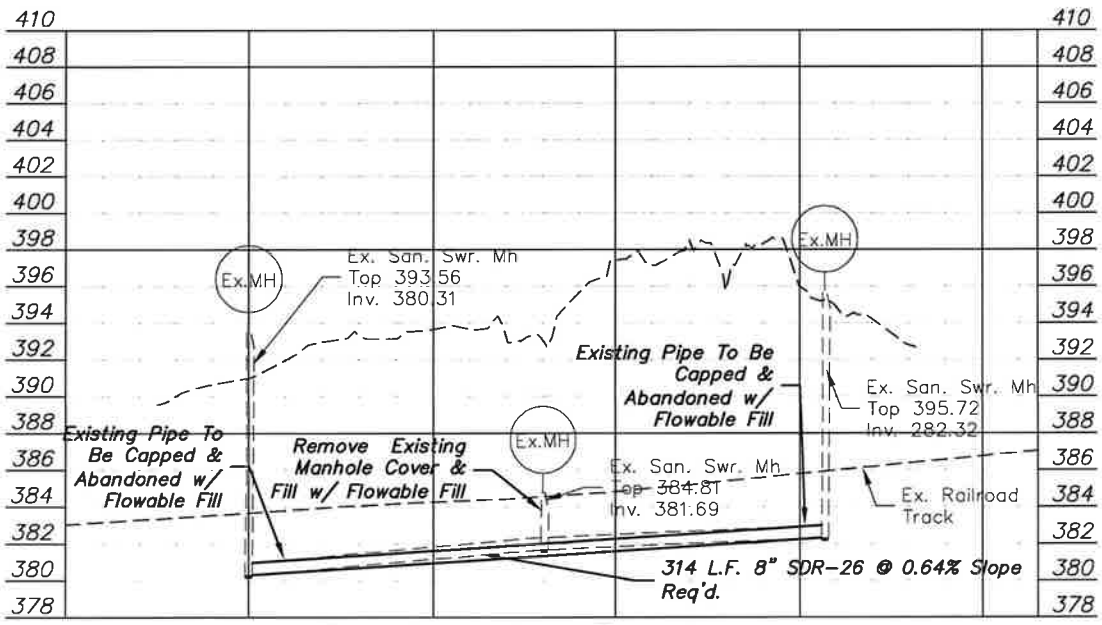
ALL REQUIRED SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR.

APRROX. LAT/LAN OF MANHOLE TO BE FILLED
32.279996, -90.003478
RAILROAD SUBDIVSION – MERIDIAN

COUNTY/SECTION/TOWNSHIP
RANKIN – 16 – 5N

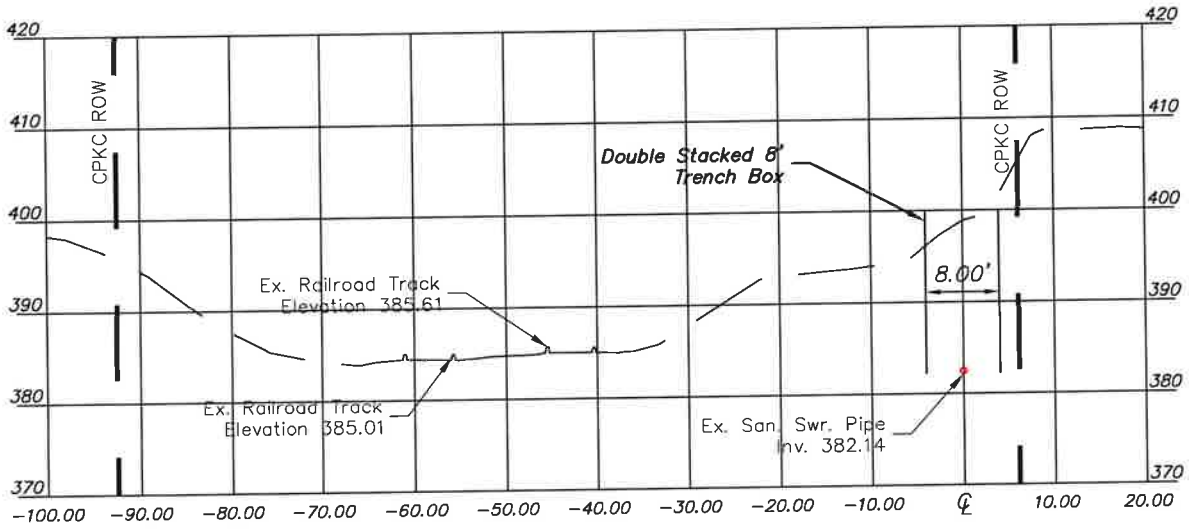
100 0 50 100 200

(IN FEET)
1 inch = 100 ft.



PIPE INFORMATION:
MATERIAL – PVC
O.D. – 8.625"
THICKNESS – 0.332"

DATE: 10/03/25	DRAWN: KDR	BENCHMARK ENGINEERING & SURVEYING, LLC	PROJECT LOCATION: RAILROAD @ US 80	PROJECT: SEWER RELOCATION AT RAILROAD/80 CROSSING	SHEET NUMBER 1 of 2
CHECKED: MM	SCALE: 1"=100'	CIVIL • STRUCTURAL • PLANNING • SURVEYING • UAV MAPPING	CLIENT: CITY OF BRANDON 1000 MUNICIPAL DRIVE	SHEET CONTENTS: PLAN/PROFILE - SEWER LAYOUT	PROJECT NUMBER B-11823
REF C/L:		BRANDON | FLOWOOD | MADISON			
EG SURFACE:		EST. 2004 www.benchmarkms.net (601) 427-7780			
FG SURFACE:					



CROSS SECTION @ STA. 4+35.00

DATE: 10/03/25 DRAWN: KDR CHECKED: MM SCALE: 1"=100' REF C/L: EG SURFACE: FG SURFACE:	BENCHMARK ENGINEERING & SURVEYING, LLC CIVIL ◆ STRUCTURAL ◆ PLANNING ◆ SURVEYING ◆ UAV MAPPING BRANDON | FLOWOOD | MADISON	PROJECT LOCATION: RAILROAD @ US 80 CLIENT: CITY OF BRANDON 1000 MUNICIPAL DRIVE	PROJECT: SEWER RELOCATION AT RAILROAD/80 CROSSING SHEET CONTENTS: CROSS SECTION	SHEET NUMBER 2 of 2 PROJECT NUMBER B-11823

Right-of-Entry Agreement Details
26-19250 – CITY OF BRANDON CONTRACTOR - Brandon, MS - ROE

Application Num: 26-19250

RAILROAD DETAILS
RR Name: Meridian Speedway, LLC
RR Corporation: 01 - ROE
RR Address: 427 West 12th Street, Kansas City, MO 64105
RR Contact: Chris Ashley
RR Phone: 318-676-6269
RR Email: Chris.Ashley@CPKCR.com

LICENSEE DETAILS
Licensee: CITY OF BRANDON CONTRACTOR
Licensee Corporation:
Licensee Address: _____,
_____, _____
Licensee Contact: _____
Licensee Phone: _____
Licensee Email: _____

ROE DETAILS
City: Brandon
State: MS
Mile Post: 81.50
Subdivision: Meridian
Term Start: January 19th, 2026
Term End: December 31st, 2026
Work Scope: Installation of underground pipeline agreement 25-18646 305134U (Lat/Long: 32.279652, -90.003814)

FEE DETAILS
CPKC Processing Fee Return: $No fee agreement. Fees collected under 25-18646
Additional Fee Collected: No
CPKC Licensee Fee: $0.00 (Collected by SOO)
Payee:
Amount Paid:

Notes:

-
-
-

CPKC Public Works Approval

_____
Chris Ashley

Date: _____

RIGHT OF ENTRY LICENSE AGREEMENT

THIS RIGHT OF ENTRY LICENSE AGREEMENT (this **"ROE Agreement"**) is made by and between **Meridian Speedway, LLC** doing business as CPKC, and **CITY OF BRANDON CONTRACTOR**.

1. PARTIES

Meridian Speedway, LLC, a Delaware limited liability company, doing business as CPKC with general offices at:

Address	**Contact Info**	
427 West 12th Street, Kansas City, MO 64105	Name:	Chris Ashley
	Phone:	318-676-6269
	Fax:	
	Email:	Chris.Ashley@CPKCR.com

hereinafter called "**CPKC**,"

and _____, a _____, a whose address is:

Address	**Contact Info**	
_____ _____, _____, _____ _____	Name:	_____
	Phone:	_____
	Fax:	
	Mobile:	
	Email:	_____

hereinafter called "**Licensee**."

2. PROPERTY; SCHEDULE; GRANT OF LICENSE

2.1 Property

CPKC hereby grants Licensee a license to enter in and upon certain property owned or controlled by CPKC in **Brandon, MS near railroad mile post 81.50 +/-** on the **Meridian Subdivision**, as shown upon the map labeled **Annex A** that is attached hereto and made a part hereof (the "**Property"**)

2.2 Work Schedule

For the sole for the purpose of performing, generally, the following activities: Installation of underground pipeline agreement 25-18646, near 305134U, US 80 (Lat/Long: 32.279652, -90.003814) (the **"Work"**), as detailed in Licensee's plans, specifications and special provisions. The Work is subject to approval by CPKC's authorized representative.

2.3 Grant of License

This license is granted subject to all the terms and conditions set forth below and applies to all Work and activities upon the Property that may be performed by Licensee through its employees, agents, and contractors. For the purposes of this ROE Agreement, the actions and omissions of such employees, agents, and contractors shall be deemed the actions and omissions of Licensee.

2.4 Agreement to be Available at Work Site

Licensee shall keep a copy of this ROE Agreement at the Work site and shall make it available upon demand by any employee or agent of CPKC.

3. TERM, EFFECTIVE DATE, EXPIRATION & TERMINATION

3.1 Term

The term of this ROE Agreement shall

Commence at 12:01 am **on January 19th, 2026** (the "**Commencement Date**"); and

Expire at 11:59 pm **on December 31st, 2026** (the "**Expiration Date**")

the "**Term**." Upon agreement between CPKC and Licensee, the Term may be lengthened or shortened without affecting any other provisions of this ROE Agreement.

3.2 Effective Date

This ROE Agreement shall be effective upon the date that it has been signed by both parties.

3.3 Expiration

This ROE Agreement will expire at the Expiration Date, or when the Work is completed, whichever occurs first. Notwithstanding any other provision of this ROE Agreement, the preceding sentence shall not terminate or limit any claim by CPKC against Licensee arising prior to the Expiration Date. If the Work includes monitoring wells, and if such wells remain on the Property after the Expiration Date, this ROE Agreement shall remain in effect for those wells until the earlier of the following:

a. the date they are properly closed (*i.e.*, sealed and abandoned in accordance with applicable legal requirements) by Licensee or

b. the date CPKC assumes ownership of such wells, based upon Licensee's failure to remove or seal such wells within 30 days of being notified of the need to do the same by CPKC.

3.4 TERMINATION; EXCLUSION

NOTHWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, this ROE Agreement is terminable by CPKC prior to the Expiration Date in the event Licensee breaches any of its obligations under this ROE Agreement. The early termination of this ROE Agreement shall not terminate or limit any claim by CPKC against Licensee arising prior to such termination. If Licensee is in breach of any of its obligations under this ROE Agreement, any employee or agent of CPKC may order Licensee off the Property, in which case Licensee shall immediately leave the Property; moreover, Licensee shall leave the property immediately upon termination pursuant to this paragraph.

4. PAYMENTS

4.1 License Fee

In consideration of the permissions herein granted, Licensee shall with its execution hereof pay to CPKC the sum of **One Dollar(s) (1).**

4.2 Utilities

Licensee shall assume and timely pay for any gas, electrical, telephone, computer, sewer, water, storm water, waste or trash removal or any other service or commodity connected with the Work, collectively "**Utility Service**." If any Utility Service fee is in common with CPKC or

other parties, Licensee shall be liable for its proportionate share of any such Utility Service Fee and upon receipt of a bill therefor, promptly pay CPKC or such other party for its share. It shall be a default of the terms of this license if it can be shown that Licensee has not made such payments within 30 days if due to CPKC, or within 60 days if payable to any other party.

4.3 Mechanics' And Materialmen's Liens

If any mechanics' or materialmen's lien, or similar lien, is asserted against the Property, or any other property of CPKC, as a consequence of the Work, Licensee shall immediately satisfy, defend, or obtain the release of such lien, all at Licensee's expense, and Licensee shall indemnify and defend CPKC against any Claims arising out of or connected with such lien.

4.4 Additional Charges

Licensee shall within 30 days of receipt of a bill therefor, pay to CPKC costs for flagging, track changes or damage, or other such charges as may be provided by this ROE Agreement or that CPKC may reasonably impose in connection with Licensee's Work.

4.5 Due Dates; Penalties; Other Charges

4.3.1 ***Due Dates***

Any item, submission or payment required to be made shall be deemed timely made if received by the other party on or before the specified due date, or prior to expiration of the applicable period for compliance, submission or payment.

4.3.2 ***Late Fees***

In addition to any amounts payable by Licensee to CPKC, Licensee shall pay CPKC a late fee for any payment not timely made by Licensee. The late fee shall be at the rate for overdue accounts set by CPKC's Accounting Department that is in effect at the time that that any such payment is due. Said late fee shall initially be an amount equal to 1% of the invoice amount per month.

4.3.3 ***Fines and Service Fees***

In addition to any other amounts payable by Licensee to CPKC, Licensee shall pay CPKC for any bank fines or service incurred by it in connection with the handling, non-payment, return or currency conversion incurred by CPKC in connection with processing of any payment made by Licensee to CPKC.

4.6 Work At No Cost To CPKC

The Work completed by Licensee shall be performed at no cost to CPKC.

5. CONTACT, NOTICES, ETC.

5.1 Contact Persons; Communications

Communications pursuant to this ROE Agreement shall be directed to the contact persons designated in Section 1 or their designees. Either party may change its contact person, or the address(es), telephone number, or fax number for the contact person, by notice to the other party.

5.2 Notices

Except as otherwise provided in this ROE Agreement, all notices pursuant to this ROE Agreement shall be in writing and shall be effective upon delivery to the address or fax number of the contact person for the party to whom notice is being given. If notice is given by fax, the notice shall not be deemed effective until received in legible form.

5.3 Notification Prior To Beginning Work

Licensee must notify CPKC's contact person by telephone at least 7 days prior to beginning any separate phase of the Work, and again promptly after such phase of the Work has been completed.

6. PERMITTED & PROHIBITED USES; RIGHTS OF CPKC

6.1 Permitted Uses

6.1.1 *The Work*

The use of Property by Licensee shall be limited to the completion of the Work set forth in Section 2.2., or such other activities as may be approved by CPKC in writing.

6.1.2 *Government Authorities*

Licensee may permit governmental authorities other than Licensee with jurisdiction over the Work to enter the Property for the purpose of inspecting or monitoring the Work. Whenever possible, Licensee shall advise CPKC (by telephone or other means calculated to bring the matter to CPKC's immediate attention) prior to permitting such governmental authorities to enter the Property for such purposes. The actions and omissions of such governmental authorities while on the Property for such inspections and monitoring shall be deemed the actions and omissions of Licensee. Licensee is not authorized to permit governmental authorities other than Licensee to enter the Property for any other purpose.

6.2 Prohibited Uses and Activities

Licensee shall not use, occupy or permit the Property to be used for any purpose, activity or improvement except as provided in this ROE Agreement or as may be approved of in writing by CPKC. Specifically, Licensee shall not:

6.2.1 *Advertising*

permit any advertisements or signs upon the Property;

6.2.2 *Use of Hazardous Substances*

without prior written disclosure to and approval by CPKC, Use or authorize the Use of any Hazardous Substance on the Property, including installation of any above or underground storage tanks; subject thereto, Licensee shall arrange at its own cost for the lawful transportation and off-site disposal of any and all Hazardous Substances that it shall Use or generate;

6.2.3 *Use of Premises for waste treatment or as storage or disposal facility*

cause or allow the Property or any of CPKC's adjacent property to become a hazardous waste treatment, storage or disposal facility within the meaning of, or to otherwise bring any such property within the ambit of the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq. or any similar state statute or local ordinance; or

6.2.4 *Subleasing is prohibited*

sublease the Property or the permissions or rights herein granted in any manner or form.

6.3 Reservations and Rights of CPKC

6.3.1 *Railroad Activities Take Priority over Work*

All Work by Licensee shall always and all times be subordinate to the needs of CPKC in connection with the operation and movement of railroad trains and equipment, and the repair of railroad track, structures, communications and appurtenances thereto.

6.3.2 ***Reservation of prior and future uses not inconsistent with Licensee's activities***
The rights herein granted to Licensee are subject to the rights granted in all other licenses, permits and easements for tracks, roads, walkways, poles, wires, pipelines, sewers, billboards and other improvements that exist or may be placed upon, across, above or underneath the Property by CPKC, or its employees, agents, licensees, grantees, representatives or invitees. Further, CPKC reserves unto itself the right to place (or to give others the right to place) additional tracks, roads, walkways, poles, wires, pipelines, sewers and billboards upon, across, above or underneath the Property in any manner that does not unreasonably interfere with Licensee's Work.

6.3.3 ***Monitoring***
CPKC may elect to be present during the conduct of the Work and to monitor same.

7. COVENANTS, CONDUCT & RESPONSIBILITIES

7.1 Definitions

7.1.1 "**Claim**" or "**Claims**" means any and all liabilities, suits, claims, counterclaims, causes of action, demands, penalties, debts, obligations, promises, acts, fines, judgments, damages, consequential damages, losses, costs, and expenses of every kind (including without limitation any attorney's fees, consultants' fees, response costs, remedial action costs, cleanup costs and expenses which may be related to any Claims);

7.1.2 "**Environmental Law**" or "**Environmental Laws**" means the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9601 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq., the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq., the Clean Water Act, 33 U.S.C. '§1321 et seq., the Clean Air Act, 42 U.S.C. § 7401 et seq., the Toxic Substances Control Act, 15 U.S.C. § 2601 et seq., all as amended from time to time, and any other federal, state, local or other governmental statute, regulation, rule, law, ordinance, order or decree dealing with the protection of human health, safety, natural resources or the environment now existing or hereafter enacted;

7.1.3 "**Governmental Requirements**" shall mean all federal, state, and local laws, statutes, ordinances, regulations, codes, standards, guidance, judicial or administrative orders, consent decrees, binding judgments, or the orders of any public agency or authority, or association, or other similar requirements, now or hereafter in effect, in each case as amended or supplemented from time to time, that, in any way, govern or regulate Licensee's Work on or use of the Property or activities arising from or relating to or resulting from such Work on or use of the Property

7.1.4 "**Hazardous Substance**" or "**Hazardous Substances**" means any substance, class of substances, or such quantity of an otherwise non-hazardous substance or substances, which are or may be detrimental to the environment or human or animal health including, without limitation:

a. radioactive, explosive, poisonous, corrosive, flammable, or toxic substances or materials;
b. toxic substances, which shall include, without limitation, asbestos, polychlorinated biphenyls, all chemicals and substances known or suspected to cause cancer or reproductive toxicity
c. any substance, chemical, or material declared to be hazardous or toxic under any Governmental Requirements applicable to CPKC, Licensee, or the Property;
d. any Waste containing hazardous biological material;

e. any substance that, if added to any water, would degrade or alter the quality of the water to the extent that it is detrimental to its use by humans or by any animal, fish, or plant; and

f. any solid, liquid, gas, or odor or combination of any of them that, if Released, creates or contributes to a condition that:

i. endangers the health, safety, or welfare of humans;

ii. interferes with the normal enjoyment of life or property; or

iii. causes damage to plant life, animal life, or to property.

7.1.4 "**Release**" or "**Released**" means any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, disposing or spreading of any Hazardous Substance into the environment, as "environment" is defined in CERCLA;

7.1.5 "**Response**" or "**Respond**" means action taken in compliance with Environmental Laws to correct, remove, remediate, cleanup, prevent, mitigate, monitor, evaluate, investigate, assess or abate the Release of a Hazardous Substance;

7.1.6 "**Use**" means to manage, generate, manufacture, process, treat, store, use, re-use, refine, recycle, reclaim, blend or burn for energy recovery, incinerate, accumulate speculatively, transport, transfer, dispose of, or abandon.

7.2 Investigation; Compliance with Laws; Safety Requirements

7.2.1 ***Tenants and Licensees in possession of Property***

Before entering the Property, Licensee shall secure the consent of all persons or entities who are using or occupying any portion of the Property. CPKC will cooperate with Licensee to obtain consent from any such person or entity who unreasonably withholds consent.

7.2.2 ***Underground Utilities and Structures***

a. Licensee shall be responsible for determining the location of all underground utilities (electric lines, telephone lines, gas lines, steam lines, sewer lines, water lines, fiber optic cables, pipes, wires, and the like) and underground structures.

b. Licensee shall call **CPKC CBYD "Canadian Pacific Call before You Dig"** at **1-866-291-0741 for Signal, Fiber Optics, and Power for CPKC Facilities on Canadian Pacific Right of Way and the STATE "ONE CALL"** a minimum of 5 business prior to commencing any excavation or boring on the Property.

c. CPKC will cooperate with Licensee to identify the location of underground utilities and structures known to CPKC, but such cooperation shall not relieve Licensee from its primary responsibility to determine the locations of such utilities and structures.

7.2.3 ***Permits And Licenses; Compliance With Laws***

Licensee shall secure, at no expense to CPKC, any permits or licenses required in connection with the Work and shall comply with all laws applicable to the Work and the Property, including (but not limited to) any laws, standards, regulations, and permit requirements relating to environmental pollution or contamination or to occupational health and safety. Licensee shall indemnify and defend CPKC against any and all Claims arising out of or connected with the violation of any law by Licensee while on or about the Property.

7.2.4 ***Compliance with CPKC Safety Requirements; Identification***

a. While on the Property, Licensee shall comply with the safety requirements of CPKC, as such requirements may be amended from time to time during the duration of the Work, all at no expense to CPKC. CPKC's safety requirements are set forth in "**Annex B**" titled "**CPKC SAFETY REQUIREMENTS FOR CONTRACTORS – United States"** and in CPKC's current safety handbook. One free copy of the current safety handbook will be provided to Licensee by the CPKC contact person. Additional copies will be provided at Licensee's expense. Licensee shall be responsible for ensuring that any person performing any of the Work for or on behalf of Licensee shall comply with the CPKC safety requirements that would apply to a CPKC employee performing similar work.

b. Prior to any entry onto the Property, Licensee and every employee, agent or subcontractor who carries out any part of the Work on the Property shall successfully complete the safety training available through the e-railsafe program at www.e-railsafe.com in respect to requirements for CPKC operations.

c. Licensee and every employee, agent or subcontractor who carries out any part of the Work on the Property shall at all times wear and visibly display the identification badge issued to them following successful completion of the e-railsafe safety training together with whatever additional identification materials that CPKC may reasonable require.

7.3 Work In Close Proximity To Railroad Operations; Drainage

7.3.1 ***Interference with Railroad Operations***

Licensee shall keep CPKC fully apprised of its proposed activities on the Property so as to prevent any interference with the operations of CPKC's trains or equipment (or trains or equipment of others) operating on or near the Property.

7.3.2 ***Clearance***

No work shall be done or any equipment or other obstruction placed over or within 25 feet laterally of the centerline of any track without advance notification to CPKC prior to performing such work or placing such equipment or obstruction.

7.3.3 ***Flagging***

Licensee must make arrangements with CPKC or CPKC's designated representative for such flagging or watchman service as CPKC deems necessary for the protection of railroad traffic. All such flagging and watchman service shall be at Licensee's expense. The fact that CPKC coordinates or provides such service shall not relieve Licensee from any liability under this ROE Agreement. CPKC's labor and material additives are subject to change without notice to Licensee, and CPKC shall be reimbursed based upon its labor and material additives actually in effect as of the date of such service.

7.3.4 ***Certain Work Close To Track Not Permitted; Lateral Support***

a. Unless otherwise agreed to in writing by CPKC, excavations, borings, wells, pits, test holes, probe sites, and the like shall not be located closer than 25 feet from the centerline of the nearest railroad track on or adjacent to the Property nor shall it take or allow any action upon the Property that would materially impair the lateral or subadjacent support of adjacent lands or railroad tracks.;

b. Unless otherwise agreed to in writing by CPKC, drilling and excavating equipment and related equipment shall not be located closer than 25 feet from the nearest rail of any such track;

c. In the event that CPKC permits excavations, borings, wells, pits, test holes, probe sites, or the like in close proximity to tracks, embankments or other features providing lateral or subadjacent support to land or tracks, then notwithstanding anything to the contrary in this license, Licensee shall be responsible for designing and constructing at no cost to CPKC any measure that is required to prevent the collapse, erosion or impairment to said land or tracks.

7.3.5 ***Storm Water***

Licensee shall not, without the advance written approval of CPKC, make any changes to the Property that would either increase the historic flow rate of storm water from the Property or create an impediment to the historic flow of storm water to the Property. Unless otherwise agreed in writing, as between CPKC and Licensee it is understood and agreed that Licensee shall, at Licensee's cost and expense, be responsible for the construction, maintenance, repair and replacement upon the real property or other land not belonging to CPKC such storm sewer lines, manholes, mains, rip rap, boulders, wing walls, ditches and related to improvements required for Licensee's compliance with this section.

7.3.6. ***Fencing***

Licensee shall, at no cost to CPKC, construct and maintain during the term hereof a fence acceptable to CPKC in the location(s) designated necessary by CPKC in connection with the Work. In such case, and following completion of the Work, the Licensee shall remove the fencing, remove any post footings or concrete, and fill and tamp any post holes with clean fill material.

7.4 Conduct

7.4.1 ***Property clean, safe and free from nuisances***

Licensee shall not permit the existence of any nuisance upon the Property and shall at all times keep the Property in a proper, clean, safe and sanitary condition, and free from accumulations of waste materials, debris or refuse.

7.4.2 ***Release of Hazardous Substances***

Licensee shall not cause or allow the Release or threat of Release of any Hazardous Substance on, to, or from the Property.

7.4.3 ***Response Actions***

Licensee shall promptly take all necessary action in Response to any Release or Use of a Hazardous Substance at the Property caused by, or attributable to, any act or omission of Licensee (or Licensee's employees, agents, representatives or invitees) that could:

a. give rise to any Claim under any Environmental Law,
b. cause a public health or workplace hazard, or
c. create a nuisance.

7.5 Required Notices/Disclosures

7.5.1 ***Transportation and Disposal Contracts***

Licensee shall, upon written request by CPKC, provide CPKC with copies of transportation and disposal contracts and manifests for Hazardous Waste, any permits issued under any Environmental Laws, and any other documents demonstrating that Licensee has complied with all Environmental Laws relating to the Property

7.5.2 ***Releases or Suspected Releases***

Licensee shall promptly notify CPKC of any actual or suspected Release of any Hazardous Substance on, to, or from the Property, regardless of the cause of the Release.

7.5.3 ***Notices, summons citations, etc.***

Licensee shall promptly provide CPKC with copies of all summons, citations, directives, information inquiries or requests, notices of potential responsibility, notices of violation or deficiency, orders or decrees, claims, causes of action, complaints, investigations, judgments, letters, notices of environmental liens or Response actions in progress, and other communications, written or oral, actual or threatened, from the United States Environmental Protection Agency, the United States Occupational Safety and Health Administration, or other federal, state or local agency or authority, or any other entity or individual, concerning:

a. any Release of a Hazardous Substance on, to or from the Property,
b. the imposition of any lien on the Property, or
c. any alleged violation of or responsibility under any Environmental Law relating to the Property.

7.5.4 ***Other Reports***

Licensee shall, at CPKC's option, provide CPKC, at no cost to CPKC, a copy of any other report, summary or written test results, collectively "**Report**," pertaining to the Work. If any such Report is to be filed or made available to any governmental agency, other than Licensee, acting in a regulatory capacity, other than Licensee, then Licensee shall also give CPKC a reasonable time (not less than 5 working days) to review and comment on a draft of such Report and when preparing any such final Report pertaining to the Work, Licensee or its contractor shall give due consideration to CPKC's comments with respect to the draft of that Report. Licensee will promptly provide CPKC with a copy of any final Report.

7.6 CPKC's right to Participate in Response Actions

Following receipt of any notice, order, claim, investigation, information request, letter, summons, citation, directive, or other communication identified in section 7.5.3 in connection with any action taken pursuant to section 7.4.3, Licensee shall notify CPKC of any and all investigations, telephone conferences, settlement discussions, remediation plans and all other interactions, direct or indirect, with governmental or regulatory officials, and Licensee shall take all action necessary to ensure that any indemnification, release, waiver, covenant not to sue, or hold harmless agreement benefiting Licensee and arising out of such activities, whether from a governmental or regulatory entity or from a private entity, also benefits CPKC to at least the same extent as Licensee.

7.7 Restoration of Property

Upon completion of the Work or expiration or early termination of this ROE Agreement, whichever occurs first, Licensee shall remove any debris resulting therefrom and shall restore the Property to the condition it was in prior to the commencement of the Work (or such other condition as is satisfactory to CPKC). All excavations are to be backfilled and tamped. All borings shall be backfilled with grout. Drill cuttings shall not be used as backfill. Licensee shall dispose of all drill cuttings, soil and sediment samples, purge water, dewatering effluent, and water samples and all excess excavation material in a manner acceptable to CPKC and in accordance with all applicable laws, all at no expense to CPKC.

8. LIABILITY

8.1 Damage to CPKC Tracks, Facilities, and Equipment

If any tracks, facilities, or equipment owned, used, or maintained by CPKC are damaged in connection with the Work, CPKC shall repair (or arrange for the repair of) such damage and Licensee shall pay the full cost of such repair within 30 days after CPKC shall tender a bill therefor.

8.2 Assumption of Risk

Licensee is fully aware of the dangers of working on and about railroad property and railroad operations and knowingly and willingly assumes the risk of harm (e.g., injury to or death of persons and damage to or destruction of property) that may occur while on and about the Property. Without in any way limiting the scope of the preceding sentence, Licensee assumes the risk that monitoring wells, elevation bench marks, reference points, and other installations located on the Property may be disturbed, damaged, or destroyed by CPKC or third persons, and Licensee shall not make any claim against CPKC on account of same, even if such disturbance, damage, or destruction arises from the negligence of CPKC or its employees, agents, or invitees. Licensee assumes full responsibility for protecting its installations and personal property from theft and vandalism while such installations and personal property are on the Property.

8.3 Indemnity

To the maximum extent permitted by applicable law, Licensee shall indemnify and defend the Indemnified Parties (as defined below) against all claims, demands, actions, suits, judgments, losses, damages, penalties, fines, and sanctions (collectively, “Claims”) arising out of or relating to any destruction of (or damage to) any property or natural resource, any injury to (or death of) any person, or any environmental pollution or contamination whatsoever, where such destruction, damage, injury, death, pollution, or contamination actually arises in whole or in part from the Work, any action or omission of Licensee while on or about the Property pursuant to this ROE Agreement, or the exercise by Licensee of the license granted by this ROE Agreement. As used in this ROE Agreement, Indemnified Parties individually and collectively, means (a) CPKC, (b) directors, officers, stockholders, employees, agents, invitees, insurers of CPKC and its, parents, affiliates, subsidiaries, predecessors, successors, and assigns, and (c) anyone acting on behalf of any person or entity described in (a) or (b).

9. INSURANCE

9.1 Licensee shall, at its own expense, obtain and maintain during the Term and prior to entering the Property, in a form and with an insurance company satisfactory to CPKC, policies of:

9.1.1 **Commercial General Liability** (C.G.L.) insurance with a limit of not less than Five Million Dollars ($5,000,000) for any one loss or occurrence for personal injury, bodily injury, or damage to property including loss of use thereof. This policy shall by its wording or endorsement include without limitation the following:

a. CPKC and its associated or affiliated subsidiaries (and the directors, officers, employees, agents and trustees of all of the foregoing) as an additional insured with respect to obligations of the Licensee in this ROE Agreement;

b. "cross liability" or “severability of interest” clause which shall have the effect of insuring each entity named in the policy as an insured in the same manner and to the same extent as if a separate policy had been issued to each;

c. blanket contractual liability, including the insurable liabilities assumed by the Licensee in this ROE Agreement;

d. broad form products and completed operations;

e. sudden and accidental pollution liability;

f. shall not exclude property damage due to explosion, collapse, and underground hazards; and

g. shall not exclude operations on or in the vicinity of the railway right of way.

9.1.2 **Automobile Liability** insurance covering bodily injury and property damage in an amount not less than Two Million Dollars ($2,000,000) per accident, covering the ownership, use and operation of any motor vehicles and trailers which are owned, non-owned, leased or controlled by the Licensee and used in regards to this ROE Agreement.

9.1.3 **Workers Compensation** insurance which shall be in strict accordance with the requirements of the most current and applicable state Workers Compensation insurance laws, and Employers' Liability insurance including Occupational Disease insurance with limits of not less than One Million Dollars ($1,000,000) each accident/each employee, and where appropriate coverage under said policies to be extended for liability under the FELA, USL&H Act, and the Jones Act. The Licensee shall, before any services are commenced under this License submit written evidence that it has obtained full Workers Compensation insurance coverage for persons whom it employs or may employ in carrying out the services under this License. CPKC and its associated or affiliated companies (and the Directors, Officers, employees, agents and trustees of all of the foregoing) shall be waived of any and all subrogation in the event of injury, death, losses, incidents, claims and potential claims.

9.1.4 If the Work includes digging, excavating or soil disturbance, **Contractor's Pollution Liability** insurance, including naming CPKC and its associated or affiliated subsidiaries (and the directors, officers, employees, agents and trustees of all the foregoing) as an additional insured, with a limit of not less than Two Million Dollars ($2,000,000) for any one loss or pollution event. Coverage shall include, but not be limited to, claims for bodily injury, death, damage to property including the loss of use thereof, clean-up costs and associated legal defense expenses arising from pollution conditions caused by, and/or exacerbated by, services performed by the Licensee on behalf of CPKC. The policy shall be endorsed to contain a blanket contractual liability endorsement. If this policy is written on a "claims-made" basis it shall remain in effect for no less than twenty-four (24) months after the expiry or termination of this ROE Agreement.

9.2 **Insurance Coverage**

The insurance requirements in the foregoing subparts of Section 9.1 are collectively referred to herein as the "**Insurance Coverage**".

9.3 **Insurance No Limit on Liabilities**

Licensee agrees that the insurance requirements set out herein shall not limit or restrict its liabilities pursuant to this ROE Agreement.

9.4 Form/Type of Insurance Policies

The Insurance Coverage required to be maintained pursuant to this ROE Agreement shall be primary and not excess of any other insurance that may be available. Unless otherwise provided above, all insurance coverage shall take place in the form of an occurrence-based policy and not a claims-made policy.

9.5 Subrogation

Licensee shall waive any and all subrogation in the event of injury, death, losses, incidents, claims and potential claims where permissible under the insurance policies required under this ROE Agreement.

9.6 Cancelation Notice to CPKC

The insurance coverages above shall be endorsed to provide CPKC with not less than thirty (30) days' written notice in advance of cancellation.

9.7 Contractual Endorsement

Licensee shall provide CPKC with written notice and all reasonable particulars and documents related to any damages, losses, incidents, claims, and potential claims concerning this ROE Agreement as soon as practicable after the damage, loss, incident, or claim has been discovered. Licensee is responsible for any deductible and excluded loss under any insurance policy. The deductible in any insurance policy shall not exceed such maximum amount that a reasonably prudent business person would consider reasonable.

9.8 Insurance Documentation

Licensee shall, prior to the effective date of this ROE License Agreement, and upon the insurance renewal date thereafter for the duration of the Term of this ROE License Agreement, furnish to CPKC Certificates of Insurance evidencing the above coverages by email to Certs.CertSecure@HUBInternational.com. Upon request, Licensee shall provide CPKC with certified copies of the insurance policies. Such notice shall be by registered mail to the specific attention of: Risk Management, Canadian Pacific Railway Company, 7550 Ogden Dale Road SE, Calgary, AB T2C 4X9.

9.9 CPKC's Review of Insurance Documentation

CPKC shall have no obligation to examine such certificate(s) or to advise Licensee if its Insurance Coverage is not in compliance with this ROE Agreement. Acceptance of any certificate(s) which are not compliant with the requirements set out herein shall in no way whatsoever imply that CPKC has waived its insurance requirements.

9.10 Maintenance of Insurance Coverage/Termination Option

CPKC reserves the right to require Licensee to obtain additional insurance where, in CPKC's reasonable opinion, the circumstances so warrant. If the Licensee fails to maintain the Insurance Coverage required in this ROE Agreement, CPKC may, at its option, terminate this ROE Agreement without notice.

10. GENERAL PROVISIONS

10.1 Survival of Indemnity Provisions

The indemnification provisions of this ROE Agreement shall survive its expiration or termination.

10.2 Mere License

The permission encompassed by this ROE Agreement is a mere license to use the Property for the specified purpose and does not create any estate or interest in the Property.

10.3 No Warranty of Title

CPKC does not warrant that it has good title to the Property.

10.4 Assignment; Binding Effect

This ROE Agreement may not be assigned by Licensee without the advance written consent of CPKC. Subject to the preceding sentence, this ROE Agreement shall be binding upon, and inure to the benefit of, the parties' respective successors and assigns.

10.5 Governing Law

This ROE Agreement shall be construed in accordance with the laws of the state of in which the Property is located.

10.6 Entire Agreement

This ROE Agreement is the full, complete, and entire Agreement of the parties with respect to the subject hereof, and any and all prior writings, representations, and negotiations with respect to those subjects are superseded by this ROE Agreement.

10.7 Headings

The headings used in this ROE Agreement are provided solely as a convenient means of reference. They are not intended to, and do not, limit or expand the purpose or effect of the paragraphs to which they are appended. The headings shall not be used to construe or interpret this ROE Agreement.

10.8 Singular and Plural

As used in this ROE Agreement, the singular form of a word includes the plural form of that word, and vice versa, and this ROE Agreement shall be deemed to include such changes to the accompanying verbiage as may be necessary to conform to the change from singular to plural, or vice versa.

10.9 Duplicate Copies and Counterparts

This ROE Agreement may be executed in counterparts, which together shall constitute one and the same document. The parties may execute more than one copy of this ROE Agreement, each of which shall constitute an original.

11. SIGNATURES.

THE PARTIES HERETO have executed this ROE Agreement as evidence of their agreement to the terms herein.

CITY OF BRANDON CONTRACTOR	**Meridian Speedway, LLC**
By _____	By _____
Its	Its
Date	Date

ANNEX A
Map of the Property

SPECIFICATIONS:

	CARRIER	CASING	INSTALLATION DETAILS
CONTENTS:	SANITARY SEWER	SANITARY SEWER	METHOD OF INSTALLATION: OPEN CUT
LENGTH OF PIPE ON RW:	314'	314'	BURY (BASE OF RAIL): N/A
OUTSIDE DIAMETER:	8"	N/A	BURY (NOT BENEATH TRACKS): 10'
PIPE MATERIAL:	PVC SDR-26	N/A	BURY (ROADWAY DITCHES): 10'
MIN. YIELD STRENGTH:	N/A	N/A	CATHODIC PROTECTION: N/A
WALL THICKNESS:	0.332"	N/A	CASING VENTED: NO VENTS ABOVE SURFACE: N/A
WORKING PRESSURE:	GRAVITY	N/A	NUMBER OF VENTS: N/A
TYPE OF JOINT:	N/A	N/A	SEALS: N/A BOTH ENDS: N/A TYPE: N/A
COATING:	N/A	N/A	PARALLEL DISTANCE FROM CL OF TRACK: N/A

ANNEX B

CPKC Home Safe

CPKC Safety Requirements for Contractors
United States

Approval Authority:	Safety Management Systems	**Effective Date:**	Apr. 15, 2025
Version:	5.0	**Next Review Date:**	Apr. 15, 2028

"General Decision Number: MS20260140 01/02/2026

Superseded General Decision Number: MS20250140

State: Mississippi

Construction Type: Highway

County: Rankin County in Mississippi.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	01/02/2026

ELEC0480-010 01/01/2025

	Rates	Fringes
TRAFFIC SIGNALIZATION		
Electrician	$ 30.35	11.39

SUMS2010-063 08/04/2014

	Rates	Fringes
CARPENTER (Form Work Only)	$ 15.47	0.00
CEMENT MASON/CONCRETE FINISHER	$ 14.02	0.00
ELECTRICIAN	$ 24.04	5.87
HIGHWAY/PARKING LOT STRIPING: Truck Driver (Line Striping Truck)	$ 12.04	0.00
INSTALLER - GUARDRAIL	$ 12.07	0.00
INSTALLER - SIGN	$ 11.92	0.00
IRONWORKER, REINFORCING	$ 15.47	0.00
LABORER: Common or General, Including Asphalt Raking, Shoveling, Spreading; and Grade Checking	$ 10.65	0.00
LABORER: Flagger	$ 10.22	0.00
LABORER: Luteman	$ 12.88	0.00
LABORER: Mason Tender - Cement/Concrete	$ 11.27	0.00
LABORER: Pipelayer	$ 13.44	0.00
LABORER: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper	$ 11.29	0.00
OPERATOR: Asphalt Spreader	$ 14.71	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 15.36	0.00

OPERATOR: Bobcat/Skid Steer/Skid Loader.....$ 11.64 0.00

OPERATOR: Broom/Sweeper.....$ 11.57 0.00

OPERATOR: Bulldozer.....$ 15.41 0.00

OPERATOR: Concrete Saw.....$ 14.38 0.00

OPERATOR: Crane.....$ 19.22 0.00

OPERATOR: Distributor.....$ 10.95 0.00

OPERATOR: Grader/Blade.....$ 14.41 0.00

OPERATOR: Grinding/Grooving Machine.....$ 15.90 0.00

OPERATOR: Loader.....$ 12.57 0.00

OPERATOR: Mechanic.....$ 19.27 0.00

OPERATOR: Milling Machine.....$ 14.68 0.00

OPERATOR: Mixer.....$ 14.25 0.00

OPERATOR: Oiler.....$ 12.35 0.00

OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....$ 12.15 0.00

OPERATOR: Roller (All Types)....$ 12.64 0.00

OPERATOR: Scraper.....$ 12.25 0.00

OPERATOR: Tractor.....$ 11.22 0.00

TRUCK DRIVER: Flatbed Truck.....$ 14.06 0.00

TRUCK DRIVER: Lowboy Truck.....$ 11.00 0.00

TRUCK DRIVER: Mechanic.....$ 13.00 0.00

TRUCK DRIVER: Water Truck.....$ 10.98 0.00

TRUCK DRIVER: Dump Truck (All Types).....$ 12.56 0.00

TRUCK DRIVER: Semi/Trailer Truck.....$ 14.60 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually.   Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification

and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION
"

Bridge Replacements on US 80 (Bridge Nos. 56.8A & 56.8B) at KCS Railroad, known as Federal Aid Project No. BR-2904-00(018) / 107643302 in Rankin County.

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
			Roadway Items		
0010	201-B001		1	Acre	Clearing and Grubbing
0020	202-B007		1,946	Square Yard	Removal of Asphalt Pavement, All Depths
0030	202-B023		2	Each	Removal of Bridge
0040	202-B069		670	Square Yard	Removal of Concrete Pavement w/ Variable Depth Overlay
0050	202-B088		1,210	Linear Feet	Removal of Curb & Gutter, All Types
0060	202-B132		312	Linear Feet	Removal of Gravity Sewer Line, All Sizes, All Types
0070	202-B133		1	Each	Removal of Gravity Sewer Manhole, All Sizes, All Types
0080	202-B147		93	Linear Feet	Removal of Guard Rail Double Faced Rail Including Rail & Posts
0090	202-B158		326	Linear Feet	Removal of Guard Rail, Including Rails, Posts and Terminal Ends
0100	202-B259		2	Each	Removal of and Replacement of Low Mast Lighting Assembly
0110	203-B001	(E)	100	Cubic Yard	Rock Excavation, FM, AH
0120	203-EX021	(E)	2,702	Cubic Yard	Borrow Excavation, AH, FME, Class B9-6
0130	203-EX040	(E)	3,110	Cubic Yard	Borrow Excavation, AH, LVM, Class B9
0140	203-G001	(E)	70	Cubic Yard	Excess Excavation, FM, AH
0150	209-A005		6,010	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0160	213-A001		2	Ton	Agricultural Limestone
0170	213-C001		1	Ton	Superphosphate
0180	215-A001		2	Ton	Vegetative Materials for Mulch
0190	216-A001		136	Square Yard	Solid Sodding
0200	219-A001		3	Thousand Gallon	Watering [$20.00]
0210	220-A001		1	Acre	Insect Pest Control [$30.00]
0220	221-A001	(S)	16	Cubic Yard	Concrete Paved Ditch
0230	223-A001		1	Acre	Mowing [$70.00]
0240	225-A001		1	Acre	Grassing
0250	226-A001		1	Acre	Temporary Grassing
0260	237-A002		206	Linear Feet	Wattles, 20"
0270	245-A001		200	Linear Feet	Silt Dike
0280	246-A001		270	Linear Feet	Sandbags
0290	249-A001		30	Ton	Riprap for Erosion Control
0300	304-A004	(GY)	500	Cubic Yard	Granular Material, LVM, Class 5, Group C
0310	406-D001		1,686	Square Yard	Fine Milling of Bituminous Pavement, All Depths
0320	407-A001	(A2)	390	Gallon	Asphalt for Tack Coat

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0330	501-K001		590	Square Yard	Transverse Grooving
0340	503-C010		96	Linear Feet	Saw Cut, Full Depth
0350	605-AA003	(S)	883	Square Yard	Geotextile for Subsurface Drainage, Type V, Non-Woven
0360	605-O002	(S)	178	Linear Feet	4" Perforated Sewer Pipe for Underdrains, SDR 23.5
0370	605-P002	(S)	46	Linear Feet	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5
0380	605-W001	(GY)	8	Cubic Yard	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM
0390	606-B001		50	Linear Feet	Guard Rail, Class A, Type 1
0400	606-D022		2	Each	Guard Rail, Bridge End Section, Type I
0410	606-E005		2	Each	Guard Rail, Terminal End Section, Flared
0420	609-B002	(S)	140	Linear Feet	Concrete Curb, Header
0430	609-D003	(S)	513	Linear Feet	Combination Concrete Curb and Gutter Type 2
0440	609-D012	(S)	857	Linear Feet	Combination Concrete Curb and Gutter Type 3A Modified
0450	619-A1002		1,050	Linear Feet	Temporary Traffic Stripe, Continuous White
0460	619-A2002		1,100	Linear Feet	Temporary Traffic Stripe, Continuous Yellow
0470	619-A3002		1,400	Linear Feet	Temporary Traffic Stripe, Skip White
0480	619-A5001		2,211	Linear Feet	Temporary Traffic Stripe, Detail
0490	619-A6001		423	Square Feet	Temporary Traffic Stripe, Legend
0500	619-A6002		568	Linear Feet	Temporary Traffic Stripe, Legend
0510	619-D1001		356	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0520	619-D2001		309	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0530	619-E1001		1	Each	Flashing Arrow Panel, Type C
0540	619-G4005		264	Linear Feet	Barricades, Type III, Single Faced
0550	619-G5001		64	Each	Free Standing Plastic Drums
0560	619-G7001		6	Each	Warning Lights, Type "B"
0570	620-A001		1	Lump Sum	Mobilization
0580	630-A001		82	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
0590	630-A003		18	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
0600	630-C001		32	Linear Feet	Square Tube Posts, 4.0 lb/ft
0610	630-C005		131	Linear Feet	Square Tube Posts, 2.0 lb/ft
0620	630-F006		7	Each	Delineators, Guard Rail, White
0630	630-G007		2	Each	Type 3 Object Markers, OM-3R, Post Mounted
0640	699-A001		1	Lump Sum	Roadway Construction Stakes
0650	907-234-A001		1,600	Linear Feet	Temporary Silt Fence
0660	907-234-D001		2	Each	Inlet Siltation Guard

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
0670	907-260-PP001		2	Each	Utility Work - Sewer, Sewer Line Connection
0680	907-260-PP002		312	Linear Feet	Utility Work - Sewer, 8" Sewer Line
0690	907-403-A002	(BA1)	1,143	Ton	12.5-mm, MT, Asphalt Pavement
0700	907-403-A006	(BA1)	1,000	Ton	19-mm, ST, Asphalt Pavement
0710	907-403-A014	(BA1)	429	Ton	9.5-mm, MT, Asphalt Pavement
0720	907-403-B006	(BA1)	931	Ton	19-mm, ST, Asphalt Pavement, Leveling
0730	907-413-E001		120	Linear Feet	Sawing and Sealing Transverse Joints in Asphalt Pavement
0740	907-502-A001	(C)	737	Square Yard	Reinforced Cement Concrete Bridge End Pavement
0750	907-601-B001	(S)	1	Cubic Yard	Class "B" Structural Concrete, Minor Structures
0760	907-616-C001	(S)	217	Square Feet	Colored and Imprinted Concrete Median and Island Pavement, 10-inch Thickness
0770	907-616-C003	(S)	1,898	Square Feet	Colored and Imprinted Concrete Median and Island Pavement, 4-inch Thickness
0780	907-618-A001		1	Lump Sum	Maintenance of Traffic
0790	907-619-E3001		7	Each	Changeable Message Sign
0800	907-626-A008		1,400	Linear Feet	6" Thermoplastic Double Drop Traffic Stripe, Skip White
0810	907-626-C011		1,050	Linear Feet	6" Thermoplastic Double Drop Edge Stripe, Continuous White
0820	907-626-F004		1,100	Linear Feet	6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow
0830	907-626-G006		1,415	Linear Feet	Thermoplastic Double Drop Detail Stripe, White
0840	907-626-G007		196	Linear Feet	Thermoplastic Double Drop Detail Stripe, Yellow
0850	907-626-H006		423	Square Feet	Thermoplastic Double Drop Legend, White
0860	907-626-H007		312	Linear Feet	Thermoplastic Double Drop Legend, White
0870	907-627-K001		79	Each	Red-Clear Reflective High Performance Raised Markers
0880	907-627-L001		3	Each	Two-Way Yellow Reflective High Performance Raised Markers
0890	907-630-O007		3	Each	Remove and Reset Signs, Ground Mounted on Round Post(s)
0900	907-637-A004		1	Each	Pullbox Enclosure, Type 4
0910	907-637-A005		1	Each	Pullbox Enclosure, Type 5
0920	907-637-H001		355	Linear Feet	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"
0930	907-637-K001		175	Linear Feet	Traffic Signal Conduit Bank, Aerial Supported, Type 1, 2 @ 2"
0940	907-661-A004		530	Linear Feet	Fiber Optic Cable, 72 SM
0950	907-899-A001		1	Lump Sum	Railway-Highway Provisions
			ALTERNATE GROUP AA NUMBER 1		
0960	304-H001	(GY)	1,450	Cubic Yard	3/4" and Down Crushed Stone Base, LVM
			ALTERNATE GROUP AA NUMBER 2		
0970	304-H002	(GY)	1,450	Cubic Yard	Size 610 Crushed Stone Base, LVM

Line No.	Item Code	Adj Code	Quantity	Units	Description [Fixed Unit Price]
			ALTERNATE GROUP AA NUMBER 3		
0980	304-H003	(GY)	1,450	Cubic Yard	Size 825B Crushed Stone Base, LVM
			Bridge Items		
0990	235-A001		340	Each	Temporary Erosion Checks
1000	249-A001		798	Ton	Riprap for Erosion Control
1010	501-K001		1,051	Square Yard	Transverse Grooving
1020	803-N001	(S)	270	Linear Feet	Exploration
1030	804-C264	(S)	403	Linear Feet	26' Prestressed Concrete Beam, Type 5B34
1040	804-C265	(S)	1,878	Linear Feet	118' Prestressed Concrete Beam, Type 5B34
1050	805-A001	(S)	104,231	Pounds	Reinforcement
1060	813-B001	(S)	445	Linear Feet	Concrete-Steel Railing
1070	815-D001	(S)	139	Cubic Yard	Concrete Slope Paving
1080	907-228-A003		1,990	Square Yard	Erosion Control Blanket, Type III
1090	907-234-C001		952	Linear Feet	Super Silt Fence
1100	907-616-C004	(S)	1,323	Square Feet	Colored and Imprinted Concrete Median and Island Pavement, 6-inch Thickness
1110	907-803-K004	(S)	200	Linear Feet	Drilled Shaft, 36" Diameter
1120	907-803-K006	(S)	1,165	Linear Feet	Drilled Shaft, 48" Diameter
1130	907-803-L002	(S)	1	Each	Test Shaft, 48" Diameter
1140	907-803-M005	(S)	90	Linear Feet	Trial Shaft, 48" Diameter
1150	907-804-A002	(S)	473	Cubic Yard	Bridge Concrete, Class AA
1160	907-804-A004	(S)	303	Cubic Yard	Bridge Concrete, Class BD
1170	907-804-PP004	(S)	1	Lump Sum	Post Tensioning System
1180	907-823-A001		310	Linear Feet	Preformed Joint Seal, Type I

FMS CON: 107643/302000

ADDENDUM

STATE	PROJECT NO.
MISS.	BR-2904-00(018)

DESCRIPTION OF SHEET	WKG. NO.	SH. NO.
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DETAILED INDEX	DI-2	3
GENERAL NOTES	GN-1	4
GENERAL NOTES	GN-2	5
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TYPICAL SECTIONS - US 80 - STA. 19+00.00 (B.O.P.) TO STA. 20+86.70	TS-1	6
TYPICAL SECTIONS - US 80 - STA, 20+86,70 TO STA, 21+09,82	TS-2	7
TYPICAL SECTIONS - US 80 - STA. 21+09.82 TO STA. 22+93.54	TS-3	8
TYPICAL SECTIONS - US 80 - STA. 22+93.54 TO STA. 23+10.49	TS-4	9
TYPICAL SECTIONS - US 80 - STA. 23+10.49 TO STA. 24+25.00	TS-5	10
TYPICAL SECTIONS - US 80 - STA, 24+25,00 TO STA, 26+00,00 (E,O.P.)	TS-6	11
TYPICAL SECTIONS - OAK ST. TIE-INS	TS-7	12
TYPICAL SECTIONS - US 80 - BRIDGE END PAVEMENT AND PAVED SHOULDER AT BRIDGE ENDS	TS-8	13
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SUMMARY OF QUANTITIES	SQ-2	15
SUMMARY OF QUANTITIES	SQ-3	16
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ESTIMATED QUANTITIES - EARTHWORK, GUARDRAIL, AND CURB & GUTTER	EQ-2	18
ESTIMATED QUANTITIES - PAVEMENT MARKINGS, AND PAVED FLUMES	EQ-3	19
ESTIMATED QUANTITIES - ISLAND PAVEMENT AND BRIDGE END PAVEMENT	EQ-4	20
ESTIMATED QUANTITIES - PERMANENT SIGN ASSEMBLIES	EQ-5	21
ESTIMATED QUANTITIES - STANDARD ROADSIDE SIGNS	EQ-6	22
ESTIMATED QUANTITIES - TRAFFIC CONTROL ITEMS	EQ-7	23
ESTIMATED QUANTITIES - TRAFFIC CONTROL SIGNS	EQ-8	24
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EASEMENT COORDINATES	EC-1	25
PLAN & PROFILE SHEETS - (4) 2		
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OAK ST.	3A	27
CPKC RAILROAD	3B	28
2 SEWER	3SEW	29 2
SPECIAL DESIGN SHEETS - (11) 1 2		
TRAFFIC CONTROL PLAN AND CONSTRUCTION SIGNING	TC-1	30
TRAFFIC CONTROL PLAN AND CONSTRUCTION SIGNING	TC-1A	31
TRAFFIC CONTROL PLAN - DETOUR SIGNING	TC-2	32
PAVEMENT MARKING	PMD-1	33
INTERSECTION DETAILS	ID-1	34
LANE TRANSITION DETAILS	LTD-1	35
VEGETATION SCHEDULE	VS-1	36

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SIGN SUPPORT HARDWARE - 2.0" SQUARE POST		TSS-2	38	
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2 CITY SEWER DETAILS - SANITARY SEWER SYSTEM DETAILS		CSD-1	40	2
PERMANENT SIGNING PLANS - (1)				
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ITS COMPONENTS - (18)				
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INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		LP-1	3002	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ITS-1	3003	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ITS-2	3004	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ITS-3	3005	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ITS-4	3006	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ASC-1	3007	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ASC-2	3008	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		CAB-1	3009	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		CCTV-1	3010	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		ED-1	3011	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-1	3012	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-2	3013	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-3	3014	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-4	3015	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-5	3016	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		FO-6	3017	
INFORMATION ONLY - AS-BUILT FIBER OPTIC PLANS		POW-1	3018	
LIGHTING - (2)				
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PAVEMENT MARKING DETAILS FOR 3-LANE, 4-LANE AND 5-LANE UNDIVIDED ROADWAYS	12/11/2026	PM-2	6052	3
PAVEMENT MARKING LEGEND DETAILS	12/11/2026	PM-6	6056	3
TYPICAL TEMPORARY EROSION CONTROL / SEDIMENT CONTROL APPLICATIONS		ECD-1	6101	
DETAILS OF SEDIMENT BARRIER APPLICATIONS		ECD-2	6102	
DETAILS OF SILT FENCE INSTALLATION		ECD-3	6103	
DITCH CHECK STRUCTURES, TYPICAL APPLICATIONS AND DETAILS		ECD-4	6104	
TEMPORARY EROSION , SEDIMENT, AND WATER POLLUTION CONTROL MEASURES (SILT FENCE AND HAY BALE DITCH CHECKS)		ECD-5	6105	
DETAILS OF EROSION CONTROL WATTLE DITCH CHECK		ECD-6	6106	
DETAILS OF EROSION CONTROL SILT DIKE DITCH CHECK		ECD-7	6107	
ROCK DITCH CHECK		ECD-8	6108	
ROCK FILTER DAM		ECD-9	6109	
ROCK DITCH CHECK WITH SUMP EXCAVATION AND ROCK FILTER DAM		ECD-10	6110	
TYPICAL APPLICATIONS AND DETAILS FOR INLET CONSTRUCTION		ECD-11	6111	
INLET PROTECTION DETAILS FOR SEDIMENT CONTROL STONE ON GRADES AND SAGS		ECD-12	6112	

FISHER & ARNOLD, INC.

PS & E PLANS - 5/21/2025		
FMS CON. # 107643/302000		
REVISIONS		
DATE	SHEET NO.	BY
7/15/25	2, 3 & 39	JMR
8/20/25	2,3,14,15,16 & 26-40	JMR
10/1/25	14, 15 & 16	JMR
1/14/26	2,3,6051,6052,6056,6302-6306,6314,6317,6318,6352, 6358,6359,6362-6364, & 6366	JMR
1/20/26	14, 15, 16 & 29	JMR

DATE	REVISION	BY
1/14/26	REVISED STD. DRAWINGS	JMR
8/20/25	ADDED SHEETS	JMR
7/15/25	ADDED SHEET	JMR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DETAILED INDEX

PROJ. NO.: BR-2904-00(018)

COUNTY: RANKIN

FILENAME: DI.DGN

DESIGN TEAM FA CHECKED DATE

01-21-26

WORKING NUMBER: DI-1

SHEET NUMBER: 2

PLAN PROJECT DIVISION MISSISSIPPI DEPARTMENT OF TRANSPORTATION

1/21/2026 8:39 AM DI.DGN

ADDENDUM

FMS CON: 107643/302000

STATE	PROJECT NO.
MISS.	BR-2904-00(018)

DESCRIPTION OF SHEET

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INLET PROTECTION DETAILS OF MANUFACTURED INLET PROTECTION DEVICE		ECD-14	6114	
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TEMPORARY STREAM DIVERSION (BOX EXTENSION)		ECD-19	6119	
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DETAILS OF EROSION CONTROL SANDBAG DITCH CHECK		ECD-21	6121	
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GUARDRAIL: THRIE BEAM (WOOD POSTS)		GR-1A	6202	
GUARDRAIL: "W" BEAM (STEEL POSTS)		GR-1B	6203	
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GUARDRAIL: BRIDGE END SECTION-TYPE I (STEEL POSTS) (NEW CONSTRUCTION)		GR-2G	6211	
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GUARDRAIL: RUB RAIL HARDWARE		GR-RR	6218	
GUARDRAIL: MISCELLANEOUS HARDWARE		GR-HW	6221	
ROUTE SHIELDS AND "EXIT ONLY" PANELS	12/11/2026	SN-2	6302	3
STANDARD ROADSIDE SIGNS	12/11/2026	SN-3	6303	3
STANDARD ROADSIDE SIGNS	12/11/2026	SN-3A	6304	3
STANDARD ROADSIDE SIGNS	12/11/2026	SN-3B	6305	3
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION	12/11/2026	SN-4	6306	3
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION		SN-4A	6307	
STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION		SN-4B	6308	
BREAKAWAY SIGN SUPPORTS		SN-6A	6311	
BREAKAWAY SIGN SUPPORTS		SN-6B	6312	
TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS	12/11/2026	SN-8	6314	3
TYPICAL GUARDRAIL DELINEATION	12/11/2026	SN-8C	6317	3
SIGNING DETAILS FOR BRIDGE APPROACHES	12/11/2026	SN-9	6318	3
TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH (4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)	12/11/2026	TCP-2	6352	3
HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS	12/11/2026	TCP-8	6358	3
TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO-LANE ROADS	12/11/2026	TCP-9	6359	3
TRAFFIC CONTROL PLAN: UNEVEN PAVEMENT DETAILS	12/11/2026	TCP-12	6362	3
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS	12/11/2026	TCP-13	6363	3
TEMPORARY STRIPING FOR TRAFFIC CONTROL 4-LANE AND 5-LANE UNDIVIDED HIGHWAYS	12/11/2026	TCP-14	6364	3
TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE	12/11/2026	TCP-16	6366	3
TYPICAL GRADING TRANSITION BETWEEN CUTS AND FILLS		GT-1	6404	
DRIVEWAYS, CURB & GUTTER, & SIDEWALK		SD-1	6419	
MISCELLANEOUS DETAIL SHEET, 1. STACKED PIPE JOINTS, 2. EXCAVATION AT GRADE POINTS		MDS-1	6425	
DETAILS OF PAVED FLUMES		PF-1	6426	

CROSS SECTIONS - (8)

MAINLINE (US 80) - SITE 1 - STA. 19+00 TO STA. 26+00 — 9001-9008

TOTAL SHEETS (EXCLUDING BRIDGE SHEETS) - 129 1 2
(SEE SHEET 8001 FOR BRIDGE SHEETS)

DATE	REVISION	BY
1/14/2026	REVISED STD. DRAWINGS	JMR
1/14/2026	ADDED SHEETS	JMR
1/14/2026	REV. SHEET TOTAL	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DETAILED INDEX

JOHN V. REESE — 12253 — STATE OF MISSISSIPPI — REGISTERED PROFESSIONAL ENGINEER
01-14-26

PROJ. NO.: BR-2904-00(018)
COUNTY: RANKIN

WORKING NUMBER: DI-2
SHEET NUMBER: 3

FILENAME: DI.DGN
DESIGN TEAM FA CHECKED DATE

ADDENDUM

PLAN REVIEW DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

1/14/2026 10:39AM DI.DGN

FMS: 107643-302000

STATE	PROJECT NO.
MISS	BR-2904-00(018)

ADDENDUM

SUMMARY OF QUANTITIES (SHEET 1)

PAY ITEM NO.	PAY ITEM	UNIT	RANKIN : 107643-302000 Prelim	Final	Notes
201-B001	Clearing and Grubbing	ACRE	1		(1) (3)
202-B007	Removal of Asphalt Pavement, All Depths	SY	1,946		
202-B023	Removal of Bridge	EA	2		(2)
202-B069	Removal of Concrete Pavement w/ Variable Depth Overlay	SY	670		
202-B088	Removal of Curb & Gutter, All Types	LF	1,210		
202-B132	Removal of Gravity Sewer Line, All Sizes, All Types	LF	312		△2
202-B133	Removal of Gravity Sewer Manhole, All Sizes, All Types	EA	1		△2
202-B147	Removal of Guard Rail Double Faced Rail Including Rail & Posts	LF	93		(4)
202-B158	Removal of Guard Rail, Including Rails, Posts and Terminal Ends	LF	326		(4)
202-B259	Removal of and Replacement of Low Mast Lighting Assembly	EA	2		
203-B001	Rock Excavation, FM, AH	CY	100		△2
203-EX021	Borrow Excavation, AH, FME, Class B9-6	CY	2,702		
203-EX040	Borrow Excavation, AH, LVM, Class B9	CY	3,110		
203-G001	Excess Excavation, FM, AH	CY	70		
209-A005	Geotextile Stabilization, Type V, Non-Woven	SY	6,010		
213-A001	Agricultural Limestone	TON	2		
213-C001	Superphosphate	TON	1		
215-A001	Vegetative Materials for Mulch	TON	2		
216-A001	Solid Sodding	SY	136		(7)
219-A001	Watering	KGAL	3		
220-A001	Insect Pest Control	ACRE	1		
221-A001	Concrete Paved Ditch	CY	16		(8)
223-A001	Mowing	ACRE	1		
225-A001	Grassing	ACRE	1		
226-A001	Temporary Grassing	ACRE	1		
907-234-A001	Temporary Silt Fence	LF	1,600		
907-234-D001	Inlet Siltation Guard	EA	2		
237-A002	Wattles, 20"	LF	206		
245-A001	Silt Dike	LF	200		
246-A001	Sandbags	LF	270		(9)
249-A001	Riprap for Erosion Control	TON	30		
907-260-PP001	Utility Work - Sewer, Sewer Line Connection	EA	2		(10) △3
907-260-PP002	Utility Work - Sewer, 8" Sewer Line	LF	312		(11) △4
304-A004	Granular Material, LVM, Class 5, Group C	CY	500		(5) (6)
304-H001	3/4" and Down Crushed Stone Base, LVM	CY	1,450		(5) (6)
	OR				
304-H002	Size 610 Crushed Stone Base, LVM	CY	1,450		(5) (6)
	OR				
304-H003	Size 825B Crushed Stone Base, LVM	CY	1,450		(5) (6) △2
907-403-A002	12.5-mm, MT, Asphalt Pavement	TON	1,143		
907-403-A006	19-mm, ST, Asphalt Pavement	TON	1,000		
907-403-A014	9.5-mm, MT, Asphalt Pavement	TON	429		

(1) Includes, but not limited to, aprons, parapets, fence, footings, and/or other underground obstructions.

(2) Br. No. 56.8A, Spans 3 @ 40' and Br. No. 56.8B, Spans 3 @ 40'.

(3) Includes 0.1 acre for temporary easements.

(4) Includes removal of bridge end section, terminal end section, rail, posts, blockouts, hardware etc. (as measured from beginning of bridge end section to end of terminal section), and object markers.

(5) Includes 50% increase from calculated quantity.

△2 (6) Includes 50% increase from calculated quantity.

(7) Includes 115 SY adjacent to paved flumes and 21 SY adjacent to underdrain outlet aprons at bridge ends.

(8) Includes 14 CY for paved flumes and 2 CY for underdrain outlet aprons at bridge ends.

(9) Rockbags can be used in lieu of sandbags

△3 (10) Connection of new 8" sewer pipe to existing manhole.

△4 (11) 8" sanitary sewer pipe.

Date	Revision	By
10/01/2025	Replaced Pay Items	JR
01/20/2026	Revised Pay Item or Note	JR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PROJ NO: BR-2904-00(018)
COUNTY: RANKIN

FILENAME: sqs
Design Team EA Checked Date

JOHN W. REESE, LICENSED PROFESSIONAL ENGINEER, 12253, STATE OF MISSISSIPPI
01-21-26

Working Number SQ-1

Sheet Number 14

ADDENDUM

FMS: 107643-302000

ADDENDUM

STATE	PROJECT NO.
MISS	BR-2904-00(018)

SUMMARY OF QUANTITIES (SHEET 2)

PAY ITEM NO.	PAY ITEM	UNIT	RANKIN : 107643-302000		
			Prelim	Final	
907-403-B006	19-mm, ST, Asphalt Pavement, Leveling	TON	931		
406-D001	Fine Milling of Bituminous Pavement, All Depths	SY	1,686		
407-A001	Asphalt for Tack Coat	GAL	390		
907-413-E001	Sawing and Sealing Transverse Joints in Asphalt Pavement	LF	120		
501-K001	Transverse Grooving	SY	590		
907-502-A001	Reinforced Cement Concrete Bridge End Pavement	SY	737		4
503-C010	Saw Cut, Full Depth	LF	96		
907-601-B001	Class "B" Structural Concrete, Minor Structures	CY	1		4
605-AA003	Geotextile for Subsurface Drainage, Type V, Non-Woven	SY	883		
605-O002	4" Perforated Sewer Pipe for Underdrains, SDR 23.5	LF	178		
605-P002	4" Non-perforated Sewer Pipe for Underdrains, SDR 23.5	LF	46		
605-W001	Filter Material for Combination Storm Drain and/or Underdrains,Type A, FM	CY	8		
606-B001	Guard Rail, Class A, Type 1	LF	50		
606-D022	Guard Rail, Bridge End Section, Type I	EA	2		
606-E005	Guard Rail, Terminal End Section, Flared	EA	2		
609-B002	Concrete Curb, Header	LF	140		
609-D003	Combination Concrete Curb and Gutter Type 2	LF	513		
609-D012	Combination Concrete Curb and Gutter Type 3A Modified	LF	857		
907-616-C001	Colored and Imprinted Concrete Median and Island Pavement, 10-inch Thickness	SF	217		
907-616-C003	Colored and Imprinted Concrete Median and Island Pavement, 4-inch Thickness	SF	1,898		
907-618-A001	Maintenance of Traffic	LS	1		
619-A1002	Temporary Traffic Stripe, Continuous White	LF	1,050		4
619-A2002	Temporary Traffic Stripe, Continuous Yellow	LF	1,100		4
619-A3002	Temporary Traffic Stripe, Skip White	LF	1,400		4
619-A5001	Temporary Traffic Stripe, Detail	LF	2,211		4
619-A6001	Temporary Traffic Stripe, Legend	SF	423		4
619-A6002	Temporary Traffic Stripe, Legend	LF	568		4
619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet	SF	356		
619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More	SF	309		
619-E1001	Flashing Arrow Panel, Type C	EA	1		
907-619-E3001	Changeable Message Sign	EA	7		
619-G4005	Barricades, Type III, Single Faced	LF	264		
619-G5001	Free Standing Plastic Drums	EA	64		
619-G7001	Warning Lights, Type "B"	EA	6		
620-A001	Mobilization	LS	1		
907-626-A008	6" Thermoplastic Double Drop Traffic Stripe, Skip White	LF	1,400		1 2
907-626-C011	6" Thermoplastic Double Drop Edge Stripe, Continuous White	LF	1,050		1 2
907-626-F004	6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow	LF	1,100		1 2
907-626-G006	Thermoplastic Double Drop Detail Stripe, White	LF	1,415		2 2
907-626-G007	Thermoplastic Double Drop Detail Stripe, Yellow	LF	196		
907-626-H006	Thermoplastic Double Drop Legend, White	SF	423		3 2
907-626-H007	Thermoplastic Double Drop Legend, White	LF	312		
907-627-K001	Red-Clear Reflective High Performance Raised Markers	EA	79		
907-627-L001	Two-Way Yellow Reflective High Performance Raised Markers	EA	3		

2 1 Includes 292 LF for bridges.

2 2 Includes 124 LF for bridges.

2 3 Includes 39 SF for bridges.

4 Includes quantity for temporary markings to be placed on final surface course.

4

Date	Revision	By
01/20/2026	Revised Pay Item or Note	JR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

PROJ NO: BR-2904-00(018)
COUNTY: RANKIN
FILENAME: sqs
Design Team EA Checked Date

JOHN A. REESE — REGISTERED ENGINEER — 19253 — STATE OF MISSISSIPPI

01-21-26

Working Number: SQ-2

Sheet Number: 15

ADDENDUM

FMS: 107643-302000

ADDENDUM

STATE	PROJECT NO.
MISS	BR-2904-00(018)

SUMMARY OF QUANTITIES (SHEET 3)

PAY ITEM NO.	PAY ITEM	UNIT	RANKIN : 107643-302000		
			Prelim	Final	
630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness	SF	82		
630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness	SF	18		
630-C001	Square Tube Posts, 4.0 lb/ft	LF	32		(1)
630-C005	Square Tube Posts, 2.0 lb/ft	LF	131		(2)
630-F006	Delineators, Guard Rail, White	EA	7		
630-G007	Type 3 Object Markers, OM-3R, Post Mounted	EA	2		
907-630-O007	Remove and Reset Signs, Ground Mounted on Round Post(s)	EA	3		
907-637-A004	Pullbox Enclosure, Type 4	EA	1		
907-637-A005	Pullbox Enclosure, Type 5	EA	1		
907-637-H001	Traffic Signal Conduit Bank, Underground, Rolled Pipe, 2 @ 2"	LF	355		
907-637-K001	Traffic Signal Conduit Bank, Aerial Supported, Type 1, 2 @ 2"	LF	175		
907-661-A004	Fiber Optic Cable, 72 SM	LF	530		
699-A001	Roadway Construction Stakes	LS	1		
907-899-A001	Railway-Highway Provisions	LS	1		2

(1) Includes slip base assembly for mounting.
(2) Includes anchor and omni sleeve for mounting.

By	MISSISSIPPI DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES	
Revision	PROJ NO: BR-2904-00(018) COUNTY: RANKIN	01-21-26 Working Number: SQ-3
Date	FILENAME: sqs Design Team FA Checked Date	Sheet Number: 16

ADDENDUM

FMS CON:107643-302000

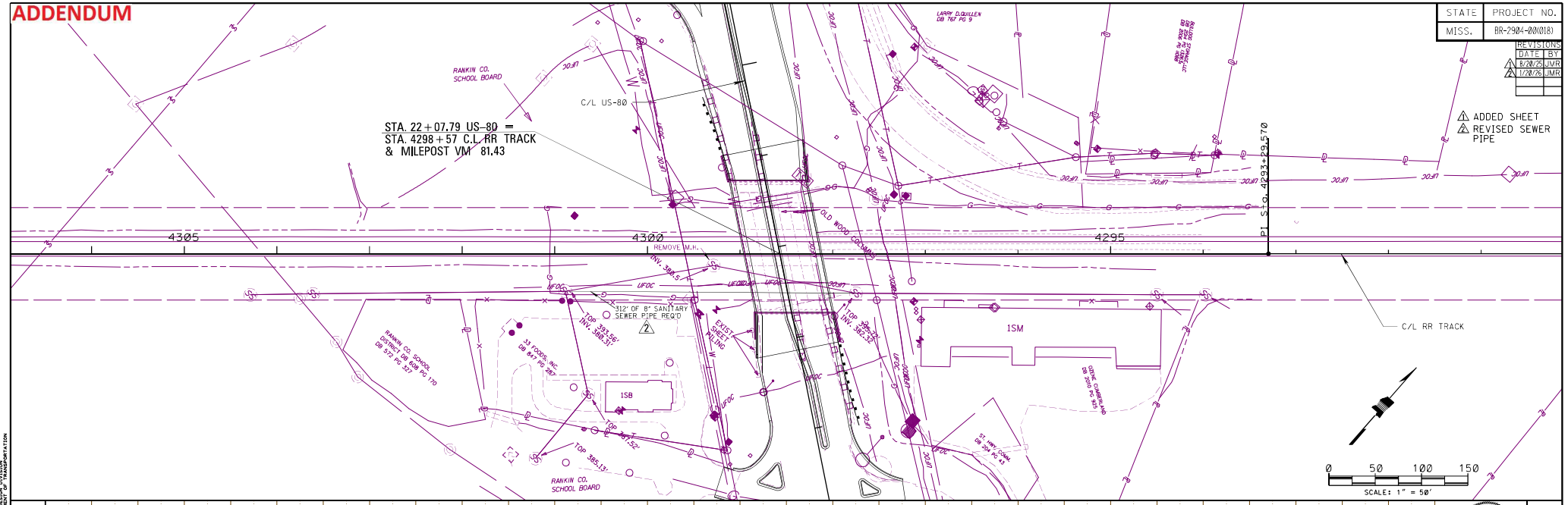
ADDENDUM

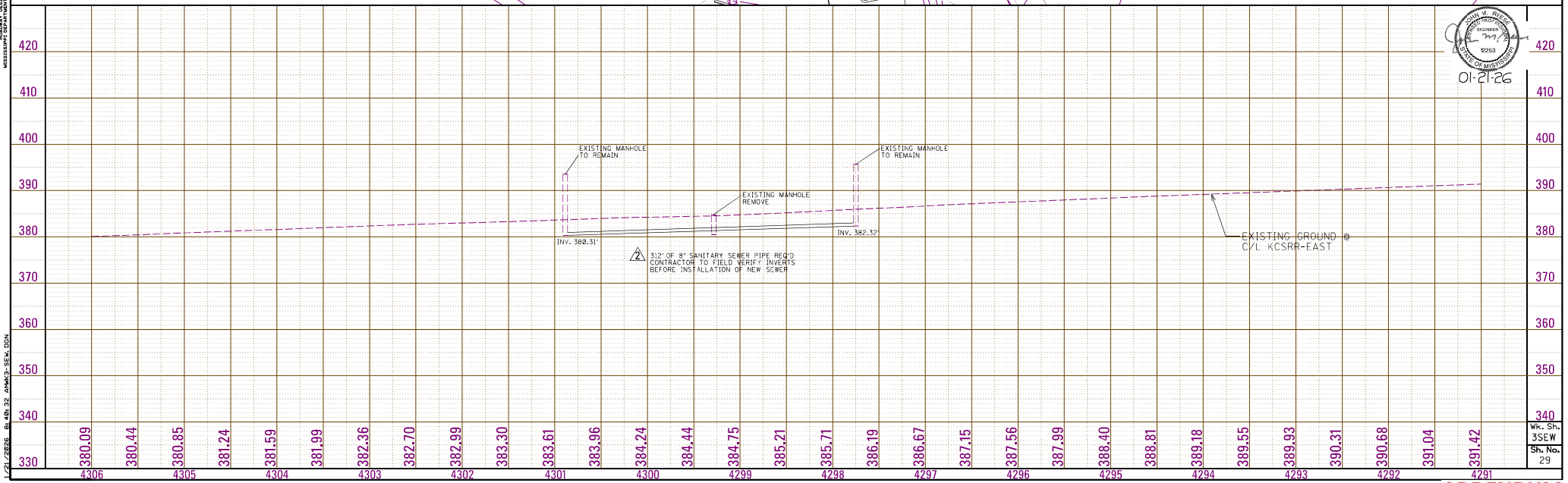
STATE	PROJECT NO.
MISS.	BR-2904-00(018)

REVISIONS

	DATE	BY
1	8/20/25	JMR
2	11/20/25	JMR

1 ADDED SHEET
2 REVISED SEWER PIPE





JOHN M. PRESLEY
REGISTERED PROFESSIONAL ENGINEER
12253
STATE OF MISSISSIPPI
01-21-26

Wk. Sh. 3SEW
Sh. No. 29

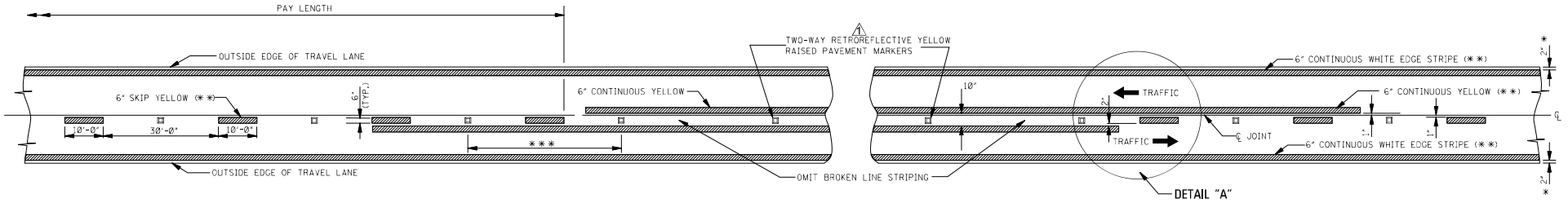
PLAN-PROFILE
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

1/21/2026 8:49:32 AM K:\3-SEW.DGN

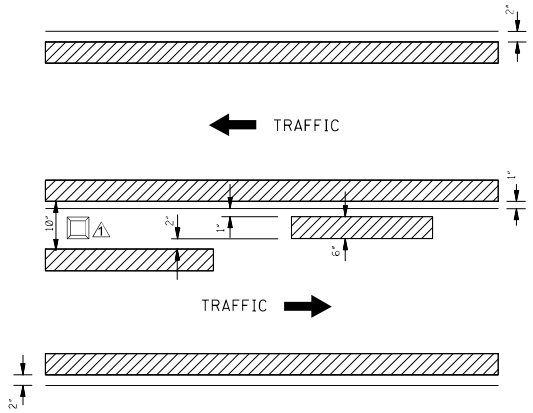
DESIGN TEAM: FA | FILENAME: WK3-SEW.DGN | COUNTY: RANKIN | PROJECT NO.: BR-2904-00(018) | SHEET ID: SEWER

ADDENDUM

STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"

NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDOT ROADWAY DESIGN MANUAL, SECTION 11-1.01.

DIRECTION OF TRAFFIC

GENERAL NOTES:

* 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS. FOR STRIPING ON RUMBLE STRIP SECTIONS REFER TO WK. SHEETS RS-1, RS-2, AND RS-3.

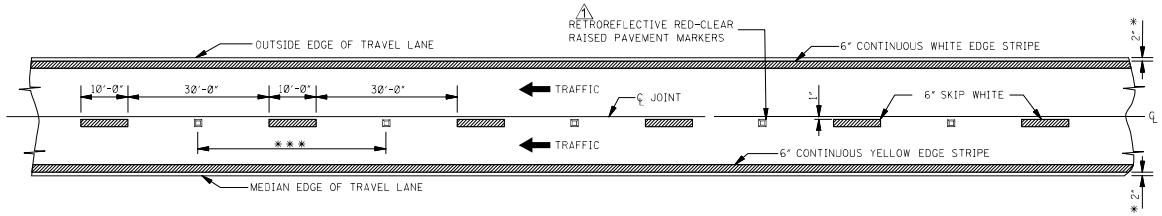
** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).

*** 3. SPACING OF RETROREFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	† 40'-0"

† NOTE: ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

1 4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST."



4–LANE WITH ONE–WAY TRAFFIC

DATE	REVISION	BY	STN
12/1/25	REVISE RPMS AND TEXT		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PAVEMENT MARKING DETAILS FOR 2–LANE AND 4–LANE DIVIDED ROADWAYS

MDOT

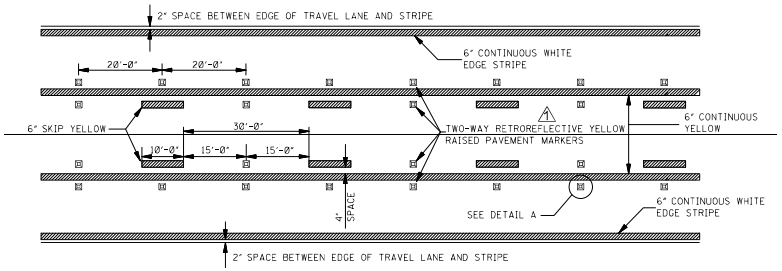
WORKING NUMBER PM-1

ISSUE DATE: AUGUST 01, 2017

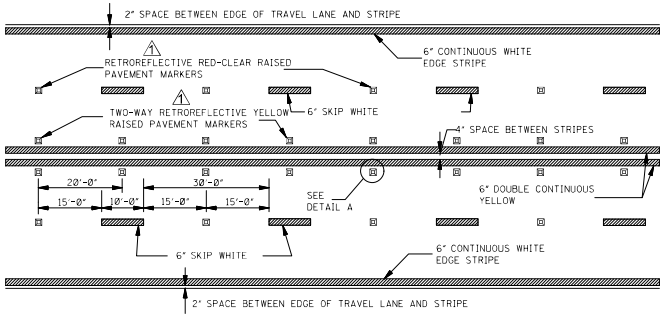
SHEET NUMBER 6051

ADDENDUM

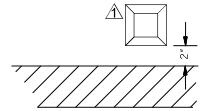
STATE	PROJECT NO.
MISS.	



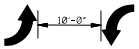
TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 3–LANE SECTION



TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 4–LANE SECTION

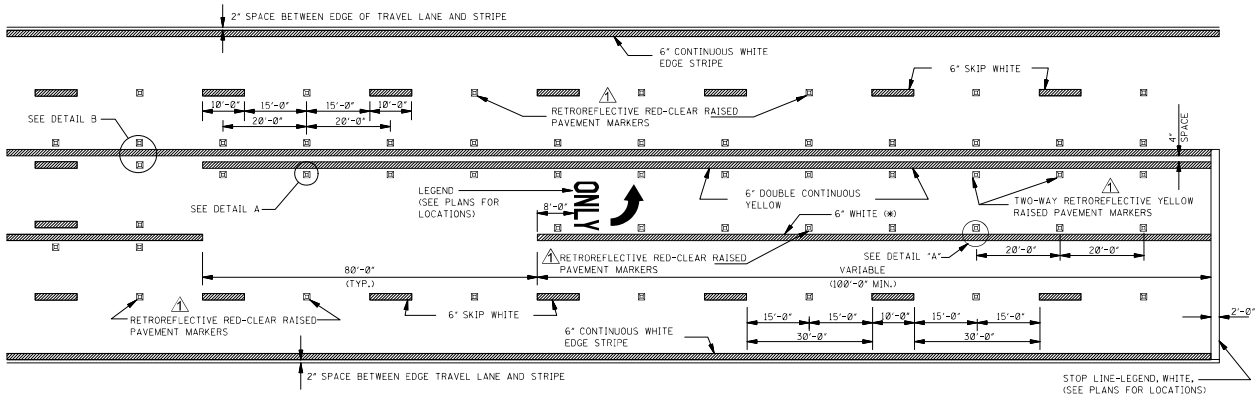


DETAIL A
LATERAL PLACEMENT OF
PAVEMENT MARKERS



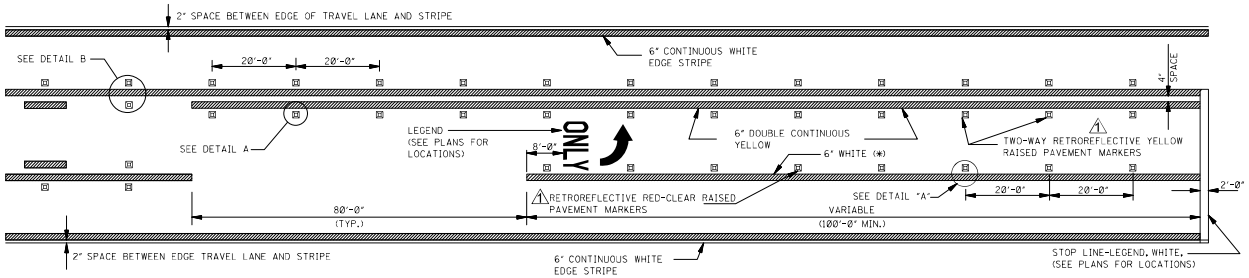
TYPICAL TWO–WAY ARROW INSTALLATION

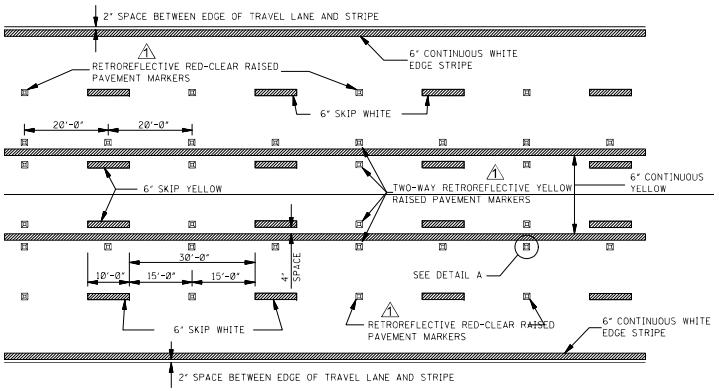
NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100'. FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).



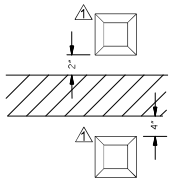
TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS AT LEFT TURN LANES

• NOTE: USE DETAIL STRIPING IF LENGTH < 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.





TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 5–LANE SECTION



DETAIL B
LATERAL PLACEMENT OF
PAVEMENT MARKERS

GENERAL NOTE:

1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST".

DATE	REVISION	BY
12/11/25	REVISE RPMS AND TEXT	STK

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PAVEMENT MARKING DETAILS FOR 3–LANE 4–LANE AND 5–LANE UNDIVIDED ROADWAYS

MDOT

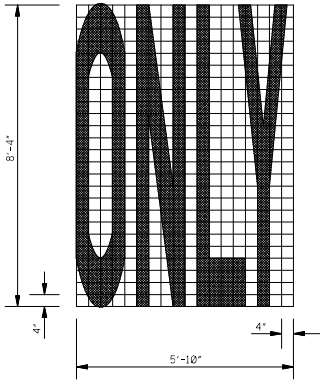
WORKING NUMBER
PM-2

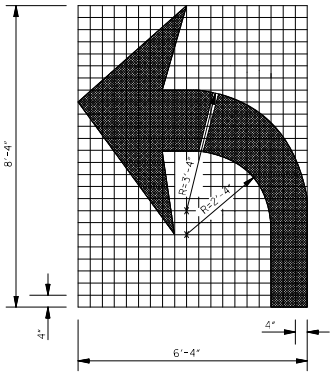
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6052

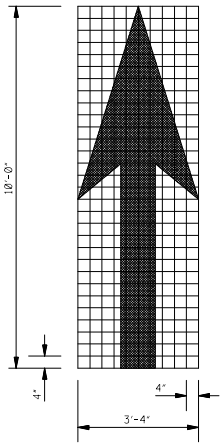
ADDENDUM

STATE	PROJECT NO.
MISS.	

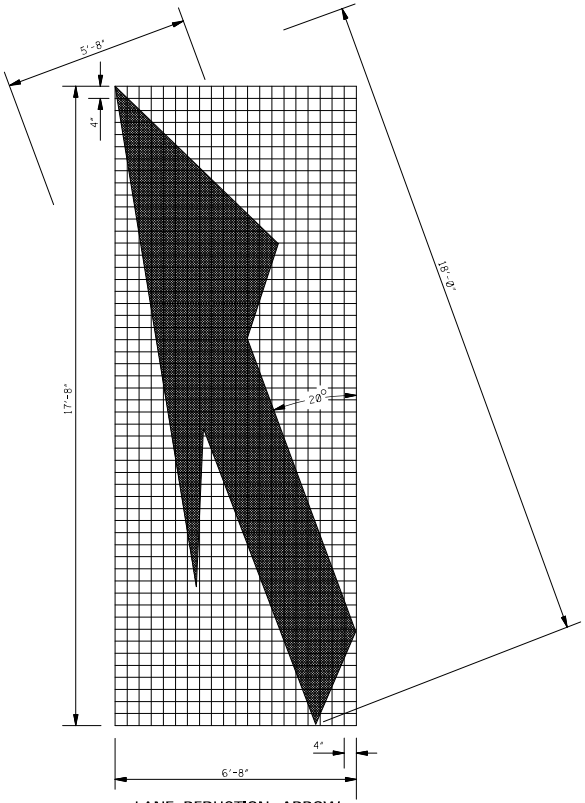




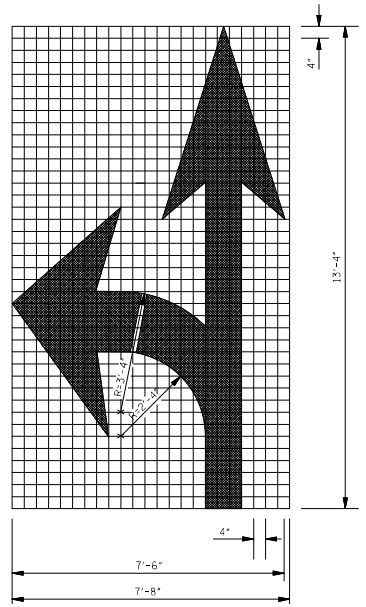
TURN ARROW



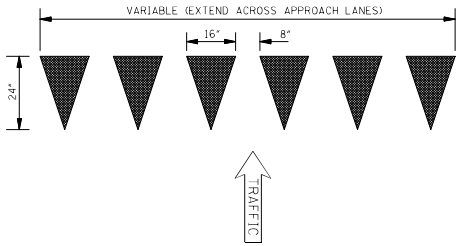
THRU ARROW



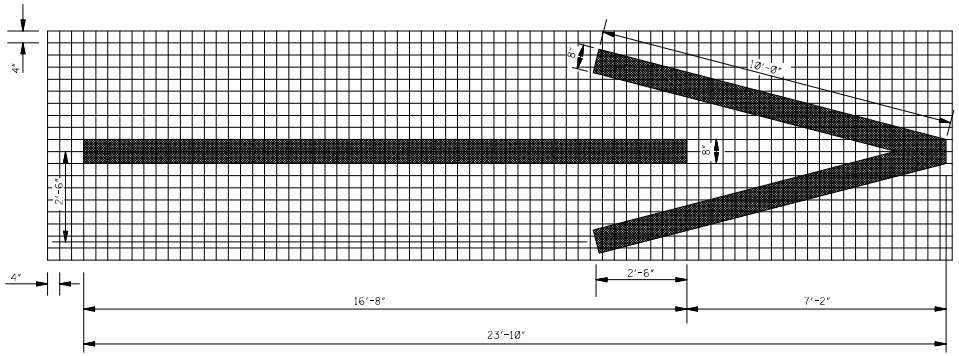
LANE–REDUCTION ARROW



COMBINATION ARROW



YIELD LINE



1–WAY ARROW

GENERAL NOTES:

1. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1½" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.

⚠1 2. PAVEMENT MARKING LETTERS, NUMERALS, SYMBOLS, AND ARROWS SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN DETAILS IN THE PAVEMENT MARKINGS CHAPTER OF THE "STANDARD HIGHWAY SIGNS" PUBLICATION AS REFERENCED IN SECTION 1A.05 OF THE LATEST EDITION OF THE MUTCD.

⚠1 3. WORD, SYMBOL, AND ARROW MARKINGS SHALL BE WHITE UNLESS OTHERWISE NOTED IN THE PLANS.

4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

PAY QUANTITIES	
LEGEND/SYMBOL	AREA (ft^2)
ONLY	22.0
TURN ARROW	16.4
THRU ARROW	12.3
COMB. ARROW	27.5
1-WAY ARROW	24.3
LANE REDUCTION ARROW	40.0

BY	REVISION	DATE
STN	REVISED GENERAL NOTES	12/11/25

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

PAVEMENT MARKING LEGEND DETAILS

MDOT

WORKING NUMBER PM-6

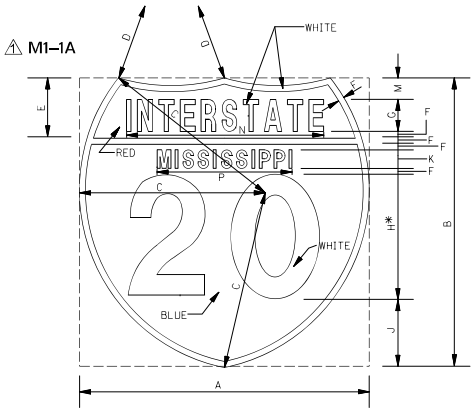
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6056

ADDENDUM

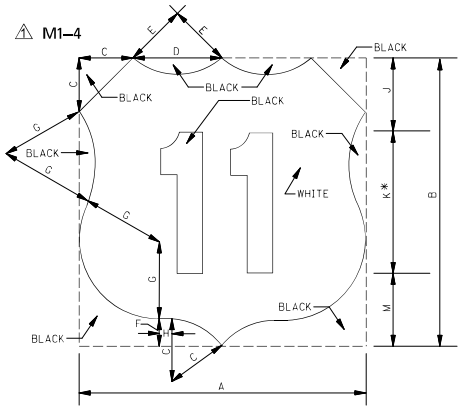
STATE	PROJECT NO.
MISS.	

⚠ M1–1A



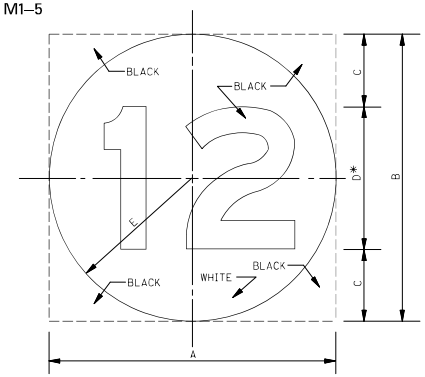
	12" NUMERALS		18" NUMERALS		24" NUMERALS	
	2 DIGITS	3 DIGITS	2 DIGITS	3 DIGITS	2 DIGITS	3 DIGITS
A	24"	30"	36"	45"	48"	60"
B	24"	24"	36"	36"	48"	48"
C	15"	17"	22½"	25½"	30"	34"
D	15"	24"	22½"	36"	30"	48"
E	5"	5"	7½"	7½"	10"	10"
F	½"	½"	¾"	¾"	1"	1"
G	2½C	2½E	4C	4E	5C	5E
*H	10D	10D	15D	15D	20D	20D
J	6"	6"	9"	9"	12"	12"
K	1½D	1½D	2¼D	2¼D	3D	3D
M	2"	2"	2¾"	2¾"	4"	4"
N	15 5/16"	21 13/16"	24½"	34 5/16"	30 5/8"	43 5/8"
P	10¾"	10¾"	16⅛"	16⅛"	21½"	21½"

⚠ M1–4



	12" NUMERALS		18" NUMERALS		24" NUMERALS	
	2 DIGITS	3 DIGITS	2 DIGITS	3 DIGITS	2 DIGITS	3 DIGITS
A	24"	30"	36"	45"	48"	60"
B	24"	24"	36"	36"	48"	48"
C	5"	5"	7½"	7½"	10"	10"
D	7"	10"	10½"	15"	14"	20"
E	5"	9"	7½"	13½"	10"	18"
F	2"	2"	3"	3"	4"	4"
G	7"	7"	10½"	10½"	14"	14"
H	1"	4"	1½"	5½"	2"	8"
J	5½"	5½"	8½"	8½"	11"	11"
*K	12"	12"	18"	18"	24"	24"
M	6½"	6½"	9¾"	9¾"	13"	13"

⚠ M1–5



	DIMENSIONS (INCHES)				
	A	B	C	D*	E
1,2-DIGIT(S)	24"	24"	6"	12"	12"
1,2-DIGIT(S)	36"	36"	9"	18"	18"
1,2-DIGIT(S)	48"	48"	12"	24"	24"
3-DIGITS	30"	24"	6"	12"	VAR.
3-DIGITS	45"	36"	9"	18"	VAR.
3-DIGITS	60"	48"	12"	24"	VAR.

GENERAL NOTES:

1. U.S. AND MISSISSIPPI SHIELDS DO NOT HAVE AN OUTSIDE BORDER.
2. INTERSTATE, U.S. AND MISSISSIPPI SHIELDS SHOWN ON THIS DRAWING SHALL BE USED ONLY ON GUIDE SIGNS. SEE OTHER DRAWINGS FOR SHIELDS TO BE USED INDEPENDENTLY AS ROUTE MARKERS.

⚠ 3. ON INTERSTATE SHIELDS, THE LEGEND AND BACKGROUND SHALL BE RETROREFLECTIVE.

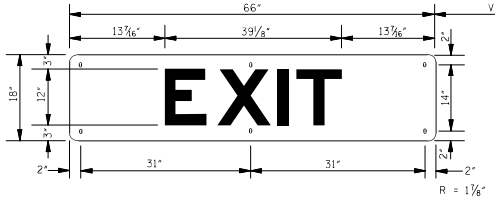
⚠ 4. ON U.S. AND MISSISSIPPI SHIELDS, THE BACKGROUND SHALL BE RETROREFLECTIVE.

*5. IN SOME CASES, NUMERALS CANNOT BE ACCOMMODATED WITHIN THE SPACE AVAILABLE. FOR THESE SITUATIONS, THE STANDARD SERIES "D" NUMERALS MAY BE REDUCED TO SERIES "C" NUMERALS OR AS A SECOND CHOICE TO THE NEXT SMALLER HEIGHT COMMONLY AVAILABLE.

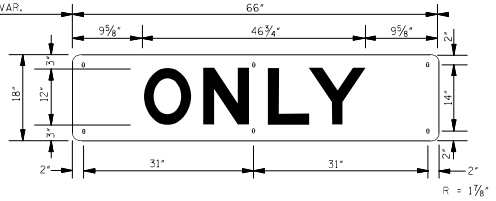
⚠ 6. THE DESIGN OF ALL ROUTE SHIELDS SHALL CONFORM TO THE CRITERIA IN THE LATEST VERSION OF THE STANDARD HIGHWAY SIGNS MANUAL IN CONJUCTION WITH THE LATEST VERSION OF THE MUTCD.

⚠ 7. FOR OVERHEAD SIGN INSTALLATIONS USE M1-1.

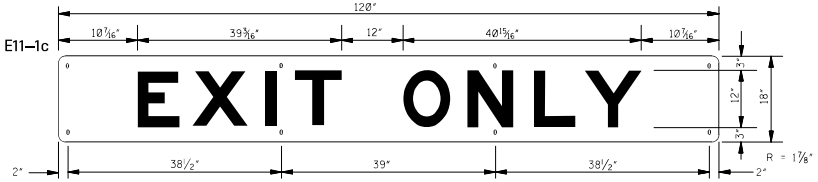
E11–1a



E11–1b



E11–1c



GENERAL NOTES:

1. THESE ARE "OVERLAY" SIGNS FABRICATED ON Ø.063" THICK ALUMINUM (6061-T6) AND SHALL BE RIVETED TO DIRECTIONAL SIGNS DESIGNATED ON PLANS. THESE SIGNS WILL NOT BE PAID FOR AS SEPARATE SIGNS BUT SHALL BE CONSIDERED AS PART OF THE MAJOR SIGNS TO WHICH THEY ARE AFFIXED.

⚠ 2. LETTER SIZE: 12" SERIES "D"
COLOR: LEGEND - BLACK; BACKGROUND - HI-INTENSITY YELLOW (RETROREFLECTIVE TYPE AS SPECIFIED IN THE PLANS)

⚠ 3. THE DESIGN OF ALL "EXIT ONLY" PLAQUES SHALL CONFORM TO THE CRITERIA IN THE LATEST VERSION OF THE STANDARD HIGHWAY SIGNS MANUAL IN CONJUNCTION WITH THE LATEST VERSION OF THE MUTCD.

DATE	REVISION	BY
12/17/25	REVISED TEXT AND DETAILS.	SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

ROUTE SHIELDS AND "EXIT ONLY" PANELS

MDOT

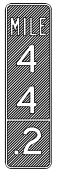
WORKING NUMBER
SN-2

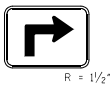
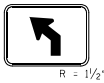
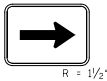
SHEET NUMBER
6302

ISSUE DATE: AUGUST 01, 2017

ADDENDUM

STATE	PROJECT NO.
MISS.	

SIGN NUMBER	D9-2		D10-1	D10-2	D10-3	D10-1a	D10-2a	D10-3a	D10-4	D10-5	⚠ M1-1A	⚠ M1-1A	M1-4	⚠ M1-5
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"		0.080"	0.080"	0.100"	0.080"	0.100"	0.100"	0.100"	0.100"	0.080"	0.100"	0.080"	0.080"
LEGEND	 R = 1½" R = 1⅞"		 R = 1½"	 R = 1½"	 R = 1½"	 R = 1½"	 R = 1½"	 R = 1½"	 R = 1½"	 R = 1½"				 R = 1½"	 R = 1½" e = 11" (24" X 24") e = VAR. (30" X 24")
LETTER & NUMERAL SERIES	20" SERIES "E MOD."	30" SERIES "E MOD."	4" SERIES "B" 10" SERIES "D"	4" SERIES "B" 10" SERIES "D"	4" SERIES "B" 10" SERIES "D"	4" SERIES "B" 10" SERIES "D"	4" SERIES "B" 10" SERIES "D"	4" SERIES "B" 10" SERIES "D"	6.6", 6" SERIES "B" 6" SERIES "B" 8"	6.6", 6" SERIES "B" 6" SERIES "B" 8" 8" SERIES "B"	(SEE NOTES 1 & 2 BELOW)		(SEE NOTES 1 & 2 BELOW)	12" SERIES "D" (SEE NOTE BELOW)
WIDTH OF BORDER INSIDE	½" WHITE	¾" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	½" WHITE	¾" WHITE	BLACK OUTSIDE BORDER	BLACK OUTSIDE BORDER
SIZE (WIDTH X HEIGHT)	24" X 24"	⚠30" X 30"	12" X 24"	12" X 36"	12" X 48"	12" X 36"	12" X 48"	12" X 60"	18" X 54"	18" X 60"	24" X 24" (1 OR 2 DIGITS) 30" X 24" (3 DIGITS)	36" X 36" (1 OR 2 DIGITS) 45" X 36" (3 DIGITS)	24" X 24" (1 OR 2 DIGITS) 30" X 24" (3 DIGITS)	24" X 24" (1 OR 2 DIGITS) 30" X 24" (3 DIGITS)
COLORS COPY	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE, RED, BLUE	WHITE, RED, BLUE	WHITE		BLACK	BLACK
COLORS BACKGROUND	BLUE	BLUE	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	TOP-RED; BOTTOM-BLUE		WHITE	WHITE
REFLECTORIZATION	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL		BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	1	1	1		1	1
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2	2	2	2	2	2	2	2	2	2	2	4	2 (VERT. PUNCHING)	2 (HORIZ. PUNCHING)	2 (VERT. PUNCHING)	2 (HORIZ. PUNCHING)
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	12" (VERT. CENTER)	18" (VERT. CENTER)	6" (VERT. CENTER)	6" (VERT. CENTER)	6" (VERT. CENTER)	6" (VERT. CENTER)	6" (VERT. CENTER)	6" (VERT. CENTER)	9" (VERT. CENTER)	9" (VERT. CENTER)	VERT. CENTER	5" FROM VERT. CENTER	VERT. CENTER	12" FROM VERT. CENTER	VERT. CENTER	12" FROM VERT. CENTER
PUNCHING DISTANCE FROM TOP EDGE	3"; 21"	6"; 30"	3"; 21"	3"; 33"	6"; 42"	3"; 33"	6"; 42"	6"; 54"	6"; 48"	6"; 54"	3"; 21"	6";30"	3"; 21"	3"; 21"	3"; 21"	3"; 21"

SIGN NUMBER	⚠M2-1P	⚠M2-1PA (INTER)	⚠ *	⚠ *	⚠ M3-103PA*	⚠M4-5P	⚠M4-5PA (INTER)	⚠M5-1P(L)	⚠M5-1PLA	⚠M5-1PR	⚠M5-1PRA	⚠M5-2PL	⚠M5-2PLA	⚠M5-2PR	⚠M5-2PRA	⚠M6-1PL	⚠M6-1PLA	⚠M6-1PR	⚠M6-1PRA	⚠M6-2PL	⚠M6-2PLA	⚠ M6-2PR	⚠M6-2PRA	⚠M6-3P	⚠M6-3PA
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"		0.080"		0.080"	0.080"		0.080"		0.080"		0.080"		0.080"		0.080"		0.080"		0.080"		0.080"		0.080"	
LEGEND	 R = 1½"		 R = 1½"		 R = 1½"	 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"		 R = 1½"	
LETTER & NUMERAL SERIES	9" SERIES "C"		7" SERIES "C" 6" SERIES "C"		10" SERIES "C" 8" SERIES "C"	6" SERIES "E"																			
WIDTH OF BORDER INSIDE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE	⅝" BLACK	½" WHITE
OUTSIDE	⅜" WHITE		⅜" WHITE			⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE		⅜" WHITE	
SIZE (WIDTH X HEIGHT)	21" X 15"		24" X 12"		⚠ 36" X 18"	24" X 12"		21" X 15"		21" X 15"		21" X 15"		21" X 15"		21" X 15"		21" X 15"		21" X 15"		21" X 15"		21" X 15"	
COLORS COPY	BLACK	WHITE	BLACK	WHITE	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE	BLACK	WHITE
COLORS BACKGROUND	WHITE	BLUE	WHITE	BLUE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE	WHITE	BLUE
REFLECTORIZATION	B'GROUND	ALL	B'GROUND	ALL	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL	B'GROUND	ALL
NUMBER OF POSTS FOR MOUNTING	1		1		1	1		1		1		1		1		1		1		1		1		1	
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2		2		2	2		2		2		2		2		2		2		2		2		2	
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	VERT. CENTER		12" (V. PUNCH) 7" (H.PUNCH)	12"	VERT. CENTER	12" (VERT. CENTER)		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER		VERT. CENTER	
PUNCHING DISTANCE FROM TOP EDGE	1½"; 13½"		1½"; 10½" (V.) 6" (H.)	1½"; 10½"	1½"; 13½"	1½"; 10½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"		1½"; 13½"	

GENERAL NOTES:

⚠ 1. THE DIMENSIONS FOR ALL STANDARD ROADSIDE SIGNS SHALL CONFORM WITH THOSE SHOWN IN THE STANDARD HIGHWAY SIGNS IN CONJUNCTION WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LASTEST EDITIONS.

2. ROUTE MARKERS AND SHIELDS SHOWN ON THIS SHEET ARE FOR USE INDEPENDENTLY OF INTERSTATE DIRECTIONAL (GUIDE) SIGNS. SEE OTHER DRAWINGS FOR SHIELDS TO BE USED ON INTERSTATE DIRECTIONAL (GUIDE) SIGNS.

3. THE QUANTITIES LISTED ON THE SUMMARY OF QUANTITIES SHEET FOR THE SIGNS SHOWN ON THIS SHEET WILL BE USED AS THE BASIS FOR FINAL PAYMENT, EXCEPT WHERE SIGNS ARE MODIFIED FROM THAT SHOWN.

⚠ 4. M1-5: IN SOME CASES NUMERALS CANNOT BE ACCOMMODATED WITHIN THE SPACE AVAILABLE. FOR THESE SITUATIONS, THE STANDARD SERIES "D" NUMERAL SHALL BE REDUCED TO SERIES "C".

*

NORTH	EAST	SOUTH	WEST
M3-1	M3-2	M3-3	M3-4
M3-1A	M3-2A	M3-3A	M3-4A
M3-101A	M3-102A	M3-103A	M3-104A

SN	REVISED TEXT. REVISION	12/11/25 DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STANDARD ROADSIDE SIGNS

MDOT

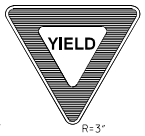
WORKING NUMBER SN-3

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6303

ADDENDUM

STATE	PROJECT NO.
MISS.	

SIGN NUMBER	R1-1		R1-2			R2-1			R2-4a	R3-1		R3-2		R3-4		R3-5	R4-3	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.100"	0.125"	0.080"	0.100"	0.125"	0.080"	0.100"	0.125"	0.125"	0.080"	0.100"	0.080"	0.100"	0.080"	0.100"	0.080"	0.100"	0.125"
LEGEND			 R=2" R=3" R=4"			 R=1½" R-2¼" R=3"			 R=3"	 R=1½" R=2¼"		 R=1½" R=2¼"		 R=1½" R=2¼"		 R=1⅞"	 R=2¼" R=3"
LETTER & NUMERAL SERIES	12" SERIES "C"	16" SERIES "C"	3" SERIES "C"		5" SERIES "C"	4" SERIES "E" 4" SERIES "E" 10" SERIES "E"	6" SERIES "E" 6" SERIES "E" 14" SERIES "E"	8" SERIES "E" 8" SERIES "E" 16" SERIES "E"	8" SERIES "E" 16" SERIES "E" 8" SERIES "C" 14" SERIES "D"							6" SERIES "D"	6" SERIES "D"	8" SERIES "D"
WIDTH OF BORDER INSIDE	⅞" WHITE	1¼" WHITE	5" RED ¾" WHITE	6" RED 1" WHITE	8" RED 1½" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	1¼" BLACK ¾" WHITE	⅞" BLACK ¾" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	¾" BLACK ½" WHITE	⅞" BLACK ⅝" WHITE	1¼" BLACK ¾" WHITE
SIZE (WIDTH X HEIGHT)	36" OCTAGON	48" OCTAGON	36" EQUIL. TRIANGLE	48" EQUIL. TRIANGLE	60" EQUIL. TRIANGLE	24" X 30"	36" X 48"	48" X 60"	48" X 96"	24" X 24"	36" X 36"	24" X 24"	36" X 36"	24" X 24"	36" X 36"	30" X 36"	36" X 48"	48" X 60"
COLORS COPY BACKGROUND	WHITE RED	WHITE RED	RED WHITE	RED WHITE	RED WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK & RED WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE
REFLECTORIZATION	ALL	ALL	ALL	ALL	ALL	B'GROUND	B'GROUND	B'GROUND	BACKGROUND	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND, CIRCLE, & DIAG.	BACKGROUND	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2	4	2	4	4	2	4	6	10	2	2	2	2	2	2	2	4	6
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	18" (VERT. CENTER)	9"	18" (VERT. CENTER)	12" (FROM CENTER)	15" (FROM CENTER)	12" (VERT. CENTER)	3"	9"	9"	12" (VERT. CENTER)	18" (VERT. CENTER)	12" (VERT. CENTER)	18" (VERT. CENTER)	12" (VERT. CENTER)	18" (VERT. CENTER)	15" (VERT. CENTER)	3"	9"
PUNCHING DISTANCE FROM TOP EDGE	3"; 33"	9"; 39"	3"; 27"	3"; 15"	3"; 21"	3"; 27"	9"; 39"	4"; 30"; 56"	4"; 28"; 52"; 60"; 92"	3"; 21"	6"; 30"	3"; 21"	6"; 30"	3"; 21"	6"; 30"	6"; 30"	9"; 39"	4"; 30"; 56"

SIGN NUMBER	R4-7			R6-3	R5-1		R5-1a	R6-1L, R6-1R	R6-2L, R6-2R	R8-4		R11-1	
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.080"		0.125"	0.080"	0.100"	0.125"	0.100"	0.080"	0.080"	0.080"	0.100"	0.125"	0.125"
LEGEND	 R=1½" R=2¼" R=3"				 R=1⅞" R=3"		 R=2¼"	 R=1½"	 R=1½"	 R=2¼"		 R=3"	
LETTER & NUMERAL SERIES					4" SERIES "D"	6" SERIES "D"	8" SERIES "D"	4" SERIES "D"	6" SERIES "D"	4" SERIES "D"	6" SERIES "D"	8" SERIES "C"	10" SERIES "C"
WIDTH OF BORDER INSIDE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	1¼" BLACK ¾" WHITE	⅝" BLACK ⅜" WHITE	WHITE OUTSIDE BORDER	WHITE OUTSIDE BORDER	1" WHITE	½" WHITE	⅝" BLACK ⅜" WHITE	⅝" BLACK ⅜" WHITE	⅞" BLACK ⅝" WHITE	⅞" BLACK ⅝" WHITE	1¼" BLACK ¾" WHITE
SIZE (WIDTH X HEIGHT)	24" X 30"	36" X 48"	48" X 60"	30" X 24"	36" X 36"	48" X 48"	42" X 30"	36" X 12"	24" X 30"	30" X 24"	48" X 36"	36" X 48"	48" X 60"
COLORS COPY BACKGROUND	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	WHITE RED	WHITE RED	WHITE RED	BLACK (WHITE ARROW) BLACK	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE	BLACK WHITE
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	ALL	ALL	ALL	ARROW & BORDER	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	1	1	2	1	1
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2	4	6	2	2	4	4	2	2	2	4	4	6
PUNCHING DISTANCE FROM EACH VERTICAL EDGE	12" (VERT. CENTER)	3"	9"	15" (VERT. CENTER)	18" (VERT. CENTER)	9"	9"	18" (VERT. CENTER)	12" (VERT. CENTER)	15" (VERT. CENTER)	9"	3"	9"
PUNCHING DISTANCE FROM TOP EDGE	3"; 27"	9"; 39"	4"; 30"; 56"	3"; 21"	6"; 30"	4"; 44"	3"; 27"	1½"; 10½"	3"; 27"	3"; 21"	3"; 33"	9"; 39"	4"; 30"; 56"

GENERAL NOTES:

1. THE QUANTITIES LISTED ON THE SUMMARY OF QUANTITIES SHEET FOR THE SIGNS SHOWN ON THIS SHEET WILL BE USED AS THE BASIS FOR FINAL PAYMENT, EXCEPT WHERE SIGNS ARE MODIFIED FROM THAT SHOWN.

2. THE SPEED LIMITS REQUIRED ON SIGNS R2-1 AND R2-4a WILL BE SHOWN ON INDIVIDUAL PLAN SHEETS.

⚠ 3. THE DESIGN OF ALL STANDARD ROADSIDE SIGNS SHALL CONFORM TO THE CRITERIA IN THE LATEST VERSION OF THE STANDARD HIGHWAY SIGNS MANUAL IN CONJUNCTION WITH THE LATEST VERSION OF THE MUTCD.

BY	REVISION	DATE
SN	REVISED TEXT	12/11/25

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STANDARD ROADSIDE SIGNS

MDOT

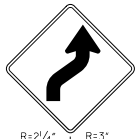
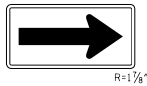
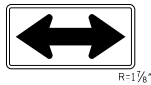
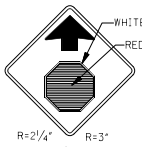
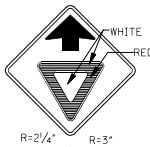
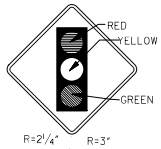
WORKING NUMBER SN-3A

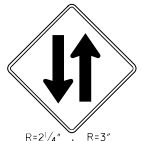
SHEET NUMBER 6304

ISSUE DATE: AUGUST 01, 2017

ADDENDUM

STATE	PROJECT NO.
MISS.	

SIGN NUMBER	W1-1L W1-1R	W1-2L W1-2R	W1-3L W1-3R	W1-4L W1-4R	W1-6L W1-6R	W1-7	W3-1 ⚠	W3-2 ⚠	W3-3	W4-1L W4-1R	W4-10L W4-10R
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.100"	0.100"	0.125"	0.125"	0.125"	0.125"	0.125"
LEGEND											
LETTER & NUMERAL SERIES											
WIDTH OF BORDER INSIDE / OUTSIDE	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	¾" BLACK ½" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW
SIZE (WIDTH X HEIGHT)	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"
COLORS COPY / BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL	BACKGROUND & SYMBOL	BACKGROUND & "LIGHTS"	BACKGROUND & "LIGHTS"	BACKGROUND	BACKGROUND	BACKGROUND
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2	4	2	4	2	4	2	4	4	4	2	4	2	4	2	4	2	4	2	4
PUNCHING DISTANCE FROM EACH VERT. EDGE	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	9"	9"	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER
PUNCHING DISTANCE FROM TOP EDGE	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	3"; 21"	3"; 21"	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER

SIGN NUMBER	W4-2	W6-1	W6-2	W6-3	W13-1	W13-2	W13-3	W10-1
ALUMINUM (6061-T6) SIGN BLANK THICKNESS	0.125"	0.125"	0.125"	0.125"	0.080"	0.125"	0.125"	0.100"
LEGEND	NOTE: SEE PLAN SHEETS FOR IDEOGRAM REQUIRED ON INDIVIDUAL SIGNS. 							
LETTER & NUMERAL SERIES					10" SERIES "E" 4" SERIES "E"	8" SERIES "E" 16" SERIES "E" 6" SERIES "E" (SEE NOTE)	8" SERIES "E" 16" SERIES "E" 6" SERIES "E" (SEE NOTE)	8" SERIES "E"
WIDTH OF BORDER INSIDE / OUTSIDE	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	⅞" BLACK ⅝" YELLOW	1¼" BLACK ¾" YELLOW	1¼" BLACK ¾" YELLOW	¾" BLACK ½" YELLOW
SIZE (WIDTH X HEIGHT)	36" X 36"	48" X 48"	36" X 36"	48" X 48"	36" X 36"	48" X 48"	48" X 60"	48" X 60"	36" DIAMETER		
COLORS COPY / BACKGROUND	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW	BLACK YELLOW		
REFLECTORIZATION	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND	BACKGROUND		
NUMBER OF POSTS FOR MOUNTING	1	1	1	1	1	1	1	1	1		
NUMBER OF HOLES TO BE PUNCHED (⅜" DIA.)	2	4	2	4	2	4	2	4	6	6	2			
PUNCHING DISTANCE FROM EACH VERT. EDGE	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	VERT. CENTER	15" FROM VERT. CENTER	12" (VERT. CENTER)	9"	9"	15"			
PUNCHING DISTANCE FROM TOP EDGE	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	18" FROM HORIZ. CENTER	15" FROM HORIZ. CENTER	3"; 21"	4"; 30"; 56"	4"; 30"; 56"	15" FROM HORIZ. CENTER			

GENERAL NOTES:

1. THE QUANTITIES LISTED ON THE SUMMARY OF QUANTITIES SHEET FOR THE SIGNS SHOWN ON THIS SHEET WILL BE USED AS THE BASIS FOR FINAL PAYMENT, EXCEPT WHERE SIGNS ARE MODIFIED FROM THAT SHOWN.

2. SIGNS W13-2 AND W13-3- THE STROKE WIDTH OF THE LETTER AND NUMERALS SHALL BE WIDENED TO 20% OF THE LETTER OR NUMERAL HEIGHT.

3. THE SPEEDS REQUIRED ON SIGNS W13-1, W13-2 AND W13-3 WILL BE SHOWN ON INDIVIDUAL PLAN SHEETS.

⚠ 4. THE DESIGN OF ALL STANDARD ROADWAY SIGNS SHALL CONFORM TO THE CRITERIA IN THE LATEST VERSION OF THE STANDARD HIGHWAY SIGNS MANUAL IN CONJUNCTION WITH THE LATEST VERSION OF THE MUTCD.

REVISION	DATE	REVISED TEXT	BY
	12/1/25		SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STANDARD ROADSIDE SIGNS

MDOT

WORKING NUMBER
SN-3B

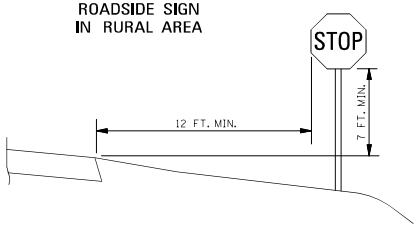
SHEET NUMBER
6305

ISSUE DATE: AUGUST 01, 2017

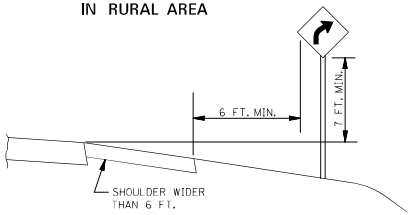
ADDENDUM

STATE	PROJECT NO.
MISS.	

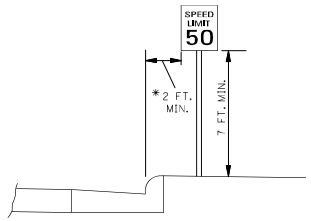
ROADSIDE SIGN
IN RURAL AREA



ROADSIDE SIGN
IN RURAL AREA

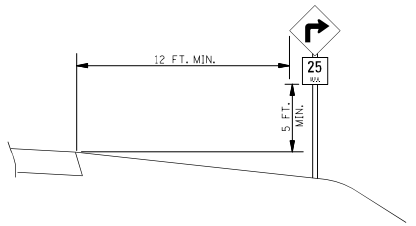


ROADSIDE SIGN IN BUSINESS,
COMMERCIAL, OR RESIDENTIAL AREA

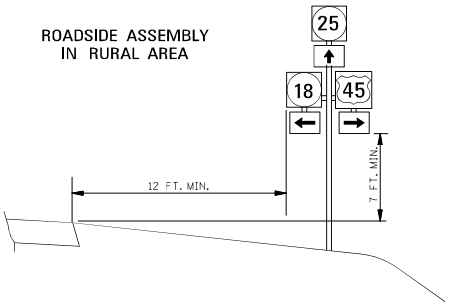


⚠* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS OR SQUARE TUBE POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT FROM FACE OF CURB. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDER BREAK.

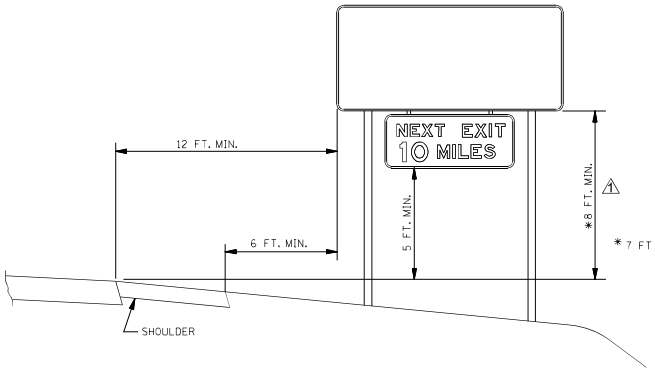
WARNING SIGN WITH ADVISORY
SPEED PLAQUE IN RURAL AREA



ROADSIDE ASSEMBLY
IN RURAL AREA

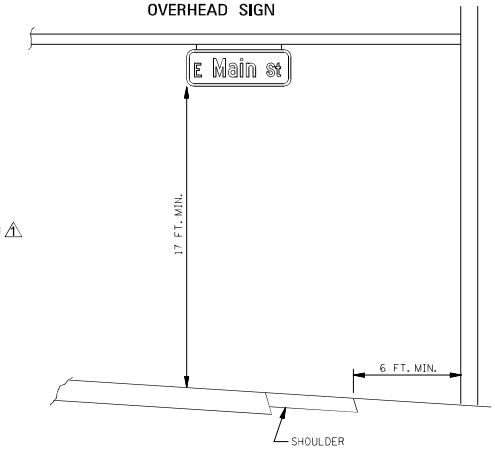


INTERSTATE OR FREEWAY SIGN WITH SECONDARY SIGN

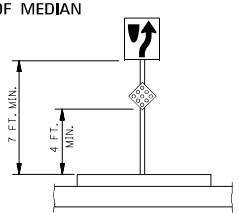


* 7 FT IF NO NECESSARY SECONDARY SIGN ⚠

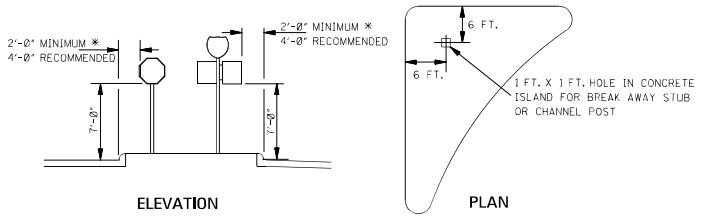
OVERHEAD SIGN



SIGN ON NOSE
OF MEDIAN



SIGNS IN ISLANDS OR BEHIND CURB USING U-POSTS OR PIPE POSTS



⚠* THE 2 FT. MINIMUM OFFSET APPLIES ONLY TO STANDARD SIGNS MOUNTED ON U-POSTS. ALL STANDARD SIGNS MOUNTED ON PIPE WILL BE OFFSET A MINIMUM OF 4 FT. RAMP DESTINATION SIGNS WILL BE OFFSET 4 FT. FROM THE SHOULDER BREAK.

GENERAL NOTES:

⚠ 1. SEE SECTION 2A-16 OF THE MUTCD FOR REDUCED LATERAL OFFSET DISTANCES THAT MAY BE USED IN AREAS WHERE LATERAL OFFSETS ARE LIMITED, AND IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREAS WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING POLES ARE CLOSE TO THE CURB.

2. SIGNS SHALL BE LOCATED OUTSIDE THE CLEAR ZONE UNLESS PLACED ON A BREAKAWAY OR YIELDING SUPPORT.

DATE	REVISION	BY
12/11/25	REVISED TEXT	SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STANDARD ROADSIDE SIGN ASSEMBLY AND INSTALLATION

MDOT

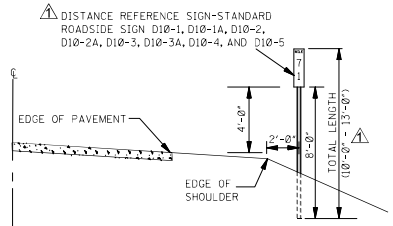
WORKING NUMBER
SN-4

SHEET NUMBER
6306

ISSUE DATE: AUGUST 01, 2017

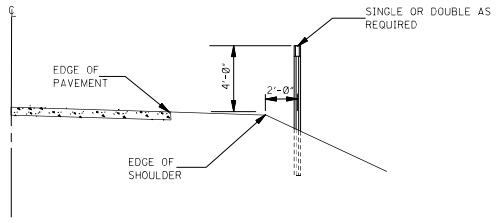
ADDENDUM

STATE	PROJECT NO.
MISS.	

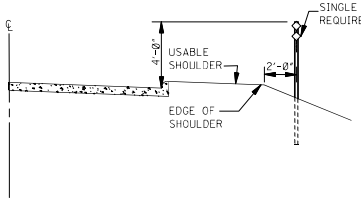


DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY

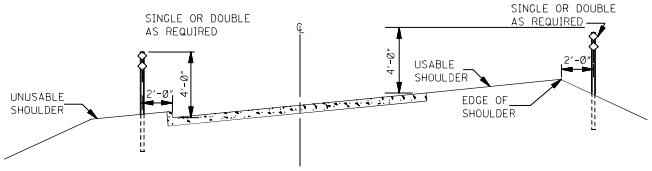
NOTE: SIGN MOUNTING ON LEFT LANE SHOULDER SHALL BE 90° OPPOSITE THE RIGHT LANE STATION. IF CONDITIONS ARE SUCH THAT MILE SIGN CANNOT BE LOCATED WITHIN 50 FEET OF ITS TRUE LOCATION, IT SHALL BE OMITTED ENTIRELY.



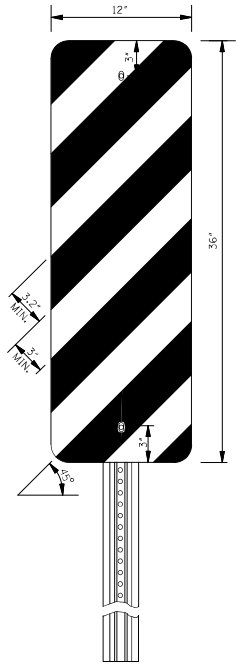
DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP



DELINEATOR MOUNTING ON OUTSIDE SHOULDER WITH MOUNTABLE CURB ALONG MAIN FACILITY OR RAMP

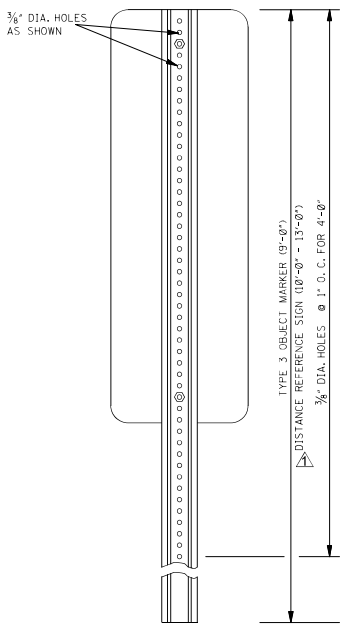


DELINEATOR MOUNTING ON INTERCHANGE LOOPS WITH UNMOUNTABLE CURB ON INSIDE



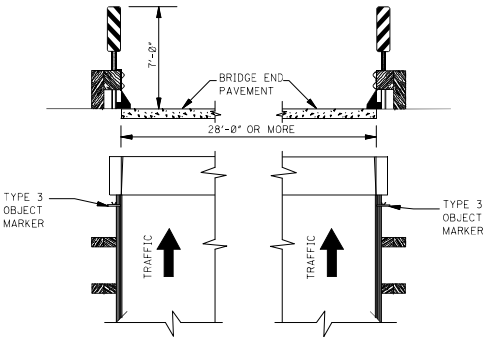
DETAIL OF TYPE 3 OBJECT MARKER

NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.

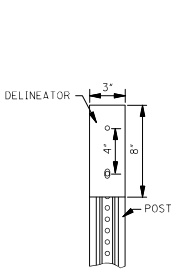


REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY

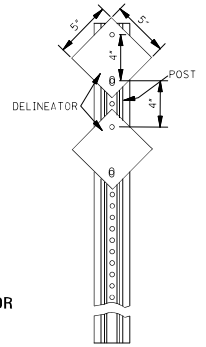
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 5/16" DIA. BLIND FASTENERS OF THE COLLAR TYPE.



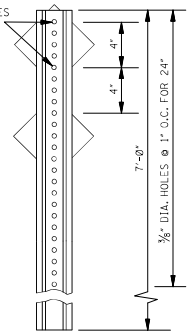
DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION



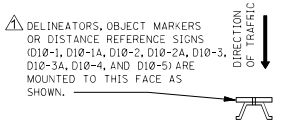
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR



DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR



REAR VIEW OF DELINEATOR ASSEMBLY



MOUNTING DETAIL

NOTE: DELINEATORS SHALL BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.

GENERAL NOTES:

⚠ 1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE RETROREFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.

2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS SHALL BE FABRICATED BEFORE THE METAL IS GALVANIZED.

3. WEIGHT WITHOUT GROUND PLATES:
   A. DELINEATOR POST 7'-0" - 2.0 lb/ft TO 2.5 lb/ft
   B. TYPE 3 OBJECT MARKER POST 9'-0" - 2.5 lb/ft TO 3.0 lb/ft
   C. DISTANCE REFERENCE SIGN POST 10'-0", 11'-0", & 12'-0" - 3.0 lb/ft TO 3.5 lb/ft

4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.

5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED 15/16" FOR HOT ROLLED SECTION.

6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.

DATE	REVISION	BY
12/11/25	REVISED TEXT	SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS

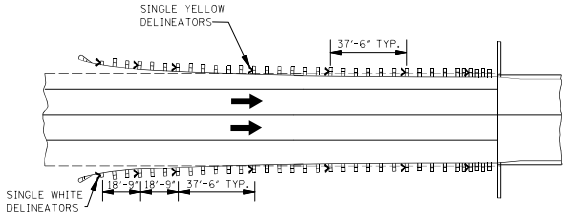
WORKING NUMBER SN-8

SHEET NUMBER 6314

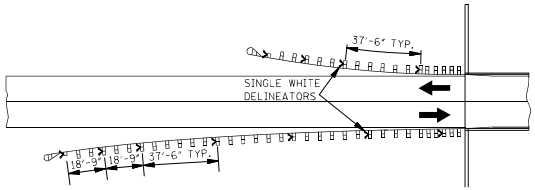
ISSUE DATE: AUGUST 01, 2017

ADDENDUM

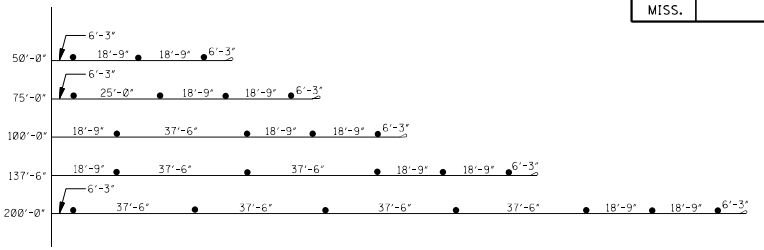
STATE	PROJECT NO.
MISS.	



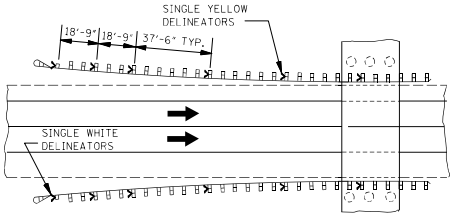
BRIDGE APPROACH INSTALLATION
(ONE-WAY TRAFFIC)



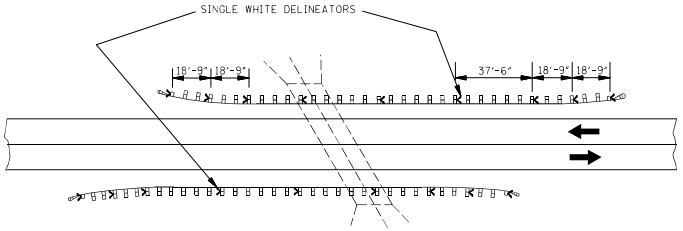
BRIDGE APPROACH INSTALLATION
(TWO-WAY TRAFFIC)



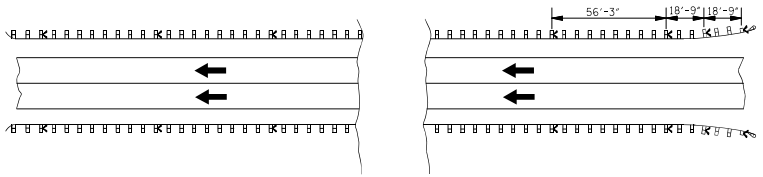
GRAPHIC SHOWING SPACINGS OF GUARDRAIL DELINEATORS
AT SOME COMMONLY USED BRIDGE APPROACHES



ROADSIDE OBSTACLE INSTALLATION–LENGTH 250' OR LESS
(ONE-WAY TRAFFIC)

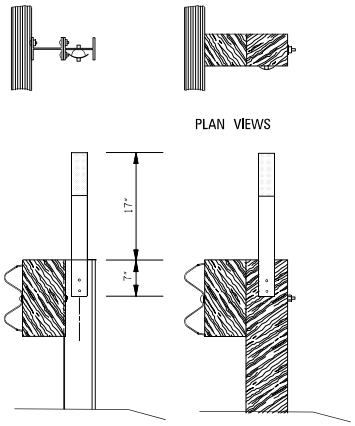


ROADSIDE OBSTACLE INSTALLATION–LENGTH 250' OR LESS
(TWO-WAY TRAFFIC)

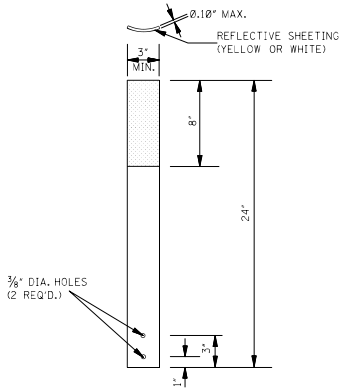


EMBANKMENT OR ROADSIDE OBSTACLE INSTALLATION–LENGTH GREATER THAN 250'
(ONE-WAY TRAFFIC)

NOTE: ONE-WAY TRAFFIC SHOWN. DELINEATOR SPACING FOR TWO-WAY TRAFFIC SIMILAR. DELINEATOR COLOR WILL BE THE SAME AS THE ADJACENT PAVEMENT EDGE MARKING. THE FIRST THREE (3) MARKERS WILL FACE TRAFFIC IN OFF LANE FOR TWO-WAY TRAFFIC AS SHOWN IN DRAWING FOR OBSTACLE INSTALLATION FOR TWO-WAY TRAFFIC.



TYPICAL FLEXIBLE POST DELINEATOR
GUARDRAIL INSTALLATION



DETAIL OF FLEXIBLE
GUARDRAIL DELINEATOR

GENERAL NOTES:

1. THE UNIT PRICE OF DELINEATOR INCLUDES: COST(S) OF DELINEATOR FACE(S), POST, HARDWARE AND INSTALLATION.

⚠1 2. DELINEATORS SHALL CONSIST OF RETROREFLECTIVE DEVICES THAT ARE CAPABLE OF CLEARLY RETROREFLECTING LIGHT UNDER NORMAL ATMOSPHERIC CONDITIONS FROM A DISTANCE OF 1000 FEET WHEN ILLUMINATED BY THE HIGH BEAMS OF STANDARD AUTOMOBILE LIGHTS.

⚠1 3. FOR THE SPACING OF DELINEATORS IN HORIZONTAL CURVES ON ROADWAYS OR BRIDGES, SEE TABLE 3G-1, MUTCD 11th EDITION, FOR SPACING REQUIREMENTS.

⚠1 4. DELINEATORS FOR GUARDRAIL SHALL BE MOUNTED ON FLEXIBLE POSTS AS FOLLOWS:

THE DELINEATOR POSTS WILL BE FROM MDOT'S "APPROVED PRODUCTS LIST" AND WILL BE FASTENED TO GUARDRAIL POST IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

REVISION	DATE	BY
REVISED TEXT	12/11/25	SNV

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TYPICAL GUARDRAIL DELINEATION

ISSUE DATE: AUGUST 01, 2017

MDOT

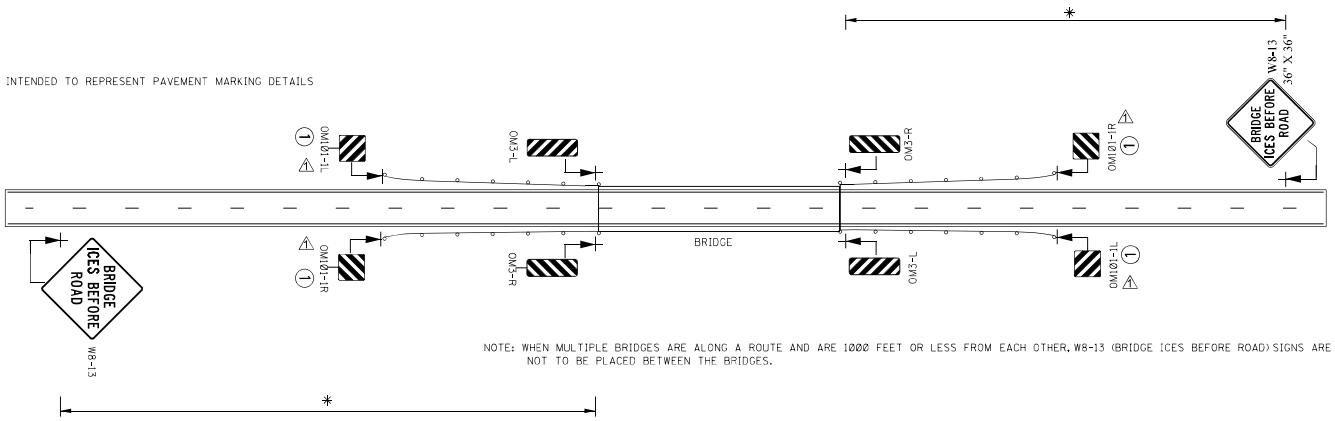
WORKING NUMBER
SN-8C

SHEET NUMBER
6317

ADDENDUM

STATE	PROJECT NO.
MISS.	

DRAWING NOT INTENDED TO REPRESENT PAVEMENT MARKING DETAILS



NOTE: WHEN MULTIPLE BRIDGES ARE ALONG A ROUTE AND ARE 1000 FEET OR LESS FROM EACH OTHER, W8-13 (BRIDGE ICES BEFORE ROAD) SIGNS ARE NOT TO BE PLACED BETWEEN THE BRIDGES.

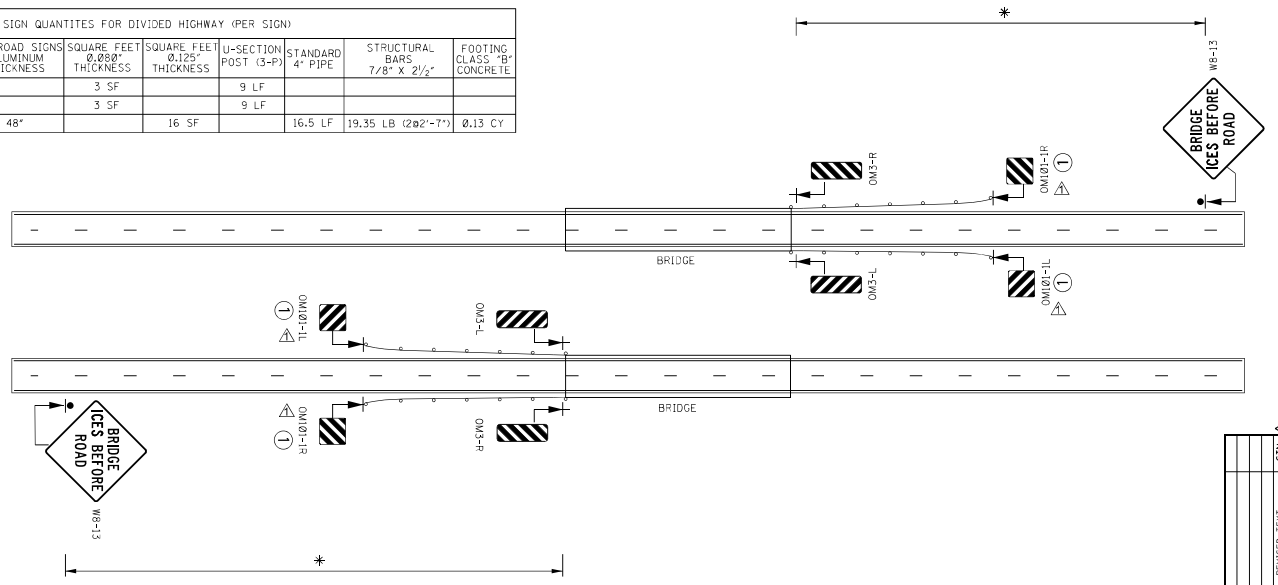
UNDIVIDED HIGHWAY DETAIL

SIGN QUANTITES FOR UNDIVIDED HIGHWAY (PER SIGN)					
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)
OM3-L	12" X 36"		3 SF		9 LF
OM3-R	12" X 36"		3 SF		9 LF
W8-13		36" X 36"		9 SF	15 LF

SIGN QUANTITES FOR DIVIDED HIGHWAY (PER SIGN)								
MUTCD NUMBER	STANDARD ROAD SIGNS SHEET ALUMINUM 0.080" THICKNESS	STANDARD ROAD SIGNS SHEET ALUMINUM 0.125" THICKNESS	SQUARE FEET 0.080" THICKNESS	SQUARE FEET 0.125" THICKNESS	U-SECTION POST (3-P)	STANDARD 4" PIPE	STRUCTURAL BARS 7/8" X 2½"	FOOTING CLASS "B" CONCRETE
OM3-L	**12" X 36"**		3 SF		9 LF			
OM3-R	**12" X 36"**		3 SF		9 LF			
W8-13		48" X 48"		16 SF		16.5 LF	19.35 LB (2ø2'-7")	ø.13 CY

⚠ (1) RETROREFLECTIVE ADHESIVE SHEETING WITH ALTERNATING BLACK AND YELLOW STRIPES (SLOPING DOWNWARD) (OM101-1L, OM101-1R) AT AN ANGLE OF 45 DEGREES (IN THE DIRECTION TRAFFIC IS TO PASS) IS REQUIRED ON THE END OF THE TERMINAL END SECTION. NOT A SEPARATE PAY ITEM. COST TO BE ABSORBED IN GUARD RAIL.

* TABLE 2C-3 MUTCD	
SPEED (MPH)	MINIMUM PLACEMENT (FEET)
35	250 ⚠
40	305 ⚠
45	360 ⚠
50	425 ⚠
55	495 ⚠
60	570 ⚠
65	645 ⚠
70	730 ⚠



DIVIDED HIGHWAY DETAIL

REVISED TEXT	SN	
REVISION	BY	
12/11/25		
DATE		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SIGNING DETAILS FOR BRIDGE APPROACHES

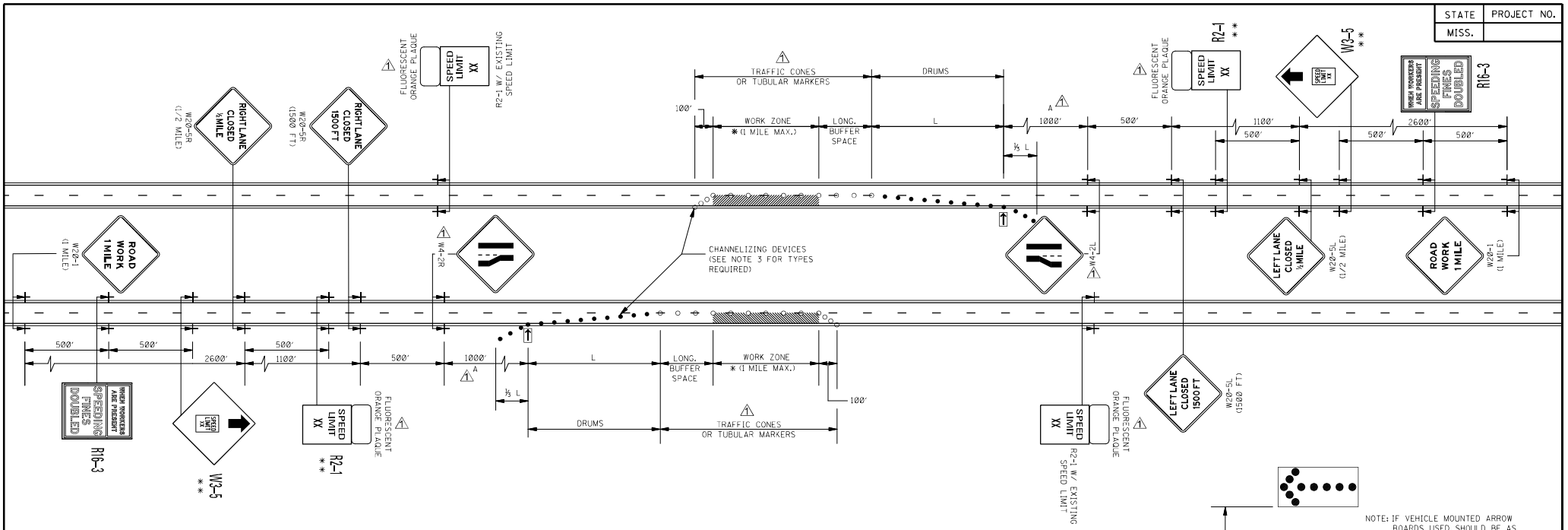
ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER SN-9

SHEET NUMBER 6318

ADDENDUM

STATE	PROJECT NO.
MISS.	



GENERAL NOTES:

1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

POSTED SPEED AND/OR DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (ft)		†† LONGITUDINAL BUFFER SPACE (ft)	△ † TAPER LENGTH (ft)	
	TAPER	ALONG LANE LINE & WORK ZONE			
mph					
≤40	40	80	305	320	△
45	45	90	360	540	△
50	50	100	425	600	△
55	55	110	495	660	△
60	60	120	570	720	△
65	65	130	645	780	△
70	70	140	730	840	△

△ † NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.

3. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
△ B. ALONG LANE LINE AND WORK ZONE- RETROREFLECTIVE TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)
△ C. EXIT TAPER- RETROREFLECTIVE TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)

△ 4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS, OR CONES, OR TUBULAR MARKERS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.

5. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.

△ 6. ALL WARNING SIGNS (W SERIES) SHALL BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.

7. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

LEGEND

* OR AS SHOWN ELSEWHERE ON THE PLANS.

* * THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.

FLASHING ARROW PANEL (TYPE "C")

● RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS

△ ○ TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)

REVISE TEXT / REVISION	SYN	BY
12/11/25 / DATE		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN FOR POSTED SPEED LIMIT LESS THAN 65 MPH

(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)

ISSUE DATE: AUGUST 01, 2017

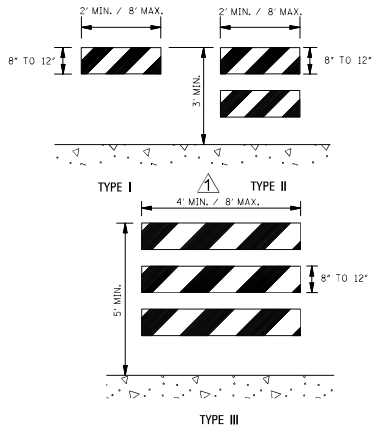
MDOT

WORKING NUMBER TCP-2

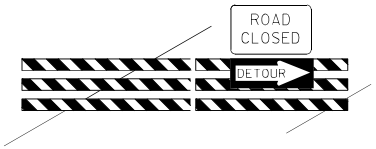
SHEET NUMBER 6352

ADDENDUM

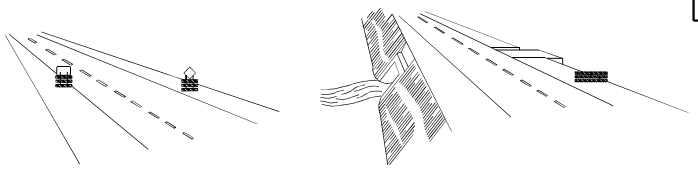
STATE	PROJECT NO.
MISS.	



STANDARD BARRICADES



BARRICADE CLOSING A ROAD



WING BARRICADES

1. WING BARRICADES ARE TYPE III BARRICADES ERECTED ON THE SHOULDER ON ONE OR BOTH SIDES OF THE PAVEMENT TO GIVE THE SENSATION OF A NARROWING OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.

2. WING BARRICADES SHOULD BE USED:
   A. IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
   B. IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.

BARRICADE CHARACTERISTICS

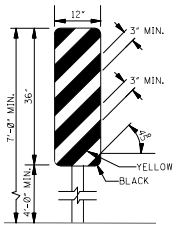
	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL**	24" MIN. / 96" MAX.	24" MIN. /96" MAX.	48" MIN. / 96" MAX.
WIDTH OF STRIPE *	6"	6"	6"
HEIGHT	36" MIN.	36" MIN.	60" MIN.
NUMBER OF RETROREFLECTORIZED RAIL FACES	2 (ONE EACH DIRECTION)	4 (TWO EACH DIRECTION)	3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS

1

1. THE RETROREFLECTIVE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION THAT TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES ON BARRICADE RAILS TO PROVIDE MASS. SANDBAGS, HOWEVER, MAY BE PLACES AS BALLAST TO THE LOWER PARTS OF THE FRAME OR THE STAYS TO BARRICADES.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
1 5. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: http://highways.dot.gov/safety/RwD/reduce-crash-severity
1 6. WHERE ROAD USERS INCLUDE PEDESTRIANS, THE PROVISION OF SUPPLEMENTAL AUDIBLE INFORMATION OR DETECTABLE BARRIERS OR BARRICADES SHOULD BE PROVIDED FOR PEOPLE WITH VISION DISABILITIES.
1 7. BARRICADE RAIL SUPPORTS SHOULD NOT PROJECT INTO PEDESTRIAN CIRCULATION ROUTES MORE THAN 4 INCHES FOR THE SUPPORTS LOCATED BETWEEN 27 INCHES TO 80 INCHES ABOVE THE EXISTING SURFACE.

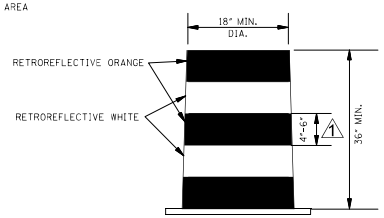
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 in² OF REFLECTIVE AREA FACING TRAFFIC.

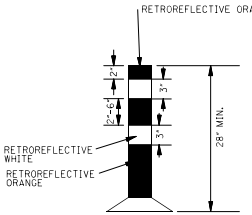


TYPE 3 OBJECT MARKER
(OM3-R)

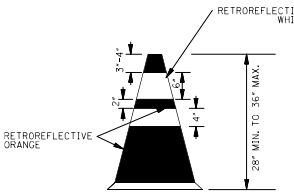
1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM3-R IS SHOWN. THE OM3-L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.
1 4. THE STRIPING SHALL CONSIST OF ALTERNATING BLACK AND RETOREFLECTIVE YELLOW SLOPING DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS THE PASS.



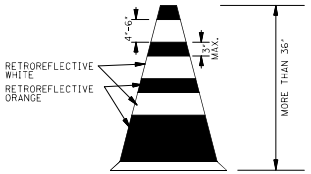
1 PLASTIC DRUM DETAIL



1 TUBULAR MARKER DETAIL

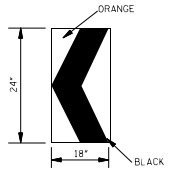


1 PLASTIC CONE DETAIL
(28" – 36")



1 PLASTIC CONE DETAIL
(36" OR GREATER)

1. PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE USED SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.
1 2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
1 3. WHERE PRACTICAL PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.
4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.



1 RETROREFLECTIVE CHEVRON ALIGNMENT SIGN DETAIL
(W1-8)

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.
4. CHEVRON SIGNS SHALL BE INSTALLED AT A MINIMUM HEIGHT OF 4 FEET MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELWAY.

DATE	REVISION	BY	SYM
12/1/25	REVISED TEXT AND DETAILS.		1

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

MDOT
WORKING NUMBER
TCP-8

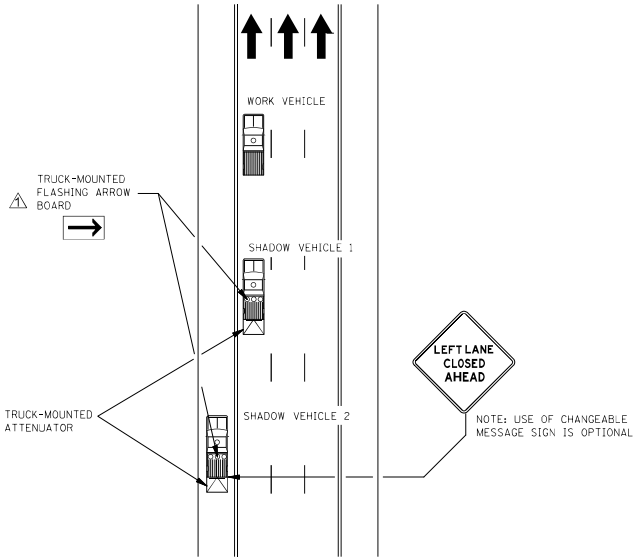
ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER
6358

ADDENDUM

STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON MULTILANE ROAD

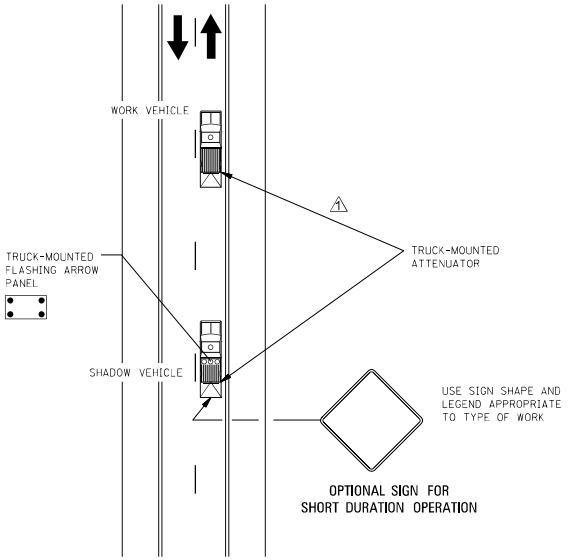


MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

1. SHADOW AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS. AN ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.
2. SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK MOUNTED ATTENUATOR (TMA), AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW BOARD.
3. SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
5. THE SPACING BETWEEN THE WORK VEHICLES AND THE SHADOW VEHICLES, AND BETWEEN EACH SHADOW VEHICLE, SHOULD BE MINIMIZED TO DETER ROAD USERS FROM DRIVING IN BETWEEN.
6. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
7. ARROW BOARD SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
10. WHEN THE WORK VEHICLE OCCUPIES AN INTERIOR LANE (A LANE OTHER THAN THE FAR RIGHT OR FAR LEFT) OF A DIRECTIONAL ROADWAY HAVING A RIGHT-HAND SHOULDER 10 FEET OR MORE IN WIDTH, SHADOW VEHICLE 2 SHOULD DRIVE ON THE RIGHT-HAND SHOULDER WITH A SIGN INDICATING THAT WORK IS TAKING PLACE IN THE INTERIOR LANE.
11. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
12. WHERE ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 3 MAY ALSO STRADDLE THE EDGE LINE.
13. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

MOBILE OPERATIONS ON TWO–LANE ROAD



MOBILE OPERATIONS ON TWO–LANE ROAD

NOTES FOR TWO-LANE OPERATION:

1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
2. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
3. ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
6. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. ARROW BOARD TO BE USED IN CAUTION MODE.
8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

DATE	REVISION	BY
12/17/25	REVISED TEXT AND DETAILS.	STN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLAN MOBILE OPERATIONS MULTILANE ROADS AND TWO–LANE ROADS

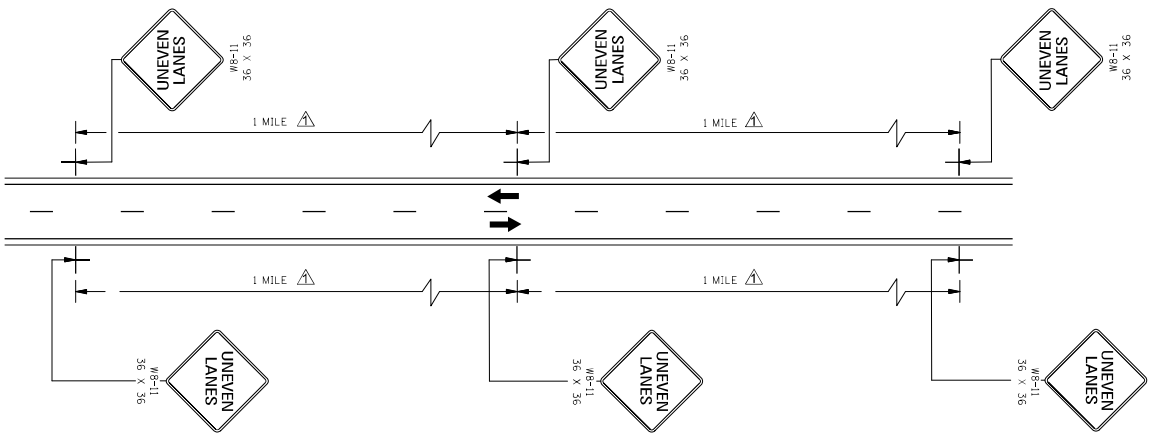
WORKING NUMBER TCP-9

SHEET NUMBER 6359

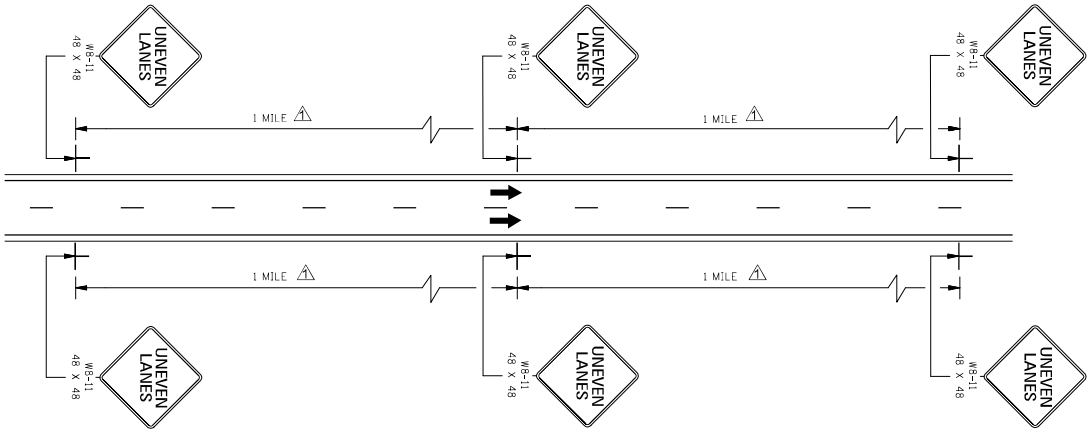
ISSUE DATE: AUGUST 01, 2017

ADDENDUM

STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC



ONE–WAY TRAFFIC

GENERAL NOTES:

1. UNEVEN LANE LINE:
   A. IF LESS THAN OR EQUAL TO 1½", NO SIGNS REQUIRED.
   B. IF GREATER THAN 1½" AND LESS THAN OR EQUAL TO 2¼", PLACE SIGNS AS SHOWN ON THIS SHEET.
   C. IF GREATER THAN 2¼", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
2. THE W8-11 SIGNS SHOULD BE SPACED AT 1 MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
4. SIGNS SHALL BE RETROREFLECTIVE WITH ORANGE BACKGROUND/BLACK COPY.

DATE	REVISION	BY
12/11/25	REVISED TEXT	SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT DETAILS

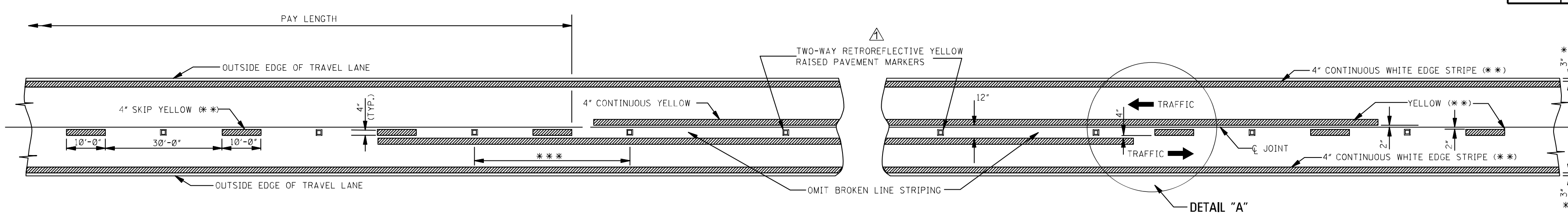
ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER
TCP-12

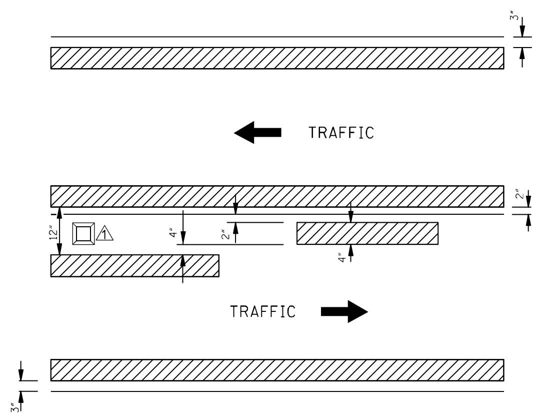
SHEET NUMBER
6362

ADDENDUM

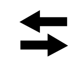
STATE	PROJECT NO.
MISS.	



TWO–WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)



DETAIL "A"



GENERAL NOTES:

✱ 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.

✱✱ 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).

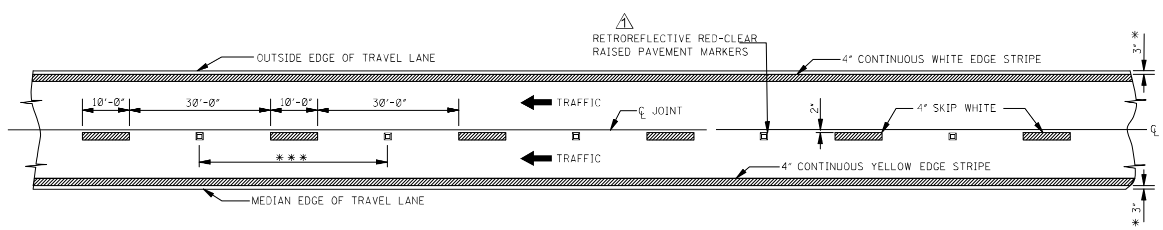
⚠1 3. RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS

⚠1 ✱✱✱ 4. SPACING OF RETROREFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:

	URBAN AREA (ft-in)	RURAL AREA (ft-in)
TANGENT SECTIONS	40'-0"	80'-0"
HORIZONTAL CURVES	40'-0"	40'-0"
INTERCHANGE LIMITS	40'-0"	† 40'-0"

⚠1 † NOTE: ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.

⚠1 5. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS FROM THE MDOT "APPROVED PRODUCTS LIST".



4–LANE WITH ONE–WAY TRAFFIC

DATE	REVISION	BY
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MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STRIPING FOR TRAFFIC CONTROL 2–LANE AND 4–LANE DIVIDED HIGHWAYS

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MDOT

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ADDENDUM

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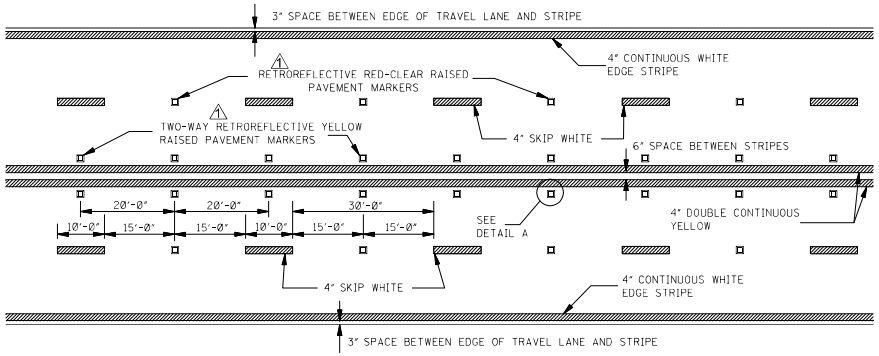
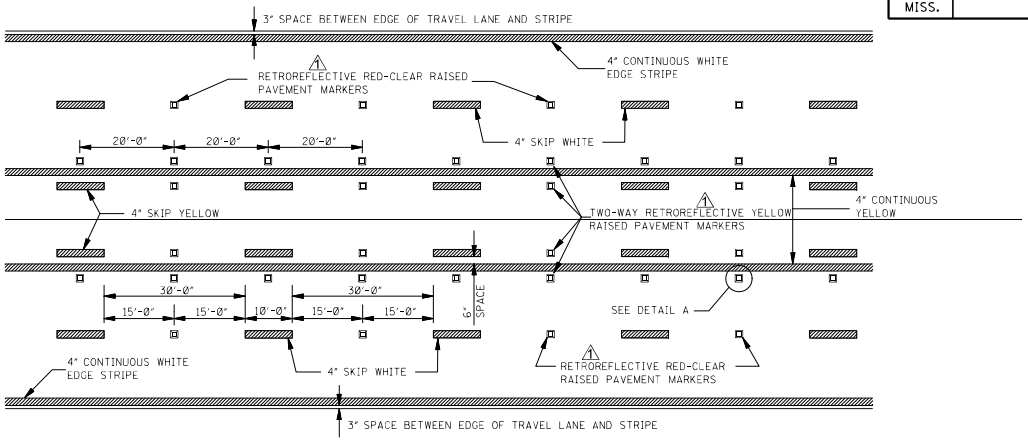
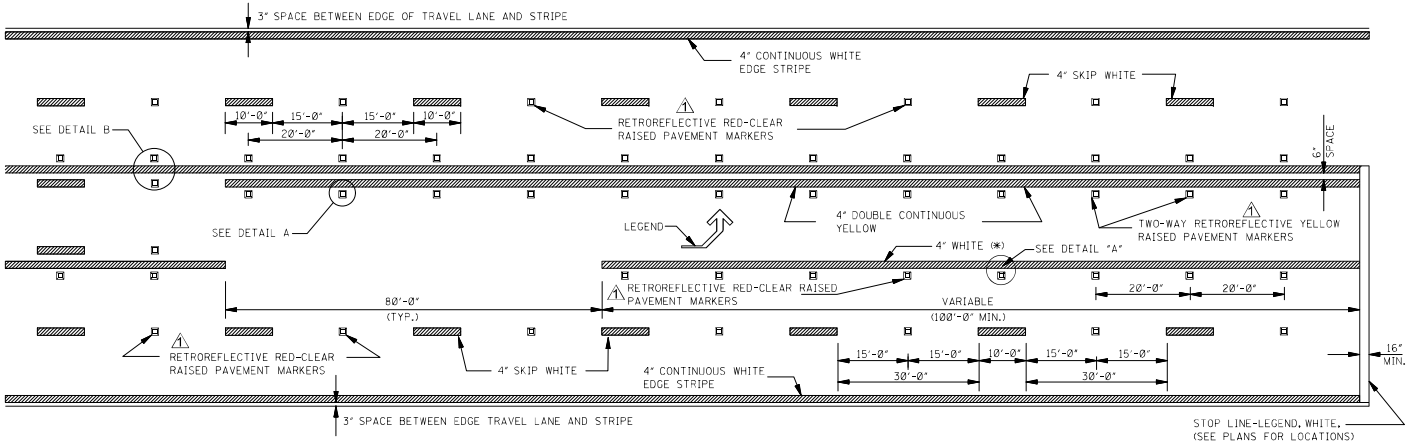
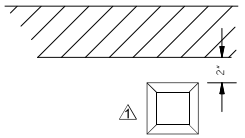


TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 4–LANE SECTION



TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS FOR 5–LANE SECTION





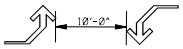
DETAIL A
LATERAL PLACEMENT OF
PAVEMENT MARKERS

GENERAL NOTE:

⚠1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS FROM THE MDOT APPROVED PRODUCTS LIST.

⚠2. RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS

3. TEMPORARY TURN ARROW TO BE PAID FOR AS TEMPORARY TRAFFIC STRIPE (LEGEND), ESTIMATED AT 10.9 SQ. FT. PER ARROW

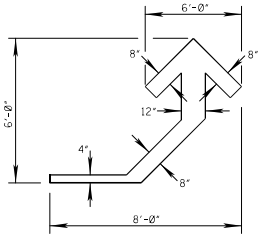


TYPICAL TWO–WAY ARROW INSTALLATION

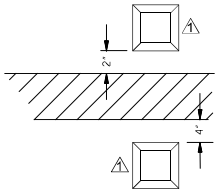
NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100'. FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).

TYPICAL STRIPING AND RAISED
PAVEMENT MARKERS AT LEFT TURN LANES

*NOTE: USE DETAIL STRIPING IF LENGTH ≤ 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.



DETAIL OF TEMPORARY
TURN ARROW



DETAIL B
LATERAL PLACEMENT OF
PAVEMENT MARKERS

SYM	REVISED TEXT.	BY
DATE	REVISION	
12/11/25		

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TEMPORARY STRIPING FOR TRAFFIC CONTROL 4–LANE AND 5–LANE UNDIVIDED ROADWAYS

MDOT

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6364

ADDENDUM

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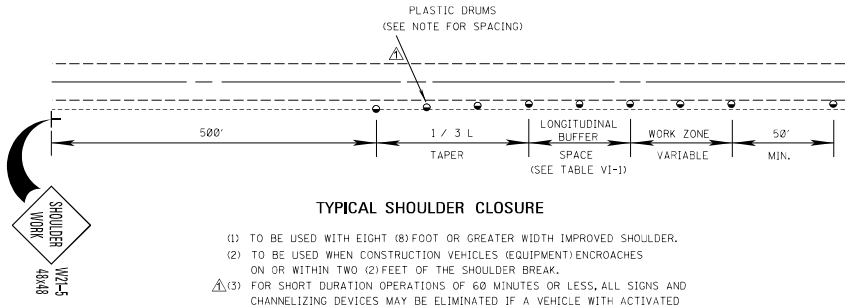
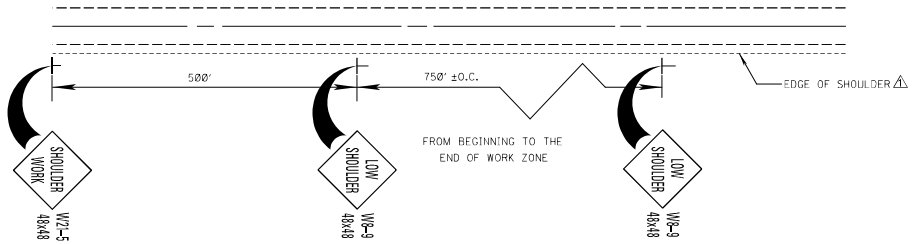
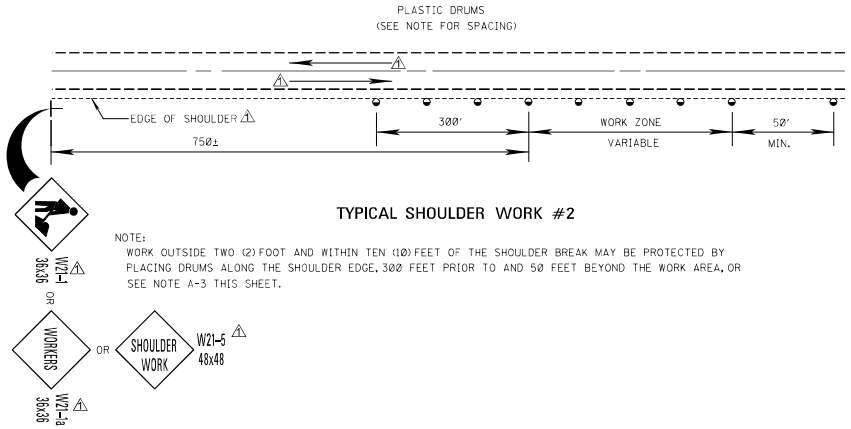


TYPICAL SHOULDER CLOSURE

(1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
(2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.
⚠(3) FOR SHORT DURATION OPERATIONS OF 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS IS USED.

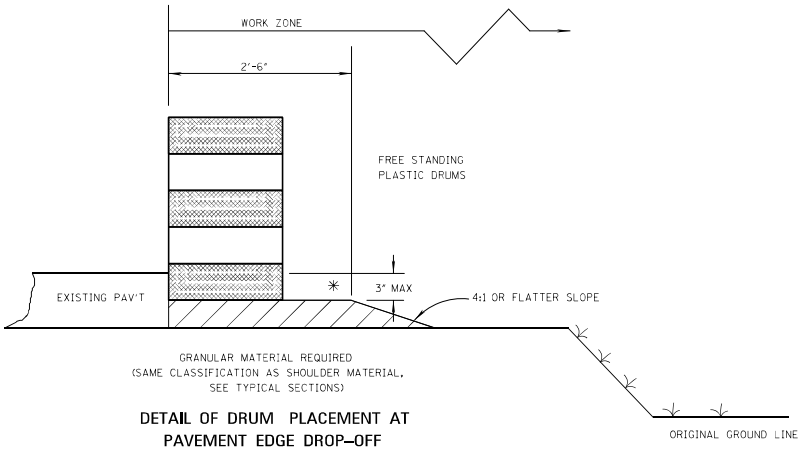


TYPICAL SHOULDER WORK #1
(SEE NOTE A–1 THIS SHEET)



TYPICAL SHOULDER WORK #2

NOTE:
WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE, 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.



DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP–OFF

NOTES:

✳ A. PAVEMENT EDGE DROP-OFF

1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'+O.C.).

⚠ 2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE MUTCD (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)

3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.

4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.

5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.

⚠ B. DRUM, VERTICAL PANEL, OR BARRICADE SPACING

1. TANGENTS = 2 X S
2. TAPERS = L / 3
   WHERE L = S X W
   L = TAPER LENGTH IN FEET
⚠ S = SPEED IN MPH (POSTED OR ANTICIPATED OPERATING SPEED)
   W = WIDTH OF OFFSET IN FEET

C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.

TABLE VI-1. GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE

✳✳ SPEED (MPH)	LENGTH (FEET)	
20	115	⚠
25	155	⚠
30	200	⚠
35	250	⚠
40	305	⚠
45	360	⚠
50	425	⚠
55	495	⚠
60	570	⚠
65	645	⚠

✳✳ POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

DATE	REVISION	BY
12/11/25	REVISED TEXT	SN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

TRAFFIC CONTROL DETAILS DRUM PLACEMENT AND SHOULDER CLOSURE

MDOT
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SHEET NUMBER 6366

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