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	7/16/2025	ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	
ADDENDUM NO		DATED		ADDENDUM NO.		DATED	

Number	Description
1	Revised Table of Contents; Revised Notice to Bidder No. 7065; S.P No. 907-626-12 replaces S.P 907-626-11; S.P No. 907-720-4 replaces S.P No. 907-720-3; 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.

STBG-9999-03(402)/ 109690301000

Holmes 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)

07/16/2025 12:44 PM

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 -NOTICE TO BIDDERS NO. 7065 **CODE: (SP)**

DATE: 07/16/2025

SUBJECT: Scope of Work

PROJECT: STBG-9999-03(402) / 109690301 – Holmes County

The contract documents do not include an official set of construction plans but may, by reference, include some Standard Drawings when so specified in a Notice to Bidders entitled, "Attached Drawings".

Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment. Work for which no pay item is provided will not be paid for directly and shall therefore be considered an absorbed item of work.

It shall be the responsibility of the Contractor to protect existing structures from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Engineer, any structures damaged by the Contractor during the life of the contract. No payment will be made for replacement or repair of damaged items.

All details are based on the dimensions shown on the original plans for the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure. The Contractor shall verify all dimensions of the existing structure prior to beginning work.

During construction, care shall be exercised to ensure that no debris falls into the roadway crossing below the structures. All debris, including any material that has accumulated on the bridge caps, shall become the property of the Contractor and shall be removed from the construction site.

Any areas disturbed by the Contractor shall be stabilized by the end of the Project at no additional cost to the State.

Work on the project shall consist of the following repairs to bridge numbers 147.4 (11670) located on Franklin Road over I-55 and 160.9 (11672) located on Old Wilson Road over I-55 in Holmes County.

Scope of Work – Bridge 147.4 (11670)

- Remove and replace bearings at all bents in accordance with the Attached Drawings
- Seal all joints with preformed joint seals
- Repair spall locations with epoxy mortar in accordance with the notes in this document and the details shown in the Attached Drawings.
- Install polymer cement surface system on bridge deck in accordance with the notes in this

document.
- Clean all caps.
- Clean railing and apply class 2 spray finish in accordance with the notes in this document

Scope of Work – Bridge 160.9 (11672)
- Remove and replace bearings at all bents in accordance with the Attached Drawings
- Seal all joints with preformed joint seals
- Repair spall locations with epoxy mortar in accordance with the notes in this document and the details shown in the Attached Drawings.
- Install polymer cement surface system on bridge deck in accordance with the notes in this document.
- Clean all caps.
- Clean railing and apply class 2 spray finish in accordance with the notes in this document
- Underseal void under slope paving in accordance with the notes in this document
- Remove and replace damaged slope paving panels in accordance with the notes in this document

Joint Repair

Removal of the existing joint material shall be performed at all bents per Attached Drawings and shall be paid for under pay item 907-808-A: Joint Repair. Saw cuts required shall be paid for under pay item 907-823-B: Saw Cut, Type II. Existing joint material shall be replaced with preformed joint seal in accordance with Special Provision 907-823. The joints shall be sealed by one of the three approved Manufacturers listed in Special Provision 907-823 and installed according to the Manufacturer's specifications. All new preformed joints shall be paid for under pay item 907-823-A: Preformed Joint Seal, Type II.

Cap Cleaning and Bridge Deck Cleaning:

Cap cleaning shall be performed in accordance with Subsection 907-824.03.3. This item of work shall be paid for under pay item 907-824-C: Cap Cleaning. The bridge deck and gutters shall be swept clean upon completion of the Project. This shall be considered an absorbed item of work.

Bearing Replacements:

Bearings at Bridges 11670 & 11672 shall be replaced in accordance with the notes in Subsection 907-824.03.4 and the details shown in the Attached Drawings. Payment for this work shall be made under pay item 907-824-D: Bearing Replacements.

Prior to construction, certifications for all welders and a procedure for storage and handling of welding electrodes to be used on this project shall be submitted to the Director of Structures, State Bridge Engineer through the Project Engineer for approval. All welding shall be performed by the electric arc process and shall conform to the ANSI/AASHTO/AWS D1.5 Bridge Welding Code. All steel plates shall conform to ASTM A709, Grade 50. All steel plates shall be new.

All bearing plates shall be hot dip galvanized in accordance with ASTM A123. In no case shall laminated pads be field cut. Bearing area on top of cap shall be cast smooth and true to grade. Steel plates in bearing pads shall conform to ASTM A 1011 Grade 36, Type 1. The testing acceptance procedure shall be in accordance with Subsection 714.10.6 of the Standard Specifications. Elastomer shall have a hardness of 50 durometer with a minimum shear modulus

at 73°F of 0.095 ksi and a maximum shear modulus at 73°F of 0.130 ksi.

General Epoxy Repairs:
General epoxy repair shall be performed in accordance with Subsection 907-824.03.1 and with the approved materials outlined in Subsection 907-824.02.1. All work and material required to perform this item of work shall be paid for under pay item 907-824-A: General Epoxy Repair.

This item shall be bid such that this item may be increased, decreased, or eliminated as directed by the Project Engineer.

Polymer Cement Surface System:
Polymer cement surface system (PCSS) repair limits shall extend from gutter to gutter within the joints of End Bents No. 1 & 5 (11670) and End Bents No. 1 & 5 (11672). Installation of PCSS shall be performed in accordance with Special Provision 907-417.

The patterning of the polymer cement surface system (PCSS) shall be one of the following types:

1. Raised Checkerboard Pattern
2. Raised Hexagonal Pattern
3. Raised Staggered Hexagonal Pattern

The pattern shall be submitted to the Director of Structures, State Bridge Engineer for approval prior to any work being performed. This work will be paid for under pay item 907-417-A: Polymer Cement Surface System.

Slope Paving
Slope paving panel repair locations are given in the table below. Damaged slope paving panels shall be removed under pay item 202-B: Removal of Concrete Slope Paving and repaired by filling large voids with urethane compound in accordance with the Undersealing Notes. Concrete slope paving shall be restored to original dimensions and be in accordance with Section 815 of the Standard Specifications and any other Sections specified therein. Replacement of slope paving panels will be paid for under pay item 815-D: Concrete Slope Paving.

Slope Pavement	Panels	Size
Bent 5		
Rear Rt Mid Slope	2	7'-0 x 8'-2"
Leave panels that are attached to abutment to tie back in to; then underseal.		
While panels are being removed it can be determined exactly how many need to be replaced.		

Undersealing:
Voids under slope paving near End Bent 5 on Bridge 11672 shall be filled with injectable urethane compound material meeting the required properties outlined in Special Provision 907-420.

Prior to injection, the site shall be prepared according to the Manufacturer's recommendations. Urethane compound shall be installed in strict accordance with Manufacturer's instructions.

All costs associated with filling voids underneath and behind end bent caps with urethane

compound shall be included in the price for pay item 907-420-A: Undersealing.

The accepted quantities will be paid per pound of urethane compound material as reported on packaging.

Existing Bridge Railing Texture Finish Note:

Existing bridge railing at both bridges shall receive a Class 2 Spray Finish. Prior to spraying finish on existing railing, all loose material and grime must be removed. Spray finish shall be in accordance with Subsections 804.03.19.3.2 - Spray Finish and 804.03.19.6.3 - Finishing Formed Concrete Surface of Bridges. This item of work, including cleaning of existing railing shall be absorbed under pay item 907-824-PP: Bridge Repair, Class 2 Spray Finish, Per Plans.

Contractor Submittals:

Prior to any construction or fabrication, the Contractor shall comply with the following submittal requirements.

Polymer Cement Overlay Submittal:

The pattern of the polymer cement surface system shall be submitted to the Director of Structures, State Bridge Engineer for approval prior to any work being performed.

Field Verification Submittal:

All dimensions of the existing bearing assemblies and caps, finish grades of existing bridges, dimensions of open joint widths, and any other element that will affect the work items described herein shall be field verified.

Bearing Pad Shop Drawing Submittal:

The Contractor shall submit shop drawings of the new bearing pads for approval by the Director of Structures, State Bridge Engineer. Bearing Pad Shop Drawings will not be approved without the corresponding Field Verification Submittal.

Welding Submittal:

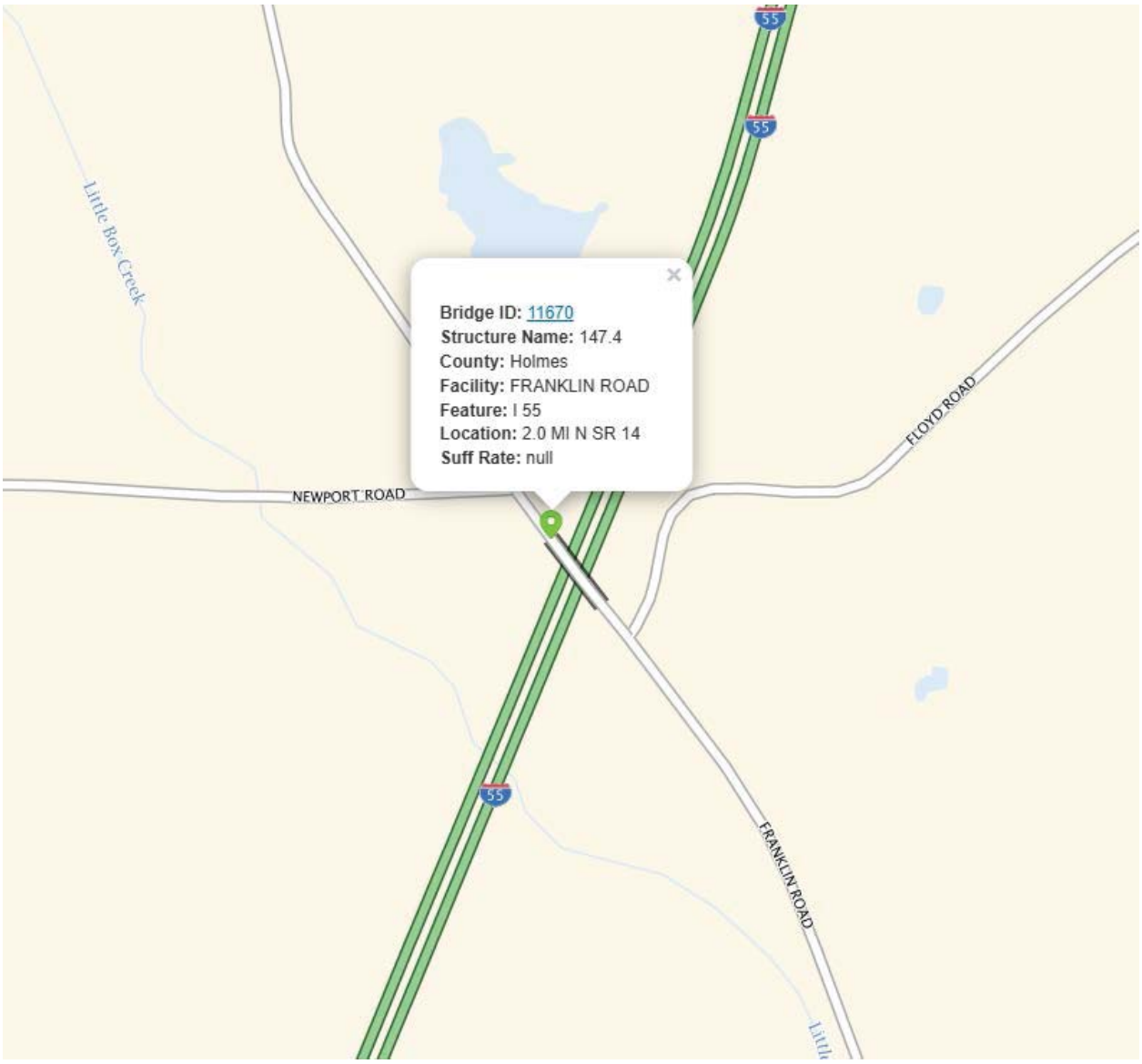
a. Certification for all welders
b. Welding procedures
c. Procedure for storage and handling of welding electrodes, wires, and flux
d. A flux recovery procedure if applicable

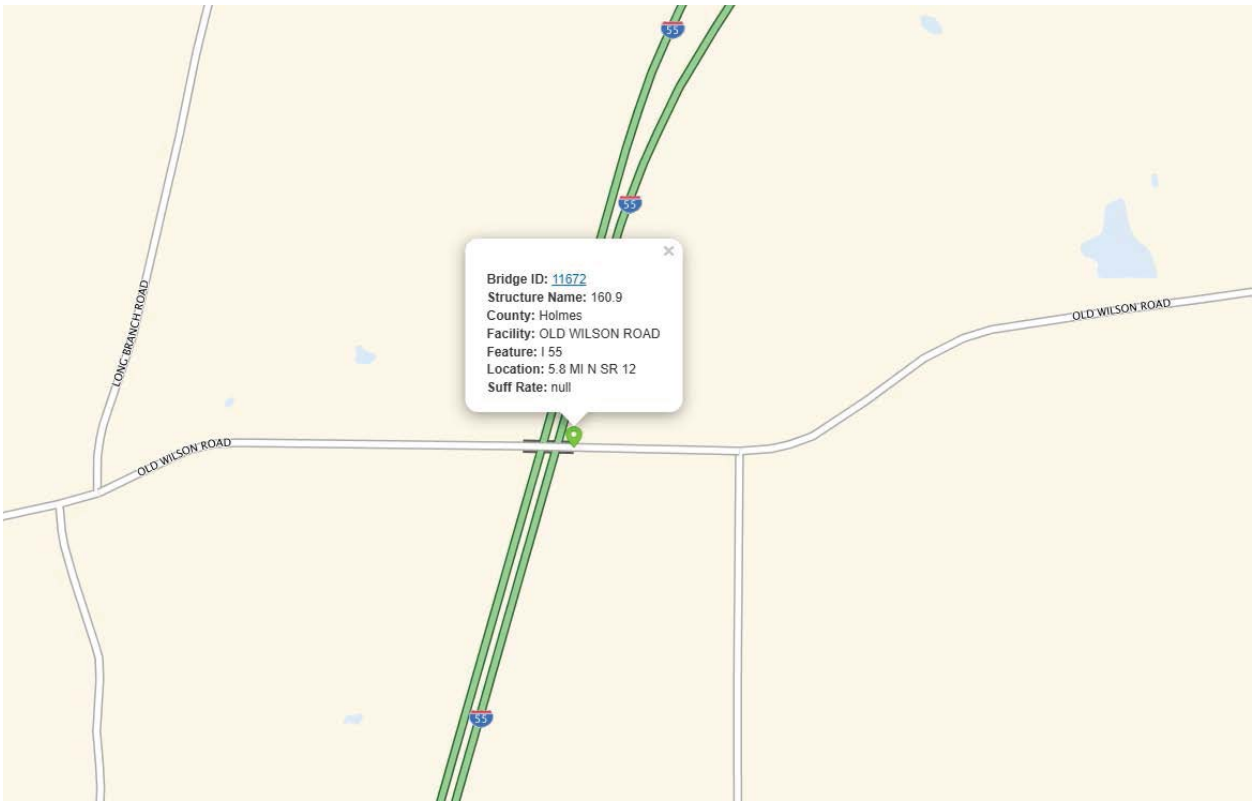
Jacking Plan Submittal:

The Contractor shall submit a set of bracing and jacking arrangement plans along with design calculations and all assumptions. The Contractor shall employ the service of a Mississippi registered Professional Engineer knowledgeable in the field of bridge design. The submitted plans shall bear the seal of the Professional Engineer.

Maintenance of Traffic:

The Contractor shall erect and maintain construction signing and provide all signs and traffic handling devices necessary to safely maintain traffic around or through the work areas in accordance with the Traffic Control Plan. Payment shall be included in the price bid for pay item 907-618-A: Maintenance of Traffic.


Little Box Creek
Bridge ID: 11670
Structure Name: 147.4
County: Holmes
Facility: FRANKLIN ROAD
Feature: I 55
Location: 2.0 MI N SR 14
Suff Rate: null
NEWPORT ROAD
FLOYD ROAD
FRANKLIN ROAD
55
55
55


Bridge ID: 11672
Structure Name: 160.9
County: Holmes
Facility: OLD WILSON ROAD
Feature: I 55
Location: 5.8 MI N SR 12
Suff Rate: null
LONG BRANCH ROAD
OLD WILSON ROAD
OLD WILSON ROAD
55
55
55

SIGNS REQUIRED

Note	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	G20 - 1	60" X 24"	10.00 ♦			ROAD WORK NEXT XX MILES
	G20 - 2	48" X 24"	8.00	12	96	END ROAD WORK
	G20 - 4	36" X 18"	4.50			PILOT CAR FOLLOW ME
[1]	M1 - 1	24" X 24"	4.00			1 OR 2 DIGIT
[1]	M1 - 1	30" X 24"	5.00			3 DIGIT
[2]	M1 - 4	24" X 24"	4.00			1 OR 2 DIGIT
[2]	M1 - 4	30" X 24"	5.00			3 DIGIT
[3]	M1 - 5	24" X 24"	4.00			1 OR 2 DIGIT
[3]	M1 - 5	30" X 24"	5.00			3 DIGIT
[4]	M3 - 1	24" X 12"	2.00			NORTH- 1 OR 2 DIGIT RTE. MARKER
[4]	M3 - 1	30" X 15"	3.13			NORTH- 3 DIGIT RTE. MARKER
[4]	M3 - 2	24" X 12"	2.00			EAST- 1 OR 2 DIGIT RTE. MARKER
[4]	M3 - 2	30" X 15"	3.13			EAST- 3 DIGIT RTE. MARKER
[4]	M3 - 3	24" X 12"	2.00			SOUTH- 1 OR 2 DIGIT RTE. MARKER
[4]	M3 - 3	30" X 15"	3.13			SOUTH- 3 DIGIT RTE. MARKER
[4]	M3 - 4	24" X 12"	2.00			WEST- 1 OR 2 DIGIT RTE. MARKER
[4]	M3 - 4	30" X 15"	3.13			WEST- 3 DIGIT RTE. MARKER
	M4 - 8	24" X 12"	2.00			DETOUR- 1 OR 2 DIGIT RTE. MARKER
	M4 - 8	30" X 15"	3.13			DETOUR- 3 DIGIT RTE. MARKER
	M4 - 9	48" X 36"	12.00 ♦			DETOUR ↑
	M4 - 9L	48" X 36"	12.00 ♦			DETOUR ←
	M4 - 9BL	48" X 36"	12.00 ♦			DETOUR
	M4 - 9SL	48" X 36"	12.00 ♦			DETOUR ↖
	M4 - 9BSL	48" X 36"	12.00 ♦			DETOUR
	M4 - 9R	48" X 36"	12.00 ♦			DETOUR →
	M4 - 9BR	48" X 36"	12.00 ♦			DETOUR
	M4 - 9SR	48" X 36"	12.00 ♦			DETOUR ↗
	M4 - 9BSR	48" X 36"	12.00 ♦			DETOUR
	M4 - 10L	48" X 18"	6.00			DETOUR
	M4 - 10R	48" X 18"	6.00			DETOUR
[4]	M4 - 5	24" X 12"	2.00			TO
[4]	M5 - 1L	21" X 15"	2.19			
[4]	M5 - 1R	21" X 15"	2.19			
[4]	M5 - 2L	21" X 15"	2.19			
[4]	M5 - 2R	21" X 15"	2.19			
[4]	M6 - 1L	21" X 15"	2.19			←
[4]	M6 - 1R	21" X 15"	2.19			→
[4]	M6 - 2L	21" X 15"	2.19			↖
[4]	M6 - 2R	21" X 15"	2.19			↗
[4]	M6 - 3	21" X 15"	2.19			↑

SIGNS REQUIRED (CONT'D)

Note	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
(1)	R1 - 1	36" OCTAGON	7.46			STOP
(2)	R1 - 1	48" OCTAGON	13.25 ♦	4	53	
(2)	R1 - 2	36" X 36" X 36"	3.90			YIELD
(1)	R1 - 2	48" X 48" X 48"	6.93			
(2)	R1 - 2	60" X 60" X 60"	10.83 ♦			
(1)	R1 - 3	18" X 9"	1.13			3-WAY, 4-WAY, ETC.
(2)	R1 - 3	24" X 12"	2.00			
(1)	R2-1	24" X 30"	5.00			SPEED LIMIT
(2)	R2-1	36" X 48"	12.00 ♦			
[6]	R2-1	48" X 60"	20.00 ♦			
(1)	R3-1	36" X 36"	9.00			
(2)	R3-1	48" X 48"	16.00 ♦			
(1)	R3-2	36" X 36"	9.00			
(2)	R3-2	48" X 48"	16.00 ♦			
(1)	R3-4	36" X 36"	9.00			
(2)	R3-4	48" X 48"	16.00 ♦			
	R3-5L	30" X 36"	7.50			ONLY
	R3-5R	30" X 36"	7.50			ONLY
	R3-6L	30" X 36"	7.50			
	R3-6R	30" X 36"	7.50			
	R3-7L	30" X 30"	6.25			LEFT LANE MUST TURN LEFT
	R3-7R	30" X 30"	6.25			RIGHT LANE MUST TURN RIGHT
(1)	R4-1	24" X 30"	5.00			DO NOT PASS
(2)	R4-1	48" X 60"	20.00 ♦			
(1)	R4-2	24" X 30"	5.00			PASS WITH CARE
(2)	R4-2	48" X 60"	20.00 ♦			
	R4-7	48" X 60"	20.00 ♦			
	R4-8	48" X 60"	20.00 ♦			
	R5-1	48" X 48"	16.00 ♦			DO NOT ENTER
	R5-1a	42" X 30"	8.75			WRONG WAY
	R6-1L	36" X 12"	3.00			ONE WAY
	R6-1R	36" X 12"	3.00			ONE WAY
	R6-2L	24" X 30"	5.00			ONE WAY
	R6-2R	24" X 30"	5.00			ONE WAY
	R11-2	48" X 30"	10.00 ♦	4	40	ROAD CLOSED
	R11-3a	60" X 30"	12.50 ♦	4	48	ROAD CLOSED XX MILES AHEAD
	R11-3b	60" X 30"	12.50 ♦			BRIDGE OUT XX MILES AHEAD
	R11-4	60" X 30"	12.50 ♦			ROAD CLOSED TO THRU TRAFFIC
	R12-1	36" X 48"	12.00 ♦			WEIGHT LIMIT XX TONS
[7]	R16-3	36" X 48"	12.00 ♦			WHEN WORKERS ARE PRESENT
[6] [7]	R16-3	48" X 60"	20.00 ♦			SPEEDING FINES DOUBLED

SIGNS REQUIRED (CONT'D)

Note	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	W1 - 1L	48" X 48"	16.00 ♦			
	W1 - 1R	48" X 48"	16.00 ♦			
	W1 - 2L	48" X 48"	16.00 ♦			
	W1 - 2R	48" X 48"	16.00 ♦			
	W1 - 3L	48" X 48"	16.00 ♦			
	W1 - 3R	48" X 48"	16.00 ♦			
	W1 - 4aL	48" X 48"	16.00 ♦			
	W1 - 4aR	48" X 48"	16.00 ♦			
	W1 - 5L	48" X 48"	16.00 ♦			
	W1 - 5R	48" X 48"	16.00 ♦			
(1)	W1 - 6L	48" X 24"	8.00			←
(2)	W1 - 6L	60" X 30"	12.50 ♦			
(1)	W1 - 6R	48" X 24"	8.00			→
(2)	W1 - 6R	60" X 30"	12.50 ♦			
(1)	W1 - 7	48" X 24"	8.00			↔
(2)	W1 - 7	60" X 30"	12.50 ♦			↔
(1)	W1 - 8L	18" X 24"	3.00			
(2)	W1 - 8L	36" X 48"	12.00 ♦			
(1)	W1 - 8R	18" X 24"	3.00			
(2)	W1 - 8R	36" X 48"	12.00 ♦			
	W1-9L	48" X 48"	16.00 ♦			
	W1-9L	48" X 48"	16.00 ♦			
	W2-6	36" X 36"	9.00			
	W3-1a	48" X 48"	16.00 ♦			
	W3-2a	48" X 48"	16.00 ♦			
	W3-3	48" X 48"	16.00 ♦			
	W3-5	48" X 48"	16.00 ♦			SPEED REDUCTION
	W4-1L	48" X 48"	16.00 ♦			
	W4-1R	48" X 48"	16.00 ♦			
	W4-2L	48" X 48"	16.00 ♦			
	W4-2R	48" X 48"	16.00 ♦			
	W4-3L	48" X 48"	16.00 ♦			
	W4-3R	48" X 48"	16.00 ♦			
	W4-6	48" X 48"	16.00 ♦			
	W5-1a	48" X 48"	16.00 ♦			PAVEMENT NARROWS
	W6-1	48" X 48"	16.00 ♦			
	W6-2	48" X 48"	16.00 ♦			
	W6-3	48" X 48"	16.00 ♦			
	W8-1	48" X 48"	16.00 ♦			BUMP
	W8-4	48" X 48"	16.00 ♦			SOFT SHOULDER
	W8-6	48" X 48"	16.00 ♦			TRUCK CROSSING

SIGNS REQUIRED (CONT'D)

Note	SIGN NO.	SIZE	UNIT AREA FT²	QUAN. REQ'D.	TOTAL SIGN AREA FT²	REMARKS
	W8-7	48" X 48"	16.00 ♦			LOOSE GRAVEL
	W8-9	48" X 48"	16.00 ♦			LOW SHOULDER
	W8-11	36" X 36"	9.00			UNEVEN LANES
	W8-12	48" X 48"	16.00 ♦			NO CENTER STRIPE
(1)	W10-1	36" DIA.	7.07			RXR
(2)	W10-1	48" DIA.	12.56 ♦			
	W13-1	24" X 24"	4.00			XX MPH
(1)	W14-3	36" X 48" X 48"	5.56			NO PASSING ZONE
(2)	W14-3	48" X 64" X 64"	9.89			
	W16-2	24" X 18"	3.00			XXX FEET
	W19-2	48" X 48"	16.00 ♦			BRIDGE MAY ICE IN COLD WEATHER
(1)	W20 - 1	48" X 48"	16.00 ♦			ADVANCE ROAD WORK
(2)	W20 - 1	36" X 36"	9.00			
	W20 - 2	48" X 48"	16.00 ♦	12	192	ADVANCE DETOUR
	W20 - 3	48" X 48"	16.00 ♦	24	384	ADVANCE ROAD CLOSED
	W20 - 4	48" X 48"	16.00 ♦			ADVANCE ONE-LN. RD.
	W20 - 4b	48" X 48"	16.00 ♦			ADVANCE ONE-LN. BR.
	W20 - 5L	48" X 48"	16.00 ♦			ADVANCE LT. LN. CLOSED
	W20 - 5R	48" X 48"	16.00 ♦			ADVANCE RT. LN. CLOSED
	W20 - 7a	48" X 48"	16.00 ♦			
	W21 - 1	36" X 36"	9.00			WORKERS
	W21 - 1a	36" X 36"	9.00			
	W21-2	36" X 36"	9.00			FRESH OIL (TAR)
	W21-3	48" X 48"	16.00 ♦			ADVANCE ROAD MACHINERY
	W21-5	48" X 48"	16.00 ♦			SHOULDER WORK
	W21-6	36" X 36"	16.00 ♦			SURVEY CREW
	W24-1L	48" X 48"	16.00 ♦			
	W24-1R	48" X 48"	16.00 ♦			
	W24-1aL	48" X 48"	16.00 ♦			
	W24-1aR	48" X 48"	16.00 ♦			
	W24-1bL	48" X 48"	16.00 ♦			
	W24-1bR	48" X 48"	16.00 ♦			
	VP-IL	12" X 36"	3.00			
	VP-IR	12" X 36"	3.00			
[5]	OM-3L	12" X 36"	3.00			
[5]	OM-3R	12" X 36"	3.00			
	TOTAL SIGN AREA LESS THAN 10 SQ. FT.					96 SQ. FT.
	TOTAL SIGN AREA GREATER THAN 10 SQ. FT. ♦					717 SQ. FT.

NOTES

(1) STANDARD

(2) SPECIAL (USE WHERE WARRANTED)

[1] INTERSTATE ROUTE MARKER

[2] UNITED STATES ROUTE MARKER

[3] STATE ROUTE MARKER

[4] COLORS OF CARDINAL DIRECTION MARKERS AND DIRECTIONAL ARROWS SHALL BE APPROPRIATE TO MATCH ACCOMPANYING ROUTE MARKERS.

[5] BLACK STRIPES ON YELLOW BACKGROUND

[6] INTERSTATE USE ONLY

[7] TOP OF SIGN - BLACK LETTERING ON ORANGE BACKGROUND, BOTTOM OF SIGN - BLACK LETTERING ON WHITE BACKGROUND

THE BACKGROUND OF ALL WARNING SIGNS ("W" SERIES) EXCEPT W10-1 SHALL BE ORANGE. THE W10-1 BACKGROUND SHALL BE YELLOW IN ALL CASES.

DEPARTMENT OF TRANSPORTATION MISSISSIPPI

MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE: 4/21/2025

FMS CON: 109690/301000
PROJECT NO.: STBG-9999-03(402) 7
COUNTY: HOLMES

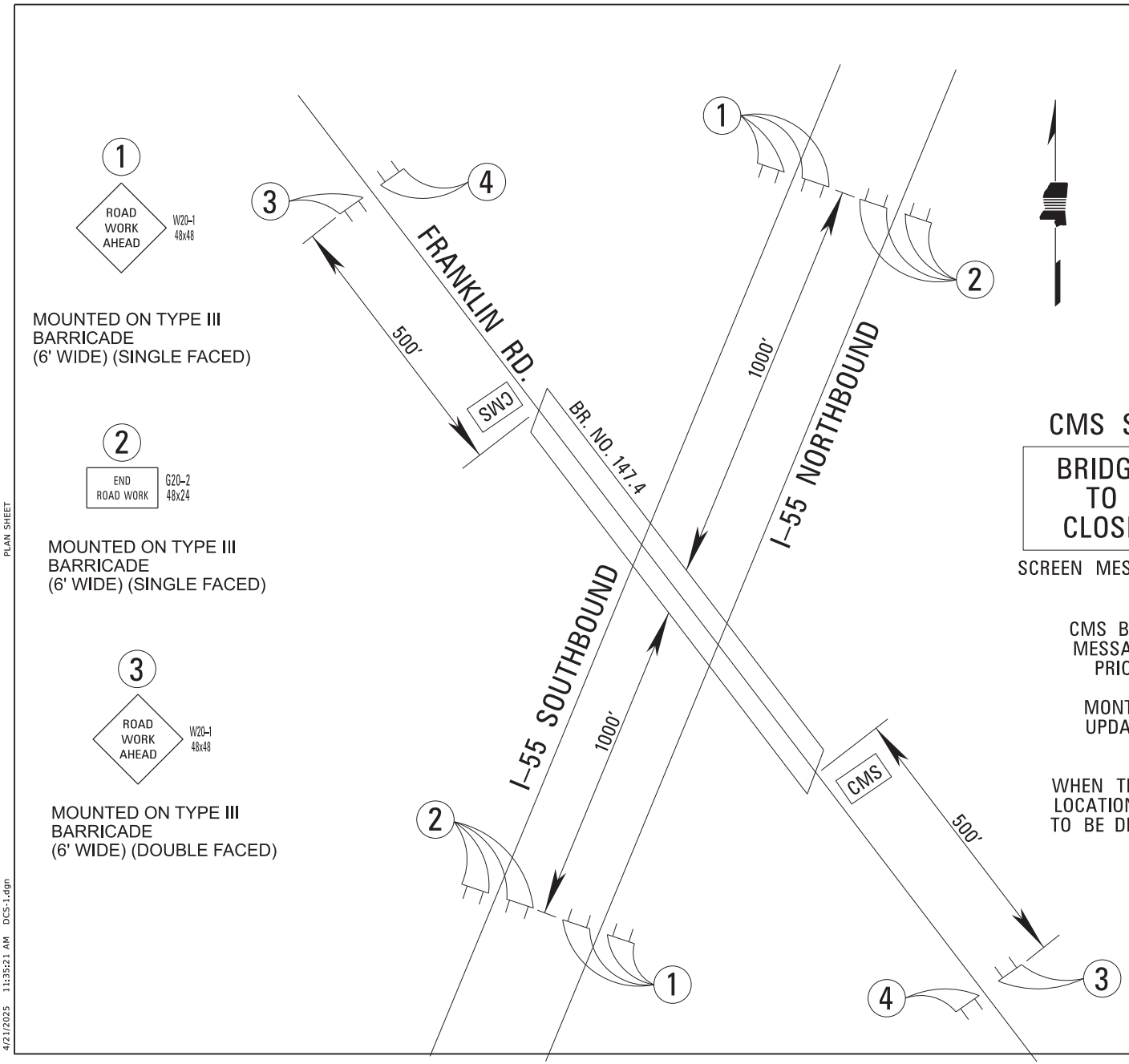
TRAFFIC CONTROL SIGNS
ESTIMATED QUANTITIES

SHEET ID TCPQ-1
SHEET NO. 1

PLAN SHEET

11:35:13 AM TCPQ-1.dgn

DATE



CMS SCREEN MESSAGES

BRIDGE TO CLOSE	"MONTH" "DAY"
SCREEN MESSAGE 1	SCREEN MESSAGE 2

CMS BOARDS TO FLASH SCREEN MESSAGES FOR TWO (2) WEEKS PRIOR TO BRIDGE CLOSING.

MONTH AND DAY ARE TO BE UPDATED BASED ON ACTUAL CLOSURE DATE

WHEN THE BRIDGGE IS CLOSED, CMS LOCATIONS AND SCREEN MESSAGES TO BE DETERMINED BY THE PROJECT ENGINEER.

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE: 4/21/2025

FMS CON: 109690/301000
PROJECT NO.: STBG-9999-01(042)
COUNTY: HOLMES

DETAIL OF CONSTRUCTION SIGNING
I-55 AT FRANKLIN RD.
BR. No. 147.4

SHEET ID
DCS-1

SHEET NO.
2

Notice to Bidders -- Contract No. 7065

PLAN SHEET

4/21/2025 11:35:21 AM DCS-1.dgn

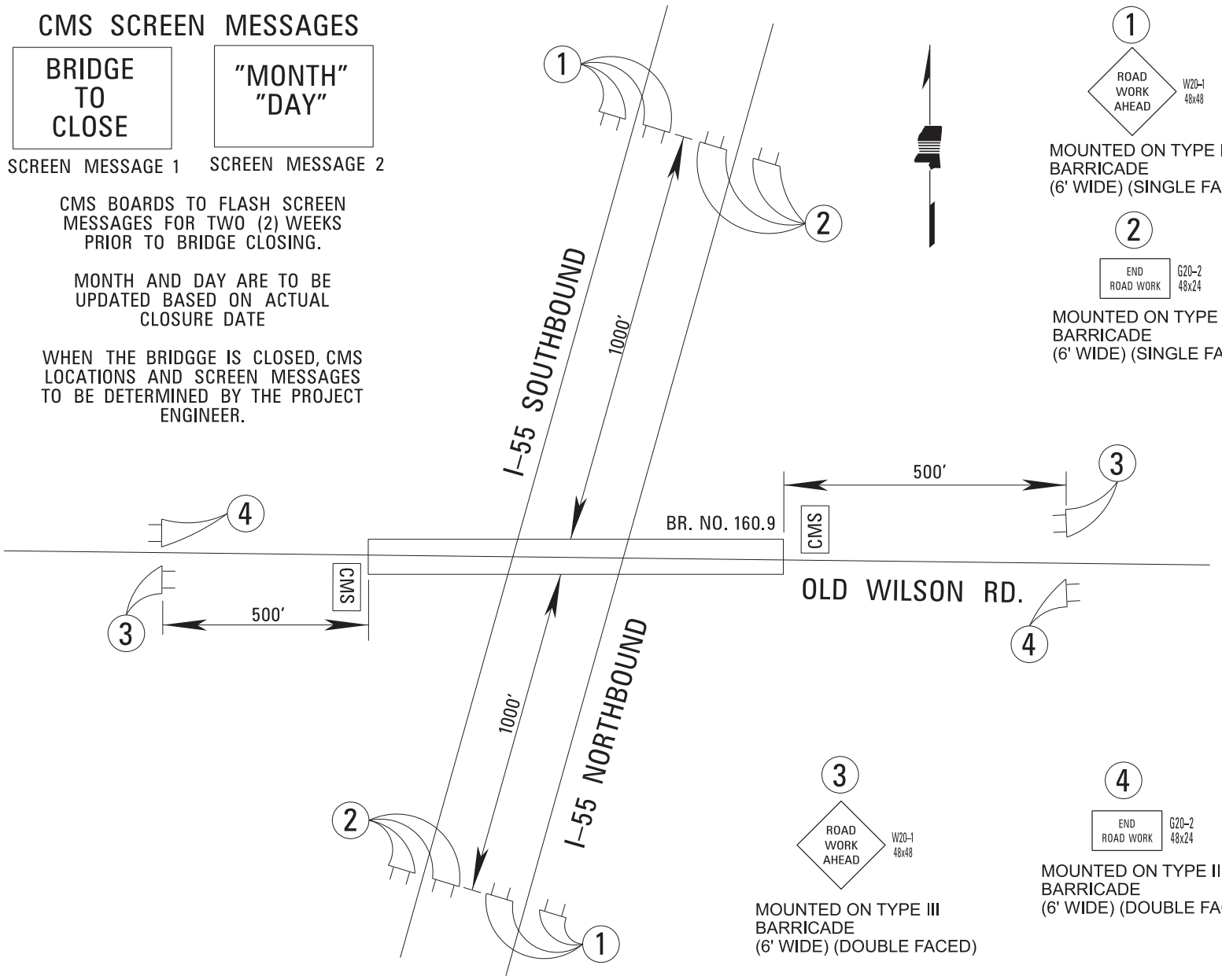
CMS SCREEN MESSAGES

BRIDGE TO CLOSE	"MONTH" "DAY"
SCREEN MESSAGE 1	SCREEN MESSAGE 2

CMS BOARDS TO FLASH SCREEN MESSAGES FOR TWO (2) WEEKS PRIOR TO BRIDGE CLOSING.

MONTH AND DAY ARE TO BE UPDATED BASED ON ACTUAL CLOSURE DATE

WHEN THE BRIDGGE IS CLOSED, CMS LOCATIONS AND SCREEN MESSAGES TO BE DETERMINED BY THE PROJECT ENGINEER.



1
ROAD WORK AHEAD W20-1 48x48

MOUNTED ON TYPE III BARRICADE (6' WIDE) (SINGLE FACED)

2
END ROAD WORK G20-2 48x24

MOUNTED ON TYPE III BARRICADE (6' WIDE) (SINGLE FACED)

3
ROAD WORK AHEAD W20-1 48x48

MOUNTED ON TYPE III BARRICADE (6' WIDE) (DOUBLE FACED)

4
END ROAD WORK G20-2 48x24

MOUNTED ON TYPE III BARRICADE (6' WIDE) (DOUBLE FACED)

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE: 4/21/2025

FMS CON: 109690/301000
PROJECT NO.: STBG-9999-03(402)
COUNTY: HOLMES

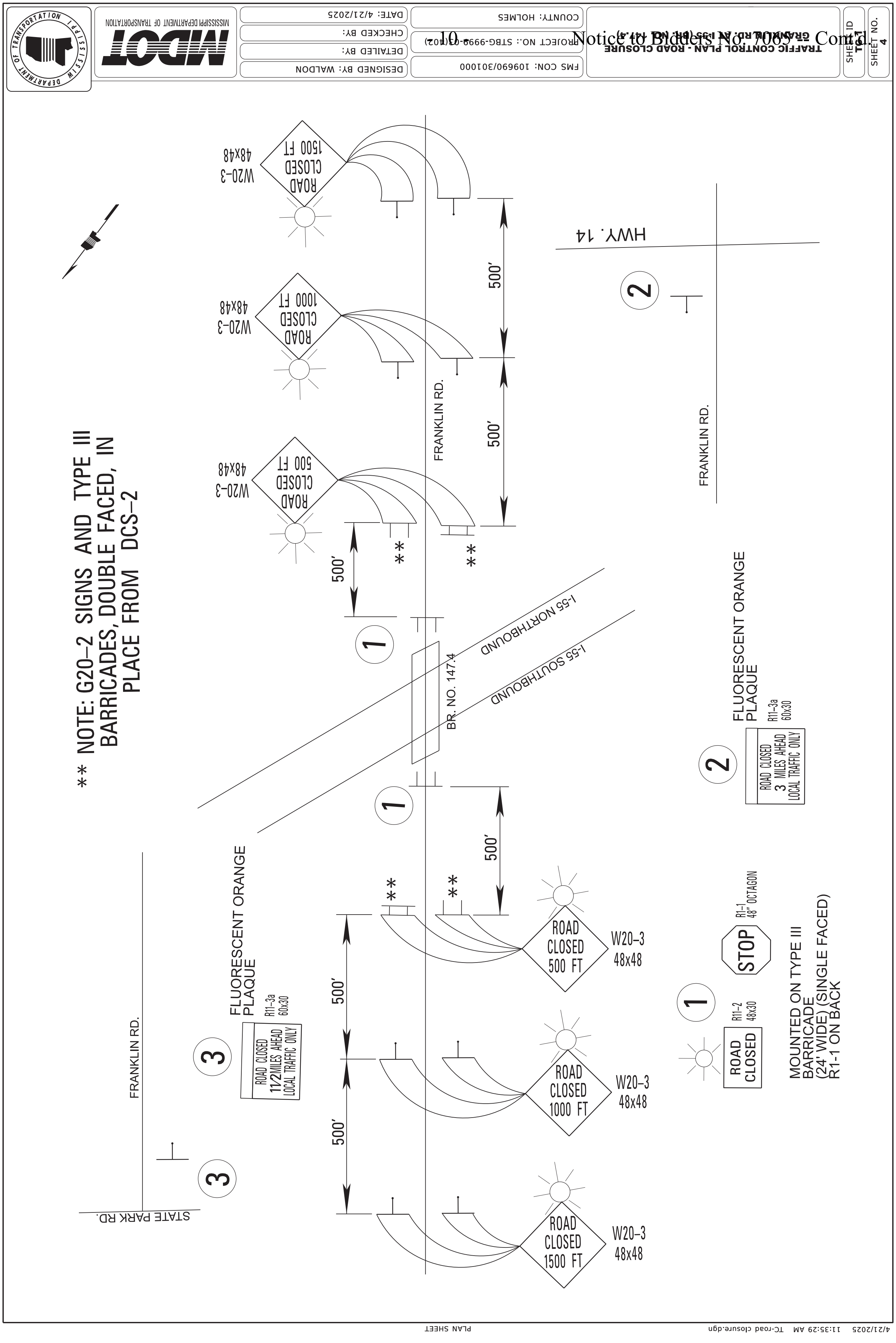
DETAIL OF CONSTRUCTION SIGNING
I-55 AT OLD WILSON RD.
BR. No. 160.9

SHEET ID
DCS-2
SHEET NO.
3

Notice to Bidders -- Contract No. 7065

PLAN SHEET

4/21/2025 11:35:21 AM DCS-1.dgn



MDOT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE: 4/21/2025
FMS CON: 109690/301000
PROJECT NO.: STBG-9999-03(102)
COUNTY: HOLMES
TRAFFIC CONTROL PLAN - ROAD CLOSURE
SHEET ID
SHEET NO.
4
** NOTE: G20-2 SIGNS AND TYPE III BARRICADES, DOUBLE FACED, IN PLACE FROM DCS-2
ROAD CLOSED 1500 FT
ROAD CLOSED 1000 FT
ROAD CLOSED 500 FT
W20-3 48x48
500'
HWY. 14
FRANKLIN RD.
I-55 NORTHBOUND
I-55 SOUTHBOUND
BR. NO. 147.4
STATE PARK RD.
FLUORESCENT ORANGE PLAQUE
ROAD CLOSED 3 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3a 60x30
ROAD CLOSED 1 1/2 MILES AHEAD LOCAL TRAFFIC ONLY
STOP
R1-1 48" OCTAGON
ROAD CLOSED
R11-2 48x30
MOUNTED ON TYPE III BARRICADE (24' WIDE) (SINGLE FACED) R1-1 ON BACK
PLAN SHEET
4/21/2025 11:35:29 AM TC-road closure.dgn

TRAFFIC CONTROL PLAN - ROAD CLOSURE
OLD WILSON ROAD FOR BR. NO. 160.9

FMS CON: 109690/301000
PROJECT NO.: STBG-9999-00(102)
COUNTY: HOLMES

DESIGNED BY: WALDON
DETAILED BY:
CHECKED BY:
DATE: 4/21/2025

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

MDOT

DEPARTMENT OF TRANSPORTATION · MISSISSIPPI

HWY. 51

OLD WILSON RD.

2

FLUORESCENT ORANGE PLAQUE
R11-3a 60x30

ROAD CLOSED
4 MILES AHEAD
LOCAL TRAFFIC ONLY

W20-3 48x48 ROAD CLOSED 1500 FT

W20-3 48x48 ROAD CLOSED 1000 FT

W20-3 48x48 ROAD CLOSED 500 FT

500'

500'

500'

**

**

END ROAD WORK G20-2 48x24

1

I-55 NORTHBOUND

I-55 SOUTHBOUND

BR. NO. 160.9

** NOTE: G20-2 SIGNS AND TYPE III BARRICADES, DOUBLE FACED, IN PLACE FROM DCS-2

MOUNTED ON TYPE III BARRICADE (24' WIDE) (SINGLE FACED) R1-1 ON BACK

1

ROAD CLOSED R11-2 48x30

STOP R1-1 48" OCTAGON

END ROAD WORK G20-2 48x24

**

**

500'

500'

500'

ROAD CLOSED 500 FT W20-3 48x48

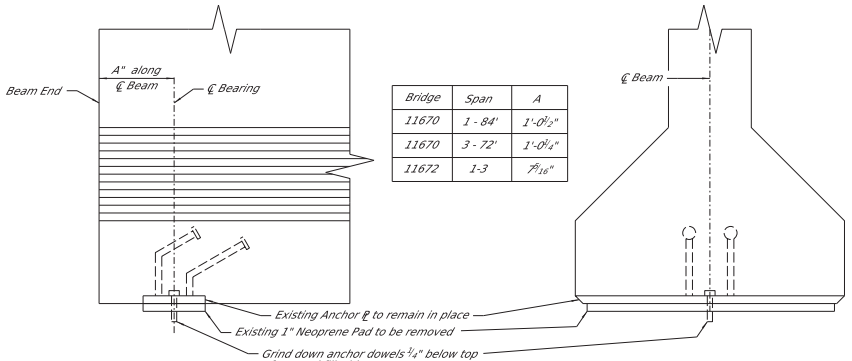
ROAD CLOSED 1000 FT W20-3 48x48

ROAD CLOSED 1500 FT W20-3 48x48

OLD WILSON RD.

2

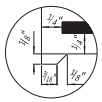
BOWLING GREEN RD.



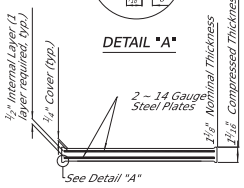
Bridge	Span	A
11670	1 - 84'	1'-0 1/2"
11670	3 - 72'	1'-0 1/4"
11672	1-3	7 7/16"

EXISTING BEARING ASSEMBLY DETAILS

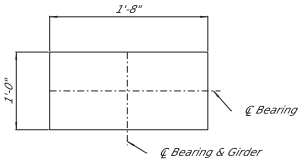
Showing existing bearing assembly details for 84' & 72' spans on bridge 11670 and all spans of bridges 11672.



DETAIL "A"

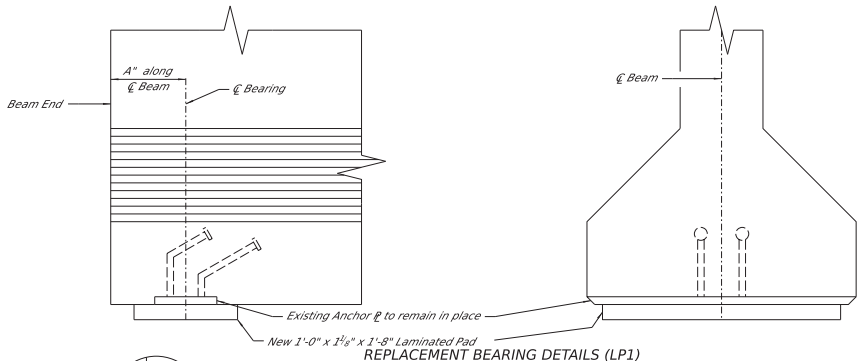


TYPICAL SECTION LAMINATED PAD (LP1)



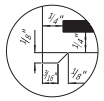
PLAN OF LAMINATED PAD (LP1)

Testing acceptance procedure shall be in accordance with Section 714.10.6 of the Specifications. Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 ksi and a maximum shear modulus at 73°F of 0.130 ksi. Bearing area on top of cap shall be smooth and true to grade.

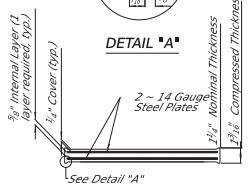


REPLACEMENT BEARING DETAILS (LP1)

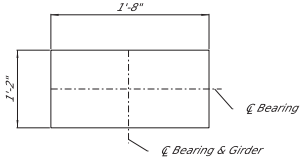
Showing bearing assembly details for 84' & 72' spans on bridge 11670 and all spans of bridges 11672.



DETAIL "A"

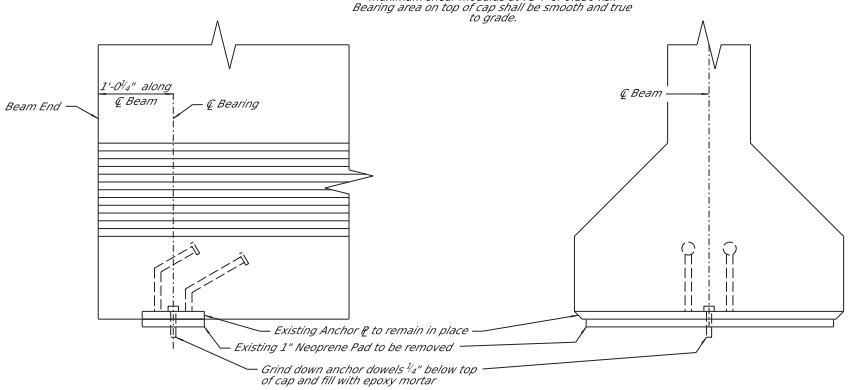


TYPICAL SECTION LAMINATED PAD (LP2)

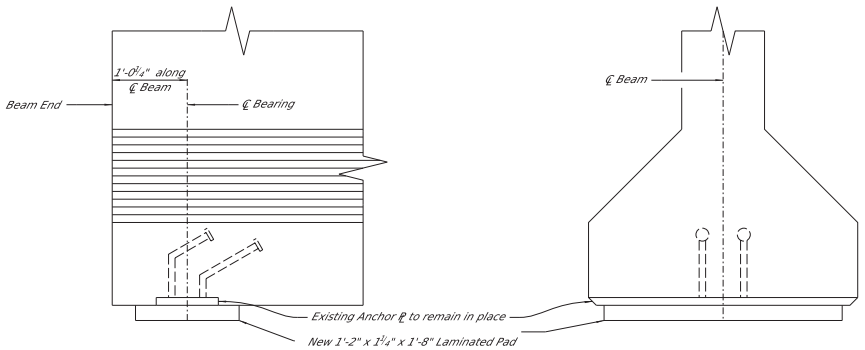


PLAN OF LAMINATED PAD (LP2)

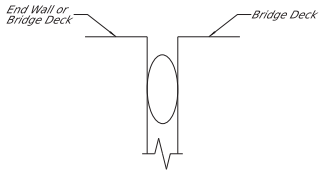
Testing acceptance procedure shall be in accordance with Section 714.10.6 of the Specifications. Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 ksi and a maximum shear modulus at 73°F of 0.130 ksi. Bearing area on top of cap shall be smooth and true to grade.



EXISTING BEARING ASSEMBLY DETAILS FOR 102' SPANS ~ BRIDGE 11670

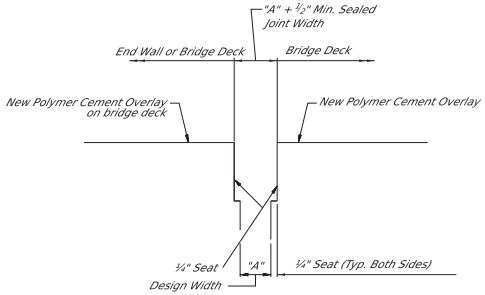


REPLACEMENT BEARING DETAILS (LP2) FOR 102' SPANS ~ BRIDGE 11670

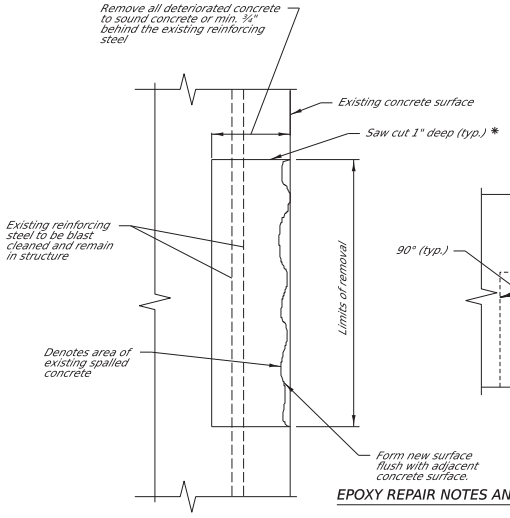


TYPICAL SECTION AT EXISTING JOINT

Showing Typical Joint on Bridges 147.4 & 160.9



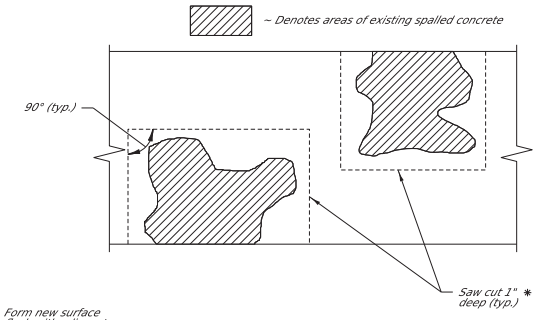
TYPICAL SECTION AT JOINT REPAIR & SAWCUTS

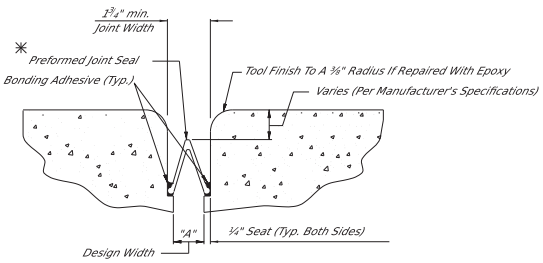


EPOXY REPAIR NOTES AND DETAILS

NOTE:

Epoxy Locations:
Bridge 160.9
Span 1 Beam 1 20' from abutment
Span 4 Beam 1 at beam end
Bridge 147.4
Span 1 beam 4 at beam end
Span 3 beam 1 at beam end
Bent 1 cap





TYPICAL SECTION AT SEALED JOINT

✱NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec SSS Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.sslcm.com

2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturers. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ¼" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". Preformed Joint Seal, Type III shall be used for design widthsgreater than 2½", whith the maximum design width being 3½". In Cases Where Design Widths Are Greater Than 3½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.

✱ NOTE:

Saw cut existing concrete 1" deep so as to obtain a rectangular area. All existing reinforcement shall be carefully preserved and blast cleaned.

NOTE:

Prior to saw cutting, the contractor shall locate all existing reinforcement in the repair area. All existing reinforcement shall be carefully preserved and blast cleaned. Any damage to the existing reinforcement shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the State.

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression, And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recommendations.

907-823-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

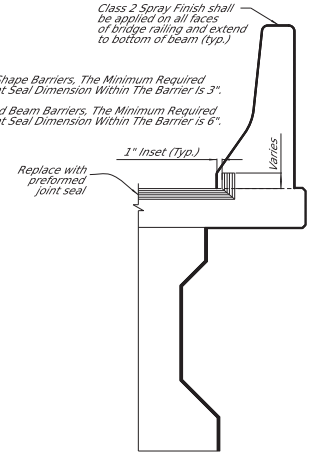
GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".

For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier is 6".



ELEVATION AT END OF SPAN

BEARING PAD LAYOUT - BRIDGE 11670

BEARING PAD LAYOUT - BRIDGE 11672

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-626-12 **CODE: (IS)**

DATE: 06/17/2025

SUBJECT: Thermoplastic Traffic Markings

Section 626, Thermoplastic Traffic Markings, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete Section 626 on pages 492 thru 496, and substitute the following.

SECTION 626 - THERMOPLASTIC TRAFFIC MARKINGS

907-626.01--Description. This work consists of furnishing materials and placing thermoplastic pavement markings of the type specified in conformity with these specifications and the details shown on the plans or established. All hot-applied thermoplastic pavement markings shall be coated with a double-drop combination of optics.

This work may also consist of placing an audible bump or puck style marking system on the edge line that provides an audible and vibratory warning when driven over. The marking system shall be a road marking system of the dimensions indicated at regular and predetermined intervals.

This work may also consist of placing a profile or raised shape marking system on centerline or edge line that provides audible and vibratory warning when driven over. The marking system shall be a road marking system of the dimensions indicated and at regular and predetermined intervals. When placed on centerline, the markings system shall consist of an extruded black transverse thermoplastic bar of the dimensions indicated at regular and predetermined intervals.

This work may also consist of placing high contrast thermoplastic markings. High contrast thermoplastic markings shall consist of placing thermoplastic pavement markings over a black thermoplastic pavement marking to enhance the marking's visibility.

All pavement marking material, excluding lines over rumble strips, shall be applied using the extrusion/ribbon method. Lines placed over rumble strips shall be applied using the atomization/spray method, unless the extrusion/ribbon method can be demonstrated to perform adequately and is approved by the Engineer.

Permanent pavement marking tape (permanent cold plastic tape) may be used in lieu of hot applied thermoplastic markings. Substitution will only be allowed for pay items 907-626-A through H. Substituted pavement marking tape shall be of the same color and width as that required for the hot applied thermoplastic. Unless otherwise specified, the markings, whether hot applied or pavement marking tape, shall be of the same type of material for the entire project. Stop bars and crosswalks shall not be substituted with pavement marking tape and shall be alkyd hot-applied thermoplastic markings or heat-fused preformed pavement markings. Material and construction

requirements for substituted pavement marking tape shall meet the requirements of Special Provision 907-628. The layout and spacing for substituted pavement markings will remain as shown in the plans, or in the contract documents, for hot applied thermoplastic markings. Measurement of adhesive substituted pavement markings shall be made in accordance with Special Provision 907-628. Payment for adhesive substituted pavement markings shall be made at the unit price for the appropriate hot applied thermoplastic marking.

When thermoplastic pavement markings are used on bridge decks or concrete surfaces, the surface shall be sealed with an epoxy sealer prior to the application of thermoplastic.

907-626.02--Materials. All pavement marking materials shall meet the requirements of Special Provision 907-720.

907-626.02.1--Audible Bumps. Audible bumps shall have a profile such that the leading and trailing edges are sloped at a sufficient angle to create an audible and vibratory warning.

Audible bumps shall be at least 0.45 inches above the pavement surface at the highest point of the bump. The height shall be measured after the application of drop-on material. The bumps shall have a minimum dimension of two and one-half inches (2½") in both transverse and longitudinal directions. The bumps may have a drainage channel. The width of each drainage channel shall not exceed one-quarter of an inch (¼") at the bottom of the channel.

907-626.02.2--Audible Transverse Bars. The length of transverse bars is the measurement lateral to the direction of travel, also known as transverse width. The width of transverse bars is the measurement parallel to the travel way.

Transverse bars on centerline shall have a length of 10 inches, a width of three inches (3"), and a height of 350 mils. Transverse bars on centerline shall be placed on 2-foot centers through no-passing zones and 5-foot centers through passing zones. Transverse bars on centerline shall be placed in advance of permanent thermoplastic markings.

Transverse bars on edge lines shall have a length of six inches (6"), a width of three inches (3"), and a height of 350 mils. Transverse bars on edge lines shall be placed on 2-foot centers. Tolerance for the longitudinal and transverse measurements shall be one quarter of an inch (¼") and the tolerance for height shall be 50 mils. The above dimensions are based on 6-inch strip application.

Thermoplastic material for edge line transverse bars shall be as specified on the Plans and meet the requirements of Special Provision 907-720 or as specified on the plans. Thermoplastic material for centerline transverse bars shall be black and shall meet the requirements of Special Provision 907-720.

907-626.02.3--High Contrast Markings. High contrast markings shall be black with the pertinent marking color overlaid on top and shall meet the requirements of Special Provision 907-720.

907-626.03--Construction Requirements.

907-626.03.1--Equipment. Equipment for hot application shall be of sufficient size and stability to ensure smooth, uniform, properly aligned markings of the dimensions specified. The equipment shall be suitably equipped for heating and controlling the flow of the material. The equipment shall be constructed to provide continuous mixing and agitation of the material. The conveying parts of the equipment, between the main material reservoir and applicator, shall be so constructed as to prevent accumulation and clogging. The equipment shall be constructed so that all mixing and conveying parts, up to and including the applicator, maintain the material at the plastic temperature. The thermoplastic material shall be dispensed at a temperature recommended by the manufacturer. The applicator shall include a cutoff device remotely controlled to provide clean, square stripe ends and to provide a method for applying skip lines. The thermoplastic reservoir shall be insulated and equipped with an automatic thermostatic control to maintain the proper temperature of the material.

The application equipment shall be capable of automatic placement of intermittent and continuous line patterns in single or double line applications simultaneously. The intermittent timer mechanism shall provide a variable ratio of materials applied and variable cycle length such that accurate placement of new patterns, or replacement of existing patterns can be achieved.

The equipment shall also be capable of applying the top dressing of optics (beads) in a manner that firmly embeds them into the surface of the thermoplastic material for at least one half of the diameter of the larger gradation sizes of the optics. The dispensing equipment shall be equipped with an automatic cut-off control for the application of the optics that is synchronized with the cut-off of the thermoplastic material.

Optics applied to the surface of the completed stripe shall be applied by an automatic dispenser attached to the pavement marking equipment in such a manner that the optics are immediately dispensed upon the completed line. The dispenser shall be equipped with an automatic cutoff control, synchronized with the cutoff of the pavement marking equipment. The double-drop optics as defined in 907-720 shall be automatically applied at a uniform rate to achieve the minimum retroreflectivity requirements of 907-626.

907-626.03.2--Construction Details. The thermoplastic compound shall be screed or ribbon extruded to the pavement surface. Heat-fused, pre-formed pavement markings shall be fusible to asphalt surfaces by means of the normal heat of a propane weed-burner type of torch or other heating device as recommended by the manufacturer. Heat-fused, pre-formed pavement markings shall be instantly highly reflective without the application of additional optics.

Thermoplastic markings shall not be applied to the pavement surface when the pavement surface temperature is less than 55°F. The pavement surface shall be dry, to the satisfaction of the Engineer, before application will be permitted. Unless otherwise specified by the manufacturer, thermoplastic pavement marking material shall be applied to the surface between 400°F and 450°F with a recommended application temperature being 420°F.

Immediately before application, all areas to be marked shall be thoroughly cleaned. Cleaning may be done by rotary brooms, air blast, scrapers, or whatever combination of equipment is necessary to clean the pavement thoroughly without damage to the pavement surface. On areas of pavement

cured with compound, the membrane shall be removed completely by shot blasting, sand blasting or other approved method. Before edge striping, particular care shall be taken to remove all vegetation, loose soil, and the like from the area to be marked. Should other methods fail, the surface shall be wetted with a water jet and scrubbed as necessary to dislodge all foreign material. After washing, the surface shall be allowed to dry thoroughly, and all films of dried mud apparent after surface drying shall be removed before application of markings. Marking shall follow as closely as practicable after the surface has been cleaned and dried, but no markings shall be applied until the surface has been inspected and permission given to proceed. The cost for preparing the surface shall be included in the contract unit prices for the marking items.

Unless otherwise directed by the Engineer, traffic stripes that are conflicting with the thermoplastic stripe shall be removed prior to placement of the thermoplastic material. Removal of pavement markings shall be done by a means that will not gouge the surface of the pavement in a manner that requires patching to ensure the integrity of the pavement. Temporary paint stripe may be left in place when satisfactorily placed in the proper location. Any temporary stripe not covered shall be removed. Payment for removal of stripe, except temporary stripe, will be made under Section 202.

On newly constructed asphalt pavements, any sand, grit, or other surface contaminants shall be removed using compressed air and/or sweeping. Water blasting may be necessary to remove surface contaminants which cannot be removed by the use of compressed air and/or sweeping. This work is considered surface preparation.

The finished lines shall have well defined edges and the thickness of thermoplastic markings above the roadway surface shall be no less than 90 mils for edge lines, center lines, lane lines, barrier lines, and detail stripe including gore markings, and no less than 120 mils for crosswalks, stop lines, and railroad, word and symbol markings. The minimum thickness, as required above, will be measured in the center of the line when gauged. The minimum thickness one-half inch (½") from the edges shall not be less than 75% of the thickness required in the center.

Any thermoplastic traffic marking less than the required thickness shall be corrected by recapping at no additional costs to the Department. Although a thickness tolerance of 25 percent from center to edge is allowed, a consistent underrun of any amount in thickness as determined by the Engineer will not be acceptable.

The length and width of lines shall be within a tolerance of ±3 inches and ±1/8 inch, respectively. For skip markings, the tolerance for intervals shall not exceed the line length tolerance. On curves, unsightly variations from the normal curvature will not be permitted unless specifically shown on the plans or ordered by the Engineer.

Heat-fused, pre-formed pavement markings shall be supplied with a minimum average thickness of 90 mils before application on the roadway surface.

All newly applied thermoplastic material shall be protected from traffic until the material is sufficiently dry so as not to sustain damage from vehicle tires. Any material so damaged by traffic shall be repaired, and the thermoplastic material tracked onto the pavement shall be removed and

replaced.

907-626.03.3--Reflectivity Requirements. The longitudinal pavement markings shall meet the following retroreflectivity values when measured within 10 to 30 calendar days of placement, after removing loose beads.

Table 1. Minimum Dry Retroreflectivity

Color	All Stripe without Rumble mcd/m²/lx	Rumble Stripe mcd/m²/lx
White	375	250
Yellow	225	150

For projects with less than two miles between the BOP and EOP, retroreflectivity measurements will not be required.

907-626.03.3.1--Measuring Devices. Retroreflectivity measurements are required to be taken using a vehicle mounted mobile retroreflectometer using 30-meter geometry with video and mapping capabilities as per AASHTO T-398. The retroreflectometer and operator shall be certified by the manufacturer, authorized representative of the manufacturer, or an MDOT approved program such as the Texas A&M Transportation Institute (TTI) Mobile Retroreflectometer Certification Program. The Contractor shall provide copies of current certifications for the operator(s) and the device(s) to the Engineer.

907-626.03.3.2--Acceptance Procedure. Averages of the mobile measurements shall be provided for every 0.1 miles unless otherwise specified or approved. Take measurements on each section of roadway for each series of markings (i.e., edge line, center skip line, each line of a double line, etc.) and for each direction of traffic flow. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid line in both directions and measure all center skip lines in both directions). Furnish measurements in compliance with the below requirements. Use all equipment in accordance with the manufacturer's recommendations and directions. Inform the Engineer at least 24 hours before taking any measurements.

A marking meets the retroreflectivity requirements if:

- The combined average retroreflectivity value for a one-mile segment meets the minimum retroreflectivity values specified, and
- Within the one-mile segment, no more than three consecutive 0.1 mile intervals shall have an average retroreflectivity value below the minimum required value.

The one-mile segment will start from the beginning of the data collection and end after a mile worth of measurements have been taken; each subsequent mile of measurements will be a new segment. If the remainder is 0.5 miles or less, it shall be included in the previous mile segment, otherwise the remaining segment of greater than 0.5 mile shall be its own segment. Centerlines with 2 stripes (either solid or broken) will result in 2 miles of data for each mile segment. Each centerline stripe must be tested for compliance as a stand-alone stripe.

The Contractor may elect to restripe with a minimum of 0.060 in. (60 mils) at no cost to the Department each one-mile segment that failed to meet the minimum retroreflectivity requirements.

Measurements shall be retaken within 10 to 30 calendar days after the second application for the mile segment for that series of markings. If the markings do not meet minimum retroreflectivity after the second application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

907-626.03.3.3--Mobile Retroreflectivity Data Collection. Mobile Retroreflectivity Data Collection (MRDC) shall be conducted on dry pavement only and when the ambient air temperature is greater than 40°F. Data shall be submitted to the Engineer no later than 3 working days after the day the data is collected. Submit all raw data collected in addition to all other data submitted. Provide data files in Microsoft Excel format or a format approved by the Engineer. The data file and video must contain the following information.

907-626.03.3.3.1--Data File. Data files shall be provided with the following:

- Date;
- District;
- County;
- Name of mobile retroreflectometer operator;
- Route number with reference markers or other reference information provided by the Engineer to indicate the location of beginning and end data collection points on that roadway;
- Cardinal direction;
- Line type (single solid, single broken, double solid, etc.);
- Line color;
- File name corresponding to video;
- Data for each centerline listed separately;
- Average reading taken for each 0.1-mi. interval (or interval designated by the Engineer);
- Accurate GPS coordinates (within 20 ft.) for each interval;
- Color-coding for each interval indicating passing or failing, unless otherwise directed by the Engineer (passing and failing thresholds provided by the Engineer);
- Graphical representation of the MRDC (y-axis showing retroreflectivity and x-axis showing intervals) corresponding with each data file;
- Distance in miles driven while measuring the pavement markings;
- Event codes (pre-approved by the Engineer) indicating problems with measurement;
- Upper validation threshold (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

907-626.03.3.3.2--Map. A map shall be provided in an electronic format approved by the Engineer with each MRDC submission that includes the following information:

- Date;
- District number;
- County;

- Color-coded 1-mi. intervals (or interval length designated by the Engineer) for passing and failing retroreflectivity values or retroreflectivity threshold values provided by the Engineer; and
- Percentage of passing and failing intervals, if required by the Engineer.

907-626.03.3.3.3--Video. A high-quality video file shall be provided with the following information:

- Date and corresponding data file name on label;
- District number;
- County;
- Route number with reference markers or other designated reference information to indicate the location of beginning and end collection points on that roadway; and
- Retroreflectivity values presented on the same screen with the following information:
    - Date;
    - Location;
    - Starting and ending mileage;
    - Total miles;
    - Retroreflectivity readings; and
    - Upper validation thresholds (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

907-626.03.4--Reflectivity Verification Testing. The Engineer or a third party may perform retroreflectivity verification testing on any project. At a minimum, each Contractor performing work for the Department will be verified on an annual basis. The Contractor-submitted retroreflectivity data will be compared to the verification test data to determine acceptability of the Contractor's mobile retroreflectometer data. Comparison of the data will result in one of the two scenarios below:

- Contractor's Data is Validated – If the difference between Contractor's and Engineer/third party data is 20% or less, then the Contractor's data is validated. The Contractor's data will be used for acceptance.
- Contractor's Data is not Validated – If the difference between the Contractor's and Engineer/third party data is more than 20%, then the Contractor's data is not validated. The Engineer/third party data will be used for acceptance and the Contractor will be required to take corrective action prior to additional Contractor data collection and may require re-certification of the mobile retroreflectometer.

907-626.04--Method of Measurement. Thermoplastic stripe completed in accordance with the plans and specifications will be measured by the mile or by the linear foot, as indicated, from end-to-end of individual stripes. In the case of skip lines the measurement will include skip intervals. The length used to measure centerline, lane lines, and edge stripes will be the horizontal length computed along the roadway.

Detail traffic stripe will be measured by the linear foot from end-to-end of individual stripes. Measurements will be made along the surface of each stripe and will exclude skip intervals where

skips are specified. Stripes more than six inches (6") in width will be converted to equivalent lengths of 6-inch stripe.

Hot-applied legend, which is to include railroad markings, pedestrian crosswalks, and stop lines, will be measured by the square foot or linear foot. Pay areas of individual letters and symbols will usually be shown on the plans and measured by the square foot. Transverse railroad bands, pedestrian crosswalks and stop lines will generally be measured by the linear foot, in which case, stripes more than six inches (6") in width will be converted to equivalent lengths of 6-inch widths.

Pre-formed legend which is to include railroad markings and pedestrian crosswalks will be measured and paid for by each.

The length measured for thermoplastic audible bump edge stripe will not include the permanent thermoplastic edge stripe. Permanent thermoplastic edge stripe will be measured for payment under a separate pay item.

Thermoplastic audible bar centerline skip stripe will be measured by the linear foot or mile. Measurements will be made along the surface from end-to-end of the stripe and will include skip intervals. The length used to measure audible bar centerline stripe will be the horizontal length computed along the roadway. The length measured for thermoplastic audible bar centerline skip stripe will not include the permanent centerline continuous or skip stripe. Permanent centerline continuous and skip stripe will be measured for payment under separate pay items.

Thermoplastic audible bar edge stripe will be measured by the linear foot or mile. Measurements will be made along the surface from end-to-end of the stripe. The length used to measure thermoplastic audible bar edge stripe will be the horizontal length computed along the roadway. The length measured for thermoplastic audible bar edge stripe will not include the permanent thermoplastic edge stripe. Permanent thermoplastic edge stripe will be measured for payment under a separate pay item.

907-626.05--Basis of Payment. Thermoplastic traffic markings will be paid for at the contract unit price per mile, linear foot, square foot or each as applicable. Any deductions for non-satisfactory material test results will be made after final testing has been performed.

Payment will be made under:

907-626-A:	6" Thermoplastic Traffic Stripe, Skip White	- per linear foot or mile
907-626-B:	6" Thermoplastic Traffic Stripe, Continuous White	- per linear foot or mile
907-626-C:	6" Thermoplastic Edge Stripe, Continuous White	- per linear foot or mile
907-626-D:	6" Thermoplastic Traffic Stripe, Skip Yellow	- per linear foot or mile
907-626-E:	6" Thermoplastic Traffic Stripe, Continuous Yellow	- per linear foot or mile

907-626-F:	6" Thermoplastic Edge Stripe, Continuous Yellow	- per linear foot or mile
907-626-G:	Thermoplastic Detail Stripe, Color *	- per linear foot
907-626-H:	Thermoplastic Legend, Color *	- per linear foot, square foot, or per each
907-626-Q:	Thermoplastic Audible Bump Edge Stripe	-per linear foot or mile
907-626-R:	Thermoplastic Detail Audible *** Stripe, Color **,	-per mile
907-626-AA:	6" High Contrast Thermoplastic Traffic Stripe, Skip White	- per linear foot or mile
907-626-BB:	6" High Contrast Thermoplastic Traffic Stripe, Continuous White	- per linear foot or mile
907-626-CC:	6" High Contrast Thermoplastic Edge Stripe, Continuous White	- per linear foot or mile
907-626-DD:	6" High Contrast Thermoplastic Traffic Stripe, Skip Yellow	- per linear foot or mile
907-626-EE:	6" High Contrast Thermoplastic Traffic Stripe, Continuous Yellow	- per linear foot or mile
907-626-FF:	6" High Contrast Thermoplastic Edge Stripe, Continuous Yellow	- per linear foot or mile
907-626-GG:	High Contrast Thermoplastic Detail Stripe, Color *	- per linear foot
907-626-HH:	High Contrast Thermoplastic Legend, Color *	- per linear foot, square foot, or each

* Indicate Blue - ADA if applicable
** Indicate White or Black
*** Indicate Centerline - Passing Zone, Centerline - No-Passing Zone, or Edge Line

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-720-4 **CODE: (IS)**

DATE: **06/17/2025**

SUBJECT: **Pavement Marking Materials**

Section 720, Pavement Marking Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete Section 720 on pages 840 thru 854, and substitute the following.

SECTION 720 - PAVEMENT MARKING MATERIALS

907-720.01--General. The Department reserves the right to perform sampling and testing of any materials at any time. Upon request of the Engineer, samples of the material shall be furnished.

907-720.02--Color Requirements. All pavement markings except raised pavement markers are required to meet the color requirements of ASTM D6628.

907-720.03--Optics. Optics used in thermoplastic pavement markings shall consist of a double-drop system of glass beads or advanced optics.

907-720.03.1--Glass Beads. The manufacturer shall furnish the Engineer with a certified test report indicating that the glass beads meet AASHTO M 247. AASHTO Type 4 beads shall be applied to the newly placed stripe first, followed by the application of AASHTO Type 1 or Type 2 beads. Type 1, 2, and 4 glass beads shall be transparent, clean, colorless glass, smooth and spherically shaped, free from milkiness, pits, or excessive air bubbles. Type 1, 2, and 4 glass beads shall be coated with a bead coating that is compatible with the traffic marking material to which the glass beads will be applied and will provide adequate moisture proofing, increased adhesion, and optimum embedment of the glass beads.

907-720.03.1.1—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual).

907-720.03.2--Advanced Optics. Advanced optics are materials that do not meet the specific requirements of AASHTO M 247 but produce a final drop-on optics system that meets or exceeds the reflectivity requirements in Special Provision 907-626. Advanced optics shall be a double-

drop system that is pre-approved and listed on the Department's Approved Products List.

907-720.03.2.1—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing may be conducted at the request of the Engineer.

907-720.04--Thermoplastic Marking Material. Thermoplastic marking material shall meet the color requirements of Subsection 907-720.02.

There shall be no obvious change in the color of the material if held at its plastic temperature for a period of four (4) hours nor by reason of four (4) re-heatings to its plastic temperature.

The pavement markings shall maintain its original dimension and placement. The material shall not be slippery when wet and it shall not lift from the pavement in freezing weather.

907-720.04.1--Extruded Thermoplastic Material. Extruded thermoplastic pavement marking material shall meet the requirements of AASHTO M 249, and shall meet the requirements of 907-720.04 with the following exceptions:

- Blue - ADA thermoplastic marking material shall meet the requirements of Subsection 907-720.04.2 with the exception that the color shall be Blue – ADA, and the Contractor may use hot applied thermoplastic materials meeting the satisfaction of the Engineer.

907-720.04.2--Spray-Applied Thermoplastic Material. Spray-applied thermoplastic pavement marking material shall meet the requirements of AASHTO M 249 and shall meet the requirements of 907-720.04.

907-720.04.3--Pre-formed Thermoplastic Material. Heat-fused, pre-formed thermoplastic pavement marking material shall meet the color requirements of 907-720.02.

907-720.04.4—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

907-720.05--Pavement Marking Tape. Pavement marking tape shall be listed on the Department's Approved Lists.

907-720.05.1—Cold Plastic Pavement Markings (Permanent Pavement Marking Tape). Pavement marking tape for use in roadway applications shall be designated on the Department's Approved Lists as permanent.

The prefabricated markings described shall consist of white or yellow pigmented plastic films with reflective optics uniformly distributed throughout their entire cross-sectional area, and be capable of being affixed by either a pressure sensitive pre-coated adhesive or a liquid contact cement. The markings shall be provided complete in a form that will facilitate rapid application and protect the markings in shipment and storage. The manufacturer shall identify proper solvents and/or adhesives to be applied at the time of application, all equipment necessary for proper application, and recommendations for application that will assure an effective performance life.

Prefabricated legends and symbols shall conform to the applicable shapes and sizes as outlined in the current "Manual on Uniform Traffic Control Devices."

907-720.05.1.1--Specific Requirements. Unless otherwise indicated on the plans, the patterned material without adhesive shall have a minimum caliper of 0.065 inch at the thickest portion of the patterned cross-section and a minimum caliper of 0.020 inch at the thinnest portion of the cross-section. The material shall be a pliant polymer film with 50±15% of the surface are raised and presenting a near vertical face angle of 0° to 60° to traffic from any direction. The channels between the raised areas shall be substantially free of exposed optics or particles.

The size and quality of the optics will be such that performance requirements of Subsection 907-720.02 for the retroreflective pliant polymer film shall be met. The pigments shall be selected and blended to provide a marking film that is white or yellow conforming to the performance requirements of Subsection 907-720.02 through the expected life of the film.

907-720.05.1.2--Conformability and Resealing. The marking shall be capable of conforming to pavement contours, breaks, faults, etc. through the action of traffic at normal pavement temperatures.

The marking shall have resealing characteristics that allows it to be capable of fusing with itself and previously applied marking of the same composition under normal conditions of use. The marking shall be capable of use for patching worn areas of the same type in accordance with manufacturer's instructions.

907-720.05.1.3--Tensile Strength and Elongation. The material shall have a minimum tensile strength of 40 pounds per square inch of cross section when tested according to ASTM D 638. A 6-inch x 1-inch x 0.06-inch sample shall be tested at a temperature between 70°F and 80°F using a jaw speed of 12 inches per minute.

The material shall have a minimum elongation of 75% at break when tested according to ASTM D 638 using a jaw speed of 12 inches per minute.

907-720.05.1.4--Skid Resistance. The surface of the material shall provide a minimum skid resistance value of 45 BPN when tested according to ASTM E 303 except values will be taken at

downweb and at a 45-degree angle from downweb. These two values will then be averaged to find the skid resistance of the patterned surface.

907-720.05.1.5--Effective Performance Life and Warranty. When applied according to the recommendations of the manufacturer the pavement marking tape shall provide a neat and durable marking that will not flow or distort due to temperature if the pavement surface remains stable. The film shall be weather resistant and through normal traffic wear shall show no appreciable fading, lifting, or shrinkage throughout the useful life of the marking, nor shall it show significant tearing, roll back, or other signs of poor adhesion.

All manufacturer's standard warranties and guarantees on pavement marking tape, which are provided as customary trade practice, shall be delivered to the Engineer at the final inspection. All warranties and guarantees shall be made out to the Department.

907-720.05.1.6—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual). Samples of the material shall be furnished and shall be provided at no cost to the State.

907-720.05.2--Preformed Pavement Markings for Construction Zones. Preformed pavement markings for construction zones shall be designated Department's Approved Lists as temporary. Retroreflective preformed pavement markings for construction zones shall be as specified on the plans or in the contract documents.

The markings shall be provided in specified widths and shapes. Preformed words and symbols shall conform to the applicable shapes and sizes as outlined in the current "Manual on Uniform Traffic Control Devices for Streets and Highways," or as modified.

The materials shall be packaged in accordance with accepted commercial standards and when stored indoors in a cool dry place, shall be suitable for use one year after date of purchase.

907-720.05.2.1--Specific Requirements. Preformed markings shall consist of retroreflective materials on a conformable backing and shall meet the performance requirements of Subsection 907-720.02. The markings shall consist of a mixture of high-quality polymeric materials, pigments, and optics with a reflective layer of optics bonded to the top surface. The markings shall be pre-coated with a pressure sensitive adhesive capable of adhering to pavement in accordance with the manufacturer's instructions without the use of heat, solvents, or other additional adhesives. The markings and/or adhesive shall not require any curing time after application. A coated non-metallic medium shall be incorporated with the pressure sensitive adhesive to facilitate removal.

907-720.05.2.2—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

907-720.06--Raised Pavement Markers. Pavement markers shall be listed on the Department's Approved Lists and shall conform to ASTM D 4280.

907-720.06.1--Packaging. Shipments shall be made in containers acceptable to common carriers and packaged in such a manner as to ensure delivery in perfect condition. All damaged shipments shall be replaced by the Contractor. Each package shall be clearly marked as to the name of the manufacturer, type, quantity enclosed, lot number, and date of manufacture.

907-720.06.2--Non-Reflective Pavement Markers. Non-reflective pavement markers are occasionally referred to as "jiggle markers". Non-reflective markers consisting of a heat-fired, vitreous, ceramic base, and a heat-fired, opaque, glazed surface are permitted for use; the bottom of the marker shall not be glazed. Ceramic markers shall be produced from any suitable combination of intimately mixed clays, shales, talcs, flints, feldspars, or other inorganic material. Ceramic markers shall be thoroughly and evenly matured, and all non-reflective pavement markers shall be free from defects which affect appearance or serviceability.

Ceramic non-reflective markers shall conform to the following finish and testing requirements in Table 2 below.

Table 2

Ceramic Non-Reflective Marker Requirements	
Glaze Thickness	0.005 inch, minimum
Mohs Hardness	6, minimum
Autoclave	Glaze shall not spall, craze, or peel.
Compressive Strength	750 psi, minimum
Water Absorption	2.0%, maximum

907-720.06.3—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

907-720.07--Adhesive for Pavement Markers. The adhesive shall be listed on the Department's Approved Lists and shall be an asphaltic material suitable for bonding pavement markers to surfaces when the road surface and marker temperatures are in the range of 50°F to 160°F. The composition of the adhesive must be such that its properties will not deteriorate when heated to and applied at temperatures up to 425°F. Samples may be submitted in the form of an adhesive

testing package from each batch or material obtained from a package shipped to the project.

907-720.07.1--Packaging and Labeling. The adhesive shall be packaged in self-releasing cardboard containers that will stack properly. The label shall show the manufacturer, quantity, and lot or batch number. "Adhesive for Pavement Markers" or "Adhesive for Traffic Markers" shall be printed in bold lettering on the label.

907-720.07.2--Bituminous Adhesive. The asphaltic adhesive material shall be flexible type.

907-720.07.2.1--Flexible Bituminous Adhesive. Flexible bituminous adhesive shall be designated on the Department's Approved Lists as flexible and shall comply with requirements of Table 3 below.

Table 3

Flexible Bituminous Adhesive Properties			
	Min	Max	Test Method
Penetration @ 77°F	-	25	ASTM D 5
Softening Point, °F	200	-	ASTM D 36
Brookfield Viscosity @ 400°F, cp.	-	10,000	ASTM D 3236
Ductility @ 77°F, 5 cm/min	15	-	ASTM D 113
Ductility @ 39.2°F, 1 cm/min	5	-	ASTM D 113
Asphalt Compatibility	Pass		ASTM D 5329
Flexibility @ 20°F	Pass		Per Subsection

907-720.07.3—Acceptance Procedure. The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual). Samples of the material shall be furnished and shall be provided at no cost to the State.