



**OFFICE OF
STATE AID ROAD CONSTRUCTION**

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October 24, 2017

Board of Supervisors
Madison County
P. O. Box 608
Canton, MS 39046-0608

RE: Bridge Closure
Structure Number: SA4500000000004
Rauser Road, Sec. 28, T7N, R1E
Madison County

Gentlemen:

This letter is to inform you that it has been determined the above referenced bridge site should be immediately closed by appropriate emergency/temporary means in accordance with the **Critical Finding Procedure for County / City Bridges Part 4** (attached). Until such time as the bridge is repaired or replaced the bridge should remain closed. Once the bridge is closed using these emergency/temporary means, the County Engineer should be notified and digital photographs of the closure shall be forwarded by mail or email to the County Engineer and State Aid for documentation of the closure and placement in the bridge file.

After the initial emergency/temporary closure, action to begin proper closure should begin immediately and completed by no later than **December 8, 2017** and in accordance with the State Aid Standard drawing **SA-BC-1** (attached). Digital photographs should be taken in both directions at the bridge, of each advance warning sign and identified by the bridge structure number. These photographs should be forwarded by mail or email to the County Engineer and State Aid within **45** days for documentation of the closure and placement in the bridge file.

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If the County has already taken action on this bridge, please provide the necessary documentation as indicated above. If the County can provide adequate written justification to warrant additional time for repair of the bridge or installation of the standard signs, barricades or barriers, an extension of time may be considered by State Aid.

Any questions concerning this should be discussed with your County Engineer.

Sincerely,

H. Carey Webb, P. E.
State Aid Engineer



By: C. David Barrett
NBI Program Manager

CDB/jaa
Attachments

pc: James L. Hust, III, P. E., County Engineer (w/ attachments)
Ronny Lott, Chancery Clerk (w/ attachments)
Ed Holland, P.E., District Engineer (w/o attachments)
Austin Banks, P.E., FHWA Division Bridge Engineer (w/o attachments)
File

SECTION 15: CRITICAL FINDINGS:

15.1 Definition and Criteria

Critical Findings (CF) are structural or safety related situations discovered during any inspection that threatens public safety.

The criteria for critical findings include but are not limited to, are as follows:

- Bridges with a condition that warrants an immediate or temporary closure.
- Bridges with NBI condition ratings of “3” or less for the Deck (Item 58), Superstructure (Item 59), Substructure (Item 60), or Culvert (Item 62); (In cases where it is determined that the bridge could be used safely at a lower posted load limit, the bridge may remain open if it is immediately posted at the reduced limit.)
- Bridges with recommendations for immediate action on Fracture Critical Members. Substantial problems such as (crack(s), tearing, missing connections, abrupt change in condition etc.)
- Bridges with recommendations for immediate correction for scour problems.
- Bridges with recommendations for immediate work to prevent substantial reduction in safe load capacity.

NOTE: If temporary repairs or a temporary structure is in place (Item 103=T), then the Superstructure or Substructure condition rating may be 3 or less and it **WOULD NOT** be considered a critical finding, as long as the temporary repairs address the defect.

15.2 Critical Finding Procedures

The following guidelines outline and describe the procedures to be followed if a critical finding is observed during a bridge inspection. These guidelines are divided into four parts; Responsibilities of the Bridge Inspection Team Leader (BITL), Responsibilities of the Bridge Inspection Program Manager (BIPM)/State Aid, Responsibilities of the County Engineers and Responsibilities of the Local Agency.

Part 1-Responsibilities of the BITL: Upon discovery of a critical finding, BITL is responsible for the following:

- 1). **Emergency Bridge Closure:** If the observed condition is severe enough to warrant immediate closure of the bridge (or immediate restriction of traffic above or below the bridge), the BITL shall immediately take any actions necessary to ensure public safety.

2). **Notification of the BIPM:** Upon discovery of a critical finding, the BITL shall immediately notify the BIPM within 2 hours. The inspector shall identify the bridge number, bridge location, date the CF was identified, and clearly and accurately describe the nature of the critical condition.

3). **Inspection Report/Critical Finding Report:** In addition to prompt verbal notification, a Critical Finding Report shall be completed and submitted to the BIPM within 48 hours of finding the critical finding. The form shall accurately describe the findings and appropriate photographs, measurements, sketches should supplement the form.

4). **Recording the Critical Finding for BITL/TL representatives/Independent Consultants:** The TL representatives/Independent Consultants will enter the appropriate condition ratings, inventory and operating ratings, and the related posting ratings into InspectTech.

5). **Follow-up/Resolution of Critical Finding Status:** After resolution of the CF, an updated copy of the Critical Finding form describing the corrective action taken will be submitted to the BIPM.

Part 2-Responsibilities of the BIPM/Office of State Aid: Upon being notified of a critical finding, the BIPM is responsible for the following:

1). **Immediate Actions:** Once the BITL has notified the BIPM of the CF, the BIPM is required to notify the County Engineer (CE)/Local Officials within 2 hours to quickly implement any actions needed and to initiate necessary traffic restrictions to ensure public safety.

2). **Submittal of Critical Finding Report:** The BIPM will email a copy of the Critical Finding Report to the County Engineer and the FHWA Division Bridge Engineer within 24 hours, once received from the BITL. If the BITL is the CE, then BIPM does not need to email a copy to CE. The BIPM will send a letter notifying the Local Agency (County Board of Supervisors or Mayor/Appropriate Official) of the CF with copy to the County Engineer and the FHWA Division Engineer within 24 hours of receipt of the Critical Finding Report.

3). **Follow-up:** The BIPM shall continuously monitor the situation as necessary until the critical finding has been resolved (closure, posting reduction, or repair) and an updated copy of the Critical Finding form has been received indicating that the CF has been resolved.

A). County Maintained Bridges:

If a bridge action is not accepted by State Aid as meeting the requirements stated above in Part 4, State Aid will then notify the County in writing (Suspension Letter) that Federal Aid funds to the County will be suspended until the closure or posting meets acceptable standards.

State Aid will monitor and track status of achieving proper closure or posting. When an acceptable closure is achieved, State Aid will send a letter of

compliance (Compliance Letter) notifying the County federal funds will be reinstated.

B). City Maintained Bridges:

If a bridge closure is not accepted by State Aid as meeting the requirements stated above in Part 4, State Aid will then notify the MDOT Chief Engineer (with a copy to the LPA Engineer, Programming Director, and Director of Financial Management) in writing that Federal Aid funds to the City should be suspended until closure meets acceptable standards. In response to State Aid's letter, MDOT notifies the City in writing (Suspension Letter) that funds are suspended. Copies of the MDOT issued suspension letter will be provided as follows:

- a. FHWA
- b. State Aid
- c. County Engineer

State Aid will monitor and track status of achieving proper closure or posting. When an acceptable closure or posting is achieved, State Aid will notify the MDOT Chief Engineer (with a copy to the LPA Engineer, Programming Director, and Director of Financial Management) in writing that Federal Aid funds should be reinstated. In response to the State Aid's letter, MDOT notifies the City in writing (Compliance Letter) that funds will be reinstated. Copies of the MDOT issued Compliance Letter will be provided as follows:

- a. FHWA
- b. State Aid
- c. County Engineer

4). Documenting and Updating the Bridge Inventory: Upon receipt of the updated Critical Finding form, the BIPM/State Aid will ensure the bridge inventory has been updated to reflect the remedial measures taken to resolve the critical finding. All pertinent documentation related to the critical finding, date CF was addressed, type of corrective action taken, and resolution of the deficiency shall become a permanent entry into the bridge record.

5). Reporting of Critical Finding Status: The BIPM will submit to the FHWA Division Bridge Engineer the Critical Finding Quarterly Status Report by email on October 30, January 30, April 30, and July 30 each year or as requested. The BIPM shall include, date BIPM was notified, what is the target completion date for addressing the CF, date CF addressed and any interim actions taken to address CF.

6). If any unexpected or extraordinary situation develops during the process of addressing a CF, FHWA will be notified immediately.

Part 3-Responsibilities of the County Engineer (CE): Upon being notified of a critical finding, the CE is responsible for the following:

1). **Immediate Actions:** Within 2 hours the CE will notify by phone the appropriate local agency authorities of the Critical Finding and direct them to initiate the bridge closure, or reduced posting, in accordance with these procedures and his/her recommendation of the closure/posting timeframe. The Supervisors, Road Manager and County Engineer shall be responsible for coordinating all necessary traffic control (such as load weight or size restrictions, lane or bridge closures, or detours) and public notifications of any traffic restrictions.

2). **Recording the Critical Finding:** Upon completing the Critical Finding form, the CE will enter the appropriate condition ratings, inventory and operating rating, and the related posting ratings into InspectTech.

3). **Critical Finding Report:** Notify the State Aid BIPM by email on a weekly basis until Critical Finding is addressed.

4). **Resolution of Critical Finding Status:** After resolution of the CF, an updated copy of the Critical Finding form describing the corrective action taken will be submitted to the BIPM.

5). Maintain all correspondence related to the CF, including all correspondence including emails, letters, critical finding reports, photographs, drawings, etc. in the bridge folder.

Part 4-Responsibilities of the Local Agency: Upon being notified of a critical finding, the Local Agency is responsible for the following:

1). Once a local agency has been notified of a bridge that requires closure, they shall immediately barricade/block the bridge utilizing appropriate emergency means. Within 24 hours (or within the timeframe recommended by the TL and County Engineer) there shall be temporary means in place that includes an advance warning sign installed on each approach 500 feet from the bridge and a physical barrier at each end of the bridge that adequately informs the traveling public of the closure. The advance warning sign location may be adjusted if required.

2). Once the bridge is closed using these emergency and/or temporary means, the County Engineer shall be notified and digital photographs of the closure shall be forwarded to the County Engineer and State Aid for documentation of the closure and placement in the bridge file.

If the bridge is repaired, then it shall have a re-inspection to determine if repairs are sufficient to re-open the structure. The County Engineer or Independent Consultant shall be notified to set up an inspection. Once inspected, documentation of the repairs shall be placed in the bridge file and uploaded to the State Aid Bridge Inspection System/InspectTech. Digital photographs of any repairs shall be forwarded to State Aid by mail or email.

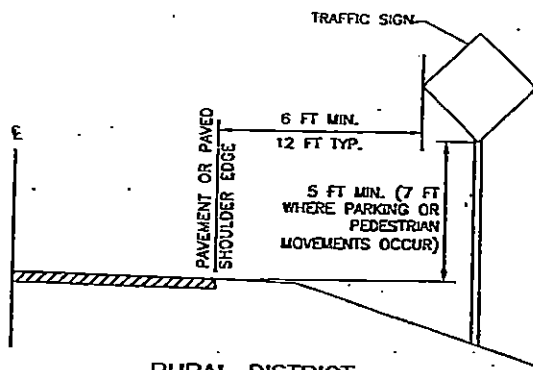
3). The local agency shall install the proper signs, barricades, and barriers for the closure in accordance with the State Aid Standard drawing SA-BC-1 and within 45 days of the critical finding. However, if the Local Agency can provide adequate written justification to warrant additional time for installation of standard signs, barricades, and barriers, an extension of time may be considered by State Aid on a case by case basis.

4). Once the bridge closure is in accordance with the standards, digital photographs shall be taken of the closure, in both directions at the bridge and identified by the bridge structure number. These photographs shall be forwarded by mail or email to the County Engineer and State Aid within 45 days of the critical finding for documentation of the closure and placement in the bridge file.

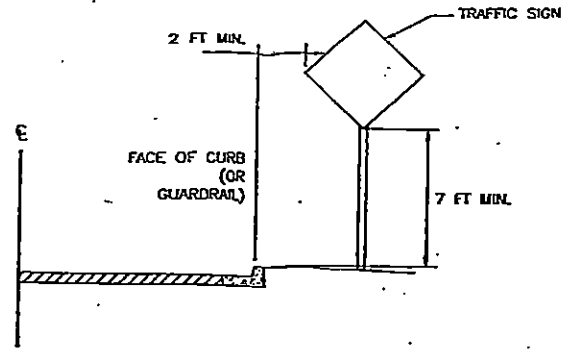
5). Until such time as the bridge is repaired or replaced, bridge closure signs, barricades, and barriers shall be inspected periodically by the owner to ensure their continued effectiveness. Any necessary repairs or replacements should be made immediately.

6). When it is determined that reduced posting can keep a bridge open, the local agency shall post the bridge within 72 hours at the recommended reduced limit. Once posted, the County Engineer and BIPM shall be notified and digital photographs of the posting shall be forwarded to the County Engineer and State Aid for the documentation of the posting and placement in the bridge file.

7). For a critical finding not covered by 1-6, the BIPM will designate a timeframe in which the CF must be addressed.



RURAL DISTRICT
(SHOULDER AND SIDE SLOPE SECTION)



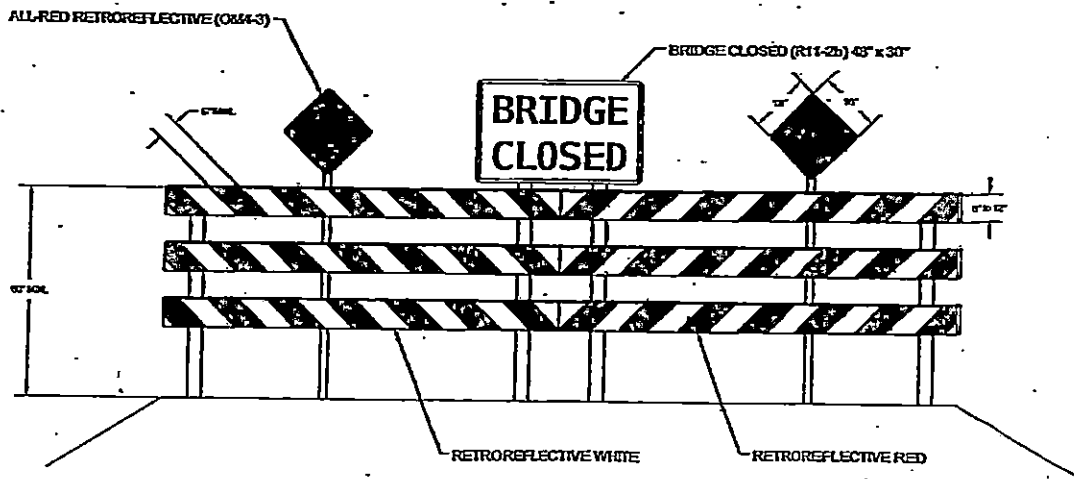
BUSINESS OR RESIDENTIAL DISTRICT
(CURB & GUTTER SECTION)

WARNING SIGN INSTALLATION DETAIL

NOTES:

1. A STRUCTURALLY SOUND BARRIER SHALL BE CONSTRUCTED AT EACH END OF THE BRIDGE TO PHYSICALLY CLOSE THE BRIDGE.
3. BRIDGE CLOSED SIGNS (R11-2b), STRUCTURALLY SOUND TYPE III BARRICADES WITH RED AND WHITE STRIPES, AND TWO END OF ROADWAY MARKERS SHALL BE INSTALLED IN FRONT OF THE BARRIER.
3. BARRICADES AND BARRIERS SHALL BE PERMANENT AND UNMOVABLE (FIRMLY AFFIXED TO THE GROUND) AND EXTEND ACROSS THE ENTIRE ROADWAY.
4. A ROAD CLOSED 500 FT (W20-3), BLACK ON YELLOW, SHALL BE INSTALLED ON EACH APPROACH ROADWAY TO THE BRIDGE. ADJUST SIGN LOCATION IF REQUIRED.

SPECIFICATIONS: MISSISSIPPI STANDARD SPECIFICATIONS FOR STATE AID ROAD AND BRIDGE CONSTRUCTION AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITIONS.



BARRICADE DETAIL

OFFICE OF STATE AID ROAD CONSTRUCTION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

BRIDGE CLOSURE