

Zack Stewart
Northern District Commissioner

Wayne O. Burkes
Central District Commissioner

Ronnie Shows
Southern District Commissioner



RECEIVED

AUG 22 1997

83-01
Dr. Robert L. Robinson
Executive Director

Kenneth I. Warren
Deputy Executive Director/
Chief Engineer

Mississippi Department of Transportation / P. O. Box 1850 / Jackson, MS 39215-1850 / FAX (601) 359-7110

ROADWAY DESIGN

August 22, 1997

MEMORANDUM

TO: Roadway Design Engineer
State Construction Engineer
District Engineers
District Maintenance Engineers
District Construction Engineers
State Traffic Engineer
FHWA

FROM: State Maintenance Engineer
Wilmer James

RE: Raised Pavement Markers

Attached for your review is a copy of the commission order revising the Department's policy requiring the installation and maintenance of raised pavement markers on all state maintained roads to include those with Double Bituminous Surface Treatment (DBST).

Also attached is the policy for placing raised pavement markers approved by the Chief Engineer dated August 18, 1997, which sets forth guidelines for placing raised pavement markers on roads with DBST surfaces, for replacement of markers, and for temporary and permanent placement of markers.

The implementation of the policy for placing temporary markers on construction projects will be coordinated between the Roadway Design Division, the Construction Division and this office.

WJJ/we
Attachments
pc: Central Records (via 71-01/81-01)
File (625 & MND Policy)



EXCERPT FROM THE MINUTES OF THE MEETING OF THE
MISSISSIPPI TRANSPORTATION COMMISSION, AUGUST 12, 1997

Upon motion duly made and seconded, and Commissioners Zack Stewart, Wayne O. Burkes and Ronald Shows each voting yes, under the authority of the Commission, in conformity with and as spread on its minutes, Commission Order dated December 13, 1994, recorded in Minute Book 2, Page 996, concerning placement of raised pavement markers on all state maintained roads except those having Double Bituminous Surface Treatment (D.B.S.T) is hereby amended to authorize placement of raised pavement markers on all state maintained roads including those having D.B.S.T. to increase safety for the traveling public.

* * * * *

STATE OF MISSISSIPPI

COUNTY OF HINDS

I, Linda O. Ferrell, Secretary, Mississippi Transportation Commission, do hereby certify that the above and foregoing is a true and correct copy of an Order of the Mississippi Transportation Commission of record in Minute Book 5, Page 747, of the Official Minutes of said Commission on file in its offices in the City of Jackson, Mississippi, duly adopted on the 12th day of August, A.D., 1997.

Witness my hand and official seal this the 18th day of August, A.D., 1997.

Linda O. Ferrell

LINDA O. FERRELL, SECRETARY
TRANSPORTATION COMMISSION
STATE OF MISSISSIPPI

EXCERPT FROM THE MINUTES OF THE MEETING OF THE
MISSISSIPPI TRANSPORTATION COMMISSION, DECEMBER 13, 1994

There came before the Commission the matter of placing raised pavement markers on all state maintained roads except those having Double Bituminous Surface Treatment (D.B.S.T.) to increase safety for the traveling public, and upon recommendation of the Department's Staff and after discussion, Commissioner Ronald Shows made a motion, seconded by Commissioner Zack Stewart, with Commissioner Wayne O. Burkes voting yes, under the authority of the Commission, in conformity with and as spread on its minutes, that raised pavement markers be placed on all state maintained roads except those having Double Bituminous Surface Treatment (D.B.S.T.) and that the markers would be properly maintained.

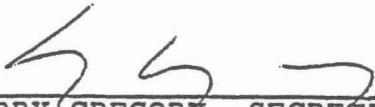
* * * * *

STATE OF MISSISSIPPI

COUNTY OF HINDS

I, Larry Gregory, Secretary, Mississippi Transportation Commission, do hereby certify that the above and foregoing is a true and correct copy of an Order of the Mississippi Transportation Commission of record in Minute Book 2, Page 996, of the Official Minutes of said Commission on file in its offices in the City of Jackson, Mississippi, duly adopted on the 13th day of December, 1994.

Witness my hand and official seal this the 27th day of December, A.D., 1994.


LARRY GREGORY, SECRETARY
TRANSPORTATION COMMISSION
STATE OF MISSISSIPPI

Policy For Placing Raised Pavement Markers

Raised pavement markers shall be placed on all state maintained roads including sealed roads (SBST, DBST, slurry, etc.), except those sealed less than one year. For those roads sealed less than one year, the District shall inspect the surface to determine whether the markers will survive. If it is decided that satisfactory results can be obtained, then markers can also be placed on those roadways.

The implementation of this policy is:

Replacement

The Districts will annually inventory by a visual estimation all roads and routes on which markers have been placed to determine the survival rate. Each mile will have two 500-foot counting zones, beginning at 3/10 and 7/10 of that mile. The survival rate will be recorded in 20% increments, i.e. 80-100%, 60-80%, 40-60%, etc. The inventory will be reported by March 1 of each year with the original filed in each District office and a copy submitted to the State Maintenance Engineer. (See attached example No. 1.)

On any routes or sections of highway where the inventory shows that the survival rate is less than 60%, all the markers will be removed and replaced by one of the following:

- REMOVAL TO BE ABSORBED IN OTHER ITEMS.*
1. District forces where manpower and resources will allow.
 2. Contract

It is intended each year to let a district wide replacement project with all counties to be considered. Therefore, each district will review the number of markers to be replaced and determine whether the replacement will be by district forces or by contract. If the contract method is recommended, the district will furnish the State Construction Engineer, by March 1 of each year, a set of county maps indicating markers to be placed/replaced. The set will include all counties in the district with each map indicating the number of markers to be placed/replaced. (See attached example No. 2.)

Placement

1. Temporary Markings

Raised pavement markers shall be placed on all hard surfaces where the traffic is to remain on that surface and in the same alignment at least three months. This policy is applicable to all construction projects. The spacing of the temporary markers shall be at the minimum as shown on the plans and standard drawings for placement of permanent raised markers. All temporary markers shall be removed prior to placing the next pavement course.

2. Permanent Markings

Raised Pavement Markers shall be placed on all final pavement course on construction projects according to plans and specifications.

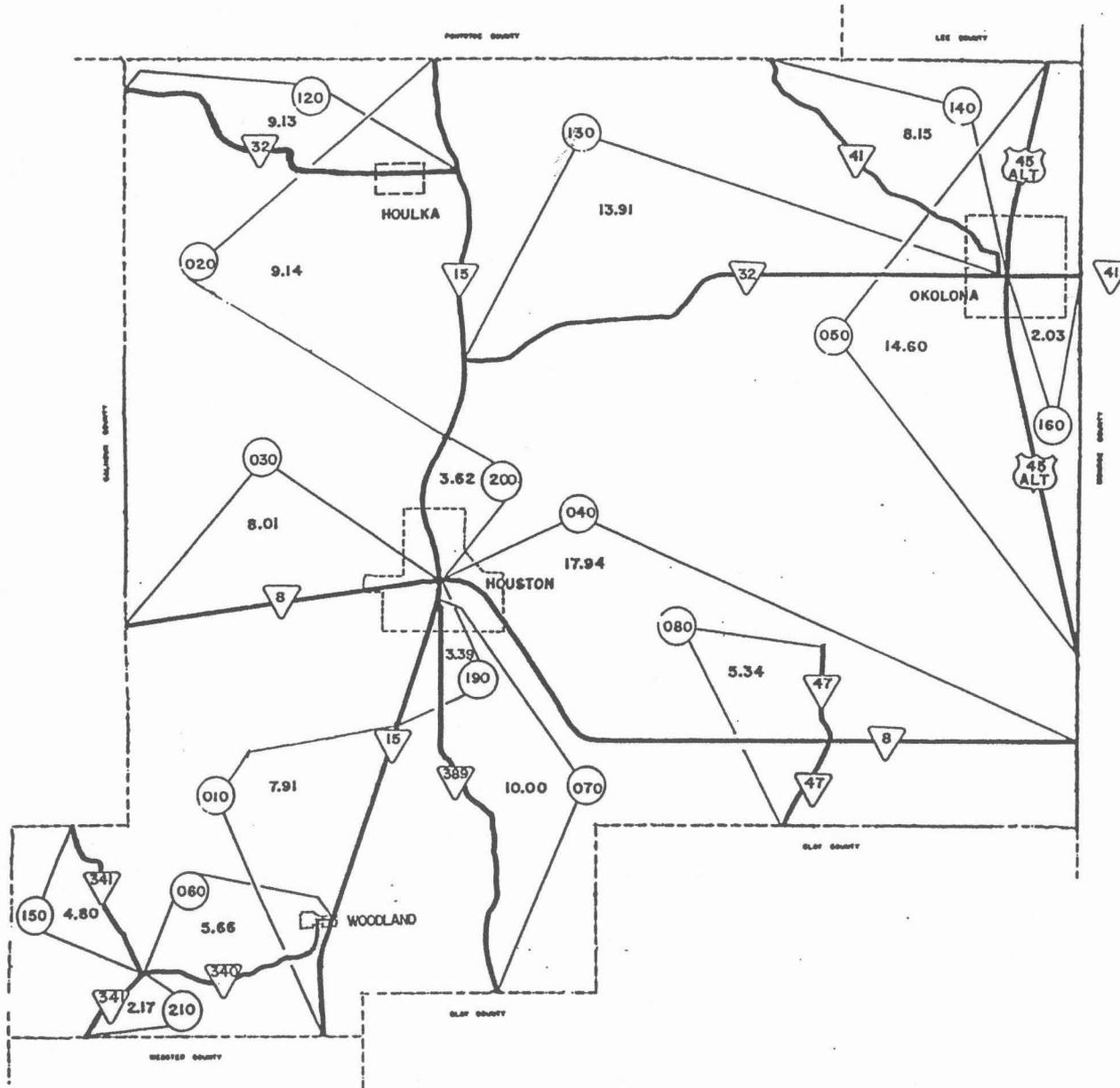
Markers

All raised pavement markers referenced above shall be high performance markers.

APPROVED: *Ronald W. Warden* 8/18/97
Chief Engineer Date
Book 5, Page 74?
ST

Example #1
1 of 2

REVISED	7-1-78
REVISED	6-30-80
REVISED	
REVISED	



Section	Inspection Date	Time	Survival Rate
120	1-23-97	7:30 PM	80-100%
020	1-23-97	8:00 PM	80-100%
200	1-23-97	8:10 PM	40-60% *
130	1-23-97	8:40 PM	60-80%
160	1-23-97	8:50 PM	80-100%
140	1-23-97	9:10 PM	80-100%
050	1-23-97	9:30 PM	60-80%
030	1-28-97	7:30 PM	40-60% *
040	1-28-97	8:15 PM	80-100%
080	1-28-97	8:25 PM	80-100%
090	1-28-97	8:40 PM	60-80%
010	1-28-97	9:00 PM	80-100%
060	1-28-97	9:10 PM	80-100%
210	1-28-97	9:15 PM	60-80%
150	1-28-97	9:25 PM	80-100%
070	1-28-97	9:45 PM	40-60% *

CHICKASAW COUNTY
MISSISSIPPI

Prepared By The
MISSISSIPPI STATE HIGHWAY DEPARTMENT
TRANSPORTATION PLANNING DIVISION
In Cooperation With The
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
July 1, 1998



M-D 1

*Sections need to have markers removed and replaced.

Example #1
For Section 120 only.
Chickasaw County

2 of 2

Section 120 9.13 miles

2 Way - Yellow

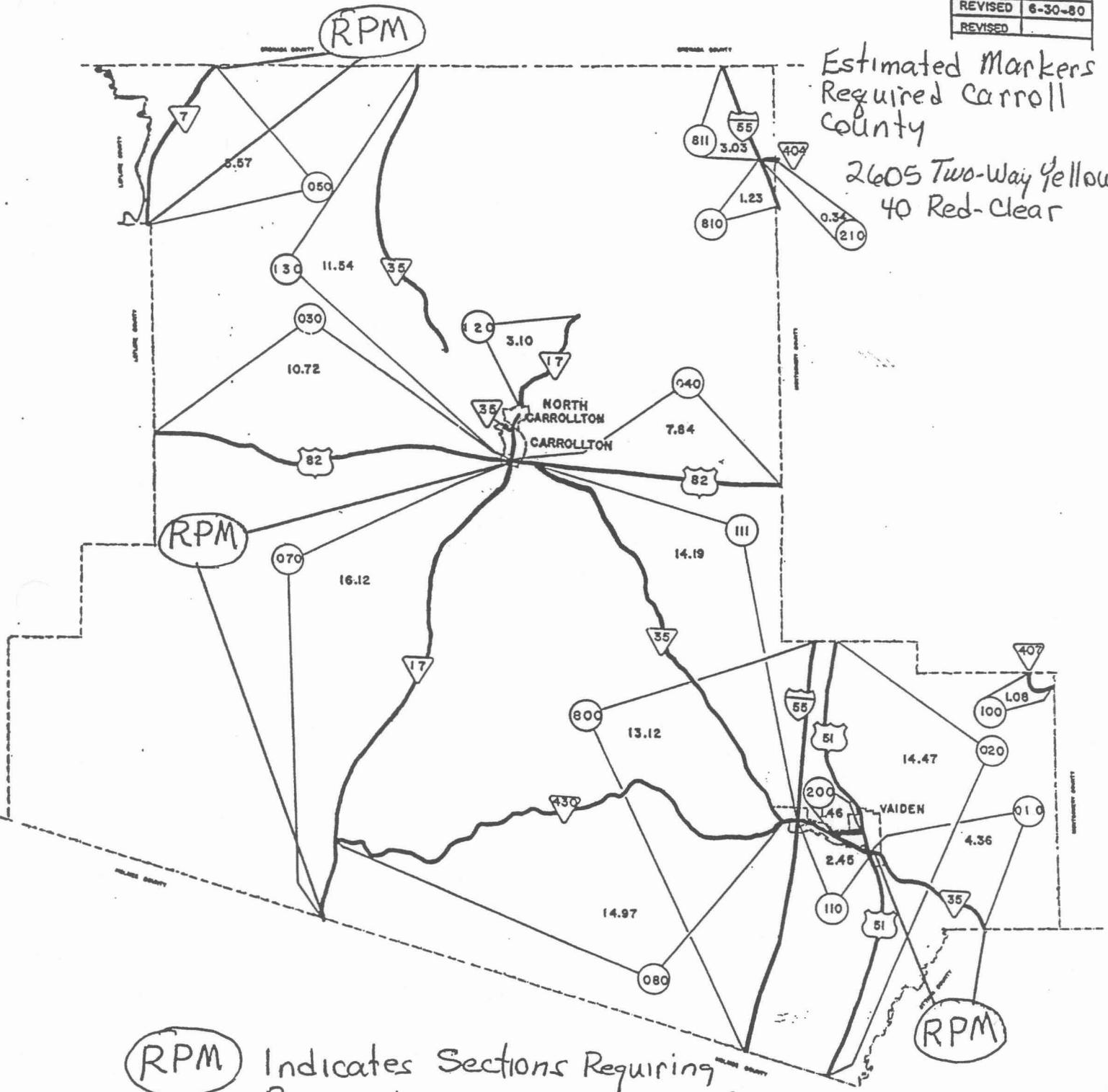
Counting Zone	Location (mile)	Markers Required	Markers In place
1	3	6	5
2	7	6	4
3	1.3	12	10
4	1.7	6	6
5	2.3	13	11
6	2.7	8	7
7	3.3	13	10
	3.7	10	8
9	4.3	13	11
10	4.7	12	7
11	5.3	6	6
12	5.7	6	5
13	6.3	10	8
14	6.7	9	8
15	7.3	6	4
16	7.7	6	5
17	8.3	6	6
18	8.7	6	5

To-tal/ 154 126

Survival Rate $126/154 = 82\%$ Report as 80-100%

Example #2

REVISED	10-27-71
REVISED	2-1-73
REVISED	11-21-74
REVISED	7-1-78
REVISED	6-30-80
REVISED	



RPM Indicates Sections Requiring Removal and Replacement of Raised Pavement Markers

