

Zack Stewart  
Northern District Commissioner

Wayne O. Burkes  
Central District Commissioner

Ronnie Shows  
Southern District Commissioner



Dr. Robert L. Robinson  
Executive Director

Kenneth I. Warren  
Deputy Executive Director/  
Chief Engineer

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

May 19, 1997

## MEMORANDUM

TO: **Mr. Wendel T. Ruff**  
**Roadway Design Division Engineer**

FROM: Mr. Keith Purvis *CKP*  
Roadway Design Division

RE: Plan Revisions Needed for the Implementation of the Superpave Specifications

Over the past few years, the asphalt industry has been involved in the research of higher quality, longer lasting asphalt pavement. The result, commonly known as Superpave, will involve a revised mix design procedure for the production of this material. Recently, MDOT has decided to implement Superpave on all projects beginning with the August 1997 letting. At this time, it is expected that superpave will require different names for the asphalt layers. Instead of referring to asphalt courses as surface, binder, and bituminous base, they will be identified by the maximum nominal size aggregate, such as 9.5-mm, 12.5-mm, 19-mm, and 25-mm.. More importantly, the lift thicknesses will generally increase. At this time, it is believed that the minimum and maximum allowable thicknesses will be as shown on the following table:

<u>NEW NAME</u>	<u>OLD NAME</u>	<u>MINIMUM LIFT THICKNESS*</u>	<u>MAXIMUM LIFT THICKNESS*</u>
9.5-mm	-	1.00" (25 mm)	1.50" (40 mm)
12.5-mm	Surface Course	1.50" (40 mm)	2.00" (50 mm)
19.0-mm	Binder Course	2.25" (55 mm)	3.00" (75 mm)
25.0-mm	Bituminous Base Course	3.00" (75 mm)	4.00" (100mm)

\* Only involve the projects which require high-type or polymer modified high-type asphalt



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District Offices will be made aware of these changes, and all future recommendations will be consistent with the new policy. However, pavement recommendations which have already been submitted must be reexamined and modified according to the new policy (if the project will be let in or after August 1997). According to the Roadway Design project database, 22 projects have pavement designs which must be reviewed and possibly revised. This number only includes: 1) projects which have significant amounts of pavement; 2) projects for which a pavement design has been approved; 3) projects which are currently on the Roadway Design database; and 4) projects which are in the August 1997 letting, or later (as of 5/5/97).

The 22 projects which involve a change in the pavement design are as follows:

<u>DIST.</u>	<u>COUNTY</u>	<u>ROUTE</u>	<u>SQUAD</u>	<u>ENGINEER</u>	<u>LETTING</u>	<u>ASPHALT</u>
1	Monroe\Chick	SR 41	Basden	Reese	May 98	POLY\HT
1	Tippah	US 72	Sykes	Reese	Aug 97	POLY
1	Prentiss\Lee	SR 370	Basden	Reese	Sept 97	HT
1	Prentiss\Lee	SR 145	Basden	Reese	July 00	ST
2	Panola	US 51	Turner	Lowe	Aug 97	HT
2	Panola	SR 35	Breland	Lowe	Jul 97	HT
2	Marshall	SR 302	Forgey	Lowe	Aug 97	POLY
3	Bolivar	SR 448	Fletcher	Kidd	Oct 00	ST
3	Holmes	SR 14	Spell	Kidd	Oct 00	ST
3	Holmes	US 49E	Dean	Kidd	Oct 97	HT
3	Humphreys	SR 7	M. Baker	Kidd	Oct 99	ST
5	Noxubee	US 45	Roberts	Whitfield	July 04	HT
5	Madison	SR 16	Dean	Whitfield	Aug 97	HT
5	Madison	US 51	Robinson	Whitfield	Feb 98	HT
6	George	SR 26	Neel-Schaffer	McCorkle	Aug 97	HT
6	Greene	SR 57	Dean	McCorkle	Mar 98	ST
6	Lamar	US 11	Neel-Schaffer	McCorkle	Aug 97	HT
6	Jones	I-59	Gar + Gar	Whitfield	Oct 97	POLY
6	Perry	SR 42	Neel-Schaffer	McCorkle	Aug 97	HT
6	Wayne	US 45	Turner	McCorkle	Nov 97	HT
7	Amite\Wilk	SR 33	Dean	Kidd	Aug 97	ST
7	Walthall	SR 583	Turner	Kidd	Aug 97	ST

ST=Standard

HT=High Type

POLY=Polymer Modified High Type

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An individual sheet for each of the 22 projects is attached. The sheets details changes necessary to comply with the superpave requirements. These sheets also include necessary changes to other pavement designs included in District's recommendation (such as detour roads and overlays).

Upon your approval of these changes, each will be forwarded to District Offices and the Federal Highway Administration, if applicable, for their approval.

It is possible that other projects will have some minor amounts of paving included such as local roads, connections, overlays, etc. These typical sections should be examined in accordance with the attached guidelines. Please note that these guidelines pertain only to projects which include high-type or polymer-modified high type asphalt which will be let in or after August 1997.

Should additional information be deemed necessary, please advise.

#### Attachment

pc: Roadway Design (Section Engineers, Pickering, Balentine, Purvis, French)  
Central Files

c:\msoffice\winword\keith\pment\supave\supave.doc

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RECEIVED  
MAY 16 1997

ROADWAY DESIGN DIVISION	1	0
DESIGN ENG		
SPEC ENG		
CADD ENG		
INSTR ENG		
AREA 1 ENG.		
AREA 2 ENG.		
AREA 3 ENG		
AREA 4 ENG		
AREA 5 ENG		
AREA 6 ENG		
AREA 7 ENG		
MANAGER	Kp	VV

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ROADWAY DESIGN

INTERDEPARTMENTAL MEMORANDUM

May 12, 1997

TO: District Engineers

FROM: Kenneth I. Warren  
Chief Engineer

SUBJECT: Hot Mix Asphalt (HMA) Pavement Laying Thickness for High Type and SHRP SUPERPAVE Mixtures

The Department's movement toward implementation of SHRP SUPERPAVE specifications and recent problems with obtaining required density on some of our High Type mixtures, necessitates a need to increase pavement laying thickness of each of the new SUPERPAVE and our existing High Type mixtures.

The Table below sets out the Department's policy for the laying thickness for each of the four (4) SUPERPAVE mixtures. Each thickness shown should also be used for the corresponding high type mixtures we have been placing over the last few years.

Mixture (Nominal Max. Sieve Size)	Single Lift Laying Thickness	
	Minimum	Maximum
25 mm (1")	75 mm (3")	100 mm (4")
19.0 mm (3/4")	55 mm (2 1/4")	75 mm (3")
12.5 mm (1/2")	40 mm (1 1/2")	50 mm (2")
9.5 mm (3/8")	25 mm (1")	40 mm (1 1/2")



District Engineers

May 12, 1997

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This policy shall become effective beginning with the August, 1997, letting. The values shown in the table are to be taken into consideration in the design of hot mix asphalt pavements.

Your usual cooperation in this matter will be appreciated. Any questions you may have should be directed to Mr. Jimmy Brumfield, State Materials Engineer.

KIW/JWB

PC: Executive Director

District Construction Engineers

District Materials Engineers

State Materials Engineer

State Construction Engineer

Roadway Design Engineer

Research Engineer

Central Records (via Operations)