

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

RECEIVED

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

December 16, 1997

ROADWAY DESIGN

MEMORANDUM

TO: All Division Heads
District Engineers

FROM: Chief Engineer
Kenneth I. Warren
Kenneth I. Warren

RE: Maintenance Takeovers

Section 65-3-3 of the Mississippi Code 1972 Annotated provides that routes to be taken over by the Mississippi Department of Transportation for maintenance shall be improved to "the standards required by the State Highway Commission". In an attempt to provide statewide uniformity for this process, the Commission, at its November 25, 1997, meeting, adopted the following criteria as its definition of acceptable standards for takeover:

The minimum conditions for rural routes are those set forth in the MDOT Design Manual, in Table 11-2.08B "Geometric Design Criteria for Rural Collector (3R Projects)" for a design speed of 55 MPH. The recommended changes to the table have been inked-in and highlighted (see attached referenced table).

In addition to the requirements of Table 11-2.08B, the following listed minimum conditions must also be met:

1. Pavement structure should meet 5 year design
2. Minimum right of way width of fifty (50) feet right and left of roadway centerline
3. Bridges to have a minimum sufficiency rating of (50)
4. Roadway and right of way to be in a satisfactory level of maintenance
5. Drainage structures to be in a satisfactory level of maintenance
6. All encroachments removed to MDOT permittable location with utilities
7. Right of way to be transferred to MDOT by warranty deed

The minimum conditions for urban routes are those set forth in the MDOT Design Manual, Table 14-3.08B "Geometric Design Criteria for Urban Collector Streets (3R Projects)". The design speed to be determined by speed study. The recommended changes to the table have been inked-in and highlighted.



All Division Heads
District Engineers
Page 2
December 16, 1997

In addition to the requirements of Table 14-3.08B, the minimum conditions listed in paragraph three (3) above must also be met, with the exception of number 2.

If additional information is needed, please advise.

KIW:JHK:clp

Attachments

pc: Transportation Commission

Table 11-2.08B
 GEOMETRIC DESIGN CRITERIA FOR RURAL COLLECTORS
 (3R Projects)

DESIGN ELEMENT		Design Year ADT (1)	1 - 750	751 - 2000	> 2000	1 - 750	751 - 2000	> 2000	1 - 750	751 - 2000	> 2000
* Design Speed (mph) (2)			≤ 40			45 - 50			55		
Control of Access			Control By Regulation (Type 3)								
Level of Service			Desirable: B Minimum: D								
* Lane Width (Surfaced)			11'			11'	12'		11'	12'	
* Usable Shoulder Width			2'	3'		2'	3'		3'	3'	
* Travel Lane Cross Slope			1.5% - 3.0%			1.5% - 2.0%					
Auxiliary Lanes	Lane Width		Desirable: 12' Minimum: 11'								
	Shoulder Width		2'								
* Reconstructed Bridges	Structural Capacity		HS-20								
	Minimum Width (3)		22'	24'	28'	22'	24'	28'	22'	24'	28'
* Existing Bridges to Remain in Place	Structural Capacity		HS-15								
	Minimum Width		22'			22'	24'		22'	24'	
Minimum Right-of-Way Width			(4)								
Desirable Right-of-Way Border Width (Beyond toe/top of fill/cut slope)			(4)								
Roadside Clear Zone	Guardrail		Usable Shoulder Width								
	* Obstruction		(5)								
Slope Schedule	Cut	Foreslope (within clear zone)	3:1			3:1					
		Depth of Ditch	2'			3'					
		Backslope	2:1			2:1					
	Fill	Height ≤ 10'				2:1					
		Height > 10'				2:1					
* Stopping Sight Distance			40 mph			50 mph			55 mph		
			275'			400'			450'		
* Maximum Degree of Curvature (e = .100)			13° 15'			8° 15'			6° 30'		
* Superelevation Rate			Desirable: See Table 3-4.01A (e _{max} = 0.10) Minimum: See Figure 11-2.03A (e _{max} = 0.10)								
* Horizontal Sight Distance			(6)								
* Maximum Grades	Level		9%			8%			7.5%		
	Rolling		10%			9%			8.5%		
* Vertical Curvature (K-values) (7)			Crest: 40 Sag: 35			Crest: 85 Sag: 55			Crest: 110 Sag: 70		
* Minimum Vertical Clearance (8)	New and Reconstructed Overpassing Bridges		16' - 6"								
	Existing Overpassing Bridges to Remain in Place		14' - 0"								

* Controlling design criteria (See Section 2-8.0)

Table 14-3.08B
 GEOMETRIC DESIGN CRITERIA FOR URBAN COLLECTOR STREETS
 (3R Projects)

DESIGN ELEMENT		With Curb	Without Curb	
* Design Speed (mph) (1)		30 - 40	30 - 40	
Control of Access		Control By Regulation (Type 3)	Control By Regulation (Type 3)	
Level of Service		Desirable: B Minimum: D	Desirable: B Minimum: D	
* Lane Width		11'	11'	
Shoulder Width	* Usable	Desirable: 6' Minimum: X 2'	X Minimum 3'	
	Surfaced	Same As Usable	(2)	
* Travel Lane Cross Slope		1.5% - 2.0%	1.5% - 2.0%	
Auxiliary Lanes	Lane Width	Desirable: Same As Travel Lane Minimum: 11'	11'	
	Shoulder Width	Desirable: 4' Minimum: 1'	2'	
Parking Lane Width (3)		Desirable: 10' Minimum: 7'	Desirable: 10' Minimum: 7'	
Sidewalk Width		4' - 8'	4' - 8'	
* New and Recon-structed Bridges	Structural Capacity	HS-20	HS-20	
	Minimum Width	(4a)	(4b)	
* Existing Bridges to Remain in Place	Structural Capacity	HS-15	HS-15	
	Minimum Width	24'	22'	
Right-of-Way Width		(5)	(5)	
Roadside Clear Zone	Guardrail	Usable Shoulder Width	Usable Shoulder Width	
	* Obstruction	1.5' (6a)	10' (6b)	
Slope Schedule	Cut	Foreslope	+ 2%	3:1
		Depth of Ditch	NA	3'
		Backslope	Desirable: 3:1 Maximum: 2:1	3:1
	Fill Slope	Height ≤ 5'	Desirable: 3:1 Maximum: 2:1	Desirable: 4:1 Maximum: X 2:1
		Height > 5'		X 2:1
* Stopping Sight Distance		30 mph 200'	35 mph 225'	40 mph 275'
* Maximum Degree of Curvature		26°45' (e = .060)	18°00' (e = .060)	12°45' (e = .060)
* Superelevation Rate		See Figure 14-2.04A (e _{max} = 0.06)		
* Horizontal Sight Distance		(7)		
* Maximum Grades	Level	11%	11%	11%
	Rolling	13%	12.5%	12%
* Vertical Curvature (K-values) (8)		Crest: 25 Sag: 20	Crest: 30 Sag: 30	Crest: 40 Sag: 35
* Minimum Vertical Clearance (9)	New and Reconstructed Overpassing Bridges	16' - 6"		
	Existing Overpassing Bridges to Remain in Place	14' - 0"		

* Controlling design criteria (See Section 2-8.0)