

Inter-Departmental Memorandum

Date: December 10, 2001
To: Roadway Design Team Leaders
From: Roadway Design Division Engineer
John B. Pickering
Subject: 2001 Roadway Design Manual

Attached is the 2001 Edition of the MDOT's Roadway Design Manual. Beginning January 1, 2002, all new projects will be designed in accordance with the 2001 Edition. A listing of major changes from the 1988 Design Manual has also been attached for your information.

If additional copies of the new Design Manual are needed, your request should be made in writing to the Roadway Design Division. Each active consultant is being furnished one complimentary copy; however, additional copies to consultants and others outside the MDOT will be available for a cost.

Also, the new Design Manual can be viewed or downloaded from the MDOT's Internet site at <http://www.gomdot.com/business/roadwaydrawings/manual.htm>.

If there are any questions or if additional information is needed, please advise.

Attachment

pc: Chief Engineer - Deputy Director
Asst. Chief Engineer - Pre-Construction
Asst. Chief Engineer - Operations
Asst. Roadway Design Division Engineer
Roadway Design Division Section Engineers
Active Consultants
Bridge Design Division
Construction Division
Contract Administration Division
District Offices
Environmental Division
Federal Highway Administration
Maintenance Division
Materials Division
Office of State Aid Road Construction
Photogrammetry Section
Planning Division
Project Offices
Research Division
Right of Way Division
Traffic Engineering Division

2001 EDITION - ROADWAY DESIGN MANUAL
Major Differences in the 1988 Design Manual and 2001 Design Manual
Mississippi Department of Transportation
Compiled December, 2001
By John B. Pickering
Roadway Design Division Engineer

GENERAL –

- Since the tabs on the new manual have Chapter topics listed, the Table of Contents has been moved to the beginning of each chapter.
- Some values are slightly different from the 1988 Design Manual. This difference occurred because the values were computed from the 1994 AASHTO Green Book, which has metric units of measurement.
- Within the Criteria Tables, the 1.5% pavement Cross Slope has been changed to 2%.

Chapter 2 –

- Added more qualifying words to definitions.
- Updated Federal-Aid System & Program changes.
- Changed “4R Projects (Freeways)” to “3R Projects (Freeways).”
- Changed Decision Sight Distance based on “Avoidance Maneuvers.”
- Changed median width for rural multilane highways from 64 ft. to 101 ft.
- For Freeways, the minimum median width has been changed from 10 ft. to 22 ft.
- For Rural Arterials, the median width has changed from 64 ft. to 101 ft.
- For Rural Collectors, Multilane Criteria was added.
- There is more explicit information regarding Design Exceptions.

Chapter 3 –

- Enlarged the table for Traveled Way Widening.

Chapter 5 –

- Added earthwork calculations (Figures 5-3D and 5-3E).

Chapter 6 –

- Added WB-62 to design vehicles.
- Added, “the desirable angle of intersection will be within 10-degrees of perpendicular.”
- Added desirable spacing between intersections.
- Added discussion for WB-62 design vehicle.
- The entire section on Intersection Sight Distance (ISD) has been changed. Section 6-6.0, Intersection Sight Distance, has been changed to reflect criteria in recent publications.

- **TYPO** on Page 6-38, under Section 6-8.01.02, Non-Freeways, second Item No. 1, (Interchanges); the 850 ft. should be **880 ft.** as shown in Figure 6-8B.
- **TYPO** on Page 6-43, Figure 6-8E; the 119.40 ft. dimension shown for the 64-ft. median should be 99.99 ft. This occurs in two locations. *Okay, you engineers -- my engineers have confirmed the 99.99 ft. dimension could be changed to 100 ft. only if some other distance changed; therefore, I do not want to hear from any of you regarding this nit-picky matter.*
- Added new section on interchanges.
- Added offset left turn lanes discussion and figures.

Chapter 7 –

- Numerous changes.

Chapter 8 –

- ADA (Americans with Disabilities Act) has been updated to new ADA guidelines.
- Sight distance for Railroad Crossings has been modified.
- Bicycle accommodations have been added.
- Airport/Highway Clearance requirements have been updated.

Chapter 9 –

- Added definitions.
- The clear zone concept has been completely reworked according to AASHTO's "Roadside Design Guide, 1996." Note especially "Length of Need" for guardrail; 3:1 slopes being reclassified as non-recoverable slopes and thus being excluded from fulfilling clear zone requirements; and auxiliary lane clear zone requirements.

Chapter 10 –

- Added more details for estimating fencing quantities.

Chapter 11 –

- There are many changes due to new publications.
- **TYPO** – Page 11-18, Table 11-2C, Slope Schedule-Cut-Depth of Ditch ^ The "1 ft." under 2-Lane should be "**3 ft.**"
- **TYPO** – Page 11-20, Table 11-2D, Slope Schedule-Cut-Depth of Ditch ^ The depth under Multilane should be "**3 ft.**"

Chapter 13 –

- The Criteria Tables have been expanded.

Chapter 14 –

- The superelevation runoff lengths have changed.