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| To: n-30-1-87728- Design Quality Assurance Bureau EIS Administrator Bldg. 5, Rm. 408 MC 0750, |  | New York State Department of Transportation ENGINEERING BULLETIN | EB 96-019 |
| <i>Expires one year after issue unless replaced sooner</i> | | | |
| Title: HIGHWAY DESIGN MANUAL (HDM) REVISION NO.28 CHAPTER 8 SMALL DRAINAGE STRUCTURES AND CHANNELS SECTION 8.03.02.E DESIGN CRITERIA FOR PIPE CULVERTS (OPEN SYSTEMS) SECTION 8.04.02 DESIGN CRITERIA FOR PIPE (CLOSED SYSTEMS) | | | |
| Distribution: <input type="checkbox"/> Manufacturers (18) <input type="checkbox"/> Surveyors (33) <input checked="" type="checkbox"/> Main Office (30) <input checked="" type="checkbox"/> Consultants (34) <input checked="" type="checkbox"/> Local Govt. (31) <input type="checkbox"/> Contractors/AGC (39) <input checked="" type="checkbox"/> Regions/Agencies (32) <input type="checkbox"/> () | Approved:  P. J. Clark, Deputy Chief Engineer, Design <div style="float: right;"> 5/14/96 Date </div> | | |

This Engineering Bulletin (EB) supersedes Engineering Instructions 87-7 and 95-50.

PURPOSE

Sections 8.03.02.E and 8.04.02 of HDM Chapter 8 have been revised.

In addition to providing structural criteria (in metric and English units), these sections implement the following revised design criteria for pipe (Note: Chapter 8 will contain only metric structural criteria when it is issued as a complete replacement to the existing Chapter.):

1. The recommended design life for culvert pipe (except driveway culverts) installed in any one of the locations listed below is increased from 50 years to 70 years.
 - a. Highways functionally classified as Interstates and Other Freeways. (Refer to Section 2.4.1 of Chapter 2 for the definitions of these functional classifications.)
 - b. Natural watercourses - streams, creeks, etc.
 - c. Under high fills - 4.5 m or greater.
 - d. High traffic volumes.
 - e. Locations where long off-site detours would be required if the culvert failed – consider taking into account user costs.
2. Steel shall not be specified for culverts installed to act as equalizer channels or at other locations such as canals where the water level is expected to remain relatively constant.
3. Yates county has been moved from Zone I to Zone II based on the recommendation of the Region 6 Design Group. (We will arrange to have the Technical Services Division perform field surveys of culverts in this county as a follow up measure.)

In addition, Section 8.03.02.E has been corrected to reflect the anticipated service life of 70 years for concrete, aluminum, and polyethylene (stated in the 7/11/77 memo referred to in EI 87-7).

EFFECTIVE DATE

These revised sections shall be used to progress projects to be let after January 9, 1997. Designers may also utilize the new sections for projects with earlier letting dates.

DISTRIBUTION

Revision 28 will be distributed separately and contains new Contents pages. Consultants and others who are required to purchase the HDM may purchase Revision 28 by sending a check or money order for \$3.50 payable to the New York State Department of Transportation at the following address:

Plan Sales Unit, Bldg. 5, Rm 109
New York State Department of Transportation
W. Averell Harriman State Office Building Campus
1220 Washington Avenue
Albany, N.Y. 12232

CONTACT

Project specific assistance regarding this revision should be referred to the appropriate liaison engineer in the Design Quality Assurance Bureau. General questions regarding this revision should be addressed to Norman Schips of the Design Quality Assurance Bureau. He may be reached at (518) 485-8611.