Facilities Development Manual

Wisconsin Department of Transportation

Transmittal No. 370

Date: July 22, 2009

Subject: Revisions to Chapters 8 ,9, 11, 16

NOTE: The links below will send you to the latest version of the subject document. Subsequent transmittals may have made other changes to the document that are not described below.

Where new text has been combined with old text, the new text appears shaded.

FDM 8-10-20

This procedure has been updated to include new information on Field Rate Accounting for Construction Contract Administration and Project Office Accounting.

FDM 8-10-25

New language added for consistency with applicable Federal law and regulations. Allows for use of market rates on sub contracts for specialized advisory services.

FDM 8-15-2

This is a new procedure to address Journal Voucher consultant contract provisions.

FDM 9-5-10

This procedure has been revised to include the new vertical and horizontal datum adjustments, the expansion of the area now covered by the Wisconsin Height Modernization Program, and the introduction of an additional name for referencing county coordinates. The previous procedure attachment has been deleted.

FDM 9-20-27

This procedure has been revised to reference the new procedure FDM 9-20-28 and updates the referenced web site link. Some minor wording has been revised.

FDM 9-20-28

This is a new procedure to address a new way of computing county coordinates.

FDM 9-20-28, Attachment 1

Wisconsin Coordinate Reference System map

FDM 9-20-28, Attachment 2

Wisconsin Coordinate Reference System county zone list

FDM 11-10-5

- Guidance on Sight Distance and Vertical Curve is revised.
- Guidance on Superelevation is revised.
- Guidance on Maximum Deflection without Horizontal Curve is revised.
- Several recommendations from the 2006 FHWA Bypass report have been added
- Other sections have minor revisions or editing changes.
- All Attachments are revised.
- See a more detailed description of the changes here: Additional FDM 11-10-5 information

Implementation

Revised 11-10-5 standards are required for all projects that are let on or after August 10, 2010. The revised standards may be used, at the option of the designer, for projects that are let before August 10, 2010.

FDM 11-20-1

The information on cost share in paragraph 3, subsection 7 was deleted

FDM 11-35-1, Attachment 8

- The column title for "Sign Bridges" is changed to "Sign Structures". This agrees with the terminolgy in the LRFD Bridge Manual, and also in FDM 11-55-20 .
- The vertical clearance requirement for new and replacement sign structures is changed to 18-3 Minimum for all roadways. This is being done to bring it into agreement with Chapter 39 of the WisDOT LRFD Bridge Manual.

- Current General Note 2 - "Include a low clearance sign (W12-2), on structures located off the interstate system in accordance with WisDOT MUTCD 2C.22." - is deleted because, based on the language of WisDOT MUTCD 2C.22, it is not applicable for Attachment 8. The W12-2 sign would never be warranted because all of the required clearances are >14-6. It also seems unlikely that it would be used on a discretionary basis on a new or replacement structure because any existing clearance problems could be fixed.
- Current General Note 3 is moved to the end of General Note 1.
- New General Note 2 is added - "See LRFD Bridge Manual Chapter 39 and LRFD Standard Details 39.02 and 39.10 for design considerations and requirements for vertical clearance on new and replacement Sign Structures."
- New General Note 3 is added - "See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways."
- Minor editing changes

FDM 11-35-1, Attachment 9

- The column title for "Sign Bridges" is changed to "Sign Structures". This agrees with the terminology in the LRFD Bridge Manual, and also in FDM 11-55-20 .
- The vertical clearance requirement for existing sign structures is changed to 18'-0" min. for New Construction Projects or Reconstruction Projects; and 17'-0" for 3R Projects. This is being done to correct the current inconsistency between FDM 11-35-1, attachment 9 - which requires 18-0 minimum for existing sign bridges - and FDM 11-44-1, section 3.6 - which allows 17-0 for sign bridges on rehabilitation projects.
- Current General Note 2 is revised based on a comment from Tom Heydel in his June 1, 2009 email attachment:

  from: "Include a low clearance sign (W12-2), on structures located off the interstate system in accordance with WisDOT MUTCD 2C.22."
  to: "Include a low clearance sign (W12-2), on structures if its use is in accordance with WisDOT MUTCD 2C.22."
- Current General Note 4 is revised because no longer apply:

  from: "See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways, including segments which have preapproved exceptions for minimum vertical clearance."
  to: "See FDM 11-44-1 for vertical clearance guidance specific to Interstate freeways."
- New General Note 6 is added - "See LRFD Bridge Manual Chapter 39 for design considerations for vertical clearance on Sign Structures."
- Minor editing changes

FDM 11-35-10

Correction to footnotes

FDM 11-44-1

- Department of Defense (DOD) coordinating agency for vertical clearances less than 16-ft is changed

  from: The Military Traffic Management Command Transportation Engineering Agency (MTMCTEA)
  to: The Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA)
- The guidance for design exceptions for vertical clearances of less than 16-ft is more comprehensive.
- A paragraph is added about the Interstate Vertical Clearance Exception Coordination form provided in [NEW] Attachment 1.
- the pre-approved exceptions for 14-ft minimum vertical clearance have been eliminated, i.e., bridges within the 3 segments that were listed must now meet the same vertical clearance requirements as the rest of the interstate.

FDM 11-44-1, Attachment 1

The purpose of the form is to provide information to the Department of Defense about locations with less than 16'-0" vertical clearance.

FDM 11-45-10

Updated the federal policy on bicycle accommodations for urban and suburban areas. Also includes clarifying and expanded language for paved shoulders on rural roadways when bicycle accommodations need to be provided. A new section has been added for bicycle accommodations through roundabouts.

FDM 11-55-20

Subsection 3 updated. A reference to FDM 11-35-1 is added.

FDM 12-10-1

Corrections made to footnotes 1 and 2 in subject 2.4. The footnotes were incomplete in a previous update.

FDM 19-40-1, Attachment 1

Revised to reflect Standard Detail Drawing Changes.

Chapter 16 Standard Detail Drawings

SDD 9E4-5, Walkway Lighting Unit and Concrete Base, Type II (revised)

This Standard Detail Drawing has been revised by adding to the General Notes the statement that the Anchor Rods shall be manufactured in accordance with Section 654.2.1 and 641.2.2 of the Standard Specifications.

SDD 9E7-4, Traffic Signal Standard Pedestrian and Flasher Typical Mounting Details (revised)

This Standard Detail Drawing has been revised to show the placement of signs on the Standard Flasher Detail at a height of 6'-3" to 7'-3" above the sidewalk or pavement to match our current design standards.

SDD 14B15-6a, Steel Plate Beam Guard, Class "A" Installation & Elements (revised)
SDD 14B15-6b, Steel Plate Beam Guard, Class "A" Installation & Elements (revised)
SDD 14B15-6c, Steel Plate Beam Guard, Class "A" Installation & Elements (revised)
SDD 14B15-6d, Steel Plate Beam Guard, Class "A" Mow Strip Detail (new)

The following revisions have been made:

1. Added Beam Guard Type LHW for situations where the 2 feet of grading behind the post cannot be provided for. This change will make the barrier system match NCHRP 350 crash tests. Designers are to indicate in their plans that they are using LHW Beam Guard.
2. Added Beam Guard Type NW for installing nested Beam Guard. This change will make the barrier system match NCHRP 350 crash tests. This allows concrete curb and gutter to be used in front of Beam Guard dependent on speed of facility and type of curb being used. Designers are to indicate in their plans that they are using NW Beam Guard.
3. Added Mow Strip items for Beam Guard construction. This change will make the barrier system match NCHRP 350 crash tests and recommended procedures provided by FHWA technical memo. Other alternative methods to control erosion or mowing should be discontinued.
4. Provide guidance for allowing the use of extra Blockouts.
5. Provide guidance on what to do when an underground obstruction prevents a post from being installed at the proper location.
6. Removes Standard Detail Drawing allowing Beam Guard to use steel attachment to top of box culvert or footing.

SDD 14B20-7a, Steel Thrie Beam Structure Approach (revised)

This Standard Detail Drawing has been revised to add two bolts to the center post of the "W" to Thrie Beam Transition Section. General Note 5 has been deleted.

SDD 14B24-6a, Steel Plate Beam Guard Energy Absorbing Terminal (revised)
SDD 14B24-6b, Steel Plate Beam Guard Energy Absorbing Terminal (revised)
SDD 14B24-6c, Steel Plate Beam Guard Energy Absorbing Terminal (revised)

The following revisions have been made:

1. E.A.T Marker Post installation now required.
2. Addition of a 72" Steel Tube option.
3. 3 Soil Plates are now required with the 54" Steel Tube option.

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