



Florida Department of Transportation

CHARLIE CRIST
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS
SECRETARY

Mail Station 32

ROADWAY DESIGN BULLETIN 10-03

DATE: February 10, 2010
TO: Registered Plans Preparation Manual Holders
FROM: David C. O'Hagan, P.E., State Roadway Design Engineer
CC: Lora Hollingsworth, Robert Robertson, Jim Mills, Tana Ashbaker
SUBJECT: IMPLEMENTATION - PLANS PREPARATION MANUAL
JANUARY 1, 2010 Update

The January 1, 2010 Update include:

1. The 2010 Revisions to the Plans Preparation Manual (PPM), Volume 1, January 2009 (Topic No. 625-000-007).
2. The 2010 Revisions to the PPM, Volume 2, January 2009 (Topic No. 625-000-008).

The major changes in design requirements are to be implemented as follows:

VOLUME 1

Volume 1, Introduction

SUMMARY OF CHANGE:

This section was updated to reflect current practices. This includes improved guidance on Roadway Design Bulletins for the Plans Preparation Manual (and their lifespan), guidance on Exhibit "forms" (including a link to the PPM Forms page), and a new link to the Urban Area Buffer Maps. Corresponding changes were made in the Introduction of Volume 2.

IMPLEMENTATION:

These changes are effective beginning immediately.

Volume 1, Chapter 2, Figure 2.3.2 Typical Paving Under Bridge

SUMMARY OF CHANGE:

This figure was updated for clarity and to include the slope criteria for the miscellaneous pavement under bridges previously shown in the Figures in Section 2.10.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 2, Section 2.10 and 2.11 Bridge Clearances

SUMMARY OF CHANGE:

This section was modified to include new and revised figures showing the vertical clearance requirements for bridges. Corresponding changes were made to Table 2.11.6 and 25.4.14.7 for horizontal clearance to bridge piers and abutments.

IMPLEMENTATION:

These changes are based on [Roadway Design Bulletin 09-06](#) and were immediately effective on all applicable projects beginning as described in the design bulletin.

Volume 1, Chapter 2, Section 2.11 Horizontal Clearance

SUMMARY OF CHANGE:

The tables in this section were updated to for consistency and to clarify that the horizontal clearance requirements for urban curb and gutter are only applicable for design speeds of 45mph and less. Also, Table 2.11.8 now refers to Chapter 4 for horizontal clearance criteria for canal and drop-off hazards. Corresponding changes were made to the horizontal clearance tables in Chapters 21 and 25.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 2, Section 2.16 High Speed Urban and Suburban Arterial Highways

SUMMARY OF CHANGE:

The figures in this section were updated to show the outside shoulder as a bike lane. This is due to the change in bike lane definition implemented in the previous PPM Update. Corresponding changes have been made to Sections 2.16.3 and 2.16.5 and in Volume 2, Exhibits TYP-13, TYP-14 and TYP-16.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 4, Section 4.1.3 Roadside Ditches

SUMMARY OF CHANGE:

This section and the corresponding figures were added to provide roadside ditch cross section criteria. Figures 4.1.3.1 and 4.1.3.2 come from the 2006 AASHTO Roadside Design Guide.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 4, Section 4.2.1 Canal Hazards

SUMMARY OF CHANGE:

Exhibit 4-B was corrected to reflect a design speed of 45mph or less for (for urban curb or curb and gutter sections.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 6, Section 6.2.3 Railroad-Highway Grade Crossing

SUMMARY OF CHANGE:

This section was added to include existing requirements for federal-aid projects with a railroad-highway grade crossing in or near the project limits. If such railroad-highway grade crossing exists, the crossing must be upgraded to meet MUTCD requirements (Chapter 8). Corresponding changes have been made in new Sections 2.0.1, 7.1.1, and 25.2.5.

IMPLEMENTATION:

These changes reflect existing requirements for Federal Aid projects in accordance with ***Title 23 United States Code (U.S.C.), Chapter 1, Section 109(e)*** and ***CFR 646.214(b)***.

Volume 1, Chapter 7, Table 7.3.1 Conventional Lighting - Roadways

SUMMARY OF CHANGE:

This table was expanded to include criteria for veiling luminance ratio.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume 1, Chapter 8, Table 8.1.1 Bicycle Facilities

SUMMARY OF CHANGE:

The notes associated with this table were updated to clarify the requirements for RRR projects.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 8, Section 8.3.1 Sidewalks

SUMMARY OF CHANGE:

This section was updated to address 1-foot level area that should be provided adjacent to sidewalk. This section was also updated to clarify the sidewalk placement location.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8 Section 8.3.3 Crosswalks

SUMMARY OF CHANGE:

Much of this section was rewritten to clarify FDOT requirements for crosswalks. This section now contains definitions of crosswalks (both at intersections and midblock) and includes revised criteria for marking crosswalks.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8, Section 8.4.1 Bicycle Lanes

SUMMARY OF CHANGE:

Section 8.4.1 was updated to require the paved shoulder within 1 mile of an urban area to be marked as a bike lane (which previously was a “should” condition).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8, Section 8.4.4 Bicycle Lane

SUMMARY OF CHANGE:

Section 8.4.4 was updated to clarify the conditions for bicycle lanes between a through lane and a right turn lane, bus bay or parking lane. A corresponding reference to this section was provided in Section 25.4.19.2.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 8, Figure 8.2 Drop-off Hazards

SUMMARY OF CHANGE:

This figure was updated to clarify the conditions that qualify as drop-off hazards adjacent to sidewalks or paths.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 9, Section 9.1 Landscape - General

SUMMARY OF CHANGE:

This section was updated to include the definition of view zone as described in ***Section 479.106(6), Florida Statutes.***

IMPLEMENTATION:

These changes are clarification of existing requirements and considerations which are already in effect.

Volume 1, Chapter 10, Exhibit 10-B Lane Closure Worksheet

SUMMARY OF CHANGE:

The Work Zone Factors (WZF) Table on this worksheet was updated based on new research.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 10, Section 10.12.8 Traffic Pacing Design

SUMMARY OF CHANGE:

This section was updated to provide new guidelines and procedures for traffic pacing design. Exhibit 10-C has also been added to include the procedure for calculating the pacing distance and the time intervals during which a pacing operation will be allowed.

IMPLEMENTATION:

These changes support the new Traffic Pacing Index (Index 655 of the Design Standards) which became effective on applicable projects beginning with the January 2010 Letting.

Volume 1, Chapter 17, Engineering Design Estimate Process

SUMMARY OF CHANGE:

This chapter was rewritten to reflect current practices, references and terminology.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective on all applicable projects beginning immediately.

Volume 1, Chapter 19, Sealing Design Documents

SUMMARY OF CHANGE:

This chapter was updated based on current practices for the sealing design documents by engineers and other licensed professionals.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective on all applicable projects beginning immediately.

Volume 1, Chapter 20, Section 20.4 Revisions to the Bid Set

SUMMARY OF CHANGE:

This section was rewritten to update the revision process so that the concurrence signature for the revision memo is from the Director of Transportation Development (or designee) and copied to the District Design Engineer (DDE) and District Consultant Project Management Engineer (DCPME). Corresponding Changes have been made in Figure 20.2 and to the Revision Memo (Exhibit 20-C).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 20, Exhibit 20-B Contract File Index

SUMMARY OF CHANGE:

This exhibit was updated to reference the [Florida Federal-Aid Partnership Agreement dated February 21, 2008](#).

IMPLEMENTATION:

This change is clarification of existing requirements already in effect.

Volume 1, Chapter 21, Transportation Design for Livable Communities

SUMMARY OF CHANGE:

This chapter was updated based on current practices. Some of the changes include clarification of documentation requirements (no longer referred to as a concept report), as well as updated information on one-way street pairs, parking, and curb extensions. Exhibits 21-A through 21-D were also updated for clarity.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 22, Section 22.3 Plans Preparation

SUMMARY OF CHANGE:

This section was updated to require existing pavement cross slope information be provided for lump sum projects where cross slope is to be corrected. This information along with milling and overbuild details is necessary for the contractor to understand the extent of milling and/or overbuild in cross slope correction and prepare a bid.

IMPLEMENTATION:

This change is effective on all applicable projects beginning immediately.

Volume 1, Chapter 22, Exhibit 22-A Items of Work

SUMMARY OF CHANGE:

This exhibit was updated to identify the information to be placed in the Project Description field. An example was also added to the exhibit.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 23, Section 23.1 General

SUMMARY OF CHANGE:

This section was updated to provide guidance for Maintenance Resurfacing, Ride Rehabilitation, and Skid Hazard projects. These types of projects do not require design exceptions or variations other than for ADA curb ramps.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 23, Section 23.9 AASHTO Criteria for Controlling Design Elements

SUMMARY OF CHANGE:

This section was updated to include reference to AASHTO's Policy on Design Standards Interstate System as the criteria used for determining exceptions for determining design exceptions on the Interstate system. Corresponding changes were made to Table 23.9.2.

Table 23.9.5 was updated to reference the AASHTO LRFD for minimum bridge loadings.

Table 23.9.6 was updated to provide additional railroad vertical clearance criteria for roads over high speed rail systems and electrified railroads.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 25, Section 25.1.2 Application

SUMMARY OF CHANGE:

This section has been updated to clarify that Chapter 25 does not apply to projects programmed as Maintenance Resurfacing projects other than meeting ADA curb ramp requirements.

This section was also updated to clarify the applicability of Chapter 25 criteria to FIHS/SIS corridors and connectors. A corresponding change was made to Section 25.4.4 to include a minimum design speed of 50 mph for urban FIHS/SIS facilities.

IMPLEMENTATION:

These changes are clarification of existing requirements and are effective on all applicable projects beginning immediately.

Volume 1, Chapter 25, Section 25.4.19.2 Bicyclist Needs

SUMMARY OF CHANGE:

This section was updated to provide guidance for addressing bicyclist needs on RRR projects. This section addresses drainage inlets, grates and utility covers, and the consideration for reducing existing through lane widths to provide bicycle lanes, wide curb lanes, or paved shoulders. Corresponding changes regarding through lane width reduction were made in Table 25.4.5.3 and Table 25.4.5.4.

IMPLEMENTATION:

The changes regarding drainage inlets, grates and utility covers, are effective on all applicable projects beginning design on or after January 1, 2010, however it may be applied to projects currently underway at the discretion of the design engineer of record. The changes regarding reduction of lane width are based on [Roadway Design Bulletin 09-03](#) and were effective as described in the bulletin.

Volume 1, Chapter 25, Section 25.4.27 Sign, Signal and Lighting Structures

SUMMARY OF CHANGE:

This section was modified to identify the responsibilities for determination of sign, signal, and lighting structure replacement. The purpose of this change was to clarify requirements that must be met for the evaluation of existing structures. The District Structures Maintenance engineer will assess the existing structures then make recommendations on whether or not replacement is needed.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 26, Section 26.12 Independent Peer Review of Category 2 Bridges

SUMMARY OF CHANGE:

This section was added to better define the requirements for Independent Peer Reviews when specified in the contract documents for Category 2 bridges. Exhibits 26-B and 26-C were also added to provide Independent Peer Review Certification Letters (for 90% and 100% submittals).

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 26, Section 26.14 Summary of Phase Submittals

SUMMARY OF CHANGE:

This section was added to better define phase submittal content requirements for all bridge projects. Exhibit 26-D was also added which outlines the structure plan sheets and their level of completeness for each submittal package.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 28, Section 28.10 Review of Prequalified Joint Welding Procedures

SUMMARY OF CHANGE:

This section was updated to clarify the requirements for the review of prequalified joint welding procedures.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 29, Section 29.2.7 Dynamic Message Sign (DMS) Structures

SUMMARY OF CHANGE:

This section was modified to refer to the Structures Manual (Volume 9) for DMS structure requirements.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 1, Chapter 29, Section 29.4.2 Mast Arm Signal Structures

SUMMARY OF CHANGE:

This section was updated to refer to Section 7.4.17 for backplate requirements on mast arm traffic signal assemblies.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 30, Section 30.2.2 Retaining Walls

SUMMARY OF CHANGE:

This section was updated to change the top of wall elevation intervals required on the Plan and Elevation Sheet (Elevation View of Wall) from 30 feet to 25 feet.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

Volume 1, Chapter 32, Section 32.6 Structural Design

SUMMARY OF CHANGE:

This section was updated to clarify auger cast pile requirements.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning immediately.

VOLUME 2

Volume 2, Chapter 1, Section 1.1 General

SUMMARY OF CHANGE:

This section was modified to clarify that the Exhibits found in chapters of Volume 2 provide examples of the sheets covered by those chapters. The exhibits in Volume 2 are not to be used as a source for criteria unless specified.

IMPLEMENTATION:

This change is clarification of existing requirements and is already in effect.

Volume 2, Chapter 3, Key Sheet, Section 3.5 Component Plans in Contract Plans Set

SUMMARY OF CHANGE:

This section was updated to address components other than Roadway Plans being the lead component for a project that has no Roadway component.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 2, Chapter 6, Typical Section Exhibits

SUMMARY OF CHANGE:

The typical section exhibits were updated to identify the survey baseline and/or the construction centerline as applicable.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 2, Chapter 7, Section 7.4 Litter Removal and Mowing

SUMMARY OF CHANGE:

This section was added to include design requirements for projects that have litter removal and mowing. Areas for these items are determined based on construction phase duration, the estimated phase area, and cycle frequency. A cycle frequency is determined for the duration of the project by the District using 15-day increments. Guidance for determining the estimated areas is included in this section, and an example summary box is provided in Exhibit SQ-5.

IMPLEMENTATION:

These changes are based on [Roadway Design Bulletin 09-08](#) and are effective on all applicable projects beginning with the July 2010 Letting as described in the bulletin.

Volume 2, Chapter 7, Exhibit 7-1 Standard Notes for Summary of Quantities Sheet

SUMMARY OF CHANGE:

The pay item note for pay items 520-1-7 or 520-1-10 has been revised to allow for the substitution of RAP base for the asphalt curb pad on projects with asphalt base.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2010 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 14, Section 14.4 Sheet Setup

SUMMARY OF CHANGE:

This section was updated to require offsets to drainage structures be referenced from the baseline or centerline to the location reference point for each structure. These location reference points vary by structure and are indicated in the Design Standards for the structures. Corresponding changes have been made in new Exhibits DS-1 through DS-5.

IMPLEMENTATION:

This change is effective on all applicable projects beginning design on or after January 1, 2010 however it may be applied to projects currently underway at the discretion of the District.

Volume 2, Chapter 22, Section 22.1 Approach Slabs

SUMMARY OF CHANGE:

Section 22.2 was updated to clarify which approach slab details are included in the structures plans.

Also, all of the exhibits (Exhibit CP-1 through Exhibit CP-8) were replaced to make the drawings consistent with the current requirements.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 2, Chapter 27, Utility Work by Highway Contractor

SUMMARY OF CHANGE:

This chapter was renamed to reflect current terminology. Corresponding changes have been made in Chapter 17 of Volume 1, and in Chapters 2 and 7 of Volume 2.

IMPLEMENTATION:

These changes are clarification of existing requirements and are already in effect.

Volume 2, Chapter 28, Stormwater Pollution Prevention Plan

SUMMARY OF CHANGE:

The chapter was revised to reference the new State of Florida Erosion and Sediment Control Designer and Reviewer Manual. Corresponding changes were made to Exhibits SWP-1 through SWP-3.

IMPLEMENTATION:

These changes are based on [Estimates Bulletin 09-02](#) and were effective with the January 2010 Letting as described in the bulletin.

GENERAL

All other changes in the January 1, 2010 Plans Preparation Manual Update Package primarily consist of minor editing, updated references, clarification and/or error corrections and are effective immediately.

If you have any questions, please contact this office at (850) 414-4356.
