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January 8, 2013

MEMORANDUM

TO: All Users of the Florida Department of Transportation Plans Preparation

Manual

FROM: Robert Robertson, P.E., Interim State Roadway Design Engineer

COPIES: Brian Blanchard, Assistant Secretary for Engineering and Operations;

Tom Byron, Chief Engineer; Duane Brautigam, Director, Office of Design; District Design Engineers (Bernie Masing, Jimmy Pitman, Scott Golden, Howard Webb, Annette Brennan, Chris Tavella, Ronald Chin, and William Sloup); District Roadway Design Engineers (Edward Ponce, Belqis Majboor, Miranda Glass, Richard Creed, George Borchik, Daniel Iglesias, Adam Perez, and Michael Shannon); Tana

Ashbaker

SUBJECT: IMPLEMENTATION - PLANS PREPARATION MANUAL

JANUARY 1, 2013 Edition

The Florida Department of Transportation Roadway Design Office has officially released the January 2013 **Plans Preparation Manual** with an effective date of January 1, 2013. The **Plans Preparation Manual** can be found on the Roadway Design Office website at:

http://www.dot.state.fl.us/rddesign/PPMManual/PPM.shtm

The **Plans Preparation Manual** is provided in PDF format and includes hyperlinks, bookmarks and search capabilities. The **Plans Preparation Manual** can be viewed online or it can be saved on your computer.

For questions about the **Plans Preparation Manual**, or its application to a particular project, contact the appropriate District Roadway Design Office.

To improve or further develop the Plans Preparation Manual, submit suggestions to Benjamin Gerrell, Florida Department of Transportation, 605 Suwannee Street, MS 32, Tallahassee, Florida 32399-0450. (e-mail: benjamin.gerrell@dot.state.fl.us)

The January 1, 2013 Update include:

- 1. New Edition of Plans Preparation Manual (PPM), Volume 1, January 2013 (Topic No. 625-000-007).
- 2. New Edition of PPM, Volume 2, January 2013 (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:

The term Match Existing was added to the Glossary of Terms. This term has been used on contract plans for RRR projects in the past, but it was not defined. Match Existing has also been added to Chapter 25 of Volume 1.

Corresponding changes were made to the Chapter 6 in PPM Volume 2.

IMPLEMENTATION:

This change is effective immediately.

Volume 1, Chapter 2, Section 2.1.6.1 Alternative Roadway Paving Treatments

SUMMARY OF CHANGE:

This section was modified to address alternative pavement removed as a result of a Department Project. Regardless of the circumstances of the original installation and maintenance the replacement of alternative pavement shall adhere to the requirements in section 2.1.6.

IMPLEMENTATION:

This requirement is in effect for all projects prior to Letting Advertisement.

Volume 1, Chapter 2, Section 2.6 Grades

SUMMARY OF CHANGE:

This section was modified to include requirements for Turnpike Facilities. The Turnpike has required its mainline travel lanes to be above the 100 year flood plain elevation. Turnpike Facilities are generally used for Hurricane Evacuation Routes.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 2, Section 2.9 Superelevation

SUMMARY OF CHANGE:

This section was updated to reduce the potential for hydroplaning in areas transitioning from normal crown to superelevation. The longitudinal slope is now required to be at least 0.5% in transitional areas where the cross slope is flat. This is a minimum in Chapter 3 of the 2004 AASHTO Greenbook.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 2, Section 2.10.1 Vertical Clearance Over Water

SUMMARY OF CHANGE:

This section was updated to clarify where the minimum vertical clearance in the navigable channel is measured. Navigable channel vertical clearance is measured from the low point of the structural member of the bridge. Navigation lights in navigable channels shall not be considered in the vertical clearance.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 2, Section 2.12 Bridge Railings and Separators

SUMMARY OF CHANGE:

This section was updated to provide reference to the *Instructions for Design Standards*, *Index 402*. The instructions provide a list of superseded standard drawings, associated railing typical sections and end transition details, presented as an historical reference for use when evaluating existing safety shape structure mounted traffic railings.

IMPLEMENTATION:

These requirements are already in effect.

Volume 1, Chapter 2, Section 2.13.1 Roundabouts

SUMMARY OF CHANGE:

This section was updated to provide the most current information and requirements for roundabouts. The title to this section was changed from Circular Intersections (Roundabouts) to Roundabouts. Reference to the *National Cooperative Highway Research Program (NCHRP) Report 672, Roundabouts: An Informational Guide and to the Florida Intersection Design Guide* was given. Reference to the *Florida Intersection Design Guide* was also included. These guides provide criteria, procedures and requirements for roundabouts.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 4, Section 4.1 Recommendations

SUMMARY OF CHANGE:

This section was revised to substitute the concept of "recommendations" for "warrants", as outlined by the *AASHTO's 4th Edition of the 2011 Roadside Design Guide*.

IMPLEMENTATION:

These changes are already in effect.

Volume 1, Chapter 4, Section 4.5.2 Selection

SUMMARY OF CHANGE:

This section was revised to reflect the new requirements for using *Index 430* of the *Design Standards*. Roadway Design Bulletin 13-01, implementing *Index 430* is published with the release of the PPM to better clarify new requirements established for permanent crash cushion applications.

The term "Sand barrels" was removed. They are no longer an option for permanent crash cushion installations.

Beginning with July 2012 lettings, the designer shall use pay item 544-75-140 (Crash Cushions – Optional).

The designer will no longer be allowed to specify a particular brand of crash cushion. A new *Summary of Permanent Crash Cushions* was developed to allow the designer to include the necessary information for a contractor to choose a suitable crash cushion.

PPM Volume 2, Chapter 7, Exhibit SQ-4 was revised to provide the new **Summary of Permanent Crash Cushions**, which shall be included in the plans.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin12-13 and are effective for lettings on or after January 1, 2013. Therefore, Roadway Design Bulletin 12-13 is void as of January 1, 2013.

Volume 1, Chapter 6, Section 6.2.2 Surfaces

SUMMARY OF CHANGE:

This section was updated to clarify that the District Rail Coordinator should be consulted in selecting the surface material to be used at a railroad crossing.

IMPLEMENTATION:

This change is a clarification of an existing requirement and is already in effect.

Volume 1, Chapter 7, Section 7.1.2.2 Median Traffic Railings

SUMMARY OF CHANGE:

This section was updated to include *Index 11871*, *Single Post Median Barrier Mounted Sign Support*, and addresses the installation of permanent and temporary sign supports on both permanent and temporary barriers and traffic railings.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-05 and are already in effect. In addition, the changes supersede Roadway Design Bulletin 12-11 and are effective for lettings on or after January 1, 2013. Therefore, Roadway Design Bulletin 12-05 and 12-11 are void as of January 1, 2013.

<u>Volume 1, Chapter 7, Section 7.2.3 Use of Overhead Signs on Freeways and Expressways</u>

SUMMARY OF CHANGE:

This section was included to specify the specific conditions and locations where overhead signs shall be required, in addition to those listed on **Section 2A.17** of the **MUTCD**.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-17 and are effective on lettings on or after March 1, 2013. These requirements may be implemented immediately on all projects let prior to March 1, 2013 at the discretion of the District. Therefore, Roadway Design Bulletin 12-17 is void as of January 1, 2013.

Volume 1, Chapter 7, Section 7.3.1 Design Criteria

SUMMARY OF CHANGE:

Table 7.3.1. was revised to replace the terms "pedestrian ways and bicycle lanes" with "sidewalks and shared used paths", and to clarify that the lighting criteria applies to facilities within the range of the proposed or existing light poles.

IMPLEMENTATION:

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

Volume 1, Chapter 7, Section 7.4.5 Left Turn Treatments

SUMMARY OF CHANGE:

This section was modified to include two signal treatment options for single left turns in the protected/permissive phasing, as listed in the *MUTCD*.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8, Section 8.3.2 Accessibility Considerations

SUMMARY OF CHANGE:

This section was modified to include the requirement of evaluating existing driveways in the project design to determine if it is feasible to upgrade nonconforming driveway turnouts to meet the criteria in **Design Standards**, **Indexes 304**, **310 and 515**. Nonconforming driveways are not required to be upgraded if it is not feasible within the scope of the project.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8, Section 8.6 Shared Use Paths

SUMMARY OF CHANGE:

This section was modified to include the requirements of the **2006 ADA Standards for Transportation Facilities** for the design of shared use paths.

IMPLEMENTATION:

These changes are already in effect.

Volume 1, Chapter 8, Section 8.6.7 Design Speed

SUMMARY OF CHANGE:

This section was modified to update the design speed for shared use paths, per *AASHTO Guide for the Development of Bicycle Facilities*, 2012.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 8, Section 8.6.8 Horizontal Alignment

SUMMARY OF CHANGE:

This section was modified to update the design criteria affected by the design speed change for shared use paths. The criteria for minimum radii and stopping sight distance has been updated.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 9, Landscape and Community Features

SUMMARY OF CHANGE:

This chapter was modified to update the design and maintenance requirements for landscape, and language was added to address Community Features.

The section addressing Community Aesthetic Features includes criteria and requirements to place a feature within the State Highway System right-of-way. In conjunction with this chapter, Community Aesthetic Feature Agreement (Form #625-010-10) was created and is available on the Forms and Procedures Office web site. (http://www.dot.state.fl.us/proceduraldocuments/).

IMPLEMENTATION:

The changes affecting landscape are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules. The requirements for Community Features are effective beginning January 1, 2013.

Volume 1, Chapter 10, Section 10.11.5 Temporary Crash Cushions

SUMMARY OF CHANGE:

This section was revised to modify the method and criteria for selecting temporary crash cushions. The **Summary of Temporary Crash Cushions**, provided in this section, shall be included in the plans with the necessary information for a contractor to choose a suitable crash cushion.

Gating crash cushions are reintroduced with this revision. Criteria for application of gating crash cushions and redirective crash cushions in work zones are included in this section.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-13 and are effective with January 1, 2013 lettings. Therefore, Roadway Design Bulletin 12-13 is void as of January 1, 2013.

Volume 1, Chapter 11, Section 11.1 General

SUMMARY OF CHANGE:

This section was modified to remove the *Procedure No. 650-040-003*, *NPDES Permits for Stormwater Discharges from Highway Construction Sites* requirements. The distribution of a NOI, SWPPP and signed certification statements will now be in accordance with the requirements of the DEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 12, Right of Way

SUMMARY OF CHANGE:

This chapter was modified to establish consistency in the use of Temporary Construction Easements and License Agreements. Additional design requirements, access management and negotiation guidance was provided.

IMPLEMENTATION:

Volume 1, Chapter 13, Section 13.5.1 Aviation Office Coordination

SUMMARY OF CHANGE:

This section was modified to update the requirements for FAA Notification, per *C.F.R.*, *Title 14, Part 77*. FAA now requires 45-day advanced notification regarding any construction or alteration of structures that meet specific criteria, as listed on Table 2.10.5 of Volume 1 of the PPM.

The FDOT Aviation Office will now provide technical assistance on planned projects to determine impact to the national airspace system in Florida.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 17, Engineering Design Estimate Process

SUMMARY OF CHANGE:

This chapter was modified to reflect that the quantity computation document(s) shall be included with the PS&E package for all projects if a computation book is not available.

IMPLEMENTATION:

These changes are effective on all applicable projects let on or after July 2013.

Volume 1, Chapter 20, Section 20.2 Glossary

SUMMARY OF CHANGE:

This section was modified to update the definition of Bid Set. The transmittal of the electronic Contract Plans and Specification Packages, which are submitted to Contracts Administration for the advertisement and letting of a project, now includes the computation book or the lump sum quantity computation documents.

In addition, it has been clarified that the Contract Documents shall include the plans revisions issued during construction.

The revisions within 5 working days of the letting are not allowed without final approval from the Director of the Office of Design.

IMPLEMENTATION:

These changes are effective on all applicable projects let on or after July 2013.

Volume 1, Chapter 20, Section 20.3 Plans Processing

SUMMARY OF CHANGE:

This section was modified to update the plan submittal, revision, approval and submittal for letting process thru the Central Office.

IMPLEMENTATION:

These changes are effective on all applicable projects let on or after July 2013.

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

SUMMARY OF CHANGE:

This section was modified to include Figure 20.3, which is a flowchart summarizing the Computation Book Distribution Process.

IMPLEMENTATION:

These changes are effective on all applicable projects let on or after July 2013.

Volume 1, Chapter 20, Section 20.5 Re-submittal of Withdrawn Projects

SUMMARY OF CHANGE:

This section was modified to clarify the stringing of federally funded projects with non-federally funded projects, and to clarify the application of federal laws, rules and regulations.

IMPLEMENTATION:

These changes document requirements already in effect based on *Federal Aid Technical Bulletin 05-01*.

Volume 1, Chapter 23, Section 23.5 Documentation for Central Office Approval

SUMMARY OF CHANGE:

This section was modified to update the comprehensive crash costs, based on crash severity (KABCO).

In addition, the crash costs by facility type have also been updated, based on the 2011 5-year Statewide Average Crash Rates for Segments from the CAR System, as of November 5, 2012.

IMPLEMENTATION:

<u>Volume 1, Chapter 23, Section 23.8 Design Variations Needing District Approval</u> Only

SUMMARY OF CHANGE:

This section was modified to include review and evaluation of the most recent certified five years of crash history for Design Variations needing District approval only.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

<u>Volume 1, Chapter 23, Exhibit 23-B Central Office Approvals – Design Exceptions and Design Variations</u>

SUMMARY OF CHANGE:

Exhibit 23-B was included in this chapter to clarify the approvals required for different types of Design Exceptions.

IMPLEMENTATION:

These changes are effective on all applicable projects still in the design phase.

<u>Volume 1, Chapter 25, Section 25.3.1.2 General Nature of Proposed Improvements</u> (Type of Work)

SUMMARY OF CHANGE:

This section was modified to update the requirements for Resurfacing, Restoration and Rehabilitation (RRR) projects. A new item (Improvements to bridge rails necessary to meet minimum standards) was added to the first list. Design Variations for bridge rails not meeting FDOT minimum standards require Central Office approval.

Item number 18 (Driveway modifications) was added to the second list of items. Driveways not within standard criteria should be considered for modification. Providing adequate driveways for commercial facilities, residential facilities and pedestrians, where they are currently inadequate, is another item for consideration on RRR projects.

IMPLEMENTATION:

Central Office approval of Design Variations for bridge rails is effective on all projects still in the design phase. The remaining changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 25, Section 25.4.6 Roadway Cross Slopes

SUMMARY OF CHANGE:

This section was modified to provide guidance for the use of term "Match Existing", which was added to the Introduction of PPM Volume 1. The term "Match Existing" shall be used for existing cross slopes within the allowable range that will not be corrected.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 25, Section 25.4.7 Superelevation

SUMMARY OF CHANGE:

This section was modified to clarify superelevation correction requirements for high speed facilities. Both of the conditions listed in the second paragraph must be met to allow the existing superelevation rate to remain.

IMPLEMENTATION:

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

Volume 1, Chapter 25, Section 25.4.13 Vertical Clearance

SUMMARY OF CHANGE:

This section was modified to provide reference to the Traffic Engineering Manual. The minimum vertical clearance requirements for signing are provided in Section 2.6 of the manual.

IMPLEMENTATION:

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

Volume 1, Chapter 25, Section 25.4.18 Drainage

SUMMARY OF CHANGE:

This section was modified to be consistent with Project Management Memorandum 12-02.

IMPLEMENTATION:

Volume 1, Chapter 25, Section 25.4.19.1 Pedestrian Needs

SUMMARY OF CHANGE:

This section was modified to provide additional guidance to improve accessibility for sidewalks, shared use paths and driveways.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 25, Section 25.4.24.3 Bridge Railing

SUMMARY OF CHANGE:

This section was modified to provide criteria required to be met in order to leave an existing structurally continuous post-and-beam bridge traffic railing in place on a RRR project. The approach guardrail transition must be designed by the designer. Standards or example details are not available for the approach guardrail transition. The Developmental Design Standards as discussed in **Structures Design Bulletin 12-17** may be used with the Design Standards to retrofit existing obsolete structurally continuous post-and-beam bridge traffic railings and approach guardrail transitions.

IMPLEMENTATION:

These changes are effective on all applicable projects in the design phase.

Volume 1, Chapter 26, Section 26.9.2 Contents

SUMMARY OF CHANGE:

This section was modified to introduce the available training videos on factors for consideration related to the use of Prefabricated Bridge Elements and Systems (PBES) for Accelerated Bridge Construction (ABC), posted on the Structures Design Office website for Every Day Counts.

IMPLEMENTATION:

These changes supersede <u>Roadway Design Bulletin 12-10</u>. Therefore, Roadway Design Bulletin 12-10 is void as of January 1, 2013.

Volume 1, Chapter 26, Section 26.9.4 Aesthetics

SUMMARY OF CHANGE:

This section was modified to include uncoated weathering steel and coating systems for

new Steel I-Girder and Box-Girder Bridges where site conditions warrant. **Section 1.3.2** of the **SDG** provides the requirements and details for the use of uncoated weathering steel.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-04 and are already in effect. Therefore, Roadway Design Bulletin 12-04 is void as of January 1, 2013.

Volume 1, Chapter 26, Section 26.9.7 Bridge Security

SUMMARY OF CHANGE:

This section was modified to include a design structure for blast effects as a countermeasure design alternative to minimize the effect of explosives on bridges. Blast loading has been added under one of the Extreme Event II load cases per the latest 2011 **AASHTO**.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 1, Chapter 33, Section 33.12 Design Detail

SUMMARY OF CHANGE:

This section was modified to clarify that wildlife shelves shall not be place in hydraulic structures. This is to avoid the practice of combining wildlife crossings with culverts used for drainage purposes. Wildlife crossing locations should be determined by EMO. A separate structure with natural bottom shall be provided for this purpose.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 2, Section 2.3.2 Phases

SUMMARY OF CHANGE:

Figure 2.1 in this section was modified to clarify that a preliminary Summary of Drainage Structures shall be submitted during Phase II roadway submittal.

IMPLEMENTATION:

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

Volume 2, Chapter 3, Section 3.6.1 Revised Index Drawings

SUMMARY OF CHANGE:

This section was added to include a list of revised Standard Index drawings on the lead key sheet of the contract plans that apply to the project. **Exhibit KS-1** was modified accordingly.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-16 and are effective with January 1, 2013 lettings. Therefore, Roadway Design Bulletin 12-16 is void as of January 1, 2013.

Volume 2, Chapter 3, Section 3.8 Governing Standards and Specifications

SUMMARY OF CHANGE:

This section was modified to reflect changes to the implementation and revision of Design Standards. The Design Standards are now published and released on July 1 and the effective date for implementation is the following January 1.

Changes were also made to clarify where the Governing Specification and Standards note shall be used. The note is required on the lower left corner of the contract plans lead key sheet and on the Structures General Notes. *Exhibits 3-1* and *KS-1* were modified accordingly.

IMPLEMENTATION:

These changes supersede Roadway Design Bulletin 12-16 and are effective with January 1, 2013 lettings. Therefore, Roadway Design Bulletin 12-16 is void as of January 1, 2013.

Volume 2, Chapter 5, Section 5.1 Drainage Map

SUMMARY OF CHANGE:

This section was modified to clarify when, how and where Drainage Maps are required. Drainage maps are required for all projects that add mainline capacity or significant changes to the drainage. Maps shall be developed using aerial base. The maps shall be included in all of the project phase submittals including the contract plans set.

IMPLEMENTATION:

Volume 2, Chapter 5, Section 5.1.2 Profile Portion

SUMMARY OF CHANGE:

This section was modified to clarify the requirements of the profile portion of drainage. Station numbers are to be shown along the bottom edge of the profile view.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 5, Section 5.1.3 Flood Data Summary Box

SUMMARY OF CHANGE:

This section was modified to clarify that the flood data shall be shown for cross structures that are being modified, where modifications affect the existing hydraulic calculations.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 6, Exhibits

SUMMARY OF CHANGE:

The typical section exhibits for resurfacing projects have been modified to reflect the changes in PPM Volume 1 Chapter 25.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 8, Section 8.2 Optional Materials Tabulation

SUMMARY OF CHANGE:

This section was modified to clarify when Optional Material Type Analysis is required. All culverts, with the exception of pipe extensions and end section replacements, require an Optional Pipe Materials Analysis. Pipes that are to be extended require like materials to save on the cost of jackets and to avoid confusion by maintenance and surveyors on what the existing culvert material is.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 14, Section 14.2 Required Information

SUMMARY OF CHANGE:

This section was modified to include the requirement that box and three-sided culvert lengths shall be shown on the drainage structure sheet.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

Volume 2, Chapter 18, Section 18.2 Required Information

SUMMARY OF CHANGE:

This section was modified to clarify that the seasonal high ground water table (SHGWT) elevation shall be shown on the cross sections.

IMPLEMENTATION:

These changes are effective on all applicable projects beginning design on or after January 1, 2013 and on all projects still in the design phase where implementation will not adversely impact production schedules.

GENERAL

All other changes in the January 1, 2013 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) 414-4318.