

Introduction

The Roadway Criteria Section has tracked 83 changes being made between the 2025 & 2026 **FDOT Design Manual (FDM)** through the standard update process as described in the **FDM Update Process**. Seven chapters were updated with non-substantive changes during 2025 and posted as *errata*, and one chapter (**227 Freight Facilities**) is expected to be released prior to the publication of the 2026 **FDM** through a bulletin from the Office of Freight and Rail.

A change to the **FDM** can be submitted internally or externally through the **FDM** website. The suggestion is evaluated by a subject matter expert (SME). If deemed appropriate and beneficial, the SME will make changes into a working document. The change will then be Quality Checked and Assured before going out to a larger audience for further review. At this point, the changes have been further reviewed internally in the Office of Design, the FDOT District Design Engineers, and by industry via the *American Council for Engineering Companies*. The FHWA is currently reviewing the changes per the *Stewardship and Oversight Agreement on Project Assumption and Program Oversight by and between the Federal Highway Administration, Florida Division Office, and the Florida Department of Transportation*. The 2026 **FDM** will be released on November 1, 2025 and go into effect on January 1, 2026.

Seven items were selected by the Roadway Criteria Office as warranting the attention of the FDOT Chief Engineer. For each item, this brief details the changes made to the **FDM** and answers the following questions:

1. *Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?*
2. *What financial impact does the change have; project costs, pay item structure, or consultant fees?*
3. *What impacts does the change have on production or construction schedules?*
4. *How does this change improve efficiency and/or quality?*
5. *Which FDOT offices does the change impact?*
6. *What is the impact to districts with this change?*
7. *Does the change shift risk and to who?*
8. *Provide summary and resolution of any outstanding comments from the districts or industry.*
9. *What is the communication plan?*
10. *What is the schedule for implementation?*

Contents

The seven items selected for this brief, and their corresponding changes are listed here (chapter red-lines are linked under the Section column) :

<u>Item</u>	<u>FDM Chapter</u>	<u>Section</u>	<u>Summary Comment</u>
<u>1</u>	120 - Design Submittals	<u>120.2.3.1 Approval Process</u>	Limits the number of revisions required when changes to the Typical Section Package occur. Change is result of one of the Department's ACEC Cost Control Recommendations.
<u>2</u>	213 - Modern Roundabouts	<u>213 Modern Roundabouts</u>	Considerable update to chapter made to incorporate changes from NCHRP 1043.
	216 - Earthwork	<u>216.4.6.1 Retaining Wall Embankment</u>	Added a new section for Retaining Wall Embankment to give guidance and direction to designers on calculating embankment costs.
<u>3</u>	262 - Retaining Walls	<u>262.2.3 Proprietary Wall Systems Where Full Design Details Are Required In Contract Plans</u>	At 90%, coordination between the roadway EOR and the structures EOR will be required to identify earthwork quantities.
<u>4</u>	220 - Railroads	<u>220 Railroads</u>	Significant update. Cross-referenced tables provided to show the criteria in which FDM2026 differs from the MUTCD.
	231 - Lighting	<u>231.3.8 Railroad Grade Crossings</u>	Added lighting requirements for railroad grade crossings.
<u>5</u>	240 - Transportation Management Plan (TTC Forms)	<u>240.2.2.15 Temporary Highway Lighting</u> <u>240.2.2.15.1 Roundabout Lighting</u>	Add a requirement that all roundabouts under construction must have temporary highway lighting during construction if any of its lanes or connecting lanes are open to public traffic.
<u>6</u>	251 - Stormwater Runoff Control Concept (SRCC) Development	<u>251 Stormwater Runoff Control Concept (SRCC) Development</u>	Updated expectations and use of SRCC to correspond with results from FDOT-FDEP/WMD regulatory coordination.
<u>7</u>	945 - Architectural Plans	<u>945 - Architectural Plans</u>	Chapter updated to introduce relationship between the FDM and the FDOT Building Facilities Design Manual. Specific criteria for calling out utility hookup demarcations is introduced.

The Cover

The Roadway Criteria Office solicited potential cover projects from the District Design Engineers and voted on which should be displayed on the **FDM** cover. The project selected was the new DDI Intersection of the First Coast Expressway and CR 216 in Clay County.

This photo showcases the newly completed Diverging Diamond Interchange (DDI) at CR 216 (Cathedral Oak Parkway), part of the First Coast Expressway (SR 23) in Clay County, Florida, located within District 2. The SR 23 corridor is a new alignment, limited-access, tolled expressway spanning 46 miles from I-10 in Duval County to I-95 in St. Johns County. Designed to alleviate local traffic congestion, stimulate economic development, and enhance hurricane evacuation routes in Northeast Florida, SR 23 represents a major infrastructure advancement in the region. This DDI at CR 216 connects to another new alignment corridor developed in partnership with Clay County, and it incorporates pedestrian and bicyclist enhancements, safety improvements, optimized traffic operations, and thoughtful integration of existing vegetation into the design.



Item 1: Design Approval Process

Summary: Limits the number of revisions required when changes to the Typical Section Package occur. Change is result of one of the Department's ACEC Cost Control Recommendations.

120.2.3.1 Approval Process

The completed Typical Section Package is signed and sealed by the Engineer of Record (EOR) with concurrence from the following as needed:

- District Design Engineer: design, posted, and target speeds and typical section
- District Traffic Operations Engineer: design, posted, and target speeds
- FHWA Transportation Engineer: typical section
- District Structures Design Engineer: bridge typical section elements
- District ISD Manager: Context Classification and target speed

Unless requested by the District, changes made to the Typical Section Package during the design phase are not required to be resubmitted. If requested, the Typical Section Package will be updated, reapproved and resubmitted once at Final Design phase.

Projects with PD&E Phase:

The Typical Section Package is prepared by the PD&E EOR as part of the Project Development & Environment (PD&E) process. The Typical Section Package is processed after the preferred alternative is selected. Include a copy of the approved Typical Section Package as part of the PD&E Final Preliminary Engineering Report.

Projects without PD&E Phase:

For projects that do not contain a PD&E phase, ~~or if significant changes occurred during the design process, a~~ ~~the~~ Typical Section Package is prepared by the Design EOR. ~~The Typical Section Package~~ ~~and~~ should be approved by the Department prior to the Phase II plans submittal.

[Link to redlined Chapter 120](#)

1. **Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**
This is a process clarification that aims to reduce costs and redundant work.
2. **What financial impact does the change have; project costs, pay item structure, or consultant fees?**
This change reduces consultant fees.
3. **What impact does the change have on production or construction schedules?**
This change may decrease production times as it reduces the work expected from consultants.

4. *How does this change improve efficiency and/or quality?*

This change improves efficiency by removing a requirement that was not generally useful to the design process.

5. *Which FDOT offices are impacted by this change?*

The Office of Design.

6. *What is the impact to districts with this change?*

Reduction in consultant work to be approved.

7. *Does the change shift risk and to who?*

This change does not shift risks.

8. *Provide summary and resolution of any outstanding comments from the districts or industry.*

All comments accounted for.

9. *What is the communication plan?*

This change has been presented to the districts, industry and the FHWA. On November 1st it will be published as part of the 2026 FDM.

10. *What is the schedule for implementation?*

The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.

Item 2: Modern Roundabouts

Summary: Considerable update to chapter made to incorporate changes from NCHRP 1043.
[Link to redlined Chapter 213](#)

1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?

Yes, for improving safety, enhancing mobility, and inspiring innovation. These changes improve safety by updating to the latest national best practices and guidance in the NCHRP 1043 report and 11th edition of the MUTCD. The 213 updates enhance mobility by requiring offset crossings for multilane roundabouts to increase the time drivers have to see pedestrians crossing at roundabout exits. Finally, the updates to 213 inspire innovation by providing designers with more guidance on how to improve their site-specific design.

2. What financial impact does the change have; project costs, pay item structure, or consultant fees?

Project costs could increase with the additional pedestrian requirements for multilane roundabouts.

3. What impact does the change have on production or construction schedules?

Could decrease production time with the design clarity provided with these changes.

4. How does this change improve efficiency and/or quality?

Improves quality by providing designers with more guidance to better their design. Could increase efficiency of the review process with less review cycles with added guidance in these updates.

5. Which FDOT offices are impacted by this change?

Design Office and Traffic Engineering and Operations Office.

6. What is the impact to districts with this change?

The districts could see a reduction in the number of design reviews with the additional guidance provided to designers to improve their designs.

7. Does the change shift risk and to who?

There is no shift in risk. The designers are still responsible for providing the best design possible using the criteria and guidance provided in FDM 213.

8. Provide summary and resolution of any outstanding comments from the districts or industry.

The districts would like Figures or Exhibits to illustrate the difference between a “Straddle Design” and a “Stay-in-Lane” approach for multilane roundabouts. These will be developed for the 2027 FDM.

9. What is the communication plan?

Design Bulletin for the 2026 FDM and training webinars for updates.

10. What is the schedule for implementation?

The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.

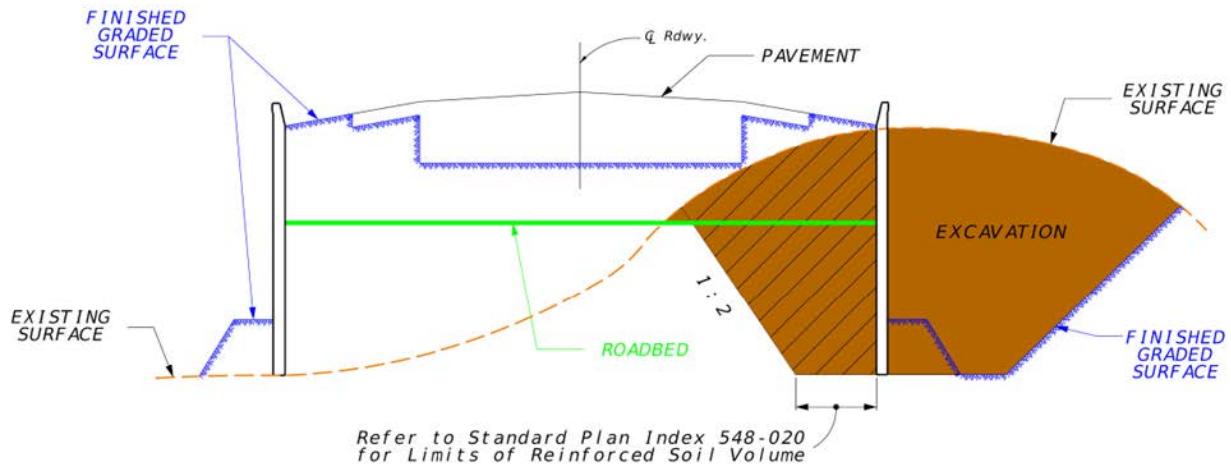
Item 3: Retaining Wall Embankment Calculation and Costs

Summary: Added a new section in FDM 216 for Retaining Wall Embankment to give guidance and direction to designers on calculating embankment costs and added a sentence to FDM 262 requiring coordination between the roadway EOR and the structures EOR to identify earthwork quantities.

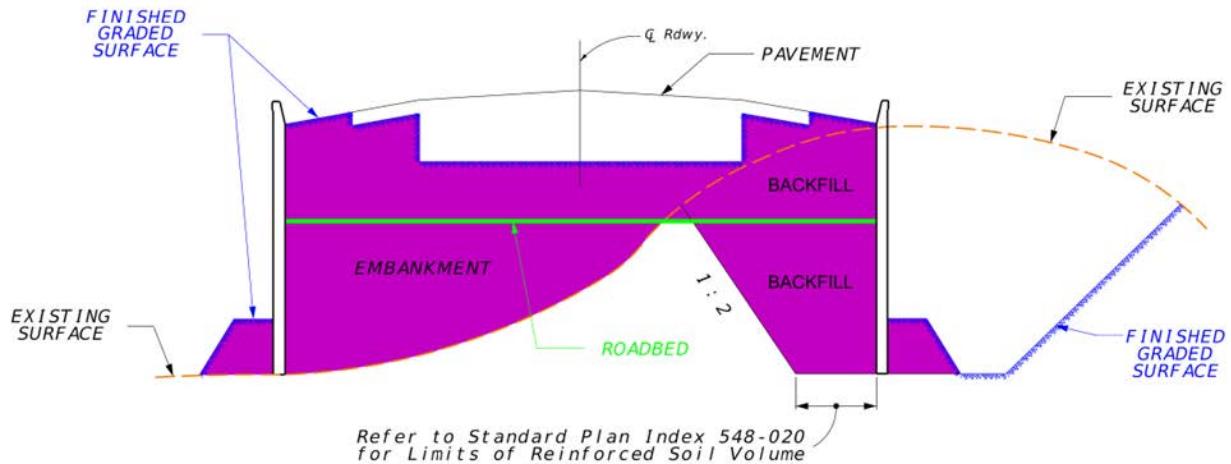
[Link to redlined *Chapter 216*](#)

216.4.6.1 Retaining Wall Embankment

Excavation for retaining wall construction is included in the cost of the retaining wall, but the cost of backfill or embankment for retaining walls is included in the cost of embankment. Calculate the embankment volume as illustrated in *Figure 216.4.9*. The limits of soil volumes for retaining walls depend on the requirements in *Standard Plans Index 548-020*, retaining wall strap length design, and the soil slope (typically 1:2). Coordinate with the structures design engineer on the retaining wall design and reinforced soil volumes. See *Standard Specifications Section 548* for more information on Retaining Wall Systems.



Excavation Included in Cost of Retaining Wall



Backfill and Embankment to be Included in the Total Embankment Volume

[Link to redlined Chapter 262](#)

(3) 90% Plans:

Upon receipt of the proprietary design plans, the designer must review the design and incorporate the wall plans into the contract plans set. The plans from the wall companies, control plans and wall company standard drawings must constitute the 90% Plans. Coordination between the roadway EOR and the structures EOR will be required to identify earthwork quantities (see FDM 216.4.6.1 for more information).

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**
These changes will foster talent by clarifying to all designers how retaining wall earthwork is quantified. It will also improve project cost estimates and bid accuracies.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees?**
No financial impact to the Department for consultant fees. These changes improve project cost accuracy and decrease the likelihood of retaining wall earth work related entitlement claims during construction.
- 3. What impact does the change have on production or construction schedules?**
No impacts to schedules.
- 4. How does this change improve efficiency and/or quality?**
Improves quality of project earthwork estimates by clarifying to designers how retaining wall earthwork is quantified.
- 5. Which FDOT offices are impacted by this change?**
Design Office, Office of Construction, and Forecasting and Performance Office.
- 6. What is the impact to districts with this change?**
This change was based on a District request to clarify that backfill for retaining walls is included in the cost of embankment.
- 7. Does the change shift risk and to who?**
This change does not shift risk.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry.**
There are no comments outstanding.
- 9. What is the communication plan?**
Design Bulletin for the 2026 FDM and training webinars for updates.
- 10. What is the schedule for implementation?**
The following is the schedule for implementation:
 - The 2026 FDM will be published on or before November 1, 2025
 - The 2026 FDM will be effective for all projects beginning design in January 2026

Item 4: Rewrite of Chapter 220: Railroads, addition of 231.3.8 Lighting: Railroad Grade Crossings

Summary: Significant update of chapter which mandates several optional conditions in the **MUTCD**. Adds lighting requirement for railroad grade crossings.

[Link to redlined **Chapter 220**](#)

[Link to blacklined **Chapter 220**](#)

231.3.8 Railroad Grade Crossings

Provide lighting for railroad crossings where required per **FDM 220**.

Apply horizontal illumination meeting the requirements of **FDM 231.3** for the roadway on both sides of the track. Use corridor lighting values for the roadway's classification type per **Table 231.2.1**. The analysis zone must extend at least 125 feet from the track on each side, measured along the roadway centerline.

Also, provide vertical illumination running along each rail of the track. Extend the analysis across all traffic lanes and include an additional 5 feet on both sides of the roadway. Data points for each rail must follow a 1.5-foot x 1.5-foot grid pattern, covering a plane that projects vertically above the rail to a height of 15 feet. The light meter for each data point is oriented parallel to the roadway and pointed outwards from the track, in the direction opposite the adjacent rail. Note that each railroad grade crossing will require calculations for two different vertical planes (one for each rail). Each vertical plane will have all data points oriented in the same direction, which is opposite from the adjacent vertical plane. The required light level for each vertical plane is an average of 1 V.F.C. with a uniformity of 4:1 or less (Avg.: Min.).

Where practical, keep all light pole arms oriented perpendicular to the roadway to help avoid driver disorientation at the crossing. Locate light poles at least one full pole length away from the railroad infrastructure. Where multiple train tracks occur at the same crossing, apply a similar practice as above except that the vertical illumination will be calculated along the two outer rails that are farthest apart. For additional background and concept visuals, see **ANSI/IES RP-8-25**.

[Link to redlined **Chapter 231**](#)

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**
These changes are in line with improving safety on all highway-rail grade crossings on the SHS by implementing new requirements for safety measures that are only options or for consideration in the minimum standards of the MUTCD. These changes also require the Districts and Diagnostic Teams to consider or perform evaluations for many additional safety measures on a project-specific basis.

2. *What financial impact does the change have; project costs, pay item structure, or consultant fees?*

This change should increase the cost of projects with highway-rail crossings within the project limits or in close proximity to the project limits. The CO is considering options to support the districts with additional funding.

3. *What impact does the change have on production or construction schedules?*

This change will require additional items to be designed and constructed and require additional coordination with the governing rail authority.

4. *How does this change improve efficiency and/or quality?*

This change does not necessarily improve quality or efficiency; however, it may improve the district's compliance with the MUTCD, Florida Administrative Code 14-57.013, and 49 CFR Part 222.

5. *Which FDOT offices are impacted by this change?*

The Offices of Freight and Rail, Traffic Engineering and Operations, Design, Construction, Program Management, and Maintenance.

6. *What is the impact to districts with this change?*

This change assigns the District Traffic Operations Engineer or their designee as the Department's official member of the Diagnostic Team. This change may increase the design and construction cost on projects with highway-rail crossings within the project limits or within close proximity of the project limits. The CO is considering options to support the districts with additional funding.

7. *Does the change shift risk and to who?*

This change does not shift risks.

8. *Provide summary and resolution of any outstanding comments from the districts or industry.*

This change has been communicated to all the district counterparts through the established procedures. The districts are concerned with the additional costs, especially for RRR Projects.

9. *What is the communication plan?*

The Criteria Section of the Roadway Design Office has conducted its annual review and updates to the FDM. Internal reviews have been conducted with the C-Team, Roadway Design Office, Traffic Engineering and Operations, District Design Engineers, District Consultant Project Management Engineers, and the District Roadway Design Engineers. Training webinars are typically conducted on larger revisions by the Roadway Design Office prior to December 20, 2025.

10. *What is the schedule for implementation?*

The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.

Item 5: Temporary Lighting during Roundabout Construction

Summary: Added a requirement that all roundabouts under construction must have temporary highway lighting during construction if any of its lanes or connecting lanes are open to traffic.

240.2.2.15 Temporary Highway Lighting

Temporary highway lighting is required for roundabout construction per **FDM 240.2.2.15.1** below.

For all other locations, temporary highway lighting may be used at the District's discretion. For example, Districts may determine that temporary highway lighting is warranted for areas such as interchanges or large roadways with complex vehicle movements. When practical, existing highway lighting is to remain in service during all phases of construction or until new lighting is installed and placed in service. Temporary highway lighting is not required where it is necessary to remove existing lighting before new lighting is placed in service.

Use temporary highway lighting at the District's discretion. For example, Districts may determine that temporary highway lighting is warranted for areas such as interchanges or other large roadways with complex vehicle movements. When temporary highway lighting is used, provide plans content per **FDM 943** and comply with the following:

240.2.2.15.1 Roundabout Lighting

Temporary highway lighting is required for all construction phases with roundabout lanes open for use by the traveling public. At a minimum, lighting must be provided for the central island and all open lanes of the roundabout, extending at least 200 feet in advance of planned splitter islands. The lighting should also generally assist with awareness of unfinished or closed routes. Provide plans content per **FDM 943** and follow the listed requirements per **FDM 240.2.2.15** above.

[Link to redlined **Chapter 240**](#)

1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?

Adding roadway lighting to roundabouts will help to facilitate safe roundabout navigation during construction phases. Roundabouts require driver awareness of upcoming changes to roadway geometry in order to safely navigate around the center island features and any construction activity. Adding lighting significantly helps driver awareness and visibility of the roundabout features, improving safety as a result.

2. What financial impact does the change have; project costs, pay item structure, or consultant fees?

This revision will save time for all roundabouts where lighting was considered for construction because designers will not have to coordinate with District offices to decide if lighting is needed (they will just design temporary lighting by default). This revision could

increase design time for cases that previously would not have added temporary lighting. This could increase construction time due to the requirement to set up temporary lighting for all roundabout construction, but it may save construction time by reducing vehicular crashes and corresponding delays.

3. *What impact does the change have on production or construction schedules?*

Additional time to design and install temporary lighting will be required.

4. *How does this change improve efficiency and/or quality?*

Lighting is an FHWA "proven safety countermeasure", which means it is proven to reduce crashes and lower fatalities and serious injuries. This creates a net positive benefit-cost. Quality is improved because it results in safer roundabout construction that is in line with FDOT's Target Zero goal. Last, this lighting may save time by reducing vehicular crashes and corresponding delays.

5. *Which FDOT offices are impacted by this change?*

Office of Construction, Office of Design.

6. *What is the impact to districts with this change?*

Additional expenses due to mandated temporary lighting requirements.

7. *Does the change shift risk and to who?*

No.

8. *Provide summary and resolution of any outstanding comments from the districts or industry.*

No comments received.

9. *What is the communication plan?*

This change has been presented to the districts, industry and the FHWA. On November 1st it will be published as part of the 2026 FDM.

10. *What is the schedule for implementation?*

The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.

Item 6: Use of Stormwater Runoff Control Concepts

Summary: Updated expectations and use of SRCC to correspond with results of FDOT-FDEP/WMD regulatory coordination.

[Link to redlined Chapter 251](#)

251.1 General

A Stormwater Runoff Control Concept (SRCC) must be developed during design and is a conceptual layout of temporary sediment and erosion control Best Management Practices (BMPs). The intent of the SRCC is to provide temporary sediment and erosion control quantities listed within the Estimated Quantities Report for cost estimating purposes ~~and to offer reasonable assurances for permits obtained during design~~. The linework in the CADD files developed for this concept will not be signed and sealed but will be included in the CADD.zip or BIM.zip. Permanent erosion and sediment controls from stormwater runoff (such as permanent sod/turf, inlets, erosion mats, etc.) must be included in the contract plans and signed and sealed.

FDOT Standard Specifications 104, the National Pollutant Discharge Elimination System (NPDES), Construction General Permit (CGP), and both Individual and General Environmental Resource Permit (ERP) conditions include the requirement to use performance-based temporary erosion and sediment control before, during, and after construction until final acceptance. The contractor is responsible for developing a project-specific plan to match field conditions, project approach, and construction phasing. Implementing, installing, inspecting, and maintaining these controls are also the responsibility of the contractor.

The SRCC should be prepared in consultation with Drainage, Construction and Environmental personnel. This concept must consider project limits, wetland locations, preservation areas, and existing and proposed terrain and drainage features. The State of Florida Erosion and Sediment Control Designer and Reviewer Manual provides guidance for appropriate application of BMPs.

251.2 Narrative for Environmental Resource Permitting

To assist with the environmental resource permit (ERP), a standard narrative Include the Temporary Erosion and Sediment Control Plan (Form 251-A) standard narrative is available for use on FDOT projects with an FDOT ERP application package to provide reasonable assurance required in ERP AH Volume I, Part IV.

251.3 Documents for Construction

To facilitate compliance with Standard Specifications, Section 104, the following documents are initiated by the designer and transmitted to the contractor within the "Permits" folder of the CADD.zip file structure.

251.3.1 SRCC Worksheet

See **FDM 908** for SRCC Worksheet requirements.

251.3.2 NPDES CGP SWPPP Template

Provide a copy ofInclude the NPDES CGP SWPPP Template for FDOT Projects (Form 251-B) with in the "Permits" Project CADD folder. The "Designer" sections completed should provide information as indicated within the template.

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**
On-going coordination with FDEP & WMDs to reach a conclusion of ERP and NPDES CGP program obligations and requirements due to temporary erosion and sediment control regulatory overlap. FDOT Drainage and Construction Offices initiated the coordination to develop consistent Construction Documents without conflicting permit conditions from the two regulatory programs.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees?**
None.
- 3. What impact does the change have on production or construction schedules?**
During production, the time for ERP permitting is reduced as it related to E&SC. During construction, this change allows the contractor more flexibility in site control.
- 4. How does this change improve efficiency and/or quality?**
Provides consistency within the Contract Documents for the contractors (i.e. State and Federal Permit Conditions align with FDOT's Standard Specifications).
- 5. Which FDOT offices are impacted by this change?**
FDOT Drainage Office, Construction Office.

6. *What is the impact to districts with this change?*

The districts will not be affected.

7. *Does the change shift risk and to who?*

This change does not shift risk.

8. *Provide summary and resolution of any outstanding comments from the districts or industry.*

There were no comments received from any of the review cycles.

9. *What is the communication plan?*

This change has been presented to the districts, industry and the FHWA. On November 1st it will be published as part of the 2026 FDM.

10. *What is the schedule for implementation?*

The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.

Item 7: Architectural Plans Incorporated in Part into the FDM

Summary: Chapter updated to introduce relationship between the FDM and FDOT Build Facilities Design Manual. Specific criteria developed for call-out utility hookup demarcations are introduced.

[Link to redlined Chapter 945](#)

- 1. Are changes in line with promoting and making meaningful progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?**
These changes are primarily focused on requiring that service-point locations (utility hookups) are to be made in architectural plans.
- 2. What financial impact does the change have; project costs, pay item structure, or consultant fees?**
These changes will improve bid accuracy.
- 3. What impact does the change have on production or construction schedules?**
None foreseen.
- 4. How does this change improve efficiency and/or quality?**
This will allow for more accurate project cost estimates.
- 5. Which FDOT offices are impacted by this change?**
Office of Construction, Architecture Support Services
- 6. What is the impact to districts with this change?**
None foreseen.
- 7. Does the change shift risk and to who?**
This change enshrines the burden of properly marking the utility hookups on the designer.
- 8. Provide summary and resolution of any outstanding comments from the districts or industry.**
There were no comments received on this chapter.
- 9. What is the communication plan?**
This change has been presented to the districts, industry and the FHWA. On November 1st it will be published as part of the 2026 FDM.
- 10. What is the schedule for implementation?**
The 2026 FDM will be published on or before November 1, 2025. The 2026 FDM will be effective for all projects beginning design in January 2026.