

Chapter 28

Shop and Erection Drawings

The following are changes, additions or deletions to the January 2007, Topic #625-000-007, Plans Preparation Manual (PPM) - English, for use on Turnpike projects only:

28.1 Introduction

Add the following sentence

Shop Drawings are required to be submitted electronically as outlined in the Special Provisions.

Add the following paragraph

Typically the Florida's Turnpike Enterprise Shop Drawing Review Office will provide the Contractor with Contact Information (Exhibit 28.6-D) and Key Submittal Requirement information (Section 28.6.1) package, which will be distributed at the Preconstruction Meeting. This handout will provide project specific information, such as contacts, addresses, major requirements for the submission of Shop Drawings, and an overview of the review and approval process. It may also include additional procedures to facilitate expeditious processing.

28.2 Drawing Submittals Required

Add the following paragraph

Contractor will be requested to complete and submit a signed copy of the Shop Drawing Submittal Checklist, (Exhibit 28.6-C included at the end of this Chapter), for each group of items associated with each uniquely numbered Shop Drawing submittal.

28.4 Submittals Requiring a Specialty Engineer

Replace 1st sentence in paragraph 1 with the following

In general, and when so permitted in the Specifications, if a Shop and Erection Drawing submittal reflects any changes in the design and/or details of the Contract Plans, the Contractor shall have had a Specialty Engineer sign and seal one (1) print of each drawing affected as well as the cover sheet of one (1) copy of any design calculations required, in conjunction with the electronic submission, using overnight courier service to the Engineer of Record.

28.5 Scheduling of Submittals

Replace 2nd sentence in paragraph 1 with the following

Prior to the submission of any shop drawings, the Contractor shall submit a Schedule for Shop and Erection Drawing submittals to the Department with copies to the Resident Engineer and the Engineer of Record. The schedule of shop/erection drawings shall include specification section numbers and roadway divisions, if applicable. The schedule will be imported into "Project Solve", to assist the Contractor with the submission of shop drawings.

28.6 Transmittal of Submittals

Beginning with the second to the last sentence in paragraph 1, replace with the following

Exhibits 28-A through 28-C shall be supplemented with the following Turnpike Specific Generic Exhibits. These Exhibits are shown at the end of this chapter.

Exhibit 28.6-A	Florida's Turnpike Enterprise Shop Drawing Routing Chart for "Electronic" Shop Drawing Review Process
Exhibit 28.6-B	Florida's Turnpike Enterprise Shop Drawing Review Office; Overview Distribution Chart
Exhibit 28.6-C	Florida's Turnpike Enterprise Shop Drawing Review Office; Shop Drawing Submittal Checklist
Exhibit 28.6-D	Florida's Turnpike Enterprise Shop Drawing Review Office; Contact Information

Delete last sentence in paragraph 1.

28.6.1 General Submittal Requirements *Replace this section with the following*

Key Submittal Requirements

Submit Shop Drawings/Submittals electronically by utilizing Florida's Turnpike Enterprise Construction Management's internet site, "Project Solve", <https://ww4.projectsolve2.com>. Assign a unique submittal number to Shop Drawing.

Shop Drawings shall be in Portable Data Format (pdf), scanned using 300 dpi resolution and in color. Once the Contractor has uploaded the Shop Drawing to "Project Solve", the Engineer of Record (EOR) and the CEI will receive a notification via email.

Prior to submission of the Shop Drawing electronically, Contractor will clearly label and number each sheet in the submittal to indicate the total number of sheets in the series (i.e., 1 of 12, 2 of 12.....12 of 12). Stamp (in red) and initial each drawing, page, cut sheet, etc. of the submittal, indication they have reviewed the submittal for compliance with the plans and specifications. In the case there is no place for the stamp on the front, please stamp the back side of each sheet, indication the page number (i.e. back of page 1 of 6). Insure that this page is also scanned in Portable Data Format (pdf) when submitting the Shop Drawing electronically.

For Contractor originated design/redesign, it is required that the Contractor submit one (1) original set of calculations and drawings, signed and sealed by the responsible Specialty Engineer, in conjunction with the electronic submission, using overnight courier service. Through "Project

Solve", please indicate in the comment area, the date the original signed and sealed shop drawing was sent to the Engineer of Record.

Shop Drawings should be no larger than 11" x 17" (plotted in 11" x 17" format), in order to facilitate electronic filing.

If the Shop Drawing consists of samples, Contractor will submit three (3) samples for proper processing, in addition, the number of samples needed by the Contractor. Contractor is still required to initiate the shop drawing review through "*Project Solve*", by uploading their transmittal, indicating that they have forwarded the Samples to the EOR, via overnight courier service.

To facilitate logging and distribution of submittals and to expedite Shop Drawing reviews, it is recommended that Contractor comply with the following:

- a. Contractor to assign a unique submittal number for each shop drawing entry.
- b. Contractor will verify that all applicable items, on submittal checklist (Exhibit 28.6-C) complied with prior to sending submittal.

Contractor shall not use shop drawing submittals for obtaining clarification regarding contract plans or specification requirements. Such clarifications shall be submitted as a Request for Information (RFI) electronically through "*Project Solve*".

Contractor's request for contract change in time, cost, design, material or product type, specification requirements and/or remedial design for correcting construction/fabrication deficiencies will not be made as a shop drawing submittal to the Engineer of Record, but will be sent in proper format to the Construction Engineering Inspection (CEI) firm for further handling and processing.

Final Shop Drawing approval rests with Florida's Turnpike Enterprise (Turnpike Shop Drawing Review Stamp). However, each submittal may have comments from both the Engineer of Record and Florida's Turnpike Enterprise.

To access the Quick Reference Guide for submission on Electronic Shop Drawings, please visit the site listed below.

http://www.dot.state.fl.us/turnpikepio/Design_Website/Shop%20Drawings/Shop%Drawing%20Quick%20Reference.pdf

28.6.3.2 Review by Engineer of Record and the Department

Add the following section

For EOR requirements for submission of Shop Drawings, please visit the site listed below.

http://www.dot.state.fl.us/turnpikepio/Design_Website/Shop%20Drawings/EOR.pdf

28.9 Distribution of Submittals

Replace 1st, 2nd Paragraph and Table 28.3 with the following

Refer to Exhibit 28.6-A for Shop Drawing Distribution Schedule.

28.10 Review of Prequalified Joint Welding Procedures

Replace this section with the following

The shop drawing review process of all prequalifield joint welding procedures will be a dual role responsibility between the Engineer of Record and the Department's Assigned Commercial Inspection Agency (ACIA). The FDOT has now consulted with an ACIA to perform the review of all welding procedures. It is the intent that all Engineer of Records understand their role in the review process, the role of the ACIA, and the correct submission process of the welding procedures.

The Engineer of Record shall review the procedures in conjunction with the drawings to which they pertain. The review shall determine whether or not the Fabricator's welding procedure conform with the concept of the original design described within the contract plans. A comparison shall be made of the plate sizes, types of welds, weld designations, weld sizes, grades of materials, etc. as described and illustrated in the Fabricator's prequalifield joint welding procedures to those described and illustrated in the Fabricator's prequalifield joint welding procedures to those described in the contract plans. Determining whether or not these elements parallel those of the design intentions are the interest and responsibility of the Engineer of Record during his review.

Upon the completion of the review, the Engineer of Record shall indicate his disposition of procedures in accordance with the procedures in this chapter and, if the procedures are acceptable, submit them through "Project Solve" to the appropriate ACIA.

Upon receiving a submittal of procedures from the Engineer of Record, the ACIA will perform a review of the proposed shop welding fabrication of the structural steel for general compliance with the AASHTO/AWS Bridge Welding Code. The ACIA's responsibility during their review will be to determine whether or not the Fabricator has provided the correct information needed to perform the weld called for on the procedures. Upon this determination, the ACIA will stamp the procedures accordingly and submit them through "Project Solve" to the appropriate Turnpike Shop Drawing Review Office for final distribution. If the ACIA determines the procedures to be unacceptable, the FDOT will submit back to the Contractor through "Project Solve" and the procedures will begin again.

28.11 Submittal Activity Record (Logbook)

Replace 1st paragraph with the following

Turnpike Enterprise Shop Drawing Review Office is the Final Review Office responsible for maintaining the Submittal Activity Record (Logbook,), through the website "Project Solve". A log is maintained for each project reviewed by the Turnpike Enterprise Shop Drawing Review Office and is updated when any activity occurs with a shop drawing.

Replace item 9 with the following

9. EOR disposition as either “A” (Approved) “AN” (Approved as Noted), “R” (Resubmit) or “NA” (Not Approved). Turnpike disposition as “Reviewed” (No Comments), “Furnish as Noted” (Approved as Noted), “Rejected” (Not Approved), “Revise/Resubmit” (Resubmit), “Submit Specific Item” (Submit Additional Information for Review), “Not Reviewed” (No Review Required).

28.11.1 Shop Drawing Website***Add the following section***

Shop Drawings can be tracked daily by utilizing “*Project Solve*” at <https://ww4.projectsolve.2.com>

The purpose of “*Project Solve*” is to provide the Contractor, CEI, EOR, Project Managers, Construction Managers and Turnpike Management with up-to-date information/latest status of the Construction Project, whether it be related to shop drawings, RFIs, correspondence or MOT Notifications for every ongoing/active construction contract. It will serve as a tracking tool for project related documents and assist in expediting the construction process.

Also, please visit www.floridasturnpike.com for Florida’s Turnpike Enterprise general shop drawing requirements and useful information for all project personnel.

EXHIBIT 28.6-A

FLORIDA'S TURNPIKE ENTERPRISE SHOP DRAWING ROUTING CHART FOR "ELECTRONIC" SHOP DRAWING REVIEW PROCESS

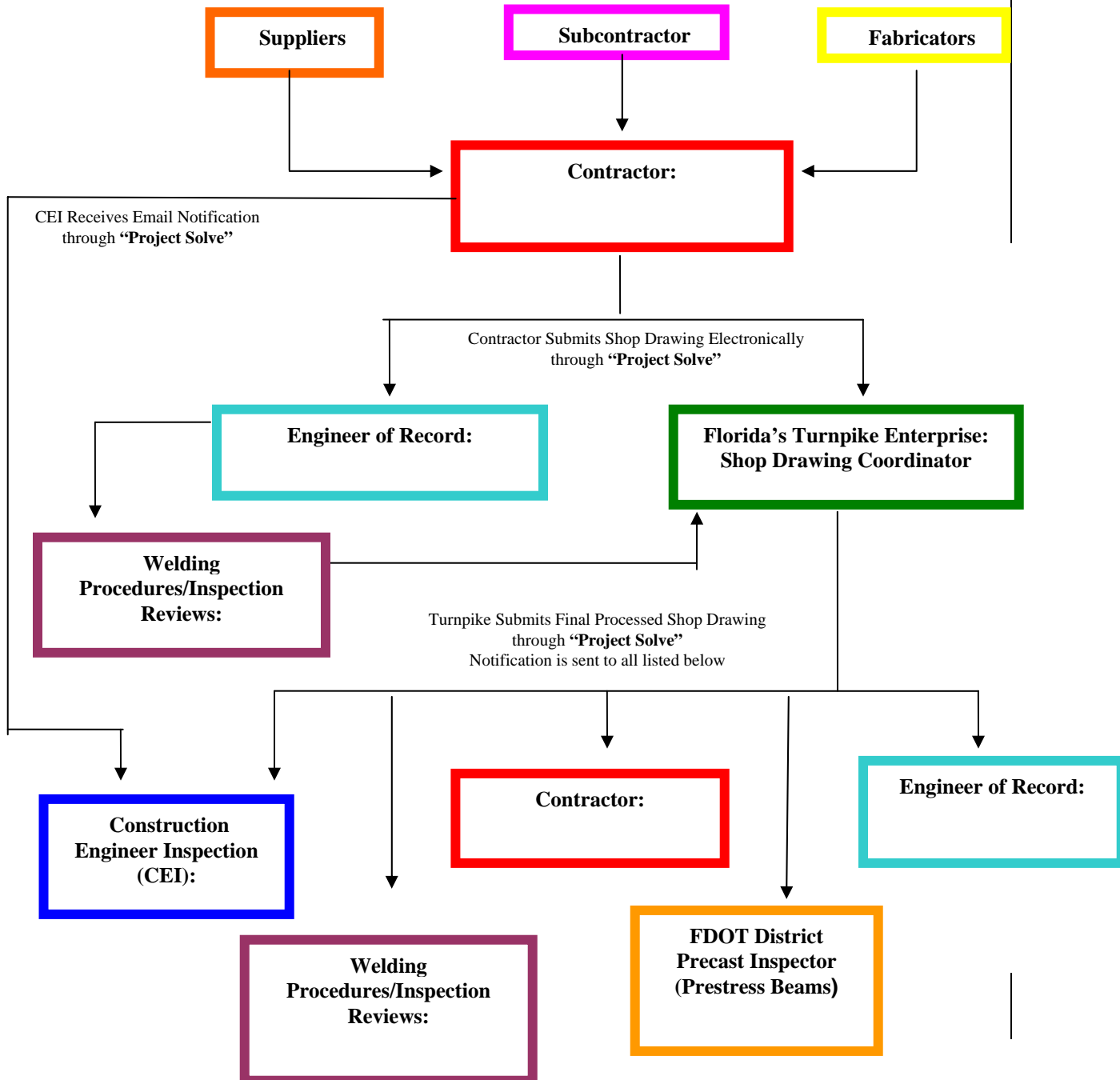


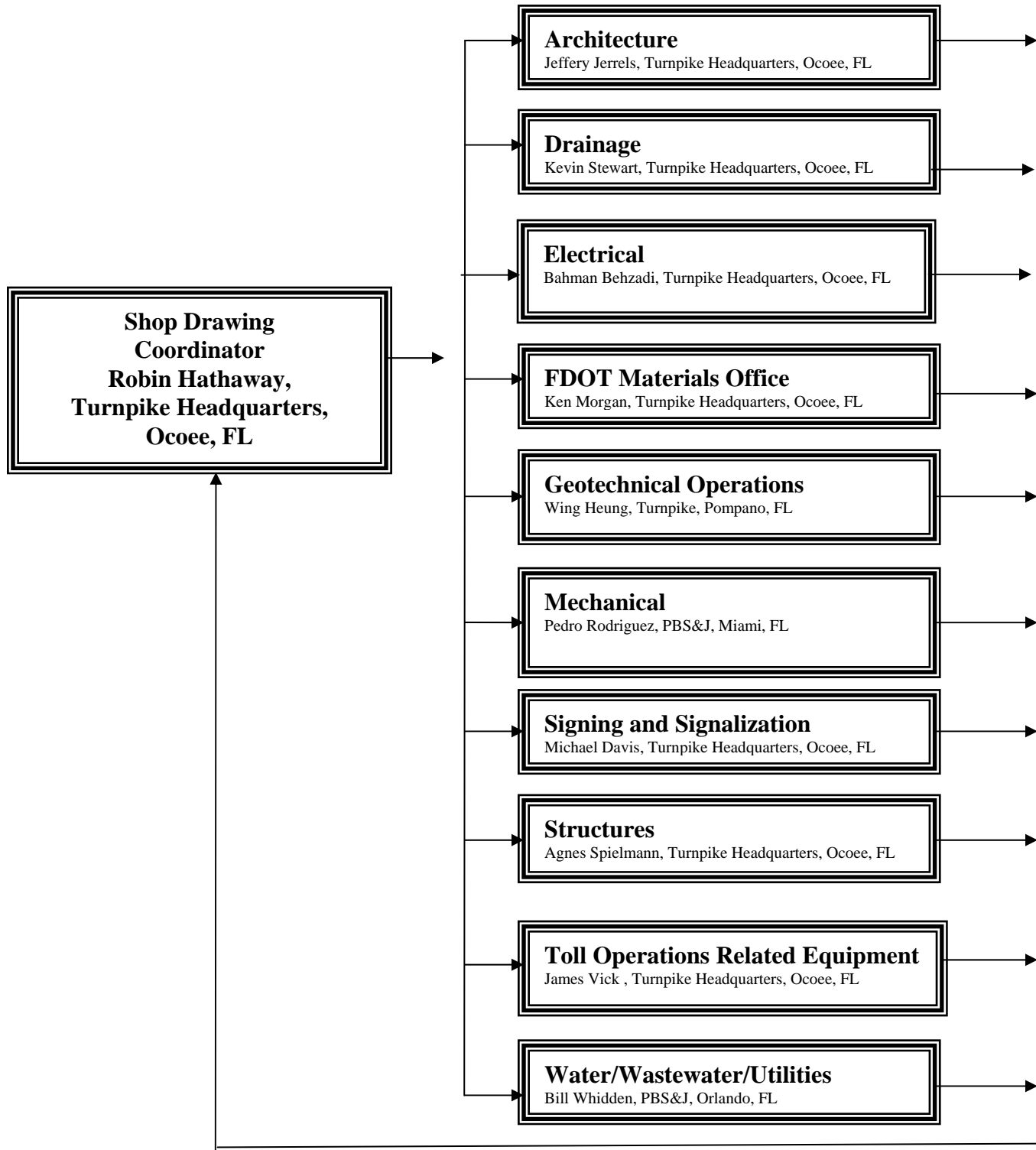
EXHIBIT 28.6-B**FLORIDA'S TURNPIKE ENTERPRISE SHOP DRAWING REVIEW
OFFICE; OVERVIEW DISTRIBUTION CHART**

EXHIBIT 28.6-C
FLORIDA'S TURNPIKE ENTERPRISE SHOP DRAWING REVIEW OFFICE;
SHOP DRAWING SUBMITTAL CHECKLIST

Prior to transmitting the submittal, the Contractor will verify & sign below that all applicable items on checklist are complied with:

- ___ **A unique submittal number assigned to shop drawing.**
- ___ **Submittal package contains only related items.**
- ___ **One (1) original set of prints (signed and sealed by the responsible professional engineer), when drawings are Contractor and/or Specialty Engineer originated design.** Original forwarded to the EOR in conjunction with submitting "Electronically".
- ___ **Shop Drawing consists of page numbering, contractor approval stamp with company name, engineer's signature and date on each drawing and on each of the other individual items** included in the submittal.
- ___ All revisions from previously processed submittals are identified by clouding with revision number and date.
- ___ Minor plan deviations not affecting contract time, cost, design intent (structural integrity and load carrying capacity) or reducing durability/maintainability are identified by clouding.
- ___ Specification section number, roadway division and contract plan number are referenced for each item in the submittal.
- ___ Dimensions and details checked and coordinated for compatibility with work of all subcontractors.
- ___ Existing conditions and dimensions used in developing shop drawing details are field verified.

EXHIBIT 28.6-D
CONTACT INFORMATION

1. FLORIDA'S TURNPIKE ENTERPRISE SHOP DRAWING REVIEW OFFICE

(Address for Courier Services)

Florida's Turnpike Enterprise Headquarters

Production Design Department

MP 263, Florida's Turnpike

(Building 5315 Turkey Lake Service Plaza)

Ocoee, FL 34761

(Address for U.S. Mail)

Florida's Turnpike Enterprise Headquarters

Production Design Department

(Building 5315)

P.O. Box 613069

Ocoee, FL 34761

Attn: Robin Hathaway, Shop Drawing Coordination

Tel: 407-264-3426

Fax: 407-822-5821

Email: robin.hathaway@dot.state.fl.us

2. PROJECT MANAGER

Attn:

Tel:

Fax:

Email:

3. ENGINEER OF RECORD

Attn:

Tel:

Fax:

Email:

4. GENERAL CONTRACTOR

Attn:

Tel:

Fax:

Email:

5. CEI CONSULTANT

Attn:

Tel:

Fax:

Email:

6. CONSTRUCTION PROJECT MANAGER

Attn:

Tel:

Fax:

Email:

7. WELDING PROCEDURE/INSPECTION REVIEWS

Attn:

Tel:

Fax:

Email: