

Section 8.4

SHOP AND ERECTION DRAWINGS PROCESS

8.4.1 Purpose

To make Construction Engineering and Inspection (CEI) staff aware of what their responsibilities are with regard to administration of the construction project shop and erection drawing process.

8.4.2 Authority

Section 5, Control of the Work, Standard Specifications for Road and Bridge Construction

FHWA Approved: July 28, 2004

8.4.3 Responsibilities

(A) Resident Level Responsibilities

This process primarily involves the Contractor, Engineer of Record (EOR), CEI staff and the Department State and/or District Design Office and is governed by **Standard Specification 5-1.4** and the [Florida Department's of Transportation Plans Preparation Manual, Number 625-000-007, Volume I, Chapter 28, Shop and Erection Drawings](#).

~~The details of what is required of these groups during the process is covered very comprehensively in these documents and in the Contract Documents, which may contain other requirements not covered by the **Standard Specifications or Plans Preparation Manual**.~~

~~The role of the CEI staff staff in this process is to encourage ensure that the group parties involved to stay on schedule with the process perform timely reviews, to continually monitor which group is in possession of shop and erection drawings, and as well as to maintain up-to-date tracking logs as submittals progress through each stage of review and approval. ~~Also, the CEI staff should remind the Contractor that **Specification 5-1.4** requires the submittal of a schedule of shop drawing submittals within 60 days of the start of the contract. Encouragement can be given in a number of ways. A standing agenda item for~~~~

discussion of the status of shop and erection drawings should be part of weekly construction progress meetings. ~~At these meetings, the CEI representative should ask the Contractor if the process is on schedule to ensure that pending approvals are not delaying the Contractor's progress and any schedule problems should be corrected as soon as possible.~~ Also at the meeting, the priority of submittals should be reviewed and adjustments to priorities agreed to with the Contractor. ~~This ensures that the Engineer of Record and the Department review submittals that are most important to the Contractor as quickly as possible and that less important submittals are given lower priority. The Engineer of Record and Department reviewer can be encouraged to complete reviews on time—review durations are stipulated in **Specification 5-1.4**—if the CEI staff consistently monitors the progress of reviews and contacts reviewers to remind them when the deadline for completing reviews is approaching or that the deadline has expired.~~

~~CEI staff must be completely familiar with the approved shop and erection drawings in order to ensure that the project is built accordingly. Shop drawing reviews by the CEI staff are critical since these drawings are usually detailed and complex which requires careful study and observation in the field verification to ensure accuracy of construction conformance with the Contract Documents. The CEI staff shall~~ must also ensure that all approved shop and erection drawings are incorporated in the final As-Built drawings where appropriate.

8.4.4 Flow of the Process

(A) Resident Level Responsibilities

The Department's *Plans Preparation Manual Number 625-000-007, Volume I, Chapter 28, Shop and Erection Drawings, Exhibits 28-A, 28-B and 28-C* are process flow charts that start from the time submittals leave the originator to the time that approved submittals are sent to the parties that require copies. ~~Exhibit 28-A;~~ charts the process for projects that require EOR review but do not require a review by the Department's ~~Shop Drawing Review Office;~~ ~~Exhibit 28-B;~~ charts projects that require both EOR and Department review; and ~~Exhibit 28-C;~~ charts projects that require only Department review. The Project Administrator shall consult the District Structures Design Office prior to the preconstruction conference to determine which ~~flow chart process~~ will apply to the project and the Contractor shall be informed of this at the preconstruction conference. For typical projects, the CEI staff receives copies of submittal transmittal letters from the groups involved in the process in order to ~~be able to~~ track the progress of submittal reviews. With this arrangement, ~~the~~ CEI staff does not receive the actual submittals until the process is complete but is ~~made~~ aware of where they have been sent and who has possession. ~~The~~ CEI staff shall confirm receipt of submittals by the various parties involved ~~in order to~~

~~accurately~~ track their location and review duration. The approving Engineer of Record or ~~(when required)~~, the Department Design Office (District or State), makes the final distribution of approved submittals.

For projects that are complex and/or have a large volume of shop drawings (~~segmental bridges, moveable bridges, etc.~~) and for which approval is on the critical path of the project, ~~the~~ CEI staff should consider direct handling of all ~~the~~ submittals ~~at all review process stages in order to exercise a higher level of~~ maintain control over the transmittal process. In this case, the Contractor would send submittals to the CEI staff and not to the Engineer of Record. The CEI staff would then transmit the submittals to the Engineer of Record and ~~on~~ ~~(when required)~~ ~~occasion concurrently~~ to the Department. ~~Once all reviewers approve the submittal, then they~~ Reviewed submittals are ~~sent back~~ returned to the CEI staff for final distribution or return to the originator to address review comments. ~~If submittals are not approved, they are still sent back to the CEI staff for appropriate action and for further transmittal of the submittals to the originator.~~

8.4.5 Tracking Logs

(A) Resident Level Responsibilities

~~The~~ CEI staff ~~shall~~ must maintain ~~keep~~ a ~~continually updated~~ current tracking log ~~on either a hard copy spreadsheet or with the preferred method which is a computer spreadsheet. The spreadsheet should have the appropriate project identification information at the top of the sheet and should be entitled "Shop Drawing Tracking Log".~~ The tracking log ~~shall~~ contain the following information ~~for the typical review process; however, other~~ information may be added as necessary ~~related to CEI staff controlled submittals may be required if the CEI staff receives submittals directly:~~

- 1) Submittal/Transmittal Number: ~~Each group may have a different number for the same submittal so all numbers should be recorded.~~
- 2) Submittal Description: Example - Seawall Layout Drawing Number 5.
- 3) Date the Contractor ~~submitted to the Engineer of Record~~ transmitted the submittal.
- 4) Engineer of Record review status: This is an indication of what the results of the review are, such as: Approved, Approved as Noted, Approved as Corrected, Revise and Resubmit, Not Approved.

- 5) Date the Engineer of Record submitted to the Department Design Office (when required).
- 6) Department Design Office review status (when required): This is an indication of what the results of the review are as listed in **item 4** above.
- 7) Date the Engineer of Record or when required the Department Design Office, sent the submittal back to the Contractor.
- 8) Total duration of the review.
- 9) Comments: These may have to do with involvement of reviewers that are not usually part of the process, supplementary documents, final distribution of submittals to specific recipients, and any other information that warrants documentation due to some unique circumstance of the specific submittal being reviewed.