Turnpike Shop Drawing Review Process for Design Bid Build (Conventional) Projects

FPID: Contract No.: County:

General

The following pertains to the Florida's Turnpike Enterprise (Turnpike) Shop Drawing Review Process requirements. For more detailed information, please reference the following:

FDOT Design Manual (FDM), 152 Shop Drawing Submittals

Pre-Qualified and Approved Product List (APL) "Submittals"

Material certifications, welding procedures, paint procedures and concrete mix designs are typically submitted by the Contractor to the Engineer (CEI) who forwards the certifications to the State Materials Engineers in Gainesville. These items do not need to be submitted to be submitted FDOT Shop Drawing Review Office for review and approval. For non-standard items, the Engineer (CEI) will typically request approval by the EOR regarding applicability. Material certification for items on the Approved Product List (APL) is typically submitted by the Contractor to the Engineer (CEI).

Shop Drawing Item List

The Contractor is required to submit a Shop Drawing Item List (Schedule) to the Engineer (CEI) within 60 days of the start of the Contract, and prior to the submission of any shop drawings.

The list is to be submitted utilizing the required excel spreadsheet format, which is provided by the Engineer (CEI) to the Contractor.

For each planned shop drawing submission and when developing the shop drawing item list, define the following: description of item, structure identification number, bridge number, location, specification number, roadway division number and include "Product Data", in the title if applicable.

If the project contains Tolling components, identify these components by each site location (i.e., building, gantry identification number, etc.), along with the respective specification number. Combining shop drawings for multiple sites is not acceptable.

For ITS, Roadway Lighting, and Traffic components, which all share the same roadway division number, indicate specifically what the component applies to in the Shop Drawing-Submittal Item List, for example: 635 ITS Pull Box, 635 Roadway Lighting Pull Box, or 635 Traffic Signal Pull Box. This will ensure shop drawings are distributed to the proper discipline reviewer for the EOR and the Turnpike reviewers, since different disciplines review these components.

Reference the attached flow chart *Figure 2A*, which depicts the review coordination of the Shop Drawing Item List with both AOR and/or EOR and the Turnpike.

Scheduling of Shop Drawings

The Contractor is required to schedule submissions such that the minimum of calendar days indicated below is allowed for review by the AOR and/or EOR and the Turnpike.

- Schedule the submission of the shop drawing to allow for a 45-calendar day review period
 for all submittals associated with category 2 bridges; tolling components identified in the
 current FDOT General Tolling Requirements (GTR) Part 3; and the tolling-related signing,
 DMS and ITS infrastructure.
- Schedule the submission of shop drawings to allow for a 25-calendar day review period for all other items. The review period commences upon the Engineer's receipt of the valid submittal or valid re-submittal and terminates upon the transmittal of the submittal back to the Contractor.

Allowance must be made for potential resubmittals, and the Contractor is advised by Turnpike to consider a 75 or 90 calendar day total lead-time for submissions prior to the need for fabrication or construction work.

Adherence to the Shop Drawing Item List schedule is intended to allow for the planning of resources and reduce the possibility of large amounts of submissions being forwarded for review. When voluminous shop drawings are submitted at one time, such that the combined AOR/EOR and the Turnpike Shop Drawing Review Office 45-day review time will likely not be met, notify the Engineer (CEI).

The Contractor must make submissions for approval with such promptness as to cause no delay in his fabrication and construction schedules. Only in emergency cases should special considerations be requested.

Obtaining Access to ProjectSolve^{sp}

To obtain access to ProjectSolve^{sp}, if there is not a site set up for your project in the system, users need to acquire a log-in access. Please provide the Turnpike Shop Drawing Coordinator, who is responsible for your project, your contact information, as well as any other members of your team. The information should include full names, titles, email addresses and the association with the specific project. Also, indicate which members will be involved in the shop drawing submission process, or if they require viewing access only. Upon issuance of your accounts, you will be provided instructions on how to log into the system from the ProjectSolve Team.

Shop Drawing Submissions

Prior to submission of shop drawings through ProjectSolve^{sp}, the Contractor must consecutively number each sheet of the shop drawing and indicate the total number of sheets in the series (i.e., page 1 of 12, page 2 of 12, 12 of 12). Include on each sheet and transmittal the following items, at a minimum:

- FPID
- Bridge Number(s) (if applicable)
- Drawing title and number
- Title block showing names of the fabricator or producer and the Contractor

- Initials of the person(s) responsible for the drawing
- Date on which the drawing was prepared
- Location of the item(s) within the project
- Contractor's approval stamp with date and initials
- Digital signature and engineering seal of the Specialty Engineer on the first page of the shop drawing (if applicable)

Note: Traffic Control Equipment Form 750-010-02, should be included in all ITS and Signals shop drawings. Contractors must include this form for every submittal, list corresponding items for review and APL number as applicable. This form is required per FDOT Specs Section 603-5.

Stamp and initial each drawing, page, cut sheet, etc., of the shop drawing, indicating it has been reviewed for compliance with the contract plans and specifications. It is acceptable for the Contractor to stamp the cover page of the calculations and manuals only. Any comments or markings provided by the Contractor or Subcontractor must be indicated in **blue or black**. In the case there is no place to incorporate stamping on the front page, and considering stamps required by others, insert blank pages and indicate the page number as back of page (i.e., back of Page 1 of 6). Do not stamp over literature, dimensions, or details.

Submit Shop Drawings utilizing Florida's Turnpike internet website, ProjectSolve^{sp}. Assign a unique submittal number to the Shop Drawing.

Shop drawings must be submitted as a PDF, using 300 dpi resolution and in color. The Contractor will upload the shop drawing to ProjectSolve^{sp} and submit it to the AOR or EOR. ProjectSolve^{sp} will provide a system generated email notification to the AOR or EOR that a shop drawing has been submitted for review. Note that certain file naming conventions using special characters are not allowed (examples: (), + % @: & *, etc. and the use of underscore) and will cause the PDF file not to open, nor be accessible. It is the responsibility of the AOR or EOR to verify the Contractor's shop drawing submission is complete and in the proper format.

Shop drawings must not be any larger than 11" x 17" (plotted in 11" x 17" format). For plotting requirements and for Drawings being submitted in 11" x 17", please refer to the **FDOT CADD Manual**.

If the shop drawing consists of samples, as outlined in the shop drawing item list, it is acceptable for the samples to be submitted electronically, in a scanned or photocopy, through ProjectSolve^{sp}. The electronic data must include the Manufacturer, Product Name and Product Number. The Contractor must stamp these pages. It will be at the discretion of AOR/EOR or Turnpike, if submissions of original samples are required.

If original samples are required, the Contractor must provide the samples to the AOR/EOR for review, with a scanned copy, including the information provided in the previous paragraph, for review by the Turnpike. The Contractor is required to stamp the samples, include the FPID and their Shop Drawing Submittal Number. Initiate the shop drawing review process through ProjectSolvesp, by uploading their transmittal letter and indicate in the "Comment" area on the shop drawing application page that samples have been provided to the AOR/EOR via Overnight Courier Service. The AOR/EOR must confirm within ProjectSolvesp "Comment" area that they are in receipt of samples. The AOR/EOR may either retain the samples or forward them to the CEI, if required.

Signed-Sealed Shop Drawings and Calculations

For Contractor-Originated Design or for items which require design and drawing preparation of components, systems or installation methods and equipment for specific temporary portions of the project work, or for special items of the permanent work not fully detailed in the plans and required to be furnished by the Contractor, a Specialty Engineer must digitally sign and seal the first page of the shop drawing, as well as the cover sheet of any design calculations.

Prior to the Contractor submitting the shop drawings in ProjectSolve^{sp}, ensure the Specialty Engineers' digital seal is acquired from one of the FDOT approved digital certificate authorities. If the digital seal does not comply, the submission will be considered incomplete. The shop drawing will be returned to the Contractor as "Not Reviewed-Incomplete" and a resubmittal will be required.

So as not to invalidate the Specialty Engineers' digital seal, when submitting the shop drawing, include the original, along with saved copy of the original submission, which will be used for shop drawing review, with a new name, in PDF format, as previously described. The processed shop drawing will include both the Specialty Engineers' original digital signed and sealed submission and the electronic copy used for the shop drawing review.

Contractor must not use shop drawings for obtaining clarification regarding contract plans or specification requirements.

At the time of each submission, the Contractor must give specific written notice, (as in a transmittal letter), along with an itemized list of all of variations/deviations the shop drawing may have from the requirements of the Contract Plans and Specifications. The drawings must contain a specific notation which explicitly and prominently calls out any deviations. Approval of Shop/Erection Drawing will not constitute nor be considered grounds for approval of a variation in which the project requirements are affected, unless specifically indicated as such and noted on the shop drawing, by the AOR or EOR, or the Turnpike approval comments as returned with the shop drawing to the Contractor.

Do not use shop drawings to modify the construction contract time, the contract amount, the design intent nor in any way reduce the maintainability, structural integrity, or load-carrying capacity of the structure or its components. Such modifications are administered by revised plan sheets or specifications.

AOR/EOR Review

The AOR or EOR reviews the shop drawing and electronically implements any comments and stamping in red. Stamp every sheet with one of the following dispositions:

- APPROVED
- APPROVED AS NOTED
- APPROVED AS NOTED SUBMIT SPECIFIC ITEM
- NOT APPROVED
- NOT REVIEWED INCOMPLETE
- RESUMIT

The electronic stamp is to include firm name, reviewer full name, and the date. The shop drawing must include one AOR or EOR disposition review stamp for each sheet. Multiple AOR or EOR

disposition stamps on the same sheet are prohibited. Additional comments may be added where they apply, under the stamp or in an attached Memorandum.

Turnpike Review

The Turnpike will review those shop drawings deemed "Critical". Turnpike Review Staff will identify "Critical" items from the Contractor's shop drawing item list.

Upon completion of review, the Turnpike reviewer will indicate electronically, any comments in green, the disposition on every sheet, and include the full name, department, and date for final processing back to Contractor. The approval or disapproval of shop drawings by the Turnpike is indicated by one of the following dispositions:

- APPROVED (no comments, no further action required)
- APPROVED AS NOTED (comply with comments, no further submission required)
- APPROVED AS NOTED SUBMIT SPECIFIC ITEM (approval is contingent upon the submission of additional information required to perform a complete review under the submitted Roadway Division or TSP Section)
- NOT APPROVED (Rejected, submit items for review that meet project requirements under applicable Roadway Division or TSP Section)
- NOT REVIEWED INCOMPLETE (Insufficient data submitted to perform a complete review. Resubmit requested data for approval.)
- RESUBMIT (resubmit with noted corrections).

Once processed, ProjectSolve^{sp} generates a system email to the following: Contractor, AOR or EOR, Engineer (CEI), Construction Project Manager, and Project Manager.

Turnpike Shop Drawing Review Office

(Address for Courier Services)

Florida's Turnpike Enterprise Headquarters

Shop Drawing Review Office – Transportation Development, Room 3115 MP 263, Florida's Turnpike

(Building 5315 Turkey Lake Service Plaza)

Ocoee, FL 34761

(Address for U.S. Mail)

Florida's Turnpike Enterprise Headquarters

Shop Drawing Review Office – Transportation Development, Room 3115 (Building 5315) P.O. Box 613069 Ocoee, FL 34761

Attn: Flor Faria, Shop Drawing Coordinator

Tel: 407.264.3434

Email: Flordeliz.faria@dot.state.fl.us

Attn: Assistant Shop Drawing Coordinator

Tel: Email:

Please contact: TPKPSSPSupport@dot.state.fl.us for assistance with ProjectSolvesp

ProjectSolve^{sp} – Florida's Turnpike Shop Drawing Website

Shop Drawings can be tracked daily by utilizing ProjectSolve^{sp}. The purpose of ProjectSolve^{sp} is to provide the Contractor, AOR or EOR, Engineer (CEI), Project Managers, Construction Project Managers, and Florida's 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 serves as a tracking tool for project related documents and assists in expediting the construction process.

The status of Shop Drawings can be easily tracked by using the "Create Status Report" function in ProjectSolve. Shop Drawings can be sorted by choosing the "Status" as "In Progress", "All" or "Closed" only, depending on what criteria is needed. If you require assistance, please contact the Assistant Shop Drawing Coordinator above.

Figure 1
Turnpike Shop Drawing Reviews by AOR or EOR *without* Turnpike Review Design Bid Build (Conventional) Projects

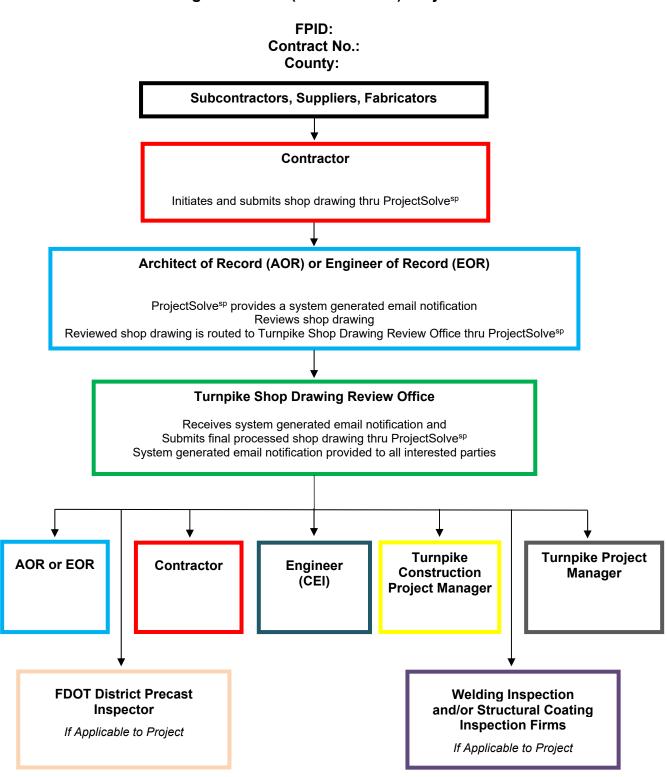


Figure 2A Turnpike Shop Drawing Item List Review Coordination Design Bid Build (Conventional) Projects

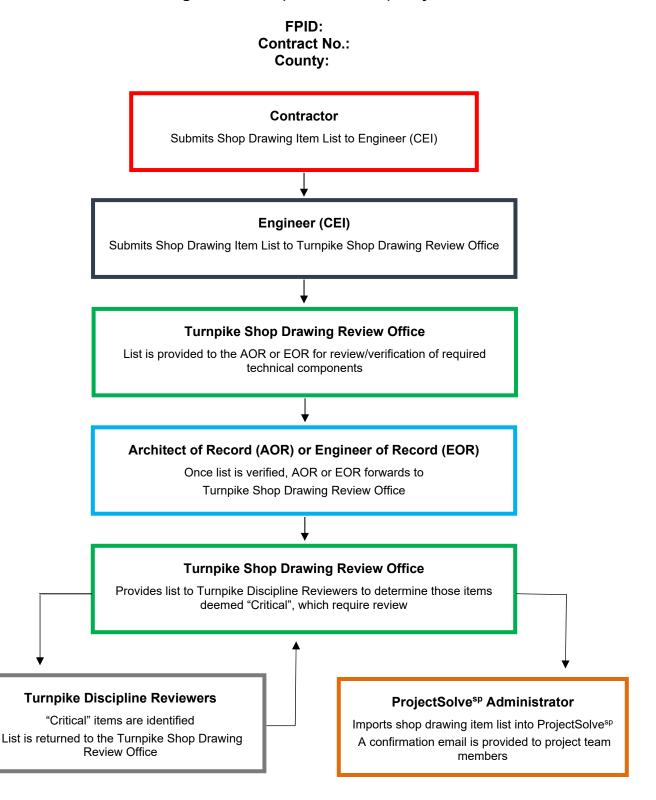
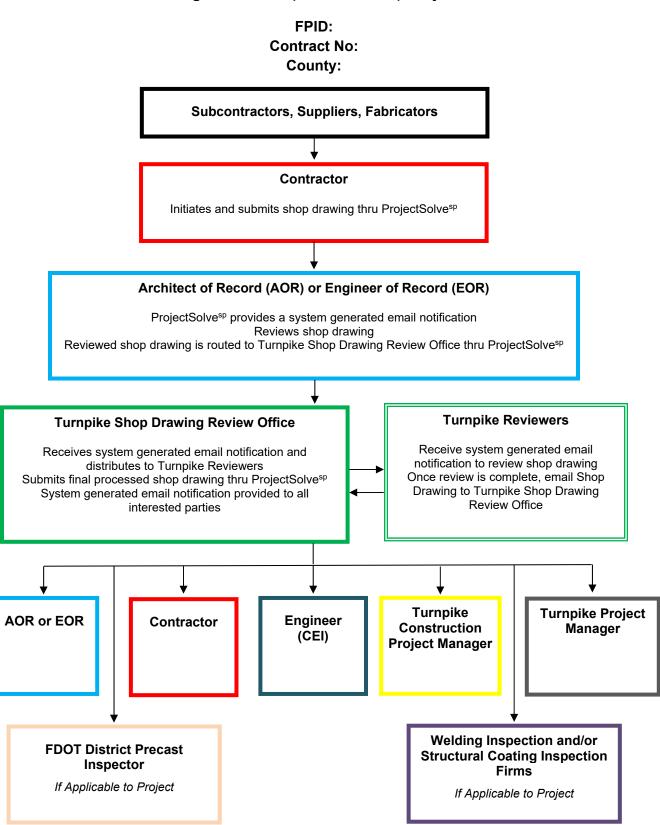


Figure 2B
Turnpike Shop Drawing Reviews by AOR or EOR *with* Turnpike Review
Design Bid Build (Conventional) Projects



Page 9 of 9