

TURNPIKE DESIGN HANDBOOK (TDH)

DEVELOPMENT AND PROCESSES – PART 1



FLORIDA'S TURNPIKE ENTERPRISE PRODUCTION DESIGN DEPARTMENT

OCOEE, FL

January 2019

July 2019 Addendum #1

Introduction

As part of the Turnpike's continuing quality enhancement effort, the ***Turnpike Design Handbook (TDH)*** has been developed to provide consultants, reviewers and management with a single source of additional Turnpike-specific requirements that modify or add to the requirements included in the ***Florida Department of Transportation (FDOT) Design Manual (FDM)***.

The ***FDM*** and the ***TDH*** are both three-part documents:

- Development and Processes – Part 1
- Design Criteria – Part 2
- Plans Production – Part 3

The ***TDH*** also includes the [***Turnpike Guide Drawings***](#), which are available electronically on the Turnpike Design website.

For Turnpike requirements related to tolling, please see the [***General Tolling Requirements \(GTR\)***](#) which is a separate document.

The ***TDH*** table of contents for Parts 1, 2, and 3 show the ***FDM's*** chapters and sections that have been modified. If a section has been modified, the user can refer to the specific section in the ***TDH*** shown in the Table of Contents.

The ***TDH*** is updated on an annual basis, following the official revision of the ***FDM***. Interim updates to the ***TDH*** will be issued as Addenda to the annual revision.

Should you have any comments or suggestions for this ***TDH*** document, please contact the Turnpike Design Engineer.

100 Introduction

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

SCOPE:

Replace scope with the following sentence

This procedure impacts anyone preparing roadway, structures and landscape plans for the Turnpike.

102 Glossary of Terms

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

102.1 General

102.1.1 FDM Definitions

Add the following definition

- (43) **Aesthetics:** A set of principles concerning the nature and appreciation of beauty for all roadway components. The principles include line, form, color, texture, rhythm, proportion, balance, scale and space.

103 Standard Forms

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

104 Public Involvement

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

105 Aesthetic Design

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

106 Exempt Public Documents

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

110 Initial Engineering Design Process

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

110.2 Initial Engineering Design

Add the following activities

- (14) Identify seasonal high water and base clearance water elevations and determine base clearance.
- (15) Identify applicable project drainage criteria and constraints. Determine impacts to project design and schedule.
- (16) Identify locations of potential hydroplaning risk and develop mitigating strategies to reduce risk and aid in the development of the typical section package. This must be performed prior to the Phase I submittal.

110.5 Support Services

Add the following functional areas

- (22) Toll Operations
- (23) Environmental Permitting
- (24) ITS
- (25) Lighting/Electrical
- (26) Concepts
- (27) Architecture
- (28) Materials (pavement)

110.6 Preliminary Geometry

Add the following sentence to the end of paragraph 3

Refer to **TDH 120.2.5.1**, for specific submittal and coordination requirements of the preliminary line and grade.

111 Final Engineering Design Process

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

111.7 Project Documentation

Replace the fourth paragraph with the following paragraph

When the folder structure is fully populated, zip the folder and submit to the Department Project Manager (PM). Deliver the zipped folder with the second PS&E submittal (see ***FDM 301.2.5***). The PM will provide the zipped folder to the Turnpike PS+E Team for processing.

Add the following exhibit

Exhibit 111-1 Turnpike Guidelines for Project File Creation + Naming

These guidelines do not supersede [***FDOT CADD Manual***](#) standards for Digital Delivery processes and related file naming conventions for the signed and sealed Contract Plans and Specifications Package deliverables. Contact the Turnpike Program Services Manager if there are questions prior to submittal to the Turnpike.

General Requirements:

Do not include the following characters in any folder or file names:

\ / : * ? " < > | # { } % ~ &

Indicate the submittal phase and date (MM-DD-YYYY) on the front cover page of each file.

Print / plot / export to PDF file format directly from software used to create files.

For design documentation, the PDF file must have either 1) interactive table of contents or 2) bookmarks to assist with navigation.

For plan sets, provide individual PDFs for each component set.

If the PDF file has bookmarks, ensure the bookmarks tab shows when the PDF file is opened. In Adobe, select File → Properties → Initial View and then change Navigation Tab to “Bookmarks Panel and Page” drop-down option.

Scanning Requirements:

Scan pages only if absolutely necessary (ex: scan manually signed + sealed cover page only, not entire report).

If scanning a page with a crimped seal, shade the seal to ensure it is visible when scanned.

Set scanner resolution to a minimum of 300 dpi.

Ensure scanned pages have the Optical Character Recognition (OCR) feature enabled (allows searchable text on scanned images).

File Naming Convention:

Formula: 7-digits of FPID + phase + document description + date submitted to FTE (YYYY-MM-DD)

Example: 123456-1 PhIV Roadway Plans 2018-09-26.pdf

Example: 123456-1 PhIV Roadway Design Documentation 2018-09-26.pdf

If the document is independent of a phase submittal, use DRAFT, PRE-FINAL, FINAL or REVISED.

Example: 123456-1 DRAFT Typical Section Package 2018-09-26.pdf

If a document has been signed + sealed, include S+S in the file name.

Example: 123456-1 S+S Typical Section Package 2018-09-26.pdf

Example: 123456-1 S+S Roadway Design Documentation 2018-09-26.pdf

112 Update Engineering Design Process

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

113 Right of Way Requirements

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

113.1 General

Add the following term definition

Non-monetary Benefit is when an attorney represents a property owner, and the attorney secures a benefit for his client such as improved access, drainage or a re-design. When this benefit can be quantified in dollars, the attorney may add the value of this benefit to the acquisition price of the property when determining his statutory fee, which is based on the benefit achieved.

113.2 Procedures for Establishing Right of Way Requirements

113.2.3 Access Management

Add the following sentence to end of paragraph 1

Access management criteria often affect the access to property after construction. These criteria should be discussed during the field review to lessen potential impacts.

Add the following section

113.4 Property Owner Contacts

Ensure that all property owners are contacted and given notice prior to entering their property for any reason. In many cases survey crews make the first contact with a property owner. The Department has received complaints from property owners where survey crews were on the property unbeknownst to the owner. In some cases, school age children were home alone; in others, the crews were disturbing livestock or cutting trees. When contacted, the company's response has been "we have the legal right to be there". While true, the Turnpike expects a more diplomatic and sensitive approach. A bad experience on the part of the property owner early in the process can sour the whole acquisition process.

Property owners often contact project managers by phone or at public hearings. There is a tendency to try to accommodate the needs of a property owner, which can lead the

property owner to believe they have a commitment from the Department. This is especially true with the initial design, access, and drainage. Avoid conjecture and speculating on possible changes to avoid misunderstanding. The Turnpike Right of Way Office is the point of contact with the property owner to discuss right of way impacts to the property. Provide copies of any responses sent to property owners to the Turnpike Right of Way Office and Turnpike Project Manager.

Throughout the life of a project, refer any contact by the property owner to the Turnpike Right of Way Office. Concessions made to a property owner may result in a non-monetary benefit to the owner's attorney. Include the Turnpike Right of Way Office in all discussions involving design changes that affect the land required or access to adjoining properties.

Add the following section

113.5 Construction Issues

Fencing and encroachments are two issues that are repeated concerns upon letting a project to construction. The Turnpike routinely pays for fencing in the right of way and for replacement fencing as a "cost to cure." However, the property owner does not have to implement a "cost to cure" and therefore the contractor often finds a fence in place during clearing and grubbing. Contractors may be concerned that if they take the fence down they will incur some liability for damages, like cattle roaming free or trespassing.

The Turnpike Right of Way Office routinely notifies the property owner in writing that a fence will be removed by contractors and that the property owner is responsible for replacing the fence. Often though, the owner's inaction requires Turnpike legal staff to contact the owner's attorney to get the new fence erected. Including temporary fencing in the construction contract can help avoid any delays caused by fencing.

Other encroachments such as mailboxes and signs are found from time to time and the Turnpike Right of Way Office is charged with facilitating their removal.

114 Resurfacing, Restoration and Rehabilitation (RRR)

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

114.1 General

Add the following paragraphs

Projects not designated as “RRR” are required to apply new construction criteria for all design elements.

Existing median crossovers on Interstate highway and freeways must be evaluated for conformance to the criteria in **FDM 211.3.2.1**, Crossovers on Limited Access Facilities, and as modified in **TDH 211.3.2.2**. Crossovers that do not meet those criteria must be presented to Turnpike staff for internal review. Turnpike staff will provide direction to either remove or relocate the crossover.

114.3 RRR Design Process

114.3.1 Assessment of Existing Conditions

114.3.1.2 Field Reviews

Add the following item to list (1)

- (o) Existing landscaping and natural vegetation

114.3.1.4 Design Exceptions and Design Variations

Add the following paragraphs

All Design Exceptions, Design Variations and Technical Memorandums identified in the Existing Roadway Conditions Assessment Report (ERCAR) must be tabulated with the following data:

- (1) Number; Location
- (2) Element; Criteria
- (3) Estimated Cost

- (4) Explanatory Comments

114.3.1.5 Design Documentation

Delete and Replace paragraph 1 with the following paragraph

Include in the design an ERCAR that substantiates the design process, evaluates all existing conditions against criteria, provides recommendation, and documents decisions made. It must include the following information:

Add the following documentation information items

- (7) The Turnpike will review the ERCAR findings and recommendations and determine what elements will require a Design Exception/Variation/Technical Memorandum or direct the improvements to be included into the current project or a separate FPID.
- (8) [ERCAR Sample Outline](#) can be found on the Turnpike Design web site.

115 Standard Plans and Standard Specifications

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

116 Roundabout Evaluation

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

120 Design Submittals

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

120.2 Design Documentation Submittals

Add the following paragraph

Draft, pre-final, and final versions of all documents requiring Turnpike approval or concurrence must be submitted to the Turnpike Project Manager for review through the ERC process. Once the ERC process is complete, the Turnpike Project Manager can proceed with obtaining the necessary approvals or concurrence.

120.2.3 Typical Section Package

120.2.3.1 Approval Process

Add the following paragraph

When cross roads or other facilities are maintained by another agency, the agency must sign and date their approval on the typical section before Turnpike concurrence. If this is not possible, a letter is sent by the Turnpike to the agency confirming their concurrence and requesting a concurrence signature. In that case, the design documentation includes a copy of the local agency standard to document design conformance. The maintaining agency does not need to upgrade their typical sections to meet higher FDOT or Turnpike criteria.

Delete and Replace paragraph 2 with the following paragraph

For projects that do not contain a PD&E phase or have significantly changed during the design process, the typical section package is prepared, sealed and submitted by the Design EOR. The draft and pre-final versions must be submitted to the DEPARTMENT for review through ERC prior to the 45% traffic control plan workshop and plans submittal. The final version must be reviewed through ERC and the signed and sealed documents must be signed by the Turnpike Design Engineer before the Phase II plans can be submitted for review. The Phase II plans will not be accepted for review until concurrence is obtained from the Turnpike Design Engineer.

120.2.3.3 Typical Section Sheet

Add the following item to the list of typical section sheet contents in paragraph 1

- Realigned local roads, frontage roads, cul-de-sacs, railroads, canals, aerial transmission lines, or other facilities that impact the typical cross section.

Add the following items to the list of typical section sheet contents in paragraph 4

- (4) Traffic Data: provide the following,
 - (g) Truck DDHV
- (5) Roadway Typical Section Drawing: provide the following,
 - (o) Express lane buffer widths with express lane markers
 - (p) Future lane widths (types and locations)
 - (q) Clear zone
 - (r) Vertical and horizontal clearances at crossing roads if project includes work within bridge limits.
 - (s) If shoulder widths are wider than standard widths (e.g. to accommodate SSD or high truck traffic), provide a note on each typical section to explain the reason for the additional shoulder width.
 - (t) Denote elements that require a Design Exception, Design Variation, or Design Technical Memorandum
 - (u) Toll equipment building, gantry and foundation outlines
- (6) Bridge Typical Section Drawing: provide the following,
 - (i) Minimum vertical clearance
 - (j) If shoulder widths are wider than standard widths (e.g. to accommodate SSD or high truck traffic), provide a note on each typical section to explain the reason for the additional shoulder width.
 - (k) Denote elements that require a Design Exception, Design Variation, or Design Technical Memorandum
 - (l) Express lane buffer width with express lane markers

Add the following paragraph

If major changes are planned for after initial construction, a separate future typical section drawing must be prepared. Future lanes on proposed crossroad typical sections must be dashed and labeled "Future, By Others". Future typical sections may be urban while

proposed or may be rural with different design speeds. See **TDH 211.2.4** on for future lanes and profile grade lines.

120.2.4 Preliminary Drainage Design

Add the following paragraph

Complex projects require a 45% drainage submittal including plans as outlined in **TDH Table 301.2.1** and design calculations. The intent of this submittal is to verify that the design methodology used for stormwater ponds documents compliance with FDOT, Turnpike, and regulatory stormwater management criteria.

120.2.5 Preliminary Geometry and Grades

Add the following section

120.2.5.1 Turnpike Preliminary Line and Grade Submittal

Submit preliminary (approximately 15%) alignment and grade sketches or computer plots depicting the proposed geometric design. The submittal must include horizontal geometry for all mainline roadways, ramps, cross streets and side roads. Vertical geometry must be provided for all mainline roadways and cross streets. Vertical geometry for ramps and side roads must be provided if critical to the project. The sketches or computer plots can be in sheet or roll form and must be at a reasonable and useable scale. Base clearance water, seasonal high groundwater, and flood plain elevations must be shown in profile view.

Supporting calculations must also be submitted. Specific elements which must be addressed in the supporting documentation include:

- Design speed
- Lane widths
- Shoulder widths
- Bridge widths
- Horizontal and vertical clearances
- Stopping sight distance
- Intersection sight distance
- Aesthetics

- Access management
- Base clearance
- Existing bridge approach slab evaluation

The various elements must be developed to a level of detail consistent with the objectives of the preliminary (15%) submittal as described below. Continued development and refinement of the geometric elements for subsequent phase submittals is anticipated. The primary objectives of the Preliminary (15%) Line and Grade Submittal are to:

- (1) Check consistency with the intent and scope of the Project Concept Report.
- (2) Evaluate the impacts of changes to the project concept, resulting from the normal design development process as well as those due to changes in scope and the identification of adverse site conditions.
- (3) Verify the geometric viability of the project for the desired design speed and traffic volumes
- (4) Provide a basis for early coordination with other disciplines
- (5) Provide a basis for early identification of design constraints or problems.
- (6) Document off-site and pavement drainage constraints; such as flood plain elevations and base clearance and seasonal high water table.
- (7) Design criteria specific to the project.
- (8) Anticipated variations and exceptions that are associated with horizontal and vertical alignment.

120.2.6 Preliminary Traffic Control Plan

Add the following section

120.2.6.1 Turnpike Preliminary Traffic Control Plan

A preliminary traffic control plan design (45%) must be submitted for review. A traffic control plan workshop meeting with Turnpike production and construction staff must be scheduled following the review.

Deviations from [Turnpike Lane Closure Policy](#) or from the **FDM and TDH 240, 241, 242, or 243** must be identified as part of or prior to the 45% submittal. Approval must be obtained prior to the Phase II submittal.

This submittal must contain the following items:

- (1) Traffic pacing
- (2) Traffic detours, including lengths and impacts on toll revenue
- (3) Traffic crossovers
- (4) Paving approach and sequence, including proposed cross slope correction
- (5) Lane closure analysis and restrictions, and daytime and weekend considerations
- (6) Construction hauling route restrictions
- (7) For any speed reduction request during the maintenance of traffic operations throughout the project limits not applicable to the use of **Standard Plans, Index 102-670 (Motorist Awareness System)**. A speed reduction design memorandum must be submitted and approved by traffic operations. The design memorandum must detail the reasons for the request (e.g. geometric constraints, noncompliance of design criteria or standards, safety reasons). The project limits applicable to the request must be specified within the memorandum.

The preliminary submittal must be on roll plots, in electronic format, and must include:

- (1) Documentation of off-site and pavement drainage constraints
- (2) Critical cross sections at temporary traffic shifts
- (3) Typical sections for each proposed phase
- (4) Traffic pacing and detour analysis as appropriate for the project

Coordinate with the Turnpike Traffic Operations Engineer for an appropriate speed to use in the pacing analysis.

120.2.7 Pavement Selection and Design

Add the following section

120.2.7.1 Turnpike Pavement Design Submittals

The draft and pre-final versions must be submitted to the DEPARTMENT for review through ERC prior to the 45% traffic control plan workshop and plans submittal. The final version must be reviewed through ERC and the signed and sealed documents must be signed by the Turnpike Design Engineer before the Phase II plans can be submitted for review. The Phase II plans will not be accepted for review until concurrence is obtained from the Turnpike Design Engineer.

[Pavement Design Report Table of Contents](#) and [Pavement Coring and Evaluations Report Table of Contents](#) are available on the Turnpike Design website.

Add the following section

120.2.7.2 Cross Slope Analysis During Design

Cross slope analysis on designated RRR projects must use the cross slope ranges defined in **FDM 211.2.2.1 and FDM 210.9.2**. All non-designated RRR projects require new construction criteria and must use the cross slope tolerances for new construction cross slopes as defined by [FDOT Standard Specification 330-9](#).

Existing cross-slopes must be analyzed by averaging the cross slope on a sliding scale and comparing the average cross slope against the appropriate tolerances. For practical construction purposes, Turnpike generally uses 1000 feet on tangent and 500 feet through horizontal curves as the minimum sliding scale lengths. However, lengths may be increased or decreased based on project specific warrants. A separate Cross Slope Analysis Report must be submitted concurrently with the Pavement Design Report and approved by the Turnpike Design Engineer prior to the Phase II project submittal.

Modification for Non-Conventional Projects:

Delete the last sentence above and replace with the following:

A separate cross slope analysis report must be submitted concurrently with the project pavement design and approved by the Turnpike Design Engineer prior to the 90% plans submittal.

FDM 211.2.2.1 requires tabulating existing cross slopes in the plans at 100 feet intervals, and preparing cross sections for the plans 50 feet before and after PC's and PT's and at 300 feet intervals along curves, for superelevation correction. Simplifying the cross slope correction design and providing greater plan clarity is necessary to accomplish cross slope correction in the field. Show milling at specific cross slopes between stations from a single constant depth control point for at least 1000 feet through tangent sections and 500 feet through horizontal curves, followed by constant depth resurfacing.

Add the following section

120.2.7.3 Cross Slope Analysis Post Design

If a project includes cross slope correction, verification of the newly constructed corrected cross slopes is required. Profilograph data is collected by the Turnpike and provided for analysis. Submit a design memorandum to the Turnpike Roadway Design Engineer indicating if the newly constructed cross slope correction meets the requirements detailed in the plans and in **FDM 211.2.2.1** and **FDM 210.9.2** or [FDOT Standard Specification 330-9](#).

Add the following section

120.2.9 Roadway Design Documentation

Roadway design documentation must be provided at Phase I, II, III, IV, and production submittals. The design documentation must include, but is not limited, to the following information as applicable:

- (1) Section 1 - Summary
 - (a) Narrative - summary of existing and proposed design
 - (b) Design Decision Journal
 - Document design decisions for all disciplines both internal and external in tabular format
 - Include Identification Number, Date, Author, Discipline, Subject, Decision, and an Explanation
- (2) Section 2 - Design Documentation
 - (a) Location Map
 - (b) Roadway Design Criteria (**FDM**, **TDH**, & **AASHTO** in tabular format)
 - (c) Horizontal and Vertical Alignments (GEOPAK Output)
 - (d) Design Calculations and Exhibits (Existing, Proposed, and Temporary Traffic Control Conditions)
 - Superelevation
 - Horizontal and Vertical Stopping Sight Distance
 - Vertical Clearance
 - Barrier – Length of Need
 - AutoTURN Analysis

- Intersection Sight Distance Analysis
- Cross Slope and Superelevation Analysis
- (e) MOT
 - Lane Closure Analysis (Final Signed and Sealed)
 - Pacing Analysis
 - Detour Analysis
 - Impacts to Toll Facilities
- (f) Typical Section Package (Final Signed and Sealed)
- (g) Pavement Design Report (Final Signed and Sealed)
- (h) Design Variations/Exceptions (Final Signed and Sealed)
- (i) Summary of 5-Year Crash Data
- (j) Existing Roadway Conditions Assessment Report (ERCAR)
- (k) Meeting Minutes/Project Correspondence (Related to Roadway Elements)
- (l) Comments and Responses (Related to Roadway Elements)

The design documentation must include all design notes, data, and calculations to document the design conclusions reached during the development of the contract plans. The design notes, data, and computations must be recorded on size 8 ½" x 11" sheets, titled, numbered, dated, indexed and signed by the designer and the checker. Computer output forms and other oversized sheets are allowed. All documentation must be submitted electronically to the Turnpike Project Manager.

121 Bridge Project Development

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

121.9 Bridge Development Report (BDR)/30% Structures Plans

121.9.2 Format

Replace the last sentence with the following paragraph

For most projects, the BDR contains exhibits/sketches and the 30% Plans are submitted after acceptance of the BDR recommendations.

122 Design Exceptions and Design Variations

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

122.2 Identification

Replace the last paragraph with the following paragraphs

Design Variations are required when the design elements listed below are below the Department's criteria and where a Design Exception is not required.

- (1) Controlling Design Elements
- (2) Clear Zone
- (3) Sight Distances (passing, intersection, etc.)
- (4) American with Disabilities Act (ADA)
- (5) Variations for design elements requiring signature by individual or office, other than Turnpike, as noted in **FDM 122.7.4**.
- (6) Any deviations from FDM criteria that requires concurrence from any agencies other than Turnpike.

When proposed design elements are below the Department's and/or Turnpike specific criteria and where a Design Exception or Design Variation is not required the design element will be documented in either a Design Memorandum or in the Design Report. When a proposed design element is below Department criteria but does not require a Design Exception, Design Variation or Design Memorandum then the deviation from criteria will be documented in the signed and sealed Design Report. The distinction between design elements needing a Design Memorandum or documentation in the Design Report will be coordinated with and determined by the applicable Turnpike design discipline lead. When there is a need for a safety analysis to justify the deviation from criteria a Design Memorandum is required.

Deviations in criteria and procedures defined in the Structures Manual and structural sections of the FDM shall be documented and implemented as noted in the Structures Manual and structural sections of the FDM.

122.3 Justification for Approval

Add the following section

122.3.1 Turnpike Design Exceptions, Variations and Memorandums

Submit all Design Exceptions, Variations and Memorandums electronically to the Turnpike Project Manager for review through the ERC process. Refer to **TDH 120.2** for design submittal requirements.

Upon acceptance by Turnpike staff, submit digitally signed and sealed Design Exceptions Variations and Memorandums to the Turnpike Project Manager who coordinates the appropriate signatures. After receiving the applicable signatures, a copy of the digitally signed document will be returned.

The draft and pre-final versions must be submitted to the DEPARTMENT for review through ERC prior to the 45% traffic control plan workshop and plans submittal. The final version must be reviewed through ERC and the signed and sealed documents must be signed by the Turnpike Design Engineer before the Phase II plans can be submitted for review. The Phase II plans will not be accepted for review until concurrence is obtained from the Turnpike Design Engineer.

All Design Exceptions and Variations must have the appropriate checklist completed and included with the submittal. The [Request for FTE Design Exceptions & Variations Checklist](#) and [Example Turnpike Design Exceptions and Variations](#) can be found on the Turnpike Design website.

122.7 Design Approval Request

122.7.3 Design Variation Approval

Delete the first sentence in the second paragraph

122.7.4 Signature Requirements

Add the following item to the list for the District (or Turnpike) Design Engineer

- (3) Design Memorandums that document substandard design elements require Turnpike Design Engineer approval. Design Memorandums that are documenting

an alternatives analysis or other project analysis not relating to substandard element documentation do not require Turnpike Design Engineer approval.

123 Engineering Design Estimate Process

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

123.6 **Alternative Contracting Practices**

Add the following sentence

Obtain recommendations for alternative contracting practices from the Turnpike Construction Office.

124 Project Quality Control Plan

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

Add the following sections

124.4 Turnpike Quality Control and Assurance Process

124.4.1 Quality Goals and General Requirements

The Turnpike's definition of Quality is "Conformance to Requirements". The Turnpike's primary quality goal is that construction documents and reports be complete, orderly, correct, and appropriate for the intended purposes. The completed documents must not impose potential liability, or require supplemental agreements that increase construction time or cost, or require an excessive review effort by the Turnpike. The preparation of the work must meet or exceed normal, legally acceptable, "Due Diligence" ("Due or Ordinary Care") requirements that have been established, the standard of practice required on Turnpike work.

The following is the general quality control and assurance process criteria that is required by each project scope of services, including initiation, production, review and audit procedures.

- (1) Designate the appropriate project staffing for each element of the work in the project staffing list form included at the end of this section. Provide the required organization, planning, scheduling and project initiation. If the work produced is to comply with the quality requirements and goals, the work must be prepared and checked by qualified professionals that know the Turnpike and project requirements. They must use and document the "Due or Ordinary Care" production and review quality control and assurance requirements stipulated in the Standard Scope of Services performance criteria. Designated project team personnel include the qualified responsible professionals and associated project staff to produce the work, and reviewers with professional qualifications necessary to be the responsible professional who review and confirm that the work is accurate and complete. Reviewers must be independent of activities that take place during design and plans production for the project.
- (2) Focus on the prevention of rework and production errors by using quality oriented responsible professionals and production procedures (including self and documented responsible professional checking) to produce high quality work. Production quality is achieved through the careful development of the work and

- the continuous checking, concurrence (back checking) and verification of changes on all work and documents during their preparation and review.
- (3) Provide and document the required coordination, field and biddability reviews as provided in the scope of services to prevent production rework, errors and omissions.
 - (4) Maintain a list of all field reviews. The list must document attendees and site conditions. A sample is included in **Exhibit 124-6**.
 - (5) Support value engineering studies and provide special supplemental independent peer, constructability, and maintainability reviews on designated projects.
 - (6) Provide and document, the submittal and biddability reviews by qualified and experienced reviewers to confirm that the work produced is appropriate, complete, and correct. Checking is required for each document before it is used for further development or before a required phase submittal.
 - (7) Utilize a standard check and back check procedure that meets the Standard Scope of Services performance criteria to document the thoroughness of the checking and review process. Provide the documentation of the agreement between two qualified (licensed if required) professionals in a given field that the work produced and reviewed conforms to all requirements, is appropriate, complete, accurate and correct. The checking process must take place according to the requirements of the scope of services and the established project schedule.
 - (8) Use submittal sufficiency and quality assurance reviews to confirm completion and validate each submittal Certificate of Compliance.
 - (9) The Standard Scope of Services performance criteria require that a standard check and back checking procedure must be used to document all checking and reviews. Project production and review team members must use the following to document the production and review checking of all work: completion checklists, the Quality Control Tracking Stamp and the Quality Process Log. Project production and review quality control procedures are to be performed in compliance with the scope of services.
 - (10) The Standard Scope of Services performance criteria requires that the review documentation, developed during the production and review of the work, must be retained in the project files, according to requirements of the scope of services, for quality assurance review and audit purposes, and to demonstrate that the project quality control requirements have been met.
 - (11) If an information printout or document must be sent to the Turnpike before the required submittal review has been performed, the following procedure is to be followed:
 - (a) The principal or officer-in-charge approves the release of the documents.

- (b) The documents are stamped "Advance Copy - For Information Only".
 - (c) The Turnpike is notified in the transmittal letter that the submittal review process has not been completed on the documents and that the Turnpike personnel should not review the documents until the project quality control process is complete.
- (12) The Turnpike will provide compliance reviews, biddability audits, project manager monitoring, and quality process audits to complete the process.
- (13) The following forms are required to be completed as part of this process: Quality Control Tracking Stamp in **Exhibit 124-1**, Project Staffing List in **Exhibit 124-2**, Quality Process Log in **Exhibit 124-3**, Certificate of Compliance in **Exhibit 124-4**, and Certification of Plans, Specifications and Quantities in **Exhibit 124-5**. A Sample Project Quality Control Plan that meets the requirements of the Standard Scope of Services performance criteria is available through Turnpike project managers.
- (14) Definitions of terms utilized in the Standard Scope of Services performance criteria and explanations of these requirements are included in **TDH 124.4.3**.

Modification for Non-Conventional Projects:
All reviews and processes described within this chapter are required to be implemented and documented in the Quality Management Plan.

Add the following section

124.4.2 Quality Control Procedure Requirements

Add the following section

124.4.2.1 Completion Checklists Requirements

The Standard Project Scope of Services performance criteria requires use of appropriate completion checklists to document the thoroughness of their production review efforts and to reduce rework on each work element. Include copies of completion checklists as an appendix to the Project Quality Control Plan.

Add the following section

124.4.2.2 Quality Control Tracking Stamp Requirements

The Standard Project Scope of Services performance criteria requires use of the standard Quality Control Tracking Stamp or an equivalent CADD cell, to document and track the completion of the check and back check procedure on all types of checking and reviews. An acceptable version of the production certification to be included in the stamp is shown in **Exhibit 124-1**. The stamp must be applied by the responsible professional(s) to all documents and all individual plan sheets to ensure that all applicable disciplines have documented their quality review process and standard checking procedure. Each person responsible for each step of the submittal review procedure is required to "sign-off" and to date the document being reviewed on the Quality Control Tracking Stamp as a record that their part of the procedure has been carried out. Plan sheets or reports that contain multi-discipline designs must show documentation of the multi-discipline reviews by having the Responsible Professional (RP) of each discipline fill out the appropriate information on the QC stamp. The Responsible Professional and Reviewer (R) that produce the work and conduct the submittal review will be those designated in the Project Staffing List.

Add the following section

124.4.2.3 Quality Process Log Requirements

The Standard Scope of Services performance criteria requires use of the Quality Process Log to monitor, track and document the production and review process for each deliverable and support documentation. Quality Process Logs provide a record of the progress of the project and document the completion of each major phase of the submittal production and review process. Use the completion checklists, as well as the Quality Control Tracking Stamp to promote the thoroughness of the checking process and to eliminate oversights and omissions. The Quality Process Log submitted with the Quality Management Plan must be filled in describing all deliverables and submittals for all disciplines included in the scope of services.

Add the following section

124.4.3 Definitions

- (1) **3D Model Review:** A review of the 3D model deliverables as defined in the [*FDOT CADD Manual*](#) and the project scope of services. These reviews occur prior to each phase submittal and are performed to confirm consistency between the 3D

model and the construction documents. These reviews must be listed on the Quality Process Log and the quality control reviewer identified on the Project Staff List.

- (2) **Biddability Review:** A review of construction contract documents, prior to bidding, which seeks to identify errors, omissions, conflicts, ambiguities, inaccuracies, and deficiencies in and among the construction documents. Biddability reviews are made in addition to quality control reviews and focus on pay items and uniformity between the plan quantities and the AASHTOWare Project input forms.
- (3) **Constructability Review:** A supplemental and specialized review of construction plans and specifications, which seeks to identify construction requirements that are impractical, unnecessarily costly, or difficult to build. Constructability reviews are made in addition to quality control reviews, and considers such items as contractor access, site constraints and relationship to other project work.
- (4) **Coordination Review:** A review of combined work elements to identify and resolve any conflicts that may exist among all design elements such as lighting and drainage (i.e. foundation conflicts with pipe runs) prior to the quality control reviews.
- (5) **Deliverable:** A professional service product that is furnished to the Turnpike or others.
- (6) **Field Review:** Mandatory visits to the project site to verify compatibility of the design with the field conditions encountered during construction.
- (7) **Kick-Off Meeting:** A meeting held before any work begins on a project in which the project work plan and quality control requirements are discussed by the project manager, the responsible professionals, the reviewers, and others as appropriate.
- (8) **KMZ Review:** A review of KMZ files to confirm quality and consistency with the Turnpike [KMZ Standards](#) which can be found on the Turnpike Design website.
- (9) **Independent Peer Review:** A supplemental quality control review performed on selected projects, or portions of a project, by an independent team of qualified reviewers. This review is performed in addition to the regular submittal reviews and is conducted under the direction of the project manager. Normally, members of the independent peer review team are not assigned to the same organizational unit or location that managed and produced the project. The independent peer review is a comprehensive examination of the technical aspects of the project design that is made in addition to submittal reviews.

- (10) **Maintainability Review:** A documented review performed prior to the Phase III submittal to determine the ease with which the roadway can be maintained in order to: isolate and correct defects or their cause, repair or replace damaged components, prevent unexpected failures, maximize the facilities' useful life, meet new requirements, make future maintenance easier, and maximize efficiency, reliability, and safety.
- (11) **Production Review:** A documented review performed during production by the component Engineer of Record (EOR) prior to the quality control reviews.
- (12) **Project Work Plan (PWP):** A document that programs the assignment from the kick-off meeting through production, submittal review, coordination, delivery of the product, and archiving of the project records.
- (13) **Quality Assurance (QA) Review:** The principal or officer-in-charge review and certification procedure to determine whether or not production and review quality control procedures have been performed effectively and appropriately.
- (14) **Quality Control (QC) Process:** Prescribed production and review on procedures by which deliverables are produced, reviewed and brought into compliance with Turnpike and project requirements, professional standards, contractual obligations, and commitments.
- (15) **Standard Checking Procedure:** A color-coded check and back check process for reviewing and correcting work products before they are released for use by the Turnpike or otherwise released as a final work product.
- (16) **Submittal Review:** Review of submittal documents by the designated reviewer, a qualified professional other than the responsible professional for each element of the work, to confirm that the work is accurate, conforms to the project requirements, and is free of errors and omissions. The reviewer checks concepts, methods of preparation, and presentation.
- (17) **Project Staffing List:** Include key project team members dedicated to the production and review of the project deliverables included in **Exhibit 124-2**. Expand or reduce list to include all sub-consultants and project deliverables. Attached resumes of the principal or officer-in-charge, project manager, responsible professionals, and reviewers for all deliverables. Prior to staff assuming new roles revise the Project Staffing List and secure approval from the Turnpike of any changes. Indicate applicable professional registration for staff included on the list.

Add the following Exhibits

Exhibit 124-1 Quality Control Tracking Stamp

QUALITY CONTROL TRACKING STAMP PHASE		
___ SUBMITTAL REVIEW		
Responsible Professional (RP)	Reviewer (R)	Initials
Date		
PRODUCTION CHECKING COMPLETE READY FOR SUBMITTAL REVIEW (RP)		
CHECKED (R) Correct (Yellow) Change (Red)		
CONCURRENCE (RP) (Red Check OK or X-Out for Disagree)		
CHANGE INCORPORATION (RP) (Yellow Highlighter)		
VERIFICATION (R) (Green Check or Circle & Remark Incorrect)		

Exhibit 124-2 Project Staffing List**Principal or Officer-In-Charge** (*Oversees Project & provides QA Review*): Name**Project Manager** (*Oversees Quality Control & Coordination, provides part of the QA Review*): Name

ELEMENT / TASK	Deliverable	Responsible Professional (RP)	Reviewer (R)
ROADWAY			
Engineer of Record			
Typical Sections	Package		
Pavement Design	Package		
Existing Roadway Conditions Report	Report		
Geometry & Alignment	Roadway Plans		
Design Documentation	Calculation Book		
Traffic Control Plans	Roadway Plans		
Utility Adjustments	Roadway Plans		
Drainage Design	Roadway Plans		
Geotechnical	Report		
Drainage Report	Report		
Quantity Computation	Calculations		
Specifications	Package		
Mitigation Plans	Roadway Plans		
3D Corridor Model	LandXML and CADD Files		
SURVEY / RIGHT OF WAY			
Design Survey	Field Notes		
Right of way Survey	Field Notes		
Right of way Control Survey	Plans		
Right of way Maps	Maps		
Legal Descriptions	Descriptions		

Exhibit 124-2 Project Staffing List (cont.)

ELEMENT / TASK	Deliverable	Responsible Professional	Reviewer
SIGNING & MARKING			
Engineer of Record			
Signing Plans	Signing & Marking Plans		
Signing - Summary of Quantities	Signing & Marking Plans		
Pavement Marking	Signing & Marking Plans		
Quantity Computation	Calculations		
Specifications	Package		
SIGNALIZATION			
Engineer of Record			
Signal Design	Signalization Plans		
Phasing & Timing Design	Signalization Plans		
Summary of Quantities	Calculations		
Pole Calculations	Calculations		
Specifications	Package		
LIGHTING			
Engineer of Record			
Lighting / Electrical	Lighting Plans		
Quantity Computation	Lighting Plans		
Intensity & Voltage Calcs.	Calculations		
ENVIRONMENTAL			
Mitigation Report	Report		
Permits	Report		
Wetland Assessment	Report		

Exhibit 124-2 Project Staffing List (cont.)

ELEMENT / TASK	Deliverable	Responsible Professional (RP)	Reviewer (R)
STRUCTURES			
Engineer of Record			
Bridge Development Report (BDR)	Report		
Bridge Hydraulics Report (BHR)	Report		
Geotechnical	Report		
Structures Plans	Structures Plans		
Design Documentation	Report		
Specification	Package		
Quantity Computation	Calculations		
TOLL FACILITIES			
Roadway	Toll Facility Plans		
Civil Site including utilities	Toll Facility Plans		
Signing & Pavement Markings	Toll Facility Plans		
Traffic Control Plan	Toll Facility Plans		
Landscape & Irrigation	Toll Facility Plans		
Architectural	Toll Facility Plans		
Structural	Toll Facility Plans		
Electrical, Lighting & Toll Equipment Conduit	Toll Facility Plans		
Mechanical / Plumbing & HVAC	Toll Facility Plans		
Demolition	Toll Facility Plans		
Design Documentation	Calculation Book		
Specifications	Package		
Quantities	Calculations		

Exhibit 124-2 Project Staffing List (cont.)

Element / Task	Deliverable	Responsible Professional (RP)	Reviewer (R)
PD&E			
State Environmental Impact Report	Reports - Draft & Final		
Type 2 Categorical Exclusion	Reports - Draft & Final		
Environmental Assessment	Reports - Draft & Final		
Finding Of No Significant Impact (FONSI)	Reports - Draft & Final		
Environmental Impact Statement	Reports - Draft & Final		
Preliminary Engineering Report	Reports - Draft & Final		
Noise Impact Study	Reports - Draft & Final		
Air Quality Report	Reports - Draft & Final		
Wetlands Evaluation Report	Reports - Draft & Final		
Biological Assessment	Reports - Draft & Final		
Conceptual Stage Relocation Plan	Reports - Draft & Final		
Contamination Screening Evaluation Report	Reports - Draft & Final		
Cultural Resources Assessment Report	Reports - Draft & Final		
Traffic Report	Reports - Draft & Final		
Location Hydraulics Report	Reports - Draft & Final		
Geotechnical Report	Reports - Draft & Final		
Bridge Development Analysis	Reports - Draft & Final		
Pond Siting Report	Reports - Draft & Final		

Exhibit 124-4 Certificate of Compliance**CERTIFICATE OF COMPLIANCE** (Complete and Submit on Consultant's Letterhead)

TO: _____, P.E., Turnpike Director of Transportation Development
_____, P.E., Turnpike Design Engineer
_____, P.E., Design Program Manager
_____, P.E., Production Project Manager
_____, P.E., Turnpike Quality Initiatives Manager

DATE: _____

RE: **QUALITY ASSURANCE (QA) REVIEW - PHASE ____ SUBMITTAL**

FPID: _____

DESCRIPTION: _____

COUNTY: _____

COMPONENT SETS: _____

CONSULTANT: _____

_____ () _____

SUBCONSULTANTS: _____

_____ () _____

This is to certify that we have monitored the quality control (QC) process during production and review of the above submittal, that we have completed and signed the attached QC Checklists for each element of the project, and that we have completed and documented (in the Quality Process Log) the required QA Review of the production and review quality control documentation for all component sets (elements) of the above phase submittal. This QA Review was conducted at the above office on (day, month, year), after all QC procedures were complete. Submittal plans, associated production and review check prints, and quality control documents for the referenced elements (including those of the Sub consultants) have been evaluated, initialed, and are available for review upon request.

This certificate is issued to document our reviews and to confirm that "due or ordinary care" processes were followed in producing the submittal documents. In our professional opinions, these documents meet the standards of the Turnpike and the Florida Department of Transportation, and are ready for review. These requirements include those stipulated in the Project Scope of Services performance criteria and Florida Department of Transportation requirements.

SIGNED: _____, P.E.
Consultant Principal or Officer –In-Charge

PRINTED: _____, P.E.
Consultant Principal or Officer-In-Charge

SIGNED: _____, P.E.
Consultant Project Manager

PRINTED: _____, P.E.
Consultant Project Manager

Exhibit 124-5 Certification of Plans, Specifications and Quantities

Date

_____, P.E.
Turnpike Design Engineer
Florida's Turnpike Enterprise
Florida Department of Transportation
P.O. Box 613069
Ocoee, Florida 34761

Re: Certification of Plans, Specifications and Quantities
Financial Project ID: 408694-1-52-01
County: Martin
Description: Drainage and Safety Improvements at Stuart Interchange

Dear Mr. _____:

The undersigned John Doe, P.E. hereby certifies that the plans, specifications and estimates for the above referenced project are free from design errors or omissions, and are ready to process for contract Letting. Further:

- All work has been prepared in accordance with this project Scope of Services.
- Engineering design conforms to the current FDOT Design Manual (FDM), Turnpike Design Handbook (TDH), and Standard Plans.
- All plans components are complete, accurate, and up to date.
- The Specifications Package has been prepared in accordance with FDOT Specifications Package Preparation Procedure. Included are any necessary Technical Special Provisions.
- All applicable general notes and pay item footnotes are included. All notes are clear and free of ambiguities and contradictions.
- Pay item numbers and quantities are consistent with related pay item notes. The Summary of Pay Items agrees with work called for in the plans.
- Required construction operations will not conflict with each other.
- The project is constructible and traffic can be maintained efficiently.
- All conditions included in permits issued to the FDOT have been addressed.
- Public Involvement requirements have been met and are documented in the project file.

If you should have any questions, please feel free to give me a call.

Sincerely,
HOWARD, BRACKINS & ASSOCIATES, INC.

John Doe, P.E.
Principal-in-Charge

Exhibit 124-6 Field Review Log

Field Visit Log Book									
Project		Sample Project		Project FPID		XXXXXX-X			
Project manager				Consultant					
ID	Field Visit Description	Date of Field Visit	Team Members on the field	Arrival Time	Departure Time	Weather	Comments / Findings	Photos	Folder Location to Photos
1	Initial field review visit with FTE project Manager	XX/XX/XX	Add names	X:XX AM	X:XX PM	Sunny / Partly Cloudy 72 degrees	Input from the EOR / PM or Subconsultants	Yes	Add Link To Photos
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

125 Quality Assurance Reviews

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

126 Lane Elimination Projects

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

127 Community Aesthetic Features

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

128 Federal-Aid Project Certification

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

130 Signing and Sealing Documents

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

130.2 Signing and Sealing Contract Plans

130.2.2 Manual Signing and Sealing

Remove the first two paragraphs and replace with the following paragraphs

Digital Delivery is the standard practice for signing and sealing the PS+E package. Manual signing and sealing any PS+E package deliverable must be approved by the Turnpike Program Services Manager.

If the manual signing and sealing method is chosen, scan the deliverable in conformance with ***F.A.C. Rule 1B-26.003 Electronic Recordkeeping***. The electronic version will be accepted as the Turnpike record. Turnpike will not accept any hardcopy deliverables.

130.3 Signing and Sealing Other Documents

Add the following list

The following signed and sealed documents are to be electronically archived in the district's Project File(s):

- (1) Specifications Package
- (2) Pavement Design Package
- (3) Typical Section Package
- (4) Drainage Computations
- (5) Hydraulics Reports
- (6) Bridge Development Report
- (7) Traffic Engineering Reports
- (8) Environmental Reports
- (9) Geotechnical Reports
- (10) Value Engineering Record

- (11) Permit Documentation
- (12) Design Exceptions and Design Variations
- (13) Lane Closure Analysis on Turnpike Facilities
- (14) Cross Slope Analysis Report

130.3.1 Digital Signing and Sealing

Remove the first paragraph and replace with the following

Signing and sealing PDF documents with a digital signature is the standard practice. Professional engineers should follow ***F.A.C. Rule 61G15-23.004 Procedures for Digitally Signing and Sealing Electronically Transmitted Plans, Specifications, Reports or Other Documents.***

130.3.2 Manual Signing and Sealing

After the first paragraph, insert the following paragraphs

Digital Delivery is the standard practice for signing and sealing the PS+E package. Manual signing and sealing any PS+E package deliverable must be approved by the Turnpike Program Services Manager.

If the manual signing and sealing method is chosen, scan the deliverable in conformance with the ***F.A.C. Rule 1B-26.003 Electronic Recordkeeping***. The electronic version will be accepted as the Turnpike record. Turnpike will not accept any hardcopy deliverables.

Remove list of documents to be signed and sealed

130.4 Signing and Sealing Revisions

Add the following sentence

If a different professional is signing and sealing for the revision, change the professional's information in the sheet border title block and cloud the title block as part of the revision modifications.

131 Plans Processing

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

131.2 District Plans Processing

Remove all paragraphs and replace with the following paragraphs

All Turnpike construction contracts are let utilizing Turnpike's Contracts Administration Office. Turnpike does not let projects through the Central Office "Final Plans" section.

Transmit the finalized signed and sealed PS+E Package to the Turnpike Project Manager on or before the project's scheduled Production Date. All deliverables will then be reviewed by the Turnpike PS+E Team. Any comments will be provided to the Turnpike Project Manager and a request will be made to resubmit the updated deliverables. Any questions about Plans Processing should be vetted through the Turnpike Project Manager and Turnpike PS+E Team.

131.2.1 PS&E Submittal Package to Tallahassee

Remove entire section

131.2.1.1 Revisions to PS&E Submittal Package

Remove entire section

131.2.2 Re-Submittal of Withdrawn Projects

Remove entire section

131.3 Central Office Plans Processing

Remove entire section and referenced figure

132 Plan Revisions

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

132.2 Revisions to the PS&E Submittal Package

Remove entire section and referenced figure. Replace with the following paragraphs

Revisions are modifications to the PS+E Package after it has been advertised for construction contract. The Turnpike Project Manager ensures the construction contract addendum is completed as follows:

1. Turnpike Project Manager prepares Page 1 of Turnpike Addendum Transmittal Memo. Complete Page 2 (see ***Exhibit 131-1 Contract Addendum Transmittal Memo***) and return to Turnpike.
2. Coordinates with Turnpike Project Manager and Turnpike Estimates on any changes to AASHTOWare Project Preconstruction (PrP). After changes are made, the output files are provided for incorporation into the plan set.
3. For formatting of revisions to the plan set, modify as follows:
 - Use a conspicuous unique numbered symbol (e.g. a numbered triangle) beside the plan sheet modification.
 - Begin the revision numbering with "1" and number subsequent revisions sequentially.
 - Place the revision date, corresponding numbered symbol for the revision, and a brief description of the modifications in the Revision Block on each modified sheet.
 - If adding sheets, use alphabetic suffix for the sheet name (e.g. 22A, 22B, 22C)
 - If an entire sheet is being deleted, strike through the entire drawing area and retain the deleted sheet in the plans package as a revised sheet.
 - See ***FDM 302*** and ***TDH 302*** for instructions on recording a revision on the Key Sheet.

4. The responsible professional signs and seals each revised deliverable in accordance with ***FDM 130*** and ***TDH 130***.
5. Transmit the PS+E Package addendum deliverables to the Turnpike's Project Manager.
6. All deliverables will then be reviewed by the Turnpike PS+E Team. Any comments will be provided to the Turnpike Project Manager and a request will be made to resubmit the updated deliverables. Any questions about Plans Processing should be vetted through the Turnpike Project Manager and Turnpike PS+E Team.

Once the PS+E Package addendum deliverables have been reviewed, accepted, and signed-off, the PS+E Team will transmit to Turnpike Contracts Administration.

Add the following exhibit**Exhibit 131-1 Contract Addendum Transmittal Memo****CONTRACT ADDENDUM INCLUDES:**

PLAN REVISIONS	
SHEET	DESCRIPTION OF MODIFICATION

PAY ITEMS + QUANTITIES (AASHTOWare PrP) – FPID 123456-1-52-01					
COMPONENT	PAY ITEM	SHEET	ADD MOD DEL	OLD QUANTITY	NEW QUANTITY

PAY ITEMS + QUANTITIES (AASHTOWare PrP) – FPID 123456-3-52-01					
COMPONENT	PAY ITEM	SHEET	ADD MOD DEL	OLD QUANTITY	NEW QUANTITY

SUPPLEMENTAL SPECIFICATIONS PACKAGE	
SECTION	DESCRIPTION

133 Retention of Electronic Documents

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section

140 Lump Sum Projects

The following are changes, additions or deletions to the January 2019 FDOT Design Manual (FDM), Topic #625-000-002, for use on Turnpike projects only.

No changes to this section