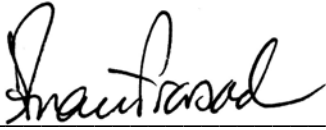


Approved:



Department of Transportation

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DEVELOPMENT AND REVIEW OF THE FIVE YEAR WORK PROGRAM CONSTRUCTION COST ESTIMATES

PURPOSE:

To establish a uniform procedure for developing and reviewing transportation construction cost estimates for projects in the Department's Five Year Work Program.

AUTHORITY:

Subsections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S.)

SCOPE:

This procedure describes the responsibilities and activities of the District and Central Estimates Offices in developing and reviewing construction cost estimates for all transportation construction projects in the Department's Five Year Work Program. The main users of this procedure are District & Consultant Project Managers, District Estimators, and Central Office Estimates.

DEFINITIONS:

Central Office Estimates: Estimates Section of the State Specifications and Estimates Office

Central Office Estimates Reviewer: Central Office Estimates staff member who reviews the District's construction cost estimates in the Five Year Work Program.

Designer Interface: Department developed program that interfaces with Trns*port and is used by designers and estimators in loading pay item and quantity information into Trns*port PES.

District: District and Turnpike Enterprise

District Designer: District Design Office or Turnpike Enterprise Office or consultant staff member who prepares the project design plans, and identifies pay items and quantities.

District Estimator: District Estimates Office or Turnpike Enterprise Office staff member who prepares construction cost estimates for the Five Year Work Program.

District Program Manager: Individual responsible, in the District Office or Turnpike Enterprise Office, for projects within a program such as Interstate, Bridge, Resurfacing, Safety, etc.

District Project Manager: Individual responsible, in the District Office or Turnpike Enterprise Office, for the project design product.

Exceptions: Project cost estimates that are not loaded or quantifiable in LRE or Trns*port, or are not within tolerance of the WPA amount.

Five Year Work Program: The statewide project specific list of transportation system improvements that consists of the first five years of the Work Program.

Long Range Estimates (LRE): Web-based estimating system that produces conceptual construction cost estimates for transportation projects.

Plans, Specifications & Estimate (PS&E): The contract plans, specifications package and estimate submittal used for project authorization, advertisement, and letting.

Project Development and Environmental (PD&E): The preliminary engineering phase of a project that addresses requirements of the *National Environmental Policy Act (NEPA)* and other related federal and state laws, rules, and regulations.

Project Milestones: Annual Five Year Work Program Estimate, Initial Long Range Estimate, Scope Estimate, Phase I Estimate, Phase II Estimate, Phase III Estimate, Phase IV Estimate, and Authorization Estimate.

Trns*port CES (Cost Estimation System): A module in the Trns*port system suite used by estimators as a tool for pricing construction projects.

Trns*port PES (Proposal and Estimates System): A module in the Trns*port system suite used to summarize the design related pay items and quantities on a proposal.

Trns*port System: An AASHTO suite of software products that facilitates contract estimating, bidding, award, and construction administration.

Work Program: The statewide project specific list of transportation system improvements that meets the objectives and priorities of the Florida Transportation Plan.

Work Program Administration (WPA): Department mainframe database containing project descriptions, estimated costs, and scheduled phases for all past and present Department projects. WPA is a part of the Financial Management (FM) system.

GENERAL:

The Five Year Work Program is the Department's commitment to the public to deliver transportation improvements. Developing and maintaining construction cost estimates is an important part of delivering the Five Year Work Program. This procedure defines the process for construction cost estimating of transportation construction projects in development of the Department's Five Year Work Program.

The District Project Manager will request an LRE-based cost estimate from the District Estimates Office when a project has been identified for inclusion in the Five Year Work Program. A project construction phase should not be entered into the Work Program without first having a LRE or Trns*port based cost estimate. The District Project Manager will ensure the complete scope of work is provided to the appropriate individuals for preparation of the estimate. The scope of work should include as many details as practical. Also, the District Project Manager will provide an updated scope of work to the District Estimates Office in order to refine/update the construction cost estimate periodically. All construction cost estimates will be reviewed by Central Office Estimates annually during the Five Year Work Program development.

1. DEVELOPMENT OF PRELIMINARY CONSTRUCTION COST ESTIMATES

1.1 Initial Work Program Estimates

District Project Managers are responsible for obtaining an initial LRE-based construction cost estimate before a project construction phase is entered into the Work Program. If a District Project Manager has not yet been assigned, the District Program Manager assumes this responsibility. The District Project Manager is responsible for ensuring that an accurate scope of work has been entered into the LRE system. The scope of work should include as many details as practical. A review of similar projects may help to identify work items necessary to complete the scope of work. The District Estimator is responsible for determining the unit prices for the construction cost estimate and informing the District Project Manager of the project's construction cost estimate. The District Project Manager must ensure the estimate is entered into the Work Program.

Note: *If pay items and quantities data is available, Trns*port can be used to develop the initial estimate.*

1.2 Scope of Work Changes and Unit Price Updates

District Project Managers (or District Program Managers) are responsible for obtaining an updated construction cost estimate when the project scope of work changes. The District Project Manager shall ensure that the scope of work is accurate, continually represented in the Work Program estimate, and updated in the LRE or Trns*port estimate. The District Estimator is responsible for updating unit prices for all pay items

in either the LRE or Trns*port estimate. **The District Estimator is responsible for informing the District Project Manager of the construction cost calculated by LRE or Trns*port. The District Project Manager must ensure that the updated estimate is entered into the Work Program.** (The District Work Program Office must be notified of all updated construction cost estimates to ensure that accurate costs are maintained in the Work Program.) Construction cost estimates shall be updated whenever there is a project scope of work change, at every project milestone, or at a minimum of every six months if the aforementioned events have not occurred.

1.3 Project Design Estimates

LRE will be utilized for a project in PD&E and the early design Phases I and II unless pay items and quantities are available, in which case Trns*port will be used. Trns*port will be used for the later design Phases (III, IV and PS&E) when plan pay items and quantities are available. District Project Managers are responsible for ensuring design pay items and quantities are entered into Trns*port when they have been developed. The District Designer is responsible for accurately reflecting the project's pay items and quantities in either LRE or Trns*port, based on their current knowledge of the project's scope. The District Estimator is responsible for determining unit prices for all pay items used in either LRE or Trns*port. **The District Project Manager must ensure that the most current estimate is entered into the Work Program.**

2. ANNUAL FIVE YEAR WORK PROGRAM COST ESTIMATE REVIEW

2.1 The District Estimator is responsible for updating construction cost estimates in their respective District's Five Year Work Program each year prior to Central Office Estimates Review. The Central Office Estimates Reviewer is responsible for reviewing the District's construction cost estimates in the Five Year Work Program each year prior to the Executive Five Year Work Program Review.

2.2 The Central Office Estimates Reviewer will consult with the District Estimator to determine which computer system (LRE or Trns*port) contains the current construction cost estimate for every project reviewed. In general, the LRE construction cost estimates should be reviewed for projects in which complete design quantities were not available; Trns*port construction cost estimates should be reviewed for projects in which complete design quantities were available.

2.3 Projects listed in the Five Year Work Program will be reviewed by Central Office Estimates. A **Variance Report** listing provided by the Office of Work Program is used to identify projects requiring a construction cost estimate review. The Central Office Estimates Reviewer will review the project construction cost estimate in either LRE or Trns*port. The construction cost estimate review criteria will be the following:

- (a) Determine if the project construction cost estimate is available in either LRE or

Trns*port. All project construction cost estimates entered into the Work Program shall have either an LRE or Trns*port estimate.

- (b) Verify data entered in LRE or Trns*port cost estimate is reflective of the scope of work for the project.
- (c) Verify pay item data was quantified in LRE or Trns*port. Lump sum cost items that are quantifiable shall not be in the project construction cost estimate.
- (d) Compare the total project construction cost to standard models to determine if it is within a reasonable cost range.
- (e) Verify the LRE or Trns*port cost estimate is within tolerance of the WPA amount. The construction cost estimate tolerance is 10% for current year and first year projects and 15% for projects in the remaining years.

Project cost estimates that are not in compliance with (a), (c), and (e) shall be on the Five Year Work Program Exception List. The District Estimator and Central Office Estimates Reviewer shall make every effort to resolve these exceptions prior to the Executive Five Year Work Program Review.

3. COST ESTIMATE SNAPSHOTS

3.1 Required Milestones

Snapshots are required at the following milestones:

Initial Long Range Estimate (LRE)

Scope Estimate (or scope just prior to beginning of final design)

Phase I Estimate (or whenever preliminary typical section is available)

Phase II Estimate (or whenever preliminary pay items are available)

Phase III Estimate (or whenever complete pay items and quantities are available)

Phase IV Estimate (or 100%/Final plans)

Authorization Estimate (based on PS&E submittal)

3.2 Entering Snapshots

Snapshots for the Initial LRE, Scope, Phase I and Phase II Estimates shall be taken in LRE. Snapshots for the Phase III, Phase IV and Authorization Estimates shall be taken in Trns*port and the total estimate amount manually entered into LRE.

3.3 Labeling Snapshots

Labels for LRE snapshots must be chosen from a list of standard labels provided in the LRE Snapshot feature. Labels for Trns*port CES snapshots must be

manually entered in the CES Snapshot Description Field and must match the standard LRE labels.

4. DOCUMENTATION

The Central Office Estimates Reviewer shall maintain a file of the District's Five Year Work Program review. This file shall include:

- (1) Exception List - a list of all projects the Central Office Estimates Reviewer could not resolve with the District Estimator (i.e. LRE or Trns*port estimate does not exist, unjustifiable lump sum amount or out-of-tolerance estimate with WPA amount).
- (2) Copies of all project cost estimates (LRE or Trns*port) reviewed.
- (3) The **Variance Report** provided by the Office of Work Program of the projects reviewed.

5. TRAINING

None required, but the following training is recommended:

- 5.1** The LRE User Training course (TRESS course number BT-05-0101) is recommended before access is granted to the system. Central Office Estimates will provide this training to Consultants; District Estimates Office will provide this training to District staff.
- 5.2** The Trns*port PES/CES Training course (TRESS course number BT-05-0008) is provided for District Estimates staff only. Central Office Estimates will provide this training to the Districts.
- 5.3** Basis of Estimates and Proposal Summary of Quantities course (TRESS course number BT-05-0116) is recommended for designers. Central Office Estimates will provide this training to District staff and consultants.

6. FORMS

None required.