

U.S. DOT Federal Transit Administration TPM-20 Office of Capital Project Management Project Management Oversight

Oversight Procedure 31 – Annual New Starts Review

1.0 PURPOSE

This Oversight Procedure describes the review, analysis, recommended procedures and reporting requirements that the Federal Transit Administration (FTA) expects from the Project Management Oversight Contractor (PMOC) with regard to the reliability of the Project Sponsor's (Sponsor) characterization of its project's scope, capital cost and schedule as submitted to FTA for an annual evaluation and/or a recommendation to Congress.

2.0 BACKGROUND

Congress requires that FTA report every year on the status of projects approved into its project development pipeline. The annual review is meant to ensure that projects continue to meet their goals and stay on-time and on-budget. The Annual New Starts (NS) Review is performed for projects as they advance to an FFGA and achieve revenue service or as deemed necessary by FTA. More in-depth reviews are conducted prior to advancement to the next milestone.

3.0 OBJECTIVES

The PMOC's review should provide findings, conclusions, and recommendations regarding the reliability of the Project Sponsor's characterization of its project scope definition, schedule and cost estimate as a critical input to FTA's annual project evaluation.

4.0 **REFERENCES**

The following are the principal, but by no means the only, references to applicable federal legislation, statutes, regulations and guidance. The PMOC should have a good understanding of these reference materials as they apply to the Sponsor's project being reviewed under this OP:

- Title 49 United States Code, Chapter 53 (49 USC 53) Federal Transit Laws as amended by Moving Ahead for Progress in the 21st Century Act (MAP-21).
- Federal Transit Administration Regulations (49 Code of Federal Regulations Chapter VI) as amended.
- New Starts and Project Development Policy Guidance issued by the Federal Transit Administration (latest version)
- OP 32C Project Scope Review; OP 33 Capital Cost Estimate Review; OP34 Schedule Review; and OP 40 Risk and Contingency Review.

5.0 PROJECT SPONSOR SUBMITTALS

The PMOC should obtain and study appropriate project documents prior to performing the review. The required documents will depend on the current status of the project and the specific project activities that the Sponsor seeks to advance. Electronic files should be obtained in native format to allow the PMOC to confirm the accuracy and consistency of calculations. The PMOC should notify FTA of important deficiencies or discrepancies in the project information that would hinder the review.

- Written Project Description
- Environmental Documents (FEIS/ROD; EA/FONSI; CATEX/FONSI)
- Basis of Design Reports, Design Criteria
- Design Documents (Plans, Specifications)
- Project Management Plan
 - Risk and Contingency Management Plan (RCMP)
 - Project Delivery or Contracting Plan
- Project Schedule (Master Baseline Schedule)
 - Basis of the Schedule
 - o Schedule Management Plan
 - Identification of Critical Path
 - List of Deliverables and Key Milestones
- Current Capital Cost Estimate
 - Basis of the Estimate or estimating methodology memo (refer to Appendix B)
 - Complete cost estimate in project sponsor's original format, including
 - Calculations for construction escalation by commodity type
 - Calculations for inflation by year
 - Complete cost estimates in FTA's Standard Cost Category (SCC) format Note: The SCC worksheets serve as a reporting format; they summarize the actual cost estimate. (Obtain from the Sponsor the same version of the SCC worksheets that was or will be submitted to FTA for the annual review).
 - Other Relevant Documents, such as:
 - Independent Cost Estimates
 - Value Engineering Reports
 - Constructability Reviews
 - Risk Assessment Reports
- Documentation of changes to scope, cost and schedule that have occurred since the last milestone or annual review.
- A copy of the PMOC's annual review from the previous year

6.0 SCOPE OF WORK

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6.1 **Preliminary Document Review**

Upon receipt of the assignment, the PMOC should obtain the specified project documents and other materials from the Project Sponsor. The PMOC may already be generally familiar with the project as a

OP-31 Annual New Starts Review September 2015 Page 2 of 5 result of on-going monitoring activities. The assigned personnel should review the materials in preparation for their on-site visit and identify any identify and missing documents.

6.2 On-Site Review Meeting

The PMOC should arrange for an on-site meeting with the Sponsor's project management team. The meeting should include a discussion of project conditions, current developments, changes to the project's scope, schedule or cost estimate reflected in the current New Starts submission and any questions related to the initial document review

6.3 Review and Assessment

Assess the reliability of the Sponsor's New Starts submittal in light of existing project documentation. Refer to the report contents in Section 7.1 below to identify the specific tasks and analyses required.

7.0 REPORT, PRESENTATION, RECONCILIATION

The PMOC shall provide FTA with a written report of its findings, analysis, recommendations, professional opinions, and a description of the review activities undertaken. The report formatting requirements of OP 01 apply. When necessary, PMOC shall perform data analysis and develop data models that meet FTA requirements using Microsoft Office products such as Excel and Word and use FTA-templates when provided. The PMOC may add other software as required but documentation and report data shall be made available to FTA

7.1 Report Content

7.1.1 Introductory Information

Provide the following information on an introductory page of the report:

- a) Date of your report
- b) Project name and location
- c) Project Sponsor
- d) PMOC firm
- e) Person (and affiliation if different from PMOC firm) providing this report
- f) Length of time PMOC firm and person have been assigned to this project

7.1.2 History and Basis of the Project Cost Estimate

- a) Verify that the cost estimate in its original and SCC formats are consistent. Identify discrepancies between the content in the two formats.
- b) Attach the Excel file of the SCC Workbook to your email with your report
- c) Explain reasons for increases in the cost estimate. Example:

"The estimate was originally done in (year of estimate) when the project sponsor requested entry to engineering. It could be characterized as a "bottom up" estimate because it was done from scratch and based on a very complete set of initial design documents. It made wide use of quantities and unit costs and broke down indirect costs. The estimate was \$250 million in 20XX Base Year dollars and \$300 million in Year of Expenditure (YOE) dollars. The current estimate was

updated in (date) to \$310 million YOE. The increase of \$10 million is attributable solely to an inflation rate correction. Based on the June 20XX estimate, the Project Sponsor's SCC worksheets dated (include date), submitted as part of their 20XX (FYXX) New Starts submittal, indicate \$310 million YOE."

For all of the following questions, refer to the cost estimate and schedule both in their original format and in the SCC format. Also refer to the other project documents listed above.

7.1.3 Cost Estimate in (year) Base Year Dollars

- a) Characterize the scope and level of scope definition that formed the basis for the Project Sponsor's current capital cost estimate. Has the project scope been changed since the original cost estimate was developed or since the previous New Starts submission? If the scope has changed, does the current cost estimate reflect the changes?
- b) Evaluate the capital cost estimate. Make recommendations where appropriate for change of approach or additional work. Choose line items that represent the highest risk for spot checks.
 - i. Spot check the estimate's internal consistency (does it add up?);
 - ii. Spot check the estimated quantities through comparison with drawings;
 - iii. Spot check the unit costs through comparison with recent similar bid prices;
 - iv. Review the reasonableness of pricing escalation for specific construction elements and commodities based on current conditions;
 - v. Review the reasonableness of the cost estimate for and assumptions behind the General Conditions and Supplementary Conditions of the Contract and Division 1 Specifications in terms of allocation of risk between the Project Sponsor the construction contractors and any third-parties, e.g., a freight railroad.
 - vi. Have important changes occurred since the Project Sponsor's original cost estimate was prepared that would render the estimate less valid? How does the project compare with the project reviewed by the PMOC during the last calendar year (if review is more than six months old)?
 - vii. Identify sources of uncertainty and related potential for cost increases. Uncertainties may include unresolved issues or inadequate project definition associated with the design and construction scope; the political, institutional and project management context of the project; procurement conditions, contracting methodology, bid climate; methodology of developing the capital cost estimate itself; perceived biases in the estimate; funding sources / financing mechanisms; cost of inflation or change in the value of the dollar over time.
 - viii. Check the amount of allocated contingency for specific line items. Has allocated contingency been well used to target perceived uncertainties in scope, schedule or cost in a specific line item? In your opinion, is the total allocated contingency as a percentage of total base year dollars and project scope adequate?

7.1.4 Cost Estimate in Year-of-Expenditure (YOE) Dollars

- a) On the Inflation Worksheet, verify that "base year" costs have been spread across the top part of the worksheet in accordance with the project schedule.
- b) Comment on the fit between the YOE schedule for expenditures compared with the

project schedule for design and construction.

- c) Is the assumed rate of inflation used for each year of the project reasonable? Compare the rates with those used last year.
- d) For past years, verify that the actual dollar amounts expended have been inserted in the YOE (bottom) section of the worksheet and are inflated in the top section.
- e) Comment on the reasonableness of construction escalation for specific commodities that may be included in the YOE cost.
- f) Identify uncertainties introduced through the development of the YOE cost estimate.
- g) Is the unallocated contingency adequate to cover unforeseen conditions in all areas of the project and still remain in place until construction is well underway?
- h) Do you recommend this project carry a project reserve?

7.1.5 Project Schedule

Comment on the overall reasonableness of the project schedule. Assess the proposed durations for each phase, giving consideration to the national, local, and agency-specific track records for implementation of similar projects. Identify sources of uncertainty. Identify potential obstacles or uncertainties that could affect the schedule such as utilities and real estate acquisition.

7.1.6 Concluding Statement

Develop a concluding statement in 500 words or less:

- a) Briefly describe your findings on project scope, schedule, and cost.
- b) Provide a professional opinion regarding the reliability of the project scope, schedule and cost. c) Make a statement of potential range of cost (lower, upper bound and most likely.)
- c) Characterize the top three uncertainties in terms of their likelihood (probable, improbable) and consequence (catastrophic, significant, and marginal.)
- d) For areas of significant uncertainty, recommend additional investigation, planning or design work by the Project Sponsor or other parties, with a schedule for the accomplishment of the work.

7.2 Reconciliation

After FTA approval, the PMOC should share the report with the Project Sponsor. In the event that differences of opinion exist between the PMOC and the Project Sponsor regarding the PMOC's findings, the FTA may direct the PMOC to reconcile with the Project Sponsor and provide FTA with a report addendum covering the agreed modifications by the Project Sponsor and PMOC.