Oversight Procedure 31 — Annual New Starts Review

1.0 PURPOSE

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

While this OP focuses on Capital Investment Grant (CIG) projects, which have specific requirements by law, it also applies to all capital projects. FTA will issue Implementation Plans (IPs) to clarify the specific reviews and expected deliverables based on the project types.

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 a Full Funding Grant Agreement (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 the project scope definition, schedule, and cost estimate as a critical input to FTA's annual project evaluation.

4.0 REFERENCES

The PMOC shall become familiar with the following references to Federal legislation, regulation, and guidance before reviewing the project sponsor's work. These are the principal references, but this list is not exhaustive:

4.1 Legislative

- Infrastructure and Investment Jobs Act (IIJA), Public Law 117-58, effective November 15, 2021 (also known as the "Bipartisan Infrastructure Law")
- 49 U.S.C. Chapter 53

4.2 Regulations

- 49 CFR Chapter VI, as amended

4.3 Guidance

- Proposed New Starts and Small Starts Policy Guidance (2015 or most recent version)

4.4 Oversight Procedures

- OP 32C Project Scope Review
- OP 33 Capital Cost Estimate Review
- OP 34 Schedule Review
- 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 status of the project and the specific project activities that the project 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, such as Final Environmental Impact Statement (FEIS) / Record of Decision (ROD); Environmental Assessment (EA) / Finding of No Significant Impact (FONSI); Categorical Exclusion (CATEX) /FONSI
- Basis of Design reports, Design Criteria
- Design Documents (plans, specifications)
- Project Management Plan (PMP)
  - Risk and Contingency Management Plan (RCMP)
  - Project Delivery or Contracting Plan
- Project Schedule (Master Baseline Schedule)
  - Basis of the Schedule
  - 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 project 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

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 because of ongoing monitoring activities. The assigned personnel should review the materials in preparation for their on-site visit and identify any incomplete and missing documents.

6.2 On-Site Review Meeting

The PMOC should arrange for an on-site meeting with the project 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

The PMOC should assess the reliability of the project 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 REPORTS, PAPERS, PRESENTATIONS

The PMOC shall provide the COR/ACOR with a written report, formatted in compliance with OP 01, of their findings, analyses, recommendations, professional opinions, and description of the review activities undertaken, as well as other supporting information.

After the COR/ACOR has transmitted formal acceptance of the report, the PMOC should share the report with the project sponsor. If there are differences of opinion between the PMOC and the project sponsor regarding the PMOC's findings, the COR/ACOR may direct the PMOC to

reconcile their findings with the project sponsor and provide the COR/ACOR with a report addendum covering the modifications agreed upon by the project sponsor and PMOC.

When directed by the COR/ACOR, the 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.

Upon approval by the COR/ACOR, the PMOC may add other software as required, but they should provide the COR/ACOR with documentation and report data when complete.

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; and
(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 the 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 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.

- Spot check the estimate's internal consistency (does it add up?)
- Spot check the estimated quantities through comparison with drawings.
- Spot check the unit costs through comparison with recent similar bid prices.
- Review the reasonableness of pricing escalation for specific construction elements and commodities based on current conditions.
- 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).
- 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 the review is more than six months old)?
- 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; and cost of inflation or change in the value of the dollar over time.
- 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 remain in place until construction is well underway?
(h) Do you recommend this project carry a project reserve?

7.1.5. Project Schedule

The PMOC should comment on the overall reasonableness of the project schedule. Assess the proposed durations for each phase, considering 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

The PMOC should 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).
(d) Characterize the top three uncertainties in terms of their likelihood (probable, improbable) and consequence (catastrophic, significant, and marginal).
(e) 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.

8.0 Reconciliation

After FTA approval, the PMOC should share the report with the project sponsor. If 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.

APPENDIX A: ACCEPTABLE QUALITY LEVEL

	Desired Outcome	Performance Requirement	Checklist	Acceptable Quality Level	Performance Measure	Monitoring Method
1	The PMOC shall perform an annual review regarding the reliability of the project sponsor's project scope, schedule, and cost estimate as a critical input to FTA's annual project.	**R1a.** The PMOC shall develop and document a process for annual review and analysis of project sponsor's project scope, project schedule, and project cost estimate documentation.	☐	**Q1a.** PMOC provides documentation of the process.	**M1a.** Review of the process documentation.	**MM1a.** Periodic review by FTA or its agent.
		R1b. The PMOC shall use its process and project management judgment to perform an annual review regarding the reliability of the project sponsor's project scope, schedule, and cost estimate as a critical input to FTA's annual project evaluation.	☐	**Q1b.** PMOC must review and provide internal verification that the process has been followed as documented.	**M1b.** Documented annual review regarding the reliability of the project sponsor's project scope, schedule, and cost estimate as a critical input to FTA's annual project evaluation.	**MM1b.** Periodic review by FTA or its agent and the PMOC's internal verification.
2	The PMOC shall provide FTA with professional assessments of the reliability of project sponsor's project scope, schedule,	**R2a.** The PMOC shall provide FTA with its overall findings on project scope, schedule, and cost and provide its professional opinion as to the reliability of project sponsor's project	☐	**Q2a.** Professional findings and opinions of the reliability of the project sponsor's project scope, schedule, and cost documentation.	**M2a.** PMOC's review of project documents, its findings regarding them, and its opinion as to the reliability of the project scope, schedule, and cost	**MM2a.** Periodic review by FTA or its agent.

	and cost documentation.	scope, schedule, and cost documentation.			documents to demonstrate the application of sound management, engineering practices, and professional experience.	
		R2b. The PMOC shall provide FTA with its opinion as to the potential range of project cost, showing lower limit, upper limit, and most likely.	☐	**Q2b.** Professional opinion as to the range of potential project cost.	**M2b.** PMOC's review and opinion as to the potential range of project cost is based on sound management, engineering practices, and professional experience.	**MM2b.** Periodic review by FTA or its agent.
		R2c. The PMOC shall provide FTA with its opinion as to the top three uncertainties to the project in terms of their likelihood, (i.e., probable to improbable), and their potential consequence to the project, (i.e., catastrophic, significant, or marginal).	☐	**Q2c.** Professional opinion as to the top three uncertainties to the project sponsor's project, their likelihood, and potential consequences to the project.	**M2c.** PMOC's review and opinion as to the top three uncertainties to the project in terms of likelihood and consequence demonstrates sound management, engineering practices, and professional experience.	**MM2c.** Periodic review by FTA or its agent.

		R2d. With respect to areas of significant uncertainty, the PMOC shall provide FTA with its opinion and recommendation as to additional investigation, Planning, or design effort by the project sponsor or other parties, and a schedule for the accomplishment of the needed additional work.	☐	**Q2d.** Professional opinion and recommendation as to the necessity of additional investigation, planning, or design work for project sponsor's project.	**M2d.** PMOC's review and opinion as to the necessity of additional investigation, planning, or design work demonstrates sound management, engineering practices, and professional experience.	**MM2d.** Periodic review by FTA or its agent.
3	The PMOC shall provide FTA with a written report of its findings, analysis, recommendations, professional opinions, and a description of the review activities undertaken.	**R3.** The PMOC shall present its findings, analysis, recommendations, professional opinions, and a description of the review activities undertaken to FTA in a written report and, when directed by FTA, seek to reconcile its findings with the project sponsor to the extent possible. A supplemental report shall be filed describing the results of reconciliation attempts.	☐	**Q3.** Reports and presentations are professional, clear, concise, and well written. The findings and conclusions have been reconciled with other PMOC reports and have been reconciled with the project sponsor to the extent possible.	**M3.** Review of the PMOC's presentation of findings, analysis, recommendations, professional opinions, and review activities by the FTA.	**MM3.** Periodic review by FTA or its agent.

APPENDIX B: MEMO REGARDING COST ESTIMATING METHODS

The project sponsor should develop a memo regarding their cost estimating approach as part of the project development alternatives analysis work and update it with each subsequent estimating effort. The memo should note the method by which the project sponsor will ensure that costs will be tracked throughout the project life in both their original format and in the FTA SCC format. It is important that costs be tracked through construction, revenue operations, and two years post-revenue operations to document contract closeout.

The cost estimating methods memo should explain the structure of the cost estimate, market, and other assumptions. It should cite other projects as precedents. The memo should note important considerations such as characteristics of the physical context, site constraints, design parameters, institutional constraints, contracting and procurement plans, project schedule, etc.

The memo should describe the approach to cost information development, such as parametric (use of aggregated unit costs per lineal foot of cross-section; use of segments to estimate similar construction conditions within a complex alignment) or definitive (based on the application of unit costs to quantities derived from drawings). If multiple parties are estimating parts of the project, this memo should help to ensure consistency of approach.

APPENDIX C: ACRONYMS

Acronym	Term
ACOR	Alternate Contracting Officer's Representative
ADA	The Americans with Disabilities Act
AGC	Associated General Contractors of America
ATC	Alternative Technical Concepts
AVS	Associate Value Specialist
BEA	Bureau of Economic Analysis
BLS	Bureau of Labor and Statistics
BRF	Beta Range Factor
BY	Base Year
CATEX or CE or CX or Exclusion	Categorical Exclusion
CCIP	Contractor Controlled Insurance Program
CE	Categorical Exclusion
CER	Cost Estimating Relationship
CFR	Code of Federal Regulations
CIG	Capital Investment Grant
CLIN	Contract Line Item Number
CM	Construction Manager

Acronym	Term
CM/GC	Construction Manager/General Contractor
CMAR	Construction Manager at Risk
COR	Contracting Officer's Representative
CPM	Critical Path Method
CPTED	Crime Prevention Through Environmental Design
CR	Constructability Review
CVS	Certified Value Specialists
DB	Design-Build
DBB	Design-Bid-Build
DBE	Disadvantaged Business Enterprise
DBF	Design-Build-Finance
DBFOM	Design-Build-Finance-Operate and Maintain
DBOM	Design-Build-Operate and Maintain
DEIS	Draft Environmental Impact Statement
DF	Designated Function
DHS	Department of Homeland Security
DTS	Department of Transportation Services
EA	Environmental Assessment
EIS	Environmental Impact Statement

Acronym	Term
EMP	Emergency Management Plan
ENR	Engineering News-Record
EPCM	Engineering/Procurement/Construction Management
ESWA	Early Systems Work Agreement
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FLSSC	Fire/Life Safety and Security Committee
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GAO	Government Accountability Office
GC	General Contractor
GC/CM	General Contractor/Construction Manager
GMP	Guaranteed Maximum Price
HAZMAT	Hazardous Materials
IP	Implementation Plan
LONP	Letter of No Prejudice

Acronym	Term
LPA	Locally Preferred Alternative
MBE	Minority Business Enterprise
MCC	Management Capacity and Capability
MDBF	Mean Distance Between Failures
MPO	Metropolitan Planning Organization
NEPA	National Environmental Policy Act
NTE	Not-to-Exceed
NTP	Notice to Proceed
O&M	Operation and Maintenance
OCIP	Owner Controlled Insurance Program
ODCs	Other Direct Costs
OHA	Operational Hazard Analysis
OIG	Office of Inspector General
OMP	Operations and Management Plan
OP	Oversight Procedure
P3	Public Private Partnership
PCMG	Project and Construction Management Guidelines
PD	Project Development
PDM	Project Delivery Method

Acronym	Term
PHA	Preliminary Hazard Analysis
PMO	Project Management Oversight
PMOC	Project Management Oversight Contractor
PMP	Project Management Plan
POP	Project Oversight Plan
PTASP	Public Transportation Agency Safety Plan
QA/QC	Quality Assurance/Quality Control
R&D	Research and Development
RAMP	Real Estate Acquisition Management Plan
RAP	Rail Activation Plan
RCMP	Risk and Contingency Management Plan
RET	Risk Evaluation Tool
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualifications
ROD	Record of Decision
ROW	Right-of-Way
RSD	Revenue Service Date
S/DBE	Small/Disadvantaged Business Enterprises

Acronym	Term
SABCE	Stripped and Adjusted Base Cost Estimate
SABS	Stripped and Adjusted Base Schedule
SAVE	Society of American Value Engineers
SCC	Standard Cost Category
SCIL	Safety Certifiable Items List
SGR	State of Good Repair
SIT	System Integration Testing
SITP	Systems Integration Test Plan
SOP	Standard Operating Procedure
SOW	Scope of Work
SSCVR	Safety Certification Verification Report
SSGA	Small Starts Grant Agreement
SSI	Sensitive Security Information
SSMP	Safety and Security Management Plan
STIP	Statewide Transportation Improvement Program
SYGA	Single Year Grant Agreement
TAR	Travel Authorization Request
TBM	Tunnel Boring Machine
TCC	FTA Office of the Chief Counsel

Acronym	Term
TCRP	Transit Cooperative Research Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TOD	Transit-Oriented Development
TPE	FTA Office of Planning and Environment
TPM	FTA Office of Program Management
TRB	Transportation Research Board
TSA	Transportation Security Administration
TVA	Threat and Vulnerability Assessment
URA	Uniform Relocation Assistance and Real Property Acquisition Act
U.S.C.	United States Code
VE	Value Engineering
VECP	Value Engineering Change Proposals
WBE	Women Business Enterprise
WBS	Work Breakdown Structure
YOE	Year of Expenditure