



## IV.1 GLOSSARY OF TERMS

**Base Estimate:** The most likely project cost estimate in any phase at any time, which normally includes all estimated known project costs, but does not include project contingency.

**Baseline Cost Estimate:** The most likely Total Project Cost Estimate including project contingency, which constitutes the approved project budget for cost management. The baseline will be set based on an approved Scoping Report estimate.

**Communications Package:** A one-page summary of key project elements, such as the project description, benefits, risks, cost, and schedule. This conveys information to the stakeholders.

**Cost Control:** The process of controlling deviations from the estimated project costs and monitoring the risks and contingencies associated with changes. Two principles apply: 1) there must be a basis for comparison (e.g., the baseline cost estimate); and 2) only future costs can be controlled.

**Cost Estimating and Cost Management Process Model:** A tool for standardization and documentation of the project cost estimating and cost management activities and deliverables, from the Planning Phase through the Letting Phase.

**Cost Management:** The process for managing the cost estimate through conducting reviews and approvals, communicating estimates, monitoring scope and project conditions, evaluating the impact of changes, and making estimate adjustments as appropriate.

**Design Phase:** The project development phase that includes activities required for setting construction limits, plan delivery, right of way, and a submittal of project plans, specifications, and estimate. The Design cost estimate at the end of this phase is the equivalent of the District (including Bridge) Engineer's Estimate.

**District Cost Estimator:** Personnel dedicated to project cost estimation from Planning to Letting, residing in the District.

**Estimate Range:** A range of estimated project cost that communicates the uncertainty associated with estimates prepared prior to setting the baseline cost estimate.

**Gate:** A predefined milestone in the project development process for project review and approval. There are several gates in the project development process where a Go/No-Go decision is made for the project, so the project either moves forward with approval or is sent back into the project development process for additional work needed for approval.

**Letting Phase:** The last project development phase that involves the preparation of the Engineer's Estimate and core letting activities such as advertising and bid evaluation leading up

to contract award. The plans, specifications, and estimate (PS&E) documentation put together in this phase requires State DOT approval before state funds and federal funds, if any, can be authorized for the project to proceed with contract award and project construction.

**Planning Phase:** The project development phase that identifies long-term system and corridor improvements. The Planning level project estimates prepared in this phase are *conceptual* cost estimates that are expressed in inflation-adjusted dollars and are used to support the statewide 20-year Transportation System Plan (TSP). The estimates in the 10-year Highway Improvement Plan (HIP) and District plans are also expressed in inflation-adjusted dollars.

**Market Conditions:** A reflection of a moment of the market. Current market conditions reflect today's conditions, which can be a result of market fluctuations in the past few months and can affect the coming phases of the project.

**Project Contingency:** An estimate of costs associated with identified risks, the sum of which is added to the base estimate.

**Project Cost Estimate File:** A file that contains details about the basis of estimate and the backup calculations that support a project's cost estimate and is maintained from the time that a project is identified all the way through construction.

**Project Cost Estimating:** The processes for approximating all project costs included in the total project cost. Project cost estimating involves the following steps: determine estimate basis, prepare base estimate, determine risk and set contingency, and review total estimate.

**Project Cost Management:** The process for managing the cost estimate through conducting reviews and approvals, communicating estimates, monitoring scope and project conditions, evaluating the impact of changes, and making estimate adjustments as appropriate. Project cost control is the process of controlling deviations from the estimated project costs and monitoring the risks and contingencies associated with changes.

**Project Definition:** The clear and accurate description of a project, which defines the needs, the phases, and the work to be performed.

**Project Management:** Management of the project scope, schedule, and cost through seamless integration of the project purpose and need, the stakeholder requirements, and the resources for project development, engineering, safety, and quality.

**Project Modification and Evaluation:** The process of making changes to the program, resulting from either a Scope Change or Scope Amendment.

**Project Summary Sheet:** A short summary that tracks project purpose and need, cost, and status at any point during project development, used for internal and external communications. The Project Summary Sheet is part of the Project Cost Estimate File.

**Program Cost Management:** Managing the HIP and the State Transportation Improvement Plan (STIP) budgets over time to minimize program disruptions caused by project cost deviations and incorporating approved changes when they occur after the STIP and HIP budgets are approved.

**Qualitative Risk Analysis:** Performing a qualitative analysis of risks and conditions to prioritize their effects on project objectives. It involves assessing the probability and impact of project risk(s) and using methods such as the probability and impact matrix to classify risks into categories of high, moderate, and low for prioritized risk response planning.

**Quantitative Risk Analysis:** Measuring the probability and consequences of risks and estimating their implications for project objectives. Risks are characterized by probability distributions of possible outcomes. This process uses quantitative techniques such as simulation and decision tree analysis.

**Right of Way:** A linear corridor of land used for transportation or other facilities, such as highways, roads, streets, railroads, trails, light-rail, and utilities.

**Risk:** A known or unknown event or condition that cannot be adequately defined or estimated with confidence at the time of preparing an estimate.

**Risk Assessment:** The analysis of risk and its effects on the project. Risk assessment involves the quantitative or qualitative analysis that assesses impact and probability of a risk.

**Risk Identification:** The process of determining which risks might affect the project and documenting their characteristics.

**Risk Management:** The compilation of all the steps associated with managing risks: risk identification, risk assessment, risk analysis (qualitative or quantitative), risk planning, risk allocation, and risk monitoring control.

**Risk Register:** A document that lists all identified risks, along with a brief description of each risk, probability of occurrence, impact on the project, responsibility for mitigation, mitigation strategy, and current status.

**Scope Amendment:** An adjustment in the scope that does not change the project's original purpose and need contained in the Scoping Report. Such adjustments are usually the consequence of unanticipated project-related conditions or external events that arise and cause a scope expansion and a resulting change in the cost estimate.

**Scope Changes:** Changes in the requirements or specifications on which the design is based. Examples would include changes to project limits, work types, or capacity factors, such as traffic loads, vehicles per lane, or storm waters.

**Scoping Phase:** The project development phase that defines the project requirements and risk (or uncertainties) and includes activities such as traffic forecasting, surveys, preparation of

environmental documentation, public involvement, identification of right-of-way, and identification of utilities. The Design cost estimate at the end of this phase, including project contingency, is the baseline cost estimate for cost management and is expressed in year-of-construction dollars.

**Scoping Report:** A key document defined in the Scoping Process Manual and maintained throughout the Scoping Phase. The Scoping Report describes the project scope.

**Technical Reference Manual:** A guide that provides direction on implementation of policies, models, tools, methods, and processes.

**Total Project Cost Estimate:** The sum of the project base estimate and the project contingency, in any phase at any time.