

# **PROJECT MANAGEMENT PLAN**

## **WIG Name:** Project Cost Management Framework

### **PROBLEM STATEMENT**

The State Transportation Improvement Plan (STIP) is Minnesota's four year transportation improvement program. This document identifies the schedule and funding of transportation projects. The funding for these projects is constrained by the projected revenue from the varying funding sources (e.g. State funds, FHWA, FTA, bonds).

As the cost of transportation projects changes through the project development cycle, it could have an impact on the number of transportation projects that can be delivered within a fiscal year. These changes might be attributed to items such as scope creep, inflation, market conditions, and cost estimation accuracy. For example, between 2010 and 2013, only 35% of the 738 projects let had a letting cost within  $\pm 15\%$  of their latest STIP amount.

Large variations within the programmed amount and letting cost may result in:

1. Not being able to deliver our entire program, resulting in project delays and additional costs due to inflation.
2. Not efficiently using funds to meet the highest priority needs.
3. Underrunning our program, resulting in inefficiencies by trying to accelerate projects.
4. Impacts to political commitments. For example, if MnDOT committed to two projects (A & B), a cost/scope increase on Project A may result in Project B being delayed due to insufficient program funds.

### **SCOPE**

#### Goals & Objectives

*The overall goal of the WIG is to improve MnDOT practices for managing its transportation projects within better defined fiscal constraints.*

The goal will be achieved through meeting the following objectives:

1. Emphasizing a culture related to managing transportation project costs.
2. Improving the accuracy of estimating construction and non-construction transportation project related costs.
3. Implementing additional cost management tools (if needed) and provide those resources to project managers
4. Standardizing cost management procedures for consistency and accuracy.
5. Improving risk management practices within cost management

6. Developing processes for establishing transportation project budgets
7. Training MnDOT staff and consultants performing cost management

#### Project Scope or Location of Scoping Report

The scope of this WIG includes Total Project Cost Estimates from scoping through letting.

Cost estimates include:

- Construction costs
  - Letting
  - Overruns/Change Orders/Incentives
  - Environmental Mitigation
  - Extra Ordinary Enforcement
  - Detours/Haul Roads
  - Compensable Utilities
- Turnback Costs
- Pre-Letting Engineering
- Construction Administration
- Design-Build Cost Estimates
- Right-of-Way

The Scope will be broken down into the following phases:

1. Phase 1a – Review Completeness and Accuracy of Current Estimates
  - a. Review STIP estimate versus award (prepared by the Office of Transportation System Management - OTSM )
  - b. Review EE versus award (prepared by OTSM)
  - c. Review Award versus completed (prepared by OTSM)
  - d. Review STIP versus complete (prepared by OTSM)
  - e. Determine Final Design Estimate versus Engineer Estimate
2. Phase 1b - Determine best practices
  - a. Meet with each MnDOT district & functional group to document current cost management and cost estimating practices
  - b. Review existing cost and risk management materials on MnDOT website
  - c. Review national standards and other DOT practices of cost estimation and risk management
  - d. Identify software and tools for cost estimating
3. Phase 2 – Prepare Best Practices Summary
  - a. Compile information from Phase 1 into a summary report that can be disseminated to all levels within MnDOT
4. Phase 3 – Incorporate Project Cost Control and Budget Management into PM Battle WIG (Update A to B).

5. Phase 4 – Develop/update Project Cost Management processes based on best practices and WIG
  - a. Collaborate with districts and functional areas on recommendations to improve process and PM Battle WIG
  - b. Revise/update/create documents
  - c. Identify and create tools for implementation
  - d. Determine resources necessary for implementation
6. Phase 5 – Implementation
  - a. Provide tools and training to users
  - b. Provide resources for users
  - c. Monitor and adjust based on WIG Scoreboard

#### Tracking & Verification

*A risk register will be developed for this project and will include an issues list to track open items. The risk register and issues list will be updated at least bi-weekly and will be the communication tool at meeting and with stakeholders.*

#### Scope Change Process

*Any changes in scope will be communicated through the PM Battle Team Leader (Chris Roy)*

### **SCHEDULE**

#### Major Milestones

<i>Hire Principal Engineer for Cost Management</i>	<i>October 8,2014</i>
<i>Complete Phase 1a &amp; 1b</i>	<i>February 2, 2015</i>
<i>Complete Phase 2</i>	<i>February 2, 2015</i>
<i>Complete Phase 3</i>	<i>TBD by CPM Schedule</i>
<i>Complete Phase 4</i>	<i>TBD by CPM Schedule</i>
<i>Complete Phase 5</i>	<i>TBD by CPM Schedule</i>

#### Schedule Management

*A P6 schedule will be developed. The schedule will be managed by the Project Manager and updated by schedulers within the Office of Project Management and Technical Support.*

#### Monitoring

*The P6 schedule will be updated bi-weekly. The Project Manager will review the schedule with the PM Battle Team Leader (Chris Roy)*