

Work Plan for FHWA – Michigan Division

Michigan Department of Transportation
Programmatic use of Type 3 Fixed Price Variable Scope Contracting
on Capital Preventative Maintenance Projects
August 13, 2014

Introduction

The Michigan Department of Transportation (MDOT) proposes to programmatically use the category of “Type 3” fixed price variable scope (FPVS) contracting procurements on various Capital Preventative Maintenance (CPM) projects through the approval of the FHWA-Michigan Division. CPM and Non-CPM projects being procured under “Type 1” and “Type 2” FPVS procurement require separate approval through the FHWA’s SEP-14 Program (approval from FHWA Headquarters). Non-CPM Type 3 projects do not fall under the programmatic category and will require a separate approval from the FHWA-Michigan Division. See below for a description of each type of FPVS method and Submittal Requirements to FHWA.

Purpose

The purpose of Type 3 FPVS procurements is to manage a project during construction to a fixed or maximum dollar amount in order to construct the greatest amount of work with the available project budget. Because the proposed work on CPM projects is typically consistent throughout the project locations and the final segment end point can be adjusted, MDOT expects to gain more value for the dollar by using this innovative contracting method.

Scope

Approval for Type 1 and 2 FPVS procurements are covered under a separate work plan and a separate approval is required under the FHWA’s SEP-14 Program (FHWA-Headquarters).

Type 1: Type 1 FPVS projects receive bids by a unit of work that can be completed for a stated fixed price. The selected contractor is the bidder that proposes the most units of work for the given fixed price. For example, a HMA crack sealing project would be bid by the lane miles a contractor can complete based on the fixed price provided in the contract. In the event of a tie, bidders will be required to submit a revised price for the amount of work originally bid, and the bidder with the lowest price would be the selected contractor.

MDOT has used Type 1 FPVS procurements for multiple crack sealing and chip sealing CPM projects.

Type 2: Type 2 FPVS projects receive bids by a unit of work that can be completed for a maximum fixed price. Contractors also bid a price for the work that is below the maximum price. The work that will be completed is identified at the time of the bid. The selected contractor is first determined by the bidder that proposes the most units of work for the price they bid. If two or more contractors propose the same amount of work, then the successful bidder is determined by which of those contractors proposed the lowest maximum price. For example, the single Type 2 project MDOT has let received bids based on the square yards of epoxy overlay that could be completed and a price to complete the work included in the bid. The square yards bid had to place an epoxy overlay over an entire bridge deck (a partial bridge deck was not acceptable), and the price bid had to be below the maximum price. In the event of a tie, bidders will be required to submit a revised price for the amount of work originally bid, and the bidder with the lowest price would be the selected contractor.

Type 3 CPM projects are considered programmatic, but must comply with “Submittal Requirements” listed below to receive FHWA-Michigan Division approval for each contract.

Type 3: Type 3 FPVS projects receive bids through traditional bidding processes where MDOT advertises the project through traditional methods and the contractor provides unit prices for the pay items provided in the schedule of items. The selected contractor would be the one that submits the low bid based on the pay items and quantities in the Schedule of items. The project is awarded to the low bidder at the low bid price.

The schedule of items is made up of the normal pay items and quantities estimated by the Engineer that are required to complete as “Priority 1”. MDOT may provide the Contractors with the available budget for the project. The portion of the project that is not included in the Schedule of Items is considered “Priority 2” (additional priority areas may also be identified in the plans). Priorities beyond Priority 1 are included in the design and the environmental clearance document, and the contract contains informational pay items and quantities for these priorities. The work in Priority 1 will be completed by the project. If bids are favorable, or if additional funding becomes available to the project during construction, the project work is extended into Priority 2 until the final construction costs are approximately equal to the available funding.

MDOT has used Type 3 FPVS procurements on State and State/Federal funded projects to construct HMA overlays, minor bridge repairs, and HMA crush and shape projects.

Submittal Requirements to FHWA for Type 3 FPVS Projects:

MDOT will provide the FHWA-Michigan Division with a list of the CPM projects which will use a Type 3 FPVS procurement method. The FHWA-Michigan Division will also be provided the contract documents related to FPVS for approval prior to its initial use on a project. After initial approval, the contract documents will be used on future FPVS CPM projects without additional review unless significant changes have been made in the contract language or requested by the FHWA. Non-CPM Type 3 FPVS projects will require an individual approval from the FHWA-Michigan Division unless otherwise directed by the FHWA-Michigan Division.

Schedule

Innovative Contracting projects, including FPVS projects, are identified through an annual call for projects, and individually throughout the year as a need arises. The FHWA-Michigan Division will be provided the projects included in this FHWA-Michigan Division Work Plan after MDOT initially reviews and approves the projects. If the list of projects changes, MDOT will provide FHWA-Michigan Division an updated list as appropriate for approval.

Evaluation

In order to evaluate the success of this innovative contracting method, MDOT will assess the completed work under each contract compared to a typical design-bid-build project. To accomplish this, MDOT will estimate the amount of work that would be expected to be constructed using the fixed dollar amount. Estimating will be performed by using our traditional estimating methods that are based on recent bidding history. This process will allow MDOT to determine the value received by using the FPVS method compared to traditional design-bid-build project delivery.

Industry reaction will also be measured by comparing the bids on similar contracts to the number of bids received on the fixed price variable scope contracts.

Reporting

MDOT will prepare and submit a report to the FHWA-Michigan Division. The report will be submitted annually and will include an evaluation of all projects completed within the last calendar year. The report will contain an overall evaluation of the project along with any suggestions and recommendations for improving the process.