

Work Plan for Special Experimental Project No. 14 (SEP-14)
Alternate Contracting - Utilizing Best Value Selection
For Capital Construction Contracts
April 16, 2012

Introduction

The New York State Department of Transportation (NYSDOT) submits this work plan for review and approval as a Best Value Alternate bidding procedure under the provisions of Special Experimental Project No. 14 (SEP-14) for use of alternative (innovative) bidding practices.

New York State has enacted Chapter 56 of the Laws of 2011, known as the Infrastructure Investment Act. This Act authorizes a variety of innovative contracting methods including best value, design-build, lump sum, guaranteed maximum price and prequalification. A copy of the Infrastructure Investment Act is attached to this work plan.

The proposed best value bidding procedure is an innovative process which will be used by NYSDOT in our capital construction program. As described further in the work plan, this bidding procedure should result in more efficient construction in terms of both overall costs and schedules.

Historically NYSDOT has used the design-bid-build method and is beginning to use the design-build method. As noted in the Infrastructure Investment Act, with increasing demands on available highway funds the State is actively pursuing methods which include to optimizing quality, cost and efficiency. Projects will be selected consistent with the intent of this Act.

The Process- Background

The Department is requesting approval to solicit full and open competitive bids (bid price and best value submittal via an Invitation for Bids - IFB). The traditional construction plans, proposal, bid items and quantities make up one part of the IFB. A description of the technical evaluation factors, their relative weights, the weighting of price vs. technical evaluation factors and the instructions to the Bidders make up the other part of the IFB. The bidders approach to the project (technical qualifications) are not publically opened or read. Bid prices and technical qualifications are reviewed and scored separately, and then the scores are combined in accordance with the Best Value Scoring Criteria and the Best Value Bidder is recommended for award.

The Department uses the IFB process without the additional quality based submission for its routine projects. The Department plans to solicit full and open competition using an IFB as the procurement method with the addition of Best Value Selection Scoring Criteria. The IFB may include as applicable to the specific project several components (criteria) in which respondents to the solicitation must include within their submittals such as: price, qualifications, schedule, quality control plan, and project approach as examples. The IFB also includes language, via a Special Note in the Contract Proposal, which informs the bidders as to the order of importance of each of the specified criteria. In essence, all of the critical aspects of the project are evaluated to determine what bidder is truly the overall best value to be awarded the project. Price is still a major factor; however, a bidder that has the lowest overall price may not be awarded the project if their submittal does not adequately address all of the critical aspects of the project as described in the IFB.

Process Advantages/Disadvantages

We plan to explore the advantages and disadvantages of awarding using a best value contract.

Advantages

Reduces risk to the Department: Since the Department is selecting a contractor based on their complete and written understanding of all of the critical aspects of the project (price, quality, schedule, experience, capability, and understanding of project), rather than just price alone, the Department has increased its potential for selecting and awarding to the best contractor available. By selecting a contractor through this process, the Department anticipates an increased chance for success, and reduced overall risk for an unsuccessful project.

IFB process is flexible: By using a two component (price and quality based criteria) Invitation for Bid (IFB) process, it gives the flexibility to evaluate all bidders that meet the minimum quality based ranking points after submittal evaluations. (The normal approved method of using sealed bids does not allow for consideration of quality criteria.) This is important when dealing with projects that are on a tight budget and/or schedule. Secondly, this process allows the Department to express to the contractor community in a competitive environment, the most important or critical aspects of the project, and have the contractor community inform the Department in the form of submittals how they plan to resolve these issues and the related cost.

Best Value: The evaluation process allows the Department to evaluate all of the critical aspects of the project rather than just price. Price will still be a major factor, but this process allows the Department to consider other critical aspects of the project. As an example, Schedule will often be critical. Bidders will be required to submit detailed schedules for review. A firm that submits a schedule that is lacking sufficient detail, most likely will not score as high as a firm that submits a schedule that contains complete detail proving they are intimately familiar and completely understand the critical elements of the project. The contractor who best demonstrates their complete understanding of project, has a fair price, and is qualified through their submission, most likely will be selected through this highly competitive process as the Best Value. Contractors can put their best effort forward not having to worry about foregoing quality for a low price. The Department benefits by awarding the contract to a contractor that has proven capabilities and a fair price.

Disadvantages

Preparation and submission cost: While the submission preparation process by the contractor's is more time consuming and costly, the firms that have the most experience and best qualifications would have experience in preparing and submitting as a normal business process.

Increased Evaluation and Award Process: The submission evaluation process takes approximately one week. The extra time is required to be able to evaluate and select the best value contractor. However, these days will be more than made up in improved day to day project administration.

Scope

The purpose of this work plan is to provide a format to evaluate the use of Federal aid for capital construction contracts awarded via a Best Value selection process. With approval of this work plan, NYSDOT will use Federal aid for Best Value capital construction contracts under the Federal "alternative contracting" SEP-14 program.

Current Method

The vast majority of NYSDOT's capital construction contracts are selected through a low bid

process and awarded to the lowest responsible bidder. The only exceptions have been six traditional construction contracts and one design-build contract that were let and awarded under emergency procedures to address flood damage caused by Tropical Storms Irene and Lee in the fall of 2011. Each of those seven contracts was awarded using a Best Value selection process. The design-build contract used a variety of qualification-based selection factors typical for design-build contracts, with those factors weighted approximately equal to the bid price. On the six design-bid-build construction contracts, NYSDOT evaluated proposals based on bid price and qualification-based selection factors that included:

- 1) The time bid to complete the project, or to complete work at specific sites identified in the bid documents;
- 2) The workforce and capacity of the contractor, evaluated based on the number of work crews of specific types that they had available; and
- 3) The prior experience and performance of the contractor, evaluated based on the contractors' proposals and the knowledge of the Department's selection committee members

NYSDOT has also utilized A + B bidding on a variety of construction contracts.

Opportunities for Improvement

NYSDOT believes that the use of Best Value selection methods for traditional design-bid-build construction contracts has the potential for significant benefits in terms of shorter timeframes to complete work, improved work quality, and safety.

NCHRP Report 561 "Best-Value Procurement Methods for Highway Construction Contracts" states that several governmental organizations including the Army Corps of Engineers have used the best value method to award construction contracts. The General Services Administration Public Building Services procures 100% of its new buildings and renovations through best value procurement. Several State DOT's have also used Best Value for construction contracting.

NYSDOT anticipates that approximately ten construction contracts per calendar year would be selected and awarded via the Best Value method. These would be jobs of various sizes and work types, and in different Regions. For each contract, Main Office staff would work with the Regions to determine the qualification-based selection factors to be used, their respective weights, and their weight in relation to the bid price. The most likely qualification-based selection factors would be past experience and performance, key personnel, safety record, schedule, and ability to meet DBE goals. Please see the accompanying NYSDOT Procedure, "Procedures for Selection and Award of Construction Contracts Using Best Value Selection".

A selection committee of Departmental experts will evaluate and score the qualification-based selection factors. This committee would be strictly separated from and have no knowledge of the bid prices, which will be verified and reviewed by NYSDOT in the usual manner. When both qualifications and cost reviews are completed, NYSDOT's Contract Management Bureau will summarize and prepare a memo recommending the Best Value proposal to the Chief Engineer.

To date, the Department has identified two projects where a Best Value selection process would prove beneficial; the Sprain Brook Parkway over Route 119 and the Twin Bridges. Accompanying this work plan is documentation discussing why these two projects were selected as well as their project specific "Special Note – Best Value Selection". These Special Notes contain the project specific selection scoring criteria we propose to use. Additionally, we are scheduling pre-bid meetings for these two projects where the Best Value Selection Scoring Criteria will be explained thoroughly to potential bidders.

As additional candidate projects are identified and developed, the Department will forward their project specific special notes and rationale for selection to FHWA for review and comment.

Schedule

NYSDOT is requesting approval to use this alternative contracting on selected projects for an approximate three-year evaluation period; for projects advertised for bids between April 2012 to December 2014.

Measures

During the period between advertisement and completion of construction for contracts selected through Best Value, the Department will evaluate the effectiveness of the Best Value selections. Interviews may be conducted with staff involved with the letting and execution of Best Value contracts, along with contractors, to determine how the best value selected contracts compared to the traditional contracts selected by the traditional low bid method.

By using the "Best Value" method for capital projects, the Department expects to be able to measure, as a minimum, three primary objectives; (1) cost savings, (2) time, and (3) improved quality as follows:

Cost Savings: The cost savings that are anticipated to be realized on best value projects are in the areas of lower number of change orders, with resultant improved efficiencies. Since the evaluation criteria will also include the evaluation of such items as; qualifications, project understanding and approach, schedule, quality control and traffic plans, through this process we anticipate hiring a quality contractor that has proven they completely understand the project. Therefore, the Department receives quality work and a better understanding of the project which may lead to less change orders.

Quality: As stated above, using the "Best Value" approach, the Department will evaluate each firm's past performance, experience, and capabilities in a competitive process. With all things being equal, a firm that is able to put the best team together should result in improved quality at a lower than average cost. The cost savings anticipated are less change orders, increased project efficiency (repetitive work should be rare), and a project that is completed either on time or earlier than expected.

Time: This should be the easiest of all to measure. The Department anticipates shorter project durations, by asking for and evaluating project schedules as part of the best value process. As an example, most projects that are awarded using sealed bidding give the timeframe the contractors are to complete the work. In our proposed best value process, the Department provides the bidders with the contract completion date. The Department evaluates and scores higher the bidder that submits a schedule which results in shorter completion dates and can demonstrate that their schedule is realistic through experience and complete project understanding.

Reporting

Project Reports - For each project, we will prepare two reports of this alternate contracting proposal. An interim report will be prepared shortly after contract award and will address the Best Value selection process and results. A final report will be prepared within six months after completion of the project work and will address the entire project and all evaluation measures for the Best Value selection process.

Final Best Value Program Report – Upon completion of last project to be constructed under the authority of the "Infrastructure Investment Act", the Department will prepare a final report summarizing the SEP-14 Best Value findings associated with the individual projects.