# INNOVATIVE CONTRACTING PRACTICES
# SPECIAL EXPERIMENTAL PROJECT NO. 14

## BEST VALUE – PERFORMANCE BASED CONTRACTING

**M-39 (Southfield Freeway)**
**Michigan Department of Transportation**
**Metro Region**

**June 8, 2010**

## Introduction

The Michigan Department of Transportation (MDOT) is planning the rehabilitation of M-39 (Southfield Freeway) in Southfield, Detroit, Dearborn, Dearborn Heights, and Allen Park Michigan. This section of M-39 is a major urban freeway essential to the economic viability of the Metro Detroit area, serving over 164,200 vehicles per day. It is primarily a commuter route, linking western suburbs and the city, and interchanging with other major urban freeways, such as I-94, I-96 and M-10, and other principal urban arterials, including US-12 (Michigan Avenue), M-153 (Ford Road), M-5 (Grand River Avenue) and M-102 (Eight Mile Boulevard). The freeway profile runs at grade with the adjacent land use and then dips to go under bridges at road crossings. Four foot tall screen walls or cyclone fence separate the freeway from parallel service drives. The area predates the construction of noise walls, and because of both department policy and physical constraints, construction of new noise walls is not possible.

The majority of the significant project work includes bridge rehabilitation and pavement reconstruction through what is primarily a residential area of northwest Detroit. In recognition of the importance of the roadway to the adjacent community, and the impact the freeway, and its rehabilitation, has on the neighborhoods it traverses, MDOT is engaging them in a context sensitive solutions process, to understand and address the communities needs, concerns, and ideas for the project – both the physical infrastructure that will result from the project, as well as how the project is executed.

Initial outreach with the community has revealed that several “Quality of Life” concerns are consistently raised by members throughout the community. Most notably among these are:

1. **General Construction Concerns.** The community expressed concern about several issues from their experience from previous construction work by MDOT and other agencies.

    a. Air quality, the extent of dust and debris, and the need for thorough and timely contractor clean-up during and after the project is complete.
    b. Noise, both the regular noise of traffic, and concerns about the hours of operations and construction noise, especially late at night.
    c. Restricting construction truck traffic on neighborhood streets.
    d. Maintaining water pressure and other utilities to homes during construction.
    e. Avoiding damage to adjacent property from vibration and heavy construction work, and fixing damage that does occur.

2. **Local Contractor and Workforce Participation Concerns.** High unemployment in the southeast Michigan region has drawn significant attention to major construction projects and the perceived opportunity for construction related employment for local residents. There is an expectation that members of their community can and will participate in the economic opportunities including but not limited to local work force hiring, contracting opportunities, and business development made possible by the infrastructure investment being made in their neighborhoods. There is an opportunity to tie this issue into existing efforts of MDOT's Road Construction Apprenticeship Readiness (RCAR) Program and Youth Development & Mentoring Program.

3. **Safety & Mobility Concerns.** Residents expect to be able to travel safely and with minimal disruption to and from their homes. They expect to have reasonable access to local businesses, schools and churches and major routes linking them to employment, health and human services and leisure travel. This includes ensuring vehicular safety and mobility as well as pedestrian safety and mobility, with special attention paid to the needs of the senior and youth residents in the community. Personal safety for community members and adjoining neighborhoods should also be a consideration.

4. **Schedule Concerns.** Given the overall residential and business area within the project corridor, completing the project on an accelerated schedule is key to returning normal mobility to area, with the benefit of improved infrastructure. Close attention must be given to completing each phase of the project ahead of or within the dates specified in the progress clause.

MDOT has had some success addressing similar sorts of issues with communities when building projects in the past. However, the extent of success has been limited by the creativity of just part of the project team – the MDOT designers and construction administration staff. We determine what we believe to be reasonable solutions then specify the desired outcomes or parameters that the contractor must follow. Under traditional contracting methods, we cannot easily seize upon the good ideas and abilities of the contractor to find unique ways to address the concerns of the community. While standard contracts provide the ability for contractors to propose value engineering alternatives, there is no real incentive for contractors to do so, as approaches that add community value usually do not add contractor value. Furthermore, in this process, we place ourselves, as the owner, in the middle between the contractor and the community, creating at times a contentious situation, pushing the contractor to perform above contract requirements in response to community feedback. A more productive approach might be to share the ownership of the community concerns with the contractor, so that we are all working toward the same goals.

MDOT recently completed a Best Value – Performance Based (BV-PB) contract as part of the Federal Highway Administration's (FHWA) "Highways for Life" (HfL) program. The project was located on M-115 in Clare County and consisted of the rehabilitation of 5.5 miles of two lane, two way rural trunkline and the replacement of two large culverts. The M-115 HfL project was regarded nationally as a huge success, both in terms of the project outcomes and the process and lessons learned on how to deliver higher degrees of value through innovative contracting methods.

One notable aspect of the M-115 HfL project was the degree of attention the contractor paid to the performance criteria and achieving the desired performance outcomes and incentives. They took not only a vested interest, but a proactive role in discovering and applying innovative solutions and adjusting their work processes to ensure that the performance outcomes were achieved. Rather than meeting the baseline or minimum requirements of a specification, as is often the case in standard low bid contracts, the contractor put serious thought and effort into addressing the core issues of the project, as defined by the project performance criteria – both to ensure that they received the award of the contract, and to ensure that they received of the performance incentives, or avoidance of the disincentives.

## Purpose

The purpose of this proposal is to investigate if improved response to community concerns on an urban project can be realized through the application of the contracting techniques applied on the M-115 HfL project. The M-115 HfL project proved successful in leveraging the benefits of contractor innovation and engagement in providing value around largely technical project criteria. On the M-39 project, we propose to expand those criteria to also include “Quality of Life” criteria to determine if the same innovative contracting techniques can result in improved overall value for our customers. The expanded “Quality of Life” criteria will be based on input received through the context sensitive solutions outreach process with the community.

## Scope

Two innovative contracting methods are being proposed in this application – a Best Value procurement of the contract, which varies from the standard low-bid process and Performance Based contract specifications, affecting contract administration and how payment is determined for certain contract items. Specific, measurable project performance criteria will be established around key community concerns for the project.

1. MDOT proposes to select the contractor using a Best Value procurement process. The contract will be awarded to the bidder who proposes the best value as determined by a formula which will weight 40% toward a Technical Score and 60% to the Price Proposal. MDOT will develop a specification for bidding instructions that will require a contractor to submit a separate Technical Proposal, in which the bidder articulates how they will address each of the project performance criteria. The Technical Proposal will be submitted and evaluated prior to opening the contractor's Price Proposal. A methodology will be developed and included in the specification that explains how the bidder's Technical Proposal will be evaluated for each of the criteria. The bidder's Price Proposal will remain a unit price proposal, with the total sum of the extended unit prices used in the formula to determine the Successful Bidder.

2. MDOT proposes to employ Performance Based contract specifications around each of the selected project performance criteria. The project performance criteria will have a base line value that must be achieved to be in conformance with the contract. The base line value will either be established by the specification or as committed by the bidder in their Technical Proposal. Performance incentives and disincentives will be established for each of the project performance criteria for exceeding or failing to meet the contract base line performance value. A specification will be written to clarify the project performance criteria, base line values, and how measurement and payment will be determined.

## Schedule

This project is scheduled to be constructed in the 2011 construction season. The contract is expected to be let in September or October, 2010, depending on funding availability. The contract will be awarded by December, 2010, following the best-value selection process and in accordance with MDOT standard contracting processes. The Performance Based contracting specifications will be in effect throughout the duration of the contract.

MDOT will develop the specifications for Best Value bidding instructions and Performance Based contracting immediately after approval of this SEP-14 proposal. MDOT will consult with the contracting industry in an open and unbiased manner during the development of the specifications, to help prepare the industry for the innovative selection and contract administration processes. MDOT will obtain approval of the final specifications from the FHWA Michigan Division.

**Measures**

The effectiveness of the Best Value contract selection process will be measured by:

1. The number of responsive proposals (was industry willing and able to successfully respond to this type of contract?).

2. The quality of the technical proposals.
   a. Average, high and low technical scores, and comparison to the ranges outlined in the evaluation.
   b. Number of innovative ideas proposed by all bidders to respond to the project performance criteria.
   c. Number of bidder proposed base line performance criteria that exceeded the specification base line performance criteria.

3. Analysis of the overall selection process.
   a. Issues in executing the selection process.
   b. Comparison of Best Value results vs. Price Proposal only results.
   c. Comparison of Price Proposals to Engineer's Estimate.

The effectiveness of the Performance Based contracting process will be measured by:

1. Contractor achievement of the project performance criteria. This data will be gathered as outlined in the specification.

2. Stakeholder perceptions of the execution of the project, with attention given to the project performance criteria subjects. This data will gathered through qualitative surveys of:
   a. The contractor and key subcontractors.
   b. The MDOT project staff and consultant staff, as applicable.
   c. Members of the communities affected.

## Reporting

MDOT will prepare two reports of this innovative 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 both the Best Value selection process and the Performance Based contracting process.