

Montana's 59th Legislative Session

Senate Local Government Committee Hearing
Senate Bill 237
February 17, 2005

"AN ACT PERMITTING STATE AND LOCAL AGENCIES OR SPECIAL DISTRICTS TO ADOPT PROCEDURES ALLOWING FEE STRUCTURES AND PROJECTED FEES TO BE USED UNDER CERTAIN CONDITIONS WHEN SELECTING ARCHITECTURAL, ENGINEERING, AND LAND SURVEYING SERVICES; AND AMENDING SECTION 18-8-204, MCA"

Testimony in opposition to SB 237

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Mr. Chairman and Members of the Senate Local Government committee:

My name is Rodger Foster. I am a Professional Engineer and Vice President of Morrison-Maierle, Inc. I am also past president of ACEC/MT. I speak in opposition to SB 237.

As you have just heard in the history of QBS, it is a process that has been put in place nation-wide, with great study, testing, and acceptance, to solve problems experienced in price based selection. What has evolved is a well integrated process and definition of roles between city, engineer and contractor, that delivers the best project having the greatest value for communities. Adding price in any form to the selection will result in a fundamental change in those roles and how service is provided, projects are delivered and value is achieved. It will increase the overall cost of projects to the public. A table is attached which compares the fundamental shift in roles between QBS and Price-Based selection.

Engineering is a Professional Service not a commodity. The function of the engineer is to represent the owner in obtaining the precise solution that will result in the best value project; then to serve as the owner's representative through the construction process. The engineer becomes a trusted professional advisor throughout.

This role of the engineer is so important in identifying the most appropriate and cost effective project solution that the Montana local government funding programs, CDBG and TSEP, require QBS for projects funded by

their programs. They publish guidelines, advise cities and hold training on the process. They are a good resource and they believe QBS is essential in getting the highest value return on tax payers' funds.

A Shift in Roles Increases Project Costs

The role of the engineer is to generate detailed plans and specifications which reduce uncertainty and ambiguity in the construction process, and thereby reduce construction bids. Price based selection will introduce uncertainty and ambiguity to the engineering phase of a project. In order to minimize engineering service to deliver a low engineering bid, certain design detailing responsibilities may be transferred to the contractor to provide, reintroducing uncertainty and ambiguity back into the construction bids. Overall, prices will increase across the board. Let me explain. Please refer to the graphic I have handed out illustrating the engineer's role in controlling project costs.

Lets look what how the engineer affects life-cycle project cost. That is to say the total cost of construction, operations and maintenance over the life of the project. The lowest professional design price does not necessarily yield the lowest construction bid or the lowest O&M cost.

$$\begin{array}{ccccc} \text{Lowest} & & \text{Lowest} & & \text{Lowest} \\ \text{Design} & + & \text{Construction} & \neq & \text{Project} \\ \text{Price} & & \text{Bid} & & \text{Cost} \end{array}$$

History and experience show that design costs are typically only one to two percent (1% - 2%) of the total life-cycle project cost. Spending the necessary up-front engineering effort to minimize life-cycle project costs is well worth the expenditure. The Montana infrastructure funding programs recognize that fact, the Public Works officials across the nation recognize it, and cities of Montana that work routinely with engineers recognize it. QBS is an essential tool to communities that enable public works staffs to manage their engineer consultants to put the best engineer on the right job to deliver the best value to the public.

Price Based Selection Reduces Level of Service and Increases Cost

Engineer will continue to meet their responsibilities as licensed professionals in delivering sound projects. Price based selection, however, will motivate engineers to adopt the contractor approach to bidding in order to cover their costs and win projects.

Increases uncertainty for engineer	+
Increases risk to engineer	+
Increases risk to owner	+
Increases cost to owner to prepare RFP	+
Increases cost to engineer to prepare bid	+
Engineering and City Costs go up	\$\$

Project Costs Go Up Across the Board

City Costs  Engineering Costs  Life-Cycle Costs 

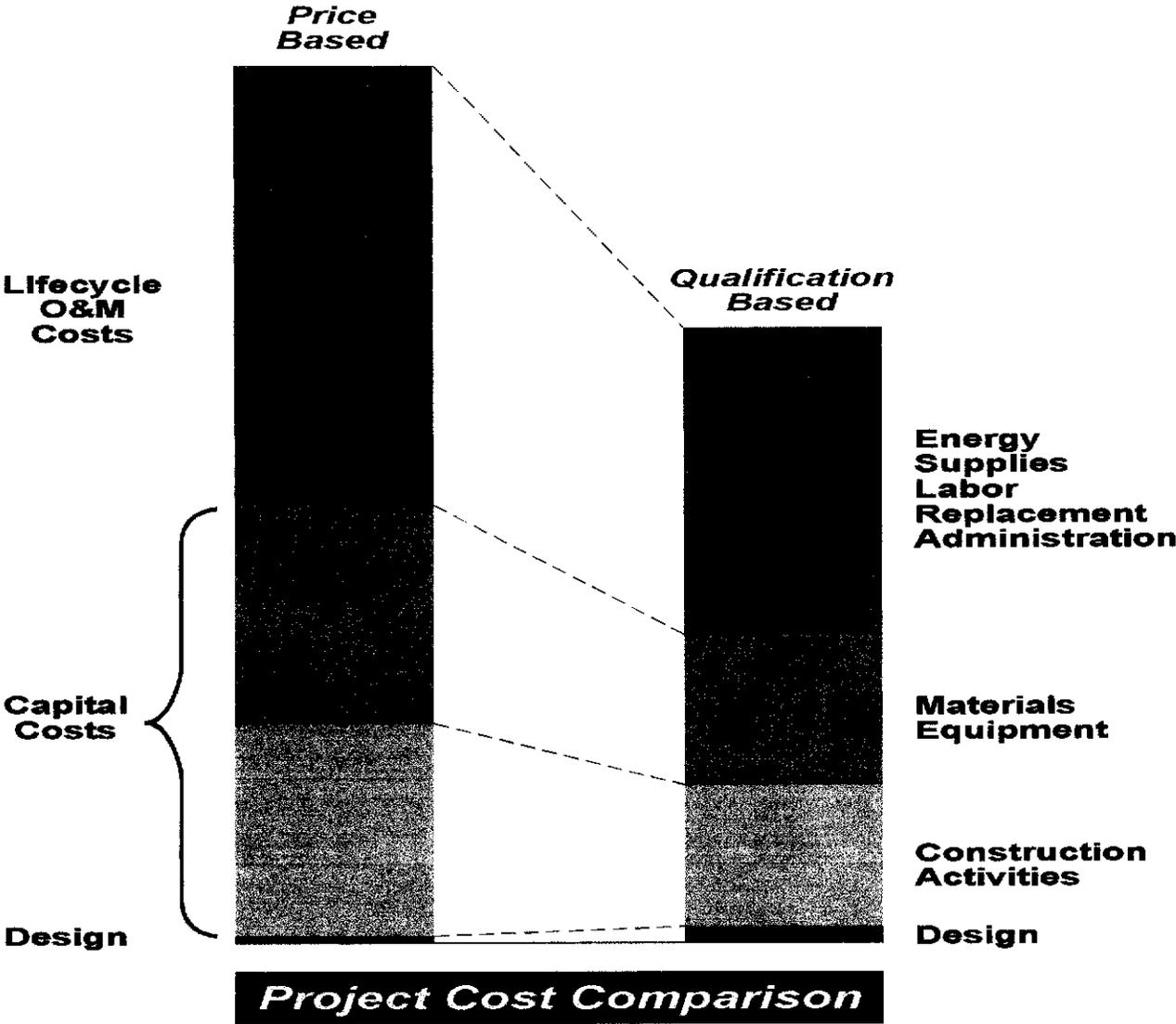
Even though a price competition will yield the lowest bid, the engineering bid will probably be higher than a QBS price because the over all cost of service has gone up. The overall cost of the city has gone up also due to their added effort required to initiate and administer the bidding process. Life-cycle costs for construction and O&M go up due to reduced level of design effort.

It is natural, but misguided, for officials to believe that in a priced-based society, bidding engineering services will yield the lowest cost and best value project for the public. In practice, because of the intricacies of the QBS process explained today, QBS in fact offer the cities the best opportunity to provide the highest value project to the public for the least cost. If price is allowed to become a factor in any way, it will become the dominant factor – the 900 lb gorilla if you will.

I thank the committee for their attention and remain available for questions.

Project Cost Comparison

Price Based vs. Quality Based



Lowest Design Price + Lowest Construction Bid \neq Lowest Project Cost

A small investment in design can have a large effect on reducing project costs.

Engineering design costs are typically 1% - 2% of total project Life-cycle costs.

PROFESSIONAL SERVICES COMPARISON

Price-based selection will result in a fundamental shift in emphasis in how design professionals approach a design and serve a client.

Qualifications Based Selection	Price Based Selection
Highly qualified project team tailored to the special needs of the project.	Lowest priced project staff that can accomplish the project.
Client input throughout the design and construction.	Minimal client input during the design.
Lowest total project Cost	Lowest design bid
Mutually developed and appropriate scope.	Owner developed scope subject to interpretation and modification.
Broader consideration and evaluation of alternatives to identify optimum cost-effective solutions.	Solution that will meet the owner's minimum scope within the price.
Greater Innovation and creativity tailored to owners specific situation.	Minimum innovation and creativity. Designs tend to be cookie cutter.
More complete acquisition of data and testing to allow for optimization of design and construction.	Minimum data collection and testing to meet basic requirements.
More thorough and detailed construction documents that will attract lower and more competitive construction bids.	Fewer details and more responsibility to the contractor resulting in higher bids with greater risk and more contingency.
Design effort is adaptable to circumstances as they develop and is more flexible to respond to owners needs.	Design effort is restricted by price and scope and not flexible to circumstances as they arise resulting in change orders and added costs.
Variety of contract types available to meet the needs of the project. (cost plus, hourly rate, fixed fee, etc.)	Primarily a lump sum contract allowing for risk and contingency.
Greater value to the taxpayer.	Project meets facility needs but may not be optimum or best solution and most likely will result in increased lifecycle costs to the taxpayer.
Greater ability to manage professional rates due to reduced risk and liability.	Professional rates may increase due to increased risk and liability.
Relationship with client is one of professional collaborative partner and trusted advisor	Relationship with client is one of contractor who is driven by price first and client needs second.
Owner's staff is involved appropriately but not burdened with excessive staff commitments.	Owner's staff takes on greatly increased professional and administrative responsibility in initial project stages and throughout.