

QUALIFICATIONS-BASED SELECTION

WHY VALUE OUTWEIGHS COST IN
THE SELECTION OF ARCHITECT,
ENGINEERING & LAND
SURVEYING SERVICES



AMERICAN COUNCIL OF ENGINEERING COMPANIES

QBS Case Study #1

- You have asked three firms for a price proposal for a site plan for a business park. Your work will include permitting and stormwater management.
- One tells that the site is suitable for an innovative bio-filtration stormwater management facility. This innovative design may allow more parking and office floor space when compared to a conventional stormwater management basin. However, the design and permitting effort for the innovative design is about 1.5 times the cost of the conventional basin design.

QBS Case Study #1

Here are your choices of action:

1. Choose the firm with the higher price and innovative solution.
2. Tell the other engineers to base their fee on the biofiltration design so that everyone's fees are comparable.
3. Ask the firm to provide two fees, one for the conventional design and one for the innovative design.

QBS Case Study #1

Who Chose Option #1?

(Choose the firm with the higher fee and innovative design.)

- Your Board asks why you added 50% to the design fee and rejects your recommendation.
- The press investigates your attempt to “excessively spend taxpayer dollars on design fees.”

QBS Case Study #1

Who Chose Option #2? (Tell other engineers to base their fee on the bio-filtration design.)

- One of the other engineers calls you to ask what is a bio-filtration facility. They then submit the lowest price.
- The firm that suggested the biofiltration alternative is angry and says they will not submit on your work again.
- The design phase includes 3 change orders that drive the original price up by 40 percent.
- The structure fails one year after construction, resulting in finger-pointing and litigation between you, the designer, and the contractor.

QBS Case Study #1

Who Chose Option #3? (Ask for two prices, one for biofiltration and one for conventional design.)

- The innovative firm submits two prices, but are not low.
- You select the lowest-priced firm. Design and construction go relatively well, only one change order and two months behind schedule.
- One year later you see a facility designed by the innovative firm. The idea would have added enough building and parking space to increase the land value, and is aesthetically superior.

QBS Case Study #1

Moral of the Story

- When price is on the table it trumps other considerations, even quality and innovation. However, in many cases, the difference in quality outweighs the apparent savings in fees when considering the life cycle costs.
- Had the owner used QBS he would have worked with the innovative engineer to develop a layout that would have generated more rentable office space and a higher rate of return on his development investment.

What is QBS?

- Nationally endorsed procedure for selecting and retaining design professionals, including Architects, Engineers and Land Surveyors.
- Provides the best value to the owner in terms of quality and total project cost.
- It is a competitive procurement process that emphasizes quality, as opposed to low bid.

Who Uses QBS?

- Local, state and federal governmental agencies that procure design professional services
- Private industry
- Design professionals when hiring other design professionals, including Land Surveyors
- Other users of services/products who place quality first (doctors for example)

Architect, Engineer & Land Surveying Services

- Are professional services
- Not commodities or products
- Design Professionals provide:
 - Technical Expertise
 - Innovation
 - Latest Technology
 - High Degree of Professional Competence

Why not use low-bid?

- To those not familiar with our industry low-bid may seem logical



The Reality of Bidding

- Low-bidding leads to inferior results and can actually increase overall project costs

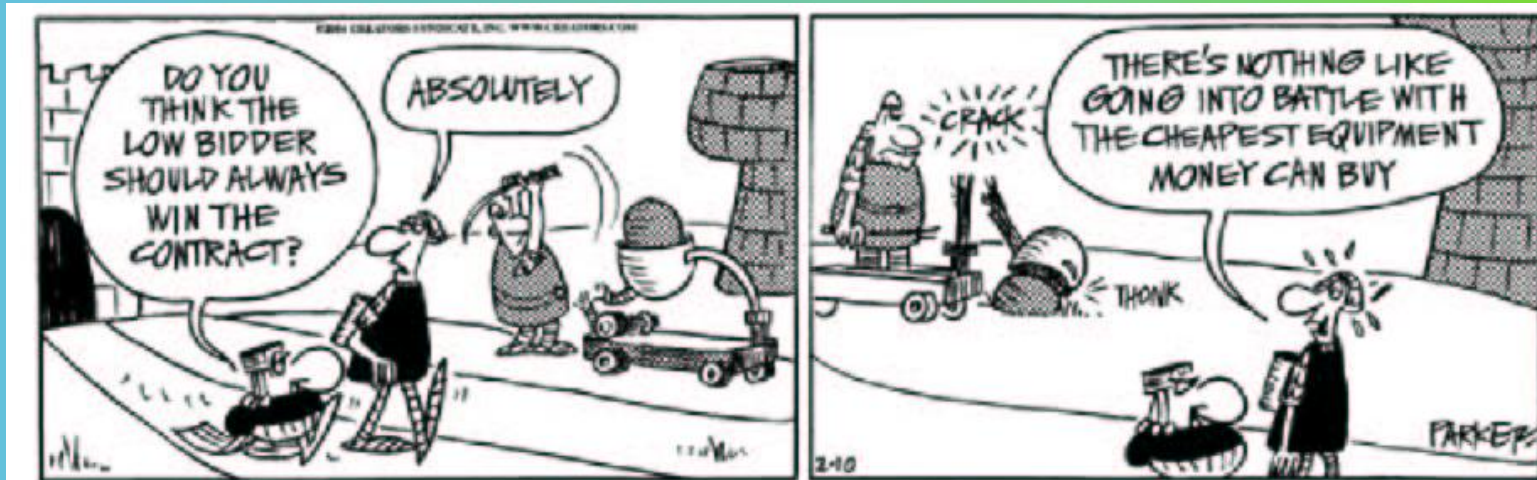


Once design is finished, edits get expensive...



What Does an Owner Really Want?

- ❑ Lowest Construction Cost
- ❑ Lowest Design Professional Service Costs
- ❑ Lowest Life-Cycle Cost
- ✓ Value



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QBS: The Process

- Selecting a Design Firm
 1. An owner identifies the general scope of work and develops a selection schedule.
 2. A request for qualifications is issued.
 3. Statements of qualifications are evaluated.
 4. A short-list of qualified firms to be interviewed is determined.
 5. Interviews are conducted and the firms are ranked

QBS: The Process

- Negotiating a Contract

6. The owner invites the highest ranked firm to assist in defining a detailed scope of work.
7. The design firm develops and submits to the owner a detailed fee proposal, based on the agreed upon scope of work.
8. If the proposed fee is not acceptable to the owner, the owner and designer work together to modify the scope of work, schedule and budget to determine if an agreement on fee can be achieved.
9. If an agreement cannot be reached with the top ranked firm, those negotiations are ended and negotiations begin with the next most qualified firm.
10. An agreement covering scope and fee is executed.
11. Firms not selected are often given post-selection feedback, when requested.

Evaluating Qualifications

Training

Expertise

References

Experience

Availability

Choose Quality First and Then Decide If You Can Afford It

Everyday decisions are based on this principal.



\$500

Vs.



\$80,000

Or?



\$25,000

What to look for when selecting for TMDLs with QBS?

- Experience developing TMDLs
- Skills related to pollutant loading calculations and watershed management
- Stakeholder engagement capabilities
- Relationships with regulatory agencies

Why QBS?

- Consideration of Life Cycle Cost
- Team Building Between Design Firm and Client
- Seek Innovation and Technology
- Reduce Change Orders
- Flexible Contract Approaches
- Competition Among Best Performers; Not Low Bidders



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Questions

What happens if the Owner and Firm can not agree on the fee for the services?

- The Owner terminates negotiations with the first ranked firm and begins negotiations with the second ranked firm.
- This happens only rarely, since the Firm has invested significant resources to arrive at this point and doesn't want to lose the assignment.
- Remember, the Owner is always in control of the process.

Questions?

- Why not ask for price from the three top ranked firms since they are all qualified?
 - Each firm will offer a price based on its own interpretation of the scope and not necessarily that of the owner. Each price therefore, represents a unique and unilateral scope.
 - Since most equally qualified firms have similar labor cost, overhead, and profit structures, they may cut scope to be price competitive.

Questions?

- Does QBS encourage competition?
 - Absolutely!
 - The Firms will make a significant investment in the preparation of qualification packages and the interview process at no expense to the Owner.
 - They will do this knowing that they have a chance to win the assignment.
 - This investment also encourages successful negotiations.

Questions?

- How does the owner know that he is getting a fair price in the negotiation?
 - Design Professional Firms typically get about 85% of their business from repeat clients. Client satisfaction ranks second only to the design professionals' public safety responsibility. A reputation of inflated fees without commensurate high quality service is a sure formula for losing clients and is not in their best business interest.
 - Clients have access to fee databases to determine if fees are reasonable.
 - Last, if the owner can not be convinced that the fees are fair, he does not have to contract with that firm.

Common Misconceptions

- *QBS takes longer* – False: Because QBS fosters teamwork between the client and design firm, and facilitates quality construction plans, it leads to faster project delivery.
- *QBS is a waste of taxpayer money* – False: In fact, low-bid is more expensive because it can lead to increased change orders, and higher construction and maintenance costs.
- *QBS eliminates price as an important factor* – False: Price is a factor! Price becomes a factor only after the most qualified firm has been identified and a detailed scope of work has been jointly developed by the owner and the design professional.

Case Study #2

Three engineers were invited to submit technical and price proposals for a wastewater treatment plant upgrade project.

- The price proposals and technical scores were:

1. \$ 349,000	88
2. \$ 388,000	85
3. \$ 325,000	84

You are the District Engineer and have to recommend a firm for the project.

- Here are your choices:
 1. Choose the firm with the highest ranked technical proposal for \$349,000.
 2. Choose the firm with the low price.

Case Study #2

Who Chose Option #1? (the firm with the highest ranked technical proposal for \$349,000.)

- After you have notified the winning firm, the Chairman of the Sanitary District calls and asks you to attend the next Board meeting to explain why you agreed to pay an additional \$24,000 when the technical scores of “equally qualified firms” were so close.

Case Study #2

Who Chose Option #2? (firm with low fee.)

- You have made the Board and the Procurement Agent happy.
- At the 50% submission, you realize that an important item of scope was not included in your Request of Proposal or in the Consultant's original fee. To be fair you consent to a change order. It amounts to \$30,000.
- The Board Chairman calls and asks you to explain why you didn't select the most qualified firm who "would have known about this" and would have charged \$6,000 less considering the change order that you are now asking the Board to approve.

Case Study #2

Moral of the Story

- When the client writes the scope without the design firm's input, the District Engineer may be exposed to a greater risk of change orders.
- When multiple prices are on the table, the District Engineer is not in control; the price is.
- Had the District Engineer used QBS, he would have been able to identify contingencies, have a contract means to handle them, and would also have been able to tell the Board that the procurement process he used is widely used by government agencies.

Who Endorses QBS?

- The American Public Works Association, whose members represent the interests of public agencies and the taxpayers they serve.
- The American Bar Association, whose charge includes the model procurement code.
- The Associated General Contractors of America, whose members need quality design plans from which to build.
- Major design professional groups, including the American Council of Engineering Companies, the American Institute of Architects, the National Society of Professional Engineers, the American Society of Civil Engineers, and others who are legally responsible for the public health and safety.

Testimonials

- “While no selection process is perfect, I believe that QBS offers the best outcomes. When design is reduced to a commodity -- which is what happens in a bidding situation -- price becomes the only consideration. In that case, the project suffers as the successful vendor is pressured to cut corners in order to meet the low bid. I also think that design is a creative process that really must take into consideration the unique aspects and elements of each project, and therefore can't fairly be treated as a commodity.” – *Kim Robinson, Executive Director of IL Society of Professional Engineers; former Executive Director, Illinois Capital Development Board*

Testimonials

- "Qualification Based Selection provides a local entity the ability to work with professional and knowledgeable companies that understand their needs. QBS insures that projects meet both physical and fiscal concerns of the community." – *Charles Ingersoll, Illinois Dept. of Transportation Bureau Chief of Local Roads and Streets*
- "When I hire a consultant for a project, I want to be assured that the firm hired has quality previous experience ... particular to the type of job being designed." – *Curtis Cook, Ogle County Engineer; Past President IL Society of Professional Engineers*

Testimonials

- "Selecting an engineer should be like choosing a doctor or lawyer -- qualification based. The criteria should be who is going to provide quality service, not who is going to perform it the cheapest." – *Zeyn B. Uzman, PE, SE, F.NSPE, President, Illinois Society of Professional Engineers; Chief Engineer, Springfield Sanitary District*

Resources

- ACEC's Online QBS Resource Center
 - <http://www.acec.org/advocacy/qbs.cfm>
- ACEC-Illinois: How to Select a Consulting Engineer
 - <http://www.acec-il.org/howto.cfm>

In conclusion

“It is unwise to pay too much, but it’s worse to pay too little. When you pay too little, you sometimes lose everything because the thing you bought was incapable of doing the thing you bought it to do.”

-- John Ruskin, 19th century English philosopher

Questions?

Laws requiring Qualifications Based Selection:

- The Brooks Act: Federal Government Selection of Architects and Engineers; Public Law 92-582; Chapter 11 of Title 40 U.S.C
- National Highway Designation Act; Title 23 U.S.C. S.112(b)(2)
- The Architectural, Engineering, and Land Surveying Qualifications Based Selection Act; Illinois Public Act 87-673; 30 ILCS 535/
- The Local Government Professional Services Selection Act; Illinois Public Act 86-1324; 50 ILCS 510/