

# The Correct Way to Select an Engineer

Use of the proper selection process when seeking to engage an Engineer will yield:

- *A unique relationship with a trusted advisor*
- *Additions to your team's special experience and competence*
- *Someone whose mission it is to solve your problem/meet your needs*
- *A Professional who has the expertise to search out innovative, alternative approaches for your project*

The selection of an Engineer is one of the most important decisions that will be made throughout the process of completing a successful project. This statement also applies to the selection of architects, land surveyors, and related professional services.

Design has a major impact on all other costs related to the project, even though the cost of engineering services for the average project represents less than one percent of the total lifetime cost of construction, operation and maintenance. Investing in quality design services at the outset of the project often results in significant long-term savings. The quality of the services provided by the design engineer is the single most important factor in determining the overall construction costs and life-cycle cost of a project.

Cost-effective problem solving and high-quality design can only be achieved with competence and experience. The proven process that best helps owners find the design consultant most qualified for their project is known as Qualifications Based Selection (QBS). It is the time-proven method endorsed by federal, state, and local governments as well as organizations. QBS,

required for federal and federally funded construction projects, by at least 44 states, many local agencies and many private sector owners and institutions, has a long and positive history.

Cheap design is expensive. Selecting a designer based on qualifications will enable the most qualified consultant to apply technical knowledge and relevant project experience to develop a functional and cost effective project designed to meet the intended needs.

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Qualifications Based Selection is a competitive contracting process that includes public announcement of projects, full and open competition, and careful review of firms' capabilities, experience, technical skill and personnel. Fee negotiations with the most qualified firm begin only after a mutually agreed and detailed scope of work is drafted.

Perhaps the most important aspect related to the use of the QBS process in procuring design services is the unique relationship which it creates. When a design professional is selected based on qualifications, competency and experience they become an extension of the owner's staff and provide the opportunity for innovative approaches and alternative methods as you work together to determine the precise scope of the project. The most effective use of an engineer is for them to become the "trusted advisor" of the owner, a member of the team representing the owner's interests. The product of this relationship is a quality design and, ultimately, a quality project that meets or exceeds the needs for which the project was originally conceived.

## What is QBS?

Qualifications Based Selection (QBS) is an objective, flexible procedure for obtaining engineering, architectural and related professional services for projects. The QBS process is helpful to frequent users of design services as well as one-time users with little or no past experience in working with design professionals. QBS provides owners with a selection process that is straightforward and easy to implement, is objective and fair, can be well documented, and is open to public scrutiny.

QBS describes a general competitive contracting process that includes public announcement of projects, full and open competition, and careful review of firms' capabilities, experience, technical skills and personnel. When using QBS, in addition to delivering quality projects, government agencies safeguard the public while being accountable to taxpayers. Selection of design professionals using qualifications accomplishes these goals.

## How does QBS work?

The owner prepares a preliminary scope of work – that is, the owner describes the project to be built or the problem to be solved.

The owner then invites design professionals to submit statements of qualifications for this project. Statements of qualifications are reviewed and evaluated based on specific evaluation criteria. A short list of firms is selected for further consideration. These firms are interviewed and ranked based on a scoring system. The top ranked firm is notified of its selection for the project, and the owner and selected firm open discussions leading to agreement on a final scope of services and a contract between the two parties.



## Why use QBS?

- ✓ Federal Law requires its use. The Brooks Act, Public Law 92-582; reaffirmed by Public Law 100-464; included in transportation (T-21), aviation (Air-21) legislation and Superfund; soon to be included in Federal water acts.
- ✓ Kentucky State Law requires its use. KRS 45A requires the use of QBS when procuring Engineer, Architect or Engineering-related services ("...specialized professional services . . . that are involved in the planning, design, construction, maintenance, or operation of Kentucky's transportation systems or construction projects...")
- ✓ QBS is endorsed by the APWA (American Public Works Association) which represents the owners who procure engineering services. APWA publication 'Selection and Use of Engineers' — the "public's best interest is served when governmental agencies select architects, engineers, and related professional technical consultants for project and studies through QBS procedures. Basing selection on qualifications and competence (rather than price) fosters greater creativity and flexibility, improves the delivery of professional services, increases the value to the owner in construction and life cycle expenses, and minimizes the potential for disputes and litigation."
- ✓ QBS is recommended by the ABA (American Bar Association) in its model procurement code for state and local governments. "The principal reasons supporting this selection procedure for architect, engineer and land surveying services are the lack of a definitive scope of work for such services at the time the selection is made, and the importance of selecting the best qualified firm. In general, the architect, engineer, or land surveyor is engaged to represent the (states) interest and is, therefore, in a different relationship with the (state) from that normally existing in a buyer-seller situation. For these reasons, the qualifications, competence, and availability of the most qualified architect, engineer or land surveyor firm is considered initially, and price negotiated later."
- ✓ It works—the owner gets a personal advisor on their team, the project is designed specifically to meet the intended need and use, it results in lower life cycle cost for the project.
- ✓ Most importantly, it means that our buildings, bridges, roadways, water and waste water facilities and other projects will be designed in the most competent and cost effective manner, not only for today, but also for the future. QBS is in the best interest of the safety and welfare of the public.

## The QBS Process

### STEP 1

#### SELECT THE BEST QUALIFIED FIRM

Prepare a description of the project and develop evaluation criteria

Solicit Statement of Qualifications from interested firms

Develop a Short List of firms, investigate and evaluate firms

Interview firms and rank them

### STEP 2

#### JOINTLY DEFINE SCOPE AND CONTRACT, WITH THE HIGHEST RANKED FIRM - TAKING ADVANTAGE OF THE SELECTED FIRMS EXPERIENCE AND EXPERTISE

Invite the highest ranked firm to assist in defining the scope of the work  
*(Discussions should include the Owner's goals and concepts for the project, the designers approach to the project as well as any alternatives which should be considered)*

Establish contract terms

Reach agreement

*(If agreement cannot be reached, return to the beginning of Step 2 and proceed with the next highest ranked firm)*

### STEP 3

#### RETAIN THE FIRM BASED ON AN ACCEPTABLE PROPOSAL

Ask for fee proposal

Reach agreement on fee and contract terms

*(If agreement cannot be reached, return to the beginning of Step 2 and proceed with the next highest ranked firm)*

Retain the firm and enter into written contract