

Qualifications-Based Selection (QBS)
 Promoting Value-Quality-Innovation

ACEC
 American Council of Engineering Companies of Iowa

Iowa Engineering Conference
 May 22, 2024

Objectives

Understand QBS basics, benefits, and why we use it.

Provide overview of Federal & Iowa statutes for procurement of professional services.

Understand how to utilize QBS

ACEC
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We have common goals

.....must be dedicated to the protection of the public health, safety, and welfare.
from the Preamble to the NSPE Code of Ethics for Engineers

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QBS

Federal statutes require public agencies to use QBS when procuring professional services.

Competitive Procurement Process used to Hire Design Professional Services based on Qualifications

- Engineering
- Land Surveying
- Architectural
- Construction Management
- Environmental

The Brooks Act is a United States federal law passed in 1972 that requires the U.S. Federal Government select engineering and architecture firms based upon their competency, qualifications and experience rather than by price.





New Iowa Law – SF 183 July 1, 2022

Senate File 183

AN ACT
RELATING TO A CONSTRUCTION MANAGER-AT-RISK COMMERCIAL
CONSTRUCTION ALTERNATIVE DELIVERY METHOD AND PROHIBITING
CERTAIN OTHER ALTERNATIVE DELIVERY METHODS IN THE PUBLIC
SECTOR AND INCLUDING EFFECTIVE DATE AND APPLICABILITY
PROVISIONS.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

SECTION 1
PUBLIC CONSTRUCTION BIDDING REQUIREMENTS

Section 1. Section 26.4, Code 2021, is amended to read as follows:

26.4. Exemptions from competitive bids and questions
ARCHITECTURAL AND ENGINEERING SERVICES — exemptions —
REQUIREMENTS.

1. Architectural, landscape architectural, or engineering
design services procured for a public improvement are not
subject to sections 26.2 and 26.14.

2. Purchased selection of an architect, landscape
architect, or engineer for a public improvement shall be
prohibited.

"Fee-Based selection of an architect, landscape architect, or engineer for a public improvement shall be prohibited."
Sec 26.4



New Iowa Law – SF 183 July 1, 2022

- Makes changes to Chapter 26 and adds a new Chapter 26A
- Prohibits Design-Build in public construction in Iowa
- Allows Construction Manager at Risk (CMaR) with GMP
- Creates new process for entering into a CMaR GMP contract
- GMP contract for public improvements relating to highway, bridge, or culvert construction is not allowed

GMP = Guaranteed Maximum Price



QBS | Different than Hiring Contractors



- Contractors compete for a specified, well-defined product.
- The design process is fluid and evolves as decisions are made.
- Experience, innovation & reputation are key to evaluating designers that lead to lower bids, claims, and life-cycle costs.
- Procuring professional services is unique for each project, not a commodity.



Professional Services

Cost of professional services relates to **time spent working on the project.**

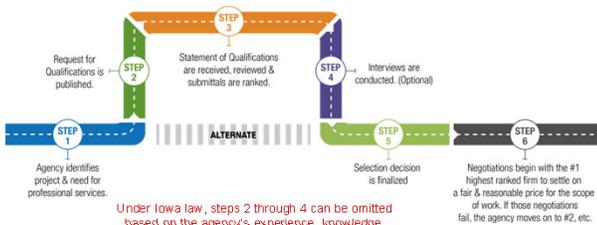
The quality of professional service impacts:

- Construction documents, details & life-cycle costs
- Potential for problems & project risks
- Public satisfaction
- Safety, Resiliency, Sustainability, Equity
- Quality, cost of services & timeliness

Value is based on the demonstrated competence, experience, background and reputation of the professional(s) who will be doing the work.



Typical Steps of QBS Process



Under Iowa law, steps 2 through 4 can be omitted based on the agency's experience, knowledge, and trust with various firm's qualifications.



Benefits of QBS



Addresses Community
Priorities & Fosters
Innovation



Cost-Effective



Client Satisfaction
& Trust

Well-Defined Scope of Work





AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Iowa

Addresses Community Priorities





AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Iowa



**SAVINGS,
INNOVATION
& EFFICIENCY**

An Analysis of QBS
in the Procurement of
Engineering Services

Benefits of QBS

- Completed 2022
- Update to 2007 Study
- Univ Colorado & Georgia Institute of Technology
- Literature Review
- Project Analysis
- Case Studies

"From the agency-client perspective, QBS projects achieve a greater degree of consistency in terms of project success than non-QBS projects."



AMERICAN COUNCIL OF ENGINEERING COMPANIES
of Iowa

Savings, Innovation & Efficiency

30%
Reduction in
schedule growth
for QBS projects.



7% vs 10%

50%
Cost growth of QBS
projects was half the
national average.



3% vs 6%



48%
QBS Projects met all
construction milestones with
no adjustment in schedule.

48% vs 32%



89%
QBS projects received "very
high" or "high" satisfaction
rating from owners.

89% vs 75%



81%
QBS projects
experienced moderate to
significant innovation.

79% non-QBS have little
to no innovation

QBS% vs non-QBS%



Fosters Innovation



Collaboration Leads to Innovation

- QBS helps agencies identify the best qualified firm for the project.
- Rewards creativity and promotes sustainability.
- Creates time and/or lifecycle cost savings.



Cost-Effective



Consider all project related costs

- Construction, maintenance, operation, sustainability
- Construction claims, delays or litigation
- Design services are key to controlling construction & life-cycle costs
- Biggest potential for savings/benefits is at the earliest phases of a project (before the project is on a fixed path)



Client Satisfaction

2022 study prepared by the ACEC Research Institute reports 89% of owners surveyed rated the satisfaction of QBS projects as high or very high.

Construction Cost Growth

- Industry Average 6%
- QBS projects 3%

Construction Schedule Growth

- Industry Average 10%
- QBS projects 7%



Greater Public Appreciation

- Construction projects that address community needs are timely, impactful & appreciated
- Shows responsible use of tax-payer dollars

Sets a Standard for Quality & Improvement

- Lasting professional relationships may develop



Trust

The focus of APWA (2009) Study

- **Trust Variable** appears to receive consistently high scores from the design team respondents in the survey below.
- Trust is valued highly by QBS-focused teams & is considered a significant benefit by these organizations.
- Encouraged when qualification of team & individuals are acknowledged – agency and the firm can discuss scope of work and risks openly to mutual benefit.

Agreement Level for Six Trust Variables	1	2	3	4	5
Evenhanded Negotiations	0%	17%	10%	47%	27%
Act Opportunistically	23%	43%	13%	20%	0%
Lack of Confidence	30%	53%	13%	3%	0%
Hesitant With Vague Specifications	23%	40%	30%	7%	0%
Trustworthy	3%	0%	17%	40%	40%
Positive Experience	3%	3%	7%	43%	43%



Support for QBS

It is considered *more desirable to make the qualification selection first* and then to discuss the price because both parties need to review in detail what is involved in the work (for example, estimates of man-hours, personnel costs, and alternatives that the architect-engineer or land surveyor should consider in depth). Once parameters have been fully discussed and understood and the architect-engineer or land surveyor proposes a fee for the work, the recommended procedure requires the Public Owner to make its own evaluation and judgment as to the reasonableness of the fee. –The ABA Model Procurement Code (2000).

“The successful selection of a consultant is the most important decision in a successful project. The process that best utilizes a fair & equitable selection is Qualifications-Based Selection.”

–American Public Works Association (APWA)

Qualifications-based selection (QBS) avoids the pitfalls of low-bid and other cost-based selection methods by focusing on the owner’s vision and scope, and negotiating price based on a comprehensive understanding of project scope and deliverables. QBS makes it easier to bring in projects on time, within budget, with a minimum of changes and discordance during design and construction. – Consulting-Specifying Engineer (9/21/2015)



The High Cost of Buying Cheap

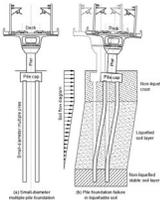


But did you get what you need?



Well-Defined Scope of Work = SUCCESS

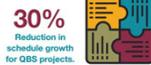
- A scope of work determines a path to the outcomes and deliverables.
 - Risk and uncertainty is reduced for both the Owner and the Engineer.
 - Risk equates to cost.
- The path to a solution requires input from many stakeholders.
- Experience & Expertise can avoid pitfalls.
- Once a scope is understood, the budget can be estimated.
- Negotiations get Owner and Engineer to the right product and cost.



Common Misconception #1

MYTH: Procuring engineering services based on qualifications takes significantly more time than awarding a contract based on low-bid.

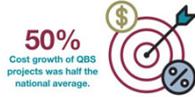
FACT: An emphasis on qualifications as the prime selection criteria can substantially reduce the overall time to complete a project.



Common Misconception #2

MYTH: State and local agencies should procure A/E services based on low-bid to save taxpayers' money.

FACT : Low-bid procurement does not save taxpayer money over the life of the project because it leads to increased change orders and project maintenance costs. In addition, public health and safety — paramount concerns for public-sector projects — are undermined by low-bid procurement. Federal, state and local government agencies have a responsibility to obtain the high quality and safe design that is achieved through QBS.



Common Misconception #3

MYTH: QBS eliminates price as a selection criteria.

FACT : 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 firm.



Common Misconception #4

MYTH: The new Iowa law allows for governmental entities to ask design firms for price up front as long as it is not more than 50% the determining factor in the decision.

FACT : The law says: "Fee-based selection of the engineer, landscape architect, or architect is prohibited." 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 firm. Asking for price before the detailed scope of work has been mutually defined puts the cart before the horse.



Common Misconception #5

MYTH: *The new Iowa law only prohibits fee-based selection, but asking for hours is still acceptable.*

FACT : Development of a detailed scope of work is necessary to determine the hours required for the work. Time is money, and the assignment of an assumed hourly rate is still considered fee-based selection.



Common Misconception #6

MYTH: *Asking for labor rate sheets from consultants is OK to use for comparison.*

FACT : Again, development of a detailed scope of work is necessary to determine what is required for the work. Comparing labor rates is not an apples-to-apples comparison due to variations in overhead rates and not knowing which staff will be used on the project.



Common Misconception #7

MYTH: *Developing a consultant pool is not allowed by Iowa's new QBS law.*

FACT : The new Iowa QBS law is met when the consultant pool is selected using the Qualification Based Selection tools previously mentioned in this presentation. It is recommended that the pool be reevaluated on a regular basis to ensure all the consultants continue to meet the needs of the public entity.



Common Misconception #8

MYTH: Contracting with a consultant to act as the City Engineer is not allowed.

FACT: This does meet the requirements of the new Iowa QBS law when the consultant is selected using the Qualification Based Selection tools previously mentioned in this presentation. It is recommended that the consultant be reevaluated on a regular basis to ensure they continue to meet the needs of the public entity.



Conclusions about QBS



- Qualifications-Based Selection allows the Owner to hire a professional who is truly qualified to define and solve the problem.
- Qualifications-Based Selection is a simple and competitive process that matches the right engineering and design professional to the Owner's project, based on expertise and experience rather than cost alone.



Closing Thought



"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 (1819–1900)



Thank You!



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