



ASSOCIATION OF CONSULTING
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Procuring Successful Projects

Latest research confirms that the
best qualifications, not lowest price
results in better outcomes

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Introduction

Owners want projects to be delivered on time and on budget. And they want their assets to do what they were designed to do. Whether a business is constructing a new manufacturing facility, a province is expanding public transit, or a city is developing a new commercial district, consulting engineering firms play a critical role in ensuring the timely and cost-effective delivery of infrastructure. The barriers that stand in the way are often out of the firm's control, but important measures can be taken from the outset of a project to reduce construction delays and cost overruns. In fact, these same measures can also result in better outcomes that address owners' financial, social, and environmental goals. Project success starts with procurement, which is where Qualifications-Based Selection, or QBS, comes in.

Issues at the procurement stage tend to compound over the life of the project. If not addressed during procurement, they can add delays and create problems during the design phase, and those issues regularly bleed into the construction phase and can even have operational and maintenance implications for decades. Conversely, thoughtful and forward-thinking procurement offers the greatest opportunity for successful delivery of a project with lasting benefits.

Qualifications, not low price, results in better project outcomes

Now, three recent and thorough studies have provided evidence that confirm that owners are experiencing these procurement-based issues and also show that there are better and more effective ways to procure project planning and design services. These studies continue to confirm that the recognized best practice of QBS offers reliable improvement of design documents, which benefits not only the clients but the entire project delivery team, including consulting engineers, architects, general contractors, and subcontractors, throughout the project life-cycle. QBS procurement focusses on identifying the best available team, based on experience and qualifications, with the best proposal and project fit, to deliver the project. An NSERC-funded study from the University of Alberta found that the average design cost index of non-QBS projects was 27.2% higher than QBS projects.¹ QBS is the best approach to protect project owners against the worst project outcomes.

In Canada, the main barriers to QBS implementation are a lack of understanding of qualifications and criteria to be considered during procurement, difficulty in quantifying the impact of A/E qualifications on project performance outcomes, and lack of an automated and objective decision support system for evaluating A/E services.² However, these studies also provide an opportunity for ACEC-Canada to further promote the benefits of QBS with federal, provincial, and municipal governments that would benefit from more cost-effective and timely delivery of infrastructure projects. Along with our provincial and territorial associations, we will continue to make project owners aware that investing more at the right time, early in the project pays long-term dividends.

Low-bid procurement are disincentives to collaborative, innovative and investment in the design stage. The studies show that problems stemming from that process have grown steadily worse over the past decade, as 95% of general contractors (GCs) say they have not received a complete set of design documents in the projects they've worked on. Completeness is an issue, but consistency is another challenge. Nearly 40% of subcontractors think that the quality of documents is poorer than on typical projects in the past.³ Over 50% of GCs indicated that the level of document

¹ AbouRizk, S et al. *Detailed Reports, Impact of Qualification-Based Selection of Engineering Services on Project Outcomes*. University of Alberta. Edmonton. 2021.

² AbouRizk, S. et al. *Executive Summary Reports, Impact of Qualifications-Based Selection of Engineering Services on Project Outcomes*. University of Alberta. Edmonton. 2021.

³ Construction & Design Alliance of Ontario (CDAO). *Impacts of Pre-Project Investment & Quality of Documents on Project Delivery Efficiencies*. Toronto. 2021.

consistency was poorer now than on similar projects in the past. All participants, including project owners, architects, and designers were asked about the quality of design documents (QoD) and 60% answered that they have gotten worse over the past decade.

QBS addresses a major flaw in the low-bid procurement model. It creates greater collaboration, trust, and compensation in the design phase that benefits all parties. When surveyed, over one quarter (27%) of A/E respondents indicated that contractual design time frames were insufficient. The most significant factors contributing to insufficient design time were scope or requirement changes by the client or authorities having jurisdiction, rework caused by unclear client requirements, and rework or interruptions caused by coordination issues between designers. Further, 52% said that the design fees were less than reasonable.⁴

In Ontario, 43% of projects suffered bid cancellation or extension, which adds major front-end costs for project owners. It was found that 59% to 72% of projects suffered some degree of construction schedule delay— averaging 36% of planned project duration (5.43 months). The vast majority of projects (79% to 92%) suffered cost overruns, averaging 22% of the contract value.⁵ We simply cannot afford low-bid procurement.

Importantly, in the United States, project success has been a key metric for evaluating the benefits of QBS. Among project owners, 89% reported high or very high satisfaction with projects that used the QBS model, compared to 75% for non-QBS projects.⁶ Designers also gave QBS high marks, with 88% of QBS projects receiving a rating of high or very high.⁷ That same study found that QBS projects saw a 50% reduction in project cost growth, and a 30% reduction in project schedule growth compared to non-QBS projects.

Conclusion

QBS clearly provides substantial advantages for all parties on a construction project – most importantly the client and owners. Demonstrating the strength of QBS to policymakers will continue to be an important pillar of ACEC-Canada’s advocacy; these studies will ensure ACEC-Canada’s team has the data to better advocate for the use of this recognized procurement practice.

Additional resources

These three important studies can be viewed here:

[Impacts of Pre-Project Investment & Quality of Documents on Project Delivery Efficiencies](#)

Ryerson Institute for Infrastructure Innovation for Construction and Design Alliance of Ontario (CDAO)
November 2021

[Impact of Qualifications-Based Selection of Engineering Services on Project Outcomes](#)

Hole School of Construction Engineering, University of Alberta
December 2021

[Savings, Innovation & Efficiency: An Analysis of QBS in the Procurement of Engineering Services](#)

University of Colorado Boulder and Georgia Institute of Technology
February 2022

⁴ Ibid.

⁵ Ibid.

⁶ ACEC Research Institute. *Savings, Innovation & Efficiency: An Analysis of QBS in the Procurement of Engineering Services*.

⁷ Ibid.