
Build Better Proposals Using VE Tools

May 2013

Patrice M. Miller

Contents

Abstract.....	3
Build Better Proposals Using VE Tools	4
Introduction	4
AEC Selection Process	4
Proposal Development and the Value Engineering Methodology	6
1) Do Your Homework: Pre-Proposal (Pre-Workshop) Activities.....	7
2) Selecting the Team, Scheduling the Workshop	7
3) Proposal Development and Workshop Activities	9
a) Information Phase.....	9
b) Function Analysis Phase.....	10
c) Creative Phase.....	11
d) Evaluation Phase	11
4) Proposal Development and Post-Workshop Activities	13
a) Development Phase	13
b) Presentation Phase	14
Conclusion.....	15
Abbreviations.....	16
Bibliography	17

EXHIBITS

Exhibit A: Team Primer

Exhibit B: Creative Idea List with Nominal Group Technique Scoring

Abstract

“You’ve been selected!” That’s what consultants want to hear after they’ve committed significant time, energy, money, and resources to create a submittal and prepare an interview presentation for a public owner. And this is what consultants will hear more frequently when they provide the right information in a way that allows the owner to see the value and benefits the proposing team can provide and how the owner (and project) will benefit.

In most cases, owners have a choice of competent consultants to provide the professional services they require. The owner selection panel will receive a lot of information from consultants they consider qualified to perform the work. How can a consultant stand out? How can they differentiate themselves from the competition? How can a consulting firm demonstrate to the owner that they are the right selection? The question, then, is what can consultants do to improve their chances in getting selected for the targeted project?

Preparing a response to the owners Request for Qualifications/Request for Proposal that can get in the mind of the owner and clearly state the value for the owner, stakeholders, and project throughout its lifecycle will improve a consultant’s opportunities for selection success. Applying the value engineering methodology to the proposal process is one tool that consultants should consider adding to their marketing toolbox to distinguish themselves among their competition, and present a compelling response to the owner for why they should be selected. This paper will explain why and how to use the value methodology to build better proposals and, where appropriate, show examples¹ of its application to further the reader’s understanding.

¹ On July 22, 2011, the author of this paper conducted a workshop for her team on the *El Mirage Road: Cactus Road to Grand Avenue & Thunderbird Road: 126th Avenue to El Frio Street* project for which examples will be used for illustrative purposes.

Build Better Proposals Using VE Tools

Introduction

Garnering new work is the lifeblood for a consulting firm within the Architectural/Engineering/Construction (AEC) industry—and a significant effort for the project team competing for this work. Several hours and dollars are spent formulating a response to an owner’s Request for Proposal (RFP) and not always to a successful conclusion—being awarded the contract. The SAVE International six-step Job Plan can be an effective tool for consultants to build better proposals and ensure project selection success.

AEC Selection Process

In 1972, Congress adopted the Brooks Act (Public Law 95-582), requiring the use of Qualifications-Based Selection (QBS) for the procurement of architectural and engineering services. The use of QBS ensures that federal agencies and the taxpayer receive highly technical architect and engineering services from the most experienced and most qualified firms at a fair and reasonable cost. QBS is used by all federal agencies, 46 state governments, and many localities throughout the country.²

QBS requires public announcement/advertisement of all requirements for the desired services and further requires evaluation of current statements of qualifications, performance data, and statements regarding the proposed project or services submitted by prospective consulting

² *Survey of State QBS Laws and Registration Boards* (2009) references state statute, QBS law and its application to state contracts and local units, and a state’s registration board prohibition of price proposal and QBS enforcement.

engineering firms. A key point here is that evaluation and selection is based on qualifications, not price. Contracting agency requirements are typically advertised as a Request for Qualifications (RFQ) or Request for Proposal (RFP). Contracting agencies then select and rank a minimum of three firms based on demonstrated competence and qualifications in accordance with the established/advertised criteria. Upon completion of the qualifications based evaluation and ranking of proposals, the contracting agency initiates negotiations with the most highly qualified firm to arrive at a fair and reasonable compensation for the solicited services which considers the scope, complexity, professional nature, and estimated value of the services to be rendered. The RFP process brings structure to the procurement decision and is meant to allow the risks and benefits to be identified clearly up front. Effective RFPs typically reflect the strategy and short/long-term agency objectives, providing detailed insight upon which consultants will be able to offer a matching perspective.

The owner's criteria and the consultant's response to a contracting agency's RFQ/RFP typically include and are organized around:

- Firm experience on similar projects
- Experience of key team members
- Project understanding and approach
- Amount of current work with the owner
- Principal office location, home office for key team members, and/or use of local resources

The RFP selection process is competitive; therefore, it is critical that a consultant's response not only meet the RFP criteria, but also engage and be meaningful to the reviewer, and stand out

among competitive offerings. In short, a consultant's response needs to ensure the highest probability of selection success.

While many AEC consultants believe they have the qualifications, capability, experience and project team to complete a project, the challenge is their ability to define value from the owner's perspective and have this reflect throughout their written proposal to the reviewing agency. Simply stated, a consultant needs to convey how their qualifications, capability, experience, team and approach will benefit the client and why their team is uniquely suited to provide value-added services.

Proposal Development and the Value Engineering Methodology

The consultant should understand how the owner defines value and how to incorporate this value proposition into their response. One of the tools for which a consultant should consider in preparing an RFP response is the value engineering methodology.³ Value, as defined in the value engineering methodology, is the ratio of function to cost. Value can therefore be increased by either improving the function or reducing the cost. Within the AEC industry, value may be defined as capital and lifecycle cost reduction; and minimal impacts to the public, environment and operations. The following sections detail the use of the value engineering methodology in preparing a response to an owner's RFP. To further the reader's understanding of how the value methodology could be applied to build better proposals and ensure selection success, examples are presented from an actual workshop facilitated by the author of this paper.

³ *The Value Methodology Standard* (2007) defines the systematic process that follows the Job Plan, six sequential phases: Information, Function Analysis, Creative, Evaluation, Development and Presentation.

1) Do Your Homework: Pre-Proposal (Pre-Workshop) Activities

Prior to the release of the owner’s RFP, the consultant will benefit from having done her “homework” which may include meeting with the owner and other stakeholders to understand the general scope of the project’s needs and goals, conflicts or concerns, risks, source(s) of funding, permits, regulatory approvals, and anticipated scheduling; and reviewing any available project documentation (e.g., Design Concept Report, preliminary project plans and cost estimates, etc.). If this pre-planning is completed prior to release of the RFP, the consultant will be in a much better, pro-active stance in preparing her response.

2) Selecting the Team, Scheduling the Workshop

When the RFP is released, the consultant will then schedule a workshop-style meeting to prepare the team response. The decision of whom to invite to participate is a key consideration and may include the following:

- Proposed project manager
- Proposed internal key team members representing disciplines required to complete the work (e.g., civil, geotechnical, environmental, traffic/access management, landscape, etc.)
- Proposal manager/coordinator



- Proposed specialty consultants (if not part of internal team) that have the specialized expertise required and may have an exclusive relationship with the consultant team
- Construction manager that can provide insight into phasing, scheduling, maintenance of traffic
- Team member(s) having agency perspective that can bring this insight and get into the mind of the project owner
- Team facilitator with a good understanding of the value methodology and the AEC industry⁴

In selecting participating team members, consideration should be given to their willingness to be creative, innovative and break from tradition; they need to be willing to share and brainstorm.

The proposing consultant should allow a minimum of two hours for the workshop and prepare workshop participants well in advance by providing:

- An agenda that details workshop activities (*Figure 1*)
- The client RFQ/RFP
- Information gathered from Pre-Proposal activities, including

<p>City of El Mirage El Mirage Road/Thunderbird Road Improvements Friday, July 22, 2011 – 11:00 AM</p> <p><u>Proposed VE Workshop Agenda</u></p> <p>11:00 AM – 11:30 AM</p> <ul style="list-style-type: none"> • Review Project Goals & Constraints • Identify Performance Attributes • Review Functions <p>11:30 AM – 1:00 PM</p> <ul style="list-style-type: none"> • Team Brainstorming: How might we achieve the functions identified? • Evaluation of Ideas, Team Assignments for Development
--

Figure 1: Workshop Agenda

⁴ While a Certified Value Specialist (CVS) is ideal and will be more familiar with the value engineering methodology and its application, an Associate Value Specialist (AVS) may be willing to conduct the workshop pro bono and thus become more immersed in the process (and good training ground for the AVS requiring more practical application of the methodology).

meeting notes and available project data

- Value engineering process, including value definition, value methodology and the six-step Job Plan (*Exhibit A: Team Primer*)

The consultant may also desire to schedule a project site visit for proposed team members (workshop participants) prior to workshop. Also, to make the best use of available time and as a courtesy to participants, the consultant could provide lunch or snacks to keep the energy level high; sharing a meal often has the added bonus of strengthening the team dynamic—the team should have the mindset that they’re in it to win it!

3) Proposal Development and Workshop Activities

As team members arrive for the workshop, the facilitator should “set the stage” for the work that needs to be accomplished in a short period of time; perhaps a caution to limit phone calls and emails is warranted. In addition, copies of materials distributed prior to the workshop (i.e., agenda, RFP, project documentation) should be made available to team.

a) Information Phase

Briefly discuss information previously provided to understand the scope of the project, identify project specific risks, evaluate cost information (if available), determine project goals and project constraints/issues, and define performance measures or attributes (what is

- Stimulate Economic Development
- Establish Balance of Connectivity and Accessibility
- Create Identity
- Protect and Enhance Existing Businesses
- Garner Public Acceptance
- Meet Project Goals

Figure 2: Performance Attributes

important to the client, should be project-specific, *Figure 2*). Examples of performance measures include: maintenance of traffic, environmental,

constructability, schedule, maintainability and durability, and public/stakeholder impact.

b) Function Analysis Phase

Analyze the RFP scope of work, and identify the functions in two simple words (active verb, measurable noun). While function identification is not commonly intuitive, the facilitator can play a key role and assist the team in identifying functions. This phase of the Job Plan provides the team a better understanding of the owner's scope (defines needs versus wants) and creates a simple, common language among all participants. Examples of functions include: Manage Traffic, Mitigate Environment, Reduce Noise, Accommodate Stakeholders, Treat Water, Accommodate Utilities, Manage Congestion, Maintain Local-Access, and Create Regional-Access. After identifying project functions, the team should classify them as basic or secondary functions. If workshop time is limited, the team may not be able to complete a FAST diagram (*Figure 3*); however, this task could be completed by the facilitator after the workshop.

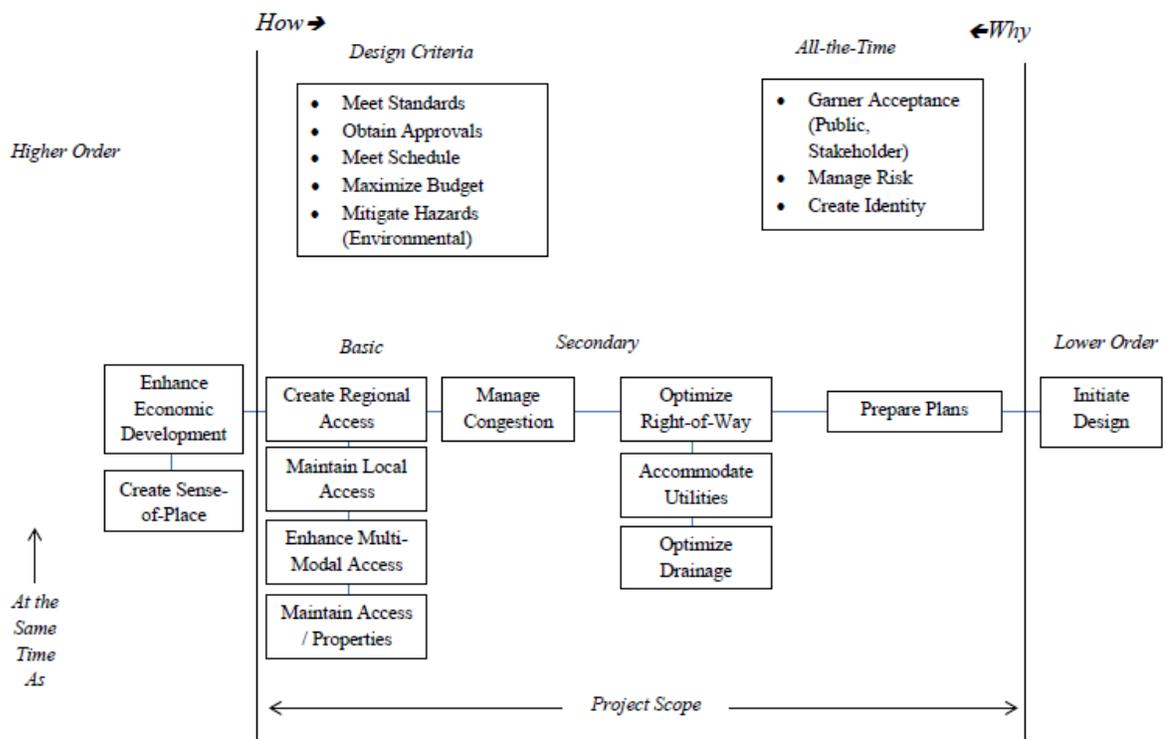


Figure 3: FAST Diagram

c) Creative Phase

During this phase, team participants will brainstorm potential ideas by all functions and include ideas for mitigating risks that were identified during the Information Phase. At this point, ideas are not evaluated as the focus is on the quantity of ideas, not the quality. The objective is to generate ideas on how to accomplish the required functions and possible questions to prompt the team include: How else can we achieve this function? What or who does this affect? What other benefits been identified?

d) Evaluation Phase

If the team has brainstormed numerous ideas, the Gut Feel Index (GFI) or Nominal Group Technique may serve as good tools to quickly shortlist ideas. From this point, the team could further refine ideas by using the performance measures

identified during the Information Phase. The idea here is to select the best possible ideas for further discussion and development in the proposal (*Exhibit B: Creative Idea List with Nominal Group Technique Scoring*)



At the conclusion of the Evaluation Phase, the consultant team should have a solid foundation for writing the team’s response to the owner’s criteria “Understanding and Approach.” Writing assignments should be distributed among team members best able to develop a particular creative idea. For example, an idea involving construction phasing may best be developed by the construction team member. When writing assignments are made, milestone dates should be communicated for various proposal draft reviews.

During these four phases of the Job Plan—Information, Function Analysis, Creative and Evaluation—team participants may identify additional research needed; the facilitator should document this in a “Parking Lot” for further action. Further, ideas for proposal graphics (e.g., issue map, details, matrices, etc.) may be offered by team members and should also be documented for further evaluation and assignment; a picture is worth a thousand words and will support the alternatives the team is proposing.

The facilitator should distribute workshop notes to Project Manager and Proposal Manager/Coordinator within 24 hours of its conclusion. Workshop notes may include:

- Project Goals, Constraints, Risks, and Performance Measures (identified during Information Phase)
- Project Functions and their classification (identified during Function Analysis Phase); a FAST diagram may also be included
- Creative Idea List and those selected for development with appropriate team member assigned (identified during Creative and Evaluation Phase)
- Other information documented for further research (“Parking Lot”)
- Ideas for graphics that were captured for possible inclusion in proposal response

4) Proposal Development and Post-Workshop Activities

a) Development Phase

After the Project Manager and Proposal Manager/Coordinator have received workshop notes, a complete proposal development package should be created and distributed to those team members responsible for writing assignments. This package should clearly communicate expectations, and may include:

- Workshop notes captured by facilitator, including selected ideas to be developed so that they can be understood more fully (i.e., benefits, special design considerations, how they meet performance measures, cost and schedule impacts, etc.)
- Graphic considerations (i.e., issues map, photographs from site visit, details, matrices, etc.) to support proposed alternatives

- Proposal outline detailing data required and format to meet the RFP criteria and reflecting unique benefits of proposed team, experience, and capabilities
- Milestone dates for proposal drafts and reviews

A key consideration in writing the proposal is informing the owner that in the preparation of the proposal, the consultant team hosted a brainstorming workshop using the SAVE International value methodology to develop value-added suggestions that have the potential to provide tangible benefits for the project, owner and other stakeholders. The consultant may also wish to propose a formal value engineering process to ensure the agency receives the best possible value for its project—improved performance, reduced risk, improved schedule, and reduced costs.

b) Presentation Phase

After appropriate draft refinements and reviews, the proposal is ready to be packaged for submittal to reviewing agency. Depending on agency selection process, a consultant team may be selected directly from their response or an interview may be required from a shortlist of consultant teams. If shortlisted for an interview, the consultant team that utilizes the value engineering methodology in their proposal development will have the ability to elaborate further on their value proposition for the owner. With either a one-step (proposal only) or two-step (proposal and interview) selection process, the consultant team will certainly distinguish themselves among their competition by applying VE tools in proposal development.

Conclusion

For consultants attempting to garner new work in the AEC industry, success is not guaranteed; it is imperative that a consultant's proposal stands apart from the competition. Employing the value engineering methodology for proposal development is a tool that should be included in a consultant's toolkit. The methodology is a systematic approach but allows flexibility, the ability to view the project from the owner's perspective, and propose alternatives that improve value, which will vary from client to client.

Incorporating the value engineering methodology into a consultant's marketing and proposal process may serve to benefit the consultant in the short-term (project selection and contract award) and the owner in the long-term—enhance the value received per dollar spent over the life-cycle of constructed assets.

Abbreviations

AEC	Architectural/Engineering/Construction
FAST	Function Analysis Systems Technique
GFI	Gut Feel Index
QBS	Qualifications-Based Selection
RFP	Request for Proposal
RFQ	Request for Qualifications
VE	Value Engineering

Bibliography

American Council of Engineering Companies, *Survey of State QBS Laws and Registration Boards* (2009), http://www.acec.org/advocacy/committees/pdf/qbs_matrix.pdf

SAVE International, *Value Methodology Standard and Body of Knowledge* (2007), http://www.value-eng.org/pdf_docs/monographs/vmstd.pdf