

How to Develop and Evaluate an Engineering Services Proposal

Improving your community's engineering proposal and firm selection process

By James R. Hegarty, PE

Over the last 20 years, I've responded to hundreds of requests for proposals and qualifications (RFP/Qs) issued by communities. I've seen many examples where a well-intentioned community short-changed itself, either with a poorly-conceived and written RFP/Q or an inadequate evaluation process. This article aims to help communities succeed in writing effective RFP/Qs and evaluating engineering firms' responses to them.

Who gets your RFP/Q?

When you're hunting for the perfect engineering consultant for your project, it's better to hunt with a rifle than a shotgun. It's clear to me that some communities still use the shotgun approach. Sending your RFP/Q to everyone in the Yellow Pages, industry lists, and trade magazine advertisers tells recipients of your RFP/Q that you're willing to work with anybody.

The most qualified firms often don't spend their time and money to respond to these "blanket" RFP/Qs, leaving you with a less-than-optimal pool of respondents. You'd be better served to do your homework first. Certainly, you know one or more firms that do the type of work you're planning. You may also know one or two firms that you don't want. If you want to invite a quality list of firms, ask people you trust in other communities who they would recommend inviting for a particular type of project. You'll save yourself a lot of time and get better results for your community.

Basic information to include in every RFP/Q

Every RFP/Q should answer these basic questions:

- On what date and time is it due? At what address? To whose attention should it be addressed?
- How many copies will you need? Have you considered receiving these in digital form?
- Who is available to answer technical questions? Administrative questions?
- What is your review and selection schedule?
- What is your proposed project and your expectations for it?
- What information do you want included in responses?
- How would you like the response to be organized?

Because serious respondents ask the following questions, you should also address them in your RFP/Q:

- What is your selection criteria and weighting?
- Who received the RFP/Q?
- Who will review the RFP/Q?
- What have you budgeted for the project?
- Is additional information about the project available? Studies, maps, surveys, etc.?
- When will you make your selection decision?

Always ask for relevant information...

...but be careful what you ask for! Reading a stack of engineering proposals can be a mind-numbing task. Avoid asking for information that does not directly relate to your needs. Eliminate opportunities to read voluminous boilerplate responses and fluff.

Know your project manager

Assuming you have invited responses from firms with good reputations, the most critical element in every project is the proposed project manager. Ask to see relevant information about his or her experience with the specific type of project you're planning. This is the person with whom you and your community will interact during the project, so it's critically important to know as much as you can about him or her.

Ask for a written work plan

This is the consultants' opportunity to share with you the process they will use to design your project, and to describe unique approaches or ideas they will apply to it. The work plan reveals the proposers' enthusiasm for your project and their level of preparation for and understanding of your needs.

Demand to see references

This is especially important for your project manager. The materials you receive in proposals reflect a firm's style. Sometimes the project manager doesn't even write the proposal! Reference checks will reveal true substance, if your project manager has it.

Ditch the "pre-proposal" meeting

While pre-proposal meetings may appear to be an efficient way to share information with a large number of firms, they are ineffective at improving the quality of the proposals you receive. Group settings like this seriously stifle creativity, because most proposers have no interest in sharing their insightful questions with their competitors. If you're interested in receiving quality proposals, you need to meet with each serious firm face-to-face. This is the professional's diagnostic opportunity to really understand your needs and respond with valuable solutions to them.

While transparency and fairness are fine qualities, they don't always help you get the most out of the proposal process. I've noted a recent trend of asking all firms to submit questions in writing so the question and answer can be

shared with all firms in an addendum. You need to be willing to meet individually with each firm, allowing a free exchange of questions, thoughts and ideas, so you can get the maximum benefit out of the proposals you receive.

Evaluating RFP/Q responses

Cover Letter

When a cover letter opens with a phrase like "enclosed herewith please find," skip it and go to the proposal. More often, the cover letter is an executive summary of the firm's approach to your project and how you'll benefit from selecting them. Did the letter capture your concerns and issues? Or miss the mark? Did it focus on your needs as opposed to their deeds?

Executive Summary

Sometimes the letter provides the executive summary. Sometimes it's separate. Is it easy to read and understand? Is it short enough to keep your attention? Would your board members understand it?

Project Manager

The proposed project manager will make or break your project. Has he or she managed this type of project before? Been the design leader on similar projects? Read their resume and their relevant project summaries carefully. Make sure their role on example projects is the same as their role on your project.

Look at the project manager's work history. How long has he or she been with this firm? Other firms? Ask any owner about their bad project experiences and you'll find that changing project managers in the middle of a project will rank near the top of the list.

If your selection process includes an interview, insist that the project manager lead the interview. Since this is the person who will lead your project and interact with you and your public during it, why allow someone else who is a "smooth talker" dominate the interview? You may never see that person again.

Project Team

Is the project manager used to working with and leading other technical team members? Read the technical team's qualifications carefully, too. How deep is their experience? Has this same team done this type of work before? Does someone other than the project manager have most or all of the experience with this type of project? Why is that person not leading your team? If not, will that person have a significant role on your project, or is their resume included as window dressing? If some of the team's work experience is from other firms or past employers, is that information properly attributed? It's important to read resumes and project histories carefully to discern the proposed team's actual experience. If the written materials are not crystal clear as to a person's role on past projects, assume nothing. Ask!

Project Experience

The only experience that really matters is that of your proposed professional team on projects like yours. Firm experience is nice but, unless your team members served key roles on similar projects, does it really matter to you? Don't

let superfluous marketing materials fool you! You should be able to connect the dots directly between your proposed team and their project experience.

Check References

I am surprised how often communities don't check references, especially on price-based selections. Your reference checks should focus on the project manager and key technical team members. Don't just call the people listed in their proposal. Call your colleagues in other communities. Google the project manager to see where they've worked and contact those communities. Read the news articles in the Google search results. What you learn may validate your impressions but it also can surprise you! It is well worth the few minutes it takes to check and verify references.

Price Proposals

While it may sound self-serving for an engineer to say that the selection of professional service providers based on price is a bad idea, I'll say it. Price proposals are a bad idea. There's a popular website that claims, "when banks compete, you win!" which is fine once you've "won" the bank's

Qualifications-Based Selection

How the QBS Process Works

1. Identify the project and scope of work.
2. Request qualifications statements from firms.
3. Evaluate qualifications statements.
4. Develop short-list of qualified firms.
5. Interview short-listed firms.
6. Score the interviews.
7. Negotiate detailed scope of work with top-ranked firm.
8. Negotiate fees with top ranked firm.
9. If you cannot agree, begin negotiations with second -ranked firm, and so on...

money. I'd go so far as to say "when engineers compete (on price), you lose." How is this so? First, while engineering fees are a small fraction of an overall project's cost, engineering decisions influence a project's initial cost and affect your overall, long-term cost of ownership.

Price-based selections often result in what I like to call hit-and-run engineering. Let's start with an example of an engineering decision that affects a project's initial cost. We were asked for the cost to design a pedestrian bridge over a creek adjacent to an existing road bridge. The owner had two options. The first was to evaluate the existing bridge's capability to "hang" a pedestrian bridge off one side, while the other was to design a free-standing bridge.

The design fees for a free-standing bridge are fairly modest if you decide to use a pre-engineered, pre-fabricated bridge product. Conversely, the design effort to evaluate the effect of additional loads and width to an existing bridge is far more involved and costly. When design cost drives your decision, you'll end up with a free-standing bridge because it's easier to design. Unfortunately, it may cost you twice as much to build the freestanding bridge than if you had gone with the other option that was more costly to design. While you set out to save money in your engineering fee, you ended up spending more on the project. You lose.

Ideally, you want your engineer to keep your best interests in mind but, by placing an undue emphasis on design costs, you may actually end up paying far more than you should. The only way to lower engineering fees is to cut back on time spent in design and/or the experience level of the designer. You deserve better and most enlightened owners know this.

Qualifications and Experience

My personal philosophy is to spend as little of a client's money as possible to develop a potential solution before discovering it's not feasible. Experience matters; inexperience can cost you dearly. Here are two examples illustrating what I mean. One community spent \$80,000 on engineer-

ing for a sewer project around a lake before developing a cost estimate for potential customers. When customers learned the cost, they killed the project. The community was out \$80,000. They could have gotten a reliable cost estimate for \$5,000, but the engineer's approach of developing detailed information only postponed the inevitable at significant cost to the community.

Another community, searching for a new site for a drinking water well, invested \$50,000 before it learned that the local water quality was poor. They could have learned that in the first \$1,000 they spent, but the project work plan was poorly devised.

Getting the best deal for your community

The best way to hire an engineer, or any other professional services firm for that matter, is to use the Qualifications-Based-Selection (QBS) process. Basically, you evaluate firms based on their qualifications, and negotiate a fair scope of work and price with the firm you deem the most qualified. You'll see the QBS process outlined in the sidebar. You also can learn more at the Michigan QBS website: <http://www.qbs-mi.org/>

Increasing your odds of success

In summary, your project's success will be enhanced greatly if you do these things:

- Write a clear RFP/Q, and target its recipients.
- Focus your evaluation on the proposed project manager.
- Check references, including those not listed.
- Hire for value and experience, not for price.

**If you don't do these things,
you risk falling victim to
"hit and run" engineering.**

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