Midwest Assistance Program SM

serving rural communities since 1979

RCAP NETWORK MEMBER

How to Hire an Engineer

About the Midwest Assistance Program, Inc.

The Midwest Assistance Program, Inc. (MAP) provides technical assistance and training on water, wastewater, solid waste, and community development issues to small, rural communities in nine states. MAP annually assists over 350 communities.

The service area includes Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota and Wyoming. All of MAP's services are delivered on-site with assistance provided to community leaders upon request and at no cost.

MAP's field staff tailors on-site technical assistance and training to each community. Utilizing a capacity-building process, skills are transferred from MAP professionals to rural community leaders. Community leaders develop the skills to respond to community problems rather than having MAP solve the problem for them. As a result, the community is able to develop sound strategies for dealing with current issues and may be able to prevent future ones.

Some examples of technical assistance and training include:

- ❑ Financial packaging
- ❑ Water / wastewater system compliance
- ❑ Record keeping & financial management
- ❑ Developing water or sewer entities
- ❑ Policy development

MAP's quarterly newsletter, *Source*, is an informative tool for local leaders. For a free newsletter subscription call MAP's central office at 800-822-2981 or 952-758-4334.

MAP was incorporated in 1979 as one of six regional organizations making up the national Rural Community Assistance Partnership (RCAP). The RCAP network includes the RCAP national office and the six regional RCAP partners with more than 150 field-based rural development specialists at state and local levels in all states, Puerto Rico and the Virgin Islands.

Mission

The Midwest Assistance Program, Inc. is dedicated to helping rural communities improve their environment, quality of life and self-sufficiency.

How to contact MAP

MAP's central office is located in New Prague, Minnesota.

You may visit our web site at http://www.map-inc.org.

You can contact MAP by e-mail at map@map-inc.org, or telephone at 800-822-2981 or 952-758-4334.

How to Hire an Engineer

Introduction

Hiring an engineer can be a difficult task. The engineer is responsible for planning, designing and overseeing construction of projects that can commit communities to substantial expenditures. Often, the value of this work must be accepted at face value if the community is unfamiliar with the technical aspects of the proposed project.

Prior to beginning the process of hiring an engineer, it is suggested that you do a comprehensive review of your system – What exactly do you have? What do you need? What do you want? What can you afford? In other words, know your expectations, as well as your limitations.

When is it necessary to have a professional engineer assist the community? A registered professional engineer is needed to prepare the preliminary engineering report (PER) that is usually a part of the federal and state loan / grant application process. An engineer is also needed to prepare the final design and contract specifications for construction of any new water and wastewater facilities. In addition, most states require a professional engineer for renovation, rehabilitation and repair projects for water and wastewater systems.

When selecting an engineer for a facility plan (preliminary design), you may also want to go through the selection process (procurement process) as outlined in this how-to guide, especially the identification, notification, references, interviews, selection and contracting steps. These steps will assist you in selecting the best engineer / consultant for your job.

This entire procurement process will also be required when selecting an engineer for the final design and construction of your project. That is, unless you met all of the procurement process requirements when you contracted with an engineering firm to complete your PER or facility plan, and you choose to use the same firm for both preliminary and final design.

In order to stay in compliance with state regulations, we suggest you contact your state regulatory agency before undertaking any rehabilitation project to determine if an engineering plan is needed. Then if you do need an engineer, read this guide in its entirety before you begin the process for hiring an engineer.

A few terms to know are:

CDBG – Community Development Block Grant

EPA – Environmental Protection Agency

DNR – Department of Natural Resources

DOH –Department of Health

DEQ-Depart of Environmental Quality

PCA – Pollution Control Agency (State Regulatory Agency)

NOAORFP – Notice of Availability of Request for Proposals

NRCS – Natural Resources and Conservation Services

RFP – Request for Proposals

RFQ – Request for Qualifications

SRF – State Revolving Fund

USDA/RD – US Department of Agriculture Rural Development Program, formerly known as Farmers Home Administration

If you are seeking USDA/RD funding, please be sure to review their guidance and understand their requirements before your begin the selection process. Feel free to include any useful guidance from USDA/RD into your selection process.

Communities should always work closely with their federal or state funding program representatives to ensure that they are complying with their funding and selection process requirements. The Midwest Assistance Program can assist communities with this coordination effort.

The Selection Process

Selecting an engineer should be thoughtfully and carefully. A proper selection may mean the difference between a well-planned, economical and successful project, a mediocre one or a trouble-filled one. The process of selecting an engineer is straight forward... similar to hiring any employee.

The basic process involves the following nine steps:

1. Decide what **scope of work** you want an engineering firm to complete
2. **Write** an **RFP** and/or a **NOAORFP**
3. **Publish the RFP** or **NOAORFP** in your local paper and at least three regional daily newspapers and mail it to several previously identified engineering firms
4. **Mail the RFP** to firms making inquiries
5. **Accept and screen the proposals** that arrive from engineering firms
6. **Check references** from all proposals
7. **Identify four or five firms** with the best proposals and interview the principals of those firms
8. **Select** an engineering firm that will provide the desired professional assistance for the appropriate price

9. **Negotiate the contract** based on your earlier identified scope of work

Before discussing the steps in detail here are the top 10 ways **not** to hire an engineer:

10. Choose the firm with the biggest ad in the yellow pages
9. Choose the firm with the smoothest talking (or best looking) salesperson
8. Ask your brother-in-law who to choose – he knows everything
7. Choose the biggest firm – they must be the best
6. Choose the smallest firm – they need the work
5. Choose an engineer that graduated from Harvard – they know it all
4. Choose an engineer from the university with the best sports teams
3. Choose the firm that brings you the most goodies
2. Choose the busiest firm – if everyone hires them, they must be good
1. Choose the lowest bid

Step 1. Decide what scope of work you want an engineering firm to complete

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This decision should be based on a survey or analysis of the condition of your present system or your community's identified issues or needs. For example, if your town has outgrown its system, part of the scope of work would be to ask for an assessment of the present system, options for upgrades or expansions and projected costs for those options.

If you are constructing a new system, request options for types of systems to provide safe water or wastewater disposal for a set number of years (usually 20 to 40), considering population, land availability, water source and other issues you have identified. This "Scope of Work" will be the most important portion of your Request for Proposals (RFP).

Step 2. Write an RFP and/or a NOAORFP

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Some communities prefer to provide notice that they have an RFP available for the engineering community by publishing a Notice of Availability of RFP. There are at least two reasons for this:

1. It shortens the announcement in the newspaper saving money in advertising cost and
2. It allows the community to know in advance approximately how many engineering firms are interested in the project by the number of inquiries they receive for the complete RFP

Use the guidance and samples that follow to write your own RFP or NOAORFP.

Guidance for writing Requests for Proposals

The Request for Proposals (RFP) is simply a notification of your intent to secure professional services. If you are using state or federal money in your project, be sure to check with the funding agency to see if they have specific requirements in the notification process. Most agencies will require a legal or public notice to be published in a newspaper of general circulation. Please see the appendix.

The RFP should be accompanied by a **cover letter** that includes the names of the contact persons in the community, telephone numbers (during regular business hours), and budget constraints of the community for this project. The budget information is helpful if the community has limited funds for a PER. In the final design stage, engineering costs are usually part of the project cost and are more difficult to list as a constraint in the RFP.

The RFP should be prepared in four parts.

Part 1 - General Information for the Engineer

Part 2 - Technical Requirements

Part 3 - Criteria for Selection

Part 4 - Scope of Work Statement

Part 1. General Information for the Engineer

This section provides:

- ❑ The name of the legal entity issuing the RFP
- ❑ A brief description of the problem

- ❑ Information on time frames
- ❑ Type of contract (if known)
- ❑ Response date and
- ❑ Information on pre-proposal contacts in the community to clarify information or answer questions

Part 2. Technical Requirements

This section of the RFP asks the engineer to give his or her understanding of the community's problem to be addressed by their proposal by including in their response:

- ❑ A written description of the work to be performed (for both the PER and final design) and
- ❑ A list of the services and/or products (maps, plans, O&M manual, etc.) to be delivered as part of this project (for final design and construction)

Request information to help assess the qualifications of the firm:

- ❑ References from related projects (listing contact names, postal addresses, e-mail addresses and telephone numbers)
- ❑ Projects where they have done similar work and
- ❑ Personnel in the engineering firm who will be assigned to work on this project, including their prior experience in similar types of projects

Engineering firm proposals should also include the following information:

- ❑ Prior experience in this type of project (list of similar projects completed)
- ❑ References from each project listed above, including name, postal addresses, e-mail addresses and telephone numbers
- ❑ Listing of the qualifications of firm's staff
- ❑ Estimate of service-hours needed to complete the project work
- ❑ Current work load that might affect the project
- ❑ Statement of the technical approach to be used in this project, including potential alternatives

Part 3. Criteria for Selection

This section should describe the criteria you will use to evaluate the proposals, as well as the point factors attached to each. These criteria will help the engineer understand your concerns and how to respond to them.

Factors to be used to evaluate the proposals should include the following, which are of equal importance:

- ❑ Qualifications and experience of the project engineer
- ❑ Past experience with this type of project
- ❑ Experience in working with CDBG and other funding programs
- ❑ Present and projected workloads
- ❑ Capability to meet time and project budget requirements
- ❑ Location in proximity to the community

Language in the RFP should address the following matters: The community will not be responsible for costs incurred by any engineer in the preparation of their proposals, The community reserves the right to reject any and all proposals, The community will review all proposals received and select the proposals most advantageous based on the evaluation criteria and in-person interviews.

Part 4. Scope of Work Statement

This part of the RFP should list the objectives of the RFP along with a listing of all known areas of concern to be addressed by the engineer. It should also include a list of services or products to be produced as part of the project; for example, original or reproducible copies of all maps and drawings; the number of copies to be turned over to the community, field and inspection notes; O&M manuals; training of operators, etc.

This is where the community may list any services it will be responsible for. For example, construction inspection; soil testing; local surveys, etc. In other words, identify the things the community will do for themselves. While this list will save the community some money by not paying the engineer to perform these tasks, the community should be careful to list only those tasks it believes it can accomplish with its resources.

You should list the funding sources you are considering. This should protect your community from receiving a plan that does not meet some of the funding agencies' requirements.

Samples

Sample Notice of Availability of Request for Proposals

NOTICE OF AVAILABILITY OF REQUEST FOR PROPOSALS (NOAORFP) FOR ENGINEERING SERVICES

Anytown, USA is requesting proposals for engineering services to assist the city council, at a minimum, in the preparation of a wastewater (or water) facility plan, and at a maximum, final design and construction management, in compliance with all applicable requirements of the Regulatory Agency, State of _____.

Copies of the detailed Request for Proposals (RFP) including a description of the services to be provided by the respondents, the minimum content of responses, and the factors to be used to evaluate the responses can be obtained by contacting Mary Smith, Clerk, PO Box 000 (or street address), Anytown, USA 50000. Telephone xxx-xxx-xxxx, during regular business hours.

All responses to the detailed RFP for engineering services must be submitted by 5:00 PM, Friday, (month) (date), (year).

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This notice may be published in your local paper, three larger newspapers in your state / region, and e-mailed or mailed by post to several engineering firms.

Sample Request For Proposals

When your community clerk receives requests, they will provide the engineering firm making the request with the complete RFP, usually by mail, by fax, or in person. It could also be provided by an e-mail attachment in PDF or some other "read only" format.

REQUEST FOR PROPOSALS

Part 1. General Information

Anytown, USA, located 17 miles south of Bigtown, USA, is seeking an engineering firm to provide services which shall include at a minimum a wastewater (or water) facility plan / preliminary engineering report, and at a maximum final design and construction inspection / management for a proposed wastewater system (or system improvement) within the community.

(*Include any other information that is pertinent – population, any unique characteristics of your community, the governing legal entity, etc.)*

Proposals are to be submitted to Mary Smith, Clerk, PO Box 000 (or street address), Anytown, USA 50000 by the close of business (5:00 PM) on Friday, (month) (date), (year).

Part 2. Technical Requirements

(Ask for what you expect as a minimum of information to be provided by the proposing firm.)

Proposals shall include as a minimum the following information:

- ❑ The written description of the proposed work to be performed (for both the PER and final design)
- ❑ The list of proposed services and/or products (maps, plans, O&M manual, etc.) to be delivered as part of this project (for final design and construction)
- ❑ Prior experience in projects of this type (*you may wish to request all similar project experience within past 7-10 years)*
- ❑ References for at least 3-5 projects listed
- ❑ Personnel in the engineering firm who will be assigned to work on this project, with their prior experience in similar types of projects
- ❑ Listing of qualifications of the staff to be assigned to this project
- ❑ Estimate of service-hours needed to complete the project work
- ❑ Current work load that might affect the project
- ❑ Statement of the technical approach to be used in this project, including potential alternatives
- ❑ (*Other experience or expertise you think is important to your community leadership)*

Part 3. Criteria for Selection

The community leadership will review all proposals received by the given deadline. They will also interview firms that submitted proposals selected as most advantageous to the community. Then, based upon the evaluation criteria set by the community and applied to both the proposal and the interview, the city will select a firm for this project.

Factors to be used to evaluate the proposals shall include at least the following, which are of equal importance:

- ❑ Qualifications and experience of the project engineer
- ❑ Past experience with this type of project
- ❑ Experience in working with federal, state and other funding programs

- ❑ Present and projected workloads
- ❑ Capability to meet time and project budget requirements
- ❑ Location in proximity to the community

The community will not be responsible for costs incurred by any engineer in the preparation of their proposals. The community reserves the right to reject any and all proposals.

Part 4. Scope of Work Statement

All planning documents for the wastewater (or water) project will include, at a minimum, the information required by the Regulatory Agency for such plans funded by that agency. If federally funded, project plans will meet those requirements. They should include:

(List the items you want included in YOUR facility plan / PER such as)

- ❑ Collection system options available to Anytown, including innovative / alternative systems (*wastewater)*
- ❑ Treatment system options available to Anytown, including innovative / alternative systems (*wastewater/water)*
- ❑ Sources of potable water *(water)*
- ❑ Distribution options *(water)*
- ❑ Discharge options *(wastewater)*
- ❑ Potential / available funding options the community will want to consider in developing their wastewater (water) system

The community will use this report (plan) as part of its funding application to USDA Rural Development, and any other appropriate sources of federal or state funding. Therefore, it is imperative that the report (facility plan) meets requirements of these various funding agencies.

# # #

3 Step 3. Publish the RFP or NOAORFP in your local paper and at least three regional daily newspapers and mail it to several previously identified engineering firms

Produce a "laundry list" of engineers who may suit your needs. Consider experiences you have had with an engineer and experiences that other communities have had with similar projects and their engineering firms. In addition, check with regulatory and funding agencies for lists of engineers who have worked with their programs. (Please

see the appendix.) This is important, especially if you are going to look to these agencies for potential funds, that you get them involved in the process early on. Asking for their list of engineering firms is an excellent way to involve them.

You may also check with your state's Society of Engineers for a list of their members. We suggest that you look for as many engineers / engineering firms to contact as you can find.

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Step 4. Mail your RFP to firms making inquiries

Once your NOAORFP is published, you will receive contacts from engineering firms. Respond to each of these contacts by obtaining the name of person making request, their firm's name, a complete mailing address, an e-mail address, a telephone number and fax number. Mail or e-mail an identical RFP to each firm and keep a record of each RFP sent, each inquiry, and each response given. If you e-mail an RFP, ensure that it is in a PDF format, or some other "read only" format.

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Step 5. Accept and screen the proposals that arrive from engineering firms

Your RFP will have a deadline for accepting proposals. The majority of the proposals may arrive on that date. Once you have accepted and recorded the receipt of each proposal, you may want to assign each leadership member one or more proposals for review. Ask each member to write down any questions they have and to contact the references. Then, schedule a meeting to go over the proposals and questions, and to report on the results of the reference checks.

In addition to your community leadership, you may want to have an independent third party, who is knowledgeable about your project, also complete a review of the proposals received. If requested, the staff of the Midwest Assistance Program is available to provide this "third party" review.

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Step 6. Check references from all proposals

The best way to understand how each firm worked with similar communities, how satisfied the community was with the firm, their staff and overall work is to ask. This can be a time-consuming process, but it may prove to be the most valuable information you obtain and use in making your decision on which firms to interview and which firm to hire! Take the time necessary to contact the communities for information on the projects listed as references by the engineering firms. You will obtain valuable information on the relationship the firm has had with previous clients and how well the firm did in serving those clients.

Contact not only communities listed as references, but also those listed as prior clients. Contact several references and prior client communities for each firm being considered.

A list of some useful questions you may want to ask in checking references follows:

- ❑ Were you satisfied with the quality and timeliness of the work?
- ❑ Was the engineer willing and able to work closely and effectively with your community leadership?
- ❑ Were the costs and charges reasonable in relation to the work actually performed?
- ❑ Did the firm provide documents, reports, and other information as requested and on time?
- ❑ Was the engineering firm able to meet the time frame and schedules agreed upon in your contract?
- ❑ Did the engineer have other projects scheduled that caused time delays in your project?
- ❑ Did you experience any problems that would discourage you from hiring this engineering firm again?
- ❑ Was the engineer assigned to your project knowledgeable about the funding program that you pursued and its requirements?
- ❑ Did they assist with your grant application to your funding source?
- ❑ Was that application successful?
- ❑ Were there cost over-runs, and if so, what caused them?

Step 7. Identify four or five firms with the best proposals and interview the principals of those firms

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If the interviews will be held during a formal meeting (regular or special), you will need to provide the required public notice for the meeting, including an agenda. Try to set up the interviews so they can all be held in one or two days. This provides you with information for a decision in a short time, and it is a fair way to request firms to travel to your town, provide more details on their proposal, and give you an opportunity to ask the questions you wrote down when you reviewed their proposals.

When the firms are invited to interview, request that the staff who will be working on your project also attend. It helps to know who will be working with you and if that person has a similar philosophy as your community toward your project. For example, the firm's senior partner may attend the interview, but not actually work with your community.

Once the pre-screening is completed and the references have been checked, your list should be narrowed to four or five candidates for in-person interviews. It is not necessary to interview a large number of candidates to ensure adequate competition,

and it is unfair to ask firms to take the time and incur travel expense if they are unlikely to be selected. Remember, your time is involved too.

When interviewing the firms, take into consideration that some community leaders may already have a "favorite" at this point in the process. The interview gives the engineer and the community leadership the opportunity to clarify points in the proposal.

Allow sufficient time for each interview (about an hour) with 15 minute breaks in between. Set time limits for engineer's presentations (no more than 30minutes) and allow 30 minutes for questions. A list of standard questions should be prepared prior to the interviews. Ask each firm the same questions from the list. This will give you a better feel for differences or similarities in the approach and ability of each firm.

When making your selection, remember to distinguish between the suitability of the overall firm and the engineers actually assigned to your project. A firm may have an excellent reputation, however, that does not guarantee the competence of the engineer who will be working for your community.

Sample interview questions

- What experience does your firm have in working with communities such as ours?
- What other communities have you worked with in the state?
- What do you know about our situation, our particular needs and the local area?
- What is the design philosophy of your firm?
- What innovative and/or alternative designs are you willing to consider?
- What do you see as your duty as part of this project?
- What specific or itemized services don't you provide?
- In addition to design plans and specifications, what specific services you will provide?
- How familiar are you with the various funding programs in the state for water / wastewater as they relate to communities?
- What has been your experience in working with these funding agencies before?
- What assistance has your firm provided communities on grant writing and application preparation?
- What has been the success rate of those applications?
- Who, specifically in your firm, would be working directly with our community?
- What experience do they have in working with other communities?

- What other projects are you currently working on that could take precedent and time away from our project?
- What time constraints is your firm under for this year?
- How much of the work on our project would be subcontracted?
- If we select your firm, would it be acceptable for the firm to accept liability for the design of the project?
- If so, what would you have to do to assume that liability?
- How long will the firm warrant it's work and the performance of any systems it designs?

Have each member of the community leadership conducting interviews complete the rating matrix below to help narrow down the selection process. You may want to also ask yourselves the question, "What other considerations should there be?" and use that in your evaluation process.

Competitive negotiations refers to the process of comparing qualifications, not just fees. In addition to fees, engineer selection should be based on qualifications, experience and approach to solving your problem. The budget constraints in the RFP already let the engineering firms know you have a limited amount of funds to allot to the project, so the engineering firm's fees should be within those limits.

Congress passed Public Law 92-582, the Brooks Act, in 1972. It established a federal selection policy for architects and engineers. The Brooks Act sets forth a policy of selection based on qualifications at a fair and reasonable cost. The state legislature may have passed similar legislation. You should be aware of the requirements of both federal and state law.

This is a sample form you can use to rank the engineering firms' qualifications.

Project: **Date:** **Evaluation Criteria***	Firm 1	Firm 2	Firm 3	Firm 4	Firm 5
1. Understanding Problem: Firms understanding of the objectives set out by the community					
2. Qualifications: Specialized experience and technical competence to do the project					
3. Meet Time and Budget: Past record of performance with respect to cost control, quality of work, and ability to meet schedules					
4. Present and Projected Work Load: Conflicts that might affect the project					
5. Soundness of Approach: Technique of analysis, sequencing and method of management					
6. Location: Firms proximity to and familiarity with the area of project					
TOTAL POINTS					

*** Score each response on a 10-scale, with 10 being the best, 5 being average and 0 being the worst. Although the criteria should be pretty equal in weight, if one criteria is more important than another, assign a small multiplier between 1 and 2 to that criteria in order to weight it. For example if Criteria 1 is much more important than the rest, then you may wish to assign a multiplier to it of, say, 1.75. You then multiply the scores given each firm. for that criteria, by the multiplier before you add the total points up.**

Once each individual score sheet is completed, you should then add up the total points awarded each firm by each person to see what the group total is for each firm. You can also average the individual scores to see what the composite group scores look like.

This score sheet should be an important tool in helping the community to determine which engineering firm to hire for its project, but it should not be the only tool used.

Step 8. Select an engineering firm that will provide the desired professional assistance for the appropriate price

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At the completion of the interviews the community leadership should discuss the pros and cons of each firm. You should also compare the scoring sheets used during the interviews. Once your discussion reaches all members' satisfaction, you may choose to take a recorded vote to offer a contract to the selected firm.

Once that vote is taken, the firm needs to be notified of your offer. You may find it expedient to call the firm and e-mail them the offer in order for the firm to begin writing the proposed contract. Also, notify the unsuccessful firms via e-mail or letter.

Step 9. Negotiate the contract based on your earlier identified scope of work

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You will need to set up a time for the engineering firm to attend a meeting – regular or special – to discuss their proposed contract, to include content, work plans, costs, time frames, etc. **If there are questions, now is the time to ask them and receive clarification on any part of the contract!**

If there are changes to be made to the contract, the engineering firm will make them and return the changed draft contract to the community for final acceptance. Each draft should be reviewed for acceptability and to verify changes. Most communities benefit from having an attorney involved in the negotiating process, to be sure they are fully represented and to protect their interests.

Your community leadership, attorney and engineer should also carefully review the Work Plan to make certain you understand:

- ❑ What work will be performed by the engineer
- ❑ What services will be provided by the engineer, and
- ❑ What items are the community's responsibility

These negotiations between the community and the engineering firm will take place for preliminary studies, facility plans, PERs, final design and/or construction plans. As mentioned earlier, if your community is hiring one engineering firm for the all phases of the entire project, you'll only go through this process once. However, if you plan on using the engineering firm for part of the project, you'll need to go through the process of hiring an engineer each time you need a different engineer for a different phase of the project or when the existing contract doesn't cover the new phase. Be careful to carefully plan out and contract for the phases you want covered and the services you want provided. Your Work Plan should reflect this scope of work.

Once the Work Plan has been agreed upon, you should also discuss and agree on schedules for completion and the firm's requested compensation. Don't be reluctant to

require a detailed estimate of service-hours and costs related to the requested compensation along with a compensation schedule. You should require the engineer to detail the service-hours and costs according to the Work Plan in the contract. Look for hidden costs such as “on call” or other additional fees for helping the community through the project and document them.

When contract negotiations are underway, contact the federal / state funding agencies you are working with for their review of the contract. Some agencies have specific requirements or recommend specific types of contracts. The "cost plus a percentage of costs" and "percentage of construction costs" method (contingent fees) cannot be used under some federally funded contracts.

If possible, the community leadership should have an idea of your project budget and an estimate of engineering costs prior to receipt of the engineer's formal Work Plan. Consider comparative prices in your area for similar services, or check with professional organizations such as the consulting engineer’s council or board of examiners. Potential funding agencies may also be a source of this type of information.

At this point the community leadership can request the engineer to agree to a "not to exceed" budget. This would ensure that no unexpected fees would be added to the original Work Plan without prior consideration and formal approval by the community.

After agreeing on a price that is fair and equitable to both parties, the community leadership should negotiate payment terms. Payment, made in incremental amounts, should be tied to key tasks, deliverables or milestones in the Work Plan at set timetables. For public facility projects, the community leadership may want to retain the final payment (10 – 15 percent of the engineering fee) until the "as built" construction drawings or plans have been submitted to the state, an operation and maintenance (O&M) manual has been received and your operator has been trained on-site in the system's operation. Preliminary planning and design work accomplished by the engineering firm is usually paid upon completion of that work.

In addition, as part of the contract, the community leadership may want to require a series of community-wide public meetings to keep the residents informed on the progress of the project. Such meetings also build and maintain public support for the project. The engineer may want to budget for the extra travel for these meetings. It is important that the community residents know at contract time what work will be done, how long it will take, and how much it will cost.

If the community leadership is unable to negotiate a suitable contract with the top ranked firm, negotiations should be formally terminated, in writing, and then negotiations initiated with the second ranked firm. This process should be continued until a suitable contract can be arranged.

When the community representatives sign the engineering contract, it is a binding legal document. The community leadership is responsible for financing the work to be completed and paying for what gets done. Unless the contract is specific on a "not to exceed" budget, a time frame and public meetings, there is no easy way to resolve problems of costs overruns, inadequate work or non-responsiveness.

The community will live with the project's design and final cost for a long time, so the selection of an engineer is a very important matter.

Once the contract is completed, you are well on the way to solving the identified need in your community water or wastewater system.

Assistance

The MIDWEST ASSISTANCE PROGRAM, INC. is available to provide more detail on any aspect of selecting an engineer. This can be provided on a one-on-one basis with your community leadership – at no charge to you.