



**CONTRACTING WITH
GIS CONSULTANTS**

- I. PURPOSE** This guideline provides local communities with guidance in developing a project and project goals, preparing a request for proposals (RFP), and executing a contract for GIS mapping or analytical services. Included are technical and administrative specifications that are important to ensure the creation of a quality community product useful for many years to come.

- II. PICK A PROJECT COMMITTEE AND PROJECT CONTACT** Contracting for consulting work may require the commitment of local volunteer time. Before developing an RFP or contract, the community should appoint a project committee that will be responsible for designing and reviewing the project. The committee should include representatives of different town functions (listers, planner, select board, etc.) so the project reflects an integrated approach to data development and use. Projects that meet the needs of multiple town officials and tasks are efficient and cost effective. Another important aspect of contracting with a consultant is to identify the key person with whom the consultant will talk and negotiate. Group process is good only up to a certain point. Consultants will work more efficiently if only one person is giving them information and instructions.

- III. DEVELOP PROJECT GOALS** Prior to developing a set of specifications for GIS work, the committee should develop a specific set of goals for the project. These goals can relate to the town plan, development or update of tax/parcel maps, or another specific project of interest. These goals then become the framework for developing the detailed specifications. This is a critical function. Many projects can go astray without articulated goals or goals that don't take into account the multiple beneficiaries of the project. If multiple town officials, citizens, or private businesses are included in this process, they may bring up legitimate public needs that can be met in the same project, and may even be able to help pay for it. This inclusiveness can be beneficial, but be wary of "project creep," the tendency of projects to grow in size and complexity to accommodate every contributor's needs.

- IV. DEVELOP CLEAR WORK SPECIFICATIONS** Following the identification of project goals, the project committee should detail the desired outcome of the contracted work. Describing the desired outcome entails identifying the analysis and products needed to meet the project goals. The project committee should write down as many project expectations as possible to make sure that

down as many project expectations as possible to make sure that conflicts over what was expected don't occur between the consultant and the community. The scope of this step can be a brief sentence or two or may be paragraphs long for each desired project outcome. After identifying outcomes (e.g. "better parcel boundaries") the committee must translate them into deliverables (e.g. parcel boundaries that are accurate within 50 ft., and that create a contiguous patchwork of parcels). The more specific the committee is about actual deliverables, the less chance there is for misunderstanding.

**V. DEVELOP A LIST
OF EXISTING
SOURCE
MATERIALS**

A list of data, information, maps, and other source materials needed for the consultant to do the job should be developed. This task may require research on the part of the project committee. The list should be as complete as possible, and may include potential as well as actual sources. The more information and data you can provide your contractor, the less research he or she has to do, and the more accurate your final product will be. VCGI and the Regional Planning Commission have listings of available GIS data. In many cases, communities will want to computerize additional source materials. The list of source materials should clearly indicate where the contractor can obtain them and, if possible, their format (e.g., paper, spreadsheet, maps, database, etc.).

**VI. PREPARE NEW
SOURCE
MATERIALS
(OPTIONAL)**

Some communities prepare some of their own source materials in the form of GIS data. This approach serves two positive purposes. First, there is community ownership or "buy-in" to the final GIS product and second, the source data has a local quality control check built in. It can also reduce the cost of the project. (The Regional Planning Commission can provide some guidance on procedures and techniques, and VCGI provides data standards). Examples of data that towns often collect are bridges/culverts, public assets, downtown tree locations, town forest boundaries, etc. The client will want to discuss the materials with the contractor in order to ensure that they are as complete as possible.

**VII. PREPARE
REQUEST FOR
PROPOSAL (RFP)**

The RFP should contain the Project Specifications and General Standards that a consultant needs to follow in the course of the work. The VCGI Municipal Mapping Guidelines (information on how to access this guideline are found in the "Resources" section of this document) include a sample of an RFP. It is very important that the RFP contain all details needed to help the consultant prepare an accurate cost proposal, as well as request a listing of projects completed over the last year or two. **It is highly recommended that the RFP, as well as the finalist's proposal, be reviewed by a GIS professional if the municipality does not have one on staff. RPC**

GIS specialists, VCGI staff, Vermont Mapping Program staff, or even a consultant not participating in the bid process are all appropriate. The community should put the proposal out to bid via: a) the Regional Planning Commission; b) the VGIS-L email listserve (a free email subscription service that allows you to send one email to many recipients (in this case, GIS professionals in Vermont) and to receive emails that others post – subscribe at the VCGI web site in the Community Resources section www.vcgi.org/commres/vgisl); or c) it should directly solicit at least three proposals (a list of consultants is provided at the VCGI web site at the Publications page). A thirty-day response period is usually adequate. Be prepared to answer and post at a web site (if possible) clarifying questions.

VIII. REVIEW PROPOSALS

The Project Committee should review the proposals and make a recommendation to the approving authority. As mentioned above, it is a good idea to include a GIS professional in this process, to help the committee understand the technical aspects of the proposals. One convenient method of review is independent committee member review using a numeric rating system. The committee would only meet after all members had ranked the proposals submitted on their own--be sure to specify in the RFP that a copy of the proposal be submitted for each committee member (this saves a lot of copying). The Municipal Mapping Guidelines contain the review criteria suggested by VCGI. Two or more of the contacts for listed previous projects should be called. Cost proposals should be submitted in separate sealed envelopes and not be opened until after the technical review. This keeps individual biases to a minimum. The committee may want to interview the most highly qualified firm and in some cases interview the top several firms.

IX. CHECK REFERENCES

Prior to executing the contract, the project contact person should check with at least two of the consultant's references.

X. PREPARING CONTRACT DOCUMENT

All clarifications to the original work specifications and the accepted proposal should be agreed upon prior to finalizing the contract document. The VCGI Municipal Mapping Guidelines contain a sample contract that can be revised for other types of projects.

The contract should contain the original specifications of work to be performed, the selected contractors proposal, and the details of performance expected from the contractor. This would include itemization of deliverable products, meetings, progress reports, payment schedule, and all other administrative requirements of the community. The contract document should contain clauses that:

1. Require the consultant to follow VGIS Standards and Guidelines. For community and RPC purposes it would be highly advisable that the guidelines be treated the same as standards.
2. Specify size, type & quantity of hard copy maps and other products.
3. Specify that all digital data be delivered in the desired GIS format.
4. **Specify that all digital and hardcopy products developed as part of the project are the property of the community (this is an extremely important clause that is often overlooked!).**
5. Provide disclaimer language for use on all hard copy products to protect community against misuse (suggested language usually comes with existing GIS data layers).
6. Identify the quality control and proof plot checking procedure.
7. Indicate the amount of time the committee requires to review the product and how much time the contractor has for correcting errors found.
8. Provide community developed map symbology and shading patterns desired or provide other information desired on the map (optional).
9. Require that formal metadata be provided with all digital data, as well as a more user-friendly version as an additional deliverable. For example, a 1-page, brief metadata product that includes the bare essentials: summary, intended use, date, source data (brief), author.

XI. PAYMENTS

Payments for delivered products is the norm. A fifteen percent holdback until the final delivered product is accepted should be specified in this part of the contract. Don't pay until you have had the final digital product(s) reviewed by a GIS professional.

XII. RESOURCES

The VGIS Municipal Mapping Guidelines and other data standards can be found at www.vcgi.org/techres/standards/

Regional Planning Commission contact information can also be found at the VCGI web site: www.vcgi.org/commres/rpc

If you are thinking of buying local large-scale aerial orthophotography, contact the Vermont Mapping Program for advice: www.state.vt.us/tax/vermontmapping.htm