



McCAFFERTY BRINSON
consulting

Project Management Manual

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Part 1: BIGTIME PROJECT MANAGEMENT

BigTime IQ is designed exclusively for professional service businesses. It bundles industry best-practices and operational know-how into a single, elegant, easy-to-use online application that works with your mobile and PC.

Bigtime Tutorial: <https://www.youtube.com/playlist?list=PLbI9O48Zt7vw9iTTYbbip9IRIX7cYmNzg>

Part 2: PROPOSALS AND CONTRACTS

The proposal/contract with a client is one of the most important documents prepared for a project. The proposal defines the scope of services, basis for payment, scheduling, subcontracting, and other relevant project information. The proposal is vital in securing a contract. The following subsections present information regarding proposal opportunities, pre-proposal considerations, planning, preparation, and follow up, negotiating (revising) proposals, and authorization.

2.1 PROPOSAL OPPORTUNITIES

Proposal opportunities may come about in several ways. Commonly, a client will make a request either verbally or by submitting a formal written Request for Proposal (RFP). Alternatively, we may generate an unsolicited proposal for a modification to a completed/ongoing project or by visiting/contacting a potential client. An RFP can be either performance or procedure based. A performance-based proposal outlines a scope of services needed to achieve an objective. While a procedure-based request addresses a specific scope of service and requests a contractor to perform the work.

When a proposal opportunity is identified, an individual must be responsible to respond on the company's behalf. The one who identifies the opportunity should consult with your Supervisor to strategize. They should assess the opportunity and determine a response.

2.2 PRE-PROPOSAL CONSIDERATIONS

MBC typically responds to all proposal opportunities that we are technically certified for. The decision to propose is based on several factors, including:

- Technical Capabilities: Do we have the technical certifications and abilities necessary to provide the scope of services?
- Resource Availability: Do we have the qualified personnel and will they be able to perform the work requested?
- Cost to Propose: How much time, effort, and money must be spent on the proposal effort relative to expected fees? Do the benefits outweigh the costs?
- Liability Exposure: Some projects might expose the company and its employees to greater risks than typical projects. Increased liability includes, but is not limited to; physical/health risks, financial risks, legal risks, and third party conflicts.
- Credit Worthiness of Client: Before it is determined if business will be conducted with a client, it is important to evaluate credit information from standard and nonstandard sources. These sources include but are not limited to; client financial reports, Dun & Bradstreet Reports, MBC payment histories, MBC personnel, and personal visits.
- Contractual Conditions

2.3 PLANNING, PREPERATION, SUBMITTAL, AND FOLLOW UP

The success of a proposal effort is dependent on attentive planning, preparation, execution, and

follow up. Communication is vital in ensuring that a proposal is properly addressed, has accurate background information and scope of services, has a budget/schedule that meets the client's needs, and provides the appropriate contract terms.

- Planning

The objective of planning is to provide the client with a clear, concise, and responsive document in a timely manner.

When the proposal effort begins, the project manager is to plan the effort in conjunction with a Supervisor. They will determine; who is preparing the proposal, its contents and deadlines, where and how it will be submitted, and how much effort (time and expenses) should be expected.

For large projects, a plan should be written in a manner that is clear and concise. It is then distributed to each individual involved. In some instances, a one-page plan may suffice but numerous detailed memos, stating timetables and responsibilities, may be necessary.

Additionally, the cost estimating process should be described. Estimates are to be treated as engineering calculations from a Quality Assurance standpoint; they should be clear, well explained, dated, initialed, and double checked. These calculations are useful in evaluating our scope of services and budget allocation, as well as resolving disputes within the company or with the client.

- Preparation

A proposal requires seven distinct elements, including:

- a. Identification of Client: Clearly state who the client is and who our contact will be. Other parties involved should be clearly identified along with their relationship to the client.
- b. Scope of Services: Provides enough detail to be properly executed by a competent professional without the need to ask for guidance. The purpose, basis for the scope, and methods used should be clear and concise.
- c. Authorization Procedure: States how the client provides us with a notice to proceed.
- d. Cost: Clearly present our schedule of fees for the client and the total cost of the project.
- e. Schedule: Develop a realistic description of time required for the project along with a basis for the timeframe.
- f. Terms and Conditions: The proposal will form a contract when accepted; therefore it must include the contractual terms and conditions.
- g. Signature: Document must be signed by President or Vice President of the company prior to submittal.

The format for composing a proposal is as follows:

- a. Cover Letter (Introduction)

The introduction may be one or several paragraphs in the cover letter. For a major proposal the introduction could be a separate section of the proposal and could take one or more pages. It should identify the client, indicate how we were invited to propose and who requested it state the name and location of the project, and outline the contents of the proposal.

b. Background

The proposal section containing background information should identify all parties involved and their relationships to the project/client. These sections should also state clearly any project information used in preparing the proposal and should identify our source of the information.

Typical background information might include:

- Date - When the RFP was supplied
- Location - described in as much detail as possible
- Structures - number, size, age, building system type or structural information of proposed development.
- History - when the site was developed, regulatory status, previous problems or events that impact our services.
- Published information furnished by client - by title, date and authorization, including other reports or drawings as deemed fit.

c. Purpose

The purpose should state the objective of our services as a concise statement of what we hope to accomplish. The purpose is not the scope. In an assessment we may perform inspections or analyze data, but these tasks are not commonly the purpose of the work; they are a means to achieve the projects goals.

d. Scope of Services

This section should clearly state the activities to be performed, and should clearly define any assumptions (depth to ground water, site access, or receipt of regulatory permits) used as the basis for the scope. The scope should be detailed enough that a competent professional could execute the service without consulting the author. The scope should outline any limitations and should identify subcontractors and describe their involvement.

It should be stated if the scope is based on a regulatory requirements or a client's scope outlined in an RFP. Any standard methods/procedures should be referenced. Proposed non-standard procedures should be fully described and justified. Finally, the scope section should fully describe the deliverable, what the client will receive. If you will be issuing a report what will be in it; maps, tables, appendices, etc.

The scope section can also be the place that we demonstrate our knowledge of the project and technologies. By carefully evaluating the basis for the proposed scope, alternatives to the scope, possible problems that may arise and regulatory considerations, we can differentiate ourselves from other firms. When a client provided scopes, we should state whether or not we agree. If we do not agree, we should present alternative scopes and state our reasoning.

e. Project Organization

On large projects it is important to state those who will be Principal and Project Manager and outline their respective responsibilities. Any other project participants should be described if not already delineated in the Scope section. If useful, attach an organization chart and resumes.

f. Cost

This section should outline the basis for compensation. We normally work on a unit rate (time and materials) basis, usually with an estimated cost that we agree not to exceed without written authorization from the client. We also propose work on a lump sum basis; in this case a very precise scope definition is required.

The cost should agree with the scope and should be clearly presented in a format that corresponds to the scope text. Typically, costs can be broken down into phases or tasks on larger jobs or presented on a total job basis with well-defined scopes. Costs can also be presented by work type (field work, laboratory work, CAD design, etc.). Hours are tracked by work type using BigTime (BT) Project Management software. Larger projects, with an RFP, will be tracked using BT Projects while other efforts are tracked in BT under proposal/marketing.

g. Schedule

The proposal should include a schedule for our services, including the start of work, time to complete any field and laboratory work, and expected time to complete our services.

Note that the schedule starts after our receipt and acceptance of written authorization or a notice to proceed (NTP). If the schedule lists dates, it can be difficult to meet the deadlines if authorization is delayed to the point we cannot meet the proposed schedule deadlines. If the client has a hard schedule deadline, state in the proposal the date we must receive authorization by in order to meet the deadline. The schedule can be written out, expressed in tabular form, or put on a bar chart for clarity. Finally, be sure to qualify the schedule, if appropriate (e.g., contingent on weather conditions, well permit acquisition, utility locations, and site access).

h. Terms and Conditions

It is standard for an RFP to include the terms and conditions. Depending on the type of work a review by a legal council may be warranted. If changes to the terms and conditions are considered, the amended terms and conditions and an explanatory narrative should be included in the response.

- Submittal

Proposals are to be submitted in strict accordance to the guidelines set forth by the client.

- Follow-up

Following-up with the client is necessary to; confirm that the proposal was received, address any questions, discuss the schedule, and to demonstrate our interest in the project(s). Follow-ups can quickly identify problems, like scheduling, budget, or scope of services that do not meet the client's expectations. If the cone of silence is not enacted, then follow-up should occur by telephone or e-mail within 48 hours. However, if the cone of silence is enacted the follow-up should be conducted via the method explicitly outlined in the RFP.

2.4 NEGOTIATING/REVISING A PROPOSAL

In some instances, it may be necessary to revise certain aspects of a proposal. For example, the client may decide to alter the scope. The Principal Engineer should be involved in the revision process, specifically revisions affecting the scope, cost, schedule, or terms. Any changes must be documented. If the client is discussing revisions with the Project Manager, the manager should consult with a Principal Engineer to prevent inappropriate commitments.

If the revisions are minor, the client may mark up and initial the proposal in the acceptance copy returned to us. If this is the case a Principal Engineer must initial all changes to show acceptance. This must take place prior to the signing of contract.

2.5 NOTICE TO PROCEED

The contract is only complete when we receive a written form of authorization or a NTP, meaning that we cannot work on the basis of verbal authorization. Acceptable forms of NTP include a client-signed

copy of our proposal, an e-mail or letter referencing the proposal and contract, a purchase order. If a client-signed copy or letter referencing the proposal is received any revisions must be approved by the Principal Engineer.

Part 3: PROJECT PLANNING AND INITIATION:

When a notice to proceed is received for a project, the Project Manager must complete several tasks to set up the project and allow the work to proceed smoothly. These duties include budget preparation, scheduling, project organization, BT project initiation, preparation of project files, and implementation of Quality Assurance (QA) and Quality Control (QC) checklists.

Two important responsibilities of a Project Manager are the project budget and schedule. While the proposal usually contains this information, it is not enough to manage the day-to-day execution of work. Initially the Project Manager is to identify specific tasks along with objectives, schedules, levels of effort, and deliverables. In order to accomplish this Project Managers must prepare a written allocation of costs and schedules and clearly communicate them to all participants. BT Project Management software is used to facilitate the project budget, task, and resource allocation including personnel, money, and equipment.

3.1 BUDGET PREPERATION

Budgets are typically set during the proposal/negotiating phase of the project, but when the notice to proceed is given the Project Manager must allocate the budget to the various staff doing the work. It is important to remember several key points; the budget is driven by the contract, all resources are to be clearly allocated, and the budget must be organized and controlled. The Project Manager must clearly communicate to everyone working on the project the budget available for their specific efforts.

Budgets can be organized in several different ways, including:

1. Zero Base Budgeting: Involves preparing a task outline, defining the scope of services, estimating labor hours, costs by task, other direct costs and subcontracting costs. This process forces the Project Manager to plan the job, while providing a baseline for monitoring budget and schedule. Provides a basis for staffing requirements, and necessary information for change-in-scope or fee negotiations.
2. Unit Cost Budgeting: Unit cost budgeting is assigning a total cost for a service based on work units. For example, pricing a full design project solely on the basis of unit cost per sheet of design drawings, or an assessment based on a unit cost per foot of well installed. This budget format does not help develop any useful planning information, but can be a useful check on overall budget estimates.
3. Staffing Level Budgeting: Rather than breaking down the expected effort by labor category, this method is based on estimating the total staffing and testing requirements then multiplying by unit rates.

Common oversights in preparing budgets include forgetting to allow for; project management, corrections to drafts, and activities beyond completion (meetings, presentations, more copies, work plans for next phase).

3.2 SCHEDULING

Several methods for structuring schedules are available. The format that is best for a given project will depend on the scope of work, disciplines involved, number of staff involved, duration and size of the project, and the project leadership. In all cases, it will be necessary to have certain elements accomplished before using a certain method; project planning, work breakdown, duration, and precedence.

Experience has shown that common oversights in scheduling include:

1. Inadequate time after "final document review" (by client, by principal, by agency) to make corrections
2. Failure to anticipate non-technical activities (client meetings, getting permits for project activities, e.g. monitoring well construction)
3. Ignoring other project commitments of the project team members
4. Failing to get firm commitments from key project members, including outside consultants, sub consultants, and subcontractors
5. Failure to anticipate work slippage

3.3 PROCEDURE

While the scope of every project varies, the procedure for project initiation is relatively standard. Following the receipt of a NTP, the project is added to the BT Project Management software and an electronic file set is created using the guidelines set forth in MBC's Style Manual.

3.4 PROJECT ORGANIZATION

Every project needs a Principal Engineer and a Project Manager, as well as individuals who are responsible for task management, QA/QC, and health and safety. On most jobs a single individual serves all of these functions. The Project Manager, in conjunction with the Principal Engineer, must establish an organization to accomplish the contracted work within the budget and schedule framework.

Everyone involved must know what and to whom they are responsible for. The project organization should be developed on BT Project Management software and available to all project participants so that each person knows how they fit into the project and who to contact if they have any issues.

3.5 PROJECT FILES

The Project Manager is responsible for maintaining the file (hard and electronic copies) for the project. The file is the record of all activities and communications on the project and serves as a form of record keeping. The file is also a legal entity in case of a lawsuit. Therefore, the file must be complete and well-organized. See MBC's Style Manual for guidelines on setting up electronic and physical file sets as well as other relevant information.

3.5.1 MAINTENANCE

The QA\QC checklist must be filled out and updated as new project files are created so insure that Document Production is recorded. Documents must be properly labeled and organized when created to allow for easy sorting and access later.

3.5.2 WHAT FILES TO RETAIN AND FOR HOW LONG

After a project is completed the project file must be reviewed and prepared for long-term retention. For continuing projects, each phase should be closed when work for the phase is completed. Files shall be maintained consistent with applicable contractual and/or legal requirements. During close-out, before files are stored, extraneous material and extra copies such as internal drafts should be discarded.

Files that should be retained include:

- Projects on which MBC provided prime design services

- Projects involving restrictive or unusual contractual provisions
- Identified litigation that has not been resolved
- Final designs, submittals, records, specifications, ect.
- Important project communications
- Change order files

The Statute of Limitations and Statute of repose determine how long after the end of a project a lawsuit is possible, and therefore how long files should be kept. The Statute of Limitations requires that a claim must be filed within 4 years of discovery of the issue. This usually involves patent claims, related to easily recognizable problems. The Statute of Repose cuts off someone's right to file a construction-related lawsuit after 10 years. This usually involves latent claims, related to hidden or manifest problems.

The deadline to file a suit begins to run after the last four triggers occurs.

- Actual possession by the owner
- Date of the issuance of a certificate of occupancy
- Date of abandonment of construction (if not completed)
- Date of completion/termination of the contract.

Files should be kept for a minimum period of three years beyond the applicable Statute of Repose. This includes projects where the end product is a study or report. If a project has been designed but none of triggers have occurred, even if construction has not begun, the engineer can still be sued before the repose period even starts.

Additionally, when documents are required to be signed and sealed, at least one copy of all documents displaying the licensee's signature, seal, which is legible to the reader, date and all related calculations shall be retained by the licensee or the licensee's employer for a minimum of three years from the date the documents were sealed. These documents shall be maintained in hardcopy or electronic format.

3.5.3 PUBLIC RECORDS REQUEST

Florida has very broad public records laws and most written communications (e.g. email) between MBC and our clients are considered public records and can be subject to public disclosure. The agreements between MBC and our clients generally include language requiring MBC to keep and maintain public records related to the performance of our services and upon request from the City's custodian of public records, we are required to provide our Clients with a copy of the requested records, or allow our records to be inspected/copied within a reasonable time as per Florida State Statue 119.

MBC Project Managers are responsible for maintaining electronic records of project specific correspondence between MBC and our Clients. In general, we need to ensure that correspondence between MBC and our Clients regarding data requests/transmittals, design submittals, reports, and only the transmitted final documents (PDF) and their associated documents (e.g. word, excel, AutoCAD files) are being retained in the correct project folder and server location along with correspondence that indicates what document(s) were transmitted (emails).

Examples of this can be found for a design project in the progress submittals folder of project 04-031 and a construction project for 11-011. Please note that when the FTP site is used to transmit documents (download link), the correspondence should look similar to the example from the 04-031 Bid Set Document Transmittal. Using this format provides a list of what documents were transmitted using the link, and where they can be found on our server.

MBC is also responsible for ensuring that exempt/confidential public records are not disclosed except as authorized by law. As per the statute referenced above, exempt documents include:

Building plans, blueprints, schematic drawings, and diagrams, including draft, preliminary, and final formats, which depict the internal layout and structural elements of a building, arena, stadium, water treatment facility, or other structure owned or operated by an agency are exempt from s. 119.07(1) and s. 24(a), Art. I of the State Constitution. However, it should be noted that these documents are not considered exempt from public records request initiated by the another governmental entity, licensed professional (architect, engineering or contractor), or court who is performing work on or related to the facility, or a court showing good cause for Jurisdiction.

3.5.4 PROJECT RECORDS

As a part of project close-out for a services during construction project MBC furnishes their clients with final versions of the following documents:

- Record Drawings
- Shop Drawings
- Field/Site Visit Reports
- Pay Applications
- Final Completion Certificate
- Contractors Final Certificate of Insurance
- Contractors Release of Liens
- Warranty Documentation

These documents are to be uploaded to the respective client's FTP site and their project manager is to be notified when the documents are ready for download.

3.5.5 FILE CLOSEOUT

Non-final drawings and other "draft" documents should be destroyed unless documents are determined necessary to keep. Files destroyed/kept should be consistent from project-to-project, and a log of destroyed files should be maintained. All project file folders and project materials should be properly labeled and organized. Paper files being prepared for retention can also be scanned and filed electronically according to MBC file convention found here. Once all activities for the project are complete, it should be moved to the inactive project list in Bigtime.

3.5.6 PROJECT CLOSEOUT BUDGET ANALYSIS

Following the closeout of all projects, the Project Manager shall Complete a Project Closeout Budget Analysis spreadsheet using the template provide in the project's project management, project closeout folder. After completing this document, the project manager is expected to schedule an internal meeting with MBC's Principal Engineers to discuss the successes and/or time-sinks of the project.

3.6 QA/QC CHECKLIST

Every project must have a checklist to facilitate the QA of the project. This checklist typically consists of a completed Document Production Record form. This form allows for the document's progress to be tracked based on date and staff member performing the update or review. This form can be found within MBC's Project Server Templates in the project management folder and is expected to be used throughout the entirety of the project.